

THE TIGER THAT ROARED ACROSS ALBERTA

Executive Summary

In 2003, TD Economics issued a comprehensive report on the opportunities and challenges facing Canada's economic "tiger", the Calgary-Edmonton Corridor. In light of the large upward adjustment to expectations on crude oil prices and other dramatic developments over the past 4 ½ years, we felt that a reassessment of the region's prospects was warranted. As well, with the tiger's roar not just being heard along the Corridor, but across the province, we have expanded the coverage to include other centres in Alberta.

We thought we were bold when in 2003 we forecast growth in the Corridor of 4% per year over the 2002-06 period. Yet the actual figure was even more impressive, at 5% per year. Our underestimation boiled down to crude oil and, to a lesser extent, natural gas price forecasts that weren't heroic enough, even when the surging Canadian dollar is factored in. As such, the spotlight turned up even higher on the oil sands, where the grand total of investment projects over the next 10-15 years continued to climb – from \$85 billion at the time of the 2003 report to more than \$120 billion in 2007.

The combination of brimming cash flows and rising investment in the oil patch since 2003 has sprinkled substantial and wide-ranging benefits around the province. We calculate that every major region – Calgary, Edmonton, the rest of the Corridor (including Red Deer) and the rest of the province – racked up annual average real GDP gains of at least 4% per year in 2002-06. And while the bigger urban centres of Calgary and Edmonton remained the major economic workhorses, the last half decade has witnessed the rapid emergence of a number of medium sized markets. Indeed, among Canada's 15 fastest growing medium-sized markets, 7 were located either along the Corridor (Red Deer and Okotoks) or in the rest of Alberta (Wood Buffalo, Grande Prairie, Canmore, Medicine Hat and Lethbridge).

In 2003, we argued that the Corridor stood out as the only Canadian urban market to enjoy a U.S.-style standard of living along with a Canadian-style quality of life.

Owing to the last 4 years of sizzling growth, the region's position has improved even more. For example, in 2000, the Corridor enjoyed a US\$5,000 advantage in GDP per capita against the U.S. average. That edge has surged to more than US\$15,000.

Cost pressures to drag down growth in 2008-09

As recent developments in the province clearly attest to, growth can be a double-edged sword. A fast rate of growth is desirable, but if an economy generates too much gusto – which has been the case in Alberta – labour, housing and materials shortages soon develop, rents and prices are bid up and enormous strains are placed on infrastructure. In this regard, the question could be raised as to whether the growth has been too much of a good thing. This dilemma plays out for governments in the region, where for the most part, particularly at the provincial level, they have accommodated the growth by strongly ramping up spending, thereby throwing further fuel on the fire.

Even on the national landscape, there have been concerns that a white-hot Alberta economy has been responsible for driving up national growth and inflation, domestic interest rates and the Canadian dollar. We argue that this criticism is off base, since it doesn't recognize the rewards generated by a prosperous Alberta, including providing energy security and financing federal surpluses which permit major redistribution within Canada and keep taxes down. We estimate that for each \$1 increase in real GDP in Alberta, 20 cents in increased GDP flow to other provinces through higher demand for goods and services.

In our view, cost pressures will be the number-one culprit reining in economic growth in Alberta – to about 2.5-3% per year in 2008-09. Already, eroding affordability is beginning to lead to weaker housing activity in Calgary, and the Edmonton market is likely to follow suit. The sharp rise in prices in the province is likely a factor behind a recent slowdown in inter-provincial migration flows. Above all, cost pressures in the oil and gas industry is likely to exert a greater drag on activity going forward, especially

in the natural gas industry, where prices have fallen back significantly. Still, with crude oil prices expected to average about US\$70 per barrel over the next few years, we believe that the economy will avert a hard landing.

Addressing longer-term challenges

We remain upbeat about the growth prospects for the Alberta economy beyond 2010. The benefits of oil sands developments will continue to migrate from the north of the province to the Corridor, with the Edmonton Area alone poised to enjoy some \$50 billion in oil sands related construction projects over the next decade.

In the 2003 study, we focused on a number of longer-term vulnerabilities that if left unaddressed would create impediments for sustained improvements in prosperity and quality of life. These included: diversification, education and skills, infrastructure and social inequity/poverty. If anything, the developments over the past four years have further highlighted these challenges. Governments have sprung into action – although, as we argue, with mixed consequences.

In terms of diversification, the Alberta economy continued to experience robust strength in non-energy industries over the past half decade. In 2001, combined direct and indirect oil and gas activities accounted for 23% of real GDP. That share has declined to 19%. Looking ahead, it will be critical that any efforts to achieve further diversification occur around a thriving oil and gas sector. Yet, there are many hard policy decisions that, if poorly thought out, could have a detrimental impact on the oil and gas sector's long-term prospects, including the environment and changes to non-renewable royalty and tax regimes.

The environment is a challenge that has risen in profile since our 2003 report. Alberta and its oil patch in particular is a major contributor to Canada's greenhouse gas emissions. It is certainly possible that policy action will be taken that will sharply raise the price of carbon. Unless efficiencies are quickly gained on emissions, this could hurt prospects in Alberta's energy field, especially for upgrading and refining.

Adding to potential cost pressures in the oil patch is the report on the Royalty Review Panel. As argued by the Panel, Alberta's government share of revenues is low by international standards. Still, it must be recognized that the sector faces high discovery and development costs. The existing royalty payments were put in place when the oil sands were in their infancy and prices were much lower.

It is likely that some increase in royalty rates will be imposed.

Governments in the province have been active on the diversification front since 2003 announcing programs to support industries such as nanotechnology, other high tech industries, petrochemicals, alternative energy, and tourism. But while these efforts can contribute to a more diversified economy, governments' success in picking winners has been spotty at best. The most powerful way to foster diversification is to continue with Alberta's past formula of creating a winning business climate. And given the fact that the province's cost advantage has been virtually eliminated on the back of a strengthening Canadian dollar, there needs to be renewed attention to improving personal and corporate tax competitiveness and building on recent efforts to boost inter-provincial trade. While Alberta's tax rates are the envy of most Canadians, they are not particularly low in the global arena.

Chipping away at other vulnerabilities

The challenge of skilled labour shortages is one that is unlikely to recede over the next decade, especially as baby boomers head into retirement. In 2003, we argued that the province's high rate of educational attainment was reliant on "importing" skilled workers from other provinces, given the province's relatively low of participation in post-secondary (PSE) education. Despite a substantial injection of new funding since 2003, PSE participation rates have actually fall back further, weighed down by the attractive draw from the hot labour market.

Over the past few years, there has been progress made in opening the doors to increased international migration. Earlier this year, the federal and Alberta governments signed a bilateral immigration agreement that should push up the number of newcomers to its population share (25,000 per year). Changes made to the federal immigration process for temporary workers and plans by Alberta to streamline and expand the provincial nominee program have also been welcome news. However, as the number of migrants from abroad increases, Alberta will need to carefully manage the integration of these individuals.

Five years ago, infrastructure had become the most pressing challenge outside of health care in Alberta. Since 2004, combined local-provincial public capital spending has increased by about 20% per year. Yet it is difficult to say how much of the infrastructure gap has been reduced, since the needs list appears to have grown just as rapidly. Moreo-

ver, rising construction costs have mitigated some of the benefits. The cost issue speaks of the critical need for governments to put considerable attention on setting priorities.

In 2003, we went at length to discuss the importance of a sustainable fiscal arrangement for cities. We have witnessed progress on this front, including the province's recent commitment to provide significant 10-year funding to municipalities, free of strings. As well, the province is currently mulling over a request by municipalities for new taxing powers.

As we highlighted five years ago, there is still scope for local governments in Alberta to make better use of their existing tools. Residential tax rates and debt levels are low on the whole and there remains a reticence to move down the path of full-cost pricing for services. Public-private-partnerships is another area where considerable opportunities lie. On the bright side, there have been efforts to increase regional cooperation – notably among the 24 municipalities that comprise the Greater Edmonton Area. That said, a major challenge remains the lack of any regional government structure empowered to make binding decisions on behalf of the region.

Among the various challenges facing the Corridor and the rest of the province, the growing gap between haves and have-nots stands out as the one where a significant step backwards has been recorded since 2003. While average incomes have been rising, the bulk of the gains have been enjoyed by the high-income end of the spectrum. A lack of affordable housing, which traditionally has been a big city problem, is a challenge even in smaller markets. Governments have been responding by allocating new funds to rental assistance and affordable housing programs, while the Province raised the minimum wage. One major impediment to helping low income individuals are the extremely high personal marginal income tax rates as social assistance benefits are taxed back.

Saving for a rainy day

Lastly, a successful long-term strategy will require that the province sets enough of the windfall from the oil and gas sector aside to fund public investments down the road. This is especially important in Alberta's context. If non-renewable revenues decline in the future – which is a real risk – an inadequate savings endowment would imply higher taxes, reduced public services and a lower standard of living.

On the plus side, the province's Heritage Fund is growing again, from \$12 billion in 2003 to \$17 billion in 2007. Yet savings have been carried out in an arbitrary way, while returns on the Fund have lagged behind other large institutional funds, including Ontario Teachers Pension Plan. Further, the size of Alberta's endowment is only a fraction of that of Norway, which currently boasts about US\$200 billion in assets. In Norway, all of the country's resource revenue is deposited into its Petroleum Fund and returns are re-invested. (Withdrawals are sometimes made to cover anticipated non-oil budgetary deficits). As importantly, the management of the Fund has been turned over to an external manager (Norges Bank) which invests the proceeds outside the country.

The provincial government is currently looking at its options as it reviews its royalty structure. Recently, the Premier indicated a desire to grow the Heritage Fund to \$40 billion over the next decade, which is certainly achievable. Part of the secret will be to improve the Fund's return performance. And, in that vein, we are also encouraged by the government's decision to move the Alberta Asset Management Corporation (AIMCO) from within Alberta Finance to a new corporation, to be chaired by former TD CEO Charles Baillie and George Gosbee of Tristone Capital. Moreover, the government has recently established a 5-member independent commission to determine the investment asset mix, led by tax expert and Chairman of the University of Calgary Jack Mintz.

Bottom Line

The tiger's roar is likely to soften in 2008 and 2009, as cost pressures naturally apply the brake to activity in key areas such as the oil sands and the housing market. Still, a substantial simmering down is what the doctor is ordering to ensure that expansion continues over the medium term. Looking out further down the road, we remain upbeat about both the path of crude oil prices and the province's overall growth prospects. But so much will depend on how successfully governments and the private sector tackle the vulnerabilities that we have highlighted.

