



Atlantic Canada Momentum Index Technical Report

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This report provides additional information and data tables not included in the Atlantic Canada Momentum Index report released October 9, 2024.

In March of 2023, the Public Policy Forum released the first report on momentum in Atlantic Canada. The report developed a scorecard based on 20 indicators in six domains, namely the macro economy, human capital, the labour market, innovation and investment, standard of living, and overall life satisfaction. Trends in Atlantic Canada in these indicators from 2015 to the most recent year for which data were available are compared with the 2008-2015 period for Canada and Atlantic Canada. An improvement in performance between periods is a sign of growing momentum. Comparisons are also made in the rates of improvement in the indicators in Atlantic Canada after 2015 compared to Canada to see if the region's absolute performance has outpaced that of Canada and the rest of the country.

This report follows the same methodology as the 2023 report, with the addition of one year of data for all indicators. The major change is the addition of five new indicators, namely the labour force participation rate of women with children under six; greenhouse gas emissions; investment in renewal energy; housing affordability and the poverty rate.

The report is divided into five sections. The first section discusses trends in the place of Atlantic Canada and the Atlantic Provinces within Canada and the motivation for the project. The second section discusses the methodology used to develop the scoreboard, including the rationale for the choice of indicators and the choice of periods. The third section presents the summary results. Section four, the largest section in the report, discusses the results for all 25 indicators for Atlantic Canada and Canada. Section six concludes.

I. A Long-term Perspective on Atlantic Canada's Place within Canada

Over the last 60 years, Atlantic Canada's share of the population of Canada has fallen dramatically. In 1961, the population of Canada was 18,271,000 and that of Atlantic Canada was 1,901,000. By 2023, Canada's population had grown to over 40 million while Atlantic Canada's population sits at 2.6 million. As a result, Atlantic Canada's share of the Canadian population had fallen 4 percentage points from 10.40 per cent in 1961 to 6.50 per cent in 2023 (Chart 1). The decline in the population share has been fairly steady, falling at each 10-year census point, by 0.91 points, 0.38 points, 0.66 points, 0.90 points, and 0.65 points respectively from 1961 to 2011 and by a somewhat smaller 0.50 points since 2011.

However, the situation appears to be changing. For the past two years, population growth in Atlantic Canada has exceeded the national total. Greater immigration largely explains this turnaround.

Perhaps surprisingly, the relative size of the Atlantic Canadian economy has not experienced the same decline as that of population. In 1961, nominal GDP in the region was \$2.5 billion, equivalent to 6.16 per cent of Canada's GDP of \$40.6 billion. By 2022, the nominal GDP in Atlantic Canada had risen to \$149 billion and that in Canada to \$2.81 trillion. Atlantic Canada now accounts for 5.30 per cent of Canada's GDP, down only 0.86 percentage points from the

share in 1961 (Chart 1). This is one fifth of the decline in the region’s population share over the same period.

The upshot of this paradoxical development has been a dramatic narrowing in relative living standards between Atlantic Canada and Canada. In 1961, nominal GDP per capita in Atlantic Canada was \$13,000, just 59 per cent of the national average of \$22,000. By 2021, GDP per capita in Atlantic Canada had risen to \$57,200, now 87 per cent of the national average of \$65,700 (Chart 2). In other words, the region’s standard of living has risen an amazing 27.9 points or by nearly 50 per cent relative to the national average.

This is an important finding as it suggests that regional disparities in Canada have diminished markedly over the last 60 years. The reasons for this improvement include the reductions in the region’s productivity and employment rate gaps with the rest of the country, and increased transfer payments from the federal government. However, the full story of the convergence of living standards in Atlantic Canada toward the national average is beyond the scope of this report.

Chart 1: Atlantic Canada’s Population and Nominal GDP as Share of Canada (%)

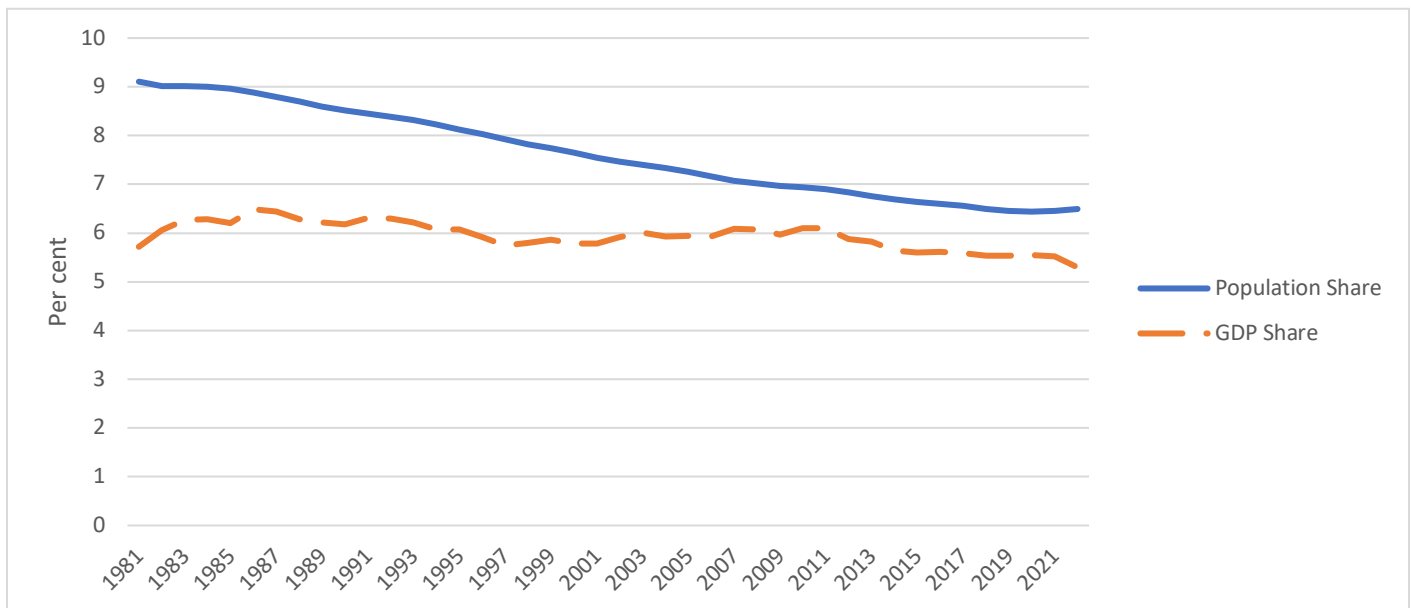
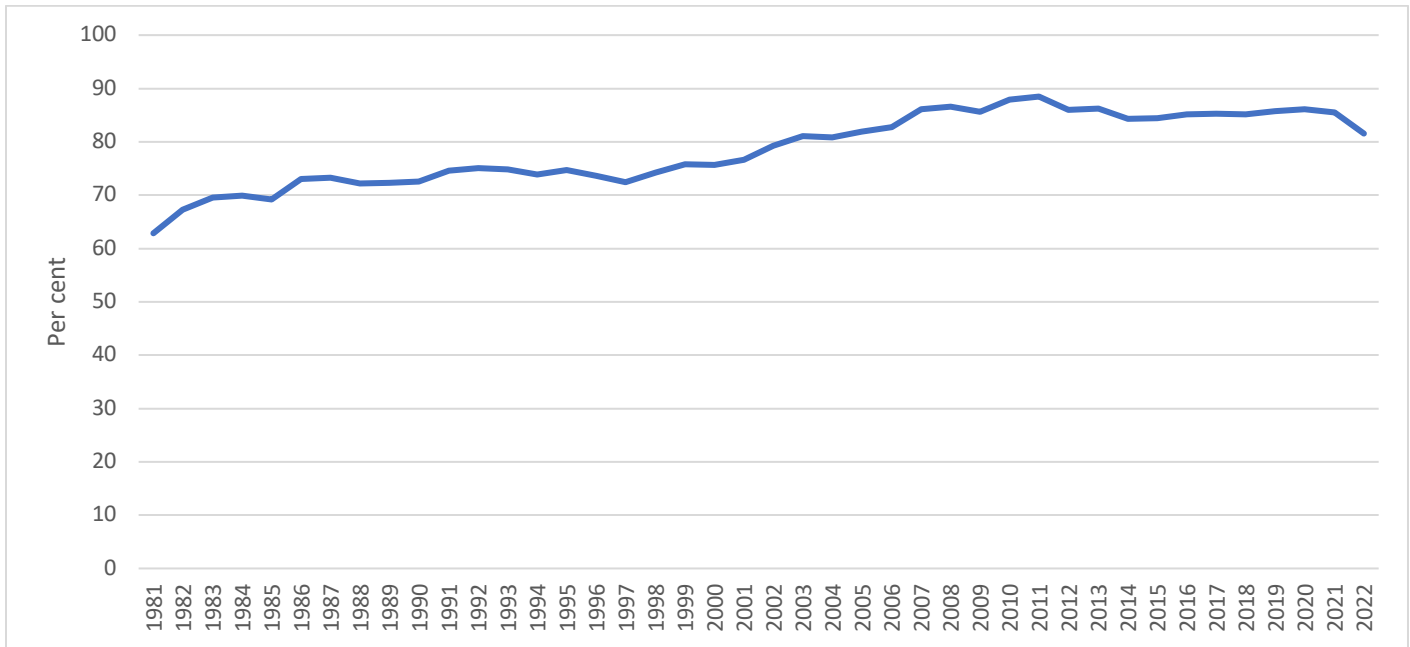


Chart 2: Nominal GDP per Capita: Atlantic Canada as a Proportion of Canada (%)



II. Methodology for the Atlantic Canada Scorecard

The methodology used to develop the scorecard is straightforward. First, we select a set of indicators for Atlantic Canada for various economic and social trends. We then construct measures of a momentum measure for each indicator. This section of the report reviews the key aspects of the methodology, namely the choice of indicators definition of the term momentum, the dating of the periods for calculation of momentum, and the construction of indicators for Atlantic Canada from provincial data.

Choice of Indicators

The most important task for those who construct a scoreboard is to select a set of indicators that capture what the developers believe is important. The indicators need to be relevant, reliable, easily accessible, available for the time period covered and easily understandable.

The original 20 indicators on economic and social trends in Atlantic Canada chosen for the scoreboard came out of a three-stage process. First, Public Policy Forum (PPF) staff developed an initial list of potential indicators based on their views of which indicators had potential to capture a broad picture of the region’s economic development. A group of prominent Atlantic Canadians then discussed these indicators at a PPF event in Halifax in September 2022. Feedback from the group was then incorporated into a revised set of indicators, which was then shared with the Centre for the Study of Living Standards (CSLS). Comments from the CSLS

related to the definition and relevance of the revised indicators were then used to produce the first set of indicators.

The five new indicators (poverty rate, greenhouse gas emissions, housing affordability, investment in renewable energy, and the participation rate of women with children under six), drew upon earlier discussions of desirable indicators as well as the views of CSLS and PPF staff.

Exhibit 1: List of Indicators by Domain

Macro-Economy

- 1) Real GDP
- 2) Real GDP Per Capita
- 3) Real Exports

Human Capital

- 4) Population
- 5) Median Age
- 6) Immigration
- 7) Immigration Retention
- 8) NEETs
- 9) Tertiary Education

Labour Market

- 10) Employment Rate
- 11) Employment Income
- 12) Labour Productivity
- 13) Labour Force Participation of Women with Children under Six

Innovation and Investment

- 14) Business Expenditures of Research and Development (BERD)
- 15) Non-Residential Investment
- 16) Production of Non-emitting Energy
- 17) Investment in Renewal Energy
- 18) Greenhouse Gas Emissions

Quality of Life

- 19) Gini Coefficient
- 20) Housing Starts
- 21) Access to a Family Physician
- 22) Housing Affordability

- 23) Poverty Rate
- 24) Life Satisfaction
- 25) Sense of Belonging

Definition of the Term Momentum

The key objective of this report is to highlight and quantify the momentum that many feel Atlantic Canada has been showing in recent years. It is important to document this perception of momentum.

