

Calgary's Economy

September 2017



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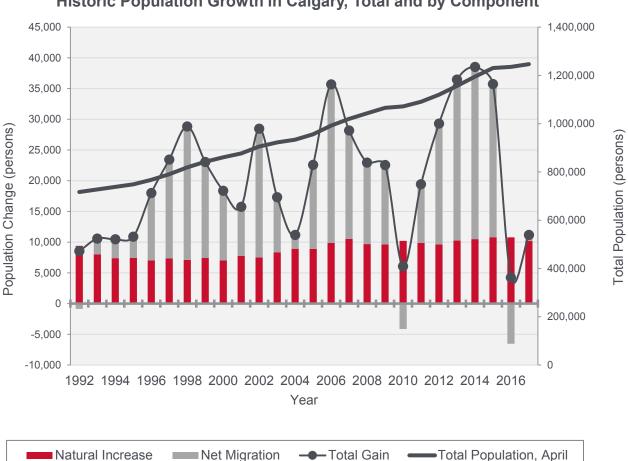
- This presentation is designed to be a reference document on the current state of Calgary's economy. It combines both statistical data and public perception data with the hope of showing what is happening in the economy to what citizens think is happening in the economy.
- The information presented was collected by The City of Calgary as part of its ongoing monitoring and tracking of economic indicators and citizen perspectives to provide some insight as to how external events are impacting both the economy and citizens.
- Six key areas were looked at in preparing this document:
 - 1. Demographic trends
 - 2. Standard of living and equity
 - 3. Business climate
 - 4. The City of Calgary's infrastructure
 - 5. Real estate
 - 6. Economic performance, composition and diversity
- The information in this presentation is not intended to draw conclusions or provide recommendations; it is simply a collection of non exhaustive data and facts about the current state of the economy in our city.

3



Demographic Trends

Calgary **Population Growth**



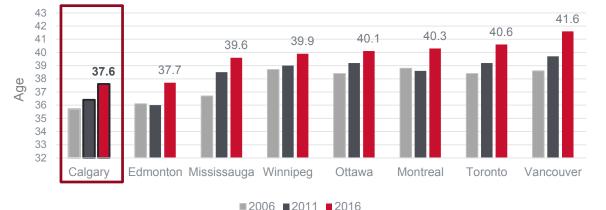
Historic Population Growth in Calgary, Total and by Component

Source: Geodemographics analysis of Calgary Civic Census

Population

- Calgary's population has been . steadily increasing since 1984. Our current population is 1,246,337.
- Net migration (the number of people • moving to Calgary less the number of people who leave) changes as the economy improves and declines.
- Calgary saw its highest growth in • 2013-2015 and significant declines in growth in 1992, 2010, and 2016.
- The decline in growth in 2016 is • considerably more significant than what was experienced in 2010. Net migration in the following year is also much weaker than what was experienced after 2010.

Calgary 🐼 Age of Population

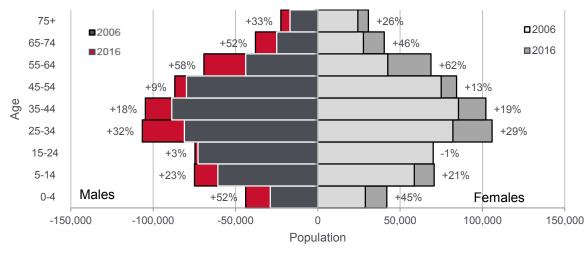


Average Age in Major Canadian Cities

Source: Statistics Canada

Average Age in Calgary

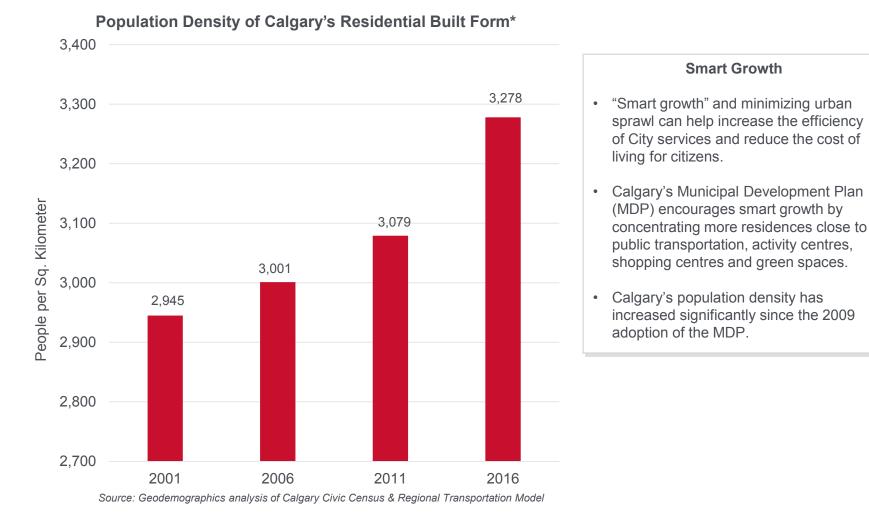
- Calgary has the youngest average age (37.6) of the eight largest Canadian cities.
- Over the course of a decade, Calgary's average age has increased by only 1.9 years, suggesting the city continues to attract young residents.
- Over the past 10 years, Calgary has seen the most growth in the 0-4, 25-34, 35-44, and 55-64 age groups.



Calgary's Growth by Age Cohorts

Source: Geodemographics analysis of Calgary Civic Census

Calgary 🖄 A More Compact Urban Form



*Population density is measured by the median density of all Transportation Zones within the residential built form



Standard of Living and Equity

Calgary: A Great Place to Make a Living; A Great Place to Make a Life

Overall Agreement

Overall Agreement

Completely Agree +

Agree

from 1 to 10, where "1" is "completely disagree" and "10" is "completely agree." Calgary is a Completely Agree + great place to make a living. Agree Spring Pulse 2017 14% 54% 21% 68% 2016 15% 59% 23% 74% 2015 21% 59% 13% 80% 2014 29% 57% 9% 86% 2013 35% 55% 8%: 90%

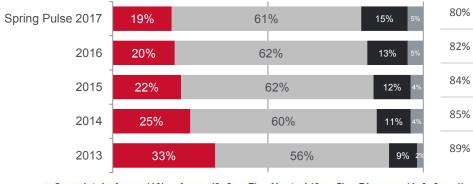
Calgary is Great Place to Make a Living

■ Completely Agree (10) ■ Agree (9, 8 or 7) ■ Neutral (6 or 5) ■ Disagree (4, 3, 2 or 1)

Calgary is Great Place to Make a Life

Q: Please indicate whether you agree or disagree with the following statement, using a scale from 1 to 10, where "1" is "completely disagree" and "10" is "completely agree:" *Calgary is a great place to make a life.*

Q: Please indicate whether you agree or disagree with the following statement, using a scale



■ Completely Agree (10) ■ Agree (9, 8 or 7) ■ Neutral (6 or 5) ■ Disagree (4, 3, 2 or 1)

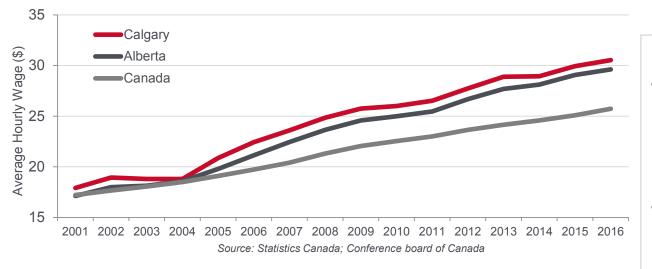
Citizen Perceptions

- Overall agreement that Calgary is a great place to *make a living* has dropped a full 22 percentage points from 90 per cent in 2013 to 68 per cent in 2017, and is a direct reflection of Calgary's current economy.
- The number of citizens who generally agree that Calgary is a great place to make a life has remained relatively stable over the past four years, but the number of citizens who completely agree has dropped since 2013.

