

Government of Alberta ■

# BUDGET 2010

*Striking the Right Balance*

2010–13 Economic Outlook

Alberta ■

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# SUMMARY AND KEY ASSUMPTIONS

- ✧ Alberta is entering recovery mode. After contracting by an estimated 2.5% in 2009, its first recession since 1986, the Alberta economy is expected to expand by 2.6% in 2010. Average employment is forecast to increase by 15,000 in 2010; nonetheless, the unemployment rate is expected to remain at 6.6% because of offsetting growth in the labour force.
- ✧ Despite high oil prices and improved prospects for oil sands, the initial phases of Alberta's economic recovery are expected to be relatively moderate, in large part because of the subdued global economic recovery. Weak natural gas prices are also expected to weigh on investment in the conventional energy sector. Over the medium term, however, economic growth is forecast to strengthen to a sustainable pace of around 3% and the unemployment rate to fall below 5% by 2013.

## Key Energy and Economic Assumptions

Fiscal Year Assumptions	2008-09 Actual	2009-10 Estimates	2010-11	2011-12	2012-13
<b>Prices</b>					
Crude Oil Price					
WTI (US\$/bbl)	85.94	69.95	78.75	83.50	89.50
Alberta Wellhead (Cdn\$/bbl) <sup>a</sup>	82.82	67.40	72.20	76.48	82.00
Bitumen @ Cold Lake (Cdn\$/bbl) <sup>b</sup>	61.54	49.36	56.38	59.79	64.07
Natural Gas Price					
Alberta Reference Price (Cdn\$/GJ)	6.97	3.40	4.25	5.25	5.50
<b>Production</b>					
Conventional crude oil (000s barrels/day)	497	454	424	419	419
Raw bitumen (000s barrels/day)	1,292	1,528	1,771	1,972	2,140
Natural gas (billions of cubic feet)	4,903	4,682	4,284	4,040	3,858
<b>Interest rates</b>					
3-month Canada treasury bills (per cent)	1.74	0.25	1.30	3.30	4.00
10-year Canada bonds (per cent)	3.40	3.45	4.05	4.70	5.00
<b>Exchange Rate (US¢/Cdn\$)</b>	89.59	91.67	95.00	95.00	95.00
Calendar Year Assumptions	2009 Actual	2010	2011	2012	2013
<b>Gross Domestic Product</b>					
Nominal (millions of dollars)	240,156 <sup>c</sup>	259,165	278,882	297,382	317,126
per cent change	-17.5	7.9	7.6	6.6	6.6
Real (millions of 2002 dollars)	181,114 <sup>c</sup>	185,875	191,301	196,980	203,069
per cent change	-2.5	2.6	2.9	3.0	3.1
<b>Other Indicators</b>					
Employment (thousands)	1,988	2,003	2,043	2,084	2,120
per cent change	-1.3	0.8	2.0	2.0	1.7
Unemployment rate (per cent)	6.6	6.6	6.0	5.3	4.9
Average Weekly Earnings (per cent change)	3.2 <sup>c</sup>	3.0	3.0	3.2	3.2
Personal Income (per cent change)	1.3 <sup>c</sup>	3.4	5.6	7.1	6.6
Corporate Profits (per cent change)	-58.2 <sup>c</sup>	34.1	17.7	6.8	8.6
Housing starts (number of units)	19,217 <sup>d</sup>	23,100	24,200	25,400	26,200
Alberta Consumer Price Index (per cent change)	-0.1	2.0	2.1	2.1	2.1
Population (thousands)	3,688	3,744	3,806	3,871	3,938
per cent change	2.6	1.5	1.7	1.7	1.7

<sup>a</sup> Refers to the average price per barrel of Alberta light, medium and heavy oil.

<sup>b</sup> The bitumen price is an estimate of the price at Cold Lake and is not an actual market price.

<sup>c</sup> Alberta Finance and Enterprise estimate.

<sup>d</sup> Preliminary actual.

# ECONOMIC OUTLOOK 2010–2013

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## “GREAT GLOBAL RECESSION” DRAWS TO A CLOSE

- ◆ In the summer of 2009, major economies around the world began emerging from the worst recession since the 1930s.
- ◆ Historically low interest rates, unconventional monetary policy and government bailouts helped stabilize financial institutions in the spring of 2009. Governments around the world also announced massive fiscal stimulus packages that included new infrastructure spending and help for troubled industries like housing and autos.
- ◆ Japan, Germany and France returned to positive growth in the second quarter while the US and Canada moved into positive territory in the third quarter.
- ◆ Strong growth in developing Asia, where the financial sector was largely insulated from the global crisis, helped drive up commodity prices from their lows early in the year.

## DEVELOPING ASIA EXPECTED TO LEAD GLOBAL GROWTH IN 2010

- ◆ As the developed world limps out of recession, most analysts expect developing Asia, in particular China and India, to drive global growth.
- ◆ Although the muted economic recovery in advanced economies is expected to limit overall global growth to around 3% in 2010, global growth is expected to return to around 4.5% in the medium term, similar to its pre-recession average.
- ◆ Economic growth in the US is expected to be around 2.5% in 2010, a muted recovery by historical standards. Since the economy is still shedding jobs, the initial phase of the recovery is being sustained by government stimulus packages. Sustained economic growth depends on business and household spending gaining traction.
- ◆ While Canada’s domestic economy is in better shape than in the US, Canada’s dependence on the US market and the high Canadian dollar are expected to restrain exports and limit real economic growth to 2.5% in 2010.
- ◆ Global policy makers will walk a fine line as they attempt to withdraw monetary and fiscal stimulus without putting the economic recovery at risk. If the stimulus is withdrawn too quickly, the recovery could falter; too slowly, and rising inflation could jeopardize longer-term growth.
- ◆ Huge fiscal stimulus packages have left many countries with large increases in budget deficits, and in a number of cases, downgrades to their credit ratings. If there are major sovereign defaults, global financial markets could be thrown into turmoil once again.

## **A TALE OF TWO ENERGIES**

- ◆ Although oil prices have rebounded rapidly from their lows in early 2009, the recovery in natural gas prices has been muted.
- ◆ Growing global demand, particularly in Asia, and limited increases in global supply are expected to keep oil prices high by historical standards. World oil prices are forecast to rise from an average of US\$69.95 per barrel in 2009-10 to US\$78.75 in 2010-11 and to reach US\$89.50 by 2012-13.
- ◆ Stronger prices and lower construction costs have renewed interest in Alberta's oil sands. Although total investment in Alberta's oil sands is expected to rise by about 20% in 2010, it will still remain well below its 2008 peak. Growth in the oil sands is expected to continue at a sustainable rate, but not return to the frantic pace of recent years.
- ◆ Rising production from oil sands is expected to provide a significant boost to Alberta's energy exports in the coming years.
- ◆ Falling US industrial demand and rising US shale gas production have pushed natural gas inventories to record levels and depressed North American prices. As a result, drilling activity was down sharply in both Alberta and the US in 2009.
- ◆ Rising US shale gas production is expected to keep the recovery in natural gas prices relatively subdued. The Alberta Gas Reference Price is forecast to rise from an average of Can\$3.40 per gigajoule in 2009-10 to Can\$4.25 in 2010-11 and Can\$5.50 by 2012-13.
- ◆ As a result, conventional drilling activity in Alberta is expected to post only a modest recovery in 2010 and production to decline by an average of around 6% per year through 2013. Declining production and rising domestic consumption (particularly by oil sands) will reduce natural gas exports from Alberta.

## **GLOBAL RECOVERY EXPECTED TO STRENGTHEN TOTAL EXPORTS**

- ◆ The volume of total Alberta exports declined for the second consecutive year in 2009, with widespread weakness except for oil exports. Total exports are expected to begin recovering in 2010 as the global economic recovery gathers momentum. New oil production, manufacturing and business services are expected to be key drivers of Alberta's export performance over the medium term.
- ◆ Agricultural exports are expected to weaken somewhat further in 2010. Grain production returned to more normal levels in 2009 from a bumper crop in 2008, which will moderate grain exports in 2010. Livestock supplies are also lower, and the shift to exporting meat rather than live animals is expected to continue.
- ◆ The volume of manufacturing exports, which were down an estimated 7% in 2009, are expected to post a modest recovery in 2010 and then to strengthen over the medium term as the US recovery strengthens.

## **GRADUAL IMPROVEMENT IN LABOUR MARKET**

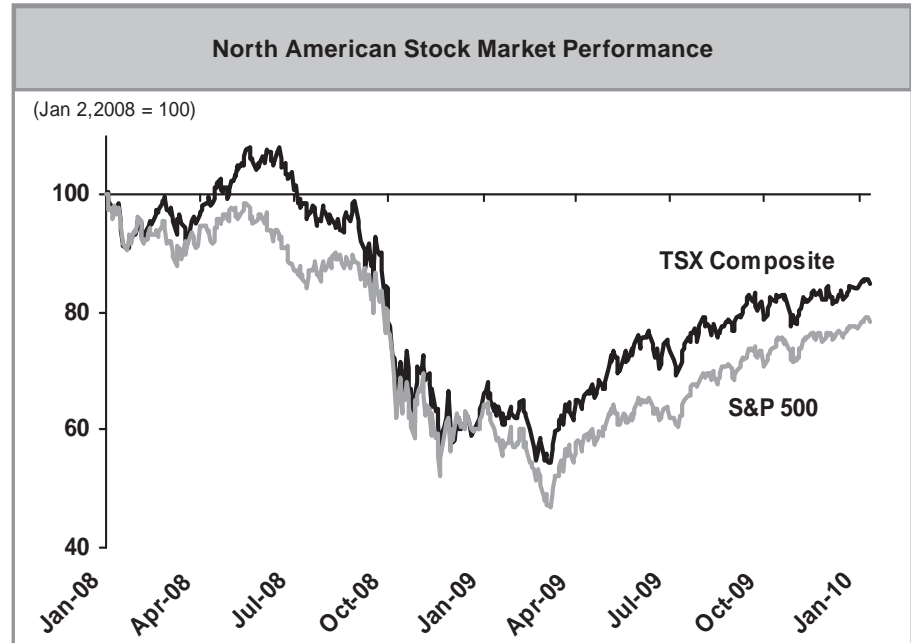
- ◆ The last part of the economy to climb out of recession is typically the labour market. Rising corporate profits and stronger economic growth in 2010, are expected to provide a boost to Alberta's employment, building on the gains at the end of 2009.
- ◆ Average employment in 2010 is forecast to be just over 2 million, an increase of 15,000 or 0.8% from average 2009 levels. The average unemployment rate is expected to remain at 6.6% in 2010 as labour force growth keeps pace with employment growth.
- ◆ As employment growth picks up in the medium term, the unemployment rate is forecast to decline to 4.9% by 2013. Wage growth, however, is expected to moderate from 6.0% in 2008 to around 3% as the recent downturn has eased Alberta's labour shortages.
- ◆ Migration to Alberta is strongly influenced by Alberta's relative economic performance. The net inflow of people from other provinces is expected to drop to around 5,000 in the 2010 census year, reducing Alberta's population growth from 2.6% in 2009 to 1.5% in 2010. Net interprovincial migration is expected to strengthen to its long-term average of around 14,000 by 2013 as Alberta's economic performance picks up. Alberta's total population growth is therefore forecast at 1.7% in the medium term.
- ◆ Healthy population and income growth is expected to sustain the recovery now underway in Alberta's housing market. Housing starts are expected to remain in line with growth in the number of new households at roughly 25,000 per year.

