Calgary

Executive Summary

Fall 2019

Calgary and Region Economic Outlook

2019 – 2024

Introduction

The City of Calgary tracks economic indicators throughout the year to develop insights about the impacts of external events on the local economy. The results are released publicly semi-annually in the spring and fall as the Economic Outlook.

The City's fall economic outlook typically follows a spring release of the Alberta government budget. The fall 2019 economic outlook is different. The spring 2020 economic outlook will incorporate information from the provincial budget release later this fall. The mid-October release of the fall 2019 economic outlook is to support work leading up to decisions at the November 2019 Calgary municipal government budget adjustment discussion.

Purpose

The fall 2019 economic outlook has been created to support The City of Calgary in the financial and physical planning of the city. It provides a useful basis for decision making by outlining and clarifying the economic opportunities and risks the region faces. It features expectations for several economic indicators. The choice of indicators reflects factors considered likely to have a significant effect on the local economy over the forecast period.

Plan

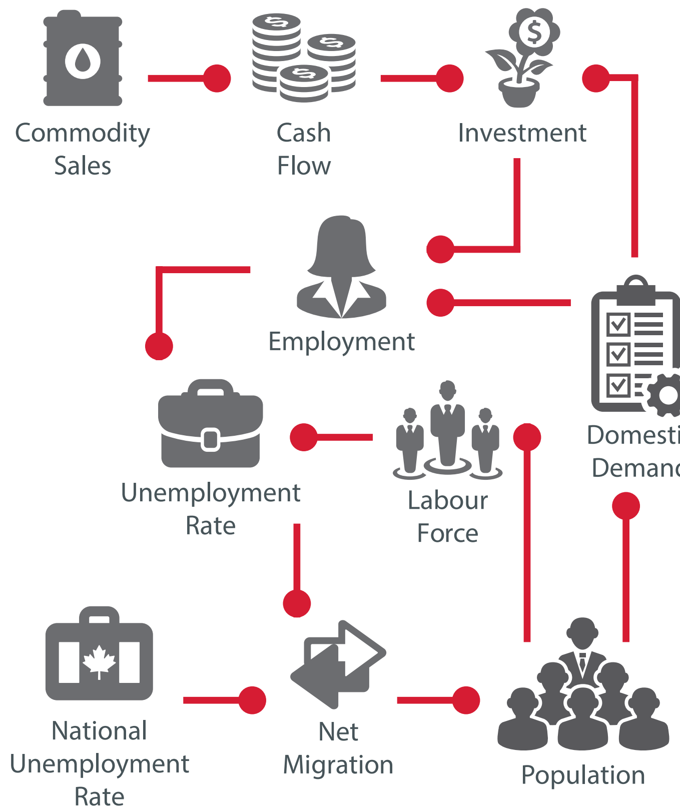
There are two areas or economies of interest. The first is the local (or City of Calgary) economy. The second is the regional economy (Calgary Economic Region or CER).

The CER is a small open economy that is affected by changes outside its borders. Consequently, external influences from the provincial, national and world economies get transmitted to the local and regional economies. Outside factors judged to have a substantial impact get presented as forecast assumptions.

The economic cycle for commodity-based regions helps to inform projections of economic activity in the CER. The level of crude oil sales affects the cash flow of Alberta's energy industry and investment in the local economy. A summary of the path from crude oil sales to increased domestic demand is available in the chart below. The fall 2019 economic outlook uses assumptions about changes in the path for the 2019 to 2024 period as follows:

- A deceleration in world economic expansion;
- Crude oil price stability; and
- Economic growth and job creation in other Canadian provinces and territories that is slightly lower than the local and provincial levels for 2020 to 2024.

Economic Cycle



Payoff

The fall 2019 economic outlook provides a comprehensive set of estimates on the future conditions for Calgary's local and regional economies. Like the work of alternative forecast providers, it uses theoretical and empirical economic underpinnings. Unlike the work of alternative forecasters, it provides the full set of indicators requested by local decision makers for the city and CER.

Finally, it tackles key recurring questions posed by City of Calgary decision makers:

- What is the overall forecast for the rate of growth in the local economy?
- What are the drivers of the local economy?
- How many jobs is the local economy expected to create?
- What is the forecast for population growth in the city and region?
- What is the expected inflation rate?
- What are the implications, especially for municipal finance?

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1. Market and policy uncertainty remains a risk for an oil and gas industry that drives local and regional growth

Global crude oil consumption increased by 1.5 per cent or 1.4 million barrels per day in 2018. China (+680,000 barrels per day) and the U.S. (+500,000 barrels per day) led contributions to growth. Also in 2018, global oil production grew by 2.2 million barrels per day due to growth in U.S. production by an equivalent amount. It is the largest ever increase in production for a single country in a single year. Production expansion in Canada (+410,000 barrels per day) followed the U.S. along with Saudi Arabia (+390,000 barrels per day). Expanded production in Canada offset declines in Venezuela (-580,000 barrels per day) and Iran (-310,000 barrels per day). For the first seven months of 2019, Canadian crude production has increased by 2.7 per cent. It is a deceleration from 7.7 per cent in 2018.

The U.S. is the major importer of Canadian crude oil (96 per cent). Sustained U.S. production increases make the need for alternative markets for Alberta and Canadian crude essential. In the absence of alternative markets, Alberta producers would be compelled by market forces to reduce long-term production levels.