Source this slide: 2005-2016 Citizen Satisfaction survey / 2017 Spring Pulse Check survey | Base varies



Canada, Alberta and Calgary Census Metropolitan Area (CMA): Average Hourly Wage Rates



Average Salary per Employee 2016 for Canadian CMAs



Wages and Salaries

- From 2001-2016, Calgary's hourly wage rates have consistently been higher than that of Alberta and Canada. This has attracted migration from other provinces and countries.
- Even with the economic downturn in 2015 and 2016, average hourly wage rates in Calgary still grew and were higher than Alberta and Canada, respectively.
- Average wage and salary per employee were the highest in Calgary in 2016 (\$73,669). This is greater than all the other major Canadian cities.

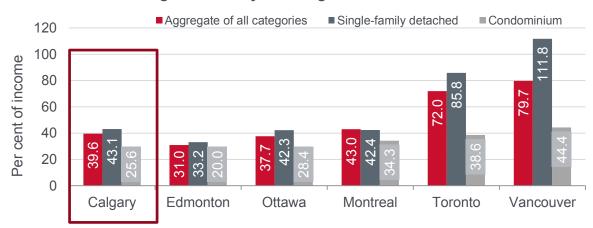
Source: Calgary Economic Development, Statistics Canada

Personal Disposable Income and Housing Affordability

60 Calgary Alberta Canada 50 40 Thousands (\$) 30 20 10 0 2011 2013 2004 2005 2006 2007 2008 2009 2010 2012 2014 2015 2016

Personal Disposable Income per Capita

Source: Conference Board of Canada; Corporate Economics



Housing Affordability: Housing Costs as a Per cent of Income

Disposable Income and Housing

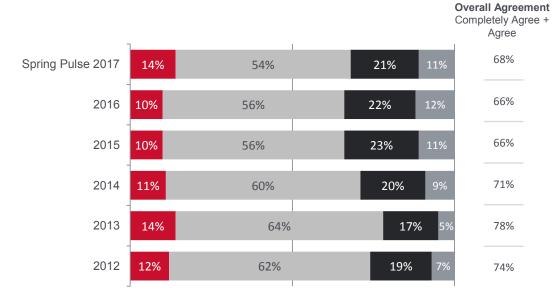
- Calgarians have more disposable income per capita than others living in Alberta and across Canada. This can be attributed to Calgary having a greater number of jobs in industries that pay higher wages.
- The Royal Bank Housing Affordability Index compares housing costs relative to the total amount needed to pay for a mortgage, utilities and property tax. It then compares these numbers to average household incomes. The higher the number, the more difficult it is to afford a house.
- Based on the average price of a singlefamily detached home, it takes 43.1 per cent of a Calgarian's household income to pay for the mortgage, utilities and property taxes every month.
- Compared to Vancouver or Toronto, Calgary has better housing affordability.

Source: RBC Economics. Housing Trends & Affordability, June 2017

Perceptions of Quality of Life for Future Generations

Ensuring a High Quality of Life for Future Generations

Q:Please indicate whether you agree or disagree with the following statement, using a scale from 1 to 10, where "1" is "completely disagree" and "10" is "completely agree:" *Calgary is moving in the right direction to ensure a high quality of life for future generations.*



Completely Agree (10) Agree (9, 8 or 7) Neutral (6 or 5) Disagree (4, 3, 2 or 1)

Source this slide: 2005-2016 Citizen Satisfaction survey / 2017 Spring Pulse Check survey | Base varies

Quality of Life for Future Generations

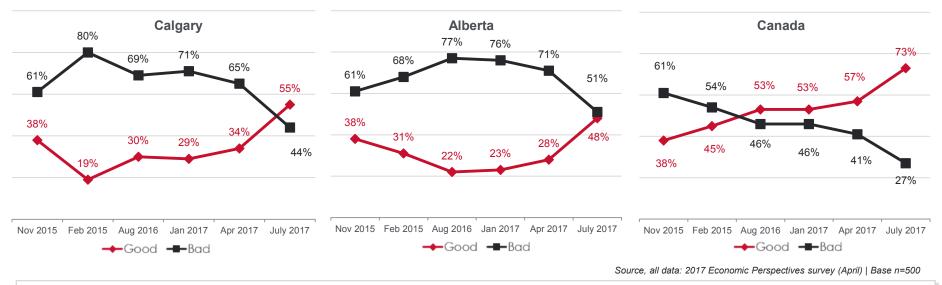
- In 2017, 68 per cent of Calgarians believe that "Calgary is moving in the right direction to ensure a high quality of life for future generations."
- The number of respondents that completely agreed with this statement rose slightly in 2017 for the first time since 2013.
- Although 32 per cent of respondents remained neutral or disagreed with this statement in 2017, overall agreement has gone up.
- Although overall agreement about this statement has increased minimally since 2014, it is an increase and may be seen as growing optimism about Calgary moving in the right direction for future generations.



Perceptions of Current Economic Situation in Calgary, Alberta, and Canada

Perception of Current Economic Situation

Q: How would you describe the current economic situation in [...] as a whole? Is it very good, somewhat good, somewhat bad, or very bad?



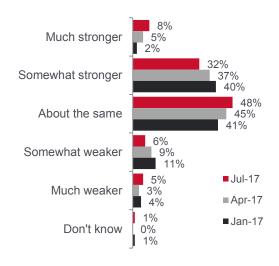
Citizen Perceptions About Calgary's Current Economic Situation

- Over one-half of Calgarians describe Calgary's current economic situation as good. This is a substantial increase since February 2015.
- Calgarians' view of Alberta's economic situation is also rapidly improving with 48 per cent describing the Province's economy as good. This is a 20 per cent increase from April 2017.
- Calgarians also believe Canada's economy is strong, with almost 73 per cent of respondents saying Canada's current economic situation good. This is a consistently rising number, and marks a 35 percentage point increase since November 2015.
- This most recent data shows Calgarians' optimism about the current economy is definitively on the rise.

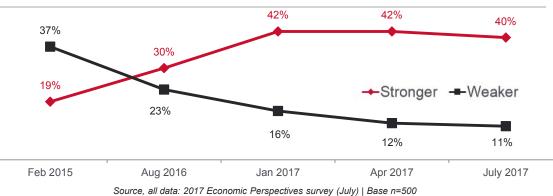
Calgary 🐼 Perception of the Future of Calgary's Economy

Perceptions of the Future of the Economy (6 months)

Q: Looking ahead six months from now, do you expect the economy in Calgary to be much stronger, somewhat stronger, about the same, somewhat weaker, or much weaker than it is now?



