Q1
2011

Calgary & Region Economic Outlook 2011–2016




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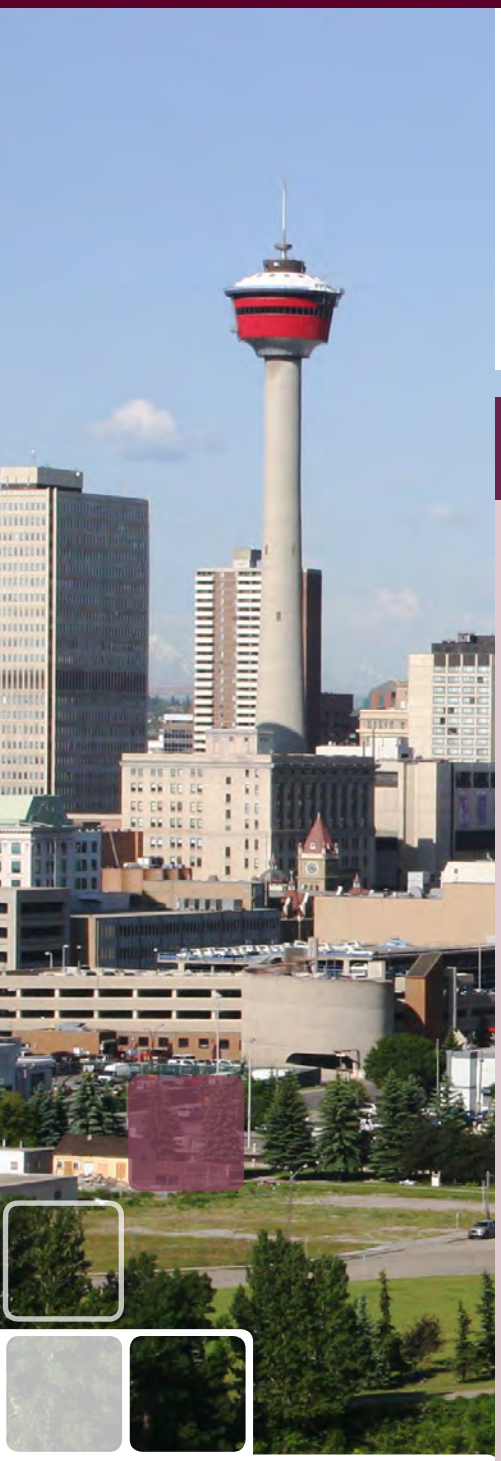
CALGARY ECONOMIC DEVELOPMENT

THE CITY OF CALGARY
CHIEF FINANCIAL OFFICER'S DEPARTMENT

Introduction



The City of Calgary monitors and forecasts economic activity in Calgary and the region throughout the year. Corporate Economics reports on these activities through the Economic Outlook at the end of each quarter. The Economic Outlook provides an analysis of changes anticipated in key economic indicators for the Calgary area in upcoming years.

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Completed April 2011

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Forecast

City of Calgary

The city of Calgary's 2011 population is estimated at 1.083 million persons, up from 1.072 million in 2010[1]. Population growth results from natural increase as net migration was assumed to be zero between 2010 and 2011.

The total population in the city of Calgary is expected to reach 1.159 million persons in 2015 and 1.231 million in 2020. The total population is expected to increase by 159,000 persons between 2010 and 2020, or by 1.4 per cent annually. The majority of the population growth is projected to occur in the ages 55 to 89.

The Calgary office market vacancy rate in Q1 2011 is estimated at 10.1 per cent with expectations that the market vacancy rate would peak in 2011, as 2.15 million square feet of new space is added to the inventory and then trend downwards over time.

The total MLS inventory of re-sale houses at March 2011 was estimated at 10,043 units, up from 10,003 units for the same period 2010. The inventory coverage (that is the inventory to sales ratio) was estimated at 4.3 months in March 2011, up from 3.9 months in March 2010, but well below the December 2008 peak of 11 months.

Total housing starts were estimated at 7,300 units in 2010, up from 5,000 units in 2009. The forecast shows housing starts are expected to grow in line with demographic requirements.

The outlook for building permit values is remarkably stable over the forecast horizon. In the early years of the forecast industrial, retail and small commercial activity should lift permit values while re-construction activity ramps up in the latter years of the forecast period.

Calgary Economic Region

Economic activity in the Calgary Economic Region (CER) grew by 2.7 per cent in 2010 and -4.7 per cent in 2009. The 2010 expansion was driven by increased business and government spending. Most of the added output came from productivity increases as employees worked longer hours and therefore increased output was not accompanied by increased employment. The CER economic output should grow by 3.3 per cent in 2011 and 4.2 per cent in 2012.

The population in the CER was estimated at 1.338 million persons in 2010 and should increase to 1.473 million persons by 2016, up by 135,200 persons or 1.6 per cent annually. Population growth would be driven by positive net migration in the later stages of the forecast as the unemployment rate differential between the rest of Canada and Calgary increases.

Employment is a lagging indicator, consequently significant employment growth should appear in the national and local economies from 2011 and onwards. Faster growth in gross domestic product (GDP) in 2011 and beyond should create an increasing demand for labour. Total employment in the CER should average 770,000 in 2011 and 790,000 in 2012 , up from 755,000 in 2010.

The unemployment rate should fall to 5.2 per cent by 2012 and 4.3 by 2014 as employment grows at a faster rate than the labour force. The aging population base combined with relatively lower net migration levels should contribute to slower labour force growth and keep the unemployment rate relatively low over the forecast period.

Stronger economic growth along with a reduction in the unemployment rate from 2011 to the end of the forecast period should see the wage inflation rate rise in excess of the consumer inflation rate. Wage increases in excess of inflation in the mid to later stages of the forecast should result in increased real disposable incomes.

The consumer price inflation rate is expected to increase by 2.5 per cent in 2011 and 2.4 per cent in 2012. Inflation rates are expected to increase as the region's spare capacity becomes exhausted.

The forecast shows that tight labour supplies from 2012 onwards should keep the non-residential building price inflation rate above the consumer price inflation rate as increasing labour costs drive contractors' prices higher.

Sharp increases in oil prices due to unsettled conditions in the Middle-East as well as Japan are expected to result in an increase in building material costs in 2011 and beyond. Increased prices for milled products, oil based materials and delivery surcharges are anticipated later in the year.

1 The current outlook provides a re-estimation of the October 2010 population projection. This projection differs from the October 2010 version in that it uses an updated 2010 population distribution for Calgary. The current distribution has a higher number of individuals in the 20 to 39 age groups and this affects the population projections since these (20 to 39 age) cohorts include more women of childbearing age.

Executive Summary

Assumptions

The Alberta economy is expected to grow by 3.4 per cent in 2011 and 3.1 per cent by 2016, due to increased business and consumer confidence which should offset a weak natural gas industry.

The price of West Texas Intermediate (WTI) crude oil should average US$97/bbl in 2011 and US$102/bbl by 2016.

Natural gas prices should range between $3.55/GJ to $4.17/GJ and average $4/GJ in 2011, and range between $5.12/GJ to $6.19/GJ and average $6/GJ in 2016.

Job prospects in Alberta should improve and push the unemployment rate below the 5 per cent mark by the end of the forecast period.

The Canadian economy is expected grow by 2.7 per cent in 2011 and 2012, and 2.6 per cent in 2013, supported by economic expansion in the U.S.

The Bank of Canada is expected to wait until the second half of 2011 before raising short-term interest rates, leaving considerable monetary stimulus in place to help the Canadian economy deal with global uncertainties.

The U.S. economy is firing on most cylinders and is expected to grow on average above 3.0 per cent in 2011–2013.

The world economic recovery continues, though with regions growing at different speeds. The rebound in developed markets is subdued and fiscal risks exist. Emerging markets have been growing above potential and now face growing pressures of inflation and rising interest rates.

Forecast Risks

The economic outlook is subject to both upside and downside risks. On balance, the risks are tilted to the downside.

Downside

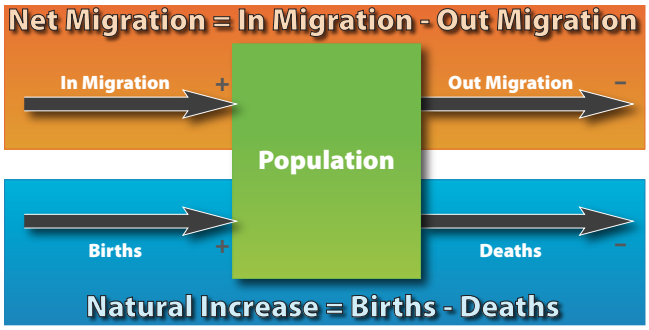
- It should be noted that our forecast is based on the assumption that oil price fluctuations in 2011 should be contained within the range of US$90–110. However, the ongoing Middle Eastern and North African (MENA) crisis significantly raises the upward pressure on energy costs, inflation, and the risk of output losses in both advanced economies and emerging markets.
- Debt sustainability has improved in the Eurozone but still remains a problem in the forecasting period. The pace of economic growth should weaken as monetary and fiscal stimuli are withdrawn from the Eurozone.
- Damage in Japan is extensive from the March earthquake and the Japanese economy may be dragged into a double dip recession. Much of the disruption remains to be identified, and the negative impact could be greater than first estimated.
- In addition, prolonged supply-chain disruptions in automobile and high tech parts caused by the Japanese disaster could result in a substantial output loss to major industrial economies.
- In the U.S., if housing prices fall more than expected, the re-emergence of the vicious cycle of forestalled demand and worsening mortgage conditions could negatively impact economic growth. Other risks include new financial market instabilities created by massive U.S. fiscal imbalances, and acceleration in the core inflation rate.
- In Canada, high household indebtedness and potential housing market correction due to the withdrawal of financial stimulus, could result in the construction sector subtracting from overall economic growth.

Upside

- On the upside, a quicker U.S. recovery and stronger demand for commodities in the world market should lead to better trade performance for Canada despite a relatively high exchange rate. However, a stronger-than-expected Canadian housing market could also fuel economic growth and raise inflation pressures.

Population

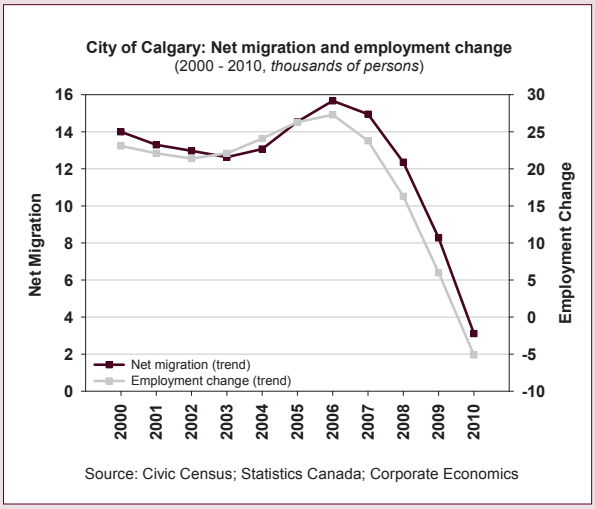
Population change



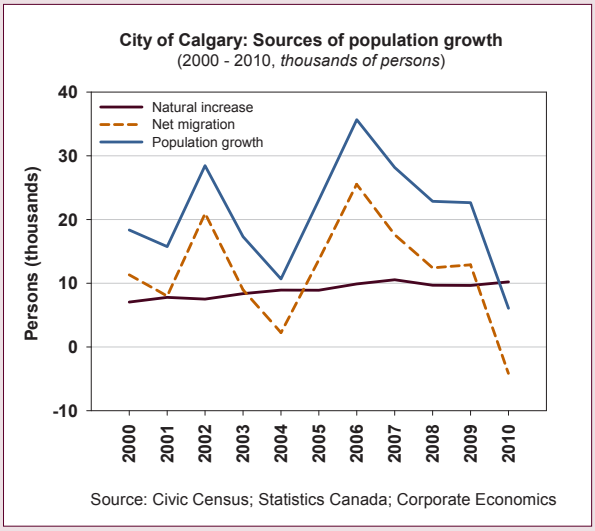
The population is calculated as the sum of the previous year's population plus natural increase and net migration. Net migration is defined as the difference between in-migration and out-migration, while natural increase is defined as the number of births less the number of deaths. Natural increase is the more stable component of growth. The number of births is influenced by the fertility rates of the number of women in the various childbearing ages while the number of deaths is influenced by the mortality rates of individuals in the various age groups. Mortality and fertility rates tend to change very slowly over time as they are influenced by a complex mix of social and economic factors. This is in sharp contrast to net migration which is rather volatile. Net migration in a regional economy is largely influenced by job availability: good job prospects in the local economy serves as a magnet for job seekers from outside the region. Net migration is influenced by economic and social conditions in the sending and receiving areas. Conditions that cause individuals to migrate out of the area are generally referred to as the push factors, while conditions that cause people to move to an area are referred to as the pull factors.

The unemployment rates in Calgary and Canada could be used as proxies to represent the pull factors in Calgary and the push factors in Canada respectively. The data show the unemployment rate in Calgary was consistently below that for Canada for the period 2000 to 2010. The data analysis shows that there is a negative correlation between net migration and the ratio of the Calgary unemployment rate relative to the Canadian unemployment rate. When the unemployment rate in Calgary is high relative to Canada as a whole, net migration in Calgary tends to be lower than when the Calgary unemployment rate is low.

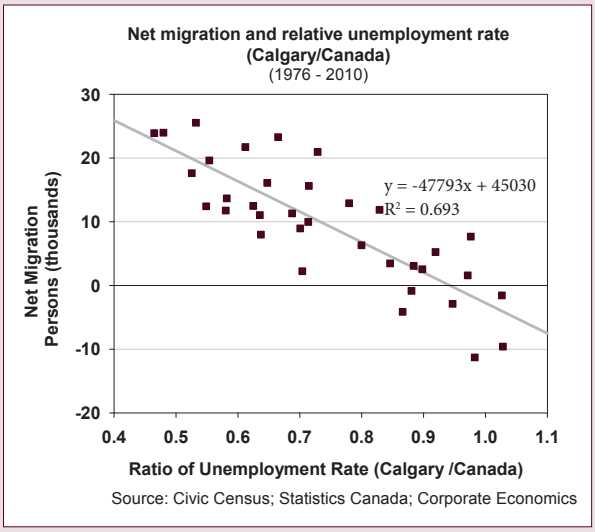
The migrants who came to Calgary over the 2000–2010 period were generally young and of childbearing age. This contributed both directly and indirectly to current and future population and economic growth. Tight labour market attracted migrants.