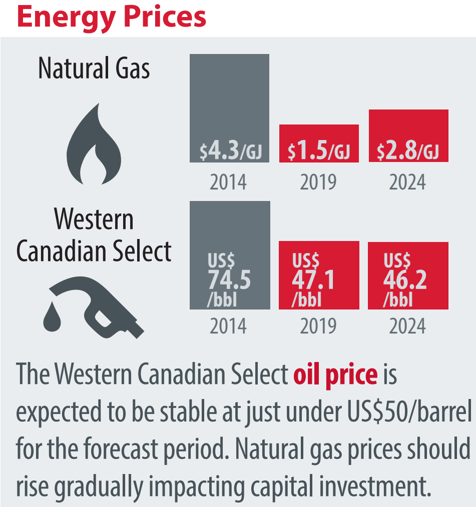
West Texas Intermediate (WTI) is forecast to average just under US$61.00 per barrel in 2019 and 2020. Crude transportation will remain a constraint keeping Western Canadian Select (WCS) at a substantial discount to WTI. Apart from the impact of the delay to the completion of Enbridge Line 3 until the second half of 2020, federal and provincial policies and energy strategies play a role. Delays to the approval of the Trans Mountain Expansion would sustain market access constraints. The government of Alberta plans to alleviate market access by divesting a $3.7-billion crude-by-rail contract, purchased by the previous provincial government in 2018, to the private sector.

As well, there is a pipeline constraint for natural gas. It affects access to external markets for natural gas produced in Alberta. Due to transportation costs, Alberta natural gas prices have traded at a discount to Henry Hub (the U.S. benchmark). The differential has widened in the past few years due to a surge in U.S. natural gas production and transportation bottleneck in the domestic NOVA Gas Transmission (NGTL) system. A production surge in the northern areas of British Columbia and Alberta beyond existing gas transmission capacity has played a role. A proposed expansion to the NGTL system is expected to alleviate these constraints but is not likely to be operational for at least a few more years.

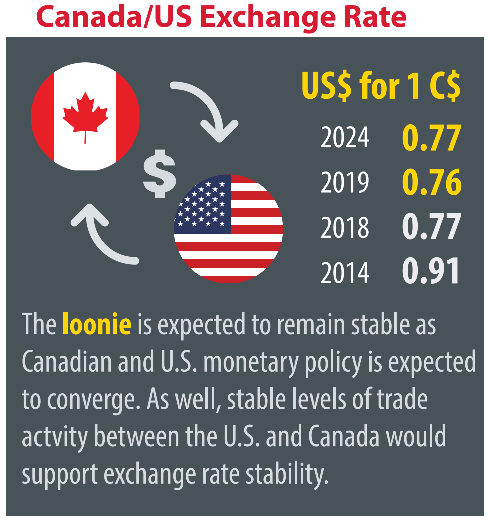
Given the current environment, low natural gas prices are expected to continue in the near to midterm. The benchmark Alberta natural gas price at the Alberta Energy Company (AECO) hub is expected to average $1.49/GJ in 2019 and $1.82/GJ 2020, before gradually increasing to $2.82/GJ by 2024. The price differential between AECO-C and Henry Hub is expected to remain significant in the near term pending increased gas transmission capacity.

For the duration of the forecast period, the exchange rate should average about US$0.77 per CAD$. Exchange rate stability would support trade, as trading partners benefit from increased price certainty. Typically, a weak Canadian dollar combined with strong U.S. economy should boost economic activity in Canada. For Calgary, a weak dollar has translated into higher prices for imports, which puts upward pressure on consumer price inflation.

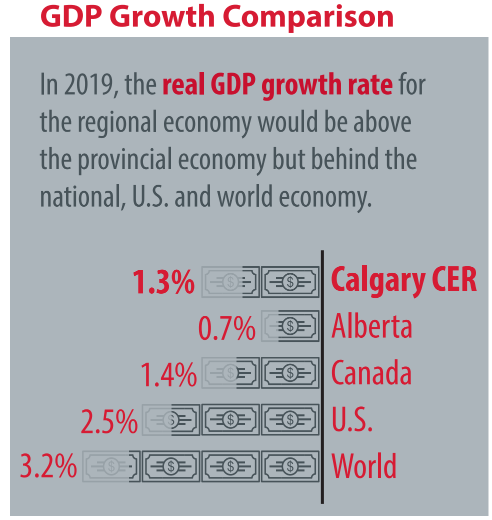
Energy Prices



Canada/US Exchange Rate



GDP Growth Comparison



2. Weak short-term investment outlook for housing and government investment would shrink parts of the municipal tax base

The 2019 level of housing and business fixed investment would be lower than in 2018. Both would have negative contributions to GDP growth. Housing and business fixed investment are expected to recover in 2020 and beyond. The base case forecast is a decline in spending and investment by the three orders of government in 2020.

Between 2006 and 2011, only four Canadian regions increased their additions to the stock of dwellings – Alberta, Manitoba, Nunavut, and Saskatchewan. For Alberta, additions to the stock of dwellings increased from 134,575 to 137,355 units. Calgary had a vital role to play in Alberta's past success. City of Calgary housing starts were 13,800 and 10,700 units in 2014 and 2015 respectively. More recently, activity in Calgary has slowed with a significant drop to 8,900 housing units started in 2018. For 2019, the 7,800 units of housing starts expected is comparable with 2016 when Calgary was in a recession. Subsequently, the forecast is for housing starts to recover to an average of about 8,500 units per year for the 2020-2024 period.

