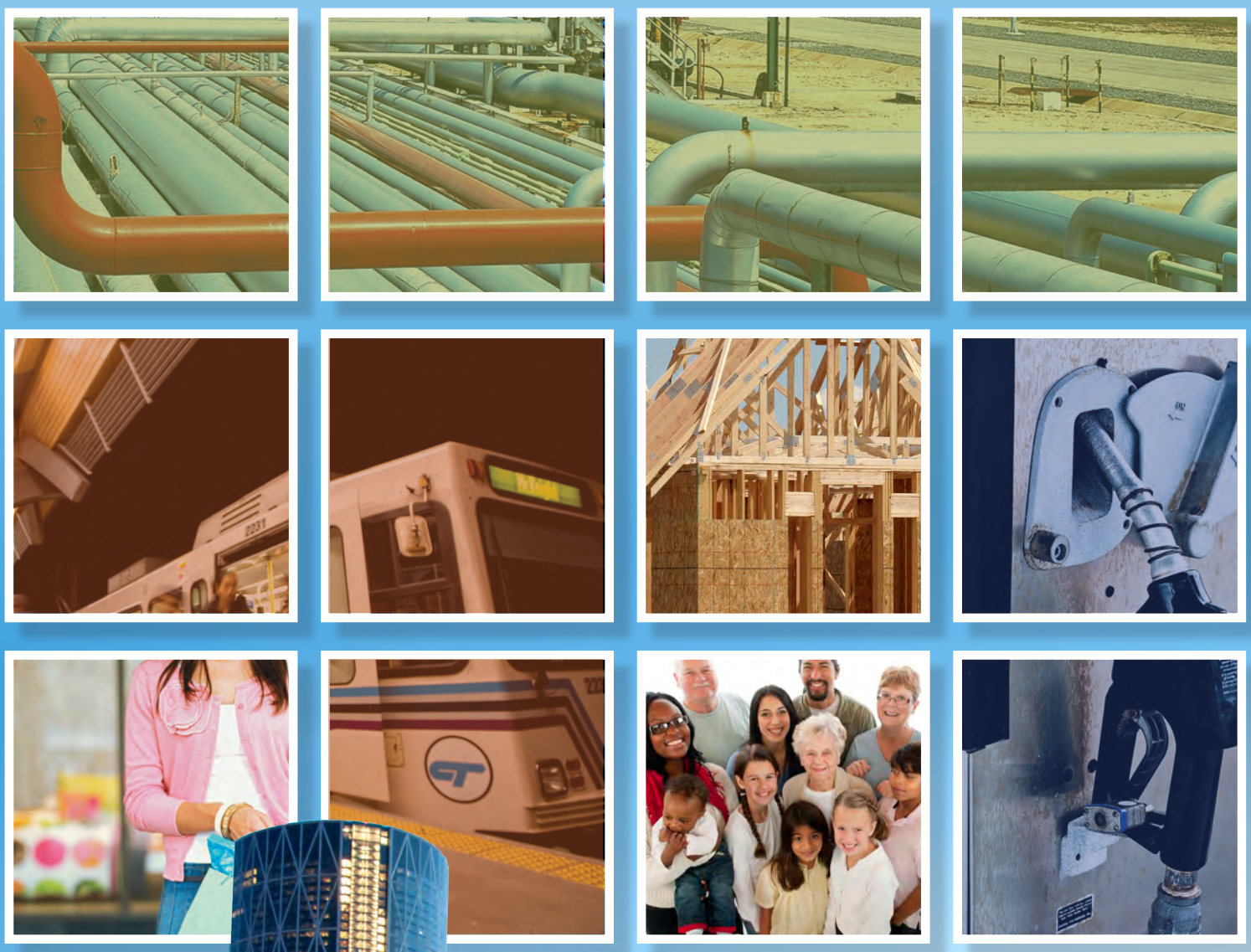

Spring 2015

CALGARY & REGION ECONOMIC OUTLOOK 2015-2020

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THE CITY OF CALGARY
CHIEF FINANCIAL OFFICER'S DEPARTMENT

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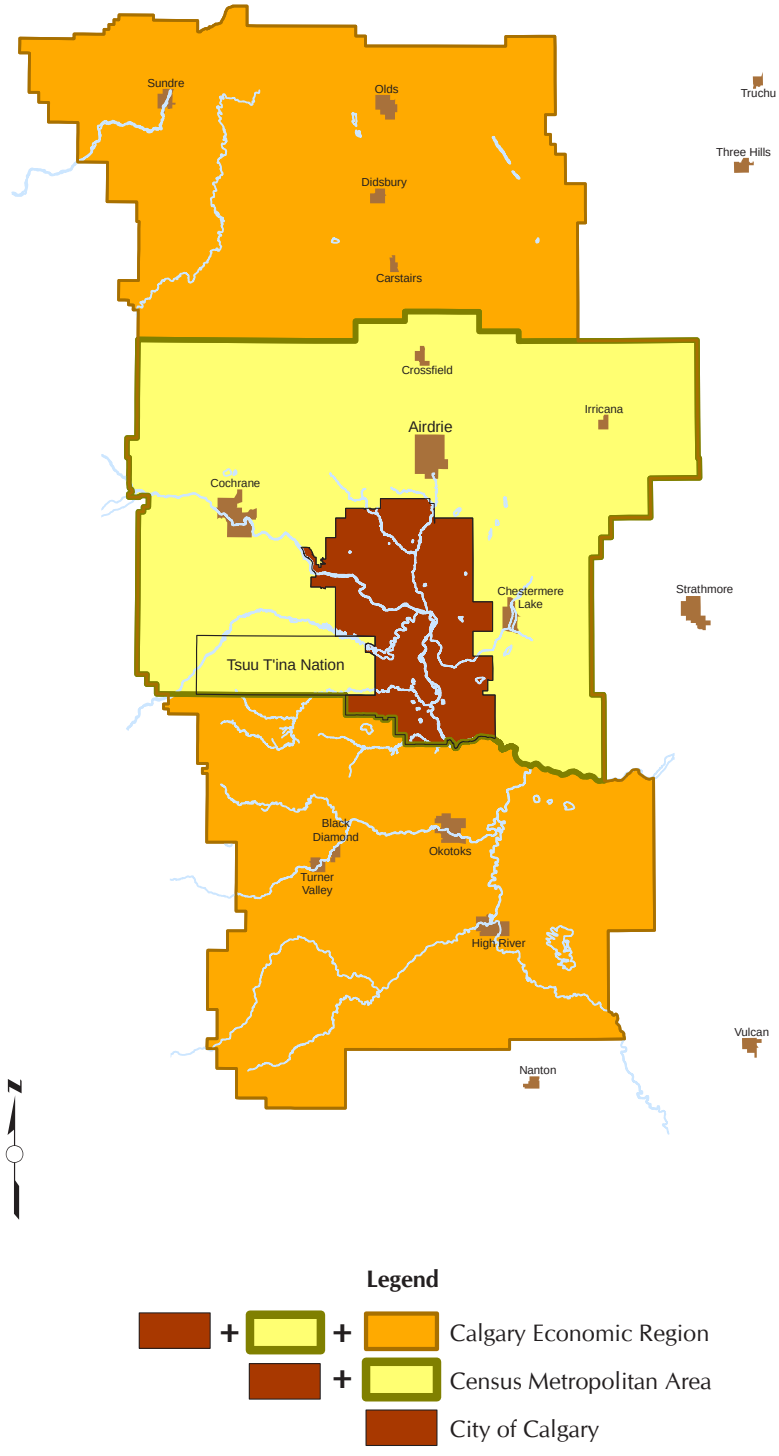
Completed: April 2015

Calgary Economic Region Map



INTRODUCTION

Preamble

The City of Calgary monitors and tracks economic indicators to develop insights on how external events are impacting the local economy throughout the year. The results from this process are published twice annually as the Economic Outlook: once in the spring and then again in the fall. The Economic Outlook presents forecasts for a select number of economic variables.

This document provides an analysis of those factors that are considered most likely to have a significant effect on the local economy over the forecast period.

Purpose

- This publication is created to serve as a reference document to support The City of Calgary in financial and physical planning of the city. It also provides a common basis from which decisions could be made. By monitoring and reporting on the economic region and its environment, decision makers are kept abreast of the opportunities and threats that the region faces.
- This report fills an important information gap as no other publication currently provides a comprehensive analysis of the local economy. Several research institutions restrict their analyses to the Alberta economy and few analyses and forecasts are available for the urban areas within the province.

This report attempts to answer the following questions:

- 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 are expected to be created?
- What is the forecast for population growth in the city and region?
- What is the expected inflation rate?
- What are the implications of the forecast and how will it impact municipal finance?

ASSUMPTIONS

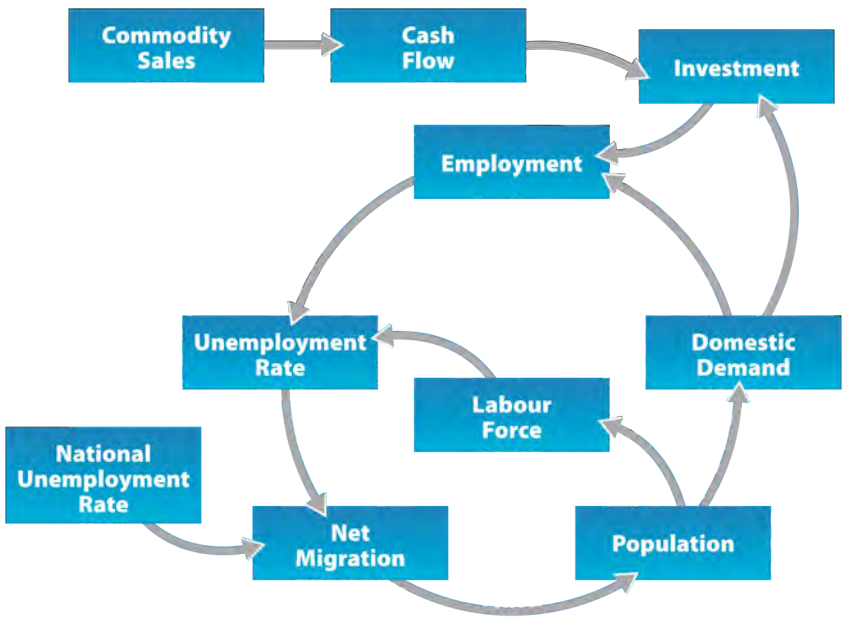
The study area for the economic forecast is the Calgary Economic Region (CER). The CER is a small open economy and is therefore affected by changes outside its borders. For example, political instability in the world's oil producing regions can produce a sharp increase in oil prices, which affects the level of Alberta's energy industry cash flow and investment in the local economy.

The economic forecast is therefore built on assumptions regarding changes in the world outside of the CER over the forecast period. The key assumptions are as follows:

- World economic expansion throughout the forecast period, and
- Economic growth and job creation in the rest of Canada over the forecast period.

If one or both of these assumptions are not fulfilled then the level of economic activity that is charted in this report would not be realized. The world economy would grow at a sharply slower rate and local economic activity would follow suit.

