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Removing Barriers to Investment, Competition and Movement: A Historical Lesson

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EXECUTIVE SUMMARY

Between 1896 and 1913, Canada experienced the most significant and dynamic period of economic growth in its history. Often referred to as Canada's golden age, this era marked not only the fastest growth rate the country has ever seen but also a rare moment of economic convergence with the United States. This growth period was once assumed to arise from a "wheat boom" in Western Canada, but later research shows that this season of prosperity was driven by identifiable and replicable factors — key policy decisions and institutional choices that fostered openness, competition and investment opportunities.

A fortuitous combination of skilled labour immigration, large-scale foreign investment and extensive capital infrastructure development, particularly in railways and agriculture, propelled the boom. This growth arose from policies that Clifford Sifton implemented during his years as federal minister of the interior, 1896–1905, a time when Canada welcomed newcomers, encouraged investment and allowed market forces to operate freely. Sifton's policies created an environment where talent and capital could move relatively easily, enabling productivity gains and rapid development across sectors.

Understanding this historical context is essential because it offers a blueprint for modern economic growth. The conditions that enabled Canada's early 20th-century expansion — openness to immigration, investment and competition — are not relics of the past. They are policy levers still available today, but Canada must choose to use them. What makes the current 21st century economic landscape frustrating is not a lack of knowledge about what drives prosperity, but a lack of will to apply that knowledge.

Despite knowing what worked in the past, Canada today faces a persistent and troubling income gap with the United States. This gap endures not because of structural inevitabilities, but because of self-imposed barriers. Restrictive immigration policies, protectionist regulations, limited internal and external competition and sluggish infrastructure investment have contributed to a slower rate of economic growth. These constraints are policy choices, just as the openness of the earlier period was a choice.

The evidence from the 1896–1913 boom presents a compelling argument for rethinking current economic strategies. A renewed commitment to openness — in terms of immigration, capital flows and market competition — could unlock a new phase of Canadian growth. Removing artificial barriers and fostering a dynamic economic environment would allow Canada to leverage its full potential, just as it did more than a century ago.

The lessons of history are clear and still relevant. Economic dynamism does not arise spontaneously; it is the result of intentional policies and institutional frameworks. The success of the 1896–1913 period was no accident, and its core drivers are still accessible today. Canada can choose to remain on a path of stagnation or it can decide to re-ignite growth by embracing the openness that brought prosperity in the late 19th and early 20th centuries.

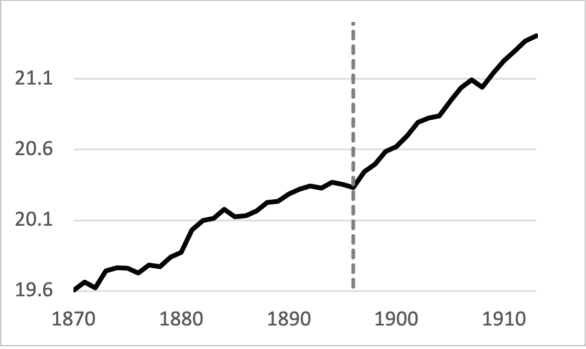
In 1913, on the eve of the Great War, economist Oscar Skelton published one of the most important works of Canadian economic history, *The General Economic History of the Dominion, 1867–1912*. Having earned his PhD from the University of Chicago in 1908, he was among Canada's earliest professionally trained economists. In that book, he describes a nation that was coming of age as a result of its exceptional pace of economic growth.

Like many older historians who carved the past into neatly bounded eras, he labelled 1867–1896 Canada's "days of trial," when economic growth was unimpressive and merely laid the foundations for the future. By contrast, 1896–1913 was the "coming of prosperity," indicating a substantial structural shift (Skelton 1913). National income statistics were in their infancy when Skelton was writing, so statisticians were unable to measure this change precisely, but it didn't seem to matter. The post-1896 growth appeared evident and everywhere; as Canada's population surged, new industries emerged, the volume of traded goods rose sharply and average wages rose faster than prices.

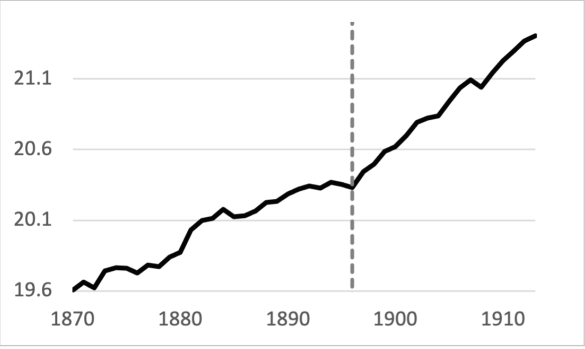
Today, subsequent national accounts estimates allow us to trace Canada's growth back to 1870 and compare it internationally (Bolt and Van Zanden 2024; Geloso and Hinton 2020; Jordà, Schularick and Taylor 2017; Müller, Xu, Lehbib, et al. 2025; Urquhart 1993). Growth in the "days of trial" was not as sluggish as Skelton supposed. Between 1870 and 1895, Canada grew roughly as fast as the United States, placing it among the world's fastest growing economies. Although richer than most countries, Canadian living standards still only hovered between 50 per cent and 60 per cent of the U.S. level with little change from 1870 to 1895. As we show in Figure 1, from 1896 onward, however, Canada's real GNP per capita increased by about four per cent per year on a compound annual basis, with total real growth almost hitting seven per cent per year. Such growth is faster than Canada has sustained over any comparably long period before or since, and among the fastest rates of growth in the world at the time. In 1895, Canada's GNP per capita equalled 53 per cent of the U.S. level, but by 1913 it had reached 70 per cent. Put differently, in less than 20 years, Canada closed 2/5 of its gap with the United States. Despite his overly pessimistic prognosis pre-1896, however, Skelton's post-1896 label seems apt — it was the coming of prosperity.

Figure 1. Real GNP in Canada 1870–1913 (log scale)

(a) Total GNP



(b) Per Capita GNP



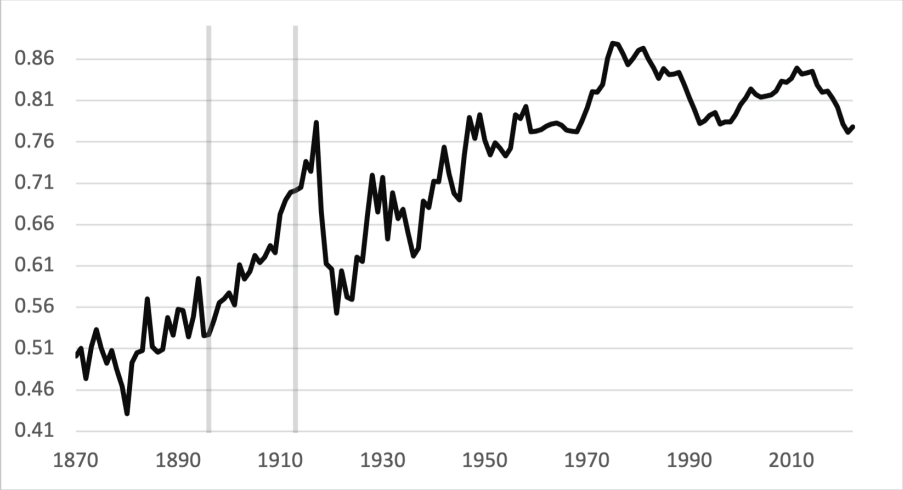
Sources: Geloso and Hinton (2020); Urquhart (1993)

Note: Here we present gross national product (GNP) rather than gross domestic product (GDP) due to data limitations. In practice, for our purposes here, GNP and GDP are roughly interchangeable; thus, when we refer to Canadian GDP or Canadian GNP, we mean Canadian output.

Pulling back and viewing Canada's relative economic performance with the U.S. over a more extended period, the performance between 1896 and 1913 looks even more impressive. Since the 1960s, Canada's GDP per capita has fluctuated but hovered around roughly 80 per cent of

the U.S. level. Consequently, looking from 1870 to the present, Canada achieved about 2/3 of its total catch-up in the brief 18-year span between 1896 and 1913. Figure 2 shows this pattern.

Figure 2. Canada's Relative Real GDP Per Capita, Relative to the U.S., 1870–2022



Sources: Bolt and Van Zanden (2024); Geloso and Hinton (2020); Urquhart (1993)

Note: The pronounced movements in 1914–20 and 1939–47 are artifacts of how national accounts record wartime spending and of the fact that Canada and the United States entered and demobilized at different times. They should not be read as comparable shifts in living standards. For discussion, see Geloso (2025), Geloso and Pender (2023) and Geloso and Reilly (2025, forthcoming).

Something exceptional happened in Canada between 1896 and 1913.[1] The chapter on this period of history can be used to identify policies that could help replicate that performance today. While this period has commonly been dubbed the "wheat boom," recent research suggests there was more to it than agriculture and grains (Bologna Pavlik, Geloso and Pender 2025). The emerging literature finds that massive capital investment drove most of the boom and raised the productive capacity of Canadian workers and firms, producing large income and wage gains. At the time, legal barriers to labour flows, capital and competition — especially from abroad — were much lower than today. Our key lesson is therefore straightforward: If Canada can reduce barriers that allow skilled labour into the country and reduce the barriers to competition and foreign investment, it will likely see real per capita growth much closer to the amazing levels seen between 1896 and 1913.

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[1] While beyond the scope of this paper, it is important to briefly point out that not everyone shared this exceptional growth and what was a dream scenario for some was a nightmare for others, most notably for Indigenous peoples.

