

The Outlook



CIPH & HRAI Quarterly Economic Review

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The Outlook



Pandemic Effects on Immigration to Canada

Canada's population growth, which is driven by migration, is an important driver of housing, workspace needs and construction investment.

Pandemic 2020 Impact on Immigration

In 2020, Canada experienced a significant drop in immigration because of the international border closures and travel restrictions the federal government implemented as part of its COVID-19 containment measures, rolled out after the onset of the pandemic. Beginning in 2015, the federal government increased Canada's immigration targets for permanent residents (PRs) from a range of 260,000-285,000 to a range of 280,000-305,000 new PRs per year. Leading into the pandemic, Canada consistently exceeded those targets. Canada welcomed

321,100 permanent residents in 2018, 341,200 PRs in 2019, and was tracking notably higher in January and February 2020 when compared to the same period in 2019.

After lockdown measures and other restrictions were put in place, beginning in March

"Canada can expect to welcome a significant increase in new PRs over the next two years."

2020, new permanent residents to Canada tracked around half of 2019 levels on a monthly basis through to December 2020. All told, new Canadian permanent residents were some 59% lower during March to August 2020 and 50% lower from September to December compared to the same periods in 2019. As a result, for the year 2020 as a whole,

Canada welcomed only 184,600 of its target of 341,000 PRs.

Canada's pandemic management has become more resilient with the approval of COVID vaccines and improved medical care of COVID patients, the federal government increased Canada's immigration targets for PRs beginning in 2021. To make up for the 2020 shortfall of immigrants, Canada set new targets of 401,000 new permanent residents for this year, 411,000 for 2022 and 421,000 for 2023. These targets may very well be exceeded in keeping with pre-pandemic immigration trends. The recent re-election of the Liberal party nationally, will have reduced any uncertainty around the new targets and their rationale. Canada can expect to welcome a significant increase in new PRs over the next two years.

Important Trends

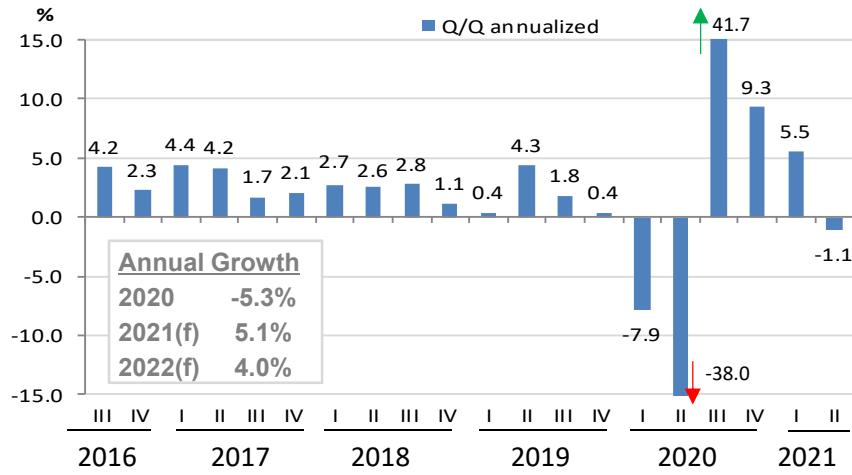
Indicator	Direction	Implication
Residential Permits (3 period moving average, SA)	Decreasing	Residential permits decreased in Q2 2021, suggesting a softening of starts in the coming quarters.
Non Residential Permits (3 period moving average, SA)	Increasing	Non-residential permits increased in Q2 2021, the third quarterly increase over the last four quarters.
Housing Resales (Quarterly Total, SA)	Decreasing	Housing resales decreased in the second quarter of 2021, but remained above the 10-year average.
Energy Prices (Y/Y %change, end of quarter values)	Increasing	Energy prices increased in the second quarter when compared with Q1 2021 and are 7% higher than a year earlier.
Housing Starts (SA)	Decreasing	Housing starts were lower in the second quarter of 2021. They are expected to be higher in 2021 in comparison to 2020.

Immigration is Back Strongly in 2021

Canada's January to July 2021 immigration data point to a resurgence of permanent residents in Canada. Though new PRs started the year strong, exceeding levels in January and February of 2019, PRs to Canada weaken during the March to May COVID third wave. Nevertheless, new PRs remained higher than the same period in 2020 despite dipping below 2019 levels. Since May, Canada's new PRs have surpassed 2019 levels. We expect this trend to continue as international border restrictions have been further relaxed in September this year.

Other important components of immigration to Canada are temporary foreign workers who enter Canada under two work

GDP Recovering in 2021 After Unprecedented Plunge in 2020



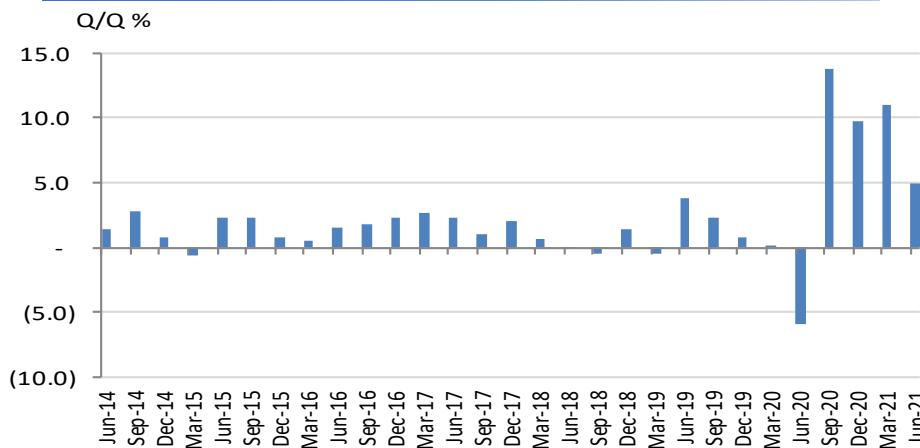
permit programs – the Temporary Foreign Worker Program (TFWP) and the International Mobility Program (IMP), and students who are authorized with study permits. Temporary immigrants of all classes can be thought of as an important pool of immigrants

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Economic Context

Canada's economy declined by an annualized rate of 1.1% in Q2 following solid Q1 growth. However, the economy remains remarkably resilient in the face of the pandemic's third and fourth waves and targeted shutdowns. Weakness in Q2 could be attributed to lower residential investment and a decline in exports in energy, agricultural products, motor vehicles and aircrafts. The leading indicator remains positive, pointing to sustained growth, although the Delta variant continues to pose downside risks. The 2021 GDP growth forecast has been downgraded slightly to 5.1%. Economic activity is not expected to return fully to pre-pandemic levels before 2022. Real GDP declined by a record 5.3% in 2020.

Leading Indicator Increases



Housing Starts

- Following three consecutive quarterly increases, housing starts decreased by 8% from the previous record-breaking quarter to 280,000 units in the second quarter of 2021. Both apartment and single-family starts decreased.
- In 2021, housing starts are forecasted to increase across nine provinces, to total of 246,450 units.