## **ALBERTA'S ECONOMY MOVING TO A SUSTAINABLE GROWTH PATH**

- ◆ The Alberta economy has weathered the 'great recession' and is returning to a sustainable pace of growth. Over the medium term, strengthening investment, particularly in the unconventional oil sector, will boost employment and incomes in the province, despite weakness in the conventional gas sector. Alberta's economy is forecast to grow at 2.6% in 2010, with growth strengthening to around 3% over the remainder of the forecast period.

## Equity Markets Rebound from Global Financial Crisis

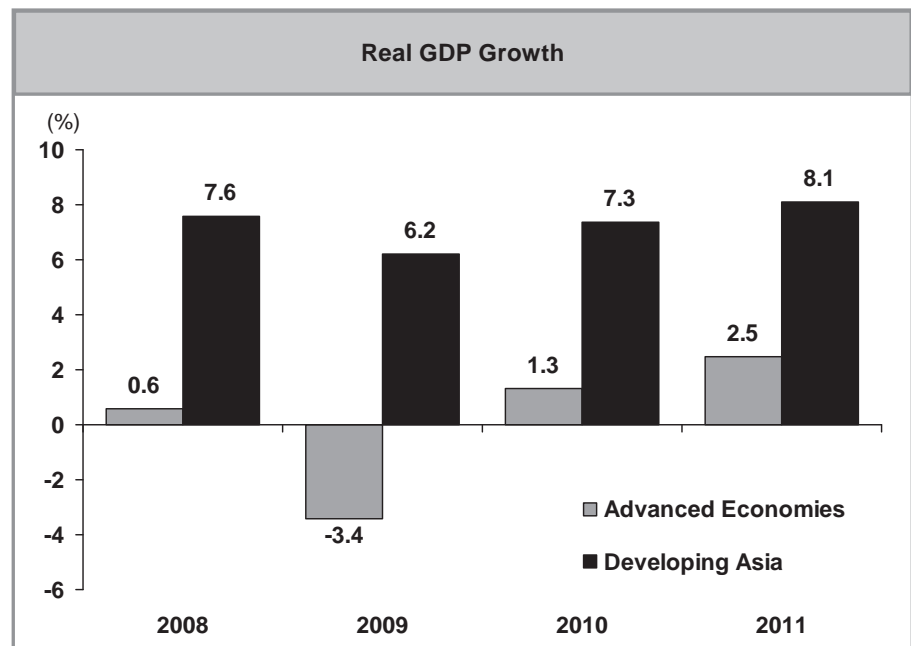
*In late 2008, the global financial crisis triggered the worst world recession since the 1930s. Global equity markets bottomed out in March 2009 when strong action by policymakers succeeded in stabilizing the global financial system. Equity markets, typically a leading indicator, bounced back in the second half of 2009. Canada's TSX is up 55% from its March low, while the S&P500 in the US is up 65%.*



Sources: Yahoo Finance and Alberta Finance and Enterprise.

## Developing Asia Drives Global Recovery

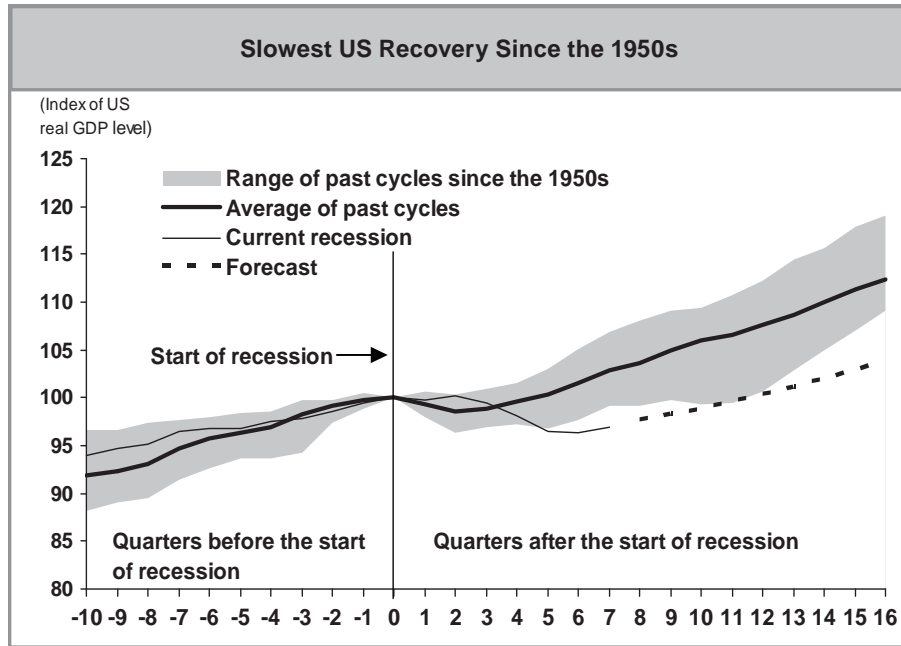
*Strong growth in advanced economies as well as major emerging markets propelled global growth to an average of 4.5% in the five years leading up to the recession. Continued rapid growth in emerging Asia, which is dominated by China and India, helped limit the global economic contraction to 1.1% in 2009 and is expected to boost global economic growth to around 3% in 2010 despite a sluggish recovery in advanced economies. By 2011, global growth is expected to return to pre-recession rates as the recovery in advanced economies strengthens.*



Source: International Monetary Fund, October 2009.



## Muted North American Recovery

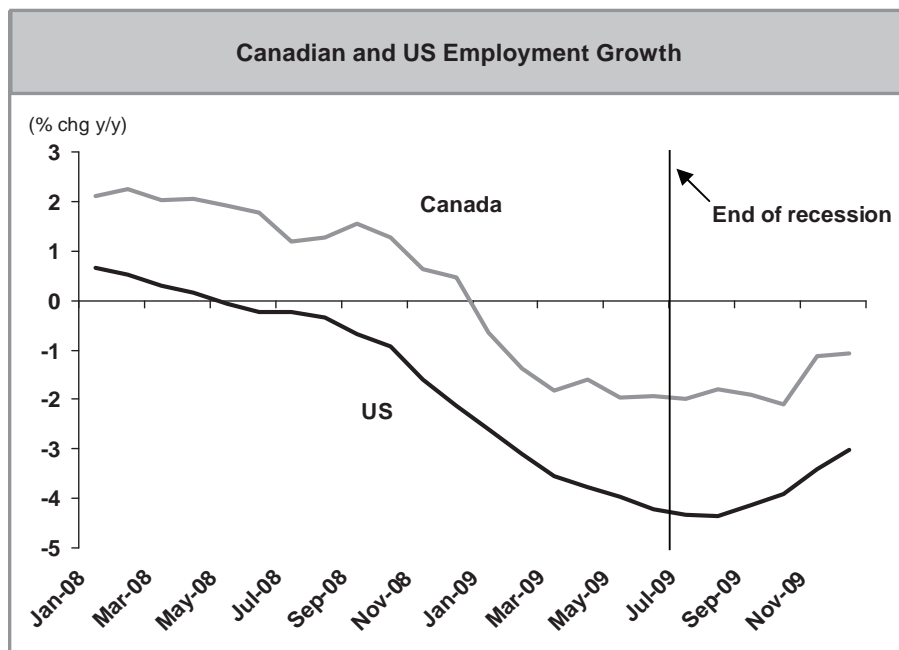


Sources: US Department of Commerce and Alberta Finance and Enterprise.

Although both Canada and the US emerged from recession in the third quarter of 2009, the US turned in a much stronger performance with real GDP growth of 2.2%. Canada's economy eked out growth of only 0.4% as a high Canadian dollar held back exports.

Canada's domestic economy, however, is in much better shape than in the US, which is still struggling with problems in the housing market and bad loans in the financial sector. Nonetheless, weak Canadian exports are expected to keep Canada's overall economic growth at 2.5% in 2010, the same as in the US.

## Employment Lags Recovery



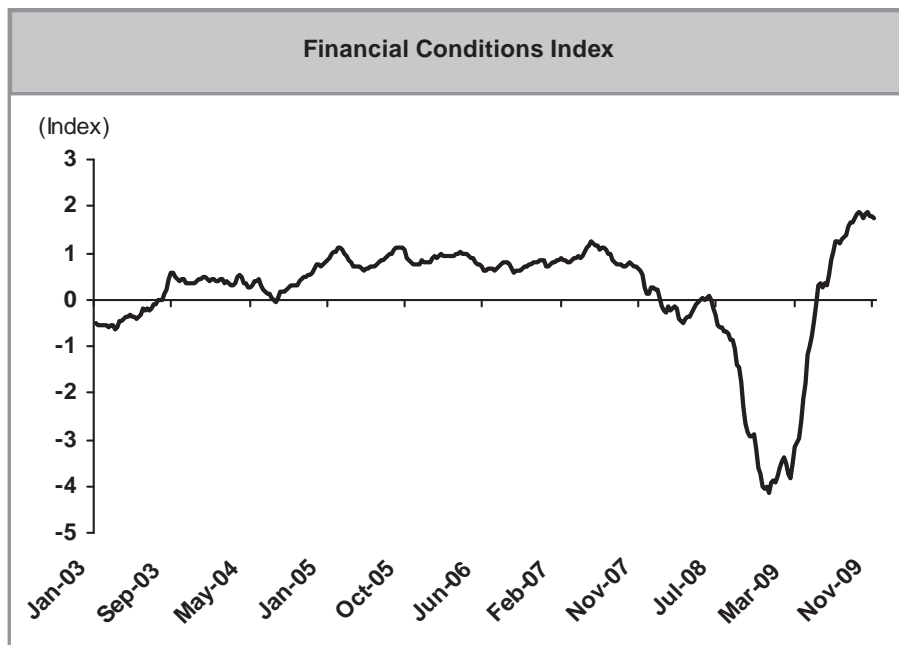
Sources: US Bureau of Labor Statistics and Statistics Canada.

Canada's labour market has fared much better than in the US. Although employment is still down from 2008 levels, Canada posted job gains in three of the last five months of 2009.

The rate of job losses in the US has slowed. Nonetheless, sustained employment gains remain elusive. Without a solid improvement in the labour market, the US recovery may not be self-sustaining when the effects of temporary US fiscal packages fade in the second half of 2010.

The Bank of Canada's Financial Conditions Index takes into account credit conditions, corporate bond spreads, interest rates, the exchange rate, stock prices and housing prices. The Bank's index suggests that overall financial conditions have returned to normal in Canada. Low interest rates and a narrowing of corporate bond yields indicates that access to credit will not act as a constraint on near-term economic growth.

## Financial Conditions Back to Normal

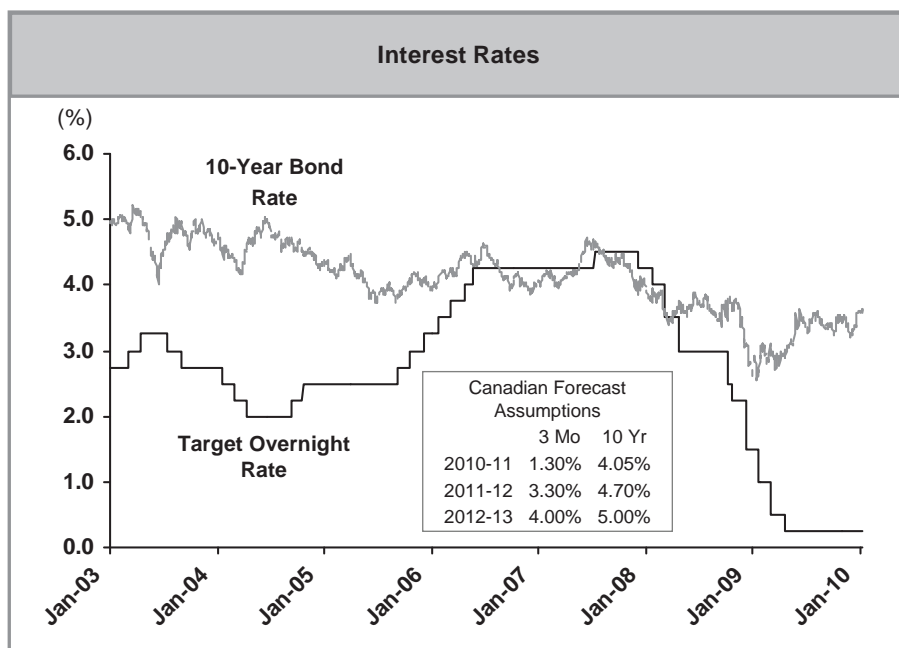


Source: Bank of Canada.