Regional Growth Dynamics



EXECUTIVE SUMMARY

Forecast:

City of Calgary

- The city's population has increased steadily over time, even in cases when oil prices were declining. Over the period 1971-2014, there were only two periods of population decline: 1983 (-2,441 persons) and 1984 (-878 persons).
- Since 1985, population growth has been on an upward trend with some minor fluctuations. The pace of growth accelerated from 2010 to 2014, as Alberta and Calgary outpaced the rest of Canada in employment growth, and created an attractive destination for out of province job seekers.
- The value of building permits would moderate over the forecast period, in response to slower growth in the need for residential and non-residential space.
- Today asking rents for office space are about $26.50 per square feet, similar to what they were the last time oil prices bottomed. In 2009/2010 prices averaged $22, only slowly recovering to $30 in the fourth quarter of 2012. The same pattern is expected to repeat itself.

Calgary Economic Region (CER)

- Economic growth will stagnate in 2015 as the CER adjusts to sharply lower oil prices. All sectors of Calgary's economy will be adversely affected by reduced capital expenditures by oil companies and the provincial government, given the importance of oil to Alberta and Calgary.
- The forecast calls for the CER to contract by 1.0 per cent in 2015, down from 4.0 per cent in 2014 and then increase 1.4 per cent in 2016 and 2.0 per cent in 2017.
- Total employment in the CER is expected to drop by 0.9 per cent in 2015, down from 3.2 per cent in 2014. Employment is forecast to grow by 2.6 per cent in 2016, and 2.2 per cent in 2017 as economic activity returns to normal rates.
- The CER's unemployment rate rose to 5.1 per cent in 2014, up from 4.8 per cent in 2013. Slower job creation in Calgary would push the unemployment rate to 6.3 per cent in 2015.
- Lower oil prices are expected to depress transportation and heating costs and these lower costs would be transmitted to other areas of the economy. The consumer price index should increase by 1.1 per cent in 2015 and then climb to 2.3 per cent by 2018.

Assumptions:

Alberta

- The Alberta economy will enter a recession in 2015, as investment in the oil patch plunges in response to sharply lower oil prices.
- Real gross domestic product will rebound in 2016, but the recovery will not be terribly vigorous until the following year.
- Housing starts will not tumble quite as much as they did in 2009.
- Housing starts have actually lagged the rate of household formation since the 2009 recession, leaving most markets in a comparatively favourable position.
- Total employment will fall 0.8 per cent in 2015, as companies lay off employees in response to the drastically lower oil price environment.
- Net migration to Alberta will slow down considerably in 2015. This is in response to reduced job availability in Alberta and increased economic incentives to remain in the rest of Canada.

Executive Summary

Canada

- Slower growth of private investment, especially in the energy and related sectors, will constrain short-term growth in Canada.
- There will be short-term downward pressure on the loonie, due to the interest rate differential, when the U.S. Federal Reserve hikes short-term interest rates later this year.
- The prime lending rate is expected to change course toward higher rates in 2016. It will increase moderately in 2016 and 2018, but rapidly in the intervening year.

United States

- The index of consumer sentiment has improved dramatically, achieving an eleven year high in January 2015. Consumer spending will therefore spur growth, as it accounts for 70 per cent of GDP growth.
- Real output growth will be high in 2015, at 3.1 per cent, before decelerating to 2.4 per cent by 2020. Going forward, job growth will decelerate but remain strong.

World

- Between July 2014 and March 2015, the WTI oil price saw its value cut in half from US$103 per barrel to under US$50 per barrel.
- Low oil prices have different impacts on different economies.
  - For oil producing nations with revenues that are greatly reliant on oil exports, this is devastating. The significantly lower oil price environment has caused oil producing countries and corresponding economic blocs to reduce their economic growth forecasts for 2015 and 2016.
  - For oil consuming nations, the low oil prices are welcomed. Consumers and businesses would experience higher disposable incomes and lower operating costs, respectively.

Forecast Implications (2015-2018)

Variable	Past Cycle 2012-2014 Average	Current Cycle 2015-2018 Average	Forecast Implications
Assumptions			
World			
Real Gross Domestic Product (annual % change)	3.3	3.9	Positive economic growth would increase the economic base of the world economy over the 2015-2018 period. Larger economic and demographic bases should increase the demand for commodities and place upward pressure on commodity prices. This will have a positive impact on the Canadian economy as Canada produces a number of commodities.
The United States			
Real Gross Domestic Product Growth (chained 2009 dollars) (%)	2.3	2.8	Stronger U.S. economic growth will boost Canadian and Alberta export volume to the U.S. The City of Calgary will need to invest in infrastructure that facilitates goods movement to ensure Calgary sustains a preferred status as a major hub for the movement of freight.
Canada			
Real Gross Domestic Product Growth (chained 2007 dollars) (%)	2.1	2.1	The Canadian economy will grow at the same pace. The Alberta economy will grow more slowly than the Canadian average. This will reduce net migration to Calgary and may enable the growth of municipal infrastructure to catch up with population demand.
Prime Business Loan Rate (%)	3.0	4.1	Higher borrowing costs for The City's suppliers, would increase The City's purchase costs.
Exchange Rate (US$/Cdn$)	0.96	0.83	Lower exchange rates would increase the purchase price of imported goods and services for The City.
Alberta			
Real Gross Domestic Product Growth (chained 2007 dollars) (%)	4.1	1.7	The Alberta economy would contract in 2015 and for the 2015-2018 period grow below its potential and this would relieve the pressure on prices.
Total Employment Growth (%)	3.3	1.1	The Alberta economy will grow below capacity for the rest of the planning period (2015-2018) and his would result in excess capacity and thus relieve the pressure on prices.
Unemployment Rate (%)	4.6	5.6	Employment growth would lag labour force growth.
Housing Starts ('000 Units)	36.7	32.2	Slower population growth would translate into a reduced rate of household formation over the 2015-2018 period.
Inflation Rate (%)	1.7	1.4	
Crude Oil Price - WTI (US$/bbl)	95.05	66.00	Lower prices crude oil price would reduce the price of petroleum based commodities such as diesel fuel and asphalt.
Western Canadian Select - WCS (US$/bbl)	75.79	56.75	
Alberta Natural Gas Price - AECO/NIT ($/GJ)	3.03	3.39	The impact on The City of Calgary will be mixed. Higher prices would increase The City's operating costs while at the same time increasing revenues.
Industrial Product Price Index (%)	1.34	1.01	Price increases for many commodities and finished products will be substantially lower in the current budget cycle than the previous cycle. However, the cost of goods and services should be higher.
Raw Materials Price Index (%)	-0.51	-0.90	
Average Wage Rate Increase (%)	3.6	2.1	The wage inflation rate should be lower in the current cycle given lower employment and participation rates and higher unemployment rates in Alberta. However, wage inflation would exceed consumer price inflation. Wage inflation would apply upward pressure on municipal costs.

Variable	Past Cycle 2012-2014 Average	Current Cycle 2015-2018 Average	Forecast Implications
Forecast - Calgary			
Economic Region			
Gross Domestic Product (%)	3.9	1.2	The City's revenue base in 2015-2018 would grow relatively slower than in 2012-2014.
Total Employment ('000 Persons)	831	880	Larger employment levels would result in an increased demand for non-residential spaces. This would also increase The City's property tax base.
Total Employment Growth (%)	3.4	1.5	Non-residential construction activity would slow, and this would have a dampening effect on building permit fees.
Unemployment Rate (%)	4.9	5.7	A higher unemployment rate would increase the number of skilled persons seeking employment and this would relieve the cost pressure on The City.
Inflation Rate (%) (CMA)	1.9	1.8	The rate of consumer price inflation would decelerate over time.
Non-Residential Building Price Inflation (%) (CMA)	2.1	1.0	The rate of construction cost increases would be relatively lower in this budget cycle.
City			
Total Population ('000 Persons)	1,157	1,273	Demand for municipal services would be higher in the current budget cycle compared to the previous cycle. In addition, the residential property tax base would be larger.
Total Population Growth (%)	3.1	2.4	The pace of change would be slower compared to the previous cycle.
Net Migration ('000 Persons)	25.4	15.8	Positive net migration would be the major contributor to population growth. Most migrants would come from international sources.
Household Formation ('000 Units)	10.5	11.9	The annual growth in households would be slightly higher than in the previous budget cycle.
Housing Starts ('000 units)	11.2	9.5	The City's revenues from residential building permits would be lower than in the last planning cycle.
Building Permits ($billion) (city)	5.6	4.8	City revenues from building permits would be lower. Non-residential residential revenues will decrease relative to the past cycle.
Average Residential MLS Sale Price (% change)	6.4	-0.8	Lower house prices would reduce household wealth. In addition, house price declines would contribute to a drop in the residential tax base.

CMA = Calgary Metropolitan Area
Numbers may not add up due to rounding

Forecast Risks

Lower oil prices would have differential impacts on various segments of the Canadian economy. Energy producing companies have experienced reductions in their cashflow and have responded by cutting capital expenditures and staffing levels. Canadian consumers and non-oil businesses, on the other hand, are benefiting from lower transportation and heating costs, which will contribute to higher disposable incomes and operating profits. But over time, the Canadian economy as a whole would be adversely affected as energy companies reduce their demand for plant and equipment from manufacturers in the rest of Canada. The precise impact of lower oil prices on the Canadian economy is thus an empirical question.

Economic simulations show that the magnitude of the reduction in economic activity in Alberta and Calgary would be linked to the depth and length of the oil price reduction. The more prices are reduced and the longer they stay at depressed levels, the more economic activity would be reduced. Conversely, higher oil prices would result in increased economic activity in Alberta. This is the premise for considering the set of upside and downside risks that are related to this outlook.

Downside Risk Factors

Political uncertainty has increased in Europe, with re-emerging tensions over the potential exit of Greece from the eurozone. This has added to the downside risk generated by geopolitical tensions. The funding for terror cells, such as ISIS, which relies on oil revenues will diminish. This will weaken their ability to fund terrorist activities around the globe. Russia-Ukraine relations and Russia's relationship with the West continue to provide further geopolitical tensions and downside risks.

The pace of economic growth in China is expected to decelerate as government capital expenditures contract. Also, other Asian emerging and developing markets are expected to slow somewhat. In Africa, the pace of economic activity is expected to quicken, though the degree of expansion for some, like Nigeria, the largest African economy and a member of OPEC, will be defined by oil price recovery.

Upside Risk Factors

The weakness in the Euro currency relative to the United States dollar should provide significant export opportunities for the eurozone nations. Additional eurozone monetary stimulus through the European Central Bank's quantitative easing program will also bolster eurozone growth prospects.

The inflation forecast for the advanced economies is considerably muted, while emerging markets and developing economies are expected to be stronger. The lower oil price environment has created downward inflation pressure for energy related products in both groups of countries.

The United States is Canada's major trading partner. A stronger United States dollar relative to the Canadian dollar provides a price directed impetus for Canada's manufacturing industry. The ability for the manufacturing industry to capitalize on this opportunity should help mitigate some of the adverse impact of lower capital investment in Canada's energy sector.