In physics, momentum is the speed of motion of an object. Even if an object has a slower rate of growth or motion now compared to an earlier period, it still is considered to have momentum. However, in economics, momentum refers to a pick-up or acceleration in the rate of growth of a variable. So a change in a change or the second derivative. If the growth rate falls to 2 per cent in period B from 3 per cent in Period A, we do not say the variable has momentum even though it is still growing. On the other, if the growth rate of a variable increases from 1 per cent in period A to 2 per cent in period B, we say it has momentum, because of the higher growth rate. We have used this second definition of momentum in the report, that is an improvement in the growth rate of the variable, to define and track momentum. The degree of momentum is the difference between the growth rates between the second and first periods and is measured in percentage points. These can still be momentum if the growth rates in both periods experience negative growth rates and the negative growth in the second period is smaller.

Dating of the Periods

Given that momentum is measured as the difference in growth rates between periods, a well thought out dating of the periods is crucial for the estimation of momentum. As a general rule, it is desirable to use business cycle peaks to date periods in order to minimize the short-term cyclical influences. The years 2000, 2008 and 2019 are all cyclical peaks so the periods 2000-2008 and 2008-2019 could be used to measure momentum. However, there appears to have been much more momentum in Atlantic Canada after 2015 than before, and so the 2008-2019 period growth rates does not capture this shift. The 2008-2019 period needs to be divided into two period. The year 2015 was chosen as the break point in order to have two periods of roughly equal length. There are seven years in the first period 2008-2015 and seven years in the second period 2015-2022.

It is always desirable to incorporate the most recent data into the analysis. As of July 18, 2024, of the 25 series, data are available to 2023 for 10 indicators, to 2022 for 13 indicators, to 2021 for one indicator (BERD) and to 2020 for one indicator (immigration retention). Indicators will be updated if more recent data are released before the report goes to the printer in September.

Construction of an Atlantic Canada Aggregate

Statistics Canada releases data at the provincial level and often does not have official figures for regions such as Atlantic Canada. In cases where official figures for Atlantic Canada are not

available, the Centre for the Study of Living Standards has constructed estimates in three ways. The first way is to sum the estimates for the four Atlantic provinces. This works for variables expressed in absolute terms such as population and current dollar GDP categories,¹ It does not work for indicators expressed in terms of rates or percentages. Where absolute estimates of the numerator and denominator of these rates are available by province, the estimates have been summed for the region and a regional rate calculated. When it has not been possible to obtain the estimates in absolute terms, the provincial rates have been weighted by an appropriate variable, generally the denominator of the ratio, to obtain a regional rate.

Data Sources

All data for the indicators used in this report have been taken from Statistics Canada, except for the greenhouse gas emissions, which is from Environment and Climate Change Canada. The Centre for the Study of Living Standards has constructed an extensive database that contains estimates for all 25 indicators for Canada and for the ten provinces for as long a period as data availability permits. For indicators expressed in absolute terms, provincial shares of the national total have been calculated as well as per capita estimates in absolute terms and as a proportion of the national average. The Excel files containing these data

will be made publicly available with the report when it is released.

II. Summary Results

Table 1 presents the number of indicators in Canada, Atlantic Canada and the 10 provinces that experienced an absolute improvement or a deterioration in performance in the 2015-2021 period, as measured by the growth rate of the indicator. Note that we do not refer to an increase or decrease in the indicator as for three indicators (median age, the proportion of NEETS, and the Gini coefficient), a decrease represents an improvement in the indicator.

Table 1: Number of Indicators Experiencing Improvement and Deterioration in the Atlantic Scoreboard, 2015-2022/23

	Improvement	Deterioration
Canada	20	5
Atlantic Canada	17	8
Newfoundland and Labrador	14	11
Prince Edward Island	18	7
Nova Scotia	19	6

¹ We have summed provincial estimates of GDP categories expressed in both constant and chained dollars even though technically speaking these estimates are not additive. We expect the bias introduced by this procedure is small.

New Brunswick	16	9
Quebec	22	3
Ontario	20	5
Manitoba	17	8
Saskatchewan	14	11
Alberta	13	12
British Columbia	20	5

Note: An increase in the rate of change of the variables Median Age, the Gini Coefficient, and NEET is defined as an improvement and a decrease of deterioration is indicative of positive momentum. For all other variables, positive momentum is associated with a positive change

In 2015-2021, 18 of the 25 indicators in Atlantic Canada showed improvements over the period, that is exhibited positive growth rates for indicators where more was better and negative growth rates for indicators where less is better. On this criterion, Atlantic Canada performed slightly less well than Canada where 19 of the 25 indicators also showed improvements.

Both Atlantic Canada and Canada experienced a deterioration in four indicators: non-residential investment, housing affordability, life satisfaction, and sense of belonging. Atlantic Canada also saw a deterioration in employment income, renewal energy investment, and access to a family doctor. Canada saw a decrease in the immigrant retention rate

Table 2 presents the number of indicators in Canada, Atlantic Canada and the 10 provinces that experienced an improvement or a deterioration in performance in the 2015-2022/23 period relative to the 2008-2015 period, as measured by the change in the growth rate of the indicator. It is the indicators that show an improvement that are said to have momentum.

Table 2: Number of Indicators Experiencing Momentum (a Positive Change in the Rate of Change) (2008-2015 vs 2015-2022/23)

	Momentum	No Momentum
Canada	17	8
Atlantic Canada	15	10
Newfoundland and Labrador	18	7
Prince Edward Island	13	12
Nova Scotia	15	10
New Brunswick	14	11
Quebec	17	8
Ontario	16	9
Manitoba	14	11
Saskatchewan	11	14
Alberta	9	16

British Columbia | 18 7

Note: A negative change in the rate of change of the variables Median Age, the Gini Coefficient, and NEET between the two periods is indicative of positive momentum. For all other variables, positive momentum is associated with a positive change.

15 of the 25 indicators in Atlantic Canada manifested an improvement in 2015-2022/23 compared to 2008-2015, with ten indicators showing a deterioration. This is evidence of the region having momentum,² although the proportion of indicators showing moment (60 per cent) was less than in the first Atlantic Momentum Index report (75 per cent based on 15 out of 20).

This momentum was exhibited in all four Atlantic provinces, with similar performance outcomes.

Momentum in Atlantic Canada after 2015 was less than at the national level where 17 out of 25 indicators showed momentum. In the previous report Canada did worse than Atlantic Canada as one half (10 out of 20) of the indicators did not experience a pick-up. This change reflects the addition of one more year, or for some indicators, two more years of data. Economic growth in Canada in 2022 was strong at 3.8 per cent, well above that in Atlantic Canada at 1.1 per cent. Economic growth influences positively many indicators.

Appendix Table 3 presents the indicators for the Atlantic and the provinces where the level of the indicator is above and below the national average in 2008, 2015 and the two most recent years from which data are available, generally 2022 and 2023. Note that a number of the indicators expressed in dollar terms or in units and not in rates, such as exports, immigration, BERD, non-residential investment, non-emitting energy investment, and housing starts, have been converted to per capita measures to control for the size of the jurisdiction and ensure comparability. In addition, two indicators, population and real GDP, are excluded as there is no concept of population per capita and GDP per capita is already a separate indicator. This means that there are 23 indicators, not 25 indicators, for this exercise.

On this criterion, Atlantic Canada does poorly and is not getting better. In 2008, there were 12 indicators below the national average and 13 in 2015. In 2021, 13 of the 17 indicators in Atlantic Canada were below the national average. The four indicators above the national average were production of non-emitting energy, access to a family physician, life satisfaction, and sense of belonging to the local community. Three of these indicators act as social indicators more than economic indicators.

IV. Momentum Results for the 25 Indicators

² As noted earlier, results are sensitive to the dating of the periods. When the break is made at 2010 instead of 2015 and the 2000-2010 and 2010-2022/23 periods are used, fewer indicators in Atlantic Canada experienced momentum in the post-2010 period. The 2010-2015 period was not one of strong performance for Atlantic Canada.

This section of the report presents the results for the 25 indicators in the six domains, namely the macro economy, human capital, labour market performance, innovation and investment, standard of living, and overall satisfaction with life. Trends in Atlantic Canada in these indicators from 2015 to the most recent year for which data are available are compared with the 2008-2015 period for both Canada and Atlantic Canada. An improvement in performance between periods is a sign of momentum.

Comparisons are also made in the rates of improvement in the indicators in Atlantic Canada after 2015 compared to Canada to see if the region's absolute performance has outpaced that of Canada and the rest of the country. It is possible that the region showed a very large improvement after 2015 from a very poor performance in pre-2015 period, but it is still underperforming the national average.

Macro-Economy

The macro economy domain contains three indicators: real GDP, real GDP per capita and real exports. On all three indicators Atlantic Canada has exhibited considerable momentum after 2015. In contrast, the Canadian economy is showing momentum as only two of these indicators after 2015

Economic Growth (Real GDP)

The Atlantic economy experienced very slow economic growth from 2008 to 2015, only 0.10 per cent per year on average. However, in the 2015-2022 period, economic growth picked up considerably to 1.14 per cent per year, an improvement of 1.04 percentage points, strong evidence of momentum.

Meanwhile, the Canadian economy advanced 1.54 per cent per year in 2008-2015. Economic growth then increased to 1.78 per cent per year in 2015-2022, an acceleration of 0.24 points.

Despite the very large turnaround of the Atlantic Canadian economy after 2015, in absolute terms, real GDP growth was still considerably higher at the national level (1.78 per cent versus 1.04 per cent).

Real GDP per Capita

Real GDP per capita is a widely used measure of living standards and is GDP growth controlling for population.

The Atlantic economy experienced negative growth in real GDP per capita from 2008 to 2015, at -0.11 per cent per year. In the 2015-2022 period, real GDP per capita growth, following the trend of real GDP economic growth, picked up to 0.20 per cent per year, an improvement of 0.31 percentage points and strong momentum.

Real GDP per capita in the Canadian economy advanced 0.51 per cent per year in 2008-2015, with growth continuing at a slightly faster pace of 0.53 per cent in 2015-2021, an improvement of 0.02 points. The growth in living standards picked up in both Atlantic Canada and at the national level after 2015.

The rate of growth in real GDP per capita in Atlantic Canada has fallen short of the Canadian average since 2015 (0.20 per cent versus 0.53 per cent).

In absolute terms, real GDP per capita is lower in Atlantic Canada than in Canada, and the gap is not closing. In 2022, real GDP per capita was \$49,502 (2017 dollars), 82.8 per cent of the national level of \$59,762. This relative level is down from 84.8 per cent in 2015 and 88.5 per cent in 2008. The year 2022 saw real GDP per capita fall 1.3 per cent in Atlantic Canada, compared to a 1.9 per cent increase in Canada. This reversed the gains in living standards the region had experienced relative to the national average from 2015 to 2021.

Real Exports

The export performance of the Atlantic economy from 2008 to 2015 was very poor, with real exports down 1.93 per cent per year. In the 2015-2022 period, real exports still fell, but at a slower rate (-0.44 per cent), an improvement in momentum of 1.49 percentage points.

Real exports at the national level advanced 1.61 per cent per year in 2008-2015, but growth fell off to 1.03 per cent in 2015-2021, a deceleration of 0.59 points.

The rate of growth in real exports in Atlantic Canada has been much below the Canadian average between 2015 and 2022 (-0.44 per cent versus 1.03 per cent). This is a key reason for the region's slower economic growth.

In absolute terms, real exports per capita are lower in Atlantic Canada than in Canada, and the gap is getting worse. In 2022, real exports per capita were \$22,700 (2017 dollars), 80.4 per cent of the national level of \$28,246, and down from 87.2 per cent in 2015 and 105.6 per cent in 2008 before exports from the Atlantic region plummeted.

Human Capital

The human capital domain contains five indicators: population, median age, immigration, immigration retention, proportion of youth not in employment, education or training (NEETs), and the proportion of the population with tertiary education. Atlantic Canada exhibited momentum on five of the six indicators, the exception being immigration retention. Canada had momentum on all six indicators

Population

Atlantic Canada experienced very weak population growth from 2008 to 2015, only 0.21 per cent per year on average. In the 2015-2023 period, population growth picked up considerably to 1.20

per cent per year, an acceleration of 0.99 percentage points. Very large increases in population in 2023 and 2022, 3.1 per cent and 2.5 per cent respectively, contributed significantly to this faster growth.