Derek Burleton
AVP & Director of Economic Studies
416-982-2514

Don Drummond
SVP & Chief Economist
416-982-2556



TD Economics

Special Report

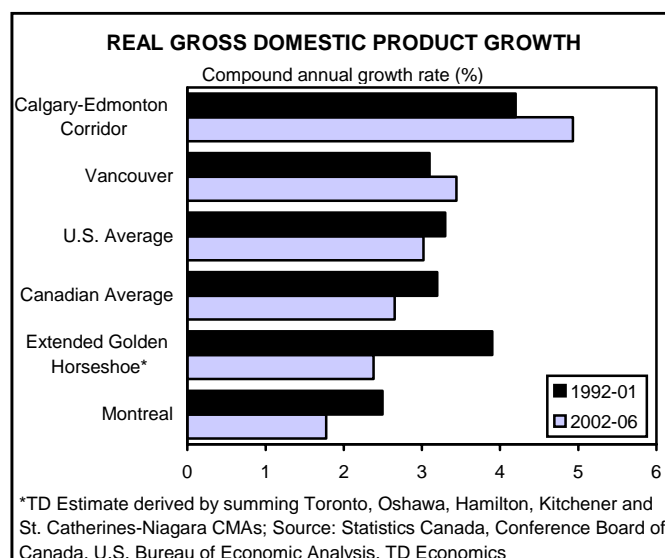
September 27, 2007

THE TIGER THAT ROARED ACROSS ALBERTA

In TD Economics' 2003 report: *The Calgary-Edmonton Corridor: Take Action Now To Ensure Tiger's Roar Doesn't Fade*, we argued that the Corridor stood out as the only urban conglomeration to enjoy a U.S.-style standard of living with a Canadian-style quality of life. The promise of oil sands projects, combined with assets such as a young, educated population and an excellent business climate, would allow the region to continue to flex its muscles over the next several years. At the same time, Canada's "growth tiger" would need to focus its attention on addressing some of its vulnerabilities – most of which stem from the pressures that flow from a burgeoning economy – in order to lay the seeds for prosperity well into the future.

In light of the large upward adjustment to expectations on crude oil and natural gas prices and other dramatic developments over the past four years, we felt that a reassessment of the region's economic prospects and policy developments was warranted. And given that the tiger's roar has not just been heard along the Corridor, but right across the province, we've expanded the coverage in the *Update* to include other centres in Alberta.

The stunning rate of economic growth registered since 2003 has driven the standard of living in Alberta to new



heights. Yet residents are experiencing first hand many of the costs associated with overly rapid expansion, with many wondering if the boom may be setting up the economy for a bust. We argue in this report that the Corridor's economy is likely to avert a hard landing, but the rate of expansion is poised to moderate to a greater extent than what many forecasters have been predicting. We also review the progress made in addressing the region's longer-term impediments to growth. Since 2003, the blistering growth in the Corridor and across the province has drawn considerable attention to these challenges, springing governments into action. Although there have been signs of progress, their efforts have fed the cycle of expansion and contributed to higher cost pressures, which has unfortunately lessened some of the intended benefits.

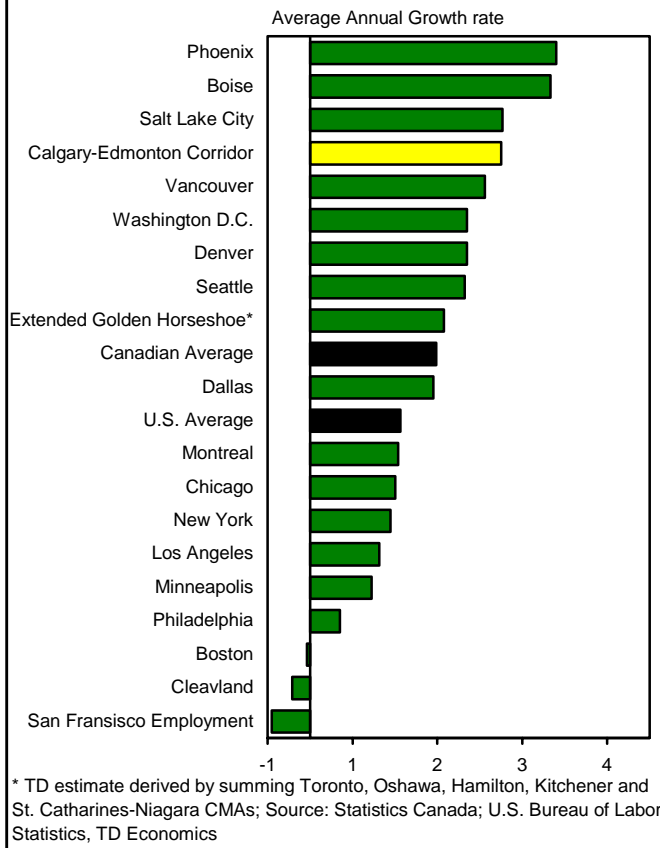
Economic tiger unleashes a ferocious roar

The 2003 Corridor study painted a rosy picture of the region's medium-term economic prospects. At the time,

CONTENTS

Executive Summary	i-iii
Tiger unleashes a ferocious roar	1
Cost pressures build	10
Averting the classic boom-bust	14
Medium-term growth prospects by region	18
Addressing longer-term vulnerabilities	20
Bottom Line and Endnotes	31

EMPLOYMENT GROWTH IN MAJOR NORTH AMERICAN URBAN REGIONS: 2002-06



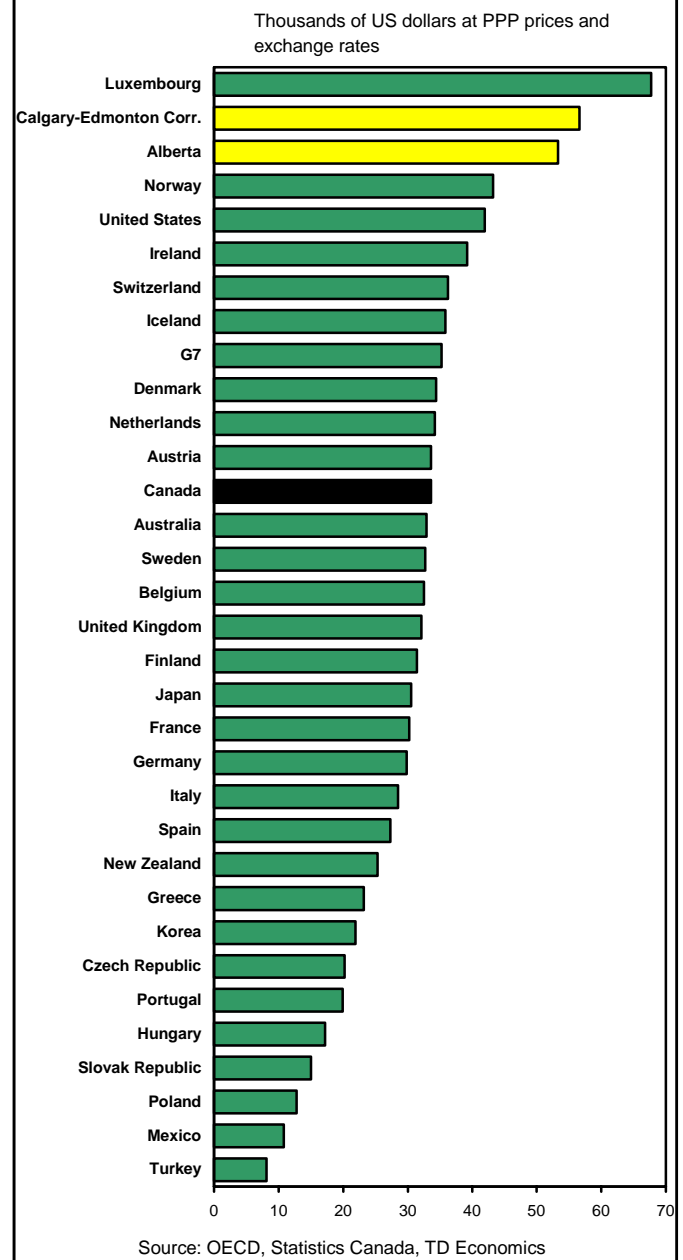
crude oil and natural gas prices had been rallying from their 2001 lows of less than US\$20 per barrel and US\$3 per MMBtu. The U.S. economy was regaining its footing following the high-tech meltdown at the start of the decade, Canadian short-term interest rates were plumbing the depths, and the Canadian dollar was still sitting at an extremely competitive level of less than 70 U.S. cents. It only appeared to be a matter of time before the Corridor economy would pick up steam. Our forecast called for economic growth of 4% per year over the next three years, supported by widespread strength across the region. As such, the Corridor – which we aptly labeled Canada's economic tiger due to its advantage in virtually every economic area – was poised to build on that edge over the next several years.

The economic upswing that we had forecast ultimately materialized. But, admittedly, we underestimated the sheer strength of the tiger's roar. Average annual growth in the Calgary-Edmonton Corridor – Alberta's main economic workhorse accounting for three quarters of provincial eco-

nomics output – tipped the scales at a sizzling rate of 5% in the 2002-06 period. This performance towed the overall province along to a 4.5% average turnout. What's more, the Corridor's economic showing was even more impressive when stacked up against other markets, both in Canada and internationally:

- In contrast to the Corridor, economic growth in the rest of Canada came in at 2.5% per year in 2003-06, weighed down by disappointing showings in Toronto (2.5%) and Montreal (1.8%), the nation's two largest