Resales

- Q2 2021 resales cooled off after three strong quarters of growth beginning in July 2020. The number of homes sold in Q2 2021 decreased by 14% when compared with the previous quarter.
- Average prices decreased by 0.5% across Canada in Q2 2021, which may lead to a stronger quarter of sales in Q3 2021.

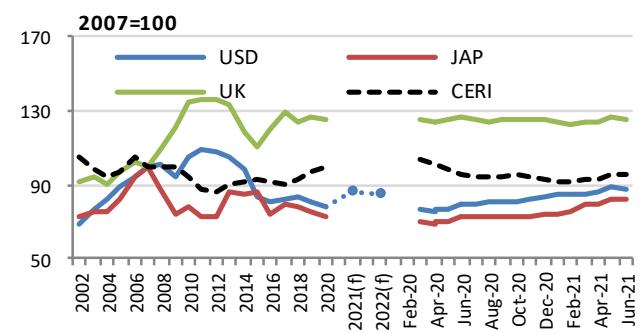
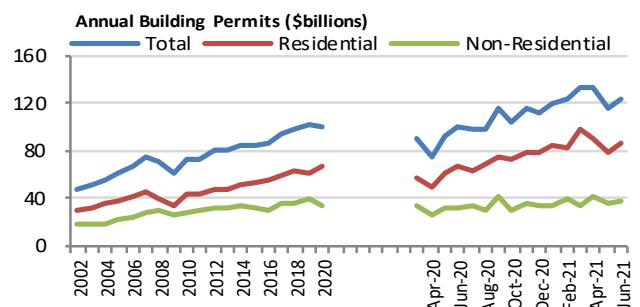
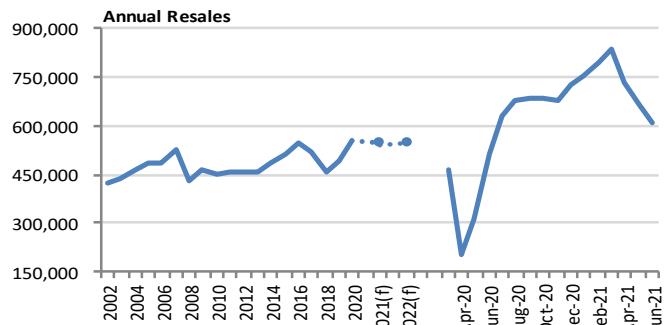
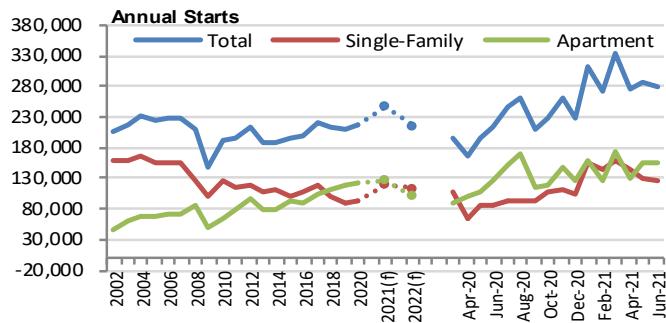
Permits

- In Q2 2021, \$31 billion worth of building permits were issued, down 2% compared with Q1 2021.
- Builders and municipalities are still catching up with the backlog in building permit applications and issuances since the interruptions from the closures of planning departments.
- The issuance of building permits and their construction values are expected to remain elevated this year.

Exchange Rates

- The Canadian dollar finished the second quarter of 2021 at \$0.82/USD, a 2.9% increase compared to the end of the first quarter.
- The Canadian dollar also appreciated against the Japanese Yen, the British pound sterling, the NZ dollar, the Australian dollar and the European Euro. It depreciated against the Mexican peso (all currencies of Canada's six largest trading partners).

Economic Overview



Engineering Investment

- Total investment in engineering increased by 5.3% in Q2 2021 to \$116 billion on an annualized basis.
- The Q2 2021 business investment was 3.3% higher than the same period in 2020, consistent with growth in infrastructure spending, and Canada's oil and gas sector.

Non-Residential Spending

- As a result of lower commercial investment, in Q2 2021 (real) non-res investment was \$43.7 billion (SAAR), down 2.4% compared with Q1 2021.
- The COVID construction shutdowns resulted in lower non-res investment in 2020 than 2019, but expect non-res spending to increase in the latter half of 2021 once more projects are green lighted.

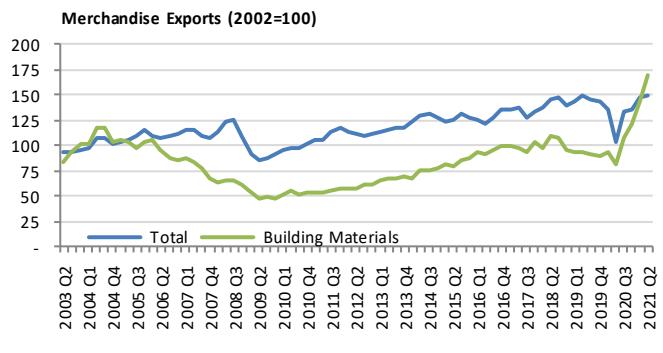
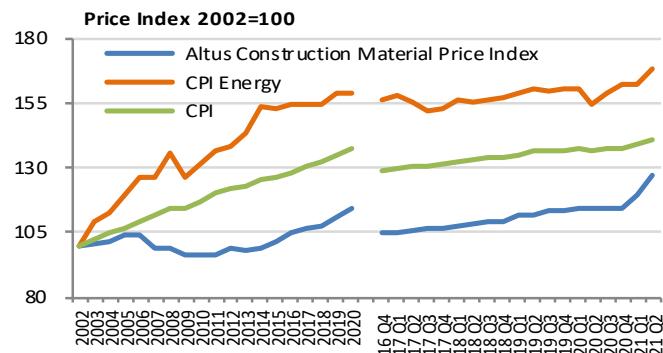
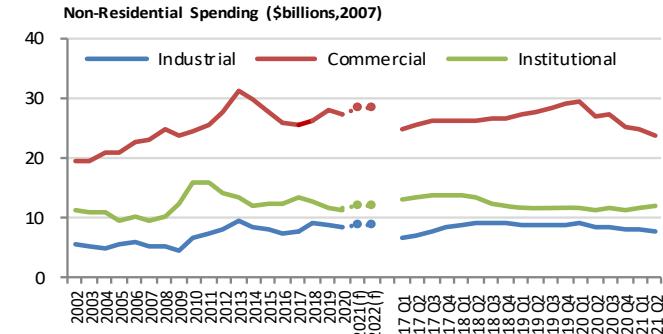
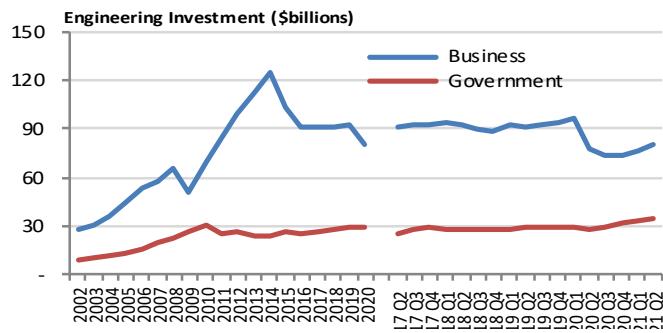
Price Index

- The Altus Construction Material Price Index was higher year-over-year in the second quarter of 2021, higher than the rate of inflation. The increase in prices continue to be driven by higher lumber prices.
- Energy prices increased in Q2 2021 (Y/Y), the third consecutive quarterly increase. The overall increase in energy prices was driven by higher natural gas and fuel prices.