Source: Civic Census; Statistics Canada; Corporate Economics

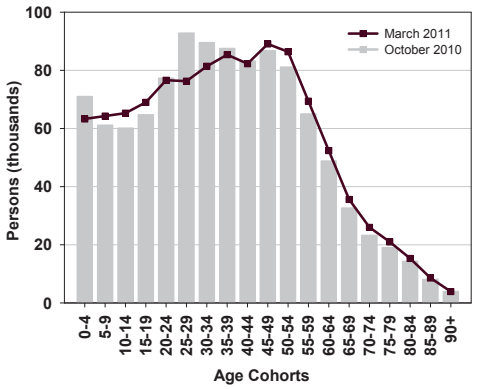


Source: Civic Census; Statistics Canada; Corporate Economics



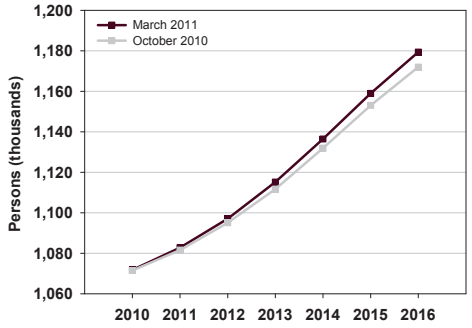
Source: Civic Census; Statistics Canada; Corporate Economics

City of Calgary: Population distribution
(*thousands of persons*)



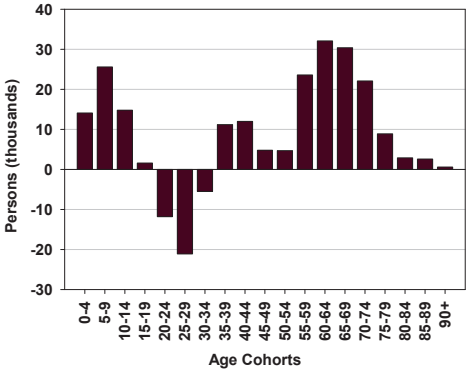
Source: Civic Census; Statistics Canada; Corporate Economics

City of Calgary: Population forecast
(2010 - 2016, *thousands of persons*)



Source: Civic Census; Statistics Canada; Corporate Economics

City of Calgary: Population change
(2010 - 2020, *thousands of persons*)



Source: Civic Census; Statistics Canada; Corporate Economics

The city of Calgary's 2011 population is estimated at 1.083 million persons, up from 1.072 million in 2010[2]. Population growth results from natural increase as net migration was assumed to be zero between 2010 and 2011. The assumption of zero net migration signals an improvement in economic conditions in Calgary over the 2009–2010 period when the city's net migration was tallied at -4,154 persons. The more optimistic assumption is influenced by the expectations of improvement in the local labour market in 2011.

Population by 5-year cohort

thousands of persons except rate

	2010	2011	2012	2013	2014	2015
Total Population	1,071.8	1,082.8	1,097.1	1,115.2	1,136.5	1,159.0
Total Net Migration	0	4.0	7.0	11.0	12.0	10.0
Total Births	16.9	16.9	16.9	16.9	17.0	17.1
Total Deaths	5.9	6.0	6.2	6,4.	6.6	6.8
Total Natural Increase	11.0	10.8	10.7	10.6	10.4	10.3
Total Population Growth Rate	0.6%	1.0%	1.3%	1.6%	1.9%	2.0%

Source: Civic Census; Corporate Economics

Total population in the city of Calgary is expected to reach 1.159 million persons in 2015 and 1.231 million in 2020, up from 1.072 million in 2010. Total population in Calgary is therefore expected to increase by 159,000 persons between 2010 and 2020, or by 1.4 per cent annually. The net migration assumptions are based on the hypothesis that net migration is sensitive to job availability. The current projection expects the unemployment rate to remain above 5 per cent for 2011 and 2012 and then trend downwards to 3.2 per cent by 2020. Consequently, net migration to Calgary is expected to fall below trend in 2011 and 2012 and then return to more normal levels as the unemployment rate moves below 5 per cent.

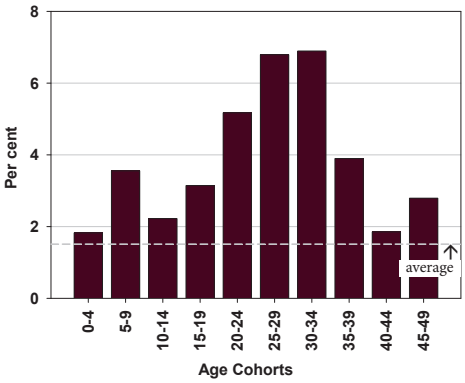
The population projections show that the population in Calgary is aging over time. This change is similar to what is occurring in the rest of Canada and other industrial countries where the "baby boom" population is entering its retirement age and this along with declining fertility rates resulted in the increased average age of the population.

2 The current outlook provides a re-estimation of the October 2010 population projection. The current distribution has a higher number of individuals in the 20 to 39 age groups and this affects the population projections since these (20 to 39 age) cohorts include more women of childbearing age.

The aggregate population projection over the forecast period masks the shift in the individual cohorts. A comparison of the population in the individual cohorts in 2010 against the same groups in 2020 reveals that significant growth should occur in the 60–64 (32,000 persons) and 65–69 (30,000 persons) age groups. The 20–24 (-12,000 persons) and 25–29 (-21,000 persons) cohorts should be smaller in numbers in 2020 when compared to 2010. The population that is 55 years and over should increase by 123,000 persons and the population that is less than 55 should increase by 50,000 persons. The majority of the population growth is projected to occur in the seven oldest cohorts: ages 55 to 89.

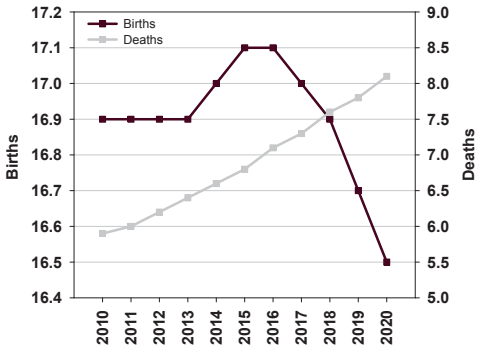
Net migration is expected to play a significant role in stabilizing the city's population base. Natural increase should decrease steadily, falling from 10,200 persons in 2010 to 7,700 in 2020. This is as a direct result of population aging where deaths are growing at a faster rate than births. The number of deaths in 2011 is projected at 6,000 and is expected to reach 8,100 by 2020, while the number of births is estimated at 16,900 in 2011 and is expected to fall to 16,500 by 2020. Net migration is expected to grow from 4,000 persons in 2011 to 12,000 in 2014 and 10,000 in 2015.

City of Calgary: Fastest growing cohorts
(2010 - 2020, *per cent*)



Source: Civic Census; Statistics Canada; Corporate Economics

City of Calgary: Births and deaths
(2010 - 2020, *per 1,000 persons*)



Source: Civic Census; Statistics Canada; Corporate Economics

Calgary: Office space vacancy rate
(Q1 2000 - Q4 2010, *per cent*)

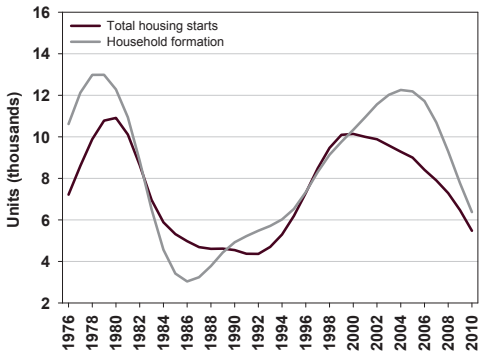
Source: Altus Insite; Corporate Economics

Calgary Market

Office Market

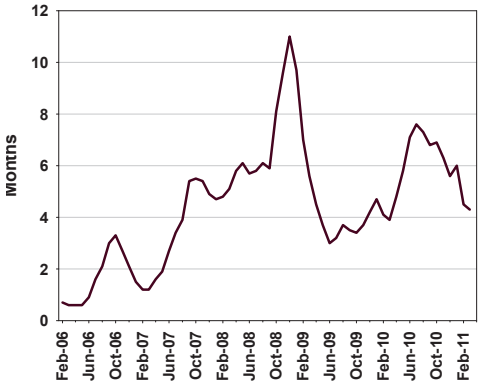
The Calgary office market vacancy rate in Q1 2011 is estimated at 10.1 per cent and is expected to peak later in the year as 2.15 million square feet of new space is added to the inventory, and then trend downwards over time. It is anticipated that the Calgary office market will be well supplied by available inventory in 2012, and increases in employment would result in increased absorption of office space. Our analysis indicates that around 6 million more square feet of office space will be required between 2015 and 2020 in order to maintain a relatively low office vacancy rate of around 5 per cent.

City of Calgary: Trends in household formation and housing starts
(1976 - 2010, *thousands of units*)



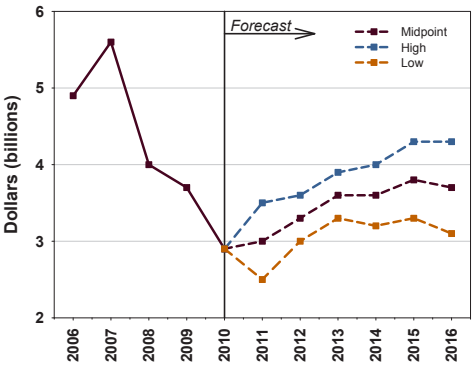
Source: Civic Census; Statistics Canada; Corporate Economics

Total MLS inventory coverage (End inventory/Sales)
(February 2006 - March 2011, *months*)



Source: Calgary Real Estate Board; Corporate Economics

City of Calgary: Total building permit values
(2006 - 2016, *billions of dollars*)



Source: City of Calgary; Corporate Economics

Residential Market

Total housing starts and household formation were in balance in 2000, but for every year from 2001 to 2010 total housing starts exceeded household formation. The reduction in household formation and housing starts in 2010 resulted from stagnant job growth in 2009 and 2010. A return of job growth to the local economy over the forecast period 2011–2016 should see an increase in housing starts over 2010 levels but below 2004 to 2006 levels. Since housing starts exceeded demographic requirements for the 2001 to 2010 period, market balance would dictate that housing starts should grow in line or slightly below new household formation rates.

The total MLS inventory of re-sale houses in Calgary at March 2011 was estimated at 10,043 units, up from 10,003 units for the same period 2010. The total number of sales in March 2011 was 2,347 units, down from 2,535 units in March 2010. The inventory coverage (that is the inventory to sales ratio) was estimated at 4.3 months in March 2011, up from 3.9 months in March 2010, but well below the December 2010 peak of 11 months.

Housing prices in Calgary should continue to rise throughout 2011 in response to population growth. The longer term outlook for Calgary housing prices would be influenced by future growth in employment, wages, net migration levels, interest rates and availability of credit.

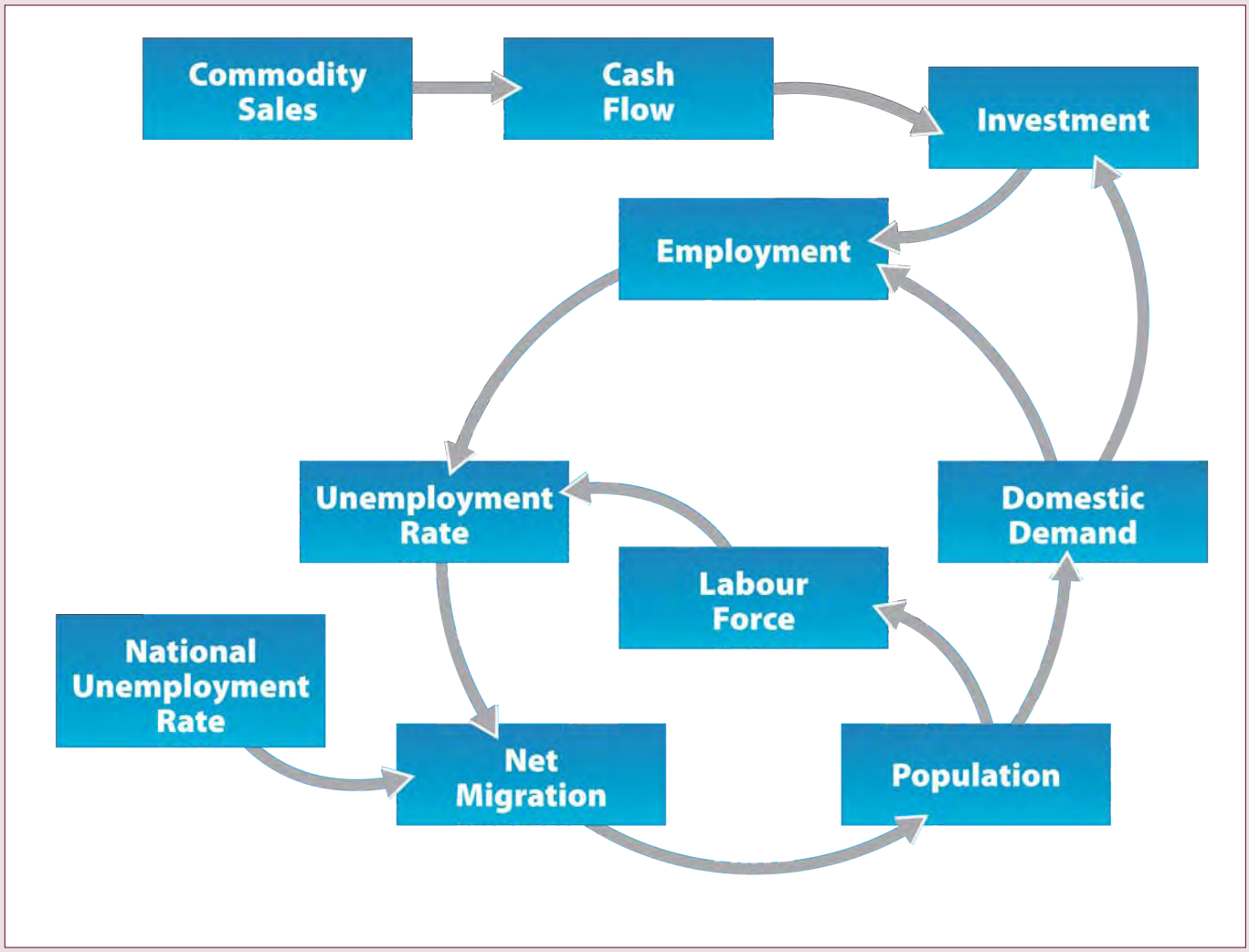
Our current outlook calls for modest net migration over the forecast horizon as the available pool of international and national migrants shrinks due to ageing demographics while their employment opportunities increase at home. The result should see Calgary housing prices grow at close to the consumer price inflation rate over the early portion of the forecast. By 2016, Calgary businesses are expected to see severe staff shortages and resulting wage increases are expected to push up housing prices for the remainder of the period.

Total housing starts were estimated at 7,300 units in 2010, up from 5,000 units in 2009. Housing starts are expected to grow in line with or slightly below demographic requirements over the forecast period.

Total Building Permits (value)

The outlook for building permit values is remarkably stable over the forecast horizon. In the early years industrial, retail and small commercial activity should lift permit values while re-construction activity ramps up in later years. Mid-way through the period we expect an increase in residential permitting activity as current capacity in condo markets is used up and there is a need for additional residential construction. By the end of the period, residential, industrial, retail and small commercial activity is expected to wane while demand for new office towers and general inflation combine to maintain building permit values.

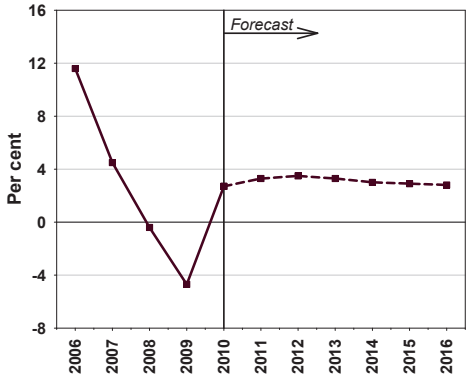
Analytical Framework



The regional economy is driven by exports to the world outside. The price and volumes for exports are determined by conditions outside of Calgary. Growth in the world outside of Calgary drives the demand and price for exports and this increased business cash flow; especially businesses that sell goods and services on the world market. Higher cash flow results in increased investment spending as businesses add capacity to meet current and anticipated demand for their products. Increased investment results in increased demand for labour and this pushed employment to higher levels and cause the local unemployment rate to fall relative to the national rate.