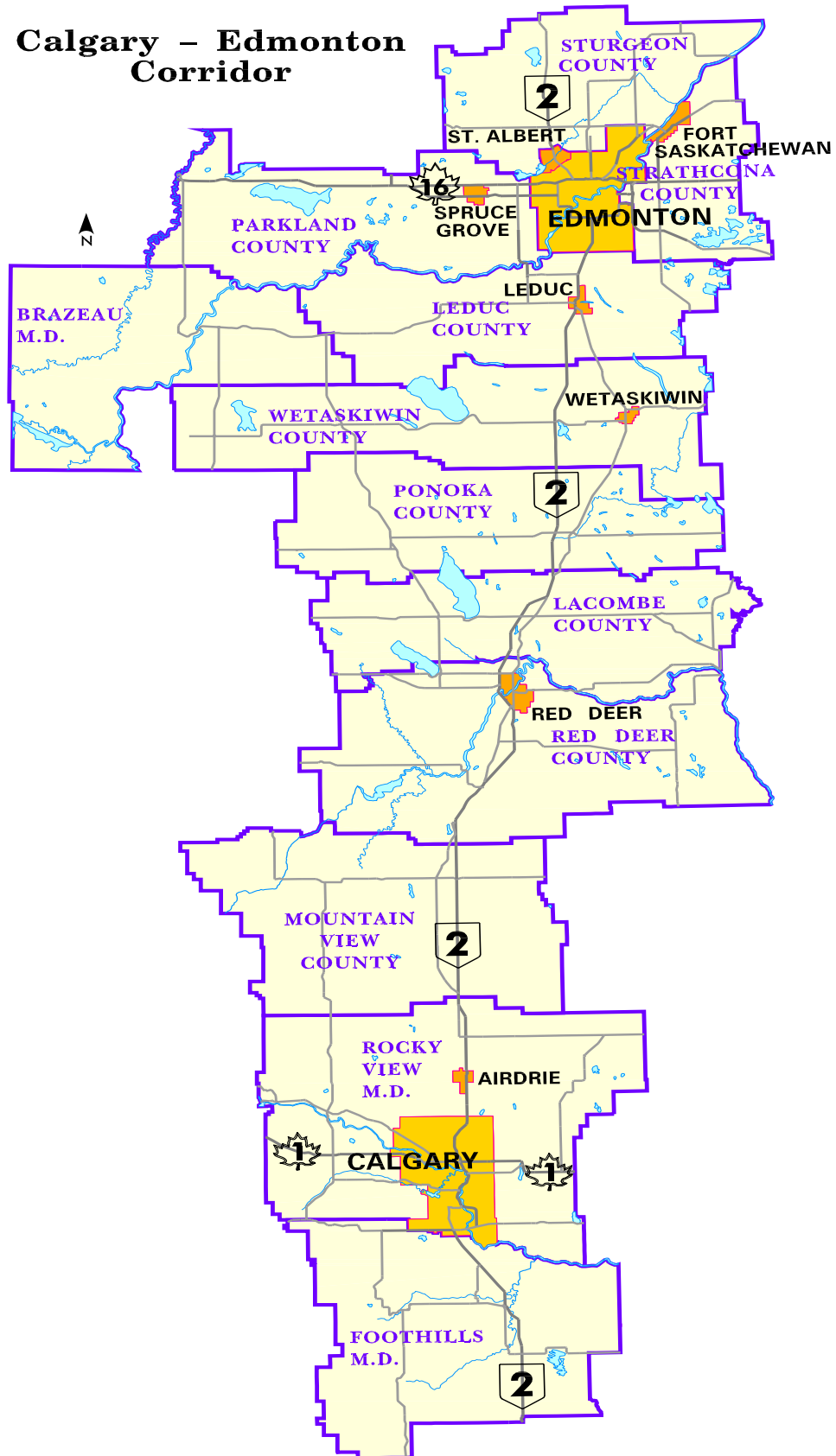
GROSS DOMESTIC PRODUCT PER CAPITA IN 2005





© 2001. Her Majesty the Queen in Right of Canada, Natural Resources Canada.
Sa Majesté la Reine du chef du Canada, Ressources naturelles Canada.

Calgary – Edmonton Corridor



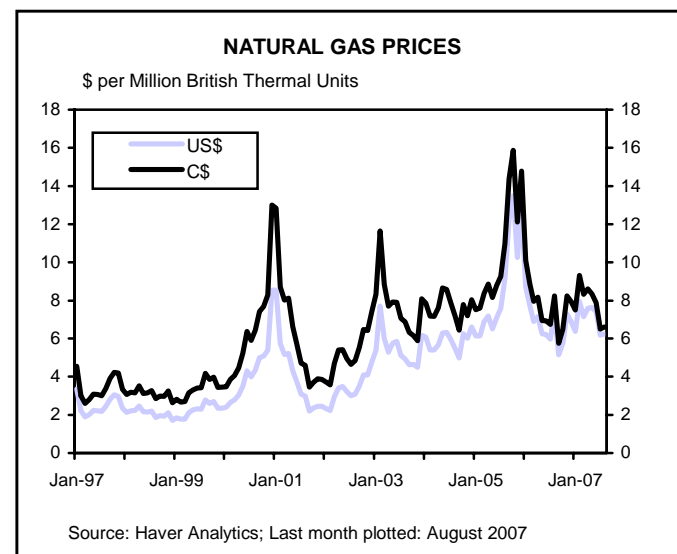
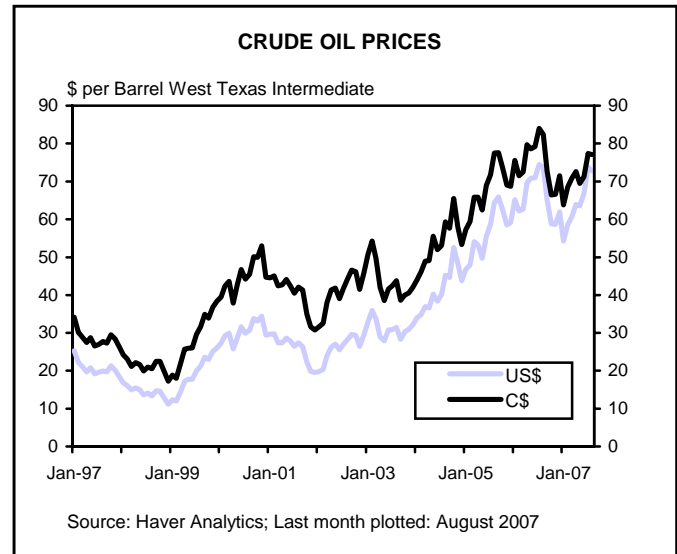
urban markets.

- Indeed, as we discuss in the text box on page 6, the enormous growth divergence between Alberta and other provinces has become a major news story over the past few years. And justifiably so – even though the province accounts for 12% of the country's economic output, its blistering growth has left a huge mark on virtually all national growth and inflation indicators.
- On a broader scale, the Calgary-Edmonton Corridor's showing was equally as impressive. Among 19 large North American urban centres, the region ranked 4th in terms of job creation, improving from 6th position in the 1992-01 period. And at 3.5% in 2006, the unemployment rate in the region was the lowest in Canada and, if adjusted for differences in measurement, at the bottom end of the heap in North America.

Above all, the Calgary Edmonton Corridor has continued to build on its enviable standard of living position, as measured by GDP per capita. In the 2003 study, we calculated GDP per capita in the Corridor to be nearly US\$40,000 at purchasing power parity in 2000. And if the region was a country, it would have placed second after Luxembourg within the OECD. By 2005, which is the last available year of OECD estimates, the Corridor's standard of living had vaulted to US\$57,000, boosting its edge over most its competitors. Against the United States, for example, the Corridor's advantage widened over the period from about US\$5,000 to US\$15,000. And, with the Corridor only accelerating further last year, it has since probably continued to improve its relative position on the international prosperity charts.

Crude oil and natural gas prices double the forecast

Our low-balling of the Corridor's growth performance over the past few years boiled down to our medium-term assumptions on crude oil and natural gas prices, which didn't prove heroic enough. In 2003, few analysts had grasped the mark that China was making on the global energy market, the extent to which weak global investment in the 1990s would weigh on both growth of crude oil output and refining capacity or how production costs would rise significantly as conventional reservoirs matured and output extraction became increasingly complex. Nor was the impact of the tighter world supply-demand position for crude oil in a post 9/11 world fully factored into estimates of the risk (or fear) premium embedded in the price.



Likewise, in the natural gas market, there was not enough recognition five years ago of the impacts on prices of the declining productivity of conventional sources, a shift towards higher-cost non-conventional supplies and continued insatiable demand from utilities. Both Hurricane Katrina in 2005 and the heightened risks to U.S. natural gas supply from tropical storm activity in the Gulf of Mexico also had not been built into medium-term projections. Above all, natural gas prices tend to track crude oil prices on a trend basis, so the unexpected jump in the price of crude was a factor pushing up natural gas prices above forecast. This last development partly reflects the increased capability of many industrial users in North America to switch between fuel sources depending on relative price changes.

Accordingly, in 2003-06, oil and gas prices averaged

Alberta Skewing the National Numbers

In 2006, the focus of attention on the regional economic landscape shifted from the sizeable divergence in performances between western and eastern regions to the ever-widening gap between Alberta and the rest of Canada (ROC). We illustrate this point in the accompanying table. Last year, the province – which accounts for just over one-tenth of Canada's economy and job market – added roughly half a percentage point to both national real and nominal GDP growth performance. As a result, GDP per capita in Alberta shot up to almost C\$70,000, some 60% higher than that of the ROC. A drop in natural gas prices from the lofty post-Katrina highs in mid-2005 weighed on corporate profits in the oil patch in 2006. Even then, profits as a percentage of GDP in Alberta (22%) boosted the national profit share by almost 2 percentage points. On the personal side, rapid growth in real disposable income drove up the Canadian number by a full percentage point.

Consistent with the relative strength in economic growth, there was a growing dichotomy in cost pressures between Alberta and the ROC in 2006. With a massive 57,000 more Canadians moving to Alberta than moving out last year and with home demand outpacing the province's ability to generate new housing supply, new and existing home prices have sky-rocketed. Hourly wage growth in Alberta vaulted the national average by a substantial 0.8 percentage points, as the jobless rate plumbed the depths at levels below those consistent with full employment. Indeed, Alberta's ability to draw workers from regions with fewer job opportunities dragged down the unemployment rate across the country. Lastly, Alberta's nation-leading CPI inflation rate skewed up the Canadian figure by 0.2 percentage points last year. About half of that impact reflected the much faster rate of growth in shelter costs, with price growth in other areas in Alberta tracking that of the ROC relatively closely. Still, the 0.1 percentage-point differential in inflation (excluding shelter) between Alberta and the ROC is not insignificant when it is considered that Canadian core inflation has been running above the Bank of Canada's 2% target.

As we discuss later, some of the unsustainable Alberta-ROC differential on the growth side witnessed in 2006 appears to have narrowed so far in 2007. However, in some areas – including the job and housing markets

TABLE: ALBERTA VS. THE REST OF CANADA
per cent change unless otherwise indicated

	Period	Canada	Alberta	RoC
Population	2006	1.0	3.0	0.8
Interprov mig. (000s)	2006	0.0	57	-57
Labour Force	2006	1.4	4.3	1.1
Employment	2006	1.9	4.8	1.6
Unemployment Rate(%)	2006	6.3	3.4	6.7
Real GDP	2006	2.7	6.7	2.1
per capita (000\$)	2006	33.4	43.1	32.3
Nominal GDP	2006	4.9	7.9	4.4
per capita (000\$)	2006	44.1	69.8	41.2
Corporate profits	2006	5.7	2.5	7.0
as a share of GDP (%)	2006	13.9	22.8	12.2
Real PDI	2006	4.0	11.0	3.2
Hourly Wage rate	2006	1.8	7.5	1.0
Total Inflation	2006	2.1	3.9	1.9
Inflation ex. shelter	2006	1.4	1.8	1.3
Housing Starts	2006	0.8	19.8	-3.4
Resale home prices	2006	11.1	30.8	8.4
Prov. fiscal balance	FY 2006-07	17.2	8.9	8.3
(\$ billions)				
as a share of GDP (%)	FY 2006-07	1.2	3.8	0.7
Prov. Debt (net assets)	FY 2006-07	259	(47)	305
(\$ billions)				
as a share of GDP (%)	FY 2006-07	17.9	20.0	25.3

Source: Statistics Canada, TD Economics, provincial government, CREA.