Tracking Perceptions of the Future of the Economy (6 months)



Calgary's Future (6 months)

- When asked specifically about their expectations of the economy's performance six months from now, 40 per cent of Calgarians currently believe the economy will be stronger.
- This is comparable to the response in April and January 2017, but is up a full 21 percentage points from February 2015 (which was the lowest number recorded on this measure to date).
- Given this outlook, it is fair to assume Calgarians' optimism about the state of the local economy is improving.

Role of The City in the Economy

Perceptions of the Role of The City & the Economy % Agree Q: Please tell me whether you agree or disagree with each of the following statements regarding the role you would like to see The City of Calgary play in the current economic downturn. Aug Jul Apr Jan 2017 2017 2017 2016 Strongly agree ■ Somewhat agree Somewhat disagree Strongly disagree It is important that Calgary find more of a balance between oil and gas and other 60% 31% 4 3% 91% 93% 87% 90% types of businesses in its local economy I believe that The City of Calgary has an obligation to help support our local economy in whatever way they possibly 59% 33% 4%<mark>4</mark>% 92% 89% 95% 91% can I am confident that The City of Calgary will work together with local businesses and other levels of government to find the 25% 53% best solutions to help our city through this 7% 78% 74% 78% 82% economic downturn

Source: 2017 Economic Perspectives survey (April) | Base for each wave n=500

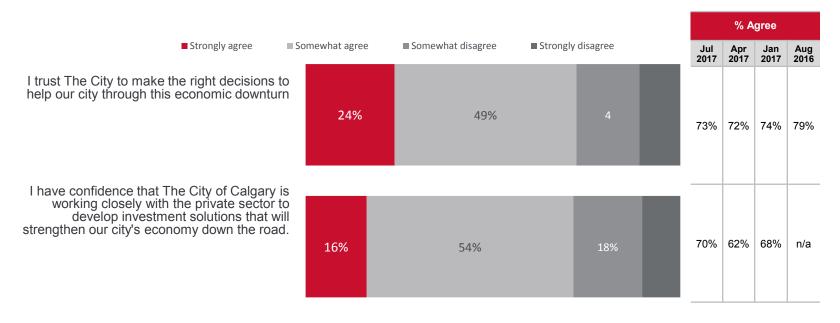
Role of The City of Calgary in the Economy

- More than 90 per cent of Calgarians agree it is "important that Calgary find a greater balance between oil and gas and other types of businesses in its local economy."
- A similar proportion also agree "that The City of Calgary has an obligation to help support our local economy in whatever way they possibly can" but this is down slightly since January 2017.
- Calgarians' confidence "that The City of Calgary will work together with local businesses and other levels of government to find the best solutions to help our city through this economic downturn" has decreased slightly since August 2016.

Calgary 🐼 Role of The City in the Economy

Perceptions of the Role of The City & the Economy

Q: Please tell me whether you agree or disagree with each of the following statements regarding the role you would like to see The City of Calgary play in the current economic downturn.



Source: 2017 Economic Perspectives survey (April) | Base for each wave n=500

Confidence in The City

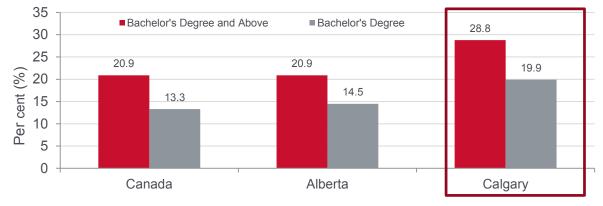
- The percentage of citizens surveyed who "trust in The City to make the right decisions to help our city through this economic downturn" has decreased from 79 per cent to 73 per cent since August 2016.
- However, 70 per cent "have confidence that The City of Calgary is working closely with the private sector to develop investment solutions," an increase of eight per cent since April 2017.



Business Climate



Per cent of Population with Bachelor's Degree and Above



Education Levels

- Calgary has more residents who have completed some sort of postsecondary education than other centres in Alberta and Canada as a whole.
- Almost 30 per cent of Calgarians have a bachelor's degree or above.

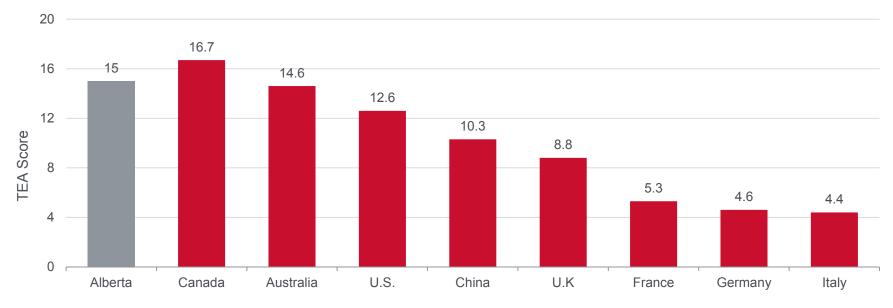
Source: Statistics Canada, National Household Survey 2011

Education levels from Statistics Canada 2011 National Household Survey				
	Canada	Alberta	Calgary	
Highest certificate, diploma or degree	%	%	%	
No certificate, diploma or degree	20.1	19.1	15	
High school diploma or equivalent	25.6	26.5	24.9	
Postsecondary certificate, diploma or degree (includes: *)	54.3	54.5	60	
*Apprenticeship or trades certificate or diploma	10.8	11	8.2	
*College, CEGEP or other non-university certificate or diploma	18.2	18.4	17.8	
*University certificate or diploma below bachelor level	4.4	4.2	5.2	
*University certificate, diploma or degree at bachelor level or above (includes: **)	20.9	20.9	28.8	
**Bachelor's degree	13.3	14.5	19.9	
**University certificate or diploma above bachelor level	2.2	1.6	2.2	
**Degree in medicine, dentistry, veterinary medicine or optometry	0.6	0.5	0.6	
** Master's degree	4.0	3.5	5.2	
** Earned doctorate	0.8	0.7	0.9	
Total	100	100	100	
Note: totals may not add up to 100 due to rounding				

Calgary's Economy - September 2017

Calgary 🐼 Entrepreneurship (Alberta)

Total early-stage Entrepreneurial Activity (TEA) Score in 2016



Source: 2016/2017 Global Entrepreneurship Monitor Report, February 2017 Note: the Alberta TEA score is 2015 index due to the unavailability of 2016 data.

Entrepreneurial Spirit

- The 2016/2017 Global Entrepreneurship Monitor Report calculates the value of entrepreneurs in different provinces, cities and countries. The criteria for making this determination are: economic growth, job creation, sustainability and quality of life.
- Alberta scored 15, higher than all other countries and economies, with the exception of Canada as a whole.
- An assumption that could be drawn from this data is that unemployed Calgarians could become self-employed more easily in Alberta than in other parts of the world. This also may imply Calgary's labour market could be more adaptable and resilient because of Alberta's entrepreneurial spirit.