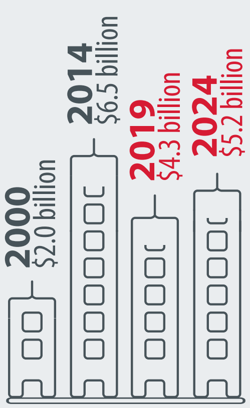
The decline in business fixed investment would be due, primarily, to a slowdown in downtown office investment. For an extended period, Q1 2013 to Q4 2017, the buildup of 4.0 million square feet of additional office space supply accompanied a sustained reduction in demand by 6.1 million square feet. The current demand and supply balance has discouraged future investment activity. Future investments in the downtown Calgary office market over the next decade would be limited to quality improvements or enhancements later in the forecast horizon.

The value of building permits is a useful aggregate measure of investment intentions over the coming year or two. In 2018, the value of proposed building investments in the city of Calgary was $4.6 billion. Two out of every three investment dollars in new buildings gets directed at residential properties. For 2019, the base case forecast is a decline to $4.3 billion. It is consistent with the expected deceleration in housing starts. Subsequently, investment intentions would improve with building permit values expected to increase to $4.6 billion in 2020. For 2020 to 2024, the forecast average is $4.9 billion per year.

The average house price would fall for the second straight year in 2019. A lot of excess housing inventory would lead to a drop in the average house price by 1.6 per cent. For the first half of 2019, the average house price had fallen to $446,246 from the 2018 average of $458,093. Higher-end house prices have fallen further. New additions are mostly lower-valued multi-family units. It means that the overall wealth of residential property owners would drop more than 1.6 per cent. As a result, the 2020 residential tax base that is calculated using July 2019 property values would be lower. Housing starts would decline in 2019 and remain smaller than pre-2017 values, which would reduce the accumulation of inventory. The base case is that house prices are expected to be flat in 2020 before appreciation resumes in 2021.

Financing costs for new investments are at the highest level in a decade. The most recent interest rate change was a hike in October 2018. In the short-term, the Bank of Canada is expected to shift away from interest rate increases; there were three last year. The primary driver is because international trade conditions have worsened. As a result, the outlook for global growth is much lower. The base case forecast is that the Bank of Canada would be patient and maintain the current level of the overnight rate for the next few years. Consequently, the prime lending rate should remain at 3.95 per cent for 2019.

Calgary Building Permits

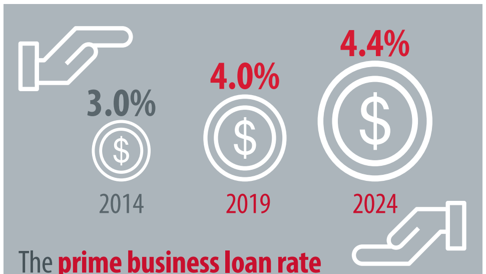


The forecast for **building permits** in 2019 is $4.3 billion. This estimate is significantly higher than $2.0 billion at the turn of the century but lower than the pre-recession high of $6.5 billion in 2014.

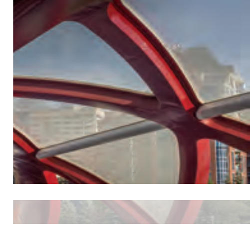
Calgary (CMA) Housing Starts

Housing starts in the Calgary Census Metropolitan Area (CMA) would be much lower than the heights of 17,100 in 2014 but well above the lows of 9,200 during the last recession in 2016.

Prime Business Loan Rate



The **prime business loan rate** increased aggressively in 2018. It is expected to remain stable in 2019 and 2020 before proceeding toward higher rates at the end of the forecast period.



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3. Population growth would boost consumption and increase labour supply as a buffer from lower investment and government spending

The 2019 municipal census put Calgary's population at 1.286 million. The annual rate of population increase was 18,367 people or 1.4 per cent, which is a deceleration from 1.7 per cent last year. Consequently, the contribution of personal consumption to local GDP growth is expected to decelerate in 2019. Nevertheless, personal consumption expenditure is expected to continue to be the most significant contributor to economic growth in the city and region throughout the forecast period.

Sustained high levels of net migration of individuals in the 35 to 44 age range would mitigate a slowdown in personal consumption spending. This age range continues to dominate population growth. For 2019, population growth due to net migration was 52 per cent (or +9,560 people). Natural increase, the difference between births and deaths, added 8,807 persons.

Calgary's population is expected to increase by +95,000 persons between 2019 and 2024 with a shift in the population age structure. The number of elementary and pre-elementary school-aged children (zero to nine years) is expected to increase. The number of youth (aged 15 to 19 years) is also expected to increase. By 2024, the number of seniors aged 65 to 79 years is expected to increase by +35,100 people relative to 2019. Also, by 2024, the population aged 40 to 49 years is expected to increase by +31,100 people relative to 2019. A larger share of the population aged 35 to 54 years is usually a boost to economic prosperity.

The CER labour force should increase to 986,800 persons in 2019. The forecast average growth rate is 1.6 per cent because Calgary's labour force participation rate is expected to lead the country. The labour force should hit one million people sometime in 2020. The working-age population is expected to increase at a faster average rate of 1.9 per cent. The labour force participation rate would decline from 73 per cent in 2019 to 71 per cent by 2024.

