Spring 2012




Calgary & Region Economic Outlook 2012-2017

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CALGARY ECONOMIC DEVELOPMENT

THE CITY OF CALGARY
CHIEF FINANCIAL OFFICER'S DEPARTMENT

This document provides a forecast of selected economic indicators for Calgary and region for the period 2012-2017. The economy is monitored and reported on an ongoing basis. The forecast report is prepared semi-annually: once in the spring and then in the fall.

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Completed April 2012

Executive Summary

City of Calgary

Calgary Census Metropolitan Area's apartment vacancy rate in 2011 was estimated at 1.8 per cent, down from 5.4 per cent in 2009 and 3.4 per cent in 2010. Stronger population growth in 2011, driven by positive net migration, created an increase in demand for residential space and this pushed the vacancy rate lower.

Conditions including low interest rates, increased employment levels, higher labour incomes and improved housing affordability together support new housing construction.

Housing starts are expected to total 8,400 units in 2012 and 9,200 units in 2014. In the early stage of the forecast, housing starts should increase in response to low vacancy rates, higher employment levels and improved housing affordability. Later in the forecast, housing starts should grow in line with the rate of household formation.

The vacancy rate for office space in Calgary was estimated at 6.2 per cent for the fourth quarter (Q4) 2011, down from 11.1 per cent in Q4 2010. During this period, 1.2 million square feet of space was added to inventory while 4.0 million square feet of space was absorbed. Lower vacancy rates should improve conditions for new office space construction.

For industrial space, the vacancy rate was 3.5 per cent in Q3 2011, down from 5.2 per cent in Q4 2009. Over the last ten years the vacancy rate for industrial space has hovered between 1.4 and 6.0 per cent. As in the office sector, employment growth throughout the forecast period should also improve conditions for the construction of new office space.

Building permitting activity in 2012 is expected to moderate from its 2011 level as external uncertainty dampens consumer and business confidence. However, employment growth, higher labour incomes, positive net migration, low mortgage rates and low real estate vacancy rates should combine to support building permitting activities. Building permit values are expected to range from $3 to $4 billion in 2012 and 2013, then increase to $3.5 to $4.5 billion in 2014.

Calgary Economic Region

The Calgary Economic Region (CER) should benefit from strong investment in heavy oil as it is home to a significant portion of head offices in the energy sector. The Calgary Economic Region's gross domestic product (GDP) is expected to grow by 3.5 per cent in 2012 and 3.8 per cent in 2015. However, economic growth is expected to decline to 3.4 per cent by 2017 as a relatively tight labour market will restrict increased production and consumer spending.

Total employment in the Calgary Economic Region was estimated at 776,100 in 2011, up from 755,200 in 2010 and 765,000 in 2009. The forecast calls for total employment to average 812,000 in 2012 and 856,000 in 2014.

The unemployment rate was estimated at 6.2 per cent in 2011, down from 7.0 per cent in 2010. The unemployment rate is expected to fall to 4.9 per cent in 2012 and 4.4 per cent in 2014 as employment growth exceeds labour force growth.

Calgary's consumer inflation rate was estimated at 2.2 per cent in 2011, up from 0.8 per cent in 2010. World economic activity is expected to moderate in 2012, which should reduce demand for commodities and cause commodity prices and local consumer prices to inflate at a slower pace. Faster growth in the world economy during 2013 and 2014 is expected to result in higher consumer price inflation in each of those years.

The non-residential building price inflation rate is expected to accelerate over the 2012 to 2014 period and grow at rates close to those that were experienced in the 2003 to 2005 era. Lower unemployment rates are expected drive wage inflation and escalate construction costs since labour is a major component of construction costs.

The public sector's contribution to economic growth, by way of capital investment, is forecasted to be lower in the short-term as provincial and federal governments reduce spending to balance their public finances. Consequently, this should offset construction cost escalation. Over the medium to long-term, public sector spending should add to construction cost pressures as spending returns to more normal levels.

Alberta

The Alberta economy expanded by 3.7 per cent in 2011 and should grow by 3.3 per cent in 2012, as global uncertainty continue to adversely affect business and consumer confidence, reducing the rate of growth in business and consumer spending. The Alberta economy should gather momentum and grow by 3.5 per cent in 2013 as firm oil prices boost non-residential construction. Economic growth is expected to trend downwards to 3.1 per cent by 2017 as an aging population constrains the rate of labour force growth.

Investment in the energy sector is expected to drive the Alberta economy over the forecast period. This increase should spur activity and further employment in other supporting sectors.

The unemployment rate for 2011 was 5.5 per cent, down from 6.5 per cent in 2010 and is expected to fall to 4.9 per cent in 2012 and to 4.2 per cent in 2017. Slow labour force growth resulting from an aging population should depress the unemployment rate over the forecast period.

WTI crude oil prices should moderate at around US$100/bbl over growing concerns over the strength of the global economy. Political uncertainty should act as an offset to lower oil prices.

Natural gas prices are anticipated to remain low over the near term on the North American market due to excess supply from shale gas production and weak demand.

Canada

The Canadian economic growth rate decelerated in the second half of 2011 and is expected to slow further in 2012, underperforming the U.S. for the rest of forecast period. Economic growth in Canada will be constrained by: a) record consumer debt-to-income ratios (151 per cent in Q3 2011) and slowing job creation; b) government spending restraint; and c) the negative impact on exports from a strong Canadian dollar. Over the period, the main growth driver in Canada will be business investment, especially in the energy sector.

Despite Canadian inflation reaching a high level in 2011, the Bank of Canada has opted to keep the overnight rate at its current level until late 2013. This should provide supportive monetary conditions for consumers and businesses and keep the Canadian dollar from further appreciation.

United States

The U.S. economy grew by 1.7 per cent in 2011, driven by private consumption and investment instead of government stimulus. More importantly, economic growth in 2011 created 1.5 million non-farm employee jobs, which is a sign of a real recovery. The GDP growth forecasts for the next 5 years are as follows: 2.1 per cent in 2012, 2.4 per cent in 2013 and above 3 per cent from 2014 to 2017. The main growth drivers are expected to be consumer spending and business investment.

Consumer price increases in the U.S. were at the higher end of the U.S. Federal Reserve's (Fed) target in 2011, but are expected to subside in the near future due to weak demand and low inflation expectations. To support growth the Fed has promised to keep short-term interest rates at current low levels until late 2014. Historically low interest rates and depressed housing prices have resulted in the highest housing affordability in thirty years. Combined with the improving labour market, this should help the recovery in the U.S. housing market.

World

The outlook for the global economy has deteriorated in 2012 from 2011. Growth prospects have slowed for advanced and emerging economies. Financial conditions have worsened and downside risks have sharply escalated. The global economy is expected to expand 3.1 per cent in 2012, and 3.5 per cent in 2013, much lower than the forecast three months ago.

Forecast Risks

Economic forecasts are always subject to upside and downside risks. Risks to the current forecast are mostly outside of the Alberta and Calgary economies and are weighted to the downside.

Downside

The Alberta public sector's contribution to economic growth through capital investment should be lower in 2012 than in recent years. In contrast, Calgary's population grew 10.9 per cent from 2006 to 2011. Higher service demands in conjunction with cuts in public infrastructure investment may compromise the level of service of institutional infrastructure.

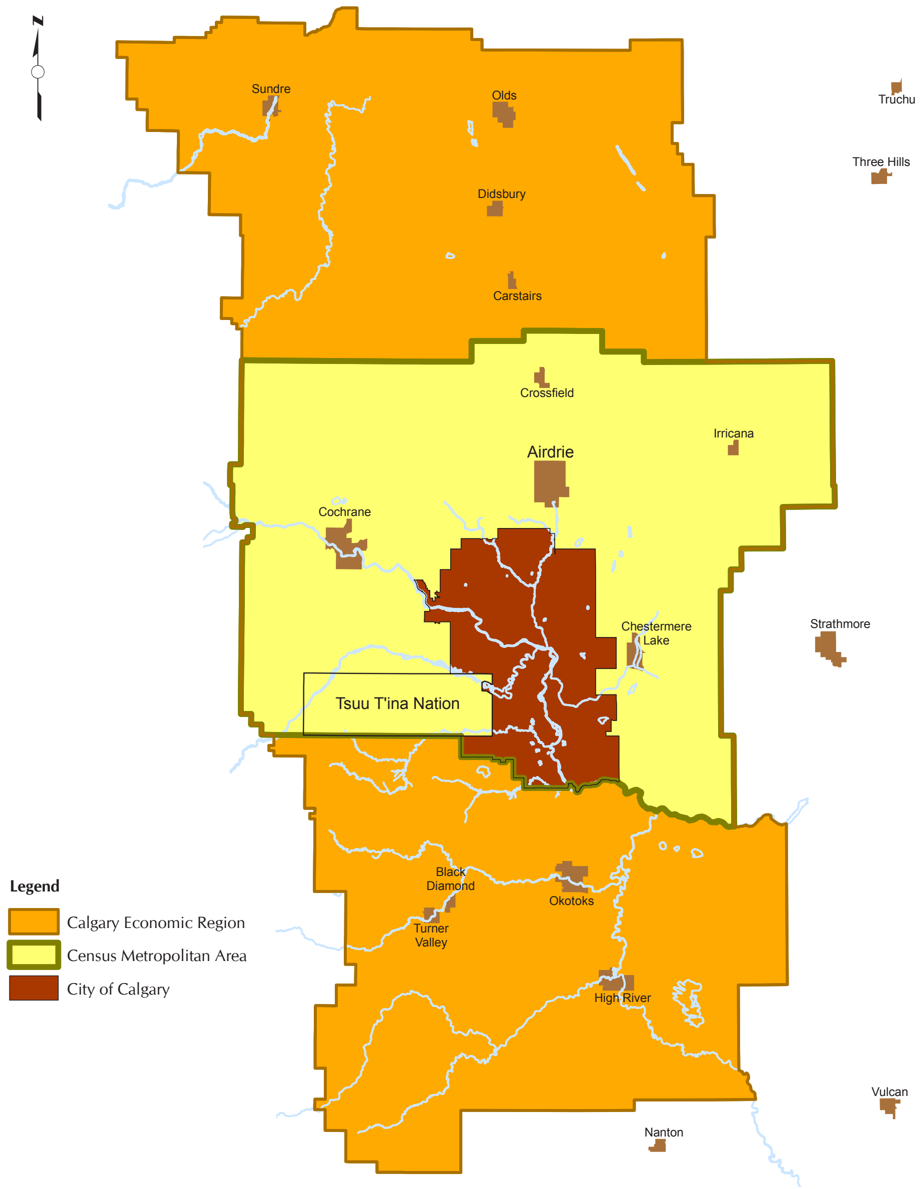
The sovereign financial debt crisis in the Eurozone poses ongoing instability to the financial markets around the world. Eroding consumer and business confidence presents a downside risks to the Alberta outlook. Debt retrenchment in both the private and public sector, while necessary in the medium and long-term, should cause economic growth to slow in the near-term. The need for such correction is essential to the housing market stability, which relies heavily on households maintaining assets and income to further consumption of housing. As the provincial government attempts to rein in debt by managing expenditures, an increase in consumer awareness would also pose a downside risk.

New technologies of horizontal drilling and fracturing of reservoir rocks could significantly increase the production of crude oil in the U.S., particularly in the unconventional shale formations. By the end of 2011, U.S. crude oil production was 5.9 million barrels per day. Forecasts suggest that, with these new technologies, the production capacity in the U.S. could increase by 0.5 to 1 million barrels per day each year through 2015, driven by Bakken oil in North Dakota and Montana, Eagle Ford in Texas, and the Utica Shale. This should seriously threaten the exports of Canadian produced crude oil. Canada currently produces around 2.5 million barrels per day. The increase in U.S. production could crowd out the demand for Canadian oil and put downward pressures on WTI prices.

Upside

Political instability in Libya has disrupted its oil supplies to international markets. Iranian uranium energy production conflict with the rest of the United Nations, Iran's threat of closing the Strait of Hormuz over the European Union oil sanctions, and the potential inaction by OPEC (Organization Producing Exporting Countries) have combined to provide an upside for the Alberta economy, since such restrictions will continue to drive up oil prices in the short term.

Calgary Economic Region Map

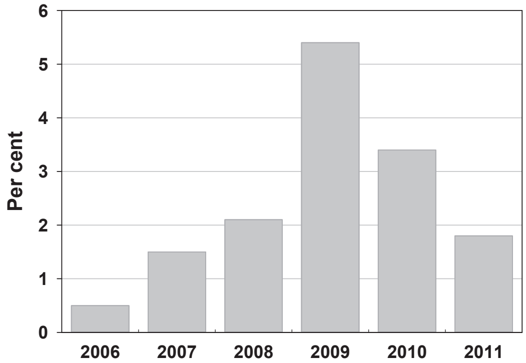


Real Estate

Apartment Vacancy Rate

The apartment vacancy rate in the Calgary Census Metropolitan Area (CMA) in 2011 was estimated at 1.8 per cent, down from 3.4 per cent in 2010 and 5.4 per cent in 2009. Job losses and negative net migration resulted in a reduced need for residential space and this drove the vacancy rate higher in 2009. With the economic recovery in 2011, job growth resulted in positive net migration to Calgary which created an increased demand for residential space and this pushed the vacancy rate lower.

Calgary CMA: Apartment vacancy rate
(2006 - 2011, *per cent*)

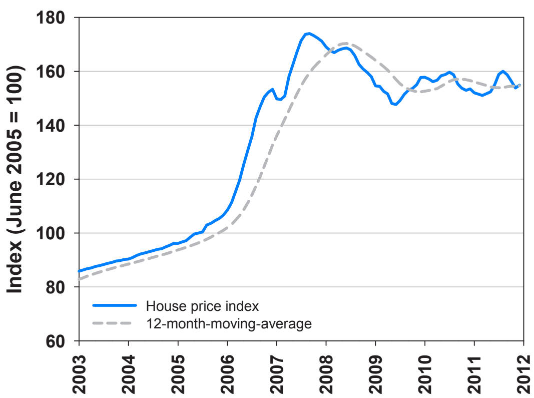


Source: Statistics Canada; Corporate Economics

Re-sale Market

Calgary's re-sale house prices grew steadily between 2003 and 2007. The prices then declined from the 2007 peak to 2011 with some fluctuation. The shift in prices over time is largely explained by the changing supply and demand balance for housing. For example, the spike in house prices in 2006 and 2007 was accompanied by a sharp increase in employment growth in 2006 and 2007. The weakness in house prices over the 2008-2011 period is partly explained by the labour market recession in 2009 and 2010, where the region experienced reduced employment levels and labour incomes. The trend in Calgary house prices over the 2003 to 2011 period is much different from those which existed in the Vancouver and Toronto markets, where prices trended steadily upward over time.