Head Offices per 100,000 Population Ratios in Canada*

Geography	2012	2013	2014	2015
Canada	8	7.9	7.8	7.6
Quebec, Quebec	7.6	7.3	7.2	7.1
Montreal, Quebec	10.1	9.8	9.6	9.4
Ottawa-Gatineau, Ontario/Quebec	5.7	5.4	5.3	5.2
Toronto, Ontario	12.2	11.8	11.5	11.3
Winnipeg, Manitoba	12.1	11.7	11.5	10.9
Calgary, Alberta	17	15.9	15.3	14.6
Edmonton, Alberta	9.7	9.3	8.8	8.2
Vancouver, British Columbia	10.1	9.9	9.7	9.3

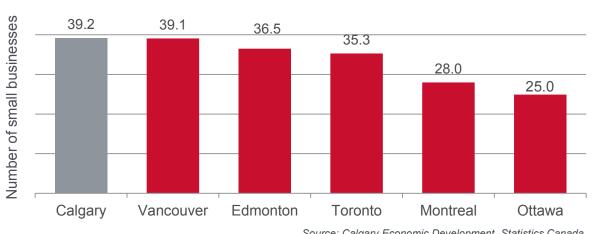
Source: Statistics Canada

*Please note that the numbers are most recent from 2016 Statistics Canada Survey, since the 2017 Survey is not complete

Head Office Impact

- Calgary has the highest concentration of head offices (per 100,000) in Canada and as a result, has a large number of professionals living in the city supporting those offices.
- Head offices are a highly desirable asset for any city in that they provide a potential location for businesses to operate, are able to generate highly skilled workers, and can contribute to the development of a knowledgeable and professional business community.

Small Businesses and Business Bankruptcy Rates Calgary (ō

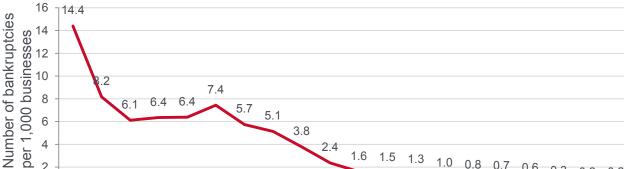


Small Businesses per Capita (per 1,000 population) in 2016

Source: Calgary Economic Development, Statistics Canada.

Small Business

- Statistics Canada defines a small business as one with less than 50 employees.
- Small businesses are often called . the engine of an economy. They create jobs, improve employment rates, and ultimately make a positive contribution to the Gross Domestic Product (GDP).
- Calgary has a higher ratio of small . businesses per capita than other major Canadian cities.



Business Bankruptcy

- Calgary's business bankruptcy rate has continued to decline since 1997.
- This is significant because more than 90 per cent of businesses in Calgary's census metropolitan area (CMA) are considered "small".

7.4 6.4 5.7 5.1 3.8 2.4 1.6 1.5 1.3 1.0 0.8 0.7 0.6 0.3

 $20_{03} - 20_{04} - 20_{05} - 20_{06} - 20_{05} - 20_{06} - 20_{$

Business Bankruptcy Rates in Calgary CMA (per 1,000 businesses)

2017 2015 2013

0.2 0.2

199> 1990

1990 2000 2007 2002

2

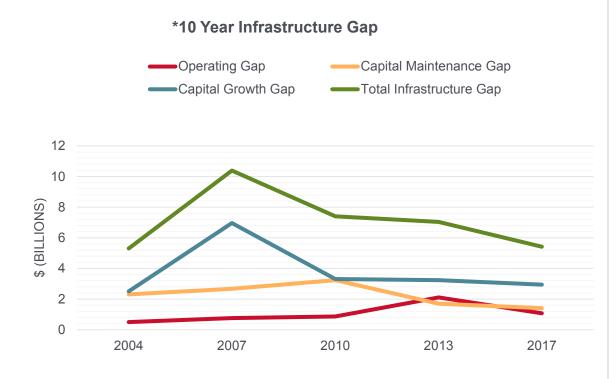
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Source: Office of the Superintendent of Bankruptcy Canada.



The City of Calgary's Infrastructure





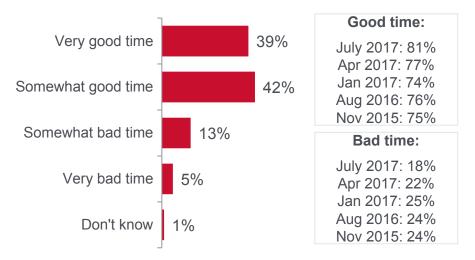
Infrastructure Funding Impact

- The City of Calgary defines assets to include all physical infrastructure that is necessary to support the social, economic and environmental services provided by The Corporation.
- Because Calgary has such a large infrastructure/asset base, it is important to have a good understanding of what is required to maintain and continue to upgrade these assets.
- The 'Infrastructure Gap' is defined as the sum of capital growth, capital maintenance and operating against the required investment over 10 years.
- Ongoing budget cuts impact service levels and capital maintenance, which can negatively impact The City's 10-year infrastructure gap forecast and ultimately service delivery.
- More information about Calgary's infrastructure gap will be forthcoming in The City of Calgary's Infrastructure Status Report (ISR) scheduled for release December 2017.

Perception of Infrastructure Investment

Good or Bad Time for The City to Invest in New Projects

Q: Generally speaking, do you think that it is a good or a bad time for The City of Calgary to be investing in new projects like roads, public transportation, and local facilities?

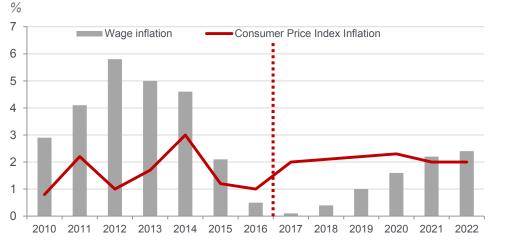


Sources: 2017 Economic Perspectives survey (April) | Base: All respondents (n=500) / 2017 Business Perspectives Focus Groups

Infrastructure Investment

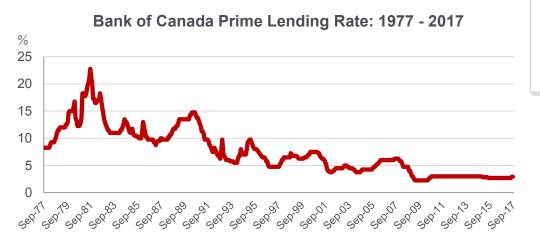
• Currently, 81 per cent of Calgarians surveyed believe it is a good time to be investing in new projects, a four point increase from April 2017, and an overall six point increase from November 2015.

Infrastructure and Inflation



Inflation and Wage Growth in Calgary

Source: Centre of Spatial Economics, Corporate Economics 2017 Spring Outlook.



Infrastructure Cost and Impact of Inflation

- During an economic downturn, the costs of materials, labour and capital borrowing are lower than normal.
- Inflation in Calgary has been well controlled over the past two years, and is expected to remain so over the next five years at around two per cent per year.
- Salary and wage increases are expected to be limited over the next few years due to moderate economic recovery.
- Since 2009, lending interest rates have been at historically low levels. (This is despite the fact that the Bank of Canada raised rates by 0.25 per cent in both July and September 2017). For municipalities like Calgary, this also means low capital costs for infrastructure investment.

Source: Bank of Canada.