Forecast Risk Factors that could alter the Calgary Economic Region (CER) Outlook

Downside Risk Factors

- Rising interest rates
- High consumer debt levels
- Higher charges for public services
- Negative net migration

Consumer Sector

+

- Greater slump in oil industry cashflow due to extended period of low prices
- Sagging consumer and business confidence
- Low residential and non-residential construction
- Rising interest rates will increase borrowing costs

Business Sector

+

- Reduction in government spending

Government Sector

+

- Slower growth in U.S. and emerging economies due to withdrawal of monetary stimulus
- Developed economies experience significantly weaker growth that stifles demand for Alberta exports
- Crude oil supply glut worsens with faster production growth than demand growth

World outside Alberta

Upside Risk Factors

- Increasing employment
- Slower cost of living growth
- Federal government tax relief

- More rapid oil price increases (for oil industry)
- Slower employment cost growth
- A prolonged period of low interest rates will keep borrowing costs low

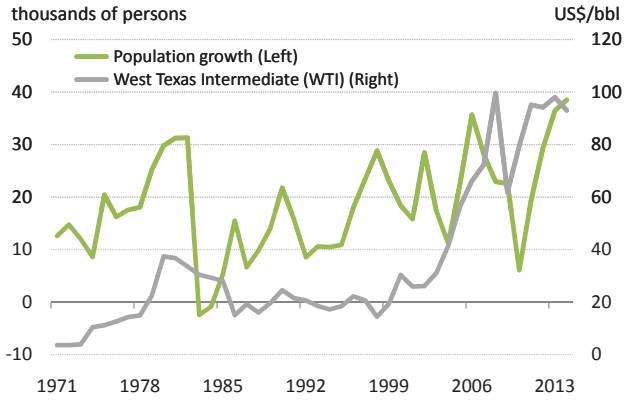
- Higher user fees and taxes
- Higher levels of infrastructure investment

- Strong and more sustained growth in the U.S. and emerging economies
- Prompt eurozone recovery and implementation of the EU-Canada trade agreement
- Crude oil supply disruptions that result in higher than expected price increases

CITY OF CALGARY

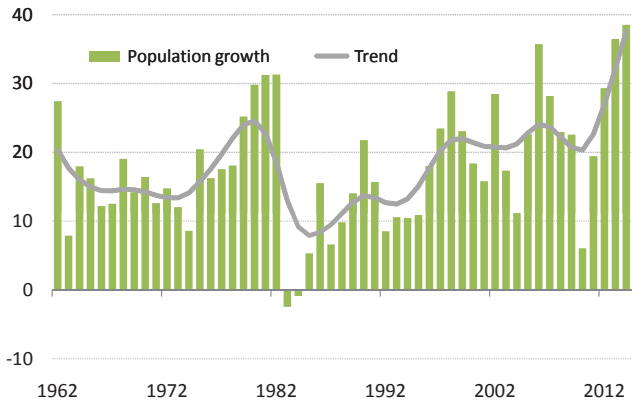
- The city's population has grown steadily over time, even in situations where oil prices were declining. Over the period from 1971 to 2014, there were only two episodes of population decline: 1983 (-2,441 persons) and 1984 (-878 persons). The impact of the 2008/2009 world-wide recession was observed in the city's population data in 2010, when the population increased by just 6,060 persons. Despite the severity of the recession, population growth remained positive. Based on these observations, Calgary's population is expected to grow over the 2015-2018 period.
- Since 1985, population growth has been on an upward trend with some minor fluctuations. The pace of growth accelerated from 2010 to 2014 as Alberta and Calgary outpaced the rest of Canada in employment growth and created an attractive destination for out of province job seekers. Population growth for most of the period for which migration data is available (1973 to present) showed that population growth was led by net migration, which in turn was dependent on relatively strong job creation in Alberta and Calgary.
- The rapid rate of population growth between 2010 and 2014, which was driven by net migration, is unsustainable. Therefore, population growth would moderate in the short to medium term as the pace of growth in economic activity quickens in Central Canada.
- The value of building permits would moderate over the forecast period, in response to slower growth in the need for residential and non-residential space. Population growth and household formation for the 2015-2018 period should moderate relative to the 2012-2014 period, as the attraction for migrants to the Calgary Economic Region and Calgary falls in response to lower job opportunities.
- The demand for housing will moderate and cause housing starts to grow in line with household formation. Housing starts should total 7,400 units in 2015 and 10,900 units in 2016. The office space construction data shows that about 6 million square feet of space is currently under construction. The completion of this space should result in office space completion exceeding office space absorbed and cause the vacancy rate to rise. The forecast for building permit values should total $4.0 billion in 2015, rise gradually to $5.5 billion by 2018, and then remain at that level for the rest of the forecast period.

City of Calgary Population Growth and Crude Oil Prices
(1971-2014)



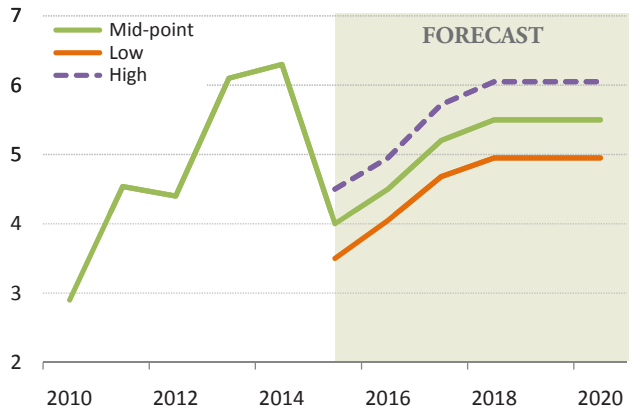
Source: City of Calgary Civic Census, Federal Reserve Bank of St. Louis, Corporate Economics.

City of Calgary Population Growth
(1962-2014, *thousands of persons*)



Source: Statistics Canada, City of Calgary Civic Census, Corporate Economics.

City of Calgary: Total building permit value
(*billions of dollars*)



Source: City of Calgary, Corporate Economics.

Real Estate

Office sector

- After the 2008 oil price drop it took two quarters before asking prices for rental space in downtown Calgary began to drop noticeably from over $35 per square feet to below $30. Today, the asking price for rental space is around $26.50 per square feet, about what they were the last time oil prices hit bottom. In 2009/2010 prices averaged $22, only slowly recovering to $30 in the fourth quarter of 2012.
- We expect the same pattern to repeat itself this time. Prices should hover around $22 by the end of 2015 and return to about $30 by 2017. As office rent contracts have terms of 3-5 years, this price drop will likely skip half the tenants in downtown Calgary.

Residential sector

- The MLS sales-to-listing ratio is a leading indicator for re-sale house prices. The indicator is trending downwards, signalling that the average price for re-sale houses has reached a period peak and will decline moderately in coming periods.
- The sales-to-listing ratio is a reasonable proxy for the demand/supply balance in the re-sale market. A fall in the ratio indicates that listings (quantity supplied) are growing relative to sales (quantity demanded). The sales-to-listing ratio bottomed out in 2009, while house prices bottomed out in 2010-2011. If this pattern holds, house prices should decline slightly in the coming periods. Some of the decline will come from fewer multi-million dollar sales and some from a general lowering of prices. We anticipate a market correction this year and for average prices to recover to around last year's level by 2020.

Calgary: MLS Sales-to-listing Ratio
(2000-2014)

Source: Calgary Real Estate Board, Corporate Economics.

Textbox 1 Commercial Real Estate Review

This article is provided by calgary economic development be part of the energy

Commercial real estate remains a barometer for the confidence of our business community; particularly our downtown office environment. While we are expecting some turbulence in the market this year, it is not anticipated to be a wild ride.

A balanced vacancy rate in the downtown office market is in the range of 5 to 8 per cent. The suburban office market would be slightly higher at 7 to 10 per cent, due to the smaller nature of the buildings limiting options for larger tenants. The industrial market on the other hand would be slightly lower at 3 to 6 per cent, due to the relatively quick development period required and the high ratio of build-to-suit requirements.

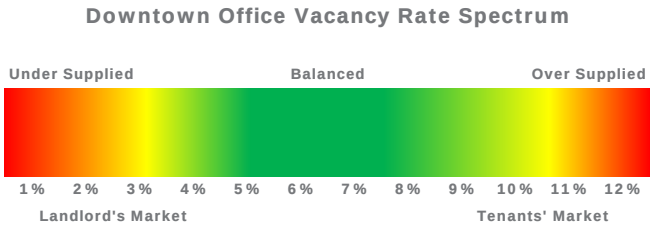
During the previous downturn we saw companies inundate the sublease market with space, pushing vacancy rates up to highs of 7.3 per cent in the industrial market in 2009 and 15.7 per cent and 16.3 per cent for the downtown and suburban office markets in 2010. However, this was short lived with vacancy returning to balanced territory within 12 to 18 months.

Over the course of 2014 downtown office vacancy rose from 9.1 per cent to 9.8 per cent. This was due to the completion of Eighth Avenue Place West, which added 841,000 square feet to the total inventory, versus only 519,028 square feet of absorption. This trend will likely continue as five office towers, totaling 3.8 million square feet, remain under construction to be completed between the end of 2015 and 2018.

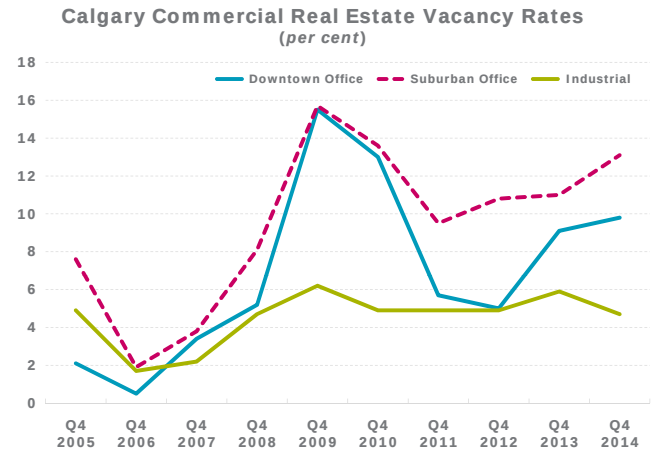
Last year, the suburban office market saw vacancy increase from 11.0 per cent to 13.1 per cent. New inventory for the suburban market in 2014 included the first phase of Imperial Oil's new Quarry Park campus and Britannia Crossing – adding a combined total of 977,446 square feet, higher than the annual absorption of 595,222 square feet. Over 1.9 million square feet of new buildings remain under construction at the start of 2015.

Meanwhile, the industrial market saw vacancy decrease from 5.9 per cent to 4.7 per cent during 2014. Absorption was over 3.7 million square feet, the second-highest annual rate of absorption recorded in the last ten years. Over 1.6 million square feet of new inventory was added in 2014 and 5.2 million square feet remain under construction at the start of 2015, a large portion of which is build-to-suit.

