

- 1 **Q. Reference: Dr. Booth Evidence, Page 34, Lines 9-10**  
2  
3 **Please provide the Royal Bank of Canada's provincial forecast (September 12,**  
4 **2018) referenced in Dr. Booth's evidence.**  
5  
6 **A. See Attachment 1.**



RBC ECONOMIC RESEARCH

PROVINCIAL OUTLOOK  
September 12, 2018

Some provinces now face the downside of tight labour markets

When it comes to the labour market, things haven't been any better for a generation in Canada. This is especially true in BC, Ontario and Québec where the unemployment rate plummeted to levels that not long ago most analysts thought unachievable in this day and age. But even more telling is how pervasive the tightness is within these three provinces. In Ontario for instance, more than 86% of local economic regions boast an unemployment rate of 6% or lower—something unheard of in modern times. In Québec, the proportion is 75% and it is just slightly lower in BC at 71%.

No wonder workers feel pretty upbeat in these provinces despite growing trade uncertainty. Job prospects are good all round and our outlook calls for more of the same in the period ahead.

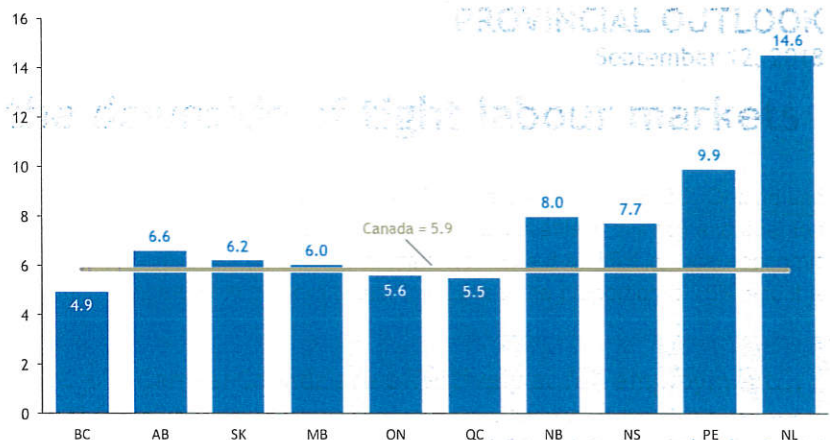
It's a different story for employers. It has become a bigger challenge to attract and retain workers. A rapidly increasing number of positions are now going unfilled. Job vacancies in fact surged in Québec, BC and other provinces in the past year. There are more and more reports of labour shortages in certain industries and regions. As baby boomers reach retirement age in greater numbers, these labour issues are poised to get worse.

We believe that a tight supply of labour is already restraining economic growth in several provinces this year. This is especially the case in British Columbia where one in every 24 jobs (4.2%) was unfilled in the first quarter, which no doubt inhibits the ability of many businesses to pursue growth opportunities. Tight labour supply also play a key role in slowing growth down in Ontario, Québec and Alberta, albeit to lesser extents.

There are signs that BC and Ontario employers are further challenged by accelerating wages (in part due to significant boosts to the minimum wage over the last year) though such pressure is more contained than we'd expect in the current circumstances. The absence of wage pressures in Québec and other provinces—as well as nationally—is in truth quite surprising. Still, it may be just a matter of time before faster wage growth emerges more broadly.

BC and Central Canada are effectively at full employment...

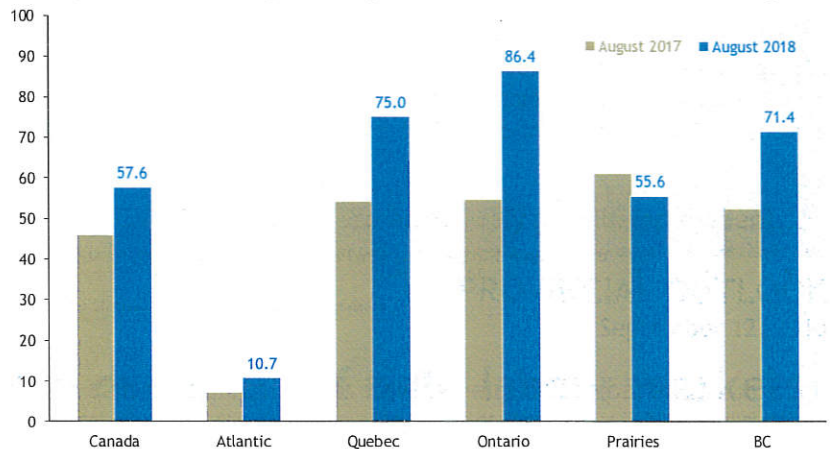
Unemployment rate in %, average between January and August 2018



