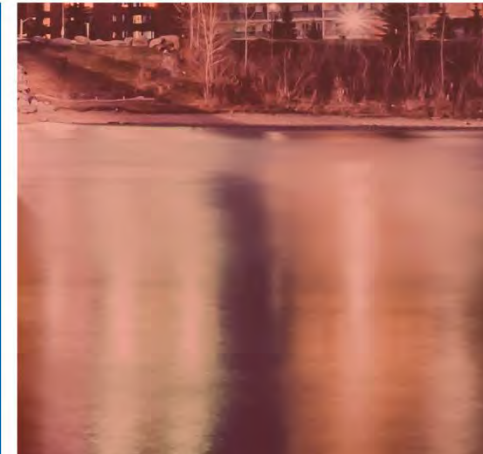




State of the Economy in Alberta

Transportation Connects Alberta
Consulting Engineers of Alberta



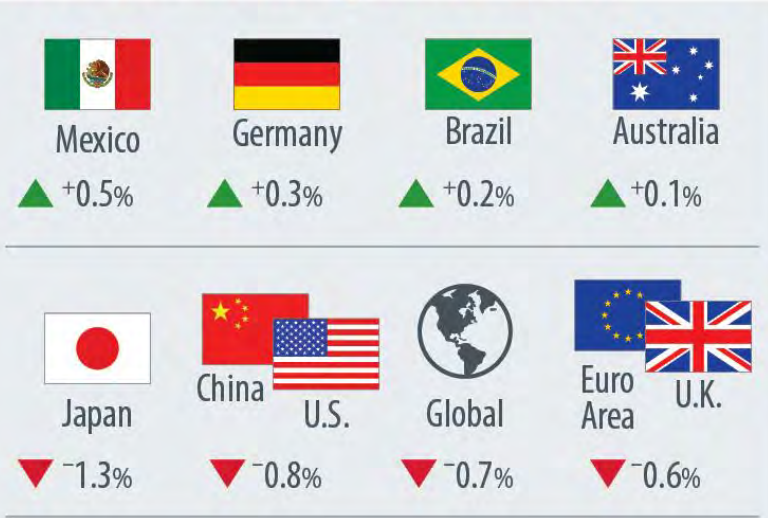
Agenda

- Fundamental Forces Shaping the Economy
 - Emerging Global Economic Forces
 - Key Government Actions Impacting the Economy
 - Consumer Market and Prosperity
 - Emerging Business Environment
- The Edmonton Context
- The Calgary Context



Emerging Global Economic Forces

Global Leading Indicators



While the latest global leading indicators point to a slowdown, there will be divergence in economic performance with winners and losers in countries across the world.

Source: Global Leading Indicators - The Conference Board Inc.

Expectations for Alberta in 2023

Although a Canada-specific measure is not available, the evidence across the eight categories that typically inform the index are mixed. Regional differences are expected.



Fall 2022 Economic Outlook



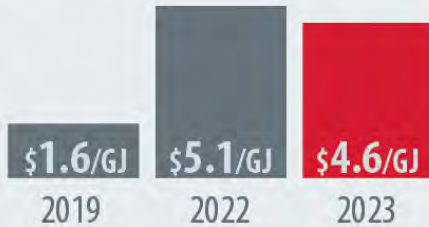
The primary takeaway is better economic performance in Calgary and other Alberta communities in 2023 as the Bank of Canada works to achieve a soft landing for the Canadian economy.



Emerging Global Economic Forces

Energy Prices

Natural Gas



Western Canadian Select



The Western Canadian Select **oil price** and the AECO-C **natural gas price** would decline slightly from decade-long highs but remain strong enough to attract capital investment.

Canada/U.S. Exchange Rate



US\$ for 1 C\$

2026	0.81
2023	0.77
2022	0.77
2019	0.75

After a period of significant fluctuation driven by global economic uncertainty, the **loonie** should return to relative stability with the U.S., as Canadian and U.S. monetary policies converge.

GDP Growth Comparison

In 2023, the **real GDP growth rate** for the regional economy would be relatively the same as the provincial economy but strong enough to stay ahead of the national, U.S. and world economies.



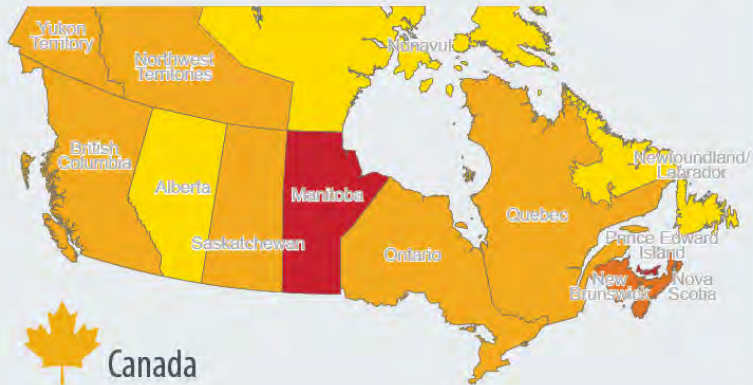


Policy Actions – Central Bank

Inflation Impact across Canada

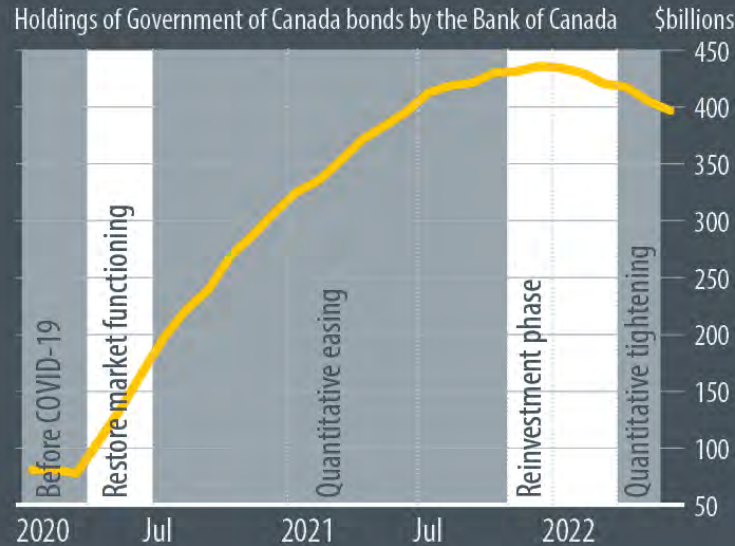
Despite the significantly high inflation level for Alberta in 2022, **inflation was even higher in most other provinces**. Widespread inflation has compelled the Bank of Canada's actions.

- up to 6.5%
- 6.6% to 7.0%
- 7.1% to 7.5%
- 7.6% and above



New Quantitative Tightening Phase

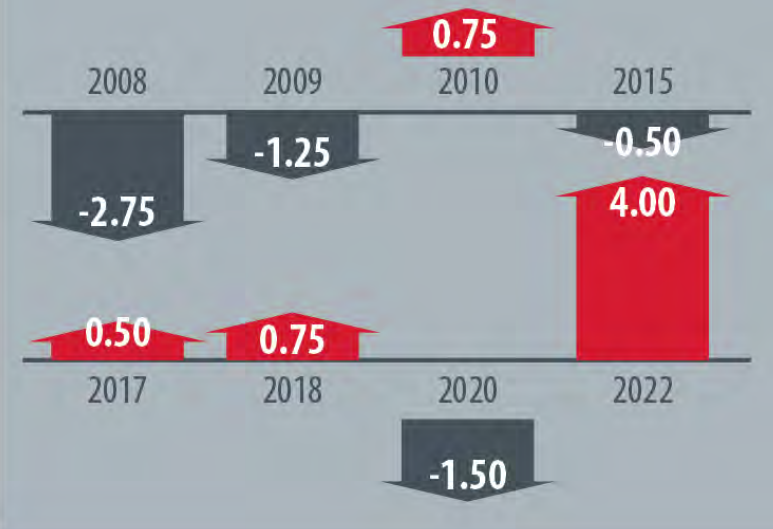
Quantitative tightening has replaced the easing that was in place from July 2020 to October 2021.



Significant Shift in Overnight Rate

Full Magnitude of Annual Change in Bank of Canada's Target Rate (percentage points)

- Quantitative Easing
- Quantitative Tightening

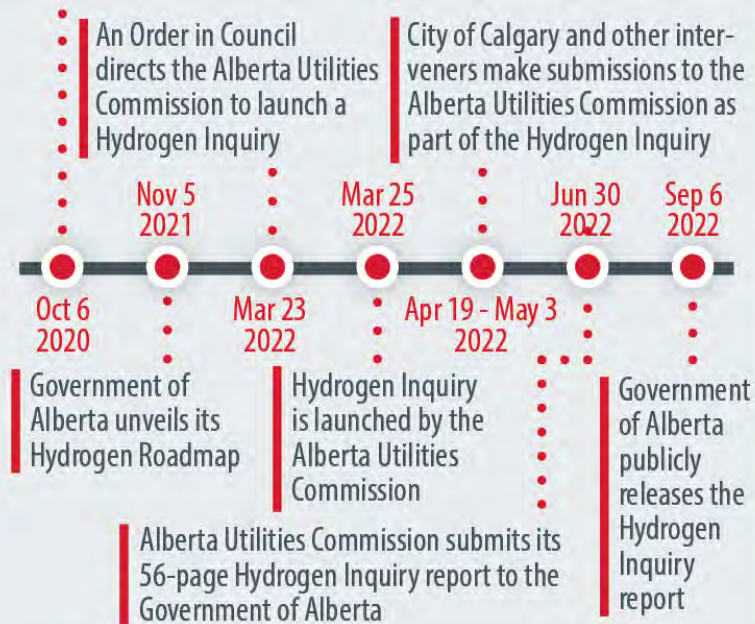




Policy Actions – Governments

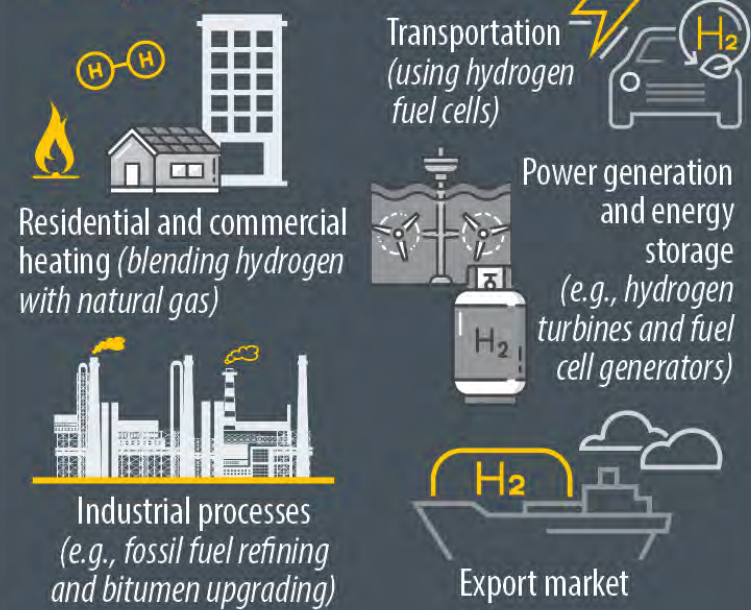
Key Milestones in Alberta

Government of Alberta announces Alberta's Natural Gas Vision and Strategy to "[lay] out a plan for Alberta to become a global supplier of clean, responsibly-sourced natural gas and related products."