Exports

- Exports of building materials increased by 18% in Q2 2021 compared to the previous quarter. Total merchandise exports increased by 1% in Q2 2021.
- Building material exports were up 106% year-over-year in Q2 2021, reflecting the continued resilience of construction throughout the pandemic.
- Despite a noticeable decline in total merchandise exports in 2020, building materials exports increased by 9%, on account of strong growth of residential construction in the United States that contributed to soaring lumber prices.

Economic Overview



HVAC, Hydronics & Waterworks

- Following a strong first quarter, HVAC sales increased by 44% year-over-year in Q2 2021, as ventilation upgrades to help contain the spread of the virus provided a boost to sales.
- Hydronics sales increased by 26% year-over-year in the second quarter of 2021, while waterworks sales increased by 60% year-over-year.

Plumbing & Pipe, Valves, Fittings

- The recessionary effects that pushed plumbing equipment, and pipes, valves and fittings sales lower in 2020, appear to have ended in 2021 with YTD sales up 23% and 17%, respectively.
- Strong housing sales and starts in 2021 will likely provide a lift in sales going forward as industry-wide lag effects take hold.

Total Sales

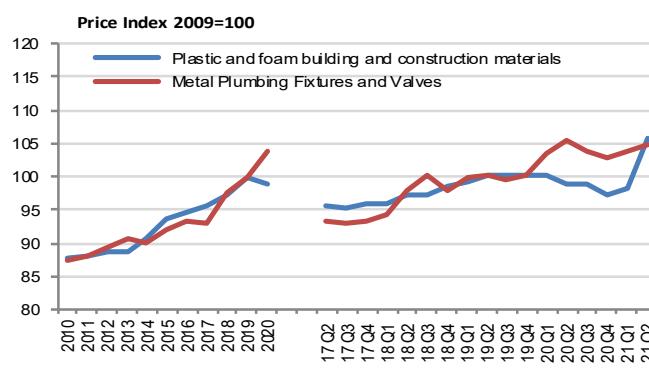
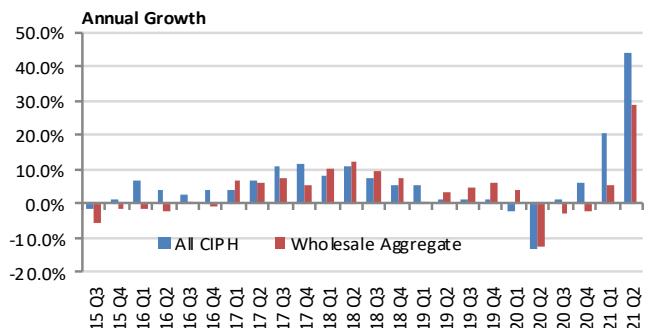
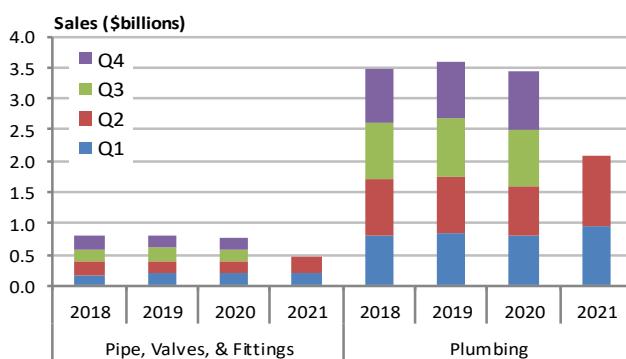
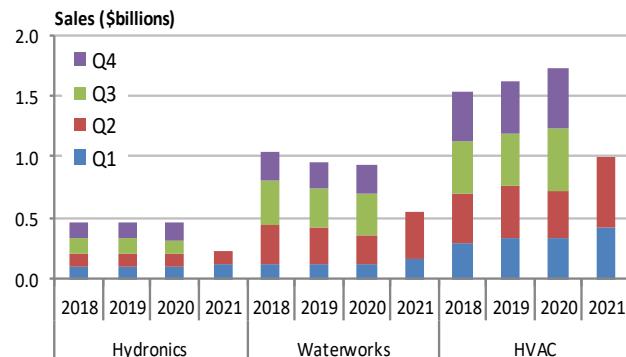
- Combining all of the above sales into an aggregate, sales of CIPH members increased in Q2 2021, marking the fourth consecutive quarterly increase, following decreases in sales in the first half of 2020 in the midst of the COVID recession.
- At \$2.4 billion in Q2 2021, sales were 44% higher than Q2 2020 and for the fifth time since Q1 2019 outperformed aggregate wholesaler sales, which increased by 29% to \$10.0 billion in Q2.

Prices

- Prices for metal plumbing fixtures and valves decreased by 0.4% year-over-year in the second quarter of 2021, lower than the rate of inflation.
- Prices for plastic and foam building and construction materials (overall category of plastic plumbing fixtures) increased by 6.9% in the second quarter year-over-year, higher than the rate of inflation.

Source: CIPH, Statistics Canada

Industry Sales (CIPH)



Residential A/C & Furnace

- 157,061 residential air conditioning units and 70,748 residential furnaces were shipped in Q2 2021, up 39% and 55% year-over-year respectively.
- The unprecedented surge in home resales and renovation spending since Q3 2020 contributed to higher sales of a/c units and residential furnaces.

Chiller and Air Handler Units

- There were 414 air handler units shipped in Q2 2021, down 42% year-over-year. 2020 sales exceeded the 5-year average, a commendable result given the impact of the recession.
- The number of chillers shipped increased by 42%, an increase of 65 units sold compared with the same period in 2020.