Source: Statistics Canada, RBC Economic Research

...with most local areas having very little spare labour

Proportion of economic regions with a jobless rate of 6% or lower in %, 3-month average



Source: Statistics Canada, RBC Economic Research

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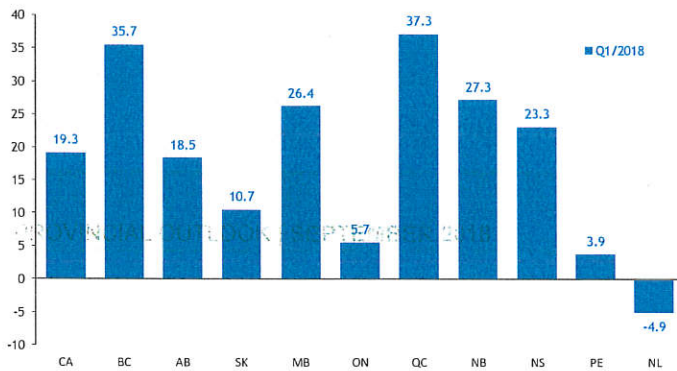
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### Unfilled positions have surged in Quebec, BC and elsewhere

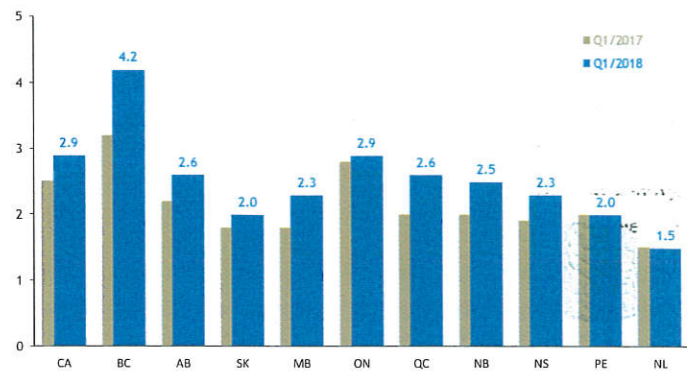
Annual % change in job vacancies



Source: Statistics Canada, RBC Economic Research

### BC has the highest job vacancy rate in the country

Job vacancies as % of all occupied and vacant jobs



Source: Statistics Canada, RBC Economic Research

## Growth to moderate in all provinces in 2018

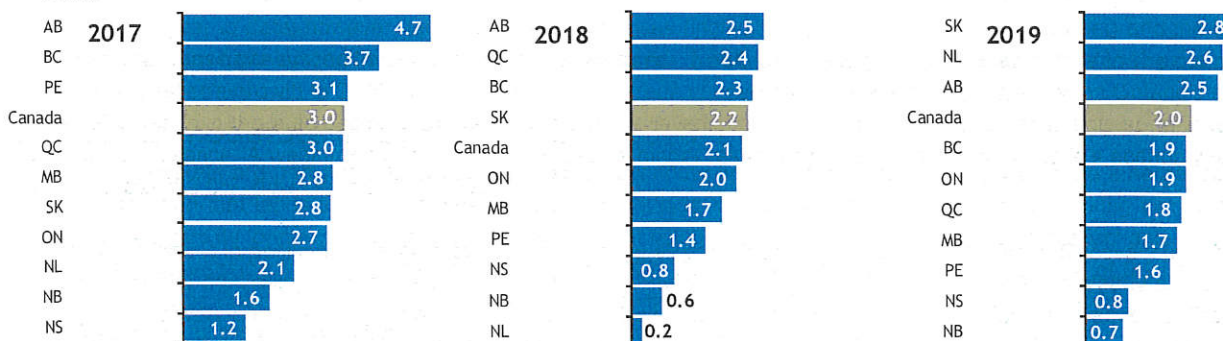
Tight labour markets are part and parcel of the Canadian economy operating at capacity. To prevent the emergence of excess demand—a situation that leads to overheating—the Bank of Canada has embarked on an interest rate hiking campaign to moderate GDP growth toward its long-run potential rate. Our view is that rising interest rates will have the desired effect and contribute to overall growth in Canada easing from 3.0% last year to 2.1% in 2018. This constitutes a slight upward revision of 0.1 percentage points in 2018 from our June Provincial Outlook report. We expect growth to moderate from 2017 in all provinces. Cooling housing markets and the winding down of major capital projects will be among the restraining factors in some of the provinces.