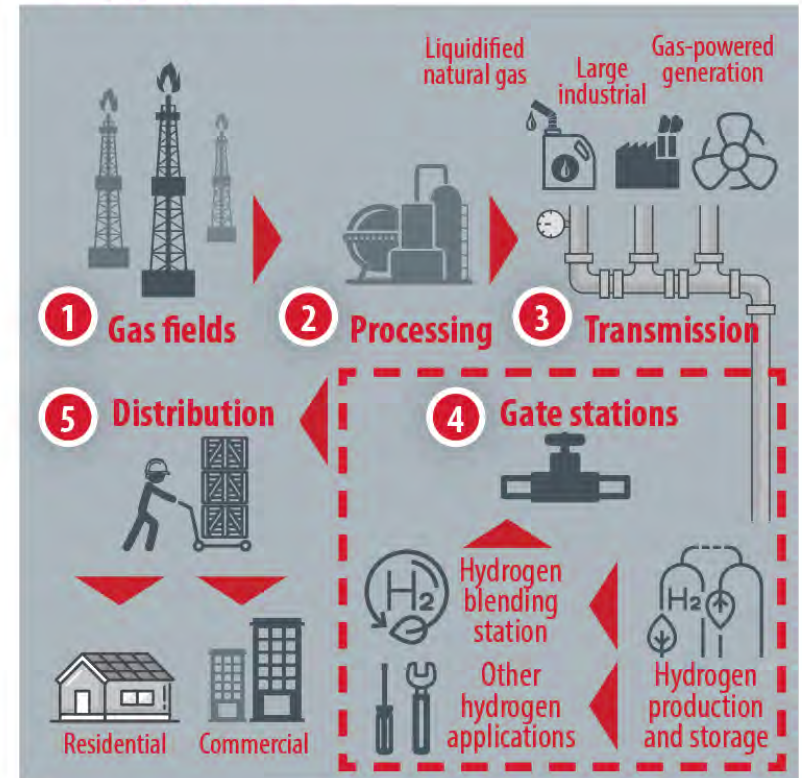


Market Opportunities for Hydrogen

The Government of Alberta has identified **five market opportunities for the growth of clean hydrogen** in Alberta.

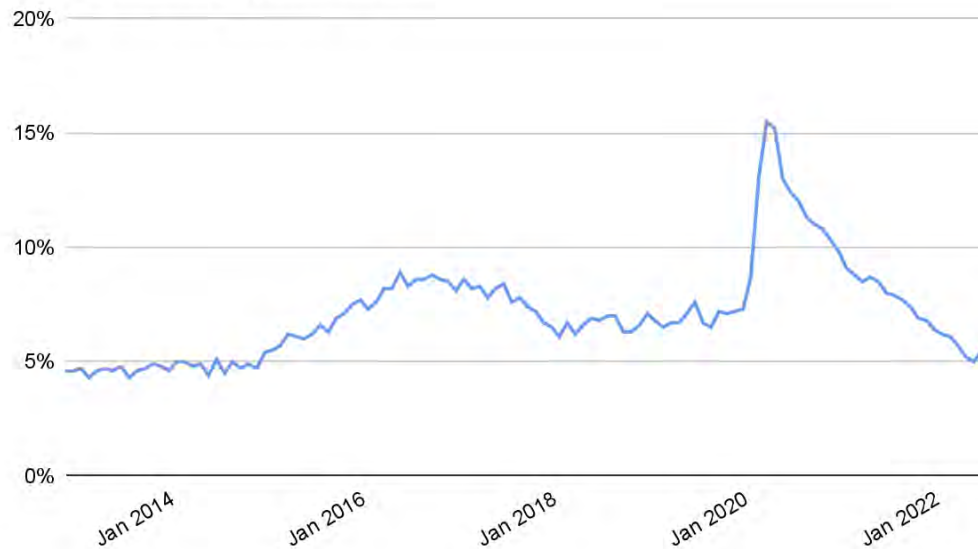


Natural Gas and Hydrogen Supply Chain



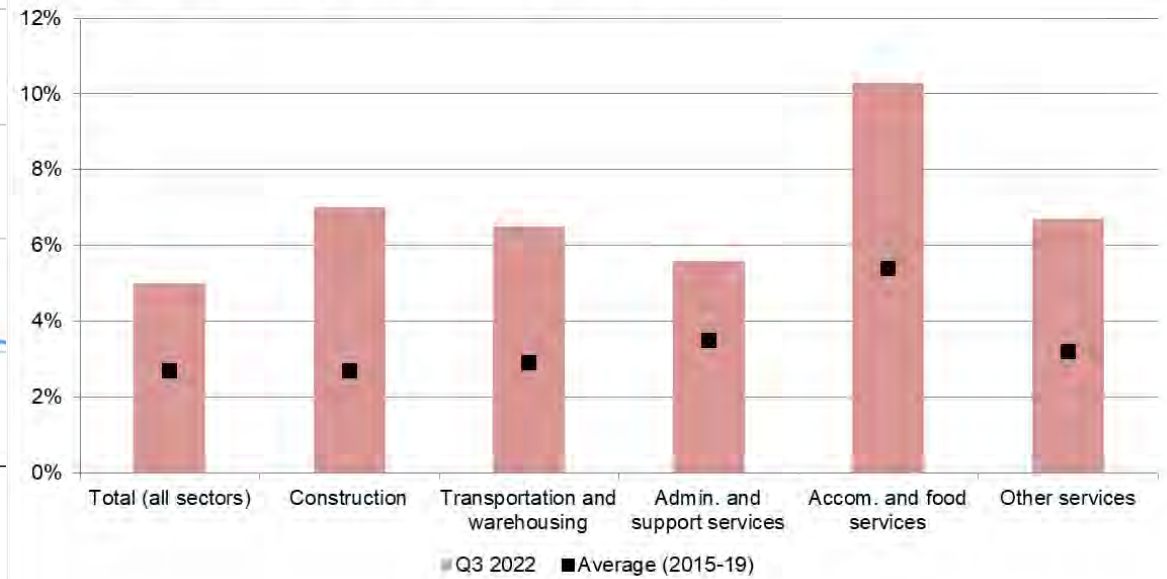
Opportunity for workers (within and outside of Alberta) from tight labour market conditions

Alberta Unemployment Rate



Source: Statistics Canada

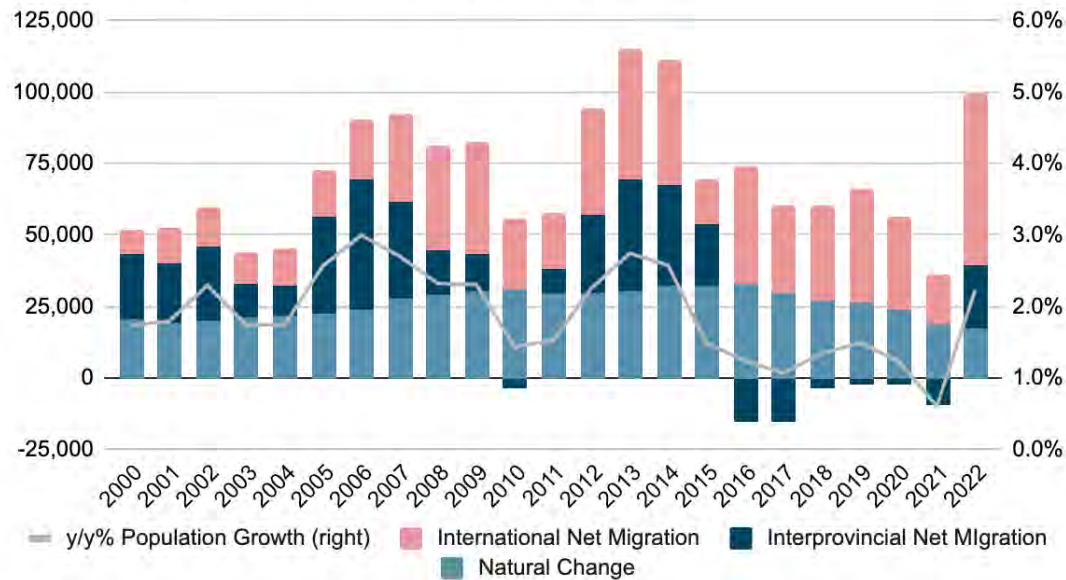
Alberta Job Vacancy Rate - Select Sectors



Source: Statistics Canada

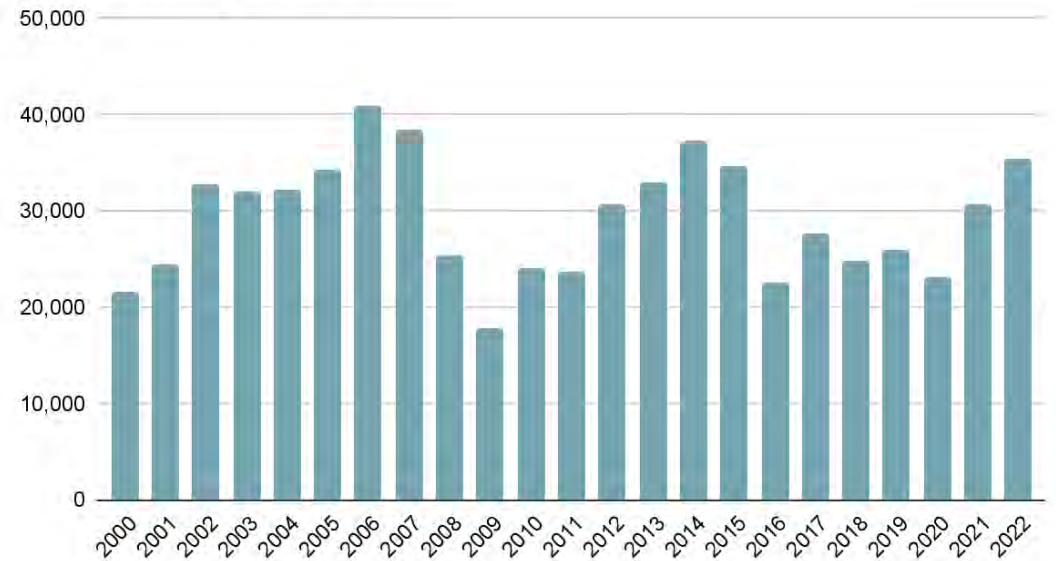
Population growth in recent quarters, particularly migration in-flows, is supporting housing demand

Alberta Components of Annual Population Change



Source: Statistics Canada

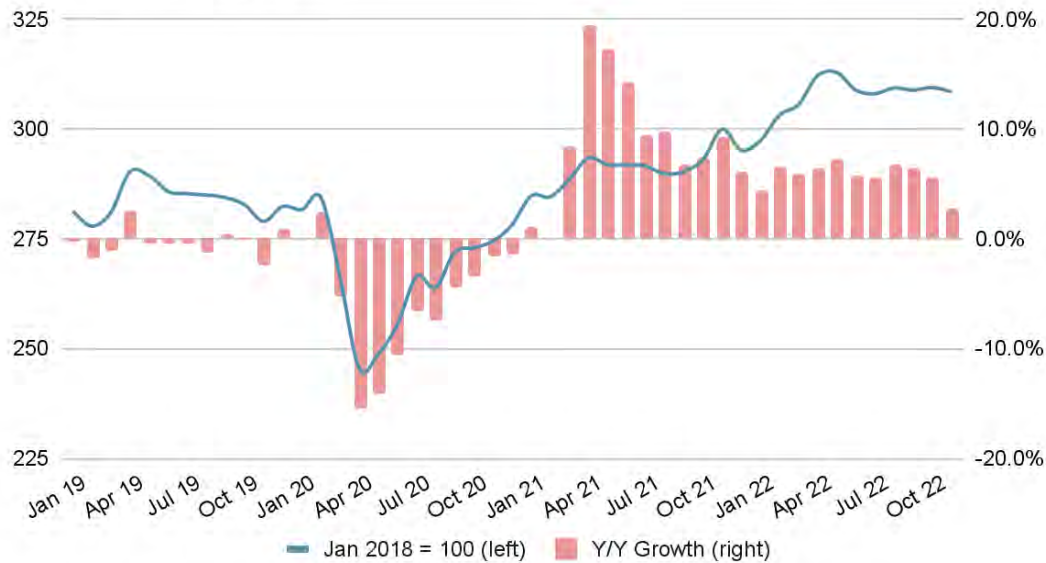
Alberta Housing Starts



Source: Canada Mortgage and Housing Corporation (CMHC)

