November 2023

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The Deteriorating Investment Performance of New Brunswick: The Achilles Heel of the Economy

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November 2023

CSLS Research Report 2023-09

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The Deteriorating Investment Performance of New Brunswick: The Achilles Heel of the Economy

Abstract

This report provides a throughout analysis of investment trends in New Brunswick over the past six decades. Based on New Brunswick's investment growth, the share of investment in GDP and net investment, the overall picture suggests that the province's investment has weakened. Particularly since 2008, the province experienced a substantial fall in its gross investment which slightly picked up after 2015. The main driver of this development was non-residential business investment in structural assets. This type of investment witnessed a sharp fall after the 2008-2009 economic crisis, and it was produced by the investment fall in the utility industry. In addition, although to a lesser extend, non-residential business investment in machinery and equipment (M&E) contributed to the overall investment fall. From 2000 to 2021, investment in M&E did not grow and its share of GDP experienced a steep downward trend.

The Deteriorating Investment Performance of New Brunswick: The Achilles Heel of the Economy

Executive Summary

Investment is a key pillar of use for an economy: it serves as a catalyst for economic growth, job creation, technological advancement, and infrastructure development. It contributes to a sustainable and vibrant economy that can provide opportunities and improve the well-being of citizens. For the past twenty-one years, New Brunswick has experienced a fall in its share of investment, leaving uncertainty about the province's economy and the opportunity to meet goals of diversification and development. Therefore, this report aims to provide a thorough analysis of New Brunswick's investment compared to that of Canada as a whole. By presenting a detailed picture of New Brunswick's government and business investment, this report sheds light on fundamental factors that have prevented the province from having a better investment performance.

The report is organized into three major parts. The first part provides a detailed overview of New Brunswick's investment compared to Canada from 1961 to 2021, with a major focus on recent developments (from 2000 to 2021). Part two examines New Brunswick's policies and programs in recent years and how those have affected investment in the region. Lastly, based on the analysis of the first two sections, part three provides a conclusion and a set of key factors to consider for improving investment performance in New Brunswick.

In part one, the overall trends of total investment are examined from 1961 to 2021 in Canada, New Brunswick, and the rest of the provinces. The analysis reveals that total investment as a share of nominal GDP fell to 16.6 per cent in 2021, a fall-off of 2.4 points since 2000 and 5.5 points since 1961, shedding light on the province's weak investment performance. From 2000-2021, New Brunswick's total real investment grew at 0.76 per cent per year, the lowest growth rate among all provinces and 1.81 percentage points below the Canadian rate. Consequently, this led to a reduction in the level of net investment and a fall in the net investment-to-investment ratio since 1961. The average share of net investment in GDP was 3.34 per cent between 2000 and 2021. By 2021, the net investment-to-investment ratio plummeted to 13 per cent, substantially lower than the share in 1961 of 27 per cent.

The report explains in detail how such poor investment performance in New Brunswick has developed and what has been the cause of it in recent years (2000-2021). The analysis is

disaggregated by types of investment conducted by the government and business sectors during the last sixty years. Key findings of our analysis of New Brunswick's business and government investment include the following:

- Over the last 60 years the total investment share of nominal GDP in New Brunswick has fallen precipitously. After averaging a very strong 27.6 per cent of GDP in 1961-1985, the share fell 10.8 points to 16.8 per cent 2009-2021. At the national level the fall was only 1.1 points from 21.6 per cent to 20.5 per cent. After averaging 127 per cent of the national average in 1961-1985, New Brunswick's investment share fell to 82 per cent in 2009-2019. This stark contrast in investment trends is likely the most important structural difference between the performance of the two economies over the last six decades, driving output and productivity outcomes.
- Business residential investment made no contribution to the fall-off in investment in New Brunswick as its investment share was virtually unchanged between 1961-1985 and 2009-2021 at 5.9 per cent and 5.7 per cent respectively. However, since the residential investment share increased at the national level (5.2 per cent to 7.6 per cent), New Brunswick's relative performance for this type of investment fell from 112 per cent of the national average to 76 per cent.
- Albeit still behind the national level, real residential business investment fared relatively well in New Brunswick, growing at 3.32 per cent per year between 2000 and 2021. The 2008-2009 economic crisis slowed residential investment; however, it did not cause any substantial drop.
- The story for non-residential business investment was the opposite of the residential one. After the 2008-2009 economic crisis, New Brunswick suffered a sharp decline in its investment, growing at a negative 7.4 per cent per year from 2008-2015; it then increased slightly from 2015 to 2021. Between 2000-2021, the province had no growth in its non-residential business investment.
- About three quarters of the fall-off in the investment share in New Brunswick between 1961-1985 and 2009-2021 is accounted for by business non-residential investment, which fell 8.1 points from 15.4 per cent to 7.3 per cent. This was a much greater fall than for Canada where the share fell only 2.8 points from 12.7 per cent to 9.9 per cent. After achieving 120 per cent of the national share of non-residential business investment in 1961-1985, New Brunswick's share for this important investment category fell to 76 per cent in 2009-2021.
- Non-residential business investment is composed of both investment in structures and in machinery and equipment. Both components contributed significantly to the total investment fall-off in New Brunswick between 1961-1985 and 2009-2021. The share of machinery and equipment investment in GDP fell 4.6 points from 8.8 per cent to 4.1 per cent, compared to 2.9 points fall from 6.6 per cent to 3.7 per cent in Canada. The considerable decline at the national level meant that New Brunswick's relative performance only fell from 132 per cent of the national average to 110 per cent. In

absolute terms, the province does not have a shortfall in machinery and equipment relative to the national average.

- Although structures investment as a share of GDP fell less than machinery and equipment in New Brunswick between 1961-1985 and 2009-2019, the relative performance of this type of investment appears worse. This is because structures did not fall at the national level (6.2 per cent in both 1961-1985 and 2009-2021). This resulted in New Brunswick's investment share in structures falling from 107 per cent of the national average to 52 per cent between periods. The largest investment shortfall between New Brunswick and Canada is thus for business structures.
- The reason behind the significant drop in non-residential investment between 2008 and 2015 was due to the sharp decline in structural assets investment. In effect, the growth rate for investment in structure fell significantly to a negative 13 per cent per year between 2008 and 2015, worse than the negative growth rate of M&E assets of 1.6 percent.
- At a closer look, the industries that were responsible for the fall of business investment for non-residential assets were the utility and manufacturing industries. More specifically, these industries have been among the top five most important ones for investment in New Brunswick. The sharp decline of investment in the utility industry between 2008 and 2015, significantly affected investment in structure assets. On the other hand, similarly, investment in the manufacturing industry did not grow. Hence, this affected the development of investment in M&E assets and contributed to the overall fall in New Brunswick's gross investment.
- About one quarter (2.4 points) of the 11 percentage points fall-off in the investment share in New Brunswick between 1961-1985 and 2009-2021 was due to the decline in the government non-residential investment share from 6.3 per cent to 3.9 per cent. This share fell less at the national level (0.8 points from 3.7 per cent to 2.9 per cent). The absolute size of the share was greater in New Brunswick in both periods, suggesting that there is no government underinvestment in the province relative to the national average.
- Unlike business non-residential investment, the public sector has taken a more important role for the past twenty-one years. In effect, the proportion of New Brunswick's total non-residential investment that is allocated to public non-residential investment (structure, machinery, and equipment) increased by 11.8 percentage points between 2000 and 2021 (22 per cent vs 34 per cent), whereas the share of business-on-residential investment fell by 12 percentage points (78 per cent vs 66 per cent).

In part two, the report provides a detail evaluation of the different direct policies and programs that have been implemented in Canada and in New Brunswick over time. It provides an overview of direct policies and programs such as tax incentives, investment promotion agencies, business support services, financial assistance, infrastructure development, and business regulatory environment. The following are key summarize findings:

- Over time, corporate tax rates (provincial and federal) have fallen and have particularly been benefiting small businesses.
- The federal government offers investment tax credits such as the Atlantic Investment Tax Credit to support and incentivize investment in the region.
- New Brunswick’s investment has had an inverse correlation with the Canadian interest rate. More specifically, during periods of high-interest rates, the province witnessed an upward trend in its investment, whereas, during periods of low interest rates, the province's investment substantially dropped.
- Nowadays, businesses in New Brunswick have access to three investment promotion agencies. These are Opportunities NB, Atlantic Canada Opportunities Agency, and Invest in Canada. This has contributed to the growth of businesses and investment in recent years.
- With the collaboration between private and public sectors, several centres and programs have been created to provide business mentorship or training to entrepreneurs or small businesses. Some of these centres and programs include Planet Hatch, Ignite Fredericton, Oasis Mentorship, and the Community Business Development Corporation.
- Over the years, the New Brunswick government has provided significant financial assistance for investment. According to the Canadian Venture Capital Association in 2021, among the Atlantic provinces, New Brunswick was the most active province in venture capital investment with $126 million and 14 deals.
- Although numerous projects for infrastructure have been implemented in New Brunswick, the province keeps falling in the implementation of its investment since some programs have not achieved their goals due to poor funding management.

Based on investment trends and the evaluation of policies and programs implemented over the years in New Brunswick, part three summarizes and concludes the analysis by providing key factors that should be considered to improve investment performance in the provinces.

The Deteriorating Investment Performance of New Brunswick: The Achilles Tendon of the Economy

Introduction[1]

This report aims to explain New Brunswick’s investment developments, particularly since 2000 relative to Canada and other provinces. By painting a detailed picture of New Brunswick's investment trends, this report sheds light on fundamental aspects such as investment growth, investment share of GDP, and net investment levels. Investment is a fundamental component of GDP that can increase production and productivity and, thus, lead to short and long-run economic growth. Consequently, given the many important effects that investment has on an economy, having a comprehensive understanding of investment is of vital importance.

This report consists of three parts. The first part examines investment developments in the province, including trends in both residential and non-residential investment (for structures and machinery and equipment) conducted by the business and government sectors in both nominal and real terms. A comparison is made to the national average and other provinces. The second part reviews and evaluates policies and programs affecting investment in New Brunswick, at both the federal and provincial levels, including investment subsidies and incentives. Ultimately, based on the evidence provided in the first two parts of the report, the third part summarizes and provides key factors to consider for the improvement of investment performance in New Brunswick.

The examination of investment developments in part one has four sections. Section one, provides an overview of government and business investment, analyzing the fundamental aspects of investment growth, the share of investment in GDP and net investment between 1961 and 2021. Section two then discusses developments of residential business investment with a focus on recent years between 2000 and 2021. Next, Section three discusses trends in non-residential business investment (structure and M&E) between 2000 and 2021, covering the development of each subcomponent separately.[2] Ultimately, section four looks at non-residential government investment development between 2000 and 2021, and similarly to the previous section, it discusses the development of each subcomponent separately.

[1] This report was written by CSLS economist Leonel Ordonez under the supervision of Andrew Sharpe, Executive Director. The database for the report is posted with the report at http://www.csls.ca/reports/csls2023-09-data.xlsx.
[2] Throughout this report, we refer to Machinery and Equipment assets by their short terminology “M&E”.

Part two of the report examines federal and provincial policies and programs that have affected New Brunswick's investment development for the past six decades. It particularly focuses on reviewing policies and programs with a direct effect on investment such as tax incentives, investment promotion agencies, business support services, financial assistance, infrastructural development, and business regulatory environment.

Finally, part three of the report analyzes outcomes from parts one and two of the report, providing a summary of the findings and a conclusion regarding the investment situation in New Brunswick

Part One: An Overview of Investment Developments in New Brunswick, 1961-2021

This report overviews trends in investment in New Brunswick compared to other provinces and Canada as a whole. Investment is an important contributor to GDP, playing a vital role in economic growth. In particular, the greater the flows of new investment there are, the higher the capital stock level will be. Since capital is a key input into production, productivity and output are expected to rise. Likewise, investment can produce a multiplier effect which can help change the economic trend, causing a short-term and long-term boost in an economy. On the other hand, New Brunswick's economic engine is based on its manufacturing exports which have faced challenges in recent years to develop and maintain a strong base. Therefore, if the province wants to maintain competitiveness, investing in new machinery, equipment, and buildings will be necessary. Given all the latter, it is relevant to understand the developments of investment in New Brunswick's economy.

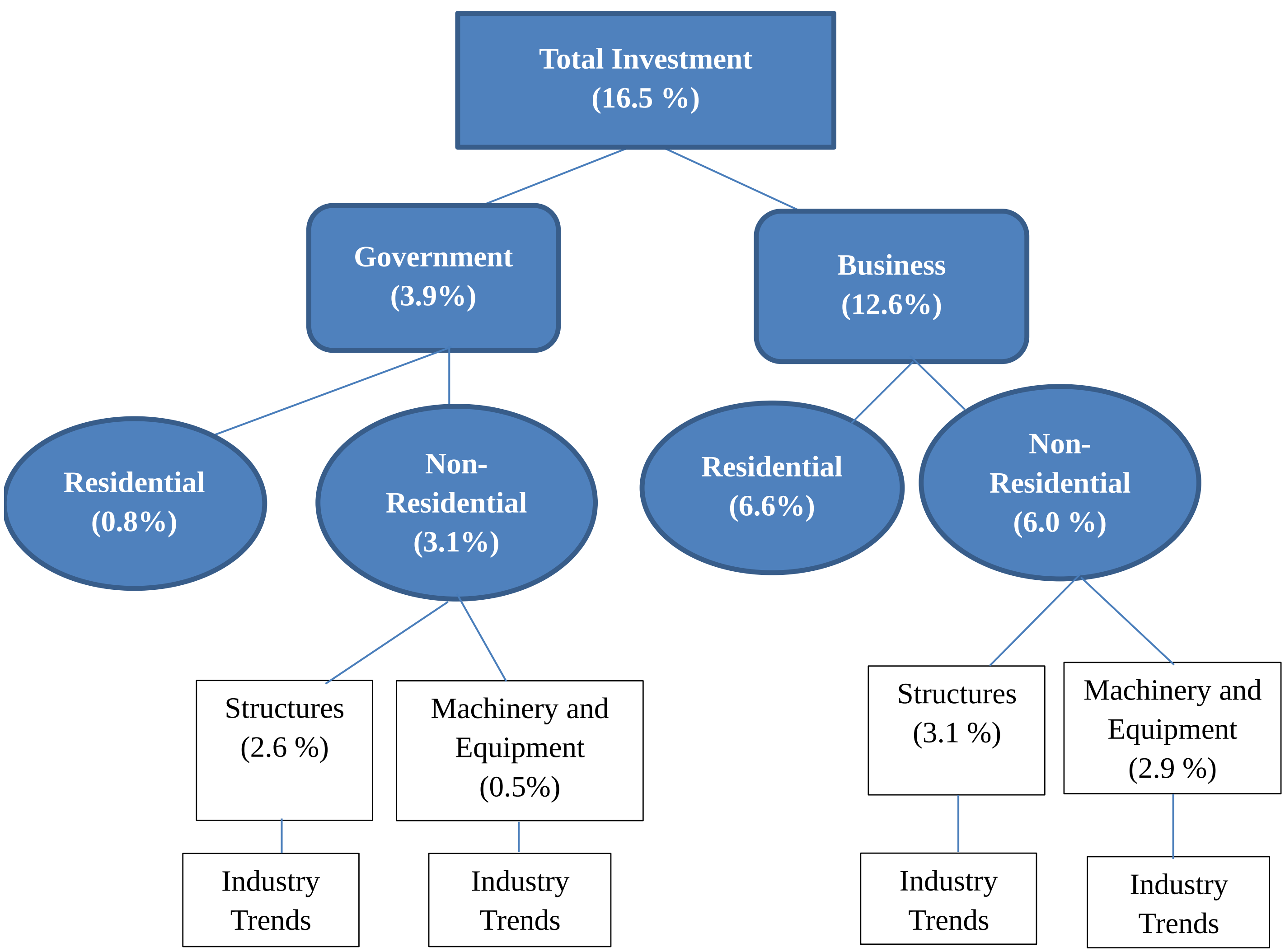
This section provides a comprehensive analysis of fixed capital formation (investment), including developments in total investment, business non-residential and residential investment, and government non-residential investment. Notice that this report does not provide a detailed analysis of the trends of residential government investment since Statistics Canada only provides non-disaggregated data on residential investment for all business, government, and non-profit institutions. Exhibit 1 shows the breakdown of total investment by type of investment and sector. Each box contains the proportion of GDP going towards the kind of investment in 2021, with business investment making up a more significant share than government investment (12.6 per cent vs 3.9 per cent). In addition, given that there will always be some degree of expenditure by the government on residential assets, based on the difference between non-residential government investment and total government investment, the calculated residual for New Brunswick's government residential investment (nominal value) in 2021 was $369 million, a share of 0.8 per cent of nominal GDP.[3]

Total investment developments in New Brunswick are examined thoroughly from 1961 to 2021, whereas for the different components of total investment, the analysis focuses on recent developments (i.e., from 2000 to 2021). To avoid confusion, throughout the report, when referring to investment growth, real investment is used. On the other hand, when referring to the share of investment, nominal investment is used to incorporate changes in relative prices. Lastly, in this report, the term “investment” will refer to gross investment and only when not referring to gross investment, then we refer to investment as a net investment.

[3] The sources used to calculate government residential investment in New Brunswick in 2021 come from Statistics Canada, Table 36-10-0222-01, and Table 36-10-0098-01. The residual is calculated subtracting the non-residential government investment from the gross government (investment).

Drawing on Statistics Canada data from the flows and stocks of fixed residential and non-residential capital by asset type, as found in Table 36-10-0099-01 and Table 36-10-0098-01, this section finds that New Brunswick’s total investment has performed poorly relative to Canada and other provinces. The overall growth for the 2000-2021 period was the lowest among all provinces and by 2021, New Brunswick’s total investment per capita was ranked last. The proportion of GDP going towards total investment fell substantially since 1961. Using the same data from Statistics Canada, it was possible to identify that New Brunswick's non-residential government investment increased its share of total non-residential investment from 2000 to 2021. In contrast, the share of non-residential business investment fell significantly, suggesting that more non-residential investment has been allocated from government than from business in the past twenty-one years.

Exhibit 1: Investment Development in New Brunswick, by Type of Investment as a Share of Nominal GDP (current prices) and Sector (Business or Government) in 2021



A. (Section 1): Total Investment (Business and Government), 1961-2021

i. Investment as a Share of Nominal GDP

In 1961, investment from businesses and government in New Brunswick was $177 million, 22.1 per cent of nominal GDP and 0.8 percentage points above the national rate. As shown in Panel A of Chart 1, between 1961 and 1985, the share of New Brunswick's investment in GDP hovered between a range of 0.63 and 15.25 percentage points above that of Canada, reaching an all-time high of 38.8 per cent in 1975.[4] During this same period, New Brunswick's average share was 27.6 per cent, 6.3 points above the Canadian average share of 21.3 per cent.

However, after 1985, the percentage points difference between New Brunswick and Canada shares gradually disappeared, resulting in an opposite outcome than that of the first twenty-four years. From 1986 to 2009, New Brunswick's average share dropped to 17.9 per cent, 0.3 points below the national average share of 18.2 per cent. This downward trend in the share continued between 2010 and 2021 where the average share hovered 3.7 points below the Canadian share (16.8 per cent vs 20.5 per cent).

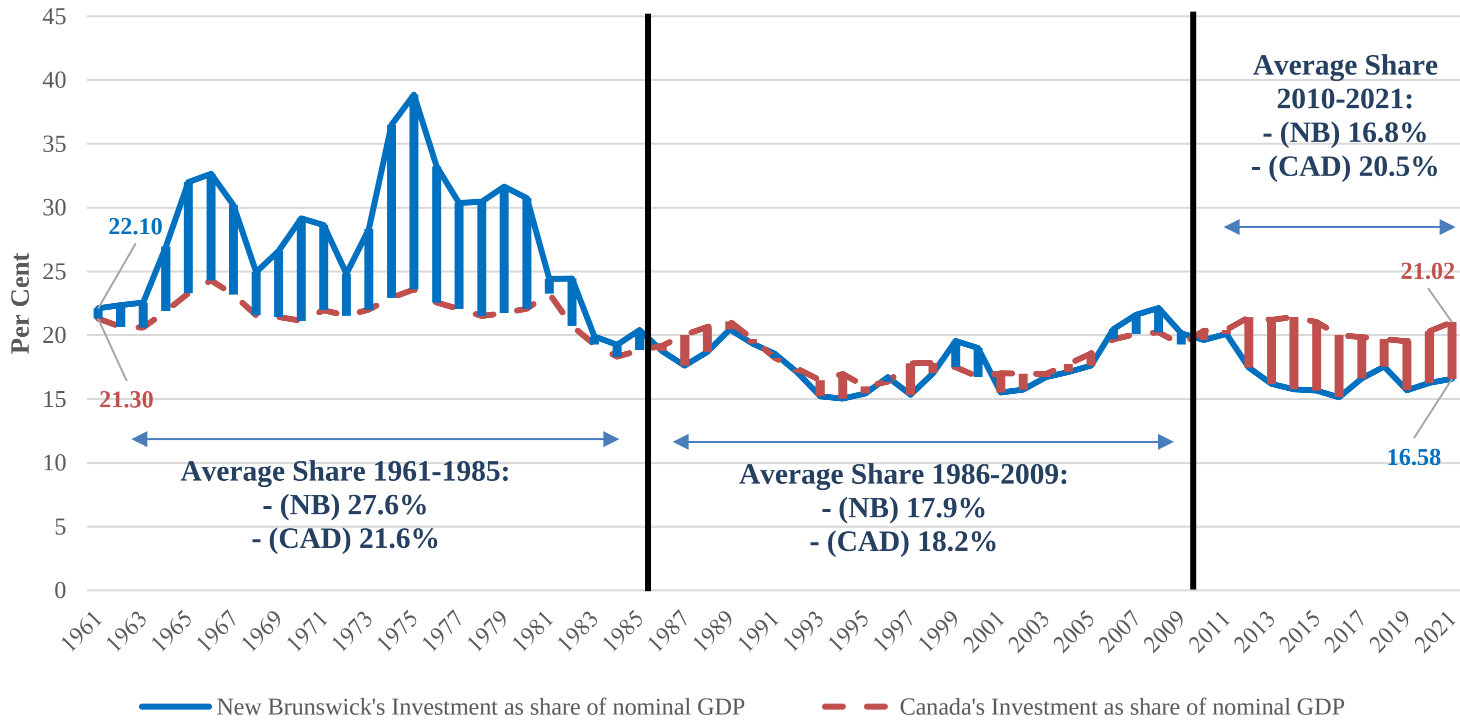
Panel B from Chart 1 presents the share of New Brunswick investment from nominal GDP as a proportion of Canada. Unsurprisingly, the relative share has also fallen considerably over time, from 126.9 per cent of the national average in 1961-1985 to 98.2 per cent in 1986-2009 to 82.3 per cent in 2010-2021, an overall substantial fall of 45 percentage points.

To assess the absolute performance of the investment, Table 1 presents New Brunswick's investment trends between 1961 and 2021, with three periods (i.e., 1961-1985, 1985-2009, and 2009-2021) and by investment component. From 1961 to 2021, New Brunswick's investment share from nominal GDP fell by 5.6 percentage points with the largest fall during 2009-2021 by 3.6 points and lower drops during 1961-1985 by 1.7 points and 1985-2009 by 0.3 points. Much of the decline since 1961 in gross investment was driven by the substantial reductions in non-residential business investment. In 1961, non-residential business investment was 10.8 per cent of GDP, falling to 6.0 percent in 2021; a substantial fall of 4.8 percentage points. This development was influenced by the investment progress in each non-residential business investment subcomponent. As shown in Table 1, business investment in structure, machinery and equipment assets fell between 1961 and 2021, with both types of investment by around 2 percentage points and with larger drops during 2009-2021. On the other hand, a similar situation occurred in non-residential government investment which fell by 3.6 points between 1961 and 2021; contributing to the overall fall of the percentage of GDP going towards investment in New Brunswick.

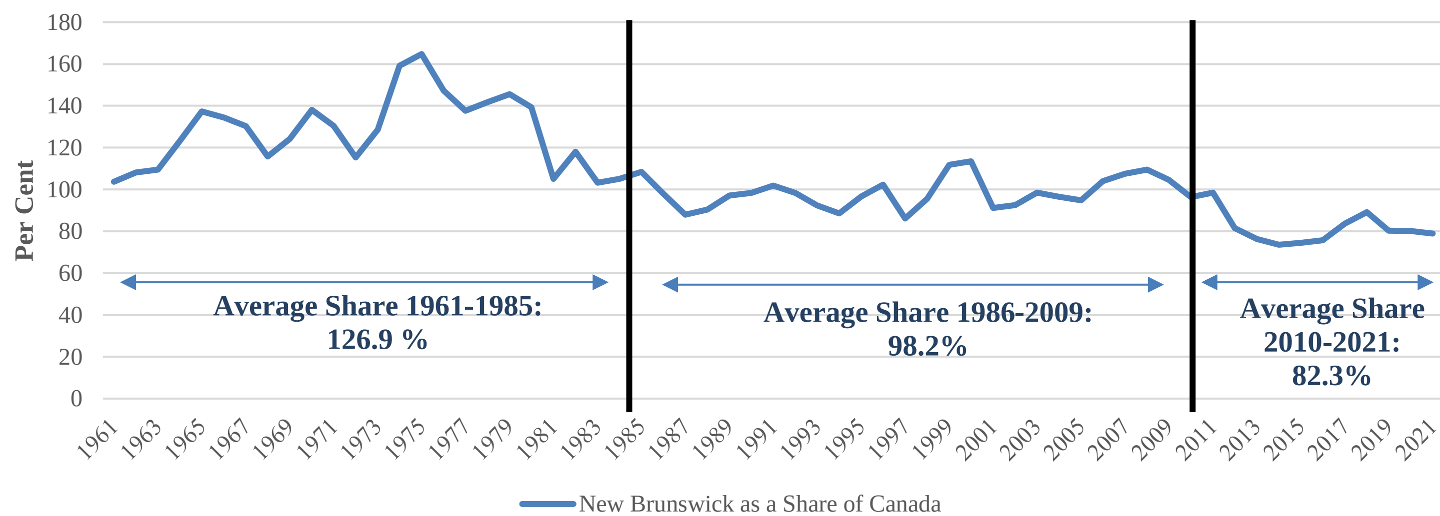
[4] Panel A in Chart 1 presents the trends of investment shares from New Brunswick and Canada together with up/down bars highlighting the existent point difference. Similar Panels are provided in Chart 2 to 6 in this report, highlighting the point difference with up/down bars.

Chart 1: Percentage Point Difference between New Brunswick's and Canada's Total Investment (current prices) as Share of Nominal GDP, 1961-2021

Panel A: Percentage Point Difference (Up/Down Bars)



Panel B: New Brunswick as a Proportion of Canada



Sources: Statistics Canada, Table 36-10-0325-01; Table 36-10-0222-01; Table 36-10-0099-01 and Table 36-10-0098-01

Table 1: Total Investment and Investment Components as a Share of Nominal GDP in New Brunswick, (current prices), 1961, 1985, 2009 and 2021

	Share in 1961	Share in 1985	Share in 2009	Share in 2021	Percentage Points 1961-1985	Percentage Points 1985-2009	Percentage Points 2009-2021	Percentage Points 1961-2021
Total Investment (Government and Business)	**22.1**	**20.4**	**20.1**	**16.5**	**-1.7**	**-0.3**	**-3.6**	**-5.6**
Non-Residential Government Investment (Structure, M&E)	6.7	4.7	3.6	3.1	-2.0	-1.1	-0.5	-3.6
Gross Business Investment	15.2	15.6	16.5	13.4	0.4	0.9	-3.1	-1.8
Residential Investment	4.3	5.5	6.2	7.4	1.2	0.7	1.2	3.1
Non-Residential Investment	10.8	10	10.3	6.0	-0.8	0.3	-4.3	-4.8
Spending in Structures	5.2	3.4	5.2	3.1	-1.8	1.8	-2.1	-2.1
Spending in M&E	5.6	6.5	5.1	2.9	0.9	-1.4	-2.2	-2.7

Sources: Statistics Canada, Table 36-10-0099-01, and Table 36-10-0098-01

To visually enhance the distinctive developments in Table 1 (i.e., 1961-1985, 1985-2009, and 2009-2021), Charts 2 to 6 present the trends in the share of investment in GDP in New Brunswick for each investment component, as well as New Brunswick's relative level from the national average share between 1961 and 2021.

Chart 2 shows that non-residential government investment in GDP in New Brunswick has historically been above the national average, falling over time from an average share of 6 per cent to 4 per cent (Panel A). In relative terms, the share fell from 174 per cent of the national average in 1961-1985 to 149 per cent in 1986-2009 to 133 per cent in 2010-2021 (Panel B). Hence, the province does not have a public non-residential investment gap relative to Canada.

New Brunswick’s residential business investment as a proportion of nominal GDP has been relatively stable from 1961 to 2021. Chart 3 reveals that the share was at 6 per cent in both 1961-1985 and 2010-2021 (Panel A). However, as a proportion of the national average, the percentage has fallen from 112 per cent in 1861-1985 to 85 per cent in 1986-2009 to 76 per cent in 2010-2021 (Panel B). The latter mirrors the increase of Canada’s residential business investment in GDP from an average of 5.2 per cent in 1961-1985 to 7.6 per cent in 2010-2021. The province has a residential business investment gap relative to Canada.

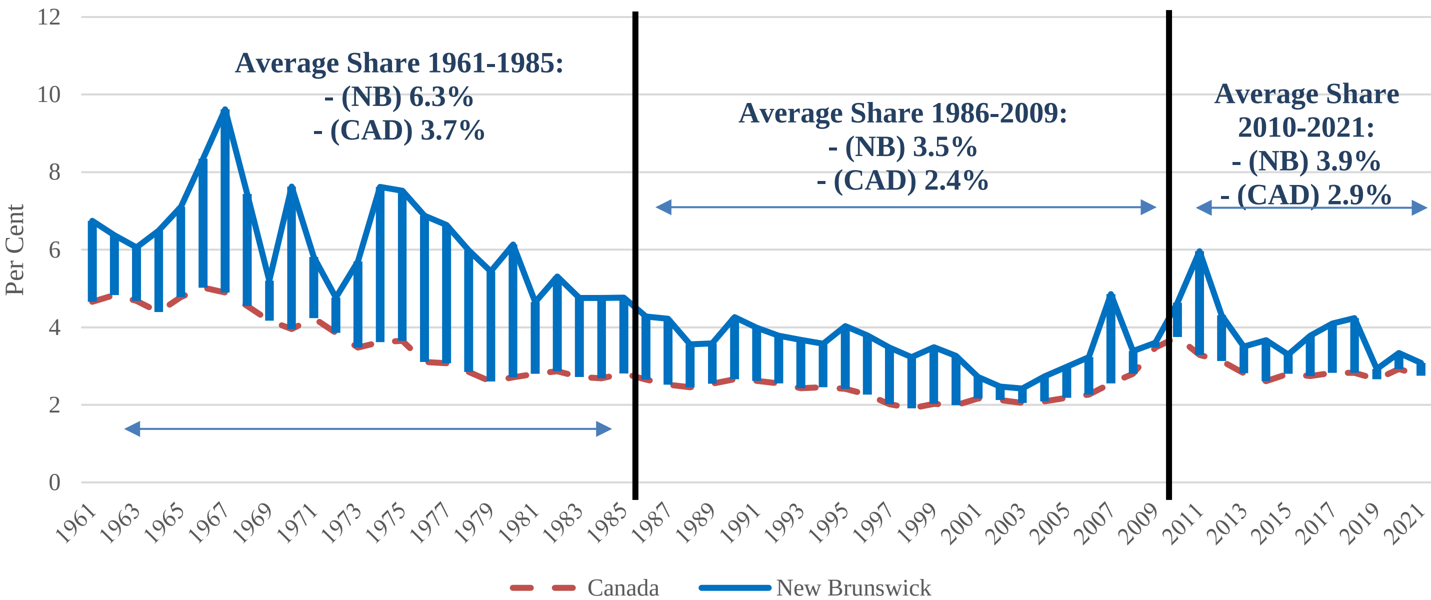
As shown in Chart 4, the share of non-residential business investment in GDP in New Brunswick has substantially fallen from an average share of 15.4 per cent in 1961-1985 to 9.5 per cent in 1986-2009 to 7.3 per cent in 2010-2021, an overall drop of 8 percentage points. At the national level, the decline in the share of non-residential business investment was much less, by 4 percentage points (Panel A). The relative level of New Brunswick's non-residential investment share in intensity has massively fallen from 120 per cent of the national average in 1961-1986 to 94 per cent in 1986-2009 to 74 per cent in 2010-2021 (Panel B). Consequently, the province has a significant non-residential business investment gap, an outcome that has widened in recent years.

Charts 5 and 6 present the developments in the share of non-residential business investment in structure, machinery and equipment. Both mirror the poor faring of non-residential business investment in New Brunswick. In particular, the percentage of non-residential investment in structures in GDP in New Brunswick almost halved from an average share of 7 per cent in 1961-1985 to 4 per cent in 1986-2009 to 3 per cent in 2010-2021. At the national level, there was no decline in this share (6 per cent) between 1961-1985 and 2010-2021 (Panel A of Chart 5). Therefore, New Brunswick's proportion from the national average has fallen from 107 per cent in 1961-1985 to 88 per cent in 1986-2009 to 53 per cent in 2010-2021, a significant drop of 55 percentage points and mirroring a serious structure investment gap (Panel B of Chart 5).

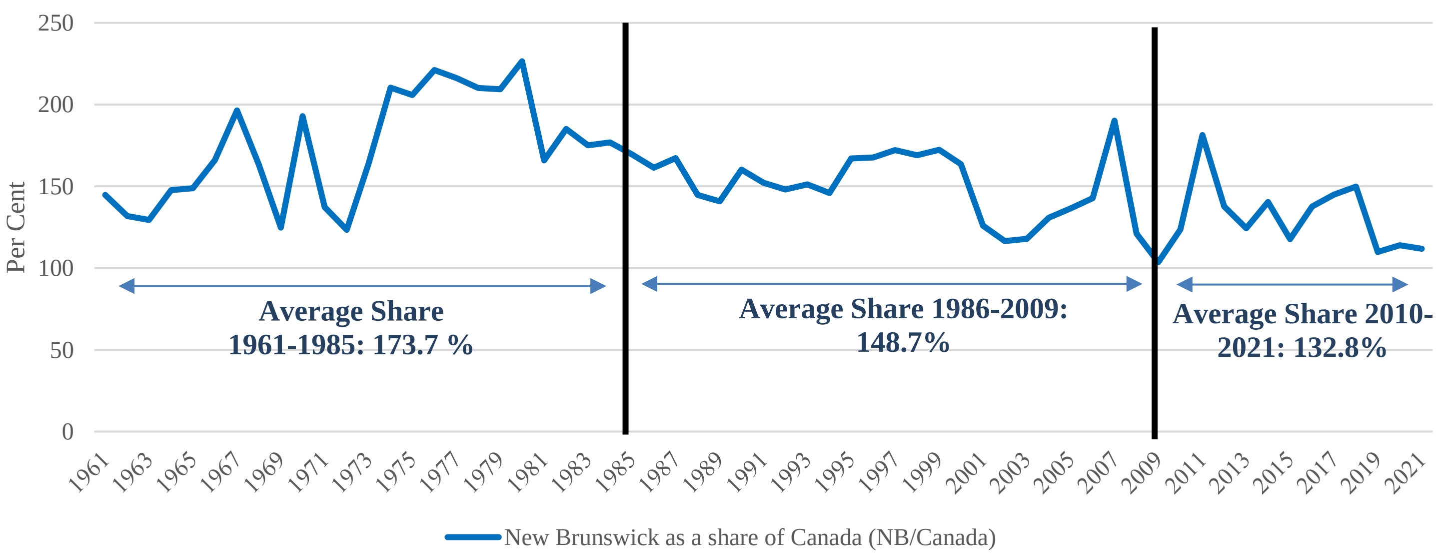
The share of non-residential business investment in M&E in GDP in New Brunswick has had a similar development. The average share sharply fell from 9 per cent in 1961-1985 to 6 per cent in 1986-2009 to 4 per cent in 2010-2021. For Canada, the decline in this share was less pronounced, only 3 percentage points from 7 percent in 1961-1985 to 4 per cent in 2010-2021 (Panel A of Chart 6). Given the former and the latter, New Brunswick's non-residential M&E intensity fell less than that of structures, from 132 per cent of the national level in 1961-1985 to 99 percent in 1986-2009 to 110 per cent in 2010-2021, a drop of 22 percentage points and suggesting that New Brunswick does not appear to have machinery and equipment investment gap with Canada (Panel B of Chart 6). However, the 5 percentage points fall in New Brunswick's machinery and equipment investment share of nominal GDP indicates a problem.