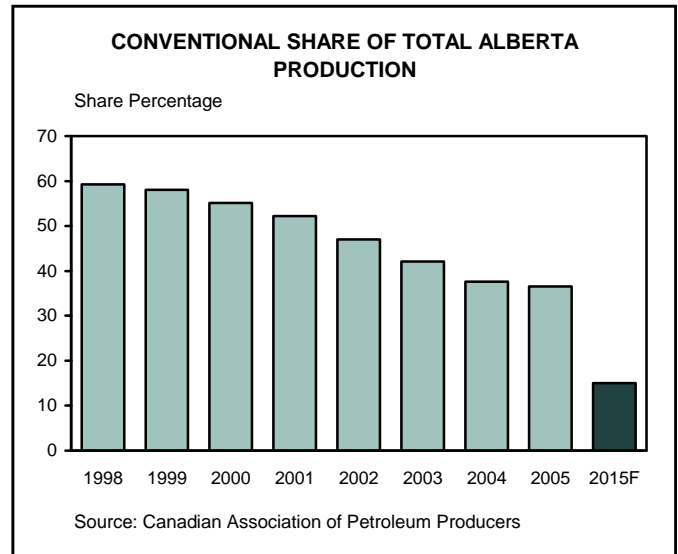
– there has been little meaningful change in relative performances from last year. Moreover, the gap on the cost side has continued to widen. For example, year-to-date total CPI inflation in Alberta has risen above 5% – more than double the Bank of Canada's 2% inflation target – as shelter costs have accelerated from about 10% last year to roughly 13% in 2007 while the total of other components has moved up to about 2.4%. In contrast, inflation trends in the ROC have remained slightly below 2%. Hence, Alberta's upward influence on the nation's economic performance – and especially on inflation and interest rates – has remained a top news story this year.

US\$50 per barrel and US\$7 per MMBtu, respectively – roughly two and a half times the figures presented in our medium-term forecast in 2003. It is important to note that the price gains were not nearly as dramatic in Canadian-dollar terms after the loonie's surge from the 65-67 U.S. cent range in 2003 to over 90 U.S. cents in 2006 is taken into account. The currency, which usually moves in lockstep with changes in energy and non-energy commodity prices, acts as a natural hedge. But even in Canadian dollar terms, crude oil and natural gas prices rose by an unexpectedly robust 50-75% compared to the levels that prevailed around the time of the study, although natural gas exhibited considerably more ups and downs.

Spotlight turned up on oil sands

In light of the unexpected run-up in oil and gas prices and the search for new sources of energy to satisfy hungry U.S. and global markets, the spotlight has been turned up on the region's thriving oil and gas sector – and notably the three oil sands basins located north of Edmonton. Since the 2003 report, the proven resource count in the oil sands – some 174 billion barrels or second in the world after only Saudi Arabia – has become increasingly recognized around the globe. New multi-year oil sands, upgrading, refining and pipeline projects have been added to the count, bringing the total inventory of developments planned or underway to more than \$120 billion over the next decade, a tally that represents half the province's current GDP.

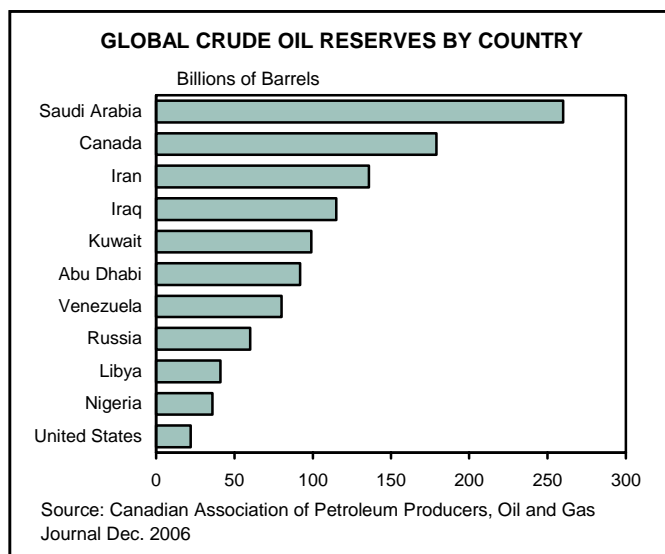
The increased viability of oil sands development has proved timely in view of the downward trend witnessed in conventional reserves and production. Between 2002 and



2006, oil sands production climbed from 750,000 barrels per day (bpd) to 1.25 million bpd. Over the same time frame, output of conventional crude in Alberta fell from 660,000 bpd to under 500,000 bpd. As a result, the output share of oil sands has increased from just under 50% to 62% in only 4 years. By 2020, oil sands production is slated to quadruple to 3.8-4.4 million bpd and to account for more than 90% of total output in the province.¹ In fact, based on some predictions, rising production from the region could help to vault Canada from 8th place to 4th in terms of annual production by midway through the next decade.²

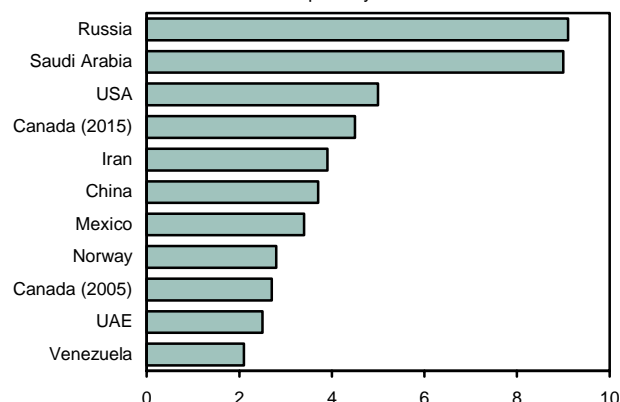
The story in natural gas is not unlike that of crude oil, where conventional reserves and production have been in decline since the start of the decade, fuelling interest in unconventional sources of gas such as coal-bed methane (CBM). CBM, however, remains in the early stages of development, making up only 3% of total production – albeit a share that is expected to rise above 10% by midway through the next decade. On an overall basis, trends in natural gas production have actually stabilized over the past few years, although this trend reflects an unusually high level of drilling investment in 2003-05 which has since moderated.

While the focus in recent years has remained on the rapid development of the oil sands, natural gas has remained a cornerstone of economic prosperity in both the Corridor and the rest of the province. In terms of value of Canadian production (of which Alberta is responsible for 70-80%) crude oil jumped ahead of natural gas in 2006, reflecting in part an improvement in pricing in favour of crude. Yet the natural gas industry (including production of ethane



TOP 10 WORLD CRUDE OIL PRODUCERS IN 2005

Millions of Barrels per Day



Source: Energy Information Administration & Canadian Association of Petroleum Producers

and other liquids) remained in the driver's seat in terms of contribution to net exports and to the government's coffers.

No sector or region left out of boom ...

The combination of brimming cash flows and rising investment in the oil patch since 2003 has sprinkled substantial and wide-ranging benefits across the province. The first-round impacts from the run-up in crude oil and natural gas prices in 2003-04 have set off a virtuous cycle. Soaring corporate earnings have fuelled job creation, which has driven up consumer spending, spurred housing activity and attracted large numbers of migrants. Those dynamics, in turn, have led to even higher employment and earnings, et cetera. Virtually every major industry has been pulled along for the ride. Even the region's manufacturing sector – which has faced enormous pressure from the surge in the Cana-

CANADA'S CRUDE OIL AND NATURAL GAS RESOURCE IN 2006*: A COMPARISON

	Crude Oil	Natural Gas
Value of production (C\$bn)	58.3	50.5
Exports (C\$bn)	38.6	27.2
Net exports (C\$bn)	16.1	24.4
As per cent of production (%)	27.5	48.3
Alberta government royalties 2006-2007**	3.8	5.5

* Except otherwise indicated.

** Budget 2007 figures

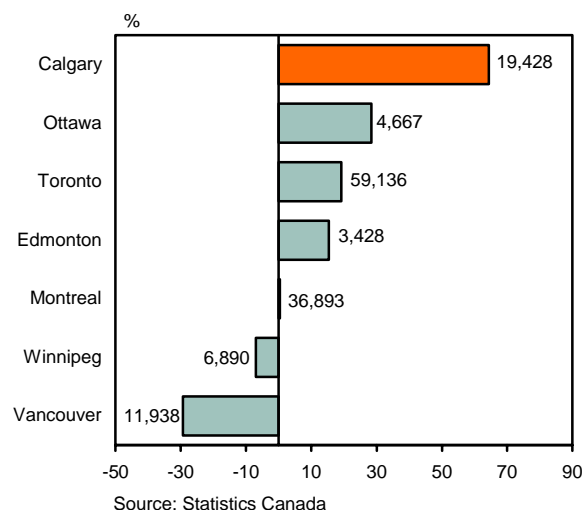
Source: Statistics Canada, CAPP, Government of Alberta

dian dollar, increased competition from China and high energy costs – has managed to post solid job gains over the period, bucking the national trend.

Furthermore, no region of Alberta has been left out of the boom. Undeniably, centres north of the Corridor and closest to the core of oil sands activity – such as Wood Buffalo/Fort McMurray in the Athabasca region and Grande Prairie in the Peace River region – have ridden the top of the growth charts. Still, the bulk of the total direct and *indirect* benefits from oil sands development have flowed to, and throughout, the Calgary-Edmonton Corridor:

- At the Corridor's southern periphery, the Calgary area economy posted brisk real GDP growth of 5% per year in 2002-06, which was 1 percentage point above our medium-term forecast set out in 2003. Calgary continued to reap rewards from its position as a western centre for corporate head offices and the regional transportation hub. Indeed, over the 1999-2005 period, the city recorded a massive 65% jump in the number of head offices, making up significant ground on both Toronto and Montreal.
- At the northern tip, the Edmonton area – which is a manufacturing and processing hub of the region and is enjoying substantial rewards from some \$40-50 billion in oil sands and oil-sands related investment in refineries and upgraders over the next decade – clocked in with a real GDP gain of 4.3% per year in 2003-06, which was not far off our 2003 prediction.