Although the Bank of Canada slashed interest rates to historic lows as the global financial crisis unfolded, the Bank has not had to resort to US-style non-conventional measures like quantitative easing to support the financial system and the economic recovery.

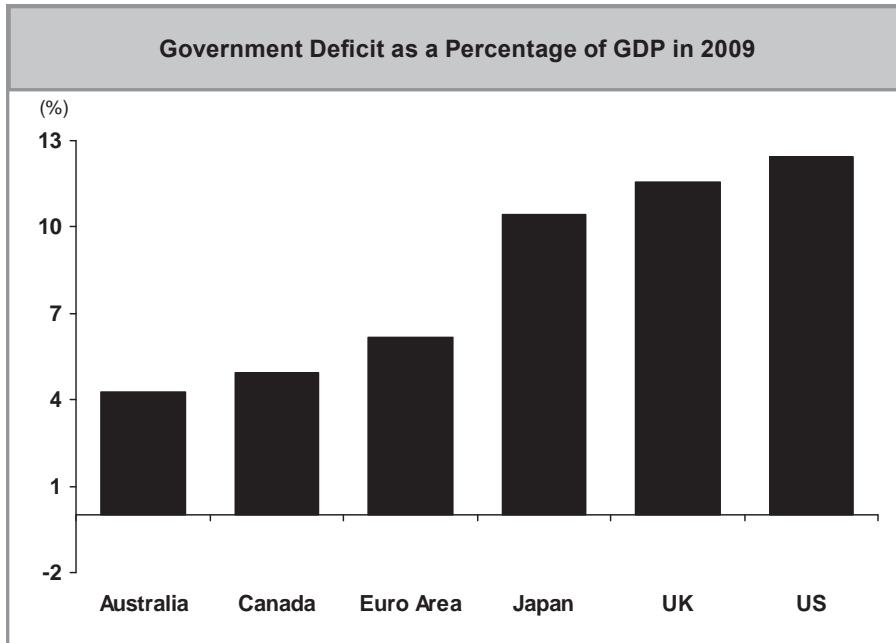
The Bank has committed to holding the policy rate at its current level until June 2010 as long as inflation remains under control. Policy interest rates are expected to gradually return to more normal levels as the economy strengthens.

## Interest Rates to Rise from Historic Lows



Sources: Bank of Canada and Alberta Finance and Enterprise.

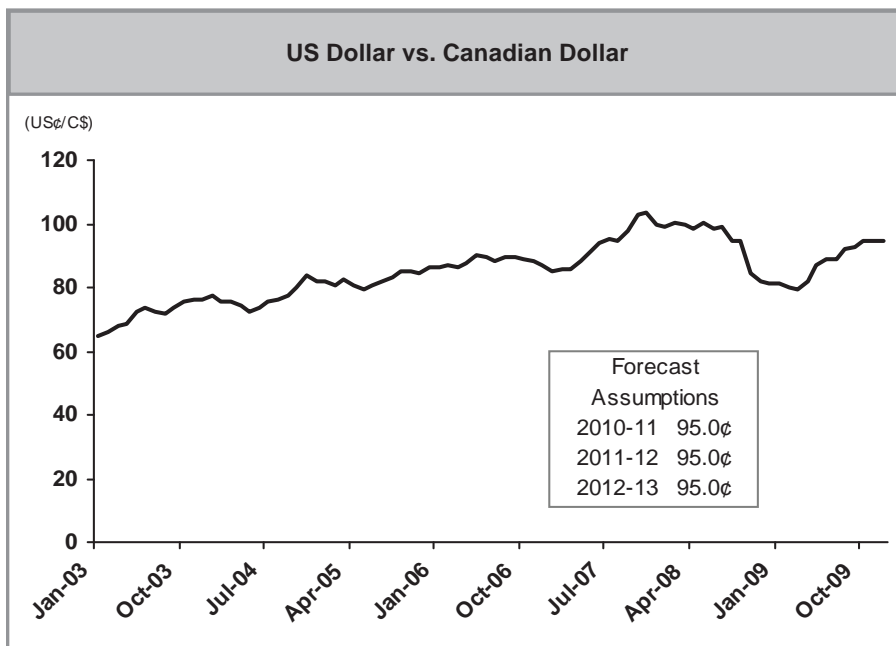
## Stimulus Packages Lead to Ballooning Deficits



Source: International Monetary Fund.

*The massive fiscal stimulus that governments around the world unleashed to support economic activity has caused a sharp deterioration in government fiscal balances, particularly in countries like the US and the UK whose financial sectors were hard hit by the crisis. Although these deficits are unsustainable in some cases, governments will have to time the removal of this support carefully so as not to jeopardize the recovery.*

## US Dollar Weakens



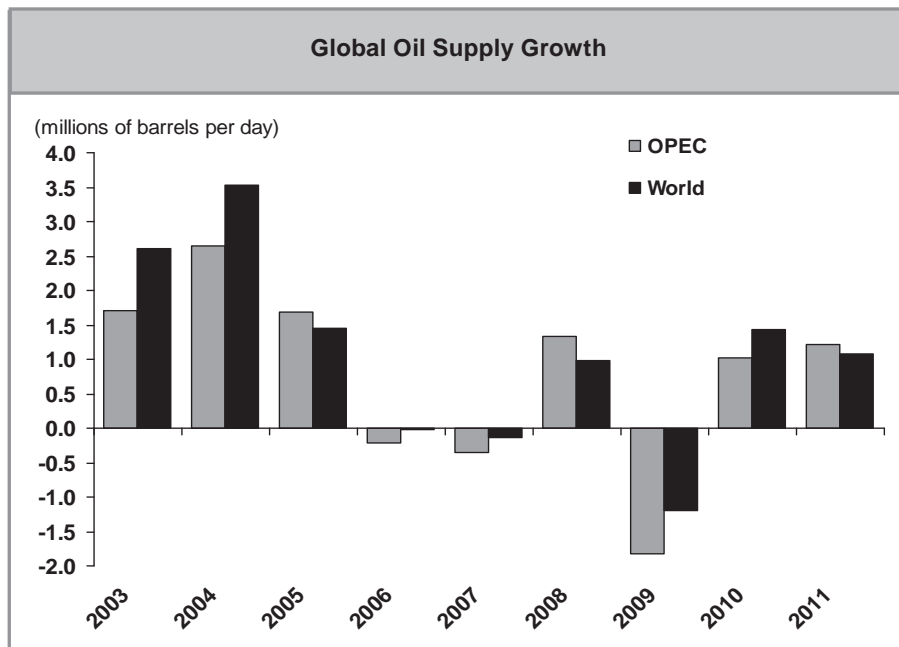
Sources: Bank of Canada and Alberta Finance and Enterprise.

*The US dollar strengthened against most major currencies at the height of the financial crisis as investors fled to safe havens. With the improvement in financial markets, the broad US dollar index has declined almost 10% since March 2009. The Canadian dollar has increased from a low of around 77 US cents in December 2008 to around 95 US cents currently. The loonie is expected to remain around current levels due to rising concerns over US fiscal problems.*

World oil supplies declined sharply in 2009, as reduced world demand weighed on prices and the financial crisis constrained capital investment.

There is likely to be renewed pressure on world oil prices since world demand growth is expected to outpace global supply growth as the economic recovery gains momentum.

## Modest Growth in Global Oil Supplies

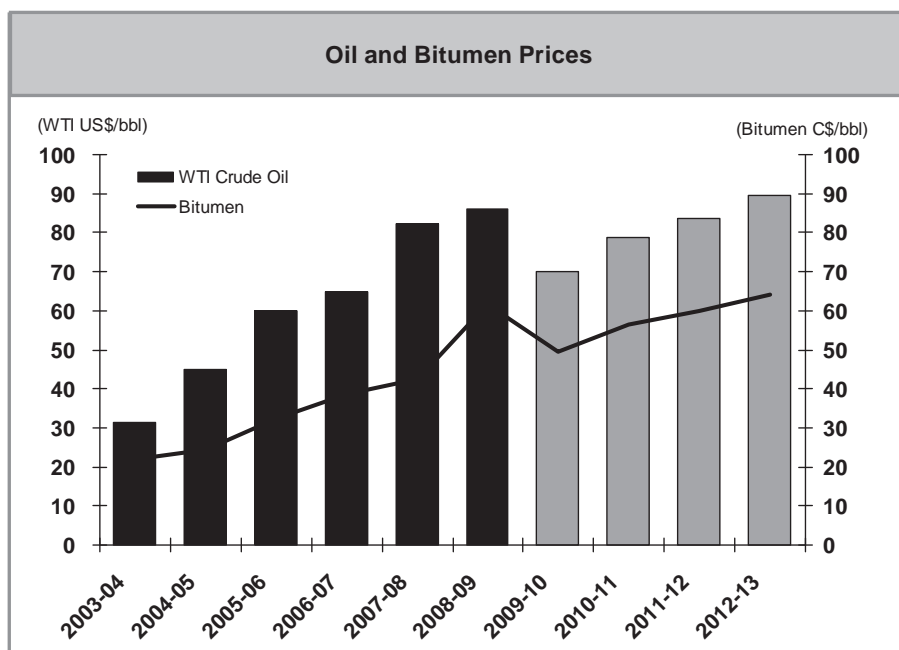


Source: US Energy Information Administration.

The price of the benchmark light crude oil, West Texas Intermediate (WTI), dropped precipitously in the fall of 2008. After hitting a low of around US\$33 as the global recession began, WTI prices have more than doubled as the recession has transitioned into a global recovery.

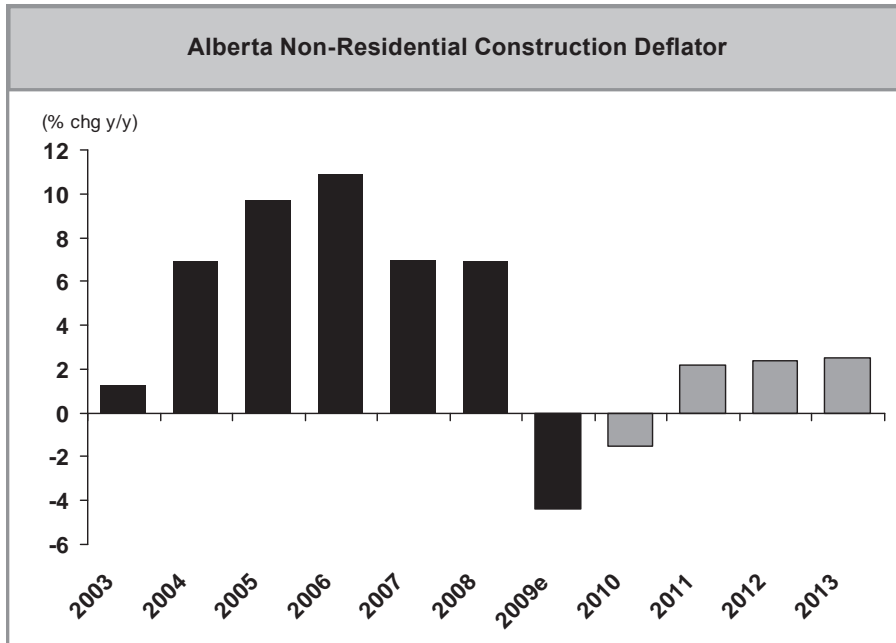
Historically, prices for heavy crude have been well below WTI prices. A reduction in heavy oil supplies and increased refining capacity, however, have sharply reduced the differential.