In Canada, the population grew at 1.02 per cent per year in 2008-2015 and then picked up to 1.46 per cent in 2015-2023, an acceleration of 0.44 points. The pick-up in population growth in Atlantic Canada after 2015 was two times larger than that in Canada, although both showed considerable momentum.

In absolute terms, population growth after 2015 was still slightly slower in Atlantic Canada than at the national level (1.20 per cent versus 1.20 per cent). Relatively fewer immigrants and net migration to the rest of Canada explain this situation. This slower population growth has meant that the region's share of the national population has continued to fall (from 6.6 per cent in 2015 to 6.5 per cent in 2023), but this rate of decline is much slower than before 2015, as shown in Chart 1. In 2022 and 2023 the region's population growth actually outpaced that of Canada (2.5 per cent versus 1.8 per cent in 2022 and 3.1 per cent versus 3.0 per cent in 2023)

Immigration

Immigration to Atlantic Canada has been historically very low during the 20th century. Starting in the second half of the 2000s, immigration to the region has increased from very low levels and is now by far the most important source of population growth.

Atlantic Canada experienced strong immigration growth of 10.43 per cent per year from 2008 to 2015. In the 2015-2022 period, immigration was even stronger at 13.21 per cent per year, a pick-up of 2.78 points.

In Canada, immigration grew at 4.02 per cent per year in 2008-2015 on a much higher base, and picked up to 5.46 per cent in 2015-2022, an acceleration of 1.44 points. The pick-up in immigration growth in Atlantic Canada after 2015 was greater than that in Canada (2.78 versus 1.44 points), with both jurisdictions showing considerable momentum.

In absolute terms, immigration growth after 2015 was much higher in Atlantic Canada than at the national level (13.21 per cent versus 5.46 per cent), again due to the lower base.

Historically, annual immigration in Atlantic Canada has been much lower as a share of the population than the national average. This situation has changed abruptly. Atlantic Canada welcomed 28 thousand immigrants in 2021 and 32 thousand in 2022, for a total of 60 thousand over a two-year period. In 2022, the annual immigration inflow made up 1.22 per cent of the Atlantic Canadian population, compared to 1.11 per cent in Canada. This represents a massive change from the historical pattern of the Atlantic Canada as a region that immigrants largely avoided.

Immigration Retention

The immigrant retention rate, defined as those still in the province of their arrival in a later period has historically been lower in Atlantic Canada than Canada as a whole, reflecting more limited employment opportunities and the smaller size of immigrant communities. Data is only available for the five-year immigrant retention rate from 2012-2016 and for the one-year retention rate from 2016 to 2020. “Momentum” is defined as the difference between the 2012-2016 and 2016-2020 periods, on the assumption that trends in the two rates are comparable. Immigration retention has been improving in Atlantic Canada, The five-year retention rate advanced 0.5 per cent per year from 53.8 per cent in 2012 to 54.6 in 2016. Given the fall in the growth of retention from 0.50 to 0.31 of 0.19 points between periods, this indicator did not exhibit momentum in Atlantic Canada.

Immigrant retention rates at the national level (defined as the population weighted average of the provincial retention rates) have been falling. The five-year retention rate fell 0.26 per cent per year from 84.7 per cent in 2012 to 83.9 in 2016. The one-year retention rate fell 0.1 cent per year from 88.3 per cent in 2016 to 88.2 per cent in 2020. Given the 0.25 improvement in performance between periods, this indicator did exhibit momentum.

There is, however, significant variation in immigrant retention rates within Atlantic Canada. In 2020, Nova Scotia had the highest one-year retention rate at 73.4 per cent, followed by Newfoundland and Labrador (66.4 per cent), New Brunswick (66.1 percent), and Prince Edward Island (50.5 per cent).

Median Age

The interpretation of median age (the midpoint of the age structure of a population) as a performance indicator is not straightforward. Longer life expectancy, reflected in median age, is obviously a desirable development. However, it can be argued that a younger population is positive for the economy and society — more dynamic, more amenable to change, more adoptive of new technologies. As well, a younger population carries lower pension and health costs than an older population. For these reasons, a fall in the median age is considered a positive performance indicator within this index.

There are two possible ways to define momentum in terms of median age. First, one could define momentum as an absolute fall in the median age. Second, one could define momentum as a deceleration in the rate of increase (or a larger rate of decline) in median age. For consistency with the definition of momentum used for the other indicators in the scoreboard, we use the second definition.

Atlantic Canada experienced a large rise in the median age of the population from 2008 to 2015, 0.94 per cent per year. In the 2015-2023 period, the median age actually fell 0.06 per cent per year ear, a deceleration of 1.01 percentage points. Increased immigration lowers the median age as immigrants are on average younger than the overall population. This indicator showed momentum

In Canada, the median age grew 0.46 per cent per year in 2008-2015 and then fell 0.03 per cent per year in 2015-2023, a deceleration of 0.50 points. The fall in the advance of the median age in Atlantic Canada after 2015 was twice that of Canada (1.01 points versus 0.50 points) with both showing considerable momentum.

In terms of growth rates, median age growth after 2015 was virtually identical in Atlantic Canada and Canada (-0.06 per cent versus -0.03 per cent).

With its higher share of the population 65 and over, Atlantic Canada in 2021 had an above average median age at 110.4 per cent of the national average (45.3 years versus 41.0 years). After rising from 106.8 per cent of the national average in 2008 to 110.4 per cent in 2015, this relative has now stabilized.

Youth Not in Education, Employment and Training (NEETs)

One measure of the performance of the labour market for youth is the proportion of youth, defined as those aged 15 to 29 who are not employed, in education or training (NEETs). The larger this proportion of NEET rate, the less the labour market is meeting the needs of youth. For this indicator, momentum is defined as a downward change in the rate of growth.

Atlantic Canada experienced a fall in the proportion of NEETs in the youth population from 2008 to 2015 at a 0.47 per cent average annual rate, a positive development. From 2015 to 2023 this downward trend accelerated to 0.92 per cent per year, resulting in a 0.46 percentage point improvement in the growth rate between periods.

In Canada, the proportion of NEETs advanced at a 1.15 per cent average annual rate between 2008 and 2015, a negative development. It then fell at a 2.36 per cent average annual rate between 2015 and 2023, resulting in a 3.51 point change between the two periods. As was the case in Atlantic Canada, there was considerable momentum at the national level for this indicator.

In absolute terms, the NEET rate was higher in Atlantic Canada than in Canada, although the gap has been falling given the faster NEET growth rate at the national level. In 2008, the NEET rate in Atlantic Canada was 142 per cent of the national level (17 per cent versus 12 per cent). This proportion fell to 115 per cent of the national in 2015 (15 per cent versus 13 per cent) before increasing to 127 per cent in 2023 (14 per cent versus 11 per cent).

Educational Attainment

A well-educated population and work force is key for a prosperous economy and well-functioning society. The indicator used to track this characteristic is the proportion or rate of the population aged 25 to 64 with a tertiary education, defined as post-secondary plus trades. The focus is on the 25-64 age group to abstract away from those under 25, most of whom have not yet completed their education, and the 65 and older group. The latter age group has on average lower educational attainment and differences in the relative importance of this group in the overall working age population can affect or bias comparisons between jurisdictions.

Atlantic Canada has enjoyed rapid growth in the educational attainment of its population in recent years. From 2008 to 2015, the proportion with tertiary education increased at a 2.03 per cent average annual rate. The growth rate picked up to 2.84 per cent from 2015 to 2023, an acceleration of 0.81 points. There is strong momentum in the share of well-educated workers in Atlantic Canada.

At the national level there also has been an upward trend in the tertiary education rate, although at a slower pace than in Atlantic Canada. From 2008 to 2023 the rate advanced at a 1.66 per cent average annual rate picking up to 1.71 per cent in 2015-2023, an acceleration of 0.05 points. There was momentum for this indicator after 2015 at the national level, but less than at the level of Atlantic Canada (0.81 versus 0.05 points).

In absolute terms, the proportion of the population aged 25-64 with tertiary education is lower in Atlantic Canada than in Canada, although the gap has been falling given the faster growth rate of educational attainment in Atlantic Canada. In 2008, the tertiary education rate in Atlantic Canada was 87.8 per cent of the national level (43 per cent versus 48 per cent. This relative rose to 89.1 per cent in 2015 (49 per cent versus 55 per cent, and 97.2 per cent in 2023 (61 per cent versus 63 per cent). The momentum of Atlantic Canada is thus strongly manifested in the acceleration of its rate of increase in the rate of tertiary education and the falling gap in this indicator relative to Canada.

Labour Market Performance

The labour market performance domain contains four indicators: employment rate, employment income and labour productivity and the participation rate of women with children under six. Two of these indicators had momentum in Atlantic Canada and three in Canada

Employment Rate

The proportion of the working age population that is employed, which reflects both the labour force participation rate and the unemployment rate, is an important indicator of the health of a labour market and economy. The higher the rate, the better the labour market performance.

The aging of the population, in particular the rising share of the population in the low-employment rate 65 and over age group, is exerting a downward effect on the aggregate employment rate. For this reason, we focus on the employment rate for the 15-64 age group.

Atlantic Canada saw the employment rate for the 15-64 age group rise at a 0.13 per cent per year from 2008 to 2015. This growth rate picked up to 0.69 per cent in 2015-2023, an acceleration of 0.57 points. There is momentum in the employment rate.

At the national level there was a downward trend in the employment rate in the 2008-2015 period, -0.20 per cent per year. The trend was then reversed, with the employment rate growing at a 0.60 per cent average annual rate in 2015-2023, an acceleration of 0.82 points.

In absolute terms, the employment rate (15-64) is lower in Atlantic Canada than in Canada, with the gap falling considerably over time. In 2008, the employment rate in Atlantic Canada was 92.3 per cent of the national level (67.8 per cent versus 73.4 per cent). This relative rose to 94.1 per cent in 2015 (68.1 per cent versus 72.4) and to 95.3 per cent in 2023, (72.2 per cent versus 75.8). Like educational attainment, the Atlantic Canadian labour market exhibits strong momentum.

Employment income

Employment income reflects the ability of the labour market to generate income for workers and is an important indicator of labour market performance. There are several indicators that can be used to assess levels and trends in employment income. The Canadian Income Survey provides a measure of employment income on constant 2022 prices for economic families and persons not in an economic family. SEPH provides estimates of average hourly earnings for employees paid by the hour. The Labour Force Survey provides estimates of hourly wages. This section uses the first indicator because it is more comprehensive.

Atlantic Canada experienced growth in real employment income of 0.44 per cent per year from 2008 to 2015. However, from 2015 to 2022 employment income fell 0.07 per cent year, resulting in a slowdown of 0.51 points. per year. There is no momentum in the employment income trend in Atlantic Canada.

At the national level the trends were reversed. From 2008 to 2015 employment income fell at a 0.25 cent average annual rate, then rose 0.36 per cent in 2015-2022, an acceleration of 0.61 points. Unlike Atlantic Canada, there is momentum in the employment rate trend at the national level

In absolute terms, employment income is lower in Atlantic Canada than in Canada, with the gap falling and rising overtime. In 2008, the employment income in Atlantic Canada was 81.7 per cent of the national level (\$58,500 constant 2020 dollar versus \$71,600). This relative rose to 84.6 per cent in 2015 (\$59,800 versus \$70,700) and then fell to 82.1 per cent in 2022 at 82.1 per cent (\$59,500 versus \$72,500).

Labour Productivity

Labour productivity is the key determinant of the standard of living of the population, only with more output produced per hour worked can real incomes rise. Given problems with productivity measurement in the non-business sector, we focus on the business sector productivity, the most widely used productivity metric.

Atlantic Canada experienced negative productivity growth immediately after the financial crisis. From 2008 to 2015, output per hour in the business sector decreased at a 0.82 per cent average annual rate, largely driven by the large fall in productivity in Newfoundland and Labrador due to developments in the oil and gas sector. The productivity growth rate picked up to 0.49 per cent

from 2015 to 2023, an acceleration of 1.32 points. This indicates strong momentum in the labour productivity performance in Atlantic Canada.

At the national level there was a very different picture. From 2008 to 2015 labour productivity advanced at a 1.16 per cent average annual rate in Canada, falling off to 0.83 per cent in 2015-2023, a deceleration of 0.33 points. Thus, in contrast to Atlantic Canada, there was negative momentum for this indicator after 2015 at the national level.

