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THE ECONOMY OF CANADA IN THE NINETEENTH CENTURY

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FOUNDATIONS OF THE NINETEENTH-CENTURY CANADIAN ECONOMY

For the economy of Canada it can be said that the nineteenth century came to an end in the mid-1890s. There is wide agreement among observers that a fundamental break occurred at about that time and that in the years thereafter Canadian economic development, industrialization, population growth, and territorial expansion quickened markedly. This has led economic historians to put a special emphasis on the particularly rapid economic expansion that occurred in the years after about 1896. That emphasis has been deceptive and has generated a perception that little of consequence was happening before 1896. W. W. Rostow was only reflecting a reasonable reading of what had been written about Canadian economic history when he declared the "take-off" in Canada to have occurred in the years between 1896 and 1913. That was undoubtedly a period of rapid growth and great transformation in the Canadian economy and is best considered as part of the twentieth-century experience. The break is usually thought to have occurred in the mid-1890s, but the most indicative data concerning the end of this period are drawn from the 1891 decennial census. By the time of the next census in 1901, major changes had begun to occur. It fits the available evidence best, then, to think of an early 1890s end to the nineteenth century.

Some guidance to our reconsideration of Canadian economic development prior to the big discontinuity of the 1890s may be given by a brief review of what had been accomplished by the early years of that decade. Rostow and others were quite wrong in thinking that the Canadian economy was not progressing before the 1890s and that the transition to modern economic growth had not by then taken place. The economic history of Canada over the course of the nineteenth century is predominantly a story of achievement and success. By the early 1890s Canada was among the most prosperous of the world's economies. Its level of national income per head was about on a par with that of Belgium and Switzerland, and only three nations – Australia, Great Britain, and the United States – were decidedly more prosperous. Furthermore, Canadian prosperity was to a considerable extent based on successful industrialization. By 1891 the value of per capita manufacturing output in Canada was higher than in Germany or France and surpassed only by Great Britain, Belgium, and the United States. Canada was a large and prominent player in the world trading economy and had for some years operated one of the world's largest merchant fleets. A lot had been achieved.

Still, in the interest of gaining overall perspective on the development and performance of the Canadian economy, we should offer a more balanced assessment. There is more than one way to gauge industrialization, and from a different viewpoint late-nineteenth-century Canada does not look so prominently industrialized. At 25 percent, the share of national income contributed by the manufacturing sector was not particularly high, nor was the 22 percent of the labor force engaged in that sector. This reflects the large size of the extractive sectors; fishing and forestry were relatively prominent, but it is mainly the consequence of the fact that Canada was still a largely agricultural economy. In that sense Canada was a somewhat heightened reflection of the United States at the time. In contrast with the latter country, though, the other outstanding feature of the Canadian economy was its small absolute size. Canada encompassed a vast territory, of course, but the greater part of it was unsettled and made no contribution to the economy. With only 4.8 million people in 1891, Canada was about the same size as Sweden or the Netherlands and smaller than Belgium. Canada had only one-tenth the population of Germany and barely 7 percent of its American neighbor to the south. Not only was by far the greater part of Canadian territory uninhabited, but even the main settled area was rather thinly populated. Matters of economies of scale and social overhead costs were worrisome features of this small economy. Canada had few cities of any appreciable size and only two, Montreal and Toronto, with populations above 100,000. At the time the United States had twenty-five cities larger than that and three with populations in excess of 1 million. Finally, the last three decades of the nineteenth century had been years of considerable pessimism about the state of the economy and of large-scale emigration to the United States.

For Canada the nineteenth century was a period of substantial accomplishment. Its economy had been one of the world's most successful. At the same time, there were limitations to the record. In the late years of the nineteenth century Canadian economic growth had slowed. Success was tempered by some economic shortcomings that Canada still had not surmounted.

European settlement and the initiation of economic activity in Canada began at the same time as in the area to the south that was to become the United States. The French first established on the Bay of Fundy in 1605, then made a permanent settlement at Quebec in 1608 – the year after the Jamestown colony began in Virginia. The very early histories of the Canadian and American settlements differed markedly, and that had a strong bearing on the subsequent development of the two countries. For many years New France was little more than a trading post, whereas both Virginia and Massachussetts received large influxes of settlers from Britain within a few years of their initial settlement. Those large migrations of the early 1630s were especially telling in establishing the sizes of the respective colonies. By 1650 the pattern was already well established. At that early date the British settlements in America were far more populous than the French settlements. The long-continued circumstance of the United States being about ten times as populous as Canada was thus ingrained by the earliest historical experiences of the two areas. It was not until after 1663, when the French colony was tranferred to direct royal administration, that it received any sizeable amount of immigration, and over the entire course of the French regime up to 1759, it is unlikely that any more than 10,000 immigrants came to New France. Although beginning with so few people, the French settlement in Canada grew about as rapidly as a human population can reproduce. The extraordinarily high birth rate of the French-Canadians has been widely commented upon. By the end of the French regime about 70,000 people resided in Quebec. In addition, there was a much smaller French colony in what is now Nova Scotia. That had been the site of the very first French settlement, prior to the establishment of Quebec, and a small community continued in Acadia, as it was called. Part of its territory was ceded to British rule in 1713, and

1755, out of concern for possible disloyalty on the part of their French Acadian subjects, the British had forcibly removed those whom they were able to round up. Many ended up in Louisiana, where they were able to give the world Cajun cooking and inspire maudlin poetry. Indeed, like Evangeline, many of the transported Acadians made their way back to their homeland. Others had fled to the woods and escaped expulsion, so there remained a small French community in Acadia. It was more dispersed than it had previously been – some had crossed to the west side of the Bay of Fundy and others had moved to Île St-Jean, renamed Prince Edward Island by the British captors. The island of Cape Breton remained a French possession after 1713, and there, at Louisbourg, the French established a military stronghold. When that fell in 1758, and when the peace settlement was arrived at in 1763, the whole of Canada came under British rule.

New France had begun, like Virginia and Massachussetts, as a commercial venture – the outpost of a trading company. In the case of Quebec, the central objective was to trade in furs, especially beaver pelts to be used for felting. Control of the colony eventually passed to the crown, but the main business continued to be the fur trade. To expand the supply of furs, the French were impelled to explore the interior of the continent and to establish a chain of trading posts far inland. Disaffected French traders sought English support, resulting in the founding of the Hudson's Bay Company and the establishment of English trading posts in the far north. This introduced a British presence to the northern interior of Canada and offered serious competition to the French in the fur trade. Economically, New France consisted essentially of the fur trading center at Quebec and a subsidiary center at Montreal, along with ever expanding agricultural settlements in the vicinity of those two centers. Increasingly it became a self-sufficient agricultural community, but markets for farm products were very limited. Apart from furs, no significant export trade to France or to the French West Indian colonies was ever established. The fur trading enterprise represented only a small market for farm products. For some years in the eighteenth century, the garrison at Louisbourg provided more substantial market opportunities. Quebec, though, continued to be mainly a self-sufficient agricultural community. Tobacco could be grown, but unlike Virginia and Maryland, no large export trade in tobacco with the mother country was ever established. Hemp was tried but did not catch on. New France had a decidedly limited economy.

In the mid-eighteenth century New France was swept up in the larger conflict between England and France, and in 1759 Quebec fell to the British. With some hesitation – the Caribbean sugar island of Guadeloupe looked like a possibly more attractive prize – the British took control of

Quebec in 1763. This event, widely referred to by French-Canadians as "The Conquest," has continued to have profound political consequences for Canada. Initially, however, it meant little change for most of the French inhabitants of Quebec, especially after 1774, when the Quebec Act assured legal recognition of the French language, civil law, and religion.

In the Atlantic region, settlement under British rule proceeded slowly. Capitalizing on the splendid natural harbor at the site, the British established a military center at Halifax in 1749. Four years later they actively promoted settlement by situating a colony of Germans at Lunenburg, to the south of Halifax. After the expulsion of the Acadians, settlers from New England, and a few directly from Britain, began to trickle in. Some of these settlers were able to make an advantageous start by taking over land cleared by the Acadians. That included diked hay marshes on the Bay of Fundy that represented a significant capital investment. The large herds of cattle maintained by these settlers at an early date suggest that they may also have benefited by taking possession of cattle left behind by the Acadians. On the island of Newfoundland there had long been continuing settlements, even though these were actively discouraged by the British authorities. Throughout the Maritime settlements under British rule it was not until near the beginning of the nineteenth century that substantial economic expansion got underway.

One could argue that from a strictly economic point of view the British "Conquest" turned out to be a boon to the French inhabitants of Quebec. The rapidly growing population was able to extend its settlement into areas of good land that previously were unsafe for habitation. Neither the English nor the Indians allied with them were any longer a threat. In 1763 French settlement was still a thin band along the St. Lawrence. Thereafter it pushed south along tributaries of the great river, especially the Richelieu. As part of the British empire, Quebec gained access to markets both in Britain and in other British colonies. Oak staves cut by new settlers on the Richelieu were shipped to the West Indies. More importantly for this essentially agricultural community, wheat and flour could be exported to Britain, where prices were moving toward an all-time high. In a small way, Quebec had established itself as a regular supplier of wheat flour to Britain by the early 1780s, and it continued exporting for almost thirty years. That is a longer period of continuous export than enjoyed by Upper Canada in the nineteenth century, yet no one has written of a Lower Canada "wheat staple." Be that as it may, wheat and flour exports helped to generate a level of prosperity not before experienced in Quebec. They also served to accelerate the commercialization of the rural economy.

The urban centers, Quebec and Montreal but especially the latter, also got a considerable boost. British merchants with established ties to markets and established sources of finance moved into Canada to take advantage of economic opportunities. To some extent they moved into positions that, under different circumstances, might have been occupied by the French. While in the long term this may have had political consequences, the immediate effect was to facilitate the functioning of the economy. A resurgent fur trade invigorated the urban economy of Montreal and stimulated opportunities for artisans. All sectors of the economy showed a quickening. The urban side of things was limited, though, and became increasingly so. At the time of the "Conquest," Quebec had a somewhat higher proportion of its population living in urban centers than was the case in the American colonies. That shortly changed because the countryside was the more rapidly growing sector of the Canadian economy.

It was the rupture between Britain and those of her American colonies that gained independence by force of arms that brought about the real foundation of Canada as a nation. Attempts were made to draw Canada into the War of Independence on the American side, but the French-Canadians remained loyal to Britain. So did some American colonists, and many of these Empire Loyalists sought refuge in the northern colonies of British North America. By far the largest group landed in Nova Scotia. Of the almost 40,000 who arrived there, possibly one-fifth moved on elsewhere. About 32,000 Loyalists remained in Nova Scotia, suddenly more than doubling the population of that colony. These people were granted land in scattered locations throughout the colony, in part because Nova Scotia has only a small area of usable farm land and little of that in any single district. Just under half of the Loyalists who remained in the Nova Scotia colony settled across the Bay of Fundy in the valley of the Saint John river. They were shortly organized into the separate colony of New Brunswick. Very few of the Loyalists put down roots in Prince Edward Island. The land of that island had previously been alienated by the British Crown into the hands of a small number of absentee landowners. At the time the island had a small population of Acadian French, and it soon began to receive settlers from Britain.

These Maritime colonies were primarily agricultural settlements, but the close proximity to the sea meant that the fishery was from the outset an available supplement to farming. There were markets for fish, lumber, and staves in the British West Indian colonies from which the now politically independent New Englanders were nominally excluded. The Maritimers, however, were able to make only a limited response. Their production was small relative to the needs of the West Indian colonies. The need to provide shipping to the West Indies under the umbrella of the British Navigation Acts offered another opportunity for profitable enterprise. Nova Scotia's capabilities were still limited, however, and that led the planters in the Indies to be more than willing to seek out illicit supplies from the United States. One area where the Maritimes had more success in taking the place of New England was in the provision of masts and spars for the British navy. With a mix of farming, fishing, shipping, and commerce, the basic structure of the economy of the Maritime colonies was slowly being worked out.