A return to a steady pace of job creation in the CER has had false starts. The services-producing sector lost jobs in 2016 and 2018. The goods-producing sector lost jobs for three straight years from 2015 to 2017, before recovering some of the losses in 2018. For the forecast horizon, employment growth is expected to average two per cent through to 2024. A 2.4 per cent average annual pace of growth of services-producing sector jobs would occur through to 2024. It would offset a much slower average annual pace of goods-producing sector job growth of 0.5 per cent.

The unemployment rate is expected to decline to 6.5 per cent at the end of the current business plan and budget cycle (2022). The reason for that is that the average growth rate of jobs (+2.0 per cent) should exceed the average growth rate of the labour force (+1.6 per cent). The CER unemployment rate would still be unusually high. Since 2000, the unemployment rate has been 6.5 per cent or higher only during recessions. The forecast assumes economic and employment growth would be slightly lower elsewhere in Canada than it would be in Alberta for 2020 to 2024.

Five-Year Population Growth

2014 to 2019
90.3 thousand

Calgary's population is expected to increase by 94,900 between 2019 and 2024. Better than 90,300 between 2014 and 2019. **Net migration** will be the primary driver of population growth.

2019 to 2024
95.0 thousand

Population Increase by Cohort

Middle-aged cohorts aged 35-44 (35,000) have the highest migration rates and should experience the most substantial population increases from 2019 to 2024.

Five-Year Employment Growth

Sustained **job creation** in the regional economy should occur with 87,200 net new jobs expected in five years from 2019 to 2024. It is an improvement over the last five years but behind the highs of 2009 to 2014.

+97.6 thousand | +56.3 thousand | + 87.2 thousand

2014 857 thousand | **2019** 913 thousand | **2024** 1,001 thousand

4. Cost pressures are expected to persist and remain higher for businesses and government than for consumers

For consumers, increases in the cost of food and shelter have been the most significant source of inflation in 2019. Prices of agricultural commodities and those commodities (e.g. wood and steel) used in construction have strengthened. They have contributed to making finished food and shelter products more expensive. Transportation costs have had less of an impact due to the elimination of the provincial carbon tax. After a 2.4 per cent increase in 2018, the expectation is moderate annual price change for consumer goods of 1.6 per cent for 2019. Four forces are expected to contribute to the forecast path for the consumer price index.

- Transportation costs would increase because the federal government is expected to introduce a federal carbon tax in 2020 with the tax rate escalating through to 2022.
- Shelter costs would be stable because lower local housing and rental costs would offset expected increases to heating costs.
- A relatively stable Canadian dollar relative to the U.S. dollar should keep prices for imported consumer goods and services steady.
- Minor adjustments to the Bank of Canada's overnight rate would occur for most of the forecast period because domestic interest rates are already low and monetary policy authorities have little room to manoeuvre in response to adverse shocks.

For businesses, there would be significant upward pressure on labour costs as Alberta wage inflation is expected to increase from 2.5 per cent in 2019. It will average 2.6 per cent for the remainder of the forecast period. After a 2019 fall in the raw material price index, it is expected to increase to a forecast period average of 1.6 per cent. In short, the cost of doing business will drop in 2019 in line with the decline in investment activity before surging in 2020 and beyond. Calgary's businesses will be under pressure to manage operating cost increases.

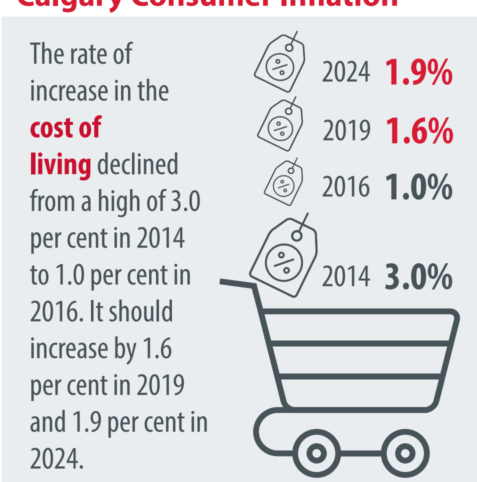
For the government, population growth would add to operating cost pressures. For businesses, with population growth, the market for their goods and services expands and operating cost increases can be spread across more consumers.

The base case forecast for non-residential building construction inflation would impact private sector and government capital spending. Like higher prices for operating activities, non-residential building construction inflation is expected to exceed consumer price inflation over the next four years. Upward price pressure would come from increased world oil prices that increase transportation costs to get materials to construction sites. Continuing international trade disputes would limit the supply and increase the cost of material inputs across borders.

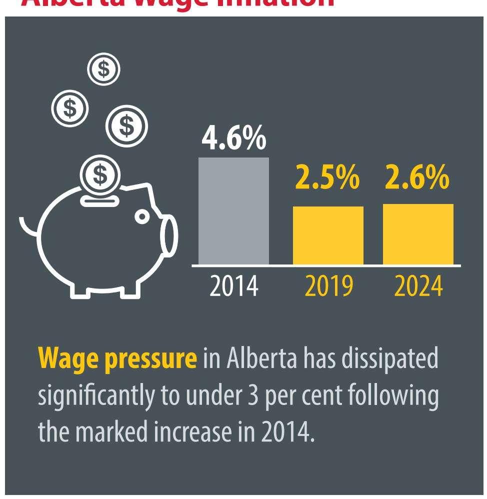
The operating and capital cost pressures on Calgary's municipal government would be higher than consumer inflation because of increased demand from population growth, raw material price increases, a higher product price index, and non-residential building construction inflation. It will require innovation to maintain infrastructure investment and the provision of frontline services that keeps up with population growth.