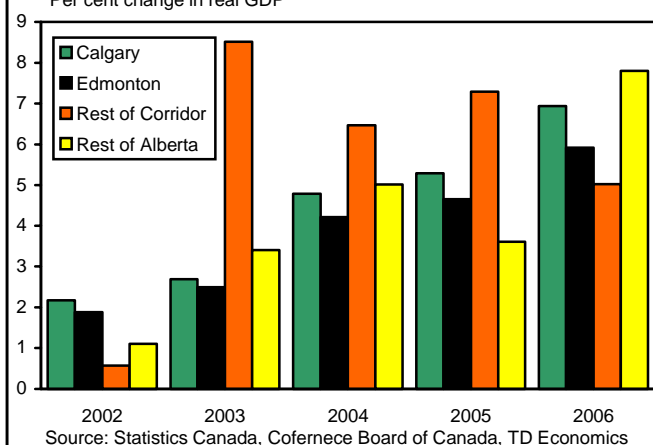
CHANGE IN NUMBER OF HEAD OFFICES 1999 - 05 AND TOTAL NUMBER IN 2005



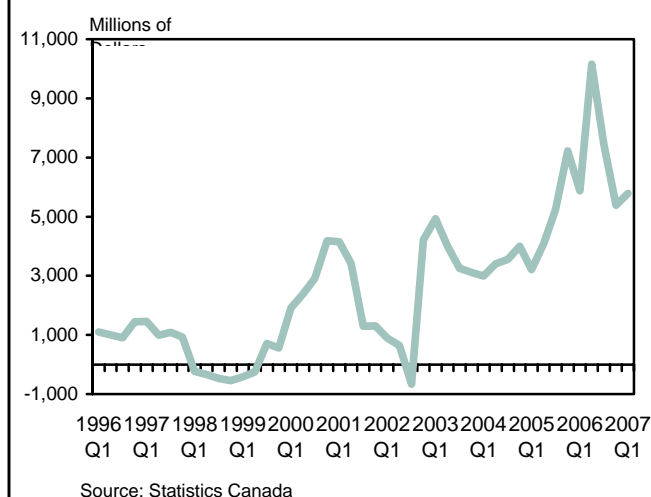
Source: Statistics Canada

ECONOMIC GROWTH IN THE CALGARY-EDMONTON CORRIDOR

Per cent change in real GDP



OIL AND GAS NET PROFITS



- Still, the fastest growing part of the Corridor since 2002 occurred in other markets between Calgary and Edmonton, where costs are lower and land is more abundant. By our estimates, Red Deer and other economies in this region – which we will label the rest of the Corridor (ROCo) – combined to turn in an average pace of expansion of almost 7% per year. This was almost double our 2003 forecast of 4% growth.
- In regions within Alberta but outside of the Corridor, the average annual expansion in the province ran at 5% per year, led by high single or double-digit rates of economic growth in Grande Prairie and Wood Buffalo/Fort McMurray.

Mid-sized markets popping up

Underlying the regional growth patterns is the emergence of a number of medium-sized urban centres – a fact that was corroborated in the recent release of the 2006 Census. Among Canada's 15 fastest growing urban centres with populations of 10,000-100,000 in the 2001-06 period, 7 were located in Alberta: Okotoks, Wood Buffalo, Grande Prairie, Red Deer, Canmore, Medicine Hat and

POPULATION OF THE CALGARY-EDMONTON CORRIDOR

	Population	Population Growth Compound Annual Rates (%)		
		96-01	01-06	96-06
Calgary-Edmonton Corridor	2,412,376	2.4	2.3	2.4
Calgary CMA	1,079,310	3.0	2.6	2.8
Calgary	988,193	2.7	2.4	2.6
Airdrie	28,927	5.0	7.2	6.1
Rocky View No. 44	34,171	5.6	2.7	3.9
Rest of Calgary CMA	28,019	8.5	4.8	7.0
Edmonton CMA	1,034,945	1.7	2.0	1.8
Edmonton	730,372	1.6	1.9	1.7
Fort Saskatchewan	14,957	1.1	2.7	1.9
Leduc	16,967	0.9	2.5	1.7
Leduc County	12,730	0.4	0.3	0.4
Parkland County	29,265	1.6	1.5	1.5
Spruce Grove	19,496	2.3	4.1	3.2
St. Albert	57,719	2.5	1.7	2.1
Strathcona County	82,511	2.3	2.8	2.5
Sturgeon County	18,621	2.5	0.6	1.6
Rest of Edmonton CMA	52,307	1.9	3.2	2.5
Red Deer CA	82,772	2.4	4.1	3.3
Wetaskiwin CA	11,673	0.4	0.9	0.6
Rest of the Corridor	203,676	2.8	2.3	2.6
Foothills No. 31	19,736	3.2	3.5	3.3
Lacombe County	10,451	0.8	-0.2	0.7
Mountain View County	12,391	1.5	0.4	1.0
Okotoks	17,145	6.5	8.0	7.2
Red Deer County	19,108	1.7	0.7	1.1
Wetaskiwin County No. 10	10,535	0.4	-0.3	0.1
Other Areas	114,310	3.2	2.4	2.8
Rest of Alberta	877,974	1.0	1.2	1.1
Wood Buffalo	51,496	3.3	4.4	3.9
Lethbridge	74,637	1.3	2.1	1.7
Medicine Hat	56,997	1.8	2.1	2.0
Grande Prairie	47,076	3.5	4.9	4.2
ALBERTA	3,290,350	2.0	2.0	2.0
CANADA	31,612,897	0.8	1.0	0.9

CMA: Census Metropolitan Area, CA: Census Agglomeration
Source: Statistics Canada, TD Economics

Lethbridge. Two of these communities (Red Deer and Okotoks) are included in the Calgary-Edmonton Corridor, while most of the others – all but Medicine Hat and Canmore – are linked through highways that form part of the CANAMEX Corridor project (the continuous north-west highway running from Alaska to Mexico). This pattern increasingly reflects the shift in trade, labour and investment flows in the north-south direction. In any event, as these mid-sized markets continue to develop and their retail and housing sectors gain critical mass, it will only add to the current muscle of the Corridor and Alberta economies.

Cost pressures build

As recent developments in the Corridor clearly attest to, growth can be a double-edged sword. A fast rate of

growth is desirable, but if an economy generates too much gusto, labour, housing and materials' shortages soon develop, rents and prices accelerate and enormous strains are placed on infrastructure and the environment. As a result, for many residents and businesses in the Corridor – and the rest of the province – the economic boom underway has come with a price tag. The Corridor continues to enjoy a high quality of life. In fact, the 2007 Mercer quality of life survey ranked Calgary (the only Alberta city covered) 24th among 255 cities, two spots better than the 2003 survey.³ Still, there are concerns that growth pressures could lead to an erosion of this position.

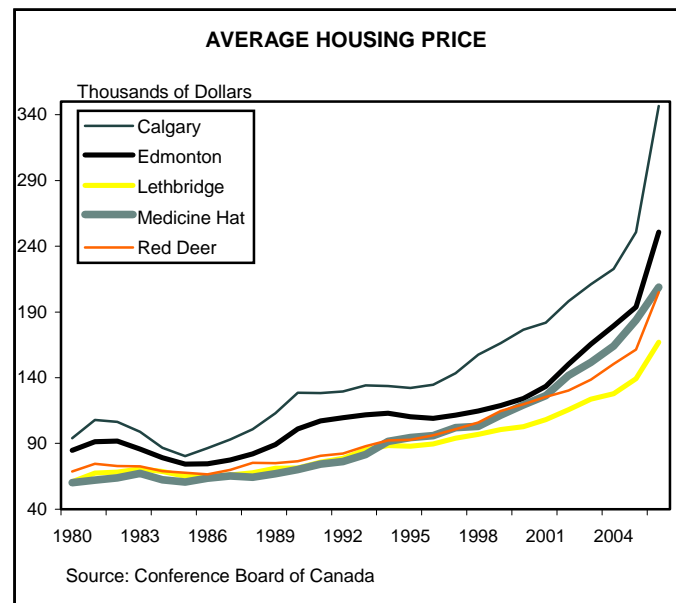
While growth-related impacts have stood out in Canada's oil sands and those service centres supporting the development, such as Fort McMurray, pressures have also been acute in the large cities of Calgary and Edmonton,

Lethbridge and Medicine Hat: Economic Boom Migrates to Southern Alberta

Although much of the focus has been on the rapid growth taking shape in the oil sands-driven northern communities and in the Calgary-Edmonton Corridor, less recognized is the fact that the southern Alberta markets of Lethbridge and Medicine Hat have been quietly chalking up robust economic gains. According to Statistics Canada – which compiles jobs data for the economic region of Lethbridge-Medicine Hat – average annual employment growth came in at about 3% per year in 2002-06, up from 1.8% in the 1997-01 period and roughly in line with the province as a whole. In the past five years, these urban centres have each turned in solid average annual population growth of 2.1%, providing evidence that both are sharing equally in the prosperity.

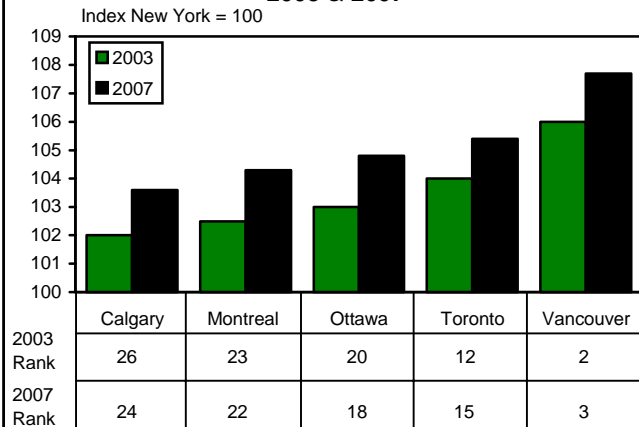
Among the two economies, Medicine Hat has a slightly greater bent towards energy and agriculture, while Lethbridge is more oriented towards business and personal services. Both boast diverse manufacturing sectors, accounting for one in ten jobs. Indeed, while most Canadian markets have suffered from declines in manufacturing employment in recent years, the Lethbridge-Medicine Hat region has experienced a 5% annual gain since 2002. Construction, financial services, professional services and government services have also recorded hefty increases.