Chart 2: Percentage Point Difference between New Brunswick's and Canada's Non-Residential Government Investment (current prices) as Share of Nominal GDP, 1961-2021

Panel A: Percentage Point Difference (Up/Down Bars)



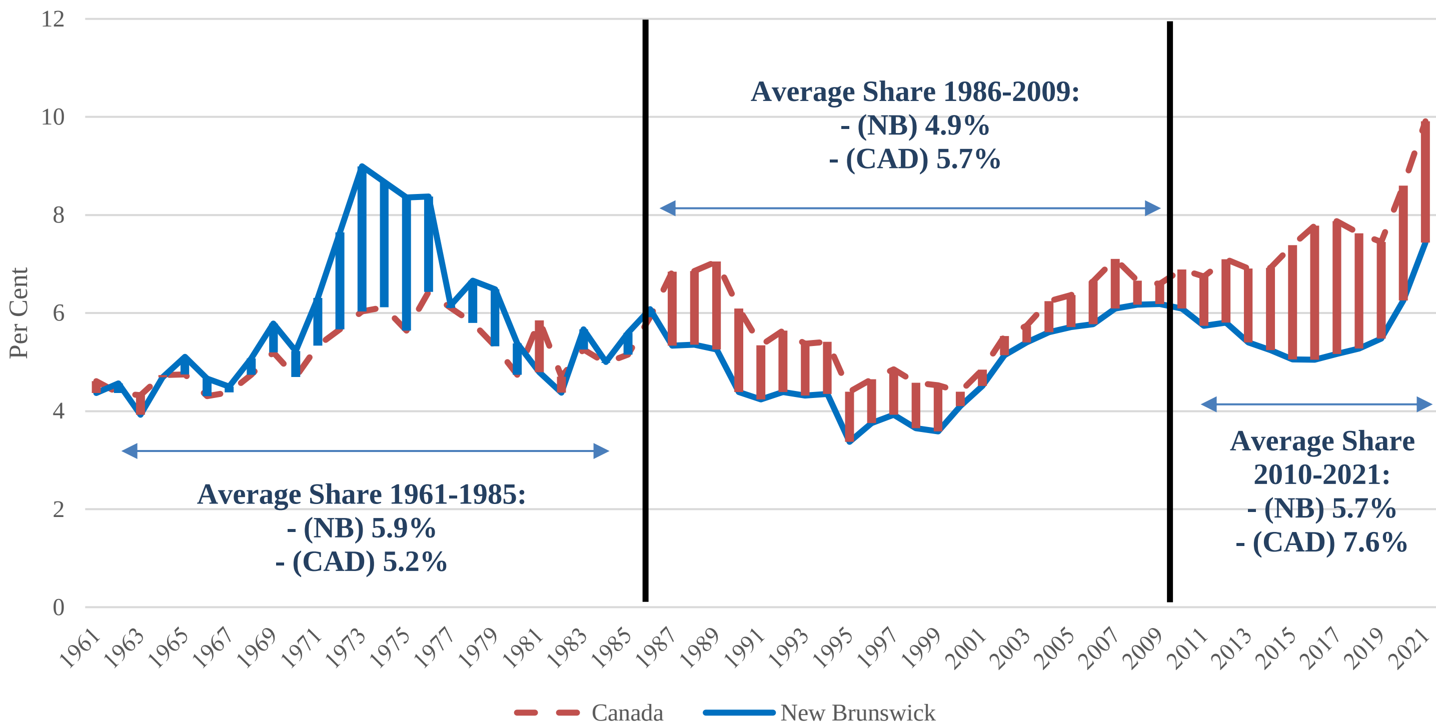
Panel B: New Brunswick as a Proportion of Canada



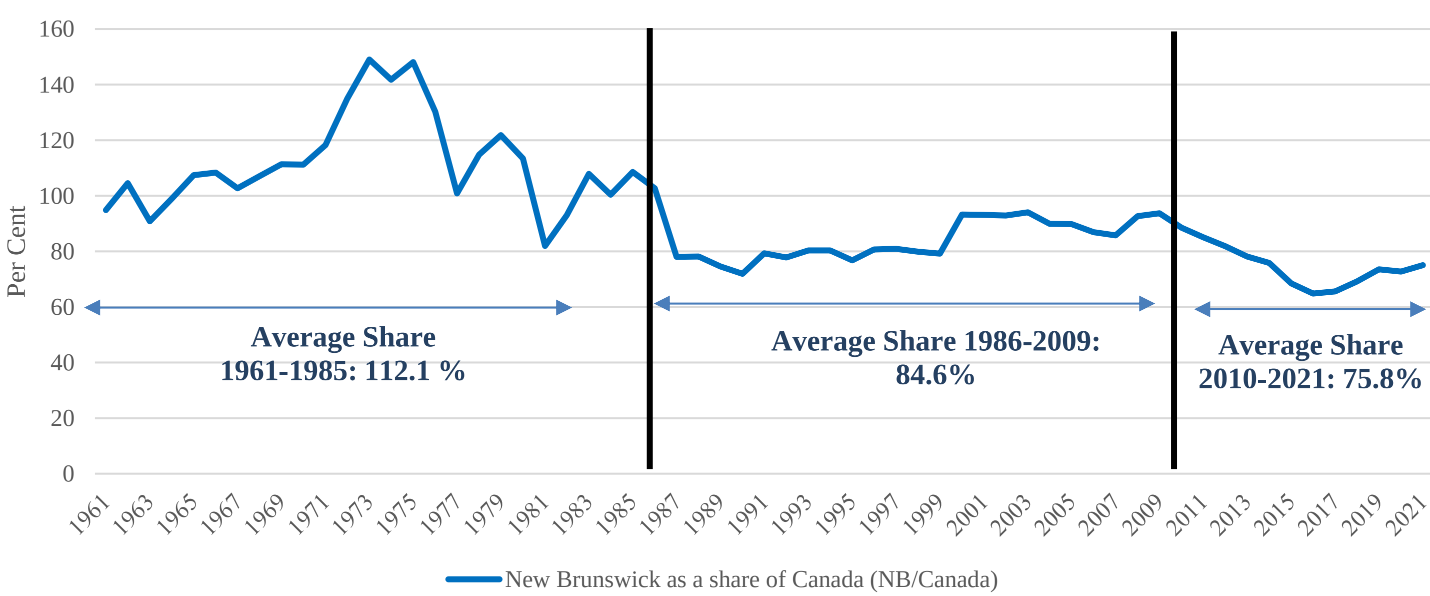
Sources: Statistics Canada, Table 36-10-0098-01

Chart 3: Percentage Point Difference between New Brunswick's and Canada's Residential Business Investment (current prices) as Share of Nominal GDP, 1961-2021

Panel A: Percentage Point Difference (Up/Down Bars)



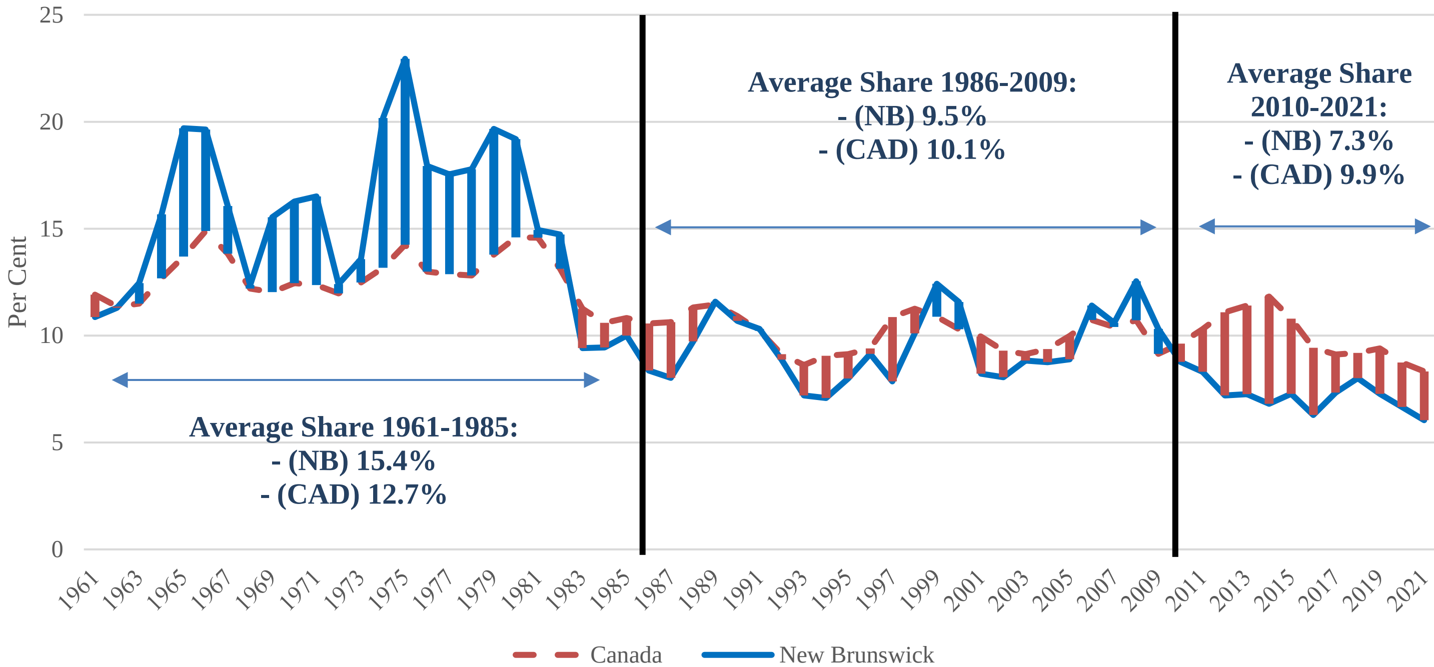
Panel B: New Brunswick as a Proportion of Canada



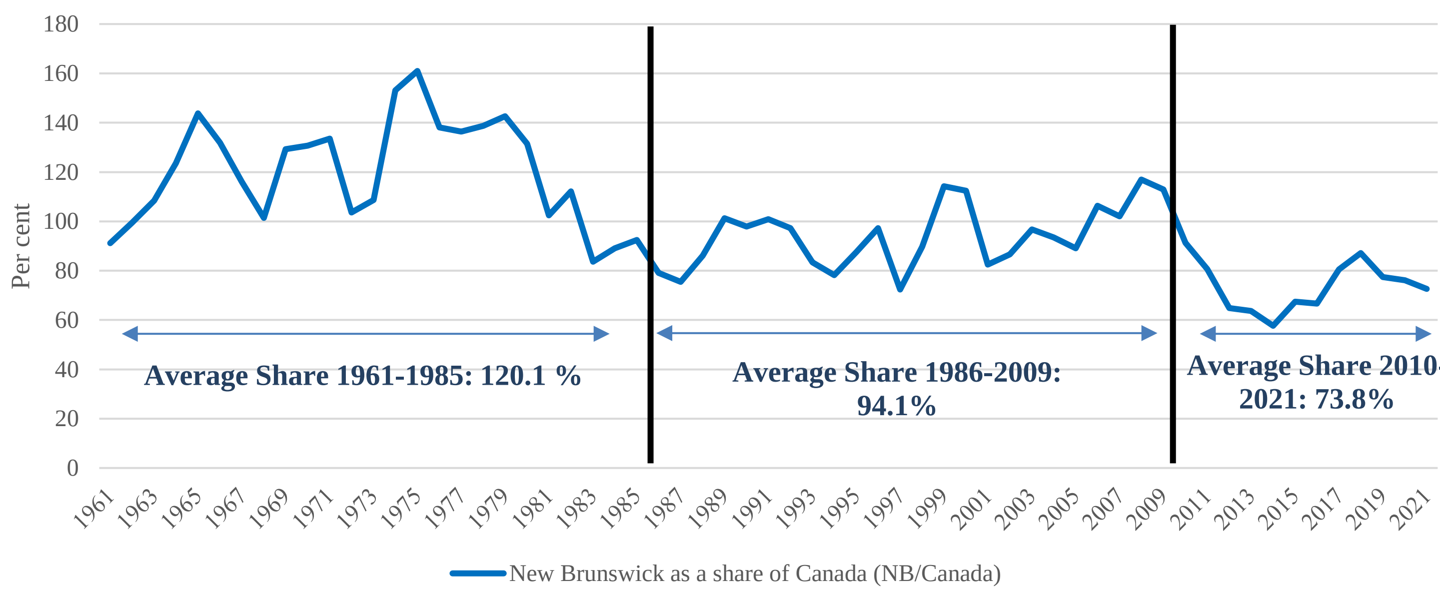
Sources: Statistics Canada, Table 36-10-0099-01

Chart 4: Percentage Point Difference between New Brunswick's and Canada's Non-Residential Business Investment (Structure and M&E (current prices)) as Share of Nominal GDP, 1961-2021

Panel A: Percentage Point Difference (Up/Down Bars)



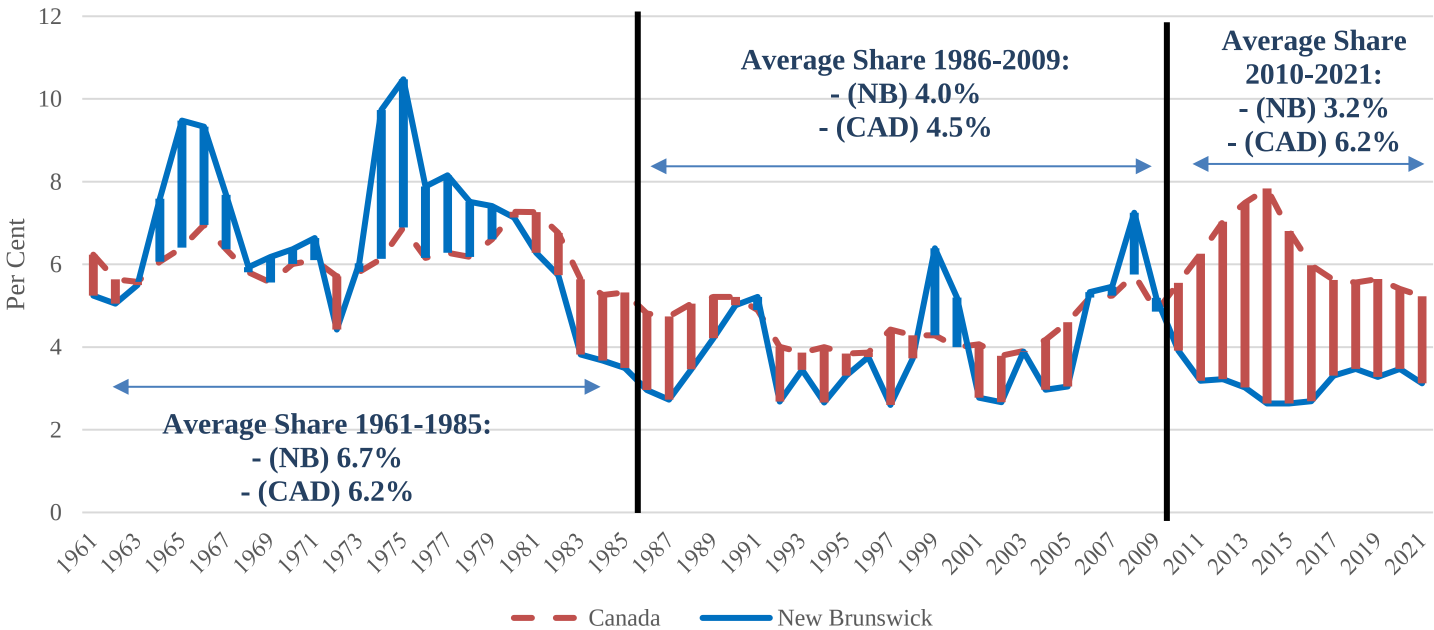
Panel B: New Brunswick as a Proportion of Canada



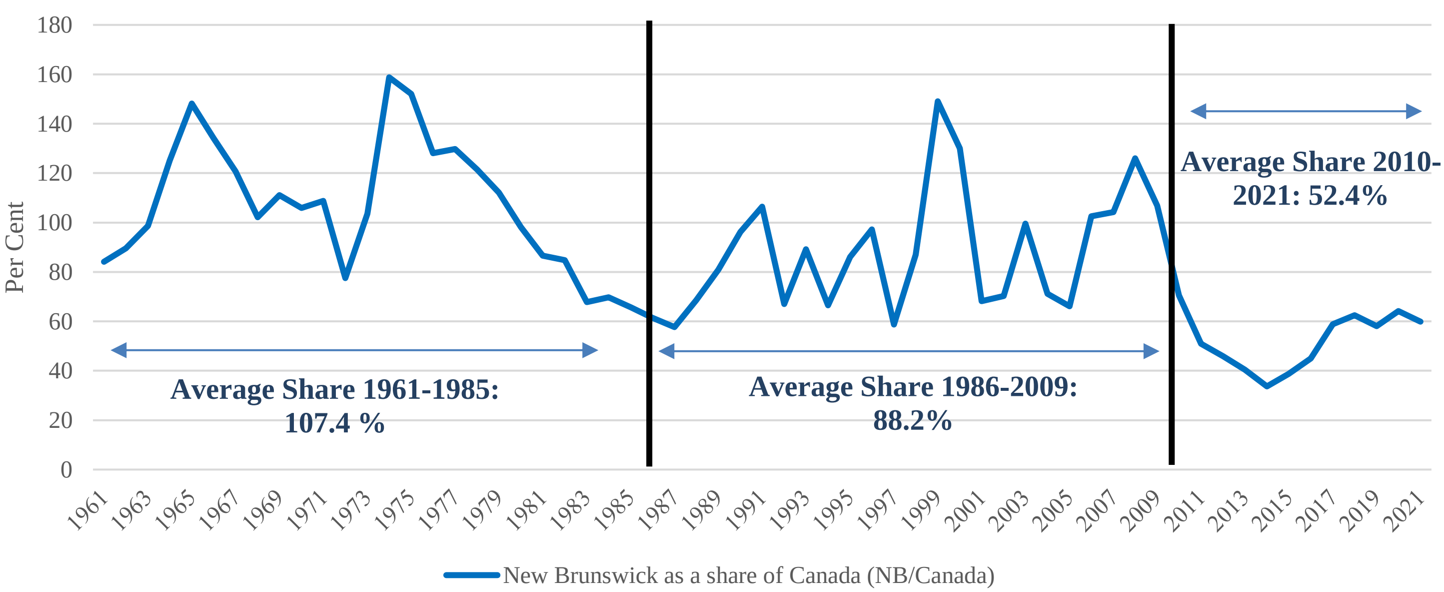
Sources: Statistics Canada, Table 36-10-0098-01

Chart 5: Percentage Point Difference between New Brunswick's and Canada's Non-Residential Business Investment in Structures (current prices) as Share of Nominal GDP, 1961-2021

Panel A: Percentage Point Difference (Up/Down Bars)



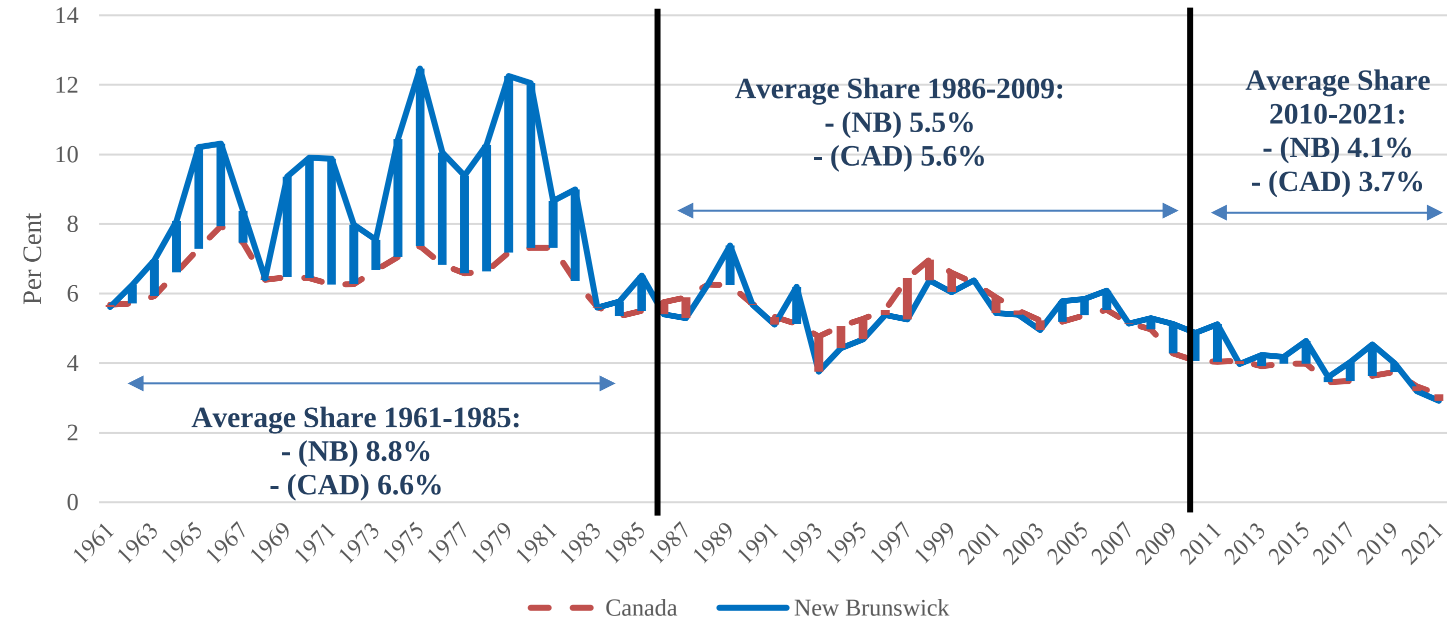
Panel B: New Brunswick as a Proportion of Canada



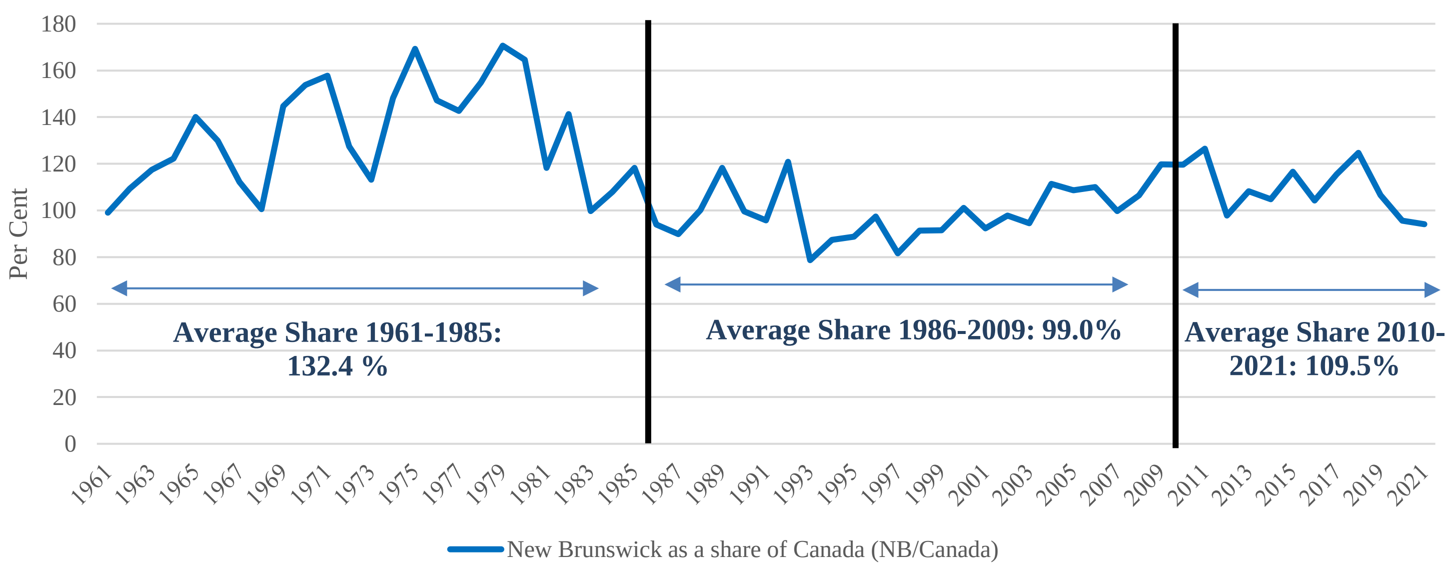
Sources: Statistics Canada, Table 36-10-0098-01

Chart 6: Percentage Point Difference between New Brunswick's and Canada's Non-Residential Business Investment in M&E (current prices) as Share of Nominal GDP, 1961-2021

Panel A: Percentage Point Difference (Up/Down Bars)



Panel B: New Brunswick as a Proportion of Canada



Sources: Statistics Canada, Table 36-10-0098-01

In general, all investment components have experienced a downward trend for the past six decades except for residential business investment. During the first 24 years, from 1961-2021, almost all investment components fared better than the national average. However, from 1985 onwards, these investment developments started to be outpaced by the national average, leading to investment gaps relative to Canada which widened in recent years. Consequently, as discussed earlier and shown in panels of Chart 1, New Brunswick's total investment share of GDP has substantially fallen.

Table 2 presents further information regarding the fall in the average share of investment and each investment component from GDP in New Brunswick, accounting for periods 1961-1985 and 2010-2021. After averaging a very strong 27.6 per cent of GDP in 1961-1985, the share fell 10.8 points to 16.8 per cent in 2010-2021. About one quarter (2.4 points) of the 11 percentage points fall-off in the investment share between 1961-1985 and 2010-2021 was due to the decline in the government non-residential investment share from 6.3 per cent to 3.9 per cent. Business residential investment made no contribution to the fall-off as its investment share was virtually unchanged between both periods at 5.9 per cent and 5.7 per cent. Ultimately, about three-quarters of the fall-off in the investment share in New Brunswick between 1961-1985 and 2010-2021 is accounted for by business non-residential investment, which fell 8.1 points from 15.4 per cent to 7.3 per cent. Both components for which non-residential business investment is composed of contribute to the total investment fall-off. The share of M&E investment in GDP fell 4.6 points, whereas the share of structures fell 3.5 points between 1961-1985 and 2010-2021.

Table 2: Total Investment and Investment Components as a Share of Nominal GDP in New Brunswick, (current prices), 1961-1985 and 2010-2021

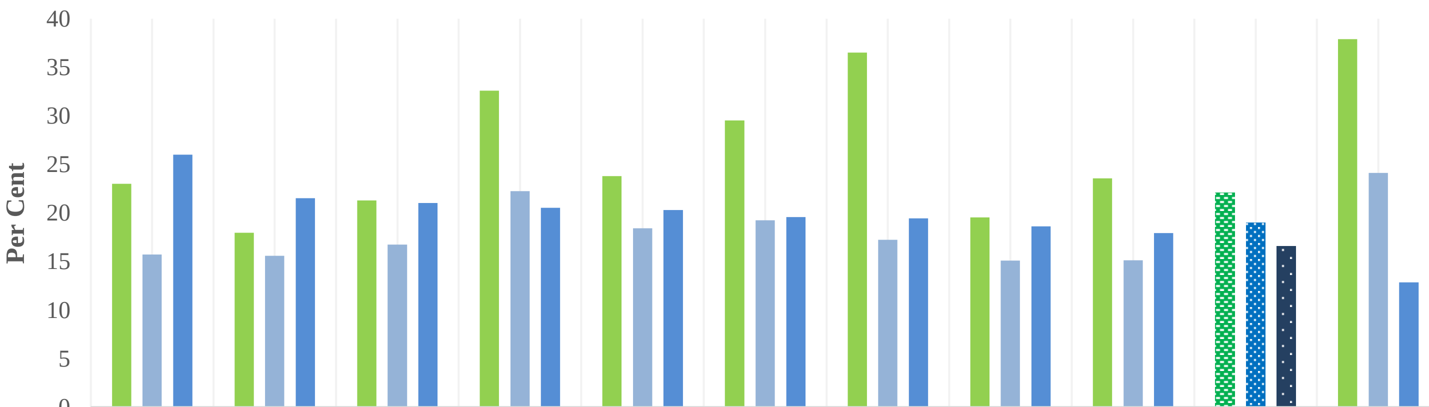
	Average Share 1961-1985	Average Share 2010-2021	Percentage Points 1981-85 and 2010-21
Total Investment (Government and Business)	**27.6**	**16.8**	**-10.8**
Non-Residential Government Investment (Structures, M&E)	6.3	3.9	**-2.4**
Residential Business Investment	5.9	5.7	**-0.2**
Non-Residential Business Investment	15.4	7.3	**-8.1**
Spending in Structures	6.7	3.2	**-3.5**
Spending in M&E	8.8	4.1	**-4.6**

Sources: Statistics Canada, Table 36-10-0099-01, and Table 36-10-0098-01

A Closer Look to Recent Developments (2000-2021)

For recent developments between 2000 and 2021, the investment share in GDP in New Brunswick fell by 2.42 percentage points, from 19.0 per cent in 2000 to 16.6 per cent in 2021. After experiencing a rise in the share in 2000-2008, New Brunswick witnessed critical investment developments in subsequent years. From 2008 to 2015, investment sharply fell, resulting in a significant drop of 6.4 points in the share and represented the worst outcome among all provinces in the country. By 2015, New Brunswick's share was 15.6 per cent, 5.38 percentage points below the national average. For the last period between 2015 and 2021, New Brunswick experienced an increase in investment which produced a slight rebound of 0.92 percentage points in the share. As a result, by 2021, of all provinces, New Brunswick's investment share of GDP was the second lowest, exceedingly only that of Newfoundland and Labrador (Chart 7).

Chart 7: Total Investment (current prices) as Share of Nominal GDP, Canada, and Provinces, 1961, 2000 and 2021



	British Columbia	Ontario	Canada	Alberta	Nova Scotia	Sask	PEI	Quebec	Manitoba	New Brunswick	NFL
1961	23.02	17.95	21.30	32.61	23.81	29.53	36.52	19.54	23.55	22.10	37.89
2000	15.73	15.59	16.74	22.26	18.41	19.24	17.24	15.10	15.13	19.00	24.13
2021	25.99	21.51	21.02	20.53	20.32	19.59	19.44	18.64	17.92	16.58	12.84

1961 2000 2021

Sources: Statistics Canada, Table 36-10-0325-01; Table 36-10-0222-01; Table 36-10-0099-01 and Table 36-10-0098-01

ii. Investment Growth

New Brunswick's total investment grew at a compound annual rate of 2.48 per cent between 1961 and 2021, 0.46 points below the national rate of 2.94 per cent (Table 3). During this period, New Brunswick had the fifth lowest growth rate of all provinces (Panel A of

Appendix Chart 1).[5] Prior to the 2000s during the 1961-1981 and 1981-2000 periods, New Brunswick experienced annual investment growths of 4.06 per cent and 2.76 per cent (Panels B and C of Appendix Chart 1). This growth continued in 2000-2008 at a rate of 4.2 per cent, the fourth lowest rate among all provinces and 1.15 points below the Canadian rate. However, between 2008 and 2015, investment growth sharply plummeted below zero to negative 4.2 per cent. Consequently, the national compound annual growth rate exceeded that of New Brunswick by 5.4 points, the widest gap in investment growth ever experienced between New Brunswick and Canada (Table 3). During this same period, New Brunswick, Prince Edward Island, and Quebec were the only provinces that experienced a negative investment compound annual growth rate, and, among the three, New Brunswick had the lowest rate (Panel E of Appendix Chart 1). For the last period between 2015 and 2021, as presented in Panel F of Appendix Chart 1, New Brunswick's total investment growth picked up to 2.18 per cent, 1.69 percentage points above the 0.49 per cent from Canada.

As a result, particularly in recent years, investment developments in New Brunswick have been subject to ups and downs. The province ranked second last in the growth rate between 2008 and 2021 with a negative 1.31 per cent, just above Alberta, which ranked last with a negative growth rate of 2.59 per cent. On the other hand, New Brunswick ranked last with a 0.76 per cent growth rate in 2000-2021 (Panel G of Appendix Chart 1), reflecting the poor performance of investment in the province for the last twenty-one years.

Table 3: Total Investment Growth in New Brunswick and in Canada (Compound Annual Growth Rate), (chained dollars), 1961-2021

Periods	New Brunswick	Canada	Gap Between Investment Growth in New Brunswick and Canada, 1961-2021
1961-2021	2.48	2.94	-0.46
1961-2000	3.42	3.14	0.28
1961-1981	4.06	4.74	-0.68
1981-2000	2.76	1.49	1.26
2000-2021	0.76	2.57	-1.81
2000-2008	4.20	5.35	-1.15
2008-2015	-4.20	1.25	-5.45
2015-2021	2.18	0.49	1.69

Sources: Statistics Canada, Table 36-10-0099-01, and Table 36-10-0098-01

[5] Appendix Chart 1 contains panels from A to G, presenting the growth rates of Canada and all provinces during different periods from 1961 to 2021.

To enhance comparability with Canada and other provinces, Panels A to D from Appendix Chart 2 present investment developments in per capita terms. More specifically, in 2000, New Brunswick's per capita investment was $6,333 (2012 chained dollars), ranking sixth among all provinces and 16 per cent below the Canadian average of $7,603 per capita (Panel A). In 2008, New Brunswick's per capita investment increased 39 per cent since 2000, resulting in an $8,848 per capita investment with the same ranking among all provinces (Panel B). However, investment per capita spending dropped in 2015 to $6,448, ranking second last of all provinces and 40 per cent lower than the national average (Panel C). By 2021, New Brunswick's per capita investment was $7,047, ranking last among all provinces and 32 per cent below the national average of $10,404 per capita (Panel D). The takeaway from the latter developments permits us to visualize a much clearer story of New Brunswick's investment deterioration over time, ranking sixth during the early-mid 2000s to last in 2021 in its per capita investment.

Tables 4 and 5 present developments of each type of investment to provide a thorough understanding of the reasons for New Brunswick's weak total investment growth. In the periods 1961-2000 and 2000-2008, New Brunswick had increases in its investment flows, in real terms driven by the growth in each investment component (Table 4 or 5). Nevertheless, as discussed earlier, after 2008, performance deteriorated. From 2008 to 2015, New Brunswick's total investment experienced a sharp fall of 26 per cent (Table 4). Over this period, except for non-residential government spending, all investment components had negative growth rates. Non-residential business investment fell by a substantial 41.8 per cent, a result mainly caused by the massive 62.5 per cent fall in investment in structures (Table 4). Total investment did slightly rebound over the 2015-2021 period (13.8 percent increment), but the province saw drops in its non-residential business investment, mainly from investment in M&E which fell by a significant 24.2 per cent.