The momentum in labour productivity in Atlantic Canada after 2015 compared to Canada should not be conflated with a superior productivity performance for the region. In both periods, output per hour advanced at a slower rate in Atlantic Canada than in Canada: -0.82 per cent versus 1.16 per cent in 2008-2015 and 0.49 per cent versus 0.83 per cent in 2015-2023.

In absolute terms, the level of business sector labour productivity remains lower in Atlantic Canada than in Canada. In 2008, the level of labour productivity in Atlantic Canada was 99.4 per cent of the national level (\$50.7 per hour versus \$51.0 per hour expressed in 2012 chained dollars), up from 84.6 per cent in 1997. This relative fell to 86.6 per cent in 2015 (\$47.9 per hour versus \$55.3 per hour), then further fell to 84.4 per cent in 2023 (\$49.8 per hour versus \$59.1 per hour).

Participation Rate of Women with Children under Six

A barrier to the participation of women in the labour force is the availability of affordable child care. The introduction of affordable childcare in Quebec in the late 1990s and early 2000s resulted in the participation rate for women with children under six in the province increasing from 66.7 per cent in 1997 to 78.2 per cent in 2004. Quebec's participation rate for women with children under six thus rose from 97.2 per cent of the national average to 107.1 per cent. The federal government has adopted the Quebec model and has announced the creation of 250,000 low price (\$10 per day) childcare spaces by 2026.

The number of available childcare spaces was suggested as an additional indicator for the Atlantic Momentum Index. Unfortunately, Statistics Canada does not publish a consistent time series on childcare spaces. Since the objective of creating additional childcare spaces is to facilitate women joining the workforce, the result of this policy should be manifested in trends in the participation rate of women with children under six. This was the rationale for the selection of this indicator.

The participation rate of women with children under six in Atlantic Canada rose at a 0.52 per cent from 2008 to 2015. It continued to rise after 2015, but at a lower rate (0.22 per cent per year in 2015-2023), resulting in a deceleration in growth of 0.31 percentage points between periods. This was no momentum in Atlantic Canada for this indicator.

In contrast, the rate of advance of the participation rate for women with children under six at the national level did exhibit momentum after 2015. This rate increased 0.33 per cent per year in 2008-2015, increasing to 0.95 per cent in 2015-2023, a pick-up of 0.62 points.

The participation rate in Atlantic Canada has historically been below that of the Canadian average. For example, in 2023 the aggregate participation rate in Atlantic Canada was 60 per cent, nearly 6 points below the national average of 65.6 per cent. Consequently, it is of note that the participation rate for women with children under six in Atlantic Canada has since 1997 exceeded the national average (Chart x). In 2008, this participation rate was 106.2 per cent of the national average (76.7 per cent versus 72.2 per cent), rising to 107.7 per cent in 2015 and then falling to only 101.6 per cent in 2022 (81.0 per cent versus 79.7 per cent).

Innovation and Investment

The innovation and investment performance domain contains five indicators: BERD spending; non-residential investment, non-emitting energy output, investment in renewable energy and greenhouse gas emissions. Two one of the five indicators in this domain (BERD spending and greenhouse gas emissions) had momentum after 2015 in both Atlantic Canada and at the national level.

BERD Spending

Business enterprise in-house expenditure on research and development (BERD) is a key metric of innovation intensity in a jurisdiction and a driver of economic opportunities and growth. It can be measured for a jurisdiction in three ways: in absolute terms (millions of current or constant dollars), on a per capita basis, and as a share of GDP. The indicator chosen to gauge the economic momentum of BERD in this report is the absolute level of BERD in nominal terms. Trends in the other two BERD measures will be provided for context.

Atlantic Canada experienced growth in BERD from 2008 to 2015 at 2.48 per cent per year. BERD growth picked up dramatically to 8.66 per cent per year from 2015 to 2022, an acceleration of 6.18 points. There is thus very strong momentum in BERD performance in Atlantic Canada since the mid-2010s, especially in Newfoundland and Labrador and New Brunswick. This is part reflects the low base of the BERD level

At the national level there has also been a marked acceleration in BERD growth after 2015. From 2008 to 2015 BERD advanced at only a 1.09 per cent average annual rate in Canada. It then picked up to 7.23 per cent in 2015-2022, an acceleration of 6.14 points. The momentum for this indicator was thus greater in Canada than in Atlantic Canada (6.14 points versus 4.55 points), but the strength of BERD growth in both jurisdictions is encouraging.

In per capita terms, the level of BERD in Atlantic Canada was \$383 in 2022 or 38.3 per cent of the national average. BERD is very weak in Atlantic Canada, but there is an upward trend relative to Canada. In 2015, BERD per capita in Atlantic Canada was 33.0 per cent of the national average whereas in 2008 the figure was 28.3 per cent.

The same upward trend is observed for BERD as a share of GDP or BERD intensity. In 2000, BERD intensity in Atlantic Canada was 0.41 per cent of the region's nominal GDP, or 40.2 per

cent of the national average of 1.02 per cent. This is up from 33.0 per cent of the national average in 2008 and 38.9 per cent in 2015.

Non-residential investment

Non-residential investment, which includes both machinery and equipment and structures investment by both businesses and governments is a crucial driver of economic activity, both through its short-term aggregate demand effects and its longer-term effects of adding to the capital stock and thereby boosting the capacity of the economy to produce. This indicator is measured in this report in real gross terms in 2017 chained dollars.

Non-residential investment in Atlantic Canada in 2008-2015 was very strong, advancing at 5.02 per cent per year. However, this situation for the region as a whole is somewhat misleading as the strength of non-residential investment was in Newfoundland and Labrador. The Maritime provinces exhibited weak or negative growth in this indicator. After 2015, non-residential investment in Atlantic Canada plummeted, and decreasing at a 5.87 per cent average annual rate in 2015-2022, a fall-off of 10.89 points. Again, Newfoundland and Labrador was responsible for 90 per cent of this decline. For this indicator, there is definitely no momentum in Atlantic Canada.

At the national level there was much less volatility in non-residential investment trends, although there was a fall-off after 2015. Non-residential investment advanced at a 1.36 per cent average annual rate from 2008 to 2015, then fell 0.81 per cent per year from 2015 to 2022, a 2.17-point turnaround.

The lack of momentum in investment in Atlantic Canada since 2015 is manifested by the region's falling share of national non-residential investment. In 2015, the region accounted for 6.6 per cent of Canada's non-residential investment, up from 5.1 per cent in 2008. By 2022, the share had fallen by a third to 4.6 per cent.

Production of Non-emitting Energy

A key metric to gauge progress toward sustainable development is the production (measured in terajoules) of non-emitting energy, defined as primary electricity generated by hydro, nuclear and renewables.

Perhaps surprisingly, growth in the production of non-emitting energy has been slow in both Atlantic Canada and Canada in recent years. From 2008 to 2015 this indicator grew at a rate of 0.62 per cent per year, and then fell at a 0.13 per cent rate from 2015 to 2022, a deceleration of 0.48 points. There is no momentum for this indicator in Atlantic Canada.

At the national level, production of non-emitting energy advanced at a 1.02 per cent average annual rate from 2008 to 2015, then fell off to 0.39 per cent per year in 2015-2022, a deceleration of 0.63 points very similar to the loss of momentum in Atlantic Canada.

Investment in Renewable Energy

A second indicator related to sustainable development is investment in renewable energy, defined as hydro, solar and wind. The results for this indicator for Atlantic Canada are surprising, and at first glance disappointing. One might expect that investment in renewable energy in the region would be booming, but this is not the case in the aggregate. Investment in hydro is by far the most important component of renewable energy investment. Newfoundland and Labrador made very large investment in the hydro facilities before 2015 and investments have been much smaller in recent years,

From 2008 to 2015 investment in renewable energy rose from \$124 million current dollars to \$1,173 million, a growth rate of 37.9 per cent. Newfoundland and Labrador accounted for 92 per cent of the investment in 2015, mostly hydro facilities in Labrador. With the completion of these hydro projects, investment in renewable energy in the region plummeted to \$319 million in 2022, a fall of 15.0 per cent per year. There is definitely no momentum in renewable energy investment at the level of Atlantic Canada.

For the Maritimes, the trend in renewable energy investment is much different than at the level of Atlantic Canada. Renewable energy investment in Nova Scotia, New Brunswick and Prince Edward Island totaled \$104 million in 2008, falling slightly to \$103 million in 2015 and then more than doubling to \$267 million in 2022. This indicates considerable momentum for this indicator for the Maritimes.

The trend in renewable energy investment for Canada is similar to that in Atlantic Canada than the Maritimes. From 2008 to 2015 investment in renewable energy at the national level advanced at a 9.3 per cent average annual rate. This growth rate fell off to 5.36 per cent per year in 2015-2022, indicating a slowdown of 3.94 points. There was no momentum for this indicator.

Greenhouse Gas Emissions

Climate change is the existential challenge of our times. Greenhouse gas emissions have led to an increase in average temperature and to extreme weather events. The federal government has set a goal of net zero emissions by 2060. The tracking of greenhouse gas emissions is this crucial for monitoring progress to attaining this objective.

Environmental and Climate Change Canada produces estimates of greenhouse emissions by province to 2022. (Statistics Canada produces similar estimates only to 2021). The good news is that both Atlantic Canada and Canada have momentum in the post-2015 trend in this metric,

From 2008 to 2015 greenhouse gas emissions per capita fell 2.80 per cent per year, This rate of decline picked up to 2.83 per cent in 2015-2022, showing momentum of 0.03 points.

The rate of decline of greenhouse gas emissions per capita was much slower in both periods in Canada: -1.27 per cent per year in 2008-2015 and -1.97 per cent in 2015-2022, but there was greater momentum after 2017, a 0.69 percentage point fall.

The much stronger fall in greenhouse gas emissions per capita in Atlantic Canada than in Canada has resulted. In the region's emissions falling from 96.6 per cent of the national average in 2008, to 86.6 per cent in 2015 to 81.4 per cent in 2022.

Quality of Life

The quality of life domain contains seven indicators: the Gini coefficient, housing affordability, housing starts, access to a family physician, poverty rate, life satisfaction and a sense of belonging. Atlantic Canada experienced momentum in only three of these seven indicators, with Canada experiencing momentum in four indicators.

Gini coefficient

Equality is an important component of the economic well-being or standard of living of the population. There are a number of measures of income distribution, with the Gini coefficient being the best known. The specific metric used in this report is the after-tax measure, which exhibits lower levels of inequality than the market income measure and the money income measure. An improvement in the trend toward greater equality is defined in this report as a sign of momentum for this indicator.

After rising in the 1980s and 1990s, income distribution, as measured by the Gini coefficient, in the 21st century has been stable or a slight downward trend in Canada.

In Atlantic Canada, the Gini coefficient rose 0.29 per cent per year between 2008 and then fell at a 0.84 per cent average annual rate from 2015 to 2022, a change of 1.14 points between periods and a manifestation of the momentum of this indicator.

At the national level, the Gini coefficient was unchanged between 2008 and 2015 and then fell 0.65 per cent per year from 2015 to 2022, an improvement of 0.65 points. Income inequality gained momentum at the national level, but at a somewhat slower pace than in Atlantic Canada (0.65 points versus 1.14 points).

The level of income inequality is less in Atlantic Canada than in Canada. In 2022, the Gini coefficient in Atlantic Canada was 92.7 per cent of the national average (0.278 versus 0.300). It was slightly higher in 2015 at 93.9 per cent (0.295 versus 0.314) given the greater fall in the Gini in Atlantic Canada in 2015-2022, it was 92.0 per cent of the national average in 2008 (0.289 versus 0.314).

Housing Affordability

Housing affordability has become a major issue for Canadians. Large increases in housing prices as well as higher interest rates have priced many people, especially first-time home buyers, out of the housing market.

The Centre for the Study of Living Standards has constructed a housing affordability measure defined as the ratio of average housing prices to average family income. This rate of change in this ratio has increased significantly after 2015 in both Atlantic Canada and Canada, indicating lack of momentum in this indicator.

Between 2008 and 2015 housing actually became more affordable in Atlantic Canada. The ratio of housing prices to income fell at a 0.51 per cent average annual rate from 2.22 to 2.14. The situation changed dramatically after 2015. The ratio of housing prices to income rose at a 4.24 per cent rate, reaching 2.87 in 2022, a turnaround of 4.75 point.