The new provincial UCP government commissioned a blue ribbon panel that recommended adjusting capital funding allocations to municipalities to bring Alberta's provincial and municipal per capita capital stock to the national average. Alberta's private sector per capita capital stock is more than four times the national average. Accepting the recommendation by lowering capital transfers to municipalities would be adverse for municipalities because public sector investment is a vital complement to private sector investment.

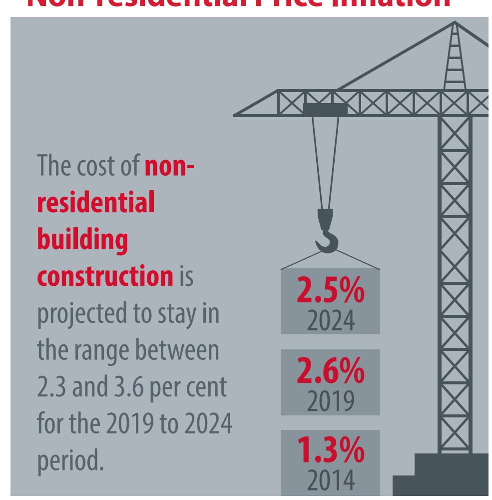
Calgary Consumer Inflation



Alberta Wage Inflation



Non-residential Price Inflation



Averages: Actual (2015 to 2018) vis-à-vis Forecast (2019 to 2022) Budget Cycle

Economic Indicator	Actual Previous City of Calgary Budget Cycle [2015 to 2018] Average	Forecast Current City of Calgary Budget Cycle [2019 to 2022] Average	Forecast Implications
Assumptions			
World			
Real Gross Domestic Product Growth (%)	3.5	3.5	A larger economic and population base would increase the demand for commodities and place upward pressure on commodity prices. It will have a positive impact on Canadian terms of trade as Canada produces several commodities.
The United States			
Real Gross Domestic Product Growth (%)	2.5	2.1	Deceleration in demand growth for Canadian exports in line with a deceleration in growth for Canada's most significant trading partner.
Canada			
Real Gross Domestic Product Growth (%)	1.7	1.7	The average rate of economic growth in Canada would remain unchanged.
Prime Business Loan Rate (%)	3.0	4.0	Higher borrowing costs for The City's suppliers would increase The City's purchase costs, and should also affect variable rate mortgages for Calgarians.
Exchange Rate (US$ for 1C$)	0.77	0.76	Exchange rate stability would keep the price of imported goods stable limiting the need to hedge.
Alberta			
Real Gross Domestic Product Growth (%)	-0.3	1.9	The Alberta economy would leave the recession behind and move into a phase of economic expansion growing steadily.
Total Employment Growth (%)	0.7	1.2	The pace of job growth would improve as the expansion in gross domestic product takes hold.
Unemployment Rate (%)	7.1	6.7	The unemployment rate would improve with a faster pace of job creation.
Housing Starts ('000 Units)	29.4	27.3	Inventory build-up would ease the pace of housing starts to the pace of household formation.
CPI-Inflation Rate (%)	1.6	1.9	Inflation rate would increase as the economy expands.
West Texas Intermediate - WTI (US$/bbl)	52.0	60.5	Better international price stability together with moderately higher crude oil prices would increase prices for petroleum-based commodities, transportation costs and inflation.
Western Canadian Select - WCS (US$/bbl)	35.4	45.0	The WCS oil price would increase as the provincial government would be motivated to turn on production curtailment lever whenever price drops occur because of limited pipeline capacity. The motivation would come from the need to mitigate drops in provincial resource revenue.
Alberta Natural Gas Price - AECO/NIT ($/GJ)	2.1	2.0	The impact on The City of Calgary would be mixed. Slightly lower prices will put downward pressure on operating costs and at the same time put downward pressure on franchise fee revenue.
Industrial Product Price Index (%)	1.5	1.4	Price growth for finished products would be similar to the previous budget cycle.
Raw Materials Price Index (%)	-1.1	0.8	Raw material prices would remain weak in this new phase of increased protectionism.
Alberta Average Wage Rate Increase for All Industries (%)	-2.6	2.6	Job growth would lower the unemployment rate. Competition for talent should emerge and lead to moderate rates of wage inflation.

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Averages: Actual (2015 to 2018) vis-à-vis Forecast (2019 to 2022) Budget Cycle