Table 4 provides details on the total contribution of each component to investment in New Brunswick over the years from 1961 to 2021. As expected, business investment accounts for a higher share than non-residential government investment (77.5 per cent vs 22.2 per cent). Among the subcomponents, non-residential investment has contributed 47 per cent, whereas broken down by structure and M&E, spending in structure assets a 26.9 per cent to the total investment; larger shares than those by residential investment (30.5 per cent) and spending in non-residential M&E assets (20.2 per cent). Therefore, arguably much of New Brunswick's weak investment performance has been driven by the weak non-residential business investment development, as well as by the weak investment in structures.

Table 4: Total Investment and Investment Components in New Brunswick, (2012 chained dollars), 1961, 2000, 2015 and 2021

	Investment in 1961	Investment in 2000	Investment in 2008	Investment in 2015	Investment in 2021	*% Change in Investment 1961-2000*	*% Change in Investment 2000-2008*	*% Change in Investment 2008-2015*	*% Change in Investment 2015-2021*	*Total Contribution 1961-2021 (%)*
Total Investment (Government and Business)	**1,280**	**4,753**	**6,608**	**4,893**	**5,570**	**271.3**	**39.0**	**-26.0**	**13.8**	**100**
Government Non-Residential Investment (Structures, M&E)	461	883	996	1,045	1,099	91.5	12.8	4.9	5.2	**22.2**
Gross Business Investment	807	3,858	5,602	3,839	4,465	378.1	45.2	-31.5	16.3	**77.5**
Residential Investment	276	1,207	1,872	1,667	2,395	337.3	55.1	-11.0	43.7	**30.5**
Non-Residential Investment	531	2,651	3,730	2,172	2,070	399.2	40.7	-41.8	-4.7	**47.1**
Spending on Structures	402	1,580	2,226	834	1,056	293.0	40.9	-62.5	26.6	**26.9**
Spending on M&E	129	1,071	1,504	1,338	1,014	730.2	40.4	-11.0	-24.2	**20.2**

Sources: Statistics Canada, Table 36-10-0099-01, and Table 36-10-0098-01. The table highlights in "dark grey" the major types of investment that fell in New Brunswick since 2008

Table 5: Compound Annual Growth Rate of Total Investment and Investment Components in New Brunswick, (2012 chained dollars), 1961-2021

	1961-2000	2000-2008	2008-2015	2015-2021
Total Investment (Business and Government)	**3.42**	**4.20**	**-4.20**	**2.18**
Non-Residential Government Investment (Structures, M&E)	1.68	1.52	0.69	0.84
Gross Business Investment	4.09	4.77	-5.26	2.55
Residential Business Investment	3.86	5.64	-1.64	6.23
Non-Residential Business Investment	4.21	4.36	-7.43	-0.80
Spending in Structures	3.57	4.38	-13.09	4.01
Spending in M&E	5.58	4.34	-1.66	-4.52

Sources: Statistics Canada, Table 36-10-0099-01, and Table 36-10-0098-01

iii. Net Investment

In simple words, net investment can be defined as the difference between the total money spent on gross investment and the cost of depreciation of those fixed assets. Net investment can serve as an indicator for assessing a region's or country's economic production capabilities since it provides a better sense of trends in the true size of the effective productive capacity of the capital stock. As a result, net investment development provides much more thorough information about investment in New Brunswick. In this subsection and throughout the rest of the report, real values are used when looking at net investment growth, whereas when analyzing the proportion levels of net investment, nominal values are used.

In 1961, the net investment in New Brunswick was $362 million (chained 2012), an amount that increased by 96 per cent to a $710 million in 2021. A major reason for such a small increase in the province's net investment is attributed to the steady depreciation growth and fall in gross investment. More specifically, between 1961 and 2021, New Brunswick experienced a depreciation compound annual growth rate of 2.82 per cent, higher than the gross investment growth rate and, hence, dragging down net investment growth to a negative 0.34 per cent (Table 6).

As shown in Table 6, from 1961 to 2000, New Brunswick's net investment grew at a low rate due to the strong depreciation growth and the low gross investment. In the 2000s, between 2000 and 2008, net investment growth accelerated to 0.79 per cent; however, due to the poor gross investment development mentioned earlier between 2008 and 2015, the net investment growth rate plummeted to a substantial negative 5.31 per cent. For the 2015-2021 period, New Brunswick experienced a rebound in its growth rate of 1.62 per cent, increasing the net investment value by $516 million (chained 2012). Overall, there has been a worse performance of net investment than gross investment over 1961-2021 due to faster growth of depreciation, reversing after 2015.

Table 6: Comparison of New Brunswick's Total Investment and Depreciation Growth Rate (Compound Annual Growth Rate), (chained dollars), 1961-2021

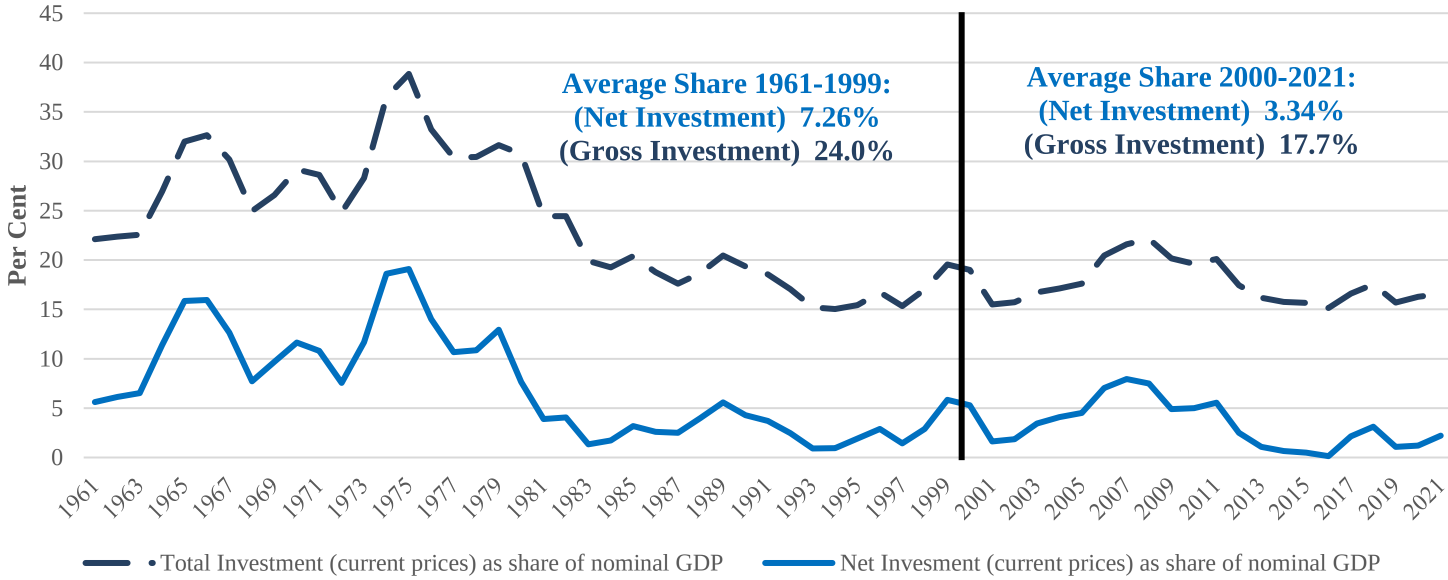
Periods	Investment Compound Annual Growth Rate	Depreciation Compound Annual Growth Rate	Net Investment Compound Annual Growth Rate
1961-2021	2.48	2.82	-0.34
1961-2000	3.42	3.36	0.06
2000-2021	0.76	1.82	-1.06
2000-2008	4.20	3.41	0.79
2008-2015	-4.20	1.11	-5.31
2015-2021	2.18	0.56	1.62

Sources: Statistics Canada, Table 36-10-0099-01, and Table 36-10-0098-01

Chart 8 shows New Brunswick's gross investment and net investment as a share of nominal GDP. The overall trend reflects similar outcomes discussed in Chart 1 and shows a significant decrease in the share of investment and a shocking fall in the share of net investment. Compared to historical trends before the 2000s, the net investment average share almost halved in the last twenty-one years (7.3 per cent vs 3.3 per cent). Particularly between 2008 and 2015, the share had a significant drop of 5.27 percentage points, whereas the overall drop between 2000 and 2021 was 3.08 percentage points.

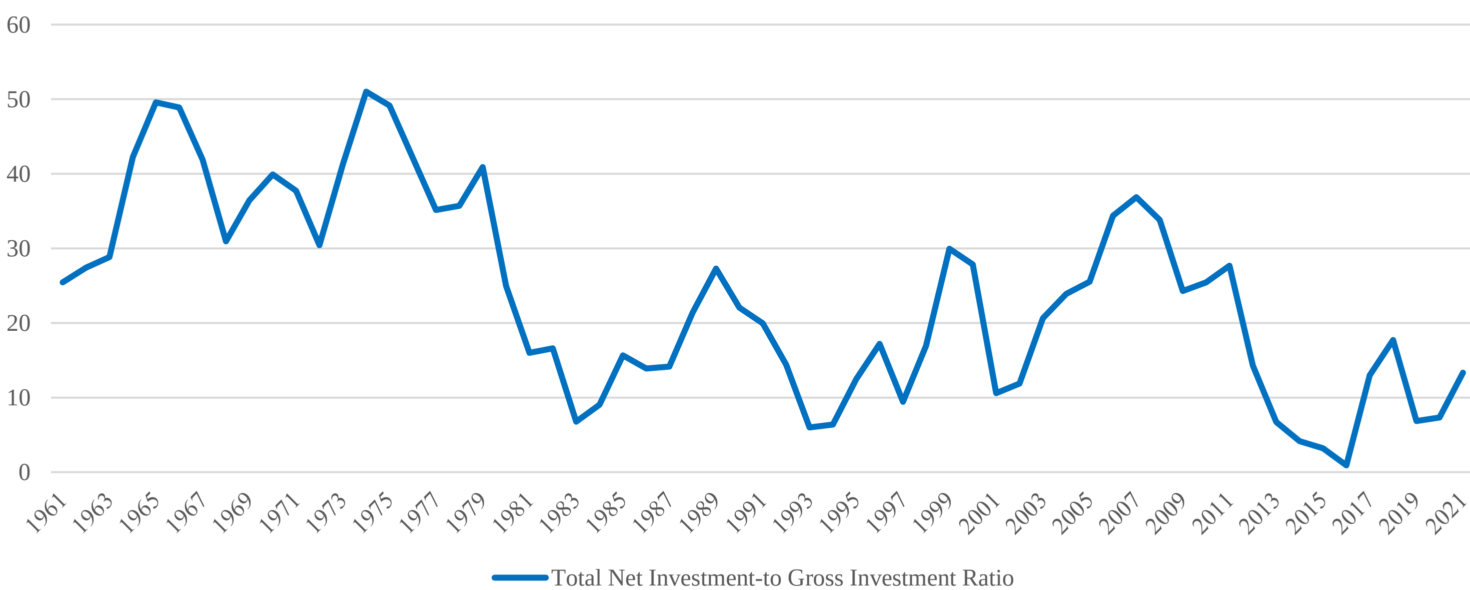
Chart 9 shows the share of net investment as a percentage of gross investment. The overall trend reveals a substantial fall in the share from 27 per cent in 1961 to 13 per cent in 2021, a large fall-off of 14 percentage points. This is a concerning development since it suggests that the share of investment used to increase the stock of capital goods in New Brunswick's economy has fallen over time. The depreciation rate has risen and so more of investment goes to replenishing existing capital stock. In other words, the rate of capital accumulation in the economy has fallen, with negative implications for the province's long-term productivity, development, and economic growth.

Chart 8: New Brunswick's Gross Investment and Net Investment as Share of Nominal GDP, (current prices), 1961-2021



Sources: Statistics Canada, Table 36-10-0325-01; Table 36-10-0222-01; Table 36-10-0099-01 and Table 36-10-0098-01

Chart 9: New Brunswick's Net Investment-to-Gross Investment Ratio, (current prices), 1961-2021



Sources: Statistics Canada, Table 36-10-0325-01; Table 36-10-0222-01; Table 36-10-0099-01 and Table 36-10-0098-01

B. (Section 2): Residential Business Investment, 2000-2021

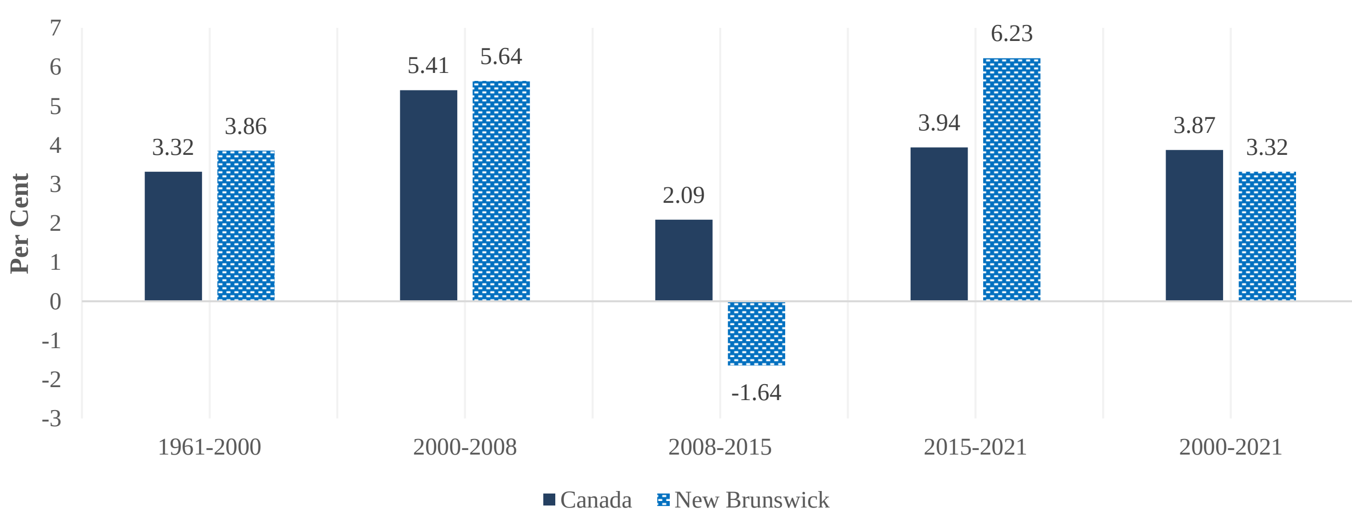
i. Residential Business Investment Growth

Residential business investment has fared relatively well in New Brunswick throughout the past sixty years. In 1961, the province had a residential business investment per capita of $461 (2012 chained dollars), an amount that rose to $1,608 or $1.2 billion in 2000, growing at an annual rate of 3.9 per cent. This growth remained strong during the 2000s and for the 2000-2008 period, New Brunswick's business residential grew at a rate of 5.6 per cent, 0.23 percentage points above Canada (Panel A of Chart 10). Between 2008 and 2015, the growth rate plummeted to a negative 1.6 per cent and bounced back during the 2015-2021 period at 6.2 per cent, 2.29 percentage points above the Canadian growth rate. Consequently, albeit still below, New Brunswick's overall housing investment growth rate from 2000 to 2021 was just 0.55 percentage points below Canada's (3.9 per cent vs 3.3 per cent).

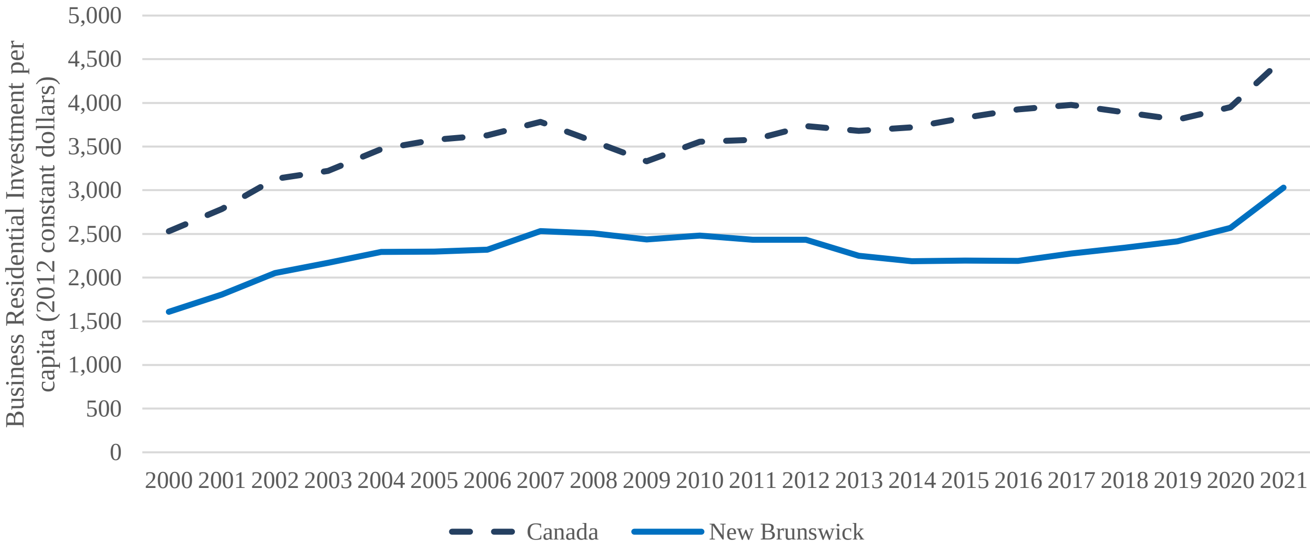
Panel B in Chart 10 shows the developments of residential business investment per capita between 2000 and 2021. There has been an upward trend in investment for Canada and New Brunswick for the past twenty-one years. Between 2008 and 2015, the trend kept relatively steady, and by 2021, New Brunswick's business residential investment per capita rose to $3,030, equivalent to $2.3 billion. New Brunswick now has 61 per cent of Canada's per capita business residential investment, down 11 percentage points from the 72 per cent share in 2000 (Panel C of Chart 10).

Chart 10: Growth and Trends of Business Residential Investment in Canada and New Brunswick, 2000-2021

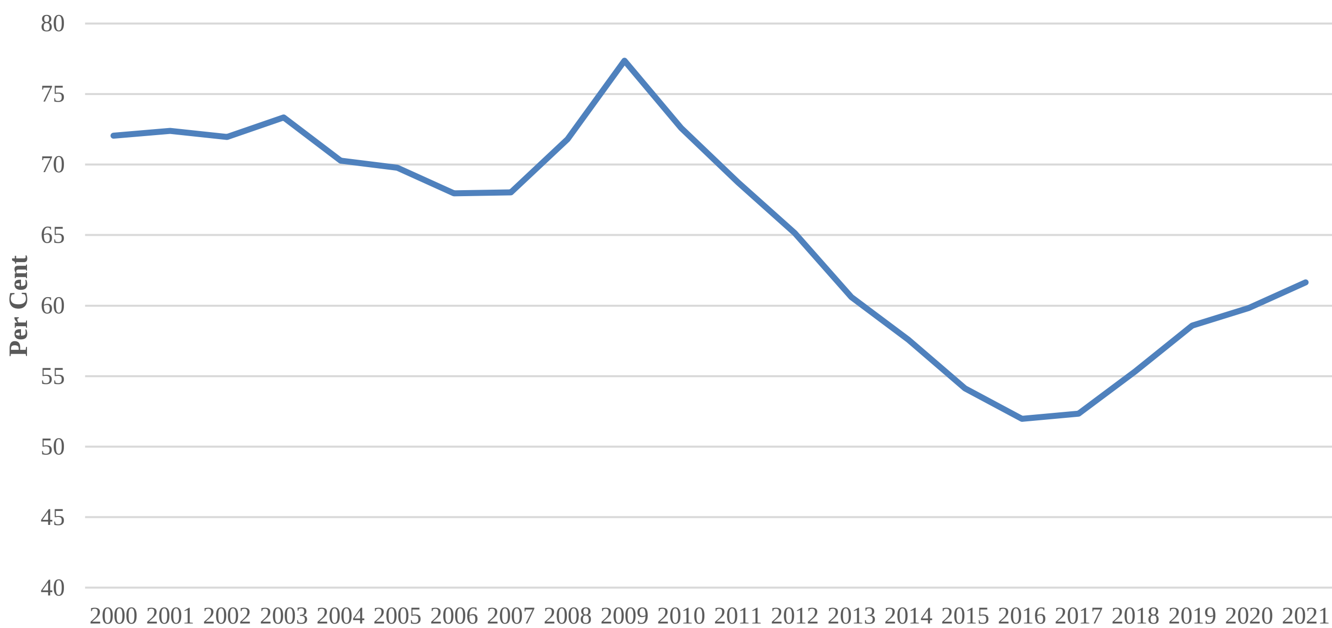
Panel A: Residential Business Investment Growth (2012 chained dollars)



Panel B: Residential Business Investment per capita (2012 chained dollars)



Panel C: Residential Business Investment per capita (current prices): New Brunswick as a proportion of Canada (%)

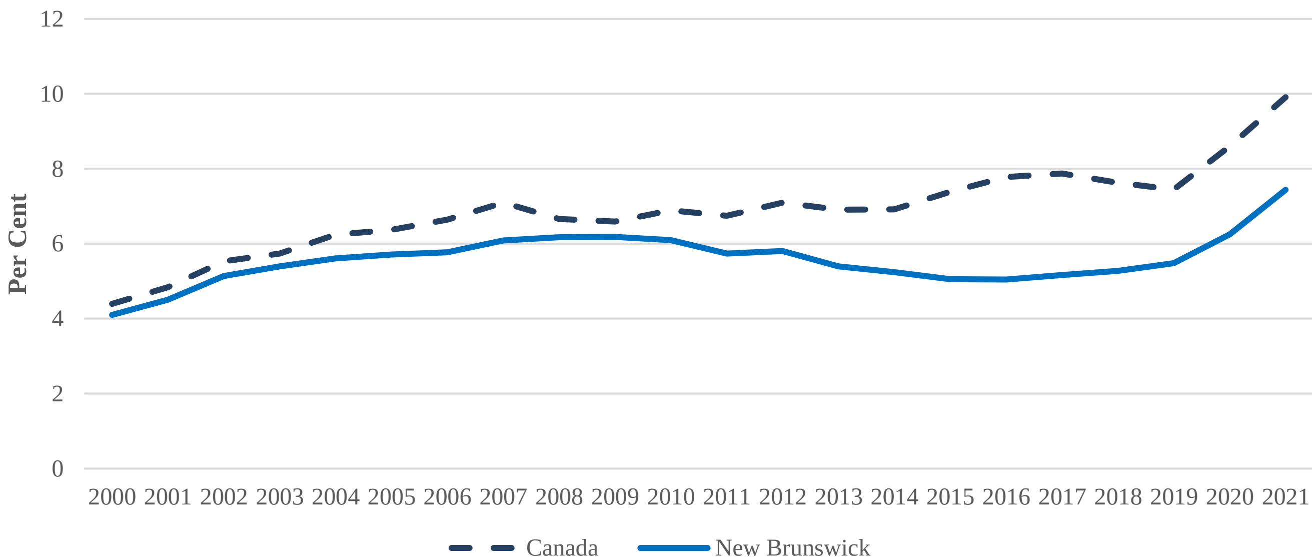


Sources: Statistics Canada, Table 36-10-0099-01 and Table 17-10-0009-01

ii. Residential Business Investment as a Share of Nominal GDP

New Brunswick's business residential investment share from nominal GDP has substantially improved since 2000, increasing from 4.1 per cent in 2000 to 7.4 per cent in 2021, a 3.3 percentage points increment. This positive result has been part of a stabilized and strong development in the business residential investment in the province. Between 2008 and 2015, the share fell shortly by 1.1 points and rapidly recovered between 2015 and 2021, rising by 2.3 points. Nevertheless, in comparison to the shares of GDP going towards business residential investment in Canada, the percentage point difference with New Brunswick has widened since 2008 and by 2021, New Brunswick's share was situated 2.4 points below the national share (Chart 11). In relative terms, New Brunswick's relative business residential investment decreased by 17.6 points from 92.6 per cent of Canada's to 75 per cent during the 2008-2021 period; similarly, from 2000 to 2021, this relative level decreased by 18.2 points (93.3 per cent vs 75 per cent).

Chart 11: Residential Business Investment as a Share of Nominal GDP (current prices), Canada and New Brunswick, 2000-2021



Sources: Statistics Canada, Table 36-10-0099-01 and Table 36-10-0222-01

iii. Residential Business Net Investment

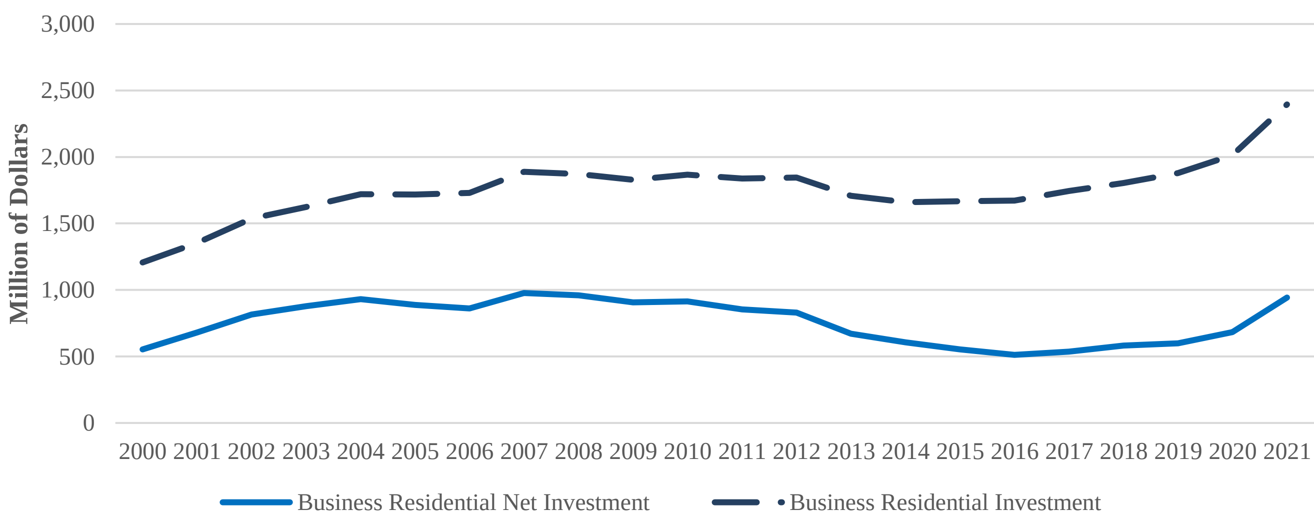
The stable rise in residential gross investment that New Brunswick experienced from 2000-2021 has contributed to an overall increase in the province's residential business net investment. Panel A of Chart 12 pictures the latter, New Brunswick's residential business gross investment and net investment.

In 2000, New Brunswick's residential net investment was $553 million rising to $943 million by 2021 (2012 chained dollars), a percentage rise of almost three quarters. Relative to Canada, between 2008-2015, New Brunswick had a larger drop in its net residential investment growth rate (- 4.5 per cent), which contributed to an important fall (Panel B of Chart 12). From 2015 to 2021, the rate of growth bounced back and accelerated to 1.7 per cent, whereas Canada experienced no growth. The latter reversed the negative development and led to a substantial recovery, reaching previous residential net investment levels. Nevertheless, the overall development (i.e., 2000-2021) shows that New Brunswick keeps falling behind the national growth, majorly due to the weak gross investment development and steady depreciation (Panel C of Chart 11). Between 2000 and 2021, New Brunswick experienced a high business residential depreciation growth rate, and the share of depreciation in GDP more than doubled, from 2.2 per cent in 2000 to 4.6 per cent in 2021 (Panel D of Chart 11). Therefore, the annual growth rate of residential net investment in New Brunswick in the period 2000-2021 was negative 0.6 per cent, 0.95 points below the Canadian growth rate.

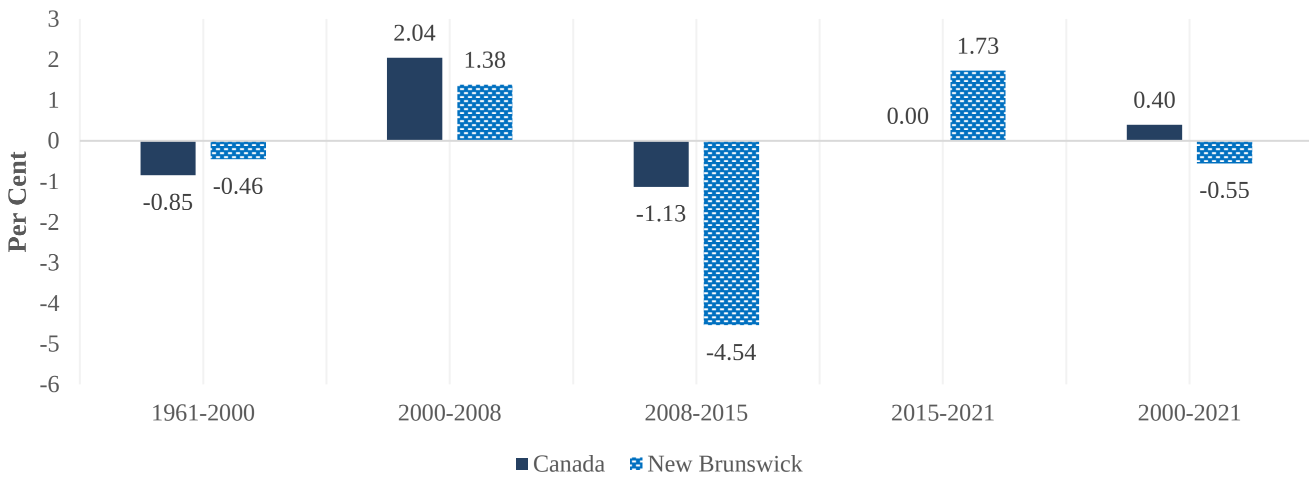
Panel E in Chart 12 shows the residential business net investment to gross investment ratio in New Brunswick. The overall trend from 2000 to 2021 has been downward. In 2000, the share was 47.3 per cent falling to 38.2 per cent in 2021 (9.1 percentage points drop). The biggest drop occurred between 2008 and 2015, recovering with an increase of 4.94 percentage points during the 2015-2021 period. Hence, there has been a larger portion of gross investment going towards maintaining and replacing existing capital goods rather than adding new capital goods to increase production capacity.

Chart 12: Residential Business Net Investment, Canada and New Brunswick, 2000-2021

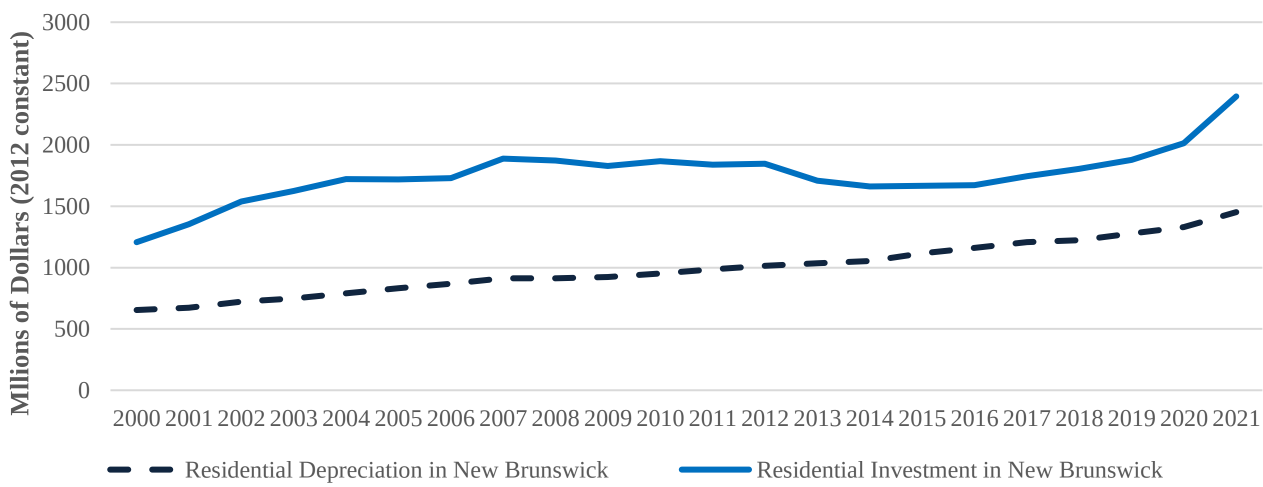
Panel A: Residential Gross Investment and Net Investment in New Brunswick, (2012 chained dollars)



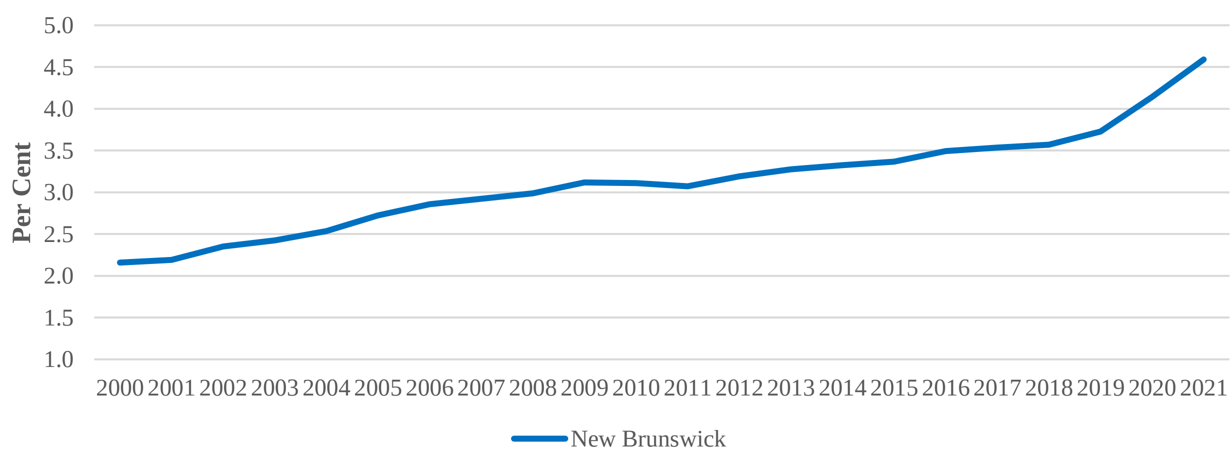
Panel B: Residential Business Net Investment Growth, (2012 chained dollars)



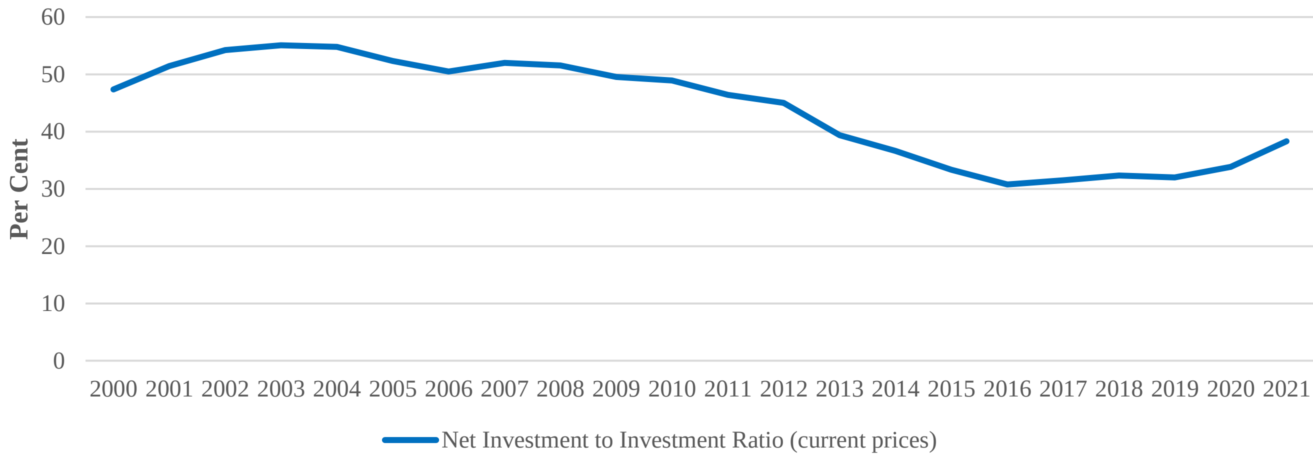
Panel C: Residential Business Gross Investment and Depreciation, (2012 chained dollars)



Panel D: Residential Depreciation as a Share of Nominal GDP, NB, (current prices)



Panel E: Residential Net Investment-to-Gross Investment Ratio, New Brunswick, (current prices)



Sources: Statistics Canada, Table 36-10-0099-01

C. (Section 3): Non-Residential Business Investment (Structures, M&E), 2000-2021

The proportion of New Brunswick's total non-residential investment that is allocated to non-residential business investment (structure, machinery and equipment) fell by 12 percentage points between 2000 and 2021. In 2000, the share accounted for 78 per cent of the total non-residential investment. This proportion reached a peak of 79 per cent in 2008 and fell gradually to 66 per cent in 2021. Out of the total share, the share of business investment in structure assets accounted for 34 per cent, whereas the share of manufacturing and equipment assets accounted for 32 per cent in 2021.

