Spring 2013

CALGARY & REGION ECONOMIC OUTLOOK

2013-2018

calgary.ca/economy | call 3-1-1

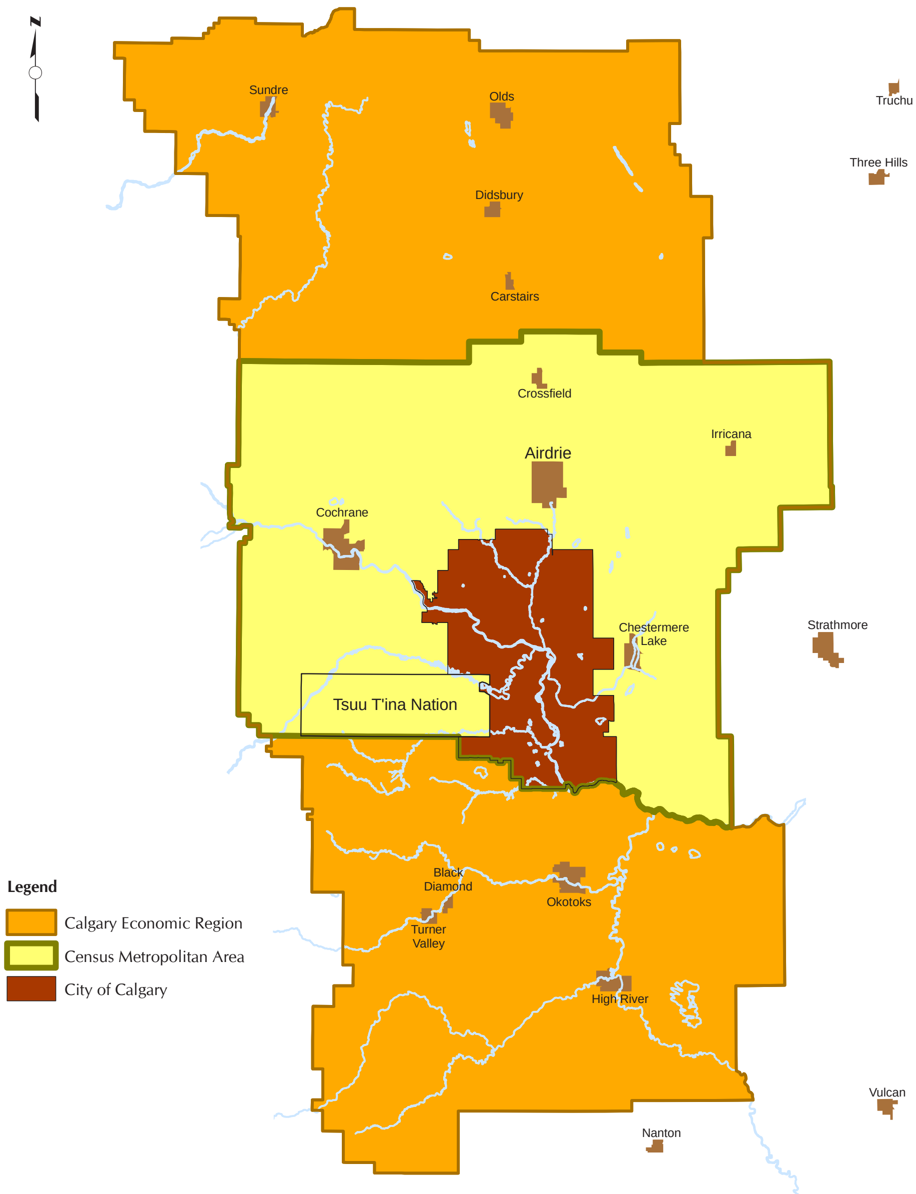
calgary economic development
be part of the energy™

THE CITY OF CALGARY
CHIEF FINANCIAL OFFICER'S DEPARTMENT

Table of Contents

Completed: April 2013

Calgary Economic Region Map



Executive Summary

PREAMBLE

The chronic uncertainty surrounding weak public sector finances in Europe and the United States is resulting in reduced consumer and business confidence and contributing to a growing reluctance by businesses and consumers to make long-term financial commitments. Businesses have cut their capital expenditures which has reduced the rate of job creation. High unemployment in the advanced economies has dampened consumer spending and reduced the overall rate of economic activity. Slower economic growth in the advanced economies has reduced the demand for exports from the emerging economies and has also depressed commodity prices. The combination of reduced volumes and prices for commodity exports has depressed business cash flows, reduced investment activity and world economic growth.

The provincial economy is vulnerable to the above conditions plus a lack of pipeline capacity to transport oil to the U.S. and to tidewater. The lack of pipeline capacity is forcing Alberta producers to take steep price discounts relative to world oil prices. Specifically, Alberta bitumen is facing double discounts from both international prices (Brent) and the WTI prices in the U.S. due to pipeline constraints moving crude into and out of Cushing, Oklahoma. The price differential should exist in the medium term which will depress corporate profits and oil sands investment in Alberta. This reduction in spending will result in output and employment in Alberta growing below pre-recession rates.

The April 2013 economic outlook is relatively more restrained than the October 2012 report and consequently, a number of indicators have been revised downwards.

FORECAST

Calgary

The overall office space vacancy rate in Calgary stood at 6 per cent at Q1 2013, down from 7.8 per cent in Q1 2012 and 9.7 per cent in Q1 2011. Currently there are 14 office projects under construction in Calgary. Despite the possible addition of 3.9 million sq ft from those projects, the overall vacancy rate is expected to trend lower in response to employment growth during the forecast period[1]. With Calgary's longer term employment outlook reflecting a demographic shift toward lower availability of qualified workers, the pace of future office development is likely to slow from 2015 to 2018.

Total building permit values were estimated at $4.5 billion in 2012, the same as 2011. Uncertainty over public finances, the "Bitumen Bubble" and tighter mortgage rules will temper the real estate market in the second half of the year. In 2013 we anticipate slightly lower permit values than last year and the market is expected to grow in line with demographic requirements from 2014 to 2018. Building permit values should decline to $4.4 billion in 2013 and then grow to $4.8 billion by 2018.

Economic growth in the Calgary Economic Region (CER) was estimated at 3.3 per cent in 2012, up from -4.3 per cent in 2009 and 3.1 per cent in 2011. The economy is expected to expand by 3.0 per cent in 2013 and 3.0 per cent in 2018.

Consumer prices rose by 1.0 per cent in 2012, down from 2.2 per cent in 2011, but up from 0.8 per cent in 2010. Consumer price inflation rate is expected to increase by 2.3 per cent in 2013 and accelerate to 3.0 per cent by 2018, in response to tighter labour market conditions.

Construction inflation is running at a fairly steady pace of 3 per cent. Costs are rising across-the-board but increases are being felt in concrete, site delivery, servicing expenses and labour. In addition, we expect interest rates to begin rising in late 2014 and continue to increase slowly thereafter.

1 Altus Insite, March 2013

Total employment was estimated at 806,300 in 2012, up from 776,100 in 2011 and 755,000 in 2010, which shows the job market added 51,000 positions since bottoming out in 2010. Total employment is expected to increase to 827,000 in 2013 and reach 914,000 by 2018.

During the same period, the unemployment rate was estimated at 4.8 per cent in 2012, down from 6.2 per cent in 2011 and 7.0 per cent in 2010. The unemployment rate is expected to decline to 4.6 per cent in 2013 and 4.0 per cent by 2018, as employment growth outpaces labour force growth.

ASSUMPTIONS

Alberta

Alberta's economy is expected to slow in 2013 after robust growth in 2011 and 2012. Capital spending plans in the energy sector have been reduced due to limited pipeline capacity and a deep discount for Canadian heavy oil prices. In addition, government spending for 2013-14 is being held at the previous year's level and is not expected to contribute to growth.

Uncertainties should remain for WTI crude oil prices in 2013. With moderate recovery in global economic growth, world liquid fuel consumption should grow marginally. Non-OECD Asia should be the leading contributor to the increase in world demand. We expect the WTI crude oil price to fall slightly from an average of US$94.1/bbl in 2012 to US$93.6/bbl in 2013, and pick up in 2014 to US$94.5/bbl.

Natural gas prices averaged $2.27/GJ in 2012, about one third lower than the 2011 average of $3.43/GJ. Downside factors for natural gas prices include moderate economic growth and record high storage levels in North America. Upside factors are weather related demand and coal-to-gas electricity substitution. For the next two years, we expect natural gas prices to rise gradually to $3.25/GJ in 2013, and $3.72/GJ in 2014.

Canada

Canada's economic growth decelerated to 1.9 per cent in 2012 from 2.6 per cent in 2011. Economic growth should slow to 1.7 per cent this year and then increase to 2.5 per cent in 2014.

The slack in the Canadian economy should keep inflation subdued for another two years. The Bank is therefore expected to delay interest rate hikes until late 2014, on its assessment that the economy should return to full capacity in the second half of 2014.

Softer crude oil prices, especially the Western Canadian Select (WCS) prices, in the near-term should hold the Canadian dollar below par. Canada is expected to grow slower than the U.S., narrowing the interest rate gap between the two economies, which should further depress the value of the dollar for the rest of the forecast period.

United States

Real GDP in the U.S. is forecast to grow by a moderate 2.0 per cent this year before accelerating to 2.8 per cent in 2014.

The U.S. exchange rate has increased moderately since mid-2011, against other major currencies in the advanced economies, reversing an overall downward trend from 2009. This appreciation has been driven by relatively stronger growth in the U.S. and should continue for the remainder of the forecast period.

World

A general growth slow down across the globe in 2012 from developed, emerging and developing countries, provided a theme of uncertainty for the 2013 global outlook. Economic growth in the world economy should accelerate in 2014 as the halting recovery in the U.S. moves to a firmer footing in the latter half of 2013 and early 2014.

Given world projections for moderate growth, inflation is expected to dip to 4 per cent in 2012 and then decelerate to 3.7 per cent in 2013 and 3.4 per cent 2015.

Forecast Risks

Lifting Factors ⟷ **Dragging Factors**

Consumer Sector

Lifting Factors:
- Increasing employment

Dragging Factors:
- Rising interest rates
- High consumer debt levels
- Negative net migration

+

Business Sector

Lifting Factors:
- Rising oil prices
- Low interest rates

Dragging Factors:
- Depressed natural gas prices
- Sagging consumer and business confidences
- Low housing starts
- Low non-residential construction
- Rising interest rates

+

Government Sector

Dragging Factors:
- Budget deficit
- Reduction in government spending

+

World outside Alberta

Lifting Factors:
- Strong growth in the emerging economies
- Confidence in the developed world prompting a stronger rebound in demand

Dragging Factors:
- U.S. economy grows below its potential growth rate
- The BRIC economies experience weaker growth
- The developed economies experience significantly weaker growth
- Some EuroZone members default on their sovereign debt
- The global economy becomes significantly protectionist

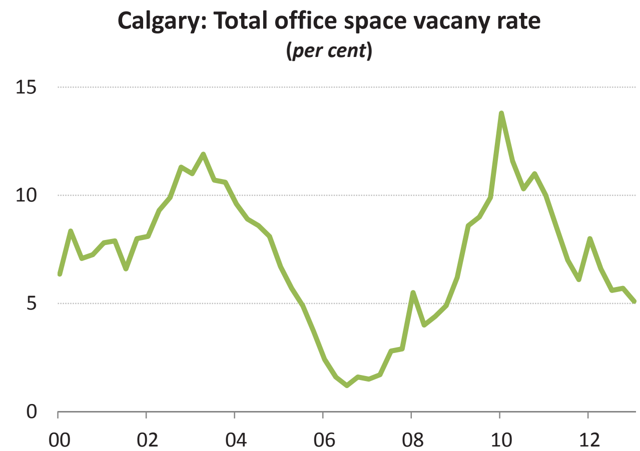
Forecast Implications

Variable	Direction of Change	Implications for The City of Calgary
Canada		
Gross Domestic Product (%)	Flat. Canada's economic growth decelerated to 1.9 per cent in 2012 from 2.6 per cent in 2011. Economic growth should slow to 1.7 per cent this year and then increase to 2.4 per cent in 2014.	The market for goods and services, in the rest of Canada, from the Calgary Economic Region should stagnate in 2013 and grow from 2014 to 2018.
Prime Business Loan Rate (%)	2014 increase over 2013. The Bank of Canada has held short term interest rates at extremely low levels in order to stimulate the economy. These rates are expected to steadily increase over the course of the forecast as the Bank of Canada attempts to unwind the monetary stimulus.	Higher interest service charges should not have a direct effect on The City. However, the impacts would be indirect as service providers pass on lower charges as lower fees to The City
Government spending ($)	Fiscal restraint. Deficit spending was used to stimulate the Canadian economy and rescue it from the recession. Subsequently, federal and provincial governments have shifted their stance to a tighter fiscal policy.	Consequently, municipal governments should not expect significant increases in transfer payments in the short-term.
Alberta		
Crude Oil Price - WTI (US$/bbl)	World crude oil prices are projected to trend upwards from 2014 to 2018 as world economic growth returns. By the end of 2012, the Hardisty based Western Canadian Select crude oil prices averaged a US$31/bbl discount compared to WTI, and a US$52/bbl discount compared to Brent.	The differential should continue to exist until such time as additional routes are found to export markets. Persistently low prices should depress investment activity below pre-recession levels. This would reduce economic and demographic growth in Alberta.
Alberta Natural Gas Price - AECO/NIT (Can$/GJ)	Natural gas markets have moved into a period of oversupply since the beginning of the 2008 / 2009 recession. The production of shale gas in North America has significantly increased supply.	The net effect of $1.00 GJ price decrease for natural gas should decrease GDP by $1.8 billion. In addition, a $1.00Gj decrease in natural gas prices should cause provincial royalty revenues to decrease by roughly $1.0 billion. The price decrease results in an decrease in corporate profits and overall economic activity. Low natural gas prices would cause City revenue growth from franchise fees to remain weak over the forecast period assuming all things are equal.
Government spending ($)	Decrease for several years	See above
Calgary		
Gross Domestic Product (%)	Positive GDP growth in 2013 and beyond should create an increase in demand for labour. Total employment in the CER should average 827,000 in 2013 and 914,000 in 2018.	Increased employment should result in increased demand for non-residential space which should push the vacancy rate in the office market down. The increased demand for space shows support for building permit values in the forecast period.
Unemployment Rate (%)	The unemployment rate should trend lower over the forecast period as the aging population acts as a major constraint on the labour force growth rate.	Lower unemployment rates from 2013 and beyond should lead to higher wage inflation as The City and other employers compete for scarce labour.
Building Permits ($billion)	Return to 2000 - 2005 levels. Building permit values would be driven by growth in both the residential and non-residential sectors.	Growth revenues associated with total building permit values should return to their pre-2007 values in the early stages of the forecast. Building permit values should be boosted by higher employment levels towards the end of the forecast period.
Housing Starts ('000 Units)	Growth in line with population change. The level of housing starts is expected to be lower than what was recorded in the 2003 – 2008 period.	Continued demand for serviced land for residential development. However, the demand for serviced land should grow at rates slower than in the past 10 years as multi-family units account for a larger share of housing starts.
House Price ($)	Faster increase in housing prices due to lower inventory levels and growth in demand.	Housing affordability should improve over the forecast period as labour incomes grow in excess of inflation.
Non-Residential Building Price Inflation (%)	Rate of growth should moderate as some commodity prices fall on world markets.	Non-residential costs should increase at lower rates than the pre-recession period.