Calgary 🎡 The City's Capital Investment (2015-2016)

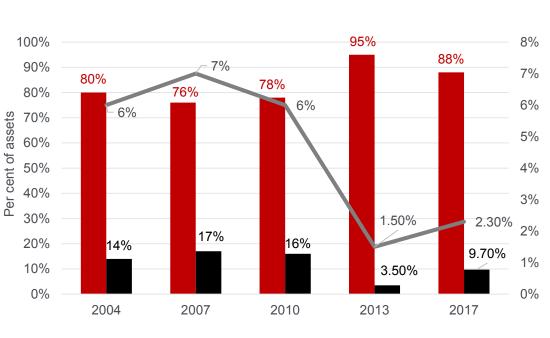
Capital Investment (2015-2016)



Capital Investment (2015-2016)

- Since 2011, The City's average yearly capital budget was above \$2B annually.
- From 2015 to 2016, The City increased its actual spend on capital every month.
- In 2016, business unit spend rates were up an average of 30 per cent each month compared to 2015.

Calgary 🖄 Infrastructure – Assets Physical Condition



Assets Physical Condition

Fair

-Poor

Good

Year

State of Infrastructure

- Assets in The City of Calgary include investments such as engineered structures, buildings, land improvements, vehicles, machinery and equipment, etc.
- The physical condition of an asset may or may not affect its performance. The performance of an asset is its ability to provide the required level of service to customers in terms of reliability, availability, capacity and meeting customer demands and needs.
- Knowing the condition of infrastructure is critical in determining the remaining useful life of an asset, and more importantly, when it is time to step in and improve the asset to enable it to perform as it should.
- While the physical condition of The City of Calgary's infrastructure assets has improved over the past 10 years, there is an increase in fair and poor condition assets since 2013.
- Efforts are ongoing to improve the state of City assets. Council will receive an update on City infrastructure in the 2017 Infrastructure Status Report in December.

*Infrastructure Status Report – scheduled for released December 2017



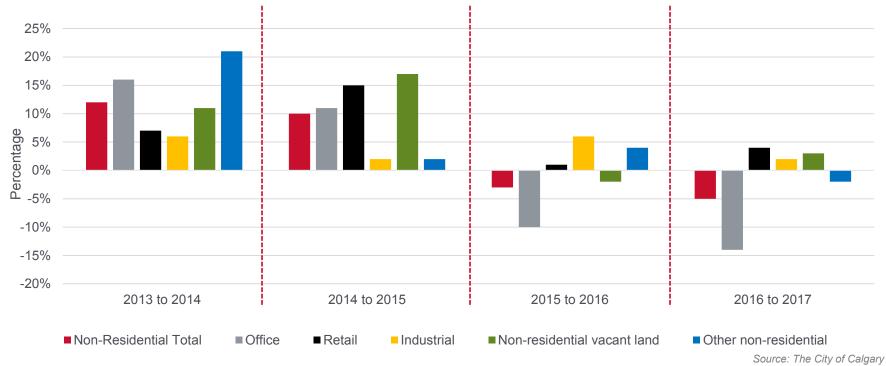
Real Estate



Year-over-Year Change of Taxable Assessment Values for Non-residential Assessment Class

Non-residential Assessment

- Calgary's non-residential assessment values decreased by three per cent from 2015 to 2016 and another five per cent from 2016 to 2017.
- The "office" category was the hardest hit among non-residential property types, with taxable assessment values declining by 10 per cent from 2015 to 2016, and 14 per cent from 2016 to 2017.

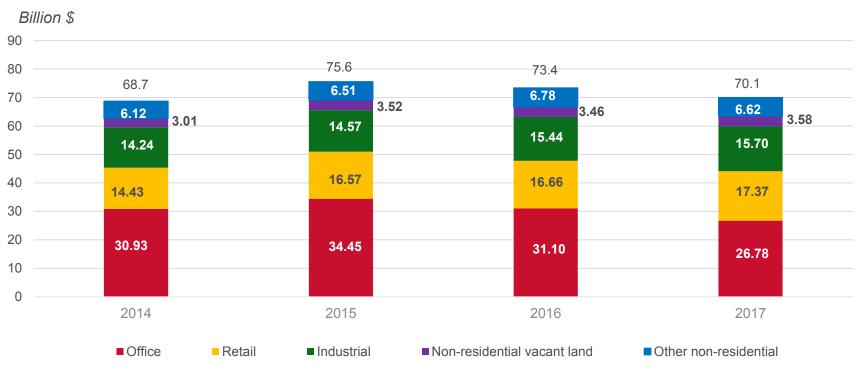


Changes of Taxable Assessment Values for Non-residential Assessment Class: 2014 - 2017



Diversity Across Classifications of Property

• While the overall value of non-residential properties decreased by over \$3 billion in 2017, vacant land, retail and industrial property types experienced an increase in assessed value from 2016.



Assessed Value of Taxable Non-residential Assessment Class: 2014 - 2017

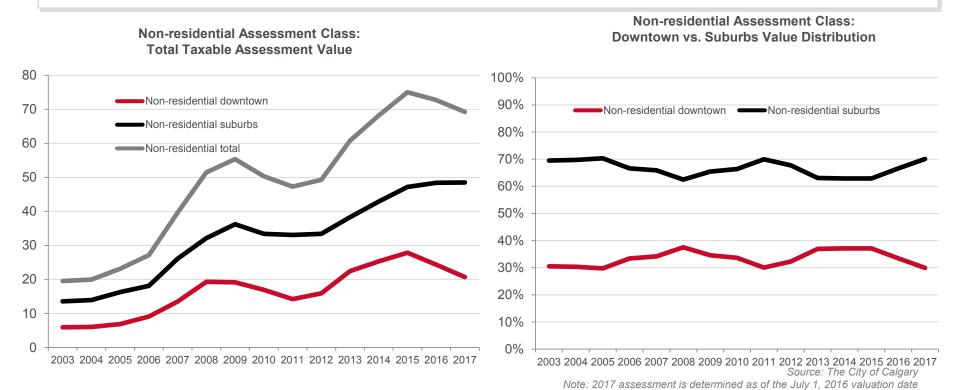
Source: The City of Calgary

Note: 2017 assessment is determined as of the July 1, 2016 valuation date

Calgary 🐼 Non-residential Assessment Class Tax Shift

Tax Shifts

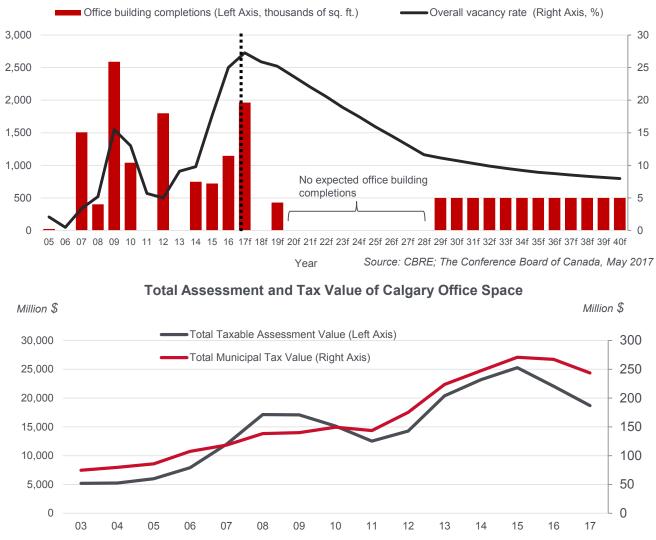
- The City of Calgary's revenue-neutral tax policy ensures tax revenues do not increase or decrease based on assessed value changes caused by real estate market fluctuations.
- In 2017, there was a shift in the property tax burden from downtown office buildings to non-residential properties outside the downtown. These changes were greater than the typical city wide change of -6 per cent.
- While there was an increase in the suburban tax burden in 2017, this is not a new trend. The tax burden is now at the same level as it was in 2005 and 2011.