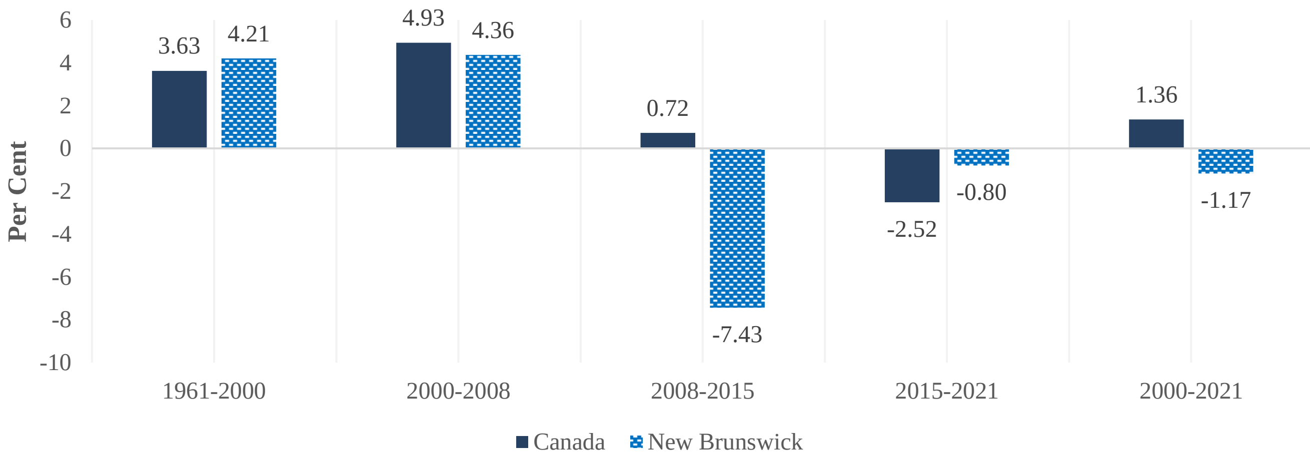
i. Non-Residential Business Investment Growth

Contrary to New Brunswick's residential business investment developments during 2000-2021, non-residential business investment has witnessed a decline. In effect, the only growth in New Brunswick's non-residential investment occurred from 2000 to 2008 with an annual growth rate of 4.3 per cent, just 0.57 points below the national rate. In subsequent years, the province encountered a sharp decline in its investment and the growth rate plummeted below zero to negative 7.4 per cent and negative 0.8 per cent in periods 2008-2015 and 2015-2021 (Panel A of Chart 13). These negative developments were also taking place at the national level, particularly between 2015 and 2021, having a substantial negative compound annual growth rate and worse than that of New Brunswick (1.72 percentage points below). Consequently, the overall compound annual growth rate for New Brunswick between 2000 and 2021 was negative, 2.53 percentage points below Canada's growth rate (1.4 per cent vs -1.2 per cent). Panel B below shows the continued fluctuation of non-residential investment in both regions, with New

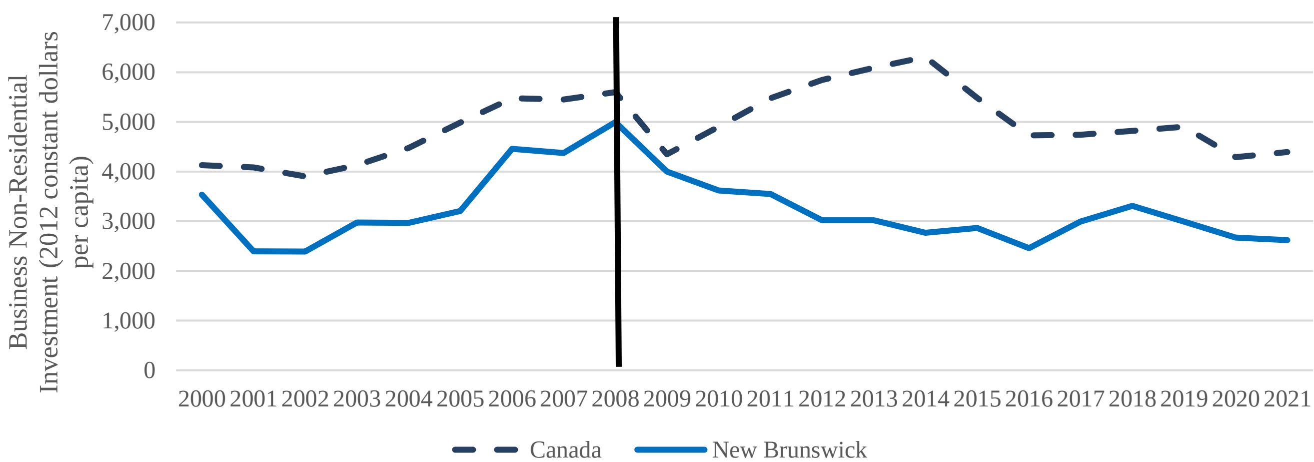
Brunswick showing an overall downward slope, whereas Canada shows a marginal overall upward slope. By 2021, New Brunswick's non-residential business investment per capita was $2,619 (2012 chained dollars), 26 per cent above Nova Scotia's and 40 per cent below Canada's per capita spending.[6]

Chart 13: Growth and Trends of Business Non-Residential Investment in Canada and New Brunswick, (2012 chained dollars), 2000-2021

Panel A: Non-Residential Business Investment Growth



Panel B: Business Non-Residential Investment per capita



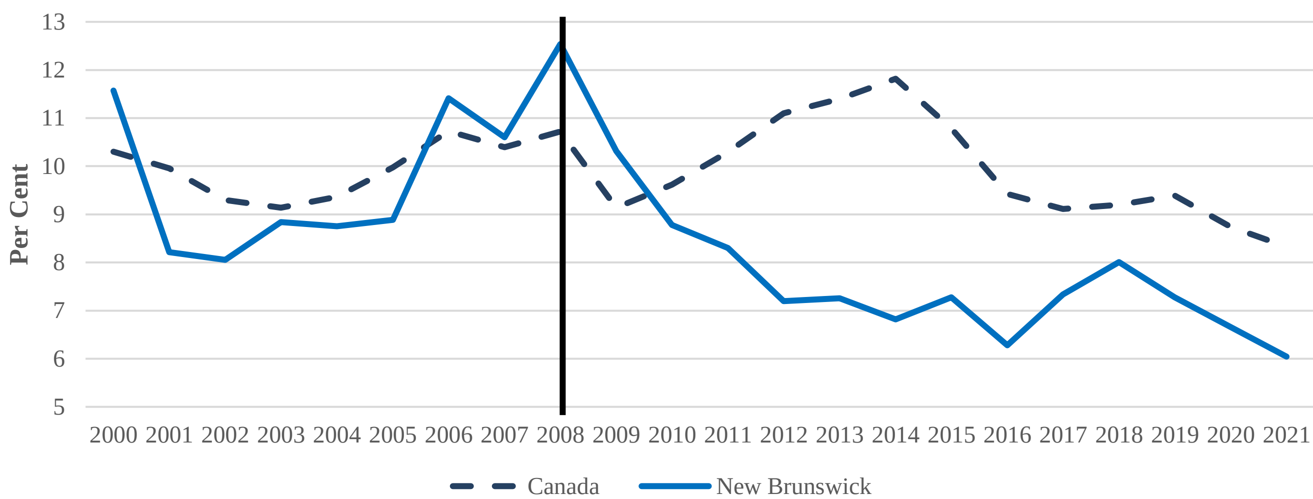
Sources: Statistics Canada, Table 36-10-0098-01 and Table 17-10-0009-01

[6] The database used to conduct the analysis in this report contains recent investment developments in Nova Scotia to compare with New Brunswick.

ii. Non-Residential Business Investment as a Share of Nominal GDP

As shown in Chart 14, the share of non-residential business investment in GDP in New Brunswick has fallen since 2000, a trend that has been more pronounced after 2008. From 2000 to 2021, the share dropped by 5.53 percentage points (11.5 per cent vs 6 per cent). Eventually, the percentage point difference between the Canadian and New Brunswick shares widened since 2009 and by 2021, New Brunswick's share was situated 2.29 percentage points below the national share (6.0 per cent vs 8.3 per cent). Nevertheless, similar to New Brunswick, the overall trend that Canada witnessed was also downward sloping, mirroring also the poor non-residential business investment experienced at the national level.

Chart 14: Non-Residential Business Investment as a Share of Nominal GDP, Canada and New Brunswick, (current prices), 2000-2021



Sources: Statistics Canada, Table 36-10-0098-01 and Table 36-10-0222-01

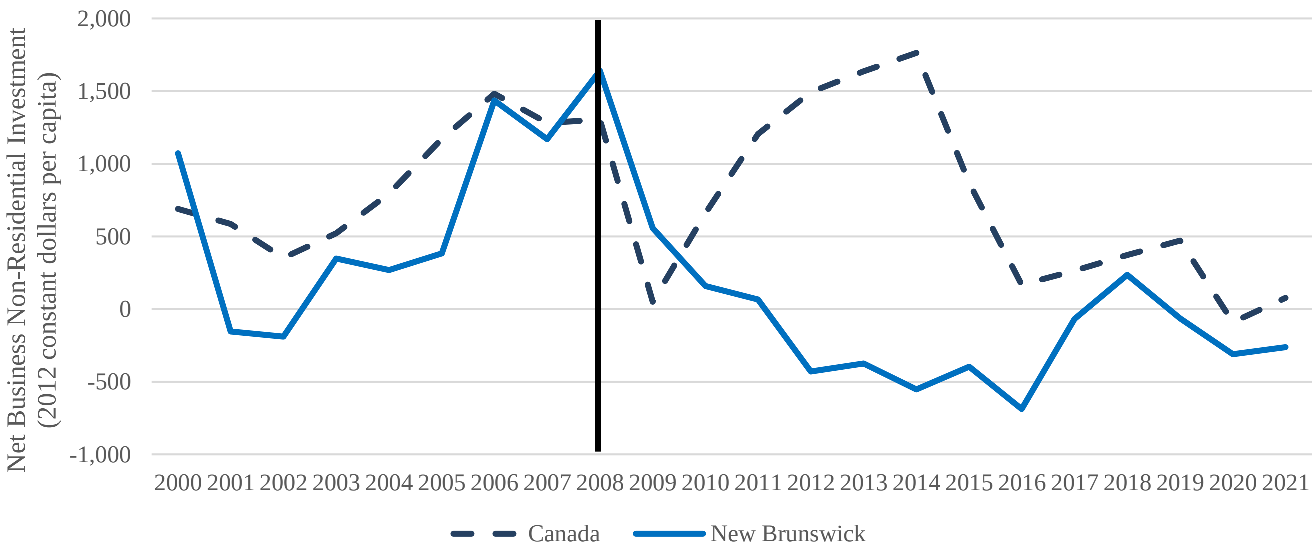
iii. Non-Residential Business Net Investment

Due to the poor development of non-residential gross investment flows from the business sector in New Brunswick, the net investment has dwindled markedly. In 2000, the business sector's per capita non-residential net investment accumulated $1,073 (chained 2012), an amount that fell below zero to $262 in 2021. As shown in Panel A of Chart 15, after the 2008-2009 economic crisis, New Brunswick's business net investment for non-residential assets sharply declined until 2016, an outcome that developed differently for Canada. Particularly between 2012 and 2021, New Brunswick's business non-residential net investment worsen to substantial negative amounts. The reason for the latter is further explained in Appendix Chart 3, where New Brunswick's gross investment fell consistently lower than depreciation between 2012 and 2017, increasing in 2018 and falling again until 2021. Consequently, New Brunswick's non-residential net investment did not grow between 2000 and 2021, and its growth rate was a negative 2.1 per cent, 1.38 percentage points below the national rate (Panel B of Chart 15).

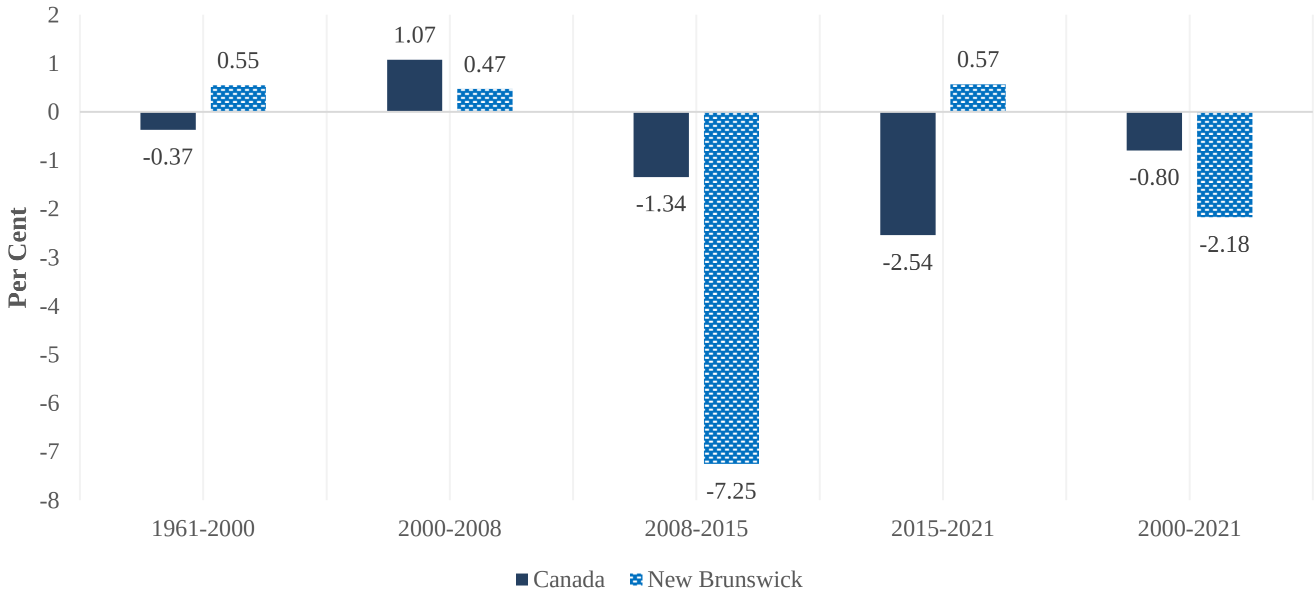
To further illustrate the weak development of non-residential net investment in New Brunswick, Panel A and B of Chart 16 show the trends of net investment and gross investment, and net investment as a share of investment. Outcomes particularly from Panel B show that the share of business non-residential net investment from non-residential gross investment has fallen since 2008. After reaching an all-time high of 32 per cent in 2008, the province had a massive fall of 60 percentage points from 2008-2016. Thus, by 2016, New Brunswick reached an all-time low of 28 per cent, and by 2021, the share remained below zero at a negative 9 per cent. These developments present a concerning scenario, especially for a type of investment that accounts for a bigger share of total investment developments.

Chart 15: Growth and Trends of Business Non-Residential Net Investment in Canada and New Brunswick, (2012 chained dollars), 2000-2021

Panel A: Business Non-Residential Net Investment per capita



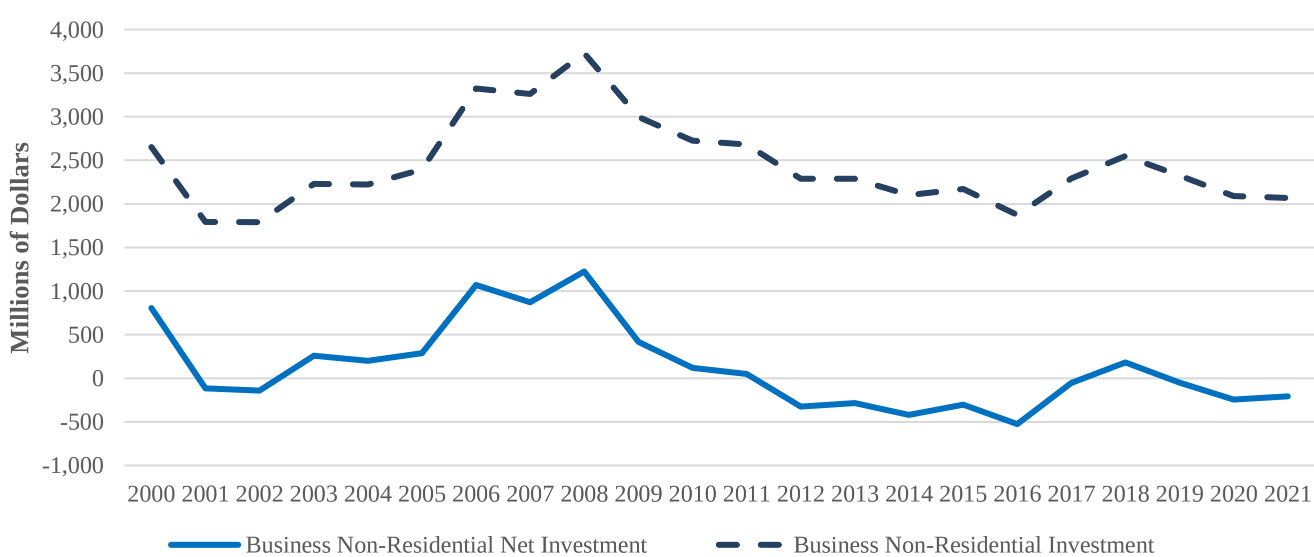
Panel B: Business Non-Residential Net Investment Growth



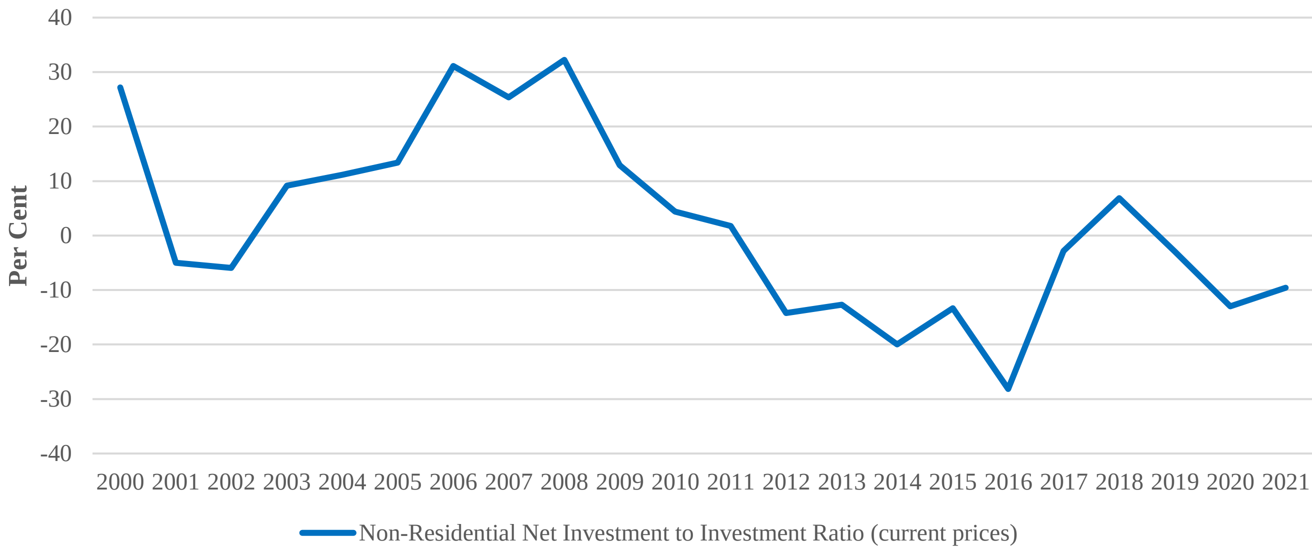
Sources: Statistics Canada, Table 36-10-0098-01 and Table 17-10-0009-01

Chart 16: Business Non-Residential Net Investment and Investment in New Brunswick, 2000-2021

Panel A: Non-Residential Net investment and Non-residential Investment, (chained dollars)



Panel B: Non-Residential Net Investment-to- Gross Investment Ratio, (current prices)



Sources: Statistics Canada, Table 36-10-0098-01

D. Non-Residential Business Investment in Structures (non-residential buildings and engineering construction), 2000-2021[7]

i. Non-Residential Business Investment in Structure Growth

Non-residential investment in structures by businesses decreased by $524 million (2012 chained dollars), over the period 2000-2021falling from a per capita investment of $2,105 in 2000 to $1,336 in 2021. As shown in Chart 17, New Brunswick's business spending in structures accounted for 49 per cent of the national average by 2021, down 51.3 percentage points from the share in 2000. The biggest drop in the relative level occurred between 2008 and 2015 with 67 percentage points, a period for which investment in structure in New Brunswick trended downwards consistently, whereas Canada's bounced back one year after.

Chart 18 shows the growth rates witnessed between 2000 and 2021 for non-residential business investment. During 2008-2021, the rate fell to a negative 5.5 per cent, an outcome that was influenced by the massive drop-off in the growth rate during the period 2008-2015 (negative 13 percent). Although New Brunswick saw positive growth rates during 2000-2008 and 2015-2021, the province had no growth between 2000 and 2021, and its negative growth rate was 3.7 percentage points below the national rate (-1.9 per cent vs 1.8 per cent).

[7] In this report, we look at the overall developments of non-residential investment in structures, hence the analysis sheds light on the investment progress in engineering construction and non-residential building jointly.

Chart 17: Non-Residential Business Investment in Structure per capita: New Brunswick as a proportion of Canada (%), (current prices)

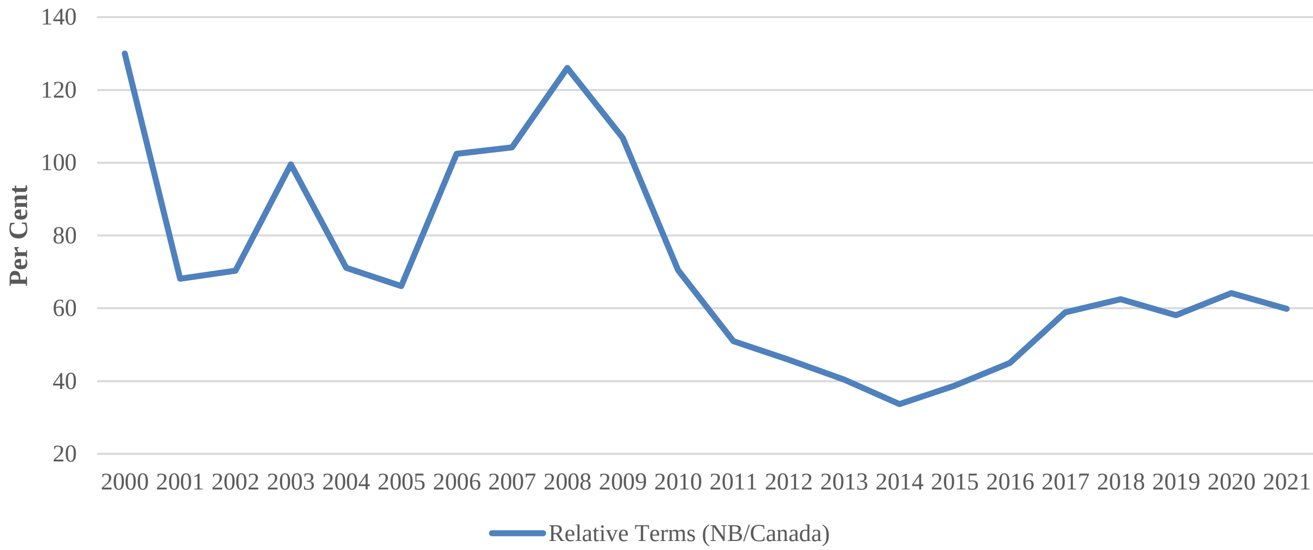
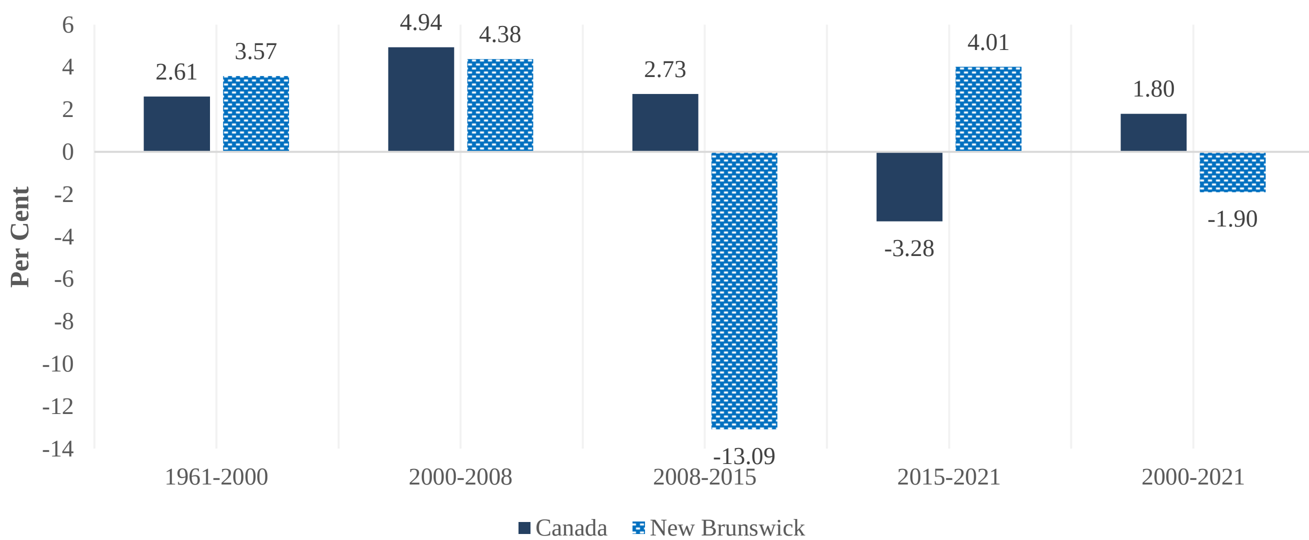


Chart 18: Non-Residential Business Investment in Structure Growth (chained dollars), Canada and New Brunswick, 2000-2021

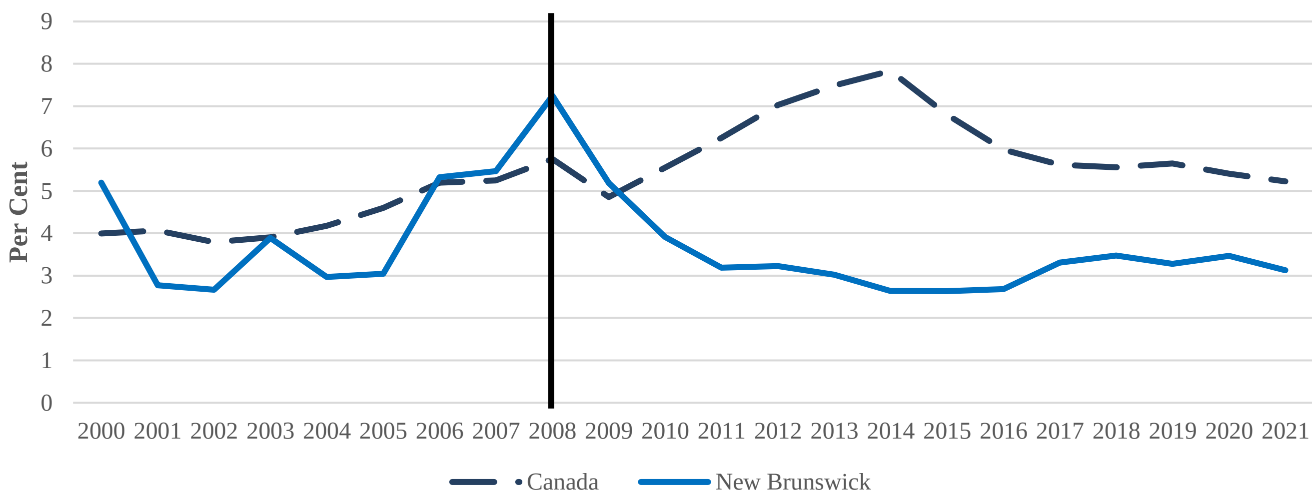


Sources: Statistics Canada, Table 36-10-0098-01 and Table 17-10-0009-01

ii. Non-Residential Business Investment in Structures as a Share of Nominal GDP

The percentage of GDP going towards business investment in non-residential structures mirrors the performance of structure investment in New Brunswick. As shown in Chart 19, since 2008, New Brunswick's share fell steadily, recovering slightly between 2015 and 2021. By 2021, the province share reached 3 per cent, standing 2 percentage points below the Canadian share of 5 per cent. For the overall development from 2000 to 2021, New Brunswick's business non-residential investment in structures share dropped of by 2.07 percentage points, whereas in relative terms, the drop was 70 percentage points. By 2021, relative to Canada's non-residential investment share in GDP, New Brunswick accounted for 59.8 per cent, down from 19 per cent in 2000. Ultimately, in contrast to New Brunswick, Canada's share followed a general upward trend between 2000 and 2021. Rather than having a steep drop after 2008, the share bounced back a year after, reaching an all-time high share in 2014 of 7.8 per cent and gradually falling until 2021.

Chart 19: Non-Residential Business Investment in Structure as Share of Nominal GDP, Canada and New Brunswick, 2000-2021



Sources: Statistics Canada, Table 36-10-0098-01 and Table 36-10-0222-01

iii. Non-Residential Business Net Investment in Structures

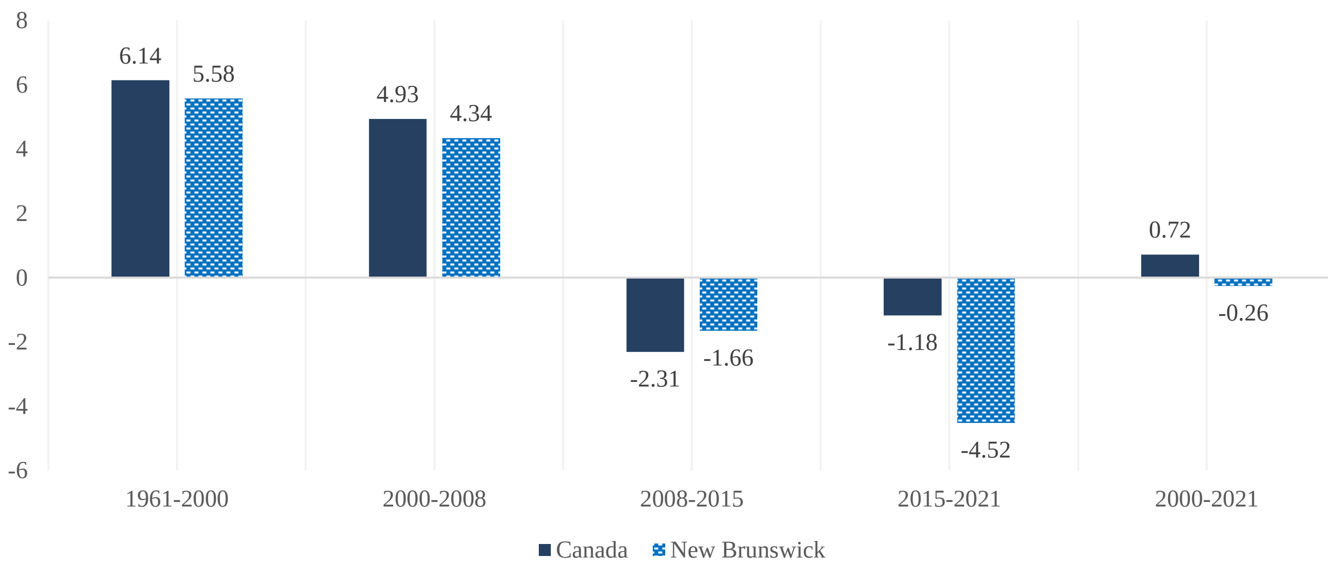
Business non-residential net investment in structures in New Brunswick has not been strong. In addition to the weak gross investment throughout the years, the steady depreciation has led the province to encounter with low net investment. Starting in 2011 up to 2016, non-residential business net spending in structure was negative, slightly reversing the negative trend from 2017 to 2020 and falling again in 2021. Interestingly, the depreciation growth rate slowed down between 2011 to 2016; however, business gross investment in structures reached levels that were more than offset by depreciation. On the other hand, Canada witnessed a sharp drop in its structural net investment between 2015 and 2021, however, in contrast to New Brunswick, it remained positive.

E. Non-Residential Business Investment in M&E, 2000-2021

i. Non-Residential Business Investment in M&E Growth

Chart 20 shows New Brunswick's non-residential business investment in machinery and equipment growth rates periods between 2000 and 2021. Akin to non-residential investment in structures, during the early to mid-2000s, New Brunswick's investment in machinery and equipment strongly grew at 4.3 per cent, just down by 0.6 points from Canada's rate. During the 2008-2015 period, the compound annual growth rate fell below zero for both, Canada, and New Brunswick; these outcomes continued during the 2015-2021 period for which New Brunswick experienced a lower growth rate, 3.34 percentage points below the national rate (Chart 20). Consequently, between 2008 and 2021, Canada and New Brunswick had no growth in their machinery and equipment business investment. The overall growth rates from 2000 to 2021, suggest a poor performance for Canada and New Brunswick, with a national annual growth rate of 0.7 per cent and a negative 0.2 per cent for New Brunswick.