Calgary CMA: House price index
(January 2003 - December 2011, *index June 2005 = 100*)

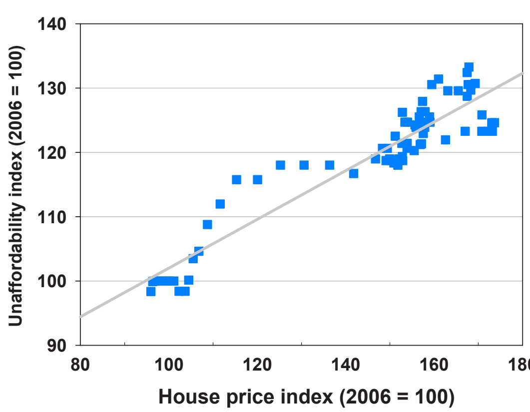


Source: Statistics Canada; Corporate Economics

Housing affordability is inversely related to fluctuations in the average house price: higher houses prices result in a smaller number of Calgarians being able to qualify for mortgages. The average house price in Calgary in 2011 was lower than in 2007. Consequently, the reduction in house prices in the 2007 to 2011 period is associated with an improvement in housing affordability.

The reduction in Calgary house prices from 2007 to the present has contributed to making house prices in Calgary relatively more affordable when compared to some metropolitan areas in Canada. Consequently, relatively affordable housing prices should attract would-be migrants to the Calgary area.

Calgary: House price and housing unaffordability
(January 2005 - December 2011)



Source: Statistics Canada; Corporate Economics

The inventory of re-sale housing has trended downwards since 2009. In February 2009, the inventory coverage for re-sale homes was estimated at 7.2 months and as of December 2011, it was 5.4 months[1]. The data analysis shows an inverse relationship between inventory coverage and house price inflation: lower coverage is associated with higher inflation rates and higher coverage is linked to lower inflation rates. Lower residential vacancy rates in 2012 should support an increased need for new residential space. The need for new housing would be further boosted by relatively low interest rates, increased employment levels, higher labour incomes and improved housing

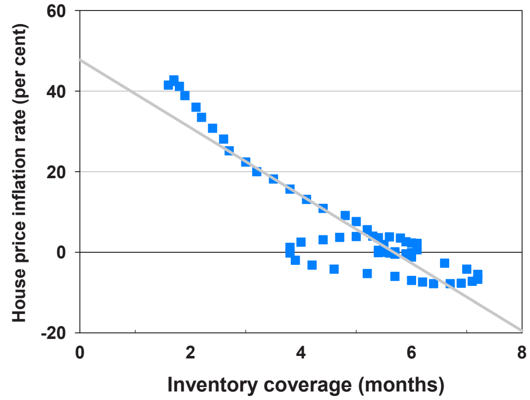
1 The inventory coverage is defined as the ratio of the month end inventory of unsold homes relative to the number of homes sold during that month. The ratio provides an estimate of the number of months it would take to absorb the current inventory given current rates of sale.

affordability. On the supply side, reduced inventory levels would support housing prices and generate a need for new housing supply.

Housing starts totaled 7,726 units in 2011, up from 7,295 units in 2010. The number of single dwelling starts was estimated at 3,843 units in 2011, down from 4,345 units in 2010. The reduction in single family starts was adversely affected by tighter mortgage borrowing rules. In 2011, multi-dwelling starts rose to 3,843 from 2,950 units in 2010.

A number of conditions are now in place to support the construction of new housing including low interest rates, increased employment levels, higher labour incomes and improved housing affordability. Housing starts are expected to total 8,400 units in 2012 and 9,200 units in 2014. Later in the forecast, housing starts should grow in line with the rate of household formation. Slower population growth arising from an aging population should restrain the rate of household formation.

Calgary: Inventory coverage and house price inflation rate
(January 2007 - December 2011)

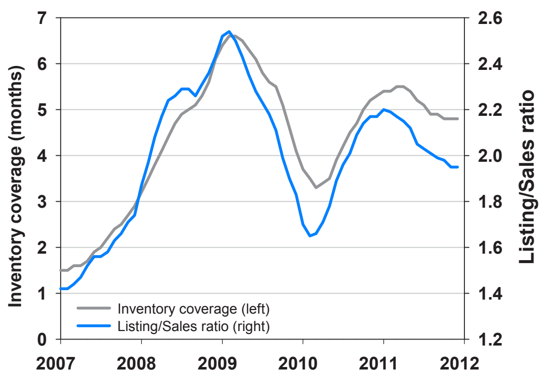


Source: MLS; CMHC; Statistics Canada; Corporate Economics

Office Space Market

The vacancy rate for office space in Calgary was estimated at 6.2 per cent for the fourth quarter (Q4) 2011, down from 11.1 per cent in Q4 2010. In this period, 1.2 million square feet of space were added to inventory while, 4.0 million square feet were absorbed. During, the recent economic recession, employment levels fell and consequently, absorption rates became negative as some tenants returned space back to the market. Employment growth over the forecast period should drive the absorption of office space and push the vacancy rate lower. Lower vacancy rates should improve the conditions for the construction of new space.

Calgary: MLS House supply indicators
(January 2007 - December 2011)



Source: MLS; Corporate Economics

Industrial Space Market

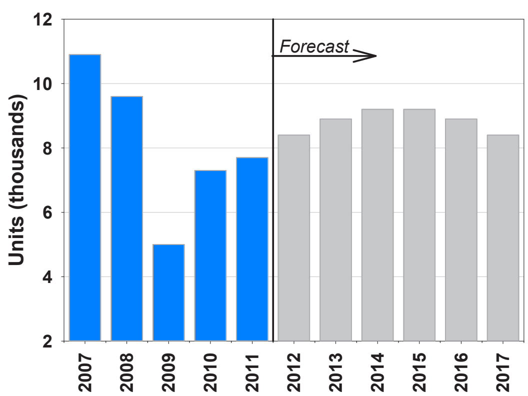
For industrial space, the vacancy rate was 3.5 per cent in Q3 2011, down from 5.2 per cent in Q4 2009. Over the last ten years it hovered between 1.4 and 6.0 per cent. As in the office sector, employment growth throughout the forecast period should improve conditions for the construction of new office space.

Building Permit Values

Total building permit values were estimated at $4.5 billion in 2011, up from $2.9 billion in 2010. This result was at the top of our forecast range of $3.5 to $4.5 billion. The recovery in investment intentions was based in both the residential and non-residential sectors. The value of permits issued in the non-residential sector grew 86 per cent and the residential sector increased by 33 per cent.

The forecast expects the total building permit values to remain at the 2011 level in 2012 as external uncertainty dampens consumer and business confidences. However, employment growth, increased labour incomes, positive net migration, low mortgage rates and low real estate vacancy rates should combine to support the construction of new space. Building permit values are expected to range from $4 to $5 billion in 2012 and increase to $4.5 and $5.5 billion in 2013 and 2014.

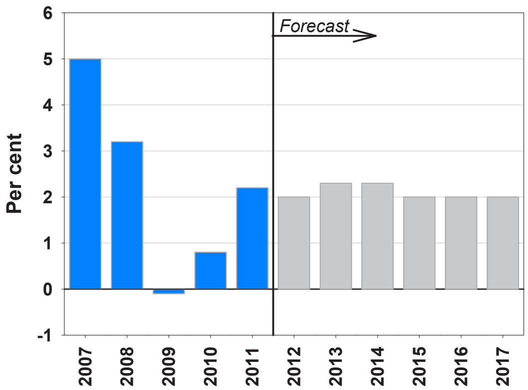
Calgary: Housing starts
(2007 - 2017, *thousands of units*)



Source: CMHC; Statistics Canada; Corporate Economics

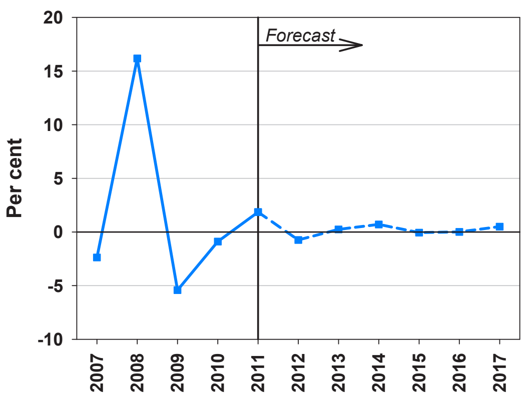
Inflation Rate

Calgary Economic Region: Inflation rate
(2007 - 2017, *per cent*)



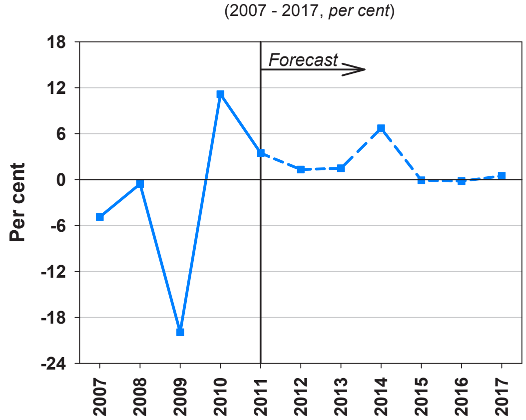
Source: Statistics Canada; Corporate Economics

Iron and steel products price inflation
(2007 - 2017, *per cent*)



Source: Statistics Canada; Corporate Economics

Aluminum inflation
(2007 - 2017, *per cent*)



Source: Statistics Canada; Corporate Economics

Consumer Prices

Calgary's consumer inflation rate was estimated at 2.2 per cent in 2011, up from 0.8 per cent in 2010. The inflation rate is expected to dip slightly to 2.0 per cent in 2012 in response to lower imported inflation. Economic uncertainty outside Calgary should dampen consumer and business confidences and reduce the rate of growth for the world economy. The slower pace of economic activity should reduce the demand for commodities and dampen the rate of inflation for commodity prices. The lower rate of commodity price inflation should feed through to consumer prices and cause the rate of inflation to moderate. Faster growth in the world economy in 2013 and 2014 should result in higher demand for commodities and cause consumer price inflation to rise in each of those years. In addition, population growth in the Calgary economy should increase the demand for residential space and cause the price of accommodation to increase and add further pressure to the inflation rate.

Commodity Prices

Iron and Steel

The inflation price for iron and steel price index rose 1.8 per cent in 2011, from 2010. China is the biggest consumer of iron ore and the biggest producer of steel; these commodities are also major players in non-residential construction including shipbuilding. Construction activity in 2012 should slow due to the anticipated fiscal tightening to reign in debt in North America, and the economic slowdown in the Eurozone due to the sovereign debt crisis. The stock piles of iron ore in China could hamper Brazilian exports (being the second largest exporter of iron ore) to China and further softened demand. The federal government's interests in shipbuilding infrastructure improvements in British Columbia and Nova Scotia and increased activity in the mining, oil and gas sectors of Western Canada should help spur the demand for steel in 2012. Brazil is expected to increase its domestic consumption for steel with the infrastructure upgrades necessary to meet the expectations of hosting the Soccer world cup and Olympics for 2014 and 2016, respectively. The potential increase in automobile production to replace aging vehicles in the U.S. should add to the upward momentum. The expected economic global slowdown should moderate the upward momentum in 2012, but stronger upward momentum in demand for iron and steel should emerge in 2013 and the rest of the forecast period.

Aluminum

The price of aluminum rose by 3.5 per cent in 2011 compared to 2010. The need for sustainability and energy efficient automobiles has spurred the use of aluminum in replacing alloy steel in the production process, which together with the potential increasing demand for automobiles in emerging markets should see sustained upward pressure in aluminum prices in 2012 and 2013. Increase in the average age of vehicles on the road and the continued

improvement in growth recovery prospects in the U.S. should further spur the demand for new automobiles which should translate to increased demand for aluminum. In tropical environments, major roofing in housing construction employs aluminum. The expected increase in growth in developing economies should also add to upward pressure on aluminum prices.

Asphalt

Asphalt is used as a replacement for cement in road construction. Contract stipulations often determine which of the two products is used. Given that it is a by-product of petroleum, rising oil prices should cause asphalt prices to rise. The continued increase in political tensions and sanctions in the Middle East (Iran) should continue to push oil prices upwards in 2012 and in turn push asphalt prices higher.

Rubber

It takes about four to five years to harness natural rubber. Adverse weather conditions for planting rubber should tighten rubber supply. The need for tires on new and used automobiles has generated significant upward swings in natural rubber prices. This is expected to continue into 2012 given the increasing appetite for automobiles in emerging markets. At the same time, the increasing trend to switch from natural to synthetic should provide some degree of dampening on natural rubber prices.

Diesel

As diesel is a petroleum by-product, diesel price is tracked to crude oil prices (WTI) increasing pressure on crude oil prices is expected to sustain and should keep upward pressure on diesel prices in 2012. The expectations of US$100 per barrel for 2012 should keep price inflation for diesel around 3.1 per cent.