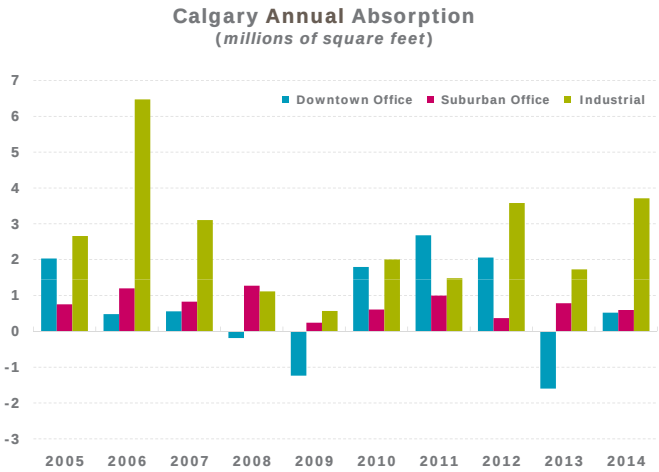
While a prolonged slowdown in the energy sector will result in deeper impacts to all sectors of the Calgary economy, the current forecasts indicate that we will start to see signs of recovery and a more stable real estate market by the end of 2015 or early 2016.



Source: Calgary Economic Development.



Source: CBRE, Calgary Economic Development.



Source: CBRE, Calgary Economic Development.

Textbox 2 State of Economy

This article is provided by calgary economic development be part of the energy

With the quantity of reporting dedicated to our current economic situation, there are varying opinions on the severity of the situation. Are we falling off a cliff or merely hitting a pothole? The attention is obviously focused on the price of oil and the effect its change has on Calgary's economy, but our economy has been steadily diversifying for the last quarter century.

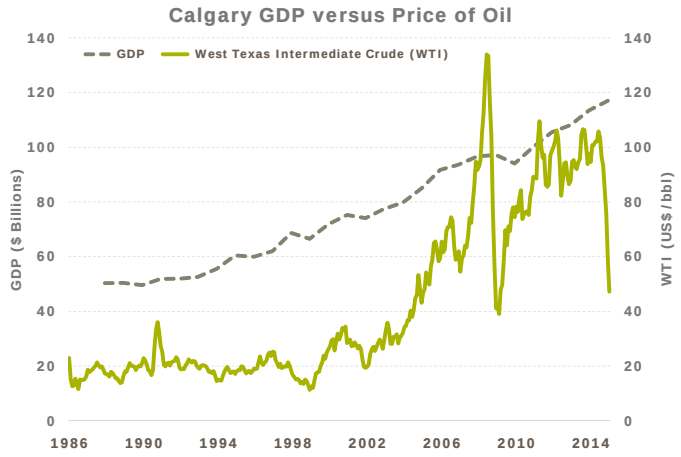
Since 1987, the share of the energy industry in the overall economy has contracted from 54.9 per cent to 31.5 per cent. This correlates with the employment by industry, which experienced growth in five sectors that are not necessarily dependent on the energy industry. These growth sectors include Business Services, Construction, Non-Commercial Services (such as Education, Health Care and Social Assistance), Personal Services and Transportation and Warehousing - much of this change is closely tied to our population doubling over that period of time. In fact, Calgary has not had negative population growth since 1982-83.

Our Gross Domestic Product (GDP) has steadily grown, showing great resiliency during recent periods of energy price volatility. While we do see slight dips in GDP growth during periods of low energy prices, we have seen steady growth over the last quarter century and we have experienced 24 per cent growth since 2009.

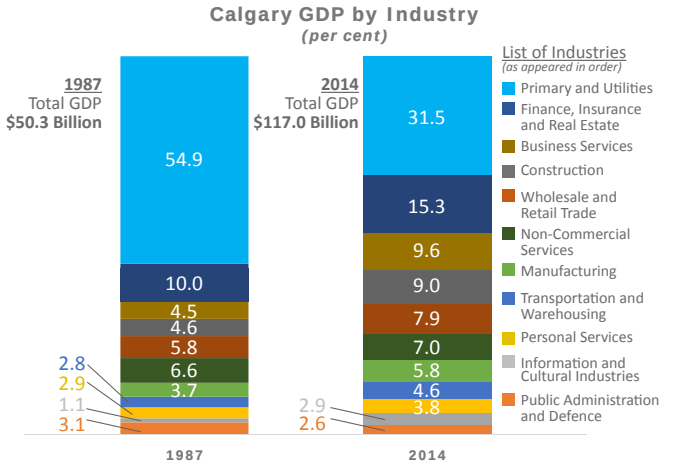
Diversification has taken place around our energy industry. Lawyers, bankers and accountants who service our energy sector are global energy sector transaction specialists. Our energy exploration and production companies are involved in projects around the world. Technology developed for our energy sector and the knowledge created are being applied to other sectors. It's not diversification just for the sake of it, we are building on our strengths.

As stewards, Calgary Economic Development is working together with many stakeholders, including The City, to implement Building on our Energy: an Economic Strategy for Calgary. This 10-year, community-wide strategy, released in November 2014, ensures we remain resilient, continue to have purposeful diversification and are prosperous into the future – regardless of our economic situation.

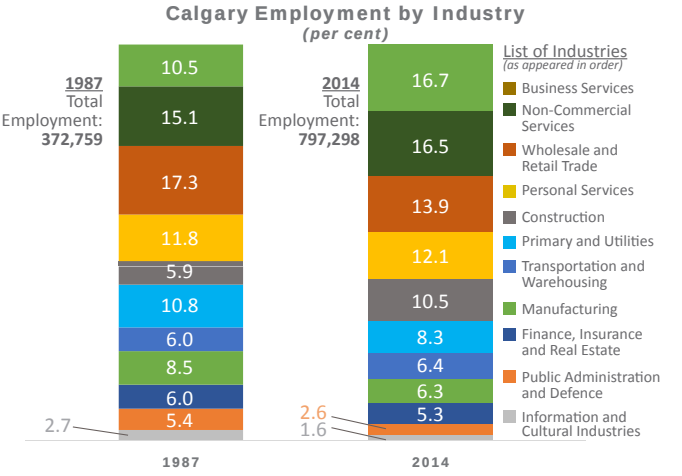
Obviously, the longer energy prices remain below average, the deeper the impact to Calgary's economy. Given the position of strength Calgary finished 2014 in, we are starting from a good place. At this time we have simply moved the pot from a full rolling boil to a simmer. Calgary has been an international success story in recent years – not because of hydrocarbons, but because of the determination, ingenuity and energy of the people who call this place home. Let's focus on Calgary's long-term growth.



Source: Conference Board of Canada, U.S. EIA, Calgary Economic Development.



Source: Conference Board of Canada, Calgary Economic Development.

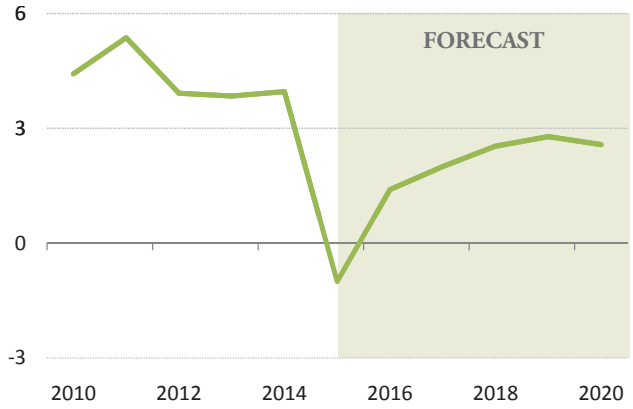


Source: Conference Board of Canada, Calgary Economic Development.

CALGARY ECONOMIC REGION (CER)

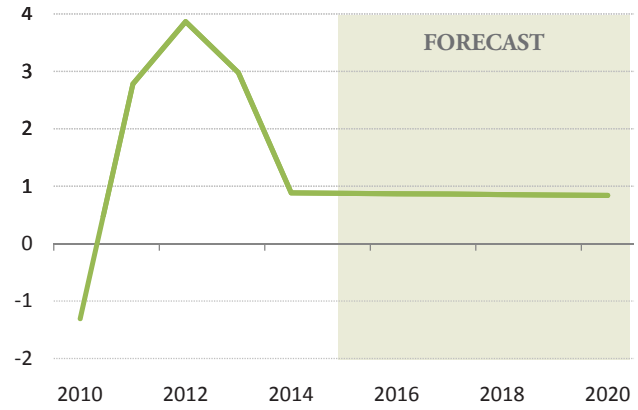
- Economic growth will stagnate in 2015 as the CER adjusts to sharply lower oil prices. Energy firms have cut or are planning to cut capital expenditures in 2015, and this should have an indirect impact on Calgary given Calgary's role as the head office location for a significant portion of Canada's energy firms. All sectors of Calgary's economy will be adversely affected by reduced capital expenditures by energy firms and by the provincial government, given the importance of oil to Alberta and Calgary. Also, lower net migration to Calgary would depress population growth and spending in consumer-sensitive areas of the economy. The forecast calls for the CER to contract by 1.0 per cent in 2015, down from 4.0 per cent in 2014. Subsequently, population will increase 1.4 per cent in 2016 and 2.0 per cent in 2017.
- The most recent data from the Labour Force Survey showed 871,000 persons were employed in the Calgary Economic Region in the month of January 2015, which is an increase over the previous month (864,600) and also up from January 2014 (846,200). Despite announcements of reduced capital spending and job cuts by energy companies, the job numbers remain healthy as the effects of lower oil prices are not yet reflected in the data. This time delay is caused by a number of procedural factors. The negative effects of lower oil prices on job creation would likely be seen in the second half of 2015. Employment would drop by 0.9 per cent in 2015, down from 3.2 per cent in 2014. The forecast is for employment to grow by 2.6 per cent in 2016 and 2.2 per cent in 2017 as growth returns to normal rates.
- The CER's unemployment rate rose to 5.1 per cent in 2014, up from 4.8 per cent in 2013. Robust employment growth was outstripped by even stronger labour force growth as a significant number of migrants of working age were drawn to Alberta and Calgary, in response to job availability. At the same time, migrants were pushed toward Calgary and Alberta from their provinces because of a lack of job opportunities. Slower job creation in Calgary in 2015 would result in the unemployment rate rising to 6.3 per cent. Stronger employment growth from 2017 to the end of the forecast period would result in the unemployment rate trending downwards to about 4.5 per cent by 2020.

CER: Gross domestic product growth rate
(per cent)



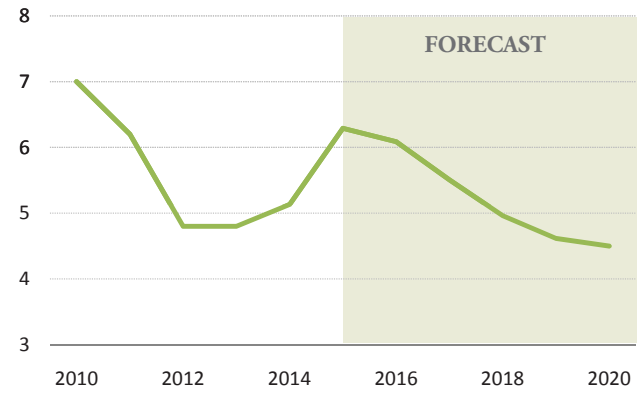
Source: Statistics Canada, Corporate Economics.

CER: Total employment growth rate
(per cent)



Source: Statistics Canada, Corporate Economics.

CER: Unemployment rate
(per cent)



Source: Statistics Canada, Corporate Economics.

- Lower oil prices are expected to depress transportation and heating costs and these lower costs would be transmitted to other areas of the economy. At the same time, a lower loonie would provide an offset to lower oil prices as import prices for goods and services become more expensive. On the whole, the consumer price index should increase by 1.1 per cent in 2015 and then climb 2.3 per cent by 2018.