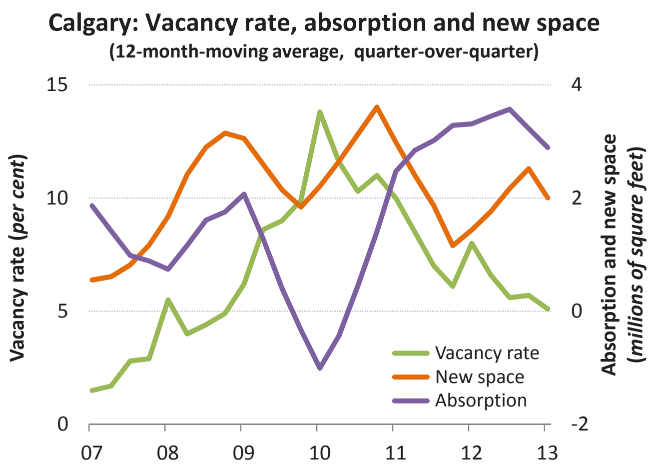
CITY OF CALGARY

Real Estate

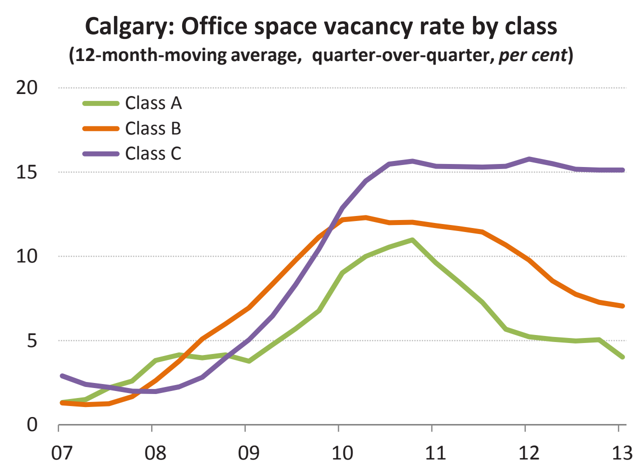
- The office space vacancy rate in Calgary averaged 5.1 per cent in Q1 2013, down from 8 per cent in Q1 2012 and 10 per cent in Q1 2011. Meanwhile, the downtown office vacancy rate was 2.8 per cent and rents rose to just over $30/sq ft (Class A rents flirted with $40 during the peak of 2007/2008) and companies moved into The Bow.
- A new even taller tower than the Bow broke ground at 225 6th Avenue. Currently there are 15 office projects under construction in Calgary. In 2012, some businesses exited the downtown market for the suburban campuses. With suburban rents and vacancies languishing at half that of the downtown for several years, some exodus was inevitable. In spite of the potential addition of 3.9 million square feet from those projects, the overall vacancy rate is expected to trend lower in response to employment growth during the forecast period. With Calgary's longer term employment outlook reflecting a demographic shift toward lower availability of qualified workers, the pace of future office development is likely to slow from 2015 to 2018.
- The overall office vacancy rate masks the variable rates in various sub-markets. The recession in 2008 - 2009 saw a rise in the vacancy rates across all sectors. With the economic recovery, the class C vacancy rate remained high and class A and B vacancy rates plummeted; there was a flight to quality as tenants chose class A and B space over class C space.
- The absorption rate is expected to remain positive over the forecast period as the region experiences job growth. The class C vacancy rate is expected to decline and cause the vacancy rate differential among various segments of the office market to shrink.



Source: Altus Insite, Corporate Economics.



Source: Altus Insite, Corporate Economics.

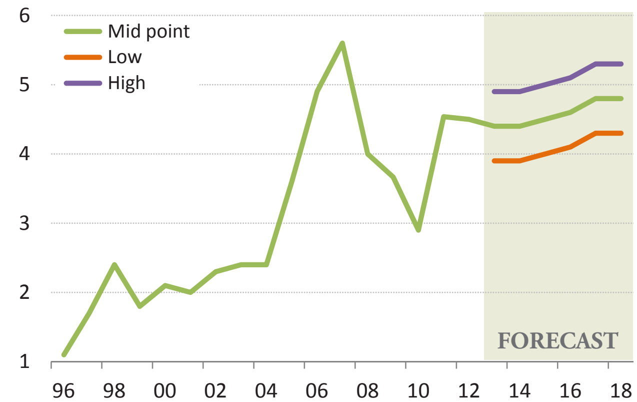


Source: Altus Insite, Corporate Economics.

Building Permit Values

- Total building permit values were estimated at $4.5 billion in 2012, the same as in 2011. Uncertainty over public sector finances, the "Bitumen Bubble" and tighter mortgage rules will temper the real estate market in the second half of 2013. In 2013, we look for slightly lower permit values than 2012 as the market continues to grow in line with demographic requirements from 2014 to 2018. Building permit values should decline to $4.4 billion in 2013 and then grow to $4.8 billion by 2018.
- After a slow January housing activity roared back to life in February with all losses in January recovered and then some. MLS activity also surged with listings down and sales up from year ago levels causing prices to again drift upward. The bulk of the market demand is in houses over $450,000 with harder market entry rules for first time buyers; this is skewing average market prices. Some builders are trying to encourage first time buyers out of rentals by "gifting" down payments to get around the stricter mortgage qualification rules.
- The apartment vacancy is hovering at 0.5 per cent and rents are now averaging $1113 / mo (2-bdrm).The sale to listing ratio for re-sale housing has trended upwards over the last 24 months. This trend should continue over the forecast period as the housing market benefits from population growth, relatively low mortgage rates and affordable house prices.
- Housing starts are expected to total 9,100 units in 2013, down from 10,300 in 2012 and fall to 7,900 by 2018. Housing starts are expected to grow in line with household formation.
- Lower vacancy rates in the office sector and positive job growth should drive the need to construct new office space.
- The industrial vacancy rate was estimate at 5.7 per cent in 2012. Employment growth should reduce the vacancy rate and also increase the need for the construction of new space.

Calgary: Total building permit value
(Annual average, 1996 - 2012, *billions of dollars*)

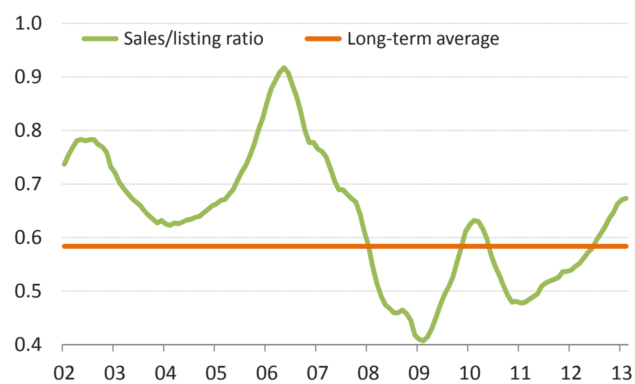


Source: The City of Calgary, Corporate Economics.

Calgary: Industrial vacany rate
(*per cent*)

Source: CBRE, Corporate Economics.

Calgary: MLS sales / listing ratio
(12-month-moving-average)



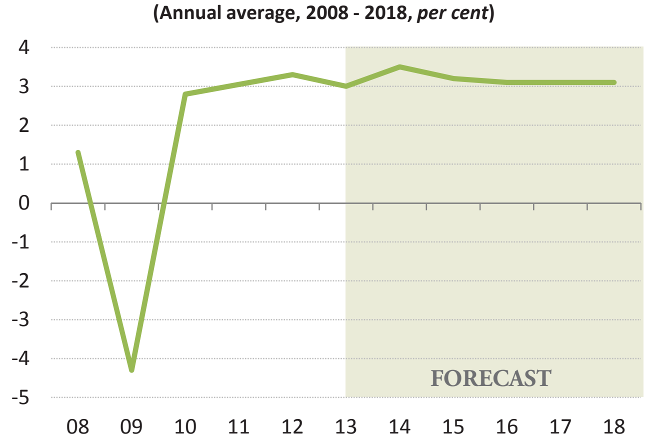
Source: Canadian Real Estate Association (CREA), Corporate Economics.

CALGARY ECONOMIC REGION (CER)

Gross Domestic Product

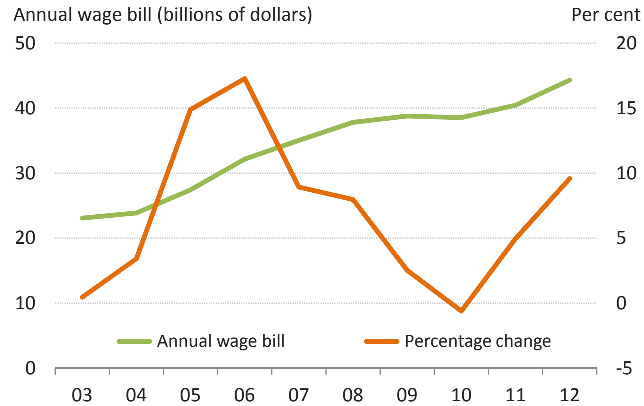
- Economic growth in the Calgary Economic Region (CER) was estimated at 3.3 per cent in 2012, up from -4.3 per cent in 2009 and 3.1 per cent in 2011. The economy is expected to expand by 3.0 per cent in 2013 and 3 per cent in 2018.
- Growth in labour income supported growth in consumer spending in particular and the economy in general. The average annual wage bill in the CER was estimated at $44.3 billion in 2012, up from $37.8 billion in 2008.
- Residential investment is expected to add to economic growth over the forecast period. Positive net migration would add to population growth and boost demand for new housing and associated "big ticket" items such as household appliances. However, tighter borrowing rules would provide an offset.
- Employment growth is expected to remain positive throughout the forecast period. This would keep the local unemployment rate low relative to the national rate and would be a major attraction for job seekers.

CER: Gross domestic product growth rate
(Annual average, 2008 - 2018, *per cent*)



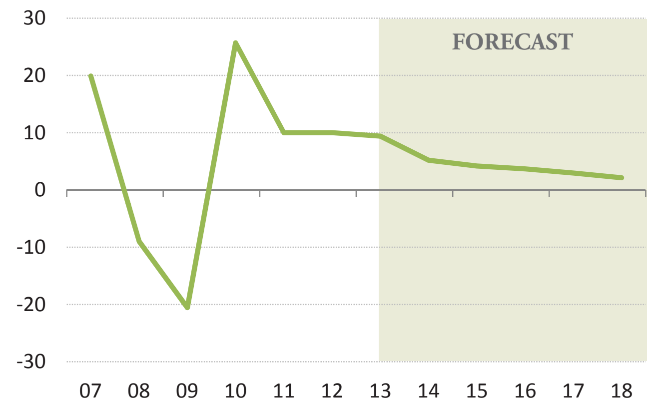
Source: Statistics Canada, Corporate Economics.

CER: Annual wage bill
(2003 - 2012)



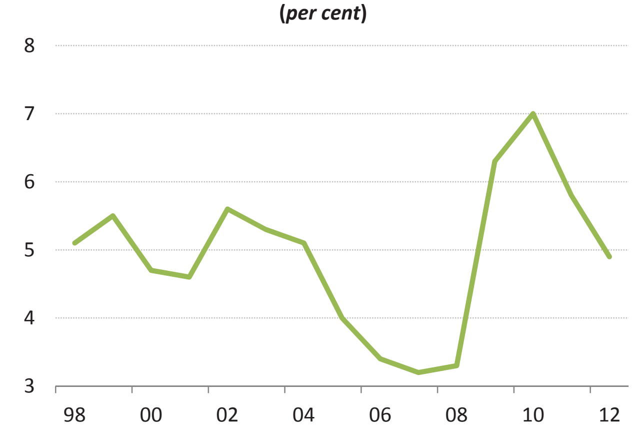
Source: Statistics Canada, Corporate Economics.

CER: Residential investment
(2008 - 2018, *per cent*)



Source: Statistics Canada, Corporate Economics.

CER: Unemployment rate
(*per cent*)



Source: Statistics Canada, Corporate Economics.

Prices and Wages

- Consumer prices rose by 1 per cent in 2012, down from 2.2 per cent in 2011, but up from 0.8 per cent in 2010. The consumer price inflation rate is expected to increase by 2.3 per cent in 2013 and accelerate to 3.0 per cent by 2018, in response to tighter labour market conditions.
- Lower inflation rates for food, shelter and transportation in 2012 drove the inflation rate below the 2011 value. Low apartment vacancy rates and high sales to listing ratios should combine to increase accommodation costs and the consumer inflation rate in 2013.
- The Calgary CMA weekly wage earnings (12 month moving average) grew by 5.6 per cent in January 2013, up from 2.5 per cent in January 2012. The wage earnings inflation rate is significantly below the pre-recession peak of 13.2 per cent in February 2006. The chart on the employment rate (on page 14) shows the labour market is not as tight as in 2007, and consequently, inflationary pressures on wages are lower.
- For most of the 2007 – 2012 period, the wage inflation rate exceeded the consumer price inflation rate as labour markets were relatively tight. The end of the recession in 2010 saw a return to this pattern as the unemployment rate fell below 5 per cent.

Inflation Rates

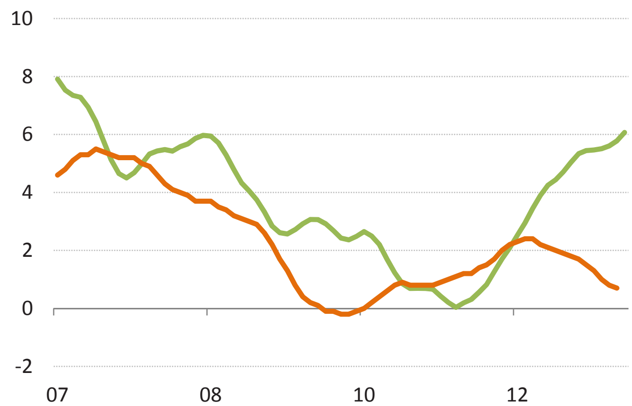
	Relative Importance (%)*	2012 (%)	2011 (%)
Calgary: All-items	100.0	1.0	2.2
Calgary: All-items excluding food and energy	74.7	1.2	0.7
Food	15.0	2.0	3.1
Shelter	27.0	0.1	2.3
Owned accommodation	16.4	1.1	0.7
Water, fuel and electricity	5.7	(4.6)	13.6
Household operations, furnishing and equipment	11.5	1.6	1.3
Clothing and footwear	5.3	(0.6)	(2.2)
Transportation	21.1	1.7	4.9
Gasoline	5.3	1.5	19.0
Health and personal care	5.0	2.4	2.7
Recreation, education and reading	11.9	0.2	(0.2)
Alcoholic beverages and tobacco products	3.2	2.2	1.0
Alberta: All-items	100.0	1.1	2.4
Alberta: All-items excluding food and energy	74.7	1.3	0.8
Canada: All-items	100.0	1.5	2.9
Canada: All-items excluding food and energy	73.9	1.3	1.6

Source: Statistics Canada, Corporate Economics, February 2013
Figures in red and parentheses indicate negative.

Calgary CMA: Change in average weekly earnings
(12-month-moving-average, *per cent*)

Source: Statistics Canada, Corporate Economics.