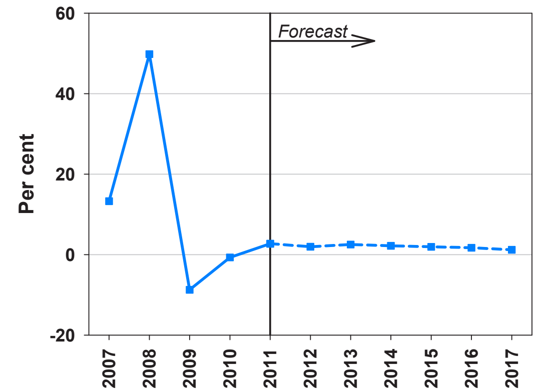
Vehicle Parts

Despite the volatility in natural rubber prices the relative stability of vehicle parts prices was influenced by the relative stability of iron, steel, and aluminum prices. The 1.8 per cent rise in prices in 2011 suggests that the earthquake and tsunami in Japan (March 2011) did not significantly alter the supply chain in the auto-parts industry.

Wood

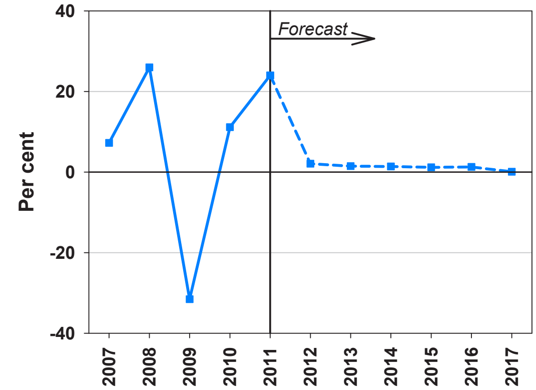
Regionalized housing starts in the U.S. increased by over 700,000 units for January 2012. Coupled with China's increasing urban working population, have provided the upward pressure on wood prices. However, the sovereign debt crisis in Europe and the Chinese government's attempt to control house price inflation has soften the upward momentum. The net effect is expected to increase prices from 2012 going forward. Wood price inflation was 0.4 per cent for 2011 and is expected to be around 0.22 per cent in 2012. The U.S. is a major importer of Canadian lumber and their demand is sufficient to sustain Canada's lumber supply.

Asphalt price inflation
(2007 - 2017, *per cent*)



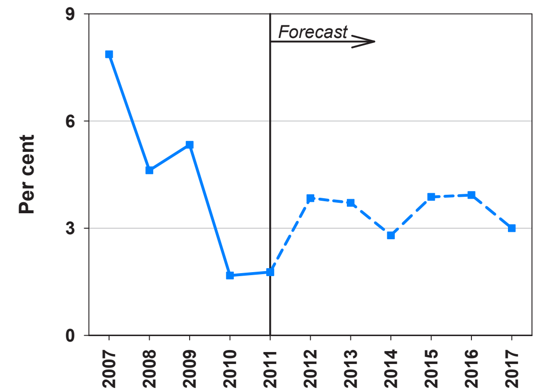
Source: Statistics Canada; Corporate Economics

Diesel oil price inflation
(2007 - 2017, *per cent*)

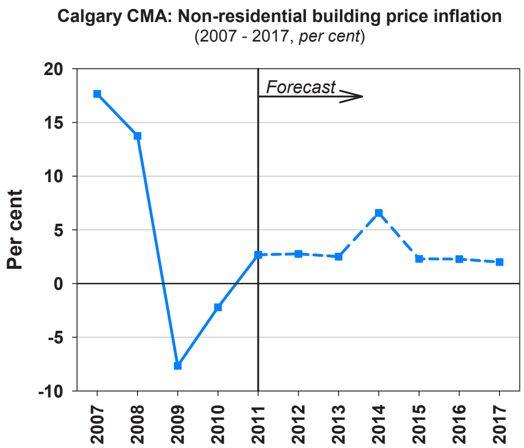


Source: Statistics Canada; Corporate Economics

Vehicle parts price inflation
(2007 - 2017, *per cent*)



Source: Statistics Canada; Corporate Economics



Source: Statistics Canada; Corporate Economics

Non-residential Building Price Inflation

Non-residential building costs are affected by four major components: interest rates, oil prices, exchange rates and wages. The upward pressure on oil prices, wage inflation and expectation of a weaker Canadian currency suggest an increase in the non-residential building price index; however, lower interest rates should provide some offset. In the medium term, expect rising wages to push up non-residential construction costs. In the longer range horizon, expect rising oil prices to push the Canadian dollar higher. This should dampen the upward pressure of non-residential building price inflation.

Construction Cost Escalation - Calgary

Type of Capital Work		5 year capital plan				
		3 year budget cycle escalation *per cent*			2 year escalation *per cent*	
	2012	2013	2014	2015	2016	2017
1. Buildings	4%	6%	6%	5%	4%	4%
Accumulated Annual Cost Escalation Multiplier (M)	1.04	1.10	1.17	1.22	1.27	1.32
2. Structures	6%	6%	4%	4%	3%	3%
Accumulated Annual Cost Escalation Multiplier (M)	1.06	1.12	1.17	1.22	1.25	1.29
3. Roads	5%	5%	6%	5%	5%	4%
Accumulated Annual Cost Escalation Multiplier (M)	1.05	1.10	1.17	1.23	1.29	1.34
4. Underground	5%	4%	5%	5%	5%	5%
Accumulated Annual Cost Escalation Multiplier (M)	1.05	1.09	1.15	1.20	1.26	1.33
5. Other Capital projects	4%	4%	6%	5%	5%	4%
Accumulated Annual Cost Escalation Multiplier (M)	1.04	1.08	1.15	1.20	1.26	1.31

Sources: Statistics Canada, Conference Board of Canada, and The City of Calgary Corporate Project and Asset Management

Construction costs are expected to grow at an average of 4.7 per cent annually over the next 5 years. The forecast point to an increase in construction costs at a rate higher than the Consumer Price Index.

Labour Demand and Supply Study

According to Alberta's Occupational Demand and Supply Outlook 2011-2021, Alberta's labour demand is expected to increase by 607,000 workers and the province is expected to experience a labour shortage of up to 114,000 workers during this period. Much of this growth will occur in the Calgary Economic Region where labour demand is expected to increase from 755,100 workers in 2010 to over 943,000 workers in 2020, an increase of 187,900.

Calgary employers have faced chronic labour shortages over the past decade and several indicators suggest that labour shortages are again on the rise. Unemployment in the Calgary Region has declined from a high of 7.7 per cent in May 2010 to 4.9 per cent in January 2012. During the same period, employment increased by 51,300 workers, the labour force grew by 29,800 workers (the third highest increase of any economic region in Canada) and Calgary maintained the highest labour force participation rate of any city in Canada.

Calgary employers may need to access markets outside of Calgary to meet a portion of their hiring needs. Canada has a labour force of over nearly 18 million workers and over the past decade, net inter-provincial migration to Alberta has ranged from 10,000 workers to 45,000 workers per year.

International labour markets will also play a role in meeting Calgary's labour demand. Twenty-six per cent of all new foreign workers entering Canada in 2010 came from the U.S., the U.K., or Ireland (ranked 1st, 7th and 13th respectively by number of foreign workers entering Canada). The U.S. and U.K. labour markets are both large, with approximately 140 million and 32 million workers respectively. Unemployment in both countries is high by historical standards at 8.4 per cent and 8.5 per cent respectively in 2011. The Irish labour force is comparatively small with about 2.1 million workers in 2011, but in November 2011, the country had the second-highest unemployment rate in the European Union.

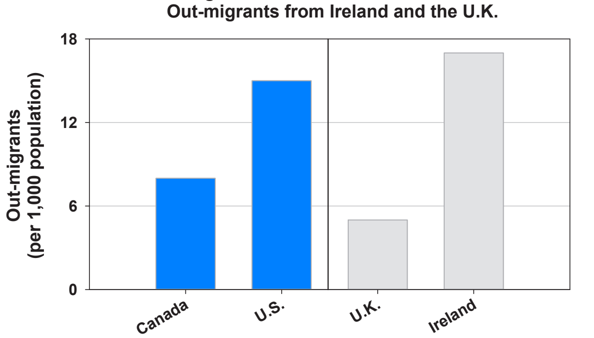
Workers in the U.S. have historically been highly mobile. In 2011, there were 4.8 million inter-state migrants in the U.S. While this is down from a high of 8.4 million migrants in 2001, the rate of inter-state migration in the U.S. is still nearly double that of inter-provincial migration Canada. Between 2005 and 2010, long-term out-migration from the U.K. ranged from a high of 427,200 in 2008 to a low of 339 in 2010. As Ireland's unemployment rate has risen, out-migration has tripled from 26,500 out-migrants in 2004 to 76,400 out-migrants in 2011.

According to the Calgary Labour Demand Model, recently released by Calgary Economic Development, there are 411 occupations that are expected to experience growth in demand over the 2010 to 2020 period. Among these occupations, 25 have been identified as critical high-demand occupations in Calgary. It is expected that 23 per cent of the increase in new worker demand in Calgary will be for workers in these 25 occupations.

Calgary Economic Development has developed in-depth recruiting guides for these 25 in-demand occupations which are publicly available at **www.calgaryeconomicdevelopment.com**. Each one reveals the top ten cities/regions in Canada, the U.S., the U.K., and Ireland to find workers in these occupations. There are in-depth wage comparisons as well as an out-migration probability index score for each city/region that will assist recruiters in knowing which locations boast workers that are most likely to relocate for employment. The goal is that this research will help to close the shortage gap of 114,000 workers needed in Alberta, and especially in Calgary, over the next ten years.

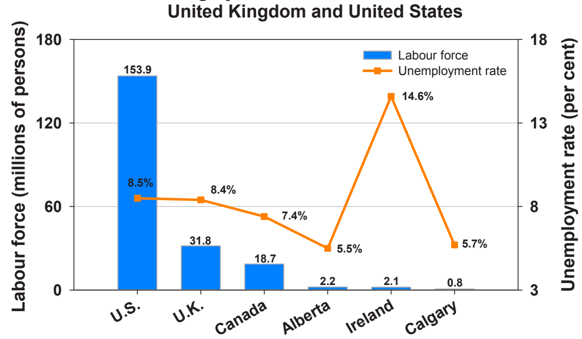
Calgary Economic Development

Migrants per 1,000 population: Inter-provincial/state migrants in Canada and the U.S. & Out-migrants from Ireland and the U.K.



Source: Canada, CSO Population and Migration Estimates, American Community Survey, UK International Passenger Survey, analysis by RDA Global. US and Ireland figures for 2011, UK figures for 2010, Canada figures for 2009

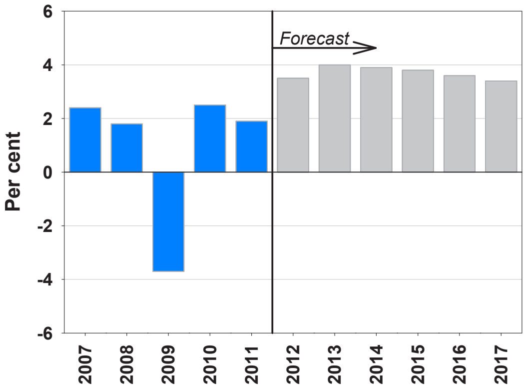
Labour force and unemployment rate, 2011: Calgary, Alberta, Canada, Ireland, United Kingdom and United States



Source: Statistics Canada Labour Force Survey; U.S. Bureau of Labour Statistics, OES Database; Eurostat. Calgary figures reflect Calgary Economic Region

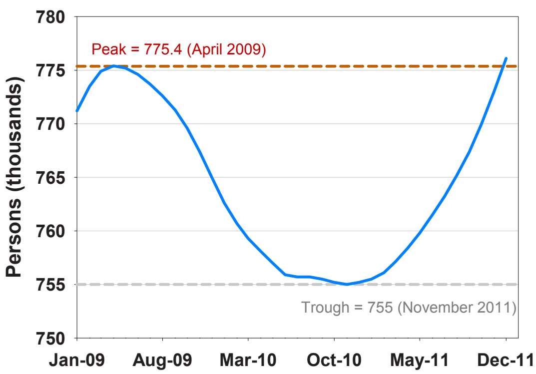
Calgary Economic Region (CER)

Calgary Economic Region:
Gross domestic product growth
(2007 - 2017, *per cent*)



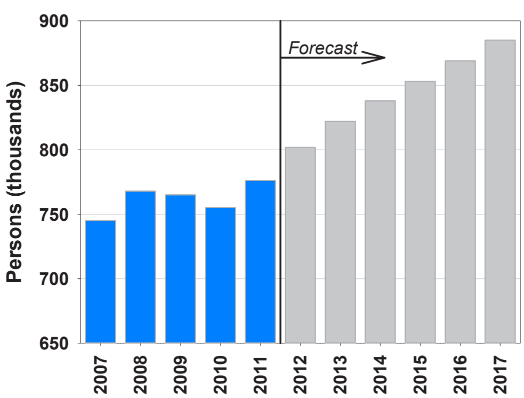
Source: Statistics Canada; Corporate Economics

Calgary Economic Region: Total Employment
(12-month-moving-average,
January 2009 - December 2011, *thousands of persons*)



Source: Statistics Canada; Corporate Economics

Calgary Economic Region: Total Employment
(2007 - 2017, *thousands of persons*)



Source: Statistics Canada; Corporate Economics

Calgary Economic Region (CER)

Local economies rarely follow municipal boundaries and Calgary is no exception to this observation. The Calgary Economic Region is therefore used as a rough proxy for the Calgary economy. It represents the urban area (Calgary city) plus surrounding areas. The main feature of this grouping is that it has a high degree of social and economic integration.

Gross Domestic Product (GDP) Growth

The regional economy expanded at an annual rate of 1 per cent during the 2006 to 2011 period. In this period, the economy experienced a recession where total output contracted between 2008 and 2009. The economy was caught in a downward spiral as slower growth resulted in slower growth. Specifically, slower growth in the world economy led to a sharp reduction in demand for internationally traded commodities such as oil and this caused a reduction in commodity prices. Lower oil prices led to reduced investment spending in the energy sector. Energy dependent sectors such as professional, scientific and technical services were also adversely affected. A weak labour market with relatively high unemployment rates served as a deterrent for job seekers from outside the region and this lowered net migration level and the rate of population growth. Slower population growth led to a reduction in consumer spending and lowered the level of housing starts.