Although the Crown proceeded by treaty rather than wholesale violent seizure, the Numbered Treaties (1–7 negotiated from 1871–77) were negotiated amid famine and disease and are widely judged inequitable: First Nations ceded vast territories in exchange for reserves, annuities and promised relief that was chronically underprovided (Frideres 2020; McQuillan 1980; Slattery 2015; Starblanket 2019; Tobias 1983). With bison herds effectively destroyed by the mid-1880s, federal rationing regimes both failed to meet subsistence needs and were wielded to coerce reserve settlement (Daschuk 2019; Feir, Gillezeau and Jones 2024). Overcrowded residential schools with poor ventilation and inadequate diets became hot spots for tuberculosis and other infectious diseases (Clark, Kelley, Grange, et al. 1987; Milloy 2017). To further restrict freedoms following the North-West Resistance of 1885, Ottawa imposed the pass system and additional restrictions that curtailed movement, farm technology and market access, entrenching economic dependency (Carter 1989; Thistle 2014; Tobias 1983). In short, the institutional foundations that enabled the non-Indigenous Western settlement during the period under study were built alongside policies that dispossessed and impoverished Indigenous peoples.

While not adequately addressed here, we hope future research will further examine the relationship between the remarkable real Canadian growth between 1896 and 1913 and the simultaneous subjection of Indigenous peoples. For what it's worth, because our theory is that the post-1896 growth did not primarily rely on wheat (and therefore Western settlement), the growth likely took place despite of, not because of, this subjugation.

HISTORICAL BACKGROUND AND THE TRADITIONAL WHEAT BOOM NARRATIVE

In July 1867, the British North American colonies of Nova Scotia, New Brunswick and the Province of Canada (now Ontario and Quebec) formed a federal union, creating the Dominion of Canada. With the old colonies' traditional reliance on the Atlantic and the St. Lawrence Seaway, the new country had no jurisdiction west of the Great Lakes. But in 1870, the federal government purchased Rupert's Land and the North-West Territory from the Hudson's Bay Company, which had up to then largely been the only European presence in the area. This significantly increased Canada's geographic size, as the newly purchased lands stretched from northern Quebec to the Rocky Mountains and south from the U.S. border, north up through the Arctic.

The Métis communities living in Rupert's Land at the time of the sale, particularly those living along the Red River, were concerned that Canadian governance would erode their freedoms, including preserving their language and claims to their lands.[2] In response, led by Louis Riel, they declared their own government in order to negotiate their entrance into the Dominion.[3] This resistance helped push forth the creation of Manitoba in July 1870.[4]

On the Pacific Coast, the young colony of British Columbia also joined Confederation in 1871.[5] Part of the agreement of B.C. joining Canada was a promise to connect it to Ontario and the East. In fact, from the outset, the land purchase from the HBC was not only to gain access to natural resources but also to be able to build railways to the Pacific and help protect against America's manifest destiny.

The Canadian Pacific Railway (CPR) was founded in 1881 with the ambitious goal of constructing this transcontinental railway. By 1885, this goal was achieved, marking a pivotal moment in Canadian history. It opened the West to non-Indigenous people and enabled the rapid mass transportation of people and goods from coast to coast for the first time. But despite the country's growth in connectivity and geographic size between 1867 and 1885, non-Indigenous populations remained sparse in the West, and economic activity largely remained confined to the original Canadian colonies east of the Great Lakes.[6] A confluence of factors began to change this Western lull at the beginning of 1896. According to one narrative, Canada's exceptionally rapid expansion from 1896 to 1913 was predominantly export-led growth, and in particular grain

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2 Indigenous groups — the First Nations, Métis and Inuit — were not consulted or brought into the negotiation of sale, despite living on the land.

3 For more on the Red River Resistance, see Nault (2022).

4 Ultimately, the Métis' concerns that Canadian governance would erode their freedoms were well founded. A Supreme Court of Canada decision in 2013 ruled that the *Manitoba Act* 1870 failed to adequately protect the rights of the Métis as promised. See O'Toole (2014).

5 Prince Edward Island joined in 1873 and Yukon Territory in 1898. Alberta and Saskatchewan were carved out of the purchased HBC lands and officially became provinces in 1905. Though outside of our period of study, Newfoundland and Labrador joined in 1949 and the Territory of Nunavut in 1999.

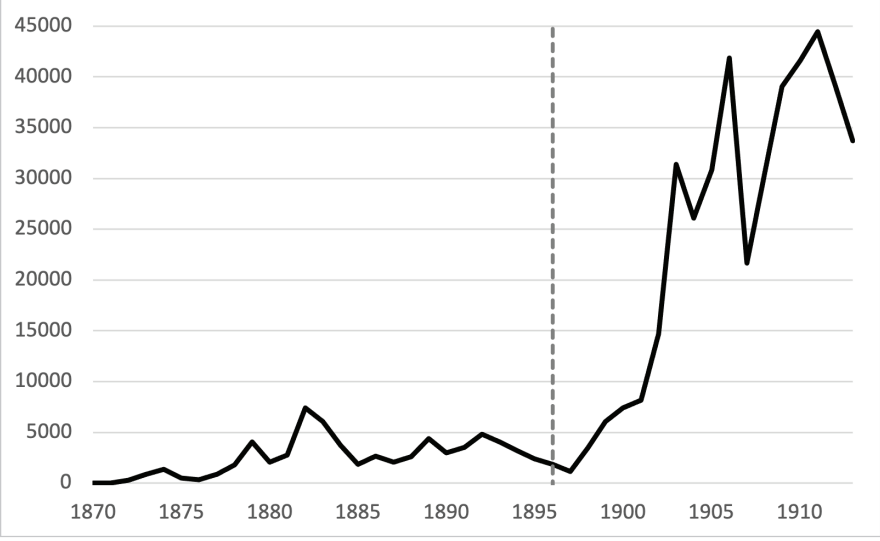
6 One major exception to this claim would be Indigenous economic activity, which had been occurring west of the Great Lakes in large scale long before 1885. For example, Indigenous Nations on the Prairies traditionally had economies centred around bison. As Feir, Gillezeau and Jones (2024) point out, the bison economy was highly specialized and all parts of the bison were used in goods, foodstuffs and textile manufacturing, allowing the Plains people to be some of the richest and healthiest in the world. Further west, Nations along the Pacific Coast showed remarkably high levels of specialization, wealth and a vibrant arts scene, supported by elaborate gift-giving networks (Pender and Gross 2025). However, on the Prairies, market forces in Europe led to the rapid slaughter of bison in Canada and the U.S. beginning in the 1870s (Taylor 2011). This rapid depletion of their primary resource, coupled with devastating outbreaks of smallpox (initially transmitted by Europeans), severely reduced Indigenous populations. Those who survived the smallpox outbreaks were increasingly becoming impoverished and desperate around the time of the purchase of Rupert's Land and of B.C. joining Canada (Daschuk 2019). In the Pacific Northwest, repressive government policies — including the forced imprisonment of Indigenous peoples for taking part in their traditional economic activities — beginning in 1884, along with incredibly high mortality rates due to European disease (First Nations Health Authority 2025), decimated these once-flourishing economies (Cole and Chaikin 1990; Johnsen 2016; Pender and Gross 2025; Trosper 2009).

(or wheat) exports — hence the name "wheat boom." Classic staple interpretations of this period (e.g., Innis 1933, 2017 [1956]; Mackintosh 1923, 1936) highlight the role of Western settlement and the rapid extension of farm acreage for wheat production in the West, with railway and grain-elevator networks feeding Central and Eastern Canadian markets (notably the Winnipeg Commodity Exchange's wheat futures from 1904) that linked Prairie farms eventually to British and European demand.

Correct or not, the idea of a wheat boom captured Canadians' imaginations early on. The Canadian government's Rowell–Sirois Commission of 1940 declared that this era marked "a vast and sudden transformation … by the magic of wheat" (Smiley 1963). Like Innis and MacIntosh, the commission's report concluded that Western settlement and the accompanying farming and wheat exports dramatically lifted non-Indigenous Canadians' living standards post-1896. The idea of a wheat boom became so popular that it is still taught through history and economic history textbooks today (Naylor 2006; Neill 1991; Norrie, Owram and Emery 2008) and has often been heralded as an obvious example of successful export-led growth (Altman 2003).

Whether or not Western settlement and its related exports truly were engines of growth, it is clear that the Canadian Prairies underwent dramatic change between 1867 and 1913. The federal *Dominion Lands Act* of 1872 was established partly to help promote non-Indigenous settlements along the CPR. Modelled after homesteading legislation in the U.S. from a decade earlier, it provided the legal title for a plot of land to anyone willing to immigrate to the Prairies and establish a farm there.[7] Figure 3 plots the total annual land patents issued to homesteaders in what is now Manitoba, Saskatchewan, Alberta and British Columbia between 1870–1913. New migration to the West was initially slow but picked up significantly after 1896. As further evidence, Table 1 shows the number of residents per province as reported in census years, which essentially confirms that non-Indigenous Western settlement only began in earnest after 1896.

Figure 3. Land Patents Issued to Homesteaders 1870–1913



Source: Urquhart and Buckley (1965)

7 An important exception, however, was that Indigenous peoples were ineligible to be homesteaders and to receive land grants (Moss and Gardner-O'Toole 1992).

Furthermore, the national account data from Urquhart (1993) provides estimates of annual nominal farm revenue from wheat sales and Urquhart and Buckley (1965) provide the annual totals of bushels of wheat available for sale from Canada. These estimates are shown in Figure 4. At the same time, there is a clear increase in total Canadian exports, at least roughly coinciding with the boom.