The Loyalist influx into Quebec was smaller, but its political and economic ramifications were nevertheless profound. About 6,000 Loyalists were established in the western part of Quebec, along the St. Lawrence River, at the eastern end of Lake Ontario, and also along the Niagara River. A smaller group settled in the old province of Quebec itself, mostly near the mouth of the Richelieu River. The western Loyalist settlement was small but influential enough to lead to a division in 1791 of the Quebec colony into two separate parts – Upper and Lower Canada. Following closely in the steps of the Loyalists, additional settlers continued to move in from the United States. Until 1794 it was not entirely certain where the boundary with the United States was actually going to be. Good agricultural land was being freely granted in Canada, and settlement extended along the riverfront and lakeshore. German-Americans from Pennsylvania established communities at several locations – north of York (now Toronto) and to the west of there at Waterloo. A number of Quaker settlements were also founded. In Lower Canada, settlers came north from New York and Vermont to take up land south and east of Montreal in what came to be referred to as the Eastern Townships. That area was outside of the seigneuries of old Quebec. It was surveyed along British lines and settled in block fashion whereby whole townships of land were granted out to township leaders on the understanding that they would bring in additional settlers. In Upper Canada, land was granted lavishly to prominent individuals in a conscious effort to create a society headed by a prosperous landowning class – a reproduction of something resembling the British squirearchy. A trickle of immigrants began also to come from Britain. Especially prominent were Scots Highlanders who settled in the easternmost townships of Upper Canada and other Scots in Lower Canada, in the district southwest of Montreal. There were even settlements of French nobles fleeing the Terror of the Revolution. By far the most substantial inflow, however, came from the United States.

In this period, around the beginning of the nineteenth century, both Upper and Lower Canada were overwhelmingly agricultural economies, consisting of newly established, expanding, largely subsistence farms. Lower Canada was at the peak of its period of exports of wheat and flour to Britain. Upper Canada was still essentially struggling with the problem of basic subsistence and the general make-up of an economic system. The seaport city of Quebec was the center of administration and the key point of contact with Britain. Montreal was rapidly gaining on Quebec in size and was the center of a much more productive agricultural area. It was not at this time an important port for overseas trade, since shipping could not easily ascend the shallow passages of the St. Lawrence between Quebec and Montreal. The orientation of Montreal was landward, westward towards the interior of the continent. It was the commercial center of the still vigorous fur trade, in which the upstart North West Company of Montreal – an association of mainly Scottish traders – was locked in serious competition with the much older Hudson's Bay Company. Some of those Scottish traders were to become the commercial elite of Montreal.

Upper Canada was, if anything, even more of a rural community than Lower Canada. Nascent urban centers were established at Kingston, the transshipment point at the foot of Lake Ontario, at Newark (later to be named Niagara), which was the earliest administrative center, and at York, which eventually became the capital. York had a sheltered harbor on Lake Ontario and was the lake terminus of an old portage route to the north. An early British administrator, John Graves Simcoe, contemplated a capital established far from American influence, at a location in the western part of the province, on a river appropriately named the Thames. He called the place London, but for many years it struggled along as a mere village, and York retained its status as the capital.

Jay's Treaty in 1794 finally settled the division of territory between Canada and the United States. The American colonists had been ambitious in their claims; they were willing to take everything. The British were resistant but not very eager to strike a tough bargain; hence they were not inclined to be very possessive about the extensive territory they had earlier assigned to Quebec. The big issue concerned whether much of what is now the states of Michigan, Minnesota, and Wisconsin would be in the United States or in Canada. From an early stage the British negotiators seemed to be quite willing to trade away nominal control of territory for economic advantage. An early draft of the settlement would have ceded much of the territory to the United States but retained a right of commercial access. By that scheme, written into the initial draft of the Peace of Paris, the United States would have acquired the territory conditional upon unimpeded transport access and no tariff barriers to trade in the Great Lakes and Mississippi Valley area. It was a blueprint for a very different Canada than what actually resulted. Protectionist sentiment in Britain began to worry about precedent, and the free commerce provision was dropped from the final text of the Peace of Paris. The intention was to make it the topic of a subsequent treaty conference, but that was never acted upon. Canada was forever consigned to more limited boundaries than Canadians had contemplated, and it failed to obtain unimpeded access to the larger economy to the south.

In the early nineteenth century, relations between the United States and Britain became increasingly strained, and Canada was caught in the middle. Tensions escalated to the Embargo and Non-Intercourse Acts of the United States, but these did not prove enough to keep the United States out of war with Britain. Eventually, Canada became the focus of the hostilities between the two nations. The United States attacked Britain by launching an invasion of Britain's remaining colony on mainland North America. The war was fought to a stalemate, but its ending brought a cooling of relations between Canada and the United States. Settlers no longer came to Canada in large numbers from the United States, and the authorities in Canada were no longer willing to make free grants of land to those American immigrants who did come. Concern for Americanization became a continuing Canadian worry. The British authorities in Canada turned their attention to schemes for attracting settlers from Britain to fill up the unsettled lands in Canada that might otherwise have a dangerous appeal to the Americans. Economic contacts between Canada and the United States were not extensive. Canada's farm products faced tariffs in addition to transport barriers in any attempt to gain access to markets in the United States. Commercial ties were with Britain, and manufactured goods were imported mainly from Britain. In hammering out a structure for its economic existence, Canada faced a number of disadvantages. It was a long distance from the British motherland. Little capital had been accumulated, and social overhead was primitive. Skilled labor was especially scarce, and only the rudiments of an education system had been put in place. The climate was harsh and the growing season short; an especially serious implication of that was that in all but a few districts of Canada Indian corn could not reliably be ripened. Indian corn was the backbone of American agriculture, an especially productive crop, well suited to hand planting and picking, and a cheap, abundant food for both man and beast. Growing conditions unsuitable to maize may have been the single most serious drawback to agricultural development in Canada.

At the same time it is important to recognize some of the advantages that Canada possessed. There was an abundance of good agricultural land still to be cleared and settled. There was open and easy access to the knowledge and technology of the most advanced economies in the world at the time. The entire economy was closely tied together by an outstandingly good natural transport system – the St. Lawrence–Great Lakes waterway. It has been common in historical writing to emphasize the difficulties and shortcomings of early-nineteenth-century transport. Many authors describe the horrific conditions on the few roads that did exist without noting that scarcely anyone but unwise British visitors would even think of traveling on the roads. The waterway was an excellent one, complicated only by the great falls at Niagara and a few stretches of rapids on the St. Lawrence. The economy of Canada consisted of a thin band of agricultural settlement stretched out along this magnificent waterway. For the purposes of transport, the long, harsh winters were an added benefit. Overland travel by horse-drawn vehicles was cheaper on firmly frozen ground, especially if covered by snow. With winter transport and excellent waterways, Canadians in the early nineteenth century had transport costs as low as anywhere in the world.

Some merchants and visionaries had ambitions to use the great St. Lawrence waterway to capture the commerce of the interior of North America. The idea presumed a vast export trade with Britain. Such a plan confronted three major impediments – first, the high costs of transatlantic travel via the St. Lawrence; second, the British Corn Laws that after 1820 frequently barred access of North American breadstuffs to the British market; and, third, the ingenuity of the Americans in building their own low-cost transport route in the form of the Erie Canal. Thus the Commercial Empire of the St. Lawrence never came into existence.

Only the simplest and crudest indicators of the dimensions of the early Canadian economy are known to us. In 1815, when war with the United States was over and the real story of nineteenth-century Canadian development was to begin, the population of the colony of Canada amounted to about 400,000, while another 200,000 may have resided in the Maritime colonies (including Newfoundland). Fully three-quarters of Canadians resided in the Lower province (Quebec); Upper Canada still did not have quite a hundred thousand people. Fewer than 20 percent lived in urban centers. Canada was essentially an agricultural community but already, because of the abundance of land, one of the more prosperous agricultural communities in the world.

THE AGRICULTURAL ECONOMY OF EARLY-NINETEENTH-CENTURY CANADA

The colonies of Upper and Lower Canada in the early nineteenth century, in the years around 1815–1820 when the world was groping towards a new, post-Napoleonic order, were essentially pioneer agricultural communities. Land was still available in abundance. The small populations of the colonies were growing about as rapidly as is possible through the natural increase of population while being further augmented by immigrants. Albeit with a lot of hard work and some early privation, farms could be made that returned the ordinary person considerably more material output than might be expected in Britain. These were, however, farms in a remote and severe land, farms that had to be laboriously carved out of a forested wilderness. Settlement of the territory was forefront in the minds of the British colonial administrators. It was in their interest to have an established functioning economy. Furthermore, a settled territory could not so readily be claimed by the Americans.

Experiments were made with fostering immigrant settlements both by private and public endeavor. The authorities were very receptive to encouraging any private individuals or organizations willing to facilitate migration and settlement and they were more than willing to bestow great advantage on anyone who could make a credible claim to bring in a substantial number of settlers. Large grants of land were made to individuals who committed to bring in settlers. Numerous schemes were launched, and they varied greatly in the degree of their success. Highland Scots, in overabundance in their homeland and being pushed out by the economic and social transition of the Highlands, were especially encouraged to move to British North America. The Irish, particularly Protestant Irish from the North, were drawn in large numbers. Experiments were made with publicly organized and supported settlements of migrants from Britain. In that way settlements of Irish were made at Peterborough and of Scots at Perth, both in areas well away from existing settlements. Private individuals were also relied upon to manage the settlement process. The Irish promoter Thomas Talbot was granted extensive lands in western Upper Canada to establish new farmers. For many years the paternalistic Talbot ran a tightly managed settlement program that is generally considered to have been very successful. The bold Highland chieftain McNab imperiously tried to do the same thing in the Ottawa Valley in a more limited area and produced only a community of resistant, protesting settlers who complained that they had come to Canada to escape petty local feudalism. Lord Selkirk, with a particular concern for the condition of peasant farmers in Scotland, made several attempts to establish settlements. He tried, without success, to establish a colony on Prince Edward Island. Then he deposited a few settlers in a very remote and unhealthy area of Upper Canada. Finally he established a settlement in the Red River Valley that would eventually become the nucleus of the province of Manitoba.

The publicly supported settlements were soon judged to be more costly than the authorities in Britain were willing to accept. By the mid-1820s the era of state planned settlements was over, but the pace of settlement slackened only temporarily. By the end of the decade of the 1820s a rising tide of British settlers was moving into Canada. Increasingly, individuals saw an advantage in migrating to farms in Canada. In this period, the late 1820s and early 1830s, Canada was receiving as many or more immigrants from Britain as was the United States. Australia was beginning to be recognized as an opportunity for settlement, at least when passages were subsidized, and the United States was always there, welcoming immigrants, but in the period between 1816 and 1835, Canada was the preferred destination of British emigrants.

Land in Canada was freely granted. "Official" settlers – those who had a claim based in some way upon service to Britain – received relatively large grants, in some cases up to several thousand acres. Ordinary immigrants, though, could claim 200 acres, conditional upon actually settling and establishing a farm. That was not so easily done, however, unless the immigrant brought substantial funds. Many settlers found it advantageous to take up smaller tracts of land already claimed by settlement organizers.

A tension existed between the desire to settle the land quickly and the use of generous free grants to establish a landed class. With the many large private grants that were speculatively held, and the reservation of a substantial fraction of the land to finance the colonial government and the Established Church, one consequence was a more dispersed settlement than might otherwise have occurred. The spreading-out of settlement raised transport costs generally and may have retarded the commercialization of the colony. There were many complaints about unsettled land taking up so large a segment of the established districts, and many fingers pointed accusingly at absentee landlordism. The costs of basic local services – roads and schools – were high when settlement was less dense than might otherwise have been the case.

In the mid 1820s there was a major shift in policy. It was decided that publicly assisted immigration could not be economically justified. Under the influence of Edward Gibbon Wakefield, the British authorities became convinced that land should be sold and not just given away. A private concern representing British investors, the Canada Land Company, offered to purchase the unsettled Crown and Clergy Reserves. The colonial government declined to relinquish the lands set aside to provide for the Established Church but agreed to sell off the lots designated as Crown Reserves plus 1 million acres of unsurveyed land – referred to as the Huron Tract – to the company. This massive land transfer was intended at one and the same time to foster settlement and to generate revenue for the colonial administrators. There has been controversy over the assessment of the Canada Company transaction, but at least in some districts the company appears to have successfully accelerated settlement. It built mills, established market centers, and invested in improved transport, all as ways of raising the returns on its investment. It also was prepared to rent as well as sell land. In Lower Canada a counterpart of the Canada Company in the form of the British American Land Company in a similar way acquired almost 850,000 acres in the Eastern Townships. Its land was relatively remote, much of it hilly, and not in as strong demand, so the British American Land Company was much less of a financial success than the Canada Company. Eventually, though, it supplied land to French-Canadian habitant farmers as they moved away from the overcrowded seigneurial area of Quebec.