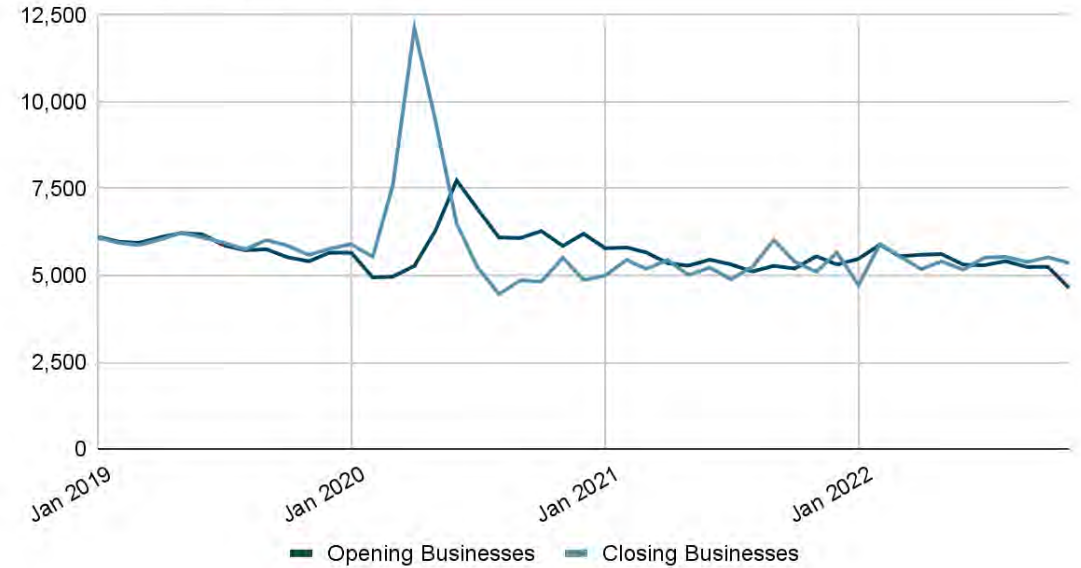
Growth in business output has been a key factor in Alberta's economic recovery from the pandemic

Alberta Activity Index



Source: Alberta Treasury Board and Finance

Alberta Business Estimates

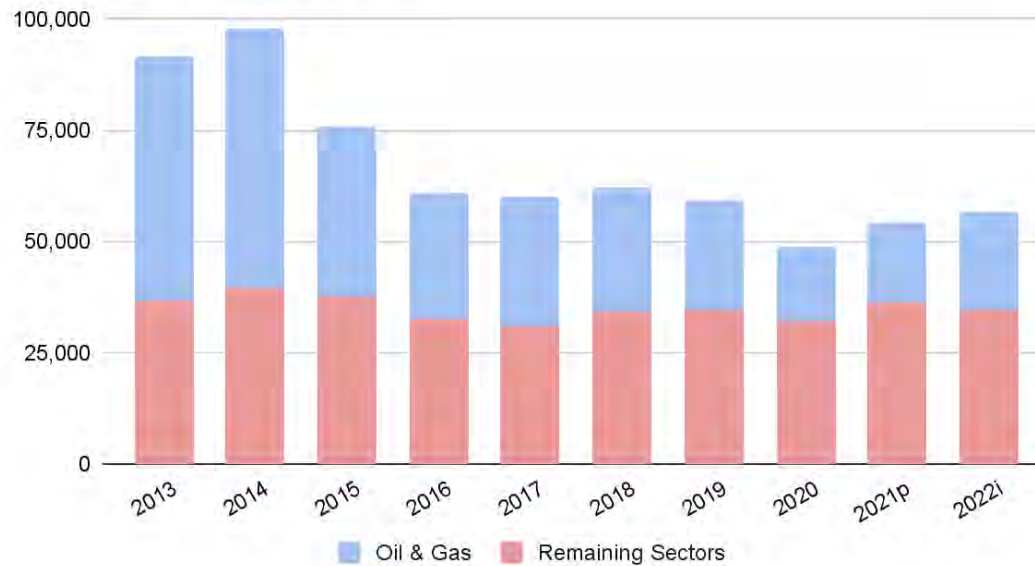


Source: Statistics Canada

Note: Excludes educational services and health care and social assistance

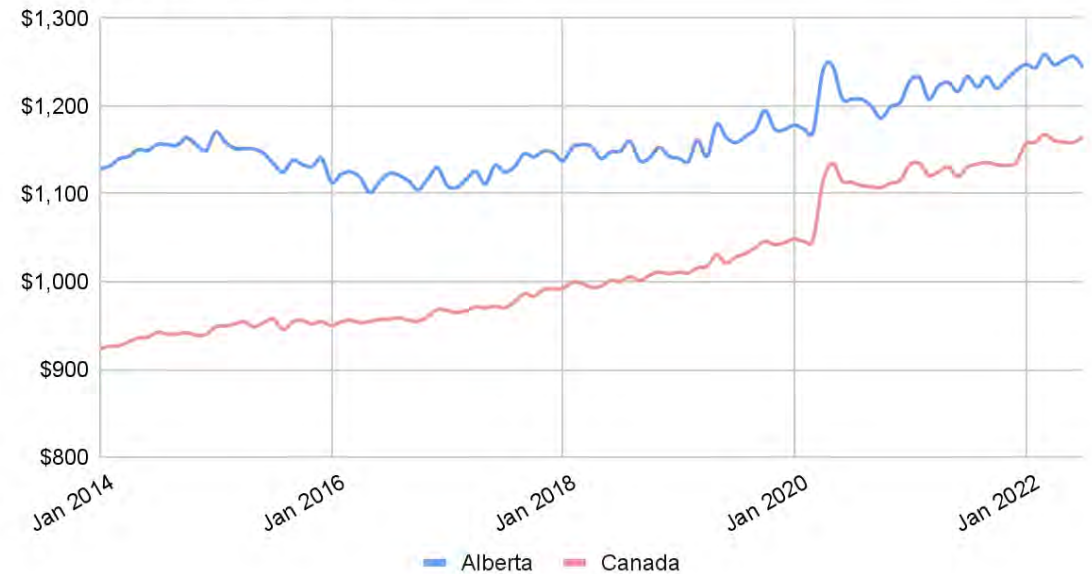
Recent policy decisions and a narrower earnings premium may improve business prospects moving forward

Alberta Capital Expenditures (\$M)



Source: Statistics Canada
 Note: "p" = preliminary; "i" = intention

Average Weekly Earnings (SA)



Source: Statistics Canada

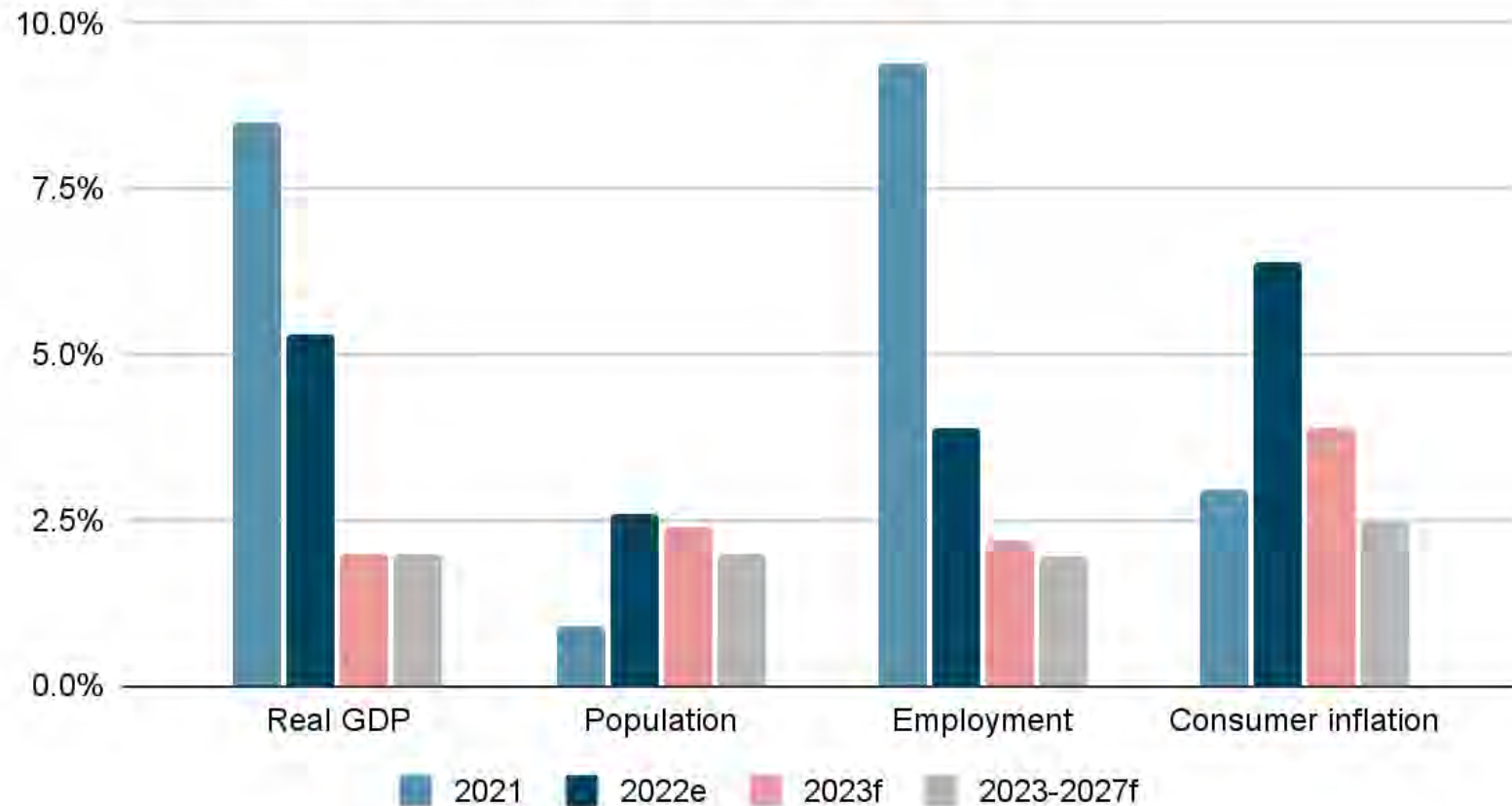
The Edmonton Context

The logo for the City of Edmonton, featuring the word "Edmonton" in white text on a blue square background.

