

# Experimental indexes of economic activity in the provinces and territories, September 2020

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Experimental indexes of economic activity show that the level of activity increased in most provinces and territories between August and September. However, the level of activity in September 2020 remained below that of a year earlier, and below the pre-COVID-19 level observed in February 2020, in most provinces and territories. Alberta remained the province with the lowest activity compared with its pre-pandemic level.

The experimental indexes were developed to address the need for a comprehensive measure of economic activity at the sub-national level in advance of the annual estimates of gross domestic product for the provinces and territories. The indexes were created using statistical methods based on principal component analysis (PCA) and least absolute shrinkage and selection operator (LASSO). These statistical methods combined a range of economic indicators from a number of areas (e.g., the labour market, merchandise trade, manufacturing production, and wholesale and retail trade) into composite indicators.

September was marked by the return to school and an increase in the number of COVID-19 cases reported across the country. However, there were no new restrictions on economic activity in September. On a month-over-month basis, the PCA-based indexes show increases for all provinces and territories for which indexes are reported, except New Brunswick and Manitoba. The LASSO-based indexes that are available show month-to-month increases for all jurisdictions.

## **Activity lower in most provinces and territories compared with last year**

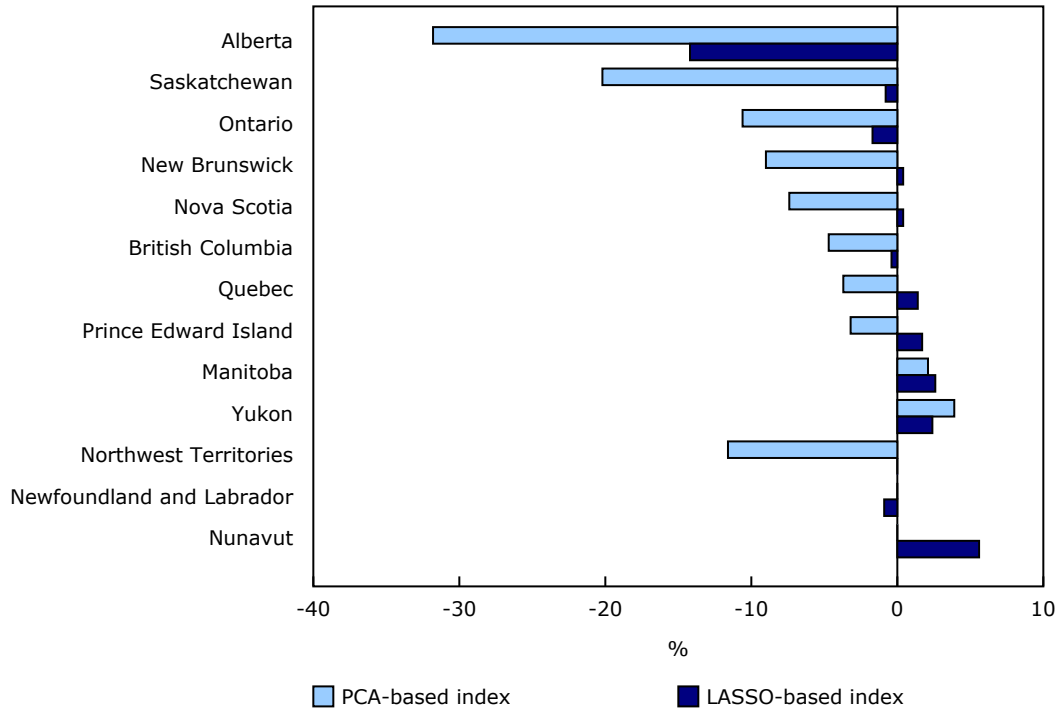
On a year-over-year basis, changes in economic activity largely reflect the degree to which oil price declines and the first wave of COVID-19 impacted provincial and territorial economies.

Despite gains over the summer, Alberta, Saskatchewan and Ontario show the largest declines in activity compared with a year earlier. Alberta and Saskatchewan were heavily affected by declining oil prices, while Ontario had one of the largest COVID-19 case counts and a set of more stringent economic conditions that lasted for an extended period of time.

Manitoba, Yukon and Nunavut were among the least affected economies, and show increased activity in September compared with a year earlier. New Brunswick, Nova Scotia, British Columbia and Quebec were affected by COVID-19, but either the effects were less severe or these provinces began relaxing restrictions earlier. In these provinces, the PCA-based indexes show decreased activity, while the LASSO-based indexes suggest some modest increases.



**Chart 1**  
**Percent change in experimental indexes from September 2019 to September 2020 by index, and province or territory**



. not available for any reference period

**Note(s):** PCA: principal component analysis; LASSO: least absolute shrinkage and selection operator.

**Source(s):** Author's calculations based on data from table [36-10-0633-01](#).

## Pace of recovery slows in September for many provinces and territories

In September, the recovery from the first wave of COVID-19 slowed. In British Columbia, Alberta, Saskatchewan, Ontario, Quebec, Nova Scotia and New Brunswick, the monthly growth rate for September was at or near the low end of the range for the monthly growth rates observed since June. In Manitoba, Newfoundland and Labrador, and Nunavut, the growth in activity in September was near the midpoint of the growth rate range observed since June, while Prince Edward Island and the Northwest Territories were in the upper part of their ranges. Results were mixed for Yukon.

The low point of economic activity following the beginning of the COVID-19 pandemic occurred in April and May in the provinces and territories, and the recovery began in June. Since June, growth rates varied as provincial and territorial economies reopened. The strongest month during the recovery tended to be June, while September tended to be the weakest.

**Table 1**  
**Monthly change for September 2020 by activity index, and province or territory**

	PCA based activity index			LASSO based activity index		
	September change	Smallest change, June to September	Largest change, June to September	September change	Smallest change, June to September	Largest change, June to September
	%					
Newfoundland and Labrador	.	.	.	0.5	-2.8	3.1
Prince Edward Island	1.1	-2.7	4.8	0.4	-0.2	0.4
Nova Scotia	1.0	0.6	9.2	0.8	0.6	2.0
New Brunswick	-0.4	-0.4	10.8	0.4	0.2	1.2
Quebec	2.3	2.3	8.5	0.6	0.6	1.9
Ontario	3.4	3.4	15.0	1.0	0.7	1.4
Manitoba	-0.3	-1.3	1.4	0.2	-0.2	0.4
Saskatchewan	4.0	2.6	13.9	0.9	0.6	2.5
Alberta	3.1	3.1	11.6	1.9	1.9	7.1
British Columbia	2.0	2.0	4.8	0.3	0.3	1.6
Yukon	1.9	-7.0	1.9	0.7	0.7	2.8
Northwest Territories	3.3	-1.5	4.6	.	.	.
Nunavut	.	.	.	1.4	0.1	3.0

. not available for any reference period

**Note(s):** PCA: principal component analysis; LASSO: least absolute shrinkage and selection operator.

**Source(s):** Author's calculations based on data from table [36-10-0633-01](#).

### Note to readers

Additional information is available in the paper titled "[Experimental Economic Activity Indexes for Canadian Provinces and Territories: Experimental Measures Based on Combinations of Monthly Time Series](#)", which is part of the series *Analytical Studies: Methods and References*.

**Available tables:** [table 36-10-0633-01](#).

**Definitions, data sources and methods:** [survey numbers 2101, 2151, 2201, 2301, 2310, 2325, 2401, 2406, 2419, 2612, 2802, 3701, 5005 and 7505](#).

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