The first concern of Canadian pioneer farms was to provide for the subsistence of members of the farm household. It would be wrong to describe this as merely self-sufficient farming. From the outset there was market contact, and credit played a central role in the system. The farms, though, produced a mix of output prescribed mainly by local consumption needs. In addition, we must not lose sight of the fact that farm land itself was a major product. Farm making was a long, slow process of transforming human labor into a valuable item of capital-improved land. The mostly regular, rectangular survey of Upper Canada and the township area of Lower Canada laid out farms of 100 acres, although some pioneers began with only 50 acres. Completed farms eventually would have 75 to 80 acres improved, the remainder being left as rough pasture and woodlot. It was possible for a farmer, with some assistance, to clear 4 or 5 acres of forest a year, but the overall experience was an average of just less than 2 acres. Making a farm was evidently a lifetime occupation. The felled trees were mostly burned. The best farm land was covered in great abundance by deciduous trees that seldom had value as lumber. The ashes of the burned trees were gathered up and leached for potash. The trade in potash was well organized, as there was a ready export market for potash, and that product soon emerged as one of the Canadian colony's principal exports. The tree stumps on cleared land took many years to rot to a condition where they could be pulled. In the meantime the land was tilled, and crops grown among the stumps.

The leading crop was wheat. Wheat bread was a large element in the diet of Canadians, both British and French, so wheat was grown foremostly for the consumption of farm families, but it was also widely marketed. There was little off-farm demand for other grains, and crops other than wheat mostly had to be fed to livestock to be converted into meat, eggs, and dairy products. That required investment in a stock of animals, another aspect of farm making that typically proceeded slowly. Most of Canada was at a disadvantage in comparison with the United States in that Indian corn, the cheapest and most efficient animal feed, could not reliably be ripened. Only in the westernmost district of Upper Canada was corn extensively grown. Wheat had the additional advantage of requiring relatively little capital. It was more land intensive than livestock products and did not necessitate the investment in stocks of animals. That was an appealing characteristic of wheat that made it a prominent crop of pioneer districts in both the United States and Canada. Spring wheat was the only variety that could be grown in Lower Canada and the eastern districts of Upper Canada. That was also somewhat of a disadvantage, since spring wheat was harder to mill into good-quality flour and sold at a lower price than winter wheat. From about the mid-northshore of Lake Ontario westward and for just a few miles inland, it was possible to grow winter wheat. That area developed as the principal wheat farming district of Upper Canada. It was there that the greatest concentration of settlement occurred before the 1840s. Throughout Canada farmers limited their wheat acreage to the 10 to 12 acres a family could harvest in the short time available in the fall. That was sufficient to provide a surplus well above the consumption needs of the average family. Where winter wheat could be grown, an additional 10 to 12 acres would be planted to that crop, since it ripened enough earlier to have a separate harvest season.

Most writers on Canadian economic history have emphasized the central place of wheat in pioneer farming, and they have mainly stressed its marketability. They have generalized from the winter wheat district; many parts of Upper Canada were not nearly so devoted to wheat but engaged more in mixed farming. There were reasons other than market demand, though, why wheat played such a prominent role in pioneer farming. Wheat was more labor intensive than most other forms of farm production, and what the pioneer farmer had most of, apart from uncleared land, was labor. Growing wheat was a way of getting by with limited capital. Moreover, we should not lose sight of the fact that bread from wheat flour was the leading item of food consumption. Farmers also grew potatoes and garden vegetables, and oats for both human and animal consumption. Oats was the most favored feed crop, but as numbers of livestock increased, greater amounts of hay and field peas were also produced. In most areas farm-raised food was supplemented by fish and game. The former especially were widely and abundantly available.

The most widely held interpretation of Canadian economic history emphasizes the role of wheat as an export staple. By this approach, the economic success of newly settled lands is seen to be tied to their ability to exploit a natural resource-intensive "staple" product for export to established metropolitan markets. Wheat is claimed to be the staple of Upper Canada in the first half of the nineteenth century, with prosperity linked to the export of wheat and wheat flour to Britain. Thus, the production of wheat for export is commonly claimed to be the *raison d'être* of the agricultural economy of Upper Canada. It is doubtful, though, whether in fact it was commonly the case that in the years before 1850 wheat could be profitably grown in Upper Canada for export to Britain. The greatest obstacle to wheat exports from Upper Canada was the "tyranny of distance." The British market was far away, and the freight costs on such bulky commodities as wheat and flour were onerous. Before 1815 the exceptionally high wheat prices in Britain had allowed profitable exports of wheat despite those high transport costs. In the post-Napoleonic period the British market was much less favorable. Furthermore, the British Corn Law tariff applied to its North American colonies. British North America received preferential treatment relative to non-British countries such as the United States, and that preference has been played up by many writers. The main fact, though, was that in addition to heavy transport costs Canadian suppliers of wheat flour frequently faced a substantial tariff and in some years complete prohibition. Consequently, it was more often than not the case that in the years between 1820 and 1850 Canadians found it unprofitable to export wheat or wheat flour to Britain.

The situation in the market can be considered at a represenstative location in Upper Canada – say Dundas, at the head of Lake Ontario. The important features are that, first, the demand for wheat at Dundas would be perfectly elastic at the price in Britian less costs of supplying that market from Dundas. There are three important components of those costs. There was the cost of shipping wheat or wheat flour from Quebec to Liverpool. Before that the flour had to be transported by lake schooner and then by river boat on the St. Lawrence to Quebec. Finally, there was the tariff. The upshot was that more often than not the price at which Canadian wheat could be sold in Britain, less tariff and transport costs, was lower than the price prevailing in Canada. Exporting was just not profitable, and in most years before 1850 there were either no actual exports or else small shipments were made to be held in bond in Great Britain until market conditions there improved. Exceptions were in 1826 and 1827 and again in 1830–32, when hopes were raised by successful exports, but those years were only a small part of the period that is claimed by many writers to have encompassed the first Canadian "wheat staple."

The situation points up the lines of action along which Canadian economic development proceeded in the first half of the nineteenth century. Amelioration could be sought in each of the components of the gap between the Upper Canadian and the British price of breadstuff. Not much could be done actively to reduce transatlantic freight costs. Largely for exogenous reasons, though, they were coming down, and that was a help. In addition, by shipping flour rather than wheat, a saving in transport costs could be obtained, and Canada's abundant waterpower provided many cheap milling sites. Internal transport costs could be reduced by investment in waterway improvement, and Canada embarked upon an ambitious program of canal building and dredged the St. Lawrence between Quebec and Montreal to permit ocean ships to take on freight further inland. Finally, the course of action most readily available was to press for removal of the onerous Corn Law duties as applied to grain from Canada, and in that the Canadians were eventually successful.

The farmers of Upper Canada did, however, find a market for their wheat in Lower Canada. After about 1820, wheat from Upper Canada increasingly displaced locally grown supplies in Lower Canada. That was especially so in the 1830s, when crops in the lower province were ravaged by the wheat midge. Wheat could be grown more cheaply in Upper Canada, and that province gained from an increasing specialization in wheat. Two questions arise. First, where did that leave the farmers of Lower Canada? That will be taken up below. The second major question is how was Lower Canada able to balance payments with Upper Canada if it abandoned growing its own breadstuff and imported from Upper Canada instead? The answer lies in the success of Lower Canada's timber exports, which were probably more important for the whole economy of the colony of Canada than has usually been claimed.

The forest had from the beginning been an outstanding feature of British North America. There was so much of it, and for the most part it was just an impediment to settlement, although farmers typically avoided the poorer, sandier land on which the great pine forest stood. If high transport costs were an impediment to wheat exports, they were even more inhibiting to bulky wood. In the earliest years only rarer, high-valued products, such as masts and spars, could be exported. Circumstances changed dramatically in the early nineteenth century when, embroiled in the Napoleonic Wars, Britain sought a secure source of timber by imposing exceptionally heavy tariffs on foreign timber and encouraging the import of pine timber from its North American colony. Under this heavily protective arrangement the timber industry of British North America boomed. Pine was the desired product, and British North America had vast amounts of pine. New Brunswick was the timber colony *par excellence*, but Canada also had a vast area of pine forest to exploit. The valley of the Ottawa river became the principal locus of the pine timber industry. A simple hand technology was all that was required. Trees were felled in the winter months, cut into manageable lengths, and squared on the site. In the spring the "sticks" were floated downstream. On the Ottawa River the squared timber was formed into rafts and directed on down to the St. Lawrence and on to the port of Quebec. There the timber was loaded onto ships for export to Britain. A substantial fraction of world shipping became involved in this trade in a very bulky product.

The British timber duties were lowered in 1821 but still remained formidable, and by then Britain's former suppliers in northern Europe had largely been displaced in the market by British North America. Squared pine timber was by a considerable margin the leading export of British North America, although it was complemented by squared oak, staves, shingles, lathwood, and as time went on, a growing amount of sawn lumber. If there were truly a staple export of British North America, it was wood. In the early 1830s per capita exports of wood from British North America were triple the value of per capita exports of cotton from the United States. The trade was sustained over the entire course of the nineteenth century, even though British North America lost its preferred status. The differential duty was reduced by Britain in 1842 and effectively eliminated in 1851, yet Canadian exports of wood to Britain continued to grow long after that, while Canada also found a growing market for its wood in the United States. Wood was the veritable backbone of the Canadian economy in the nineteenth century. In addition to being exported directly, it supplied a large shipbuilding industry both in the Maritime colonies and at the city of Quebec. Many of the ships were also exported, but a large fraction went to supply the merchant marine of British North America, which by the latter half of the nineteenth century was second in the world in tonnage only to Britain. The immediate and most important market for Canadian shipping services was the timber trade. The whole fit together into an integrated economy, an economy that was ultimately based on the exploitation of the forest. Wood exports were, in a direct sense, the driving force behind the development of the Canadian economy, but they also contributed importantly, in an indirect way, by facilitating agricultural specialization.

Most often in Canadian historical writing the tenor of appraisal of the timber industry has been negative. "Hewers of wood and drawers of water" has come to represent economic backwardness and failure to industrialize. By this view the timber trade is looked upon as a mere passing phase and not very consequential for Canadian economic development. Assertions are frequently made that the trade was artificially created by British policy, that it led to a rapid dissipation of Canada's forest wealth, and that the benefits accrued mostly to British merchants. It is claimed to have diverted labor resources away from agriculture, where they might have better been used for farm improvement. The fluctuating nature of the trade is emphasized as well, although instability has been a charge commonly laid against primary product exports of all sorts, and the evidence is that timber was no more subject to fluctuation than other primary product exports.

In general the criticisms that have been levied against the timber trade have been asserted but not shown to have a clear foundation in fact. Mainly they have been based on a characterization of the trade in hewn timber. That, however, was the predominant product only in the early years of the trade. The more rapidly growing and long sustained sector of the industry was the manufacture of planks and boards. Mills sawing deals, the thick planks demanded in the British market, appear on the scene relatively early and rapidly expand their output to overtake hewn timber as the leading product. The all-time peak export of squared timber occurred in 1845, and by 1851 manufactured wood exports surpassed those of unmanufactured wood. By that time Canadian sawmills had successfully penetrated the U.S. market as well, and exports there grew considerably faster than the trade to Britain. By the late 1860s the United States took more Canadian wood than did Britain. The sawn lumber business was much less volatile than hewn timber had been. For most of the nineteenth century, saw milling was Canada's leading manufacturing industry. Typically it has been portrayed as an industry with hundreds of small plants, yet the bulk of sawn lumber exports was produced in a small number of very large, capital-intensive mills that were the high-tech establishments of their day.

ater power predominated, but that was because Canada had such an abundance of great hydraulic power sites. The technology was a continuous process whereby the logs were hauled mechanically from the storage ponds and fed through twenty-five or more frames of gang saws. This was no mere "hewing of wood."

The agricultural economy of Lower Canada proceeded in the first half of the century along lines quite similar to those already described for Upper Canada. Land clearing and farm making to provide for largely subsistence agriculture prevailed. For a long time it was widely believed that the French-Canadian farmers of Lower Canada remained backward and inefficient in comparison with their English-Canadian counterparts, and much has been written about an early-nineteenth-century crisis in Quebec agriculture. A new and more factually based interpretation of early-nineteenth-century Quebec has emerged that is more favorably disposed towards the habitant farmers of French Canada. There is little foundation for arguments of culturally based deficiencies in farm practice. French farmers performed much like their anglophone neighbors in Lower Canada and not much differently from farmers in Upper Canada. By the 1820s there was a vigorous development of villages and rural industry. The countryside was becoming commercialized. There is no evidence of a decline in prosperity. Indeed, per capita real output may have been slowly edging upward.