Commercial A/C, Unit Heater & Ductless Split System Units

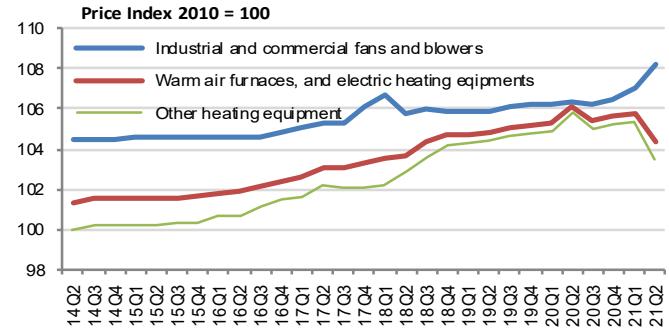
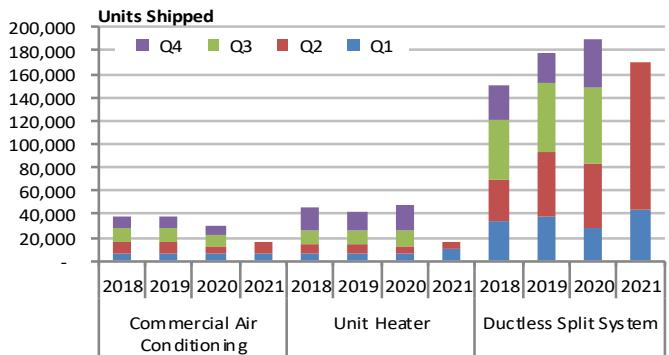
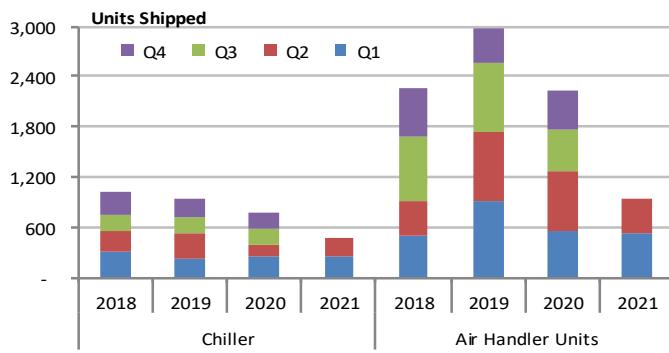
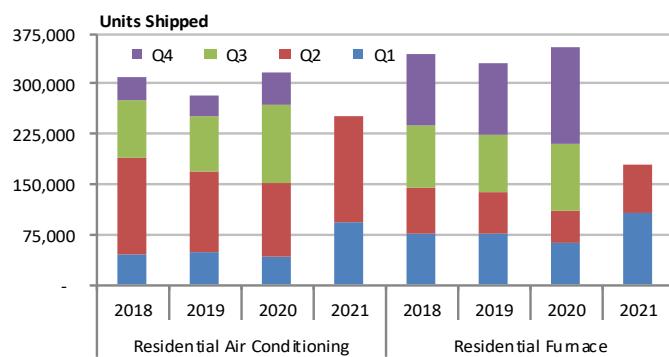
- Commercial air conditioning units shipped in the second quarter of 2021 increased to 8,512 units, up 45% compared with Q2 2020.
- Sales of ductless split systems increased by 130% in the second quarter of 2021, above the 5-year average. Sales of ductless split systems were up 7% in 2020 when compared with 2019.
- Unit heater shipments totaled 6,451 in the second quarter of 2021, up 9% year-over-year.

Prices

- Prices of industrial and commercial fans and blowers were up 1.8% in Q2 2021 year-over-year.
- Warm air furnaces and electrical heating equipment prices decreased by 1.7% and other heating equipment prices decreased by 2.2%, year-over-year.

Source: HRAI, Statistics Canada

Industry Shipments (HRAI)



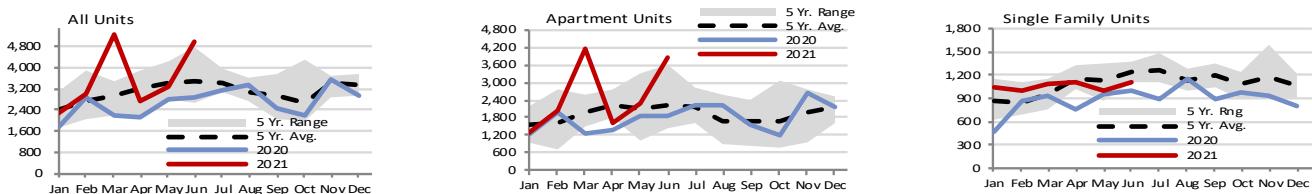
Regional Insights

British Columbia

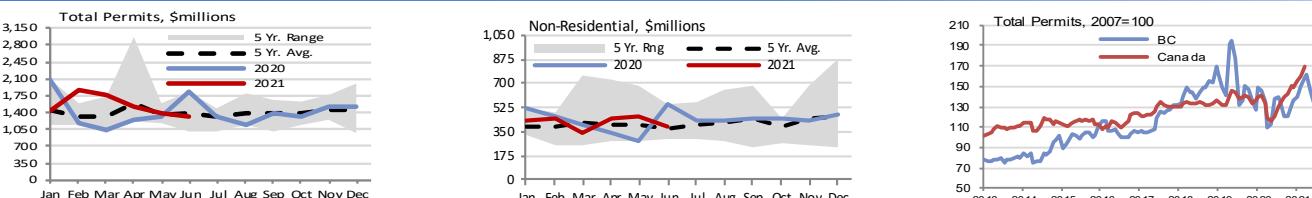
B.C.'s economic recovery from the COVID recession continues to outperform Canada and is forecast to grow by 5.5% in 2021 and 4.0% in 2022. The B.C. economy has been more resilient to subsequent waves of COVID infections and lockdowns as the healthcare system became more effective at treating patients, and commerce better adapted to the new business environment. The professional, scientific and technical services sector has seen considerable growth. Robust residential investment has driven the construction sector while high lumber prices were a boon for the manufacturing sector.

By August, B.C.'s employment stood 1% higher than pre-pandemic levels, having increased by 438,900 net new jobs, recovering all the jobs lost during the economic downturn. Year-to-date August, growth in hours worked was strongest in Canada and labour force participation had returned to pre-pandemic levels. Going forward, as house building slows and lumber prices normalize, the construction sector is expected to be buoyed by non-res construction investment, which should receive a boost from the government's significant capital spending and large projects like LNG Canada despite continued risk in the tourism sector. The prolonged pandemic will likely delay B.C.'s large tourism industry.