Chart 20: Non-Residential Business Investment in M&E Growth (Compound Annual Rate) (chained dollars), Canada and New Brunswick, 2000-2021

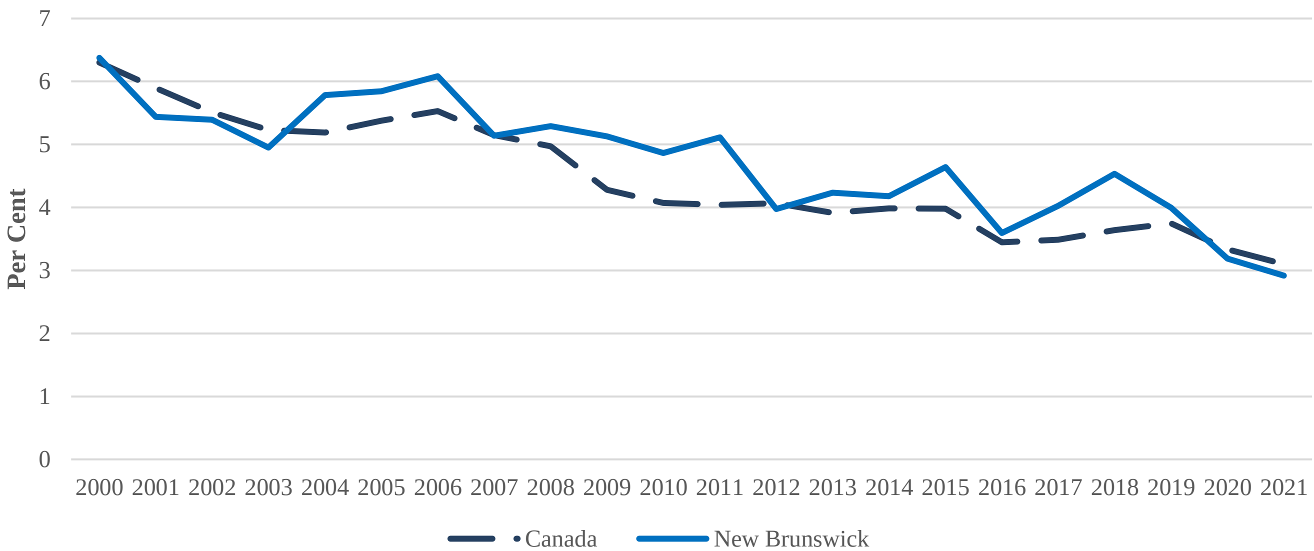


Sources: Statistics Canada, Table 36-10-0098-01

ii. Non-Residential Business Investment in M&E as a Share of Nominal GDP

Chart 21 presents the trends for Canada's and New Brunswick's percentage of GDP going towards non-residential business investment in machinery and equipment. In 2000, New Brunswick's share was at par with Canada's at 6.3 per cent. Between 2000 and 2008, New Brunswick's share dropped 1.08 percentage points followed by another 0.65 and 1.73 percentage point drops between the periods of 2008-2015 and 2015-2021. By 2021, New Brunswick's business investment in machinery and equipment as a share of GDP fell to 2.9 per cent, a fall-off of 3.46 points since 2000. Similarly, Canada has witnessed a fall in its share since 2000, and by 2021, its share feel to 3.10 per cent, a drop of 3.30 percentage points since 2000 and just 0.18 points above New Brunswick. As shown in Chart 21, the overall trend has been consistently downward for both regions, a great contributor to the decline in business investment discussed in Chart 16.

Chart 21: Non-Residential Business Investment in M&E as a Share of Nominal GDP in Canada and New Brunswick, 2000-2021



Sources: Statistics Canada, Table 36-10-0098-01 and Table 36-10-0222-01

iii. Non-Residential Business Net Investment in M&E

The downward trend witnessed by New Brunswick in its gross investment in machinery and equipment has been similar to that of Canada's. The year 2008 when a roughly controlled share turned into a decline. This same story is apparent in New Brunswick's and Canada's business net investment in machinery and equipment. In effect, since 2012, New Brunswick witnessed a consistent negative net investment, a negative tendency that was also present at the national level since 2015. By 2021, net investment fell below zero for both regions, a decrease of $322 million (2012 chained dollars) for New Brunswick and $9.2 billion for Canada since 2000. The low depreciation rate slowed between 2011-2016, nevertheless, given the levels of gross investment, net investment values in machinery and equipment have also been weak.

a. A Closer Look at Investment by Industry

iv. Non-Residential Business Investment (Structure and M&E): Industries

New Brunswick’s weak non-residential business investment is a concern; the obvious question is what has led to this weakness? Tables 7 and 8 below help us to better understand the developments of non-residential business investment by industry in New Brunswick from 2000 to 2021.

Table 7 presents the percentage change in the absolute level of investment over different periods, as well as the total contribution of investment in each industry to total non-residential business investment. Among all industries, the industries of utilities, manufacturing, transportation and warehousing, and finance accounted for three-quarters of the total contribution; thus, being the five most important industries for non-residential investment in New Brunswick. As shown in the table, in almost all industries the level of investment increased significantly during the 2000-2008 period, producing a substantial increment in non-residential business investment of 40.7 per cent between a and 2008. However, after the 2008-2009 economic crisis, investment fell sharply in many important industries during 2008-2015, particularly in the five most important ones. For instance, investment drastically fell in the utility industry by 75.7 per cent, whereas the falls in the transportation and warehousing, finance industries, and mining quarry were 61.4 per cent, 36.4 per cent, and 74 per cent. Hence total non-residential business investment fell by a massive $1.6 billion, or 42 per cent, between 2008 and 2015. Similar falls in investment in other industries continued over the 2015-2021 period which caused non-residential business investment to fall by an additional $102 million, 4.7 per cent. Consequently, the total contribution of many industries fell between periods 2000-2008 and 2008-2021.

In general, the drops in non-residential business investment in New Brunswick started to happen after the 2008-09 economic crisis. The massive drop in investment in the top five industries significantly impacted the development of total investment in New Brunswick. In fact, the sum of share of the top five industries decreased by 6.1 points, from 77 per cent in 2000-2008 to 70.9 per cent in 2008-2021.

Table 8 provides the growth rate experienced in each industry during different periods of non-residential investment. Unsurprisingly, the worst developments occurred during 2008-2015, in the aftermath of the global financial crisis. Industries like utilities, mining, transportation, and warehousing witnessed negative growth rates below 10 per cent; whereas industries categorized in other services, arts and entertainment, and educational services experienced high growth rates during such a period. Similarly, during 2015-2021, many industries did not experience growth and, among the five most important industries, only the transportation, and information and cultural industries experienced significant growth rate above 3 per cent.

Table 7: Non-Residential Business Investment by Industry in New Brunswick, (chained dollars), 1961-2021

Business Non-Residential Investment by Industries	Investment in 2000	Investment in 2008	Investment in 2015	Investment in 2021	**% Change in Investment 2000-2008**	**% Change in Investment 2008-2015**	**% Change in Investment 2015-2021**	**Total Contribution 2000-2008 (%)**	**Total Contribution 2008-2021 (%)**
Business Non-Residential Investment	**2,651**	**3,730**	**2,172**	**2,070**	40.7	-41.8	-4.70	**100**	**100**
Agriculture, forestry, fishing and hunting	104	81	82	130	-22.1	1.2	58.5	**3.0**	**4.1**
Mining, quarrying and oil and gas extraction	126	350	91	12	177.8	-74.0	-86.8	**7.1**	**4.7**
Utilities	285	1,061	258	260	272.3	-75.7	0.8	**19.6**	**17.6**
Construction	98	101	94	82	3.1	-6.9	-12.8	**3.2**	**3.7**
Manufacturing	1,104	522	498	398	-52.7	-4.6	-20.1	**27.8**	**18.7**
Wholesale trade	44	49	73	65	11.4	49.0	-11.0	**1.5**	**2.6**
Retail trade	67	247	171	98	268.7	-30.8	-42.7	**4.6**	**6.4**
Transportation and warehousing	306	591	228	292	93.1	-61.4	28.1	**13.7**	**13.5**
Information and cultural industries	126	210	205	371	66.7	-2.4	81.0	**5.2**	**11.0**
Finance, insurance, real estate, rental and leasing	293	387	246	177	32.1	-36.4	-28.0	**10.7**	**10.1**

Professional, scientific and technical services	29	23	32	26	-20.7	39.1	-18.8	**0.9**	**1.1**
Administrative and support, waste management and remediation services	23	29	18	31	26.1	-37.9	72.2	**0.8**	**1.0**
Educational services	2	1	4	10	-50.0	300.0	150.0	**0.1**	**0.2**
Health care and social assistance	6	30	68	21	400.0	126.7	-69.1	**0.5**	**1.6**
Arts, entertainment and recreation	5	7	38	14	40.0	442.9	-63.2	**0.2**	**0.9**
Accomodation and food services	14	44	45	64	214.3	2.3	42.2	**0.9**	**2.1**
Other services (except public administration)	5	5	21	16	0.0	320.0	-23.8	**0.2**	**0.6**

Sources: Statistics Canada, Table 36-10-0096-01. The table highlights in “dark grey” the major falls by industry of non-residential business investment in New Brunswick since 2008

Table 8: Non-Residential Business Investment Growth in NB, (chained dollars), 1961-2021

	Growth Rate 2000-2008	Growth Rate 2008-2015	Growth Rate 2015-2021
Business Non-Residential Investment Growth Rate	**4.36**	**-7.43**	**-0.80**
Agriculture, forestry, fishing and hunting Growth Rate	-3.08	0.18	7.98
Mining, quarrying and oil and gas extraction Growth Rate	13.62	-17.51	-28.66
Utilities Growth Rate	17.86	-18.29	0.13
Construction Growth Rate	0.38	-1.02	-2.25
Manufacturing Growth Rate	-8.94	-0.67	-3.67
Wholesale trade Growth Rate	1.35	5.86	-1.92
Retail trade Growth Rate	17.71	-5.12	-8.86
Transportation and warehousing Growth Rate	8.58	-12.72	4.21
Information and cultural industries Growth Rate	6.59	-0.34	10.39
Finance, insurance, real estate, rental and leasing Growth Rate	3.54	-6.27	-5.34

Professional, scientific and technical services Growth Rate	-2.86	4.83	-3.40
Administrative and support, waste management and remediation services Growth Rate	2.94	-6.59	9.48
Educational services Growth Rate	-8.30	21.90	16.50
Health care and social assistance Growth Rate	22.28	12.40	-17.78
Arts, entertainment and recreation Growth Rate	4.30	27.34	-15.33
Accomodation and food services Growth Rate	15.39	0.32	6.05
Other services (except public administration) Growth Rate	0.00	22.75	-4.43

Sources: Statistics Canada, Table 36-10-0096-01

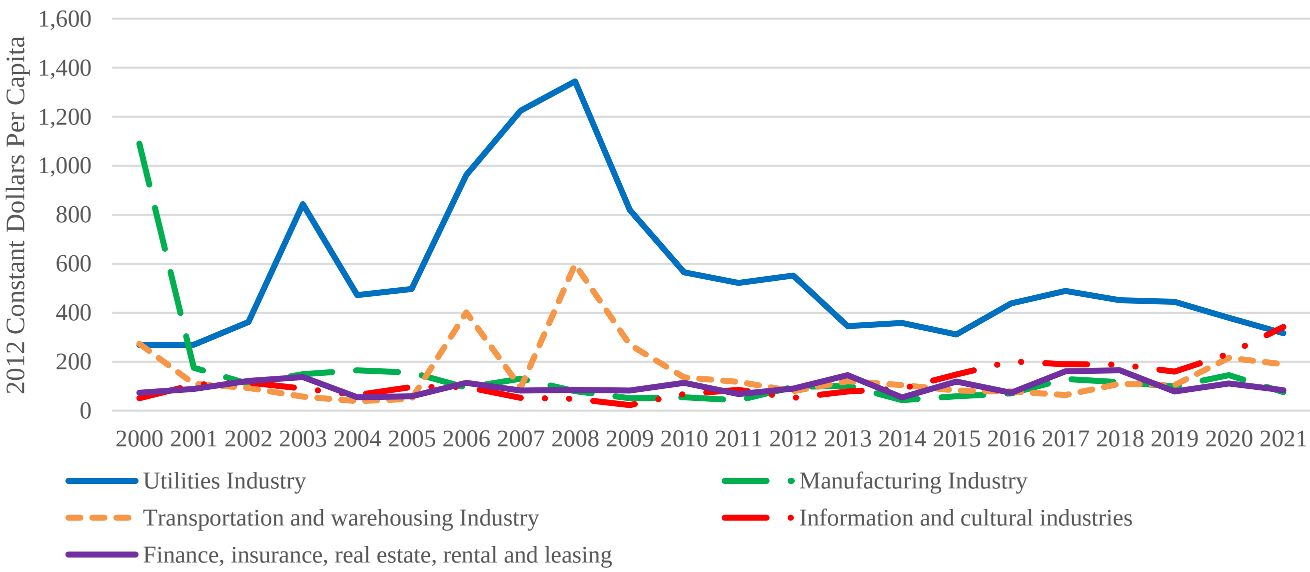
v. Non-Residential Business Investment in Structures: Industry Breakdown

Chart 22 reveals the trends of business non-residential spending in structure assets for the last twenty-one years in New Brunswick's economy's five most predominant industries. The chart shows that the utilities industry has generally stood out with higher investment in structure assets than other industries since 2000. After witnessing a positive upward trend for the first-to-mid years of the 2000s, investment per capita in structure assets reached a peak in 2008 of $1004 (2012 chained dollars), which substantially fell in subsequent years to $250 in 2021. A similar story can be seen in the trends of investment in the transportation and warehousing industry. By 2008, real investment per capita peaked at $597, falling to $190 by 2021.

As shown in the chart, investment in structure assets in other industries has been low in comparison to utilities or transportation and warehousing industries. Indeed, investment in industries like manufacturing, finance, insurance real estate, rental and leasing has been downward slope from 2000 to 2021. The only industry where investment had a steep upward trend was the information and cultural industry as shown in Chart22. Moreover, surprisingly, the industry received higher investment during the pandemic than in 2019 and was higher than in other industries except for Utilities.

Overall, the investment developments by select industries from 2000 to 2021 suggest that part of the big fall in non-residential business spending in structures was due to the sharp fall of investment in the utilities industry; a type of industry that depends on structural assets investment to operate.

Chart 22: Business Non-Residential Investment in Structures in New Brunswick, by Select Industry, (2012 constant dollars per capita), 2000-2021



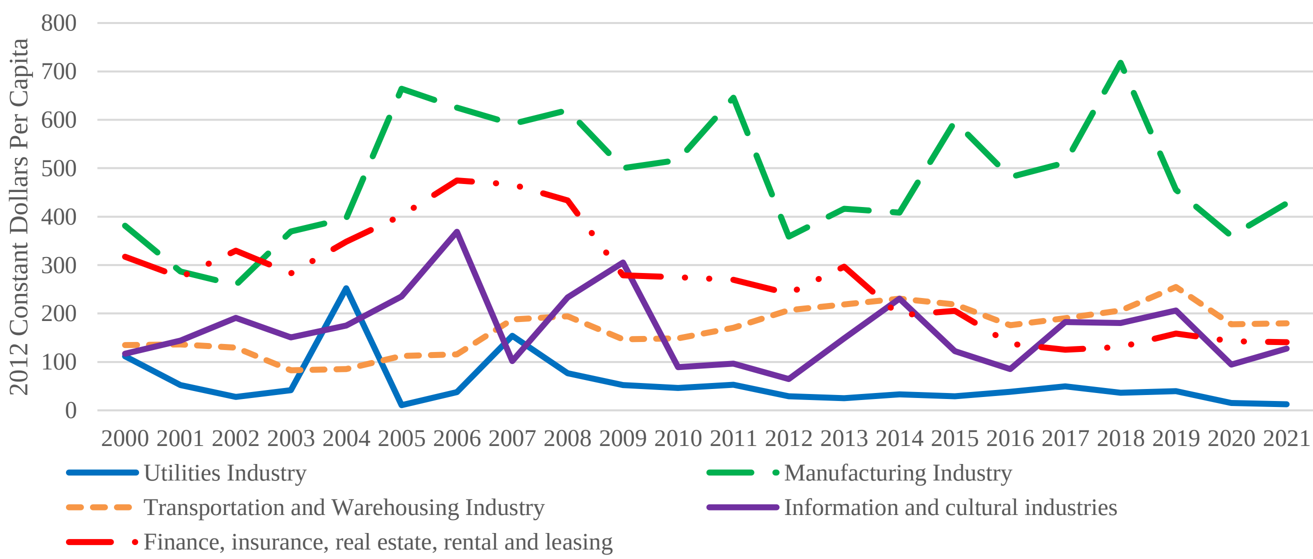
Sources: Statistics Canada, Table 36-10-0096-01 and Table 17-10-0009-01

vi. Non-Residential Business Investment in M&E: Industries

Chart 23 shows the trend in business non-residential spending assets in machinery and equipment assets by select industries. For the last twenty-one years, apart from manufacturing and transportation and warehousing industries, the investment received for M&E assets has witnessed a downward trend from 2000 to 2021. In particular, the finance, insurance, real estate, rental, and leasing industry stood out during the early 2000s, reaching a peak of investment per capita in M&E assets of $475 (2012 chained dollars) in 2006, falling to $140 in 2021.

As mentioned, the two industries whose overall investment did not follow a downward sloping were the manufacturing and transportation and warehousing industries (Panels A and B of Appendix 5). In effect, these industries are known to depend on the investment level of M&E assets to operate efficiently. On the other hand, Chart 24 shows that manufacturing has generally stood out with higher investment than other industries, reaching a summit in 2018 of $718 (2012 constant dollars). These latter developments in both industries leave us with the explanation for why investment in machinery and equipment assets has not dropped substantially as investment in structure assets did for the last twenty-one years. However, investment was affected in all industries during the pandemic since no sector received more investment compared with 2019 and it remained lower in 2021 than historical investment levels.

Chart 23: Business Non-Residential Investment in M&E in New Brunswick, by Select Industry, (2012 constant dollars per capita), 2000-2021



Sources: Statistics Canada, Table 36-10-0096-01 and Table 17-10-0009-01

F. (Section 4): Government Non-Residential Investment (Structures, M&E), 2000-2021

The proportion of New Brunswick's total non-residential investment that is allocated to public non-residential investment (structure, machinery, and equipment) increased by 11.8 percentage points between 2000 and 2021. In 2000, the share accounted for 22 per cent of the total non-residential investment. This proportion reached a peak of 42 per cent in 2011 and fell gradually to 34 per cent in 2021. Out of the total share, the input share of public investment in structure assets accounted for 28 per cent, whereas the share of manufacturing and equipment assets accounted for only 6 per cent in 2021.

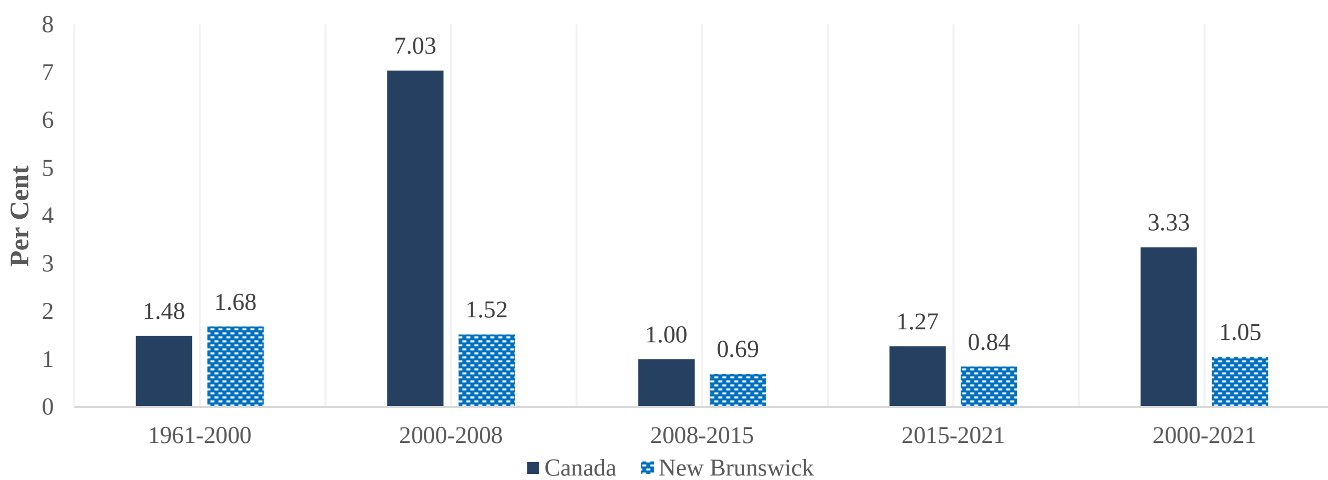
i. Government Non-Residential Investment Growth

In 2000, New Brunswick's government non-residential investment per capita was $1,177 or $888 million (2012 chained dollars), 27 per cent above the national average. However, developments in subsequent years for New Brunswick were not as robust as Canada in general. Between 2000 and 2008 the annual growth rate in New Brunswick's public non-residential investment was 1.5 per cent, 5.51 percentage points below Canada. For the 2008-2015 period New Brunswick's annual growth was 0.6 per cent and continued situating lower than Canada (Panel A of Chart 24). Over this same period, New Brunswick reached an all-high time per capita investment in 2011 of $2,500, however, it was followed by a steep fall until 2013 and gradual progress until 2015 (Panel B). By 2015-2021, the province's annual growth rose to 0.8 per cent, a lower rate than Canada of 1.2 per cent. Consequently, relative to Canada, the compound annual growth rate witnessed by New Brunswick in 2000-2021 was 2.28 percentage points below the Canadian growth (3.3 per cent vs 1.1 per cent).

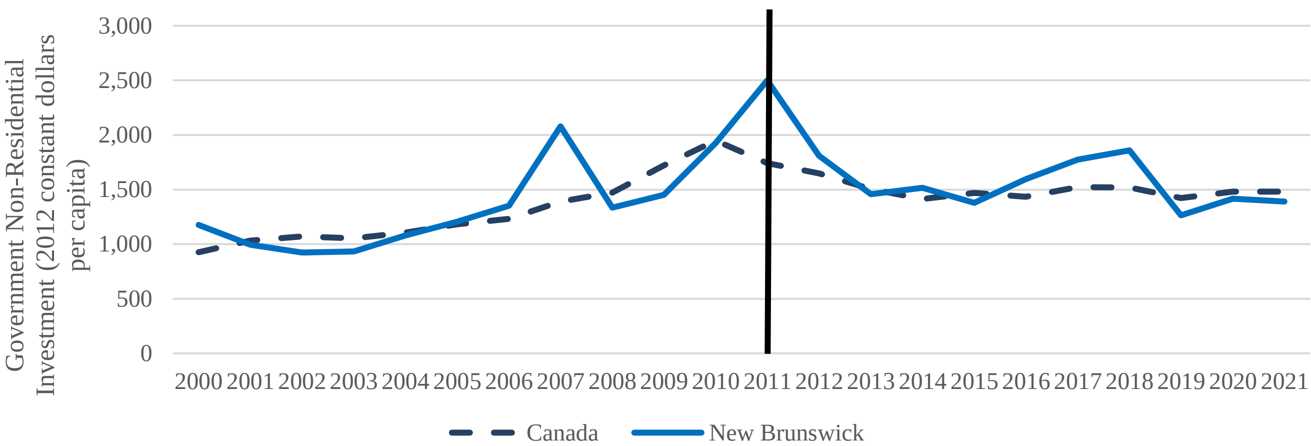
By 2021, New Brunswick's per capita public spending in non-residential assets was $1,390, whereas for Canada ascended to $1,480. As Panel B shows, New Brunswick investment has had a strong cyclical behaviour that had an overall upward trend during eleven years until 2011 and reversed in subsequent years to a downward trend until 2021. Hence, the overall scenario suggests that there has been small progress in government spending in non-residential assets in New Brunswick, just as for Canada since 2000.

Chart 24: Growth and Trends of Non-Residential Government Investment (chained dollars) in Canada and New Brunswick, 2000-2021

Panel A: Non-Residential Government Investment Growth, 2000-2021



Panel B: Non-Residential Government Investment per capita, 2000-2021

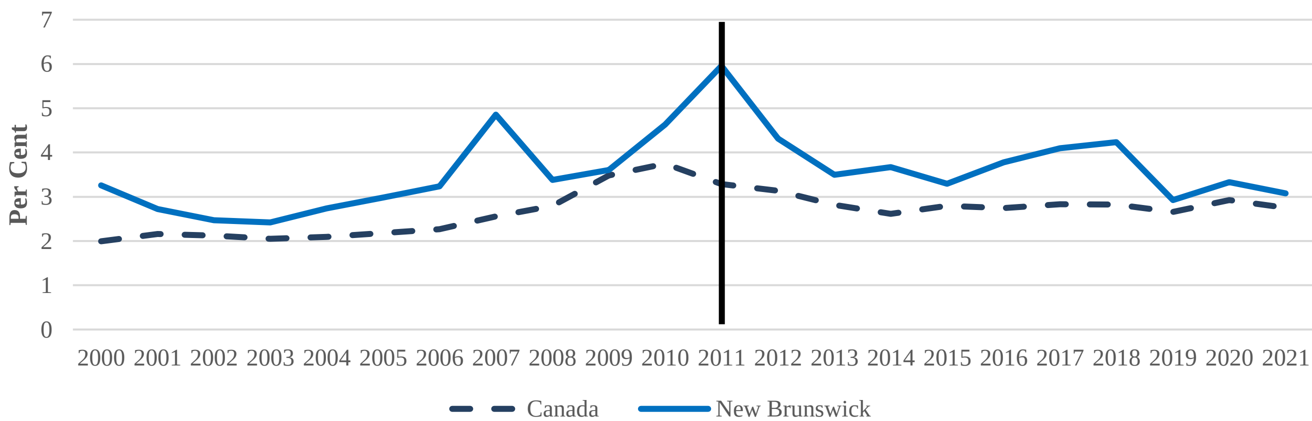


Sources: Statistics Canada, Table 36-10-0098-01

ii. Non-Residential Government Investment as a Share of Nominal GDP

New Brunswick's non-residential government investment as a share of GDP has overall remained the same, marginally falling 0.18 percentage points between 2000 and 2021 (3.26 per cent vs 3.08 per cent). Given the low public investment flows New Brunswick has had, especially after reaching its highest point in 2011, the province's share dropped by 0.31 percentage points between 2008 and 2021. This drop in share was driven by the consistent decline that happened in periods 2008-2015 and 2015-2021, each with drops of 0.09 and 0.22 percentage points. As shown in Chart 27, New Brunswick's non-residential government investment share from nominal GDP has hovered above Canada's since 2000. By 2021, New Brunswick's share situated 0.33 percentage points above Canada's.

Chart 25: Non-Residential Government Investment as a Share of Nominal GDP, Canada and New Brunswick, (current prices), 2000-2021



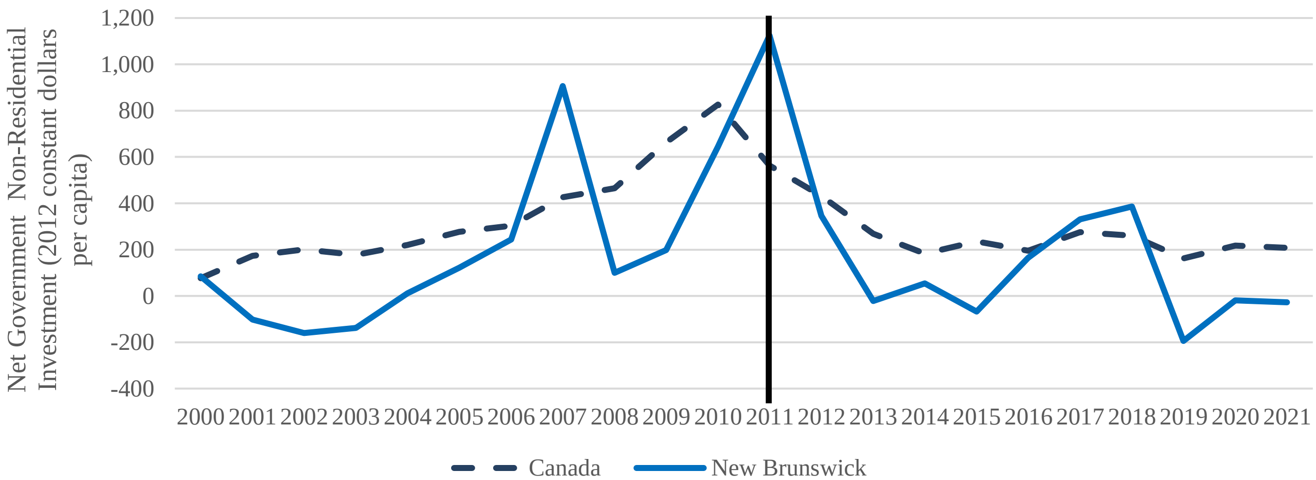
Sources: Statistics Canada, Table 36-10-0098-01 and Table 36-10-0222-01

iii. Non-Residential Government Net Investment

Non-residential government net investment in New Brunswick mirrors the small progress gross investment in non-residential assets has had for the past twenty-one years. In effect, during the early 2000s, New Brunswick had negative public net investment in structure, machinery, and equipment. This low net investment progress recovered until 2011 and steeply fall until 2015 with gradual progress until 2021. By 2021, New Brunswick's government non-residential net investment was negative at $22 million, a 65 per cent decline since the net value in 2000 and 97 per cent since the highest net value in 2011 (Chart 26).

In contrast to Canada, the overall progress in New Brunswick's public net investment in non-residential assets has been subject to strong cyclical behaviour which has led to an overall decline in its net value. On the other hand, whilst Canada's government net spending has increased marginally, it has remained positive throughout the past two decades. On the other hand, most of New Brunswick's poor development has been driven by its low government investment. Depreciation has consistently increased since 2000 and, on occasions, the annual depreciation growth has surpassed the investment growth rate.[8]

Chart 26: Non-Residential Government Net Investment per capita in Canada and New Brunswick, (chained dollars), 2000-2021



Sources: Statistics Canada, Table 36-10-0098-01

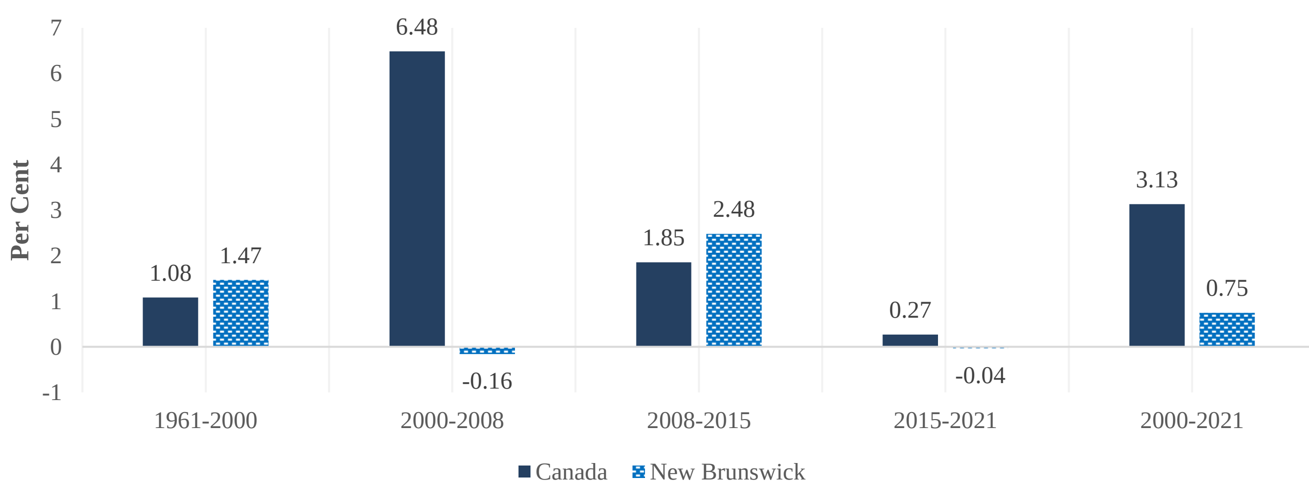
[8] For the period 2008-2021, the depreciation growth rate was exactly twice the non-residential public investment growth, similar to the ratio for the whole period between 2000 and 2021.

G. Non-Residential Government Investment in Structures (non-residential buildings and engineering construction), 2000-2021

i. Growth in Non-Residential Government Investment in Structures

Chart 27 shows the growth rate witnessed by Canada and New Brunswick in distinctive periods from 2000 to 2021. In 2000, New Brunswick's per capita public investment in structures was $1,046 (2012 chained dollars), 34 per cent above the national average of $776. By 2008, New Brunswick's per capita spending ascended to $1,038, 12 per cent below the Canadian average, an outcome that was driven by the negative growth that New Brunswick had, and the robust growth rate Canada had from 2000 to 2008. During the 2008-2015 period, New Brunswick's growth rate picked up to 2.4 per cent and dropped to a negative 0.04 per cent during 2015-2021. The overall growth rate that New Brunswick experienced between 2000 and 2021 was low relative to Canada, 2.38 percentage points below the national rate (3.1 percent vs 0.75 per cent). Thus, by 2021, the per capita public spending in non-residential structures in the province ascended to $1,161, close to the $1,191 national average.

Chart 27: Non-Residential Government Investment in Structures Growth, Canada and New Brunswick, (chained dollars), 2000-2021



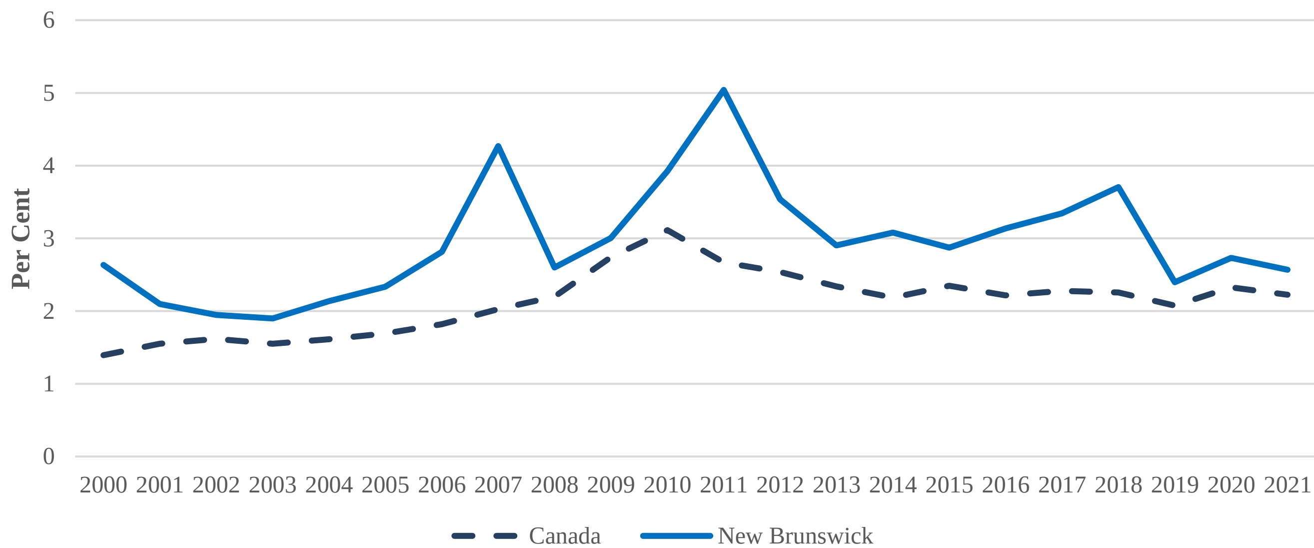
Sources: Statistics Canada, Table 36-10-0098-01

ii. Non-Residential Government Investment in Structure as a Share of Nominal GDP

Chart 28 shows the trends between 2000 and 2021 of the share of government non-residential investment in structure in GDP. Since 2000, New Brunswick's share has hovered in a range of 0.26 and 2.37 percentage points above Canada's. From 2000 to 2021, the share has remained the same, falling just 0.06 points to 2.5 per cent in 2021. The reason for the latter is due to the overall unchanged public investment in structure assets that the province has had in 2000-

2021. New Brunswick's government investment in structure as a share of GDP dropped during periods of weak investment and rose during strong periods, resulting in an overall trend of minimum change in the share. In relative terms, in 2000, New Brunswick accounted for 188 per cent of Canada's, falling to 115 per cent in 2021, a fall-off of 73.5 percentage points.