The main agricultural difference between Lower Canada and Upper Canada is that in the lower province farmers were abandoning wheat to concentrate on the production of meat and dairy products while increasingly coming to rely on Upper Canada for breadstuffs. In the harsher climate of Lower Canada, farmers could not produce wheat as cheaply as in the winter wheat district of Upper Canada. Then, infestations of wheat midge ravaged Lower Canada in the 1830s and forced at least a temporary abandonment of wheat growing as they did in Upper Canada twenty-five years later. Lower Canada, however, set aside wheat permanently and catered to the other food demands of a growing local non-farm population, yet this was a limited form of agriculture. As many observers noted, there was little sign of improvement, of progressive husbandry; but it is important to remember that until about the middle of the nineteenth century that could be said generally of all but a few small districts of North America. There is no indication that before mid-century farm practice in Upper Canada was on the whole superior to that in Lower Canada. The entire difference lay in the more favorable growing conditions for winter wheat in a few districts of Upper Canada. With more limited opportunities in agriculture, many farmers in Lower Canada turned to seasonal, off-farm work, cutting the forests, building ships, and working on the transport system.

What Canadian farmers and merchants who dealt in farm products wanted most was better access to remunerative markets. As has already been pointed out, faraway Britain was more often than not an unprofitable place to sell wheat flour, the only farm product that offered much prospect of an external market. Transport costs were not so much of a barrier to access to the U.S. market, but a hefty tariff that averaged 20 to 25 percent was. From time to time, shipments were made across Lake Ontario, but it was a very intermittent thing. Canadians could address their fundamental problem in part by making improvements to the transport system. That point will be dealt with in more detail below. Initially, they made the

British Corn Law tariff their chief target. As loyal British subjects, the Canadians could see no justification for the tariff to be imposed on them, even if it was at a lower rate than imposed on Americans and other foreign suppliers of grain to Britain. The Canadians repeatedly pressed their case and in 1842 won agreement that Canadian wheat would be admitted to Britain at a fixed, virtually nominal tariff of one shilling per quarter of grain. That concession was made conditional upon Canada imposing a tariff on wheat from the United States so that American wheat could not flood into Britain, laundered by the St. Lawrence. Canadian merchants anticipated a boom in wheat exports and rapidly expanded milling capac- . Flour could be milled cheaply in Canada, and the reduction in bulk provided some saving in transport costs. The limited supply of Canadian wheat, however, kept prices above the levels at which it was profitable to ship wheat and flour to Britain until 1846, by which year Britain gave up the Corn Laws altogether and opened its market to Americans and other foreign suppliers. Canadians panicked, especially the merchants. They felt totally abandoned.

At the farm level the change in British policy was felt hardly at all, and production continued to increase. Prices in Britain strengthened, and after 1848 Canada began regularly to export wheat and flour to Britain. Wheat finally got firmly established as an export staple, and for a decade a crescendo of wheat export provided a foundation for a booming Canadian economy. Wheat surpassed wood, exports of which were also booming, as the leading export of the country. The decade of the 1850s was a period of notably accelerated economic change. The economy both expanded rapidly and became more complex in structure. We do not have reliable estimates, but real per capita income was almost certainly rising. By mid-century the process of continuously rising per capita income that is the hallmark of modern growing economies was underway in Canada.

Worried about the loss of preferred status in the British market, Canadians looked desperately for alternatives. As a British colony, although having achieved a large measure of domestic independence in 1848 in the form of responsible parliamentary government, Canada still had no independent foreign policy. On behalf of all its North American colonies, Britain negotiated a treaty with the United States providing for reciprocal free trade in natural products that came into effect in 1854. This arrangement helped to placate the colonials, and it resolved long-standing friction between the United States and Britain over rights to fishing grounds in the North Atlantic. Coming as it did in a period of pronounced economic prosperity, the Reciprocity Treaty of 1854 was long hailed as an important contributor to Canadian economic development. Recent research has tended to cast doubt on the extent of the independent contribution made by the Reciprocity Treaty. Many other growth-promoting factors were operating at the same time, and reduced U.S. tariffs may have played only a modest role in the boom of the 1850s.

Reciprocity contributed little to the growth of the country's two leading exports. The market for wheat flour was in Britain, although free trade generated some advantages in rationalizing Canada–U.S. supplies in border areas. Exports of lumber from Canada to the United States had already begun to increase rapidly prior to the removal of the tariff, but by 1854 the British market was strongly booming, and so the main effect of Reciprocity was merely to divert to the United States wood that might otherwise have been shipped to Britain. The main contribution of Reciprocity was to foster a widening of trade by encouraging the development of exports to the United States of commodities that previously had not been viably traded. Examples are malting barley to supply the newly established lager beer industry in the United States, butter, and horses. The sturdy and economical French-Canadian breed of horse found particular favor in the U.S. market. Free trade combined with improvements in the transport system to make it profitable to ship even such bulky goods as firewood, oats, and hay from Canada to urban markets in the United States. By the late 1850s Canada had developed a substantial export trade in steers to be fattened in the United States. What was important about this broadening of the spectrum of goods exportable to the United States is that those goods could be produced in districts where wheat could not profitably be grown. It widened the base of economic development and prosperity. These developments were valuable and important, yet they were small in impact in comparison with the great exports of wheat and wood that were the main propellants of the Canadian economy.

The United States anticipated that it would increase exports of manufactured goods to Canada. It did, but the gains were far from dramatic. Then in 1859 Canada introduced a new tariff schedule that was clearly designed to protect its manufacturing industries. The United States complained that Canada had acted against the spirit of the treaty. Political pressures were mounting from the usual alignment of competitors with imports from Canada and, overall, there was not much in the treaty to benefit the United States. It abrogated the treaty in 1866. The period of the Reciprocity Treaty went down in Canadian annals as one of notable prosperity, and that alone cast the treaty in a favorable light from the Canadian point of view. For a long time thereafter Canadians looked upon some form of free trade arrangement with the United States as a first-best policy.

At mid-century Canada was still essentially a farming economy, with an important forestry sector, but the settlement period was almost over. The agricultural community was well established. Frontier expansion was limited to a few fringe areas, and by the late 1850s Canada had run out of land suitable for new settlement. The problem was critical. Population was growing rapidly. Natural increase was running about as high as attainable by human populations, and immigrants were still arriving in large numbers, although by the late 1850s the influx had begun to diminish. The arising problem was what to do with the large, new generation coming to adulthood. There were three alternatives, and resort was had to all three: an intensification of agriculture, industrialization, and emigration. By 1860 the flow of emigration to the United States had become large, and the 1861–71 decade saw net emigration from Canada, something that would continue until almost the end of the century.

Agricultural development with diversification, intensification, and productivity advance was the outstanding characteristic of the Canadian economy between the late 1840s and the late 1860s. That was especially so of Upper Canada, designated as Canada West in the years after political union with Lower Canada in 1842. The period began with an export boom in wheat. That was relatively short-lived, and by the late 1850s limitations on the supply side were evident. All the good wheat land had been taken up, and wheat production could no longer be increased just by moving onto new land. The loss of forest shelter exposed more of the fall wheat crop to winter-kill, and the wheat midge had arrived. There was a great need to shift to other agricultural products. Rapidly growing urban markets in Canada and the access to the U.S. market gained under the Reciprocity Treaty to some degree facilitated that. Mixed farming required a substantial investment in herds of animals. A pioneer economy in which labor was applied to land, with little capital, to grow marketable cereals was being supplanted by mixed farming, which was much more capital intensive. Meat and dairy products were becoming the predominant items of agricultural output. The whole range of agricultural improvement was underway – mechanization, more sophisticated crop rotations, better animals, better knowledge of animal feeding, and more careful handling of products. These required both capital and improved technique.

Economic historians have given their greatest attention to farm mechanization and, especially, to the adoption of the mechanical reaper. That certainly occurred, especially after the mid-1850s, but reapers were far from the whole story. Threshing had become mechanized even before reaping and, even where the flail was still used in the 1850s, winnowing was done by mechanical fanning mills. Hay was mechanically mowed and raked, stumps were pulled by machine, animal-powered mechanization of the farm was proceeding apace. At the same time herds of animals were being built up in quantity and improved in quality. Superior breeds of animals were introduced. The ability to market products well beyond just what the farm family could produce for its own consumption was a powerful incentive to improve agricultural practice.

In most respects agricultural improvement in Canada in this period was a close reflection of what was happening in the northern United States. Canadian farmers shared most of the same knowledge. They drew extensively upon what was being developed south of the border, but they also made some valuable contributions of their own. They were closely involved in the development of improved livestock herds, especially cattle, and they developed a superior strain of hard spring wheat, Red Fyfe, that would be critical to American agricultural expansion into Minnesota and the Dakotas. In this period after mid-century, agricultural progress in anglophone Upper Canada moved decidedly ahead of francophone Lower Canada. It was after 1850, not in the earlier period, that the productivity gap widened. Upper Canada made especially notable strides in dairying. Exports of butter to Britain increased, although there was a long struggle to upgrade quality. Butter that was palatable enough if consumed fresh would deteriorate on the long journey to Britain if the quickly deteriorating buttermilk was not thoroughly pressed and washed out. A few districts of Upper Canada were able to establish a reputation for good quality. In the 1860s auspicious beginnings were made in copying the American system of factory production of cheese. Canadians were not cheese eaters, but a huge market existed in Britain if only a suitable product could be made. The first factories were established in Canada in the late 1860s. Exports increased rapidly over the ensuing three decades.

Lumber, the other leading industry of Canada, made great strides in the years immediately following mid-century. In 1850 almost one-half of the exports of sawn lumber was produced by a handful of large deal mills. The 1850s saw a sharp increase in the number of large mills, especially in the Ottawa valley. Bytown, later to be renamed Ottawa, became the leading sawmill center of the world. A massive hydraulic power site existed right on the main transport route. By 1860 Ottawa had a large collection of big commercial mills, including the single largest sawmill in the world. Industrially the Canadian economy began to diversify in these years. Factories were established to produce agricultural machinery. Other factories made milling equipment for both sawmills and flour mills. Small woolen mills catering to the local market for blankets and other simple woolen goods sprung up in locations across the province. General-purpose iron foundries and shops building steam engines and other capital goods likewise appeared. In the 1850s Canada made some clear and definite beginnings in industrialization.

TRANSPORT IMPROVEMENT AND EARLY INDUSTRIAL DEVELOPMENT

In the nineteenth century transport improvement was a central element of economic development everywhere in the world, and this was very much the case in Canada as well. As has already been pointed out, Canada had been greatly favored with about the most favorable natural internal transport to be found anywhere in the world. Being an ocean away from Britain meant that transatlantic transport was a costly burden, but within Canada goods could be moved relatively cheaply by the standards of the day. Almost everything could, and did, move by water. Overland travel, which nowhere needed to involve long distances since the settlements were all close to the waterway, was further benefited by the severe winters. Horse-drawn wagons could haul over firm, frozen surfaces or, as was more commonly the case, drawn by sleigh over snow. Sleighing was about one-third cheaper than wagon haulage. Consequently, rather than focus on the difficulties of early transport we should appreciate the important advantages that Canada enjoyed. There were, nevertheless, some impediments to the transport system. The great waterfall at Niagara barred connection between Lake Ontario and the upper lakes. On the main river routes, both the St. Lawrence and the Ottawa, there were stretches of rapids that mainly impeded the upstream movement of goods. Canals with locks around the rapids were an evident answer, and as early as the late eighteenth century a modest attempt had been made at Montreal to build a small canal around the rapids that lay just upstream of the city.

The canal as a solution to improvement in transport got a great boost from the construction of the Erie Canal in New York State. The Erie dramatically reduced costs of transport, and it effectively put to rest Canadian hopes to use the St. Lawrence waterway to draw on the export grain trade of the U.S. midwest. Canadians too could build canals, but they would be of a different sort than the long trunk canals constructed in the United States. The first two Canadian canals to draw attention were the Lachine, built to avoid rapids in the St. Lawrence just above Montreal, and the Welland, built to bypass Niagara Falls. The Lachine canal was built contemporaneously with the Erie, and the first Welland was completed only five years later. Canada was thus an early participant in the North American canal boom. In the 1840s three short canals were constructed to bypass rapids on the St. Lawrence, and the Lachine and Welland canals were enlarged. By 1848 Canada possessed a first-class canal system that made the St. Lawrence–Great Lakes waterway indeed the finest inland system in the world. These were ship canals, not the narrow barge canals commonly built in the United States. They were short, but owing to the large dimensions of their locks, cost many times more per mile than the canals in the United States. Lake schooners of considerable size could pass directly between Lake Erie and Lake Ontario via the Welland Canal. Sailing large vessels on the upper St. Lawrence River was problematic, so it was typical for cargoes to be transshipped at Kingston or Prescott onto smaller vessels or barges hauled by steam tugs. It would not be until after the middle of the twentieth century that large oceangoing ships would have full access to the Great Lakes.