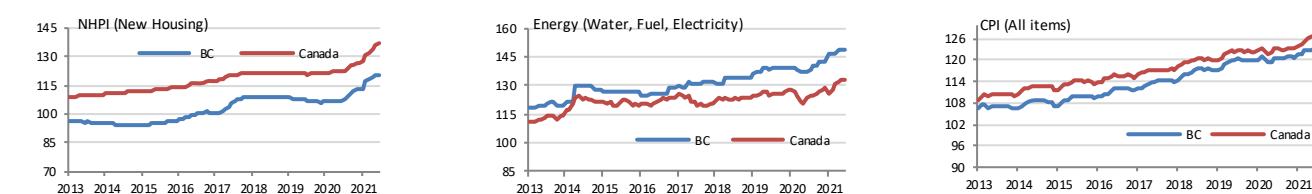
Housing Starts



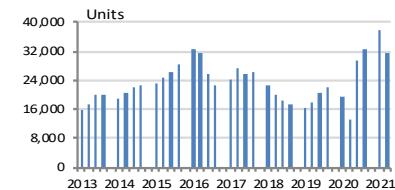
Building Permits



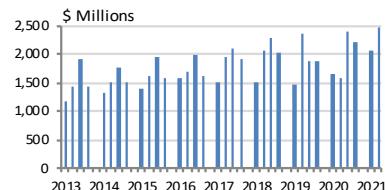
Prices, 2007=100



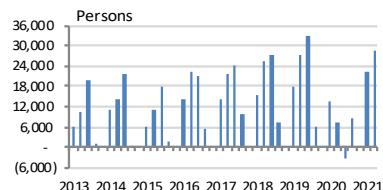
Existing Home Sales



Renovations



Net Migration

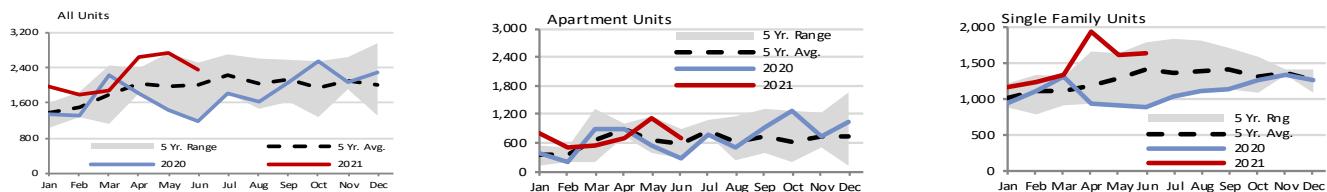


Regional Insights

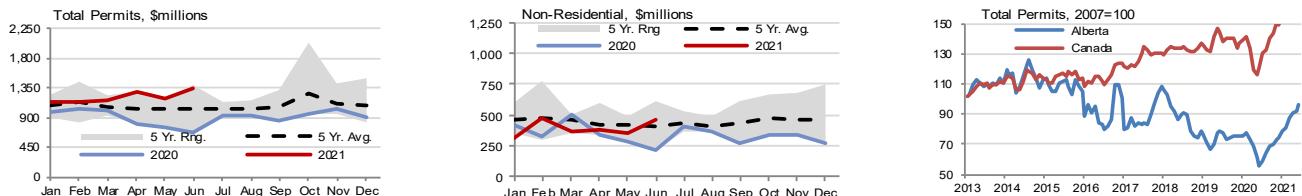
Despite improved economic conditions from a year ago, Alberta's 2021 economic growth forecast has been revised downward to 3.0%. Despite firm housing market activity this year and a strong recovery in the oil and gas sector, low levels of capital investment in the oil patch and an anticipated decrease in consumer and business confidence are expected to hold back growth. Alberta's fourth wave of COVID infections has been particularly bad, putting a strain on the healthcare system and resulting in the reintroduction of tough lockdown measures. These developments are expected to derail fourth quarter growth prospects.

By August 2021, Alberta's employment had increased by 321,100 net new jobs, recovering 95% of the jobs lost during last year's economic downturn. Growing strength in the oil and gas sector, rising employment, a more supportive policy environment and an expectation of mounting resilience in the face of the pandemic should see Alberta posting economic growth of 4.0% in 2022.

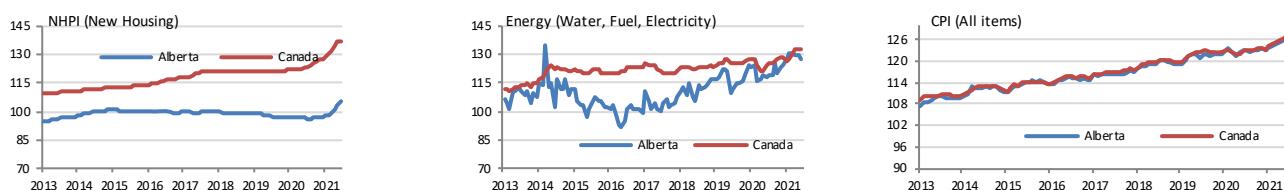
Housing Starts



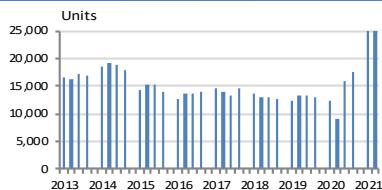
Building Permits



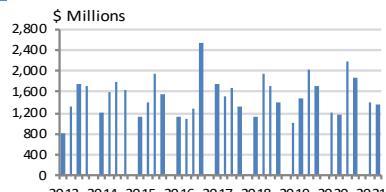
Prices, 2007=100



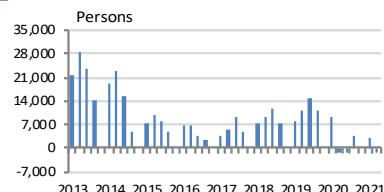
Existing Home Sales



Renovations



Net Migration



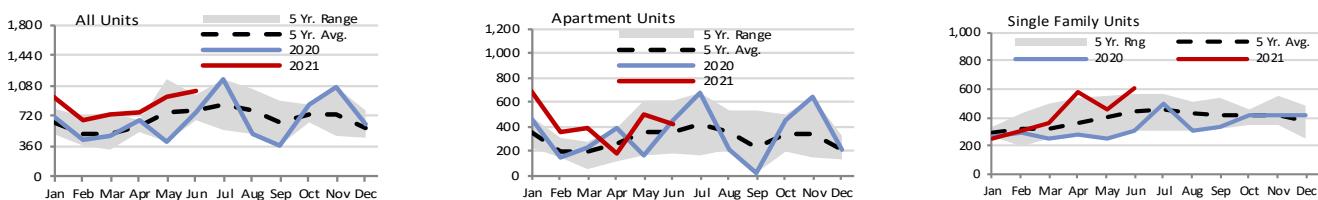
Regional Insights

Manitoba/Saskatchewan

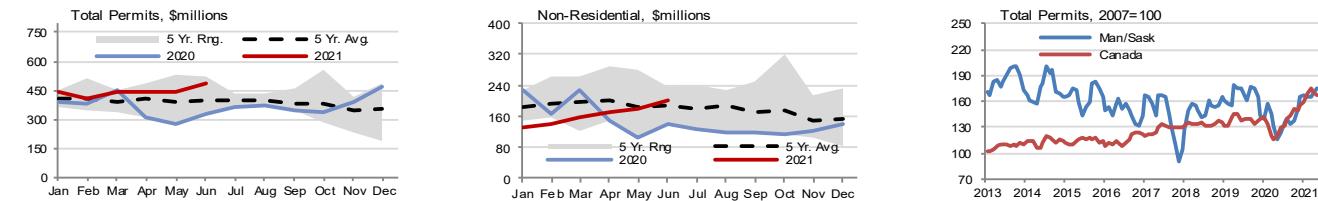
The economy is forecast to grow by 4.2% in Manitoba and 4.6% in Saskatchewan this year. An increase in commodity prices and production (grain, potash, oil and uranium) have propelled Saskatchewan's economic recovery, which began during the summer last year. The manufacturing and wholesale and retail sectors have performed well in Manitoba, reaching pre-pandemic levels earlier this year. By August, employment had increased by 79,500 jobs in Manitoba and 61,900 jobs in Saskatchewan, representing about 88% and 86% respectively of the jobs lost during the downturn.