At the national level the ratio of housing prices to income increased at a 1.74 per cent average annual rate between 2008 and 2015 from 3.55 to 4.00. After 2015 the rate of increase in the ratio picked up to 4.75 per cent per year, an increase of 3.01 points.

In absolute terms, housing is more affordable relative to income in Atlantic Canada than in Canada. Indeed, in 2022 the ratio of housing prices to income in Atlantic has around half (51.8 per cent) of that in Canada (2.87/5.54). Relatively inexpensive housing compared other regions of Canada is a competitive advantage of the region. Indeed, this advantage has actually increased somewhat since 2015 (53.4 per cent of the national average) While housing affordability has deteriorated in both Atlantic Canada and Canada in recent years, the deterioration was slightly less in Atlantic Canada.

Housing starts

Housing is a key contributor to living standards and an adequate supply of housing requires increased housing supply to match demand growth. Trends in housing starts in units are an indicator of housing supply.

Atlantic Canada saw a collapse in housing starts from 2008 to 2015, down 5.76 per cent per year. Housing starts then rebounded strongly between 2015 and 2023, advancing at a 6.95 per cent average annual rate, for an acceleration in the growth rate of 12.71 points. Housing starts in Atlantic Canada have thus enjoyed very strong momentum since 2015.

At the national level housing starts followed a similar, but more muted pattern. They fell 1.09 per cent per year between 2008 and 2015 and then rebounded 2.61 per cent between 2015 and 2023, a turnaround of 3.69 points. Economic momentum for this indicator is much greater in Atlantic Canada because of the greater fall in 2008-2015.

Access to a Family Physician

An important aspect of living standards is a healthy population. Ready access to medical services is required to ensure the population remains in good health. One metric of this access is the proportion of the population that has access to a regular family physician.

In Atlantic Canada, there has been a downward trend in the proportion of the population that has access to a family physician This fell at a 0.37 per cent average annual rate in 2009-2015 (data

are not available for 2008) and at a 1.02 per cent rate in 2015-2022. With larger fall in the second period, there was no momentum in this indicator.

At the national level, the proportion of Canadians with access to a family physician fell 0.30 between 2009 and 2015. However, unlike in Atlantic Canada, this indicator advanced 0.47 per cent per year between 2015 and 2022, a turnaround of 0.77 points.

In 2022, the proportion of Atlantic Canadians aged 12 and older with access to a family doctor was 83.1 per cent, 2.9 percentage points below the national average of 86.0 per cent and below the national average (96.6 per cent). This represented both an absolute fell in access from 91.2 per cent in 2009, 89.2 per cent in 2015, and even 87.2 per cent as recently as 2021. In relative terms access in Atlantic Canada has fallen from 107.7 per cent of the national average in 2009 to 107.2 per cent in 2015m 102.1 per cent in 2021 to 96.6 per cent in 2022. Access to a family doctor is becoming much more of an issue in Atlantic, Canada, with the severity of the problem greater than the Canadian average.

Poverty

A key aspect of the standard of living of a region is the proportion of the population living in poverty. Statistics Canada has historically published two measures of low income, the LICO or Low Income Cut-off, an absolute poverty measure and the LIM, or Low Income Measure, a relative measure defined at the proportion of the population below one half median income.

In 2018, the federal government designated an official poverty measure, the Market Basket Measure or MBM, which combines elements of both absolute and relative approaches to poverty. The base year for the expenditure weights used in the MBM is updated frequently which poses problems for consistency in time series. The current MBM uses a 2018 base, with estimates only going back to 2015. To create a time series back to 2008 needed for calculation of momentum in this report, the MBM estimates using the 2010 base were linked to the MBM (2018 bases) in the overlap year of 2015.

The poverty rate has been on a downward trend in Atlantic Canada and in Canada since 2008, with the trend accelerating since 2015. Both jurisdictions have momentum for this indicator.

In Atlantic Canada, the poverty rate fell at a 1.68 per cent average annual rate from 17.7 per cent in 2008 to 15.0 per cent in 2015, The poverty rate then fell 4.35 per cent per year in 2015-2022 reaching 11.5 per cent in 2022. The change in the rate of decline between periods was 3.96 points, a sign of significant momentum

The pattern observed in the evolution of the poverty rate in Atlantic Canada also took place at the national level. The poverty rate fell 0.35 per cent per year from 14.9 per cent in 2008 to 14.5 per cent in 2015. It then picked up speed falling 5.31 per cent per years from 2015 to 2022, reaching 9.9 per cent in 2022. The change in the rate of decline between periods was 4.96 points, a sign of significant momentum

The poverty rate in Atlantic Canada has historically been above that of Canada. In 2008, the poverty rate in Atlantic Canada was 119.0 per cent of the national average, falling to 108.3 per cent in 2015 as the Atlantic rate fell at a faster pace than the national rate. After 2015, with the rate of decline greater in Canada than in Atlantic Canada, the region's relative poverty rate rose to 116.2 per cent of the national average by 2022.

Life Satisfaction

Statistics Canada asks Canadians to rate their overall satisfaction with life on a scale of 1 (extremely dissatisfied) to 10 (extremely satisfied). This measure of subjective well-being, or happiness is a very important part of the perceived quality of life in a jurisdiction. The proportion of the population 12 and over stating they are satisfied or very satisfied with their lives is the indicator for life satisfaction used in this report.

The level of life satisfaction in Atlantic Canada declined at a 0.24 per cent average annual rate from 2008 to 2015. It then turned positive growing 0.18 per cent per year from 2015 to 2021. However, in 2022 it fell 7.4 per cent from 92.3 per cent of the population satisfied or very satisfied to 85.5 per cent, Thus resulted in a 0.94 per cent average annual decline in life satisfaction in 2015-2022. There is no momentum for the life satisfaction indicator in Atlantic Canada.

It should be noted that life satisfaction in Atlantic Canada has been very stable over time. From 2002 to 2021 it ranged between a low of 91.8 per cent and a high of 93.0 per cent. The fall in life satisfaction in 2002 to 85.5 per cent is unprecedented and merits investigation. It is possible that statistical issues account for this fall, so caution should be exercised in the interpretation of this development.

At the national level life satisfaction rose 0.28 per cent per year from 2008 to 2015, in contrast to the fall in Atlantic Canada. From 2015 to 2021 life satisfaction declined slightly before plummeting 5.4 per cent in 2022. Over the 2015-2022 period, life satisfaction fell at a 0.94 per cent average annual rate in Canada, virtually the same as in Atlantic Canada

Even with the massive decline in life satisfaction in 2022, the overall level of life satisfaction is remarkably similar across the provinces. Indeed, it would be hard to find another indicator that exhibited so little inter-provincial variation.³ In 2022, the life satisfaction in Atlantic Canada with 85.5 per cent of the population 12 and over satisfied or very satisfied with their lives was virtually identical to that in Canada (98.1 per cent). In 2008, Atlantic Canadians were slightly more satisfied with life than Canadians at 101.6 per cent of the national average, but this fell to 98.0 per cent of the national average in 2015.

Sense of Belonging

³ In 2022 the province with the highest proportion of the population 12 and over satisfied or very satisfied with their lives was Quebec at 90.5 per cent and the province with the lowest proportion was British Columbia at 85.3 per cent.

A key determinant of happiness is the sense of belonging to the local community. Statistics Canada asks Canadians this question each year in the Canadian Community Health Survey.

The proportion of persons 12 and over in Atlantic Canada who reported that they felt a sense of belonging to the local community increased at a 0.14 per cent average annual rate from 2008 to 2015, It continued to increase from 2015 to 2021 and then plummeted 8.7 per cent in 2022, resulting in a 0.95 per cent average annual change in the sense of belonging of Atlantic Canadians in 2015-2022. There is momentum for this indicator in the region.

Like life satisfaction, sense of belonging in Atlantic Canada has been quite stable over time. The fall in sense of belonging in 2022 to 70.5 per cent from 77.2 per cent in 2021 is unprecedented and merits investigation. It is possible that statistical issues account for this fall, so caution should be exercised in the interpretation of this development.

At the national level the proportion of the population reporting a sense of belonging advanced a strong 0.65 per cent per year from 2008 to 2015, It continued to increase from 2015 to 2021 and then plummeted 8.2 per cent in 2022, resulting in a 0.75 per cent average annual fall in the sense of belonging of Canadians in 2015-2022. Again, the fall from 69.5 per cent of Canadians reporting a sense of belonging in 2021 to 64.5 per cent in 2022 is unprecedented.

Atlantic Canadians exhibit a consistent and significantly higher sense of belonging to the local community than Canadians in general. In 2022, 70.5 per cent of the population in Atlantic Canada reported a sense of belonging to the local community, 109.3 per cent of the national proportion. The region's superior performance on this indicator was even better in the past, at 109.2 in 2021, 110.7 per cent in 2015 and 114.8 per cent in 2008.

Summary of Indicators

Table 3 summarizes the scoreboard for Atlantic Canada in terms of momentum. It highlights in blue the 14 indicators for which the region exhibited momentum and provides the growth rates for the 2008-2015 and 2015-2021/22 periods upon which the momentum calculation is based.

Table 3: Atlantic Canada Scorecard on Momentum (average annual rate of change)

		2008-2015	2015-2022/23	Difference in Growth Rate
Macro-economy	Real GDP	0.10	1.14	1.04
	Real GDP per capita	-0.11	0.20	0.31
	Real Exports	-1.93	-0.44	1.49
Human Capital	Population	0.21	1.20	0.99
	Median Age	0.94	-0.06	-1.01

	Immigration	10.43	13.21	2.78
	Immigration Retention	0.50	0.31	-0.19
	Proportion of NEET	-0.47	-0.92	-0.46
	Proportion of Population with Tertiary Education	2.03	2.84	0.81
Labour Market Performance	Employment Rate	0.13	0.68	0.55
	Employment Income	0.44	-0.07	-0.51
	Labour Productivity	-0.82	0.49	1.32
	Labour Force Participation of Women with Children under Six	0.52	0.22	-0.31
Innovation and investment	BERD Spending	2.48	8.66	6.18
	Non-Residential Investment	5.02	-5.87	-10.89
	Non-Emitting Energy	0.62	0.13	-0.48
	Investment in Renewal Energy	37.85	-15.02	-52.87
	Greenhouse Gas Emissions	-2.80	-2.83	-0.03
Quality of Life	Gini Coefficient	0.29	-0.84	-1.14
	Housing Starts	-5.76	6.95	12.71
	Housing Affordability	-0.51	4.24	4.75
	Poverty Rate	-1.68	-4.35	-2.67
	Access to Family Physician	-0.37	-1.02	-0.65
	Life Satisfaction	-0.24	-0.94	-0.70
	Community Belonging	0.14	-0.95	-1.09

**Note:* a negative change in the rate of change of the variables Median Age, the Gini Coefficient, GHG Emissions, Housing Affordability, Poverty rate and Proportion of NEET between the two periods is indicative of positive momentum. For all other variables, positive momentum is associated with a positive change

**Indicators in blue exhibit momentum

Table 4 provides similar information for Canada, with the nine indicators showing momentum at the national level in blue.