Non-residential Building Price Inflation

- Volatility in oil prices could migrate to volatility in non-residential building costs. Construction costs should fall by 13.1 per cent this year, followed by a 6.7 per cent increase in 2016 and a 7 per cent increase in 2017. It is likely that builders will seek to keep prices stable for the next 3 years, instead of subjecting buyers to this rollercoaster ride of prices. By 2024, construction costs in Calgary are expected to be about 12 per cent more expensive than they are today.

Commodities:

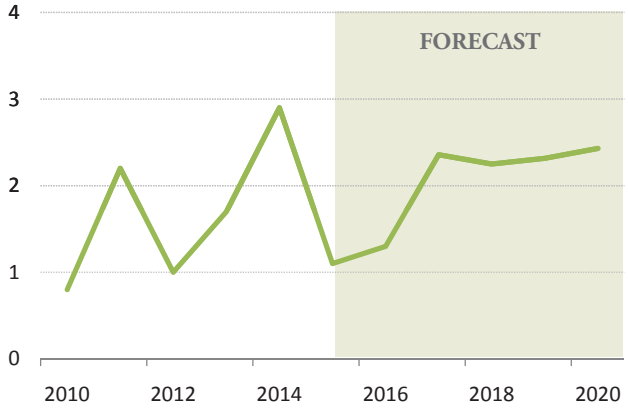
Asphalt

- Our last forecast called for prices to moderate to $600 per tonne by 2024 but some fundamentals have changed; with oilsands projects being delayed, future asphalt production per year will be less than was previously expected.
- Asphalt markets only operate during the paving season, which runs from April to October. This year, oil prices have changed rapidly and we expect this season's price to hover around $400, which is almost half last year's price.
- Our longer term expectation is that asphalt prices will remain in the $400's for several years before beginning to climb and hitting the $600's by the end of the forecast horizon.

Vehicle Parts

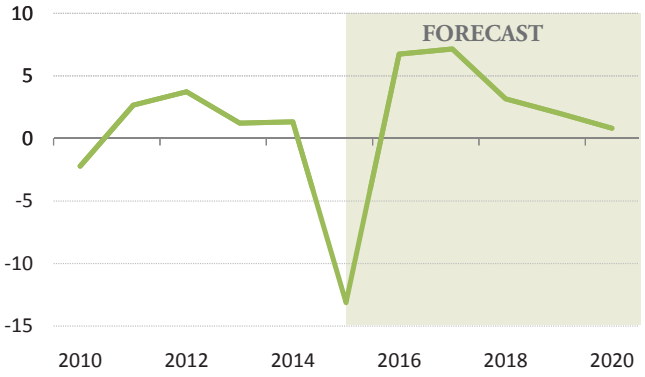
- The 2008/2009 recession saw only modest softening in inflation for vehicle parts. Much goes into the manufacture and distribution of these, and most of the energy used is electricity, the price of which is profoundly resilient to changes in oil prices. The outlook for vehicle parts calls for moderate increases in prices as the U.S. recovery continues and people begin to splurge on accessories.

Calgary CMA: Inflation rate
(per cent)



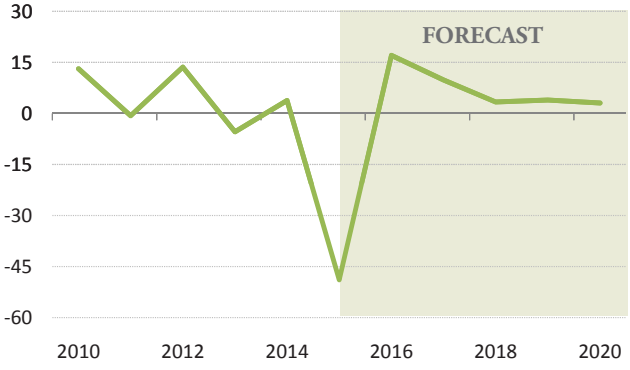
Source: Statistics Canada, Corporate Economics.

Non-residential building price inflation
(per cent)



Source: Statistics Canada, Corporate Economics.

Asphalt price inflation
(per cent)



Source: Statistics Canada, Corporate Economics.

Diesel

- Diesel averaged $1.28 per litre last year. With oil prices down, diesel prices have been slowly dropping. The decline has not been as rapid as gasoline prices because most is bought institutionally on forward markets, making demand less price responsive. Our model indicates prices could drop below 90 cents this year but will climb to over $1.00 by 2017.

Wood

- Softwood lumber markets continue to languish. U.S. housing continues to favour multi-family dwellings, which do not use much Canadian softwood boards. As such, the outlook for Canadian wood prices continues to be negative. This is despite a growing outlook for U.S. housing. If the Canadian softwood lumber industry were to aggressively target the plywood and engineered board business the industry would fare much better.

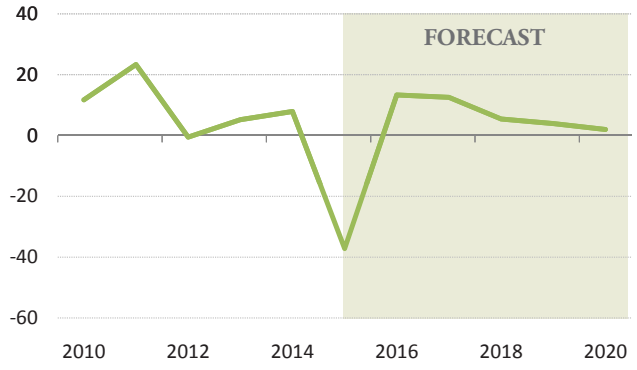
Aluminum

- The new Ford F150, though not a "flop", is profoundly underwhelming. The new aluminum body is not living up to the hype of better fuel economy. The new model has increased production, ownership and repair costs, while comparable fuel efficiency is being recorded by other manufacturers just by using better steel. The outlook for aluminum in North America is now down, as it is unlikely that other vehicle manufacturers will adopt aluminum. This does, however, bode well for Ontario parts manufacturers who did not spend heavily to re-tool their factories to handle aluminum parts.

Steel

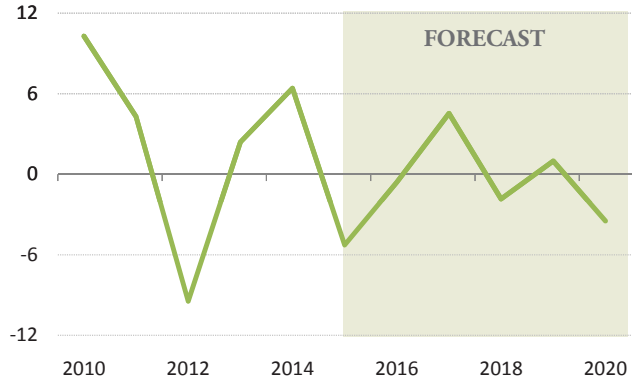
- Oil price reductions are resulting in fewer wells being drilled and less oil sands investment. Manufacture of pipes used in wells, and machinery and equipment for oilsands production is affected and consequently the outlook for steel in North America is down this year. There is increased demand for vehicles with the U.S. recovery now advancing, and we anticipate some recovery in steel prices over the forecast horizon. However, ore prices fell 60 per cent in the past 4 years so there is a large downside risk for steel prices.

Diesel oil price inflation
(*per cent*)



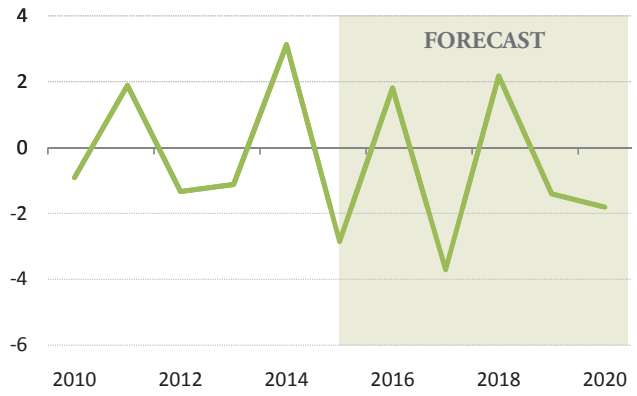
Source: Statistics Canada, Corporate Economics.

Aluminum price inflation
(*per cent*)



Source: Statistics Canada, Corporate Economics.

Iron and steel price inflation
(*per cent*)

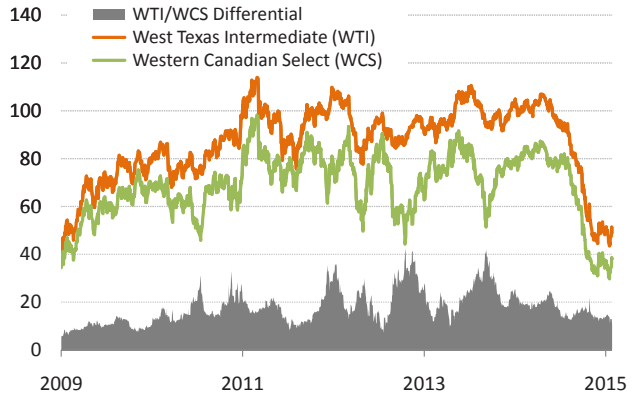


Source: Statistics Canada, Corporate Economics.

ALBERTA

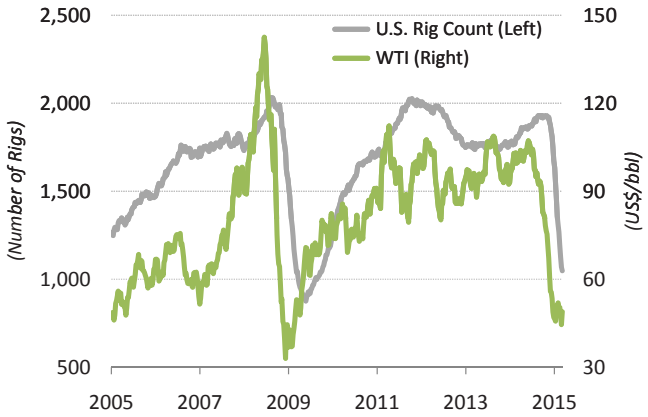
- The oil price forecast calls for WTI to average US$51.00/barrel in 2015, as stalling U.S. production is counterbalanced by surging crude oil inventories. As U.S. tight oil producers slash capital expenditures, supply growth will stall. Meanwhile, the quantity of oil demanded will rise due to lower prices. These conditions will lead to a moderate recovery in oil prices, with significant upside risk. Our baseline assumptions call for WTI to average US$62.00/barrel in 2016, and for the price to steadily rise to US$85.00/barrel by 2020.
- Cuts to capital investment in Alberta's oil patch in 2015 will moderate production growth within a few years. Conventional oil extraction will be hard-hit by the downturn, while some oil sands projects will be either placed on hold or cancelled altogether. The eventual recovery of oil prices will lead to renewed investment activity, but it will take a few years for the rebound to materialize in the form of increased oil production. Regardless of oil prices, efforts to reduce the transportation bottleneck in Alberta's oil patch will continue. However, it remains to be seen which pipelines will actually be built.
- Natural gas prices in Alberta will be dampened by lower demand from oil sands operations. Even so, prices will be supported by the lower Canadian dollar and the assumed start-up of U.S. LNG exports in 2016. The export of LNG will reduce a perceived glut of natural gas in North America.
- The oil price assumptions imply that Alberta's economy will enter a recession in 2015, as investment in the oil patch plunges. Cuts to provincial government expenditures and tax increases will amplify the downturn. The tax hikes introduced in Budget 2015 will undermine both the retail and residential construction sectors.
- Real gross domestic product will rebound in 2016, but the recovery will not be terribly vigorous until the following year. Growing energy production and the recovering labour market will help boost real GDP growth to 3.0 per cent in 2017, even as further tax increases and subdued government expenditure growth weigh on the economy.