A long canal from Kingston on the St. Lawrence to Bytown on the Ottawa River was built between 1826 and 1834 by the British military. Its large, solidly constructed locks and absence of a towpath make clear that it was intended from the outset to carry steamboats. It had limited commercial significance and was justified from the outset as a means of moving military material between Montreal and Upper Canada without having to pass within artillery range of the U.S. shore. A few other small canals were built: around the rapids on the Richelieu River at St. Jean (that one tied into Lake Champlain and the New York state system), a couple of sets of locks around rapids on the Ottawa River, and a canal on the lower reaches of the Grand River.

Canada had invested in a vast capacity for canal traffic – far more than the needs of its economy might reasonably justify. In part this huge investment was required by the need to accommodate large vessels in short canals, in part it was the outcome of a long-standing ambition to use the St. Lawrence system to transport the production of the U.S. midwest. The Erie Canal had demonstrated that human ingenuity and capital investment could overcome natural disadvantage. The real disadvantage of the St. Lawrence route, however, lay in the passage from Quebec across the Atlantic. That route had a shorter season and was considerably more dangerous than the routes from the east coast ports of the United States. Much of the Canadian canal investment may also have been premature. It was pointed out above that only after 1848, when the canals had been completed, did it start to be profitable to export Canadian wheat to Britain. It has been common in Canadian historical writing to fault the canal investments for coming too late, since by 1848 railroads were already a feasible alternative. Contrary to the common view, though, many of the key pieces of the Canadian canal system may have been built earlier than demand would have warranted. In particular, the Welland Canal was opened in 1829, six years before any substantial cargoes were being received at Buffalo from the west and before there was much development of the district of Upper Canada north of Lake Erie. The first Welland Canal was a private venture, financed to a large extent by American investors, but it was not profitable and it soon became a public enterprise, as were the other canal ventures in Canada. The large growth of bulk shipping on the Canadian lake and river system came after mid-century, after the economy had grown to a more substantial size, when exports of flour and lumber from the interior had become firmly established, and contemporaneously with the development of railroads. The canals were extensively utilized then.

Canada showed neither technical nor entrepreneurial backwardness in introducing both canals and steam navigation. Railroads were slow to be developed in Canada, however, and that was a source of concern to both contemporary and later commentators. A lot of traffic was needed to justify the large capital investment required by railroads, and Canada was a small economy with a very good and cheap system of water transport. By 1850 only 54 miles of railroad were in operation. The following decade saw major railroad development on three principal themes. There was a project to make a year-round, all-weather link between Montreal and ice-free ports on the Atlantic, there were rail lines built inland from the ports on the lake and riverfront, and there was the Grand Trunk Railway of Canada – an ambitious project to lay rails paralleling the great waterway that formed the spine of the economy. By 1867, the year of Canadian Confederation, the new nation had 2,600 miles of railroad in operation.

Montreal merchants were especially concerned about the short shipping season on the St. Lawrence. The steam railroad offered to them a possibility of overcoming that natural constraint. In 1845 the St. Lawrence and Atlantic was chartered to connect Montreal with a year-round port at Portland, Maine. The struggle to finance the line delayed it, but construction was underway by 1849 and completed in 1853. The Great Western Railway of Canada, a line to run from Niagara to Windsor and connect there with the Michigan Central, thus providing a short-cut route for U.S. railroads from New York to the American midwest while at the same time offering valuable transport services to the western area of Upper Canada, was completed in 1855. The previous year saw the completion of the Northern, a line from Toronto to Collingwood on Georgian Bay. Several other lines from the lake or riverfront back into the interior were built in the 1850s. The Prescott and Bytown ran from the St. Lawrence port opposite the U.S. rail terminus at Ogdensburg, New York, to the great sawmill center on the Ottawa River. A second line roughly paralleling it was completed in 1859. Farther west, the Buffalo and Lake Huron was built from the Niagara frontier to Goderich, on Lake Huron, the Canada Company's town in the Huron Tract. There was even the St. Lawrence and Industry, privately built by Barthelemy Joliette from the St. Lawrence river, running on wooden rails the 15 miles back to his mills in the village of Industry. These were all railroads providing modern transport service that complemented the waterway system.

The Grand Trunk Railway of Canada was a venture that overshadowed all of the others. This was a line planned to run from Quebec City, directly paralleling Canada's outstanding waterway system, to reach the United States at Sarnia at the southern tip of Lake Huron. It was financed in the British capital market by the most reputable of firms and presented as the de facto state railway of Canada. As planned, it was the longest railroad in the world and was to be built all at once rather than in segments that might start raising revenue, and at the very outset it acquired the St. Lawrence and Atlantic, which had just been completed but had not yet carried any freight. Right from the beginning the Grand Trunk was a financial fiasco, and in such difficulties that the government had to step in to bail it out. Some of the most renowned British financiers and railroad contractors almost collapsed under the weight of the Grand Trunk. Eventually it would get on its feet and become a great railway, but its inception was extremely clouded. It was much too ambitious a venture and was not even socially justified, let alone privately profitable. Later writers have stressed the short-run benefits of the Grand Trunk in terms of job creation and injection of investment expenditures into the local economy. The ebullient economic times of the mid-1850s have even been characterized as the "Grand Trunk Era," even though this railroad, as planned, was a mistake. It is too often overlooked that the original project had little hope of success. It has also been overlooked that for a decade or more the financial problems of the Grand Trunk impaired the ability of Canadian ventures, both private and public, to raise capital in the London market. Without the Grand Trunk, Canada would undoubtedly have built railroads, but perhaps a little later, more gradually, and more wisely. Canada's first romance with the steam railroad in the 1850s led to a large investment in railroad construction and resulted in a substantial network of railroad services by the end of the decade. Canada had entered the railroad age, but in a decidedly wasteful way. It quickly acquired a lot of unprofitable miles of track. If Canada had overinvested in canals, it overinvested to a much greater extent in railroads.

The first railroad era in Canada coincided with many other major developments in the economy. Economic development was clearly under way. The traditional export sectors – wheat flour and forest products – were propelling the economy in a vigorous way, but at the same time the economy was diversifying. A range of industrial products was emerging. Closely associated with the timber and lumber industries was shipbuilding. The 1850s and 1860s were the heydays of the shipbuilding industry. Canada had been early to put steamships on the rivers and lakes, and as early as the 1820s steam engines were being built in Canada. In the 1850s foundries and machine shops that custom built engines, boilers, and other capital equipment proliferated. By the latter half of the 1850s, steam locomotives were also being manufactured in Canada, as was the railroad rolling stock.

The hallmark of the Industrial Revolution was factory production of textiles. This was a sector where Canada lagged. Small woolen factories were first to be established in numbers. From an early date there were many local carding and fulling mills. Some of these expanded into spinning and weaving. By the 1840s a boom in the development of woolen mills was underway. These mainly produced blankets and wool flannel. Finer grades of woolens and worsteds were still imported from Britain. A factory cotton textile industry emerged slowly and haltingly. New England was expanding its cotton textile industry with the aid of immigrant French-Canadian labor, but in Canada not much was happening. The promoters of the British American Land Company in Lower Canada attempted to establish the town of Sherbrooke as a center for their operations and in 1844 opened Canada's first cotton mill. Then in the early 1860s several additional cotton mills were established. These were small mills, rather experimental, and not grandly successful.

A much more vigorous line of industrial development was the manufacture of agricultural implements. In the 1840s small plants emerged, producing fanning mills, threshing machines, improved plows, and patented stump pullers. The following two decades saw much more vigorous development. There was little indigenous innovation. The Canadian factories produced American mowers and reapers either under license or simply by pirating the technology. By the 1860s several of the agricultural implement builders had emerged as relatively large-scale, nationally marketing producers. Canada was almost self-sufficient in manufactured agricultural implements.

Canadian manufacturers relied on the technical advances being made in the United States and closely copied American developments. Machine fabrication of wood to produce furniture, shoe lasts, and a great range of other products became commonplace. Sewing machines were being manufactured in Canada by the 1860s, and boots and shoes were being machine sewn at about the same time. There are two points to be made. One is that Canadian manufacturing development was vigorous and based largely on similar development going on in the United States. The second point is that Canada's manufacturing development lacked an internal, technically innovative drive. One cannot find sectors in which Canadians were exhibiting technical leadership and were spawning the innovations on which sustained manufacturing development was based. Canadians were for the most part competent imitators but not keen innovators. The situation is complicated by the tendency of innovative Canadians to realize that the larger U.S. market, where there was also easier access to venture capital, was the place to launch innovations. Thus, for example, Abram Gesner moved to New York to establish a refinery to produce his newly developed "kerosene" – a superior illuminant derived from petroleum – and thereby to lay the foundation of the world petroleum industry.

Historically, industrialization has been associated with urbanization, and Canada's industrialization in the pre-Confederation period brought rapid urban development, but that was built upon a preponderantly rural base. Furthermore, urban development followed a different pattern in the two provinces of Canada. In Lower Canada industrial development was heavily concentrated in the city of Montreal. By 1850 it was Canada's gest city, and its subsequent growth was in part attributable to its becoming a major and diversified industrial center. Montreal had the foundries and engine works, the locomotive factory, and the rolling mill. It had the tailoring and apparel shops and the shoe factories. At the same time traditional industries were important in Montreal as well. It was the country's leading center of flour milling and was prominent for its breweries and its sugar refinery. The Lachine Canal provided an extremely valuable water-power site. Indeed, the canal may have been as valuable for its water power as for its transport benefits. Urban development is not just industrially based; cities are important as market centers. Montreal was the focus of many of the important markets of Canada. It was the principal distribution point for imported goods. After the dredging of the St. Lawrence was completed in 1853, Montreal increasingly came to displace Quebec as the main port of export. It was also the center of insurance and finance. Canada's first bank, and for a long time its largest, was the Bank of Montreal. While Montreal was indisputably Canada's foremost urban center in the nineteenth century, it never held as dominant a position as did New York in the United States. Early in the century the city of Quebec was the country's port for overseas trade. The city of Quebec was as large a center as Montreal until about 1825, and remained a close contender until the middle of the century. Quebec was always a more specialized city than Montreal. It was a trade and maritime center, not an industrial city. It was the focus of the timber trade, the place where the vast amounts of wood were assembled and loaded onto ships. One of the world's great centers of shipbuilding, it was also a seat of government, a military and administrative center. In later years it became a prominent location for shoe and tobacco manufacturing, but it was never primarily an industrial city, and by mid-century it was a city that was losing its dynamic.

What Lower Canada most notably lacked was a collection of smaller, growing urban centers. It had few manufacturing towns. In that respect it contrasted conspicuously with the upper province. In 1850, outside of Montreal and Quebec, there were in Lower Canada only five towns of more than 2,500 people. Trois-Rivieres was an old market center located on the St. Lawrence halfway between Quebec and Montreal, but it had a population of less than 5,000. It had played a prominent role in the fur trade, and just north of it the St. Maurice forges was the country's principal iron smelting establishment. On the south bank of the St. Lawrence, a short distance upstream from Trois-Rivieres was Sorel, at the mouth of the Richelieu River, a trade and transport center of 3,500 persons. St. Jean, further up the Richelieu, St. Hyacinthe in the same district, and Sherbrooke, the modest urban center of the Eastern Townships, rounded out what comprised urban Lower Canada. In general, though, the outstanding feature of urban Lower Canada was the dominance of Montreal and Quebec and the paucity of larger market and manufacturing towns.

Upper Canada offers a sharp contrast. The primary city, Toronto, was still considerably smaller than either Montreal or Quebec. With about 33,000 people at mid-century, it was more than double the size of any other city of Upper Canada. Initially, Kingston had been the primary urban center of Upper Canada, but by the early 1830s Toronto had surpassed it in size and importance. Toronto was essentially a transport node and commercial center but had begun by the 1840s to develop an industrial base. It was a center for domestic manufacturing that catered essentially to the local market. In the years before 1850 Toronto was the leading market center of Upper Canada, but it was foremost among a substantial collection of subsidiary cities and sizeable towns.