Calgary's Economy - September 2017

Calgary Downtown Office

Office Building Completions and the Overall Vacancy Rate in Downtown Calgary



Year

Downtown Office Space

- It is anticipated that downtown office vacancy rates will remain high and average rental rates will continue to decrease.
- After the opening of Telus Sky in late 2018 or early 2019, The Conference Board of Canada anticipates there will not be any major new office buildings opening in the downtown core until 2029.
- The assessed value of downtown office buildings steadily increased from 2011 to 2015 and began to decline in 2016.
- The total assessed value of office buildings in 2017 is 24 per cent lower than at the peak in 2015.
- Decreased assessed values of the downtown office buildings has shifted the tax burden to other non-residential properties.

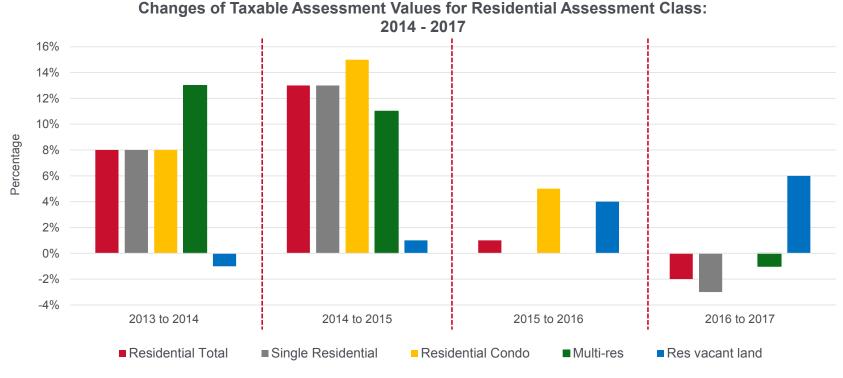
Source: The City of Calgary; The Conference Board of Canada, May 2017 Note: 2017 assessment is determined as of the July 1, 2016 valuation date



Year-over-Year Change of Taxable Assessment Values for Residential Assessment Class

Residential Tax Assessment

- Residential tax assessments increased by 13 per cent from 2014 to 2015. Due to growth, assessed values increased another one per cent 2015 to 2016, but then decreased by two per cent from 2016 to 2017.
- The greatest tax increases were to single residential and residential condos from 2014 to 2015. Multi-residential properties experienced this from 2013 to 2014. Residential vacant land was the only property type which increased in assessed value from 2016 to 2017.

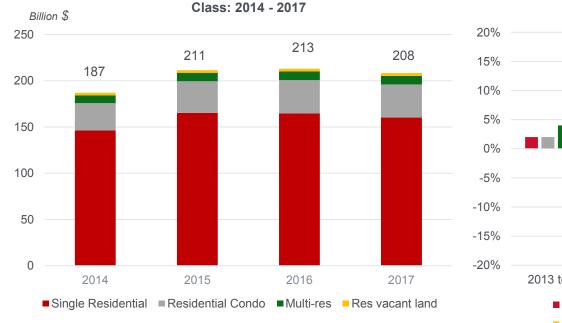


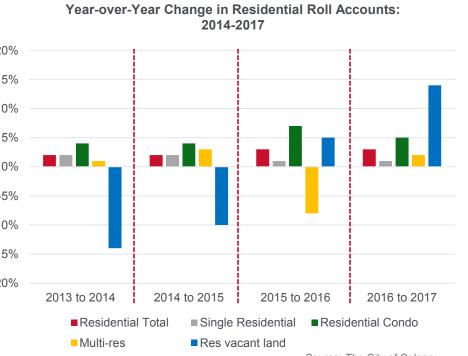
Source: The City of Calgary Note: 2017 assessment is determined as of the July 1, 2016 valuation date

CalgaryAssessed Value of Taxable Residential Assessment Class
and Year-over-year Change in Residential Roll Accounts

Residential Assessments

- Total residential assessment values decreased by \$4.6 billion in 2017.
- 2017 was the first time single residential properties experienced a decrease in assessed value since 2009.
- Residential market value changes were offset by growth, primarily in residential condo properties. From 2016 to 2017 alone, the total residential assessment roll increased by over 12,000 accounts.
- The number of residential vacant land accounts decreased 24 per cent between 2013 and 2015 and has since recovered by 19 per cent in preparation of new developments.





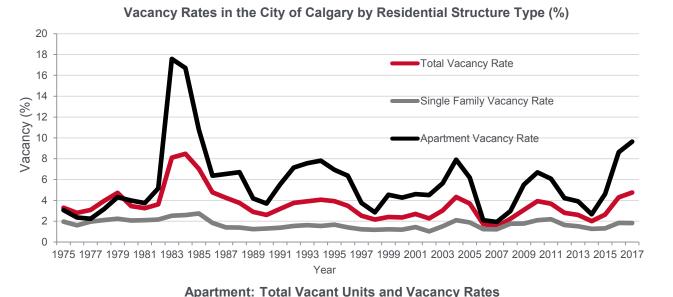
Source: The City of Calgary

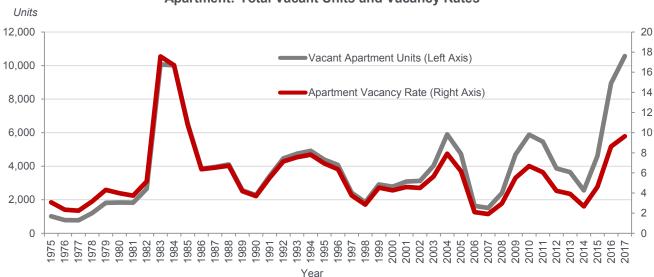
Note: 2017 assessment is determined as of the July 1, 2016 valuation date

Assessed Value of Taxable Residential Assessment Year-over-Year Change Class: 2014 - 2017 2