Table 4: Canada Scorecard on Momentum (average annual rate of change)

		2008-2015	2015-2022/23	Difference in Growth Rate
Macro-economy	Real GDP	1.54	1.78	0.24
	Real GDP per capita	0.51	0.54	0.02
	Real Exports	1.61	1.03	-0.59
Human Capital	Population	1.02	1.46	0.44
	Median Age	0.46	-0.03	-0.50
	Immigration	4.02	5.46	1.44
	Immigration Retention	-0.26	-0.01	0.25
	Proportion of NEET	1.15	-2.07	-3.22
	Proportion of Population with Tertiary Education	1.66	1.71	0.05
Labour Market Performance	Employment Rate	-0.20	0.58	0.77
	Employment Income	-0.25	0.36	0.61
	Labour Productivity	1.16	0.83	-0.33
	Labour Force Participation of Women with Children under Six	0.33	0.95	0.62
Innovation and investment	BERD Spending	1.09	7.23	6.14
	Non-Residential Investment	1.36	-0.81	-2.17
	Non-Emitting Energy	1.02	0.39	-0.63
	Investment in Renewal Energy	9.30	5.36	-3.94
	Greenhouse Gas Emissions	-1.27	-1.97	-0.69
Quality of Life	Gini Coefficient	0.00	-0.65	-0.65
	Housing Starts	-1.09	2.61	3.69
	Housing Affordability	1.74	4.75	3.01
	Access to Family Physician	-0.30	0.47	0.77
	Poverty Rate	-0.35	-5.31	-4.96

	Life Satisfaction	0.28	-0.95	-1.23
	Community Belonging	0.65	-0.75	-1.40

**Note:* a negative change in the rate of change of the variables Median Age, the Gini Coefficient, GHG Emissions, Housing Affordability, Poverty rate and Proportion of NEET between the two periods is indicative of positive momentum. For all other variables, positive momentum is associated with a positive change

***Indicators in blue exhibit momentum*

V. Conclusion

There is still momentum in Atlantic Canada, but it is slowing as the region struggles to adjust to the challenges that come with unprecedented population growth. Out of the 25 indicators chosen for this study, 15 indicators exhibit momentum after 2015 compared to the 2008-2015 period. The momentum is less than found in n last years Atlantic Momentum Index report where 14 out of 20 indicators that exhibited momentum.

In contrast to the weaker momentum performance in Atlantic Canada, momentum picked up in Canada, with 17 out of 25 indicators exhibiting momentum, compared to 10 of 20 indicators in the 2023 report. Much stronger economic growth in Canada than in Atlantic Canada in 2022 accounted for this reversal of fortunes.

Momentum in Atlantic Canada since 2015 has been particularly strong for a number of economic indicators, including housing starts (12.7 points), BERD (6.18 points), immigration (2.78 points), real exports (1.49 points), labour productivity (1.32 points), and real GDP (1.04 points),

The indicators performing worse on momentum were renewal energy investment (-52.9 points) non-residential investment (-10.9 points), and housing affordability (-4.75 points).

Surprisingly, very large falls in 2022 in life satisfaction and sense of belonging resulted in the loss of momentum for these two indicators in Atlantic Canada. Large falls also occurred at the national level.

There is no one province that dominates Atlantic Canada. The largest province, Nova Scotia, has around 40 per cent of the population of the region, roughly comparable to the role of Ontario in Canada. However, two caveats are needed. First, for various reasons, developments in a province may differ significantly from that in the Atlantic Canada aggregate. Second, very large swings in an indicator in one province can affect the Atlantic Canada aggregate, as was seen in the very volatile behaviour of non-residential investment in Newfoundland and Labrador. For this reason, it is important to note that the trends for an indicator documented for Atlantic Canada may not apply to a particular province. Further analysis at the provincial level would be needed.

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VI. Appendix Tables

Appendix Table 1: Indicator Levels in 2000, 2008, 2015, 2022/23

		Year	Canada	Atlantic Canada	Newfoundland and Labrador	Prince Edward Island	Nova Scotia	New Brunswick
Macro-economy	Real GDP (Chained (2017) dollars, millions of dollars)	2000	1,536,666	92,575	23,153	5,014	34,907	29,501
		2008	1,847,690	114,769	34,137	5,807	40,219	34,606
		2015	2,056,255	115,607	32,709	6,351	41,868	34,679
		2021	2,240,936	123,775	32,847	7,590	46,082	37,256
		2022	2,326,537	125,165	32,293	7,807	47,407	37,658
	Real GDP per Capita (2017 dollars)	2000	50,078	39,414	43,853	36,741	37,381	39,308
		2008	55,574	49,192	66,728	41,853	42,974	46,334
		2015	57,594	48,820	61,935	43,938	44,706	45,700
		2021	58,623	50,178	63,112	46,068	46,495	47,136
		2022	59,762	49,503	61,397	45,738	46,490	46,373
	Real Exports (2017 dollars, x1,000,000)	2000	852891	51931	12714	2367	15063	21787
		2008	915312	67855	21999	2753	17364	25739
		2015	1023730	59198	15151	3214	15557	25276
		2021	1068831	58704	15444	3467	15412	24381
		2022	1099608	57396	14993	3670	16226	22507
Human Capital	Median Age	2000	37.5	37.1	36.5	37.0	38.0	37.2
		2008	39.2	40.4	40.1	40.2	40.8	41.1
		2015	40.6	42.2	42.4	42.1	43.0	42.7
		2022	41.2	43.3	43.5	42.9	44.1	43.7
		2023	41.3	43.4	43.6	43.0	44.2	43.8
	Population	2000	30,685,730	2,348,774	527,966	136,470	933,821	750,517
		2008	33,247,118	2,333,104	511,581	138,749	935,897	746,877
		2015	35,702,908	2,368,030	528,117	144,546	936,525	758,842
		2022	38,929,902	2,528,446	525,972	170,688	1,019,725	812,061
		2023	40,097,761	2,605,777	538,605	173,787	1,058,694	834,691

	Immigration as share of population (%)	2000/2001	252,527	3255	445	189	1,747	874
		2008/2009	245,289	6658	571	1,723	2,446	1,918
		2015/2016	323,192	13335	1,420	2,015	5,442	4,458
		2021/2022	492,984	28,496	2,843	3,436	13,816	8,401
		2022/2023	468,817	31,776	5,337	3,116	12,303	11,020
	Immigrant Retention Rate (%)	2012	84.7	53.8	49.5	25.2	65.8	47.4
		2014	84.6	50.3	46.2	28.1	62.5	42.4
		2016 (5yr)	83.9	54.9	46.2	30.9	62.7	56
		2016 (1yr)	88.3	67.2	55	60.2	72.9	70.1
		2019	87.7	71.2	63.4	58.3	76.7	72.2
		2020	88.2	68.1	66.4	50.5	73.4	66.1
	NEET (%)*	2008	12	15.5	19	15	14	15
		2015	13	15.0	17	15	13	16
		2022	11	13.9	17	10	12	15
		2023	11	13.9	14	15	11	11
	Proportion of Population (25–64-year-olds) with Tertiary Education (%)	2000	40	34	26	36	37	37
		2008	49	43	36	45	43	46
		2015	55	49	41	53	52	50
		2022	63	60	58	65	61	60
		2023	63	61	57	65	62	60
Labour Market Performance	Employment Rate (15–64) (%)	2000	70.9	62.7	53.2	68.7	65.6	64.9
		2008	73.5	68.0	60.6	71.7	69.8	70.2
		2015	72.5	68.9	65.3	72.7	69.8	69.5
		2022	75.6	71.8	67.3	74.2	73.2	72.5
		2023	75.8	72.2	67.8	75.2	73.2	73.3

Labour Market Performance	Employment Income for Economic families (EF) and persons not in an EF (2022 dollars)	2001	60,300	49,600	46,200	43,800	50,600	51,900
		2008	64,800	53,000	50,800	52,400	54,000	53,100
		2015	64,100	54,200	68,700	47,700	52,300	53,700
		2021	73,400	61,900	63,700	64,000	61,200	61,300
		2022	72,500	59,500	64,400	57,200	58,700	58,900
	Labour Productivity (2017 dollars per hour)	2000	47.1	41.2	62.0	30.9	35.1	36.8
		2008	51.0	50.7	92.3	33.7	36.5	40.4
		2015	55.3	47.9	75.3	35.7	39.2	41.3
		2022	60.4	52.5	76.5	42.8	44.6	45.9
2023	59.1	49.8	70.6	40.5	43.7	44.4		
Labour Force Participation of Women with Children under Six (%)	2000	69.8	70.4	68.8	82.5	68.5	71.9	
	2008	72.2	76.7	74.3	81.1	76.5	77.8	
	2015	73.9	79.6	77.6	84.6	79.6	80.1	
	2022	79.0	82.4	85.9	82.1	81.0	82.1	
	2023	79.7	81.0	82.3	86.4	79.8	80.3	

Innovation and Investment	BERD (current dollars)	2000	12,395	132	20	5	67	40
		2008	16,644	331	90	15	105	121
		2015	17,954	393	116	22	165	90
		2020	22,638	513	172	27	179	135
		2021	27,287	591	187	33	200	171
		2000	136,391	8,299	2,502	307	2,887	2,603
		2008	198,330	10,283	2,998	473	2,814	3,998
		2015	218,001	14,487	8,712	322	2,990	2,463
		2021	197,959	9,501	4,160	483	2,384	2,474
		2022	205,883	9,485	3,946	490	2,569	2,480
	Non-Emitting Energy Production (terajoules)	2000	1,524,480	181,754	152,318	0	3,328	26,108
		2008	1,685,425	172,334	150,474	510	4,531	16,819
		2015	1,809,683	179,921	143,490	2,182	6,586	27,663
		2021	1,820,030	182,891	145,236	2,159	7,365	28,130
		2022	1,859,837	181,618	145,204	1,761	7,327	27,327
	Investment in Renewable Energies (Wind, Solar and Hydro) per Capita (Current Dollars)	2000	837	58	28	0	21	9
		2008	2629	124	20	7	40	57
		2015	4898	1173	1070	0	81	22
		2022	6917	297	49	3	130	115
		2023	7437	319	52	3	140	124
	Total Tonnes of GHG Emissions per Capita	2000	24.4	22.9	17.3	14.4	23.5	27.5
		2008	22.8	22.1	20.5	13.1	22.4	24.4
		2015	20.9	18.1	20.5	10.7	17.6	18.4
		2021	18.3	14.9	16.0	10.1	14.7	15.2
		2022	18.2	14.8	16.2	9.6	14.4	15.4
	Gini Coefficient (adjusted after-tax income)	2000	0.317	0.295	0.302	0.285	0.295	0.291
		2008	0.314	0.289	0.301	0.263	0.294	0.279
		2015	0.314	0.295	0.314	0.282	0.297	0.273
		2021	0.288	0.268	0.282	0.252	0.264	0.266
		2022	0.300	0.278	0.283	0.254	0.28	0.275
	Housing Starts (units)	2000	151,653	9,680	1,459	710	4,432	3,079
		2008	211,056	12,229	3,261	712	3,982	4,274
		2015	195,535	8,075	1,697	558	3,825	1,995
		2022	261,849	13,091	1,379	1,318	5,714	4,680
		2023	240,267	13,823	978	1,139	7,159	4,547
	Housing Affordability	2005	3.17	2.13	2.25	1.97	2.17	2.03
		2008	3.47	2.28	2.63	1.98	2.29	2.08
		2015	4.00	2.14	2.51	1.83	2.17	1.86
		2021	5.26	2.56	2.25	2.81	3.02	2.11
		2022	5.54	2.87	2.30	3.04	3.41	2.53
	Physician Access (%)	2001	87.7	92.6	86.2	93.6	94.4	94.6
		2009	84.7	91.2	87	90.4	93	92.1
		2015	83.2	89.2	88.1	88.7	88.7	90.8
		2021	85.5	87.3	87.5	80.5	86.3	89.8
		2022	86.0	83.1	81.9	75.9	85.2	89.3

Overall Satisfaction	Poverty Rate (%)	2002	19.4	27.6	29.4	26.0	27.3	25.9
		2008	14.9	17.7	15.9	14.6	19.6	17.0
		2015	14.5	15.7	13	15.7	16.8	16.2
		2021	7.4	7.8	8.1	7.4	8.6	6.7
		2022	9.9	11.5	9.8	9.8	13.1	10.9
	Life Satisfaction: Answered satisfied or very satisfied (%)	2003	91.3	92.7	93.9	94.3	92.7	91.7
		2008	91.4	92.9	93.4	93.9	92.3	93.2
		2015	93.2	91.3	90.8	94.2	92.3	90.0
		2021	92.2	92.3	92.1	93.1	92.4	92.2
		2022	87.2	85.5	86.9	84.1	85.3	85.6
	Community Belonging: Answered somewhat strong or very strong (%)	2003	63.9	73.5	79.9	73.7	70.9	72.3
		2008	65.0	74.6	81.3	75.9	73.3	71.3
		2015	68.0	75.3	79.1	77.6	76.4	70.9
		2021	69.5	77.2	80.5	78.1	75.8	76.7
		2022	64.5	70.5	74.5	68.4	69	69.9