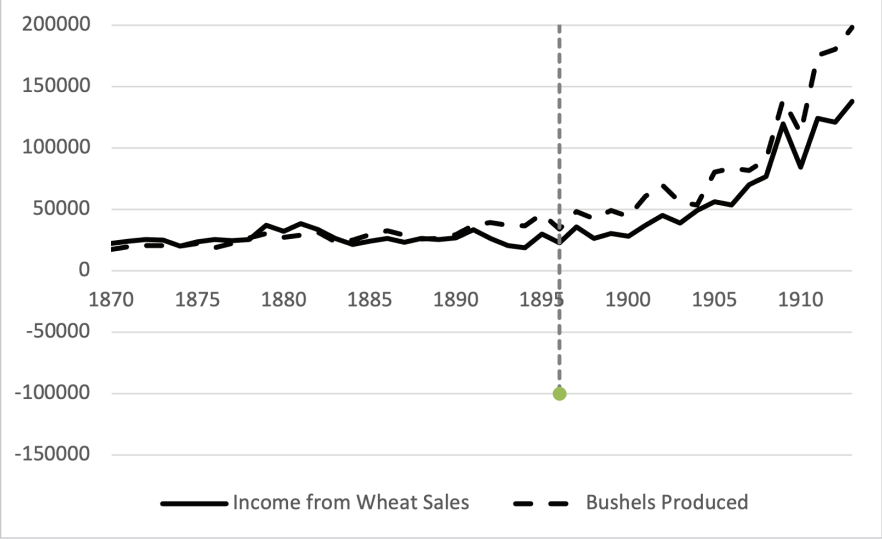
Table 1. Population West of Ontario

Year	Canada	West of Ontario	Percentage West
1871	3,689,257	109,475	2.97%
1881	4,324,810	168,165	3.89%
1891	4,833,239	349,646	7.23%
1901	5,371,315	645,517	12.02%
1911	7,206,643	1,735,620	24.08%

Source: Urquhart and Buckley (1965)

Note: Populations west of Ontario include documented populations in census years in Manitoba, Saskatchewan, Alberta, B.C. and the Northwest Territories. Alberta and Saskatchewan were created from a portion of the North-West Territories in 1905.

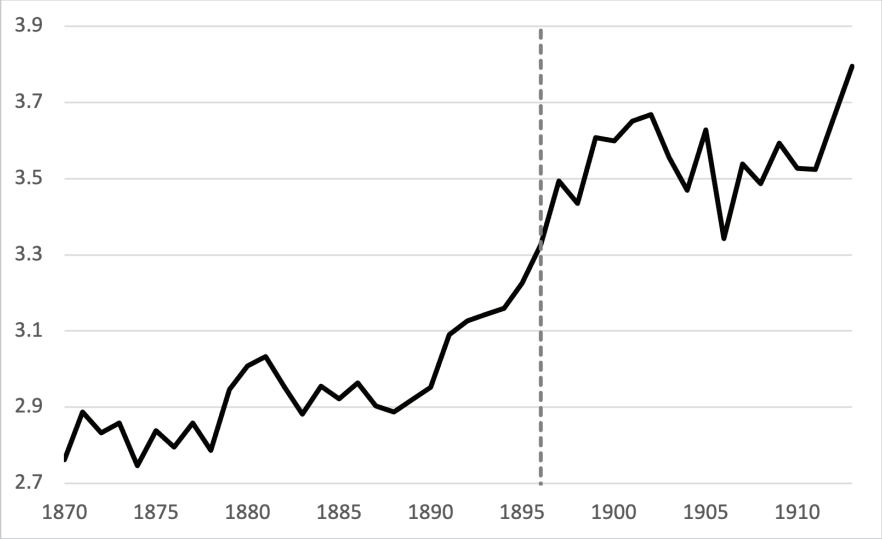
Figure 4. Canadian Wheat Production 1870–1913



Sources: Urquhart and Buckley (1965); Urquhart (1993)

At a glance, the combined picture emerging from Figures 1, 2, 3, 4 and Table 1 would appear to conform with the notion that the impressive growth post-1896 was indeed brought about by the magic of wheat. If this were the case, then despite being an interesting history, perhaps it would leave few lessons for today. Canada, so the story goes, was simply at the right place at the right time and ready to serve a sudden exogenous shock to global wheat demand. However, a large body of research would suggest that wheat exports are not the whole story, which we discuss in the following section.

Figure 5. Gross Real Per Capita Exports (logs) in Canada 1870–1913



Sources: Geloso and Hinton (2020); Urquhart and Buckley (1965)

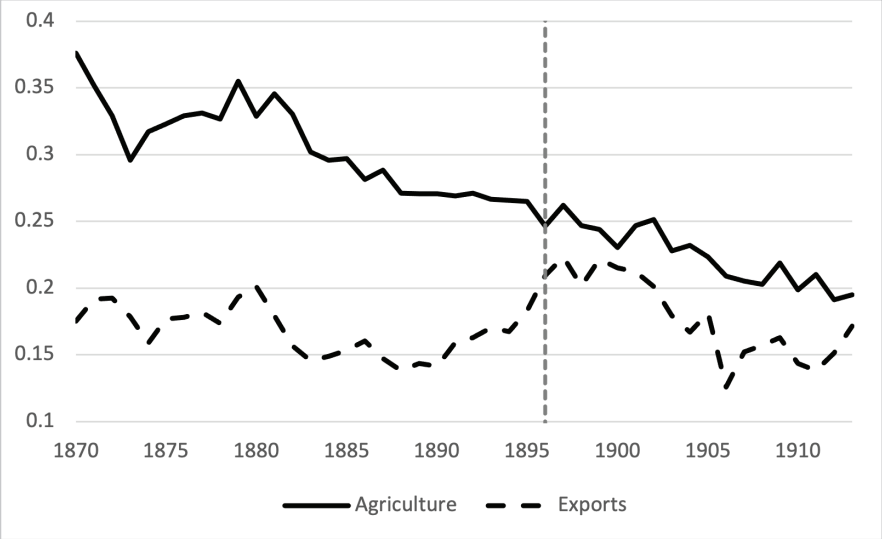
1. CANADA'S POST-1896 BOOM: MORE THAN JUST GRAIN

The first issue with the traditional wheat boom narrative is that, upon closer inspection, some of the timing in Figures 3, 4 and 5 is off.[8] As McInnis (2007) notes, what is shown in Figure 3 really represents when people received land title, but to actually get on the land and build a farm — and to get to a point where the farm is productive — takes years.[9] A closer look at Figure 3 reveals that land patents issued to homesteaders do not truly take off until 1902, and to McInnis' point, this would mean that Western wheat production could not have fed world markets on any large scale until 1904 at the very earliest, likely not until well after 1905. When looking again at Figure 4, the 1904–1905 estimate seems better aligned with when income from wheat sales and bushels of wheat available really exploded — at least eight years after per capita real GDP growth was already surging.

Unlike Western wheat production, which could only have been a significant factor well after 1896, a careful examination of Figure 5 reveals that exports actually took off much earlier than 1896 (around 1888) and began to level off in 1900. To further cast doubt on the magic of wheat, Figure 6 presents exports and total agricultural output as a share of GDP. Not only do exports not make up a permanently higher share of GDP post-1896 (as would be expected with export-led growth), but agriculture also consistently falls as a share of GDP throughout the period.

[8] This section draws heavily on the work of Bologna Pavlik, Geloso and Pender (2025) and adapts several of its figures with the authors' permission.
[9] McInnis (2007) suggests two to three years at minimum.

Figure 6. Gross Exports and Agricultural Output as a Share of Canadian GDP 1870–1913



Source: Urquhart (1993)

Another method by which wheat as the source of the boom has been called into question is synthetic control. Recently, Bologna Pavlik, Geloso and Pender (2025) have employed the synthetic control method (SCM) to build a counterfactual by constructing a synthetic Canada from similar countries, matching on economic indicators between 1875 and 1895. While they do present strong evidence that the post-1896 boom was unique to Canada, their SCM results hint at causes beyond wheat. For starters, when looking at Figures 7 and 8, despite varying the donor pools which can potentially make up the synthetic Canada, Canadian growth post-1896 is consistently well above the counterfactual.[10] This is an important point, because if an international wheat boom occurred, spurred on by global wheat demand, we would expect the treatment effect to be smaller or even absent when donor pools include agricultural economies. However, because all donor pools yield consistent results, this weakens the argument that wheat primarily drove the observed uniquely Canadian effects. To see this further, Figure 9 shows Canadian growth post-1896 relative to other wheat-producing countries on both the extensive and intensive margin. Again, here we see that Canadian growth vastly outperforms other wheat producers, a difficult fact to interpret if global wheat demand was the primary driver. In other words, the uniquely Canadian boom begs the question: if wheat is the driver, why didn't other wheat producers have similar gains? To further question that this uniquely Canadian growth was export-led, Bologna Pavlik, Geloso and Pender (2025) perform their SCM again, but this time with exports as the variable of interest. As Figures 10 and 11 show, Canada's exports have no permanent gains over the counterfactual, regardless of the initial specifications.[11]