Calgary CMA: Inflation rates for wage earnings and consumer price
(12-month-moving-average, *per cent*)



Source: Statistics Canada, Corporate Economics.

Commodities

Commodity markets were more volatile than expected during the U.S. election season. With the uncertainty of the election now behind us, we look to a calming in commodity markets.

Non Residential Building Price Inflation

Construction inflation is running at a fairly steady 3 per cent. Costs are rising across-the-board but increases are being felt especially in concrete, site delivery and servicing expenses and labour. In addition, we expect interest rates to begin rising in late 2014 and to rise slowly thereafter. The full impact of the interest rate increases will result in a spike in non-residential construction costs in 2015. Though disruptive, this will be a one-time increase and thereafter the trend is expected to return to a traditional pace of just above CPI inflation.

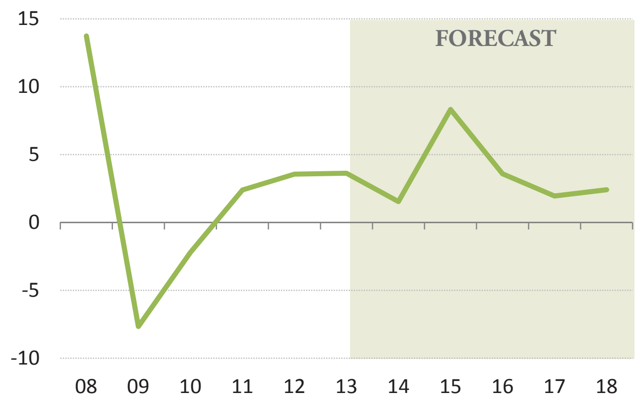
Asphalt

Oil prices were higher than expected during the unusual extreme dry and hot summer months of 2012. As a result, asphalt prices during the paving season were about 15 per cent higher than forecast. The outlook is for oil prices to soften through 2014 and rise as the U.S. economy picks up steam in 2015 and beyond. Barring another record-breaking hot summer, asphalt prices should hover in the mid to high $600's for the foreseeable future.

Rubber

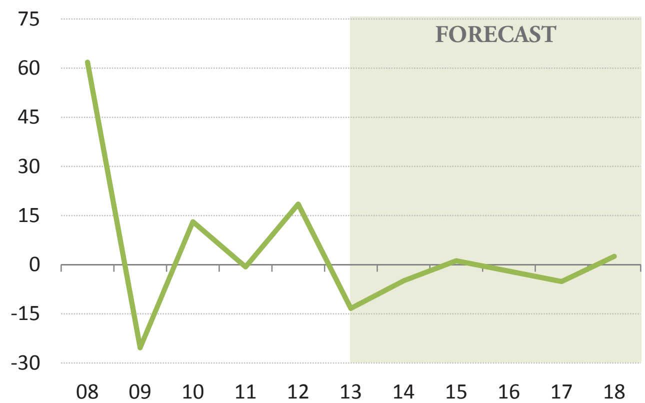
After a few years of exceptional flooding, global latex production is ramping up in places like India to replace lost production in Thailand. Increased production and stabilizing global demand for tires is moderating rubber prices. We anticipate only moderate price increases in line with general inflation for the forecast horizon.

Non-residential building price inflation
(*per cent*)



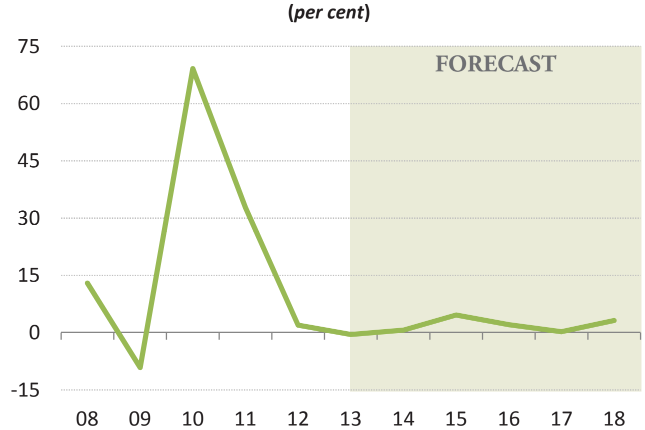
Source: Statistics Canada, Corporate Economics.

Asphalt price inflation
(*per cent*)



Source: Ontario Hot Mix Producers Association, Corporate Economics.

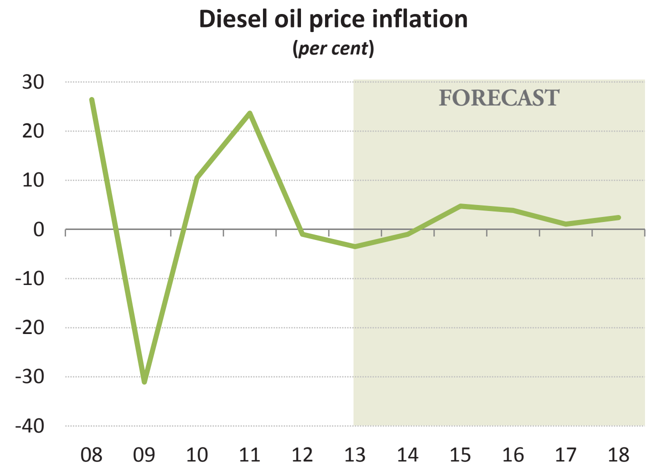
Rubber price inflation
(*per cent*)



Source: Statistics Canada, Corporate Economics.

Diesel

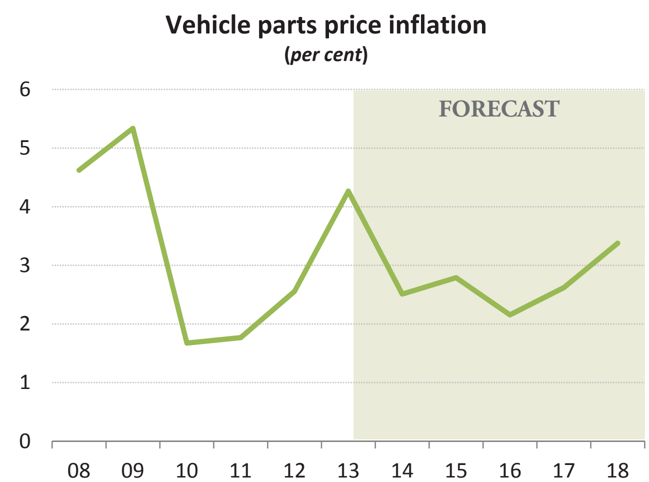
On an annualized basis, Calgary diesel prices spiked in 2008 when global oil prices spiked, and again in 2011 when a major pipeline feeding Edmonton refineries leaked 4.5 million litres of oil causing significant refining downtime in Alberta. With oil prices softening, we expect some easing of prices in 2013 and for prices to track oil price escalation throughout the remainder of the forecast period.



Source: Statistics Canada, Corporate Economics.

Vehicle Parts

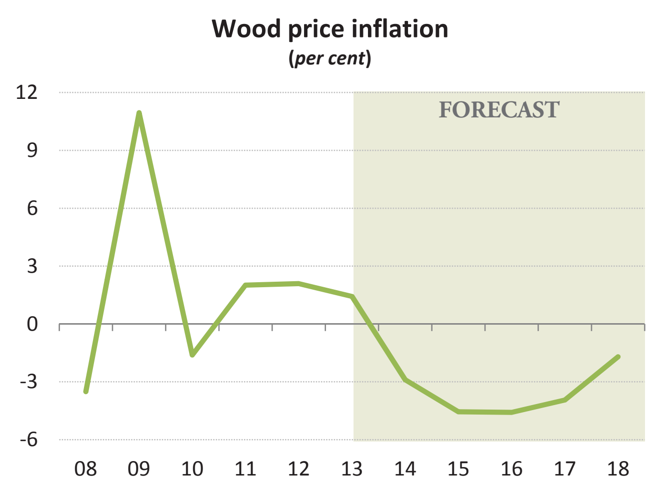
Vehicle sales are recovering somewhat faster than expected in the U.S.. There were 14.5 million sales in 2012, up significantly from 12.7 million in 2011. Pent-up demand, availability of low-rate financing and a return to easier credit terms are helping the U.S. auto industry recover quickly. The expectation is that within 2 years, sales will climb to pre-recession levels of 16 million units. As such, our forecast for price increases in vehicle parts is revised to show moderately strong and consistent price escalation throughout the forecast period.



Source: Statistics Canada, Corporate Economics.

Wood

After Hurricane Sandy hit the U.S. northeast coast, wood prices rose substantially. In response to the price rise B.C. production of softwood lumber rose to meet the increased demand and prices have now stabilized and in some cases are falling slightly. This reveals that there is a lot of excess capacity in the Canadian softwood lumber industry and the real question is when will U.S. construction activity return to a sustainable path? U.S. housing construction has increased lately but starts on dwellings in non-single family construction now outnumber single family starts by more than 4:1. Calgary experienced a deep recession in the 1980s, the result of which, many people lost their houses and spent the rest of their lives in multi-family dwellings. By comparison, it appears the current level of U.S. housing activity of about 1 million dwelling units per year is sustainable for the next 5-10 years, but activity is concentrated in building types that do not favour the Canadian softwood lumber industry. We look for wood prices to slump in the fall when the Hurricane Sandy recovery is finished and for wood prices to hit bottom around 2017-2018.

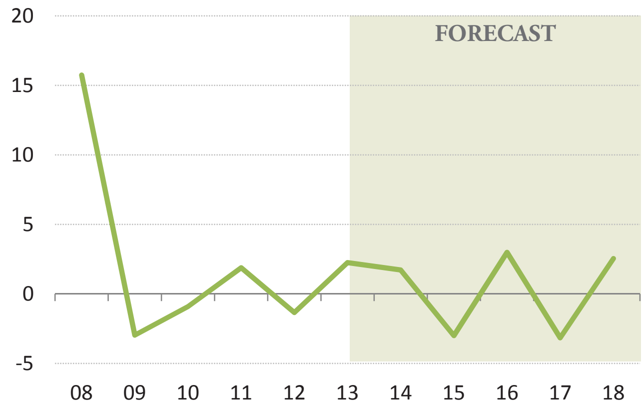


Source: Statistics Canada, Corporate Economics.

Steel

Steel prices typically surge every 4 to 5 years as global economic activity, particularly in international trade, increases. Demand for ships and shipping containers as well as cars and construction materials are the major drivers of steel demand. Prices for international shipping continue to hover around 10 per cent of their peak year values. International demand for steel is growing moderately but there is significant excess capacity, which the market cannot absorb quickly. This bodes poorly for a quick recovery in steel prices and we look for moderation in steel prices to continue.

Steel price inflation
(*per cent*)

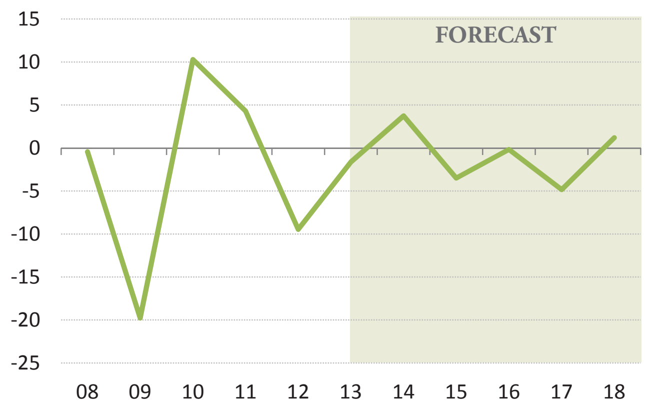


Source: Statistics Canada, Corporate Economics.

Aluminum

Global demand is starting to rise for aluminum but there remains a significant oversupply in world markets. Unprofitable plants continue to shut down and environmental concerns are driving up the cost of coal fired electricity, affecting U.S. aluminum producers. Production is shifting to China and Saudi Arabia where cheap electricity is readily available. However, shuttered plants could be re-opened quickly so future price rises will be moderated.

Aluminum price inflation
(*per cent*)



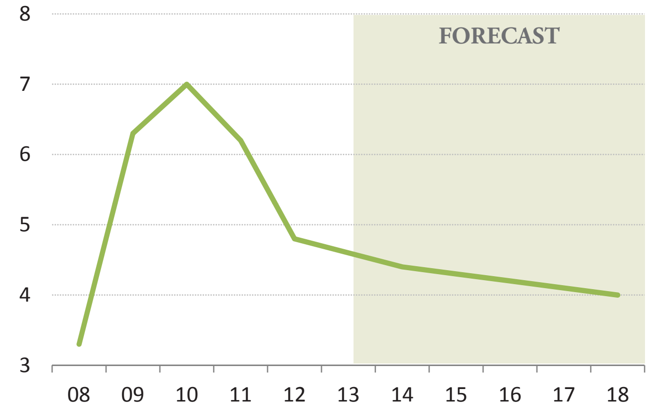
Source: Statistics Canada, Corporate Economics.

Calgary Economic Region (CER)

Labour Market

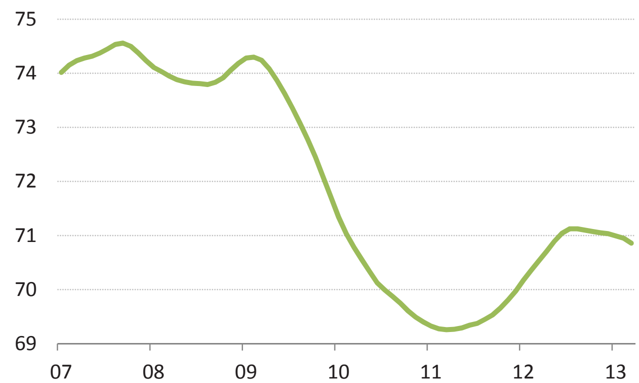
- Total employment was estimated at 806,300 in 2012, up from 776,100 in 2011 and 755,00 in 2010. The job market therefore added 51,000 positions since bottoming out in 2010. Total employment should continue to increase to 827,000 in 2013 and reach 914,000 by 2018.
- The unemployment rate was estimated at 4.8 per cent in 2012, down from 6.2 per cent in 2011 and 7.0 per cent in 2010. The unemployment rate should decline to 4.6 per cent in 2013 and 4 per cent by 2018, as employment growth outpaces labour force growth.
- The employment rate was estimated at 71.0 per cent in 2012, up from 70.0 in 2011; this indicates that 71 per cent of individuals who were above 15 years old found employment. The employment rate is still below the September 2007 pre-recession peak of 74.6 per cent, which indicates that the economy has capacity to expand. The employment rate should trend higher as job creation continues over the forecast period.
- The labour force participation rate was 74.7 per cent in 2012, up from 74.2 per cent in 2011. The labour force participation rate in 2012 was below the pre-recession peak of 77.3 per cent. The labour force participation rate is expected to trend higher as job creation continues over the forecast period. A tighter labour market with lower unemployment rates and higher wage rates, would signal to current and potential workers that their chances for finding work are good and thus entice them to either remain in or join the workforce.