*Note: * The NEET proportion for Atlantic Canada is calculated using the population weights of each of the Atlantic provinces. Official Statistics Canada data for all provinces have rounded up the NEET proportion to the nearest whole number. Hence, the Atlantic Canada estimates are inconsistent with the rest of provinces.*

Appendix Table 2: Growth Rates of Indicators, 2008-2015, 2015-2022/23 and Change between Periods

		Growth Rate (GR) or Absolute Difference (AD)	Period	Canada	Atlantic Canada	NFLD	Prince Edward Island	Nova Scotia	New Brunswick
Macro-economy	Real GDP	GR	2008 - 2015	1.54	0.10	-0.61	1.29	0.58	0.03
			2015 - 2022	1.78	1.14	-0.18	2.99	1.79	1.18
		Difference		0.24	1.04	0.43	1.71	1.22	1.15
	Real GDP per capita	GR	2008 - 2015	0.51	-0.11	-1.06	0.70	0.57	-0.20
			2015 - 2022	0.53	0.20	-0.12	0.58	0.56	0.21
		Difference		0.02	0.31	0.93	-0.12	-0.01	0.41
	Real Exports	GR	2008 - 2015	1.61	-1.93	-5.19	2.24	-1.56	-0.26
			2015 - 2022	1.03	-0.44	-0.15	1.91	0.60	-1.64
		Difference		-0.59	1.49	5.04	-0.32	2.16	-1.38
Human Capital	Population	GR	2008 - 2015	1.02	0.21	0.46	0.59	0.01	0.23
			2015 - 2023	1.46	1.20	0.25	2.33	1.54	1.20
		Difference		0.44	0.99	-0.21	1.74	1.53	0.97
	Median Age	GR	2008 - 2015	0.46	0.94	0.95	0.84	0.89	1.02
			2015 - 2023	-0.03	-0.06	0.75	-0.58	-0.28	0.08
		Difference		-0.50	-1.01	-0.20	-1.42	-1.17	-0.94
	Immigration	GR	2009 - 2016	4.02	10.43	13.90	2.26	12.10	12.80
			2016 - 2023	5.46	13.21	20.82	6.43	12.36	13.80
		Difference		1.44	2.78	6.92	4.16	0.26	1.00
	Immigration Retention	GR	2012 - 2016	-0.26	0.50	-1.71	5.23	-1.20	4.26
			2016 - 2020	-0.01	0.31	4.82	-4.30	0.17	-1.46
		Difference		0.25	-0.19	6.53	-9.53	1.37	-5.71
Proportion of NEET	GR	2008 - 2015	1.15	-0.47	-1.58	0.00	-1.05	0.93	
		2015 - 2023	-2.07	-0.92	-2.40	0.00	-2.07	-4.58	
	Difference		-3.22	-0.46	-0.82	0.00	-1.01	-5.50	
	GR	2008 - 2015	1.66	2.03	1.88	2.37	2.75	1.20	

Labour Market Performance	Proportion of Population (25–64-year-olds) with Tertiary Education		2015 - 2023	1.71	2.84	4.20	2.58	2.22	2.31	
		Difference		0.05	0.81	2.33	0.22	-0.53	1.11	
	Employment Rate (15-64)	GR	2008 - 2015	-0.20	0.13	0.99	0.16	-0.04	-0.18	
			2015 - 2023	0.58	0.68	0.57	0.48	0.69	0.74	
			Difference		0.77	0.55	-0.42	0.32	0.73	0.92
	Employment Income	GR	2008 - 2015	-0.25	0.44	6.27	-1.86	-0.61	0.17	
			2015 - 2022	0.36	-0.07	-2.32	1.18	0.22	-0.07	
			Difference		0.61	-0.51	-8.59	3.04	0.83	-0.24
	Labour Productivity	GR	2008 - 2015	1.16	-0.82	-2.87	0.83	1.02	0.32	
			2015 - 2023	0.83	0.49	-0.80	1.59	1.37	0.91	
			Difference		-0.33	1.32	2.06	0.76	0.34	0.59
	Labour Force Participation of Women with Children under Six	GR	2008 - 2015	0.33	0.52	0.62	0.61	0.57	0.42	
2015 - 2023			0.95	0.22	0.74	0.26	0.03	0.03		
		Difference		0.62	-0.31	0.12	-0.34	-0.54	-0.39	

Innovation and investment	BERD Spending	GR	2008 - 2015	1.09	2.48	3.69	5.62	6.67	-4.14	
			2015 - 2021	7.23	8.66	8.28	6.99	3.26	11.29	
			Difference		6.14	4.55	4.59	1.37	-3.41	15.43
	Non-Residential Investment	GR	2008 - 2015	1.36	5.02	16.46	-5.34	0.86	-6.69	
			2015 - 2022	-0.81	-5.87	-10.70	6.18	-2.14	0.10	
			Difference		-2.17	-10.89	-27.16	11.53	-3.02	6.78
	Non-Emitting Energy	GR	2008 - 2015	1.02	0.62	-0.68	23.08	5.49	7.37	
			2015 - 2022	0.39	0.13	0.17	-3.02	1.53	-0.17	
			Difference		-0.63	-0.48	0.85	-26.09	-2.63	-5.53
	Investment in Renewable Energy	GR	2008 - 2015	9.30	37.85	76.57	-100	10.61	-12.72	
			2015 - 2023	5.36	-15.02	-31.48	N/A	7.08	24.13	
			Difference		-3.94	-52.87	-108.04	N/A	-3.53	36.85
Greenhouse Gas Emissions	GR	2008 - 2015	-1.27	-2.80	0.00	-2.91	-3.32	-4.00		
		2015 - 2022	-1.97	-2.83	-3.30	-1.55	-2.85	-2.46		
		Difference		-0.69	-0.03	-3.29	1.36	0.47	1.54	
Gini Coefficient	GR	2008 - 2015	0.00	0.29	0.61	1.00	0.15	-0.31		
		2015 - 2022	-0.65	-0.84	-1.47	-1.48	-0.84	0.10		
		Difference		-0.65	-1.14	-2.08	-2.48	-0.98	0.41	

Quality of Life	Housing Starts	GR	2008 - 2015	-1.09	-5.76	-8.91	-3.42	-0.57	-10.31
			2015 - 2023	2.61	6.95	-8.12	14.54	7.72	11.48
		Difference		3.69	12.71	2.25	12.75	8.72	21.16
	Housing Affordability	GR	2009 - 2015	1.74	-0.51	1.19	-0.95	-0.91	-1.64
			2015 - 2022	4.75	4.24	-1.24	7.53	6.63	4.53
		Difference		3.01	4.75	-2.43	8.48	7.54	6.16
	Access to Family Physician	GR	2009 - 2015	-0.30	-0.37	0.21	-0.32	-0.79	-0.24
			2015 - 2022	0.47	-1.02	-1.04	-2.20	-0.57	-0.24
		Difference		0.77	-0.65	-1.25	-1.89	0.21	0.00
	Poverty Rate	GR	2009 - 2015	-0.35	-1.68	-2.84	1.03	-2.19	-0.69
			2015 - 2022	-5.31	-4.35	-3.96	-6.51	-3.49	-5.50
		Difference		-4.96	-2.67	-1.12	-7.54	-1.30	-4.81
	Life Satisfaction	GR	2008 - 2015	0.28	-0.24	-0.40	0.05	0.00	-0.50
			2015 - 2022	-0.95	-0.94	-0.63	-1.61	-1.12	-0.71
Difference			-1.23	-0.70	-0.22	-1.65	-1.12	-0.22	
Community Belonging	GR	2008 - 2015	0.65	0.14	-0.39	0.32	0.59	-0.08	
		2015 - 2022	-0.75	-0.95	-0.85	-1.79	-1.44	-0.20	
	Difference		-1.40	-1.09	-0.46	-2.10	-2.04	-0.12	

Note: A negative change in the rate of change of the variables Median Age, the Gini Coefficient, and Proportion of NEET between the two periods is indicative of positive momentum. For all other variables, positive momentum is associated with a positive change.

Appendix Table 3: Indicators in Atlantic Canada as a Proportion of National Average, (Canada=100)

		Year	Atlantic Canada	Newfoundland and Labrador	Prince Edward Island	Nova Scotia	New Brunswick
	Real GDP * (Share of National Total) (%)	2000	6.02	1.51	0.33	2.27	1.92
		2008	6.21	1.85	0.31	2.18	1.87
		2015	5.62	1.59	0.31	2.04	1.69
		2021	5.52	1.47	0.34	2.06	1.66
		2022	5.38	1.39	0.34	2.04	1.62
	Real GDP per Capita (%)	2000	78.7	111.3	83.8	101.7	105.2
		2008	88.5	135.7	62.7	102.7	107.8
		2015	84.8	126.9	70.9	101.7	102.2
		2021	125.8	73.0	100.9	101.4	125.8
		2022	82.8	124.0	74.5	101.6	99.7
	Real Exports per Capita (%)	2000	79.5	86.6	62.4	58.0	104.4
		2008	105.6	156.2	72.1	67.4	125.2
		2015	87.2	100.1	77.5	57.9	116.2
		2021	85.1	106.1	75.3	55.6	110.3
		2022	80.4	100.9	76.1	56.3	98.1
Human Capital	Median Age (%)	2000	102.3	101.6	100.8	103.0	102.2
		2008	106.8	107.4	105.1	106.9	106.6
		2015	110.4	111.1	107.9	110.1	110.8
		2022	110.4	116.6	101.7	107.8	111.5
		2023	110.1	118.2	103.2	107.9	111.8
	Population* (Share of National Total) (%)	2000	7.65	1.72	0.44	3.04	2.45
		2008	7.02	1.54	0.42	2.81	2.25
		2015	6.63	1.48	0.40	2.62	2.13
		2022	6.49	1.35	0.44	2.62	2.09
		2023	6.50	1.34	0.43	2.64	2.08
	Immigration as share of population (%)	2000 / 2001	16.8	10.2	16.8	22.7	14.2
		2008 / 2009	38.7	15.1	168.3	35.4	34.8
		2015 / 2016	62.2	29.7	154.0	64.2	64.9
		2021 / 2022	89.6	42.4	161.7	108.1	82.4
		2022/2023	104.3	84.3	151.6	100.2	112.7
Immigrant Retention Rate (%)	2012	63.5	58.4	29.7	77.6	56.0	
	2014	59.5	54.6	33.2	73.9	50.1	
	2016(5yr)	65.5	55.1	36.9	74.8	66.8	
	2016(1yr)	76.2	62.3	68.2	82.6	79.4	
	2019	79.0	68.8	70.5	82.6	83.2	
	2020	81.2	72.3	66.5	87.4	82.3	
NEET (%)	2001	142.2	184.6	130.8	123.1	138.5	
	2008	129.0	158.3	125.0	116.7	125.0	
	2015	115.2	130.8	115.4	100.0	123.1	
	2022	126.1	154.5	90.9	109.1	136.4	
	2023	126.4	127.3	136.4	100.0	100.0	

	Proportion of Population (15+) with Tertiary Education (%)	2000	86.2	65.0	90.0	92.5	92.5
		2008	86.8	73.5	91.8	87.8	93.9
		2015	89.0	74.6	96.4	94.6	90.9
		2022	95.8	92.1	103.2	96.8	95.2
		2023	97.2	90.5	103.2	98.4	95.2
Labour Market Performance	Employment Rate (15-64) (%)	2000	88.5	93.8	96.9	92.5	91.5
		2008	92.4	96.4	97.6	94.7	95.4
		2015	94.5	98.0	100.0	95.7	95.4
		2022	95.0	98.6	98.2	96.8	95.9
		2023	95.3	99.4	99.2	96.6	96.7
	Employment Income for Economic families (EF) and persons not in an EF (2022 dollars) (%)	2001	82.1	76.6	72.7	83.8	86.0
		2008	81.7	78.2	80.9	83.2	82.0
		2015	84.6	107.4	74.5	81.8	83.7
		2021	84.3	86.8	87.2	83.4	83.5
		2022	82.1	88.8	78.9	81.0	81.2
	Labour Productivity (%)	2000	87.5	131.6	65.6	74.5	78.1
		2008	99.4	181.0	66.1	71.6	79.2
		2015	86.6	136.2	64.6	70.9	74.7
		2022	86.8	126.7	70.7	73.8	76.0
		2023	84.3	119.4	68.5	73.9	75.1
	Labour Force Participation of Women with Children under Six (%)	2000	100.9	118.2	118.2	98.1	103.0
		2008	106.3	112.3	112.3	106.0	107.8
		2015	107.7	114.5	114.0	107.7	108.4
		2022	104.3	103.9	103.9	102.5	103.9
		2023	101.6	108.4	108.4	100.1	100.8
Innovation and Investment	BERD per Capita (%)	2000	13.9	9.4	9.1	17.8	13.2
		2008	28.3	35.1	21.6	22.4	32.4
		2015	33.0	43.7	30.3	35.0	23.6
		2020	35.2	55.3	28.1	30.6	29.0
		2021	33.6	50.3	28.1	28.3	30.3
	Non-Residential Investment per Capita (%)	2000	79.5	106.6	50.6	69.6	78.0
		2008	73.9	98.2	57.2	50.4	89.7
		2015	100.2	270.2	36.4	52.3	53.2
		2021	74.4	154.4	56.6	46.5	60.4
		2022	70.9	141.9	54.3	47.6	57.8