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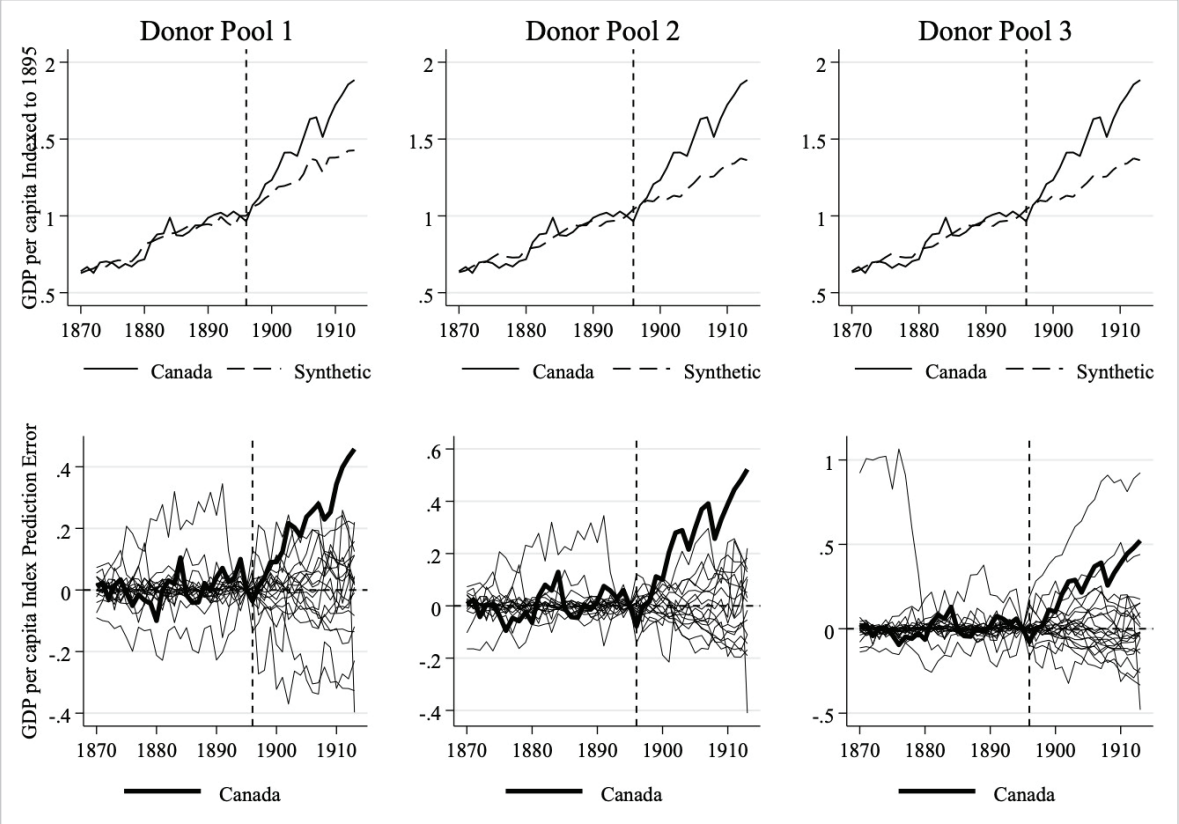
[10] Across all three donor pools, Bologna Pavlik, Geloso and Pender (2025) keep a common core of 17 small open Western economies: Australia, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Italy, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom. Donor Pool 2 consists of only these core 17. Donor Pool 1 equals Donor Pool 2 plus the United States and Argentina (two major wheat producers during this period). Donor Pool 3 equals Donor Pool 2 plus five Latin American economies: Brazil, Chile, Colombia, Peru and Uruguay, while excluding the United States.

[11] With exports, Bologna Pavlik, Geloso and Pender (2025) had to drop Donor Pool 3 due to a lack of export data for many of the included Latin American countries.

Figure 7. The Effect of Post-1896 Boom on GDP Per Capita Index (1895 = 1)



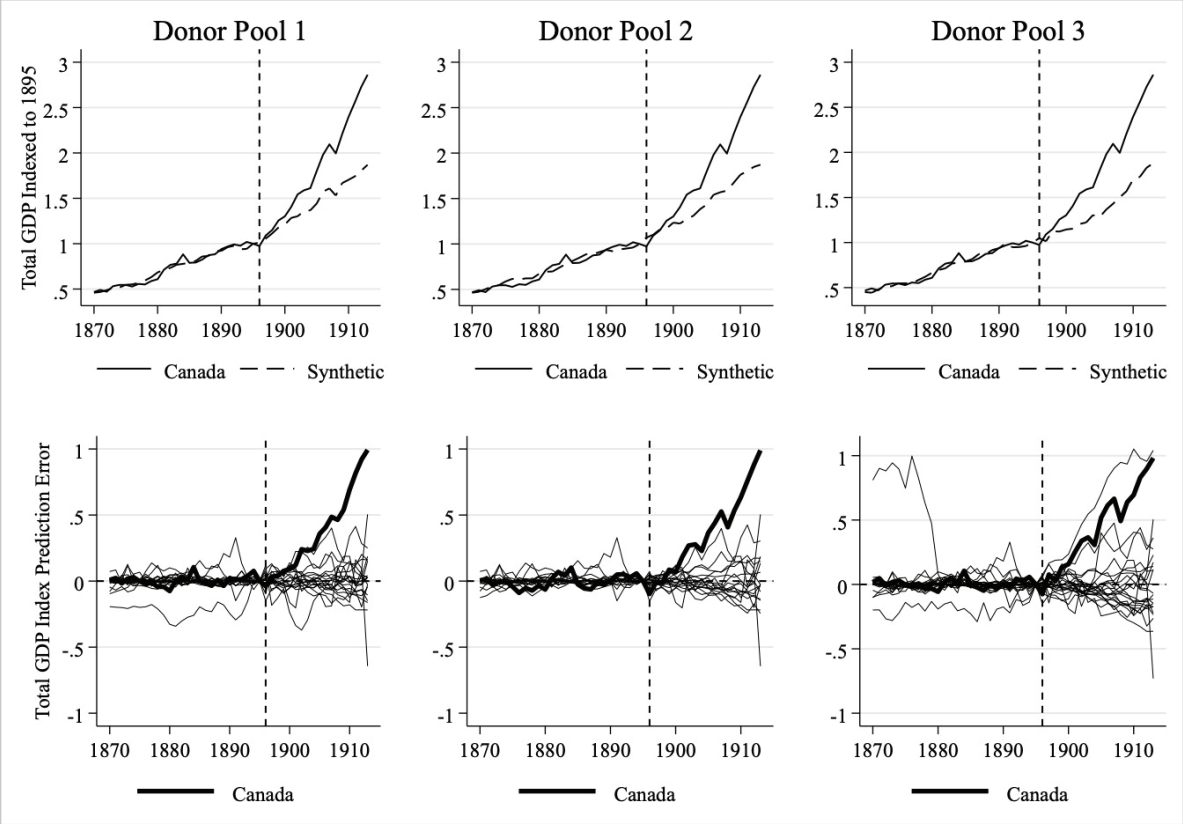
Source: Bologna Pavlik, Geloso and Pender (2025)

Notes: Donor weights for pool 1 include Australia (0.031), Portugal (0.006), Switzerland (0.361) and the United States (0.602); *p*-value is 0.150 (rank 3). Donor weights for pool 2 include Australia (0.047), Belgium (0.368) and Switzerland (0.586); *p*-value is 0.167 (rank 3). Donor weights for pool 3 include Australia (0.047), Belgium (0.368) and Switzerland (0.586); *p*-value is 0.087 (rank 2). *P*-values are calculated as Canada's rank of its RMSPE ratio (RMSPE in the post-period divided by its RMSPE in the pre-treatment period) divided by the total number of countries. Thus, it is a two-sided test and partially depends on pre-treatment fit.

1.1 THE IMPORTANCE OF FREE-FLOWING CAPITAL

Having established that wheat exports were unlikely to be the primary driver of the post-1896 boom, we can now begin to examine alternative plausible causes. McInnis (2007) aimed to flip the wheat boom narrative on its head, arguing for a form of reverse causality: the wheat production increase post-1905 was a sign of expanding productivity through better infrastructure and through the development of a manufacturing sector that pulled up the productivity of agriculture. McInnis also pointed out that there was a rise in the cheese and dairy industry, primarily driven by new technologies in transport.

Figure 8. The Effect of the Post-1896 Boom on Total GDP Indexed to 1895



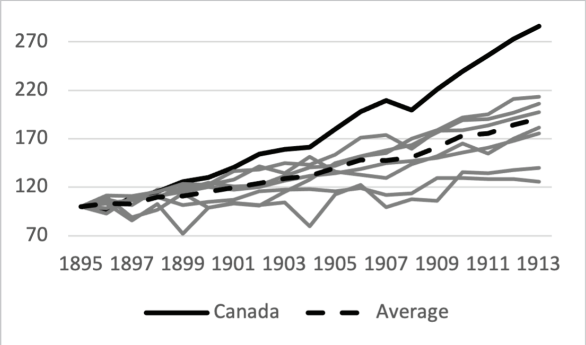
Source: Bologna Pavlik, Geloso and Pender (2025)

Notes: Donor weights for pool 1 include Australia (0.201), Austria (0.056), the United Kingdom (0.163) and the United States (0.583); *p*-value is 0.05 (rank 1). Donor weights for pool 2 include Australia (0.160), Denmark (0.185), New Zealand (0.106) and Switzerland (0.549); *p*-value is 0.111 (rank 2). Donor weights for pool 3 include Australia (0.338), Chile (0.447), Denmark (0.155) and Uruguay (0.059); *p*-values are calculated as Canada's rank of its RMSPE ratio (RMSPE in the post-period divided by its RMSPE in the pre-treatment period) divided by the total number of countries. Thus, it is a two-sided test and partially depends on pre-treatment fit.

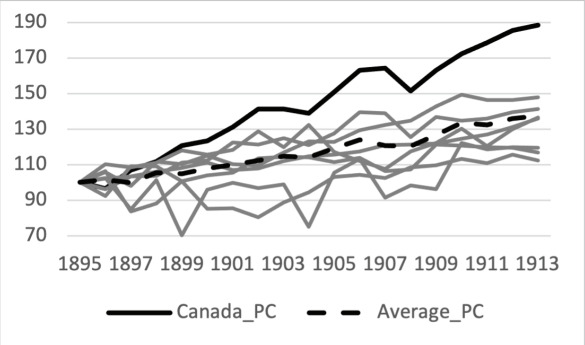
The expansion of dairy and cheese output centred mainly in Quebec and Ontario — areas settled since the late 18th century and involving much different farming practices than Western wheat and grain harvesting. In other works, McInnis (2001) points to innovation taking place in Canadian urban centres where new techniques for smelting, electricity generation and manufacturing were coming online. Essentially, there was an investment boom in manufacturing and non-agricultural industries.