CER: Unemployment rate
(*per cent*)



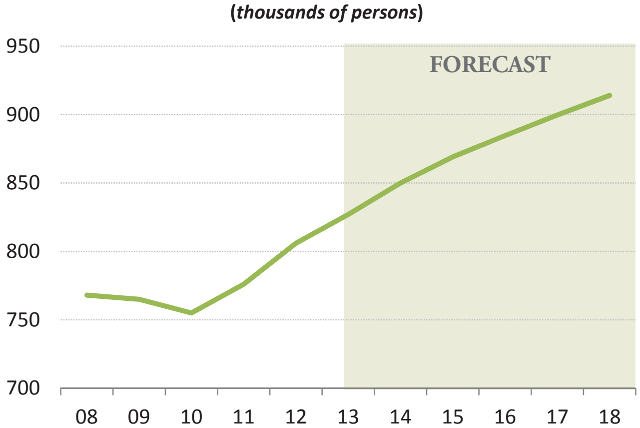
Source: Statistics Canada, Corporate Economics.

CER: Employment rate
(*per cent*)



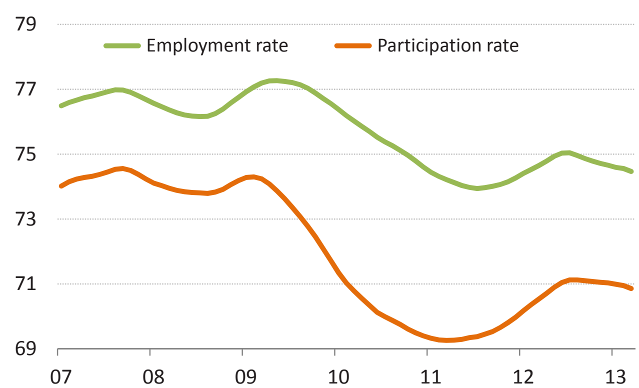
Source: Statistics Canada, Corporate Economics.

CER: Total employment
(*thousands of persons*)



Source: Statistics Canada, Corporate Economics.

CER: Employment rate and participation rate
(*per cent*)



Source: Statistics Canada, Corporate Economics.

The economic benefits of working from telecommuting†

Thanks to advances in technology, work no longer needs to be tethered to time or place. Commonly known as telework—any substitution of technology for business travel, or telecommuting—substitution of technology for commuter travel, employers, employees and communities are slowly learning that when they are not constrained by where and when work is done, people are more productive, more creative, and more successful.

More frequently, people in Calgary are choosing, and are able, to work from somewhere outside of their office in the quest to get more done. It's called WORKshift[2] and the four year-old innovative program delivered by Calgary Economic Development is set to launch nationally in 2013. Organizations like ATB Financial, TELUS, Novatel and Eagle Professional Resources are embracing the flexible workplace where the focus is on results rather than simply the hours logged sitting at a desk. In fact, Calgary is leading the way and the rest of the country is starting to take notice.

What is driving this change? Companies, big and small, recognize that they are competing on a global scale for talent, especially in Calgary. Skilled workers have choices and by embracing a flexible environment, companies speak volumes about their corporate culture: employees are trusted and they are measured on the work they do, not the hours they are sitting in their desks.

Companies implement flexible work programs all the time, but often without understanding the impact to their business and without appropriate support for their employees and managers. When organizations claim to have "flexible work practices" or a "telework" program, what does this really mean?

Research from the Telework Research Network reveals that part-time telecommuting by the 4.3 million Canadians with compatible jobs and a desire to work from home could have a bottom line impact of over $53 billion per year. An employer with 250 telecommuters, for example, would save over $3 million per year (see Table 1).

2 WORKshift offers an established process for employers to use when adopting these programs. By creating a roadmap of how to successfully rollout the project and identify the right participants, companies can measure the impact of a flexible work program on their organization, benchmark how they are doing amongst their peers and become certified as "WORKshift friendly" to identify themselves to job seekers. For more information check out: **www.workshiftcalgary.com.**

Table 1—Bottom Line Benefits

Participants	1	250	Canada
Employer	$10,037	$2,492,146	$44,000,000,000
Productivity	$5,958	$1,489,563	$26,200,000,000
Real Estate	$1,561	$390,130	$6,800,000,000
Absenteeism	$2,022	$505,617	$8,900,000,000
Turnover	$427	$106,830	$1,900,000,000
Employee	$1,939	$484,738	$8,500,000,000
Community	$132	$32,940	$578,000,000
Oil			$540,000,000
Traffic Accidents			$37,500,000
Greenhouse Gas			2.1 million tonnes
Overall	**$12,108**	**$3,009,825**	**$53,100,000,000**

Although it's difficult to get an exact understanding of how many people work from home, there are some recent attempts to understand the magnitude of the trend towards flexible work options. Table 2 provides insight into the industries that tend to adopt telecommuting practices across Canada.

Table 2: Per cent of Industry Who Telecommuted at Least Occasionally

Industry	Per cent
Other Services	54%
Information, Culture & Recreation *	36%
Finance, Insurance, Real Estate & Leasing	34%
Professional, Scientific and Technical Services	29%
Educational Services	27%
Trade *	27%
Manufacturing	18%
Public Administration	8%
Health Care & Social Assistance *	8%

2008 Canada Working at Home Update (Turcotte / Statistics Canada)

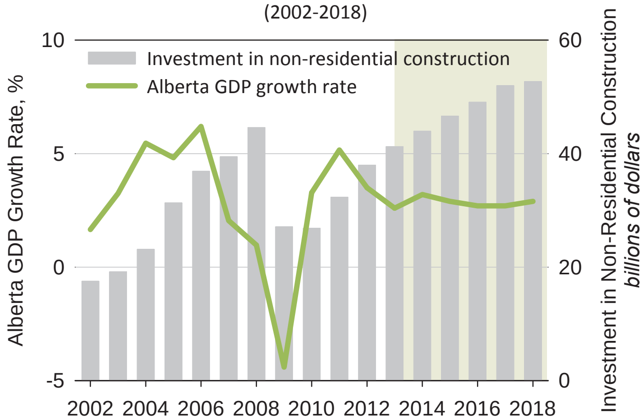
* borderline statistical significance

† This article is provided by Calgary Economic Development, **www.calgaryeconomicdevelopment.com.**

ALBERTA ECONOMY

Alberta's economy is expected to slow in 2013 after robust growth in 2011 and 2012. Capital spending plans in the energy sector have been revised downwards due to limited pipeline capacity and a deep price discount for Canadian heavy oil. In addition, government spending for 2013-14 is being held at the previous year's level and is not expected to contribute to growth. Consumer spending is expected to increase and labour income should support economic growth. Alberta GDP, adjusted for inflation, is expected to grow by 2.6 per cent this year, and increase to 3.2 per cent in 2014 as the North American economy returns to a more sustained growth path.

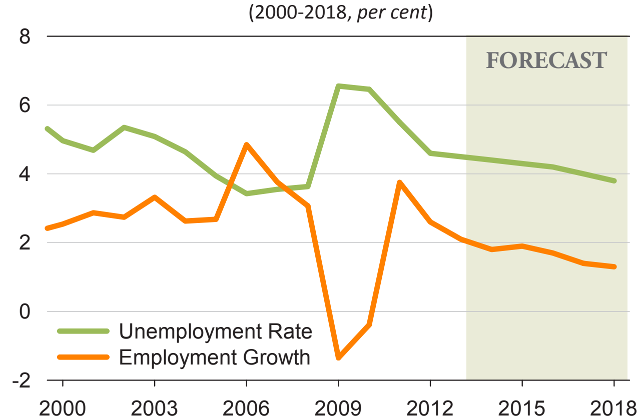
Alberta: GDP and non-residential construction investment
(2002-2018)



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

Job creation in Alberta should slow in 2013 from the strong performance in previous years in response to reduced rates of investment spending. Consequently, private sector job growth should moderate with manufacturing and trade being adversely affected. Also, the public sector should experience job losses as the provincial government restrains spending. The unemployment rate should average 4.6 per cent in 2013 and track to a more sustainable 4.0 per cent range through 2018, which will tame labour cost pressures compared with their pre-recession peak.

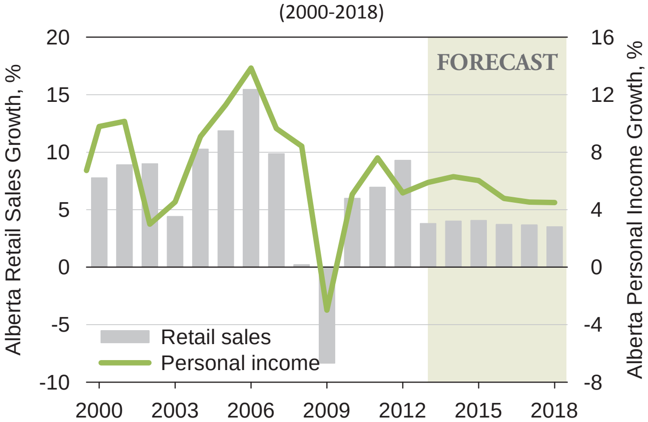
Alberta: Unemployment rate and employment growth
(2000-2018, *per cent*)



Source: Statistics Canada, Conference Board of Canada, Corporate Economics.

Retail sales remained strong in 2012, supported by personal income growth in Alberta. With uncertainties in oil prices, expenditure restraint in public sector finances and decelerating job growth, retail sales growth is expected to see some moderation over the forecast period.

Alberta: Retail sales and personal income growth
(2000-2018)

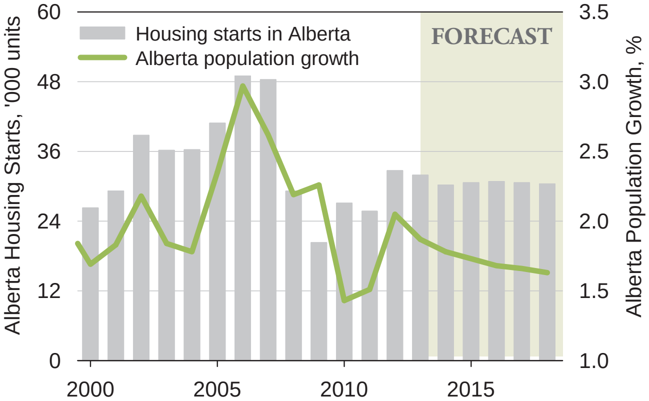


Source: IHS Global Insight, Statistics Canada, Corporate Economics.

Assumption:
Alberta Economy

Housing market activity in 2012 in Alberta improved from 2010 and 2011 due to higher levels of net migration, robust employment growth, higher labour incomes and affordable house prices, as well as a gradual decline in the excess supply. In 2012, total housing starts in the province were 33,300 units, 27 per cent higher than the previous year. Alberta housing starts are expected to fall slightly in 2013 to 31,900 total units and 30,200 units in 2014, in response to tighter mortgage borrowing requirements.

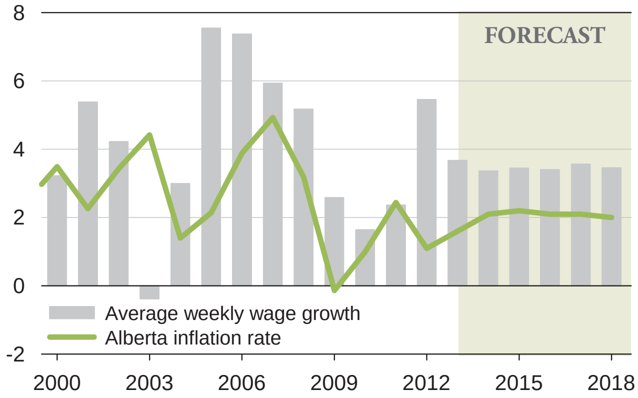
Alberta: Housing starts and population growth
(2000-2018)



Source: CMHC, Conference Board of Canada, Corporate Economics.

Consumer price inflation in Alberta averaged 1.1 per cent in 2012, down from 2.4 per cent in 2011. In 2013, the CPI should increase by 1.6 per cent in response to increase accommodation costs. The average weekly wage in Alberta is also expected to increase by 3.7 per cent in 2013. With average wage growth outpacing consumer inflation this year, Albertans should continue to see gains in real wages.

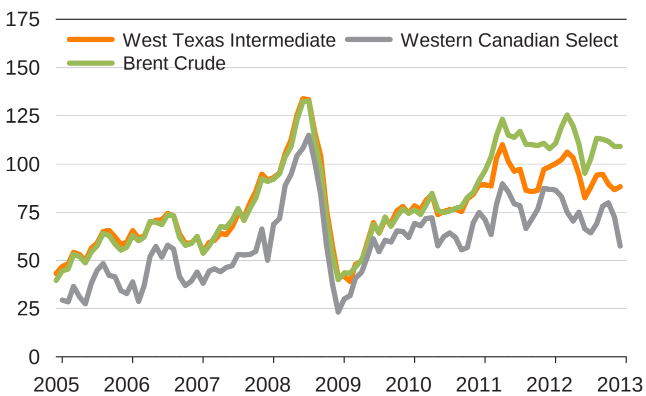
Alberta: Inflation and wage growth
(2000-2018, *per cent*)



Source: Statistics Canada, Conference Board of Canada, Corporate Economics.

Crude oil prices for Alberta's producers have been significantly lower than international prices. By the end of 2012, the Hardisty based Western Canadian Select crude oil prices averaged a US$31/bbl discount compared to the West Texas Intermediate (WTI) price, and a US$52/bbl discount compared to Brent. The major reasons are due to the oversupply of oil in the United States and the lack of transportation to get the western Canadian product to markets in the U.S. east coast, the Gulf of Mexico, and to the pacific coast. As long as pipeline capacity remains a bottleneck for getting Alberta's bitumen to market, the price differences are expected to persist.

International and Alberta Crude Oil Prices
(Q1 2005 - Q4 2012, *US$/barrel*)



Source: U.S. Energy Information Administration, Deferal Reserve Bank of St. Louis, Bloomberg, NetEnergy, Natural Gas Exchange, Cenovus, Corporate Economics.

Alberta has four potential directions for pipeline development: south, west, northwest, or east. There are multiple project proposals aimed at bringing more Alberta oil to market, including TransCanada Pipelines' Keystone XL line to the U.S. Gulf Coast, Enbridge's Northern Gateway line to Kitimat, B.C., and the expansion of Kinder Morgan's existing Trans Mountain oil line to Vancouver. Eastern Access targeting Ontario, Quebec and the Maritime provinces are also in the planning stages.

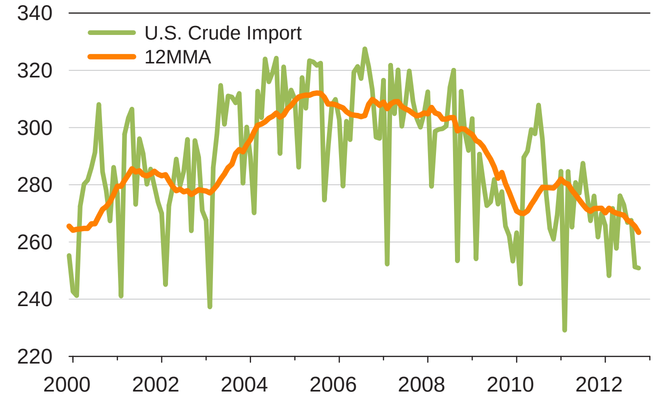
Canadian and U.S. Crude Oil Pipelines - All Proposals

Source: Canadian Association of Petroleum Producers, "Crude Oil Forecast, Markets & Pipelines" June 2012

U.S. crude oil imports from Canada have declined significantly over the past four years and this trend is expected to continue. Most of the reduction in imports has been caused by an increase in U.S. oil production from tight oil extraction, and deepwater and other unconventional sources. This should further depress Alberta's bitumen prices since the U.S. has been our primary destination for exports.