## Rising Prices for Heavy Oil



Source: Alberta Energy.

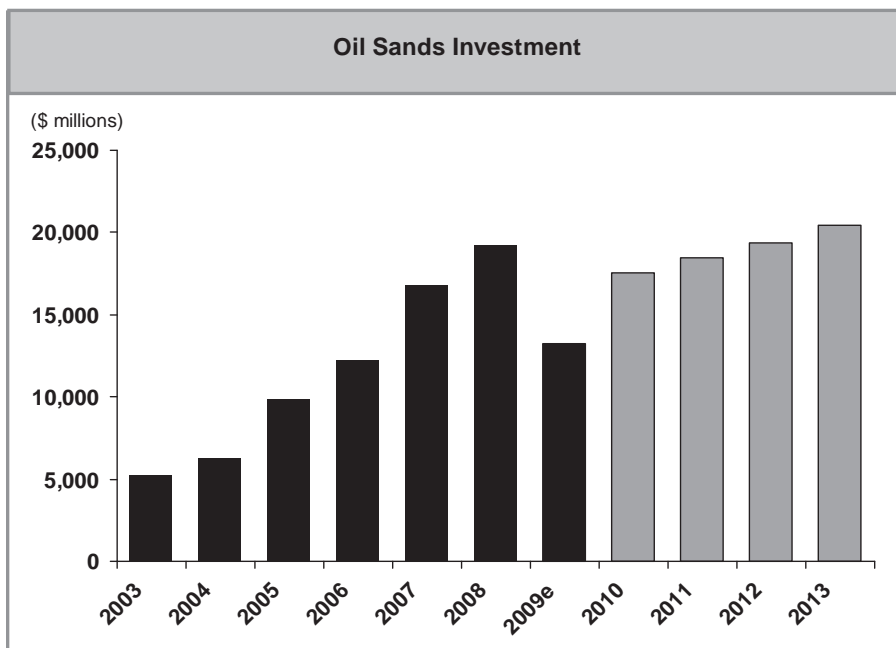
## Cost Pressures Easing



Sources: Statistics Canada and Alberta Finance and Enterprise.

*Investment in Alberta's oil sands faced significant cost pressures during Alberta's recent investment boom. Construction cost pressures eased in 2009, with non-residential construction prices down 7% and 11.6% respectively in Calgary and Edmonton, in the first three quarters of 2009 compared to the same period in the previous year.*

## Improved Prospects for Oil Sands Investment

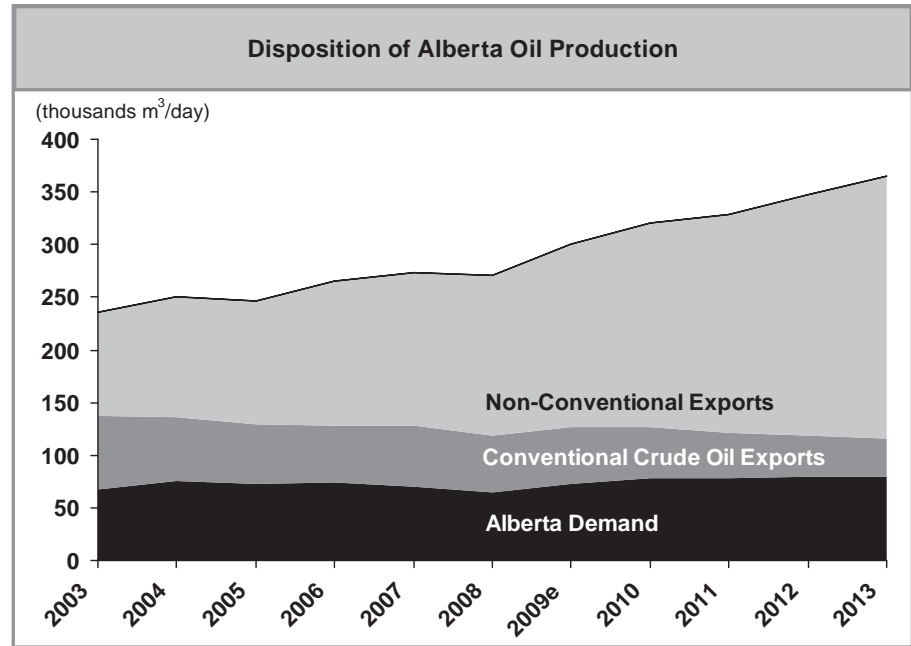


Sources: Statistics Canada and Alberta Finance and Enterprise.

*Stronger prices and lower construction costs have improved the outlook for investment in Alberta's oil sands. The Canadian Association of Petroleum Producers expects oil sands investment to increase by \$2 billion in 2010 as a number of projects are taken off the back burner. Future oil sands investment is expected to grow at a more sustainable rate than the frantic pace set during the boom.*

*Even with the decline in investment from its 2008 peak, the completion of projects prior to the recession and the planned revival of several previously shelved projects will significantly boost oil sands production. Increasing production is expected to lift exports over the forecast period.*

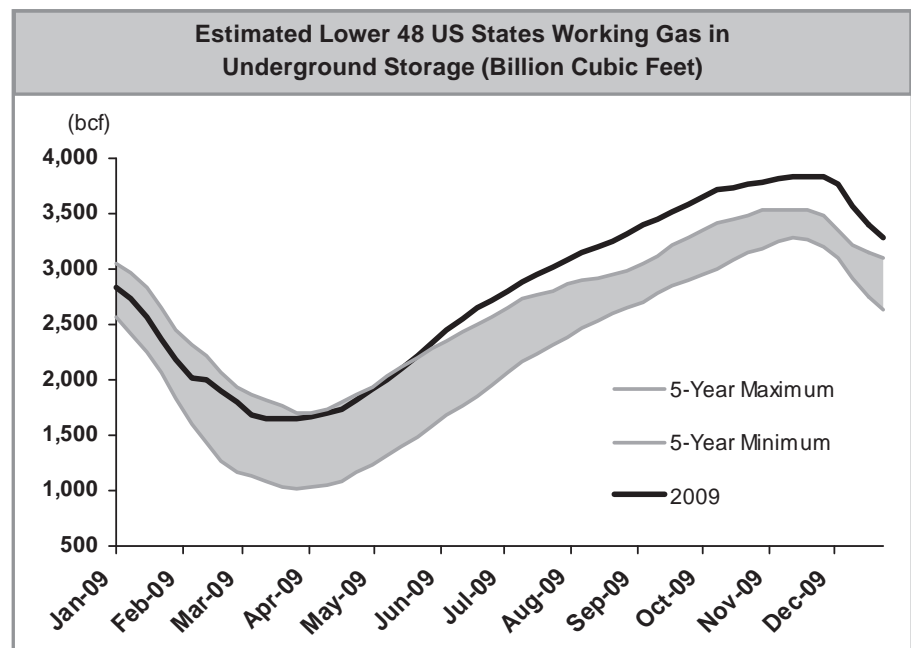
## Rising Oil Exports



Source: Energy Resources Conservation Board.

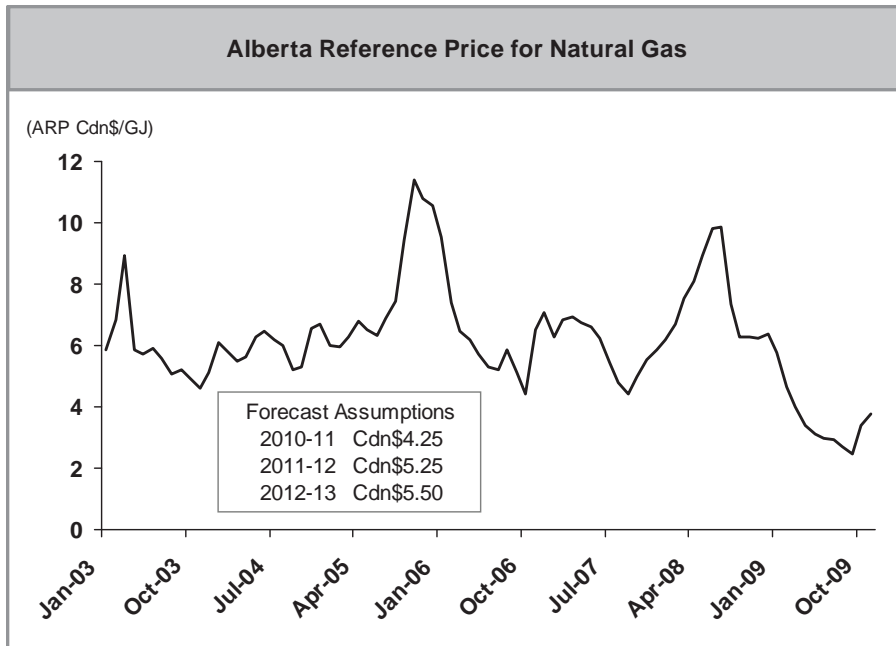
*US natural gas inventories hit record levels in 2009 as the recession and milder weather suppressed demand while the development of shale gas reserves boosted US natural gas production. This excess supply is weighing heavily on the outlook for prices.*

## High Natural Gas Inventories



Source: US Energy Information Administration.

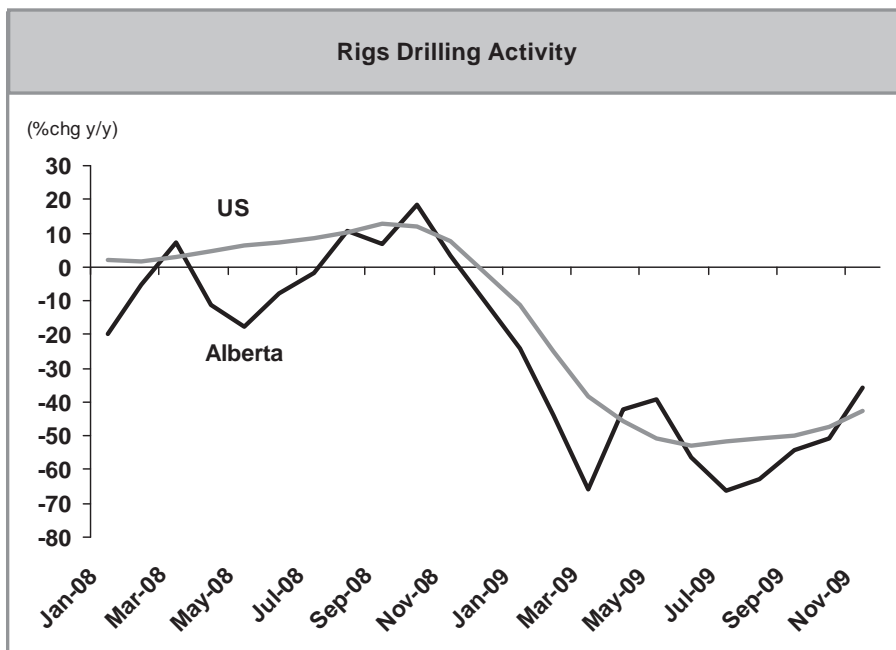
## Restrained Natural Gas Prices



Source: Alberta Energy.