Figure 9. Real Income Growth for Wheat Producers (1895=100)

(a) Total



(b) Per Capita



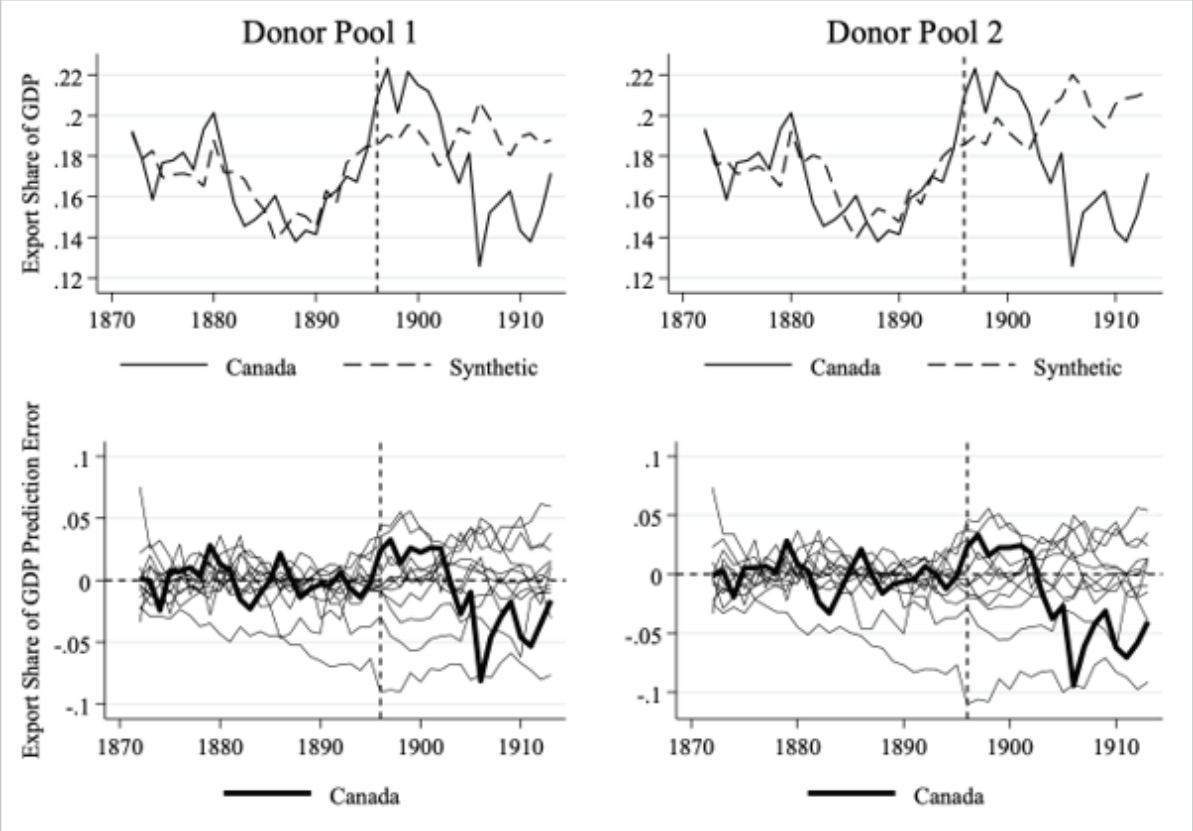
Sources: Bolt and Van Zanden (2024); Jordà, Schularick and Taylor (2017); Müller, Xu, Lehbib, et al. (2025)

Note: The following wheat producers are included: Argentina, Australia, Canada, Germany, India, Romania, Russia and the United States. By 1913, the top wheat-exporting nations were Russia (23 per cent), the United States (18 per cent), Canada (16 per cent), Argentina (15 per cent), India (nine per cent) and Australia (eight per cent), respectively (Harley 1980). Harley (1980) reports that the remaining 11 per cent of global exports came from the "Danubian Region," presumably with a portion of this coming from modern-day Romania and Bulgaria. However, no data from these two countries are available during our period. Austria and Germany, both on the Danube, are included.

That boom drove growth, as these investment-attracting sectors had little to no linkages with agriculture. For him, this was driven by other sectors. Ankli (1980) made similar points as McInnis, but argued that there were multiple additional demand shifts for primary products beyond just those for manufacturing and farming (minerals, forest products, chemicals, mining, petroleum) which caused an investment boom that stimulated growth through capital goods and later through outputs for exports.[12] The Urquhart (1993) dataset also provides capital formation measures, both as a real per capita measure and as a share of national income. We present these in Figure 12 along with exports for comparison. While investments per capita were below exports per capita in 1896, afterward they began to rise quickly and overtake exports per capita in the early 1900s. As a result, while export shares began to decline after 1896, investment shares skyrocketed. Again, this is not easily explained by wheat, as wheat is mainly exported.

[12] Keay (2007) also makes an argument consistent with this view by pointing out that natural resources as a whole generally stimulated economic growth.

Figure 10. The Effect of the Post-1896 Boom on Export Share of GDP



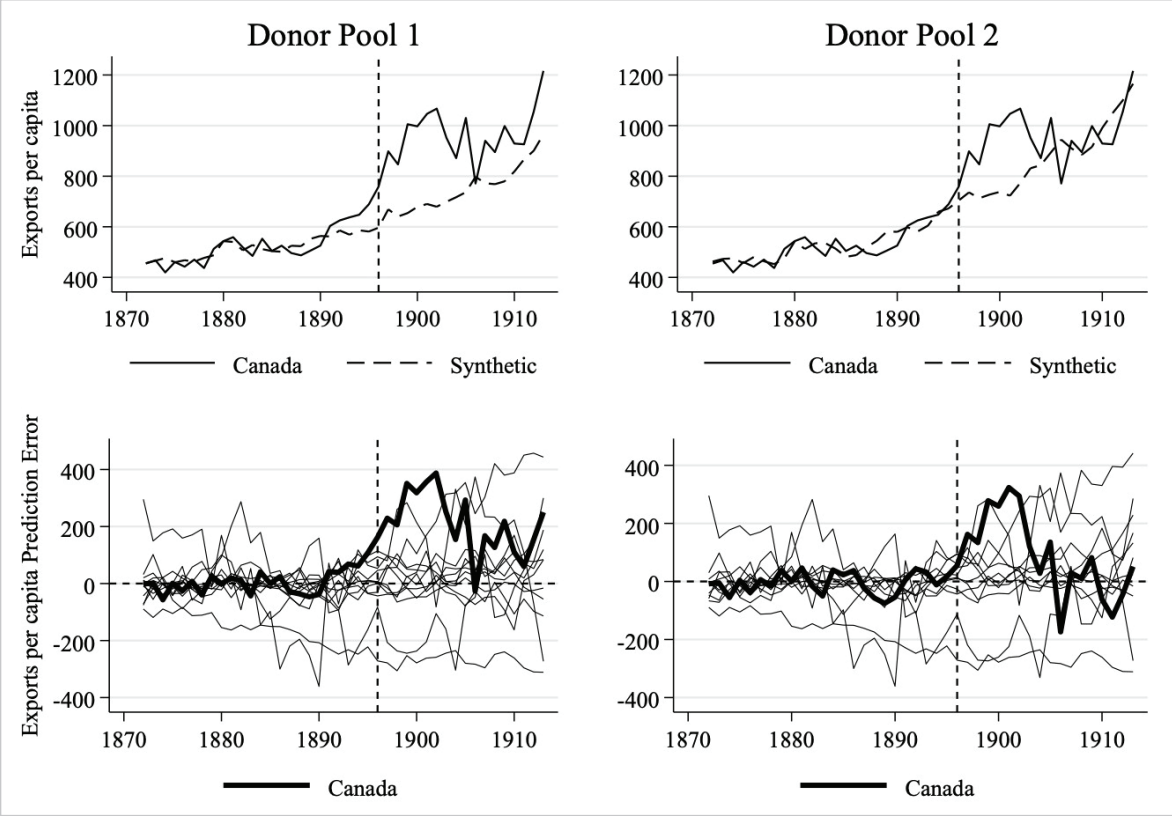
Source: Bologna Pavlik, Geloso and Pender (2025)

Notes: Donor weights for pool 1 include Australia (0.374), Finland (0.239), Germany (0.075), the Netherlands (0.062) and the United States (0.250); *p*-value is 0.333 (rank 5). Donor weights for pool 2 include Australia (0.353), Denmark (0.249), Finland (0.137) and Germany (0.261); *p*-value is 0.214 (rank 3). *P*-values are calculated as Canada's rank of its RMSPE ratio (RMSPE in the post-period divided by its RMSPE in the pre-period) divided by the total number of countries. Thus, it is a two-sided test and partially depends on pre-treatment fit.

Bologna Pavlik, Geloso and Pender (2025) again drive this point home — that it was an investment boom and not a wheat boom — with another SCM result, this time with investment as the variable of interest. As we show in Figures 13 and 14,[13] unlike Canadian exports, which appeared to have no permanent growth above and beyond the counterfactual, Canadian investments absolutely exploded. In both cases, Canada outperforms the synthetic for the majority of the period between 1896 and 1913, so much so that by 1913, investment represents close to 15 percentage points of GDP more than it would have otherwise (amounting to a difference of close to $1,000 per capita). This is clearly consistent with the above-mentioned literature emphasizing the notion of a post-1896 investment boom.

[13] Again, here Bologna Pavlik, Geloso and Pender (2025) omit Donor Pool 3 due to lack of available data for much of Latin America.

Figure 11. The Effect of the Post-1896 Boom on Exports Per Capita

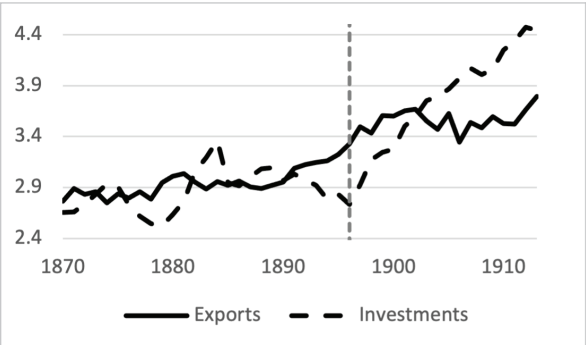


Source: Bologna Pavlik, Geloso and Pender (2025)

Notes: Donor weights for pool 1 include Australia (0.007), Denmark (0.099), France (0.113), Germany (0.018), The Netherlands (0.028), Norway (0.330) and the United States (0.405); *p*-value is 0.067 (rank 1). Donor weights for pool 2 include Australia (0.018), Belgium (0.106), Denmark (0.284), Finland (0.286), Norway (0.227) and Spain (0.078); *p*-value is 0.143 (rank 2). *P*-values are calculated as Canada's rank of its RMSPE ratio (RMSPE in the post-period divided by its RMSPE in the pre-period) divided by the total number of countries. Thus, it is a two-sided test and partially depends on pre-treatment fit.