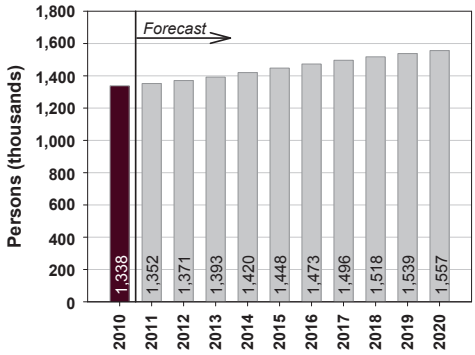
Calgary Economic Region

Calgary Economic Region: Gross domestic product growth
(2006 - 2016, *per cent*)



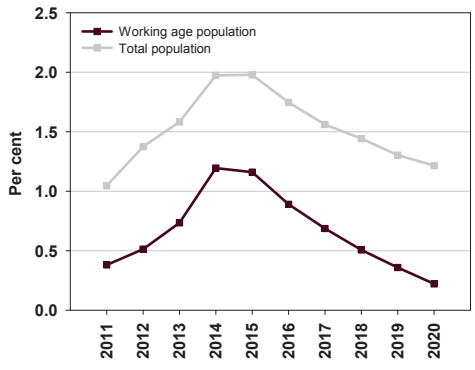
Source: Statistics Canada; Corporate Economics

Calgary Economic Region: Total population
(2010 - 2020, *thousands of persons*)



Source: The City of Calgary; Corporate Economics

Calgary Economic Region: Population growth rates
(2011 - 2020, *per cent*)



Source: Statistics Canada; Corporate Economics

Gross Domestic Product

The Calgary economy contracted during 2008 and 2009 in response to the world economic recession. The region and Alberta economies were adversely affected by falling resource prices and concurrent removal of the income trust corporate structure which squeezed profit margins in the energy industry. These changes along with tighter credit conditions and higher labour costs resulted in the postponement or cancellation of several large investment projects in northern Alberta. This had a negative effect on domestic demand and resulted in a reduction in the level of economic activity in the local and provincial economies during 2008–2009. The Calgary Economic Region (CER) shrank by 4.7 per cent in 2009 and recovered by 2.7 per cent in 2010 as a result of increased business and government spending. Most of the added output came from productivity increases as employees worked longer hours therefore increased output was not accompanied by increased employment.

Stronger net job creation should result in economic activity becoming more sustainable in 2011 and 2012. The combination of growth in employment and labour incomes should provide a foundation for growth of the consumer sector, which accounts for about 60 per cent of the region's gross domestic product. At the same time, government spending is expected to be a drag on economic growth as governments try to place their finances on a firmer footing by reducing the rate of spending increase. Private sector investment spending is expected to supplant government spending as an engine of growth over the period. The CER is expected to grow by 3.3 per cent in 2011 and 4.2 per cent in 2012.

The following are examples of government and business expenditures on major infrastructure projects in the Calgary Economic Region:

- Alberta Health and Wellness is spending $1.3 billion to construct a hospital in south Calgary. Construction began in 2009 and should finish by 2012.
- The Calgary Airport Authority plans to construct a new north-south runway at a cost of $500 million. Construction of the runway should begin in 2011 and finish in 2015.
- The Calgary Airport Authority plans to spend $1.3 billion to construct a new concourse and work should commence in 2011 and finish in 2015.
- The City of Calgary is spending over $700 million on building the West LRT line. Construction of the facility should cover the period 2010 to 2012.

Population

The CER's population was estimated at 1.338 million in 2010 and should increase to 1.473 million by 2016, up by 135,200 persons. Population growth would be driven by positive net migration in the later stages of the period as the unemployment rate differential between Calgary and the rest of Canada increases. Natural increase would be a drag on the overall growth rate as the death rate is anticipated to grow faster than the birth rate. This is a result of an aging population base where the number of women in childbearing ages remains relatively constant.

Sector in Focus: Sustainable and Renewable Energy

As commodity prices increase and environmental scrutiny continues to intensify, the demand for clean energy technologies worldwide grows, which is creating opportunities for Calgary's Sustainable and Renewable Energy (SURE) sector.

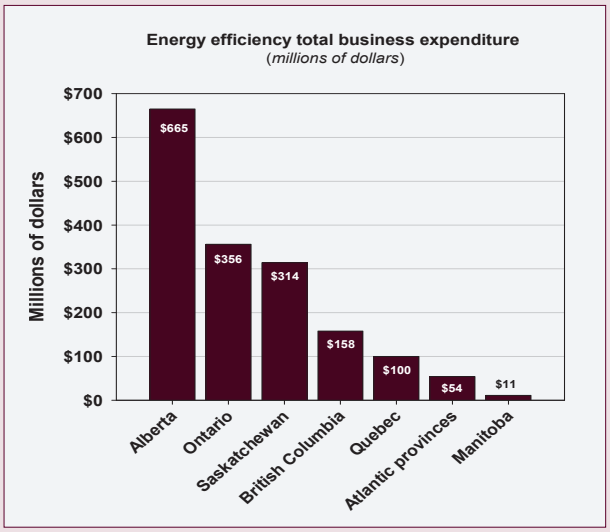
Calgary is a leading global energy centre built upon the province's vast hydrocarbon. Few cities or regions in the world can match the breadth and depth of Alberta's oil, bitumen, natural gas and coal resources. Alberta's oil reserves are second in size only to Saudi Arabia with proven deposits of 174 billion barrels Much of Calgary's SURE sector has been built around technologies to ensure these resources are produced in efficient and environmentally-responsible ways.

While best known for our natural resource wealth in the form of oil, gas and coal, Alberta offers significant renewable energy resources as well.

- Alberta's ample wind resources resulted in the province being the first in Canada to install a wind generation project. The province now boasts a current installed wind production capacity of 656 MW. An additional 1,040 MW of new generation capacity is currently contracted and under construction in Alberta and over 7,800 MW of wind projects are currently in the queue for future connection to the grid.
- The Canadian Hydro Association estimates that there is more untapped hydro potential in Alberta than its total existing coal capacity. The ultimate hydroelectric energy potential that could be extracted from Alberta's five river basins is about 53,000 gigawatt hours per year.
- The region offers ample sunlight. Calgary is the sunniest city in Canada, with an average of 2,405 hours of sun a year, over 333 days.
- Potential annual biomass feedstock in Alberta translates to an annual energy potential of 457 petajoules (PJ), approximately 22.6 per cent of the total energy consumed in Alberta each year.

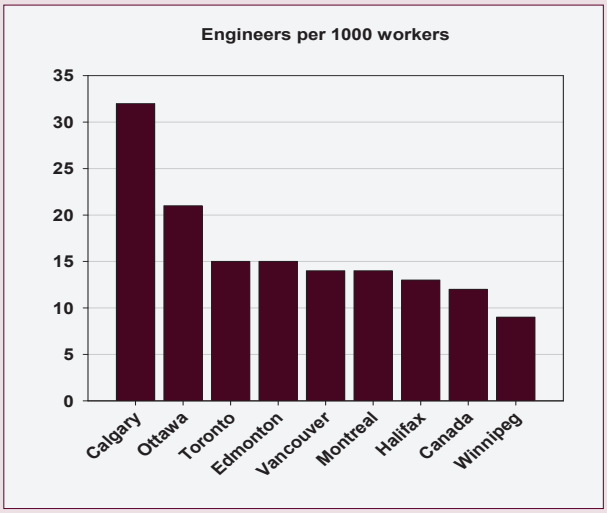
The key to supporting the development of the sector and the required technologies are factors that continually bolster the development of the oil and gas industries. Assets unique to Calgary and Alberta have helped SURE sector firms develop new technologies and expand in new markets. The following assets give Calgary-based firms a competitive advantage in this emerging field:

- Global energy decisions are made here. Calgary is home to the headquarters of 91 major energy companies and businesses with combined assets of more than $500 billion. Many of these firms, as well as the financial services players, are active investors in various aspects of sustainable and renewable technology including energy efficiency. Alberta firms are the largest investors in energy efficiency and energy conservation technology systems and represent a $665 million market.



Calgary Economic Region

- Calgary offers the highest concentration of science, engineering, and business and finance talent in Canada. With more engineers per capita than any major city in Canada, Calgary's young, well-educated and highly-skilled labour force has deep experience across the entire energy sector value chain.



- The provincial policy framework promotes the growth of sustainable technology, especially in the areas of policy to address climate change, electric market deregulation and bioenergy policy.
  - The Province of Alberta has made a significant commitment to advance Carbon capture and storage (CCS) towards commercialization, notably through a $2.5 billion direct investment in four large-scale CCS pilot plants and the development of legal and regulatory frameworks for cleaner hydrocarbons.
  - The Climate Change and Emissions Management (CCEMC) Corporation, an independent not-for-profit organization incorporated in 2009 and funded by the Alberta Government's $15/tonne levy on large emitters (the first to be implemented in North America), targets and funds new Alberta company initiatives in greening energy production, energy conservation and efficiency, carbon capture and storage, and adaptation and knowledge.
    - Its first call for proposals in 2010 resulted in $71 million in support for 16 projects. In February 2011 a further six projects received funding of $27.2 million. Sixty-five projects were submitted in response to the third call for proposals, with $50 million for this group of projects expected to be approved by June 2011.
  - Alberta was the first province to introduce a carbon offset market through the Provincial Climate Action Plan. Recent policy changes have paved the way for growth in microgeneration through renewable energy sources. The Province's nine-point bioenergy plan offers incentives for development of a wide variety of bioenergy products including fuels, power and heat.
  - Alberta also offers a stable regulatory environment with the lowest corporate and personal tax rates in Canada

Much of Calgary's SURE strength and opportunity will be showcased later this year when the city plays host to the Global Clean Energy Congress & Exhibition, November 1-3, 2011.

To learn more about Calgary's SURE sector and for additional information, please contact:

Calgary Economic Development
731 – 1st Street SE Calgary, Alberta, Canada T2G 2G9
T 403.221.7831 or toll-free: 1.888.222.5855
F 403.221.7828
www.calgaryeconomicdevelopment.com

Labour Market

Total employment in the CER averaged 755,200 in 2010, down from 765,000 in 2009 and 768,100 in 2008. This was the first time since 1992 that total employment has contracted in the CER.

Over the 2008–2010 period, the largest job losses occurred in Professional, Scientific and Technical Services (-10,400) and Forestry, Fishing, Mining, Oil and Gas (-7,200). This result is not unexpected as energy commodity prices suffered significant losses over this period and caused investment in energy and related sectors to be adversely affected. Meanwhile, government supported services such as Health Care and Social Assistance (9,600), and Educational Services (5,800) were able to withstand the effects of the recession as governments used their spending powers to blunt the effects of the recession.

Total employment - Calgary Economic Region (CER)

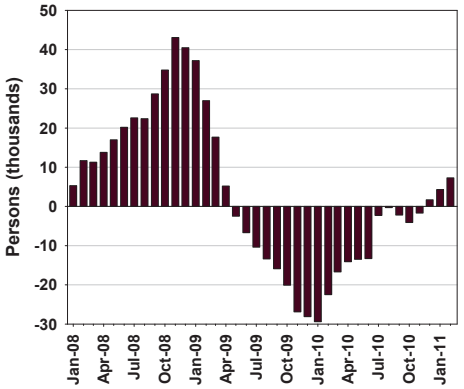
Thousands of Persons

Industry	2008	2010	Difference
All Industries	768.1	755.2	-12.9
Agriculture	13.7	9.4	-4.3
Forestry, Fishing, Mining, Oil and Gas	57.5	50.3	-7.2
Utilities	5.9	6.0	0.1
Construction	76.9	74.4	-2.4
Manufacturing	53.4	49.5	-3.9
Wholesale Trade	30.8	26.9	-4.0
Retail Trade	80.6	84.0	3.4
Transportation and Warehousing	37.6	41.5	3.9
Finance, Insurance, Real Estate and Leasing	50.6	47.6	-3.1
Professional, Scientific and Technical Services	90.2	79.8	-10.4
Business, Building and Other Support Services	28.7	27.0	-1.7
Educational Services	39.1	44.8	5.8
Health Care and Social Assistance	68.0	77.6	9.6
Information and Cultural Industries	16.7	16.1	-0.6
Arts, Entertainment and Recreation	15.9	20.7	4.8
Accommodation and Food Services	42.1	40.3	-1.8
Other Services	33.5	34.9	1.3
Public Administration	26.8	24.5	-2.3

Source: Statistics Canada, Special Tabulation

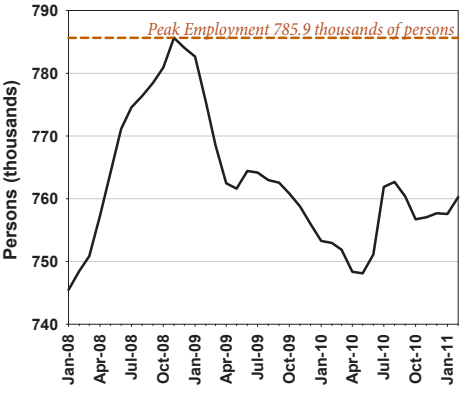
The effects of the recession are still evident in the local job market even though the rest of the Canadian economy has recovered all of the jobs lost during the recession. The labour market data shows that Calgary's employed labour force peaked at 785,900 in November 2008 and then fell to 749,100 persons by May 2010. Consequently, Calgary lost a total of roughly 36,000 jobs from the peak to the trough of the business cycle. Job losses, on a year-over-year basis extended from May 2009 to November 2010. The most recent labour market data – March 2011 – showed employment grew by 12,100 year-over-year; which is below the 5-year-moving-average of 16,800.

Calgary Economic Region: Total employment year-over-year change
(Seasonally adjusted, January 2008 - February 2011, *thousands of persons*)



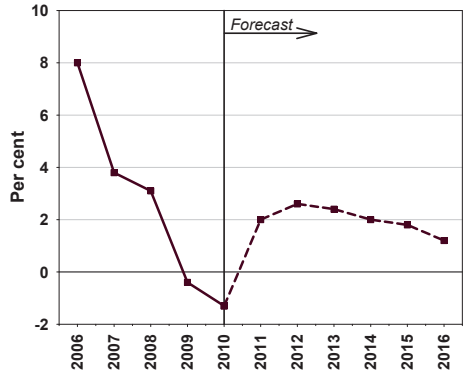
Source: Statistics Canada; Corporate Economics

Calgary Economic Region: Total employment
(Seasonally adjusted, January 2008 - February 2011, *thousands of persons*)



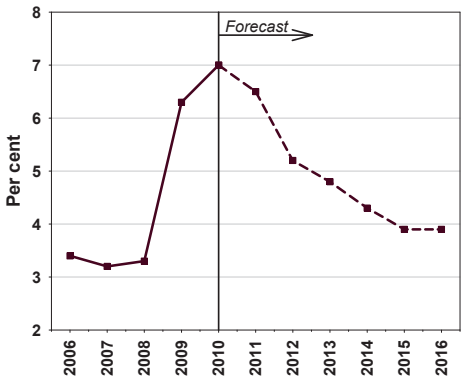
Source: Statistics Canada; Corporate Economics

Calgary Economic Region: Total employment growth
(2006 - 2016, *per cent*)



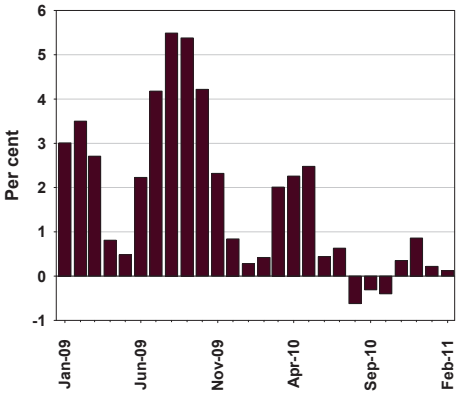
Source: Statistics Canada; Corporate Economics

Calgary Economic Region: Unemployment rate
(2006 - 2016, *per cent*)



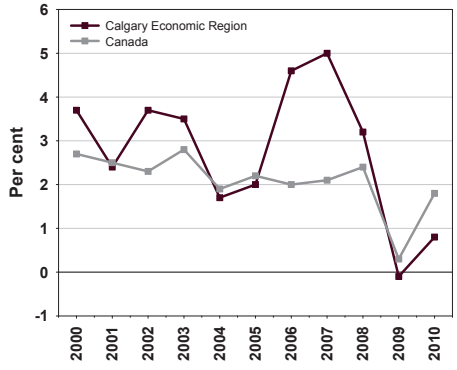
Source: Statistics Canada; Corporate Economics

Calgary CMA: Average weekly wage rate
(January 2009 - February 2011, *per cent*)



Source: Statistics Canada; Corporate Economics

Calgary Economic Region and Canada: Consumer price inflation
(2000 - 2010, *per cent*)



Source: Statistics Canada; Corporate Economics

Employment is a lagging indicator, consequently significant employment growth should appear in the national and local economies from 2011 and onwards. In the initial stages of an economic recovery, employers generally meet additional output by having employees work longer hours and by utilizing longer production runs. In time, part-time employment is converted to full-time employment.