Edmonton

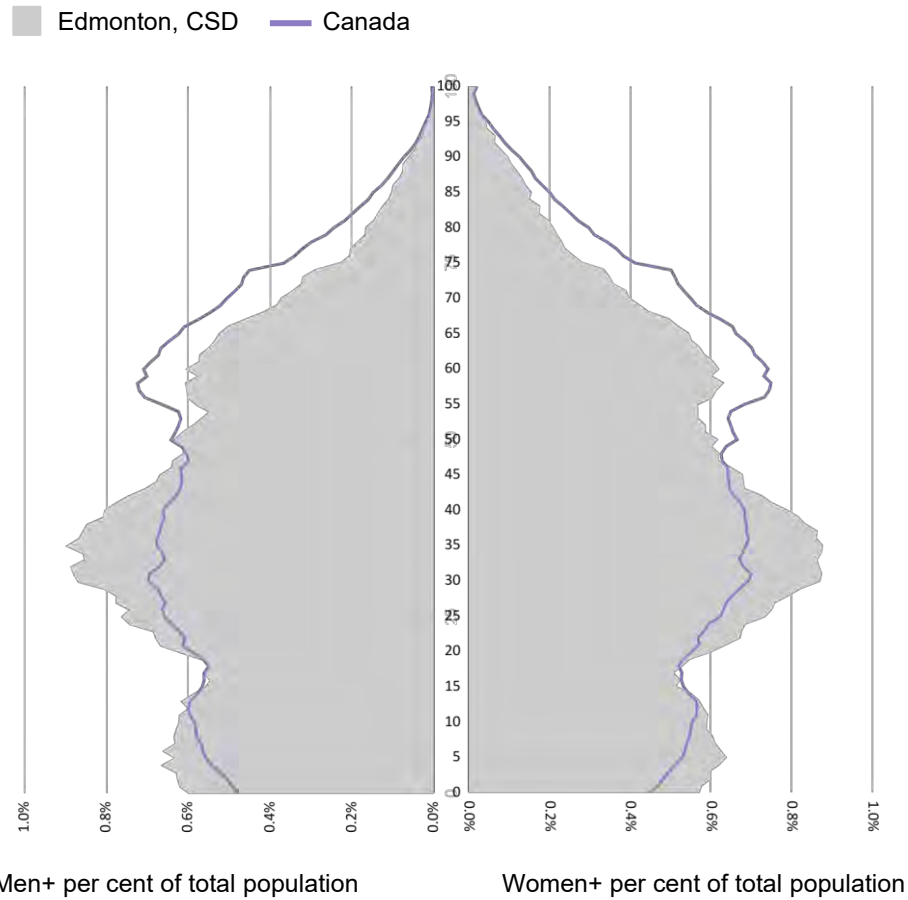
Beyond 2022, economic growth in Edmonton is expected to slow

Growth Forecast, Select Indicators - Edmonton



Sources: Alberta Treasury Board and Finance, City of Edmonton, and Stokes Economics
Note: "e" = estimate; "f" = forecast

Demand, including for housing, will be supported by Edmonton's age structure



Source: Statistics Canada

Number (proportion) - Age Total

2021

	Edmonton, CSD	Canada
Men+	503,035 ↑ (49.8%) ↓	18,226,240 ↑ (49.3%) ↑
Women+	507,860 ↑ (50.2%) ↓	18,765,740 ↑ (50.7%) ↓
Total	1,010,900 ↑	36,991,980 ↑

Median age (Average age)

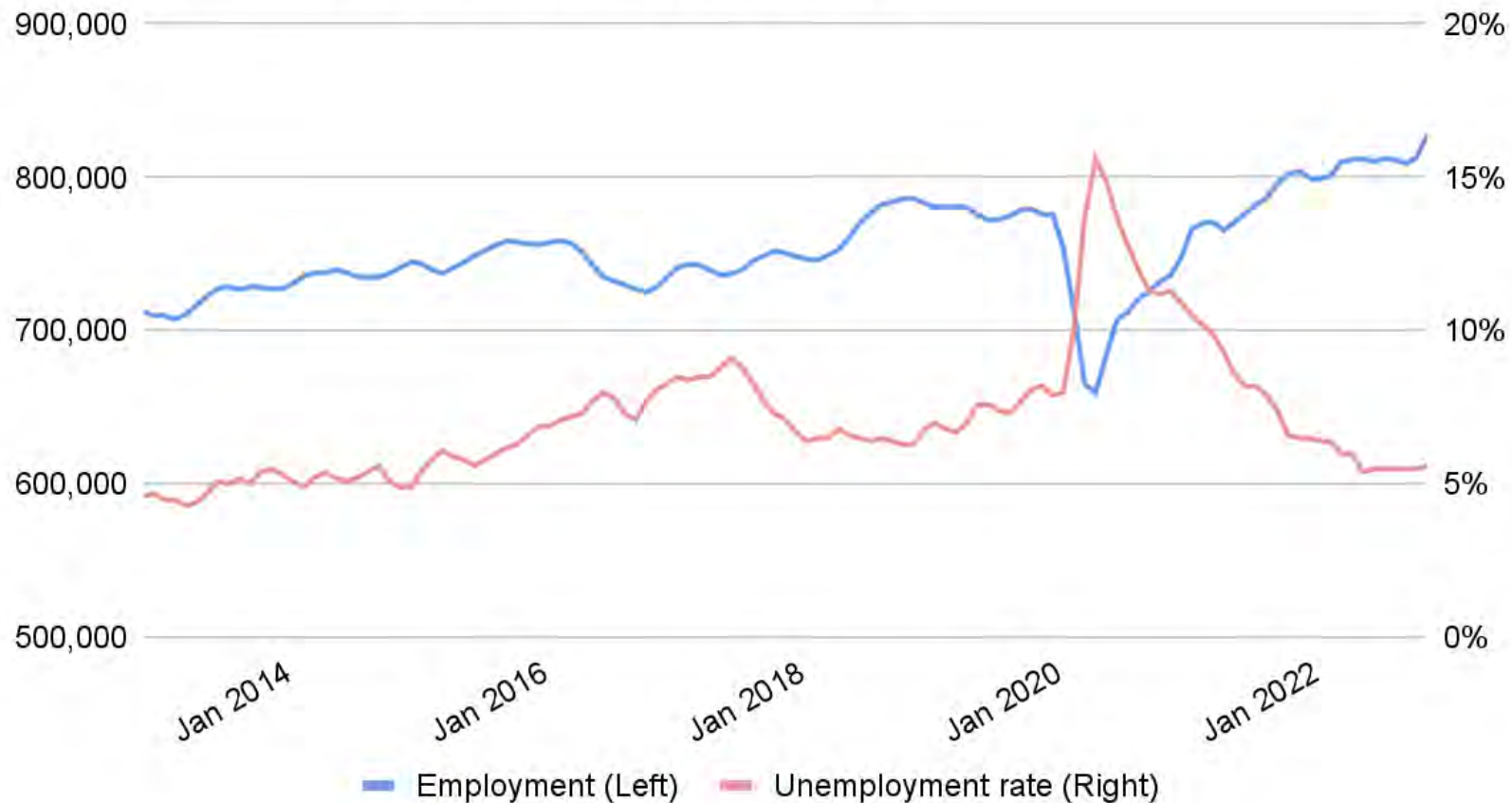
2021

	Edmonton, CSD	Canada
Men+	36.4 ↑ (37.6 ↑)	40.4 ↑ (41.0 ↑)
Women+	37.6 ↑ (39.1 ↑)	42.8 ↑ (42.8 ↑)
Total	36.8 ↑ (38.4 ↑)	41.6 ↑ (41.9 ↑)

↑/↓ indicates change from 2016

The regional labour market has performed well over the last two years...

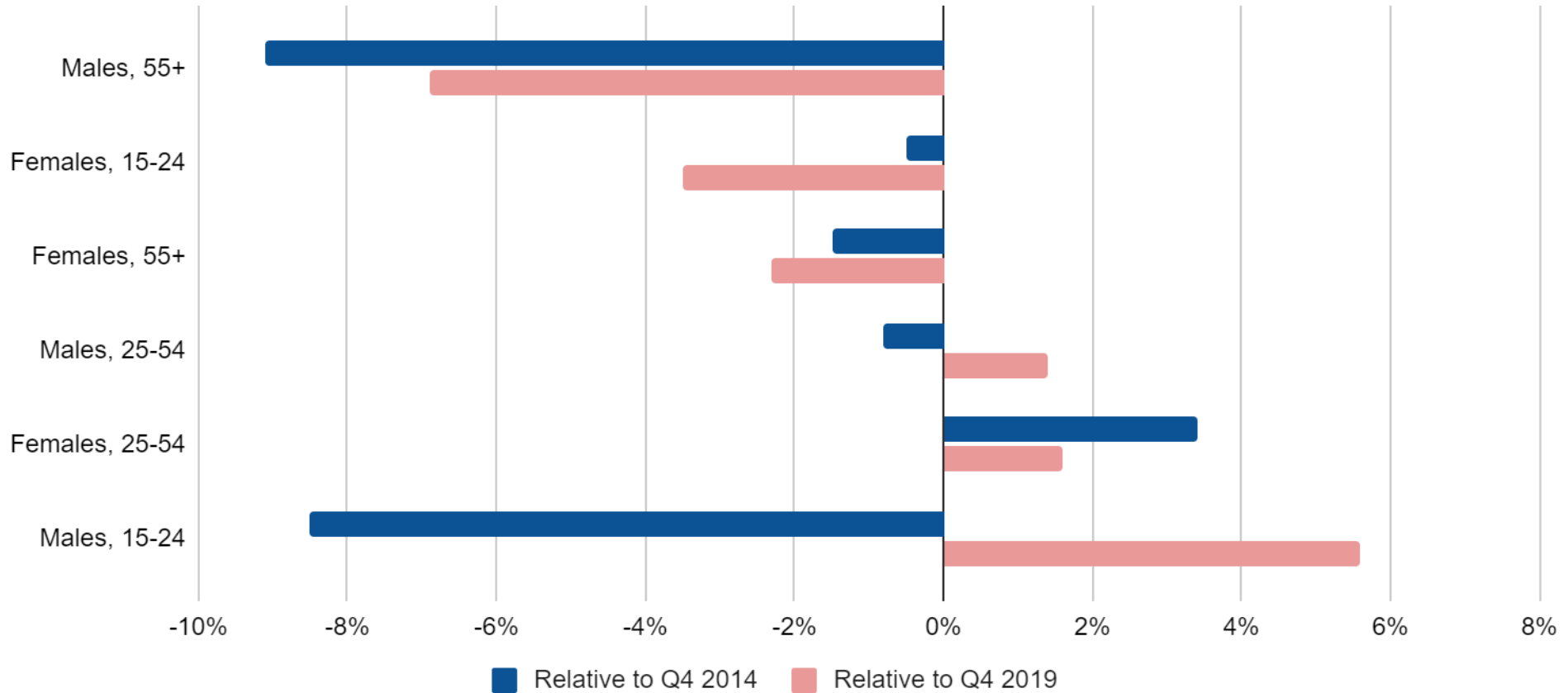
Edmonton CMA Employment and Unemployment