Figure 12. Gross Exports and Investments in Canada 1870–1913

(a) Real Per Capita (Log Scale)



(b) Share of Total Income

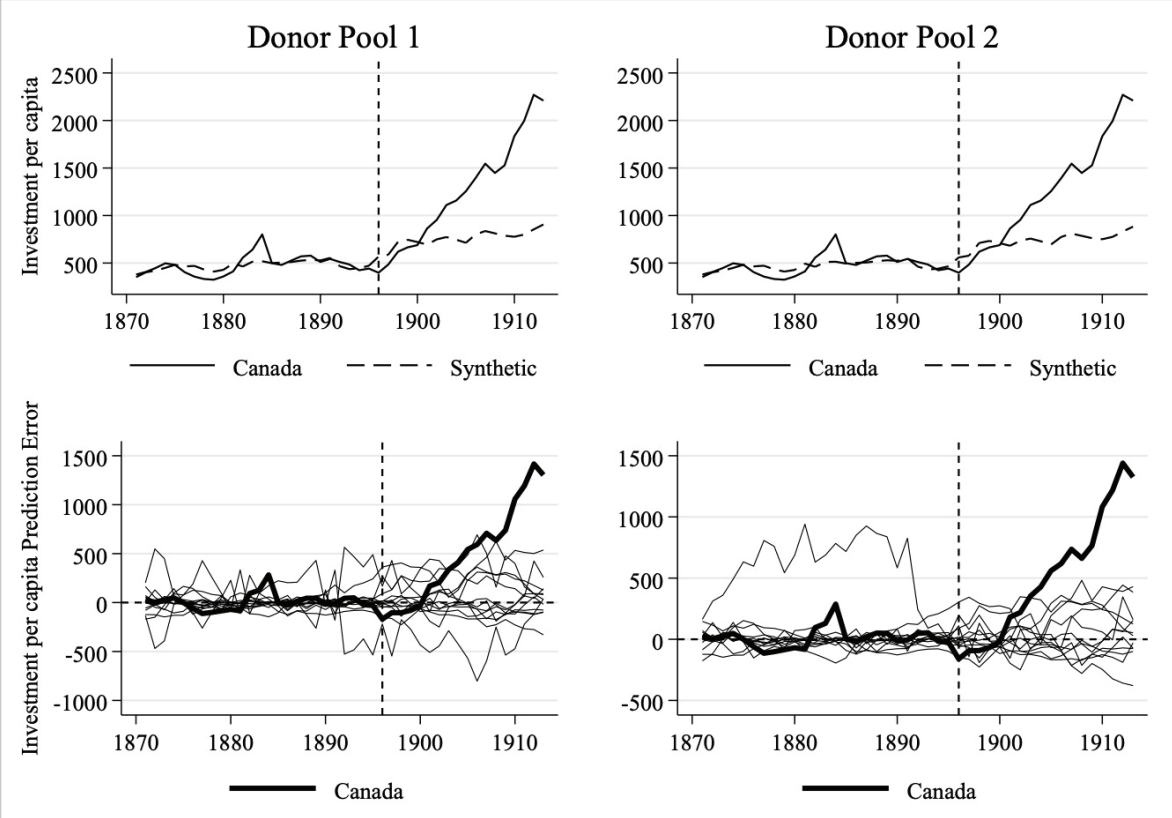
Sources: Geloso and Hinton (2020); Urquhart (1993)

1.2 LINKAGES BETWEEN INVESTMENT AND AGRICULTURE (OR THE LACK THEREOF)

To this point, we have argued that the Canadian wheat boom of 1896–1913 could be more aptly named the investment boom. But clearly differentiating the two ideas is complicated by theoretical arguments in the growth literature. The staples thesis — theories developed to understand economic growth driven by harvesting and exporting natural resources — suggests that a staple industry, like wheat, can be an engine of growth through its spillover effects into other sectors. These theories emphasize the interconnectedness of the economy, the inter-industry linkages, making it difficult to understand income growth by only looking at a single industry (Hirschman 1977; Watkins 1963). Altman (2003) summarizes this point:

The staple sector(s) need not be quantitatively the most important … even if staple production does not dominate an economy in terms of employment or output, this does not mean that staple production is not the dominant force in the economy if, by way of linkages, many of the economy's industries are dependent on staple production … Eventually staples might become of only marginal importance to the growth process as internal factors, largely independent of exports, take over the driver's seat in directing the process of economic change.

Figure 13. The Effect of the Post-1896 Boom on Investment Share of GDP

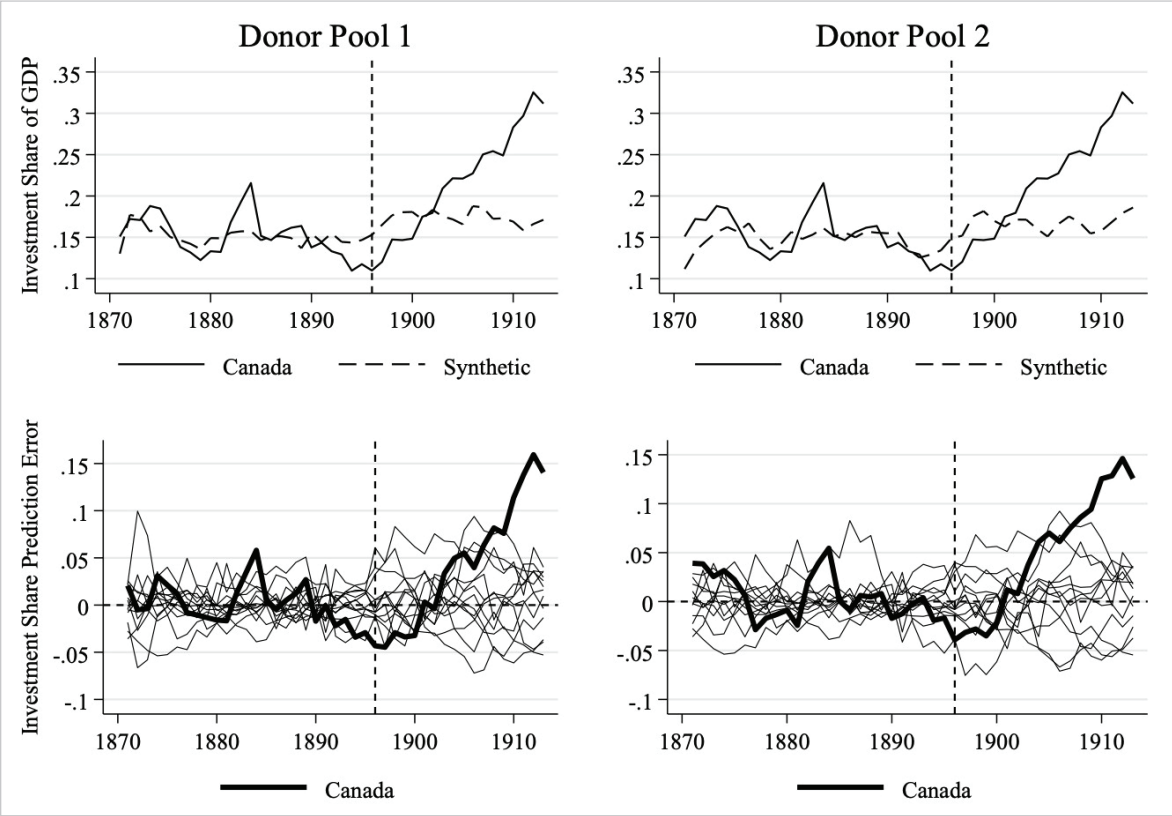


Source: Bologna Pavlik, Geloso and Pender (2025)

Notes: Donor weights for pool 1 include Denmark (0.480), Finland (0.090) and the United States (0.429); *p*-value 0.0286 is (rank 4). Donor weights for pool 2 include Australia (0.326), Denmark (0.300), Norway (0.213) and Sweden (0.162); *p*-value is 0.308 (rank 4). *P*-values are calculated as Canada's ranked RMSPE in the post-period divided by its RMSPE in the pre-treatment period. Thus, it is a two-sided test and partially depends on pre-treatment fit. *P*-values are calculated as Canada's rank of its RMSPE ratio (RMSPE in the post-period divided by its RMSPE in the pre-period) divided by the total number of countries. Thus, it is a two-sided test and partially depends on pre-treatment fit.

Pointing to Canada's high levels of investment post-1896, Ankli (1980) argued: "The cause of much of this investment was the belief that the west could be settled and that there would be large export markets for wheat."[14]

Figure 14. The Effect of the Post-1896 Boom on Investment Per Capita



Source: Bologna Pavlik, Geloso and Pender (2025)

Notes: Donor weights for pool 1 include Australia (0.145), Denmark (0.413), Finland (0.367), Italy (0.019), Sweden (0.002) and the United Kingdom (0.054); *p*-value is 0.143 (rank 2). Donor weights for pool 2 include Australia (0.145), Denmark (0.383), Finland (0.394) and the United Kingdom (0.078); *p*-value is 0.154 (rank 2). *P*-values are calculated as Canada's rank of its RMSPE ratio (RMSPE in the post-period divided by its RMSPE in the pre-period) divided by the total number of countries. Thus, it is a two-sided test and partially depends on pre-treatment fit.

Assertions like the two just quoted sound plausible but are difficult to test. If wheat can indirectly drive increases in investment and real income without production or sales meaningfully increasing (or even without wheat being a statistically relevant industry), how does one prove or disprove the staples thesis?