While decelerating, **Central Canada** is still going quite strong, with consumers at the helm. Quebec's economy maintained solid momentum in the first half of 2018 led by growth in residential construction, service industries and manufacturing. Quebec's merchandise exports are up year to date; however, tariffs on key commodities (including aluminum and softwood lumber) and the threat of further tariffs might put these gains at risk over the remainder of this year. Nonetheless, the economic vigour to date led us to revise our 2018 forecast for Quebec's growth to 2.4% from 2.1% previously. Trade concerns cast an even bigger shadow on Ontario's economy where the threat of tariffs in the auto sector could have a potentially devastating impact. Still, the trade uncertainty so far hasn't really been more than a nuisance. A weaker housing market has been a bigger restraining factor. We project Ontario's economy to grow at a still respectful rate of 2.0%, down from 2.7% in 2017.

**Out west**, Alberta is in position to be the growth leader among all provinces for a second straight year. Recovery from the tough 2015-2016 recession is continuing with more sectors of the economy contributing. Stronger oil prices are a clearly positive development keeping the recovery on track. That being said, we expect growth to slow significantly to 2.5% from last year's outsized rate of 4.7%. Last year's burst spoke more about how deep the economy fell in 2016 than actual vigour in 2017. Capital expenditures in the oil and

### Real GDP Growth

% change



Source: Statistics Canada, RBC Economics Research



gas sector have yet to turn around—they fell 2% in the first half of 2018. Despite growing labour headwinds and a sharp drop in housing market activity, we expect British Columbia's economy to grow at a solid rate of 2.3% this year, though this will be down from 3.7% last year. Strong wage gains and population growth will continue to provide support for household spending in the province.

Saskatchewan's economy is still on track to grow slightly above the Canadian average at 2.2% though this was revised downward by 0.2 percentage points in light of recent indications that crop production will be weaker than we previously assumed. The outlook for the province would be even brighter were it not for a disappointing job market where employment remains stalled. Lower crop production expectations also dim Manitoba's growth prospects this year. Recent agricultural reports prompted us to reduce growth by 0.2 percentage points to 1.7%. The winding down of major capital projects is a key factor weighing on growth in 2018.

Finally, **Atlantic Canada** is a mixed bag with PEI emerging as a bright spot once again with a growth of 1.4%. Solid population growth—mainly thanks to immigration—is fueling substantial activity across several economic sectors on the island including housing and household spending. At the other end of the spectrum, we expect virtually no growth from Newfoundland & Labrador's economy. With major investment projects winding down, employment will continue to fall in the province. A shrinking working-age population will be a restraining factor in New Brunswick where we project growth to be slow at just 0.6% in 2018. The pace won't be much faster in Nova Scotia at 0.8%. Slower capital formation resulting from winding down construction investments as well as a letup in residential project investment will result in a sluggish pace.