Faster GDP growth in 2011 and beyond should create an increasing demand for labour. Total employment in the CER should average 770,000 in 2011 and 790,000 in 2012, up from 755,000 in 2010. Over the 2011–2016 period, total employment is expected to grow annually at 2.0 per cent down from 2.6 per cent over the 2005–2010 period. Slower labour force growth in the later stage of the forecast period is expected to constrain the rate of economic and population growth.

The unemployment rate averaged 7.1 per cent in 2010. The forecast is for the unemployment rate to average 6.5 per cent in 2011. The 2011 unemployment rate would decline slowly as the labour force grows. The pace of the labour force growth would be influenced by former discouraged workers returning to the work force in response to improved expectations of finding employment and increases in the working age population through population aging and net migration. While the rate of job creation would be muted as part-time jobs are converted to full-time jobs and existing workers are asked to work longer hours.

The unemployment rate should fall to 5.2 per cent by 2012 and 4.3 by 2014 as employment grows at a faster rate than the labour force. The continued aging of the population combined with relatively lower net migration levels should contribute to slower labour force growth.

Wages and Prices

Wages

Calgary's average weekly wage rate was $640.28 in 2000 and increased to $719.63 by 2002, before falling to $704.57 by 2004. Steady economic growth was accompanied by a tightening of the labour market resulted in positive wage increases from 2005 to 2008. As the unemployment rate rose, wage inflation became negative. Stronger economic growth coupled with a reduction in the unemployment rate from 2011 to the end of the forecast period should see the wage inflation rate rise above the consumer inflation rate. Wage increases in excess of inflation in the mid to later stages of the forecast period should result in an increased in real disposable incomes.

Prices

Consumer Price Inflation – (CPI)

The consumer price inflation (CPI) rate in Calgary was higher than the national average in 6 out of the last 11 years. The CPI rate average 2.8 per cent over 2000–2010, while the national inflation rate averaged 2.1 per cent over this period. The higher inflation rate in Calgary was a direct result of a stronger economy and a tighter labour market. In 2009 and 2010 slower economic growth in Calgary

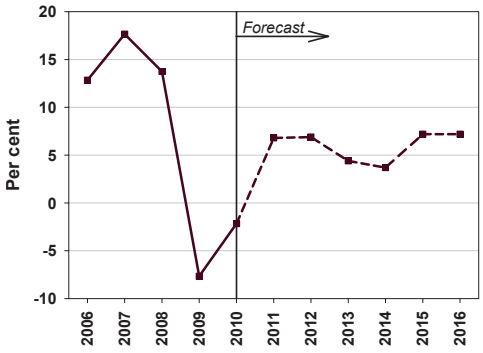
relative to the national economy resulted in Calgary's inflation rate falling below the national rates.

The consumer price inflation rate is expected to increase by 1.5 per cent in 2010 and 2.5 per cent in 2011. Inflation rates are expected to increase as the region's spare capacity becomes exhausted.

Non-residential Building Price Inflation

Rapid increases in oil prices due to unsettled conditions in the middle-east and crisis in Japan are expected to result in an increase in building material costs in 2011 and beyond. Increased prices for milled products, oil based materials and delivery surcharges are anticipated later in the year. The forecast anticipates that tight labour supplies from 2012 onwards should keep the non-residential building price inflation rate above the consumer price inflation rate as rising wages push contractors' prices higher. We continue to anticipate that stability in oil prices after 2015 may serve to offset to rising labour costs.

Calgary CMA: Non-residential building price inflation
(2006 - 2016, *per cent*)



Source: Statistics Canada; Corporate Economics

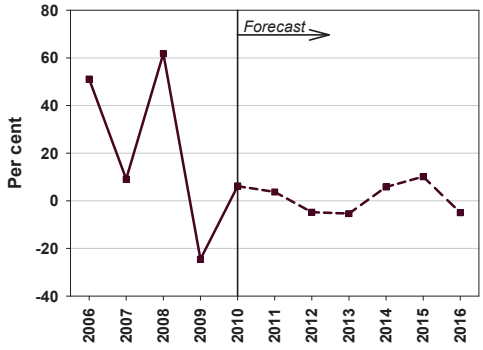
Commodities

On average an expanding world economy should increase the demand for building and energy products and put upward pressure on prices to throughout the 2012–2014 period.

Asphalt

As a result of global events increased oil prices are driving up asphalt prices in 2011. As oil prices are expected to remain sticky in the US$100 range over the forecast period there isn't much room for Asphalt prices to drop in response to reduced paving activity as a result of declining federal government stimulus. The slow decline of oil prices should offset an increase in demand due to the re-roofing cycle which is expected to begin in 2013–2015. After this year, we should see prices start to fall back to 2010 levels by 2014 and stabilize thereafter.

Asphalt price inflation
(2006 - 2016, *per cent*)

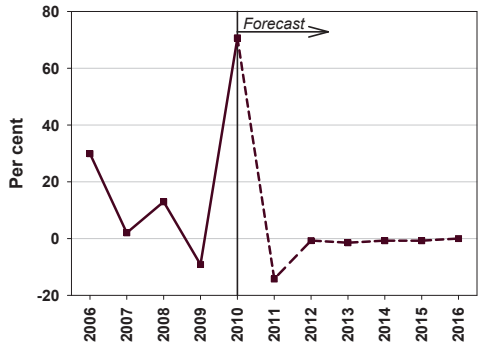


Source: Statistics Canada; Corporate Economics

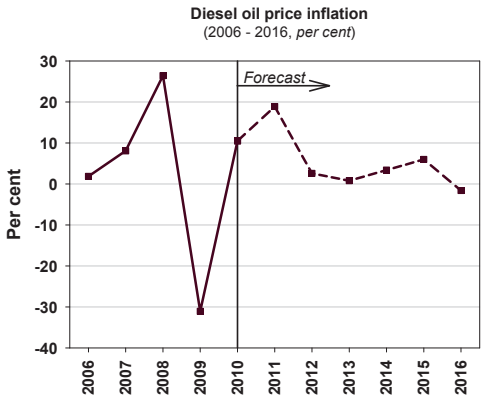
Rubber

Rubber prices appear to have peaked in February 2011 and have since fallen back to just above 2010 average prices. A short term decrease in demand for automobiles resulting from the Christchurch earthquake, Australian flooding, and now the Japanese earthquake and Tsunami are responsible for this short term reprieve. In a few months when auto demand increases prices can be expected to spike even higher and then crater when summer arrives and natural rubber production recommences. Overall, the expectation is for a muted decrease in prices in 2011 with price stability at historically high levels in 2012 and beyond.

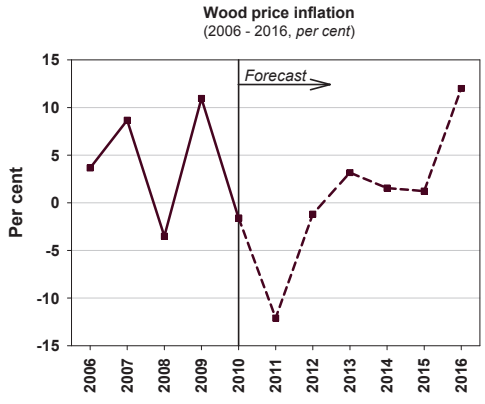
Rubber price inflation
(2006 - 2016, *per cent*)



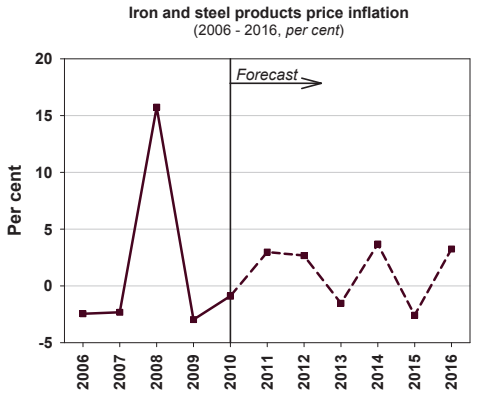
Source: Statistics Canada; Corporate Economics



Source: Statistics Canada; Corporate Economics



Source: Statistics Canada; Corporate Economics



Source: Statistics Canada; Corporate Economics

Diesel

Diesel prices in Alberta closely track West Texas Intermediate (WTI) prices. WTI prices are becoming less sensitive to international events compared to North Sea Brent prices yet both are responding to recent international issues. This is having the effect of advancing previously anticipated diesel price inflation into 2011 from 2012–2013. Beyond 2011, we anticipate the dampening effect of increased Alberta deliveries to increase and cause a stabilization of Alberta diesel prices in 2012–2015, albeit at a historically high level.

Wood

Over the past 30 years the U.S. has engaged in policies that encourage home ownership. As a result of the recent financial market bust the degree of over-supply in the U.S. housing market has come to light. ***On average across the U.S. there are about 10 million more dwellings than the market will support.*** (If the current number of illegal immigrants were to leave that number would rise to 14 million.) ***Market correction would require the complete stopping of all construction until 2020, except that markets are very local.*** Some geographic areas are so over-supplied that the only solution is to demolish wide swaths of housing for example, Detroit, Las Vegas and Modesto. Other areas are seeing increased demand and new housing construction is warranted like Seattle, Houston, and the U.S. North East. On net we expect some revival of the market around 2013 and construction levels to outpace market growth by 2015. Wild swings in wood prices are expected post 2015 as a result.

Steel

In the Q2 2010 forecast we commented that the global market for steel would remain depressed until global demand for shipbuilding increased. The Japanese earthquake of March 11, 2011 has caused an increase in the demand for big ships. Replacing the lost electricity generation capacity will require either twelve standard sized coal fired plants, or 50 average sized natural gas fired generation facilities, or some combination. Any way it goes lots of fuel will be required which means more ships will be required to transport fuel to Japan.

The impact of the Fukushima accident will be felt globally as coal and natural gas displace aging nuclear energy and plans for future nuclear plants are shelved in favour of natural gas and coal. The resulting outlook for steel in a world of increased demand for ships to transport these fuels is for prices to start rising this quarter and remain elevated for the rest of the forecast period, notwithstanding temporary vehicle production curtailments among some manufacturers in 2011.

Vehicle Parts

The March 11 Japanese earthquake had a dramatic impact upon global vehicle parts production. Some production has been restored, but the new issue is electricity. With the closure of the Fukushima Dai-ichi nuclear electricity plant Japanese electricity generation capacity is down 4,500 MW. That's enough electricity to supply metro Vancouver. Japanese electricity production is now insufficient to meet the demands of industrial, manufacturing and residential customers. The nation is responding by shutting off non-essential electricity uses like building sized neon sign displays in Tokyo, but this is unlikely to be enough to make up for the shortfall in supply. Japanese manufacturing will likely face severe shortfalls in energy supply for the next 2 years and will likely not see full restoration of electricity supply for 5 years.

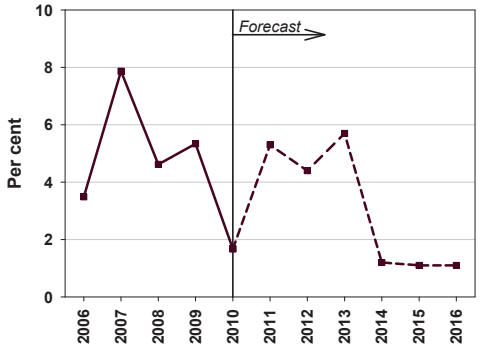
We anticipate that vehicle parts manufacturers will relocate to other regions like South Korea, Mexico and some to southern Ontario, as this delay is unacceptable to the market. A short term increase in parts prices is expected as supplies dwindle and while manufacturers switch locations. Prices will remain somewhat elevated for the next 5 years when Japanese productive capacity is restored and prices decrease, which will then result in excess global production capacity.

Aluminum

In the short term replacement of transmission facilities damaged in the Japanese earthquake and in-fighting in Africa will spur demand for this metal but prices should remain stable as the market continues to have excess productive capacity. Longer term, increased prices of steel are likely to cause auto manufacturers to attempt to replace as much steel as possible with this lighter metal.

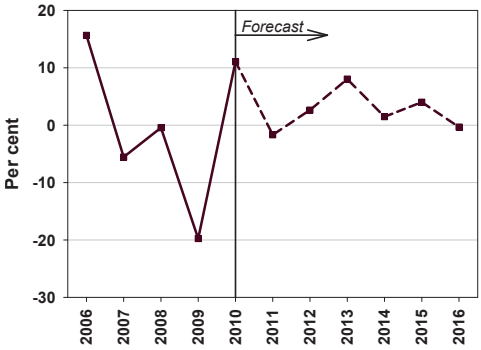
Previously we anticipated increased auto demand would result in excess capacity in Aluminum to be utilized by 2016. With an increased demand in Japan (to replace vehicles destroyed in the Tsunami of 2011), coupled with increased demand in Asia and central America, and as manufacturers replace as much steel as possible with Aluminum we now anticipate global productive capacity will be fully employed by 2015, at which time volatile pricing is expected to return to this market.

Vehicle parts price inflation
(2006 - 2016, *per cent*)



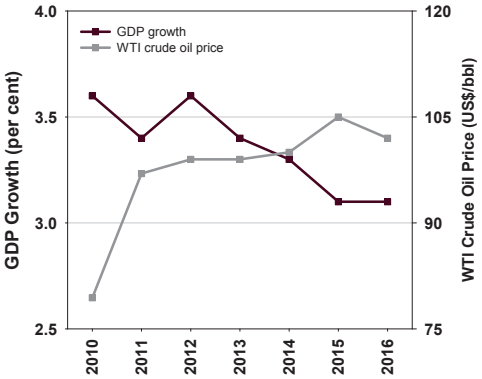
Source: Statistics Canada; Corporate Economics

Aluminum inflation
(2006 - 2016, *per cent*)



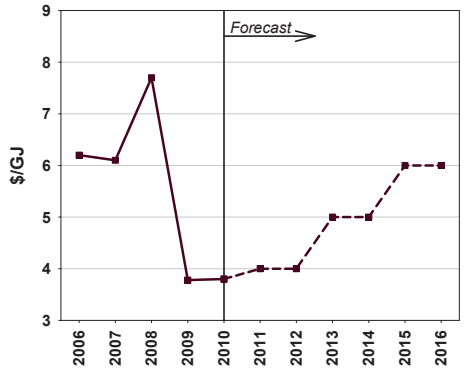
Source: Statistics Canada; Corporate Economics

Alberta: Gross domestic product growth and WTI crude oil Price
(2010 - 2016)



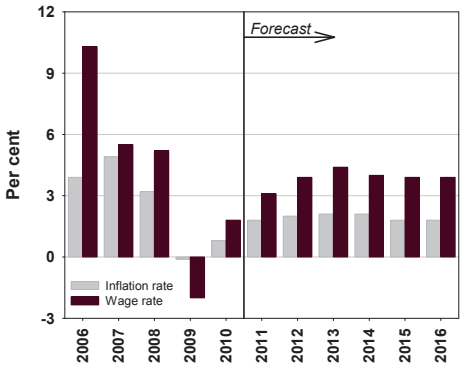
Source: Statistics Canada; IHS Global Insight; U.S. Federal Bank Reserve of St. Louis; Corporate Economics

Alberta: Natural gas price - AECO/NIT
(2006 - 2016, *$/GJ*)



Source: GLJ Energy Publications; Construction Sector Council; Corporate Economics

Alberta: Wage and consumer price inflation rates
(2006 - 2016, *per cent*)



Source: Statistics Canada; Corporate Economics

The global economic recovery, especially in the emerging economies, has boosted the demand for commodities and caused a corresponding increase in commodity prices. For example, the price of West Texas Intermediate (WTI) crude oil should average US$97/bbl in 2011 and US$102/bbl by 2016 in response to increased demand for oil. Higher commodity prices have renewed investor confidence in the conventional and unconventional oil sectors.