By the end of 2011, the economy recovered all of the output that was lost during the downturn. The Calgary Economic Region's GDP is expected to expand by 3 per cent in 2012 and 3.6 per cent in 2015. The rate of economic growth is expected to decline to 3.4 per cent by 2017 as a relatively tight labour market is expected to restrict increased production and consumer spending.

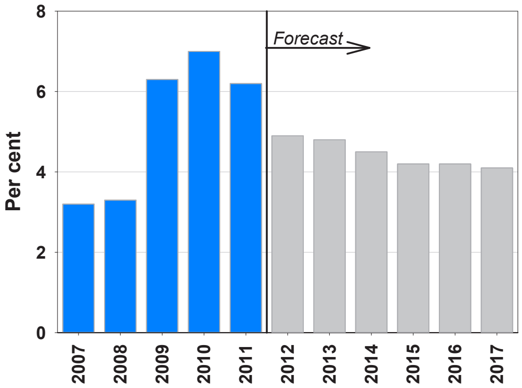
Labour market

Total employment in the Calgary Economic Region was estimated at 776,100 in 2011, up from 755,200 in 2010 and 765,000 in 2009. The monthly labour force survey data shows total employment in the Calgary Economic Region peaked in April 2009 at 775,400 persons and then declined steadily to 755,000 persons by December 2010 before recovering to 776,000 by December 2011. The local economy therefore lost about 20,000 jobs from peak to trough. Our analysis shows the recession ended in late 2010 and the labour market recovery lasted between Q4 2010 and Q4 2011. By the last quarter of 2011, the job market recovered all of the jobs lost during the recession.

This year, 2012, is expected to be a year of expansion. Total employment is expected to average 812,000 in 2012, up from 776,000 in 2011. Total employment is also expected to increase by 104,000 jobs over the 2012-2017 period or by 2.4 per cent annually, up from 1.6 per cent for the 2006-2011 period.

The unemployment rate was estimated at 6.2 per cent in 2011, down from 7.0 per cent in 2010. As employment opportunities improve over the forecast period, discouraged workers should return to the labour force and keep the unemployment rate relatively high. The unemployment rate is expected to fall to 4.9 per cent in 2012 and 4.5 per cent in 2014, as employment growth exceeds labour force growth. Aging of the population is expected to restrain the labour force growth rate and have a depressing effect on the unemployment rate over time.

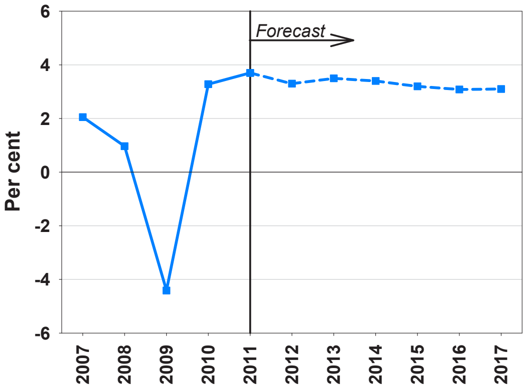
Calgary Economic Region: Unemployment rate
(2007 - 2017, *per cent*)



Source: Statistics Canada; Corporate Economics

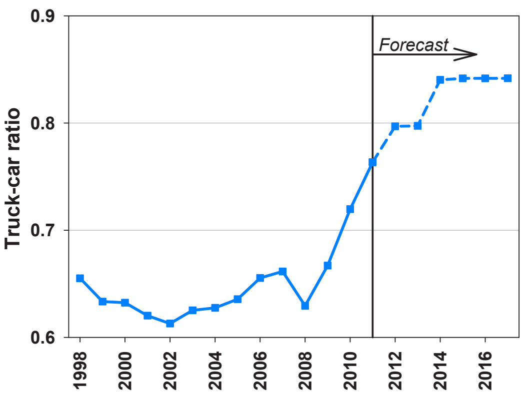
Assumption: Alberta Economy

Alberta: Gross domestic product growth
(2007 - 2017, *per cent*)



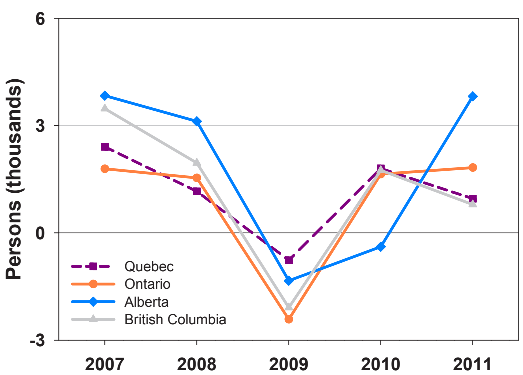
Source: Statistics Canada; Corporate Economics

Alberta: Truck-car sales ratio
(1998 - 2017)



Source: Statistics Canada; Corporate Economics

Canada: Total employment change by province
(year-over-year, 2007 - 2011, *thousands of persons*)



Source: Statistics Canada; Corporate Economics

Alberta is poised for another good economic performance in 2012 coming off a 3.7 per cent growth in GDP in 2011. The resource mineral base economy should benefit from increasing crude oil prices, which should drive investment spending and job creation. Elevated oil prices are expected to support investments in the energy and related sectors during the 2012-2017 period. Alberta Finance and Enterprise estimates the value of the inventory of major projects in Alberta, either planned or currently under construction, has risen by $182.5 billion in the previous 12 months ending December of 2011. Oil sand projects accounted for 64 per cent of the inventory.

Statistics Canada estimates that in 2012, the mining and oil and gas sector should account for more than 56.6 per cent of the total of the growth in public and private investment intensions for Canada. In addition, Alberta should account for $9.1 billion or 39.5 per cent of the national total. This increase in energy investment should reinforce Alberta's position as a major strategic energy producing hub and sheds greater light on the economic relevance of Alberta economy to Canada. The private and public investment in capital construction for Alberta increased by 28.6 per cent from 2010 to 2011, and investment is expected to increase by 17 per cent for 2012. Ninety-nine per cent of capital construction is in oil and gas.

Depressed natural gas prices have kept capital expenditures in that sector subdued behind crude oil projects and has partly offset spending in the oil sector. Higher labour incomes should boost consumer spending. The automobile sales volumes for Alberta year over year for 2011 were all positive with an average increase of 10 per cent, except for the month of February which saw a -0.2 per cent decrease. The share of truck sales volume for 2011 was 76 per cent, far above the national average of 58 per cent. This suggests that despite rising oil prices, which translate to higher diesel and fuel prices, sufficient economic activity in the mining, oil and gas sector is a potential driver of truck sales.

The economy should benefit from housing starts, retail sales, automobile sales and spending on other services. Economic recovery is expected to become self-sustaining as domestic demand increases employment, which in turn supports higher levels of domestic spending.

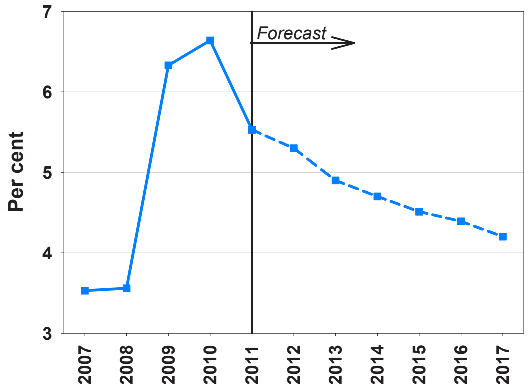
The newly released 2011 Federal Census data show that, from 2006 to 2011, Alberta and British Columbia (B.C.) experienced the fastest population growth at 10.8 per cent and 7 per cent respectively, compared to the national average of 5.9 per cent. Over the past five years, the annual job growth rates in the four biggest provinces were as follows: 1.8 per cent in Alberta, 1.2 per cent in B.C., 1.1 per cent in Quebec, and 0.9 per cent in Ontario. The population growth and job creation trends are expected to continue, with Alberta and other western provinces benefiting from strong commodity prices and the eastern manufacturing centres suffering from a strong dollar.

Assumption: Alberta Economy

The unemployment rate should trend lower over the forecast period as labour force growth lags the rate of job creation. In this period, the aging population is expected to limit the rate of growth in the labour market and contribute to keeping the unemployment rate low. The relatively low unemployment rate should drive up wage inflation for 2013 and 2014, and contribute to positive net interprovincial migration and international immigration in Alberta. Over the forecast period, net migration grows in importance as a key factor in meeting the province's labour needs.

The consumer inflation rate of 2.4 per cent in 2011 is expected to trail the average wage inflation for the rest of the forecast period, given the potential shortage in skilled labour supply. The relatively low unemployment rate of 5.5 per cent for 2011, and 5.3 per cent for 2012 and trending lower for the period 2012-2017 further creates an enormous burden on the labour supply in Alberta.

Alberta: Unemployment rate
(2007 - 2017, *per cent*)



Source: Statistics Canada; Corporate Economics

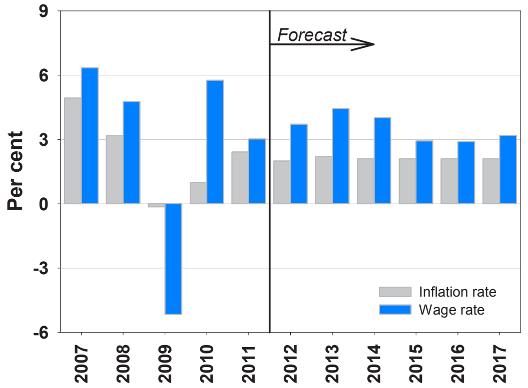
Crude Oil

The West Texas Intermediate (WTI) price reached a post-recession high in the spring of 2011 driven by geopolitical unrest in major producing regions. The price moderated in the second half of 2011 due to a weakening of demand arising from the effects of the European debt crisis and global manufacturing decline. The WTI averaged US$95/bbl in 2011, which indicated a 20 per cent increase over 2010.

The economic recession in the manufacturing industry has resulted in a reduction in the demand for crude oil. The slowing oil demand has affected both the OECD and non-OECD regions. For the OECD markets, the 2012 oil demand in North America and Pacific areas will remain at similar levels as in 2011, while the Eurozone should expect a 1 per cent reduction caused by the sovereign debt problems and economic weakness. As a group, the OECD is predicted to experience a slight reduction in demand of 0.1 per cent in 2012. For non-OECD countries, the fastest growing markets are expecting an economic slowdown in 2012, including China, India, Brazil, and some Latin American economics. This should inevitably reduce the growth in their demand for crude oil. For the world as a whole, we should expect oil demand in 2012 to grow at a modest rate of 1.0 per cent over 2011. For 2012, prices at current or lower levels are possible as the pace of the global economic expansion moderates. At the same time, there also exists the possibility of higher prices caused by the uncertainty of seasonal demand growth, production disruption, and low crude inventories. WTI crude oil prices should average around US$98/bbl in 2012 and slightly higher in the following years.

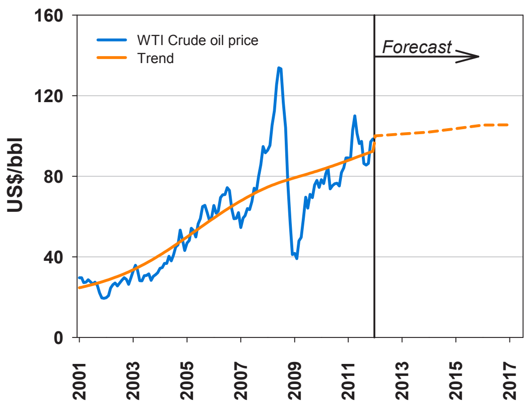
Geopolitical instability in some OPEC countries is a major supply concern. One of the uncertainties comes from the timing of oil supply restoration in Libya as the new government attempts to reinstate order and production. Iran's development of nuclear weapons also increases the risk of oil supply disruption from this region. Oil production from non-OPEC countries experienced strong growth in 2009 and 2010. After slowing in 2011, we should

Alberta: Wage and consumer price inflation rates
(2007 - 2017, *per cent*)



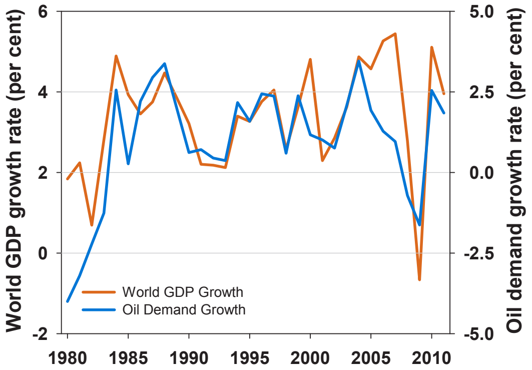
Source: Statistics Canada; Corporate Economics

WTI Crude oil price and forecast
(2001 - 2017, *US$/bbl*)



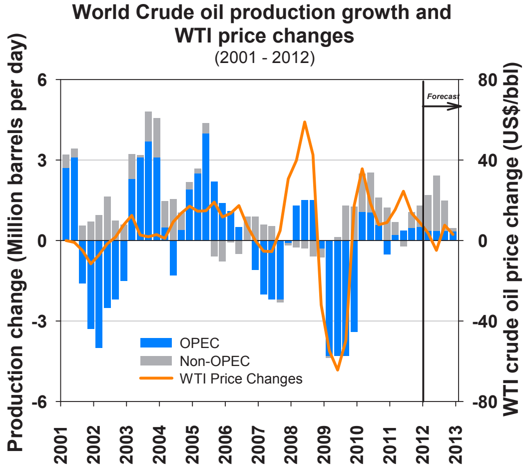
Source: U.S. Energy Information Administration; National Energy Board; Corporate Economics and other sources

World oil demand and economic growth
(1980 - 2011, *per cent*)



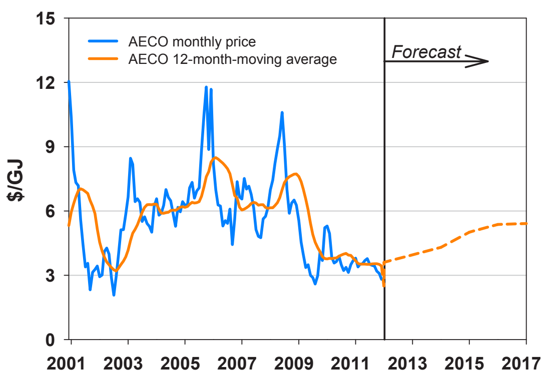
Source: International Monetary Fund (World Economic Outlook); U.S. Energy Information Administration; Corporate Economics

World Crude oil production growth and WTI price changes
(2001 - 2012)



Source: U.S. Energy Information Administration; OPEC; Corporate Economics

AECO Spot market prices and forecast
(2001 - 2017, $/GJ)



Source: GLJ Canadian Natural Gas Focus Database; Corporate Economics

expect growth again in 2012 from non-OPEC producers. North America remains the region with the highest expected supply increase, mainly from unconventional sources such as the oil sands and deepwater offshore drilling.