Source: Statistics Canada

...but the regional labour market recovery remains incomplete

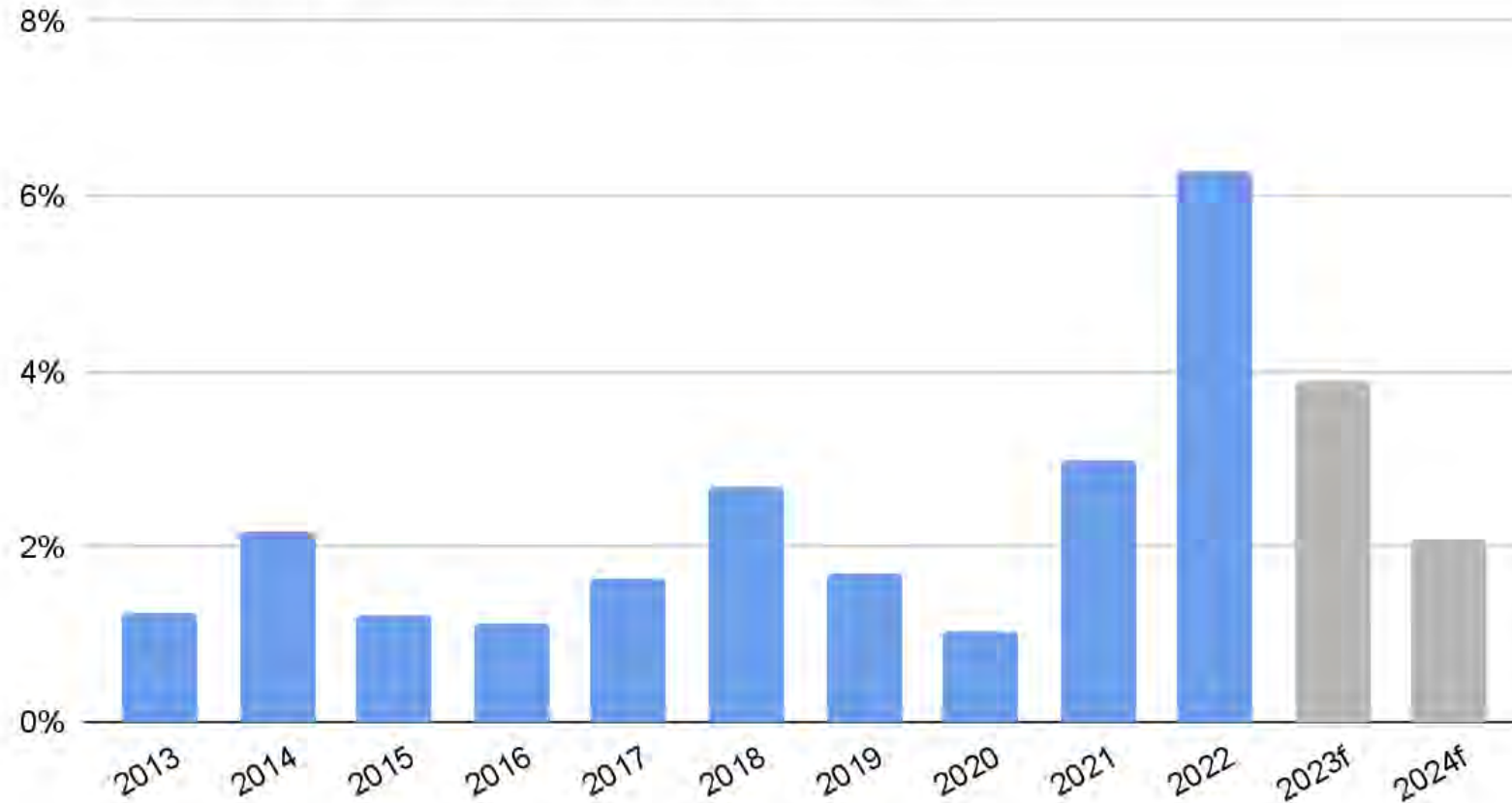
Edmonton CMA Q4 2022 Employment Rate Differential



Source: Statistics Canada

Inflation remains high but expected to gradually ease over 2023 and 2024

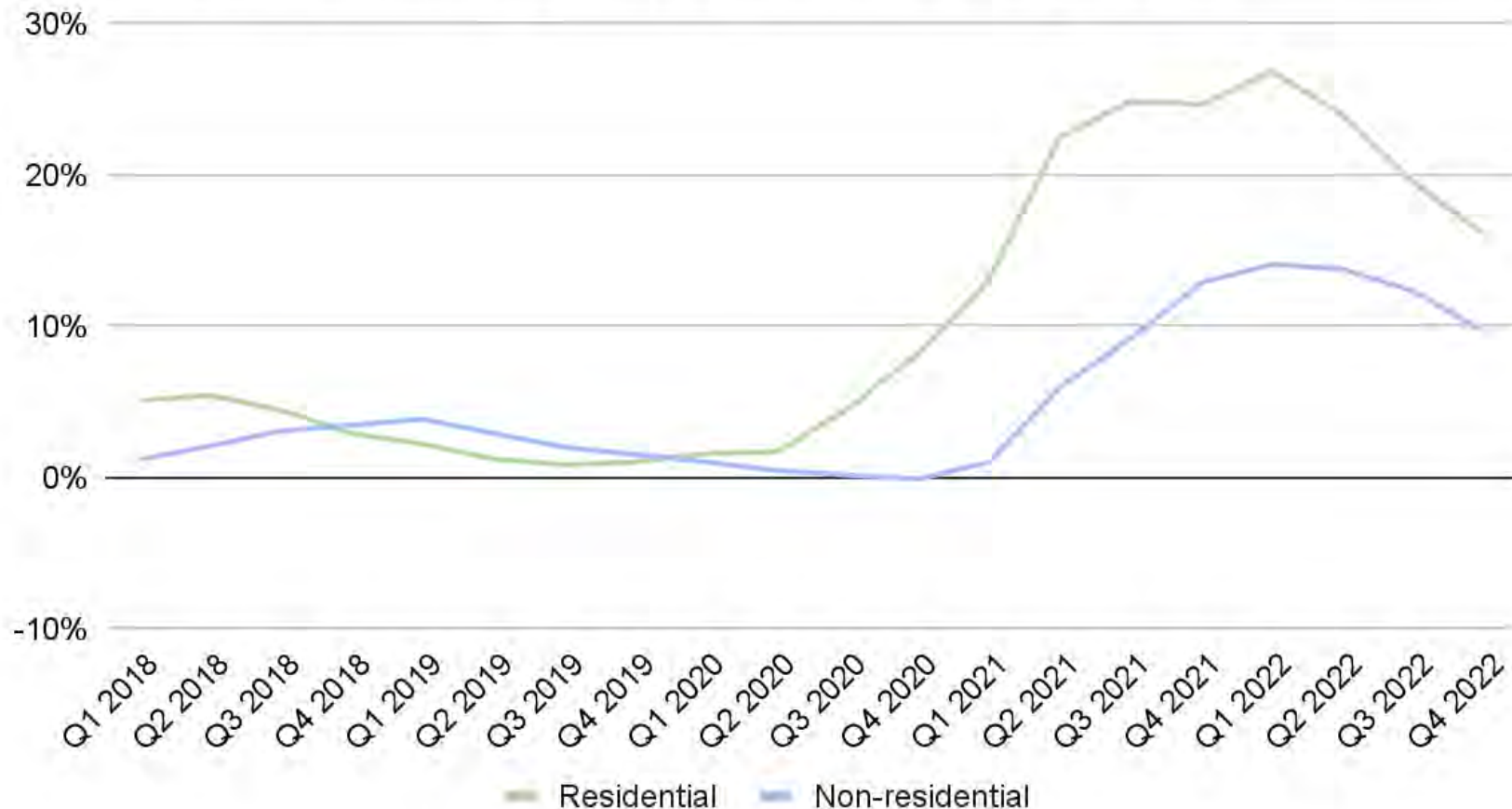
Edmonton CMA Annual Consumer Inflation



Sources: Statistics Canada, City of Edmonton, and Stokes Economics
Note: "f" = forecast

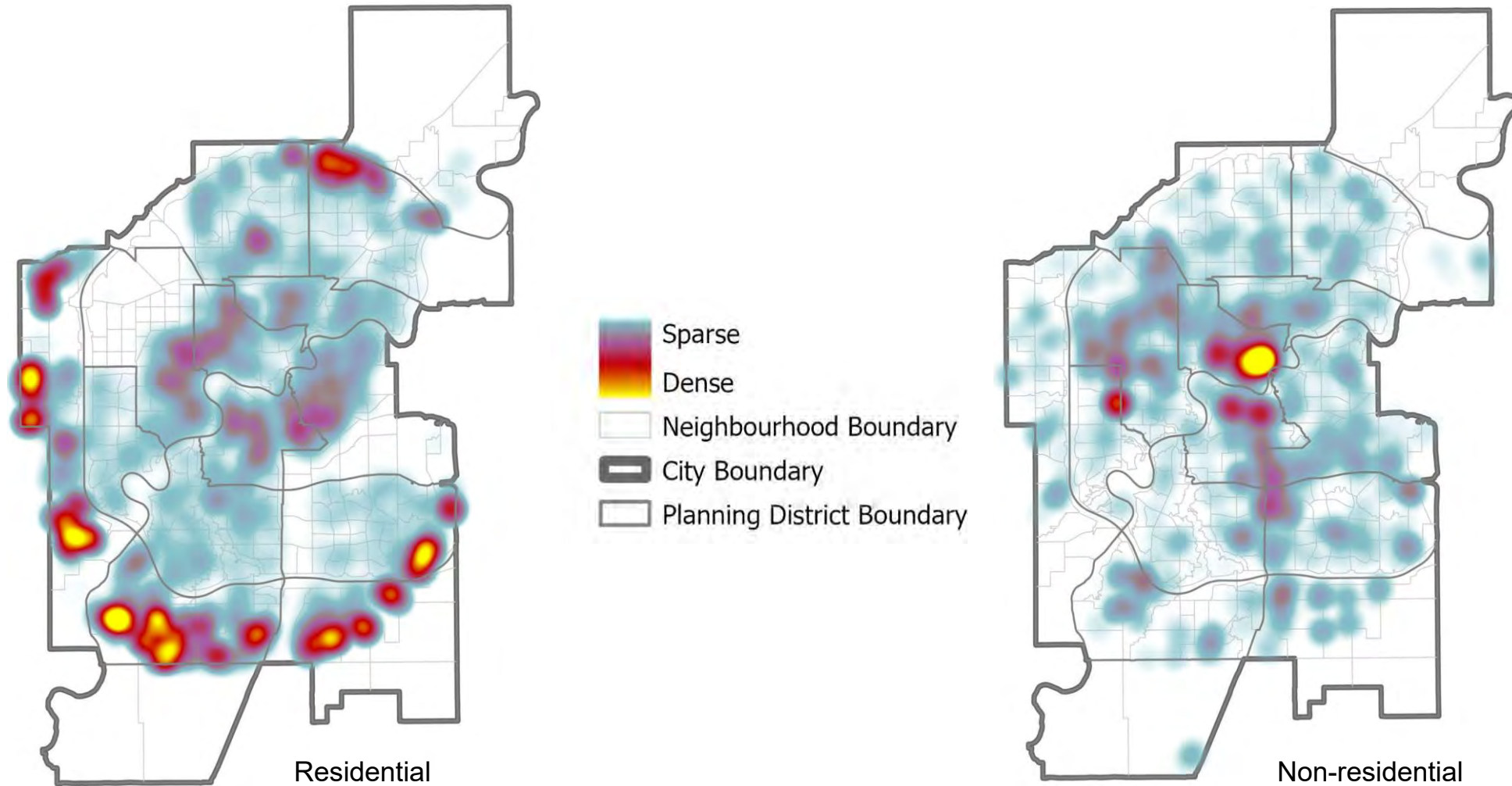
Supply chain disruptions, labour pressures, and strong demand pushing building construction prices higher