Hamilton was not quite half the size of Toronto. Although well situated, it had lost out to Toronto in the struggle to become the metropolis of Upper Canada. In 1851 Hamilton was still more of a commercial center than the industrial city it would become over the next couple of decades. Kingston had been the earliest urban center to emerge in Upper Canada but had soon been surpassed by Toronto and did not grow rapidly after mid-century. Bytown, the fourth-ranked city of Upper Canada in 1851, was the most rapidly growing. Renamed Ottawa, it became the national capital in 1867, but its growth was mostly a consequence of its emergence between 1851 and 1871 as a great center of lumber manufacturing. The striking difference between Upper and Lower Canada in urban development, though, was the paucity of towns in the lower province. At mid-century there were only five towns with more than 2,500 people. By contrast Upper Canada had a dozen such towns and five cities compared with two. Overriding all that was the very low level of urbanization generally in Canada. In 1851 less than 15 percent of the population lived in centers of 2,500 or more, and in Upper Canada the fraction barely exceeded 10 percent.

Between 1851 and 1871 the population of the old province of Canada grew by a little more than 50 percent. The growth was twice as rapid in Upper Canada as in Lower Canada. At least in the first half of the period immigrants were still coming to Upper Canada in large numbers. Urban population growth was rapid and, overall, quite similar in the two provinces. In Lower Canada urban growth was concentrated heavily in the two largest cities. The towns of more than 2,500 people in 1851 grew by only a little more than their natural increase, and the number of them rose only from five to eight. In Upper Canada the number of towns outside the five main urban centers proliferated so that by 1871 more than thirty-one of them had more than 2,500 people. Population in all urban places increased by 150 percent; the population in towns of 2,500 to 10,000 people almost tripled, although that was more a result of additional towns than of growth of population in places already in that category in 1851. It was this emergence of a layer of small but significant urban centers that set Upper Canada apart from the lower province. The towns were both commercial and manufacturing centers. They included the significant points on the transport system – early-established lake ports such as Goderich, Whitby, and Port Hope, and junctions on the more newly built railway system such as Barrie and Stratford. Many of the new towns were manufacturing centers. At Galt and Owen Sound steam boilers and milling machinery were built, at Bowmanville and Napanee, furniture; Brantford and Guelph were centers of agricultural implement production. In this respect Upper Canada was similar to adjacent regions of the United States – western New York and Ohio especially.

Canada was making the transition from an agricultural to an industrial economy in the years before 1871. The transition to Modern Economic Growth had been accomplished. Yet Canada was still predominantly a rural society with an agricultural economy. By a fairly generous definition of urban, less than 20 percent of the population lived in cities and towns as late as 1871. Farming continued to be the occupation of more than half the work force. But good land for new settlement had run out well before 1871. By 1860 British North America had reached the extent of settlement in its then existing territory. Extensive agricultural settlement was no longer providing the dynamic of the economy. The British adoption of free trade had deprived British North America of its privileged relationship with Britain, and the experiment in reciprocal free trade with the United States had been brought to an end by the Americans. To the Canadians of the 1860s a prosperous present belied a troubled and uncertain future. The solution sought after was territorial aggrandizement and union of all the British North American colonies.

THE ECONOMICS OF CANADIAN CONFEDERATION

In 1867 the three British North American colonies of Nova Scotia, New Brunswick, and the United Canadas came together to form a new federal state under the name of the Dominion of Canada. Two other British North American colonies, Newfoundland and Prince Edward Island, declined to join at that time. The plan had been under consideration and debated since 1864 and was finally brought into effect by an act of the British Parliament. The British North America Act of 1867 was to serve as a constitution for the new nation. For the purposes of this chapter, two questions are of interest. First, what economic influences were at work in bringing this union about? Secondly, what were the consequences of Confederation for the economy of the new Dominion of Canada?

It is widely believed that economic influences played at least a partial role in Canadian Confederation, although we should be careful not to overemphasize them. There was also a political agenda, and there were significant matters of national security. Serious discussions about Confederation began in the later years of the American Civil War. Relations between the United States and Britain were tense, and it had not been forgotten that in the past, when U.S.-British relations had boiled over, the reaction of the United States had been to invade Canada. In a longer-term setting, it was becoming evident that the British were increasingly concerned to reduce the costs of empire and to push dependencies such as those in British North America into more independent positions. That would mean that the colonies would have to be concerned about the possibly very expensive matter of providing themselves with effective defense at a time when the United States was heavily armed and, from time to time, making expressions of its Manifest Destiny to control the whole of North America. One should perhaps not read too much into the tenor of the times, but matters of national security comprised a substantial element of the Confederation debates.

The immediate impetus to the Confederation plan, though, was the political stalemate in the colony of Canada where largely French Lower Canada had been welded together in a legislative union with British

Upper Canada in an arrangement that was almost guaranteed not to work. Politicians in Canada were seeking desperately to break the stalemate between French and English. The Maritime colonies had begun to contemplate a legislative union and to that end had organized a convention at Charlottetown in Prince Edward Island in 1864. Representatives of the larger colony of Canada moved in on it with more pretentious ambitions; they had in mind a plan that might offer a solution to everyone's problems.

One of the foremost economic problems was the need for more extensive markets. Each of the British North American colonies was small. An attempt had been made to solve the problem of market size through reciprocity with the United States, but the Americans had decided to back out of that arrangement, and they abrogated the treaty in 1866. As a minimal, second-best solution, the British North American colonies might amalgamate into a single market. It would still be relatively small and a weak substitute for open acccess to the United States, but it might at least be feasible. There was more than that, however, to the economic drive behind Confederation. In the colony of Canada some believed that continuing economic prosperity might be linked to a major increase in size achieved by acquiring the vast territory owned and managed under British rule by the Hudson's Bay Company. That land included, admittedly, thousands of miles of uninhabitable rock and bush, but it also included vast areas of western plains that might be transformed into a new agricultural frontier. The continuous movement of agricultural settlement onto a western frontier was widely seen as important for the economic prosperity of the United States. Canada too might have its western frontier. Hence, visionaries in Canada had begun to think of dramatic spatial aggrandizement as a solution for Canada's economic problems. A new frontier of settlement would provide a place to accomodate the all-too-numerous sons of farmers in Canada who could not otherwise be provided with livelihoods. It should attract immigrants as well. Newly populated territories would expand the Canadian domestic market. Canada might seek its economic future by emulating the United States.

The people of the Maritime colonies did not wholeheartedly buy into the scheme of grand territorial expansion. They were, at best, only lukewarm to the Confederation idea. With their commercial and shipping interests, their orientation was to the Atlantic. Some in the Maritimes, however, had visions of transforming the region into an industrial economy along the lines of New England. In that way the Maritimers might find a new prosperity as cotton textile and metal product manufacturers in a federated Canada. That would involve a reorientation of the Maritime economy away from the Atlantic and its prospering shipping and shipbuilding industries, towards the interior of North America and toward the industries most characteristic of the Industrial Revolution. Attention would thus be shifted from ships to railways, but railways seemed more "modern."

Newfoundland and Prince Edward Island declined to join Canadian Confederation in 1867. The other Maritime colonies merged with Canada, which in turn was split into the two provinces of Ontario and Quebec, corresponding to the upper and lower provinces of the former colony of Canada. The Hudson's Bay Company lands and the remainder of British territory in North America were absorbed into the new Dominion of Canada. In 1871 a new province, Manitoba, was established in the new territory, with the remainder of the unsettled plains administered as Territories, and in that same year the small British colonies on Vancouver Island and on the mainland of British Columbia were consolidated into a single province of that name. In 1874 Prince Edward Island reversed its stand and came into the Dominion in 1874. Thus was made up the Canadian "Dominion from sea to sea" in the form it remained for the rest of the nineteenth century. Newfoundland would eventually join in the middle of the twentieth century.

The intention was to form a strong federation in which the central government played the dominant role. At the outset it was an economic union with no tariff impediments permitted between provinces. Only the federal government was empowered to impose indirect taxes such as import tariffs and excise duties. The provinces were permitted to levy only direct taxes. In this federation the provinces were allocated only powers over matters which at the time were thought to be of essentially local concern – the family, welfare, education, laws governing property and what in those days were called civil rights. Joint authority was awarded on agriculture and immigration. The federal government, though, was granted the power of disallowance of provincial legislation and direct control of the natural resources in the new territories acquired in the west. This was intended to be a centralized federation, with only such powers granted to the provinces as seemed absolutely necessary at the time. Right from the outset, however, constitutional interpretation shifted power away from the center to the provinces. This is not the place to review the long and complicated history of Canadian constitutional development. The important point to explore here is the economic implications of the new federal arrangements. The intention was to leave to the provinces the administration of relatively mundane, local affairs but to place in the hands of the central government the powers to promote the development of the new nation as, at one and the same time, an expanding agricultural economy and a developing industrial one.

The economic plan imbedded in Canadian Confederation was to form an economic union of the existing British North American colonies but at the same time to establish a new settlement frontier on the western plains that would be integrally linked to the older regions of the country and would provide a needed economic dynamic. It was a two-pronged plan of increasing in size through new agricultural settlement while at the same time fostering industrial development in the older regions. Federal control of natural resources, especially the land, of the newly acquired territory was central to the development plan. Transportation was a key feature of the Canadian plan of federation, and railroads were the prized mode of transport. To draw the Maritime provinces into Confederation a railroad link was promised – imbedded right in the constitution. That was a costly promise. In 1871, to cement the arrangements with British Columbia, a transcontinental railroad to the Pacific was also promised. That would be costlier still. The Canadian federation was literally to be bound together by iron rails. To assuage the low-tariff Maritimes, an initial commitment was made to set the Canadian tariff at a relatively low level. That, as we shall see, was not to last. The new union began on an optimistic note. The Articles of Confederation themselves, and the broader conception that gave rise to them, reflected an ambitious economic plan for the development of a new Canadian nation.

A NATIONAL POLICY FOR NATIONAL DEVELOPMENT

Railways were looked upon as the sinews of the new Canadian nation. A terse answer to the question of what the Canadian economy did for the remainder of the nineteenth century might be "it built railways." A rail link between the lines in Quebec and the short line that ran across the middle of Nova Scotia to the port of Halifax was a condition of the new constitution. Geography was cruel. The Intercolonial Railway was to be built entirely on Canadian soil and, for security reasons, as far from the

U.S. border as feasible. That meant that it would be much longer and pass through largely unsettled and unproductive territory than a line built on strictly economic considerations. Furthermore, it was built to high quality standards. The result was 500 very expensive miles of railway (completed by 1876) that had no real hope of ever repaying the investment made in it. At a cost of almost $35 million, the Intercolonial was entirely financed by and operated by the federal government. Coming as it did after the financial fiasco of the Grand Trunk, the building of the Intercolonial serves to reinforce an image of Canada as a chronic builder of too many, not very useful railway lines.

The purpose of the Intercolonial was to promote the economic integration of the Maritime provinces with the rest of Canada so as to reinforce the political union. Integration came very slowly. Before Confederation there had been little movement of labor, capital, or goods between the colonies. Confederation did not change the situation much. The Maritimes had little to sell to Quebec and Ontario and, for that matter, the reverse was largely true as well. The Maritimes had long imported flour, mostly from the United States but some from Canada; however, by 1867 Ontario was scarcely able to generate enough surplus over the needs of central Canada to be able to supply the Maritimes. Nova Scotian coal was too costly to transport to Montreal and compete with fuel from the United States. Mainly, the Maritimers went on doing what they had before Confederation – building ships and providing shipping services to the world, catching and drying codfish for the European and West Indian markets and, to an increasing extent, supplying themselves with a variety of manufactured goods. Some Maritimers, though, had gone into Confederation with ambitions to emulate New England and to become manufacturers to the new Canadian nation. A few promising steps were taken in that direction. Shoe factories, a few cotton textile mills, and a variety of metal manufactures were expanded to produce for the "Upper Canadian" market.