Spot Prices for Oil
($US/bbl)



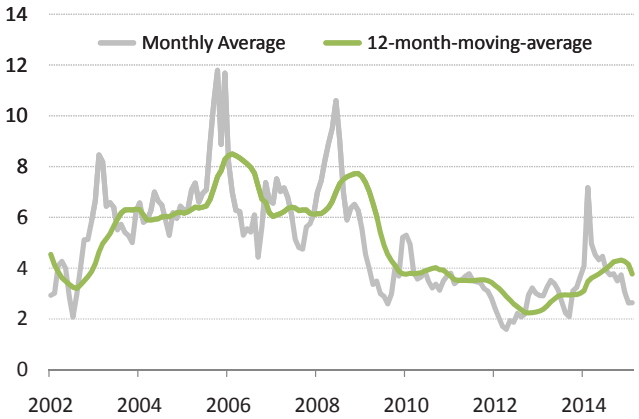
Source: U.S. Energy Information Agency, Bloomberg, Corporate Economics.

WTI and U.S. Rig Count
(Weekly, March 2008 - March 2015)



Source: U.S. Energy Information Agency, Baker Hughes Inc., Corporate Economics.

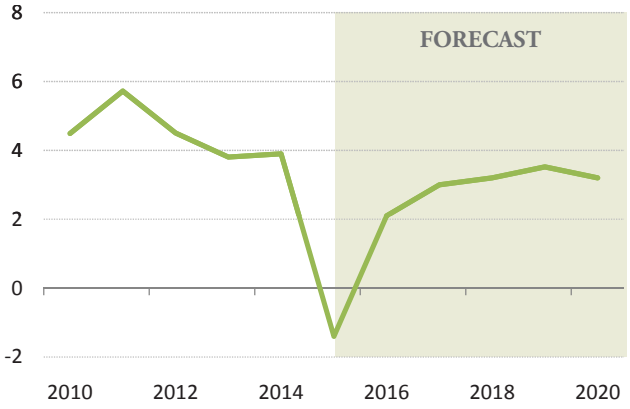
AECO Spot Market Prices
(C$/GJ, January 2002 - February 2015)



Source: GLJ Energy Publications, Corporate Economics.

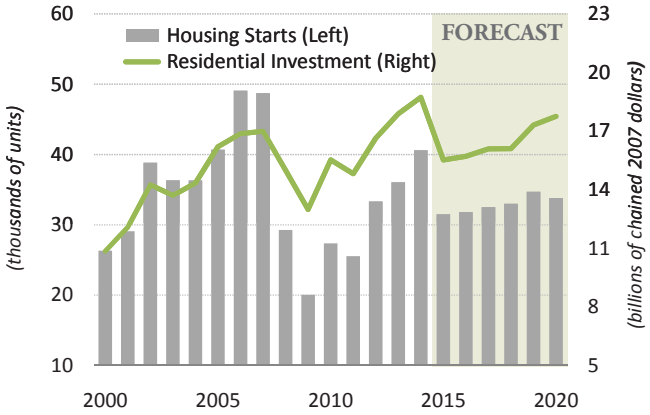
- Housing starts will not tumble quite as much as they did in 2009. In the previous oil price collapse, Alberta's rate of household formation had been exceeded by its rate of new home building for several years. Consequently, there was an issue of oversupply in Alberta's housing market. This time around, Alberta does not have a glut of new homes. Housing starts have actually lagged the rate of household formation since the 2009 recession, leaving most markets in a comparatively favourable position.
- Employment will fall 0.8 per cent in 2015, as companies lay off employees in response to the drastically lower oil price environment. Typically, employment is a lagging indicator, so it is likely that the impact of the recession will mostly begin to materialize in mid-2015. The construction sector will be particularly hard-hit as investment in both the oil patch and the residential sector will plunge. Meanwhile, the unemployment rate will rise by 1.6 percentage points from 2015. Under the baseline oil price scenario, it will not return to its 2014 level of 4.5 per cent until beyond 2020.
- Lower fuel prices, subdued economic activity, and muted wage gains will keep inflation in check in the coming years, counterbalancing upward price pressure brought on by the lower Canadian dollar and higher taxes for fuel, alcohol, and cigarettes. Food prices are particularly susceptible to fluctuations in the exchange rate, but the effects of the depreciation of the loonie will also be apparent in prices for imported items, such as, clothing and electronics.
- Net migration to Alberta will slow down considerably in 2015. In recent years, the bulk of interprovincial migrants have come from British Columbia, Ontario, and Quebec, where economic prospects have not been terribly bright. However, their economies are expected to pick up steam this year, while Alberta falls into recession. To that end, there will be little incentive for Canadians in other provinces to move to Alberta.

Alberta: Gross domestic product growth rate
(per cent)



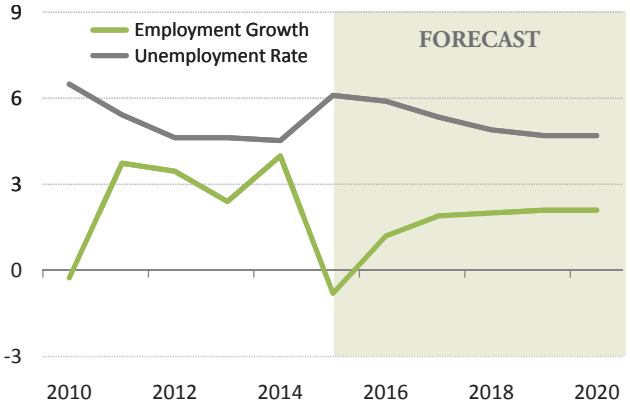
Source: Statistics Canada, Corporate Economics.

Alberta: Residential Construction



Source: Statistics Canada, Corporate Economics.

Alberta: Labour Market
(per cent)



Source: Statistics Canada, Corporate Economics.

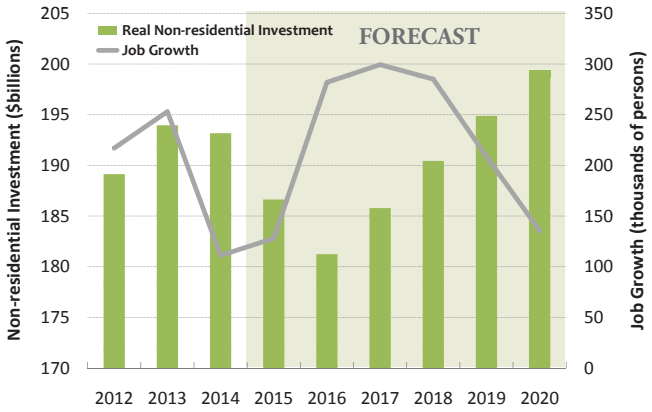
CANADA

- **Investment and Jobs Slowdown:** Slower growth of private investment, especially in the energy and related sectors, will constrain short-term growth. Real private sector non-residential investment is not expected to return to its 2013 peak until 2019. This is an outcome of the recent drop in oil prices. A decline in private sector purchases of machinery and equipment will reduce the demand for labour. Job growth in the two year period from 2014 to 2015 is expected to be less than the 253,100 jobs created in 2013. Subsequently, there will be a recovery with 1.2 million new jobs expected between 2015 and 2020. In the absence of public sector investment to alleviate the initial slow growth and/or lower labour force participation, the unemployment rate will lie between 6.4 and 7.1 per cent.

- **Short-Term Canadian Dollar Decline:** There will be short-term downward pressure on the loonie, due to the interest rate differential, when the U.S. Federal Reserve hikes the federal funds rate later this year. The average price of all exported goods relative to all imported goods will also be lower. These will keep the exchange rate low in 2015. A mild recovery will begin in 2016, when the Bank of Canada commences its own sequence of rate hikes, which will continue through to 2020. U.S. dollar pricing for crude oil will cushion the fall in the value of exports. Nevertheless, real energy net exports are not expected to return to the mid-2014 peak until 2018. Despite lower oil prices, energy products will remain the product class with the largest positive net export value. This is because it will take a while for the manufacturing industry in Ontario and Quebec to take advantage of competitive prices for non-energy and non-mineral exports.

- **Monetary Policy Balancing Act:** Real output growth will vary between an annual rate of 1.9 and 2.3 per cent. Industrial production is expected to remain below potential, resulting in excess capacity until 2016. The Bank of Canada may choose to provide additional stimulus to prevent disinflation in the short term. However, the Bank has little room to play with, as the overnight rate is already close to zero. It is more likely that the Bank of Canada will wait until the effects of lower energy prices drop out of the annual inflation rate later this year, rather than make any further moves. The prime lending rate is expected to change course toward higher rates in 2016. It will increase moderately in 2016 and 2018, but rapidly in the intervening year.

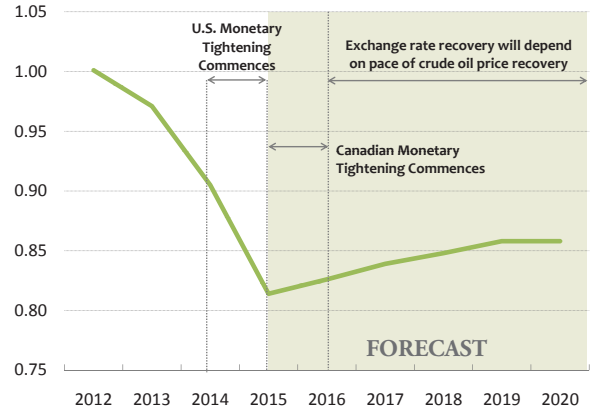
Canada: Private sector investment decline will depress job growth in 2015



Source: IMF, Corporate Economics.

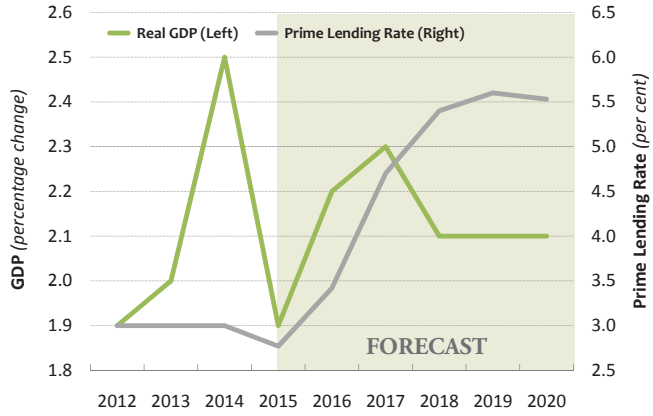
Canada: Mild recovery to follow Canadian dollar weakness

(Average annual U.S. Dollar rate for a single Canadian dollar)



Source: Government of Alberta, Corporate Economics.