Manitoba and Saskatchewan are both poised to enter the fourth quarter with elevated COVID related hospitalizations and tougher containment measures. This will likely dampen economic activity. However, high-touch industries are likely to recover in 2022, paving the way for solid economic activity. It is expected that growth will continue to be supported by high commodity prices, manufacturing, robust government spending, consumer spending and improved interprovincial and international trade. Economic growth in 2022 is forecast at 4.0% in Manitoba and 4.6% in Saskatchewan.

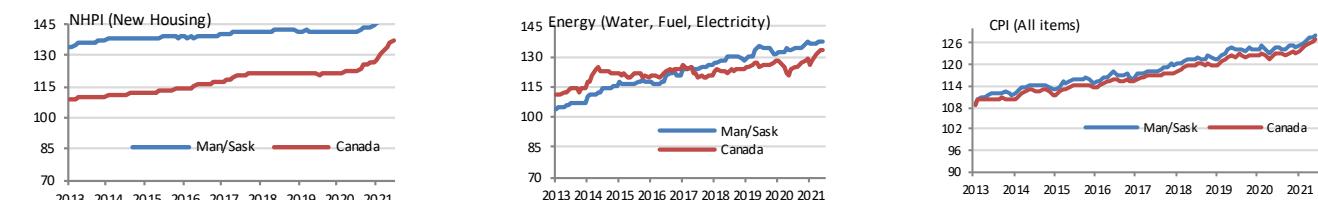
Housing Starts



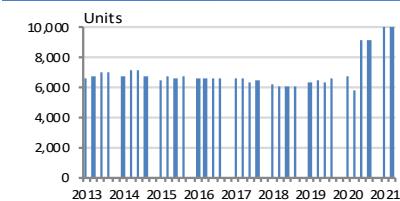
Building Permits



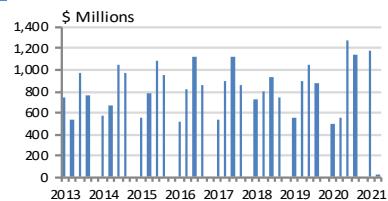
Prices, 2007=100



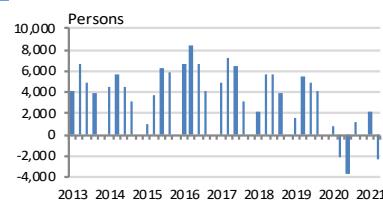
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Renovations



Net Migration



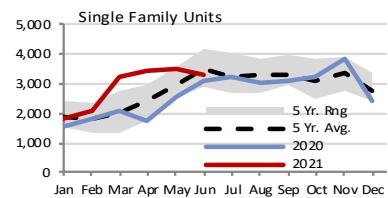
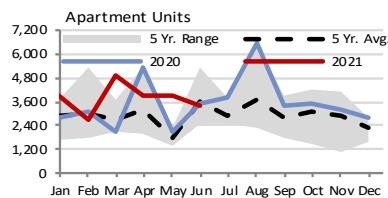
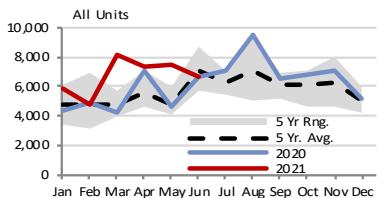
Ontario

Regional Insights

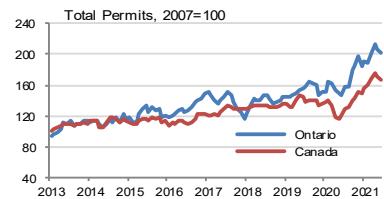
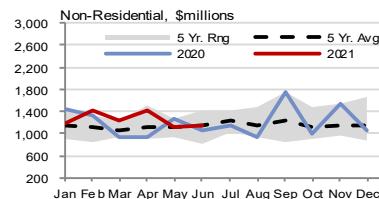
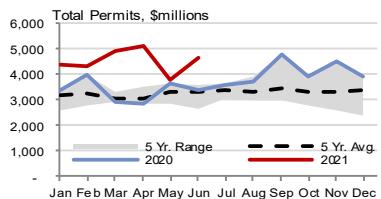
Ontario's economy declined by 5.2% in 2020 due to economic disruptions brought on by the COVID-19 public health crisis. Ontario's economy is forecast to grow by 6.0% in 2021 and 4.2% in 2022. Though most of the COVID restrictions on economic activity were lifted this year after an almost six-month lockdown, Ontario has paused its re-opening plan due to the persistence of the Delta variant. Despite some of the strictest COVID containment measures in the world, the remarkable digitization and automation that occurred in the economy over the past 18 months have fueled growth in the professional, scientific and technical services (PSTS) sector while fostering resilience in other sectors.

By August 2021, Ontario's employment had increased by more than one million net new jobs, recovering 94% of the jobs lost since the pandemic began. It is expected that government spending, consumer spending and growth in the construction, finance, insurance and real estate, manufacturing and PSTS sectors will sustain growth in 2022. However, a further increase in COVID infections during the fall and winter, together with a prolonged microchip shortage may dampen growth.

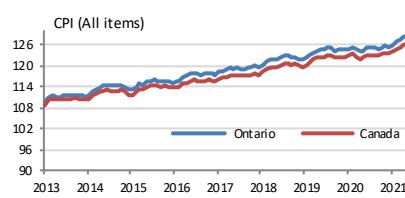
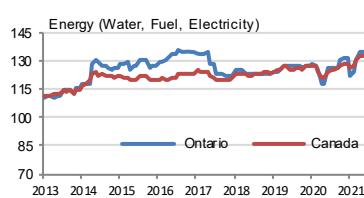
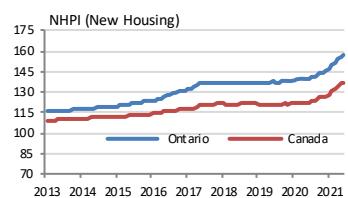
Housing Starts



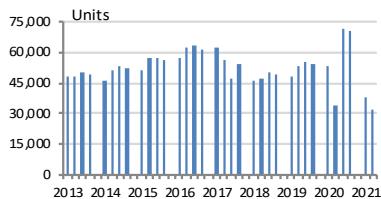
Building Permits



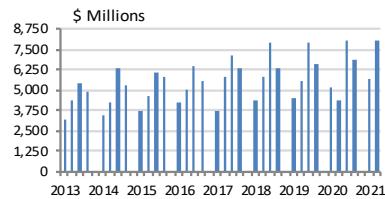
Prices, 2007=100



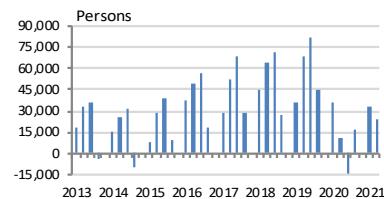
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Net Migration