The economy of the Maritimes still prospered, mainly on the basis of its earlier shipbuilding and shipping activities. Increasingly, however, a problem it shared with the rest of Canada was becoming pressing. Employment opportunities were not expanding enough to engage fully the growing population of the countryside. There was little new land onto which to expand and little scope for transition to a more labor-intensive agriculture. The agricultural base of the Maritimes was very limited. The non-agricultural sectors, especially manufacturing, were not growing rapidly enough to absorb the outpouring of population from the rural districts. Prince Edward Island, which had finally thrown in its lot with the Canadian union in 1874, reached a plateau in absolute population size 1881, where it remained for several decades. The other two Maritime provinces also were feeling the severe pressure of numbers, and that resulted in emigration on a large scale. What is especially significant, though, is that it was not emigration to other parts of Canada, but to the United States, very largely to New England. An indication that Confederation did not quickly bring about an integrated national economy is that seven decades passed before any substantial part of the excess population of the Maritimes began to move to other provinces of Canada.

There is an unresolved issue of whether the Maritime provinces came into Canadian Confederation with productivity levels below those of central Canada. For the first few years after 1867 the economy of the Maritime region continued to be relatively strong, but it became increasingly evident that the region was not going to become the industrial New England of Canada, and to a growing extent the Maritimes became the economically lagging region of the nation – a problem area. That was already apparent by the 1880s, when people left the region in large numbers. Development in the rest of Canada was not redounding to the benefit of the Maritimes. As Canada's orientation became westward and continental, the Maritimes became more and more a left-over and left-out part of the nation.

One of the foremost elements of the economic developmental plan associated with Confederation was the acquisition for agricultural settlement of the vast area of land to the west that had been owned by the venerable Hudson's Bay Company. Canada brought this land into its sovereign domain and immediately made plans to settle it. The intention was to promote a U.S. model of extensive settlement. The land was surveyed in square-mile sections, subdivided into quarters; a Homestead Act was proclaimed so that settlers might be attracted to freely granted quarter sections; and a large area of land was reserved to be granted out to railway developers as an inducement to providing the needed transport system.

The Northwest Territory was not wholly unoccupied land. In addition to an uncertain number of aboriginal residents there was the small remnant of the colony of Scots established early in the nineteenth century by Lord Selkirk. About 6,000 descendants of those colonists remained in an agricultural settlement around Fort Garry on the Red River. That provided a nucleus for the new province of Manitoba. These farmers engaged in a largely subsistence agriculture, but had some limited market opportunities in provisioning the fur trade. Loosely associated with the same community was a population of Metis – mixed-bloods of either Scottish or French combination with aboriginal peoples. The Metis ranged across the plains, commercially hunting buffalo and providing transport services for the Hudson's Bay Company.

Manitoba began to be augmented by newcomers from Ontario just as it was absorbed into Canada as a new province. Winnipeg, just to the south of Fort Garry, was founded as a kind of inland port – the eastern gateway to the Canadian plains. Access to Manitoba was easier via the United States, down the Red River from points in Minnesota. That state was undergoing rapid settlement at the time and was about to witness experiments with very large scale wheat farming on the "bonanza" farms of the Red River valley. Manitoba also seemed destined to be a wheat-producing province. By the mid-1870s river boats were taking the first small shipments of Manitoba wheat south to St. Paul. The Canadian port on Lake Superior was 400 miles away over difficult terrain. A first need was for railroad linkage between Winnipeg and the head of the lake at Fort William. It was a costly proposition but an integral part of the Pacific Railway of Canada. There was some urgency to getting on with that whole project, especially as the commercial interchange with Minnesota increased. A railway from St. Paul to Winnipeg was in operation by 1880.

The Pacific Railway had been promised to British Columbia as a condition of Confederation and was to have been built by 1881. The project stalled partly because of a corruption scandal, but mostly because of the sheer magnitude of the task. For political reasons several daunting conditions were attached. The business was to be Canadian owned and the route was to lie entirely within Canada; it would not be acceptable just to tie into lines that went through the United States south of the Great Lakes. Consequently, the railway would have to push west through more than a thousand miles of rock and bush to the north of Lake Superior, over unstable muskeg, through a territory that offered no promise of generating *en route* traffic. Then it would cross another thousand or more miles of as yet unsettled plains, parts of which were dubiously fit for agricultural settlement. It would truly be a railroad built in advance of demand. Finally a route had to be found through the difficult terrain of the Cordillera, down the steep Fraser Canyon to a western terminus. It was an extremely expensive undertaking with a prospect of private profitability only in a distant and highly uncertain future. Such a railway would require massive subsidization. An impatient government began work on two segments of the line as public undertakings – the route from the Lakehead to innipeg and the especially costly route from the western terminus up the tortuous Fraser Canyon.

Finally, in 1880, a deal was struck with the Canadian Pacific Railway Company (CPR). Remarkably, the line was completed only five years later. The subsidy granted was massive indeed. The most important provisions were (1) a cash subsidy of $25 million, (2) a grant of 25 million acres of land "fairly fit for settlement" in a band 24 miles wide on either side of right of way, (3) the segments already completed (valued by later writers at about $40 million) to be handed over to the company, (4) an exemption from taxes (later thought to be worth a little over $20 million), and) a guarantee that no other railway lines would be chartered south of the CPR to the border with the United States. Eventually, by the end of the nineteenth century, the CPR became a profitable enterprise and remains today one of the leading business concerns of the nation. It has been greatly lauded as a stupendous, nation-building venture, a symbol of national might and capability.

Economic historians have questioned the wisdom of the magnitude of subsidy granted to this railway. There is little doubt that the project, as set out in conditions laid down by the government, had to be subsidized if it were to be carried through. It could not have been privately profitable. Nevertheless, especially in light of the earlier Canadian experience of sinking vast amounts of resources into unprofitable railway lines, the wisdom of doing the same thing again with the CPR, on an even grander scale, has to be questioned. A prior, if narrower, question has been addressed by Peter George and by Lloyd Mercer, who have made alternative estimates of the amount of subsidy needed to render the CPR profitable and thereby get the railway built. Both writers conclude that much more was paid than needed, although Mercer calculated the excess subsidy at between $20 and $40 million, about $20 million less than George. Either way, Canadians gave up a lot to get the CPR. One way of putting it is that the *excess* subsidy, as a percentage of 1885 Canadian GNP is of the same order of magnitude as Robert Fogel's estimate of the social saving attributable to the entire U.S. railway network. A broader question has not been so concretely addressed; it focuses on the costliness of the conditions imposed on the CPR. How much subsidy, and real resources for that matter, might have been saved had Canada been content with a less ambitious, more slowly evolving project that avoided or postponed the more costly features? Was a single integral, transcontinental railway firm really needed? To promote the settlement of the western plains of Canada what was essentially required was public subsidy for a trunk line from the Lakehead to Winnipeg – the line the government itself had begun to build. Lines out into the settlement areas from Winnipeg might have been anticipated as private ventures as the progress of settlement justified them. That might have spread out the process through time but, as it turned out, rapid settlement did not immediately follow completion of the CPR in 1885. It was another ten years before the pace of settlement turned up. Pushing across the prairies quickly, in a heavily subsidized way, was premature. Most questionable was the rail line north of Lake Superior. The grain eventually produced in the Canadian west went out not by rail but by lake steamer. Many passengers also went by water. What would have been given up had that segment of the rail line not been built would only have been quicker, all-season movement. For the few for whom that mattered, it could have been obtained, for the time being at least, through the United States. The political symbolism of the all-Canadian rail route can only be judged to have been very expensive. There remains the segment through the mountains to the Pacific coast. Was it necessary to promise British Columbia a railway connection? That is ultimately a political judgment that many writers have thought to have been worthwhile, but economic historians may be justified in questioning whether creative nation building really needed to be so costly.

The completion of rail connections to Manitoba brought a pronounced but brief settlement boom in the early 1880s. In a few years farmers filled up the fertile, sub-humid lands that extended west from the Red River for 70 miles or so. A greater density of settlement might have been achieved had not so much of the land been handed over to the railways. By the late 1880s, however, there was frustration that the Canadian development plan based on western settlement was not proceeding anywhere as quickly as had been hoped. Canadians, mostly from Ontario, were moving west only to turn their backs on their country and settle in northern Minnesota and North Dakota. Few French-Canadians showed any interest in western settlement, and farming in the west hardly got the attention of Maritimers at all. Canada looked eagerly to the wider world for prospective settlers. In the mid-1870s it found discontented German-speaking Mennonites in Russia and distressed Icelanders who were willing to seek refuge in Manitoba. On the whole, though, the expected flood of settlers failed to materialize.

In eastern Canada as well there was a perception that the Confederation plan was not working out as well economically as might have been hoped. Things had begun well enough, but the economy foundered seriously after 1873 in a depression that was worldwide. It was little consolation that other countries also were seeing their aspirations of economic prosperity frustrated. Traditional accounts of late-nineteenth-century Canadian economic development place heavy emphasis on the slowdown that came in 1873 and ushered in an extended period of reduced economic expansion. Most of the recent writing on this topic suggests that the problems, both in the short run and the long run, may not have been so severe as usually painted. The depression may have been more financial than real. Prices fell sharply, but the changes in production varied considerably across sectors. Forest products were still the leading export, and those exports exhibited contrasting experiences in the two principal markets. Exports to the United States fell sharply in 1874 and continued at depressed levels for several years. By contrast, while prices fell in the British market, the volume of exports continued to rise sharply until 1877, tapered off a bit in the following year, and plummeted sharply only in 1879. The strength of the British market meant that in 1877 the value of Canadian wood exports to all destinations was still as much as 84 percent of the 1873 peak that was not reattained for the rest of the century. Some of the Canadian sawmill industry's best years were in the depths of the Great Depression of the 1870s.

The message driven home by the depression, however, was how fragile was the industrialization that had been going on in Canada. In the years immediately following, the chronic outflow of population to the United States was greatly accentuated. Canada had a high rate of natural increase of population – a carryover from the past – that posed a very pressing problem of how the younger generation could be provided for. The fact is that for Canada to have absorbed all of the surplus population from its countryside would have required higher rates of growth in industrial employment than experienced by any other country in the years before 1860. Rapid economic development, high industrial wages, and free homestead land in good locations in the United States were a compelling attraction for many Canadians. The massive exodus was viewed by spokesmen of the day as an affront to Canadian nationhood.

Canada's response to its dimmed economic prospects was a turn to protectionism. Some would trace the roots of protectionist policy to 1859 and argue that inherent from the beginning in Canadian Confederation was a plan to foster industrial development through the tariff. Only temporary political concessions to the Maritime provinces delayed implementation of this part of the plan. Others would portray the policy of tariff protection as less deliberate and more pragmatic – more a consequence of circumstance. Whatever the ultimate explanation, the Conservative party swept back into power in 1879, after five years of severe depression in the economy, on a platform of industrial development through a National Policy of tariff protection. It was in tune with protectionist sentiment in the United States at the time and could be seen as part of a movement sweeping across all of the industrializing nations. In the Canadian case one might note that an earlier protectionist step had already been taken in 1871 when the first Canadian patent legislation offered protection only to those who shortly set up production facilities in the country. In 1879 high levels of tariff protection were offered indiscriminately to manufacturers of all kinds. It was a desperate policy to increase industrial employment at almost any cost. However one might judge its consequences, it would be the foundation of Canadian economic policy for the next one hundred years.

THE CANADIAN ECONOMY IN THE LATE NINETEENTH CENTURY

The late years of the nineteenth century – from Confederation in 1867 to the end of the century – have traditionally been seen in Canada as years of little economic progress, even of stagnation. The years immediately following Confederation were good ones for the economy but the worldwide depression that began in 1873 is viewed as having ushered in a long period of sluggishness in the Canadian economy. This interpretation was not based on extensive quantitative evidence but more on impressions and contemporary comment. Political and business leaders in late-nineteenth-century Canada were certainly discontented with what they saw as a failure of the economy to progress satisfactorily.

The lumber industry, which had long been the leading export sector of the economy, appeared to have saturated its markets and was no longer expanding so rapidly. Wheat exports, which had propelled the Canadian economy in the two decades leading up to Confederation, had diminished to the point where by 1868 Canada had ceased to be a net exporter of wheat and flour. No new major export staple had arisen to take the place of these two mainstays. The development plan of settling the vast territory acquired in the west to produce wheat for the world market was not working out. Perhaps more seriously, Canada was viewed, by the common standards of the day, as having failed to industrialize; that is, it did not have a modern coke-fueled iron industry, it had made limited progress in the development of a factory cotton textile industry, and it had taken only modest steps in the adoption of steam power. In short, it was not undergoing an Industrial Revolution along British lines. The upshot of this weak performance of the Canadian economy, and a problem that especially irked the country's political leadership, was that large numbers of Canadians were abandoning their country to emigrate to the United States.