Annualized Edmonton CMA Building Construction Price Inflation



Source: Statistics Canada

2022 Construction Intentions - Edmonton



Source: City of Edmonton

Note: Density is based on the number of building permits

Calgary

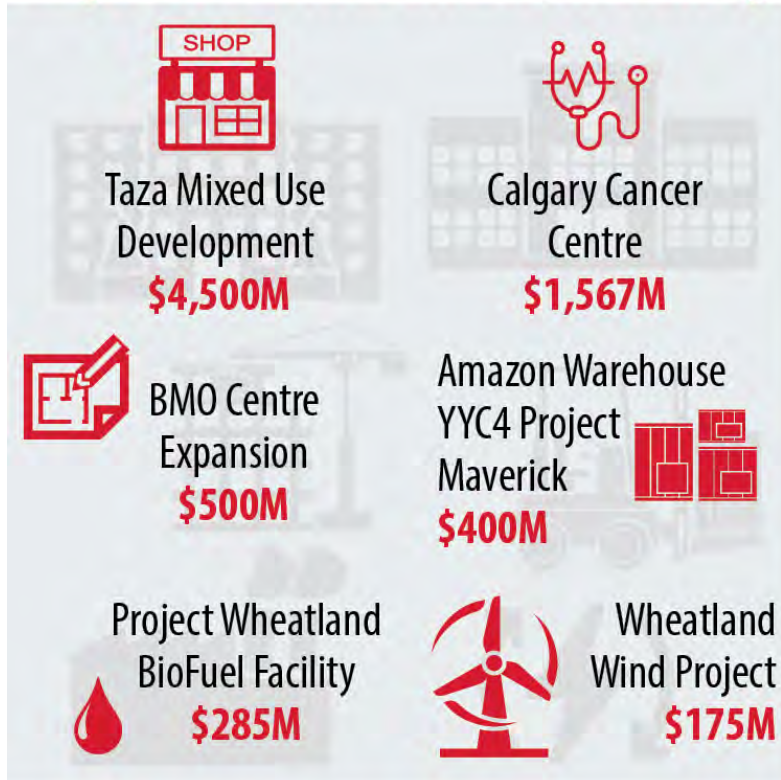


Calgary Context



Overall Investment Activity

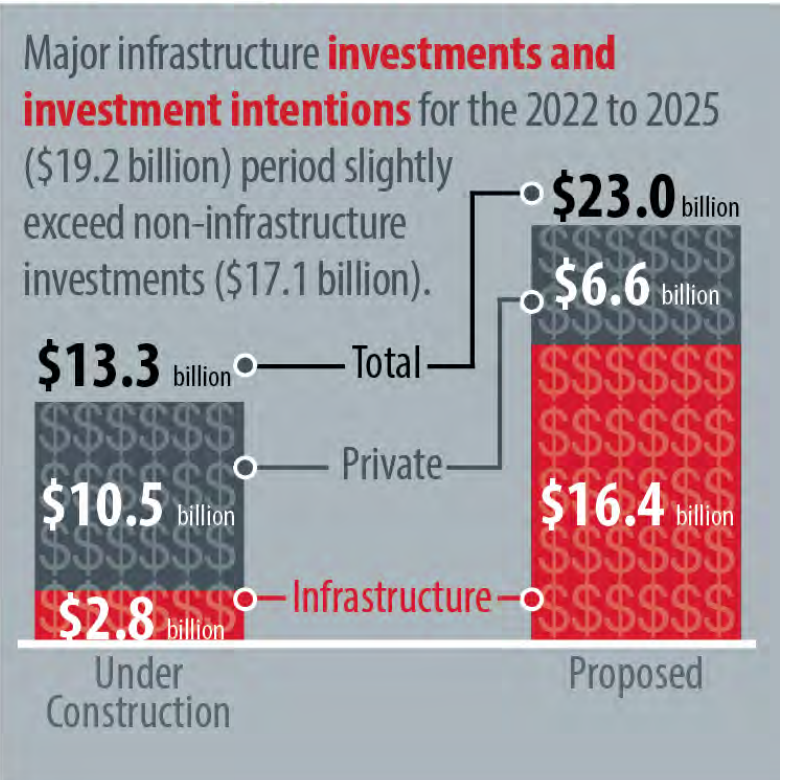
Top Private Investments Underway



Top Public Investments Underway



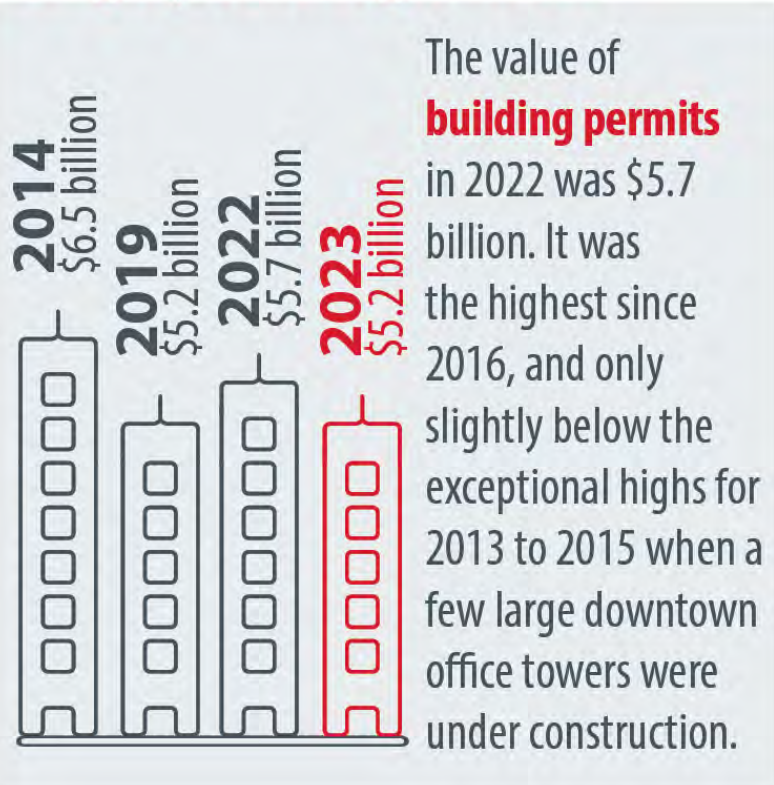
Value of Major Investments





Construction Investment

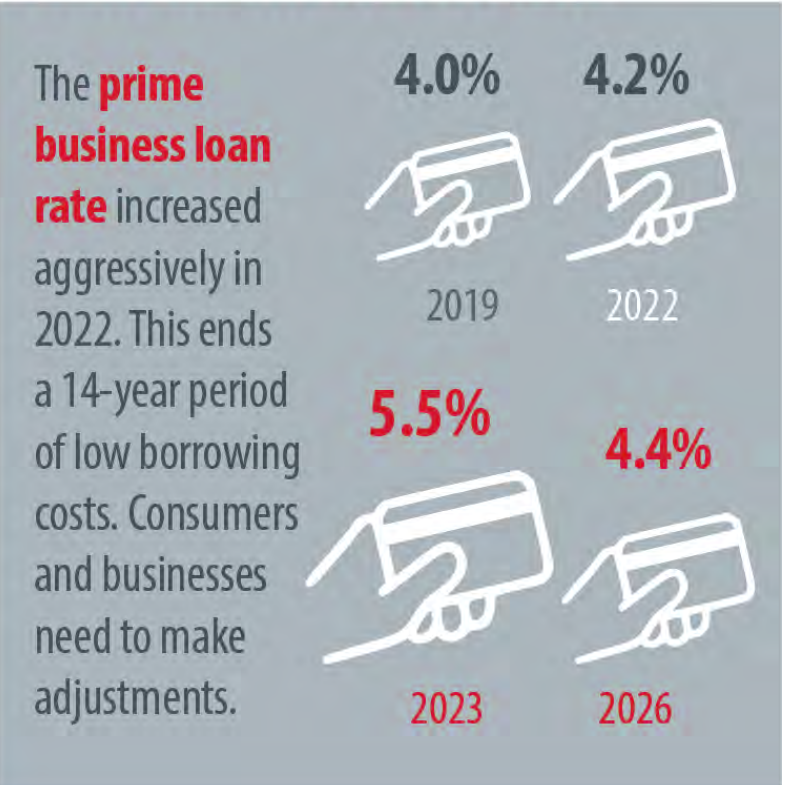
Calgary Building Permits



Calgary (CMA) Housing Starts

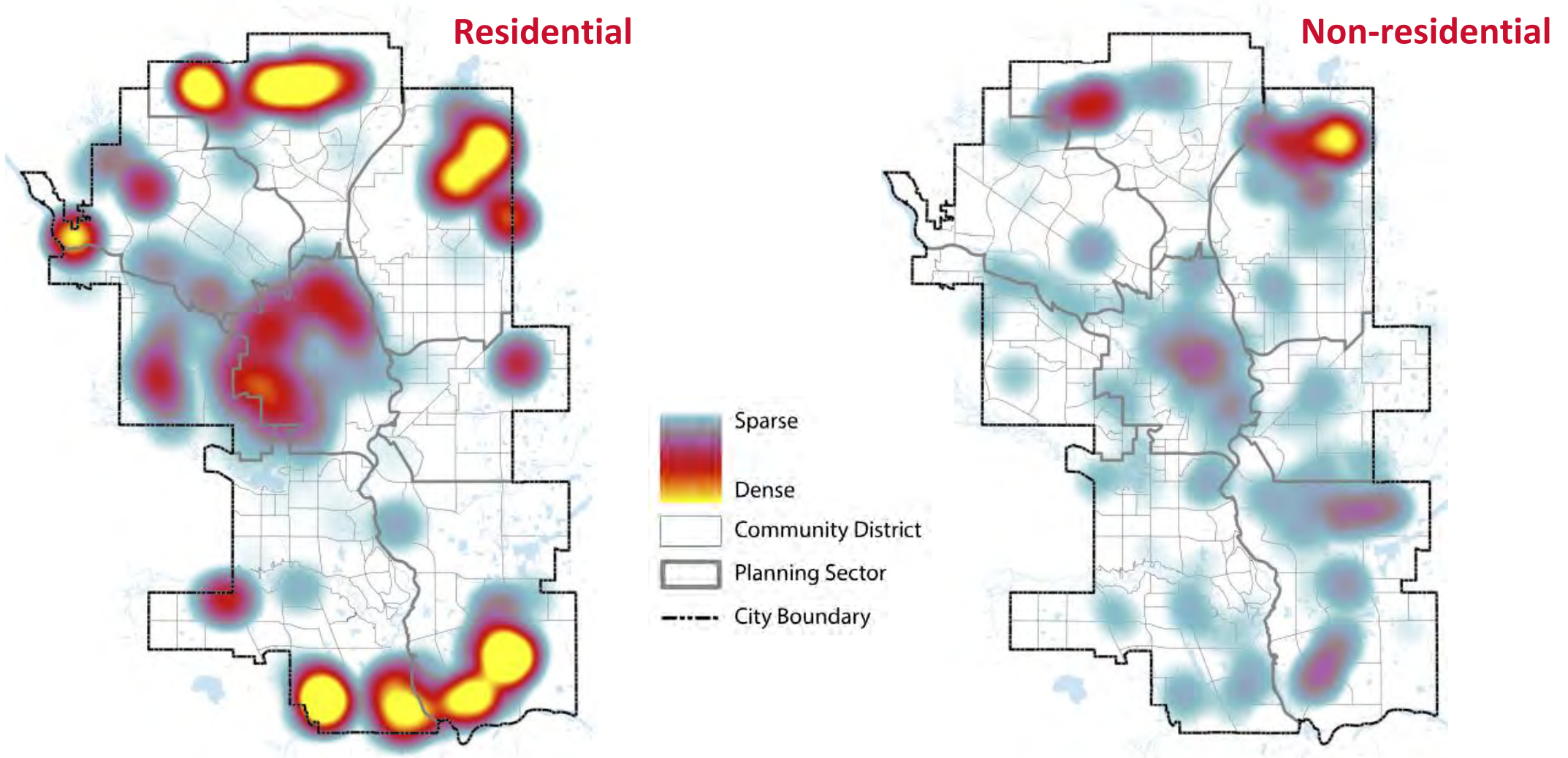


Prime Business Loan Rate





Construction Intentions



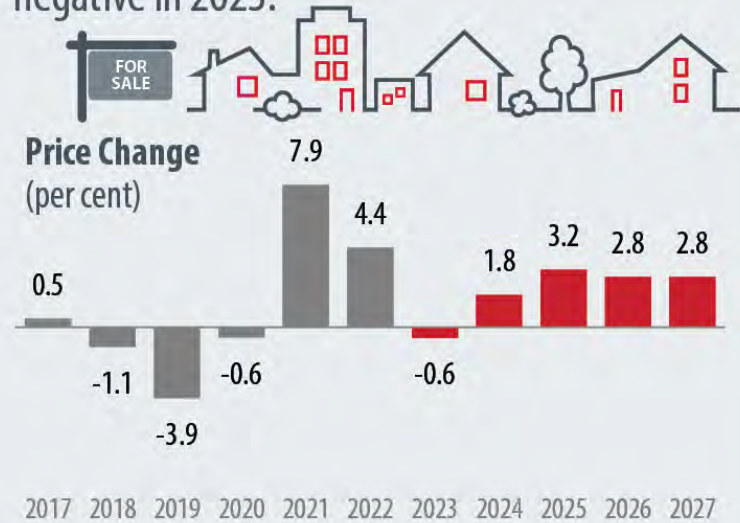
Source: The City of Calgary
Data up to February 9, 2023



Housing Market Investments

Average Residential MLS Price

House price appreciation would occur for the second consecutive year in 2022 after three years of decline. The pace of growth should turn negative in 2023.

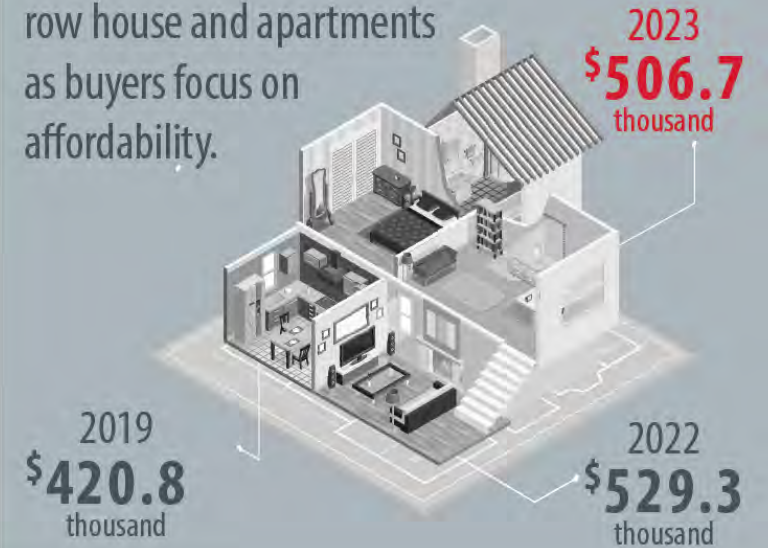


Occupied Residential Dwellings



Benchmark House Price

House price appreciation would be stronger for the benchmark home in each category: single-family detached, single semi-detached, row house and apartments as buyers focus on affordability.





Labour Market Growth Prospects

Five-Year Population Growth



+ 97,200 (2017 to 2022)

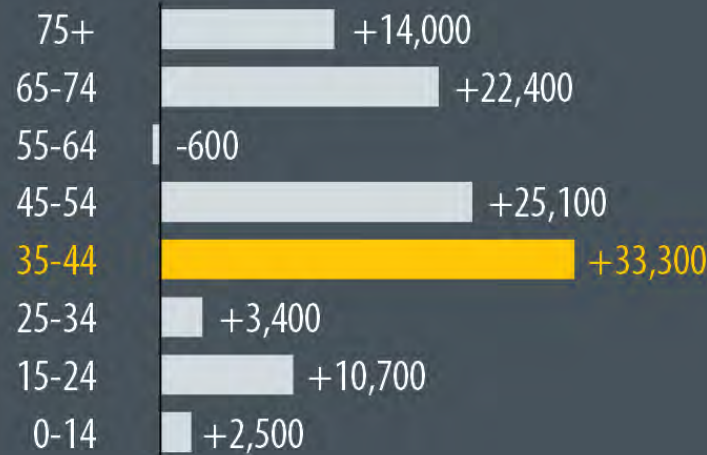