U.S. imports of crude oil

(2000-2012, *thousands of barrels per month*)

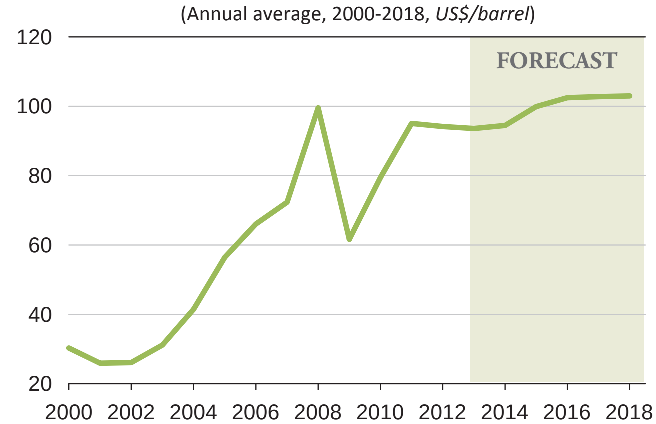


Source: U.S. Energy Information Administration, Corporate Economics.

Uncertainties should remain for WTI crude oil prices in 2013. With a moderate recovery in global economic growth, world liquid fuel consumption should grow marginally. Non-OECD Asia should be the leading contributor to the increase in world demand. We expect the WTI crude oil price to fall slightly from an average of US$94.1/bbl in 2012 to annual average of US$93.6/bbl in 2013, and pick up in 2014 to US$94.5/bbl.

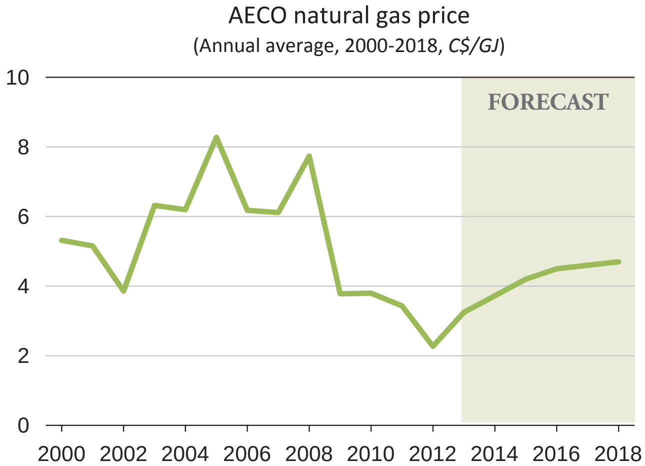
West Texas Intermediate crude oil price

(Annual average, 2000-2018, *US$/barrel*)



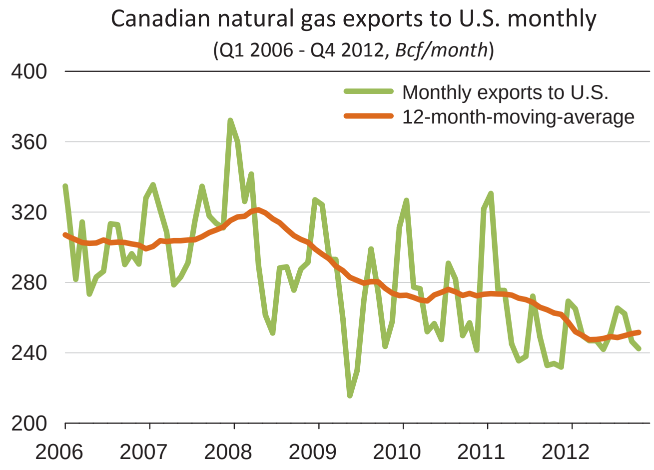
Source: U.S. Federal Bank Reserve of St. Louise, Corporate Economics, U.S. Energy Information Administration.

Natural gas prices averaged $2.27/GJ in 2012, about one third lower than the 2011 average of $3.43/GJ. Downside factors for natural gas prices include moderate economic growth and record high storage levels in North America. Upside factors are weather related demand and coal-to-gas electricity substitution. For the next two years, we expect natural gas prices to rise gradually to $3.25/GJ in 2013, and $3.72/GJ in 2014.



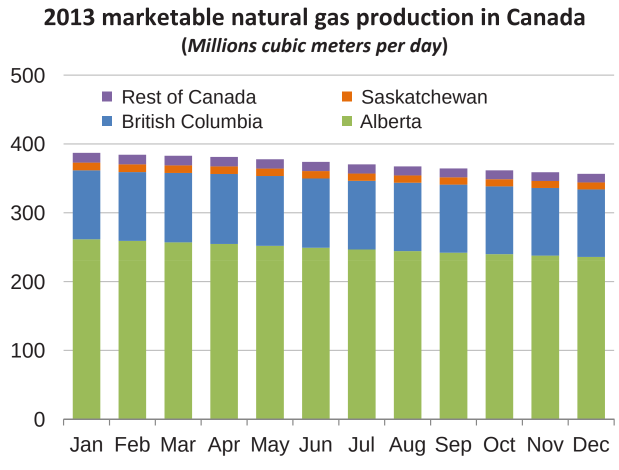
Source: GLJ Canadian Natural Gas Focus database, Corporate Economics, U.S. Energy Information Administration.

Shale gas production has boosted natural gas output in both the U.S. and Canada over the past four years. With U.S. domestic supply continuing to displace Canadian sources, net exports to the U.S. from Canada should decline further. In 2013, it is expected that the U.S. imports from Canada will increase marginally by 1.3 per cent.



Source: U.S. Energy Information Administration, Corporate Economics.

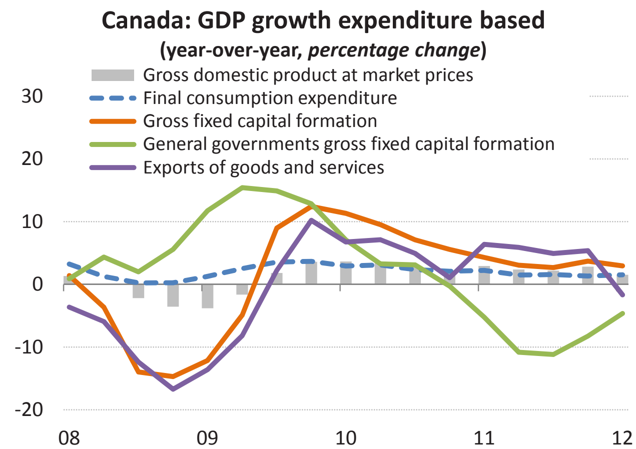
Canada produced about one quarter of the combined natural gas output in North America in 2012. Almost 98 per cent of Canadian gas is produced from the Western Canada Sedimentary Basin with Alberta producing roughly 76 per cent. For 2013, Alberta is forecast to produce 248 million cubic meters of natural gas monthly, while Canada's total production will be 372 million cubic meters monthly.



Source: National Energy Board, Corporate Economics.

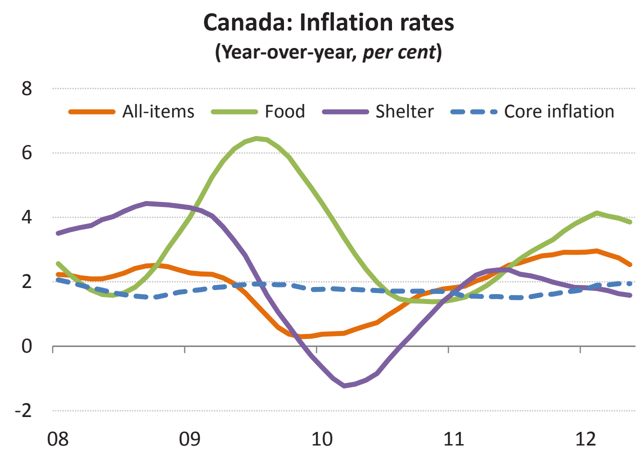
CANADIAN ECONOMY

Canada's economic growth decelerated to 1.9 per cent in 2012 from 2.6 per cent in 2011. Government spending continued to be a drag on growth because of the efforts to balance the budget. Oil export volumes to the U.S. declined sharply due to constrained pipeline capacity. The economy is forecasted to grow at a moderate rate of 1.7 per cent this year and 2.4 per cent in 2014.



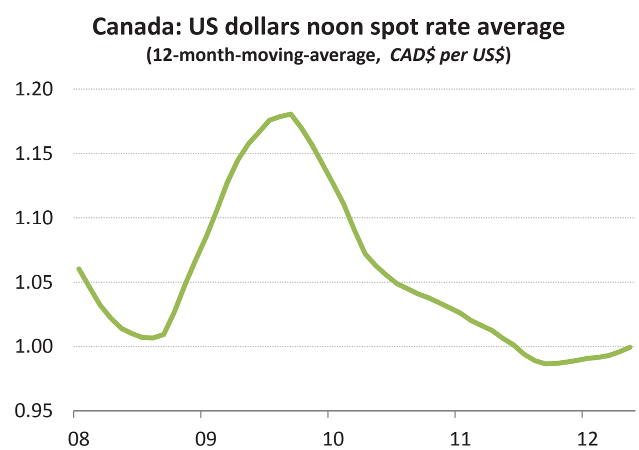
Source: Statistics Canada, Corporate Economics.

Excess capacity in the past few years resulted in low inflation in Canada. The Bank of Canada is expected to delay interest rate hikes until late 2014, on its assessment that the economy should return to full capacity in the second half of 2015.



Source: Statistics Canada, Corporate Economics.

Over the last few months, the Canadian dollar depreciated against the U.S. dollar, driven mainly by the steady decline in crude oil prices. The softer crude oil prices, especially the WCS prices, in the near-term should maintain downward pressure on the Canadian dollar. As Canada is expected to grow slower than the U.S., a narrow interest rate gap between the two economies should keep the dollar below par for the rest of the forecast period.

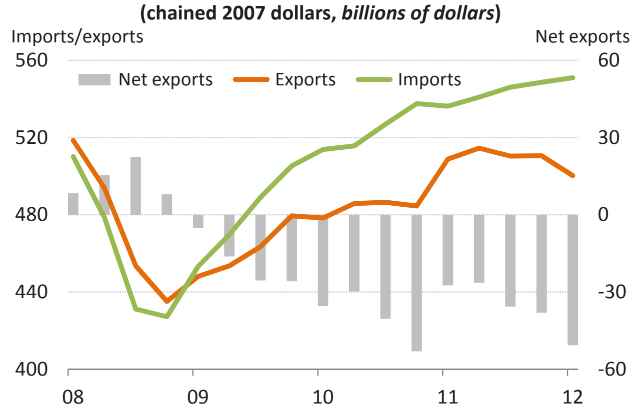


Source: Statistics Canada, Corporate Economics.

Assumption:
Canadian Economy

Weak net export growth depressed the overall rate of growth in Canada over the past four years. Moderate increases in exports were more than offset by faster growth in imports. A strong dollar fuelled imports while hurting exports. In addition, increasing U.S. domestic energy production and shortages in pipeline capacity caused a decline in energy exports. In the forecast period, a weakening dollar should provide some relief to exporters. The lack of pipeline capacity should also continue to constrain the growth of energy exports to the new world markets and the U.S.

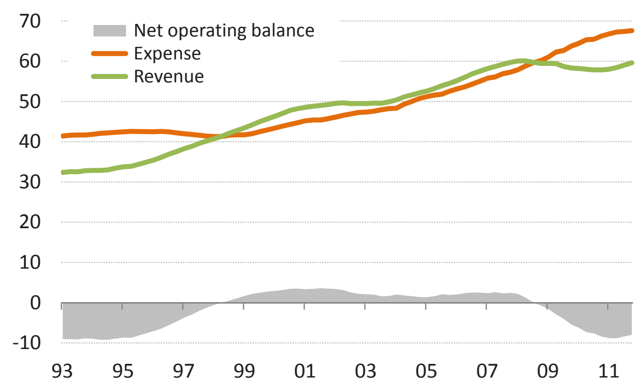
Canada: Imports and exports
(chained 2007 dollars, *billions of dollars*)



Source: Statistics Canada, Corporate Economics.

The Canadian government, after running large deficits to stimulate the economy in recent years, shifted its stance to a tighter fiscal policy in 2012. Many provincial governments in similar deficit positions also cut back spending. Reduced government spending not only caused public sector job losses but also affected household budgets as wage freezes and subsidy cancellations reduced disposable incomes for consumers.

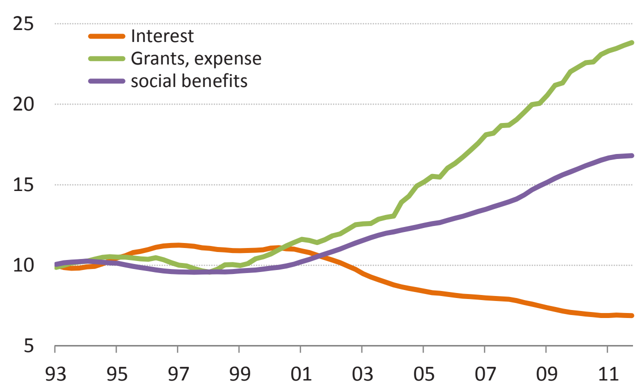
Canada: Federal goverment balance sheet
(12-month-moving-average, *billions of dollars*)



Source: Statistics Canada, Corporate Economics.

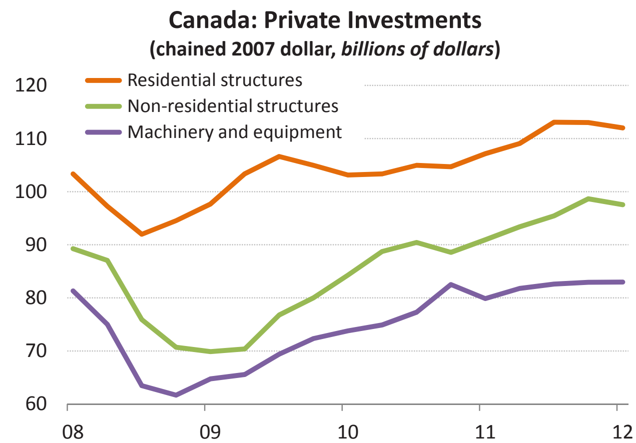
Public sector finances across Canada should benefit from more robust economic growth and a larger tax base over the forecast period. On the revenue side, personal and corporate income taxes should grow faster with the economic expansion. In addition, the need to provide social support for individuals displaced by the recession should fall in response to a rise in employment and labour force participation rates as the job market strengthens. Over all, government spending in Canada should not be a major contributor to growth as public finances are rebalanced.

Canada: Federal government spending
(12-month-moving-average, *billions of dollars*)



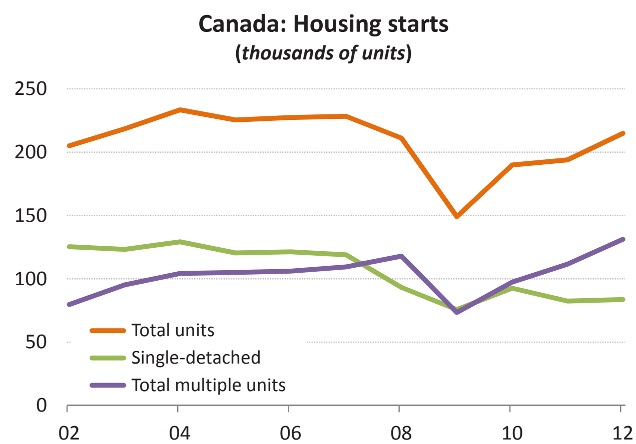
Source: Statistics Canada, Corporate Economics.