More recently, with the advent of pioneer attempts to measure Canadian historical national income, and as economic historians came to pay more attention to statistical evidence, this period of Canadian economic development has been cast in a more optimistic light. The first historical GNP estimates, introduced by O. J. Firestone, indicated that the average rate of growth of real per capita income over the period 1870 1900 was not notably slower than the average for the longest period for which measurement could be made (1867–1955). These early GNP estimates were essentially based on decennial census data for 1870, 1880, 1890, and 1900. Moreover, their reliability was in some doubt. Nevertheless, they indicated that in the first two intercensal decades after Confederation, 1870–1880 and 1880–1890, the rate of income growth was commensurate with the experience of growing industrial countries generally. Only the last decade of the century showed a real slowdown in the rate of economic progress. At the very least, real per capita income was growing over the whole period at an average rate of just a little over 1 percent per annum. That may not be rapid growth by international historical standards, but neither can it be characterized as "stagnation." ithin the period there was at least one decade, 1880–1890, when growth appeared to have been relatively rapid.

Other quantitatively oriented economic historians picked up this revisionist theme and questioned the proposition that Canada was failing to industrialize in the late nineteenth century. Focusing on the growth of manufacturing industry, they have shown that there was substantial expansion for two decades and that only in the 1890s did the pace of industrialization slow down. Moreover, they have emphasized that Canadian industrialization in this period was broadly based. It was not simply an expansion of a few natural resource–processing industries. Since an alleged failure to industrialize lay at the heart of the older, traditional complaints about the economy in the post-Confederation period, statistical evidence of relatively rapid industrial growth has served to cast the performance of the whole economy in a more optimistic light.

Recently a greatly improved set of historical national income statistics for Canada has been produced by M. C. Urquhart and his associates. These are more solidly based than were the pioneer estimates of Firestone and provide reliable annual figures for the period from 1870 onward. That arbitrary starting date, dictated by the first national census as a benchmark, is still a serious limitation. Nevertheless, we are able to make a fresh reexamination of the performance of the Canadian economy in the last three decades of the nineteenth century. The new data give a quite different portrayal of the economy than has been offered in recent, "optimistic" writing, a portrayal that is rather more attuned to the earlier, "pessimistic" interpretation.

It is widely accepted that the growth rate of the Canadian economy accelerated sharply around the end of the nineteenth century. Growth of GNP was substantial in 1897, after a notably depressed year in 1896, and continued rapidly for many years thereafter. The average rate of increase of real GNP over the period 1870–1896 was 2.36 percent per annum. That is relatively modest by the standards of developing industrial economies and well below the 4.59 percent rate experienced from 1896 to 1926. It is also well below the rate of 4.17 percent posted by the U.S. economy in the period 1870–1910.

Any division of the late-nineteenth-century years into sub-periods runs afoul of the sticky problem of separating longer-term trends from short-run business fluctuations. The traditional division of the period into intercensal decades is especially plagued by that problem, since 1880 lay below the long-term trend, while 1870 and 1890 were slightly above it. Examination of the new annual GNP series suggests that the late-nineteenth-century years might tentatively be examined in five sub-periods. The first sub-period, from 1870 to the average of 1876/77, is somewhat artificial – the consequence of having an arbitrary initial date in 1870. It might be regarded as little other than a broadening of that arbitrary beginning. It combines the early years of the decade of the 1870s, prosperous years at the end of an extended boom that may have begun as early as the middle of the preceding decade, with the early years of the Great Depression that began in 1873 or 1874. It does serve to point up that the depressed years of the late 1870s did not experience an output decline below the prosperous years of the beginning of the decade. Actually, real per capita income in 1876/77 was just slightly lower than in 1870 and aggregate output was almost 10 percent higher. What is most notable is that the stagnation of the economy was largely located in agriculture, a sector that still comprised almost 40 percent of Canadian national income. Agricultural output failed to grow at all over the 1870–1876/77 period. By contrast, output originating in manufacturing and in trade and services increased 16 percent. That is not strong growth but it is hardly stagnation. All sectors of manufacturing, with the exception of an especially depressed leather products industry, experienced increased output. Food and beverage manufacturing and transport equipment had notably strong growth. Value added in construction did not decline but rose over this period. Total exports also increased. It was already pointed out in the preceding section that lumber, Canada's leading export, held up through most of the depression period and collapsed only with a big drop in sales to Britain in 1879. By that time the U.S. and Canadian economies were in recovery. Over all, the Canadian economy made no gain over the years from 1870 through 1878.

The depressed condition of Canadian agriculture centered mainly on the ge and important livestock sector. During the Civil War and the postwar Reconstruction periods Canada had built up a strong export trade in feeder cattle and horses to the United States. That trade collapsed with the arrival in the American midwest of cattle from the Texas plains. Livestock production in Canada dropped sharply. Other areas of agriculture continued to grow but not by enough to provide an offset. Dairy output grew strongly, but it was still too small a sector to have much overall impact. The stagnation in the Canadian economy in this period was an agricultural, not an industrial stagnation, and concentrated heavily in one large sector of agriculture at that.

By 1879 Canadian real GNP had finally risen above the level of any previous year. The depression was over and was followed by three years of especially rapid growth. This was the most vigorous period of growth in the last three decades of the nineteenth century. Real GNP went up at a rate of more than 6 percent per annum. The expansion was broadly based; output was up substantially in all sectors of the economy. Lumber and grain exports rose sharply and, in proportional terms, dairy exports went up especially strongly. Total agricultural output was up in all sub-sectors, with wheat and other small grains leading the way. Manufacturing output also increased substantially in this period – partly the reflection of a strong resurgence of the lumber industry, but there were large expansions as well in iron and steel products, in clothing and factory textiles, and food and beverages. The leather products industry made a good recovery from its depressed condition of the previous period. One can only speculate about the expansionary influences of two features of this period. There was a burst of rapid settlement in Manitoba – a first hint of fulfillment of the grand Canadian plan of nation building. Second, the National Policy tariff had been introduced in 1879, and much of the manufacturing expansion may have represented the initial effects of the tariff in putting to work otherwise idle resources, especially older plant capacity, and also inducing the construction of much new, up-to-date plant capacity. The strong expansions in clothing and textile manufacturing may reflect something like that, but the in-depth studies needed to reach firm conclusions have not been carried out. Whatever the ultimate causes, this expansion was the strongest of the entire late-nineteenth-century period. Fifty-nine percent of all the increase in per capita income that occurred over the 1870–1897 period came in this short 1879–1882/83 sub-period.

Rather surprisingly, the remainder of the decade of the 1880s was a period of little change. From 1882/83 to 1887/88 GNP went up less than 10 percent overall; per capita GNP, only 4 percent. Earlier writers have depicted the decade of the 1880s as a period of growth, the most successful decade of the late nineteenth century. Most of the development, however, came at the very beginning and then at the very end of the decade. Another very slow growth period spans the middle years of the decade – interestingly enough, the period in which the Canadian Pacific Railway was constructed. The main weakness of the economy once again lay in agriculture. Total agricultural output went down, and there was decline in all sectors of agriculture except dairying, which experienced a small increase in output. Prices of good agricultural land in Ontario fell. The value of agricultural exports declined, especially those of grains. That export decline reflected mainly a fall in prices on world markets. Manufacturing output increased by a small amount, but only for iron and steel products and clothing was the increase anything more than trivial.

The very slow growth of the 1880s was broken by a sharp upturn between 1887/88 and 1891/92. In that short period Canadian output again grew fairly rapidly, although not so rapidly as in the growth period ten years earlier. The average annual rate of growth almost doubled. This time agriculture did not lead; manufacturing and other primary sectors such as mining and fishing were the main growth sectors. Exports experienced a healthy increase, with dairy products and fish leading the gains. All sectors of manufacturing industry showed prominent gains in output, although the increases were especially strong in clothing and food and beverage manufacturing. Agricultural output did not increase much, but at least did not decline. Dairying was again the strong sector, but wheat production also increased as Manitoba wheat began to have an impact. Overall, though, the increase in agricultural output was less than 10 percent.

From 1891/92 until late in the decade there was virtually no further growth in the Canadian economy. GNP per capita actually declined to 1896, which was a depressed year, and over a period ending in 1894/95 showed no growth at all. Total output increased by less than 5 percent. This was a period of very pronounced decline in prices, and that showed up in a weak performance of exports. The value of all agricultural output fell, even though dairy production went up strongly. Manufacturing output also declined, and there was a collapse of construction. Lumber production declined despite a modest increase in exports of lumber over the period. The output of the iron and steel industries went down substantially. Only clothing manufacturing and non-metallic mineral products showed any increase.

An overall impression of the last three decades of the nineteenth century, as revealed in the newly available historical national income statistics for Canada, is one of a slowly growing economy – one that was almost marking time, with a couple of short, fairly strong bursts of economic growth. Four-fifths of all the increase in per capita income that occurred between 1870 and 1896 came in fewer than one-third of the years of the period. The economy was able to make progress, especially in the industrial sector, but seemed to have difficulty sustaining growth. It would be hard to attribute the causes to external influences. There was no general collapse of export markets, although the loss of live-animal markets in the United States in the 1870s and of the malting barley market after the U.S. tariff hike in 1891 were serious blows. Canada's leading export, lumber, which had provided a strong base for economic growth through much of the nineteenth century, was losing its dynamic. The settlement of the prairie west still had little impact, and the established agriculture of the older regions of the country was unable to provide a substantial enough foundation for large scale exports. Dairy production, to supply the factory cheese industry, grew rapidly, but at best it provided only a partial offset for losses of export markets for other agricultural products. The domestic urban market was expanding, but not rapidly enough to invigorate agriculture across the country.

Manufacturing industries showed some impressive bursts of growth over this three-decade period, but developments were not sustained. Apart from sawmills and cheese factories, manufacturing was not for export but was essentially import-competing catering to the domestic market. That market, in turn, was weakened by heavy emigration and by a faltering agricultural base. The latter problem has not received much attention in past writing on Canadian economic history but would appear to stand out as the source of much of the difficulty. One might argue, in contrast to the earlier pessimistic writers, that Canada's shortcoming in this period was not so much industrial as agricultural. Total agricultural output failed to grow after about 1882, and farm output per worker in 1896/97 was no higher than it had been in 1870/71. Admittedly, there were some promising areas of agricultural development, but too much of the large farm sector remained stagnant. Had agriculture grown more vigorously, the manifest successes in manufacturing for the domestic market might have been considerably more extensive and have had greater aggregate impact.

It is not easy to come to a satisfactory net appraisal of the experience of the Canadian economy in the last three decades of the nineteenth century. All national economies exhibit variations by region, and it is not at all clear that the lagging, rural regions of Canada were any more substantial a part of the Canadian economy than, for example, the rural south of the United States. It may be more pertinent that the progressive sectors of the Canadian economy were not as strong or as vigorous in their growth as those of its southern neighbor. Both economies benefited greatly from the important changes in technology that came at the end of the nineteenth century – electricity, chemicals, and the internal combustion engine. It is also the case that the greatest impact of those developments came in the years after 1896. The late-nineteenth-century Canadian economy lacked size at a time when economies of large-scale production were coming into prominence. Partly because of that, the development of a modern steel industry in Canada lagged about twenty years behind the

United States. At the same time Canada was gaining in the extent and breadth of manufacturing, but not to the degree that could be seen in the United States. Canada was slow in replacing its older industries with new, modern industries in a really substantial way. Steel was not displacing iron; steam-powered iron ships were not being built in place of wooden sailing ships, and Canada did not yet have the mineral resource base that was so important to the United States at the time.

With due recognition of the slower growth of the Canadian economy toward the end of the century, we should not lose sight of the substantial accomplishments of that economy. Those seem largely to be attainments of the third quarter of the century. Canadians had settled an extensive part of the North American continent and transformed it into a prosperous agricultural economy. They had made effective use of their abundant forest resources to become the world's foremost exporter of wood. They had initiated a successful industrialization. All this had created a nation that was well on its way to joining the list of world leaders in economic prosper- . By the last decade of the nineteenth century Canada was not only a nation with high income but in per capita terms ranked among the highest in manufacturing production as well. That was accomplished in the shadow of a much larger and even more prosperous economy with which Canada shared the continent. All too often that placed Canada in a diminished light. It is important, then, to appreciate the attainments of the nineteenth-century Canadian economy. At the same time we have to recognize that Canadian development was not moving forward with as much vitality in the last quarter of the century. It appears to have depleted its opportunities for development and to have been awaiting the shift in circumstances that would permit it to enter the next century in a greatly invigorated way.