Natural Gas

Increased production of natural gas from shale formation in North America along with weak economic growth in the U.S. has depressed natural gas prices below historic levels. The warmer than normal temperatures this winter reduced heating demand for natural gas, which further pushed up inventory levels and in turn put downward pressures on prices. In 2012, the AECO prices for natural gas should remain low at around $2.50/GJ. Looking beyond that, demand for coal-to-gas substitution for power generation should increase the medium-term gas consumption. Regional infrastructure constraints may also cause prices to increase, if gas is unable to reach some locations experiencing high demand. We expect natural gas prices to rise slowly in the forecasting period, reaching $5.4/GJ in 2017.

Natural gas supply in North America has increased significantly in the past three years. The major driver was the aggressive production in the U.S. from shale, coal bed methane, and tight gas development in the eastern states. At the same time, the production in Canada has declined by over 20 per cent from 2008 to 2011. The decrease in production and drilling in Canada was caused by lower natural gas prices and declining conventional reserves. Looking past 2012, shale production is expected to grow in Canada, led by western provinces including B.C. and Alberta.

Natural gas storage has been higher than normal due to strong supply and weak demand. During the summer of 2011, there was a record injection of natural gas into North American storage. Natural gas storage continued to rise in the second half of 2011. By the end of last year, the storage volume went beyond the maximum of the five-year range from 2006 to 2010. In 2012, it is expected that this trend should continue.

GDP Growth and Drivers

Economic growth in Canada slowed from 3.2 per cent in 2010 to 2.3 per cent in 2011 and should decelerate in 2012. Over the forecast period, economic growth should be constrained by softening demand from both the domestic market and the impact of a strong dollar on exports. Business investment (especially in the energy sector) should be the key growth driver, thanks to firm commodity prices, strong corporate profits, low interest rates, and a supportive tax structure.

Residential investment in Canada has increasingly contributed to Canada's economic growth over the past decade, slowing down only during the recent recession. With the expected phasing out of extremely low interest rates from 2013, affordability could become a concern. In addition, declining household formation from an aging population should further dampen the demand for new residential constructions in the forecast period.

Consumer spending would be constrained by weak job growth and record household debt-to-income levels (151 per cent in Canada in Q3 2011, compared to the pre-recession peak level of 160 per cent in the U.S.).

Also, government spending is expected to contribute little to growth. As the federal government and many provincial governments aim to rebalance the budgets, local governments are expected to be impacted by reduced revenues from intergovernmental transfers.

Net exports should contribute to the growth as an expanding U.S. economy and a growing demand for commodities from emerging economies, especially Brazil, Russia, India, and China, should combine to boost the export market for Canadian products and services.

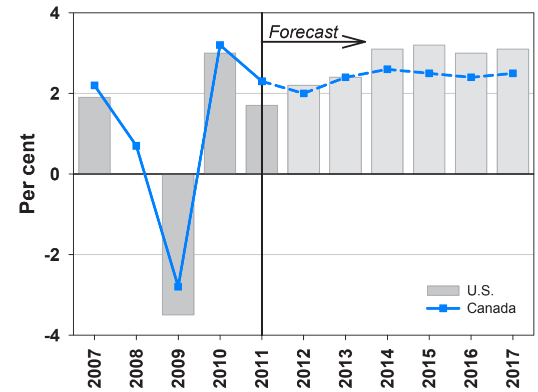
Inflation, Monetary Policy, and Exchange Rate

Inflation in Canada spiked in 2011, driven by food and shelter price increases. However, the Bank of Canada expects inflation to moderate over time to below 2 per cent.

After raising the overnight interest rate to 1 per cent in the summer of 2010, the Bank of Canada refrained from further hikes. Its decision to hold interest rates at extremely low levels is in keeping with similar actions taken by the U.S. Federal Reserve. Historic low interest rates over the past few years provided incentives for consumers and businesses to borrow, resulting in increased household debt in Canada.

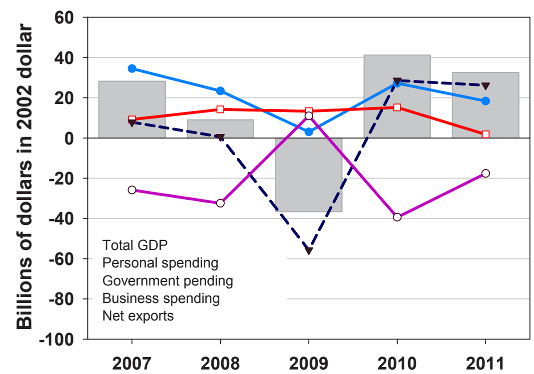
The Canadian dollar continued to appreciate over the U.S. dollar in 2011 after rebounding from a decline in the recent recession. The upward momentum was driven by higher crude oil prices, better economic fundamentals than the U.S., and the differential between the Canadian and U.S. interest rates. However, the dollar is expected to depreciate over the medium- to long-term, as the Canadian and U.S. interest rate differential narrows and the crude oil price increase slows.

Canada vs. U.S.: Real GDP growth
(2007 - 2017, *per cent*)



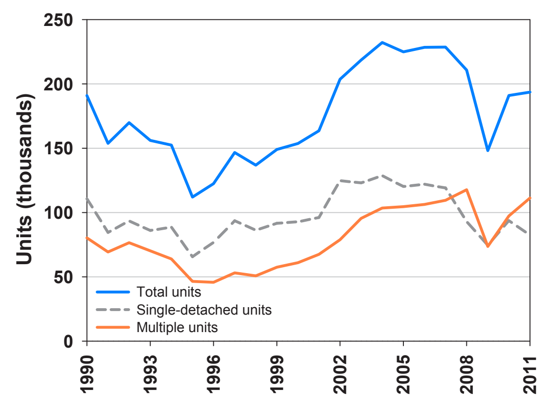
Source: U.S. Federal Bank Reserve of St. Louis; Statistics Canada; Corporate Economics

Canada: GDP growth by expenditure
(year-over-year, 2007 - 2011, *billions of dollars in 2002 dollar*)

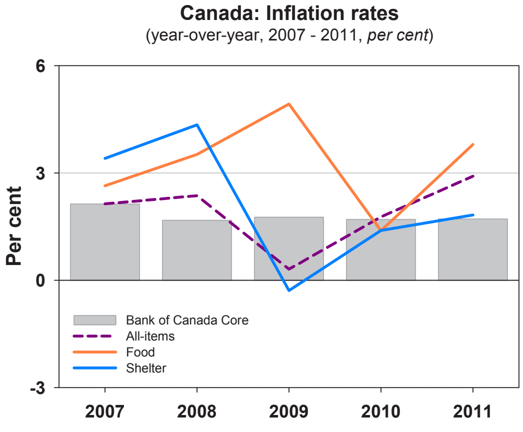


Source: Statistics Canada; Corporate Economics

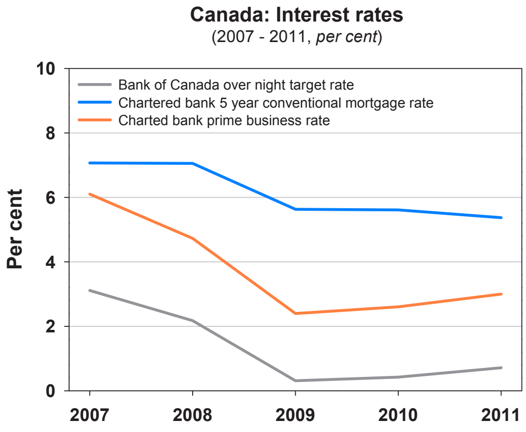
Canada: Total housing starts
(1990 - 2011, *thousands of units*)



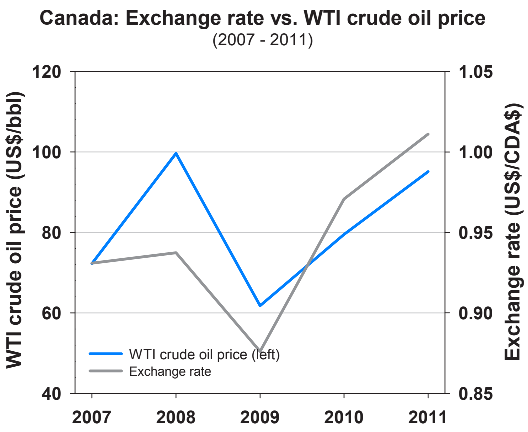
Source: Statistics Canada; Corporate Economics



Source: Statistics Canada; Corporate Economics



Source: Bank of Canada; Statistics Canada; Corporate Economics



Source: Bank of Canada; Statistics Canada;
GLJ Energy Publication Ltd.; Corporate Economics

Labour Market

The Canadian labour market created a half million jobs in the past two years, most of them in the resource- and health care-related industries. The total employment of 17.3 million in 2011 surpassed the pre-recession peak of 17.1 million in 2008. However, due to external risks in the world economy and weakening growth in the domestic demand, job markets across Canada stalled in late 2011 and early 2012. Market growth is expected to be moderate in 2012 and should regain some strength in 2013.

Wage inflation in Canada increased to 2.6 per cent in 2011 from 1.2 per cent in 2010, reflecting Canada's improving economic and labour market conditions. Among different age groups, youth (aged 15-24) and core-age workers (aged 25-54) had above average wage gains. Increasing incomes of those age cohorts should have positive impacts on consumer spending and economic growth.

Assumption: U.S. Economy

The U.S. economic growth decelerated to 1.7 per cent in 2011 from 3.0 per cent in 2010, largely due to the reduction in government spending. Last year's growth was supported by demand from the private sector, which is a sign of real recovery.

Over the next five years, the growth of U.S. economy should be driven by consumer spending and business investment, but dragged by government spending.

Consumer spending in the U.S., accounting for 70 per cent of the economy, resumed growth in 2010-2011 after declines in 2008-2009. Pent-up demand and improving consumer confidence resulted in higher retail sales, including vehicle sales. Growth in the U.S. consumer spending should be further supported by an improving labour market and the end of deleveraging.

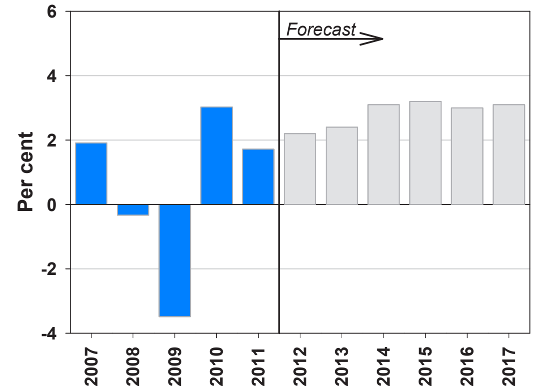
Government spending in the U.S., accounting for 20 per cent of the U.S. economy, declined by 2.1 per cent in 2011 compared to 2010 for the first time in more than a decade. It is expected to be a drag on growth in response to large cuts in government budgets starting from 2013.

Since the housing market collapsed in 2007, residential investment in the U.S. has been extremely low. Housing starts for the past four years averaged from 0.5 to 0.9 million units annually, a level much lower than the ten-year-average of 1.7 million in 2007. During the same period, low mortgage rate, depressed house prices and higher rents have sharply increased affordability[2]. Although current inventory in the market is still high, better affordability combined with improving job market should increase demand for houses and result in higher levels of housing starts in the forecast period.

After a mild deflation in 2010, consumer price increases in the U.S. reached the higher end of the Fed's target range in 2011. Early this year, the Federal Reserve estimated that inflation in the U.S. should subside in the near future, given the large extra capacities in the economy, low inflation expectations and subsiding price increases in food and shelter. However, upward pressures exist in gasoline prices, given the geo-political risks.

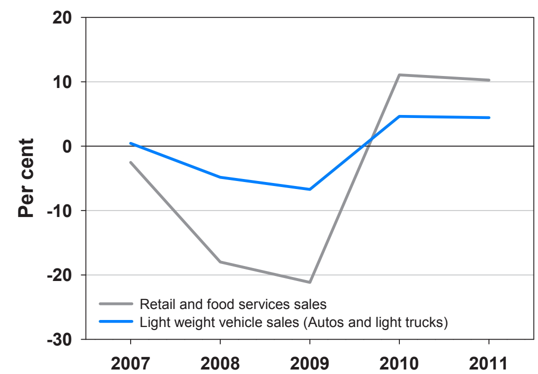
To support economic growth, the Federal Reserve announced in January 2012 to keep its target rate at the 0 to 0.25 per cent level until late 2014. Prolonged low interest rates should provide strong incentives for consumers to borrow. This combined with an improving job market should help increase consumption.