Private investment has been a major growth driver in the Canadian economy for the past three years. Investments in non-residential structures, machinery and equipment bounced back quickly from the lows experienced in the recent recession. However, with soft WCS prices and pipeline bottlenecks, investments in the mining, oil and gas sectors, which have accounted for the largest slice of business investment, are poised to fall below 2012 levels in 2013.



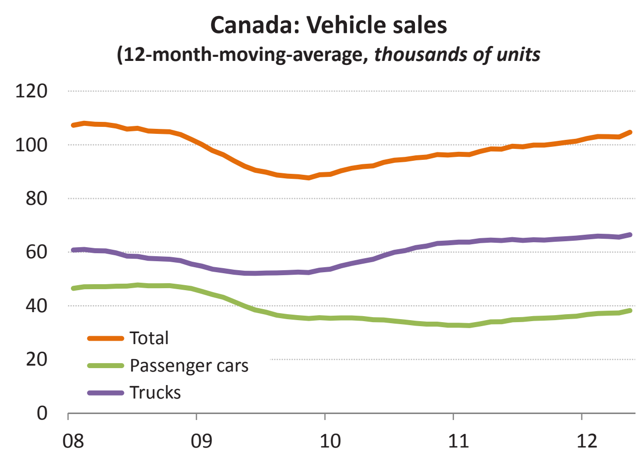
Source: Statistics Canada, Corporate Economics.

Housing starts in Canada bounced back quickly after a short dip during the recession, driven mainly by multi-family starts. The slowing of job creation, record high debt-to-personal income ratios and more stringent borrowing requirements by CMHC should combine to dampen housing market activities in the near term. Total housing starts should fall to an annual rate of 175,000 units for 2013 and 2014.



Source: Statistics Canada, Corporate Economics.

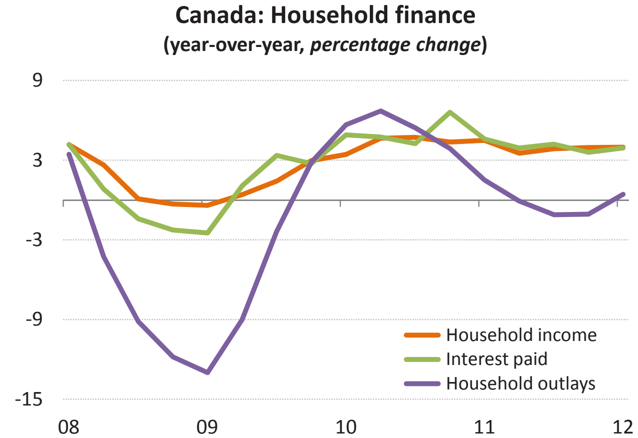
Vehicle sales in Canada have reached pre-recession highs in recent months, driven mainly by truck sales. Increased economic activity has supported demand for commercial vehicles like trucks including minivans, sport utility vehicles, vans, coaches and buses.



Source: Statistics Canada, Corporate Economics.

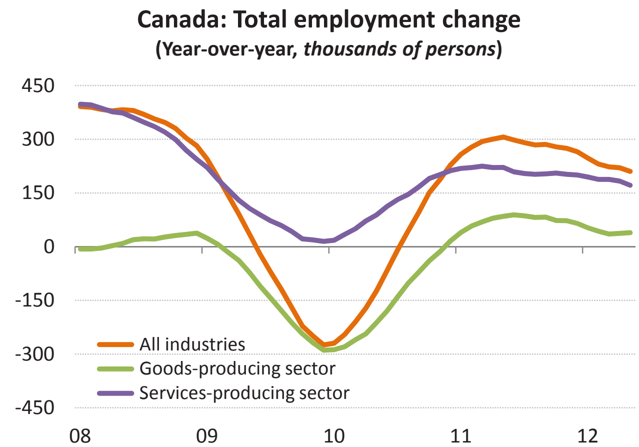
Assumption:
Canadian Economy

Household finances in Canada have been relatively healthy in recent years despite impacts from the recession, as households benefited from declining interest rates and household spending kept pace with growth in income. This trend should continue over the next two years, before interest rate hikes push the debt service ratio to a higher level.



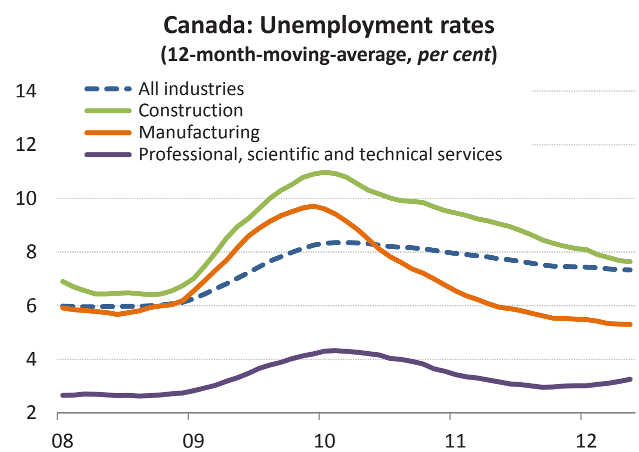
Source: Statistics Canada, Corporate Economics.

The pace of job creation in Canada slowed in 2012 in response to slower world economic growth and a tighter fiscal stance by Canadian governments. The federal and provincial governments announced more job cuts this year and are not expected to restart new hiring any time soon. Going forward, the private sector is also expected to be more cautious in hiring because of the reduction in investment spending.



Source: Statistics Canada, Corporate Economics.

The labour market in Canada is unbalanced among industries. The unemployment rate was high in industries requiring lower skills such as construction and manufacturing and lower in industries needing highly skilled workers such as professional, scientific and technical services. There are skilled worker shortages in many Canadian labour markets and this has constrained productivity growth in the overall economy.

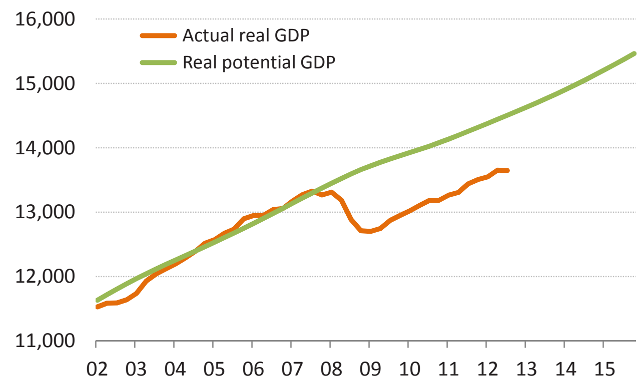


Source: Statistics Canada, Corporate Economics.

U.S. ECONOMY

Economic activities in the U.S. declined sharply during the recent recession and this gave rise to an output gap as actual GDP fell below potential GDP. The output gap is expected to last until 2017. The potential output loss between 2007 and 2017 is estimated at nearly half the 2012 U.S. GDP. Real GDP in the U.S. is forecasted to grow by a moderate 2.0 per cent this year before accelerating to 2.8 per cent in 2014.

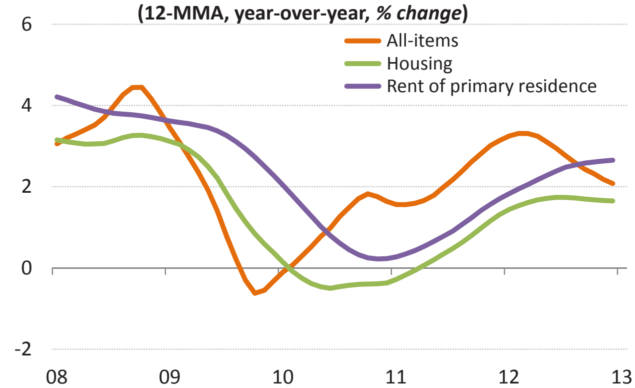
U.S.: Actual vs. potential real GDP growth
(chained 2005 US dollar, *billions of dollars*)



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

Excess capacity in the U.S. economy has translated into low inflation. A post-recession deflation was short-lived thanks to the Fed's stimulative monetary policy. Inflation has slowed in the past two years since the peak in 2010. In the mean time, housing prices and rental rates continue to increase as housing inventories have reduced to normal levels. Overall, low inflation rates are expected to persist over the next few years and should warrant the continuation of supportive monetary policy from the Fed's.

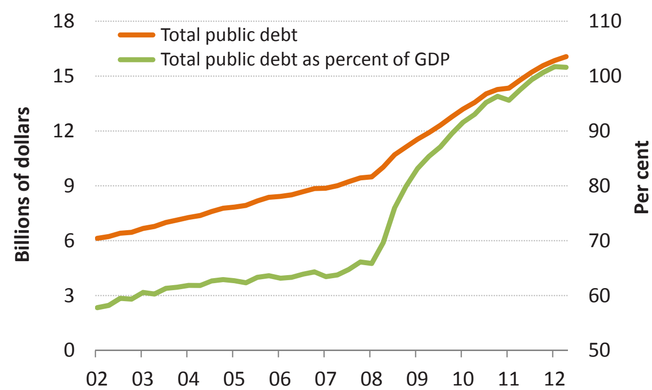
U.S.: Consumer price index for all urban consumers
(12-MMA, year-over-year, *% change*)



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

The U.S. government has adopted a stimulative fiscal policy since the onset of the 2008 recession. As a result, total public debt in the U.S. increased significantly to the highest level in decades In order to restrain the growth of spending, The Budget Control Act of 2011 enacted automatic reductions in government discretionary and mandatory spending for 2013-2021 (in technical terms, a sequestration). If fully carried out, the sequestration could reduce GDP growth by 0.6 percent in 2013.

U.S.: Federal debt level
(not seasonally adjusted)

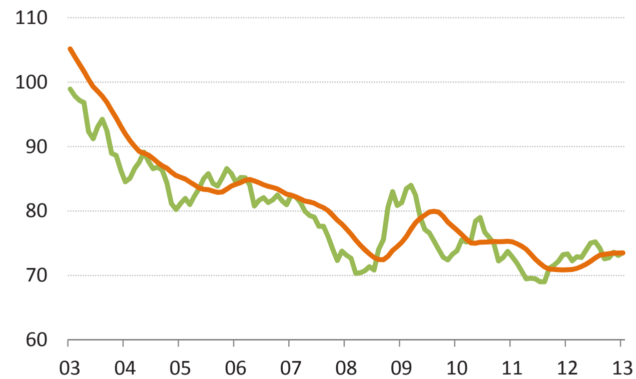


Source: Federal Reserve Bank of St. Louis, Corporate Economics.

U.S. Economy

The U.S. exchange rate has increased moderately since the mid-2011 against other major currencies in the advanced economies, , reversing an overall downward trend from 2009. This appreciation was driven by relatively stronger growth in the U.S. market and the trend is expected to continue over the forecast period.

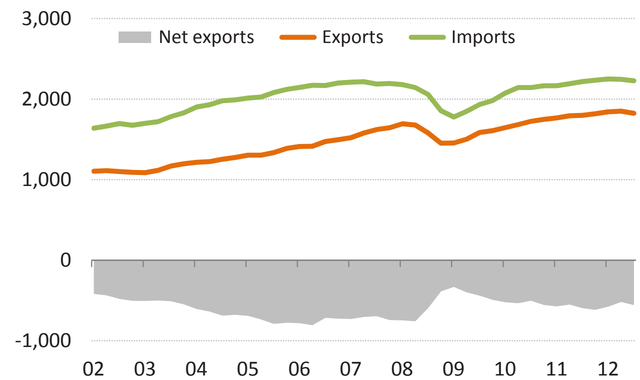
U.S. : Trade weighted U.S. dollar index
(*index March 1973=100*)



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

International trade was a drag on U.S. economic growth in 2012, with exports constrained by the weak Euro zone economies. The trade balance should improve during the forecast period, driven by growth in manufacturing exports and a decline in energy imports. Meanwhile, a strong dollar should make U.S. goods less price-competitive in world markets, which will challenge the export sector.

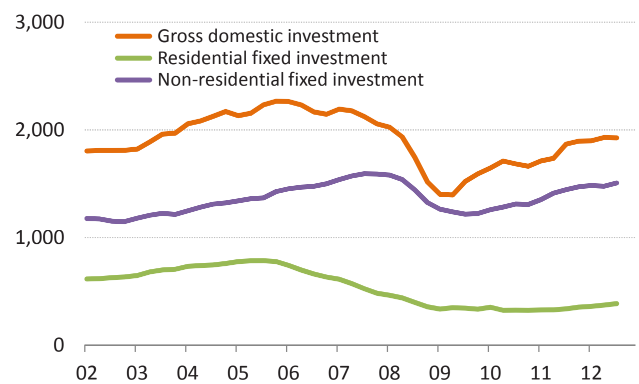
U.S.: Imports, exports and net exports
(chained 2005 US dollars, *billions of dollars*)



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

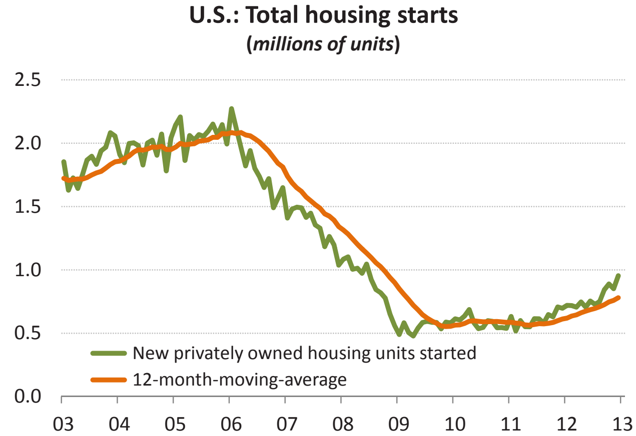
Business investment has continued to drive economic growth in the U.S., led by the non-residential sector. In the near-term, federal spending restraints should hamper investor confidence and slow investment growth. Beyond 2013, improvement in the fiscal environment and consumer and producer confidence should accelerate residential and non-residential investments.

U.S.: Real gross private domestic
(chained 2005 US dollar, *billions of dollars*)



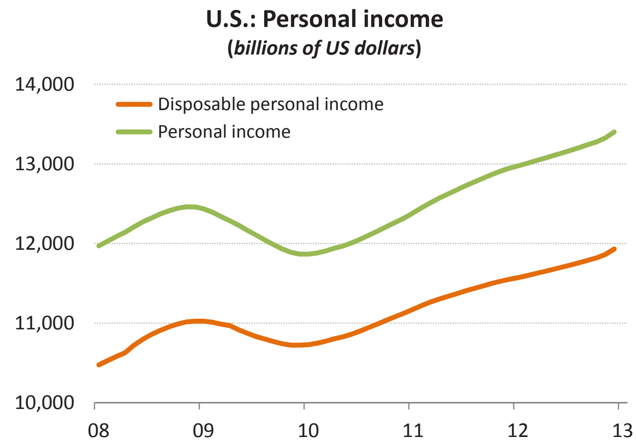
Source: Federal Reserve Bank of St. Louis, Corporate Economics.