Residential Assessment Class Vacancy

Source: The City of Calgary Civic Census, July 2017

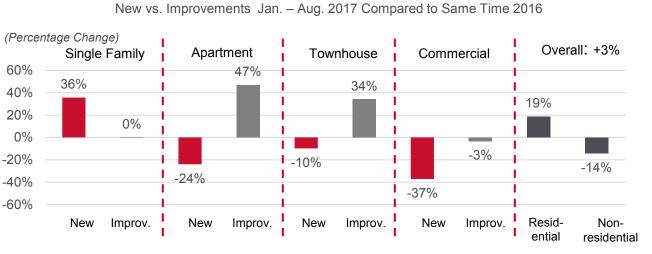




Residential Vacancies

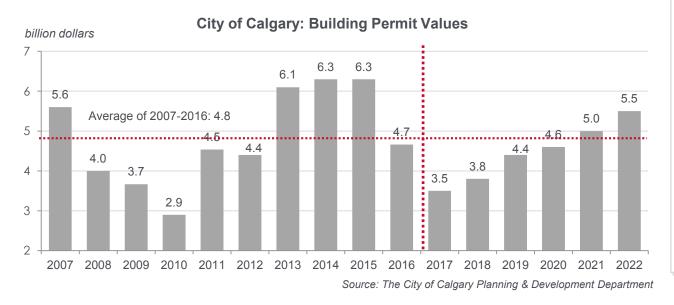
- The number of vacant residences in Calgary is now 23,553, up from 20,843 in 2016. This puts the overall residential vacancy rate in Calgary at 4.76 per cent, up from 4.3 per cent in 2016.
- The single family vacancy rate has been stable at about 2 per cent while apartment vacancy rates are above nine per cent.
- There are now 10,559 vacant apartments in Calgary, up from 8,944 in 2016.
- Apartment vacancies are now at 9.6 per cent. This is higher than the past 10-year average of 4.7 per cent and historical averages of 5.6 per cent for the past 4 decades.
- The number of residential condominium units has increased 16 per cent since 2014.

Building Permits



City of Calgary Building Permit Values

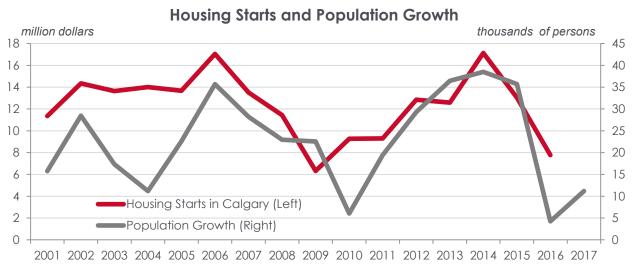
Source: The City of Calgary Building Permit Application Statement August 2017



Building Permits

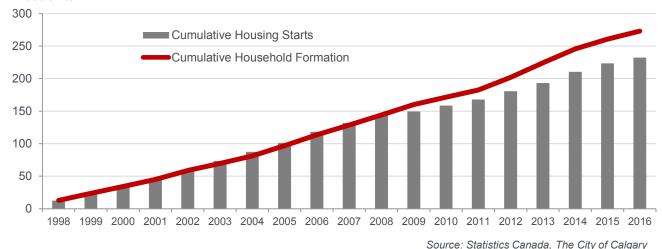
- Building permit values from January to August in 2017 increased by an overall three per cent compared to the same period last year, with overall residential building permits increasing by 19 per cent, and overall nonresidential decreasing by fourteen per cent.
- The combination of the current population and labour market conditions, coupled with higher interest rates, is expected to decrease future building permit values.
- In addition, relatively high vacancy rates in the residential and nonresidential markets will also negatively impact the construction of new space.
- The overall building permit values for the City of Calgary are expected to remain below its historical 10 year average (\$4.8 billion) of the past ten years for 2017 to 2020.

Housing Starts



Source: Statistics Canada; Conference Board of Canada Note: The housing starts data for the City of Calgary is only available up to 2016.

Cumulative Household Formation and Housing Starts in Calgary Economic Region



Housing and Population

- Residential housing starts in Calgary were driven by population growth and the corresponding demand.
- With population growth slowing down, housing starts should trend downward, reflecting changes in housing demand.
- Current price stability in the Calgary housing market has been supported by excess demand from previous years.
- Since 2008, the cumulative household formation in Calgary has exceeded the cumulative housing starts.
- This indicates that accumulated demand has exceeded supply.



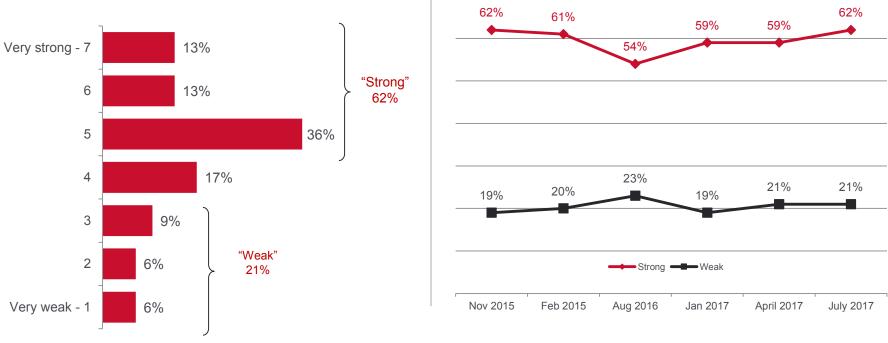
Economic Performance, Composition, and Diversity

Perception of Current Financial Situation

Perceptions of Current Financial Situation

Q: How would you rate your current financial situation, using a scale of 1 to 7, where 7 means your personal financial situation is very strong today and 1 means it is very weak?

Calgary



Sources: 2017 Economic Perspectives survey (July) | Base: All respondents (n=500)

Citizen Perceptions

- More than 62 per cent of Calgarians rate their personal current financial situation as strong. This is up three per cent from April 2017 and up eight per cent from August 2016.
- 21 per cent of Calgarians currently rate their financial situation as weak. This is consistent with rankings in April and slightly up from January 2017.

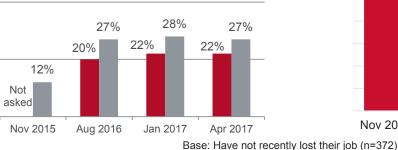
Tracking Perceptions of Current Financial Situation



Employment

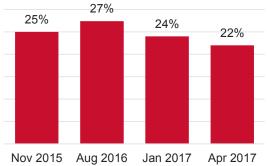
Concern Regarding Job Loss

Q: Did you or did anyone in your household recently lose their job or was laid off, recently start a new job?



Recently started a new job Recently lost their job or was laid off

Q: Are you or is anyone in your household worried about losing their job or being laid off?



Sources: 2017 Economic Perspectives survey (April) | Base: All respondents (n=500)

Forecast of Employment Growth and Unemployment Rate in Calgary



Employment Perceptions

- Actual job loss and finding a new job stats have not changed in recent months, but concern about job loss is decreasing.
- The recession (since 2015) has cost Calgary's local economy approximately 20,000 net jobs.
- It is predicted that total employment in Calgary will increase to 870,000 in 2017 and 885,000 in 2018.
- Unemployment is predicted to average 8.5 per cent in 2017 and 7.5 per cent in 2018, down from 9.0 per cent in 2016. This fall in unemployment would result from employment growing faster than the labour force as the recovery gains momentum.

Source: C4SE, Corporate Economics.