Standard of Living	Non-Emitting Energy Production per Capita (%)	2000	155.8	580.7	0.0	82.45	43.96
		2008	145.7	580.2	7.3	9.6	44.4
		2015	149.9	536.0	29.8	13.9	71.9
		2021	155.7	586.1	27.5	15.6	74.8
		2022	150.4	577.9	21.6	15.0	70.4
	Investment in Renewable Energy per Capita (%)	2000	90.53	194.43	0.00	2.51	1.08
		2008	67.21	49.44	63.80	54.05	96.51
		2015	361.07	1476.86	0.00	63.04	21.13
		2022	66.11	52.43	9.89	71.75	79.70
		2023	66.00	52.05	9.31	71.30	80.10
	Total Tonnes of GHG Emissions per Capita (%)	2000	93.8	71.0	58.9	96.5	112.7
		2008	96.6	89.6	57.5	97.9	107.0
		2015	86.6	98.0	51.2	84.5	87.9
		2021	81.3	87.6	55.1	80.6	83.4
		2022	81.4	89.1	52.7	79.3	84.8
Gini Coefficient (adjusted after-tax income) (%)	2000	93.1	95.3	89.9	93.1	91.8	
	2008	92.0	95.9	83.8	93.6	88.9	
	2015	94.0	100.0	89.8	94.6	86.9	
	2021	93.1	97.9	87.5	91.7	92.4	
	2022	92.7	94.3	84.7	93.3	91.7	
Housing Starts per Capita (%)	2000	83.4	55.9	105.3	96.0	83.0	
	2008	82.6	100.4	80.8	67.0	90.2	
	2015	62.3	58.7	70.5	74.6	48.0	
	2022	77.0	39.0	114.8	83.3	85.7	
	2023	88.5	30.3	109.4	112.9	90.9	
Housing Affordability (%)	2005	67.4	71.1	62.3	68.5	64.2	
	2008	62.7	65.1	55.1	65.4	58.7	
	2015	53.6	62.7	45.6	54.3	46.4	
	2021	48.6	42.7	53.5	57.5	40.2	
	2022	51.8	41.5	54.8	61.6	45.7	
Physician Access (%)	2001	105.6	98.3	106.7	107.6	107.9	
	2009	107.7	102.7	106.7	109.8	108.7	
	2015	107.3	105.9	106.6	106.6	109.1	
	2021	102.1	102.3	94.2	100.9	105.0	
	2022	96.6	95.2	88.3	99.1	103.8	
Poverty Rate (%)	2002	141.8	151.4	133.5	140.3	133.2	
	2008	119.0	107.0	98.4	132.0	114.4	
	2015	108.3	89.7	108.3	115.9	111.7	
	2021	105.4	109.5	100.0	116.2	90.5	
	2022	116.2	99.0	99.0	132.3	110.1	

Overall Satisfaction	Life Satisfaction: Answered satisfied or very satisfied (%)	2003	101.6	102.9	103.3	101.5	100.4
		2008	101.7	102.2	102.7	101.0	102.0
		2015	98.0	97.4	101.1	99.0	96.5
		2021	100.1	99.9	101.0	100.2	100.0
		2022	98.0	99.7	96.4	97.8	98.2
	Community Belonging: Answered somewhat strong or very strong (%)	2003	115.0	125.0	115.3	111.0	113.2
		2008	114.7	125.1	116.8	112.8	109.7
		2015	110.8	116.3	114.1	112.4	104.3
		2021	111.1	115.8	112.4	109.1	110.4
		2022	109.2	115.5	106.1	107.0	108.4

*Note: * For Real GDP and Population, the shares of provinces are calculated as a share of the total national estimates*

Appendix Table 4: Growth Rates of Indicators, 2008-2015, 2015-2022/23 and Change between Periods for Non-Atlantic Provinces

		Growth Rate (GR) or Absolute Difference (AD)	Period	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia
Macro-economy	Real GDP	GR	2008 - 2015	1.14	1.40	1.98	1.94	2.42	1.95
			2015 - 2022	2.03	2.10	1.16	0.64	0.60	2.89
		Difference		0.89	0.70	-0.83	-1.30	-1.82	0.93
	Real GDP per capita	GR	2008 - 2015	0.39	0.51	0.88	0.53	0.36	0.60
			2015 - 2022	1.13	0.69	-0.09	-0.28	-0.71	1.32
		Difference		0.74	0.19	-0.97	-0.81	-1.07	0.72
	Real Exports	GR	2008 - 2015	0.82	1.58	1.03	2.30	3.51	2.61
			2015 - 2022	0.73	0.96	0.04	-0.79	2.14	1.87
		Difference		-0.09	-0.62	-0.99	-3.09	-1.37	-0.73
Human Capital	Population	GR	2008 - 2015	0.74	0.89	1.09	1.39	2.05	1.35
			2015 - 2023	1.03	1.64	1.49	0.95	1.57	1.82
		Difference		0.29	0.75	0.40	-0.44	-0.48	0.48
	Median Age	GR	2008 - 2015	0.41	0.61	-0.04	-0.27	0.20	0.59
			2015 - 2023	0.12	-0.22	-0.07	0.40	0.68	-0.33
		Difference		-0.29	-0.83	-0.03	0.66	0.48	-0.92
	Immigration	GR	2009 - 2016	2.52	1.91	4.30	14.35	12.63	0.29
			2016 - 2023	2.20	7.47	5.66	8.09	-0.90	6.29
		Difference		-0.32	5.56	1.36	-6.25	-13.53	6.00
	Immigration Retention	GR	2012 - 2016	0.09	0.35	-3.88	-5.37	-1.97	0.06
			2016 - 2020	1.69	-0.56	-1.14	-3.89	-0.66	0.14
		Difference		1.60	-0.91	2.75	1.48	1.31	0.08
	Proportion of NEET	GR	2008 - 2015	-1.05	1.15	1.25	5.39	2.64	4.92
			2015 - 2023	-4.49	-3.23	0.00	-1.00	1.01	-2.97
		Difference		-3.44	-4.38	-1.25	-6.39	-1.63	-7.89
Proportion of Population (15+) with Tertiary Education	GR	2008 - 2015	1.80	1.73	1.84	2.64	1.80	2.32	
		2015 - 2023	1.62	1.53	2.09	2.71	1.62	1.95	
	Difference		-0.18	-0.20	0.25	0.07	-0.18	-0.37	
Labour Market Performance	Employment Rate (15-64)	GR	2008 - 2015	0.16	-0.23	-0.35	-0.25	-0.51	-0.28
			2015 - 2023	0.74	0.55	0.28	0.13	0.25	0.59
		Difference		0.59	0.78	0.64	0.38	0.76	0.87
	Employment Income	GR	2008 - 2015	0.20	-1.10	-0.42	2.28	0.79	-1.26
			2015 - 2022	1.53	0.36	-0.31	-1.55	-1.19	1.52

	Difference		1.33	1.46	0.11	-3.83	-1.98	2.78
Labour Productivity	GR	2008 - 2015	0.83	1.00	1.71	0.98	1.73	1.27
		2015 - 2023	1.64	1.14	0.59	-0.90	-0.58	1.86
	Difference		0.81	0.13	-1.12	-1.88	-2.32	0.59
Labour Force Participation of Women with Children under Six	GR	2008 - 2015	0.94	0.08	0.90	-0.11	-0.04	0.24
		2015 - 2023	0.68	1.08	0.41	0.17	1.63	1.21
	Difference		-0.26	1.00	-0.49	0.28	1.68	0.96

Innovation and investment	BERD Spending	GR	2008 - 2015	0.91	0.13	7.40	13.12	2.10	2.11
			2015 - 2022	5.37	9.17	2.88	-0.50	4.31	12.28
		Difference		2.75	7.47	-2.41	-14.95	0.43	8.19
	Non-Residential Investment	GR	2008 - 2015	-1.01	2.38	4.66	6.17	0.13	-1.01
			2015 - 2022	2.68	0.95	-6.10	-5.66	-4.74	2.68
		Difference		3.69	-1.43	-10.76	-11.83	-4.87	3.69
	Non-Emitting Energy	GR	2008 - 2015	0.64	1.43	0.27	-1.83	11.02	1.67
			2015 - 2022	0.88	-0.51	0.79	1.77	7.95	-0.30
		Difference		0.24	-1.94	0.52	3.61	-3.07	-1.96
	Investment in Renewable Energy	GR	2008 - 2015	1.67	-3.11	18.96	19.63	21.98	3.61
			2015 - 2023	1.32	29.00	-7.53	-17.29	31.65	9.83
		Difference		-0.34	32.11	-26.49	-36.92	9.67	6.22
	Greenhouse Gas Emissions	GR	2008 - 2015	-1.81	-3.02	-1.36	-0.23	-0.78	-2.01
			2015 - 2022	-0.54	-2.00	-0.75	-2.73	-2.23	-0.82
		Difference		1.27	1.01	0.61	-2.50	-1.45	1.27
	Gini Coefficient	GR	2008 - 2015	-0.44	-0.09	0.32	-0.24	-0.28	0.59
			2015 - 2022	-0.72	-0.18	-1.01	-1.03	-0.73	-0.96
		Difference		-0.27	-0.09	-1.32	-0.80	-0.44	-1.55
Housing Starts	GR	2008 - 2015	-3.28	-0.96	-0.09	-3.95	3.57	-1.24	
		2015 - 2023	0.32	3.06	3.25	-1.35	-0.43	6.10	
	Difference		3.60	4.03	3.34	2.60	-4.00	7.34	
Housing Affordability	GR	2009 - 2015	0.80	3.04	2.35	-0.21	-1.19	2.58	
		2015 - 2022	3.39	6.41	1.87	-0.51	0.57	3.39	
	Difference		2.59	3.37	-0.48	-0.30	1.76	0.80	
Access to Family Physician	GR	2009 - 2015	-0.23	-0.26	-1.02	-0.43	-0.10	-0.45	
		2015 - 2022	1.24	0.10	1.21	0.69	1.49	-0.07	

Quality of Life		Difference						
			1.47	0.35	2.23	1.12	1.60	0.38
Poverty Rate	GR	2009 - 2015	-0.52	-0.11	1.24	-2.39	-1.89	0.66
		2015 - 2022	-9.72	-4.55	-2.87	-1.34	0.45	-6.52
	Difference		-9.20	-4.44	-4.11	1.05	2.34	-7.18
Life Satisfaction	GR	2008 - 2015	0.15	0.44	0.14	0.09	0.26	0.42
		2015 - 2022	-0.46	-1.14	-1.00	-0.84	-0.97	-1.23
	Difference		-0.62	-1.58	-1.14	-0.93	-1.23	-1.65
Community Belonging	GR	2008 - 2015	0.12	0.65	0.72	0.56	1.96	0.79
		2015 - 2022	0.41	-1.05	-0.77	-0.63	-0.98	-1.23
	Difference		0.29	-1.69	-1.49	-1.19	-2.94	-2.01

*Note: a negative change in the rate of change of the variables Median Age, the Gini Coefficient, GHG Emissions, Housing Affordability, Poverty rate and Proportion of NEET between the two periods is indicative of positive momentum. For all other variables, positive momentum is associated with a positive change

**Indicators in blue exhibit momentum



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