Economic Indicator	Actual Previous City of Calgary Budget Cycle [2015 to 2018] Average	Forecast Current City of Calgary Budget Cycle [2019 to 2022] Average	Forecast Implications
Forecast			
Calgary Economic Region			
Real Gross Domestic Product Growth (%)	0.1	2.2	The pace of growth in the regional economy would be above the Alberta and national economies later in the forecast period.
Total Employment ('000 persons)	878.4	937.7	Job growth would increase demand and prices for non-residential space lifting The City's property tax base.
Total Employment Growth (%)	1.0	1.9	Non-residential building construction activity would intensify. The region would lead the rest of Alberta in major investments ($5 million or more) for all five categories of building construction and infrastructure.
Unemployment Rate (%)	7.9	7.0	A lower unemployment rate would increase the competition for skilled workers and increase cost pressure on The City.
Calgary Census Metropolitan Area (CMA)			
Housing Starts ('000 units)	11.2	10.4	Housing investments have dropped significantly at the start of the current cycle. They would be lower, on average, than for the previous cycle.
CPI-Inflation Rate (%)	1.5	1.8	The local inflation rate would keep increases in the cost of living to below the 2 per cent threshold.
Non-Residential Building Construction Inflation (%)	0.1	2.7	The rate of escalation for construction costs would be much higher for the current cycle.
City of Calgary			
Demography			
Total Population ('000 Persons) *at the end of the cycle*	1,244.9	1,313.0	Demand for municipal services would be higher, and the residential property tax base should increase.
Total Population Growth (%)	1.5	1.4	The pace of population growth would be similar to the previous cycle as the local economy enters a gradual expansion phase.
Net Migration ('000 Persons)	7.8	10.3	Positive net migration would exceed natural increase as the primary source of population growth. Most migrants would come from international sources.
Household Formation ('000 Units)	7.9	6.6	The rate of household formation would decrease with the decrease in the number of births.
Real Estate			
Residential Market			
Housing Starts ('000 units)	9.2	8.2	The City's revenues from residential building permits would be slightly lower.
Average Residential MLS Sale Price (% change)	-0.3	1.9	Household wealth would grow at a faster pace.
Building Permits ($billion) (city)	5.0	4.6	The City's residential taxable assessment base would grow more slowly.
Non-Residential Market			
Downtown Office Vacancy Rate (%)	18.9	20.2	The downtown office vacancy rate would remain close to the average for the previous cycle.

Numbers may not add up due to rounding.

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Forecast Risks

Risks arising from activities in the Rest of World:

Worsening global outlook, outstanding trade tensions, and the differences in monetary policy direction for Canada and the U.S.

Risks from policy differences across Canada or policies targeting average conditions in Canada:

Policy to address housing investment imbalances elsewhere is impacting Calgary, sustaining Alberta's crude production and export levels, and different economic conditions across Canada.

Global GDP Outlook

The U.S. has had the longest-lasting business cycle on record, and the possibility of a slowdown has increased. It is a significant driver of a worsening **global GDP outlook**. The U.S. economy is about 24 per cent of the world economy and is Canada's primary trading partner. A slowdown would reduce Canadian exports to the U.S. Without other markets for Alberta's exports, especially crude oil, investment and GDP in Calgary would decline.

Trade Tensions

Despite a 2018 deceleration in global goods trade, **trade tensions** have escalated. U.S. tariffs applied exclusively to Chinese goods have increased to cover goods worth US$550 billion from US$225 billion in April. Chinese tariffs applied solely to U.S. goods expanded to include goods worth US$185 billion from US$50 billion. The movement toward protectionism affects Calgary because imports exceed 50 per cent of domestic demand.

Interest Rate Policy

The Canadian and U.S. **central banks have made different policy choices**. The Bank of Canada has kept the overnight rate the same all year. The U.S. Fed implemented several 2019 rate cuts. The resulting interest rate differential has strengthened the loonie. A Bank of Canada rate cut would weaken the loonie and increase the cost of imports, which are already more than 50 per cent of Calgary's domestic demand. It would decrease Calgary's GDP.

Housing Investments

The federal mortgage stress test has contributed to diverting interest away from single-family to multi-family units in Calgary. It was introduced to address imbalances in the level of **housing investments** in Toronto and Vancouver. Federal political parties, including the governing incumbent, have proposed alternatives to be implemented following the upcoming federal election. The outlook assumptions reflect the current policy regime.

Crude Oil Production

The provincial curtailment program lowered Alberta's share of Canadian crude oil production in the first half of 2019. Delayed or accelerated approval of pipelines would affect Alberta's **crude oil production** and export levels. Also, larger volumes could occur due to Middle East tensions that reduce crude oil transit in the Strait of Hormuz. Lower volumes could be due to a surge in U.S. shale production if WTI prices improve.

National vs Regional

Canada is experiencing a long-lasting business cycle. **Federal authorities have used fiscal and monetary policy tools to manage average economic conditions in Canada**. While Canada has had one business cycle over the last ten years, the CER and the province of Alberta have had to contend with two. Different economic conditions in Calgary and Alberta relative to Canada could lead to policies that do not work for Calgary.

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Risks from potential changes in Alberta provincial government policies:

The uncertainty associated with the policy approach to get Alberta crude to new markets, the path of public sector spending, and the level of capital funding for Alberta municipalities.

7 Crude Oil Exports

Alberta oil production outpaces crude oil pipeline capacity by a large margin. The previous NDP government used a two-part approach: mandatory production curtailment and the purchase of a $3.7 billion crude-by-rail contract. The new UCP government plans to alter the strategy on **medium-term access to alternative markets for crude oil** by divesting the contract to private industry.

8 Government Spending

The healthcare and social assistance industry, rather than the oil and gas industry, has contributed the most to job growth in Calgary. The industry's employment would face downward pressure as the **provincial government plans to reduce government spending on healthcare and education**. Steady job creation in the summer should sustain 2019 job growth. Beyond 2019, job growth could slow down.

9 Infrastructure Spending

Investment by the three orders of government in Calgary is expected to decline because of a decrease in **capital spending dollars through the provincial government**. A one-time federal gas tax fund increase provides temporary relief. Although the recent MacKinnon Report on Alberta finances recommends further reductions to capital funding to municipalities, the real GDP growth rate forecast assumes no further capital funding cuts.