These cities are unlikely to buck the trend towards slower growth, especially as a slackening in U.S. and



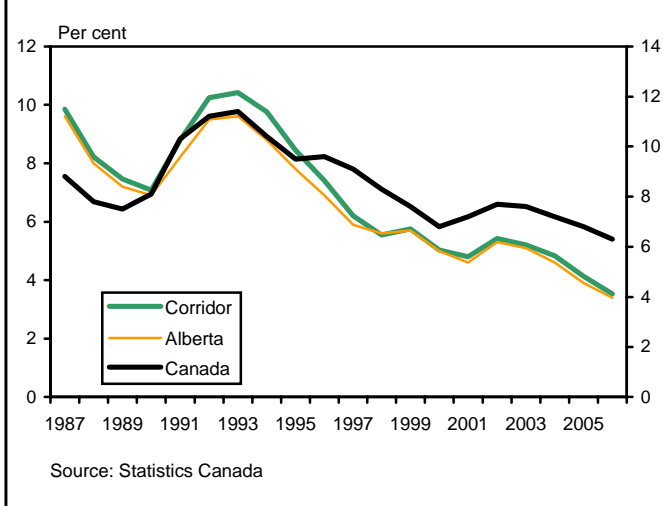
Alberta demand – together with the high Canadian dollar – weigh on factory output and employment. Nevertheless, these markets are well-positioned to record continued healthy expansion, supported by the brightening longer-run prospects for crop prices and efforts taken to reap the benefits of the boom underway in bio-fuels, wind and solar power. Above all, despite the loonie's recent strength, Lethbridge and Medicine Hat remain low-cost jurisdictions.

WORLD-WIDE QUALITY OF LIFE SURVEY 2003 & 2007



Source: Mercer Human Resource Consulting

UNEMPLOYMENT RATES



where available land is also in relatively short supply. In Calgary, residential rental and office vacancy rates were approaching zero, while rents skyrocketed by 20-50% in 2006. In contrast, average wage growth in the city was 8%, which paled in comparison to the inflation in rental costs, but was well above the 3.5% average wage increase across the nation. In the resale market, average prices have increased by about double over the past four years alone, as Calgary surpassed Toronto as the second most expensive market in Canada after Vancouver. Edmonton's office market has not tightened to the same extent as that of its southern counterpart, although its rental and industrial vacancy rates (at around 1% or lower) are not far off. Meanwhile, gains in average home prices (38%) have jumped ahead of Calgary's in recent months.

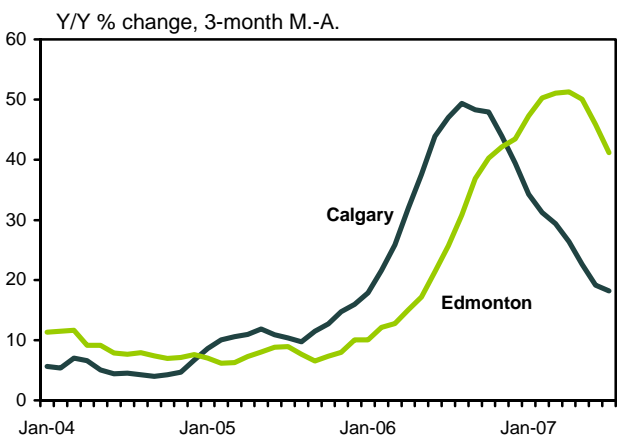
Just as few markets in Alberta have failed to participate in the boom, few regions have been immune to the resulting growth-related impacts. Unemployment rates in virtually every nook and cranny of the Corridor are consistently running at levels of 3-4%. Regardless of their location or industry type, businesses are running into major difficulties retaining labour in the face of the attractive wages and benefits offered in the oil and gas sector. This is especially a challenge in the service sector, where wages tend to be relatively low. Some businesses have been forced to reduce their hours and in some cases shut their doors in the face of staffing issues. Smaller markets in the Corridor are now experiencing bigger-city problems, such as a critical shortage of affordable housing.

The rising costs have been eating away at the Corridor's international cost competitiveness – traditionally one of its strengths. But an even greater headwind has been the high-flying Canadian dollar. In 2003, we referred to the annual study by KPMG, which showed that businesses in Red Deer, Calgary and Edmonton enjoyed a 12-15 percentage point cost advantage over the average of their U.S. counterparts. However, this edge had been whittled down to 5-7 percentage points in 2006.⁴ And, given the further substantial appreciation of the Canadian dollar and erosion in costs, the advantage has all but evaporated.

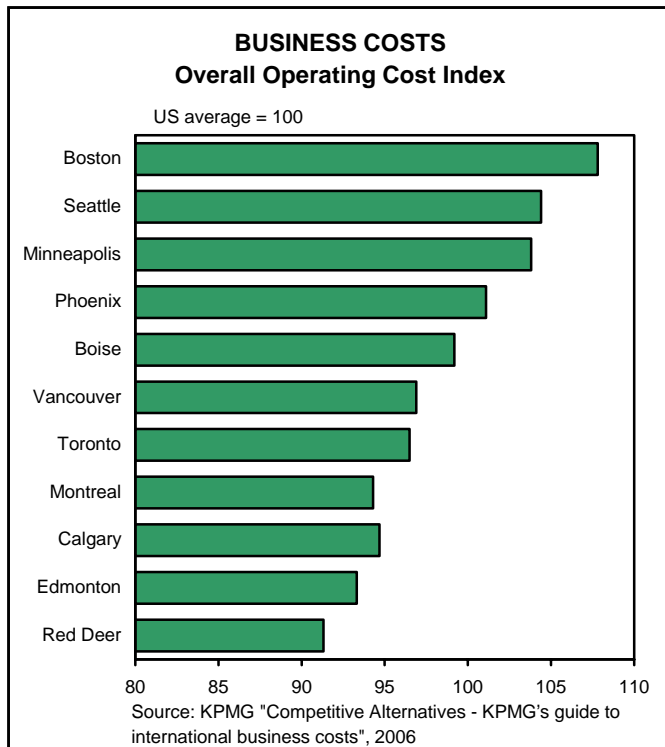
Government has accommodated the growth

At the same time that the private sector has been battling for scarce resources, governments in the region have been trying to keep up with the demands for new infrastructure and public services. This decision to accommo-

AVERAGE RESALE HOME PRICE



Last plotted: July 2007; Source: Canadian Real Estate Association.

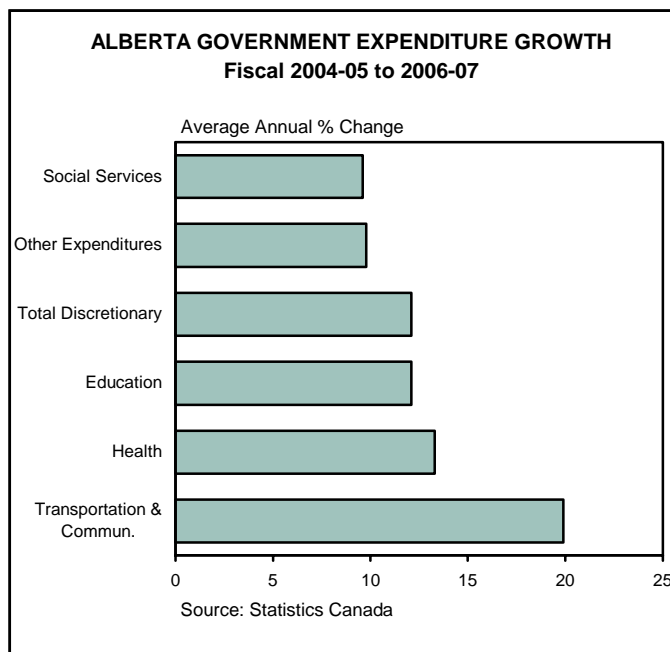


public capital spending has competed head-to-head with private projects, driving up materials and labour costs. Meanwhile, the government has been confronting claims that its election to permit unbridled growth in oil sands development – partly due the independence it grants to the Energy and Utilities Board (EUB) – is at the root of the cost issue.

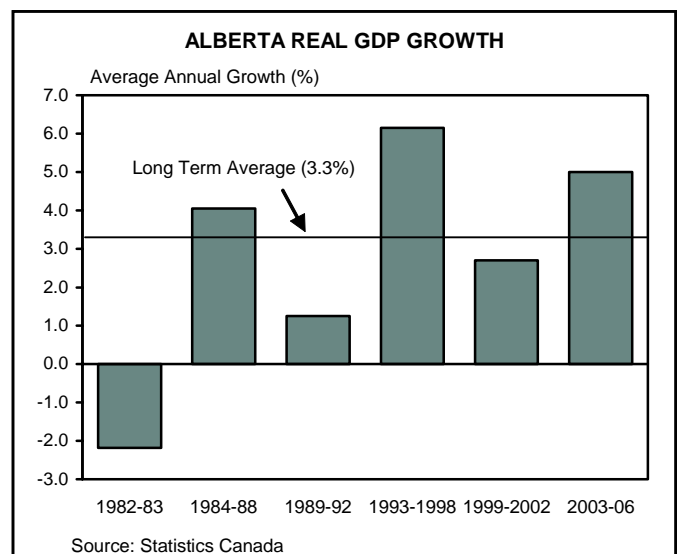
No doubt, policy makers in Alberta have faced a genuine dilemma to which there is no easy answer. This is reflected in the lack of consensus on these issues – a fact that was reinforced by the government's recent public consultations on a new development strategy. For every Albertan that has called for restraint, at least one has supported immediate measures to alleviate service and infrastructure deficiencies in the province. Yet to the extent that the benefits of such rapid spending have been eroded by higher costs (including the direct cost to the treasury, the social impacts on Albertans from increased cost pressures in the economy and the opportunity cost of not setting the funding aside for the future), the path taken has had some unfortunate consequences. More on this point in the final section.