Calgary's population is expected to increase by 110,900 between 2022 and 2027, better than 97,200 between 2017 and 2022. **Net migration** will be the primary driver of population growth.

+110,900 (2022 to 2027)



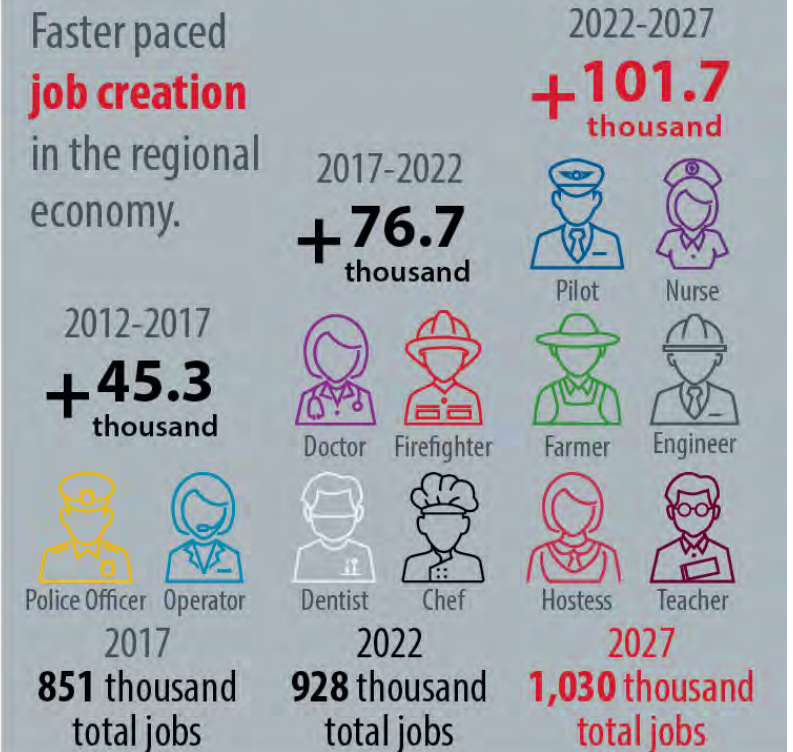
Population Increase by Cohort

Middle-aged cohorts aged 35-44 have the highest migration rates and should experience the most substantial population increases from 2022 to 2027 (+33,300).



Five-Year Job Growth

Faster paced **job creation** in the regional economy.

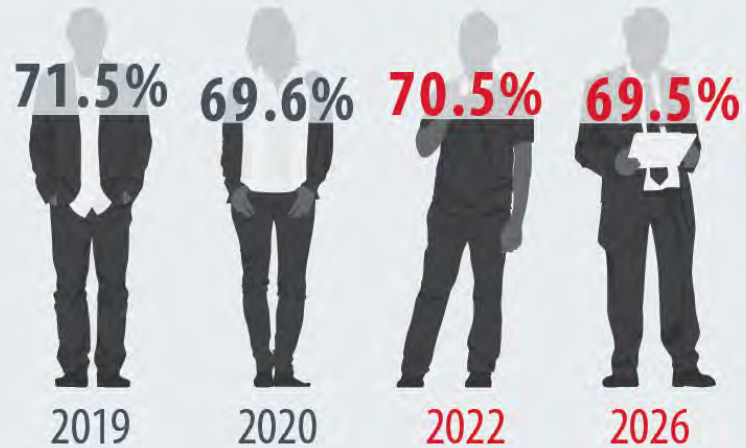




Labour Market Strength Indicators

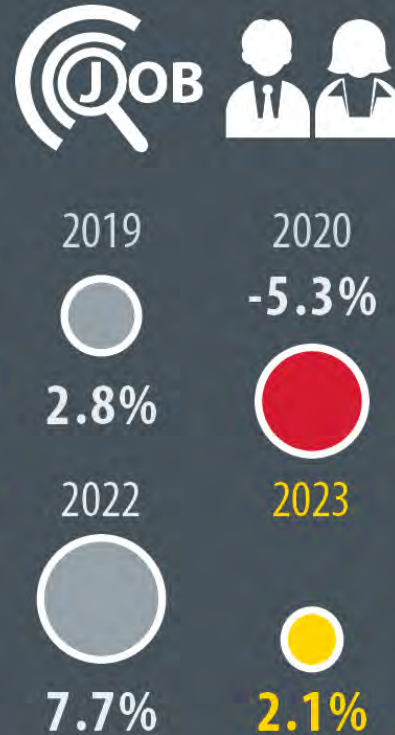
Labour Force Participation

The forecast for the **labour force participation rate** is a decline as baby boomers exit the workforce.



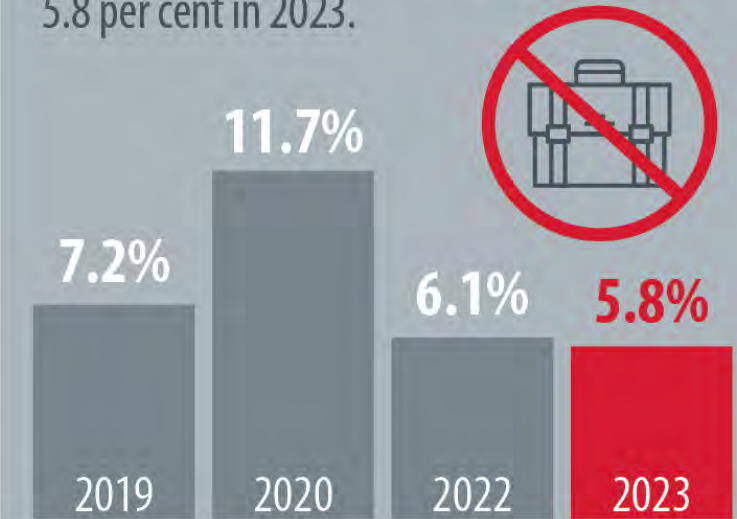
Annual Job Growth

After a COVID-19-driven job decline in 2020, annual job growth should rebound significantly to 7.7 per cent in 2022. **Job growth should decelerate to just above 2 per cent** for the remainder of the forecast period.



Unemployment Rate

The **unemployment rate** is expected to continue its course toward lower levels through to 2027. The rate is projected to be 5.8 per cent in 2023.





Consumer Market and Pressures

Migration to Strengthen Demand

Annual **net migration** of +13,700 people per year is the platform for sustained population increases supporting a large market for goods and services and a resilient economy.