Risks from local and regional private and public-sector influences:

A revision to investment intentions, no adjustments to previously approved municipal capital projects, and expectations for the labour force participation rate.

10 Private Investment

Decreases or increases to non-residential **investment intentions** would lower or expand the need for residential investment and the general level of economic activity. No new downtown office investment is anticipated through to 2024 because of oversupply. Nevertheless, changing the use of existing buildings could occur. The investment dollars for that would alter the forecast.

11 Government Investment

Reductions to government investment at a time when the economy is not firing on all cylinders would lower economic growth. It is accepted wisdom that government infrastructure investments should be countercyclical. It helps moderate non-residential building construction inflation and smoothens demand for material and labour. The forecast assumes that all previously **approved municipal capital projects would go ahead** and support growth.

12 Labour Force Changes

Declines in the labour force participation rate are usually due to an ageing workforce, and the youth spending extended periods in educational institutions to improve their chances of job market success. Using the pattern observed elsewhere in North America, the forecast assumes a drop in the **labour force participation rate**. If Calgary breaks with the pattern and sustains high participation rates, the local unemployment rate would remain high.

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Development Agreements and Off-site Levies

Housing investment is vital for strong growth in Calgary. From 2010 to 2018, investments in new housing units was between 6.3 and 8.7 per cent of final domestic demand. For 2019, housing starts and house prices are both lower than in 2018. Housing investment in 2019 is expected to have a lower contribution to the final domestic demand relative to 2018. Housing investment would represent the biggest drag to economic activity this year.

Population growth would support demand for new housing investments but at a slower pace. The annual addition to housing units in 2018 was 1.8 per cent. The 2019 decline in housing starts would reduce the pace of residential dwelling expansion to 1.1 per cent. The slower pace is due to the cumulative impact of excess housing inventory and reduced affordability. A more stringent mortgage stress test has contributed to reduced affordability.

The decline in housing investment affects the local government directly. The level of housing investment, together with house prices, affects the growth in assessed value for residential property. Property taxes remain an essential source of operating revenue. The local government can lower the mill rate when there is a significant expansion in household wealth.

There is an indirect impact on infrastructure investment. Through development agreements, The City approves the development of suburban lands for use in residential and non-residential investment. The growth rate of development agreements is a leading indicator for future housing investment. The City tracks the growth of development agreements to inform future expectations of housing and non-residential investment.

Development agreements also inform future capital funding flow expectations. Each hectare of land that gets approved through development agreements triggers between $450,000 and $500,000 in off-site levy payments to The City. The City receives payment over three years. It funds the infrastructure necessary for residential and non-residential growth in Calgary's suburbs.

The levy funds may not be available when the infrastructure is required. Some infrastructure is financed using debt. Debt-financed infrastructure adds to City costs through growth-related annual debt obligations. As necessary, to enable the development to proceed, The City has used other funding sources (e.g. grants, taxes, utility rates) to cover the costs. The expectation is that off-site levy funding would occur as development proceeds.

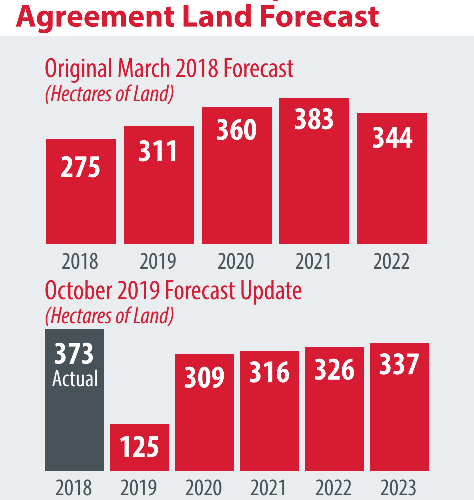
Analysis when developing the 2016 off-site levy bylaw utilized an average of 400 hectares annually. During One Calgary, the expectation was for 1,673 hectares of greenfield development agreement lands between 2018 and 2022. The fall 2019 update has further lowered the expectations to 1,449 hectares of land.

There are two primary driving forces for the change. First, the One Calgary forecast was at a different time in the economic cycle. The level of housing investment and affordability have worsened.

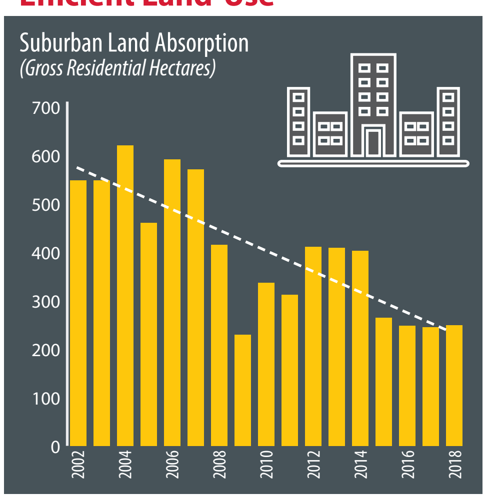
The second driving force is more efficient land use. Suburban land absorption has declined. The City introduced Municipal Development Plan targets in 2009. It encouraged more density, and the local development industry responded. Today, on average, each investment dollar gets applied to less land. It is evident in the increase in multi-family housing investment relative to single-family housing investment.

By mid-September 2019, the local industry had entered into Development Agreements for 85 hectares of land. The development industry has indicated that at least another 53 hectares of land will enter into a development agreements by the end of 2019.