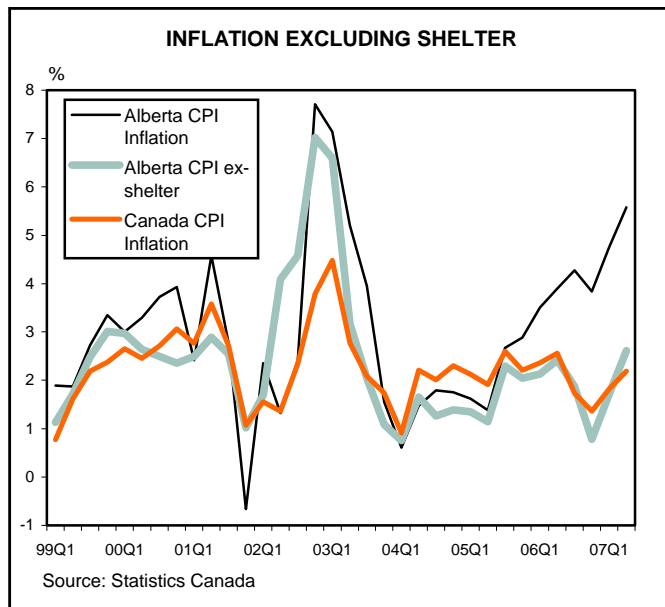
Too much of anything is not good

If too much growth can be costly, what does economics say about an optimal rate of growth? Here, we're referring to an economy's "potential" growth rate as one that is consistent with a steady inflation rate and is determined by a host of factors including population growth, education levels and gains in labour productivity. Accurately predicting this rate is never an easy feat, but apply-



date growth and meet the needs has been particularly apparent at the provincial level, where revenues have poured in on the back of a rising resource and non-resource take. While the government has been reporting sizeable year-end surpluses and building up its reserves, overall discretionary spending has forged ahead at 12% per year since fiscal 2004-05. In the construction industry, the burst of





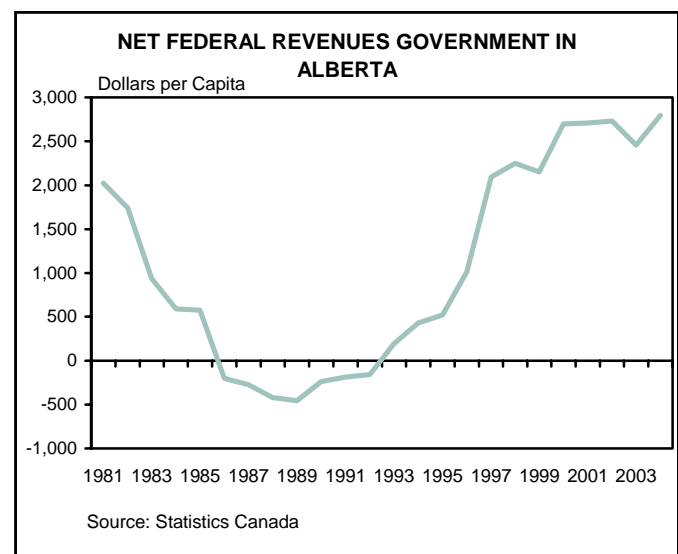
ing some simple assumptions, it is likely that the Alberta economy can grow on a trend basis by about 3.5% per year over a sustained period without breaking through its capacity constraints. This pace is consistent with the economy's long-term historical growth performance of just over 3%. Not surprisingly then, the recent 5% clip since 2002 has catapulted the economy deep into excess demand and driven up the rate of inflation to above 5%, more than double its 10-year average rate.

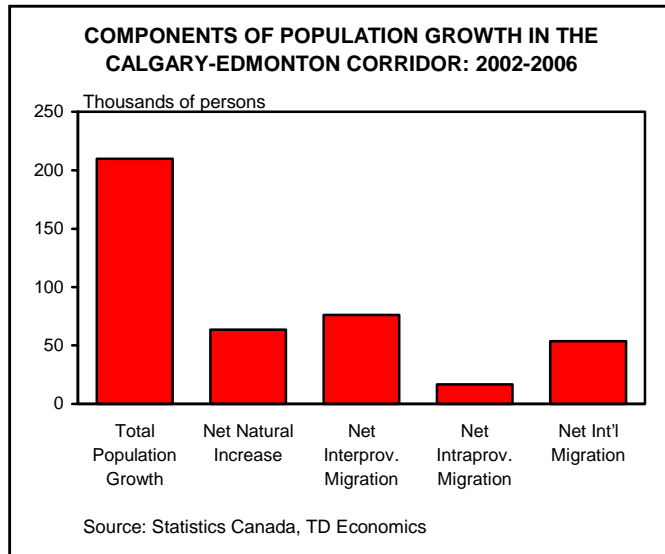
Fast growth in Alberta good for Canada

At the same time, the question has been raised of whether too much growth in Alberta is good for the rest of Canada. As we discussed in the text box on page 6, Alberta's growth and inflation numbers have been so strong that they've skewed the national figures upward. As such, Alberta has been blamed for the fact the Canadian economy has been operating above full capacity, that core inflation has risen above the Bank of Canada's 2% target and that the central bank has raised interest rates over the past year. As well, exporters have at least partly pointed the finger at Alberta for the ascent of the Canadian dollar, since it is the province's oil and gas reserves, in tandem with rising energy prices, that have been a primary factor driving up the loonie.

In our view, this criticism is off base, since it doesn't recognize the other side of the ledger – the rewards that Canadians enjoy from economic growth in the province and its oil and gas sector.

- A study conducted by the Canadian Energy Research Institute estimated that 60% of the total output and employment benefits from oil sands development will migrate to other parts of Canada through higher demand for manufacturing goods, such as steel, which are largely produced in central Canada.⁵
- Using Statistics Canada's input-output model, we estimate that each dollar of additional GDP in Alberta in 2002-06 has lifted GDP in the rest of Canada by 20 cents. This knock-on benefit largely reflects the rapid expansion of construction and manufacturing activities in Alberta, which are two areas where direct and indirect multiplier effects across the country are the largest. Thus, Alberta's \$85 billion gain in nominal GDP since 2002 implies a net GDP windfall of about \$17 billion to the ROC.
- Alberta's above average income level finances redistribution in Canada and helps to keep taxes down lower in the other provinces. Indeed, the net contribution of Alberta to federal coffers is about \$9 billion per year, or nearly \$3,000 for every man, woman and child in the province. Although only Ontario injects more than \$20 billion into federal coffers, its per capita share (\$1,500) is about half of Alberta's.
- Alberta's ability to attract individuals from other provinces with higher unemployment has kept jobless rates lower in the ROC than what they would have otherwise been.
- While Alberta sells its energy at world prices, the prov-





ince provides energy security to Canadians. In addition to crude oil and natural gas, Alberta is home to vast reserves of coal.

- Lastly, Canadian investors, through direct holdings or indirectly through pension funds, have been major beneficiaries from the rise in energy company stock prices in recent years. The weighting of the energy index in the TSX is about 30%, of which most reflects companies located in Alberta.

In sum, it isn't reasonable to expect Alberta governments and the private sector to run their economy just to suit the rest of Canada – nor should they, especially in light of the many benefits to Canadians of economic prosperity in Wild Rose Country. We now turn to a question on the minds of many residents: are the boom-times setting up the Alberta economy for a classic bust?

Averting the classic boom-bust

Albertans are no strangers to ups and downs and the business cycle. In the early 1980s, for example, global developments fuelled a spike in energy prices, which in turn generated massive inflows of capital and labour. Then, when energy prices have receded, as they have wont to do, enthusiasm cooled and economic activity was severely constrained. Although the risk of dramatic swings dissipated somewhat in the 1990s during the low energy price environment, the return to an era of higher prices and increased price volatility – combined with evidence of an overheating economy – have raised worries of an impending economic hard landing in the province. A number of

flashing warning signals have generated attention in the media:

- Although crude oil prices have remained elevated in recent months, natural gas prices have fallen under significant downward pressure – from US\$8 per MMBtu earlier this year to around US\$5.50-6.00 in August and early September. Meanwhile, the loonie has strengthened to parity against the U.S. greenback, leading to a further erosion in prices in Canadian dollar terms.
- Drilling activity has softened this year, as evidenced by a fall in rig utilization rates in Alberta to only 36.2% recently from 66.1% a year earlier, in response to low gas prices and high levels in storage. On a GDP basis, drilling output is down about 20-25% so far in 2007.
- While total non-renewable resource royalties have remained strong so far in fiscal 2007-08, provincial government revenues from selling oil and gas exploration rights have fallen from \$2.6 billion to \$1.0 billion.
- Net inter-provincial migration into Alberta slowed in the first quarter to 7,500, about half of its year-earlier level. A good part of the slippage in position reflected larger outflows of Alberta residents to Saskatchewan and British Columbia.
- Calgary's housing market appears to be slowing under the weight of the substantial deterioration in affordability over the past few years. Both sales and starts have retreated in 2007, and the year-over-year increase in average resale prices has cooled to 20%, well down from last year's 50% peak.
- Growth in sales in Alberta's consumer-oriented retail and motor vehicle markets have remained brisk this year, but have tapered off from last year's stunning rate.

The underlying momentum in the economy is still strong in 2007 – enough to yield another solid advance in real GDP in Alberta of 4.3%. And with the dampening impact of weaker drilling concentrated in the oil patch, economic growth in the Corridor is estimated at just under 5%, fuelled in part by an acceleration in activity in the Edmonton area (5.2%), followed by the ROCo (4.6%) and Calgary (4.0%). Still, there is a good case to be made that if natural gas prices continue to fall, the crude oil market sputters and the recent global financial crisis leads to both a U.S. recession and a major tightening in credit conditions across Canada and abroad, then the region could be in for a rough

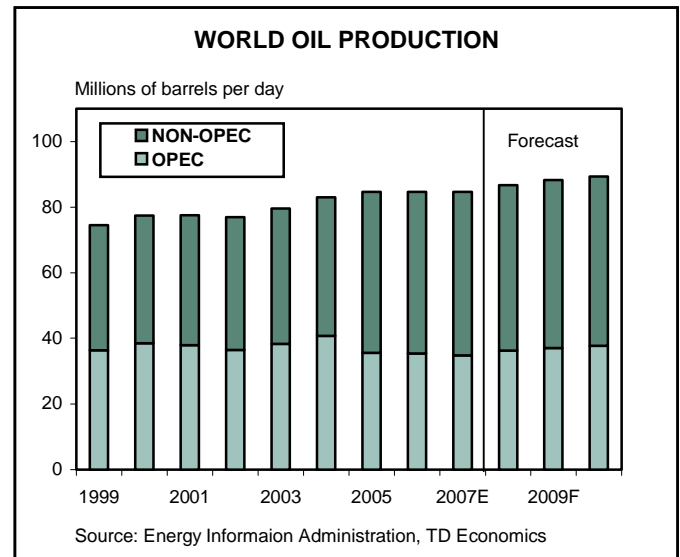
ride in 2008. At present, we place the odds of a hard landing in Alberta at one in four, although so much obviously rests on the direction of oil and gas prices.

Tight crude oil market to stay

Crude oil prices have remained resilient in recent months, moving above US\$80 per barrel in the autumn of 2007. Despite high world prices, increases in global demand for crude continue to surprise on the upside, with world consumption gains estimated at 1.6%, only modestly slower than the 5-year average of 1.9%. Once again this year, developing markets accounted for the bulk of the demand growth – and notably China – as OECD countries lifted their consumption just slightly.