## Forecast details

% change unless otherwise indicated

	Real GDP				Nominal GDP				Employment				Unemployment Rate (%)				Housing starts (Thous.)				Retail sales				CPI			
	16	17F	18F	19F	16	17F	18F	19F	16	17	18F	19F	16	17	18F	19F	16	17	18F	19F	16	17	18F	19F	16	17	18F	19F
N.&L.	1.9	2.1	0.2	2.6	2.6	7.7	5.0	6.7	-1.5	-3.7	-0.7	-0.8	13.4	14.8	14.9	14.8	1.4	1.4	1.5	1.0	0.4	2.4	-2.0	1.8	2.7	2.4	1.9	2.5
P.E.I.	2.3	3.1	1.4	1.6	4.0	5.0	3.4	3.7	-2.2	3.1	2.5	0.8	10.8	9.8	9.9	9.7	0.6	0.9	0.8	0.6	7.3	6.3	4.3	3.7	1.2	1.8	2.7	2.7
N.S.	0.8	1.2	0.8	0.8	2.8	3.2	2.7	3.0	-0.4	0.6	1.0	0.2	8.3	8.4	7.7	7.5	3.8	4.0	4.6	3.8	4.7	7.8	2.5	3.3	1.2	1.1	2.5	2.6
N.B.	1.2	1.6	0.6	0.7	3.6	3.6	2.6	2.7	-0.1	0.4	0.4	0.0	9.6	8.1	7.8	7.5	1.8	2.3	2.1	2.1	2.1	6.8	0.6	2.9	2.2	2.3	2.4	2.5
QUE.	1.4	3.0	2.4	1.8	2.7	5.1	4.2	3.8	0.9	2.2	1.0	0.6	7.1	6.1	5.5	5.4	38.9	46.5	47.9	40.0	6.6	5.5	4.2	3.9	0.7	1.1	2.0	2.4
ONT.	2.6	2.7	2.0	1.9	4.3	4.4	3.8	4.0	1.1	1.8	1.4	0.6	6.5	6.0	5.5	5.4	75.0	79.1	76.0	70.0	6.9	7.7	4.6	4.4	1.8	1.7	2.5	2.4
MAN.	2.2	2.8	1.7	1.7	2.3	4.9	3.7	3.8	-0.4	1.7	0.5	0.8	6.1	5.4	6.0	5.9	5.3	7.5	6.5	5.4	3.7	7.8	1.2	4.1	1.3	1.6	2.7	2.5
SASK.	-0.5	2.8	2.2	2.8	-4.0	6.2	7.4	7.2	-0.9	-0.2	0.2	0.8	6.3	6.3	6.2	6.0	4.8	4.9	3.6	4.3	1.5	4.1	1.5	3.4	1.1	1.7	2.7	2.9
ALTA.	-3.7	4.7	2.5	2.5	-4.9	7.9	7.8	7.3	-1.6	1.0	1.8	1.6	8.1	7.8	6.6	6.4	24.5	29.5	28.7	29.0	-1.1	7.1	3.4	5.1	1.1	1.5	2.6	2.2
B.C.	3.5	3.7	2.3	1.9	4.8	6.3	4.5	4.0	3.2	3.7	0.8	0.9	6.0	5.1	4.9	5.0	41.8	43.7	42.1	38.8	7.7	9.3	3.1	3.9	1.9	2.1	2.6	2.3
CANADA	1.4	3.0	2.1	2.0	2.0	5.4	4.7	4.6	0.7	1.9	1.1	0.7	7.0	6.3	5.8	5.8	198	220	214	195	5.2	7.1	3.7	4.2	1.4	1.6	2.5	2.4

## Key provincial comparisons

(2016 unless otherwise stated)

	Canada	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC
Population (000s, 2017)	36,708	529	152	954	760	8,394	14,193	1,338	1,164	4,286	4,817
Gross domestic product (\$ billions)	2,035.5	31.1	6.3	41.7	34.2	394.8	794.8	67.9	75.3	314.9	263.7
Real GDP (\$2007 billions)	1,801.4	27.9	5.2	36.7	29.4	343.3	685.0	60.4	62.5	302.8	240.8
Share of provincial GDP of Canadian GDP (%)	100.0	1.5	0.3	2.0	1.7	19.4	39.0	3.3	3.7	15.5	13.0
Real GDP growth (CAGR, 2011-16, %)	1.9	0.0	1.4	0.4	0.4	1.3	2.2	2.3	1.7	1.6	3.1
Real GDP per capita (\$ 2007)	49,673	52,519	35,037	38,639	38,786	41,248	49,012	45,857	54,442	71,469	50,618
Real GDP growth rate per capita (CAGR, 2011-16, %)	1.1	-0.2	0.6	0.3	0.4	0.5	1.1	0.9	0.2	-0.7	2.0
Personal disposable income per capita (\$)	31,781	32,561	28,112	28,519	29,168	27,723	32,093	29,076	32,717	37,298	34,395
Employment growth (CAGR, 2012-17, %)	-1.1	1.4	-0.2	0.4	0.0	-1.1	-1.2	-0.7	-0.7	-1.0	-1.7
Employment rate (Jul. 2018, %)	61.6	50.8	60.9	56.8	56.4	60.9	61.3	63.0	64.1	66.9	61.3
Discomfort index (inflation + unemp. rate, Jul. 2018)	8.8	18.1	12.9	10.7	10.2	8.0	8.5	9.3	9.7	10.2	8.3
Manufacturing industry output (% of GDP, 2017)	10.3	4.1	10.4	7.9	11.7	13.5	11.7	9.6	7.3	6.4	7.1
Personal expenditures on goods & services (% of GDP)	56.7	53.5	68.8	70.7	65.8	59.2	56.8	57.6	48.6	46.9	64.1
International exports (% of GDP)	31.0	31.8	22.5	16.9	37.7	28.0	35.6	24.1	38.7	31.0	22.8