U.S.: Real GDP growth
(2007 - 2011, *per cent*)



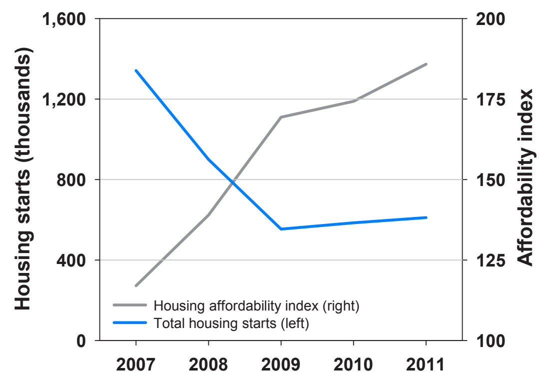
Source: U.S. Federal Bank Reserve of St. Louis; Corporate Economics

U.S.: Change of consumer spending
(2007 - 2011, *per cent*)



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

U.S.: Housing starts vs. affordability
(2007 - 2011)

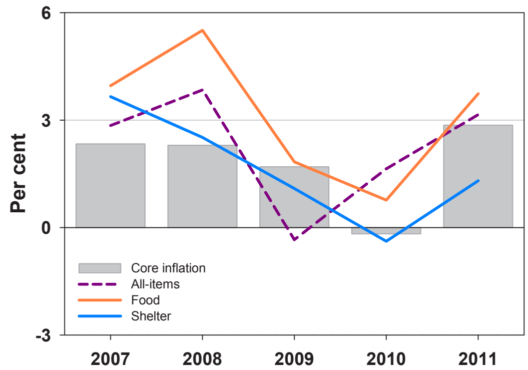


Source: U.S. Federal Bank Reserve of St. Louis; Corporate Economics

2 U.S. Housing affordability index measures the degree to which a typical family can afford the monthly mortgage payments on a typical home. An index above 100 signifies that family earning the median income has more than enough income to qualify for a mortgage loan on a median-priced home, assuming a 20 per cent down payment. For example, a composite housing affordability index (COMPHAI) of 120.0 means a family earning the median family income has 120 per cent of the income necessary to qualify for a conventional loan covering 80 per cent of a median-priced existing single-family home. An increase in the COMPHAI then shows that this family is more able to afford the median priced home.

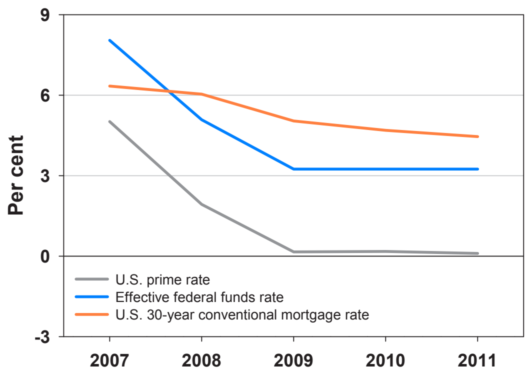
Assumption: U.S. Economy

U.S.: Inflation rates
(year-over-year, 2007 - 2011, *per cent*)



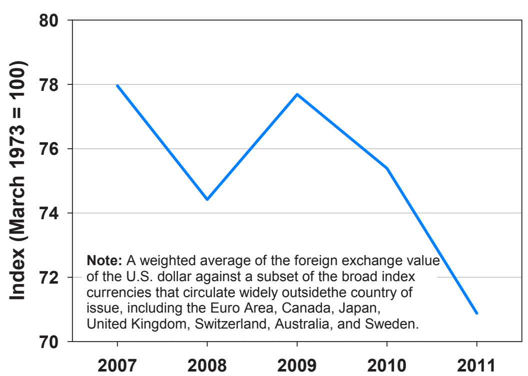
Source: U.S. Federal Bank Reserve of St. Louis;
Corporate Economics

U.S.: Interest rates
(2007 - 2011, *per cent*)



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

U.S.: Trade weighted U.S. dollar index
(2007 - 2011, *index March 1973 = 100*)



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

The U.S. dollar continued its long-term depreciation relative to major world currencies in 2010 and 2011 due to the country's extremely low interest rates and relatively weak growth. A weak U.S. dollar is good for manufacturers and exporters as it increases their competitiveness in the world market.

After a jobless recovery in 2010, the U.S. labour market created 1.5 million jobs in 2011. The momentum was carried into 2012, with more than 0.6 million jobs added in the first quarter of 2012. Based on a recent forecast from the U.S. Bureau of Labour Statistics, total employment in the U.S. is projected to grow by 14.3 per cent in the 2010-2020 period, resulting in 20.5 million new jobs. Most new jobs are expected to be in the health care and social assistance (+5.6 million), professional and business services (+3.8 million), and construction (+1.8 million) industries. Despite the rapid projected growth, construction industry would still not regain all the jobs lost (-2.2 million) during the recent recession.

Assumption:
Global Economy

Global Growth

- The financial crisis generated by the sovereign debt problems in the Eurozone has spread to both developed and emerging economies. In a highly globalized economy with trade and financial linkages across countries and markets, no country is immune to the crisis.
- Compared to 2011, the outlook for the global economy has deteriorated. The growth rate has slowed for both advanced economies and emerging and developing markets. Financial conditions have generally worsened and downside risks have sharply escalated in 2012.
- Our base scenario assumes that in the Eurozone, policymakers intensify efforts to address the crisis, and sovereign bond premiums stabilize and start to normalize in early 2013. Under this assumption, the global economy is expected to expand by 3.1 per cent in 2012, and 3.5 per cent in 2013, much lower than previously forecasted.

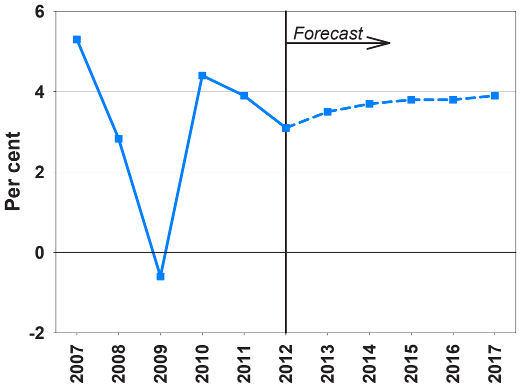
Advanced Economy

- The Eurozone dipped into recession in Q4 2011. With the sovereign debt crisis intensifying, the Eurozone is expected to have a mild contraction in 2012 followed by stagnation in 2013.
- The U.S. and Canada should proceed at a more modest pace going forward due to ongoing household deleveraging, fiscal consolidation and the spillover effect from Europe.
- In Japan, as the impact from rebuilding and restoration wanes, real GDP growth in 2012 and 2013 is projected to average less than 2.0 per cent.
- In other advanced economies, growth has also slowed due to the weakening in external demand and continued drag from fiscal consolidation. For advanced economies as a group, the average growth rate is expected to be 1.0 per cent in 2012 and 1.1 per cent in 2013.

Emerging Economy

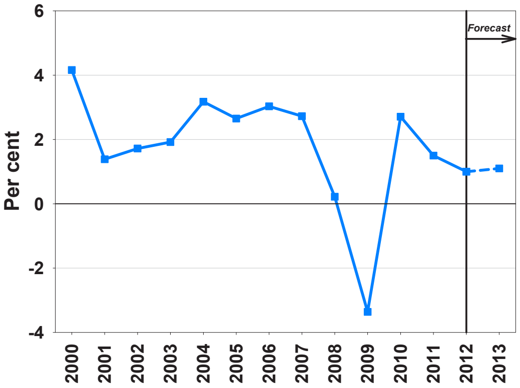
- Growth in the emerging economies is expected to slow because of worsening external environment and weakening internal demand in 2012.
- China's growth is expected to decelerate in 2012 in response to slowing external demand and declining exports, and risks in the real estate sector. Growth in real GDP is projected to moderate to around 8 per cent over 2012–2013.
- Central and Eastern European countries are expected to slow down more than others since their exports are directed principally toward Europe, and their financial systems are heavily dominated by Western European banks.
- On average, emerging economies should grow 5.2 per cent in 2012, and 5.5 per cent in 2013.

World: Economic growth rates
(2007 - 2017, *per cent*)



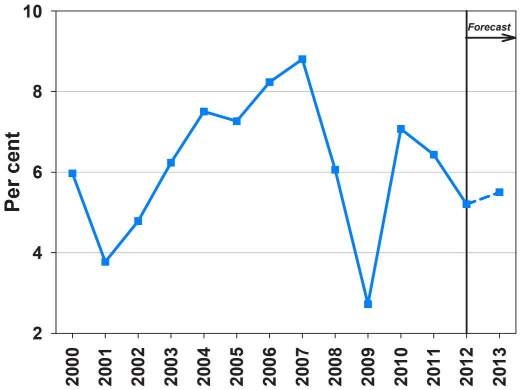
Source: International Monetary Fund (World Economic Outlook); Roubini Economic Monitor; World Bank; Corporate Economics

Advanced economies: Economic growth rates
(2000 - 2013, *per cent*)

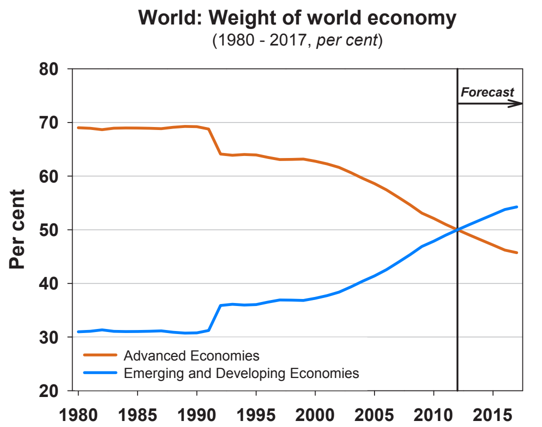


Source: International Monetary Fund (World Economic Outlook); Roubini Economic Monitor; World Bank; Corporate Economics

Emerging economies: Economic growth rates
(2000 - 2013, *per cent*)



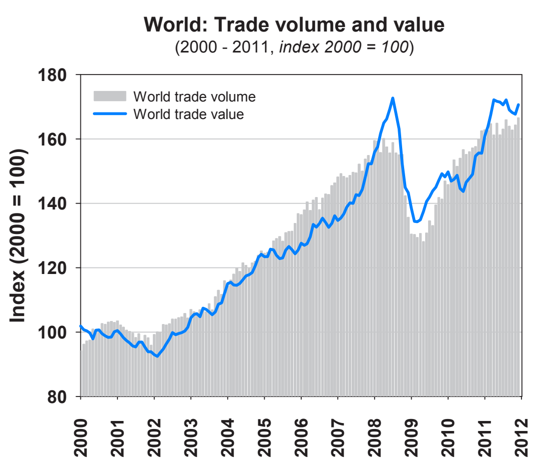
Source: International Monetary Fund (World Economic Outlook); Roubini Economic Monitor; World Bank; Corporate Economics



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

World Economic Structure

- The world's economic balance of power has been shifting dramatically. The advanced markets share of the world economy has been decreasing. Consequently, the weight of the emerging and developing markets has been rising significantly.
- In 1980, developing economies only accounted for 30 per cent of the world GDP at purchasing power parity. It took two and a half decades for this share to increase to 40 per cent. This process has been accelerated greatly in the past decade. Currently emerging markets account for 49 per cent of world GDP at purchasing power parity.
- This upward trend is expected to continue due to relatively stronger activity and higher growth rates in emerging economies. By 2013, the economic size of emerging and developing markets should exceed that of advanced economies.

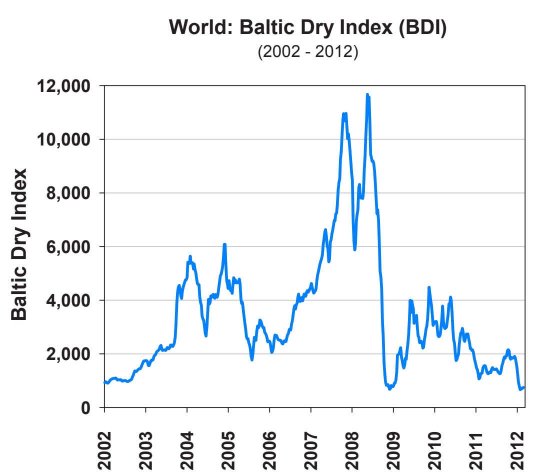


Source: Central Plan Bureau Netherlands; Corporate Economics

World Trade

Trade Value and Volume

- The financial turmoil has impacted trade more directly since the second half of 2011. Both volume and value of global trade have declined, suggesting a clear impact from the weakness in world economic activities.
- The dampening effect of trade has been most serious in Europe, but is observable everywhere. The import volumes of both advanced and developing markets decreased, due to an 18 per cent annualized decline in European Union imports. At the same time, global exports have been dropping in line with falling imports.
- In 2011, world trade expanded by 6.6 per cent. In 2012, this growth rate will reduce to 4.7 per cent as a mirror of global economic slowdown.



Source: International Monetary Fund; Corporate Economics

Baltic Dry Index (BDI)

- The Baltic Dry Index (BDI) has been stagnant since 2011, at almost 90 per cent below its 2008 peak level[3].
- In early February 2012, the BDI dipped to 647, even lower than the trough value of 663 it plunged to in the 2008 recession.
- This worrisome sign indicates the weakness of global economy and the slackness of future international trade activity in 2012.

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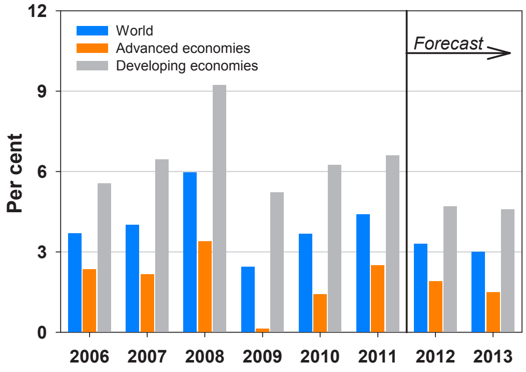
3 The Baltic Dry Index (BDI) tracks worldwide international shipping prices of various dry bulk cargoes, and usually is used as an indicator of the trend of global trade.