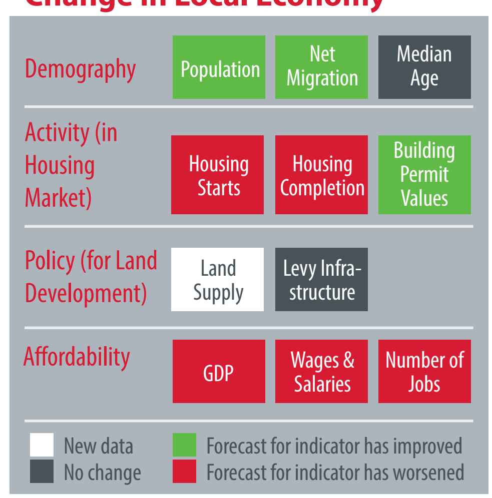
Greenfield Development Agreement Land Forecast



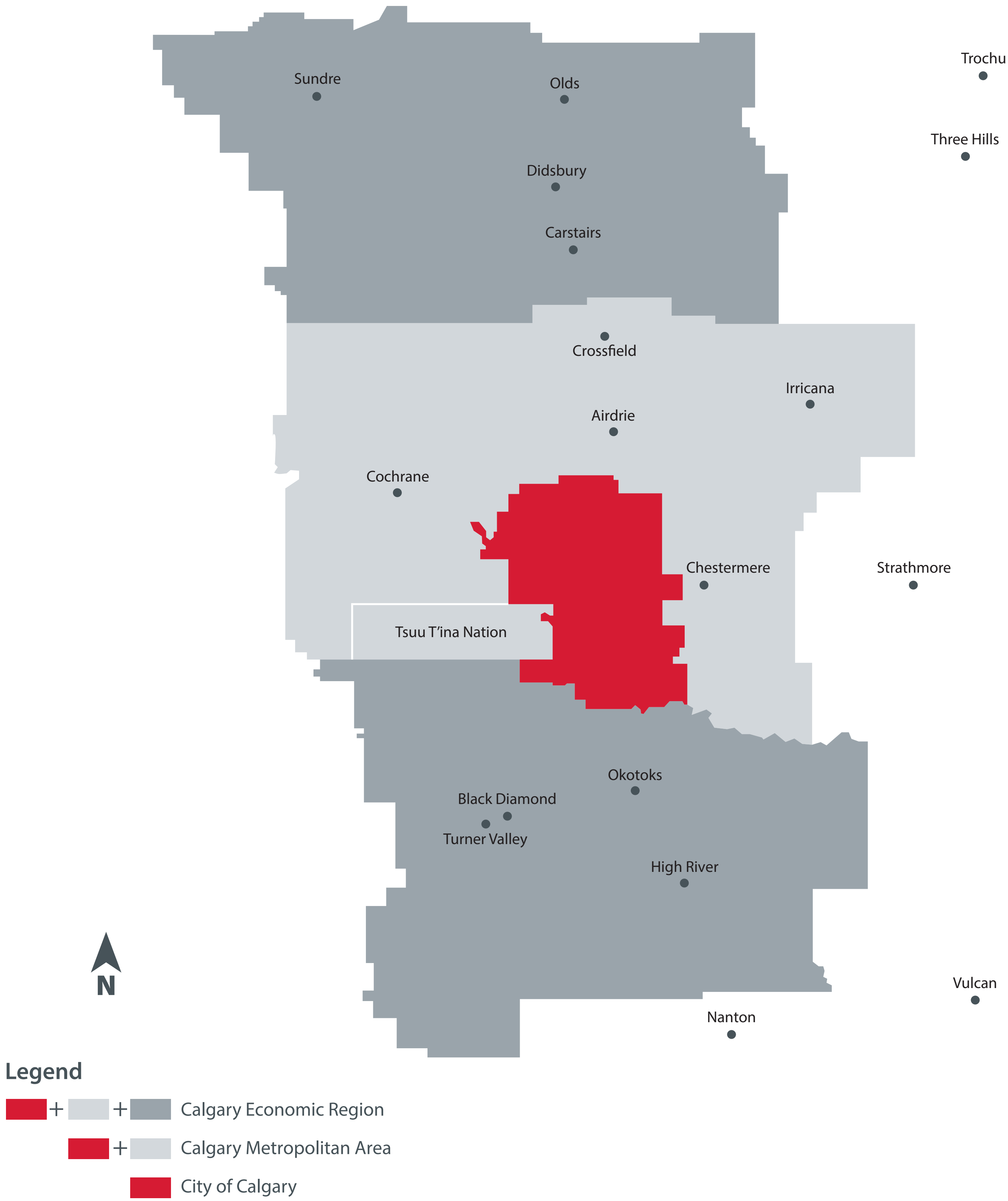
Efficient Land-Use



Change in Local Economy



Calgary Economic Region Map



Who We Are

Corporate Economics provides services in four areas: forecasting, information provision, policy analysis and consulting. We also monitor the current economic trends which allows us to develop unique insights on how external events are impacting the local economy and the Municipal government. We are experienced at researching different economic topics and have developed reliable methods of forecasting and analysis.

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Sources:
Statistics Canada, CMHC, CREA, CREB, Bank of Canada, Conference Board of Canada, GLJ Energy Publications, The City of Calgary, Stokes Economics, U.S. Federal Reserve Bank of St. Louis (FRED), U.S. Energy Information Administration (EIA), International Money Fund (World Economy Outlook), and others.