Weakness in natural gas markets is constraining capital expenditures in the natural gas sector and producing an offset to the oil sector. The market for Alberta's natural gas is centred in North America. Consequently, the demand for natural gas is driven by North American market conditions. Increased U.S. shale gas output and weak demand growth stemming from an underperforming U.S. economy, have combined to boost natural gas inventory levels and depress natural gas prices. Natural gas prices are projected to range between $3.30/GJ to $4.17/GJ and average $4/GJ in 2011, and range between $5.12/GJ to $6.19/GJ and average $6/GJ in 2016.

Investment in energy and related projects is expected to be a major driver of economic growth during the 2011–2016 forecast period. In 2011, a total of $106 billion in new oil sands projects have been approved or are under construction and $16 billion have been put on hold. Statistics Canada estimates that investment in Canada's non-conventional oil extraction sector will increase by 27.8 per cent. The majority of this should occur in Alberta.

The Alberta economy is expected to grow by 3.4 per cent in 2011 and 3.1 per cent by 2016, due to increased business and consumer confidence which should offset a weak natural gas industry. Non-energy investments are expected to improve gradually as other segments of the economy expand. Royalty revenues from increased bitumen production should add to provincial revenues and offset lower revenues from natural gas sales.

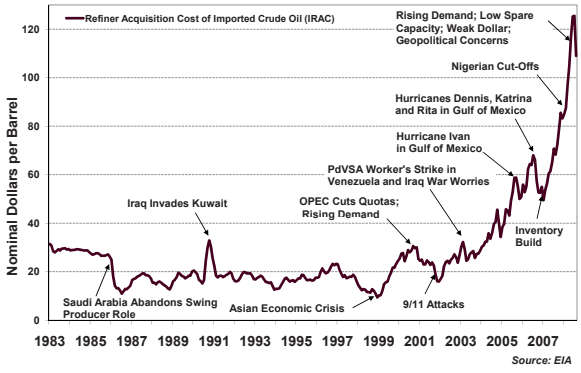
Job prospects are expected to improve and push the unemployment rate below 5 per cent as employment growth exceeds labour force growth by the end of the forecast period. The province should attract job-seekers as the unemployment rate differential between Canada and Alberta widens. Relatively low unemployment rates should place upward pressure on wages. Wage growth should outpace the growth in consumer prices and this is expected to benefit the retail and housing sectors.

Oil Markets Disruptions

History provides us with a number of instances where major oil supply disruptions had significant impacts on prices:

- 1973, through the Arab oil embargo
- 1979, the Iranian revolution
- 1980, the Iran-Iraq war
- 1990, Iraq invaded Kuwait and
- 2008, the global recession.

The political unrest in the Middle East and North Africa has resulted in a significant fracturing of the world oil market. Currently there is a disconnect between the Nymex traded West Texas Intermediate (WTI) and the European Brent. The European grade made strong gains while the WTI relented in recent weeks. The disruption of oil production in Libya put additional pressure on Brent, a highly favored commodity by European refiners due to its light, sweet quality. Stocks at the Cushing, Oklahoma hub rose significantly due to rising imports from Canada. TransCanada recently opened a new pipeline to deliver more oil to Oklahoma which could increase current storage levels.



The adjustment process is further complicated by the actions of a number of market participants. They are as follows:

1. Speculators are seeking high returns from alternative investments by behaving differently from other market players. These investors tend to be less forward-looking, emphasizing the anticipation of future market conditions over and above current conditions. In an environment where oil prices are under upward pressure due to geopolitical risks, the behavior of speculators seeking higher returns from oil adds to market volatility.

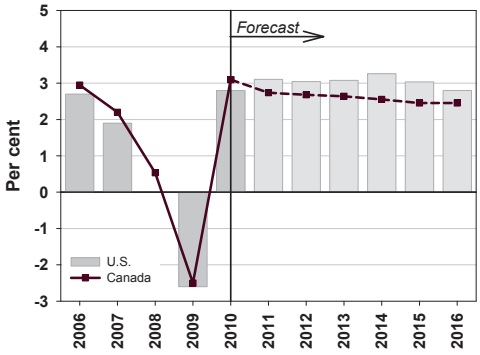
2. The Organization of Petroleum Exporting Countries (OPEC) and the International Energy Agency (IEA) are trying to stabilize oil markets. Both organizations focus on the current physical supply-demand balance and do not consider potential losses or the fear and anticipation of possible supply losses which influence speculator valuations.

   The IEA typical approach is to release strategic stockpiles while OPEC taps unused productive capacity once measurable shortages appear. But oil markets respond proactively to an anticipated supply problem.

3. The oil-price shocks of the 1970s led to major changes in energy policy in major consuming regions like Japan and Brazil, seeking to limit their dependence on Mideast oil. For example, Japan reduced its dependence on Mideast crude through conservation, diversification of energy sources and construction of expansive new oil-storage facilities. Brazil improved its energy security by promoting the extensive use of ethanol derived from domestically grown sugar cane in its transport fuel mix and by pioneering the development of deepwater oil exploration. Brazil has since moved from being a major crude oil importer to a net exporter.

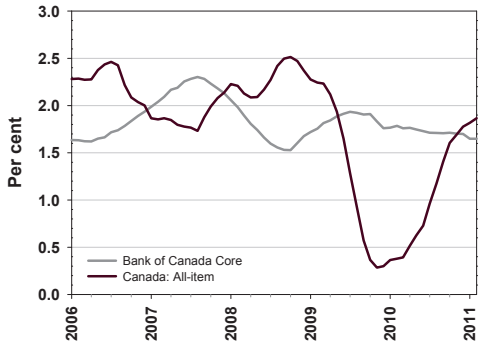
   The current U.S. administration has promoted the use of biofuels in a manner similar to the Brazilian ethanol drive of the 1970s and investment in alternative energy technologies. China, the main engine of global oil-demand growth is investing heavily in alternative energy. Such approaches provide little short-term benefit to current conditions, but could be part of a longer-term shift away from oil. A protracted civil war in Libya with the possibility of a spread to other Middle Eastern and North African countries could introduce similar energy policy responses as in the 1970s.

Canada vs. U.S.: Real GDP growth
(2006 - 2016, *per cent*)



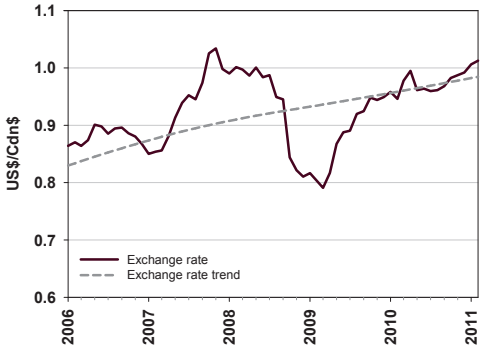
Source: U.S. Federal Bank Reserve of St. Louis; Statistics Canada; Corporate Economics

Canada: Inflation
(January 2006 - February 2011, *12-month-moving-average, per cent*)



Source: Statistics Canada; Bank of Canada; Corporate Economics

Canada: U.S./Canadian dollar exchange rate
(January 2006 - February 2011, *US$/Cdn$*)



Source: Bank of Canada; Corporate Economics

GDP Growth and Fiscal Policies

The Canadian economy grew faster than expected at 0.8 per cent in Q4 2010, driven mainly by higher demand for exports (+4 per cent) to the U.S. and the rest of the world. Economic growth is expected to average 2.7 per cent in 2011 and 2012, and 2.6 per cent in 2014 supported by economic expansions in the U.S.

The pressure to bring public finances back to balance will force both the federal and provincial governments to control spending over the forecast period. Consequently, the contribution of the government sector to GDP growth is expected to be small this year and negative in 2012–2013.

The economic growth drivers are expected to shift from consumption (+3.4 per cent in 2010), residential investment (+10.4 per cent in 2010), and government expenditures (+5 per cent in 2010), to business investments and net exports in the forecast period.

Net exports are expected to contribute to growth in 2011 and 2012, thanks to the firming U.S. demand for Canadian exports and easing growth in imports. The rebound in motor vehicle sales in the U.S. and increased global demand for commodities (energy and agriculture) is expected to continue for the rest of the forecast period which should benefit the Canadian export sector. While high commodity prices benefit commodity export regions in the Western provinces, fuel cost increases and the strong Canadian dollar should hurt manufacturing export regions in the Eastern provinces.

Labour Market

Job creation in the Canadian labour market slowed in recent months. Resource exporting provinces showed faster employment growth in early 2011. Alberta led the way with a year-over-year growth rate of 3.4 per cent (+69,000) in March compared to the national average of 1.8 per cent. Recent developments in the Middle East have increased the attractiveness of politically stable regions like Alberta as places to invest, which should boost the levels of investment and overall economic activity in the province over the long term.

Monetary Policy

The Bank of Canada decided on March 1st to hold its overnight interest rate at 1 per cent, since inflation in Canada is consistent with the Bank's expectations. The Bank is expected to wait until the second half of 2011 to resume tightening, leaving considerable monetary stimulus in place to help the Canadian economy amid heightened uncertainties.

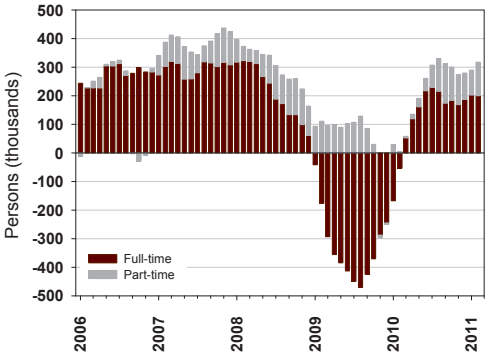
Increased financial stimulus in the U.S., with their Quantitative Easing II program to print and spend $600 Billion in U.S. currency, has raised global commodity prices and the Canadian (and other nations') currency.

The historically elevated Canada / U.S. exchange rate limits the ability of the Bank of Canada to raise interest rates; if rates go up investors will demand more Canadian bonds driving up the exchange rate even more and making life even more difficult for Canadian exporters.

Housing Market

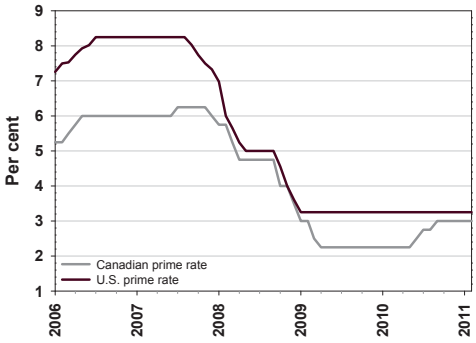
Constrained by an ageing population, the labour force, labour income and consumer spending are expected to grow at moderate rates in the near-term in Canada. Debt-heavy households are likely to react to gradually increasing interest rates and tighter mortgage rules by slowing the pace of debt accumulation and new purchases. Total housing starts in Canada declined from recent high of 13,848 units per month in 2010 to 9,900 units in February 2011. Housing starts are expected to level off over the forecast period and grow in line with population growth.

Canada: Total employment year-over-year-changes
(seasonally unadjusted, January 2006 - February 2011, *thousands of persons*)



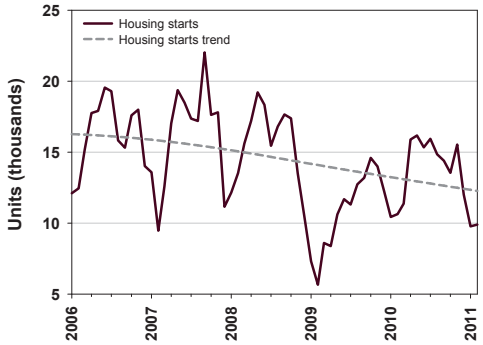
Source: Statistics Canada; Corporate Economics

Canada vs. U.S.: Prime interest rates
(January 2006 - February 2011, *per cent*)



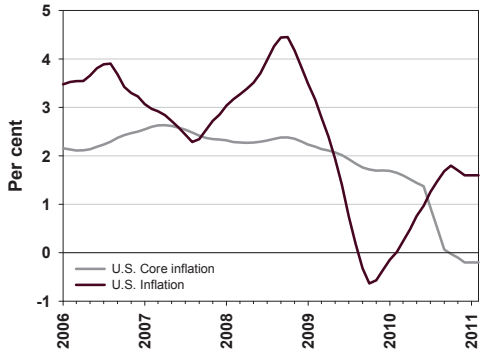
Source: U.S. Federal Bank Reserve of St. Louis; Statistics Canada; Corporate Economics

Canada: Total housing starts
(January 2006 - February 2011, *thousands of units*)



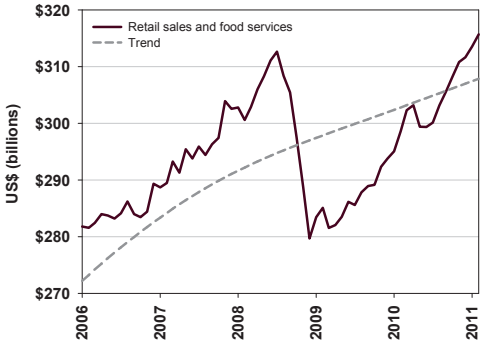
Source: Statistics Canada; Corporate Economics

U.S.: Inflation rates
(January 2006 - February 2011,
12-month-moving-average, *per cent*)



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

U.S.: Retail sales and food services (RSFS) - excluding motor vehicles and parts dealers
(seasonally adjusted,
January 2006 - February 2011, *billions of U.S. dollars*)



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

U.S.: Light weight vehicle sales - autos & light trucks
(seasonally adjusted,
January 2006 - February 2011, *millions of units*)

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

GDP Growth

Real GDP in the U.S. grew at an annual rate of 3.1per cent in Q4 2010, reflecting quarter-over-quarter positive contributions from consumer spending (+4 per cent), exports (+8.6 per cent), and non-residential fixed investment (+7.7 per cent) that were partly offset by negative contributions from private domestic investment (-18.7 per cent), and government spending (-1.7 per cent). The U.S. economic recovery is broadly based and growth should be in excess of 3.0 per cent in 2011–2013.

Inflation and Monetary Policy

The U.S. current core inflation rate in recent months has dropped to near zero, reflecting significant idle productive capacity in the U.S. economy. On March 15, the Federal Reserve Bank Open Market Committee (FOMC) decided to continue its quantitative easing (QEII) plan. The low rates of resource utilization, subdued inflation trends, and stable inflation expectations warrant exceptionally low levels for the federal funds rate over an extended period.

Fiscal Policies

On the fiscal side, the boost to consumer confidence from a new round of Federal fiscal stimulus passed in December 2010 was partially offset by state and local government spending cuts. The effect of the federal fiscal stimulus should wind down as early as the beginning of 2012 as all levels of government control their deficits and tackle accumulated debts. Consequently, reduced government spending and increased taxes will be a drag on economic growth.