Despite the strong rebound in oil prices in the summer of 2009, the Alberta Reference Price for natural gas continued to drop before bottoming out at Can\$2.48 per gigajoule in September. Although natural gas prices are expected to improve as US industrial demand recovers, the improvement is expected to be modest due to increasing North American supplies of shale gas.

## Rigs Drilling Down in North America



Sources: Canadian Association of Oilwell Drilling Contractors and US Energy Information Administration.

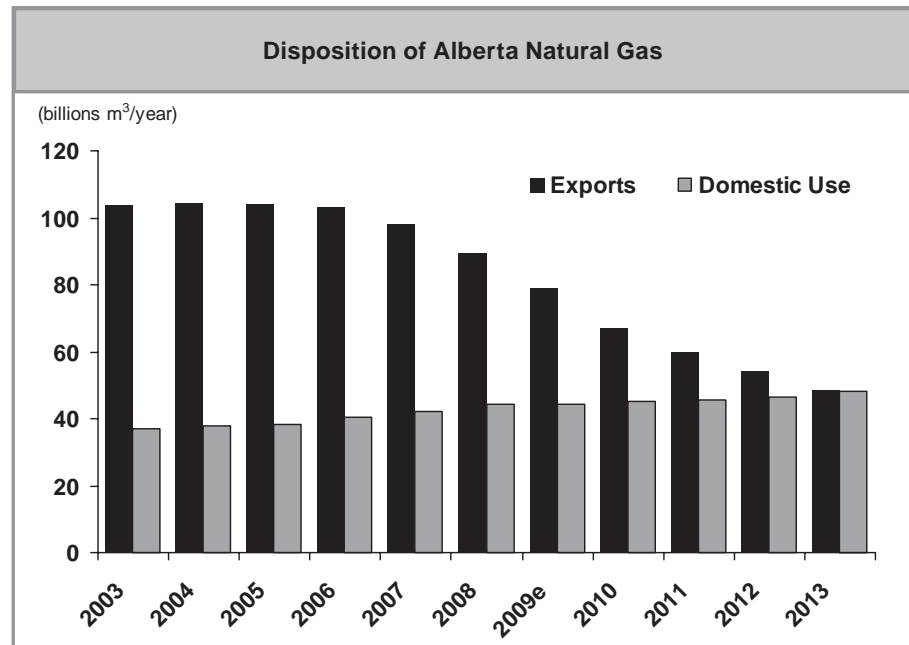
While lower prices have reduced the incentive for exploration and development, technological advances have also diminished the number of drilling rigs operating in both Canada and the US. New multi-frac horizontal drilling processes are "a game changer" that require a smaller number of drilling rigs to access a given area of reserves.

## Falling Natural Gas Exports

*Natural gas exports are forecast to decline by an average of about 12% per year between 2009 and 2013.*

*Part of the decline in exports is due to rising gas consumption within Alberta, particularly by oil sands.*

*Natural gas production is also expected to decline by an average of around 6% per year as a result of declining well productivity and lower levels of drilling activity.*



Source: Energy Resources Conservation Board and Alberta Finance and Enterprise.

## Manufacturing Exports to Recover

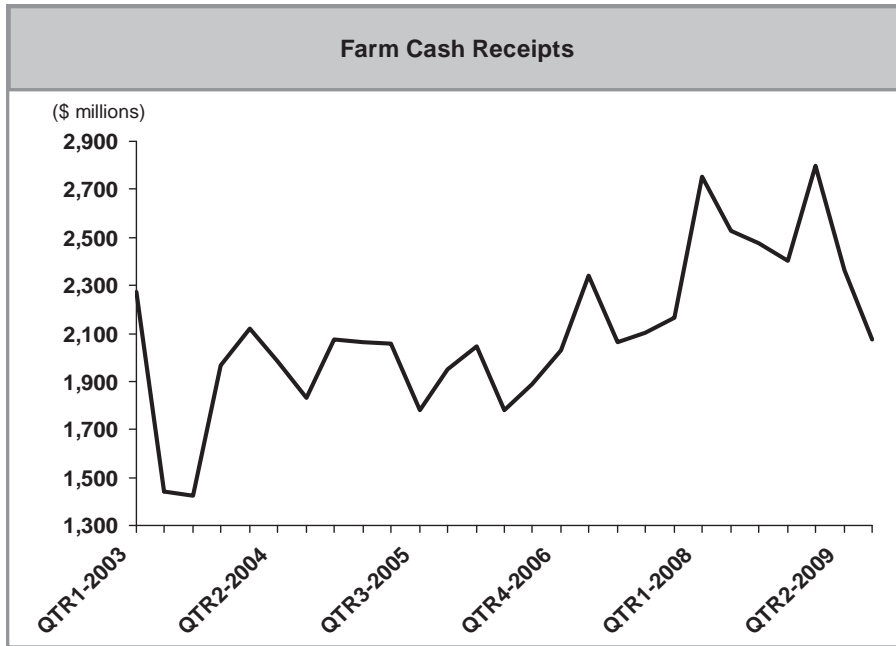
*The overall value of Alberta's manufacturing shipments were down 22.8% in the first eleven months of 2009 compared to the previous year. Shipments of chemicals were down 35.1% through November 2009, while petroleum and coal products were down 31.1% and wood products 28.5%. Despite the high Canadian dollar, Alberta's manufacturing exports are expected to improve due to lower costs and the US recovery.*



Sources: Statistics Canada and Alberta Finance and Enterprise.



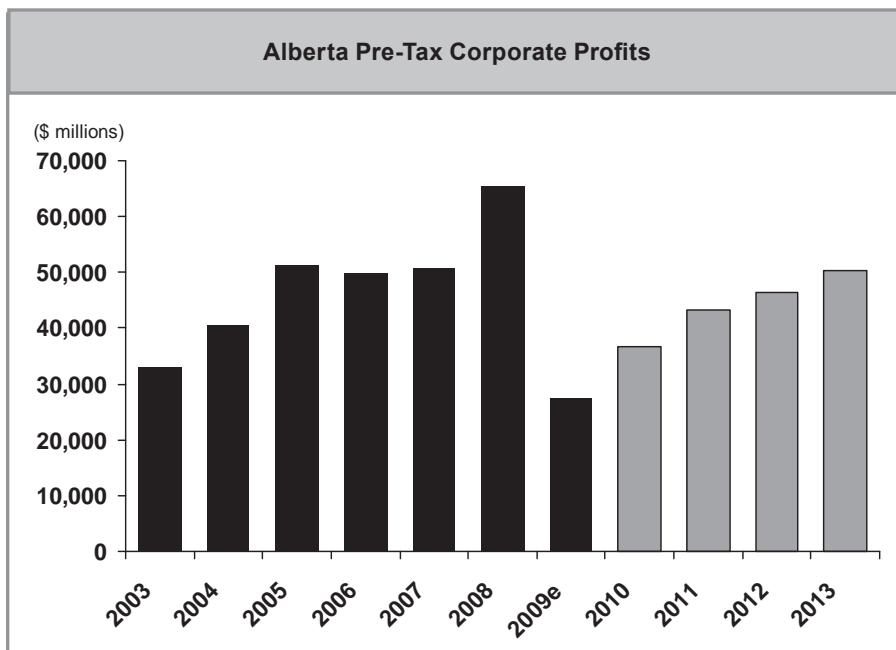
## Farm Cash Receipts



Source: Statistics Canada.

Total market receipts fell by 2.6% through the first three quarters of 2009 as the global recession reduced prices for both crops and livestock. In addition, the creation of protectionist trade barriers and new mandatory country of origin labeling in the US have hurt agriculture exports and access to markets. As the global economy recovers, market receipts are expected to improve.

## Corporate Profits to Recover in 2010



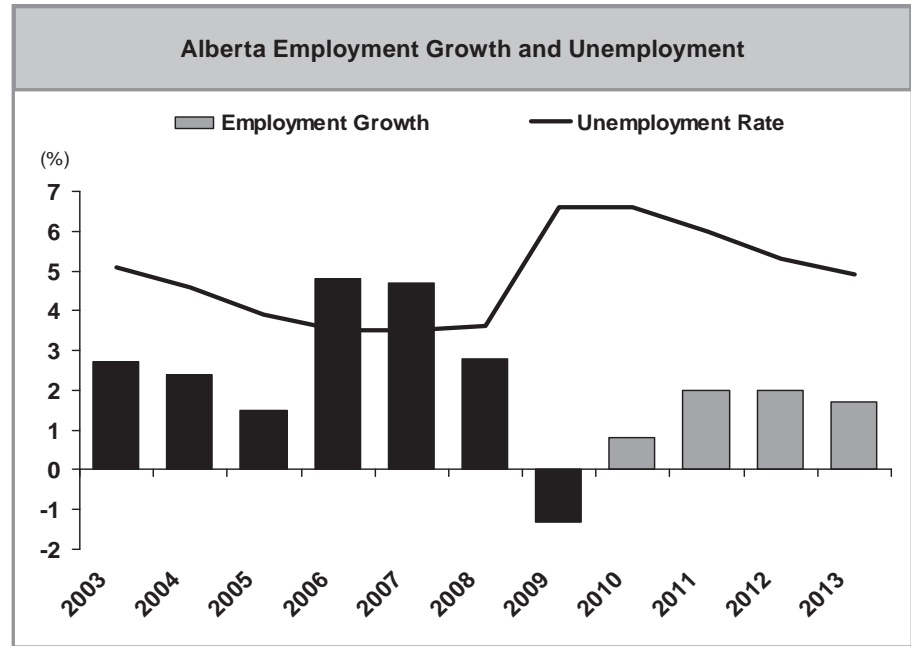
Sources: Statistics Canada and Alberta Finance and Enterprise.

Corporate profits are expected to stage a recovery in 2010 due to reduced cost pressures, stronger energy prices and an improved outlook for exports.

Even though the level of corporate profits is forecast to be lower than the record levels of recent years, corporate profits are still expected to account for 14% of Alberta's economy in 2010, very close to the long-term average of 15%. The long-term average for Canada as a whole is 10%.

## Employment Growth and Unemployment

The recession led to a drop of 25,200 in average employment in Alberta between 2008 and 2009, increasing the unemployment rate from 3.6% to 6.6%. Nonetheless, Alberta still had the third lowest unemployment rate among the provinces. Stronger domestic demand and higher corporate profits are expected to lead to a modest rise of 15,000 (0.8%) in average employment in 2010. The unemployment rate is expected to average 6.6% for 2010 as a whole, similar to the rate prevailing at the end of 2009. The unemployment rate is expected to gradually decline to 4.9% by 2013.

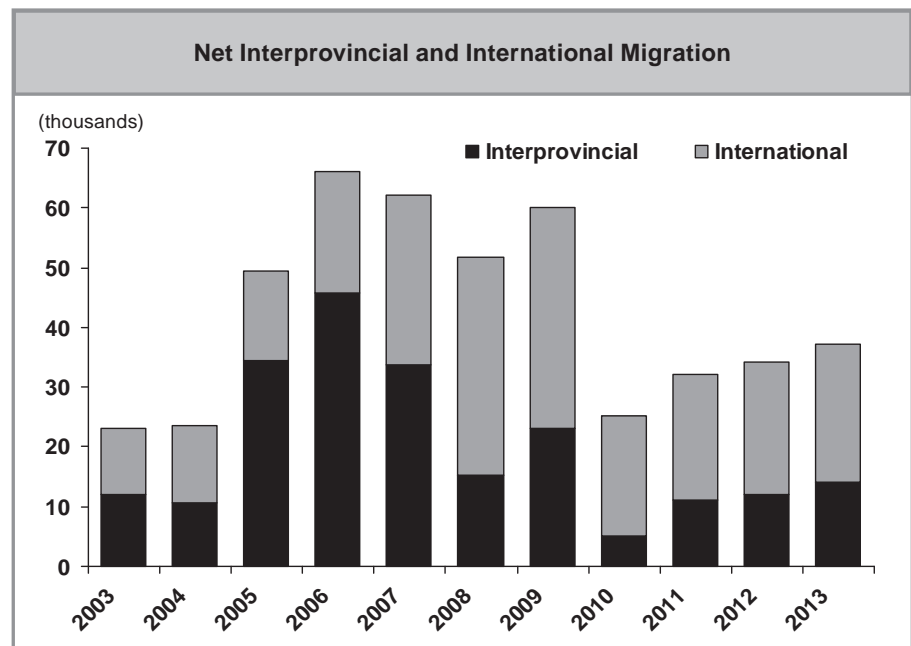


Sources: Statistics Canada and Alberta Finance and Enterprise.