The housing market in the U.S. finally showed signs of recovery in 2012. Record low mortgage rates, rising home prices and a drop in foreclosures have combined to lure homebuyers back to the market. Housing starts in recent months bounced back to levels not seen since the recent recession. Residential investment is expected to become a driver of economic growth –during the forecast period.



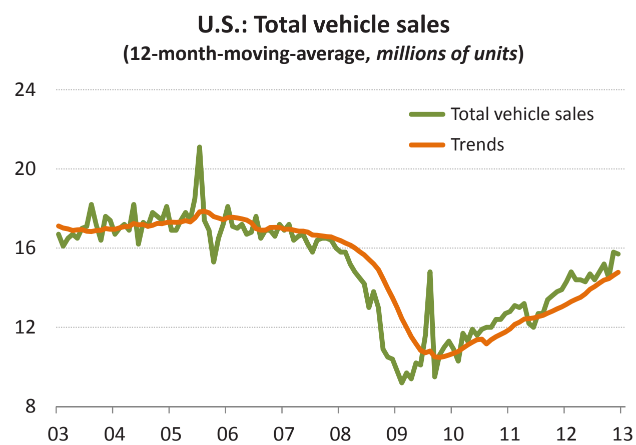
Source: Federal Reserve Bank of St. Louis, Corporate Economics.

Personal income growth in the U.S. increased to new highs over the past two years, driven by the labour market recovery as well as improving housing and stock market values. Disposable personal income grew accordingly, supported by tax breaks until 2012. In addition, lower oil and natural gas prices have added to disposable income. Sequestration cuts this year should adversely affect growth in disposable personal income. In the medium-term, a better labour market should bring healthy growth in income.



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

Vehicle sales in the U.S. climbed steadily in recent months, reaching the pre-recession high. Increasing consumer confidence, growing economic activities, and pent up demand boosted sales of durable goods like vehicles and this trend is expected to continue during the forecast period.

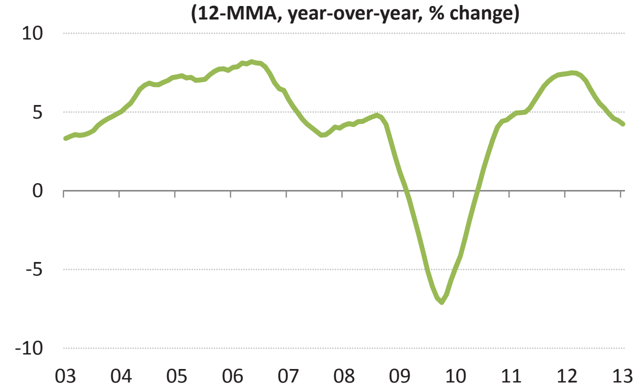


Source: Federal Reserve Bank of St. Louis, Corporate Economics.

U.S. Economy

Growth in U.S. retail sales and food services continued for a third year in 2012, albeit at a slower pace. Increasing disposable income and a stronger job market led people to spend more on non-durable goods and services. However, uncertainties should serve to restrain growth in consumer spending, resulting in moderate consumption growth over the next two years.

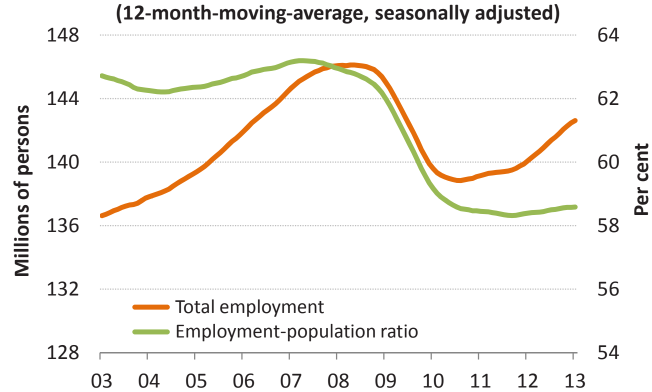
U.S.: Retail sales and food Services (excludes vehicle/parts dealers)
(12-MMA, year-over-year, % change)



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

The labour market recovery in the U.S. has accelerated in recent months, driven by the private sector. By February 2013, total civilian employment bounced back to 143.5 million, from the recent low of 138 million in 2009. The unemployment rate dropped to 7.7 per cent, from 9.0 per cent two years ago. At the same time, the employment-population ratio was 58 per cent, trending up with job growth surpassing the increase in population.

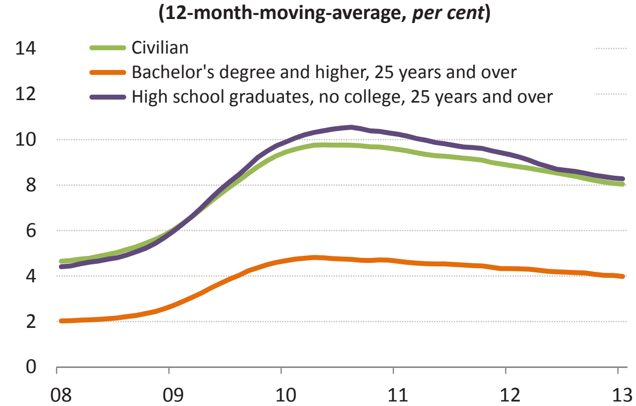
U.S.: Total employment vs. employment-popuation ratio
(12-month-moving-average, seasonally adjusted)



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

There is currently a structural problem in the U.S. labour market where 4.8 million people (or 40 per cent of the unemployed) are without jobs for 27 weeks or longer, many of them with low education levels. For example, the unemployment rate for individuals with only a high school education was much higher than their university educated counterparts.

U.S.: Civilian unemployment rates
(12-month-moving-average, *per cent*)



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

WORLD ECONOMY

The financial crisis in the euro zone, looming fiscal cliff in the U.S., uncertainty with the change of the U.S. administration, Japan's slide into a recession, the slowdown of production in emerging markets, the political instability in the Middle East (Syria and Egypt), rocky relations between Iran and the West, and the global tone of fiscal restraint due to increasing domestic and external debt in 2012, all added to increase the level of uncertainty going into 2013. However, despite all of this, we witnessed surprising up swings including, strong housing recovery and employment in the U.S., aggressive policy initiatives in the Euro zone for bailouts and sustainability, a modest trimming of the Euro budget, and a glimpse of increased activity from the emerging markets (the increased exports in China, alongside increased imports), which may provide the catalyst for potential growth above expectations for 2013. Economic growth in the world economy should accelerate in 2014 as the U.S. recovery moves to a firmer footing in the latter half of 2013 and early 2014.

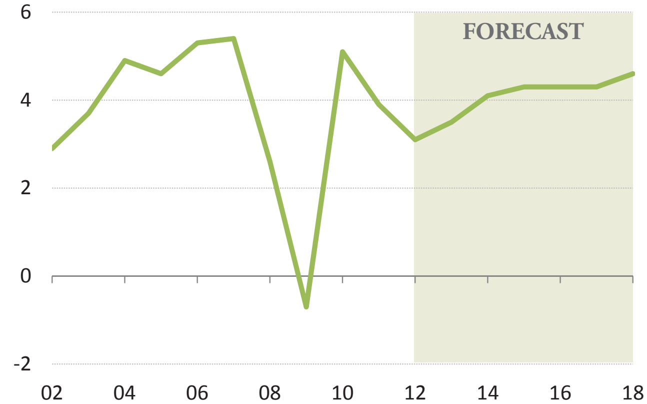
World Growth Rate:

A general growth slow down across the globe in 2012provided a theme of uncertainty for the 2013 global outlook. Growth for 2013 is expected be 3.5 per cent up by a modest 0.3 basis points from 2012 and expected to accelerate to 4.1 per cent by 2014. The emerging markets and developing countries are expected to be the growth leaders in 2013. The recovery in the U.S. housing and job markets should add to growth in the consumer sector and to overall economic growth. U.S. economic growth is expected to gain momentum in late 2013 and early 2014, and add to world economic growth.

World Inflation:

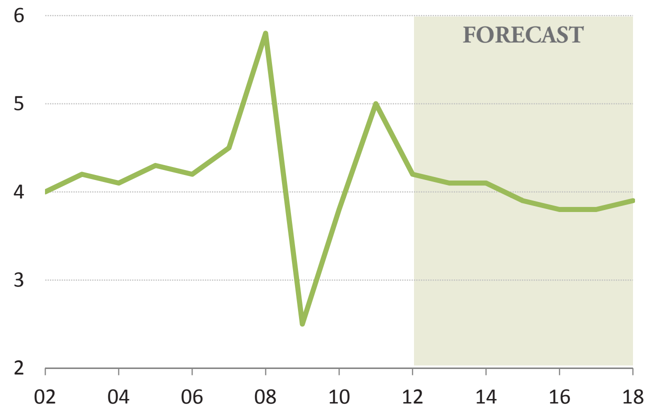
World consumer price inflation grew from 2.9 per cent in 2009 to 4.9 per cent 2011. The forecast shows that the domestic economies of the emerging and developing world are expected to improve, which will support inflation alongside increasing growth in world population (though population is growing at a decreasing rate). Given the world growth projection for moderate growth, inflation is expected to dip to 4 per cent in 2012, and decelerate to 3.7 per cent in 2013 and 3.4 per cent 2015.

World: Gross domestic product growth
(2002-2018, *per cent*)



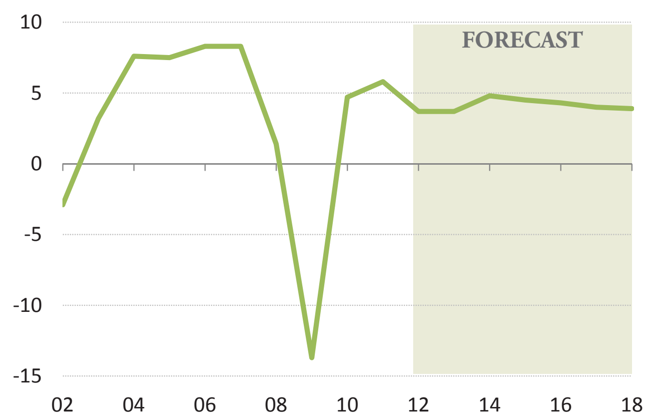
Source: Consensus Forecast Global Outlook (Oct 2012), WEO Jan 2013 updates, Corporate Economics.

World: Average consumer price inflation
(2002-2018, *per cent*)



Source: Consensus Forecast Global Outlook (Oct 2012), WEO Jan 2013 updates, Corporate Economics.

World: Business investment growth
(2002-2018, *per cent*)



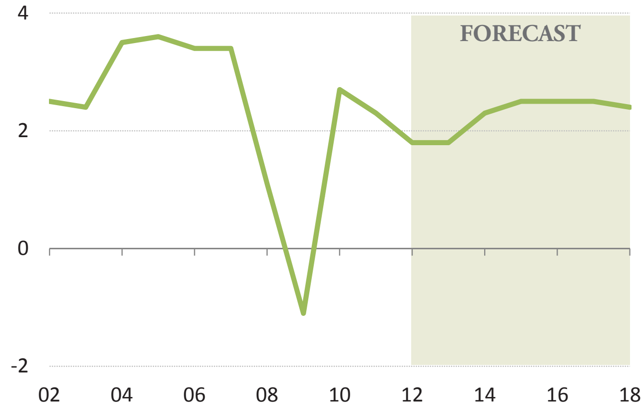
Source: Consensus Forecast Global Outlook (Oct 2012), Corporate Economics.

World Business Investment and Household Consumption:

Given the soft economic environment in 2012, world business investments are expected to remain flat at 3.7 per cent in 2013, peak at 4.8 per cent in 2014, and remain at that rate for the rest of the forecast horizon (2013-2018).

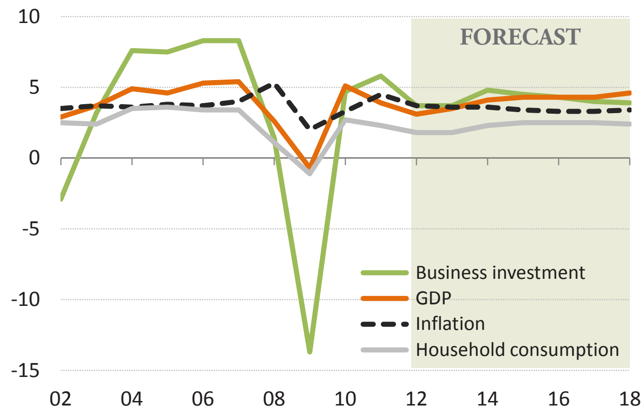
The world private household consumption rate is projected to grow by 1.8 per cent in 2013, peak at 2.5 per cent in 2015, and remain at that pace for the rest of the forecast period. This picture is a general reflection of the soft recovery unfolding in the industrialized nations, which are responsible for the bulk of global consumption and investments.

World: Household consumption growth
(2002-2018, *per cent*)



Source: Consensus Forecast Global Outlook (Oct 2012), Corporate Economics.