Growth Drivers

Consumer spending in the U.S. has gradually gained strength in recent months, indicated by improving retail and vehicle sales. The total value of retail sales and food services grew steadily and surpassed the pre-recession peak level to reach a new high of $316 billion in February 2010. Light weight vehicle sales also continued to recover. Current sales at an annual rate of 13 million units are above trend, although still below pre-recession average sales of 16 million units per year. With overall conditions in the labour market continuing to improve the satisfaction of pent-up demand for consumer goods is creating a virtuous circle further supporting the U.S. recovery.

Labour Market

Since March 2010, total payroll employment in the U.S. labour market has grown by 1.3 million, or an average of 108,000 positions per month over the past twelve months. In March 2011, total nonfarm payroll employment rose by 216,000 positions, with job gains in the private sector (+230,000) and losses in the government sector (-14,000).

The unemployment rate of 8.8 percent in March 2011 was lower than a year ago (9.7 per cent). Among those who lost their jobs, 6.1 million were long-term unemployed (those jobless for 27 weeks or more), accounting for 45.5 percent of the total unemployed. A possible structural problem in the U.S. labour market may be the reason behind the challenges facing those long-term unemployed workers.

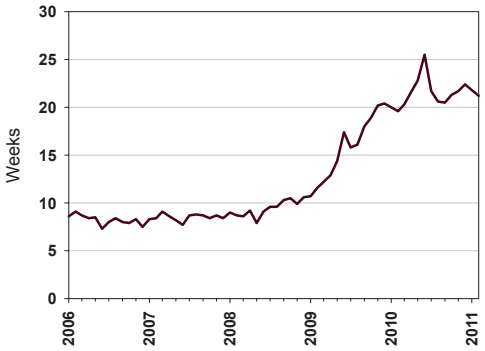
Housing Market

The housing market in the U.S. showed new signs of weakness in early 2011, after stabilizing in 2010:

- New single family home sales reached a record low in February 2011 at an annual rate of 250,000 units, down from 320,000 units sold in 2010.
- Existing-home sales fell in February, to a seasonally adjusted annual rate of 4.88 million units, following three straight monthly increases, and are 2.8 percent below the 5.02 million units in February 2010.
- Total housing inventory of existing homes available for sale at the end of February rose 3.5 percent to 3.5 million, which represents an 8.6-month supply at the current sales pace.
- Over 11 million or 23 percent of all residential properties with a mortgage in the U.S. were in negative equity at the end of the fourth quarter of 2010, up from 10.8 million or 22.5 percent in the third quarter.
- As a result housing starts are at a historic low in February 2011, at a seasonally adjusted annual rate of 479,000 units.

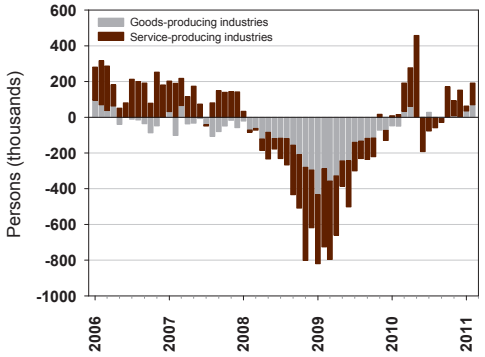
With no sign of immediate improvement in the weak housing demand, it is expected that the lack of residential investment will be a drag on economic growth in the near term.

U.S.: Median duration of unemployment
(seasonally adjusted, January 2006 - February 2011, *weeks*)



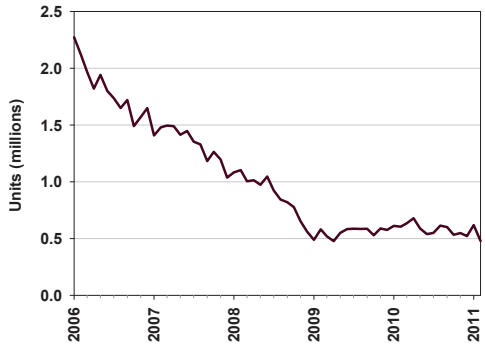
Source: U.S. Federal Bank Reserve of St. Louis; Corporate Economics

U.S.: Total employment change by sector
(month-over-month changes, January 2006 - February 2011, *thousands of persons*)



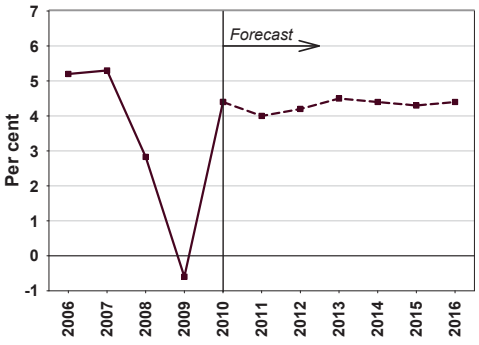
Source: U.S. Federal Bank Reserve of St. Louis; Corporate Economics

U.S.: Total new privately owned housing starts
(January 2006 - January 2011, *millions of units*)



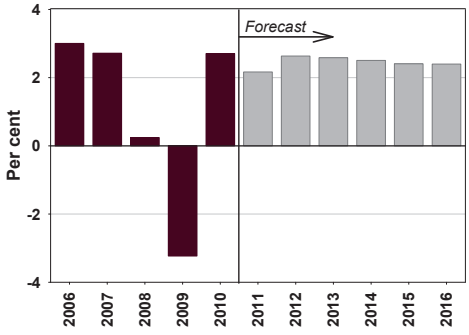
Source: U.S. Federal Bank Reserve of St. Louis; Corporate Economics

World: Economic growth rate
(2006 - 2016, *per cent*)



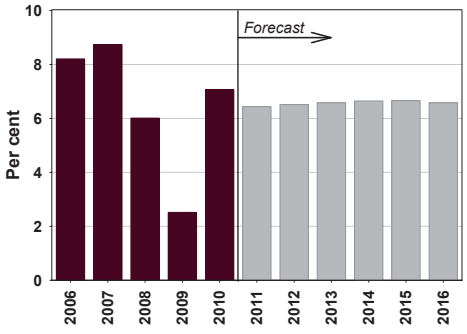
Source: International Monetary Fund (World Economy Outlook); Roubini Global Economics; World Bank; Corporate Economics

World: Advanced economies GDP growth rate
(2006 - 2016, *per cent*)



Source: International Monetary Fund (World Economy Outlook); World Bank; Corporate Economics

World: Emerging economies GDP growth rate
(2006 - 2016, *per cent*)



Source: International Monetary Fund (World Economy Outlook); World Bank; Corporate Economics

- The economic recovery continues, though with different speeds. The rebound in developed markets is subdued and fiscal risks generally exist. The emerging markets have been growing above potential with inflation pressures.
- The stability of global economic recovery will be tempered if the oil price surge caused by the turmoil in the Middle Eastern and North African (MENA) region in recent weeks persists. A higher oil price would put significant upward pressure on inflation and slow global output growth.
- Global growth would be somewhat slower this year compared to 2010. World output is expected to advance 4.0 per cent in 2011, followed by a 4.2 per cent increase in 2012. After that, we expect the global economy to expand near its potential growth rate of 4.4 percent in 2013–2016.

Advanced Economies

- The recovery in developed markets is on track in 2011, although there are measurable uncertainties and immeasurable risks on the road ahead.
- Unemployment rates remain high, and fiscal imbalances still exist across many advanced economies. The space for further fiscal and monetary policies is limited. Interest rates are generally low in developed markets, which leaves little margin for cuts.
- Expansion in the U.S. still depends largely on public sector leverages. The Eurozone has seen improvement in net exports, while soaring Brent crude oil prices and costs of commodities may have negative impacts on 2011 growth. Japan's economy has been shaken significantly by the earthquake and a large fiscal expenditure will be necessary to fund reconstruction.
- As a group, advanced economies will experience a slower growth rate of 2.1 per cent in 2011. From 2012 to 2016 developed markets are expected to grow at around 2.5 per cent on average.

Emerging Markets

- Global growth continues to be powered by strong performance among the emerging markets which are growing so fast their share of global output is expanding, especially for the highly competitive Asia-Pacific and Latin American regions.
- Domestic activities are generally strong in emerging markets enjoying continued production, employment and income gains. They are also expected to benefit from the increase in the global demand for commodities and manufactured goods and growing intra-regional trade.
- Emerging Asia will continue to be the leader with Latin American economies growing above the world average pace. The unrest in the MENA region should have a negative impact on of the growth rate for the emerging markets.
- In 2011, the emerging economies will expand 6.4 per cent as a group. From 2012 to 2016, we expect to see a slightly higher pace of 6.5 per cent, year over year.

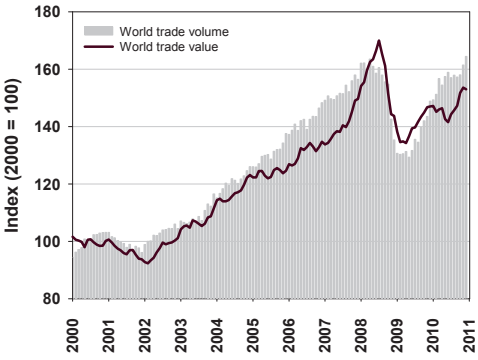
Inflation

- Strong global demand and sluggish supply, with unexpected shocks, caused considerable price increases in energy products and other commodities in 2010. The upward pressure on prices is expected to persist in 2011.
- Crude oil prices should maintain their current strength and potentially move upward further. Volatility in oil and related energy products is expected to be higher in 2011 than in 2010.
- Crop failures due to harsh weather conditions last year was greater than expected in major export countries. The price effects will not ease until the end of the 2011 growing season. According to the International Monetary Fund (IMF) World Economic Outlook, non-oil commodity prices are expected to increase by 11 per cent in 2011.
- Inflation is rising in some emerging economies including China and India as high food and oil prices begin to feed into overall price inflation. Consumer prices in these countries are projected to increase 6 per cent in 2011.
- In advanced economies, inflation will be kept subdued while productive capacity remains not fully utilized. Inflation is expected to remain at 1.3 per cent this year.

Trade

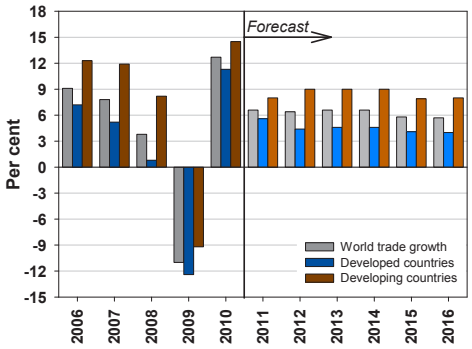
- Trade will continue to recover in 2011 supported by stronger U.S. demand and sustained growth in developing countries.
- World trade growth will slow in 2011 compared to last year as the global economic recovery moves on from an initial period of rapid acceleration to a consolidation phase.
- In 2011, demand in developed economies will remain subdued, and trade between emerging markets will show the most dynamism. As a result, world trade growth will stay well below the peak levels experienced in the globalization period of 2003 to 2007.
- World trade is estimated to have grown 12 per cent in 2010. In 2011, we forecast that world trade will grow by 6.6 per cent, followed by an annual growth rate of 6.4 per cent in 2012–2015.

World: Trade volume and value
(January 2000 - December 2010, *Index 2000 = 100*)



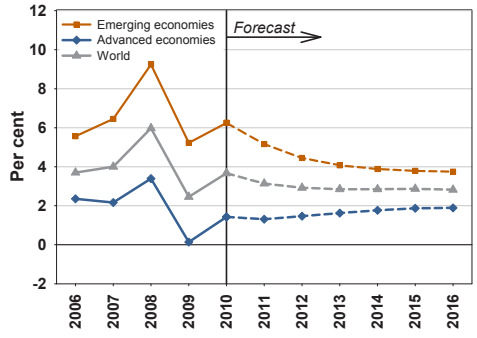
Source: Central Plan Bureau Netherlands; Corporate Economics

World: Trade growth
(2006 - 2016, *per cent*)



Source: Economist Intelligence Unit; Corporate Economics

World: Inflation rates
(2006 - 2016, *per cent*)



Source: International Monetary Fund (World Economy Outlook); World Bank; Corporate Economics

Japan's Economy Shaken by Earthquake

Earthquake, Tsunami and Nuclear Emergency

- An earthquake registered 9.0 on the Richter scale hit the coast of Sendai, Japan on March 11th, 2011, which was the strongest on record in this region. The earthquake triggered a tsunami which destroyed residential, agricultural and industrial areas, and damaged nuclear power stations which are emitting radioactive contamination. Nearly 20 per cent of Japanese nuclear capacity was shut down in the first week after the disaster.
- It should be noted that the systemic breakdown of the Fukushima Daiichi nuclear plant is ongoing and much of the damage and restoration costs remain to be identified.

Economic Losses and Impacts in Japan

- In the short term, there are downside risks to GDP growth and public debt and upside risks to inflation as economic activity weakens and industrial production slows down temporarily. The loss is potentially large considering the direct output lost due to structural damage to factories and indirect loss due to shutdown of electricity generation. So far it is estimated that the disaster will slice 6 per cent of Japan's annual real GDP, while the actual loss will depend on how long it is for the circumstances at the stricken nuclear plant to start to improve.
- In the midterm, the reconstruction by the end of this year will mitigate the slowdown and provide a potential boost in growth. However, cleanup costs will be huge given the special contamination by radioactive fallout. The restoration will further increase the fiscal burden in Japan, and the government will undoubtedly issue more debt.
- The nuclear emergency and its massive damage are raising questions about the necessity to shift to more traditional and safe fuel sources in Japan. Twenty-four per cent of Japan's electricity is supplied by nuclear power. In the short and medium term, Japan will rely on oil and coal to replace the shortage lost in nuclear capacity. The demand for liquefied natural gas (LNG) and coal will increase as well.

Impacts on Global Economy

- The disruption in Japanese economy will impact the global market through trade. Major trading partners with Japan will be temporarily affected as imports of natural resources and exports of automobiles, telecommunications and consumer electronics will experience a near-term drag.
- The temporary loss of capacity in Japan will benefit competitive economies which share similar industrial structures. The producers of automobiles and transportation equipments in North America, Europe and Asia are likely to see an increase in demand. Disruptions in power generation will also boost demand for fuel and generators.
- The overall impact of the earthquake and tsunami in Japan on global growth should be limited, but it could mean increased inflationary pressures for a longer period.