[14] Statements like this one implying the West wasn't settled before 1896 are common in Canadian economic history, but problematic. Another example can be found in Adelman (1992) who, when discussing the Western settlement and the wheat boom, claims: "The infusion of foreign labour and capital helped to convert the empty grasslands into bread baskets for the world." The serious issue with such quotes is that these were not empty lands but ones previously occupied by Indigenous communities that, for millennia before European contact, had complex and dynamic economies and governance structures (Benson 2006; McNeil 2007; Carlos 2023). This is not to single out Ankli (1980) or Adelman (1992), who otherwise present interesting and informative research. It is meant as an example of the general lack of discussion on Indigenous perspectives when studying the wheat boom and North American economic history more generally, which we hope will change for the better with future research.

One way around these difficulties is to exploit the older insights of Leontief (1986 [1966], 1976 [1951]), which is the approach Bologna Pavlik, Geloso and Pender (2025) take. By arguing that the basic makeup of the Canadian and U.S. economies was similar enough at the time, Bologna Pavlik, Geloso and Pender (2025) take Leontief's estimates in his input-output tables for the U.S. in 1919 and apply them to Canada.

Table 2. Inter-industry Linkages of the Five Most Agriculturally Connected Industries in Canada, 1895–1913

Sectors	Technical Coefficient (Column)	Δ in the % of GDP
Transportation	5.3%	-4.5%
Flour & Grist Mill	4.9%	-1.3%
Other Iron, Steel & Electric	3.7%	1.6%
Chemicals	2.6%	0.2%
Lumber	1.9%	-0.8%
Sectors	**Technical Coefficient (Row)**	**Δ in the % of GDP**
Slaughtering & Meat Packing	23.3%	-1.3%
Flour & Grist Mill	13.6%	-1.3%
Butter & Cheese	6.10%	-1.3%
Yarn & Cloth	8.60%	-0.7%
Chemicals	2.40%	0.2%

Source: Bologna Pavlik, Geloso and Pender (2025)

Note: Estimates based on Leontief (1976 [1951]) and changes in sectoral contributions to Canadian GDP from Urquhart (1993).

These input–output tables speak directly to the linkages mechanism at the heart of the staples thesis. The columns of their produced technical-coefficients matrix report the inputs each sector requires per unit of its own output (backward linkages), while rows report how a sector's output flows into other sectors as an intermediate (forward linkages). Bologna Pavlik, Geloso and Pender (2025) identify for agriculture the five largest coefficients along both its column and its row and report them in Table 2. From this table, it is clear that sectors most tightly linked to agriculture did not expand their shares of Canadian output between the mid-1890s and 1913. In fact, most of the industries that should, under the wheat-led story, have ridden upward on agricultural linkages actually lost ground as shares of GDP.

A practical measurement technicality strengthens, rather than weakens, this conclusion. In Urquhart (1993), "slaughtering and meat packing," "flour and grist mill" and "butter and cheese" sit inside a broader "food and beverages" aggregate, so they display the same change (–1.3 per cent). Yet only "flour and grist" is tightly tied to wheat itself — "slaughtering and meat packing" and "butter and cheese" are primarily livestock/dairy activities, and contemporary evidence points to a dairy and cheese export boom centred in Ontario and Quebec (see also Dupre 1990). This implies the decline attributable to the genuinely wheat-linked "flour and grist" component was larger than the aggregate suggests. Also, because we proxy wheat with the entire agricultural sector, and wheat was only a fraction of agriculture, any true wheat-specific linkages are mechanically overstated here, making the weak empirical footprint of wheat linkages even more prominent.

As Bologna Pavlik, Geloso and Pender (2025) point out, the sectors that actually surged are the wrong ones for a wheat-led linkages narrative: construction (+5.1 per cent of GDP), iron and steel (+1.6 per cent), banking and finance (+1.3 per cent), mining (+0.7 per cent) and transportation equipment (+0.6 per cent) (see Table 3). Leontief (1976 [1951]) offers no disaggregated coefficients for banking/finance (folded into services), but aside from iron and steel, these sectors have limited direct forward or backward ties to agriculture. Their rise better fits our alternative narrative — one of urban investment booms and market enlargement — and is consistent with net migration concentrating in Eastern cities alongside a rural exodus in longer settled regions (Norrie, Owram and Emery 2008).[15] Overall, the composition of growth suggested by these input-output tables points away from wheat-driven inter-industry propagation and more toward a broader investment-led expansion.

Table 3: Top 10 Sectors According to Sectoral Contribution Change Between 1895 and 1913

Sector	Δ in the % of GDP
Construction	5.1%
Iron and Steel	1.6%
Banking and Finance	1.3%
Mining	0.7%
Transportation Equipment	0.6%
Non-ferrous Metals	0.5%
Electric Light and Power	0.5%
Communications	0.4%
Electrical Supplies	0.2%
Chemical Products	0.2%

Source: Bologna Pavlik, Geloso and Pender (2025), with estimates derived from Leontief (1976 [1951]) and Urquhart (1993)

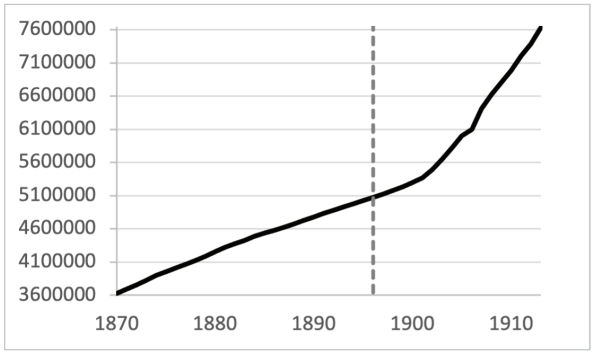
1.3 THE IMPORTANCE OF FREE-FLOWING LABOUR

Last, there is one additional factor beyond wheat that may have played a pivotal role in the post-1896 growth: immigration and the free flow of labour. Figure 15 plots population growth and net migration to Canada between 1870 and 1913. Both series swing sharply upward after 1900. In fact, net migration was negative through most years prior to 1899, then turned decisively positive. A large part of this reversal reflects purposeful policy and regime change beginning precisely in 1896.

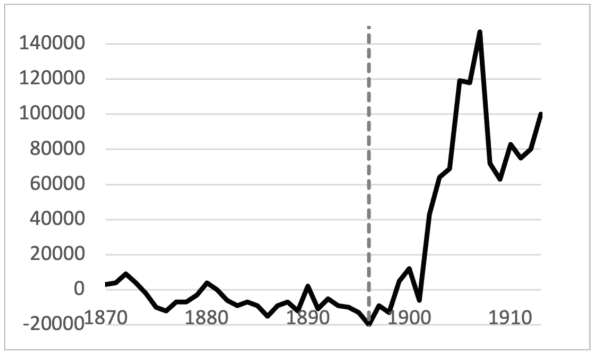
[15] We discuss the role of migration and immigration more in Section 1.3.

Figure 15. Population Dynamics in Canada 1870–1913

(a) Total Population



(b) Net Migration



Sources: Urquhart and Buckley (1965); Urquhart (1993)

Note: While the timing looks slightly off here in terms of a structural break at 1896 (a criticism we made on other time series elsewhere), this may simply be an artifact of data collection and limitations. Population estimates for this period between census years are poor (essentially just linear interpolations). With 1900 being a Canadian census year, the break will appear there by construction and we cannot know if it actually began sometime between 1890 (the previous census year) and 1899.

Clifford Sifton's appointment as minister of the interior in 1896 marked a seismic shift in immigration recruitment. Under Sifton, the department mounted near-global advertising campaigns and worked with international agencies to attract settlers. In the first half of 1900 alone, more than one million pamphlets were distributed across Europe (Gagnon 2015), aimed at attracting newcomers to live and work in Canada. While Canadian immigration policies have always had built-in prejudices, Sifton significantly relaxed who was seen as an acceptable immigrant. Beyond renewed French and German inflows, these efforts substantially increased arrivals from Ukraine, Poland and the Nordic countries, as well as Black Americans, Doukhobors, Jewish migrants and other religious minorities (Gagnon 2015).

While it is true that immigration may have at least partly been a response to a booming economy and not itself the cause (consistent with the visual trend breaks in Figure 15 occurring later than 1896), the whole story is likely more complex. Immigration can both be a cause and an effect of economic growth, as part of a feedback loop; that is, once mass immigration to Canada began, it could help continue and even expand the boom (rather than merely responding to it). While we noted that real per capita GDP growth in Canada between 1896 and 1913 was around four per cent, total real GDP growth was even higher, coming in at a remarkable average growth rate of 6.8 per cent. It is obvious how immigration could explain why average real income growth was so much higher on the extensive margin, but less obviously, it could also help explain the robust economic growth on the intensive margin. Under increasing returns to scale assumptions, mass immigration would have allowed for a greater scope for specialization and economies of scale that would have increased productivity and caused hefty increases in average income.

Time-series evidence supports the view that mass immigration was not merely a passive response to prosperity but an independent source of real per capita GDP growth post-1896. Using annual data for 1870–1939 and the revised Urquhart national accounts, Green and Sparks (1999) estimate a co-integrated VAR in real GNP, investment, exports, population and the terms of trade, then decompose the 1896–1913 upswing. Their simulations imply that innovations in population account for 16 per cent of the permanent rise in total income levels over the steady-state path and 5.7 per cent of per capita levels. Second, their decomposition shows that about 70 per cent of the population increase during the episode stems from the population's own innovations,

consistent with the idea of Sifton's policy-driven recruitment and external push factors rather than mere contemporaneous pull from higher Canadian incomes. Put differently, immigration appears to have acted as an autonomous engine that both expanded non-Indigenous Western settlement and farm acreage (the extensive margin) and raised per capita income by increasing the extent of the market and further enabling specialization.

