



Experimental Indexes of Economic Activity for Yukon January 2021

Highlights:

- On a **year-over-year** basis, the January 2021 LASSO-based experimental index of economic activity increased in all provinces and territories, with the exceptions of Alberta and Ontario (data not available for the Northwest Territories).
- On a **month-over-month** basis, both PCA-based and LASSO-based experimental indexes of economic activity in January 2021 had mixed results for provinces and territories.

Timely measures of economic activity are critical for understanding how economies perform, and for informing policy responses to macroeconomic fluctuations. The onset of the COVID-19 pandemic emphasized the need to produce new monthly measures of aggregate economic activity for the provinces and territories, in advance of the annual estimates of gross domestic product. Monthly experimental economic activity indexes were created by Statistics Canada at the sub-national level using three different statistical methods to combine a range of economic indicators from a number of areas (i.e., labour market, merchandise trade, manufacturing production, consumer prices, electric power data, housing, wholesale and retail trade, food services and drinking places, vehicle movement between Canada and US, building permits) into composites:

- 1) **Simple economic activity index:** assumes that total employment, total exports and total retail sales contain the appropriate information for understanding aggregate economic fluctuations; not available for Yukon.
- 2) **Principal component analysis (PCA) index:** uses a variable reduction technique to capture the variation in the input data set using a smaller number of principal components.
- 3) **Least absolute shrinkage and selection operator (LASSO):** uses a shrinkage and selection method to select series from the input data set to be included in a regression to explain annual growth.

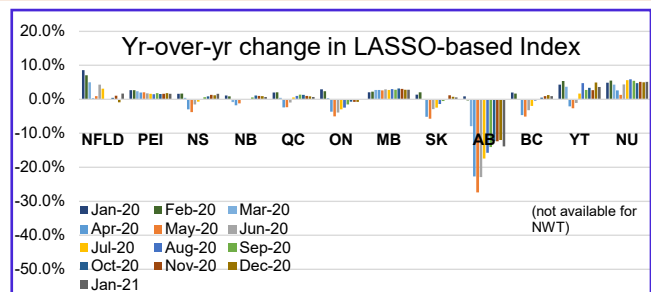
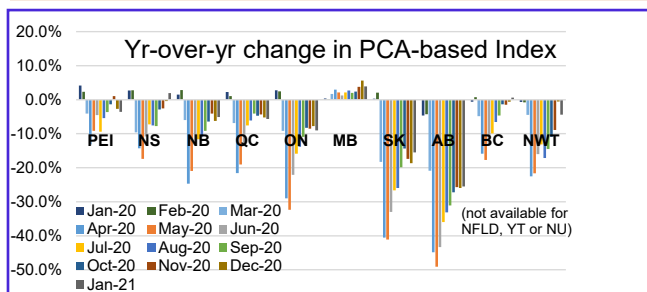
The indexes are experimental and not based on economic theories, and therefore, should be **interpreted with caution**. Models employed typically have a different set of inputs for each province or territory. As a result, may affect inter-jurisdictional comparisons.

Source: Statistics Canada. Data table 36-10-0633-01. For further information, see: [Experimental Economic Activity Indexes for Canadian Provinces and Territories: Experimental Measures Based on Combinations of Monthly Time Series](#)