Employment Structure: Location Quotients in 2016

Industry	Calgary CER Employment Distribution	Canada Employment Distribution	Location Quotients (LQ)	
All Industries	100	100	1	
Agriculture	0.4	1.6	0.27	
Forestry, Fishing, Mining, Oil and Gas	6.6	1.8	3.61	
Mining and Oil and Gas Extraction	6.5	1.5	4.44	
Utilities	1.1	0.8	1.39	Calgary's Employment
Construction	10.3	7.7	1.35	Structure
Manufacturing	5.1	9.4	0.54	
Trade	14.8	15.2	0.97	This table shows that Calconvia appairies
Wholesale Trade	3.6	3.7	0.96	Calgary is specialized in industries like oil and gas
Retail Trade	11.2	11.4	0.98	extraction, utilities,
Transportation and Warehousing	5.8	5	1.15	construction,
Finance, Insurance, Real Estate and Leasing	5.4	6.2	0.87	transportation and
Professional, Scientific and Technical Services	11.7	7.7	1.51	warehousing, and professional, scientific
Business, Building and Other Support Services	3.5	4.2	0.82	and technical services.
Educational Services	6.2	7	0.88	
Health Care and Social Assistance	11.1	12.9	0.86	
Information, Culture and Recreation	4.2	4.3	0.96	
Accommodation and Food Services	6.4	6.7	0.95	
Other Services	4.7	4.3	1.1	
Public Administration	2.8	5.1	0.55 _s	ource: Statistics Canada, Corporate Economics

Composition and Diversification of Employment and Real GDP

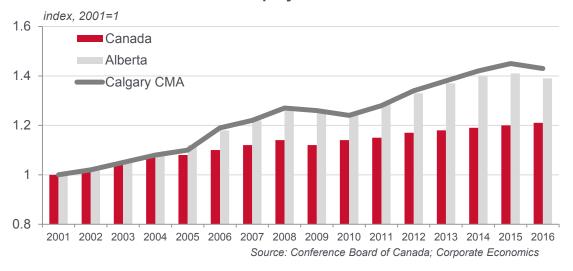


Note: Graph provided by Calgary Economic Development.

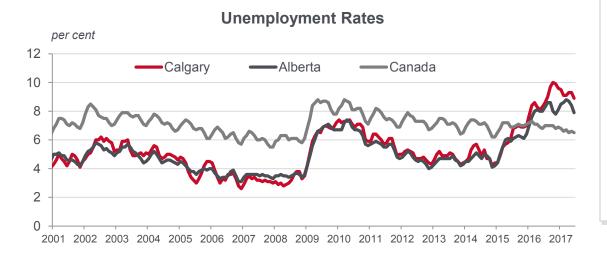
Employment Diversification

- Over the past 30 years, employment in Calgary has increased by 117 per cent.
- There has been economic diversification over the past 30 years in non-commercial services, business services, personal services, construction, and transportation and warehousing.
- Primary and utilities industry share of GDP dropped from 53.7 per cent in 1987 to 31 per cent in 2016. A lot of other industries have
 experienced increases in GDP shares including finance, insurance and real estate; business services; wholesale and retail trade and
 non-commercial services.

Total Employment Growth and Unemployment



Total Employment Growth

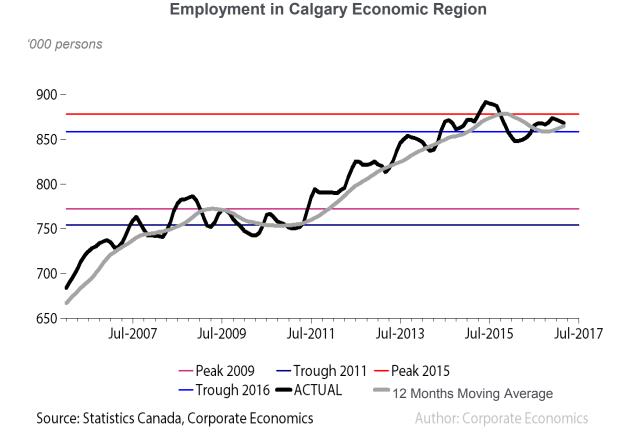


Employment Growth and Unemployment

- Calgary has traditionally led Canada and Alberta in economic growth.
- Even with the recent economic downturn, total employment growth in Calgary still outpaced provincial and national levels during the 2001-2016 time horizon.
- For most of the period between 2001 and 2017, the unemployment rate in Calgary has been below the national rate, with the exception being from 2016 to present.
- Lower rates of unemployment have resulted in wages growing at a faster rate than the rest of Canada and contributing to Calgary having a higher income level than the rest of the country.
- Unemployment rose to above nine per cent in 2016 in Calgary due to a declining oil and gas industry.

Source: Statistics Canada; Conference Board of Canada; Corporate Economics

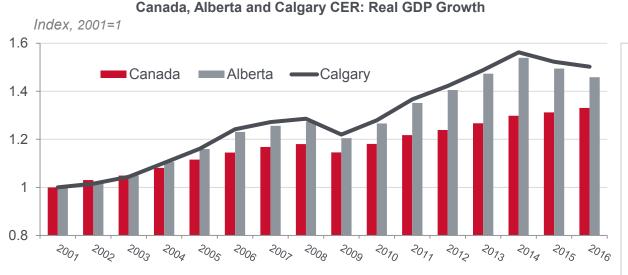
Calgary 🐼 Recovery in Employment



Economic Recovery

- Over the past 10 years, the Calgary Economic Region (CER) experienced two recessions: one was the Great Recession triggered by the sub-prime mortgage crisis in the U.S. in 2008, and the other more recent recession in late 2014 was driven by the collapse of world oil prices.
- In the Great Recession, the CER lost about 20,000 jobs over two years (2009 and 2010), but quickly recovered all the losses by 2011.
- In the recent recession, the job cuts were of the same magnitude as the great recession and took a shorter span from peak to trough (one year in 2016).

Calgary 🐼 Real GDP Growth and Retail Sales



Source: Conference Board of Canada; Corporate Economics.



GDP Growth and Retail Sales

- Gross domestic product (GDP) is the broadest measure of economic activity. It represents the sum of all goods and services that is produced by an economy over a given time period.
- Calgary's economy has been growing at a faster rate than the provincial and national average, even after the two year economic contraction in 2015 and 2016.
- Between 2001 and 2016 Calgary's economy expanded by 50.2 per cent, while Alberta grew by 46 per cent and Canada by 33 per cent.
- The retail/consumer sector is the largest sector in Calgary's economy representing roughly 60 per cent of GDP.
- Retail sales, adjusted for inflation, grew by 56 per cent in Calgary between 2001 and 2016, much higher than the growth of 35 per cent in Canada, and 51 per cent in Alberta.

Source: Conference Board of Canada; Corporate Economics.



External:

- 2016/2017 Global Entrepreneurship Monitor Report
- Bank of Canada
- <u>Calgary Economic Development</u>
- <u>Center for Spatial Economics (C4SE)</u>
- CBRE; The Conference Board of Canada, May 2017
- <u>Conference board of Canada</u>
- Office of the Superintendent of Bankruptcy Canada
- RBC Economics. Housing Trends & Affordability, June 2017
- <u>Statistics Canada</u>
- <u>Statistics Canada, National Household Survey 2011</u>

Internal/City of Calgary

- 2005-2016 Citizen Satisfaction survey
- 2017 Spring Pulse Check survey
- 2017 Economic Perspectives survey (tracking since November 2015)
- <u>City of Calgary, Infrastructure Status Report</u>
- <u>City of Calgary, Assessment</u>
 - o 2017 Property Assessment Market Report
- <u>City of Calgary, Civic Census, July 2017</u>
- <u>City of Calgary, Planning & Development Department</u>
- City of Calgary, Geodemographics
- <u>Corporate Economics</u>