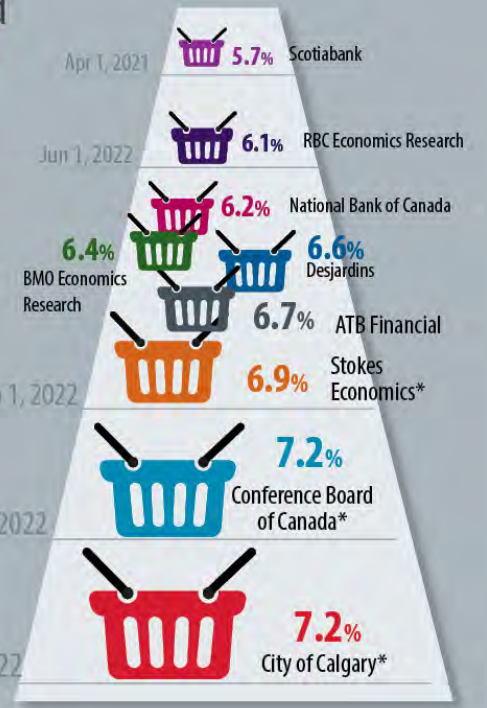


Sources of High Inflation



Calgary Inflation Expectations

The City's expected **2022 consumer inflation rate** forecast is higher than private sector forecasters. Generally, more recent forecast updates indicate higher inflation.



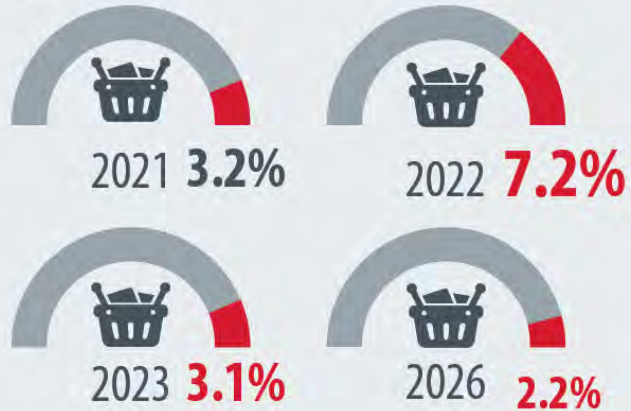
*Notes: Forecast providers with * are Calgary-specific inflation rates, others are Alberta-wide.*



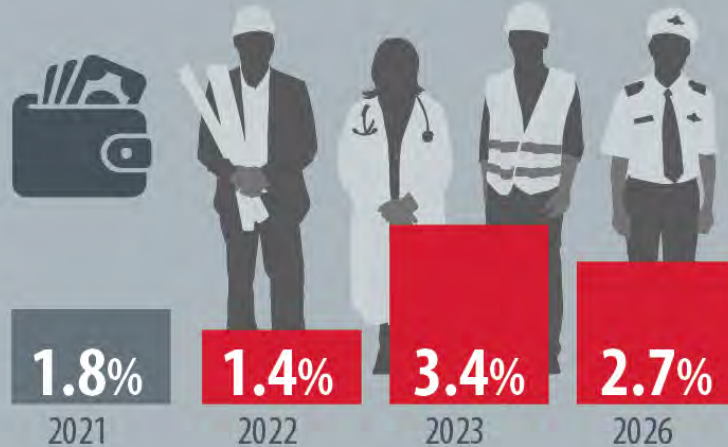
Aggregate Price Dynamics

Calgary Consumer Inflation

The rate of increase in the **cost of living** would decline from a multi-decade high of 7.2 per cent in 2022 to 2.0 per cent by 2024. It should stay around the inflation target afterwards.



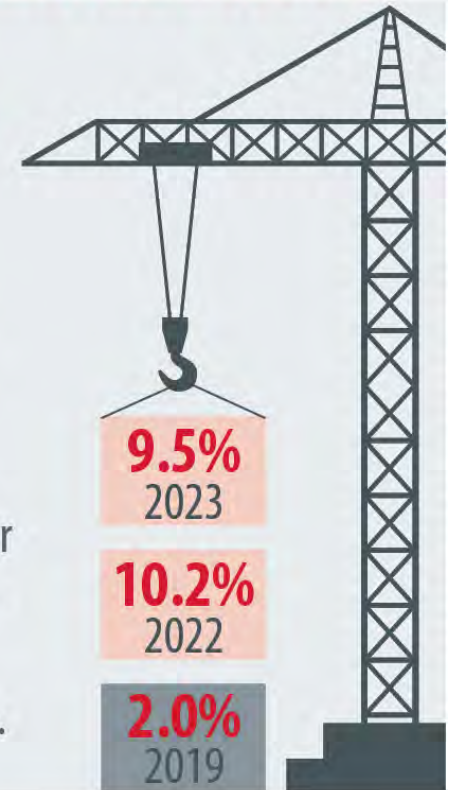
Alberta Wage Inflation



Wage pressure in Alberta would increase significantly. It would lead to a higher average pace of wage growth from 2022 to 2027 relative to 2017 to 2022.

Non-residential Price Inflation

The cost of **non-residential building construction** is projected to stay high over the forecast period as material and labour costs keep up with commodity and consumer inflation.





Construction Price Dynamics

The value chain for the construction and building sector has seven segments

The indicator or commodity price forecasts covered in the report

Development



Real estate advisory and development
Real estate investment trusts
Building operators and lessons

Construction and engineering



End-to-end developers, builders, operators
Engineering design
Construction
Electrical work
Mechanical work

- Non-residential construction

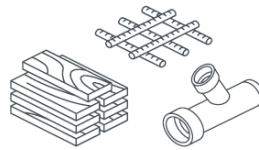
Construction machinery



Earthmoving equipment
Material handling equipment
Concrete and road construction machinery

- Vehicle parts
- Construction labour

Basic materials



Cement, concrete, aggregates
Steel (bars, pipes)
Others (timber, plywood, glass, clay)

- Structural steel
- Aluminum products
- Wood
- Asphalt
- Cement
- Ready-mix concrete

Finishing components



Building envelope
Building interior
Supporting materials

- Rubber
- Paint, coatings and adhesives
- Petrochemicals

Major systems equipment



Power equipment
Building automation systems
Plumbing
Cooling and heating equipment
Lighting
Fire and security
Elevators and escalators

Maintenance



Facility management
Energy management

- Diesel oil
- Gasoline

Adapted from: McKinsey & Company, "Construction and Building Technology – poised for a breakthrough?"



Consumer Price Dynamics

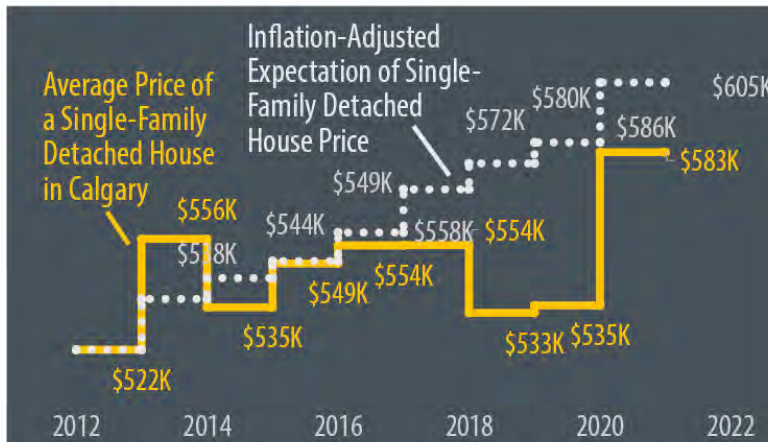
Recent Surge in Inflation

Consumer price inflation has been very high in Calgary. It should reach an annual rate of 7.2 per cent in 2022. That means that **the overall price of goods and services in the typical consumer's basket would be 24.3 per cent higher** than they were in 2013.



Source: Statistics Canada

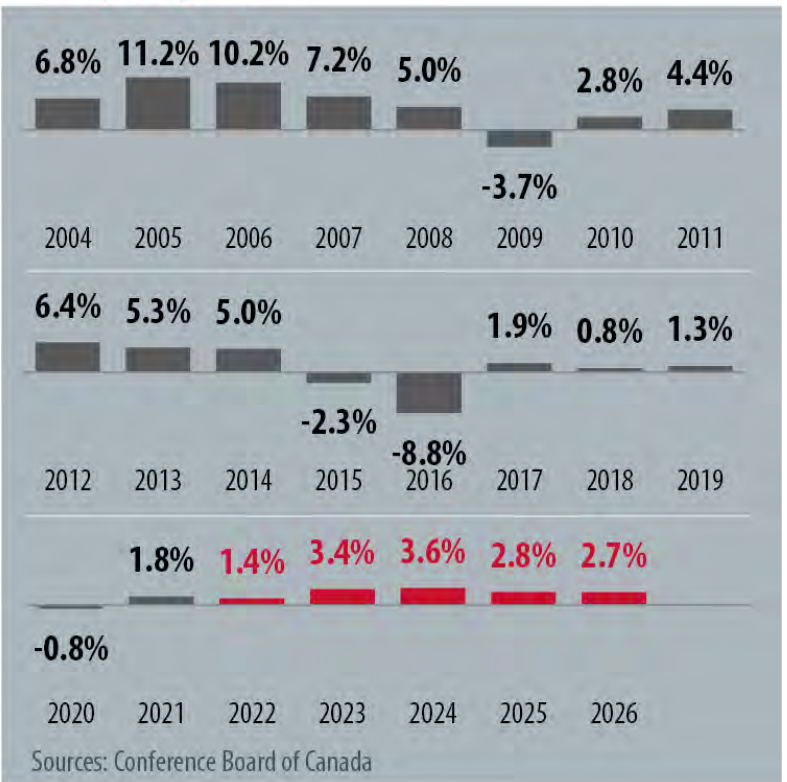
Single-Family Detached House Price Trends



Sources: Calgary Real Estate Board (House Prices), Statistics Canada

Using 2013 as a base year, the **appreciation of single-family detached houses in Calgary has not kept up with the pace of inflation**. By all indications, 2021 and 2022 are catch up years.

Salaries and Wages per Calgary Employee



Sources: Conference Board of Canada

Calgary



Summary



Summary State of the Economy

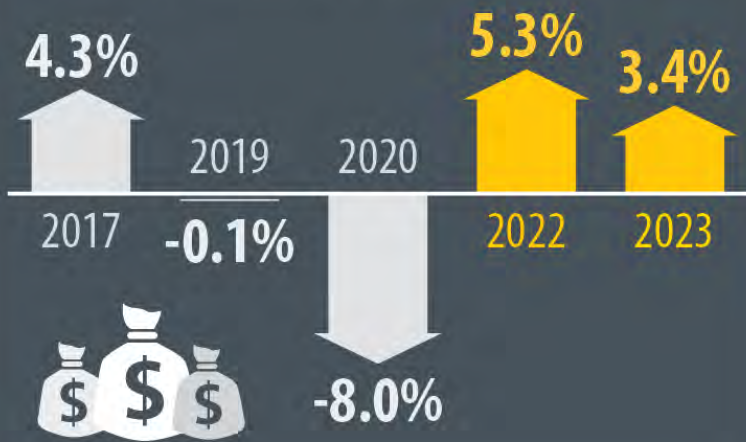
Crude Oil Production

Canadian crude **oil production** should reach a record high average of 4.8 million barrels per day in 2022. That's a doubling from 2.3 million in 2002 supporting robust industry cashflows.



GDP Growth

Alberta's **GDP growth** has started decelerating from a 5.3 per cent in 2022 to 3.4 per cent in 2023. Growth would decelerate further reflecting proximity to full capacity.



Industry Contribution to GDP

Alberta **GDP share** by Industry





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THANK YOU!



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