Immigration in this case may have actually been a complement to the capital movement. To see this, it's important to note that with free capital mobility, the supply of capital becomes more elastic at the world rate of interest. In this case, additional labour from immigration does not alter the labour-capital ratio. Open capital markets, therefore, act as a buffer: labour no longer bears the full adjustment when its supply expands, since foreign capital flows in to complement it. As a result, the wage-depressing effect of labour supply shocks is much weaker under a perfectly elastic capital supply. Instead of wages falling sharply, as they would in a closed system, the economy absorbs new workers through a larger capital stock financed from abroad. The distributional consequences of labour supply shocks, therefore, depend on whether capital is internationally mobile: in an open economy, the incidence of adjustment shifts away from wages and onto international capital markets. This dynamic helps explain why historical episodes of large-scale immigration in small open economies like Canada did not always lead to large declines in real wages, since foreign capital effectively followed labour to sustain productivity (Lewis 2011). In other words, free capital movement mitigates the wage effects of immigration. The effect turns from mitigation to enhancement in the presence of the aforementioned increasing returns to scale. Indeed, for a small open economy like Canada, under increasing returns, capital entries attract labour and labour entries attract capital. The effect is rising wages because the flow of capital increases marginal returns to labour. This continues until increasing returns to scale are exploited and there is a return to constant returns to scale.

At the very least, then, while immigration may not have caused the boom, it most certainly amplified it. To be clear, such mass immigration to Canada could not have occurred without a government actively allowing for (and in fact, even pushing for) people to freely cross borders into Canada to live and work as they chose.

2. THE PRESENT BARRIERS TO COMPETITION

The boom of 1896 to 1913 occurred in a largely unregulated environment, where non-Indigenous people moved, worked and invested in the places of their choosing and foreign capital could flow in with ease.[16] In contrast, today, Canada imposes significant barriers to competition that prevent any positive structural change, like that of post-1896, from occurring. The federal government has specific legislation restricting foreign ownership and investments in air transportation, broadcasting, telecommunications and financial services, among other sectors. The consequence of federal intervention into investment has only been magnified with the more general *Investment Canada Act* under which the federal government reserves the right to review (and deny) significant investments in Canada by non-Canadians, which has been particularly harsh regarding foreign investment in mining, energy and energy transportation (Bodrug, Dinning and Khandelwal 2024).

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[16] As we have briefly touched on already, life for Indigenous peoples was decisively unfree during this period. In particular, the Indian Act — the body of regulations governing the lives and economic activity of Indigenous people — not only restricted their movement via the pass system, it also heavily restricted their ability to invest and participate in economic activity (Joseph 2018; Schembri 2023). Thus, to the extent that Canada was unfree and regulated, it caused hardship and suffering.

While it is true that Canada saw a surge in immigration from 2021–2024 (Statistics Canada 2023), this recent influx was short-lived (Immigration, Refugees and Citizenship Canada 2024), and nowhere near the magnitude of the rise between 1896 and 1913 (relative to population size).[17] Furthermore, despite the uptick in overall numbers, the increase was driven primarily by temporary workers — often in lower wage, low-skill positions and those on study permits (Finlayson and Globerman 2025). Doctors, engineers, computer scientists and other foreigners with advanced degrees (including Canadian-trained PhDs) have been increasingly deprioritized as Canada has shifted away from a transparent, human-capital points system toward more discretionary, shortage-driven and provincially fragmented streams (Skuterud and Oreopoulos 2024).

Those highly educated and highly skilled immigrants to Canada who are successful in jumping through all the government-imposed hoops frequently struggle to work in jobs commensurate with their skills because of credentialling and regulatory barriers. For example, research from 2015 shows that among male international medical graduates (medical degree obtained outside the receiving country), only 57.2 per cent actually report that they are working as physicians in Canada, versus 73.5 per cent in the United States (McDonald, Warman and Worswick 2015). More generally, in 2021, 26.7 per cent of recent immigrants to Canada with a bachelor's degree or higher were employed in occupations requiring at most a high-school education (i.e., were over-educated), compared with 10.9 per cent among Canadian-born degree-holders aged 25-34 and 7.8 per cent among those aged 35-64 (a combined rate of about 8.8 per cent) (Schimmele and Hou 2024). These barriers to skilled immigration and labour mobility, combined with barriers to investment, raise skills mismatch, depress productivity and wage growth and put upward pressure on consumer prices.

What's more is that highly protected industries now make up a large portion of the Canadian economy. As shown in Table 4, recent work from the Fraser Institute has found that protected sectors, where foreign investment is restricted (or at least heavily regulated), made up as much as 20 per cent of the Canadian economy in 2017.[18] Put differently, nearly one in every five dollars in the Canadian economy comes from heavily regulated industries and this still excludes major government monopolies in health care and education.

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[17] For comparison, Canada's total population between 1896 and 1913 grew by roughly 50 per cent, whereas from 2007 to 2024 it grew by about 26 per cent (Statistics Canada 2024; Urquhart 1993).

[18] By our calculations, these numbers would be 1.6 to two per cent higher if we include state-owned monopolies in sectors such as alcohol, energy (notably in Quebec), gambling, domestic mail and urban transit. We can include an additional 1.1 per cent to 1.5 per cent when considering other heavily regulated industries not in the Fraser Institute estimates of Table 4, such as dairy and poultry (under supply management), maple products (in Quebec), intercity bus transport, taxis and limousines bringing the total as high as 23.5 per cent.

Table 4. Share of the Canadian Economy Protected From Competition by Direct Federal Regulation (2006, 2017, 2022)

Sector	2006	2017	2022
Oil and gas extraction	3.7%	7.6%	5.1%
Other metal extraction	0.1%	0.1%	0.1%
Electricity generation and distribution	2.1%	1.8%	1.7%
Air transportation	0.4%	0.5%	0.3%
Pipeline transportation	0.5%	0.6%	0.5%
Publishing industry	0.8%	0.5%	0.6%
Film and sound recording	0.2%	0.2%	0.2%
Radio and television broadcasting	0.3%	0.2%	0.2%
Specialty television	0.2%	0.1%	0.1%
Telecommunications	2.4%	1.8%	1.2%
Financial and insurance services	6.0%	6.7%	7.6%
Total	**16.5%**	**19.9%**	**17.7%**

Sources: Geloso (2019, 2024); Harischandra, Palacios and Clemens (2007)

Canada is not just performing poorly here by our own standards; it's performing poorly relative to global standards. To see this, we can look to the OECD's Foreign Direct Investment (FDI) Regulatory Restrictiveness Index, which measures barriers to foreign direct investment across four dimensions: equity restrictions, screening and approval requirements, nationality rules for key personnel and other limits (e.g., real estate ownership). Each component is scored from zero (no restrictions) to one (full restrictions), then summed to create an overall restrictiveness score. In 2023, Canada scored 0.15, which placed it in 73rd position out of 104 countries (OECD 2024a, b, c).[19]

The OECD Product Market Regulation (PMR), which captures broader barriers to entry across the economy, confirms this. Based on approximately 1,400 questions sent to participating governments, the PMR covers topics such as state ownership, entry barriers, regulatory complexity, tariffs and price controls. Responses are scored from zero (least restrictive) to six (most restrictive). In 2013, Canada had a score of 1.43 and ranked 17th out of 47, behind countries like New Zealand, Australia and Germany, which were fifth, sixth and seventh respectively. By 2024, Canada's score was essentially unchanged, but it had slipped dramatically to 30th due to improved scores by previously lower ranked countries (OECD 2025; Vitale, Bitetti, Wanner et al. 2020).

These substantial barriers to competition in Canada, whether through foreign investment restrictions, state monopolies, complex regulatory frameworks or restricting skilled foreign workers, undermine one of the most critical forces in a market economy: the threat of entry. Firms are disciplined not merely by the number of competitors in a market, but by the credible possibility that others could enter. This threat deters anti-competitive behaviour, encourages innovation (and the investments needed to engage in their research and adoption) and pressures firms to offer better prices and quality. The barriers and restrictions insulate incumbents, reduce incentives to innovate and limit consumer choice. Moreover, foreign investment barriers prevent new capital and know-how from challenging domestic players. At the same time, the possibility of foreign skilled workers entering the

[19] The 2023 edition has Canada up slightly from its score of 0.13 in the 2018 edition. Earlier editions with slightly different methodologies suggest stability over the longer run, but with Canada always being far stricter in terms of regulating foreign investments relative to other developed nations (Koyama and Golub 2006).

labour force allows for a lower potential for skills mismatch and a more productive labour force. The result is not just less efficient firms but long-term erosion of productivity growth.

Finally, it is worth pointing out the relevance of the free flow of labour. We said that in the presence of capital mobility, immigration's wage effects are heavily moderated if the economy operates in constant returns to scale. With multiple complaints regarding immigration's effect on the Canadian economy now, opening up capital investments in multiple sectors would implicitly mitigate the concerns people have (Doyle, Skuterud and Worswick 2025). This would have the upside of killing two birds with one stone. Moreover, if we are in the presence of increasing returns to scale, then immigration can become a net positive with respect to economic growth, and there is good evidence that Canadian industries exhibit increasing returns to scale (see Benarroch 1997).

3. CONCLUSION

We understand that the Canadian boom between 1896 and 1913 was the single most critical period of growth and convergence with the U.S. We understand it was the fastest period of growth in the country's history. Equally important, we now have a solid grasp of what caused that boom: a massive inflow of skilled labour and foreign investment, as well as capital infrastructure expansions, all of which hinged on an economic environment open to immigration, investment and competition. These were not mysterious, one-off conditions; they were policy choices and institutional frameworks that enabled dynamism and growth. That both the causes and consequences of this golden age are now well-documented makes the persistent income gap between Canada and the United States all the more frustrating. The evidence tells us that a repeat — or at least a modern parallel — is possible. Canada needs to re-embrace openness and remove the artificial barriers to competition and movement (of both capital and labour). Doing so could help unleash a new era of growth. The path is there. We're just choosing not to take it.

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