Chart 28: Government Non-Residential Investment in Structures as a share of Nominal GDP, Canada and New Brunswick, (current prices), 2000-2021

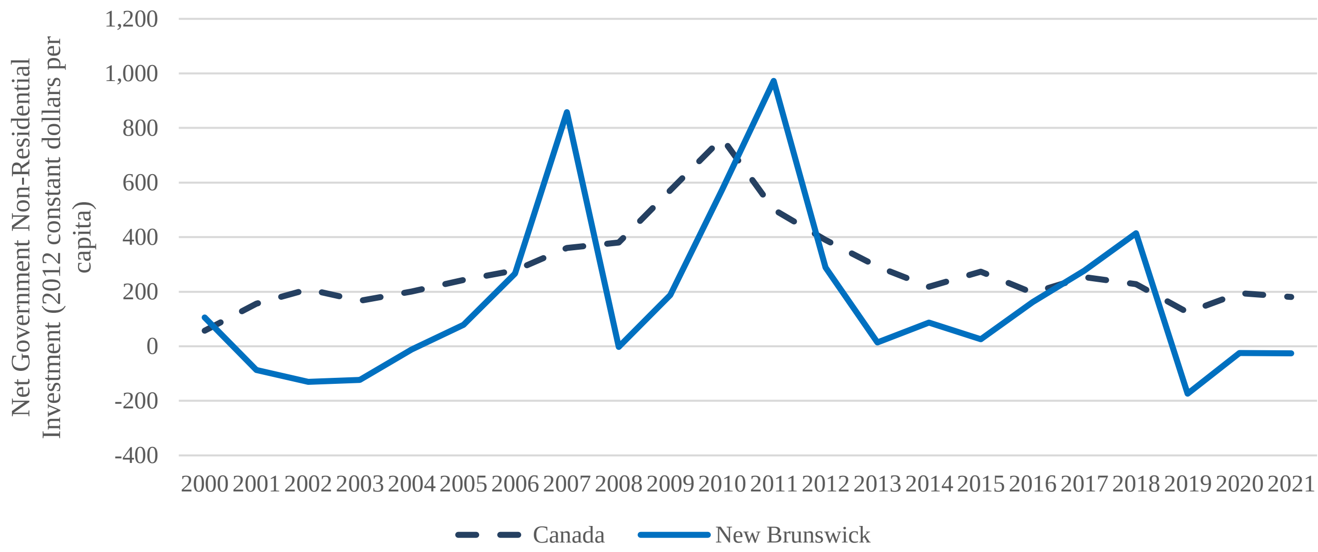


Sources: Statistics Canada, Table 36-10-0098-01 and Table 36-10-0222-01

iii. Non-Residential Government Net Investment in Structures

New Brunswick's government net investment in structures has fallen since 2000. In contrast to Canada, the province has witnessed low to negative net investment values. As shown in Chart 29, during the early 2000s, the province had a negative net public investment in structure for four consecutive years (2001-2004), followed by a recovery in subsequent years and another drop below zero in 2008. By 2011, New Brunswick reached an all-time high in its net per capita government investment in non-residential structures of $973; however, this was followed by a sharp fall until 2015 and negative net investment values between 2019 and 2021. The overall trends show a strong cyclical behaviour in New Brunswick's net investment, whereas Canada has witnessed steady increments and declines which has led to an overall small increase in its net investment since 2000.

Chart 29: Non-Residential Government Net Investment in Structures, Canada and New Brunswick, (chained dollars), 2000-2021



Sources: Statistics Canada, Table 36-10-0098-01

H. Non-Residential Government Investment in M&E, 2000-2021

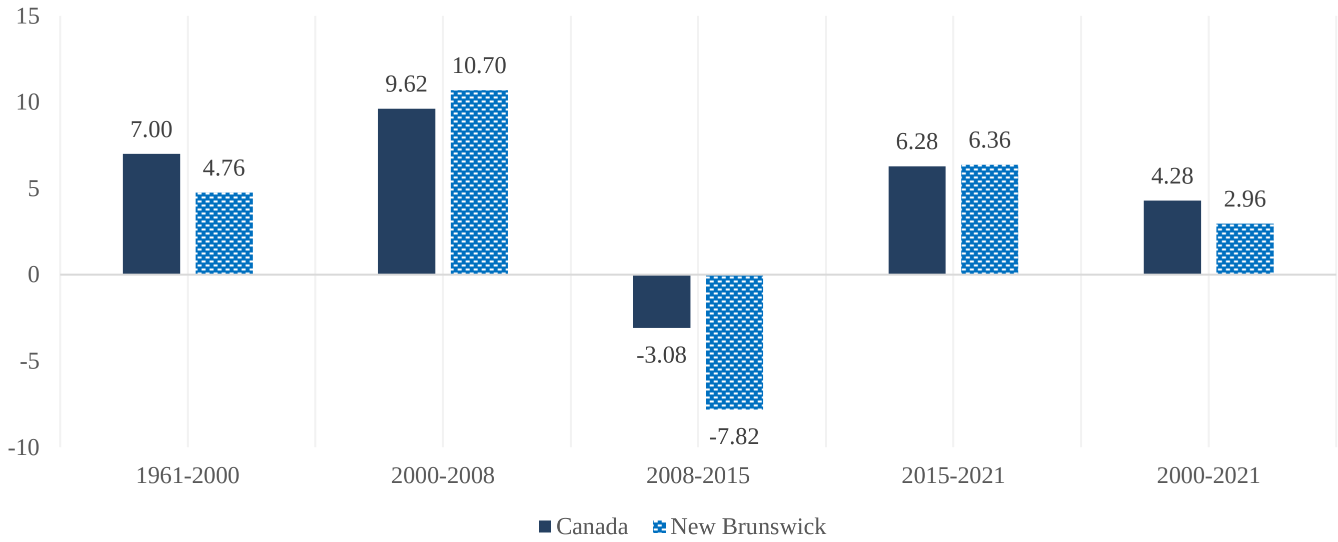
i. Non-Residential Government Investment in M&E

Chart 30 presents the growth rate in different periods from 1961 to 2021 for New Brunswick’s and Canada's public non-residential investment in machinery and equipment. Between 2000 and 2008, New Brunswick's investment growth rate was 10.7 per cent, 1.98 percentage points above the national rate. During 2008-2015, the growth rate feel to significantly below zero to 7.8 per cent and picked up again during 2015-2021 at a rate of 6.3 per cent, just 0.13 points above the Canadian rate. By 2021, New Brunswick's public per capita investment in machinery and equipment ascended to $229, 21 per cent lower than the national average of $290. For this same year, New Brunswick's public investment accounted for 1.64 per cent of Canada's, a slight drop from the 1.97 per cent in 2000.

Based on Chart 30, the overall developments between 2000 and 2021 suggest that New Brunswick's public investment in machinery and equipment assets has risen for the past twenty-one years, and, albeit such development has underperformed Canada's, it has fared slightly better than public investment in structure assets.[9]

[9] See Charts 27, the overall growth rate from 2000 to 2021 has been higher for public non-residential investment in machinery and equipment (3.0 per cent vs 0.8 percent).

Chart 30: Non-Residential Government Investment in M&E, Canada and New Brunswick, (chained dollars), 2000-2021



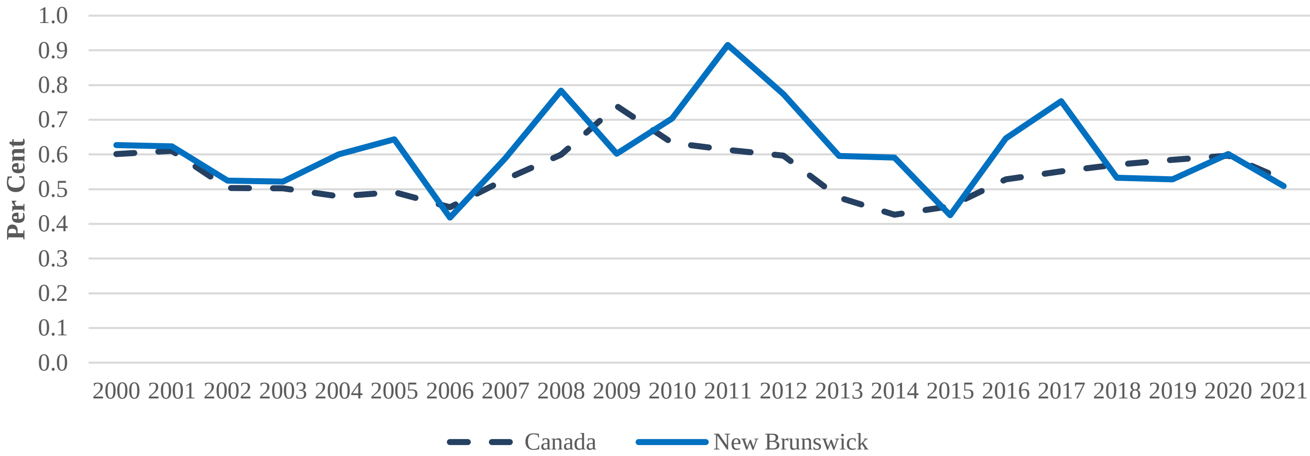
Sources: Statistics Canada, Table 36-10-0098-01

ii. Non-Residential Government Investment in M&E as a Share of Nominal GDP

As shown in Chart 31, in 2000, New Brunswick's public non-residential spending in machinery and equipment as a share of GDP, ascended to 0.63 per cent, just 0.03 percentage points above Canada' share of 0.60 per cent. Between 2000 and 2008, New Brunswick's share rose by 0.16 points, ascending to a 0.78 per cent in 2008. For periods 2008-2015 and 2015-2021, the share fell drastically and by 2021, the province's share situated at 0.51, below Canada's.

The overall trend shows that both, Canada and New Brunswick's percentage of GDP going towards public investment in machinery and equipment have fallen since 2000. Nevertheless, the fall has been slightly more pronounce for New Brunswick with a fall-off of 0.12 versus a 0.07 percentage points for Canada between 2000 and 2021. In relative terms, New Brunswick's share in 2021 accounted for 96.5 percent of Canada's share, a fall-off of 7.84 points from the 104 per cent in 2000.

Chart 31: Non-Residential Government Investment in M&E as a Share of Nominal GDP, Canada and New Brunswick, (current prices), 2000-2021

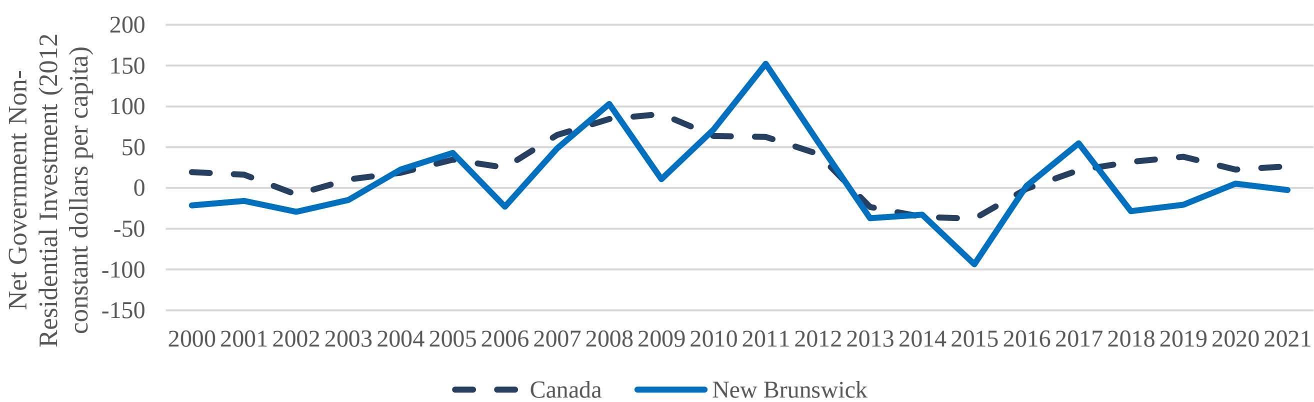


Sources: Statistics Canada, Table 36-10-0098-01

iii. Non-Residential Government Net Investment in M&E

From 2000 to 2021, the trend in New Brunswick's non-residential government net investment in machinery and equipment has had a strong cyclical behaviour. As shown in Chart 32, New Brunswick witnessed low to negative net public investment values in machinery and equipment. During the first four years of the 2000s, the province had a negative net investment, followed by recoveries in 2014 and 2015, and a drop again in 2016. By 2011, the province reached an all-time high in its net public per capita investment in machinery and equipment of $152 (2012 chained dollars); however, this was followed by a sharp decline in subsequent years. Hence, as shown in the chart from 2012 to 2021, the province encountered shocking low net investment levels, worse than those during the early 2000s.

Chart 32: Non-Residential Government Net Investment in M&E, Canada and New Brunswick, (chained dollars), 2000-2021



Sources: Statistics Canada, Table 36-10-0098-01

Part Two: The Nexus of Policies and Programs: Shaping Investment in New Brunswick

As discussed in part one of the report, New Brunswick enjoyed a strong investment development during 1961-1985. However, over time, this development decreased and, between 2008 and 2015, the province witnessed a significant fall in its investment levels. Consequently, it is important to question and comprehend what actions, such as the development of policies and programs, could have influenced the weak investment development in New Brunswick. This section reviews and assesses policies and programs that the federal and local government in New Brunswick have implemented, particularly those that have a direct effect on investment such as tax incentives, investment promotion agencies, business support services (i.e., mentorship to entrepreneurs or business incubator), financial assistance, infrastructure development, and business regulatory environment.

A. Tax Incentives

Corporate Tax Rate for Active and Small Businesses

Before the 2000s, Canada's federal corporate tax rate was extremely high, such that in 1961 it was as high as 41 per cent for both, small and active businesses; the combined tax rate with provincial corporate tax ascended to almost 51 per cent.[10] During this same year, New Brunswick's corporate tax rate for active and small businesses was 9 per cent. Over time, these rates experienced a significant drop, and by 2000, the corporate federal rate for active businesses dropped to 29 per cent, whereas for small businesses it dropped to 13 per cent. A slightly different story occurred to the corporate tax rate in New Brunswick since the rates for active businesses were increased to 17 per cent and for small businesses it was decreased to 4.5 per cent in 2000.

During the early 2000s, New Brunswick's fiscal performance projected a deficit of around $16.8 million for the 1999-2000 budgetary accounts, which motivated the government to change its fiscal policy (Department of Finance, 2000). Thus, for the period of 2006-2007, the province's budget rose to a surplus of $22.2 million (Department of Finance, 2007). During this same period, the government of New Brunswick decreased the corporate tax rate for active businesses to 13 per cent and increased the rate to 5 per cent for small businesses. In subsequent years, particularly those after the 2008-2009 economic crisis, provincial corporate tax rates remained relatively the same, whereas the federal rates experienced small drops. These changes in New Brunswick’s fiscal policy could have affected business investment in the province,

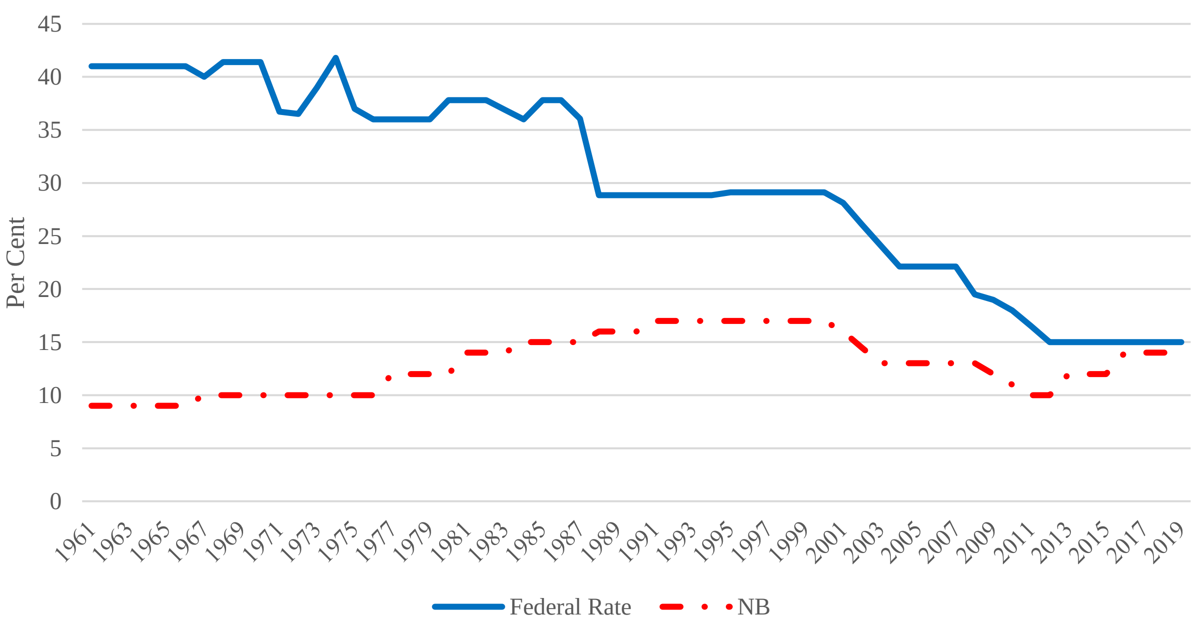
[10] The small business rate applies to active businesses with gross income up to $500,000. Active businesses with gross income earned more than the small business threshold, are subject to the general corporate tax rate. The small business deduction threshold increased from $400,000 to $500,000 in 2009 for all provinces in Canada .

particularly from small businesses that did not experience a cut on their corporate tax rates given that during such period the province witnessed huge drops in investment flow. In addition, the Bank of Canada reduced policy rates to a historical low of 0.25 percent in 2009 in part, to boost investment; yet this still did not impact investment after 2008 in New Brunswick as discussed in part one of this report.

Between 2011 and 2023, there have been minimal changes in the federal and provincial corporate tax rates. In effect, since 2012, the federal rates for businesses has been maintained at 15 per cent, and for small businesses, the rate dropped to 9 per cent in 2019, where it has remained. On the other hand, the New Brunswick rate for active businesses increased to 14 per cent in 2016, this rate has kept the same since then, while the rate for small businesses was reduced in 2018 to 2.5 percent, a rate still in place in 2023 (CRA, 2022). Overall, as shown in Panels A to B in Chart 33, there has been a downward-sloping trend in federal and provincial corporate tax rates, actions that have been more pronounced in recent years for small businesses and which could have a correlation with the pick-up in New Brunswick's investment in recent years.

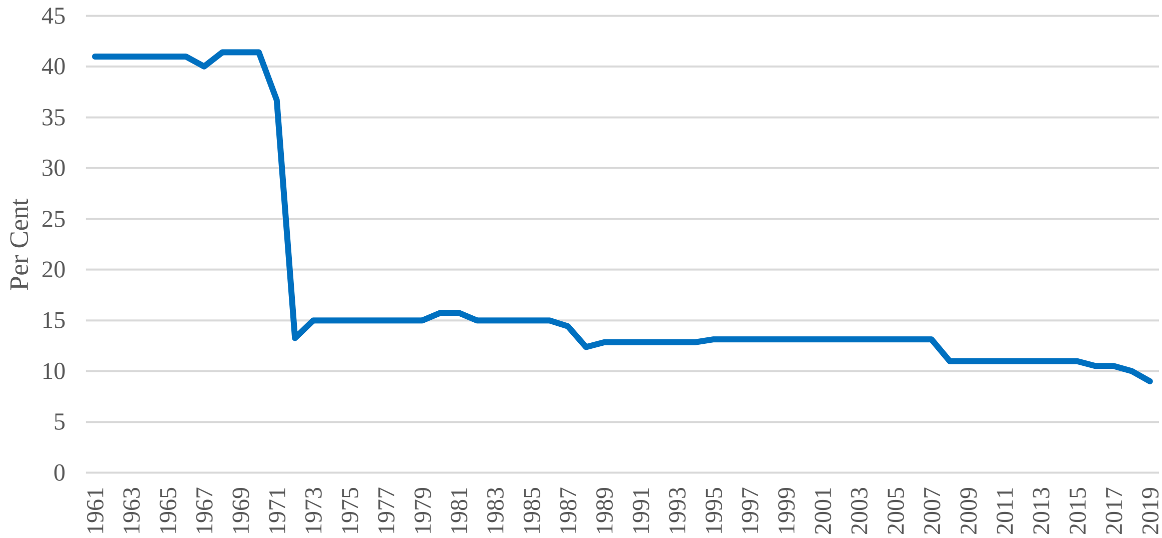
Chart 33: Corporate Income Tax Rate for Active and Small Businesses, 1961-2019

Panel A: Federal and New Brunswick General Corporate Tax Rate (Active Businesses)

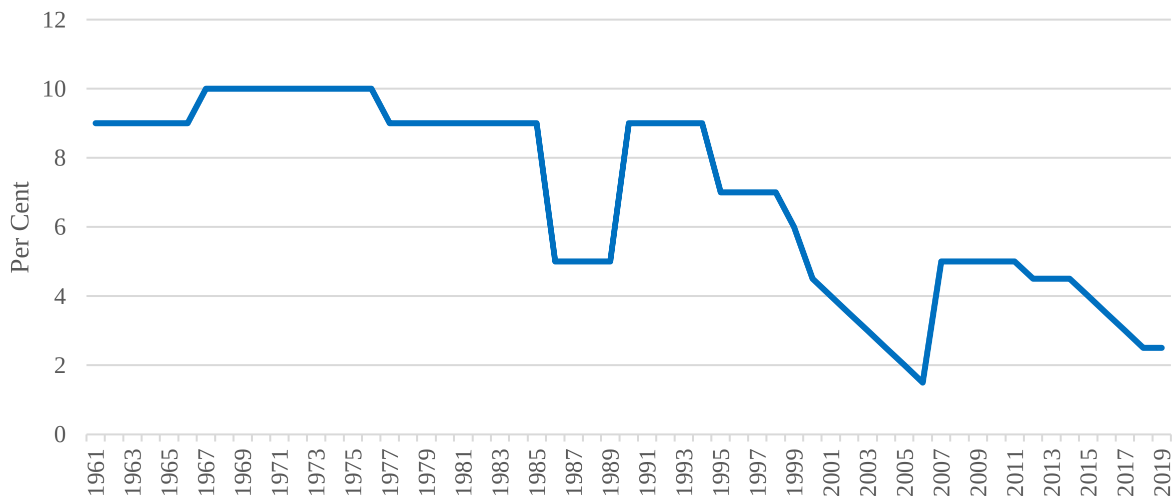


Source: Department of Finance (2018a) and (2018b), Top Federal, Provincial Corporate Tax Rates (Active Businesses), 1960 to 2019

Panel B: Federal Corporate Income Tax Rate for Small Businesses



Panel C: New Brunswick Corporate Income Tax Rate for Small Businesses



Source: Department of Finance, Federal and Provincial Corporate Tax Rates (small businesses), 1960 to 2019

Interest Rate

As shown in Chart 34, before the 2008 economic crisis, the Bank of Canada's policy rate hovered above 2 per cent and it reached a high bound close to 4.2 per cent prior to the crisis. The rate dropped after 2008 and kept hovering between 0.5 per cent and 1.75 per cent from 2012 to 2019. More recently, the Canadian interest rate has experienced a rise, standing at 4.75 per cent in mid-2023. According to these latest trends and to the developments of investment in New Brunswick discussed in part one of this report, it seems that the province's investment had an inverse correlation with the Canadian interest rate. More specifically, during the period of high-interest rates, the province witnessed an upward trend in its investment, whereas, between 2008 and 2015, the province's investment substantially dropped, unaffected by the low-interest rate during those years. From 2015 to 2021, the province experienced an investment pick-up, which was not affected by the increasing interest rates. Therefore, arguably, changes in monetary policy did not influence New Brunswick's weak investment development in the past twenty-one years.

Chart 34: Interest Rates in Canada (Overnight Rate), 1990-2022

Source: Trading Economics, 2023

Tax Credits: Federal and Provincial Government Programs

Over time, the federal government has implemented different tax credits that benefit broad-scale business investment and development in various sectors of the economy, whereas the New Brunswick government has made efforts to provide credits expressly to help local businesses and residential investment. After the 2008-2009 economic crisis and to support first-time homebuyers, the federal government introduced the home buyers' tax credit as part of Canada's Budget launched in 2009, providing a 15 per cent credit. This plan also included a 19 per cent temporary tax relief on business investment, a 50 per cent straight-line capital cost allowance for investments or processing of manufacturing and equipment, and a 100 per cent capital cost allowance rate for investment in computers (this benefit included all businesses in all sectors of the economy) (Department of Finance Canada, 2009). At the provincial level, the government of New Brunswick introduced additional tax credits, however, similar to the federal budget, none of them targeted investment in the utilities industry, an important industry in New Brunswick that had a substantial investment drop until 2015, thus affecting the province's gross investment.

More recently, according to the Income Tax Guide (2022), corporations may be eligible for federal tax credits, such as Canadian film or video production, Canadian journalist labour, logging operations, and film or video production services. The Canadian government also provides a federal foreign business income tax credit to avoid double taxation for companies that pay foreign tax on profits earned for operating abroad, thus helping businesses to reduce their tax liability in Canada. On the other hand, corporations that generate at least 10 per cent of earnings from manufacturing and processing goods within Canada for sale and lease are eligible for the manufacturing and processing profits deduction (MPPD), a type of tax deduction designed to incentivize corporations to engage in manufacturing and processing activity within Canada. In addition, starting after 2021, manufacturers with qualified zero-emission technology and at least 10 per cent of their revenue from conducting eligible green manufacturing activities such as solar panels or wind turbines are eligible for a temporary tax reduction. More specifically, income subject to the general corporate rate of 15 per cent is now taxed at 7.5 per cent, whereas income for small businesses that would be taxed at 9 per cent is now taxed at 4.5 per cent. The Income Tax Guide from CRA presents the plan for such temporary measures where the reduced rates will be gradually phased out starting in 2029 and fully phased out after 2031.

Table 9: Reduced Tax Rates for Zero-Emission Technology

Tax year start	**Small Business Rate**	**Other Rate**
2022 to 2028	4.50%	7.50%
2029	5.63%	9.38%
2030	6.75%	11.25%
2031	7.88%	13.13%
2032 and later	8%	15%

Source: Canada Revenue Agency, Income Tax Guide

Under specific qualifications, corporations can also claim an investment tax credit (ITC) by applying a specified percentage to the cost of acquiring specific property or on certain expenditures (CRA, 2023). Investments and expenses that qualify for an ITC include expenses of acquiring qualified property, the cost of acquiring qualified resource property, pre-production mining expenditures, apprenticeship expenditures, and eligible childcare spaces. Corporations investing in qualified property can earn ITCs on a qualified property mainly for use in activities in the Atlantic Region. Hence, this tax credit supports investment in qualified property for use in sectors such as farming, logging, manufacturing and processing, harvesting peat, or storing grain.[11] Ultimately, the Atlantic investment tax credit also supports some investment in qualified resource property for use in gas and oil, and the mining oil sector in the region (CRA, 2023).

[11] The Atlantic Investment Tax Credit was launched in 2012 and since then, it has been used to support investment into the region.

Tax Credits: Property Programs

In Canada, residential property owners are subject to taxes levied by their respective provinces and municipalities. In New Brunswick, every property owner is subject to a property tax, therefore, to mitigate the burden of this taxation, the provincial government has implemented a tax relief programs. For instance, two programs administered by Property Assessment Services of Service New Brunswick are the provincial residential property tax credit and the property tax allowance. Both programs contemplate providing a tax break or reduction to owners of real property who occupy the property as their principal residence or that are low-income. The province also offers a Farmland Identification Program offering a deferral of provincial property taxes for the preservation of real property for agricultural use (Government of New Brunswick, 2023).

On the other hand, over the years, the government also aided business property owners and, more recently, in 2022, the government of New Brunswick released a new property tax relief program explicitly designed to help owners of businesses or large apartments against rising costs (Government of New Brunswick, 2020). This program follows similar criteria as the spike protection mechanism implemented in 2013 with the difference that it focuses on apartment buildings with four units or more (i.e., large properties). Noticeably, New Brunswick has made big efforts to ease the burden of property tax on its taxpayers. Hence, it is not surprising that for the last twenty-one years, the province has had increasing residential investment as explained in part one of the report.

Tax Credits: Venture Capital Program

Apart from the significant property tax relief New Brunswick offers to its taxpayers, the province has also designed programs to benefit small businesses, incentive investment through venture capital funds and support research and development expenditure. In particular, the provincial government has made different modifications over time to the small business investor tax credit act and, up to date, it offers a program that provides a personal and corporate income non-refundable tax credit. For individual investors, the program provides a tax credit equal to 50 per cent for eligible investments up to $250,000 conducted after April 2015, whereas for corporations and trusts it offers a tax credit of 15 per cent based on investments of up to $500,000 effective from January 2014 (Government of New Brunswick, 2019). To allow flexibility, investors are allowed to carry the unused tax credit forward for up to seven years or carry it back for up to three years.

To promote investment in small and medium-sized businesses, in 2013, the New Brunswick government made changes to the Labour-Sponsored Venture Capital (LSVC) tax credit program. This program encourages individuals and corporations to invest in venture capital funds in prescribed NB LSVC corporations and provides a tax credit as a percentage of the investment made. If the investment was conducted after March 17, 2009, the credit rises from 15 per cent to 20 per cent, whereas investments made before then are eligible for a non-refundable tax credit of 15 per cent, similar to the tax credit offered by the federal government for federally approved LSVC corporations (Government of New Brunswick, 2013).

B. Investment Promotion Agencies

Over time, the federal government and provincial governments in Canada have worked to establish different agencies to help promote investment. Many of these agencies receive funding to lead investment projects across Canada and thus, provide a more accessible service to current and new businesses. In the case of New Brunswick, the province has the Atlantic Canada Opportunities Agency (ACOA) and Opportunities New Brunswick (ONB) as the two leading investment promotion agencies. The ACOA is a federal agency established in 1987 and has served the Atlantic Provinces since then to promote economic development and job creation through the promotion of investment in the region. It collaborates with various stakeholders, including provincial governments, industry associations and community organizations, to drive sustainable economic development.

On the other hand, Opportunities NB was founded in 2015 by the government of New Brunswick after merging Invest New Brunswick with the Department of Economic Development, adding additional support to promoting investment in the province. The agency's primary mandate is to attract and facilitate investment, and similarly to the ACOA, they work with different stakeholders (i.e., businesses of all sizes, other government agencies and business development committees). Since its launch, ONB has provided funding and helped create 10,688 actual jobs, 17,279 committed jobs, and a net of $1,853 billion in GDP contribution to New Brunswick (ONB, 2023).

The primary difference between these two agencies is in the focus of their investment promotion. More specifically, ACOA focuses on promoting investment emphasizing economic development in businesses, communities, innovation and skills, exports, and indigenous communities in all the Atlantic region (ACOA, 2023). In contrast, ONB focuses on attracting investment, supporting business growth, workforce and regional development. In summary, ONB is a complementary agency to ACOA with a priority on New Brunswick's investment growth.

To further promote investment, in 2018 the federal government founded an additional agency called "Invest in Canada". This agency focuses on attracting and facilitating foreign direct investment into Canada. Instead of focusing only on a particular region (i.e., Atlantic Canada), the agency incentivizes international corporations to establish across Canada.

Therefore, the agency can benefit any region since it also works closely with provincial, and territorial governments, as well as with other investment agencies (Invest in Canada, 2023).

Businesses and corporations in Canada also count on other federal institutions that, although their primary purpose is not to be an investment agency, they indirectly conduct investment promotion through their service. Hence, these organizations provide an important value for promoting investment in the country. For instance, the Canadian Trade Commissioner Service (TCS) focuses on facilitating trade in export activities and indirectly, the institution offers support and information on investment opportunities across Canada. Export Development Canada (EDC) is another institution which offers services to Canadian exporter and international business activities and, similarly, it provides investment promotion by helping Canadian companies establish a presence in other markets.

Overall, after ACOA was established in 1987, it took New Brunswick around twenty-four years to have an alternative agency for investment promotion after launching Invest NB in 2011 and later, launching Opportunities NB in 2015. This event clearly affected the promotion of investment in the province and the know-how for current and new businesses to operate efficiently in changing markets, especially during turmoil economic events. Therefore, the recent introduction of Opportunities NB together with Invest in Canada could be one explanation for why between 2015 and 2021, New Brunswick's investment slightly picked up, and why between 2008 and 2015, the province's investment performance was weak.

C. Business Support Services

The investment promotion agencies mentioned previously have also supported businesses through accelerators and mentorship programs. Nevertheless, in collaboration with the private sector, the New Brunswick government and the federal government have funded different organizations to provide alternative assistance with entrepreneurship and business growth programs. In 1970, the Community Business Development Corporation (CBDC) was founded as a non-profit organization with the support of the federal and provincial governments. Since then, CBDC has assisted small-and medium-sized businesses with counselling, training and advisory services focusing on the Atlantic region. CBDC has also provided forums for New Brunswick business owners and financial assistance to new and existing businesses, which currently rises to a maximum of $150,000 (CBDC, 2023). By 2006, with funding from the provincial government, the University of New Brunswick launched the Technology Management and Entrepreneurship program with the objective of helping entrepreneurs, particularly in the area of technology and innovation; to date, the program has helped to launch more than 200 start-up companies (UNB, 2023).

By 2010, in collaboration with tech economy entrepreneurs, stakeholders that support innovation and the provincial and federal governments, Venn Innovation was founded. The organization opened to service in Moncton with the mission of helping New Brunswick tech companies get to market, sustain, and grow their business. Venn Innovation came as the only organization by then that provided a full service specifically to support the investment and growth of technological and innovative businesses. In 2017, the provincial government invested $363,200 and the federal government $398,600 through ACOA's business development program in Venn Innovation (Government of New Brunswick, 2017b).

Between 2013 and 2014, Planet Hatch and Ignite Fredericton were launched as sister business supporter centres. Both centres are not-for-profit and receive funding from private institutions as well as from the provincial and federal governments. The main mandate for both centres is to attract, create and support entrepreneurs. Ignite Fredericton has prioritized support for local businesses in greater Fredericton, whereas Planet Hatch, their support has extended to other areas, supporting more than 200 businesses, and creating 400 local jobs (Planet Hatch, 2023). In addition, in 2014, the New Brunswick government partnered with the Fredericton Chamber to operate a program to assist immigrant entrepreneurship in Fredericton. This program was known as the Hive and in hand with Planet Hatch and Ignite Fredericton, it provided immigrants with training, mentoring, and networking opportunities (Government of New Brunswick, 2014). Ultimately, during the same year, with support of the provincial government, New Brunswick Community College (NBCC) launched the Oasis mentorship program at Miramichi to connect small businesses facing challenges with experienced entrepreneurs to provide support, guidance and resources for successful growth. In 2017, the government of New Brunswick extended their support to the program through an investment of $61,792, an additional amount to the funding of $90,000 in 2015 and $67,000 in 2016. The program was first launched at Miramichi, with the help of the funding it was extended to campuses in Moncton and Saint John (Government of New Brunswick, 2017c).