## Forecast Details

% change unless otherwise specified

### British Columbia

	2011	2012	2013	2014	2015	2016	2017F	2018F	2019F
Real GDP	3.0	2.5	2.5	3.7	3.5	3.5	3.7	2.3	1.9
Nominal GDP	5.7	2.1	3.4	5.7	4.0	4.8	6.3	4.5	4.0
Employment	0.2	1.6	0.1	0.6	1.2	3.2	3.7	0.8	0.9
Unemployment Rate (%)	7.5	6.8	6.6	6.1	6.2	6.0	5.1	4.9	5.0
Retail Sales	3.2	1.9	2.8	6.3	7.0	7.7	9.3	3.1	3.9
Housing Starts (Thousands of Units)	26.4	27.5	27.1	28.4	31.4	41.8	43.7	42.1	38.8
Consumer Price Index	2.3	1.1	-0.1	1.0	1.1	1.9	2.1	2.6	2.3

### Alberta

	2011	2012	2013	2014	2015	2016	2017F	2018F	2019F
Real GDP	6.4	3.9	5.7	6.2	-3.7	-3.7	4.7	2.5	2.5
Nominal GDP	10.9	4.3	9.6	10.0	-12.0	-4.9	7.9	7.8	7.3
Employment	3.7	3.5	2.5	2.2	1.2	-1.6	1.0	1.8	1.6
Unemployment Rate (%)	5.4	4.6	4.6	4.7	6.0	8.1	7.8	6.6	6.4
Retail Sales	6.8	6.9	7.2	7.9	-4.0	-1.1	7.1	3.4	5.1
Housing Starts (Thousands of Units)	25.7	33.4	36.0	40.6	37.3	24.5	29.5	28.7	29.0
Consumer Price Index	2.4	1.1	1.4	2.6	1.2	1.1	1.5	2.6	2.2

### Saskatchewan

	2011	2012	2013	2014	2015	2016	2017F	2018F	2019F
Real GDP	5.3	1.7	6.3	2.1	-1.0	-0.5	2.8	2.2	2.8
Nominal GDP	18.1	4.2	6.7	-0.4	-5.4	-4.0	6.2	7.4	7.2
Employment	0.9	2.4	3.1	1.0	0.5	-0.9	-0.2	0.2	0.8
Unemployment Rate (%)	4.9	4.7	4.1	3.8	5.0	6.3	6.3	6.2	6.0
Retail Sales	7.3	7.3	5.2	4.7	-3.3	1.5	4.1	1.5	3.4
Housing Starts (Thousands of Units)	7.0	10.0	8.3	8.3	5.1	4.8	4.9	3.6	4.3
Consumer Price Index	2.8	1.6	1.4	2.4	1.6	1.1	1.7	2.7	2.9

### Manitoba

	2011	2012	2013	2014	2015	2016	2017F	2018F	2019F
Real GDP	2.4	3.0	2.8	2.1	1.3	2.2	2.8	1.7	1.7
Nominal GDP	5.4	6.4	4.2	3.1	3.3	2.3	4.9	3.7	3.8
Employment	0.4	1.6	0.7	0.1	1.6	-0.4	1.7	0.5	0.8
Unemployment Rate (%)	5.5	5.3	5.4	5.4	5.6	6.1	5.4	6.0	5.9
Retail Sales	4.3	1.0	3.8	4.2	1.3	3.7	7.8	1.2	4.1
Housing Starts (Thousands of Units)	6.1	7.2	7.5	6.2	5.5	5.3	7.5	6.5	5.4
Consumer Price Index	2.9	1.6	2.3	1.8	1.2	1.3	1.6	2.7	2.5

### Ontario

	2011	2012	2013	2014	2015	2016	2017F	2018F	2019F
Real GDP	2.4	1.3	1.5	2.7	2.9	2.6	2.7	2.0	1.9
Nominal GDP	4.6	3.1	2.2	4.4	5.0	4.3	4.4	3.8	4.0
Employment	1.8	0.7	1.8	0.8	0.7	1.1	1.8	1.4	0.6
Unemployment Rate (%)	7.9	7.9	7.6	7.3	6.8	6.5	6.0	5.5	5.4
Retail Sales	3.6	1.6	2.7	5.7	5.3	6.9	7.7	4.6	4.4
Housing Starts (Thousands of Units)	67.8	76.7	61.1	59.1	70.2	75.0	79.1	76.0	70.0
Consumer Price Index	3.1	1.4	1.1	2.3	1.2	1.8	1.7	2.5	2.4