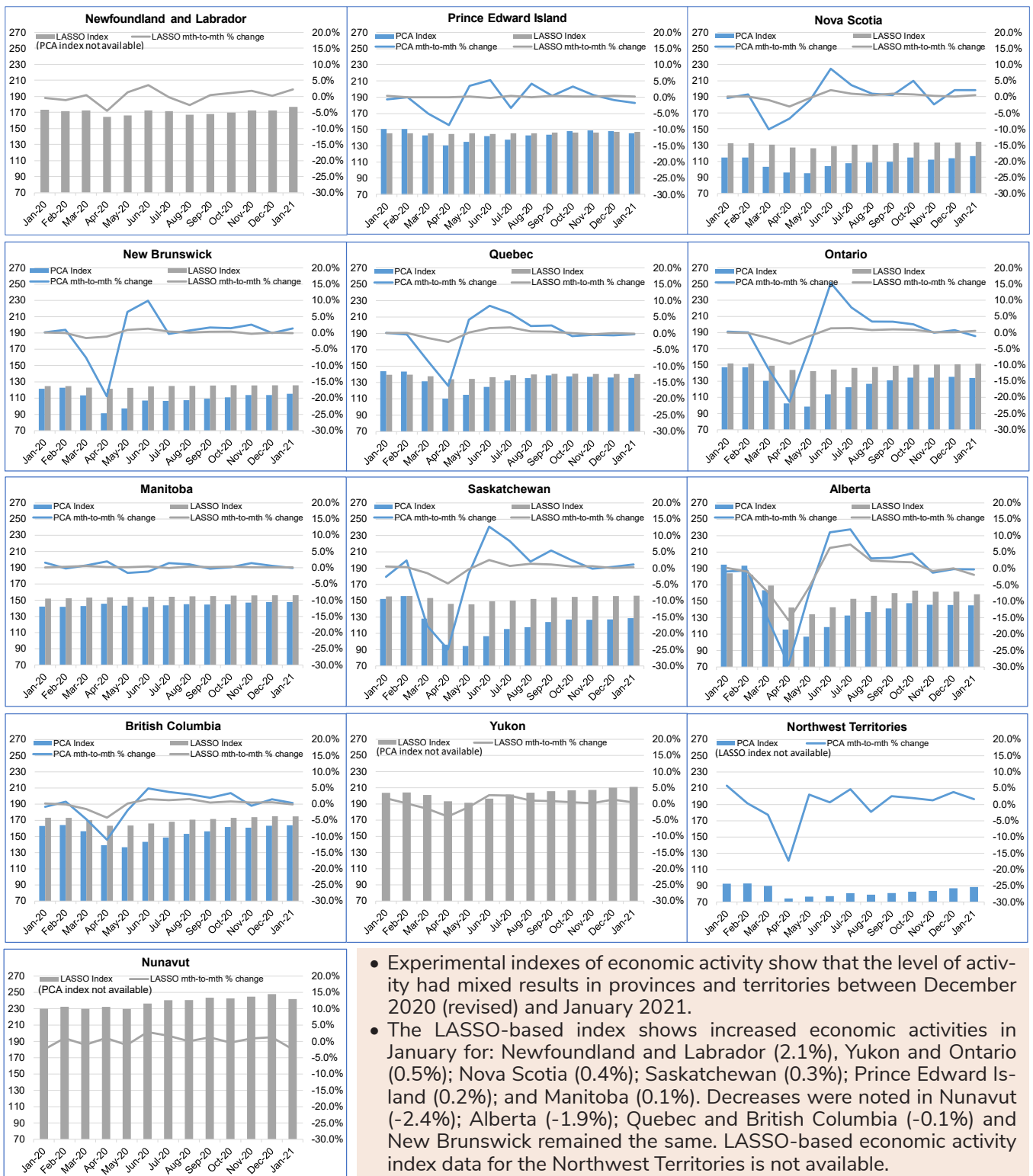
Year-over-year Changes in Economic Activity Indexes, Provinces and Territories, Jan 2019 to Jan 2020 Compared to Respective Month Jan 2020 to Jan 2021

Note: The PCA-based indexes generally show larger changes than the LASSO-based indexes because they include a larger set of input series in their construction and therefore, capture more variability. PCA-based indexes are currently unavailable for Newfoundland and Labrador, Yukon and Nunavut.

- The PCA-based experimental index shows that most provinces and territories (where data was available) have experienced decreased economic activity in months from March 2020 to January of 2021 (revised) compared to the respective month in 2019 and 2020 (revised), except for Manitoba. Comparing January 2021 to that of January 2020 (revised), Nova Scotia, Manitoba and British Columbia saw an increase in economic activity at 2.0%, 3.9%, and 0.6%, respectively. Alberta had the largest decrease (-25.5%) year-over-year in January 2021.
- The LASSO-based experimental index (revised), however, shows year-over-year increases in economic activity in each month from March 2020 through January 2021 for Prince Edward Island, Manitoba and Nunavut; decreases in Alberta; and mixed results for other jurisdictions including Yukon.



Economic Activity Indexes (January 2002 = 100) and *Month-over-month* Changes, Provinces and Territories, January 2020 to January 2021



- Experimental indexes of economic activity show that the level of activity had mixed results in provinces and territories between December 2020 (revised) and January 2021.
- The LASSO-based index shows increased economic activities in January for: Newfoundland and Labrador (2.1%), Yukon and Ontario (0.5%); Nova Scotia (0.4%); Saskatchewan (0.3%); Prince Edward Island (0.2%); and Manitoba (0.1%). Decreases were noted in Nunavut (-2.4%); Alberta (-1.9%); Quebec and British Columbia (-0.1%) and New Brunswick remained the same. LASSO-based economic activity index data for the Northwest Territories is not available.

May 2021