## Migration Moderates

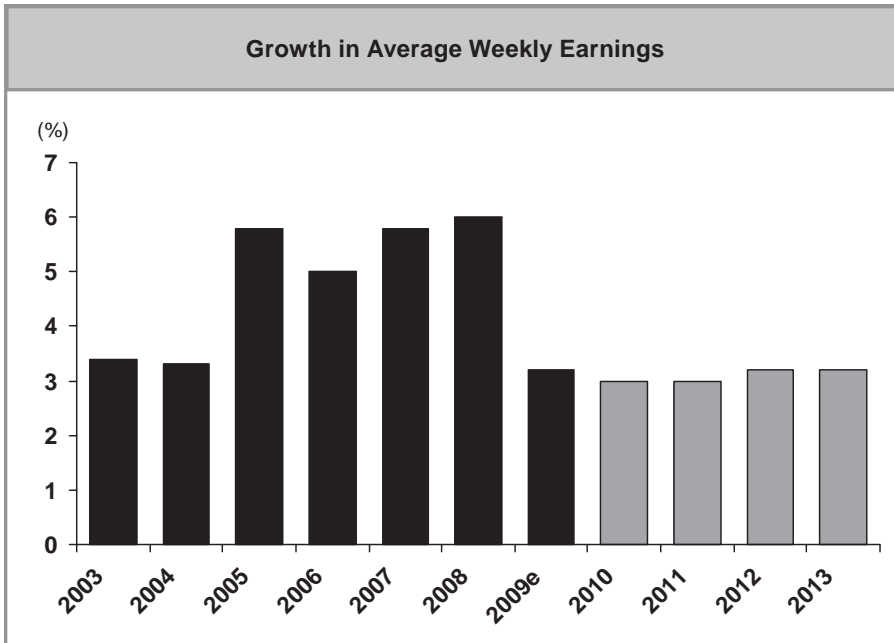
Net interprovincial migration to Alberta is largely driven by Alberta's relative economic performance.

A return to growth in central Canada and a modest economic recovery in Alberta is likely to keep net interprovincial migration lower than in recent years. Net inflows of permanent residents are expected to remain near current record levels, although net inflows of non-permanent residents are expected to drop off sharply as a result of reduced labour shortages. Total population growth is expected to slow to 1.5% in 2010, and then to edge up to 1.7% in subsequent years as interprovincial migration picks up.



Sources: Statistics Canada and Alberta Finance and Enterprise.

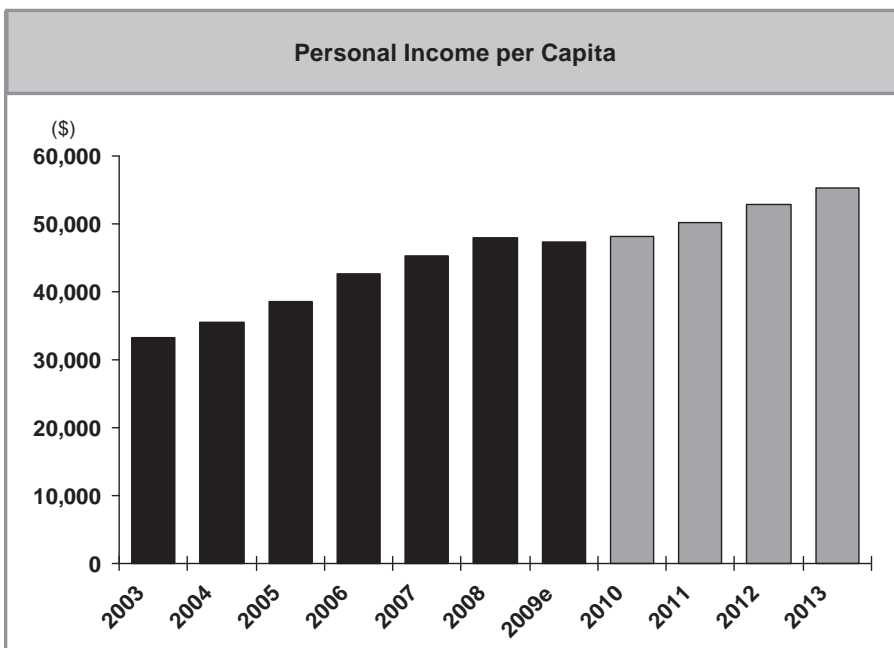
## Wage Growth Moderating



*Growth in average weekly earnings dropped from 6% in 2008 to an estimated 3.2% in 2009, and is expected to remain around this level due to fewer labour shortages. Wage gains, however, are expected to outpace increases in living costs as inflationary pressures have lessened.*

Sources: Statistics Canada and Alberta Finance and Enterprise.

## Modest Increases in Personal Income



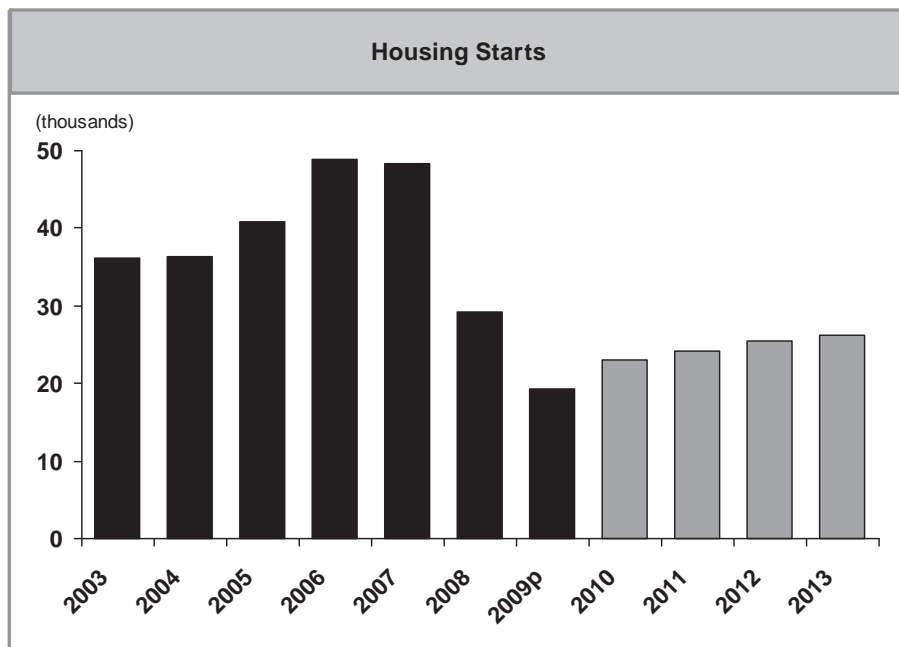
*After rising rapidly in the middle part of the decade, growth in per capita personal income is expected to be minimal in 2010 due to modest growth in labour income and lower investment income. Income growth is expected to strengthen in 2011 as the recovery picks up. Alberta continues to have the highest per capita personal income among the provinces.*

Sources: Statistics Canada and Alberta Finance and Enterprise.

*Continued low interest rates and improved employment prospects are expected to sustain the recovery in Alberta's housing market evident in the second half of 2009.*

*Over the medium term, housing starts are expected to keep pace with the growth in the number of households.*

## Housing Recovery Sustained

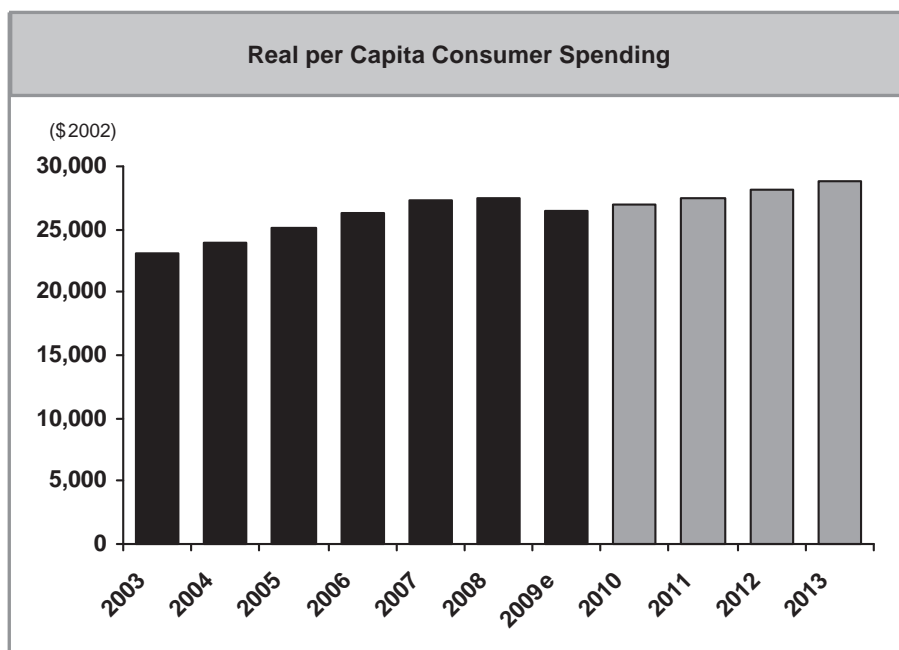


Sources: Canada Mortgage and Housing Corporation and Alberta Finance and Enterprise.

*After growing by an average of 12% per year during the boom, retail sales in Alberta were essentially flat in 2008 and dropped sharply in 2009. Although part of the 2009 drop was due to lower gasoline prices, sales of new motor vehicles and home furnishings also fell sharply.*

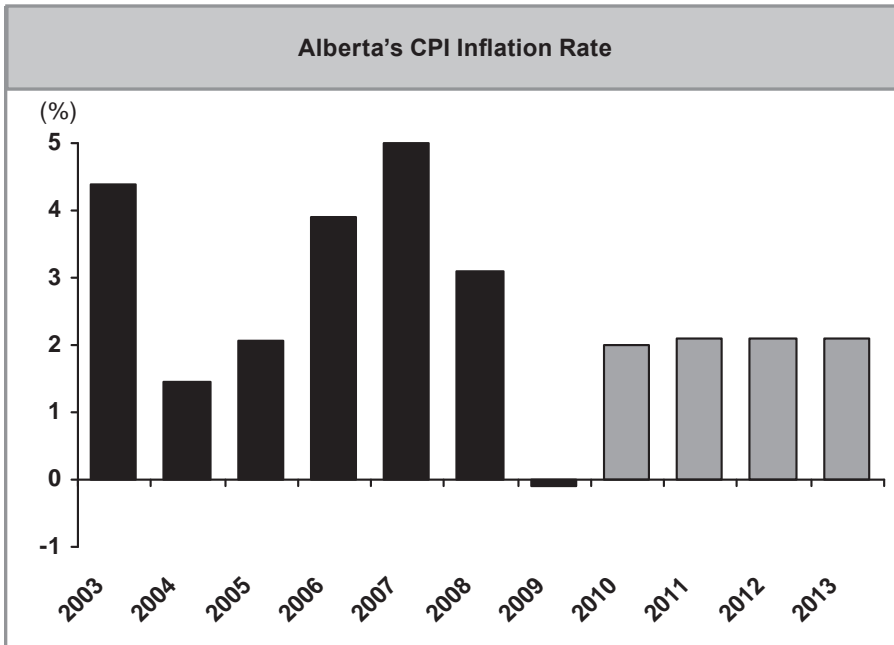
*As the economic recovery strengthens, improved consumer confidence is expected to reduce Alberta's current high personal savings rate and support annual growth in real per capita consumer spending of about 2% in the near term.*

## Consumer Spending



Sources: Statistics Canada and Alberta Finance and Enterprise.