## Forecast Details

% change unless otherwise specified

### Quebec

	2011	2012	2013	2014	2015	2016	2017F	2018F	2019F
Real GDP	1.9	1.0	1.4	1.8	1.0	1.4	3.0	2.4	1.8
Nominal GDP	5.1	2.7	3.0	3.0	2.4	2.7	5.1	4.2	3.8
Employment	1.0	0.8	1.4	0.0	0.9	0.9	2.2	1.0	0.6
Unemployment Rate (%)	7.9	7.7	7.6	7.7	7.6	7.1	6.1	5.5	5.4
Retail Sales	3.0	1.2	3.0	2.6	1.9	6.6	5.5	4.2	3.9
Housing Starts (Thousands of Units)	48.4	47.4	37.8	38.8	37.9	38.9	46.5	47.9	40.0
Consumer Price Index	3.0	2.1	0.8	1.4	1.1	0.7	1.1	2.0	2.4

### New Brunswick

	2011	2012	2013	2014	2015	2016	2017F	2018F	2019F
Real GDP	0.3	-1.1	-0.3	0.1	2.4	1.2	1.6	0.6	0.7
Nominal GDP	4.3	0.7	0.3	1.8	2.0	3.6	3.6	2.6	2.7
Employment	-0.7	-0.7	0.4	-0.2	-0.6	-0.1	0.4	0.4	0.0
Unemployment Rate (%)	9.5	10.2	10.3	10.0	9.8	9.6	8.1	7.8	7.5
Retail Sales	4.8	-0.9	0.7	3.7	2.2	2.1	6.8	0.6	2.9
Housing Starts (Thousands of Units)	3.5	3.3	2.8	2.3	2.0	1.8	2.3	2.1	2.1
Consumer Price Index	3.5	1.7	0.8	1.5	0.5	2.2	2.3	2.4	2.5

### Nova Scotia

	2011	2012	2013	2014	2015	2016	2017F	2018F	2019F
Real GDP	0.6	-1.0	-0.1	1.1	1.4	0.8	1.2	0.8	0.8
Nominal GDP	2.2	0.5	2.1	2.9	2.1	2.8	3.2	2.7	3.0
Employment	0.4	1.0	-1.1	-1.1	0.1	-0.4	0.6	1.0	0.2
Unemployment Rate (%)	9.0	9.1	9.1	8.9	8.6	8.3	8.4	7.7	7.5
Retail Sales	3.5	0.9	3.2	2.8	0.2	4.7	7.8	2.5	3.3
Housing Starts (Thousands of Units)	4.6	4.5	3.9	3.1	3.8	3.8	4.0	4.6	3.8
Consumer Price Index	3.8	1.9	1.2	1.7	0.4	1.2	1.1	2.5	2.6

### Prince Edward Island

	2011	2012	2013	2014	2015	2016	2017F	2018F	2019F
Real GDP	2.1	1.0	2.0	0.3	1.3	2.3	3.1	1.4	1.6
Nominal GDP	3.8	2.7	3.3	1.7	3.9	4.0	5.0	3.4	3.7
Employment	3.1	1.7	1.4	-0.1	-1.2	-2.2	3.1	2.5	0.8
Unemployment Rate (%)	11.1	11.1	11.5	10.6	10.5	10.8	9.8	9.9	9.7
Retail Sales	5.4	3.0	0.9	3.5	2.6	7.3	6.3	4.3	3.7
Housing Starts (Thousands of Units)	0.9	0.9	0.6	0.5	0.6	0.6	0.9	0.8	0.6
Consumer Price Index	2.9	2.0	2.0	1.6	-0.6	1.2	1.8	2.7	2.7

### Newfoundland and Labrador

	2011	2012	2013	2014	2015	2016	2017F	2018F	2019F
Real GDP	2.7	-4.4	5.2	-0.9	-1.7	1.9	2.1	0.2	2.6
Nominal GDP	15.3	-4.5	7.6	-0.5	-11.5	2.6	7.7	5.0	6.7
Employment	4.1	3.8	0.8	-1.7	-1.0	-1.5	-3.7	-0.7	-0.8
Unemployment Rate (%)	12.6	12.3	11.6	11.9	12.8	13.4	14.8	14.9	14.8
Retail Sales	5.1	4.3	5.2	3.7	0.7	0.4	2.4	-2.0	1.8
Housing Starts (Thousands of Units)	3.5	3.9	2.9	2.1	1.7	1.4	1.4	1.5	1.0
Consumer Price Index	3.4	2.1	1.7	1.9	0.4	2.7	2.4	1.9	2.5