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 2011						BASE FORECAST					
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
ASSUMPTIONS											
Global Economy											
World Gross Domestic Product (annual % change)	5.2	5.3	2.8	-0.6	4.4	4.0	4.2	4.5	4.4	4.3	4.4
The United States											
U.S. Real Gross Domestic Product growth (chained 2000 dollar) (%)	2.7	1.9	0.0	-2.6	2.8	3.1	3.0	3.1	3.3	3.0	2.8
Canada											
Real Canada Gross Domestic Product growth, (chained 2002 dollar) (%)	2.9	2.2	0.5	-2.5	3.1	2.7	2.7	2.6	2.6	2.5	2.5
Prime Business Loan Rate (%)	5.8	6.1	4.7	2.4	2.6	3.6	5.0	6.0	6.0	6.3	6.3
Exchange Rate (US$/Cdn$)	0.88	0.94	0.94	0.88	0.97	1.01	1.00	0.98	0.97	0.96	0.96
Alberta											
Gross Domestic Product (%)	6.2	2.5	0.0	-2.6	3.6	3.4	3.6	3.4	3.3	3.1	3.1
Total Employment Growth (%)	4.5	4.9	2.9	-1.0	0.2	2.4	2.3	1.9	2.1	2.3	2.3
Unemployment Rate (%)	3.5	3.5	3.5	6.3	6.6	6.0	5.6	5.5	5.1	4.8	4.8
Housing Starts ('000 Units)	49.0	48.3	29.2	19.9	24.1	26.5	29.8	29.6	28.9	30.0	30.0
Inflation Rate (%)	3.9	4.9	3.2	-0.1	0.8	1.8	2.0	2.1	2.1	1.8	1.8
Crude Oil Price - WTI (US$/bbl)	66.1	72.4	99.6	62.0	79.4	97.0	99.0	99.0	100.0	105.0	102.0
Alberta Power Pool Prices ($/MWh)	80.5	66.9	87.4	49.5	52.3	N/A	N/A	N/A	N/A	N/A	N/A
Alberta Natural Gas Price - AECO/NIT ($/GJ)	6.2	6.1	7.7	3.8	3.8	4.0	4.0	5.0	5.0	6.0	6.0
Average Wage Rate Increase for All Industries (%)	10.3	5.5	5.2	-2.0	1.8	3.1	3.9	4.4	4.0	3.9	3.9
FORECAST											
Calgary Economic Region (CER)											
Gross Domestic Product (%)*	11.6	4.5	-0.4	-4.7	2.7	3.3	3.5	3.3	3.0	2.9	2.8
Total population**	1,188	1,230	1,251	1,296	1,338	1,352	1,371	1,393	1,420	1,448	1,473
Total Employment ('000 Persons)	718	745	768	765	755	770	790	809	825	840	850
Total Employment Growth (%)	8.0	3.8	3.1	-0.4	-1.3	2.0	2.6	2.4	2.0	1.8	1.2
Unemployment Rate (%)	3.4	3.2	3.3	6.3	7.0	6.5	5.2	4.8	4.3	3.9	3.9
Inflation Rate (%)	4.6	5.0	3.2	-0.1	0.8	2.5	2.4	2.3	2.2	2.0	2.0
Building Permits ($billion)	6.0	7.1	5.1	4.5	3.8	4.1	4.2	4.4	4.4	4.7	4.5
Low Forecast						*3.9*	*3.9*	*4.0*	*3.9*	*4.0*	*4.0*
High Forecast						*4.3*	*4.4*	*4.8*	*4.9*	*5.3*	*5.0*
Housing Starts ('000 Units) (CMA)	17.0	13.5	11.4	6.3	9.3	8.2	9.6	10.2	10.5	10.7	10.2
Non-Residential Building Price Inflation (%) (CMA)	12.8	17.7	13.7	-7.7	-2.2	6.8	6.9	4.4	3.7	7.2	7.2

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 2011

						BASE FORECAST					
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
DEMOGRAPHY											
Total Population ('000 Persons)	992	1,020	1,043	1,065	1,072	1,083	1,097	1,115	1,137	1,159	1,179
Total Population Growth (%)	*3.7*	*2.9*	*2.2*	*2.2*	*0.6*	*1.0*	*0.0*	*1.3*	*1.6*	*1.9*	*2.0*
Net Migration ('000 Persons)	25.6	17.6	12.4	12.9	0.0	4.0	7.0	11.0	12.0	10.0	8.4
REAL ESTATE											
Residential Market											
Housing Starts ('000 units)	14.1	10.9	9.6	5.0	7.3	6.4	7.5	8.0	8.2	8.4	8.0
New House Price Inflation (%)	43.6	16.2	0.7	-6.7	1.7	6.2	3.2	2.5	3.0	3.0	2.7
Total Building Permits mid point ($billions)	4.9	5.6	4.0	3.7	2.9	3.0	3.3	3.6	3.6	3.8	3.7
Low Forecast						*2.5*	*3.0*	*3.3*	*3.2*	*3.3*	*3.1*
High Forecast						*3.5*	*3.6*	*3.9*	*4.0*	*4.3*	*4.3*

Numbers may not add up due to rounding

Table 3 - City of Calgary Population Projection

City of Calgary

FORECAST COMPLETED: March 2011

		BASE FORECAST					
(Persons except rates)	2010	2011	2012	2013	2014	2015	2016
Total Population	1,071,800	1,082,800	1,097,100	1,115,200	1,136,500	1,159,000	1,179,400
Total Net Migration	0	4,000	7,000	11,000	12,000	10,000	8,400
Total Births	16,900	16,900	16,900	16,900	17,000	17,100	17,100
Total Deaths	5,900	6,000	6,200	6,400	6,600	6,800	7,100
Total Natural Increase	11,000	10,800	10,700	10,600	10,400	10,300	10,000
Total Population Growth Rate	0.6%	1.0%	1.3%	1.6%	1.9%	2.0%	1.8%

Population by five-year cohort

		BASE FORECAST					
(Ages)	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
0-4	71,100	75,200	78,900	82,100	85,000	85,300	85,600
5-9	61,200	61,900	63,500	65,300	67,500	72,400	76,900
10-14	60,200	60,000	60,200	61,000	62,300	63,700	65,100
15-19	64,800	63,200	62,000	61,700	62,000	62,500	63,000
20-24	77,400	74,200	71,800	70,400	69,000	67,800	67,000
25-29	92,900	91,300	88,800	85,600	82,900	80,800	78,700
30-34	89,600	89,900	91,400	93,100	95,200	95,700	95,000
35-39	87,600	87,600	87,700	89,000	90,400	92,400	93,700
40-44	83,300	84,900	86,700	87,800	89,000	90,100	91,000
45-49	86,800	85,900	85,100	84,400	83,700	84,500	86,700
50-54	81,200	82,600	83,700	85,400	87,200	88,000	87,700
55-59	65,100	69,000	73,000	76,100	79,100	81,700	83,700
60-64	48,900	51,900	53,700	56,500	60,400	64,600	68,800
65-69	32,700	34,500	38,000	41,400	44,500	47,900	51,100
70-74	23,300	24,400	25,600	27,400	29,200	31,100	33,000
75-79	19,100	19,200	19,400	19,700	20,300	21,000	22,100
80-84	14,400	14,800	15,100	15,400	15,500	15,700	15,900
85-89	8,200	8,400	8,700	9,100	9,500	9,900	10,300
90+	4,000	3,900	3,800	3,800	3,800	3,900	4,100
Total	**1,071,800**	**1,082,800**	**1,097,100**	**1,115,200**	**1,136,500**	**1,159,000**	**1,179,400**

Numbers may not add up due to rounding

Table 4 - Calgary Economic Region Population Projection

Calgary Economic Region

FORECAST COMPLETED: March 2011

		BASE FORECAST					
(Persons except rates)	2010	2011	2012	2013	2014	2015	2016
Total Population	1,338,200	1,352,200	1,370,800	1,392,500	1,420,000	1,448,100	1,473,400
Total Net Migration	0	5,000	8,800	13,800	15,000	12,500	10,500
Total Births	21,200	21,100	21,100	21,200	21,300	21,400	21,400
Total Deaths	7,400	7,500	7,700	7,900	8,200	8,500	8,800
Total Natural Increase	13,800	13,600	13,400	13,300	13,100	12,900	12,600
Total Population Growth Rate	*1.9%*	*1.0%*	*1.4%*	*1.6%*	*2.0%*	*2.0%*	*1.7%*

Population by five-year cohort

		BASE FORECAST					
(Ages)	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
0-4	88,600	93,900	98,500	102,500	106,100	106,900	107,200
5-9	76,400	77,200	79,100	81,500	84,400	90,200	95,900
10-14	75,800	75,500	75,800	76,600	78,100	79,600	81,200
15-19	81,000	79,200	78,000	77,600	78,100	78,700	79,300
20-24	96,300	92,300	89,400	87,700	86,200	84,800	84,000
25-29	115,800	113,700	110,600	106,600	103,200	100,600	98,000
30-34	112,300	112,700	114,400	116,300	118,800	119,300	118,400
35-39	110,000	110,000	110,300	111,800	113,500	115,900	117,400
40-44	104,300	106,200	108,500	110,000	111,600	113,100	114,200
45-49	108,600	107,500	106,500	105,500	104,700	105,800	108,400
50-54	101,300	103,200	104,800	106,900	109,100	110,100	109,800
55-59	80,700	85,500	90,600	94,500	98,600	102,000	104,600
60-64	60,800	64,500	66,700	70,100	75,000	80,100	85,300
65-69	40,700	43,000	47,300	51,500	55,300	59,500	63,600
70-74	28,900	30,300	31,900	34,000	36,400	38,700	41,100
75-79	23,700	23,800	24,000	24,300	25,100	26,100	27,500
80-84	17,800	18,400	18,800	19,100	19,200	19,500	19,700
85-89	10,200	10,500	10,800	11,300	11,800	12,300	12,700
90+	5,000	4,800	4,800	4,700	4,800	4,900	5,100
Total	**1,338,200**	**1,352,200**	**1,370,800**	**1,392,500**	**1,420,000**	**1,448,100**	**1,473,400**

Numbers may not add up due to rounding

Table 5 - Selected Commodity Prices

City of Calgary

FORECAST COMPLETED: March 2011

						BASE FORECAST					
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
CONSTRUCTION COMMODITIES											
Iron and steel products	-2.5	-2.3	15.7	-3.0	-0.9	3.0	2.7	-1.5	3.7	-2.6	3.2
Aluminum products	15.7	-5.5	-0.4	-19.8	10.9	-1.7	2.7	8.1	1.5	4.0	-0.3
Wood	3.7	8.7	-3.5	11.0	-1.6	-12.1	-1.2	3.2	-1.8	2.3	12.0
Asphalt**	51.1	9.1	61.8	-24.5	5.9	3.7	-4.8	-5.4	5.8	10.1	-5.0
OPERATIONAL COMMODITIES											
Rubber	29.9	2.0	13.0	-9.2	70.6	-14.2	-0.7	-1.5	-0.7	-0.8	0.0
Diesel oil	1.9	8.1	26.4	-31.1	10.5	18.9	2.6	0.8	3.4	6.0	-1.6
Vehicle parts	3.5	7.9	4.6	5.3	1.7	5.3	4.4	5.7	1.2	1.1	1.1

Numbers may not add up due to rounding

** Based on Ontario Ministry of Transportation Asphalt Price Index

A Case of Fiscal Imbalance: the Calgary Experience

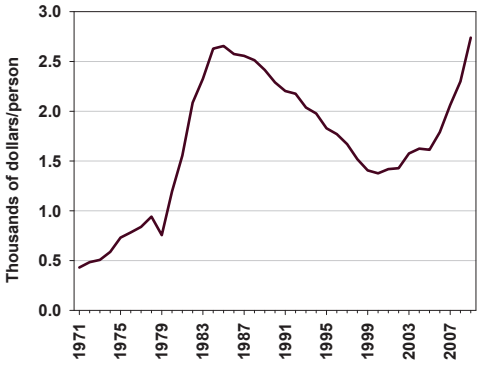
The first decade of the 21st century was one of increased prosperity for the Alberta economy in general and Calgary in particular. Before the boom ended in summer 2008, the local economy reaped the benefits of strong demand for commodities from emerging world economies. In this period, prices for energy such as crude oil and natural gas rose sharply and the province realized the benefits from a combination of rising prices and increased sales volumes. Increased business profits and government revenues created the basis for a sharp increase in investment spending, which in turn, resulted in job creation. Higher employment growth created a robust demand for labour which resulted in increased net migration to the region. Strong population growth and growing incomes drove consumer spending which further increased business cash flow. Growth resulted in further growth.

During this period, The City of Calgary experienced increased fiscal stress and budgetary pressures as the need for funding to keep up with the increase in demand for municipal services and infrastructure from a growing population far exceeded its financial ability. Calgary's municipal government debt increased substantially from $1.6 billion in 1988 to $2.1 billion in 2007 and $2.9 billion in 2009. This is in sharp contrast to the situation at the federal or provincial orders of government, wherein the federal government experienced declining debt balances since 1999, and the Government of Alberta paid off all sovereign debt in 2000 and managed to accumulate a surplus of $35 billion by the end of 2007.

Naturally, a general question is raised: "Why does The City of Calgary experience financial stress in providing services to Calgarians, even in good economic times?" A short answer is that, Calgary over-contributes to the balance sheets of the federal and provincial governments, leaving the local government1 with less than adequate revenue to fund its spending responsibilities.

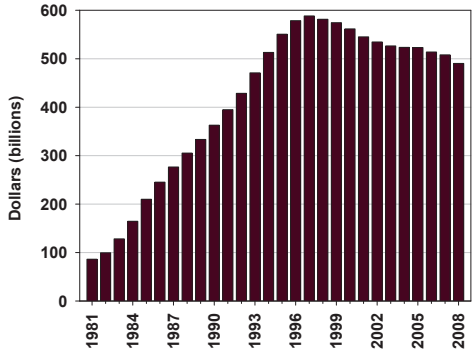
Using an inflow/outflow method[3], an estimate based on the Provincial Economic Accounts (PEA) data show that: over the years, residents and businesses in Calgary have contributed significantly to the fiscal position of the federal and provincial governments. In fact, from the tax payers' perspective, there has been an over-contribution situation in Calgary over the past two decades: a large amount of tax payments went to the federal and provincial governments, leaving less than adequate funding for the municipal government to invest in local infrastructure. Only after adding intergovernmental transfer payment revenues from the other orders of government (mainly from the Alberta Government), was the local government able to bridge the funding gap from 1988 to 2007.

The City of Calgary per capita long-term debt
(1971 - 2009, *thousands of dollars/person*)



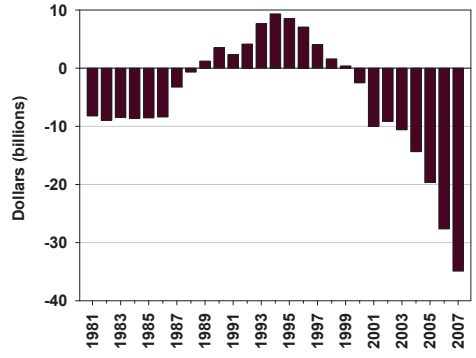
Source: The City of Calgary, various "Financial Report"; Corporate Economics

Federal government net financial debt in Canada
(1981 - 2008, *billions of dollars*)



Source: Statistics Canada; Corporate Economics

Provincial government net financial debt in Alberta
(1981 - 2007, *billions of dollars*)



Source: Statistics Canada; Corporate Economics

3 The Centre for Spatial Economics (C4SE) developed a methodology for The City of Calgary in 2005 to estimate Calgary's contribution to the federal and provincial government fiscal conditions. See The Centre for Spatial Economics (2005) "The City of Calgary's Contribution to Federal and Provincial Government Balances".

Appendix A

Government fiscal positions in Calgary

	1988		2007		1988-2007
Government fiscal positions in Calgary ($billion)	$billion	Share of total	$billion	Share of total	Compound annual growth rate
Total revenue excluding intergovernment transfers	**7.3**	**100%**	**27.4**	**100%**	**7%**
Federal government	3.4	47%	14.0	51%	8%
Provincial government	3.1	43%	11.6	42%	7%
Local government	0.7	10%	1.8	7%	5%
Total expenditure excluding intergovernment transfers	**7.0**	**100%**	**16.3**	**100%**	**5%**
Federal government	2.4	34%	4.2	26%	3%
Provincial government	3.2	46%	8.3	51%	5%
Local government	1.4	20%	3.8	23%	5%
Net contribution excluding intergovernment transfers	**0.7**	**100%**	**12.2**	**100%**	**17%**
Federal government	1.1	164%	9.9	81%	12%
Provincial government	0.1	17%	3.7	31%	20%
Local government	-0.5	-81%	-1.5	-12%	-5%
Net contribution with intergovernment transfers	**0.7**	**100%**	**12.2**	**100%**	**17%**
Federal government	0.5	78%	8.9	73%	16%
Provincial government	0.1	14%	2.6	21%	19%
Local government	0.1	8%	0.7	6%	15%

Sources: Statistics Canada; Corporate Economics

There are several underlying reasons for the over-contribution:

- The provincial and federal governments have revenue sources that are closely related to economic growth, such as income and sales taxes.
- The municipality does not have access to growth related taxes. The main source of tax revenue, the property tax, is not inflation sensitive which constrains the ability of the local government to raise revenues.
- There is a mismatch in revenue sources and roles and responsibilities amongst the three orders of government in Canada.