Inflation

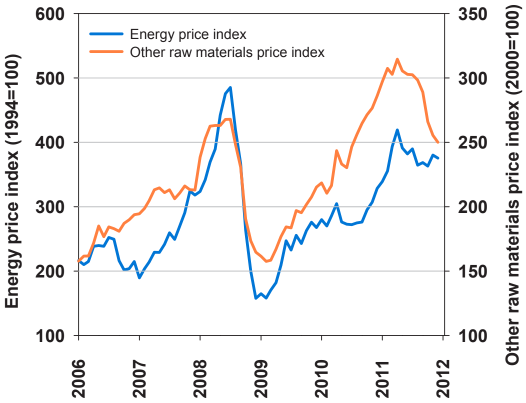
- Commodity prices generally declined in 2011, further indicating the impact of recent turmoil. Weaker commodity prices have contributed to lower inflation global wise.
- In advanced economies, inflation has softened from 2.5 per cent annualized rate in 2011 to 1.9 per cent in 2012, and should further moderate to 1.5 per cent in 2013.
- In emerging and developing economies, price pressures are also expected to ease, since both growth and food price inflation slow. Inflation in emerging markets is expected to be 4.7 per cent in 2012 and 4.6 per cent in 2013.
- The global inflation should remain moderate at 3.3 per cent in 2012 and 3.0 per cent in 2013.

World: Inflation rates
(2006 - 2013, *per cent*)



Sources: International Money Fund (World Economy Outlook); World Bank; Corporate Economics

World: Price changes of energy and other raw materials
(2006 - 2011, *indexes*)



Source: Central Plan Bureau Netherlands; Corporate Economics

Table 1 - Selected Economic Indicators

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

FORECAST COMPLETED: March 2012						BASE FORECAST					
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
ASSUMPTIONS											
Global Economy											
World Gross Domestic Product (annual % change)	5.3	2.8	-0.6	4.4	3.9	3.1	3.5	3.7	3.8	3.8	3.9
The United States											
U.S. Real Gross Domestic Product Growth (chained 2005 dollar) (%)	1.9	-0.3	-3.5	3.0	1.7	2.2	2.4	3.1	3.2	3.0	3.1
Canada											
Canada Real Gross Domestic Product Growth (chained 2002 dollar) (%)	2.3	0.9	-3.0	3.4	2.6	2.0	2.4	2.6	2.5	2.4	2.5
Prime Business Loan Rate (%)	6.1	4.7	2.4	2.6	3.0	3.0	3.7	5.6	6.1	6.6	6.7
Exchange Rate (US$/Cdn$)	0.93	0.94	0.88	0.97	1.01	0.99	0.99	0.97	0.97	0.99	1.00
Alberta											
Gross Domestic Product (%)	2.5	0.0	-2.6	3.6	3.7	3.3	3.5	3.4	3.2	3.1	3.1
Total Employment Growth (%)	4.9	2.9	-1.0	0.2	3.0	2.2	1.8	1.8	1.7	1.0	1.0
Unemployment Rate (%)	3.5	3.5	6.3	6.6	5.5	5.3	4.9	4.7	4.5	4.4	4.2
Housing Starts ('000 Units)	48.3	29.2	20.3	27.1	23.7	29.4	28.2	29.0	28.7	27.8	28.1
Inflation Rate (%)	4.9	3.2	-0.1	1.0	2.4	2.0	2.2	2.1	2.1	2.1	2.1
Crude Oil Price - WTI (US$/bbl)	72.3	99.6	61.8	79.5	94.9	98.0	100.1	102.0	103.7	105.5	105.6
Alberta Natural Gas Price - AECO/NIT ($/GJ)	6.1	7.7	3.8	3.8	3.4	2.5	3.6	4.3	5.0	5.4	5.4
FORECAST											
Calgary Economic Region (CER)											
Gross Domestic Product (%)*	2.4	1.8	-3.7	2.5	1.9	3.5	4.0	3.9	3.8	3.6	3.4
Total Employment ('000 Persons)	745	768	765	755	776	812	836	856	876	896	916
Total Employment Growth (%)	3.8	3.1	-0.4	-1.3	2.8	4.6	3.0	2.4	2.3	2.3	2.2
Unemployment Rate (%)	3.2	3.3	6.3	7.0	5.8	4.9	4.7	4.4	4.2	4.0	4.0
Inflation Rate (%) (CMA)	5.0	3.2	-0.1	0.8	2.2	2.0	2.3	2.3	2.0	2.0	2.0
Building Permits ($billion)	7.1	5.1	4.5	3.9	5.5	5.4	6.0	6.0	6.0	5.4	4.8
Low Forecast	N/A	N/A	N/A	N/A	4.4	5.0	5.6	5.6	5.6	5.0	4.3
High Forecast	N/A	N/A	N/A	N/A	5.6	6.3	6.9	6.9	6.9	6.3	5.6
Housing Starts ('000 Units) (CMA)	13.5	11.4	6.3	9.3	9.6	10.5	11.1	11.5	11.5	11.1	10.5
Non-Residential Building Price Inflation (%) (CMA)	17.7	13.7	-7.7	-2.2	2.4	2.8	4.0	6.6	3.7	2.3	2.0

Numbers may not add up due to rounding

* Source: Centre for Spatial Economics, Corporate Economics

Table 2 - Selected Indicators

City of Calgary											
FORECAST COMPLETED: March 2012						BASE FORECAST					
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
REAL ESTATE											
Residential Market											
Housing Starts ('000 units)	10.9	9.6	5.0	7.3	7.7	8.4	8.9	9.2	9.2	8.9	8.4
New House Price Inflation (%)	16.2	0.7	-6.7	1.7	0.0	4.0	6.5	2.3	2.0	2.0	2.0
Total Building Permits mid point ($billions)	5.6	4.0	3.7	2.9	4.5	4.5	5.0	5.0	5.0	4.5	4.0
Low Forecast						*4.0*	*4.5*	*4.5*	*4.5*	*4.0*	*3.5*
High Forecast						*5.0*	*5.5*	*5.5*	*5.5*	*5.0*	*4.5*

Numbers may not add up due to rounding

Table 3 - Selected Commodity Prices

City of Calgary

FORECAST COMPLETED: March 2012						BASE FORECAST					
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
CONSTRUCTION COMMODITIES											
Iron and steel products	-2.4	16.2	-5.4	-0.9	1.9	-0.8	0.2	0.7	-0.1	0.0	0.5
Aluminum products	-5.0	-0.4	-19.8	11.1	3.5	1.3	1.5	6.7	-0.1	-0.2	0.5
Wood	9.0	-3.7	-6.2	-1.6	1.9	0.2	0.2	0.1	0.0	0.0	0.1
Asphalt**	13.3	49.8	-8.7	-0.7	2.7	2.0	2.5	2.2	1.9	1.7	1.2
OPERATIONAL COMMODITIES											
Rubber	2.1	12.9	-20.4	67.7	32.8	0.9	2.3	1.0	-0.1	0.0	0.5
Diesel oil	7.3	26.0	-31.6	11.2	24.0	2.1	1.5	1.4	1.2	1.3	0.1
Vehicle parts	7.9	4.6	5.3	1.7	1.8	3.8	3.7	2.8	3.9	3.9	3.0

Numbers may not add up due to rounding

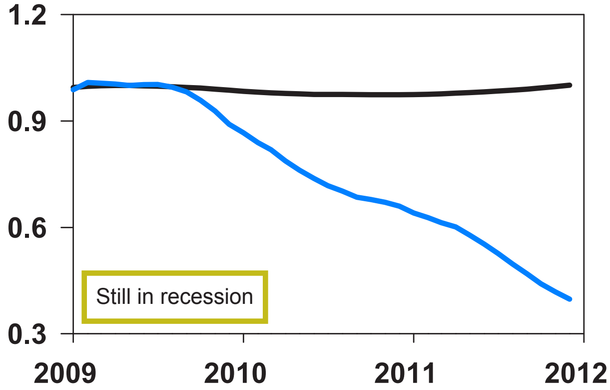
** Based on Ontario Ministry of Transportation Asphalt Price Index

Employment by Industry, index, May 2009 = 1

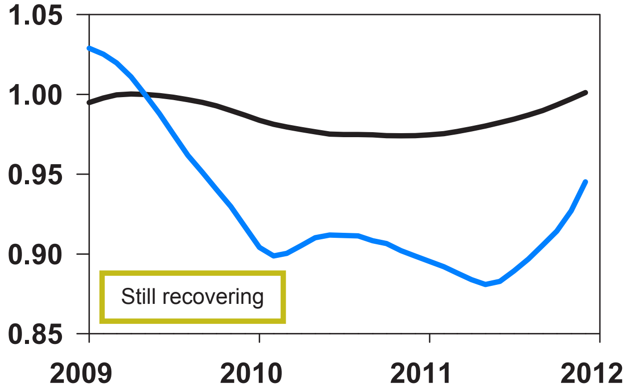
Monthly data (January 2009 - December 2011) were gathered from Statistics Canada and were tabulated by Corporate Economics.

All Industry   Selected Industry

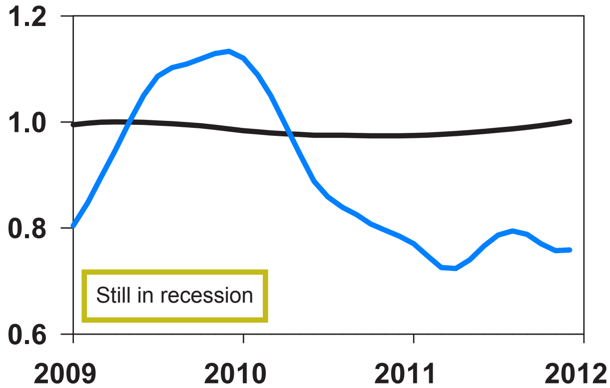
Agriculture



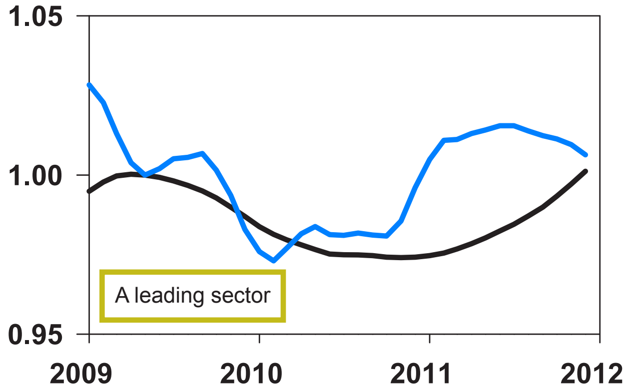
Forestry, Fishing, Mining, Oil and Gas



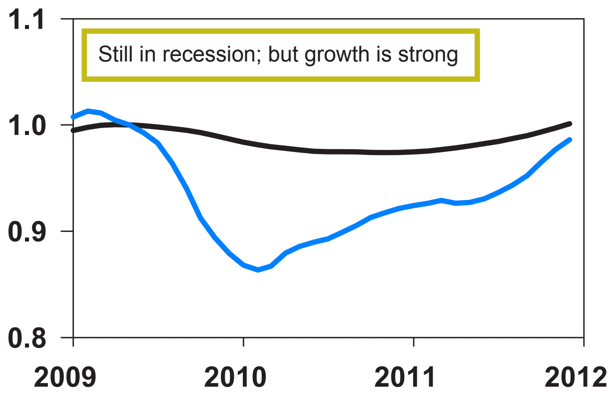
Utilities



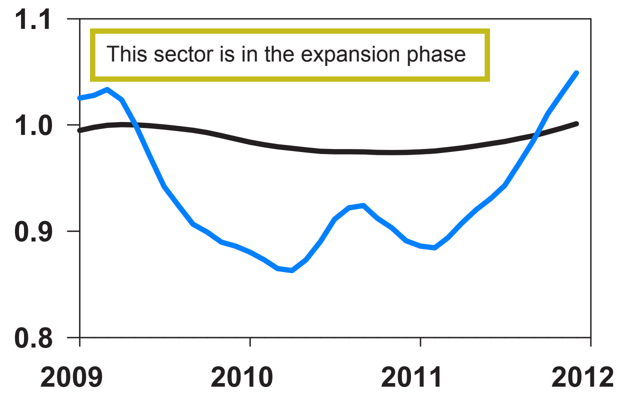
Construction



Manufacturing



Wholesale Trade

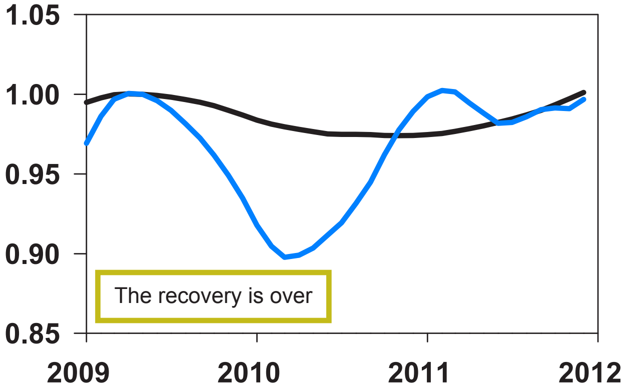


Employment by Industry, index, May 2009 = 1

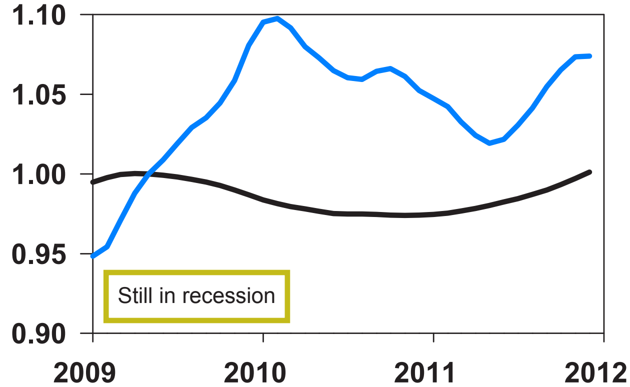
Monthly data (January 2009 - December 2011) were gathered from Statistics Canada and were tabulated by Corporate Economics.