Overall, since 2010, there has been a noticeable initiative to support businesses through mentorship and training in New Brunswick. Different business support centres and programs have been launched with a huge involvement from the private and public sectors. This may be one reason why investment picked up between 2015 and 2021.

D. Financial Assistance

The availability of capital or financial assistance for investment from government has been a crucial stepping stone for small-and medium-sized businesses to grow and expand across markets. The latter has been something that the federal government has mainly supported and thus, since 1962, the Industrial Research Assistance Program (IRAP) has been kept present to help provide non-repayable funds to small and medium-sized businesses (SMEs). This program has mainly supported investment in technology adaptation and commercialization. Hence, the contributions to firms were divided into core funds and temporary programs, as well as separated financial assistance to not-for-profit organizations to provide innovation services to SMEs. Between 2012-13 and 2015-16, as shown in Table 10 below, IRAP distributed over $900 million in contributions to SMEs and organizations through core and temporary financing (NRC, 2019).

Table 10: Financials between 2012-13 and 2015-16 (in millions $) in Canada

		2012-13	2013-14	2014-15	2015-16	Total
IRAP Core (Youth, Firms, Organizations and Concierge)	Contributions	170.87	189.41	188.09	203.07	**751.43**
	Operating Costs	45.47	48.58	54.25	54.12	202.42
	Total IRAP Core	**216.34**	**237.99**	**242.35**	**257.18**	**953.86**
Temporary (BIAP, DTAPP, CAIP, CHTD CHVI)	Contributions	26.54	37.88	21.73	32.00	118.10
	Operating Costs	2.79	2.86	0.3	0.5	6.45
	Total Temporary	**29.33**	**40.71**	**22.04**	**32.50**	**124.56**
Total		**245.67**	**278.70**	**264.38**	**289.66**	**1,078.41**

Image source: Government of Canada, IRAP comptroller, 2019

In addition, according to a recent evaluation report in 2022, the total financial support provided by the IRAP over the evaluation period between 2018 and 2022 was more than $1.3 billion. Importantly, this total financial support that the IRAP distributed did not include about $450 million in contribution funding through other non-core programming. As shown in the graph below, over the 5-year span between 2017-18 and 2021-22, total expenditures increase from $227 million to $686 million (+ 484 per cent), with grant contribution increasing from $216 million to $582 million, and operating expenditures increasing from $61 million to $104 million.

Chart 35: Financials between 2017-18 and 2021-22 (in millions $) in Canada

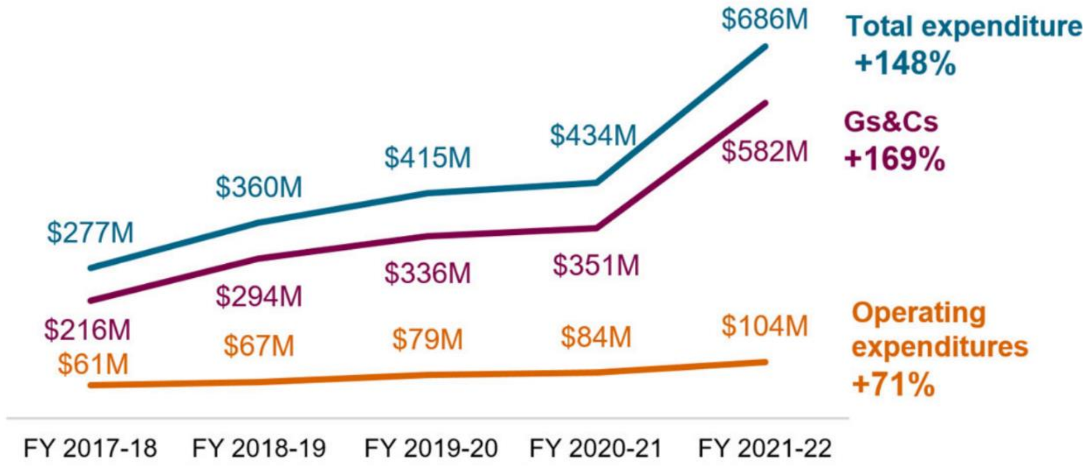


Image source: Government of Canada, IRAP comptroller, 2022

Another distinguishing program introduced by the federal government was the Canada Small Business Financing Program (CSBFP). This program was launched in 1999 as an extension to the 1961 Small Business Loan (SBL) program, aiming to provide the availability of financing for the establishment, modernization, expansion, and improvement of small businesses (Government of Canada, 2014). This program was particularly important and successful during the 2008-2009 economic crisis since an economic analysis found that participation in the program had a statistically significant positive effect on employment, salary, and revenue growth (Chandler, 2010). By 2009, the federal government launched the Business Credit Availability Program, an additional program designed to create access to credit for SMEs. The program included initiatives like the Canadian Secured Credit Facility, which provided credit to viable businesses unable to obtain traditional financing (Government of Canada, 2009).

In recent years, the CSBFP and IRAP have been kept by the federal as pilar programs for supporting SMEs. However, financing has also been present through other institutions such as the mentioned agencies ACOA or Opportunity NB. Moreover, financial institutions like the Business Development Bank of Canada or the Canada Infrastructure Bank form part of the large financial structure that the federal government has developed over the years.

On the other hand, the role the New Brunswick government has developed has been complementary to the variety of financial options the federal government provided to businesses over time. In 2003, the New Brunswick Innovation Foundation (NBIF) was launched, a not-for-profit organization that since then has been a pillar in venture capital investment for a span of industries such as environmental technology, life sciences, and manufacturing. This institution has invested over $100 million, plus $ 457 million more leveraged from other sources. It has also contributed to more than 494 research projects, 75 professors in the province, and 113 companies created (NBIF, 2022). Albeit the NBIF has been independent, they have received funds from the federal and provincial governments, as well as from other investment institutions.

In 2007, the provincial government of New Brunswick introduced the “NB Growth Program”, providing access to a $3 million budget for start-up companies, and expansions in every region in the province (GNB, 2009). This program was of substantial help, especially after the 2008-2009 economic crisis; many companies in southeastern New Brunswick benefited from the program. In addition, the provincial government extended the Northern Economic Development Fund (NEDF) with an increment of $50 million for three years up to 2009, a program that was first introduced in 1999 and renewed in 2004 to financially support competitive companies, and communities and set a stage for economic growth through infrastructure investment (Regional Development Corporation, 2011).

In recent years, the provincial government has continued to deliver financial support in a similar way, either by industrial-specific programs or funding through other organizations (i.e., Opportunities NB and NBIF). In 2017, through the Youth Employment Fund, One Job Pledge, and Workforce Expansion programs, the provincial government invested $649,00 in regional jobs in Quispamsis, Rothesay, and Hampton to support jobs and 32 different employers in the region. During the same year, an investment of $63.6 million in the NBIF and New Brunswick Health Research Foundation designed for four years was provided as a commitment to innovation and research (Government of New Brunswick, 2017a). A year after, in 2018, in collaboration with the venture capital firm Build Ventures Funds II, the provincial government contributed $10 million for funding to innovative companies. Likewise, the funding policy to support export-oriented small businesses was introduced through Opportunities NB to enhance the competitiveness of these companies in markets outside the province (Government of New Brunswick, 2018). Ultimately, as shown below, according to the report launched by the Canadian Venture Capital Association (CVCA) in 2021, among the Atlantic provinces, New Brunswick was the most active province in venture capital investment. The province led the capital investment in the Atlantic region with $126 million invested in fourteen deals. Hence, NBIF ranked as the 7th most active venture capital private firm in Canada and as the 3rd most government-founded firm in Canada (NBIF, 2021).

Chart 36: Most Active Venture Capital Firms and Funds

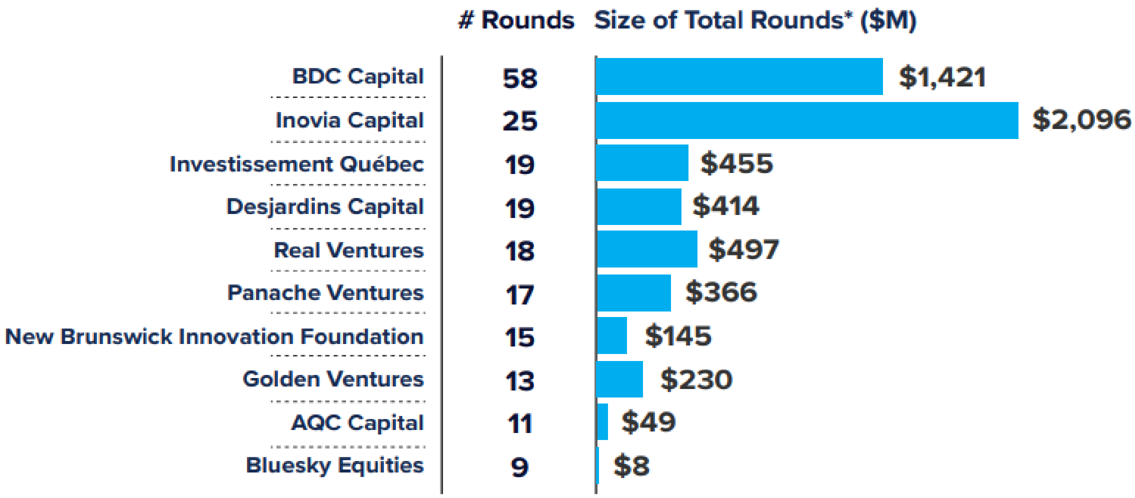


Image source: CVCA H1 Report, 2021

Table 11: Most Government Funded Firms in Canada

MOST ACTIVE GOVERNMENT FUNDS	# ROUNDS	SIZE OF TOTAL ROUNDS* (CDN$ MIL)
BDC CAPITAL	58	$1,421
INVESTISSEMENT QUÉBEC	19	$455
NEW BRUNSWICK INNOVATION FOUNDATION	15	$145
EXPORT DEVELOPMENT CANADA	9	$214
BDC CAPITAL INDUSTRIAL, CLEAN AND ENERGY TECHNOLOGY VENTURE FUND	6	$48
INNOVACORP	6	$22

Image source: CVCA H1 Report, 2021

Overall, since 1961, there has been considerable of help from the federal and provincial governments providing financial assistance to different companies in different sectors. Particularly for small and medium-sized businesses, there have been distinctive programs for which the mandate has been to incubate business. The provincial government's role in New Brunswick has focused on facilitating capital financing to specific industries, and designing programs for which regional, innovative, or technological businesses have resulted benefited. During the economic turmoil in 2008, financial programs were extended, and during recent years, New Brunswick has demonstrated to be capable of raising large amounts of financing to help put start-up companies on the map. Consequently, the downward investment trend New Brunswick has experienced in recent decades cannot be attributed to the lack of financial assistance; contrary, venture capital for investment has grown with time and has become more accessible than ever before.

E. Infrastructure

Infrastructure development is one important factor for attracting investment and, over the years, New Brunswick has had important projects that have helped businesses to grow and ease the flow of goods and services. In effect, between 1949 and 1971, the federal government invested $96 million to build 500 kilometers of the Trans-Canada Highway in New Brunswick, a massive infrastructure project that greatly improved transportation and connectivity throughout the province. In 1968, as part of the Saint John Throughway project, the Saint John Harbour Bridge, a suspension bridge spanning the Saint John River facilitated the connection of the east and west sides of the city, serving as a major transportation route. Between 1993 and 1997, although not explicitly in New Brunswick, the Confederation Bridge which connects New Brunswick with Prince Edwards Island, was built. This was an impressive infrastructure of 12.0 kilometers which replaced the ferry service that existed between the provinces, easing the transportation of goods and services across the provinces. These projects were among some of the most important projects conducted prior to the 2000s in New Brunswick, helping substantially to enhance the connectivity in the province.

By the early 2000s, the federal government launched the Canada Strategic Infrastructure Fund (CSIF), a program designed to support large-scale strategic infrastructure projects. The program specifically provided funding related to transportation, public transit, water and wastewater systems, and other major infrastructure areas. The CSIF was part of the Budget 2001 program of $2 billion together with the Border Infrastructure Fund (BIF), an additional program with an allocated $600 million that supported the alleviation of traffic congestion, and increase security, safety, and crossing capacity at borders (Infrastructure Canada, 2014). In 2003, as part of the Budget 2003 and a way to provide infrastructure funding to municipalities and rural communities across Canada, the federal government launched the $1 billion Municipal Rural Infrastructure Fund (MRIF), which had a top-up of $200 million for the Budget 2006 (Infrastructure Canada, 2008). This program targeted projects in small communities related to the infrastructure of bridges, roads, community centers, water systems, and recreational facilities. Ultimately, as a response to the global 2008-2009 economic crisis, the federal government launched Canada's Economic Action Plan in 2009. This program was part of the Budget 2009 to fight the effects of the global recession and it had an infrastructure stimulus fund for 2 years. From these programs, New Brunswick was able to gain substantial help since during the 2000s, the province was able to fulfill projects such as the Moncton Coliseum Complex, New Brunswick Route 1 gateway, and the extension of the Greater Moncton Romeo Leblanc International Airport. Ultimately, as part of a final upgrade to Route 2 and Route 95 in New Brunswick, the Trans-Canada highway with a four-lane freeway was finalized in 2007.

In recent years (i.e., 2011-2023), New Brunswick has continued to invest in new and old infrastructure with the help of the federal government. In 2016, the federal government introduced the "Investing in Canada Infrastructure Program", a $33 billion program delivered through bilateral agreements with provinces and territories. The program was designed to provide long-term and stable funding for infrastructure projects (Infrastructure Canada, 2023a). During this year, Canada and New Brunswick signed an agreement to invest more than $87 million for the rehabilitation, repair, and modernization of existing infrastructures. In 2018, New Brunswick entered into a second agreement with the federal government under the same program to work together in long-term investment infrastructure. This agreement provided New Brunswick with funding of more the $666 million over 10 years, distributed in five funding streams that included green infrastructure, culture, and recreation infrastructure, rural and northern infrastructure, public transit infrastructure, and Covid-19 resilience infrastructure.

In 2010, New Brunswick was the leader in providing high-speed internet access among all provinces. In effect, since 2003, the province started investing in providing broadband connectivity to all its regions, particularly in rural areas. The provincial government invested $18 million in Xplore Communication and $12.7 million in Bell Canada to provide broadband and cellular improvements, and in 2016, they invested an additional $8 million for the construction of 10 radio towers (Government of New Brunswick, 2017d). Whilst these investments over the years intended positive outcomes, a forensic audit found in 2021 put doubt whether such programs were meeting the goals after finding irregularities and poor governance structure to manage the funding (Auditor General of New Brunswick, 2021).

At the moment, according to the "Investing in Canada Plan Project Map", New Brunswick counts 838 infrastructure investment projects across its region. Close to 16 projects are for trade and transportation, 9 of them being on modernization and expansion of these facilities. About 357 projects are related to green infrastructure and 313 to social, community, and recreational infrastructure, whereas 35 are related to rural infrastructure (Infrastructure Canada, 2023b). Among all these projects, some of New Brunswick's important upgrades will be the Saint John Port (i.e., a $42 million investment), water and wastewater infrastructure in Saint John, underground infrastructure in Moncton's downtown, and solar energy generation and sewer infrastructure in Edmundston.

Overall, New Brunswick has had important infrastructure projects over the years, particularly during recent years and the province has benefited from the agreement with the federal government in long-term infrastructural investment. Due to Covid-19, the federal government assisted with infrastructure funding to boost the economy, just like it did in 2009 after the global financial crisis. However, New Brunswick keeps falling behind in the infrastructure spending since some programs may not be achieving their goals due to poor funding management. According to the transportation and infrastructure annual report of 2019-2020, the province's overall performance of provincial roads in good or fair condition did not meet the target due to the below-threshold funding provided by the government for the rehabilitation of roads (Government of New Brunswick, 2020). The latter performance was not an isolated one since reports from 2014-2015, 2016-2017, and 2017-2018, suggested a similar performance, where there was a lack of funding and capacity for the transportation and infrastructure department to adequately maintain current infrastructure (i.e., roads and bridges).

F. Business Regulations

Despite other changes that have occurred over the years, the regulatory business environment in Canada has not seen radical change. More specifically, depending on the service or product being offered and the location of the business, it will be necessary the fulfill the regulation standards from the federal, provincial, and municipal governments, as well as from industrial associations and regulatory bodies. A generic regulatory framework requires businesses and corporations to register their name, permits, and licenses for operation, the fulfillment of employment regulations, environmental regulations, industry-specific regulations, and regulatory agencies regulations. On occasion some regulations from the federal government could differ from those from the municipal or provincial government, making the system complex and requiring the business to have a higher cost burden to the fulfillment of every regulation. In addition, permits and licenses require a renewal (e.g., every 5 years), and foreign investors require a business visa to conduct investment in Canada.

To reduce the red tape, in 2004, the federal government introduced Canada's Action Plan to Reduce Red Tape. This plan aimed to reduce administrative burden and simplify regulatory requirements for businesses. This initiative involved reviewing regulations, streamlining processes, and implementing gauges for minimizing paperwork and compliance costs. Hence, in hand with this plan, in 2011, the government launched the Red Tape Reduction Commission (Government of Canada, 2012). In 2005, the federal government introduced online service delivery (BizPal) as a one-stop online platform for business permits and licenses, aimed to simplify the process of starting and operating a business; this platform was officially launched in New Brunswick in 2009 (Government of New Brunswick, 2009). Ultimately, as part of the cabinet directive on regulatory management and based on recommendation reports, the government introduced the "small business lens" to ensure that regulators were sensitive to the needs of small businesses when designing regulations. In effect, the lens introduced several requirements that regulators must consider when designing regulations impacting small businesses (Government of Canada, 2016).

Regulatory System: Provincial Government

Over the past twenty-one years, the provincial regulatory system in New Brunswick has evolved with changes in environmental, employment, permit, consumer protection, and data privacy regulations. However, the regulatory burden on companies has not been reduced. In 2013, the provincial government approved a fracking moratorium, a decision that has been controversial up to date due to missed economic opportunities. The government of New Brunswick has acknowledged the difficulties of the regulatory business environment and in 2015, they participated with other Atlantic provinces in the establishment of the "Office of Regulatory Affairs and Service Effectiveness"(Council for Atlantic Premiers, 2023). This office had the mandate of creating a better climate for doing business in and between the provinces, reducing red tape, and eliminating barriers to the flow of goods and services.

According to the report launched by Opportunities NB titled "Agile Business Ensuring Regulatory Competitiveness", in 2019, the government of New Brunswick worked with counterparts in Nova Scotia to introduce a made-in-New-Brunswick "Business Impact Assessment tool" designed to estimate the increase or decrease in regulatory burden when departments and agencies make changes that impact the business sector. Since 2019, this tool has been used as a fundamental instrument for government decision-making processes. On the other hand, the government introduced a business navigator team to help businesses understand how changing rules affected their business. Between 2019 and 2021, this program reduced compliance time by approximately 140,000 hours and reduced regulatory burden by around $1.45 million (Opportunities NB, 2021).

The report further indicates that in 2019, the provincial government introduced a "wholesale discount program" that addressed the issue of licenses for restaurants and bars paying the full retail rates. The estimated saving for businesses due to the program were $1.6 million. The processing of permits changed to an "e-permitting" system, allowing businesses to receive an electronic copy of their permit, and thus, reducing the need for businesses to travel to and from district offices. Furthermore, the amendments to the general regulation in the pension benefits act in New Brunswick now require a solvency ratio of 85 per cent, alleviating some financial pressure and with an estimated savings of $24 million for businesses (Opportunities NB, 2021).

Whilst there has been important progress in Canada to improve the business regulatory environment, many old regulations together with newly implemented ones in recent years have led to a regulatory environment that has barely reduced red tape. The federal government has played an important role in acting plans to benefit innovation, attention to small and medium-sized businesses, and provide measurement tools to regulatory agencies. On the other hand, the government of New Brunswick has also conducted changes and has focused on helping local businesses with the reduction of regulatory burden. Nevertheless, in New Brunswick, many changes happened in recent years, and some of the implemented services to reduce red tape established by the federal government were adopted late in the province (e.g., BizPal was introduced in New Brunswick 4 years after its official launch). On the other hand, much of the ease of regulatory burden has been focused to help current businesses and little has been done to implement innovative programs to attract new businesses and foreign investment. In addition, the fracking moratorium in New Brunswick caused a huge controversy in 2013 due to the missed economic opportunities for the province's economy.

Part Three: Summary and Conclusion

This it provides an overall assessment of the investment situation in New Brunswick by summarizing the types of investment discussed. We first assess the trends of investment in New Brunswick, then an evaluation of policies and programs impacting investment. Lastly, this section provides a set of recommendation to improves investment performance in New Brunswick.

A. Trends of Investment

Types of Investment	Trends
Total Investment	• The share of investment in GDP fell from an average of 28 per cent in 1961-1985 to 17 per cent in 2010-2021. • Between 1961 and 2008, investment in New Brunswick experienced growth. After 2008, particularly in 2008-2015, New Brunswick had the worst growth among all provinces (-4.2 per cent per year). As a result, the province's overall investment growth rate in 2000-2021 was 0.76 per cent, the lowest for any province in Canada. • Between 2000-2021, net investment did not grow since the growth rate was a negative 1.06 per cent. • The average share of net investment in GDP fell from 7 per cent in 1961-1999 to 3 per cent in 2000-2021. • New Brunswick’s net investment-to-investment ratio dropped from 27 per cent in 1961 to 14 per cent in 2021.
Residential Investment (Business)	• The average share of residential business investment in GDP maintained stable around 6.0 per cent from 1961 to 2021. • Between 2000 and 2021, residential investment had a growth of 3.3 per cent. • There was no growth in residential business net investment between 2000 and 2021.

Non-Residential Business Investment in Structure Assets	• The average share of non-residential investment in structures in GDP fell from a 7 per cent in 1961-1985 to 3 per cent in 2010-2021. • Between 2000 and 2021, non-residential business investment in structure assets had a negative annual growth of 1.9 per cent. The worst development occurred from 2008 to 2015 since the rate sharply dropped to a significant negative 13.1 per cent. • The fall of investment in the utility industry drove the fall of non-residential investment in structured assets.
Non-Residential Business Investment in M&E Assets	• The average share of non-residential investment in M&E in GDP fell from a 9 per cent in 1961-1985 to 4 per cent in 2010-2021 • Between 2000 and 2021, non-residential investment in M&E assets had a negative annual growth of 0.26 per cent. The worst development occurred from 2015 to 2021 since the rate of growth dropped to a negative 4.5 per cent. • Investment in M&E assets has dropped over the years; however, it has not been as steep as investment in structure assets. Investment in M&E has mainly been driven by the stable development in manufacturing and transportation and warehousing industries.
Non-Residential Government Investment (Structure and M&E)	• The share of non-residential government investment in GDP has historically been above the national average, falling over time from an average share of 6 per cent to 4 per cent. • Between 2000 and 2021, non-residential government investment grew by 1.05 per cent. • The proportion of New Brunswick's total non-residential investment that is allocated to public non-residential investment increased by 11.8 per cent points between 2000 and 2021.

B. Policies and Programs Directly Impacting New Brunswick's Investment Development

This report highlights a set of important policies and programs that have been implemented over the years to support and boost investment. The federal government has played a vital role and has led changes in policies and programs, whereas the government of New Brunswick has complemented many of the federal government's policy initiatives.

Tax Incentive

Over time, corporate tax rates have followed a downward trend. The federal and provincial rates have decreased for small enterprises in order to reduce their tax burden and support their growth. After the 2008 economic crisis, the federal government introduced its Economic Action plan that contained several programs that supported and incentives investment Some of these programs were the business tax relief and capital cost allowance for investment in computers and in M&E. In recent years, the federal government has continued to deliver programs supporting investment and has focused on expanding such support for investment and production in green technology and manufacturing. Likewise, they implemented the Atlantic Investment Tax Credit in 2012 to exclusively incentivize investment in buildings and M&E in Atlantic Canada. On the other hand, the government of New Brunswick has also provided tax benefits to support small businesses investment, as well as programs encouraging investment in venture capital funds; the province has fallen short in creating more programs to incent investment. In effect, in comparison to the number of programs designed to incentivize residential investment in the provinces, the number of programs for non-residential investment has fallen short.

Investment Promotion Agencies

In the present, New Brunswick counts on two main investment promotion agencies, ACOA and Opportunities NB. These agencies have taken an important role in helping entrepreneurs and new investments coming into the province. Before Opportunities NB was launched, the province only had ACOA, created by the federal government. Hence, it took twenty-eight years to have an alternative agency, an event that could have affected the process of attracting investment over the years to the province. In 2018, the federal government introduced Invest in Canada, an additional agency that has added value to investment promotions in Canada. The fact that additional agencies have been added in recent years (i.e., 2015-2021) could also have affected New Brunswick's huge investment fall between 2008 and 2015.

Business Support Services

Services regarding business support with training and mentorship started to become numerous in New Brunswick after 2010. In effect, since then, different centres and programs have been launched with the involvement of the private and public sectors. To a certain extent, this could have impacted New Brunswick's investment development between 2000 and 2010, particularly during subsequent years after the 2008-2009 economic crisis. In addition, given the diversity of alternatives that enterprises started having in recent years, it is possible to argue that New Brunswick's investment pickup in recent years could have partially come from the training and mentorship of these programs to entrepreneurs and investors in the province.

Financial Assistance

Financial assistance for investment from the federal and provincial government has particularly been good in New Brunswick. Over the years, the federal and provincial governments have participated in the implementation of distinctive programs. Most of these programs have provided support to investment in small businesses, investment in innovation, expansion, and commercialization. In recent years, according to a report from the CVCA, New Brunswick has been situated among the provinces with higher venture capital investment and NBIF ranked 7th as the most active venture capital firm in Canada in 2021. Overall, access to financial assistance has not been a problem in the province and it has not been a factor of investment slowdown.

Infrastructure

Infrastructure such as the Trans-Canada Highway, the port of Saint John, Saint John Harbour Bridge, and the Confederation Bridge are among some of the projects that have enhanced New Brunswick’s connectivity. Most of the infrastructure projects New Brunswick has been able to develop have been through the support of Infrastructure Canada. In effect, the province has benefited from the different programs introduced by the federal government over the years to invest in local infrastructure. To date, according to Infrastructure Canada, New Brunswick counts 838 infrastructure projects, all of them with the support of the federal government. Whilst certainly there has been plenty of support for developing good infrastructure, on occasion, New Brunswick has failed to achieve expected results due to poor funding management and lack of good structural programs. Ultimately, New Brunswick has not been successful in expanding as much its infrastructure since the province has historically dealt with high-depreciated assets, an event that has forced the province to deviate funds for the rehabilitation of these infrastructures.

Business Environment Regulations

Over the years, the federal and provincial governments have made efforts to reduce the red tape in the business environment. Back in 2004, the federal government started a plan that focused on easing red tape, focusing on helping small businesses, introducing regulation tools for regulators, and implementing online services for business inscription. The government of New Brunswick together with other Atlantic provinces, started to implement further measures for red tape reduction in 2015, and in 2020 when, they released a report with important regulatory changes that have helped reduce the regulatory burden on businesses. However, regardless of these advancements, the structure of business regulation in Canada has remained quite numerous over the years. In effect, nowadays every business requires issuing and renewing licenses, permits, the inscription of companies, and dealing with changing regulations by different jurisdictions, thus affecting the business regulatory environment and leaving uncertainty among investors. Despite efforts since 2015 to reduce red tape in New Brunswick attracting foreign investments have been difficult. It seems plausible therefore then, based on all the latter, the business regulatory environment could have impacted the creation of new businesses as well as the flow of more investment into the province.

C. Conclusion

Investment in New Brunswick has weakened over the past 60 years. The province's investment average share in GDP fell by 10.8 percentage points between 1961-1985 and 2010-2021, indicates a weak investment performance and a concern for what economic performance the province would have in the future. Whilst all components of investment have fallen over time, the main reason behind the poor investment development is "the substantial fall of non-residential investment in structure assets, particularly investment in the utility industry ". Indeed, after the 2008-09 economic crisis, investment in the utility industry fell, leading the province to experience a negative aggregate non-residential business net investment to fall.

Four out of six of the type of policies and programs analyzed in this report could have contributed to the fall-off of investment in the province. In effect, many policies and programs that sought to positively influence investment were introduced over the last eleven years, meaning that before such years (e.g., 2000-2015), the province did little to nothing to help boost its investment. For instance, before launching Invest NB in 2011 and merging it later to ONB in 2015, New Brunswick did not have any alternative agency to help promote investment in the region. Similarly, many business support centers looking to help or train entrepreneurs were launched and funded by private-public collaboration since 2011. Likewise, the business regulatory system has not changed over the years given that the old regulatory framework keeps standing in place and new regulatory changes (i.e., fracking moratorium) keep the environment unstable. Ultimately, on occasions, New Brunswick has failed to implement good management of funding or structure of programs for infrastructure projects. The latter has contributed to the incapability of expanding infrastructure since the province has historically dealt with high-depreciated assets.

Between 2000 and 2010, little was done by the provincial government in New Brunswick to deviate from the downward investment trend which contributed to the substantial fall in investment after the 2008-09 economic crisis. Many of the policies and programs implemented through tax incentives or financial assistance for investment came in hand with the federal government's help, reflecting the importance of federal support for the province. In the last five years, New Brunswick has had a pick-up in its investment levels, an can be linked to the notorious changes in policies and programs in recent years to boost investment. However, there is plenty of room for improvement and opportunities for investment in New Brunswick. Businesses and governments should consider the following key factors:

- Businesses should consider investing in New Brunswick due to its good financial assistance for investment. Particularly, small and medium businesses looking to expand in new markets.

- Businesses can benefit from The Atlantic Investment Credit program offered by the federal government, as well as numerous credit programs for investment in machinery and equipment, and renewable technology.

- New investors and entrepreneurs could take advantage of the numerous tools and assistance offered in the province through their investment promotion agencies and business support centres.

- The provincial government should be canceled in managing infrastructure funding and implement structural programs for the implementation of funding in new infrastructure programs.