World: Growth of economic indicators
(2002-2018, *per cent*)



Source: Consensus Forecast Global Outlook (Oct 2012), WEO Jan 2013 updates, 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 2013						BASE FORECAST					
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
ASSUMPTIONS											
Global Economy											
World Gross Domestic Product (annual % change)	2.8	-0.6	5.3	3.9	3.2	3.5	4.1	4.4	4.5	4.6	4.6
The United States											
U.S. Real Gross Domestic Product Growth (chained 2005 dollar) (%)	-0.3	-3.5	2.4	1.8	2.2	2.0	2.8	3.2	3.0	2.8	2.5
Canada											
Canada Real Gross Domestic Product Growth (chained 2002 dollar) (%)	1.1	-2.8	3.2	2.6	1.9	1.7	2.4	2.6	2.4	2.3	2.5
Prime Business Loan Rate (%)	4.7	2.4	2.6	3.0	3.0	3.0	3.6	4.3	5.6	6.2	6.5
Exchange Rate (US$/Cdn$)	0.94	0.88	0.97	1.01	1.00	0.98	0.98	0.97	0.95	0.95	0.91
Alberta											
Gross Domestic Product (%)	1.0	-4.4	3.3	5.2	3.5	2.6	3.2	2.9	2.7	2.7	2.9
Total Employment Growth (%)	3.1	-1.4	-0.4	3.8	2.6	2.1	1.8	1.9	1.7	1.4	1.3
Unemployment Rate (%)	3.6	6.6	6.5	5.4	4.7	4.6	4.4	4.3	4.2	4.0	3.8
Housing Starts ('000 Units)	29.2	20.3	27.1	25.7	33.3	31.9	30.2	30.6	30.8	30.6	30.4
Inflation Rate (%)	3.2	-0.1	1.0	2.4	1.1	1.6	2.1	2.2	2.1	2.1	2.0
Crude Oil Price - WTI (US$/bbl)	99.6	61.8	79.5	95.1	94.1	93.6	94.5	99.9	102.5	102.8	103.0
Western Canadian Select - WCS (US$/bbl)	79.6	52.1	65.3	78.0	73.1	83.1	76.9	80.0	78.6	80.2	81.8
Alberta Natural Gas Price - AECO/NIT ($/GJ)	7.7	3.8	3.8	3.4	2.3	3.3	3.7	4.2	4.5	4.6	4.7
FORECAST											
Calgary Economic Region (CER)											
Gross Domestic Product (%)*	1.3	-4.3	2.8	3.1	3.3	3.0	3.5	3.2	3.1	3.1	3.1
Total population**	1,251	1,296	1,338	1,362	1,398	1,428	1,458	1,489	1,517	1,544	1,570
Total Employment ('000 Persons)	768	765	755	776	806.0	827.0	850.0	869	885	900	914
Total Employment Growth (%)	3.1	-0.4	-1.3	2.8	3.9	2.6	2.8	2.2	1.8	1.7	1.6
Unemployment Rate (%)	3.3	6.3	7.0	6.2	4.8	4.6	4.4	4.3	4.2	4.1	4.0
Inflation Rate (%) (CMA)	3.2	-0.1	0.8	2.2	1.0	2.3	2.2	3.0	3.0	3.0	3.0
Building Permits ($billion)	5.1	4.5	3.8	5.5	5.7	5.6	5.6	5.7	5.8	6.0	6.1
Low Forecast	N/A	N/A	N/A	N/A	N/A	5.0	5.0	5.1	5.2	5.4	5.5
High Forecast	N/A	N/A	N/A	N/A	N/A	6.2	6.2	6.3	6.4	6.7	6.7
Housing Starts ('000 Units) (CMA)	11.4	6.3	9.3	9.3	12.4	11.0	11.2	11.1	10.6	10.1	9.5
Non-Residential Building Price Inflation (%) (CMA)	13.7	-7.7	-2.2	2.4	3.6	3.6	1.5	8.3	3.6	1.9	2.4

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

City of Calgary											
FORECAST COMPLETED: March 2013						BASE FORECAST					
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
DEMOGRAPHY											
Total Population ('000 Persons)	1,043	1,065	1,072	1,091	1,120	1,144	1,169	1,194	1,217	1,239	1,259
Total Population Growth (%)	2.2	2.2	0.6	1.0	2.7	2.1	2.2	2.1	1.9	1.8	1.6
Net Migration ('000 Persons)	12.4	12.9	-4.1	9.6	19.7	14.3	15.0	14.8	13.7	12.3	12.3
Household Formation ('000 Units)	8.4	7.4	4.3	8.1	12.2	10.5	10.4	9.9	9.5	7.7	7.0
REAL ESTATE											
Residential Market											
Housing Starts ('000 units)	9.6	5.0	7.3	7.7	10.3	9.1	9.3	9.2	8.8	8.4	7.9
New House Price Inflation (%)	0.7	-6.7	1.7	0.4	4.5	4.5	3.0	5.7	4.5	1.2	2.2
Total Building Permits mid point ($billions)	4.0	3.7	2.9	4.5	4.5	4.4	4.4	4.5	4.6	4.8	4.8
Low Forecast						*3.9*	*3.9*	*4.0*	*4.1*	*4.3*	*4.3*
High Forecast						*4.9*	*4.9*	*5.0*	*5.1*	*5.3*	*5.3*

Numbers may not add up due to rounding

Table 3 - City of Calgary Population Projection

City of Calgary

FORECAST COMPLETED: July 2012		BASE FORECAST					
	2012	2013	2014	2015	2016	2017	2018
Total Population (as April)	1,120,200	1,144,300	1,169,100	1,193,600	1,217,000	1,238,800	1,259,200
Total Population Growth Rate (April - March)	2.7	2.2	2.2	2.1	2.0	1.8	1.6
Total Net Migration (April - March)	14,300	15,000	14,800	13,700	12,300	11,100	10,300
Total Births (April - March)	16,500	16,600	16,700	16,700	16,700	16,600	16,500
Total Deaths (April - March)	6,600	6,800	6,900	7,100	7,200	7,400	7,500
Total Natural Increase (April - March)	9,900	9,800	9,800	9,600	9,500	9,200	9,000
Total Households (as April)	433,900	444,200	454,700	465,100	475,000	484,500	493,400
Total Household Formation (April - March)	11,600	10,300	10,500	10,400	9,900	9,500	8,900

Population by Cohort		BASE FORECAST					
	2012	2013	2014	2015	2016	2017	2018
0-4	76,700	79,100	81,000	82,700	84,800	85,200	85,200
5-9	66,800	70,200	73,600	76,900	79,100	81,900	84,100
10-14	62,400	63,300	64,800	66,600	68,900	71,900	75,000
15-19	65,200	65,500	66,200	66,600	66,800	67,300	68,000
20-24	73,100	72,500	72,100	71,900	71,700	71,400	71,300
25-29	93,500	91,200	88,500	86,300	84,700	83,100	82,000
30-34	96,400	100,000	103,700	105,800	106,200	105,000	102,300
35-39	91,200	93,700	96,300	99,500	102,600	105,800	109,000
40-44	89,100	91,500	93,400	95,200	96,500	98,200	100,300
45-49	87,000	87,000	87,500	88,900	91,900	94,800	97,000
50-54	84,900	86,700	88,400	89,400	89,600	89,600	89,400
55-59	71,600	75,100	78,200	80,800	82,700	84,300	86,000
60-64	52,500	54,500	57,700	61,100	65,200	69,300	72,600
65-69	35,700	38,900	41,500	44,500	47,400	49,000	51,000
70-74	24,900	25,700	26,800	27,900	28,900	31,700	34,700
75-79	19,900	19,900	19,800	19,800	20,200	20,600	21,400
80-84	15,600	15,600	15,400	15,300	15,200	15,000	15,000
85-89	8,500	8,400	8,400	8,500	8,500	8,600	8,600
90+	5,200	5,500	5,800	6,000	6,100	6,200	6,300
Total	**1,120,200**	**1,144,300**	**1,169,100**	**1,193,700**	**1,217,000**	**1,238,900**	**1,259,200**
12-17	76,700	77,100	77,500	78,700	80,300	81,900	84,000

Numbers may not add up due to rounding

Table 4 - Calgary Economic Region (CER) Population Projection

Calgary Economic Region (CER)

FORECAST COMPLETED: July 2012		BASE FORECAST					
	2012	2013	2014	2015	2016	2017	2018
Total Population (as April)	1,398,400	1,428,000	1,458,500	1,488,700	1,517,500	1,544,400	1,570,000
Total Population Growth Rate (April - March)	2.6	2.1	2.1	2.0	1.9	1.7	1.7
Total Net Migration (April - March)	17,800	18,800	18,400	17,100	15,400	13,900	12,800
Total Births (April - March)	20,000	20,200	20,400	20,500	20,600	20,500	20,400
Total Deaths (April - March)	8,300	8,500	8,700	8,900	9,100	9,300	9,500
Total Natural Increase (April - March)	11,700	11,700	11,700	11,600	11,500	11,200	10,900
Total Households (as April)	542,000	554,600	567,400	580,100	592,400	604,100	615,200
Total Household Formation (April - March)	14,100	12,600	12,800	12,700	12,300	11,700	11,700

Population by Cohort		BASE FORECAST					
	2012	2013	2014	2015	2016	2017	2018
0-4	95,000	97,300	99,100	101,100	103,500	104,300	104,500
5-9	85,100	89,000	93,000	96,600	98,800	101,500	103,500
10-14	80,100	81,200	83,000	85,100	87,900	91,400	95,100
15-19	84,200	84,400	85,100	85,600	85,800	86,200	87,000
20-24	92,500	92,500	92,300	92,400	92,200	91,900	91,700
25-29	112,000	110,300	108,300	106,700	105,900	104,900	104,000
30-34	115,700	119,700	123,900	126,400	127,300	126,500	124,000
35-39	111,100	113,800	116,900	120,500	124,000	127,500	131,000
40-44	110,000	112,800	114,700	116,600	118,000	119,800	122,100
45-49	108,500	108,300	108,700	110,200	113,700	117,100	120,000
50-54	107,300	109,300	111,300	112,400	112,100	111,700	111,300
55-59	90,900	95,200	98,900	102,100	104,500	106,500	108,400
60-64	67,000	69,600	73,600	77,900	82,900	87,900	92,200
65-69	46,400	50,200	53,500	57,100	60,700	62,700	65,200
70-74	31,900	33,200	34,700	36,200	37,600	41,200	44,800
75-79	24,900	24,900	25,000	25,100	25,700	26,400	27,600
80-84	19,200	19,300	19,100	19,100	18,900	18,800	18,800
85-89	10,400	10,200	10,300	10,400	10,500	10,600	10,600
90+	6,400	6,800	7,100	7,300	7,500	7,600	7,700
Total	**1,398,600**	**1,428,000**	**1,458,500**	**1,488,800**	**1,517,500**	**1,544,500**	**1,569,500**

Numbers may not add up due to rounding

Table 5 - Selected Commodity Prices

City of Calgary

FORECAST COMPLETED: February 2013						BASE FORECAST					
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
CONSTRUCTION COMMODITIES											
Iron and steel products	15.7	-3.0	-0.9	1.9	-1.3	2.3	1.7	-3.0	3.0	-3.2	2.5
Aluminum products	-0.4	-19.8	10.3	4.3	-9.5	-1.6	3.7	-3.5	-0.2	-4.8	1.2
Wood	-3.5	11.0	-1.6	2.0	2.1	1.4	-2.9	-4.6	-4.6	-3.9	-1.7
Asphalt**	61.8	-25.4	13.1	-0.7	18.5	-13.4	-4.9	1.2	-2.0	-5.1	2.5
OPERATIONAL COMMODITIES											
Rubber	13.0	-9.2	69.2	32.8	2.0	-0.5	0.7	4.6	2.1	0.2	3.2
Diesel oil	26.4	-31.1	10.5	23.6	-1.0	-3.5	-1.0	4.7	3.9	1.1	2.4
Vehicle parts	4.6	5.3	1.7	1.8	2.6	4.3	2.5	2.8	2.2	2.6	3.4

Numbers may not add up due to rounding

** Based on Ontario Ministry of Transportation Asphalt Price Index

Appendix - Location Quotients

Calgary Economic Region (CER)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
All Industries	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Agriculture	0.36	0.44	0.48	0.36	0.29	0.44	0.93	0.88	0.70	0.41	0.32
Forestry, Fishing, Mining, Oil and Gas	3.31	2.86	3.25	3.39	3.83	3.98	3.71	3.52	3.46	3.52	4.08
Mining and Oil and Gas Extraction	5.19	4.49	4.94	4.85	5.18	5.26	4.76	4.39	4.43	4.36	4.98
Utilities	1.53	1.14	0.62	0.76	1.44	1.60	0.87	1.29	0.91	0.92	1.16
Construction	1.45	1.46	1.48	1.39	1.37	1.36	1.39	1.39	1.38	1.33	1.30
Manufacturing	0.59	0.62	0.57	0.52	0.56	0.57	0.60	0.58	0.64	0.67	0.67
Trade	0.94	0.94	0.97	0.95	0.90	0.89	0.92	0.88	0.93	0.97	0.92
Transportation and Warehousing	1.40	1.26	1.20	1.44	1.19	1.21	0.99	1.14	1.17	1.12	1.13
Air Transportation	2.37	2.18	2.21	2.96	3.87	2.66	2.28	2.46	1.81	2.07	2.07
Truck Transportation	0.90	0.68	0.71	1.13	0.82	0.78	0.77	0.76	1.08	0.84	1.00
Finance, Insurance, Real Estate and Leasing	0.96	1.01	0.98	1.02	0.96	0.99	1.05	1.00	0.98	0.85	0.89
Professional, Scientific and Technical Services	1.66	1.55	1.63	1.74	1.76	1.63	1.69	1.58	1.42	1.53	1.49
Legal Services	1.47	1.53	1.80	0.98	1.70	1.31	1.05	1.01	1.16	1.00	0.99
Architectural, Engineering and Design Services	2.61	2.39	2.72	2.84	3.43	2.79	2.55	2.55	2.28	2.74	2.69
Computer System Design Services	1.15	1.31	1.23	1.79	1.10	1.19	1.31	1.38	1.13	0.98	0.94
Management, Scientific and Technical Services	1.68	1.05	1.23	1.20	1.16	1.30	1.92	1.65	1.10	1.46	1.49
Other Professional Services	1.40	1.27	1.08	1.28	1.10	1.15	1.30	1.02	1.12	1.08	0.98
Business, Building and Other Support Services	1.01	1.00	1.13	0.94	0.89	1.00	0.93	1.03	0.91	0.95	0.84
Educational Services	0.84	0.85	0.76	0.90	0.97	0.84	0.73	0.84	0.83	0.80	0.80
Health Care and Social Assistance	0.79	0.83	0.76	0.86	0.83	0.82	0.80	0.79	0.86	0.85	0.79
Information, Culture and Recreation	1.11	1.32	1.16	1.08	1.02	1.01	0.95	1.03	1.08	1.03	0.95
Accommodation and Food Services	1.00	1.05	1.13	0.91	1.00	0.82	0.87	0.90	0.86	0.95	0.99
Other Services	1.05	1.03	1.06	0.95	0.88	1.04	1.00	1.01	1.04	1.00	1.10
Public Administration	0.58	0.56	0.62	0.57	0.53	0.62	0.65	0.63	0.58	0.57	0.60

Source: Statistics Canada, Coproprate Economics

The location quotients are tabulated to show the industrial concentration in Calgary, in other words it shows the industries or activities that Calgary is specialized in. This is done by comparing the employment distribution in Calgary against the employment distribution in Canada. A higher share of employment in a given industry compared to the national share of employment in the said industry indicates that Calgary is specialized in that given industry. A location coefficient of 3.0, for example, indicates that thrice the percentage of workers is employed in a specific industry compared to the share employed nationally for that industry. The analysis confirms that Calgary is specialized in Forestry, Fishing, Mining, Oil and Gas. Forestry, Fishing and Mining are not important activities in Calgary and the true area of specialization is oil and gas activities. Calgary is also specialized in professional, scientific and technical services (PSTS). PSTS tends to cluster in Calgary because of the presence of many head offices for energy industry companies and these businesses tend to hire skills that are found in the PSTS sector.

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 developed reliable methods of forecasting and analysis.

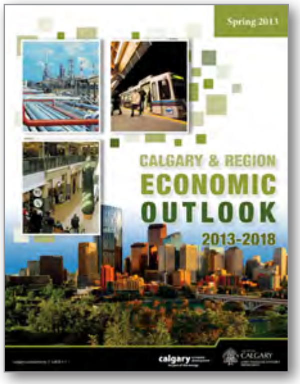
For more information, please contact:

Patrick Walters
403.268.1335 or patrick.walters@calgary.ca

Ivy Zhang
403.268.2005 or ivy.zhang@calgary.ca

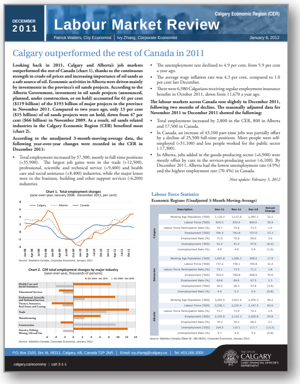
Many of our publications are available on the internet at **www.calgary.ca/economy**.

Forecasting



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

Information Provision



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

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, Construction Sector Council, U.S. Federal Bank Reserve of St. Louis, International Money Fund (World Economy Outlook), World Bank, Central Plan Bureau Netherlands, and others.