All Industry   Selected Industry

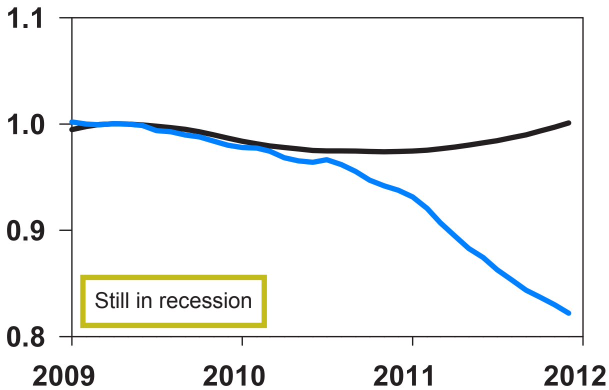
Retail Trade



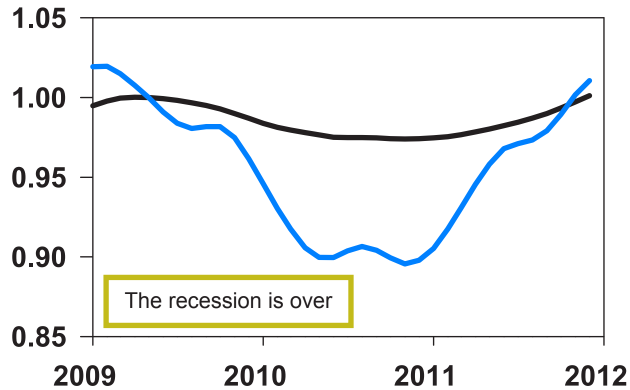
Transportation and Warehousing



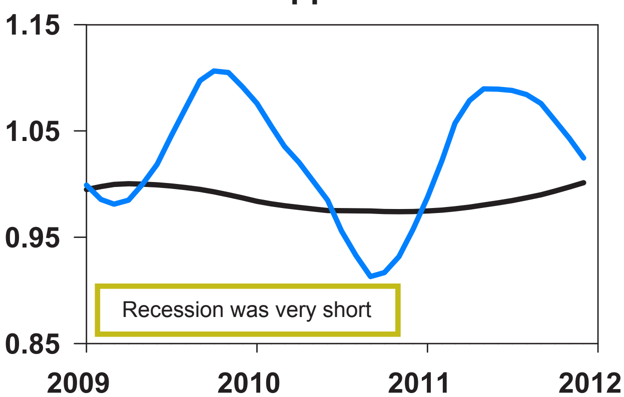
Finance, Insurance, Real Estate and Leasing



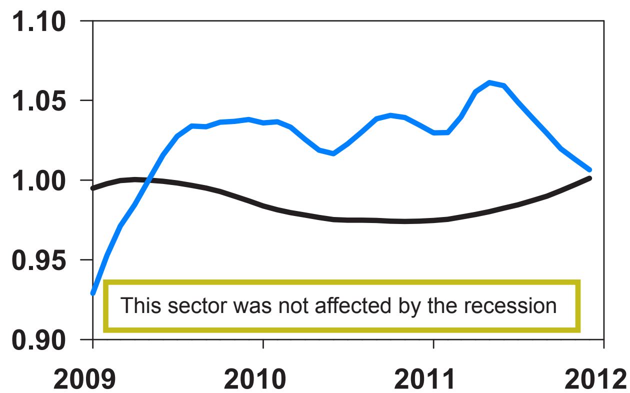
Professional, Scientific and Technical Services



Business, Building and Other Support Services



Educational Services

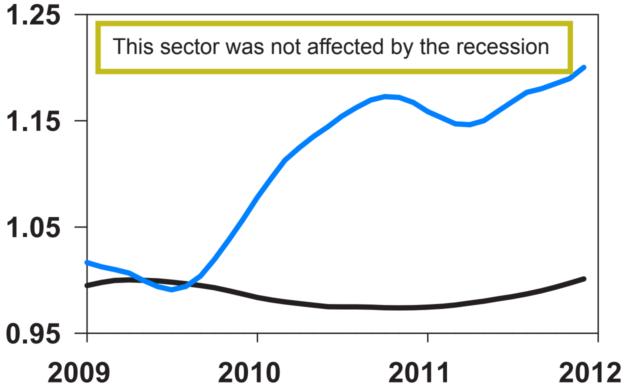


Employment by Industry, index, May 2009 = 1

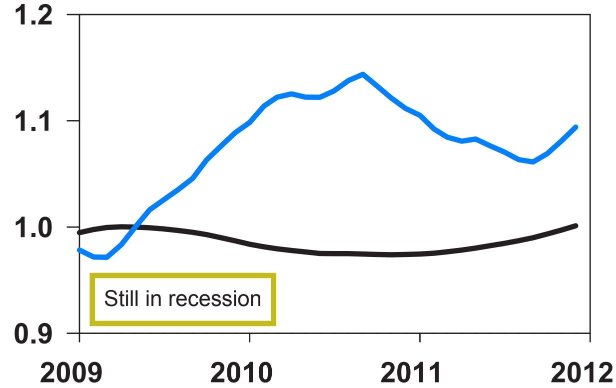
Monthly data (January 2009 - December 2011) were gathered from Statistics Canada and were tabulated by Corporate Economics.

All Industry   Selected Industry

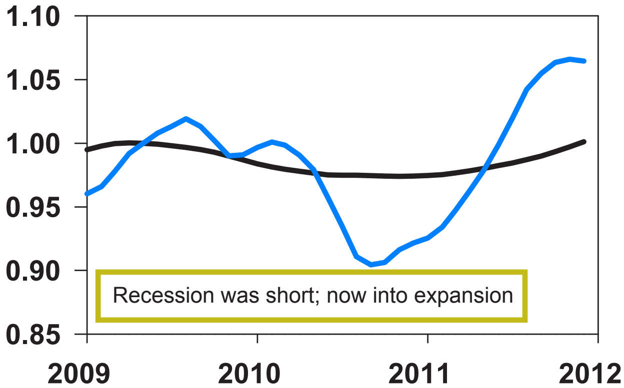
Health Care and Social Assistance



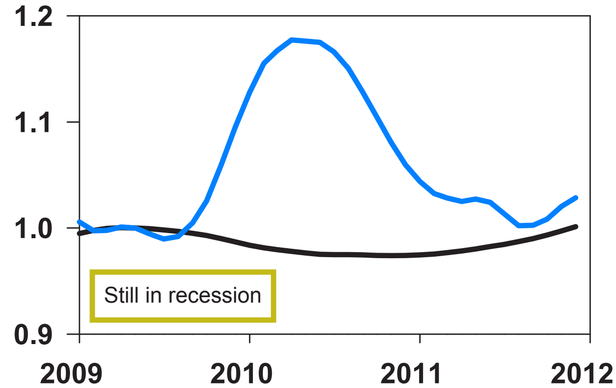
Information, Culture and Recreation



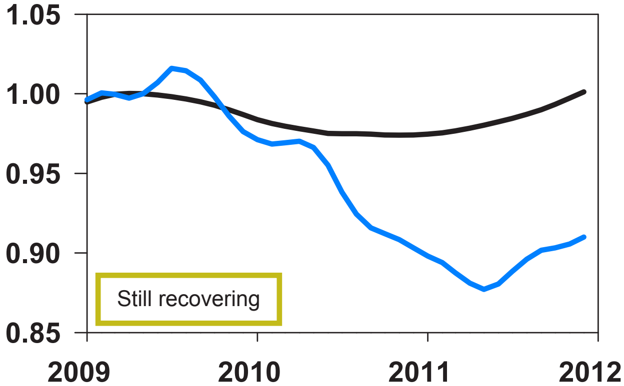
Accommodation and Food Services



Other Services

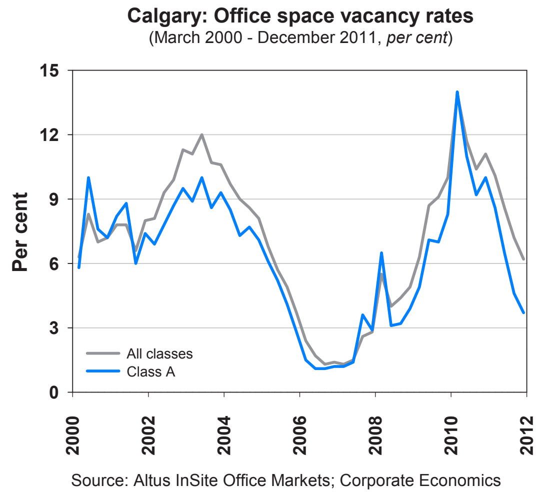


Public Administration

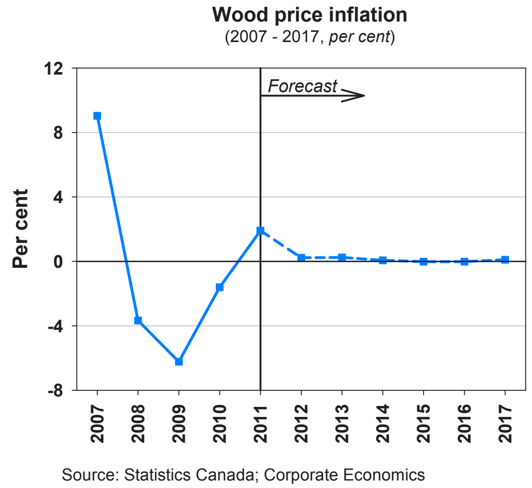


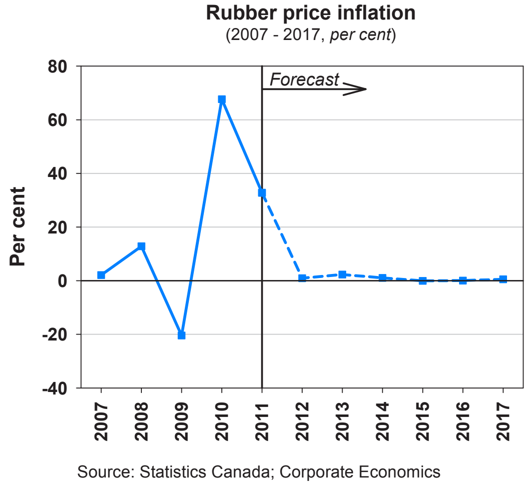
City of Calgary

Office Space Market



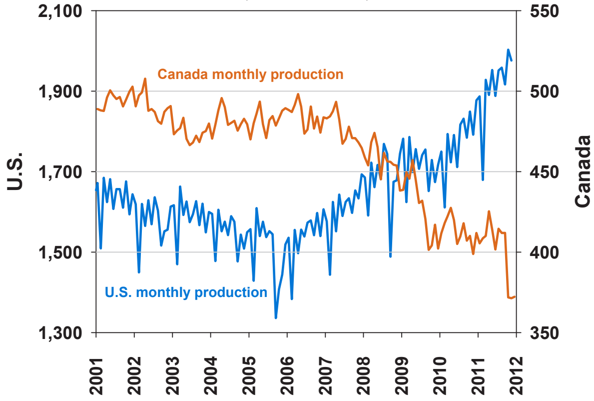
Inflation Rate - Commodity prices





Alberta

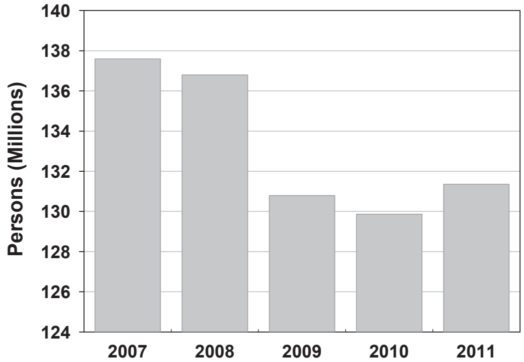
Natural Gas



Source: National Energy Board; Canadian Association of Oilwell Drilling Contractors; U.S. EIA Office of Energy Statistics; Corporate Economics

U.S.

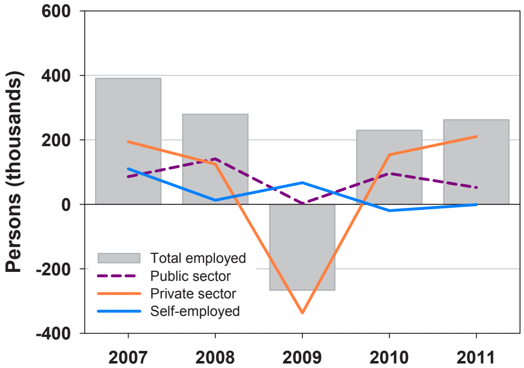
Labour Market



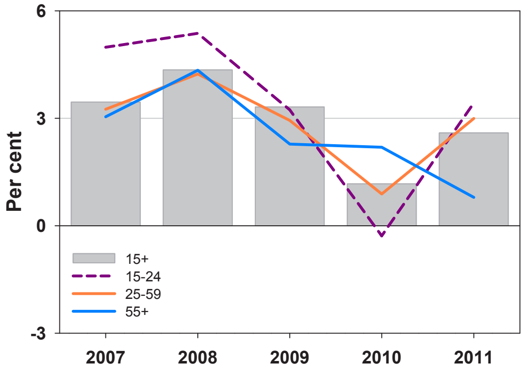
Source: U.S. Federal Bank Reserve of St. Louis; Corporate Economics

Canada

Labour Market



Source: Statistics Canada; Corporate Economics



Source: Statistics Canada; Corporate Economics

Who We Are

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

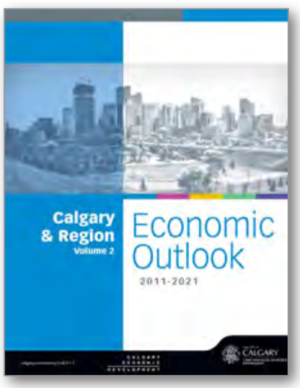
For more information, please contact:

Patrick Walters
403.268.1335 or patrick.walters@calgary.ca

Ivy Zhang
403.268.2005 or ivy.zhang@calgary.ca

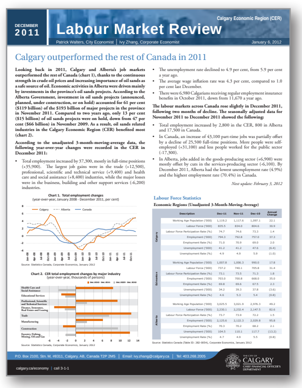
Many of our publications are available on the internet at **www.calgary.ca/economy**.

Forecasting



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

Information Provision



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

Policy Analysis

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

Corporate Research Analyst: Estella Scruggs

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