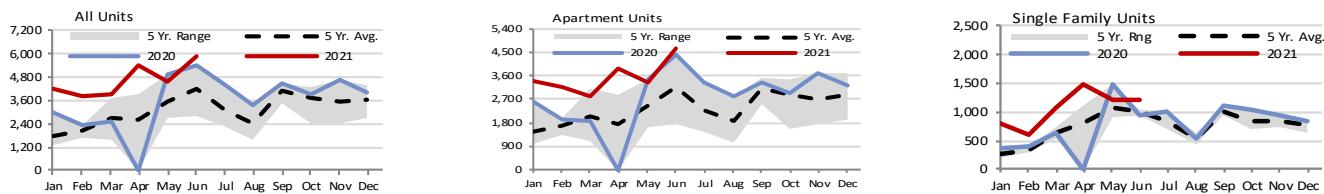
Quebec

Regional Insights

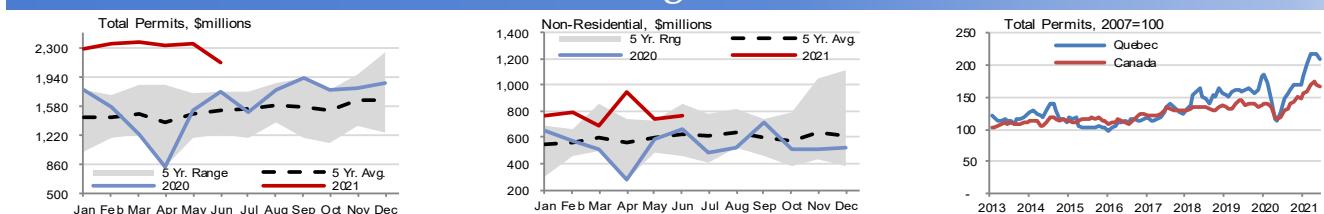
Quebec's economy declined by 5.4% in 2020 due to economic disruptions brought on by the COVID-19 public health crisis. Despite being the province hardest hit by COVID-19 and having to implement some of the toughest lockdown measures during the pandemic, Quebec's household spending has anchored economic growth. Household consumption is close to pre-pandemic levels and the housing market has been quite strong. The latter has made the construction sector a growth leader so far this year. By August, Quebec's employment had increased by 760,700 net new jobs, recovering 92% of the jobs lost during the pandemic.

Quebec's economy is forecast to grow by 5.5% in 2021 and 3.8% in 2022. Growth is expected to continue to be underpinned by robust consumer spending, government spending, and strong construction activity, though not as robust in 2022 as this year. Large-scale engineering projects are also expected to continue to support economic growth.

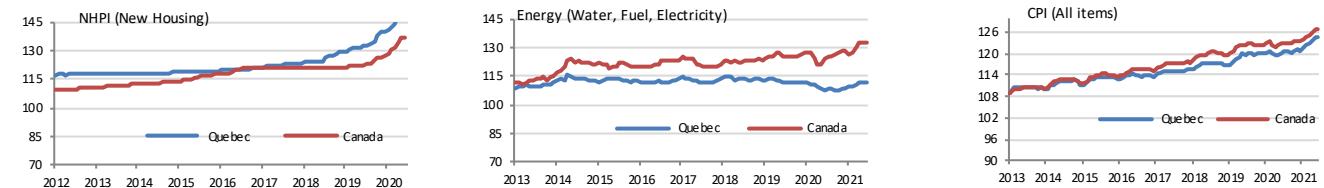
Housing Starts



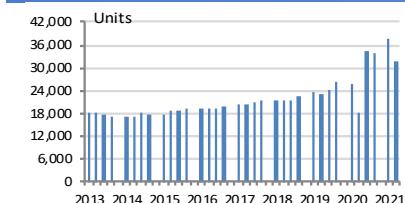
Building Permits



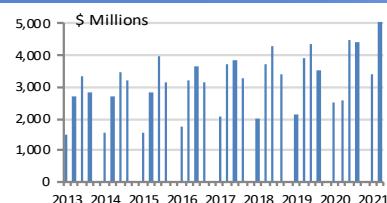
Prices, 2007=100



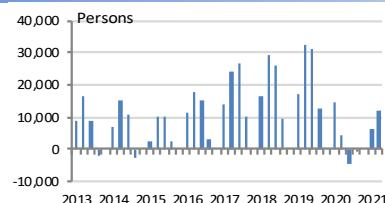
Existing Home Sales



Renovations



Net Migration



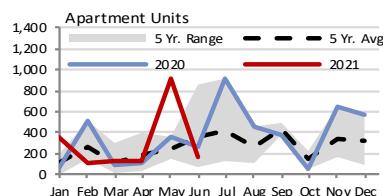
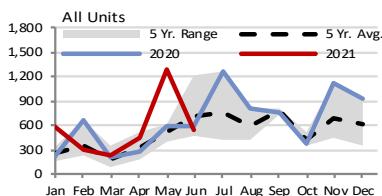
Regional Insights

Atlantic Provinces

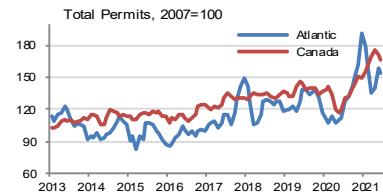
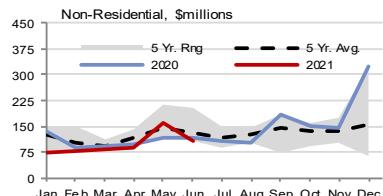
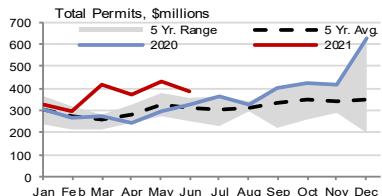
As the region least affected by COVID-19, Atlantic Canada's economy declined by just 4.0% in 2020 – marking the least severe economic downturn in Canada. Despite setbacks brought on by the second, third and fourth waves of COVID restrictions and lockdown measures, robust consumer spending, strong demand for forestry products, and an increase in construction, finance, insurance, and real estate, and manufacturing output have supported the region's economic recovery. Shipbuilding in Nova Scotia, an increase in oil production in Newfoundland & Labrador, together with an increase in government capital spending have also provided a boost to economic growth. By August, Atlantic Canada's employment had increased by 154,400 net new jobs, recovering 90% of the jobs lost during the pandemic.

Atlantic Canada's economy is forecast to grow by 3.8% in 2021 and 2.8% in 2022. Growth will likely be underpinned by the economic drivers mentioned above. In particular, capital spending, federal shipbuilding, an increase in oil and natural gas output and the redevelopment of Halifax's QEII Health Sciences Centre are also expected to support near-term growth.