## Inflationary Pressures Ease

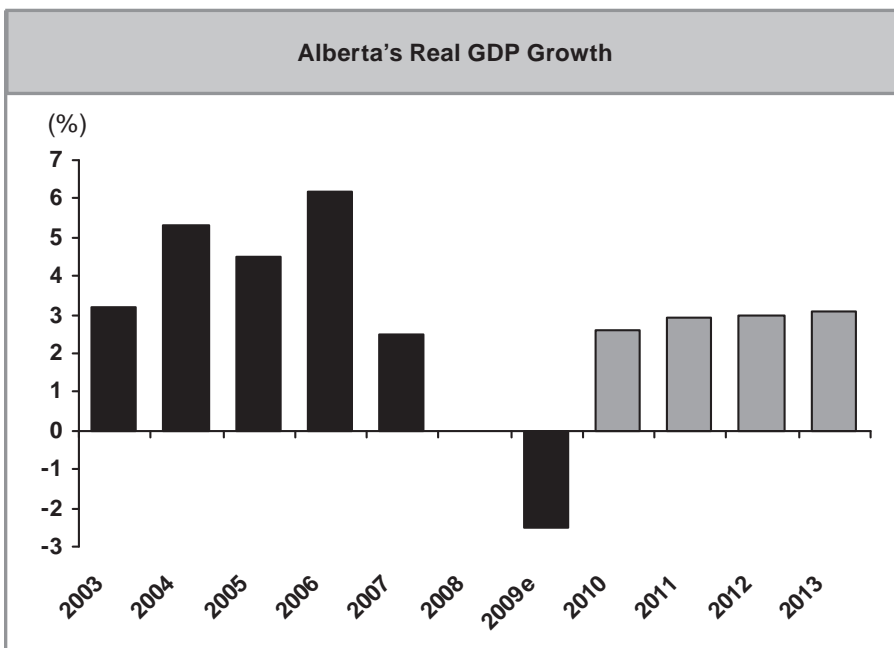


Sources: Statistics Canada and Alberta Finance and Enterprise.

*Alberta is no longer the inflation leader among the provinces. Alberta's near zero inflation rate in 2009 marks the first time since 2005 that Alberta's inflation rate has been below the national average.*

*Alberta's inflation is expected to be similar to the national rate of around 2% over the forecast horizon.*

## Sustainable Growth



Sources: Statistics Canada and Alberta Finance and Enterprise.

*After contracting by an estimated 2.5% in 2009, Alberta's economy began to strengthen towards the end of the year with both employment and the housing sector picking up.*

*The economy is expected to expand by a modest 2.6% in 2010.*

*As the global recovery continues, stronger exports, higher levels of business investment and consumer spending are expected to sustain growth. Between 2011 and 2013, economic growth is projected to average 3%, more sustainable than the average growth of 5.4% between 2004 and 2006.*



## **ANNEX** RISKS, SENSITIVITIES AND BENCHMARKING

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## RISKS TO THE ECONOMIC OUTLOOK

### GLOBAL RECOVERY

- ✧ The pace at which global authorities withdraw the current fiscal and monetary stimulus is the largest risk to the economic forecast. There is a possibility of a double-dip recession if the stimulus is withdrawn too quickly, which would likely depress energy prices and Alberta's exports.
- ✧ Should fiscal and monetary stimulus be withdrawn too slowly, rising inflation could result in central banks raising interest rates, which would increase debt payments for households, firms and governments in deficit.
- ✧ There is a chance that North America could bounce back more quickly than is currently forecast, which would lead to more rapid growth in the Alberta economy.

### US DOLLAR

- ✧ Further weakening or increased volatility of the US dollar remains a significant risk to the global, and particularly North American economic recovery.

### ENERGY PRICES

- ✧ The strength of oil prices will be strongly influenced by the underlying strength of the global economic recovery. An unexpectedly rapid recovery could lead to price spikes in the near-term as investment in new global supplies has been somewhat limited by the global financial crisis and ensuing recession.
- ✧ The outlook for natural gas prices remains a source of major uncertainty, and could be strongly affected by technological advances that increase US gas production.

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### Sensitivities to Fiscal Year Assumptions, 2010–11<sup>a</sup>

(millions of dollars)

	Change	Net Impact (2010-11)
Oil Price (WTI US\$/bbl)	-\$1.00	-186
Natural Gas Price (Cdn\$/GJ)	-10 Cents	-93
Exchange Rate (US¢/Cdn\$)	+ 1 Cent	-215
Interest Rates	+1%	-141
Equity Market Returns	-1%	-74
Personal Income	-1%	-127

<sup>a</sup> Sensitivities are based on current assumptions of prices and rates and show the effect for a full 12 month period. Sensitivities can vary significantly at different price and rate levels. The energy price sensitivities do not include the potential impact of price changes on the revenue from land sales. The interest rate sensitivity has two components, an increase in cash interest income and a capital loss. When interest rates rise, bond prices go down, causing a capital loss.

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## Oil Price Benchmark

West Texas Intermediate (US\$/bbl)

Organization	2010	2011	2012	2013
<b>National Forecasting Agencies</b>				
Conference Board of Canada (Jan/10)	78.08	85.64	95.20	108.17
Global Insight (Jan/10)	68.13	77.17	83.16	87.02
Centre for Spatial Economics (Dec/09)	75.00	80.00	90.00	95.90
<b>Banks and Investment Dealers</b>				
BMO Capital Markets (Dec/09)	77.00	85.00	n/a	n/a
Credit Suisse (Dec/09)	70.00	70.00	70.00	70.00
CIBC World Markets (Dec/09)	70.00	80.00	n/a	n/a
Goldman Sachs (Dec/09)	90.00	110.00	105.00	85.00
JP Morgan (Dec/09)	78.25	90.00	105.00	120.00
National Bank Financial Equity Research (Jan/10)	75.00	75.00	80.00	80.00
Peters & Co. Limited (Jan/10)	85.34	89.40	92.87	92.87
RBC Capital Markets (Dec/09)	80.00	90.00	85.00	85.00
Scotiabank (Jan/10)	90.00	92.00	n/a	n/a
Toronto Dominion Bank (Jan/10)	80.00	84.50	n/a	n/a
<b>Industry Analysts</b>				
U.S. Energy Information Administration (Jan/10)	79.83	83.50	n/a	n/a
GLJ Petroleum Consultants (Jan/10)	80.00	83.00	86.00	89.00
Sproule Associates Limited (Dec/09)	79.17	84.46	86.89	90.20
<b>Confidential Forecasts Provided to Alberta Energy<sup>a</sup></b>				
Average	75.85	82.78	89.46	94.27
High	90.00	110.00	105.00	120.00
Low	65.00	70.00	70.00	70.00
<b>Average of All Private Forecasts</b>	<b>77.54</b>	<b>84.38</b>	<b>89.15</b>	<b>92.16</b>
<b>Alberta Government (calendar year)</b>	<b>77.74</b>	<b>82.08</b>	<b>87.93</b>	<b>93.08</b>

<sup>a</sup> The Alberta Department of Energy also surveys, on a confidential basis, private sector forecasts from CERI, PIRA, KBC, Petral, Purvin & Gertz, CERA, CGES, Wood Mackenzie and Ross Smith Energy. The annual figures presented here are the average forecast prices from these sources. High/ Low forecasts may represent one of the confidential forecasts.

Includes forecasts finalized on or before January 12, 2010.

## How Oil Price Forecasters Did in Budget 2009

West Texas Intermediate (US\$/bbl)

Organization	How did they do in Budget 2009?
National Forecasting Agencies (3)	41.81
Banks and Investment Dealers (10)	47.77
Industry Analysts (4)	48.12
Confidential Forecasts (9)	51.76
<b>Average</b>	<b>48.52</b>
<b>Alberta Government (calendar year)</b>	<b>50.81</b>
<b>Actual</b>	<b>61.80</b>

*Both the Government of Alberta and the private sector substantially underestimated oil prices for 2009.*

**Sources:** Alberta Finance and Enterprise and Alberta Energy.

## Natural Gas Price Benchmark

Henry Hub (US\$/MMBTU)<sup>a</sup>

Organization	2010	2011	2012	2013
<b>National Forecasting Agencies</b>				
Conference Board of Canada (Jan/10)	5.23	6.72	7.58	8.95
Global Insight (Jan/10)	3.97	5.19	5.33	5.38
Centre for Spatial Economics (Dec/09)	5.50	6.50	6.70	6.70
<b>Banks and Investment Dealers</b>				
BMO Capital Markets (Dec/09)	5.20	6.00	n/a	n/a
Credit Suisse (Dec/09)	5.25	6.50	7.00	7.00
CIBC World Markets (Dec/09)	5.50	6.50	n/a	n/a
JP Morgan (Dec/09)	5.94	6.23	n/a	n/a
National Bank Financial Equity Research (Jan/10)	5.75	6.50	7.00	7.00
Peters & Co Limited (Jan/10)	5.93	6.42	6.71	6.71
RBC Capital Markets (Dec/09)	6.00	6.50	6.50	6.50
Scotiabank (Jan/10)	5.50	5.50	n/a	n/a
Toronto Dominion Bank (Jan/10)	5.63	6.78	n/a	n/a
<b>Industry Analysts</b>				
U.S. Energy Information Administration (Jan/10)	5.36	6.12	n/a	n/a
GLJ Petroleum Consultants (Jan/10)	6.00	7.00	7.10	7.15
Sproule Associates Limited (Dec/09)	5.70	6.48	6.70	7.43
<b>Confidential Forecasts Provided to Alberta Energy<sup>b</sup></b>				
Average	4.49	5.47	5.69	6.02
High	6.10	7.00	7.58	8.95
Low	3.38	4.98	5.24	5.38
<b>Average of All Private Forecasts</b>	<b>5.29</b>	<b>6.19</b>	<b>6.47</b>	<b>6.74</b>
<b>Alberta Government (calendar year)</b>	<b>4.71</b>	<b>6.03</b>	<b>6.31</b>	<b>6.59</b>

<sup>a</sup> The natural gas price is the US price of gas at Henry Hub Louisiana, as this is the benchmark for natural gas in the rest of North America. The Alberta Government forecast in the table above is the Alberta Reference Price (used in natural gas royalty calculations) adjusted for the exchange rate and transportation costs to be equivalent to the price of Alberta natural gas at Henry Hub Louisiana.

<sup>b</sup> The Alberta Department of Energy also surveys, on a confidential basis, private sector forecasts from PIRA, Petral, CERA and Wood McKenzie. The annual figures presented here are the average forecast prices from these sources. High/ Low forecasts may represent one of the confidential forecasts.

Includes forecasts finalized on or before January 12, 2010.