Canada: Short-term real output volatility, while monetary tightening will commence in 2016



Source: Consensus Economics, Conference Board of Canada, IHS Global Insight, Corporate Economics.

UNITED STATES

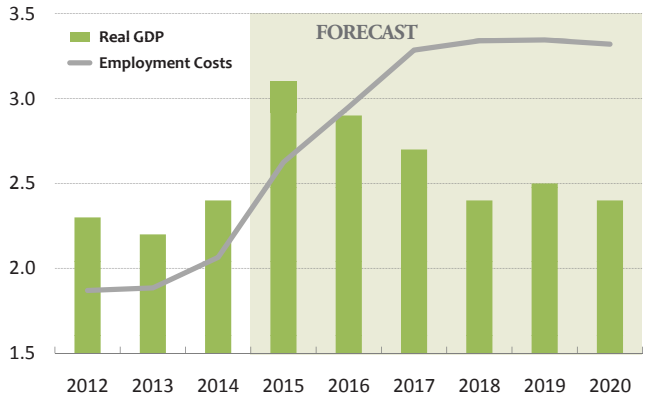
- **Economic Recovery gains Momentum:** The index of consumer sentiment has improved dramatically, achieving an eleven year high in January 2015. Consumer spending will therefore spur growth, as it accounts for 70 per cent of GDP growth. Growing consumer confidence will also drive industrial production, labour demand and household wealth in a virtuous cycle and eliminate the output gap by 2017. Real output growth will be high in 2015, at 3.1 per cent, before decelerating to 2.4 per cent by 2020. Going forward, job growth will decelerate but remain strong. More than 6.5 million new jobs are expected between 2014 and 2020. Wage growth has been slow because labour supply has outstripped demand. Annual increases in employment costs above 3.0 per cent are expected to kick-in beginning in 2016.

- **Upcoming Monetary and Fiscal Tightening:** The unemployment rate was 5.5 per cent in February 2015 and is expected to decline further. This will eliminate labour market slack and put upward pressure on wages. Rapid growth in wages and consumer prices will compel the Fed to respond by raising interest rates later this year in order to prevent the economy from overheating. The yield curve has turned less steep in 2015, due to subdued inflation expectations induced by lower oil prices. Thus, the short-term pace of overnight rate hikes will be moderate. Robust private sector growth provides scope for the federal government to proceed with countercyclical fiscal policy to lower the deficit as a share of GDP in the short term. Lower real federal government spending will restrain output growth.

- **Domestic Production will Outstrip Demand:** Industrial production is expected to grow at a rate of 3.9 per cent in 2015 and will decelerate markedly beginning in 2017, when the economy achieves full capacity. The faster growth rate of domestic production, relative to domestic consumption, will put downward pressure on import growth. In turn, a smaller part of consumer spending growth will pass through to imports. Most of the increase in consumer spending will be on U.S. goods and services, boosting domestic investment and GDP. Despite lower crude prices in the short-term, the growth rate of domestic crude oil production will exceed domestic consumption of liquid fuels. Given current restrictions on U.S. crude exports, crude oil net imports will decline. In order to increase the value of imports from Canada, the U.S. would have to rely less on other trading partners.

U.S.: GDP will accelerate before decelerating, while a sustained spell of high wage growth has commenced

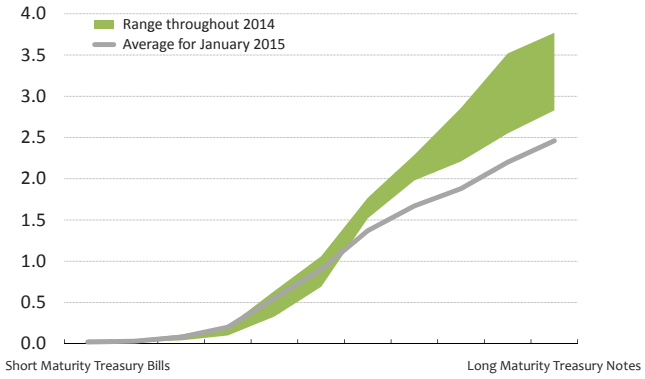
(*Percentage increase on a year earlier*)



Source: Consensus Economics, Congressional Budget Office, Corporate Economics.

U.S.: Yield curve reflects subdued inflation expectations

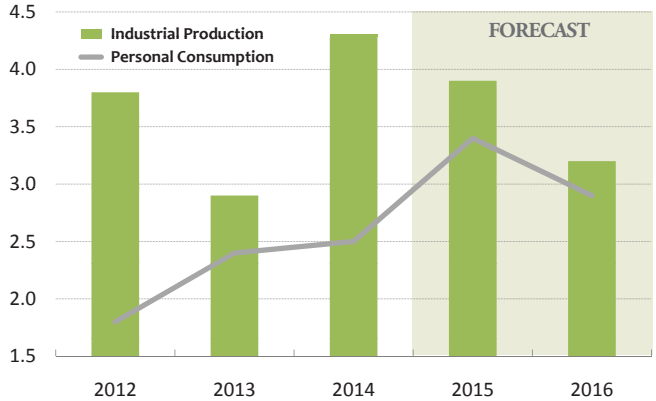
(Monthly average yields for Treasury Bills and Notes, *per cent*)



Source: U.S. Federal Reserve Bank of St. Louis, Corporate Economics.

U.S.: Pace of domestic industrial production growth will outstrip domestic consumption growth

(*Percentage change on a year earlier*)

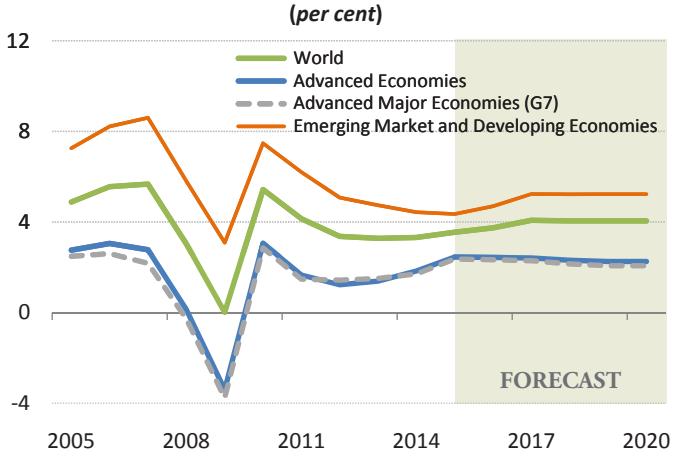


Source: Consensus Economics, Corporate Economics.

WORLD

- Between July 2014 and March 2015, the WTI oil price saw its value cut in half from US$103 per barrel to under US$50 per barrel. In the past, geopolitical unrest in oil producing regions was typically the catalyst for significant upward swings in oil prices. However, in this current economic environment, the abundance of shale oil in the United States has added to the stock of existing oil, reducing volatility. In addition, weak growth in the world economy and the associated soft demand for energy has contributed to excess supply on world oil markets.
- The economic growth rate for emerging and developing countries is expected to drive global growth relative to the advanced economies. Global economic growth in 2014 was 3.3 per cent and is estimated at 3.5 per cent for 2015, and 3.7 per cent by 2016.
- The growth rate for emerging and developing economies is estimated to be 4.3 per cent for 2015, a decrease of 0.1 percentage points from the 2014 economic growth rate, but is expected to increase to 4.7 per cent by 2016.
- The economic growth for Advanced Economies and Advanced Major Economies (G7) are estimated at 2.4 and 2.3 per cent for 2015 and forecast to grow at the same rates for 2016, respectively.

World: Gross domestic product growth rate
(per cent)



Source: IMF, Corporate Economics.

Table 1 - Selected Economic Indicators

Rest of the World, United States, Canada, Alberta, Calgary Economic Region (CER) & Calgary Census Metropolitan Area (CMA)

FORECAST COMPLETED: March 2015						BASE FORECAST					
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
ASSUMPTIONS											
World											
World Gross Domestic Product (annual % change)	5.4	4.1	3.4	3.3	3.3	3.5	3.7	4.1	4.0	4.0	4.0
The United States											
U.S. Real Gross Domestic Product Growth (chained 2009 dollars) (%)	2.5	1.6	2.3	2.2	2.4	3.1	2.9	2.7	2.4	2.5	2.4
Canada											
Canada Real Gross Domestic Product Growth (chained 2007 dollars) (%)	3.4	3.0	1.9	2.0	2.5	1.9	2.2	2.3	2.1	2.1	2.1
Prime Business Loan Rate (%)	2.6	3.0	3.0	3.0	3.0	2.8	3.4	4.7	5.4	5.6	5.5
Exchange Rate (US$/Cdn$)	0.97	1.01	1.00	0.97	0.91	0.81	0.83	0.84	0.85	0.86	0.86
Alberta											
Alberta Real Gross Domestic Product Growth (chained 2007 dollars) (%)	4.5	5.7	4.5	3.8	3.9	-1.4	2.1	3.0	3.2	3.5	3.2
Total Employment Growth (%)	-0.3	3.7	3.5	2.4	4.0	-0.8	1.2	1.9	2.0	2.1	2.1
Unemployment Rate (%)	6.5	5.4	4.6	4.6	4.5	6.1	5.9	5.3	4.9	4.7	4.7
Housing Starts ('000 Units)	27.4	25.5	33.3	36.1	40.6	31.5	31.8	32.5	33.0	34.7	33.8
Inflation Rate (%)	1.0	2.4	1.1	1.4	2.6	1.0	1.1	1.6	1.8	1.9	2.1
Crude Oil Price - WTI (US$/bbl)	79.52	95.13	94.21	97.97	92.97	51.00	62.00	73.00	78.00	83.00	85.00
Western Canadian Select - WCS (US$/bbl)	62.55	71.84	71.90	77.05	78.43	45.00	54.00	62.00	66.00	74.00	76.00
Alberta Natural Gas Price - AECO/NIT ($/GJ)	3.60	3.15	2.19	3.06	3.84	3.00	3.28	3.56	3.70	3.85	4.09
Industrial Product Price Index (%)	1.5	6.9	1.1	0.4	2.5	-3.0	2.3	2.7	2.1	2.2	2.0
Raw Materials Price Index (%)	13.8	19.5	-4.1	0.9	1.6	-34.2	12.1	13.3	5.2	4.2	1.4
Alberta Average Wage Rate Increase for All Industries (%)	4.5	4.4	3.5	3.5	3.8	1.0	1.6	2.5	3.2	3.5	3.6
FORECAST											
Calgary Economic Region (CER)											
Gross Domestic Product (%)*	4.4	5.4	3.9	3.8	4.0	-1.0	1.4	2.0	2.5	2.8	2.6
Total Employment ('000 Persons)	755	776	806	830	857	849	871	890	909	926	945
Total Employment Growth (%)	-1.3	2.8	3.9	3.0	3.2	-0.9	2.6	2.2	2.2	1.9	2.0
Unemployment Rate (%)	7.0	6.2	4.8	4.8	5.1	6.3	6.1	5.5	5.0	4.6	4.5
Inflation Rate (%) (CMA)	0.8	2.2	1.0	1.7	2.9	1.1	1.3	2.4	2.3	2.3	2.4
Building Permits ($billion)	3.8	5.5	5.6	7.5	7.3	5.0	5.2	6.0	6.4	6.4	6.4
Low Forecast	N/A	N/A	N/A	N/A	N/A	4.5	5.0	5.8	6.1	6.1	6.1
High Forecast	N/A	N/A	N/A	N/A	N/A	6.0	6.1	7.0	7.4	7.4	7.4
Housing Starts ('000 Units) (CMA)	9.3	9.3	12.8	12.6	17.1	9.1	12.4	11.4	11.2	11.6	11.3
Non-Residential Building Price Inflation (%) (CMA)	-2.2	2.7	3.7	1.2	1.3	-13.1	6.7	7.2	3.2	2.0	0.8