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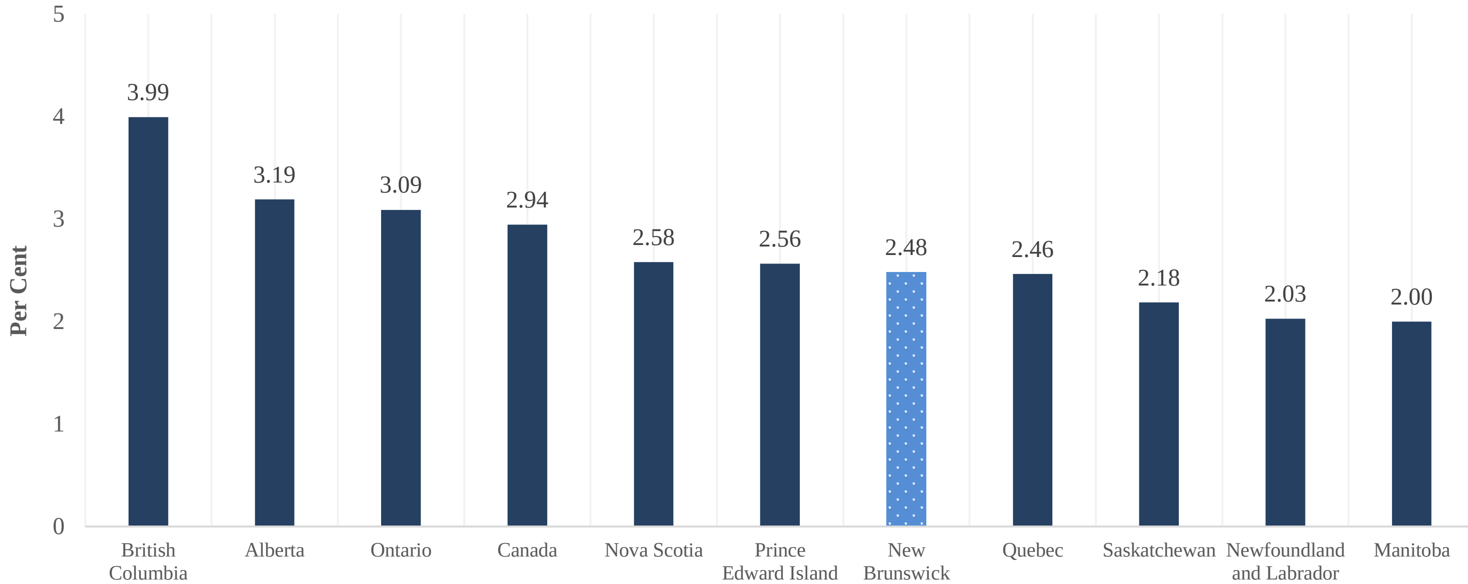
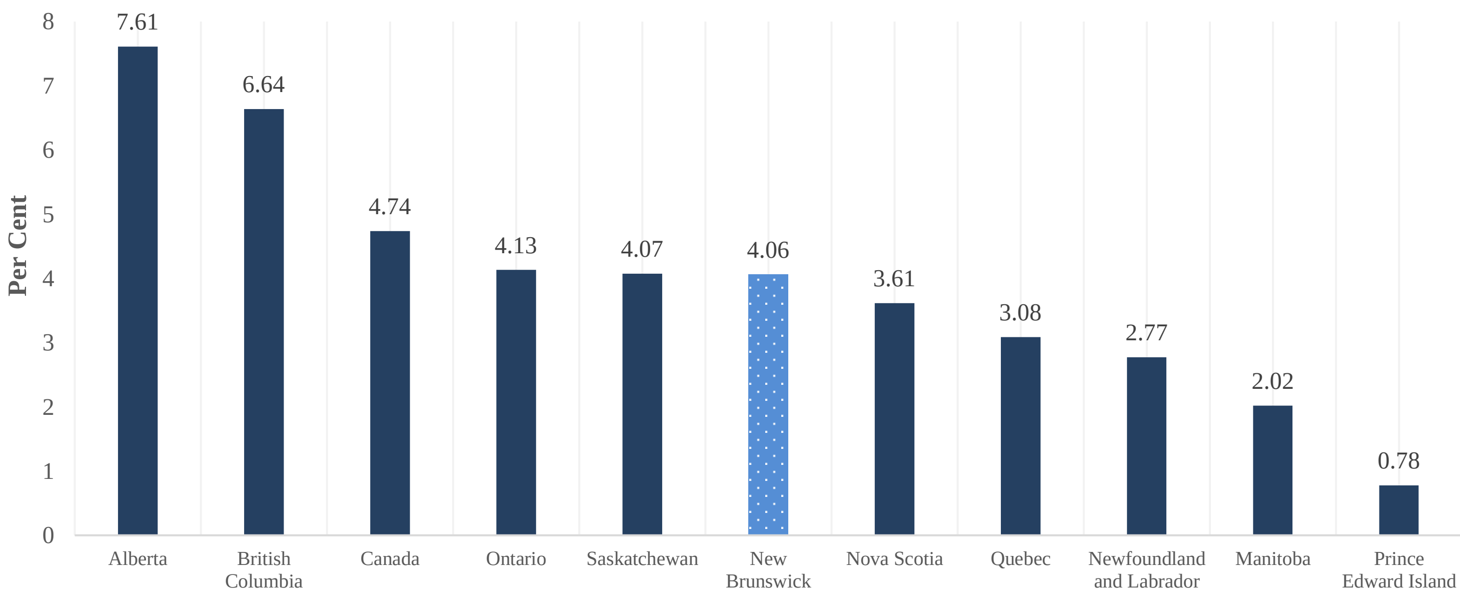
Appendix

Appendix Chart 1: Total Investment Growth (Compound Annual Growth Rate), (chained dollars), Canada and Provinces, 1961-2021

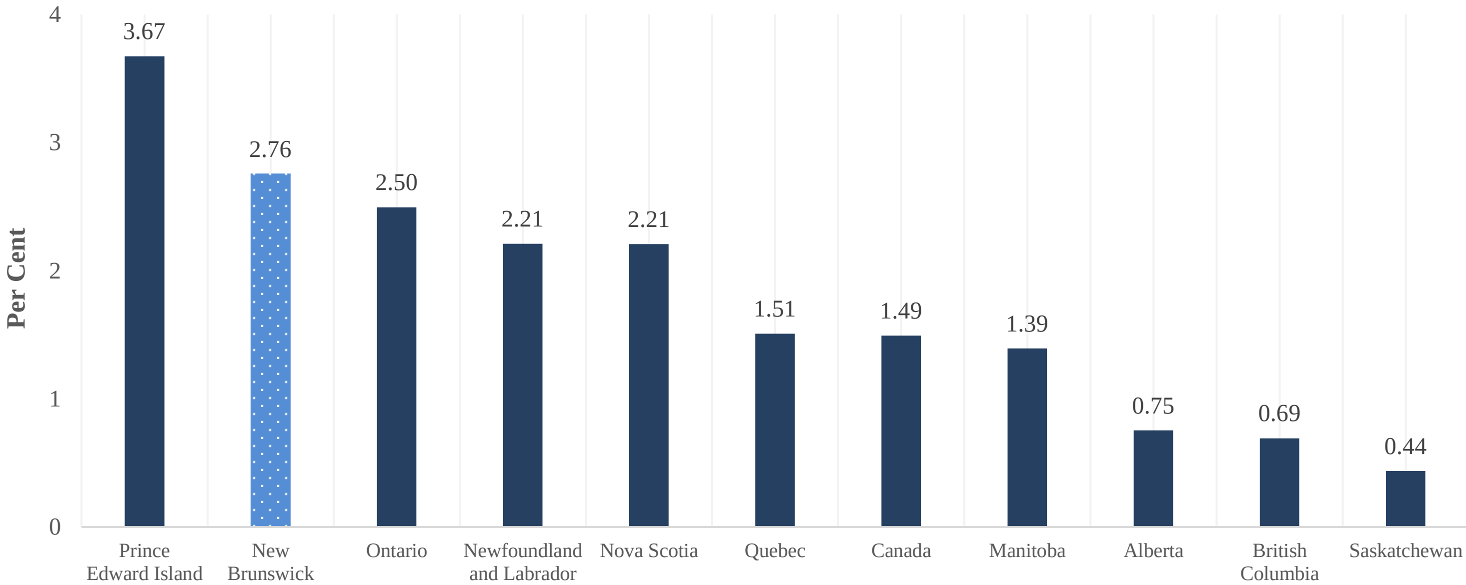
Panel A: Total Investment Growth Between 1961 and 2021



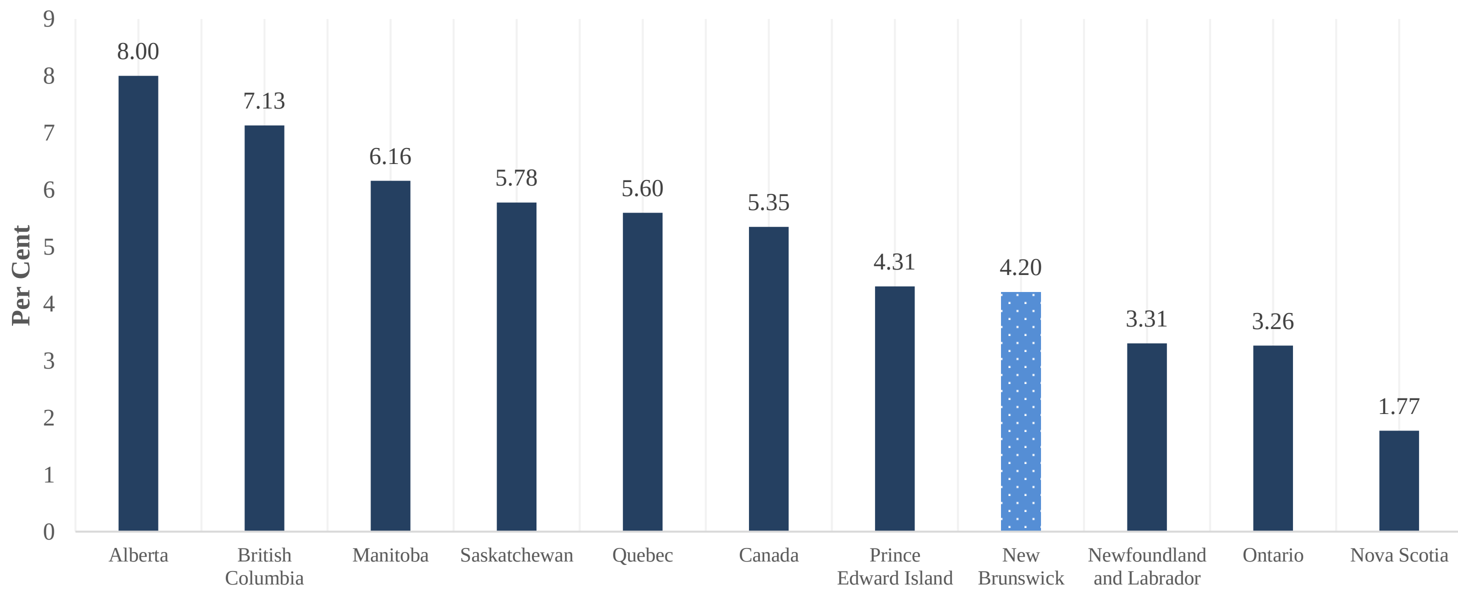
Panel B: Total Investment Growth Between 1961 and 1981



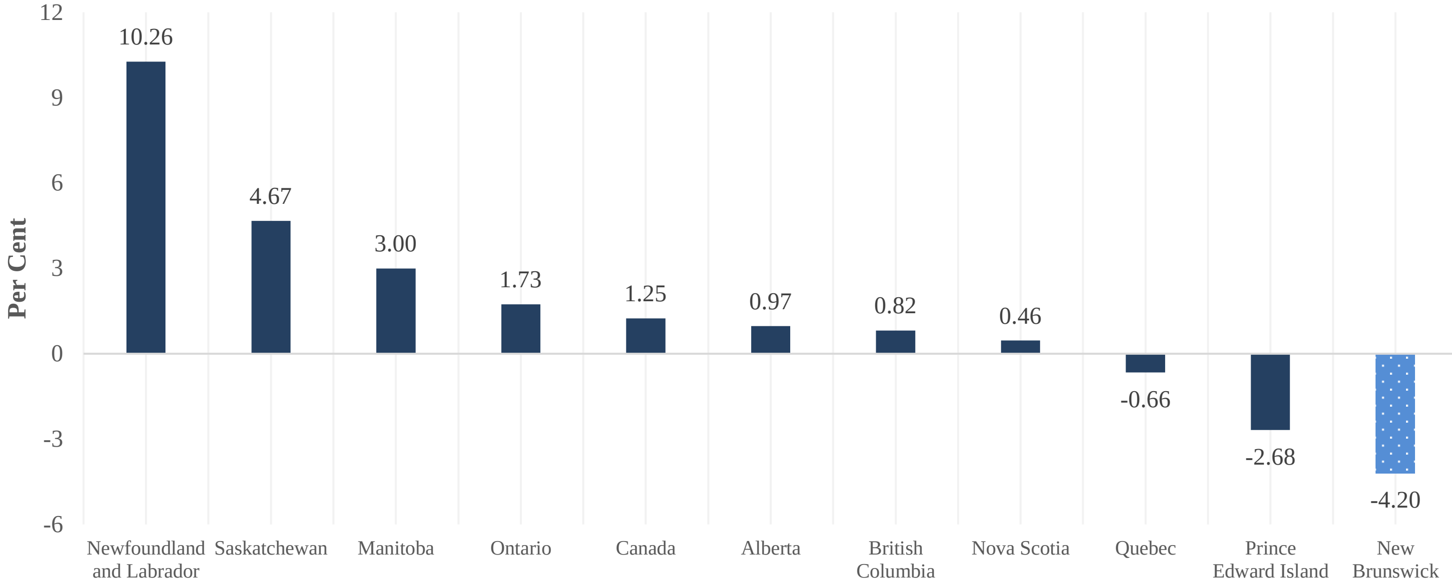
Panel C: Total Investment Growth Between 1981 and 2000



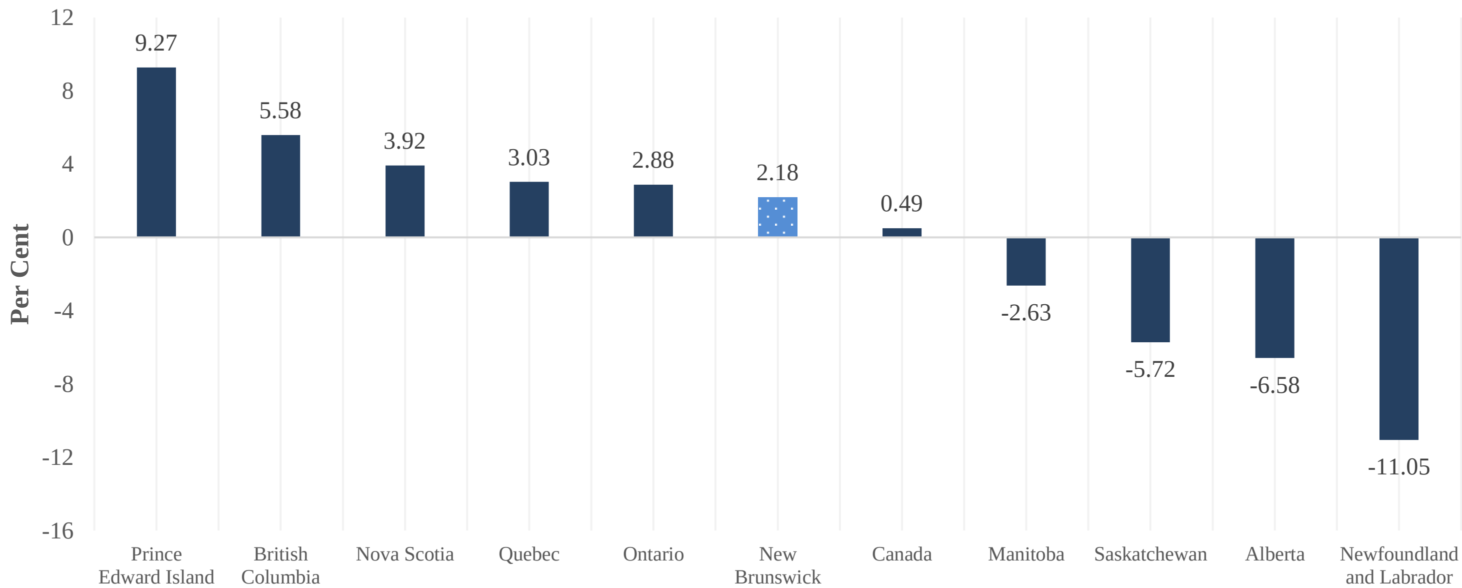
Panel D: Total Investment Growth Between 2000 and 2008



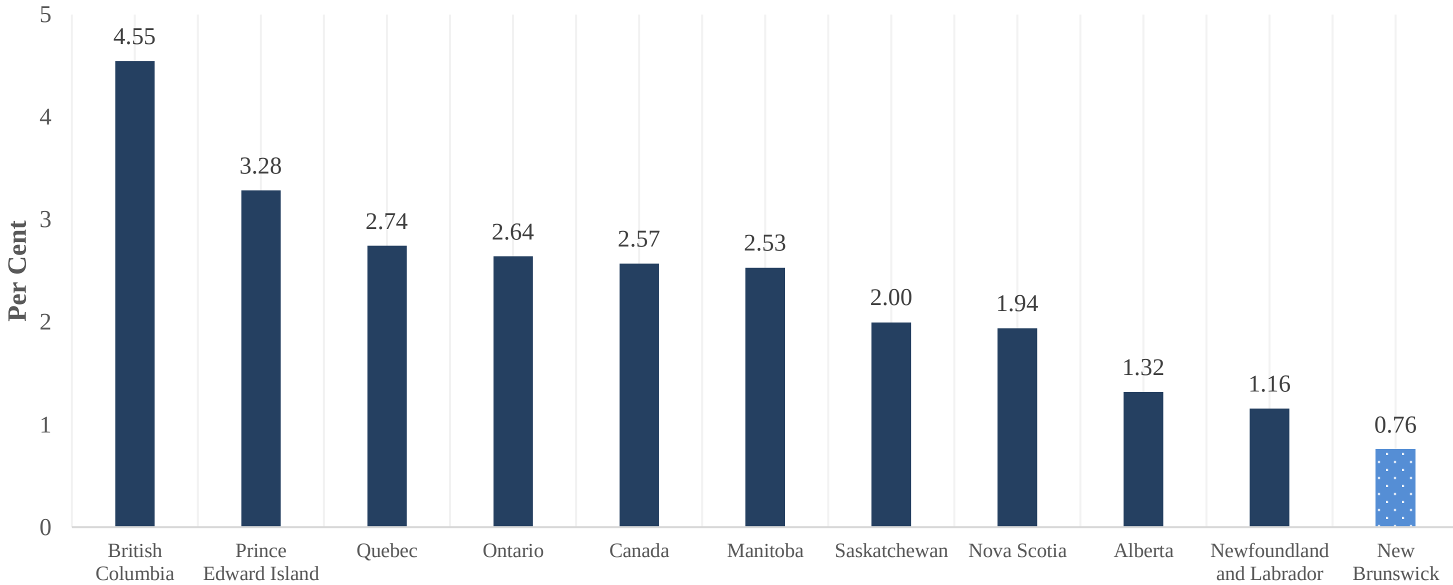
Panel E: Total Investment Growth Between 2008 and 2015



Panel F: Total Investment Growth Between 2015 and 2021



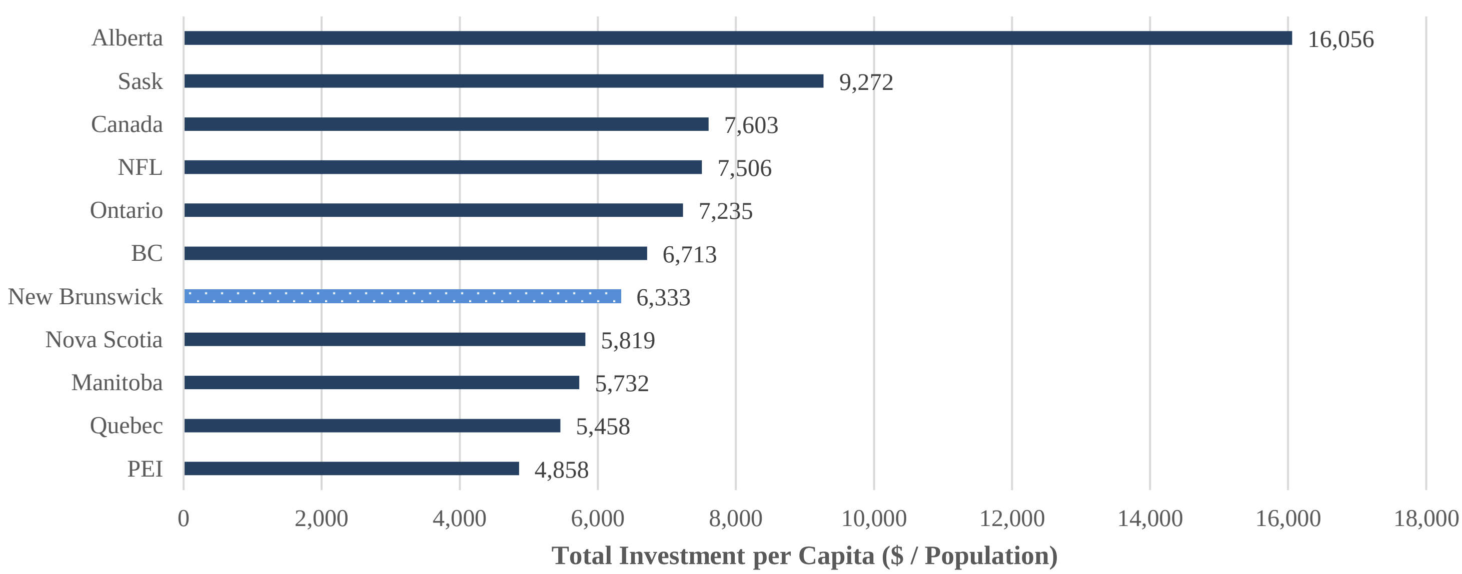
Panel G: Total Investment Growth Between 2000 and 2021



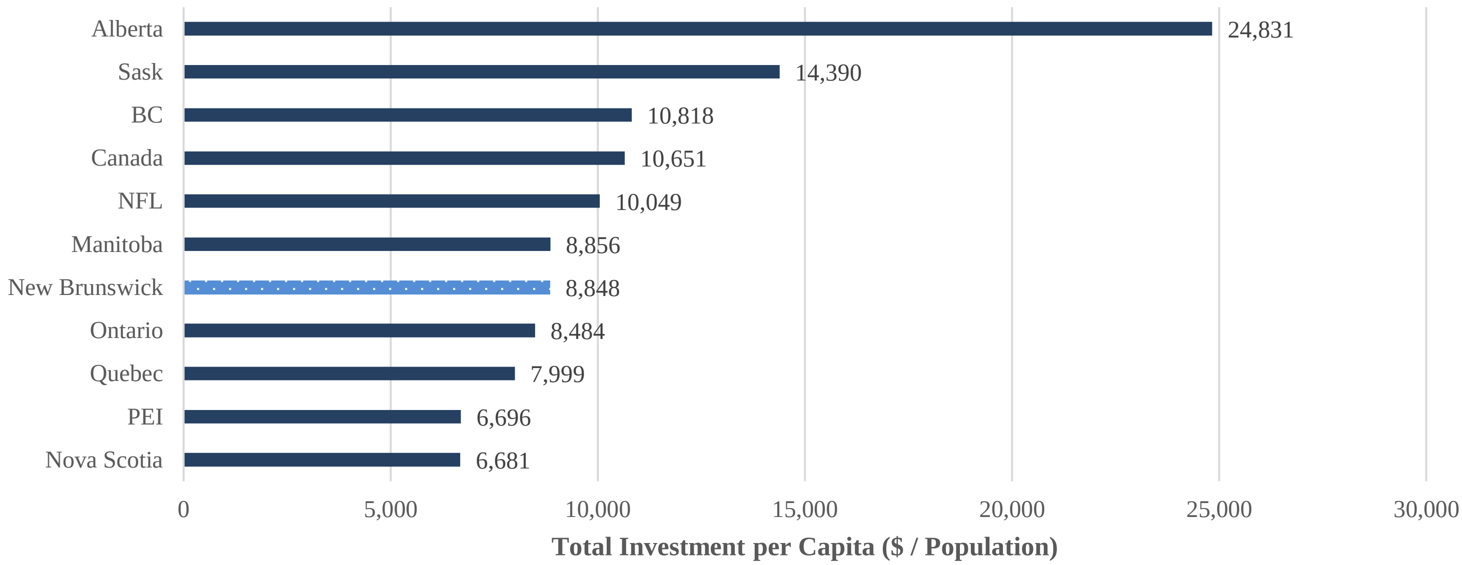
Sources: Statistics Canada, Table 36-10-0099-01, and Table 36-10-0098-01

Appendix Chart 2: Total Investment spending per capita (2012 chained dollars) in Canada, New Brunswick, and Provinces, (2000, 2008, 2015 and 2021)

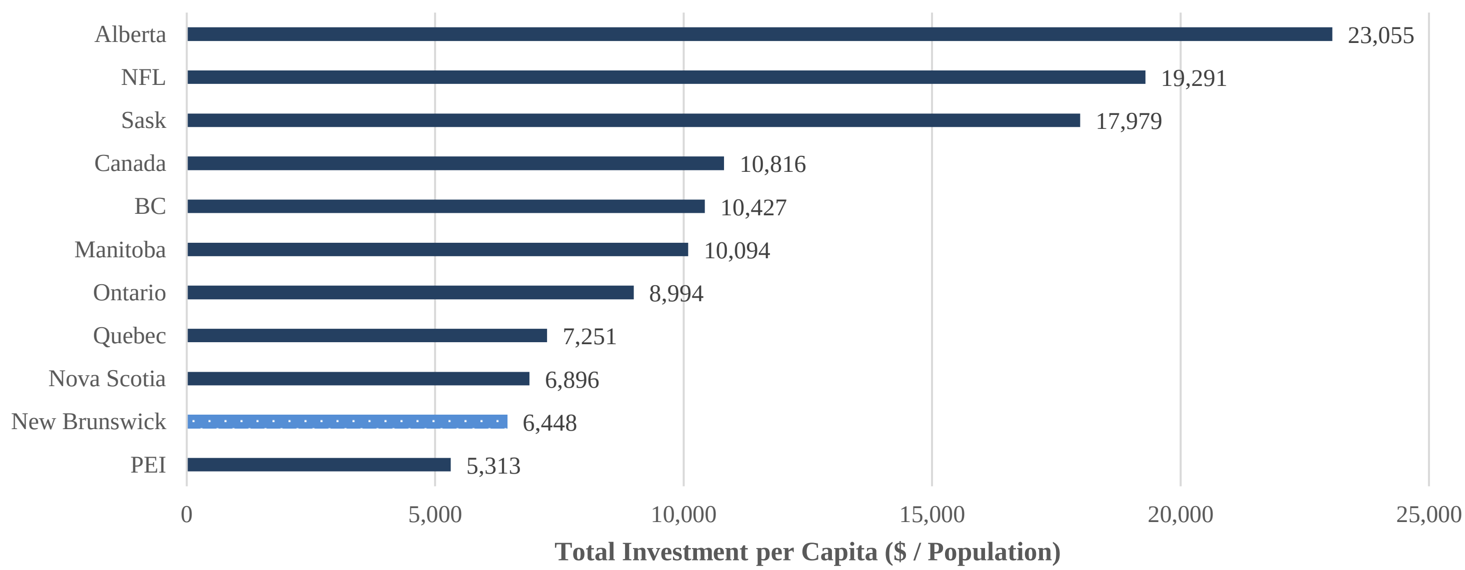
Panel A: Investment spending per capita in 2000



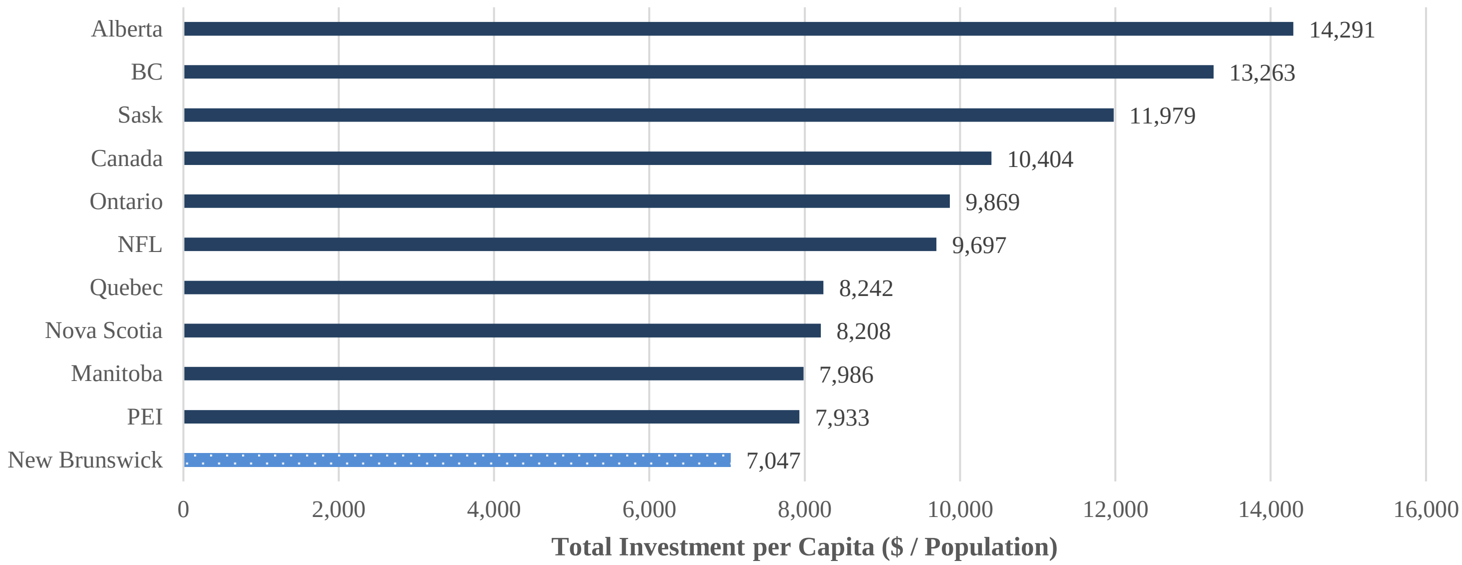
Panel B: Investment spending per capita in 2008



Panel C: Investment spending per capita in 2015

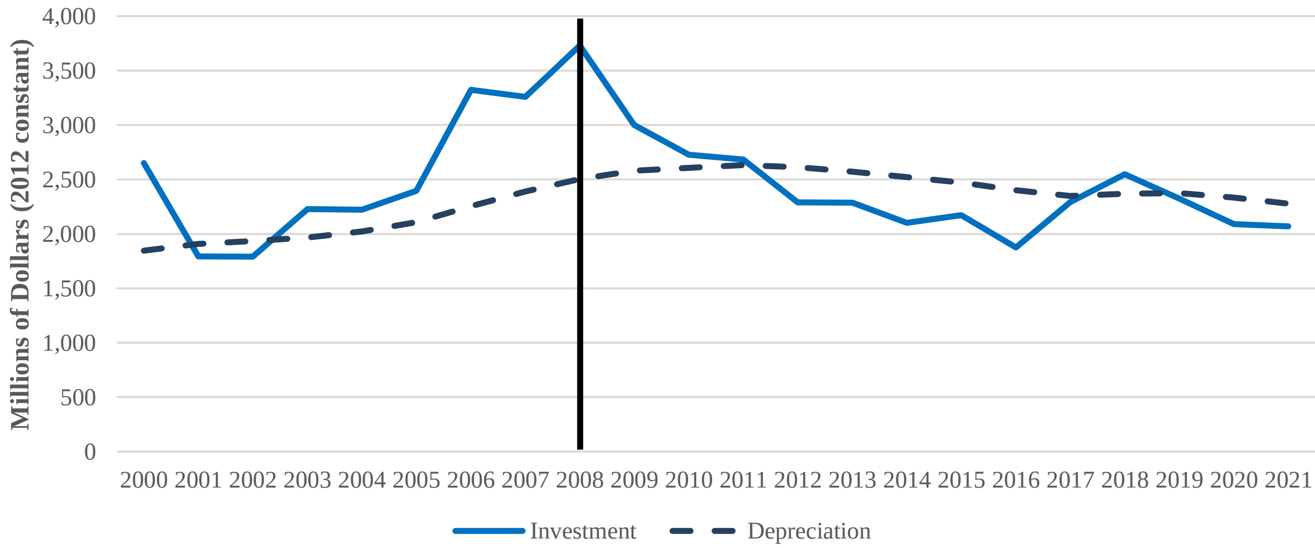


Panel D: Investment spending per capita in 2021



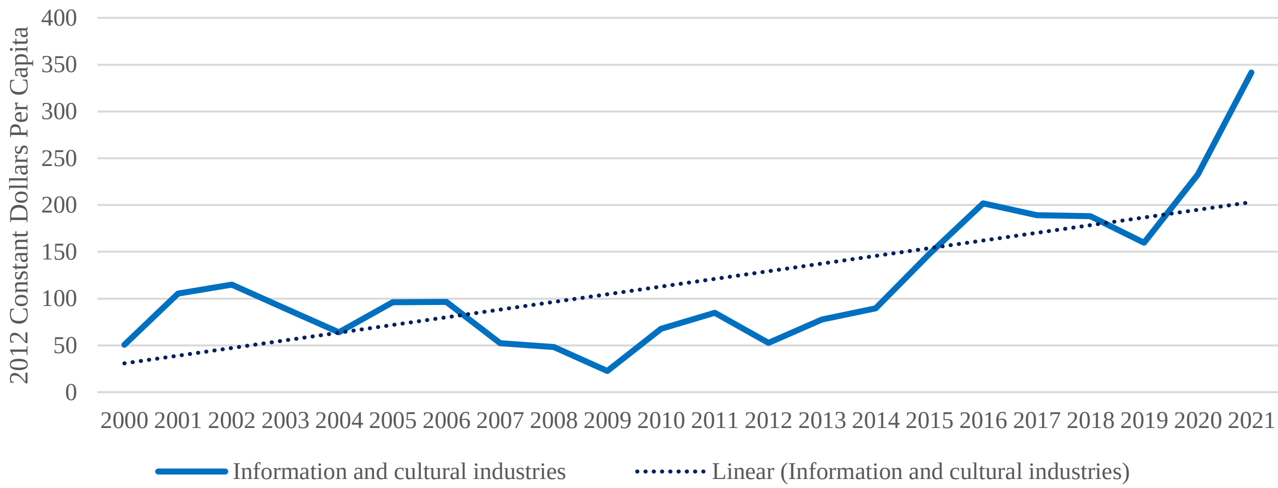
Sources: Statistics Canada, Table 36-10-0099-01, Table 36-10-0098-01, Table 17-10-0009-01

Appendix Chart 3: New Brunswick's Business Non-Residential Investment and Depreciation (chained dollars), 2000-2021



Sources: Statistics Canada, Table 36-10-0098-01

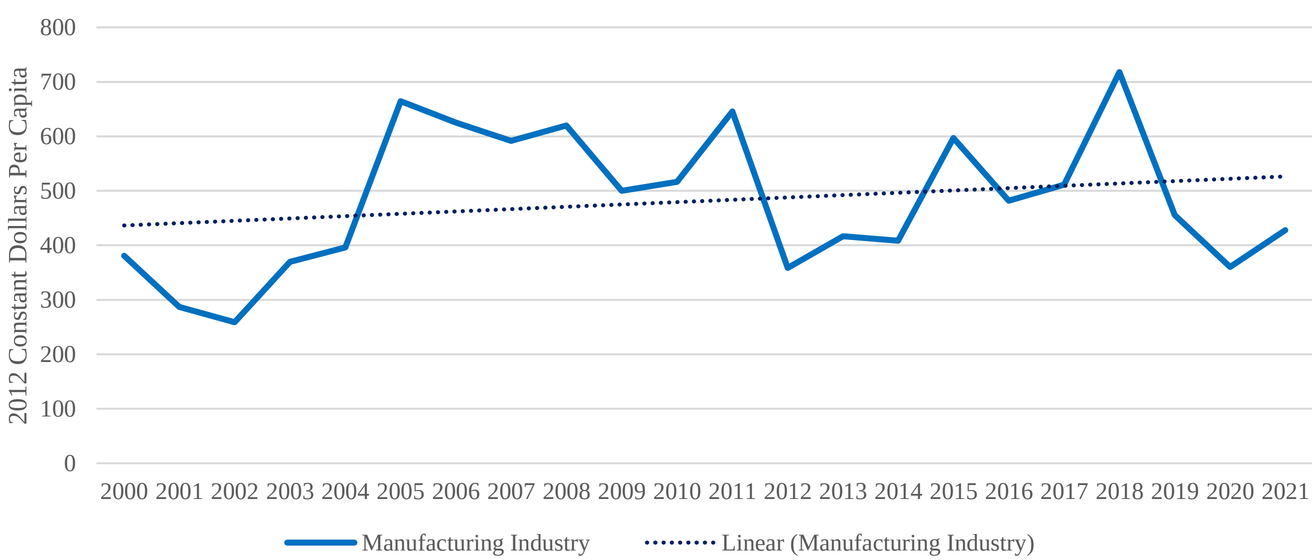
Appendix Chart 4: Business Spending in Structure Assets in the Information and Cultural Industry, (constant 2012 Dollars per capita), 2000-2021



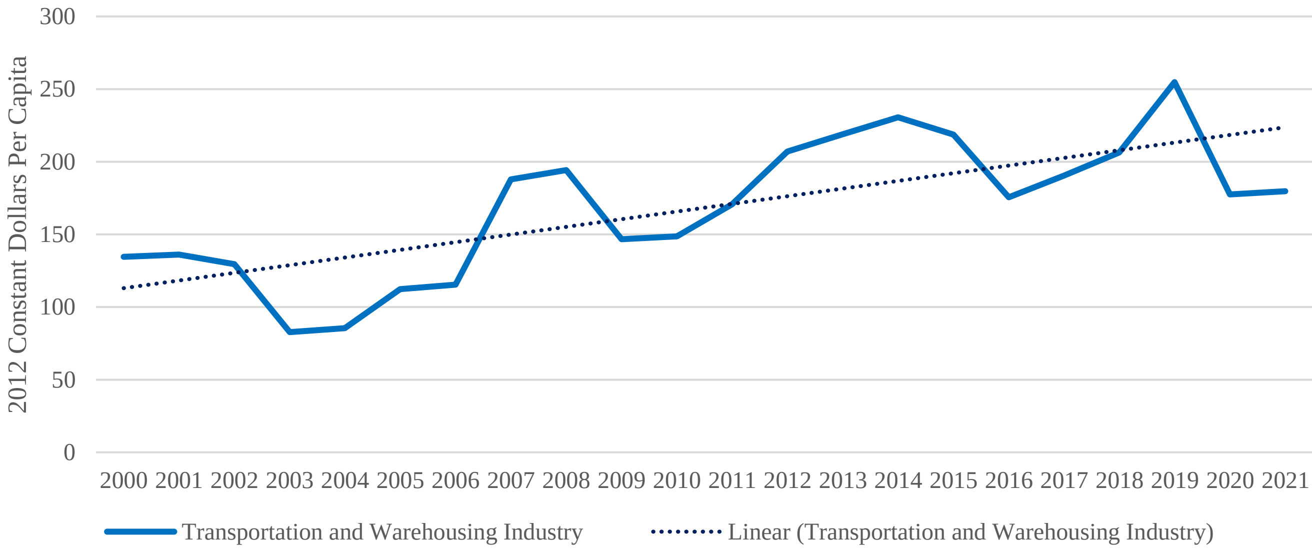
Sources: Statistics Canada, Table 36-10-0098-01

Appendix Chart 5: Non-Residential Business Investment in M&E: Trends of Industries with Upward Sloping Investment, (constant 2012 Dollars per capita), 2000-2021

Panel A: Business Spending in M&E Assets in the Manufacturing Industry



Panel B: Business Spending in M&E Assets in the Transportation and Warehousing Industry



Sources: Statistics Canada, Table 36-10-0098-01