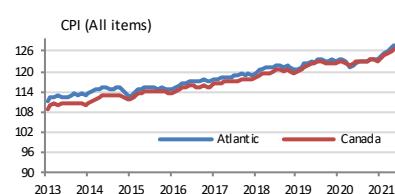
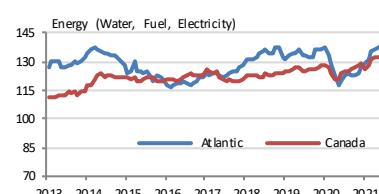
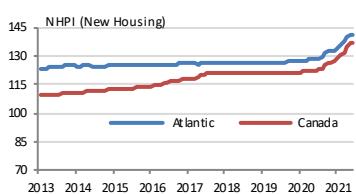
Housing Starts



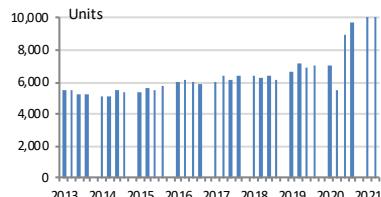
Building Permits



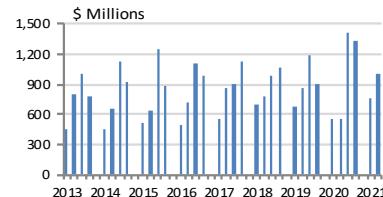
Prices, 2007=100



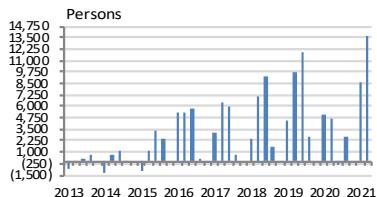
Existing Home Sales



Renovations



Net Migration



Continues from Page 2...

from which many future permanent residents originate. Whereas Canadian foreign students were similarly impacted by the pandemic as permanent residents, temporary foreign workers to Canada did not decline as significantly as permanent residents and students during 2020.

While TFWs into Canada under the TFWP program declined by 13% in 2020, those admitted through the IMP program increased by 24% in 2020, and both of these groups have increased so far in 2021.

Canada's need for additional pandemic essential workers in sectors ranging from health care to manufacturing to construction to agriculture contributed to this result as the government prioritized entry of TFWs.

Students entering Canada on study permits declined by 34% in 2020 as Canada's Colleges and Universities shifted to remote models of learning and thousands of foreign students returned or remain home. So far this year these various categories of temporary immigrants to Canada have been trending higher than 2020, in many cases even exceeding 2019 levels.

Conclusion

Immigration to Canada is well on its way to reaching or exceeding federal immigration targets over the next three years. The flow of new immigrants to Canada and strong immigration can be expected to support Canada's economic recovery, and reduce the potential longer-term negative effects on the housing market stemming from the drop off in 2020.

Definitions

Altus Construction Materials Price Index – A price index of construction materials. Components are weighted to reflect the percentage of total material cost.

Annualized – Periodic trends (monthly or quarterly) expressed as if they continued for a full year.

CERI – (Canadian Dollar Effective Exchange Rate Index) a trade-weighted average of bilateral exchange rates for the Canadian dollar against the currencies of Canada's six largest trading partners. An increase in the index represents an appreciation of the Canadian dollar.

Consensus Forecast – The average forecast of major Canadian financial institutions that have updated their forecasts within the last 40 days. The consensus forecasts for currency are end of period.

CPI – (Consumer Price Index) The cost of a fixed basket of goods in Canada, measured in a constant quality and quantity, re-indexed to 2007.

Engineering Investment – Includes all capitalized costs: legal fees, engineering and architectural fees, capitalized interest and work completed for the business by its own employees. It includes items such as bridges, roads, highways, waterworks, sewage systems, airports, seaways, power line construction, oil well drilling, mine development, dams, street lighting, railway tracks and pipelines. The data is expressed in current dollars.

Exchange Rate – Exchange rates are expressed in terms of foreign currency relative to the average exchange rate in 2007. An increase in the index represents an appreciation of the Canadian dollar vis-à-vis that currency.

FIRM – (Financial Industry Research Monitor) An on-going, quarterly survey of 12,000 Canadian households per year undertaken by Altus Group in conjunction with Ipsos-Reid. Topics range from personal finance, to renovation intentions.

Intentions – Surveyed investment intentions for both public and private entities. The survey is conducted in November of each year by Statistics Canada and is subject to the market outlook at that time.

Leading Indicator – A composition of several data series that are correlated with future construction spending; including: residential and non-residential building permits, housing starts, existing home sales, employment, NHPI, and the money supply.

Money Supply – (M2 Gross) Currency outside of banks and chartered bank demand, notice, and personal term deposits.

Definitions

Net Migration – Includes both international and interprovincial net migration.

NHPI – (New Housing Price Index) The price of constant quality, newly constructed, single-detached homes built by general contractors, indexed to 2007.

Non-Residential Spending – The spending value for enterprises and governments for industrial, commercial and institutional buildings. The data is expressed in 2007 constant dollars.

Plastic Piping – Polyethylene plastic pipes and tubes (excluding flexible)

Realnet – A subsidiary of Altus Group, Realnet is a leading real estate information services company. Realnet tracks new home sales, and land transactions in several markets across the country

Renovations – Includes additions, alterations, conversions, and new installation or replacement of built-in appliances and equipment.

Single Family – Includes single-detached, semi-detached, and townhouse units.

(SA) – (Seasonally Adjusted) Data is adjusted to remove variations attributable to the time of year. This allows for better comparison of periodic changes

SAAR – (Seasonally Adjusted Annual Rate) – Seasonally adjusted data expressed as an annual total.

Q/Q – The change in a variable from one quarter to the next.

Wholesale Aggregate – Sales by wholesalers of electrical, plumbing, heating and air-conditioning equipment and supplies

About Us

HRAI

HRAI is a national association that represents more than 1,400 heating, ventilation, air conditioning and refrigeration (HVACR) manufacturers, wholesalers and contractors, who provide the products and services for indoor comfort and essential refrigeration processes.

HRAI offers leadership and training programs for the advancement of its members' business and technical excellence, promotes a code of ethics for consumer protection and safety, and provides consumers with useful information and a database of members in good standing to support an informed buying process. Through its membership requirements and consumer feedback processes, HRAI is committed to a safe, responsible and fair industry that is environmentally-responsible and sustainable.

CIPH

The Canadian Institute of Plumbing & Heating is a not-for-profit trade association. Founded in 1933, the Institute is a vibrant organization committed to providing members with the tools for success in today's competitive environment. More than 250 companies are members of this influential Canadian industry association. They are the manufacturers, wholesaler distributors, master distributors, manufacturers' agents and allied companies who manufacture and distribute plumbing, hydronic heating, industrial waterworks and other mechanical products. CIPH wholesalers operate more than 700 warehouses and showrooms across Canada. Total industry sales exceed \$6 billion annually.

Altus Economics

Altus Group Economic Consulting has been providing both public and private sector clients with strategic advice on topics such as real estate market and forecasting analysis to expert witness testimony to building product and technology analysis since 1972.

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