Big cities like Calgary are not only the leaders of economic and employment growth in Canada, but also the places where knowledge economies expand and highly educated and skilled workers locate. Over-contribution in Calgary is not sustainable in the long-run - it hurts not only the local economy, but also Alberta and Canada as a whole:

- Over-contribution results in insufficient infrastructure funding in Calgary, which The City of Calgary addressed by raising its debt rate to one of the highest among big Canadian cities.
- High debt puts increasing pressures on the municipality to raise property taxes, which exposes local taxpayers to the risk of bearing a higher tax burden.
- Over-contribution reduces the quality of life, which constrains the local and national economy. Over the period 1988-2008, five out of the six biggest CMAs in Canada had faster employment growth than the national average and Calgary led the pack with a growth rate of 85 per cent.

The consistent over-contribution situation in Calgary means that the municipal government needs help from the other orders of government in Canada to fund new infrastructure. The provincial and federal governments can help The City of Calgary by either giving more intergovernmental transfer funds or granting new revenue sources to The City.

In evaluating options for additional funding for municipalities, we must consider the risk of raising the already high overall tax burden on taxpayers, because as often noted "**there is only one taxpayer**" and the tax room is limited. A preferred scenario for taxpayers is that there should not be an increase in their total tax bill, namely additional funding for municipalities should not increase the tax burden upon the tax payers.

The Government of Canada and Government of Alberta both have access to growth related sources of revenue and have benefited largely from the long-lasting economic boom. They have the necessary capacity to help fiscally strained cities like Calgary. As a result, we call for the federal and provincial governments to put more emphasis on promoting economic growth and helping big cities for the benefit of the province and the nation.

Appendix B

Gross Domestic Product by Industry

Calgary Economic Region

millions in 2002$

Industry	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Agriculture, fishing and hunting	278	284	170	281	384	366	339	541	1,234	993	864
Forestry and logging	14	18	17	18	21	21	20	16	15	14	15
Mining and oil and gas extraction	11,946	11,972	12,166	10,505	11,789	11,365	13,943	14,220	12,703	11,674	11,621
Utilities	1,078	1,278	1,570	1,422	824	997	1,481	1,639	1,173	1,428	1,148
Construction	4,008	3,931	3,980	4,076	4,384	5,057	5,595	5,679	6,373	5,141	5,116
Manufacturing	5,749	5,080	4,605	4,701	5,167	5,480	6,057	5,626	5,767	4,862	5,740
Wholesale trade	2,448	2,265	2,402	2,792	2,807	3,300	3,132	3,786	3,315	3,005	3,466
Retail trade	1,763	2,049	2,294	2,320	2,533	2,502	3,005	3,228	3,242	3,027	3,381
Transportation and warehousing	2,953	3,081	3,330	3,164	3,283	3,946	3,781	4,137	3,626	3,808	3,920
Information and cultural industries	1,499	1,733	1,742	2,124	2,088	2,062	2,380	2,251	2,399	2,353	2,512
Finance and insurance, real estate and renting and leasing and management of companies and enterprises	8,540	8,483	9,085	9,998	10,112	10,869	11,964	12,984	13,062	13,139	13,737
Professional, scientific and technical services	3,174	3,766	3,619	3,679	4,137	4,465	4,997	5,099	5,340	5,147	4,956
Administrative and support, waste management and remediation services	1,001	1,081	1,142	1,098	1,391	1,237	1,452	1,552	1,621	1,646	1,379
Arts, entertainment and recreation	336	451	437	436	475	397	462	477	446	481	518
Educational services	1,818	1,617	1,757	1,870	1,808	2,098	2,401	2,164	2,158	2,414	2,535
Health care and social assistance	1,949	2,043	2,111	2,355	2,249	2,565	2,696	2,862	3,038	3,147	3,265
Accommodation and food services	1,151	1,176	1,128	1,174	1,316	1,238	1,478	1,305	1,475	1,397	1,357
Other services	801	1,093	1,170	1,211	1,363	1,296	1,302	1,536	1,626	1,611	1,641
Public administration	1,472	1,440	1,510	1,419	1,653	1,632	1,479	1,894	2,117	2,130	2,081
Total GDP	**51,979**	**52,837**	**54,234**	**54,644**	**57,784**	**60,891**	**67,961**	**70,998**	**70,728**	**67,417**	**69,250**
GDP Growth (per cent)	*7.4%*	*1.7%*	*2.6%*	*0.8%*	*5.7%*	*5.4%*	*11.6%*	*4.5%*	*-0.4%*	*-4.7%*	*2.7%*

Numbers may not add up due to rounding

Source: Corporate Economics. Estimates based on data from Statistics Canada.

Appendix B

Location Quotients

Calgary Economic Region

Industry	2005	2006	2007	2008	2009	2010
All Industries	1.00	1.00	1.00	1.00	1.00	1.00
Agriculture	0.36	0.29	0.44	0.93	0.88	0.70
Forestry, Fishing, Mining, Oil and Gas	3.39	3.83	3.98	3.71	3.52	3.46
Utilities	0.76	1.44	1.60	0.87	1.29	0.91
Construction	1.39	1.37	1.36	1.39	1.39	1.38
Manufacturing	0.52	0.56	0.57	0.60	0.58	0.64
Food, Beverage and Tobacco Product Manufacturing	0.69	0.68	0.61	0.61	0.56	0.66
Wood Product Manufacturing	0.30	0.42	0.61	0.90	0.84	0.58
Printing and Related Support Activities	0.57	0.60	0.77	0.86	0.83	0.70
Chemical Manufacturing	0.60	0.74	0.65	0.21	0.36	0.65
Plastics and Rubber Products Manufacturing	0.14	0.28	0.23	0.27	0.51	0.19
Non-Metallic Mineral Product Manufacturing	0.81	0.73	0.99	0.57	0.73	1.00
Primary Metal Manufacturing	0.53	0.72	0.09	0.24	0.05	0.04
Fabricated Metal Product Manufacturing	0.55	0.64	0.60	0.85	0.82	1.16
Machinery Manufacturing	0.93	1.20	1.16	1.40	1.15	0.95
Computer and Electronic Product Manufacturing	0.75	0.98	0.90	0.91	0.78	0.98
Electrical Equipment, Appliance and Component Manufacturing	0.07	0.60	0.93	0.51	0.00	0.57
Furniture and Related Product Manufacturing	0.99	0.55	0.65	0.90	1.28	1.31
Miscellaneous Manufacturing	0.94	0.81	0.81	0.42	0.03	0.67
Durables	0.55	0.59	0.62	0.68	0.61	0.72
Non-durables	0.48	0.51	0.49	0.48	0.54	0.52
Trade	0.95	0.90	0.89	0.92	0.88	0.93
Wholesale Trade	1.07	0.95	1.16	1.09	0.93	0.97
Retail Trade	0.91	0.88	0.81	0.87	0.87	0.92
Transportation and Warehousing	1.44	1.19	1.21	0.99	1.14	1.17
Finance, Insurance, Real Estate and Leasing	1.02	0.96	0.99	1.05	1.00	0.98
Professional, Scientific and Technical Services	1.74	1.76	1.63	1.69	1.58	1.42
Legal Services	0.98	1.70	1.31	1.05	1.01	1.16
Architectural, Engineering and Design Services	2.84	3.43	2.79	2.55	2.55	2.28
Computer System Design Services	1.79	1.10	1.19	1.31	1.38	1.13
Management, Scientific and Technical Services	1.20	1.16	1.30	1.92	1.65	1.10
Other Professional Services	1.28	1.10	1.15	1.30	1.02	1.12
Business, Building and Other Support Services	0.94	0.89	1.00	0.93	1.03	0.91
Educational Services	0.90	0.97	0.84	0.73	0.84	0.83
Health Care and Social Assistance	0.86	0.83	0.82	0.80	0.79	0.86
Information, Culture and Recreation	1.08	1.02	1.01	0.95	1.03	1.08
Information and Cultural Industries	1.07	0.99	0.96	0.93	0.92	0.96
Arts, Entertainment and Recreation	1.09	1.06	1.07	0.97	1.15	1.21
Accommodation and Food Services	0.91	1.00	0.82	0.87	0.90	0.86
Accommodation Services	0.74	0.89	0.58	0.67	0.60	0.87
Food Services and Drinking Places	0.95	1.03	0.88	0.91	0.97	0.86
Other Services	0.95	0.88	1.04	1.00	1.01	1.04
Public Administration	0.57	0.53	0.62	0.65	0.63	0.58

Sources: Statistics Canada, Special Tabulation; Corporate Economics

Appendix B

Employment by Industry

Calgary Economic Region

thousands of persons

Industry	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
All Industries	575.9	599.1	614.0	629.5	650.7	664.9	718.3	745.5	768.1	765.0	755.2
Agriculture	4.7	5.6	4.7	5.9	6.4	5.1	4.4	6.5	13.7	12.6	9.4
Forestry, Fishing, Mining, Oil and Gas	28.9	35.7	36.1	32.1	38.0	43.5	55.7	60.4	57.5	51.4	50.3
Utilities	4.1	5.1	8.0	5.9	3.3	3.9	7.7	9.7	5.9	8.6	6.0
Construction	49.2	46.9	50.0	53.2	57.4	57.8	63.7	68.1	76.9	73.4	74.4
Manufacturing	57.2	54.6	54.1	57.0	53.6	47.9	51.9	51.6	53.4	47.3	49.5
Trade	84.8	86.6	90.0	92.8	99.3	99.9	102.8	105.3	111.5	106.1	110.9
Transportation and Warehousing	40.0	40.4	42.8	39.8	39.7	47.2	41.5	44.0	37.6	42.6	41.5
Finance, Insurance, Real Estate and Leasing	34.3	33.6	34.6	37.6	38.7	41.6	43.0	46.2	50.6	49.7	47.6
Professional, Scientific and Technical Services	60.0	72.3	65.6	62.2	67.4	74.6	83.6	81.3	90.2	85.4	79.8
Business, Building and Other Support Services	23.3	20.5	23.7	24.5	29.2	25.1	26.7	31.2	28.7	30.7	27.0
Educational Services	33.9	31.8	34.0	35.1	32.2	40.6	48.8	43.7	39.1	45.0	44.8
Health Care and Social Assistance	49.8	49.5	51.3	55.5	53.4	60.9	64.2	67.2	68.0	70.3	77.6
Information, Culture and Recreation	27.5	33.6	32.0	37.9	34.7	32.4	33.3	34.6	32.6	36.1	36.8
Accommodation and Food Services	39.2	39.3	39.4	41.9	46.2	37.6	44.4	39.1	42.1	43.3	40.3
Other Services	21.3	26.4	29.1	29.5	30.4	27.3	27.0	33.2	33.5	36.0	34.9
Public Administration	17.9	17.4	18.6	18.5	20.8	19.6	19.6	23.6	26.8	26.5	24.5

Sources: Statistics Canada, Special Tabulation; Corporate Economics

Appendix B

Employment Distribution by Industry

Calgary Economic Region

per cent

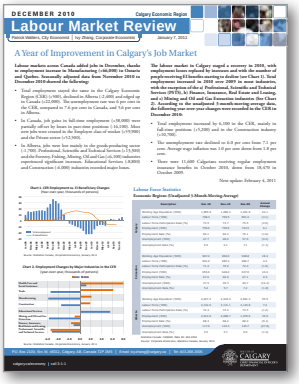
Industry	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
All Industries	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Agriculture	0.8	0.9	0.8	0.9	1.0	0.8	0.6	0.9	1.8	1.7	1.2
Forestry, Fishing, Mining, Oil and Gas	5.0	6.0	5.9	5.1	5.8	6.5	7.8	8.1	7.5	6.7	6.7
Utilities	0.7	0.9	1.3	0.9	0.5	0.6	1.1	1.3	0.8	1.1	0.8
Construction	8.5	7.8	8.1	8.4	8.8	8.7	8.9	9.1	10.0	9.6	9.9
Manufacturing	9.9	9.1	8.8	9.1	8.2	7.2	7.2	6.9	7.0	6.2	6.6
Trade	14.7	14.5	14.7	14.7	15.3	15.0	14.3	14.1	14.5	13.9	14.7
Transportation and Warehousing	6.9	6.7	7.0	6.3	6.1	7.1	5.8	5.9	4.9	5.6	5.5
Finance, Insurance, Real Estate and Leasing	6.0	5.6	5.6	6.0	5.9	6.3	6.0	6.2	6.6	6.5	6.3
Professional, Scientific and Technical Services	10.4	12.1	10.7	9.9	10.4	11.2	11.6	10.9	11.7	11.2	10.6
Business, Building and Other Support Services	4.0	3.4	3.9	3.9	4.5	3.8	3.7	4.2	3.7	4.0	3.6
Educational Services	5.9	5.3	5.5	5.6	4.9	6.1	6.8	5.9	5.1	5.9	5.9
Health Care and Social Assistance	8.6	8.3	8.4	8.8	8.2	9.2	8.9	9.0	8.9	9.2	10.3
Information, Culture and Recreation	4.8	5.6	5.2	6.0	5.3	4.9	4.6	4.6	4.2	4.7	4.9
Accommodation and Food Services	6.8	6.6	6.4	6.7	7.1	5.7	6.2	5.2	5.5	5.7	5.3
Other Services	3.7	4.4	4.7	4.7	4.7	4.1	3.8	4.4	4.4	4.7	4.6
Public Administration	3.1	2.9	3.0	2.9	3.2	2.9	2.7	3.2	3.5	3.5	3.2

Sources: Statistics Canada, Special Tabulation; Corporate Economics

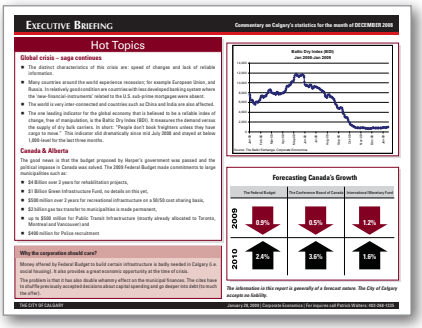
Many of our publications are available on the internet at **www.calgary.ca/economy**.

Monthly
Energy Markets and the Economy

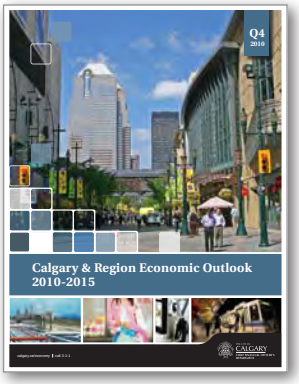
Monthly
Review of Economic Trends: Labour Market Review



Commentary
Executive Briefing



Quarterly
Calgary and Region Economic Outlook



Who We Are

Over the past ten years Corporate Economics has researched dozens of economic topics and developed reliable methods of forecasting and analysis. Monitoring economic trends allows us to develop unique insights on how external events are impacting the local economy and the Municipal Corporation. We provide services in four areas: forecasting, information provision, consulting and policy analysis.

For more information, please contact:

Patrick Walters at 403.268.1335 or
patrick.walters@calgary.ca

Ivy Zhang at 403.268.2005 or
ivy.zhang@calgary.ca

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 Monetary Fund (World Economy Outlook), World Bank, Central Plan Bureau Netherlands, and others.