## How Natural Gas Price Forecasters Did in Budget 2009

Henry Hub (US\$/MMBTU)

*Both the Government of Alberta and the private sector substantially overestimated natural gas prices for 2009.*

Organization	How did they do in Budget 2009?
National Forecasting Agencies (3)	5.80
Banks and Investment Dealers (9)	5.48
Industry Analysts (3)	5.54
Confidential Forecasts (5)	4.85
<b>Average</b>	<b>5.38</b>
<b>Alberta Government (calendar year)</b>	<b>5.34</b>
<b>Actual</b>	<b>3.99</b>

**Sources:** Alberta Finance and Enterprise and Alberta Energy.

## Alberta Real Gross Domestic Product Benchmark

(per cent change)

Organization	2010	2011	2012	2013
<b>National Forecasting Agencies</b>				
Conference Board of Canada (Sep/09)	3.0	4.9	5.6	4.1
Global Insight (Nov/09)	2.5	4.7	4.3	3.6
Centre for Spatial Economics (Dec/09)	2.8	4.0	2.8	3.0
<b>Banks</b>				
BMO Capital Markets (Jan/10)	3.0	4.2	n/a	n/a
CIBC World Markets (Nov/09)	2.1	4.8	n/a	n/a
RBC Royal Bank (Dec/09)	2.4	4.4	n/a	n/a
Scotiabank (Jan/10)	2.9	3.5	n/a	n/a
Toronto Dominion Bank (Jan/10)	2.5	3.5	n/a	n/a
Laurentian Bank (Sep/09)	2.5	2.7	n/a	n/a
<b>Other</b>				
Canada Mortgage and Housing Corporation (Nov/09)	2.5	n/a	n/a	n/a
High	3.0	4.9	5.6	4.1
Low	2.1	2.7	2.8	3.0
<b>Average of All Private Forecasts</b>	<b>2.6</b>	<b>4.1</b>	<b>4.2</b>	<b>3.6</b>
<b>Alberta Government (calendar year)</b>	<b>2.6</b>	<b>2.9</b>	<b>3.0</b>	<b>3.1</b>

Includes forecasts finalized on or before January 12, 2010.

## United States/Canada Exchange Rate Benchmark

(US¢/Cdn\$)

Organization	2010	2011	2012	2013
<b>National Forecasting Agencies</b>				
Conference Board of Canada (Jan/10)	95.5	96.4	97.2	97.9
Global Insight (Jan/10)	90.5	91.2	93.0	93.2
Centre for Spatial Economics (Dec/09)	92.3	91.2	91.0	90.4
<b>Banks</b>				
BMO Capital Markets (Jan/10)	98.8	101.4	n/a	n/a
CIBC World Markets (Dec/09)	95.4	n/a	n/a	n/a
RBC Royal Bank (Jan/10)	98.0	97.1	n/a	n/a
Scotiabank (Jan/10)	100.8	104.3	n/a	n/a
Toronto Dominion Bank (Dec/09)	103.3	96.0	n/a	n/a
Laurentian Bank (Jan/10)	95.0	n/a	n/a	n/a
High	103.3	104.3	97.2	97.9
Low	90.5	91.2	91.0	90.4
<b>Average of All Private Forecasts</b>	<b>96.6</b>	<b>96.8</b>	<b>93.7</b>	<b>93.8</b>
<b>Alberta Government (calendar year)</b>	<b>95.0</b>	<b>95.0</b>	<b>95.0</b>	<b>95.0</b>

Includes forecasts finalized on or before January 12, 2010.

## Canadian Short-Term Interest Rate Benchmark

3-month Government of Canada Treasury Bills (per cent)

Organization	2010	2011	2012	2013
<b>National Forecasting Agencies</b>				
Conference Board of Canada (Jan/10)	0.66	3.65	4.59	4.60
Global Insight (Nov/09)	0.64	2.37	3.38	4.31
Centre for Spatial Economics (Dec/09)	0.50	1.40	2.80	3.50
<b>Banks</b>				
BMO Capital Markets (Jan/10)	0.63	2.46	n/a	n/a
CIBC World Markets (Dec/09)	0.29	n/a	n/a	n/a
RBC Royal Bank (Jan/10)	1.45	3.60	n/a	n/a
Scotiabank (Jan/10)	0.98	2.23	n/a	n/a
Toronto Dominion Bank (Dec/09)	0.56	2.55	n/a	n/a
Laurentian Bank (Jan/10)	0.69	n/a	n/a	n/a
High	1.45	3.65	4.59	4.60
Low	0.29	1.40	2.80	3.50
<b>Average of All Private Forecasts</b>	<b>0.71</b>	<b>2.61</b>	<b>3.59</b>	<b>4.14</b>
<b>Alberta Government (calendar year)</b>	<b>0.85</b>	<b>2.90</b>	<b>4.00</b>	<b>4.00</b>

Includes forecasts finalized on or before January 12, 2010.

## Canadian Long-Term Interest Rate Benchmark

10-Year Government of Canada Bonds (per cent)

Organization	2010	2011	2012	2013
<b>National Forecasting Agencies</b>				
Conference Board of Canada (Jan/10)	3.83	4.66	5.31	5.57
Global Insight (Nov/09)	3.68	4.07	4.63	4.93
Centre for Spatial Economics (Dec/09)	4.00	5.10	4.50	4.70
<b>Banks</b>				
BMO Capital Markets (Jan/10)	3.67	4.31	n/a	n/a
CIBC World Markets (Dec/09)	3.64	n/a	n/a	n/a
RBC Royal Bank (Jan/10)	4.25	4.25	n/a	n/a
Scotiabank (Jan/10)	4.04	4.61	n/a	n/a
Toronto Dominion Bank (Dec/09)	3.84	4.53	n/a	n/a
Laurentian Bank (Jan/10)	3.45	n/a	n/a	n/a
High	4.25	5.10	5.31	5.57
Low	3.45	4.07	4.50	4.70
<b>Average of All Private Forecasts</b>	<b>3.82</b>	<b>4.50</b>	<b>4.81</b>	<b>5.07</b>
<b>Alberta Government (calendar year)</b>	<b>3.90</b>	<b>4.55</b>	<b>4.95</b>	<b>5.00</b>

Includes forecasts finalized on or before January 12, 2010.

## Alberta Personal Income Benchmark

(per cent change)

Organization	2010	2011	2012	2013
Conference Board of Canada (Sep/09)	4.2	6.1	6.3	6.0
Global Insight (Nov/09)	2.9	4.6	5.2	5.4
Centre for Spatial Economics (Dec/09)	2.4	2.9	3.6	4.2
Toronto Dominion Bank (Jan/10)	4.0	5.5	n/a	n/a
High	4.2	6.1	6.3	6.0
Low	2.4	2.9	3.6	4.2
<b>Average of All Private Forecasts</b>	<b>3.4</b>	<b>4.8</b>	<b>5.0</b>	<b>5.2</b>
<b>Alberta Government (calendar year)</b>	<b>3.4</b>	<b>5.6</b>	<b>7.1</b>	<b>6.6</b>

**Note:** Total personal income is used as opposed to per capita personal income. Includes forecasts finalized on or before January 12, 2010.

## Alberta Corporate Profits Benchmark

(per cent change)

Organization	2010	2011	2012	2013
Conference Board of Canada (Sep/09)	24.6	11.7	19.4	12.4
Global Insight (Nov/09)	34.5	18.0	11.4	-1.2
Centre for Spatial Economics (Dec/09)	-6.8	37.9	16.1	8.2
Toronto Dominion Bank (Jan/10)	25.0	15.0	n/a	n/a
High	34.5	37.9	19.4	12.4
Low	-6.8	11.7	11.4	-1.2
<b>Average of All Private Forecasts</b>	<b>19.3</b>	<b>20.7</b>	<b>15.6</b>	<b>6.5</b>
<b>Alberta Government (calendar year)</b>	<b>34.1</b>	<b>17.7</b>	<b>6.8</b>	<b>8.6</b>

Includes forecasts finalized on or before January 12, 2010.

## Alberta Housing Starts Benchmark

(thousands)

Organization	2010	2011	2012	2013
<b>National Forecasting Agencies</b>				
Conference Board of Canada (Sep/09)	25.4	30.4	32.2	30.4
Global Insight (Nov/09)	21.0	21.5	20.5	20.3
Centre for Spatial Economics (Dec/09)	23.2	31.7	28.4	26.4
<b>Banks</b>				
BMO Capital Markets (Jan/10)	23.8	25.0	n/a	n/a
RBC Royal Bank (Dec/09)	28.5	30.5	n/a	n/a
Scotiabank (Jan/10)	24.0	25.0	n/a	n/a
Toronto Dominion Bank (Jan/10)	26.8	25.0	n/a	n/a
Laurentian Bank (Sep/09)	15.5	14.0	n/a	n/a
<b>Other</b>				
Canada Mortgage and Housing Corporation (Nov/09)	22.0	n/a	n/a	n/a
High	28.5	31.7	32.2	30.4
Low	15.5	14.0	20.5	20.3
<b>Average of All Private Forecasts</b>	<b>23.4</b>	<b>25.4</b>	<b>27.0</b>	<b>25.7</b>
<b>Alberta Government (calendar year)</b>	<b>23.1</b>	<b>24.2</b>	<b>25.4</b>	<b>26.2</b>

Includes forecasts finalized on or before January 12, 2010.

## Alberta Employment Benchmark

(per cent change)

Organization	2010	2011	2012	2013
<b>National Forecasting Agencies</b>				
Conference Board of Canada (Sep/09)	1.1	3.4	3.5	2.3
Global Insight (Nov/09)	1.0	1.8	1.6	1.6
Centre for Spatial Economics (Dec/09)	1.4	2.3	2.2	2.3
<b>Banks</b>				
BMO Capital Markets (Jan/10)	1.2	1.9	n/a	n/a
RBC Royal Bank (Dec/09)	1.2	3.1	n/a	n/a
Scotiabank (Jan/10)	0.9	2.0	n/a	n/a
Toronto Dominion Bank (Jan/10)	0.7	2.5	n/a	n/a
Laurentian Bank (Sep/09)	0.3	1.1	n/a	n/a
<b>Other</b>				
Canada Mortgage and Housing Corporation (Nov/09)	1.0	n/a	n/a	n/a
High	1.4	3.4	3.5	2.3
Low	0.3	1.1	1.6	1.6
<b>Average of All Private Forecasts</b>	1.0	2.3	2.4	2.1
<b>Alberta Government (calendar year)</b>	<b>0.8</b>	<b>2.0</b>	<b>2.0</b>	<b>1.7</b>

Includes forecasts finalized on or before January 12, 2010.

## Alberta Unemployment Rate Benchmark

(per cent)

Organization	2010	2011	2012	2013
<b>National Forecasting Agencies</b>				
Conference Board of Canada (Sep/09)	7.7	6.8	5.5	4.7
Global Insight (Nov/09)	6.3	6.0	5.4	5.1
Centre for Spatial Economics (Dec/09)	7.1	6.5	5.6	4.5
<b>Banks</b>				
BMO Capital Markets (Jan/10)	6.6	6.3	n/a	n/a
RBC Royal Bank (Dec/09)	6.9	5.9	n/a	n/a
Scotiabank (Jan/10)	6.8	6.5	n/a	n/a
Toronto Dominion Bank (Jan/10)	7.4	6.8	n/a	n/a
Laurentian Bank (Sep/09)	7.6	7.3	n/a	n/a
<b>Other</b>				
Canada Mortgage and Housing Corporation (Nov/09)	6.7	n/a	n/a	n/a
High	7.7	7.3	5.6	5.1
Low	6.3	5.9	5.4	4.5
<b>Average of All Private Forecasts</b>	7.0	6.5	5.5	4.8
<b>Alberta Government (calendar year)</b>	<b>6.6</b>	<b>6.0</b>	<b>5.3</b>	<b>4.9</b>

Includes forecasts finalized on or before January 12, 2010.