Numbers may not add up due to rounding

* Source: Centre for Spatial Economics, Corporate Economics

** Total population, census divisions and census metropolitan areas, 2001 Census boundaries

Table 2 - Selected Indicators for City of Calgary

City of Calgary

FORECAST COMPLETED: March 2015						BASE FORECAST					
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
DEMOGRAPHY											
Total Population ('000 Persons)	1,072	1,091	1,120	1,156	1,195	1,229	1,259	1,288	1,316	1,343	1,368
Total Population Growth (%)	0.6	1.8	2.7	3.2	3.4	2.8	2.5	2.3	2.2	2.0	1.9
Net Migration ('000 Persons)	9.6	19.7	26.1	28.0	22.0	18.0	16.0	15.0	14.0	13.0	10.0
Household Formation ('000 Units)	4.1	8.1	12.2	8.1	11.1	14.5	11.6	10.9	10.6	10.2	9.9
REAL ESTATE											
Residential Market											
Housing Starts ('000 units)	7.3	7.7	10.3	9.4	13.8	7.4	10.9	10.0	9.8	10.2	9.9
Average Residential MLS Sale Price (% change)	3.4	1.1	2.3	11.2	5.8	-9.4	2.7	2.5	1.2	1.1	0.8
Total Building Permits mid point ($billions)	2.9	4.5	4.4	6.1	6.3	4.0	4.5	5.2	5.5	5.5	5.5
Low Forecast	N/A	N/A	N/A	N/A	N/A	*3.5*	*4.1*	*4.7*	*5.0*	*5.0*	*5.0*
High Forecast	N/A	N/A	N/A	N/A	N/A	*4.5*	*5.0*	*5.7*	*6.1*	*6.1*	*6.1*

Numbers may not add up due to rounding

Table 3 - City of Calgary Population Projection

City of Calgary

FORECAST COMPLETED: August 2014		BASE FORECAST						
	2014	2015	2016	2017	2018	2019	2020	2021
Total Population (as April)	1,195,200	1,228,900	1,259,200	1,287,900	1,315,700	1,342,600	1,368,400	1,394,900
Total Population Growth Rate April - March)	3.3	2.8	2.5	2.3	2.2	2.0	1.9	1.9
Total Net Migration (April - March)	22,000	18,000	16,000	15,000	14,000	13,000	14,000	14,000
Total Births (April - March)	18,500	19,200	19,700	20,000	20,300	20,400	20,400	20,300
Total Deaths (April - March)	6,700	6,900	7,100	7,200	7,400	7,600	7,800	8,000
Total Natural Increase (April - March)	11,700	12,300	12,700	12,800	12,900	12,800	12,600	12,300
Total Households (as April)	453,600	468,200	479,700	490,500	501,000	511,200	520,900	530,900
Total Household Formation (April - March)	11,100	14,500	11,600	10,800	10,500	10,200	9,700	10,000

Population by Cohort		BASE FORECAST						
	2014	2015	2016	2017	2018	2019	2020	2021
0-4	81,000	82,300	84,700	88,200	92,400	97,200	99,100	100,300
5-9	71,900	75,000	77,700	79,600	80,500	80,400	81,700	84,100
10-14	65,600	66,400	67,300	68,600	70,200	72,400	75,500	78,200
15-19	66,400	67,000	67,200	67,400	67,500	67,900	68,400	69,300
20-24	81,500	81,300	79,900	78,400	77,000	74,700	74,600	74,500
25-29	103,000	104,900	105,700	105,000	103,600	102,600	100,300	98,000
30-34	107,800	114,800	119,900	123,700	126,600	128,000	127,000	126,500
35-39	100,700	106,400	111,600	116,500	121,000	125,900	130,900	135,000
40-44	98,600	102,100	105,500	108,300	111,700	115,200	119,300	123,600
45-49	84,400	86,800	89,800	94,800	100,200	105,700	108,200	111,100
50-54	85,300	86,800	87,900	87,500	87,100	86,400	88,400	91,200
55-59	74,100	75,700	77,300	79,100	80,600	82,400	83,900	84,800
60-64	54,600	55,800	57,800	60,300	62,900	65,000	67,300	69,100
65-69	42,300	44,000	45,700	47,400	47,700	47,600	49,300	51,500
70-74	28,400	29,500	30,600	31,700	34,300	37,500	39,200	40,800
75-79	19,900	20,200	20,600	21,300	22,100	23,300	24,400	25,500
80-84	15,400	15,200	15,100	14,900	14,900	14,800	15,200	15,600
85-89	9,000	9,200	9,300	9,600	9,600	9,700	9,600	9,600
90+	5,200	5,400	5,600	5,700	5,900	6,000	6,100	6,300
Total	**1,195,200**	**1,228,900**	**1,259,200**	**1,287,900**	**1,315,700**	**1,342,600**	**1,368,400**	**1,394,900**
12-17	78,900	79,300	79,700	80,800	81,500	82,700	84,300	86,700

Numbers may not add up due to rounding

Table 4 - Calgary Economic Region (CER) Population Projection

Calgary Economic Region (CER)

FORECAST COMPLETED: August 2014		BASE FORECAST						
	2014	2015	2016	2017	2018	2019	2020	2021
Total Population (as April)	1,518,800	1,569,000	1,613,500	1,655,300	1,695,000	1,732,200	1,768,900	1,806,000
Total Population Growth Rate (April - March)	3.4	3.3	2.8	2.6	2.4	2.2	2.1	2.1
Total Net Migration (April - March)	36,200	30,100	27,200	25,100	22,800	22,300	23,100	23,000
Total Births (April - March)	22,800	23,600	24,200	24,600	25,000	25,200	25,300	25,400
Total Deaths (April - March)	8,800	9,200	9,700	10,100	10,500	10,800	11,300	11,700
Total Natural Increase (April - March)	14,000	14,400	14,500	14,600	14,500	14,300	14,000	13,700
Total Households (as April)	584,200	603,500	620,600	636,600	651,900	666,200	680,300	694,600
Total Household Formation (April - March)	--	19,300	17,100	16,100	15,300	14,300	14,100	14,300

Population by Cohort		BASE FORECAST						
	2014	2015	2016	2017	2018	2019	2020	2021
0-4	96,600	101,200	106,200	111,500	116,900	121,700	123,900	125,500
5-9	91,800	93,800	95,600	96,900	97,700	98,900	103,100	107,900
10-14	82,500	85,200	87,900	90,800	93,700	95,900	97,700	99,400
15-19	89,500	90,000	90,100	90,300	91,300	92,900	94,600	96,700
20-24	105,100	106,300	107,000	106,800	106,000	104,900	104,000	103,500
25-29	125,900	128,600	129,500	130,000	130,300	129,900	128,700	128,100
30-34	137,500	143,500	147,300	149,600	150,300	150,400	150,500	150,100
35-39	123,700	130,300	136,700	143,000	149,300	154,900	159,100	161,900
40-44	116,300	120,000	123,100	126,900	131,300	136,100	141,300	146,900
45-49	107,600	110,000	114,200	118,200	121,200	123,900	126,700	129,300
50-54	110,600	111,300	110,900	110,500	110,500	111,000	112,900	116,800
55-59	99,600	102,900	105,500	107,400	109,200	110,700	111,100	110,600
60-64	74,800	79,600	84,600	89,800	93,900	97,600	100,600	103,100
65-69	55,500	59,500	63,200	65,300	68,200	72,200	76,700	81,400
70-74	36,200	38,400	41,000	45,300	49,200	52,600	56,100	59,400
75-79	26,400	27,300	28,400	29,600	31,300	33,100	34,900	37,100
80-84	20,200	20,700	21,000	21,400	21,800	22,400	23,000	23,800
85-89	12,500	13,200	13,700	14,200	14,500	14,600	14,900	15,100
90+	6,600	7,000	7,500	7,900	8,400	8,700	9,100	9,500
Total	**1,518,800**	**1,569,000**	**1,613,500**	**1,655,300**	**1,695,000**	**1,732,200**	**1,768,900**	**1,806,000**

Numbers may not add up due to rounding

Table 5 - Selected Commodity Prices

City of Calgary

FORECAST COMPLETED: March 2015						BASE FORECAST					
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
CONSTRUCTION COMMODITIES											
Iron and steel products	-0.9	1.9	-1.3	-1.1	3.1	-2.9	1.8	-3.7	2.2	-1.4	-1.8
Aluminum products	10.3	4.3	-9.5	2.4	6.4	-5.3	-0.6	4.5	-1.8	1.0	-3.5
Wood	-1.6	2.0	2.1	6.9	3.2	-4.0	-2.2	-4.4	-3.8	-1.8	-1.2
Asphalt**	13.1	-0.7	13.6	-5.4	3.8	-48.9	17.1	9.8	3.4	3.9	3.1
OPERATIONAL COMMODITIES											
Rubber	69.2	32.8	-27.5	-14.3	-22.8	-33.1	42.2	33.5	14.9	7.8	4.5
Diesel oil	11.7	23.3	-0.5	5.2	7.9	-37.2	13.3	12.5	5.4	3.9	2.0
Vehicle parts	1.7	1.8	2.6	0.1	0.9	2.3	2.1	2.0	2.7	3.6	3.6

Numbers may not add up due to rounding

** Based on Ontario Ministry of Transportation Asphalt Price Index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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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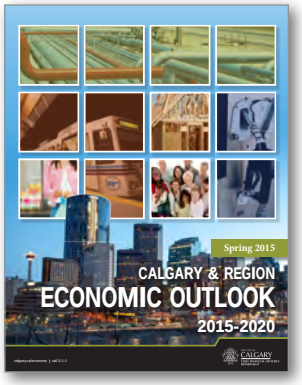
Many of our publications are available on the internet at **www.calgary.ca/economy**.

Forecasting



- Calgary & Region Economic Outlook
- Energy Reports on Natural Gas and Crude Oil

Information Provision

- Labour Market Review
- Inflation Review
- Current Economic Analysis
- Housing Review

Policy Analysis

- A Case of Fiscal Imbalance: The Calgary Experience
- Diesel Fuel Price Pass-Through in Calgary
- Calgary Residential and Commercial Real Estate Markets

Corporate Research Analyst: Estella Scruggs

Sources:
Statistics Canada, CMHC, CREB, MLS, Bank of Canada, Conference Board of Canada, GLJ Energy Publications, The City of Calgary, Centre for Spatial Economics, IHS Global Insight, U.S. Federal Bank Reserve of St. Louis, International Money Fund (World Economy Outlook), World Bank, Central Plan Bureau Netherlands, and others.