On the other side of the ledger, world supply gains are projected to be roughly flat in 2007, as increases in output in the former Soviet Union and, to a lesser extent, Canada, the U.S. and China are offset by an estimated 1.6% cut in production by OPEC-11. As a result, the world oil market shifted from a roughly balanced position in 2006 to an estimated deficit position of about 800,000 bpd. And although U.S. crude inventories have remained relatively plentiful, the focus of late has centred on the ultra-tight stocks of gasoline and other refined products. In view of the tight global supply-demand picture, investors have remained on edge about the potential for supply disruptions, such as hurricane activity or further political events in countries such as Iran and Nigeria.

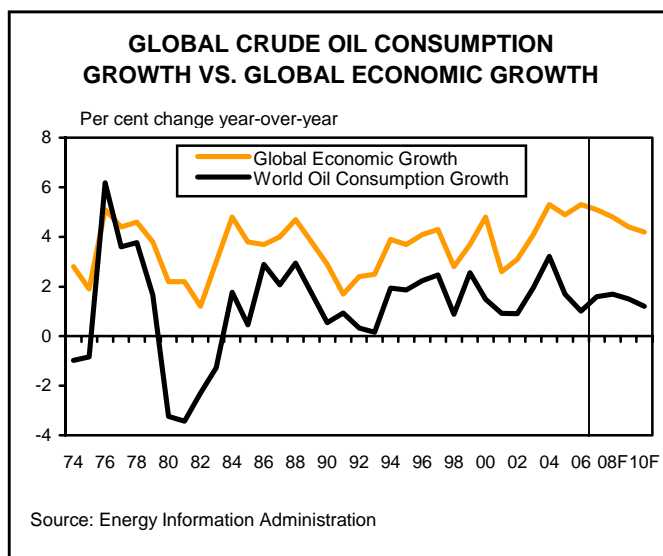
The big question mark facing the oil market in the near term is how the current sub-prime crisis is likely to weigh on the U.S. economy, at what speed credit markets will



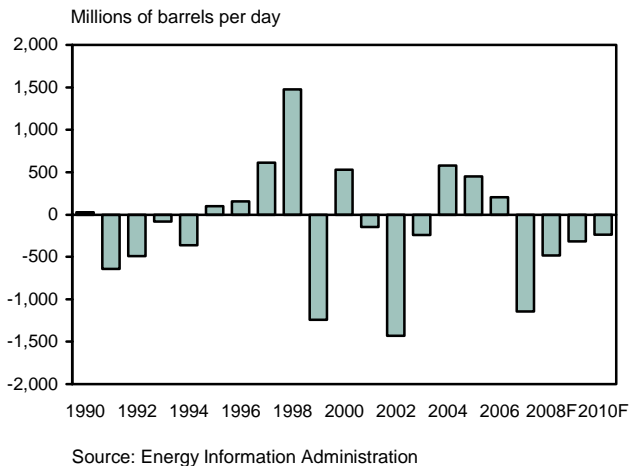
recover from the recent turmoil and how these impacts play out on the global economy. We believe that the most likely scenario is that the U.S. economy manages to skirt a recession in the coming quarters, with support from monetary easing by the Federal Reserve, and that knock-on effects to the global economy will be relatively minor. While sustained high risk premiums in credit markets pose a risk to growth in developing markets, China appears to be well protected due partly to its relatively closed capital account and financial system.

That said, Chinese authorities have been attempting to rein in the pace of growth in order to stem inflation pressures. Our base case forecast assumes some success on this front by 2009. In addition, with only a gradual recovery expected for the U.S. and European and Japanese economies held back by a resumption of interest rate tightening next year, look for global growth to ease from next year's near-5% rate closer to the longer-term trend rate of about 4% per year in 2009-10. This would imply global oil demand growth of 1.7% in 2008, before slowing to about 1.2% per year by 2010.

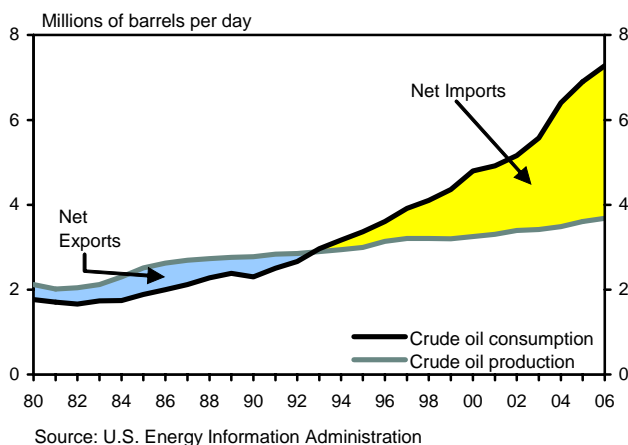
Our supply forecast assumes modest gains in both OPEC and non-OPEC supply over the next few years. OPEC, which recently announced a modest 500,000 bpd increase in output quotas effective November 1, 2007, is projected to raise production gradually over the next few years. These gains will be supported by a projected increase in spare capacity in Saudi Arabia of 3-4 million bpd over the next few years. Still, we expect the oil market to remain in a slight deficit position over the forecast period. As such,



SUPPLY-DEMAND BALANCE



GROWING CHINESE OIL DEMANDS



investors are likely to remain nervous about the potential for supply disruptions. Refining capacity will also stay tight. And higher costs for unconventional oil production and development will continue to put a floor under the world price.

Certainly, there is no shortage of opinions on the direction of oil prices and global supply demand conditions over the next few years. One optimistic view that caught investors' attention earlier this summer was that of the International Energy Agency (IEA), which projected that global oil consumption would grow at 2.2% per year through 2012 – more than double the rate of output (1%) and considerably above TD Economics' forecast. The IEA's high demand projection essentially assumes that the world

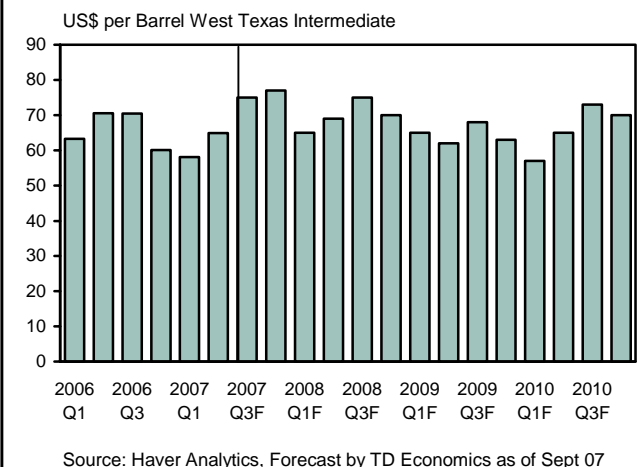
economy continues to chug along at close to its recent rate, which in our view, is unlikely. Although the agency does not forecast prices, it is safe to say that under such a rapid consumption scenario, prices could climb to US\$90-100 or higher. Meanwhile, debate about the potential for a near-term peak in the global oil supply continues. Last year, a 45% jump in world upstream capital and operating spending yielded a paltry 2% increase in global crude oil reserves.

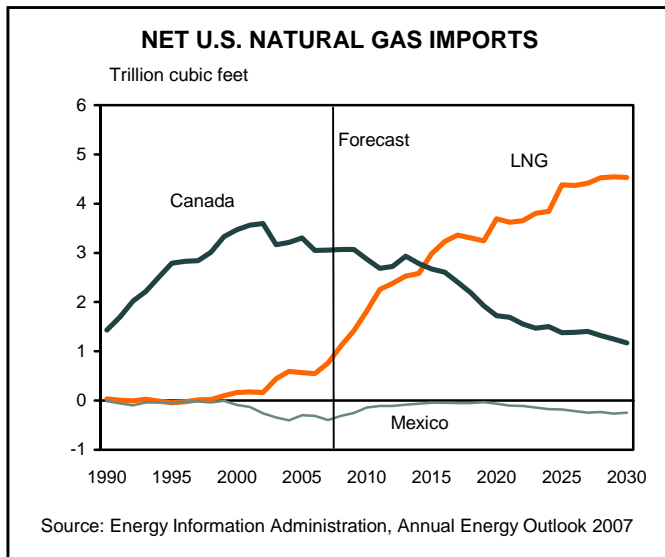
Natural gas prices to remain subdued until H2 2008

In the natural gas market – which remains more regional in nature and influenced by U.S. developments than crude oil – the fundamental picture has deteriorated steadily in recent months. Although U.S. consumption is on track to rebound by 4% in 2007, owing in part to a slightly cooler winter in 2006-07 compared to the year prior, the improvement was not enough to put a serious dent in the high levels of natural gas in storage. This is because new supplies rose almost as quickly (3%), spurred by higher onshore U.S. production and a 50% jump in imports of liquefied natural gas (LNG). Furthermore, the weather in major consuming regions in the United States this summer did not prove as hot as some had hoped, leaving North American inventory levels hovering 8% above their 5-year average. As a result, NYMEX natural gas prices slumped from a recent high of about US\$8 per MMBtu to about US\$5.50-\$6 by the early autumn, taking Canadian AECO prices along for the ride.

Given that some of the recent weakness in prices has been driven by the accumulation of short positions by speculators – a pressure that is extremely cyclical – and with

CRUDE OIL PRICE FORECAST





gas likely to be shut in as storage reaches capacity, we believe that the current downside on prices is limited. Nevertheless, barring a major destructive hurricane in the Gulf of Mexico in the coming weeks, we don't expect prices to return above US\$7 per MMBtu on a sustained basis until the second half of 2008. Even if the temperatures this winter return to their historical average, it is unlikely that all of the existing overhang will be worked off. Some improvement prices should occur in the second half of next year. Certainly, a risk to a firming in prices is the likelihood of continued rapid growth in United States domestic production and, even more importantly, inbound LNG supplies. In our view, growth in LNG to the U.S. should ease moderately in 2008, as more competitive pricing in Asia and Europe sends increased shipments to those markets.

By 2009, we expect natural gas prices to recover to a range of US\$8-9 per MMBtu. The fuel's cleaner burning properties and the outlook for continued strong demand within the power sector will provide solid fundamental support once the inventory situation improves. Moreover, some narrowing in the massive gap between crude oil and natural gas prices is a good bet. Recently, the ratio of crude to natural gas has shot up to 12:1, well above its longer-term average of 8:1. Although significant divergence can occur over the short run, the two prices tend to track each other well over longer periods.

Cost side to apply the brakes

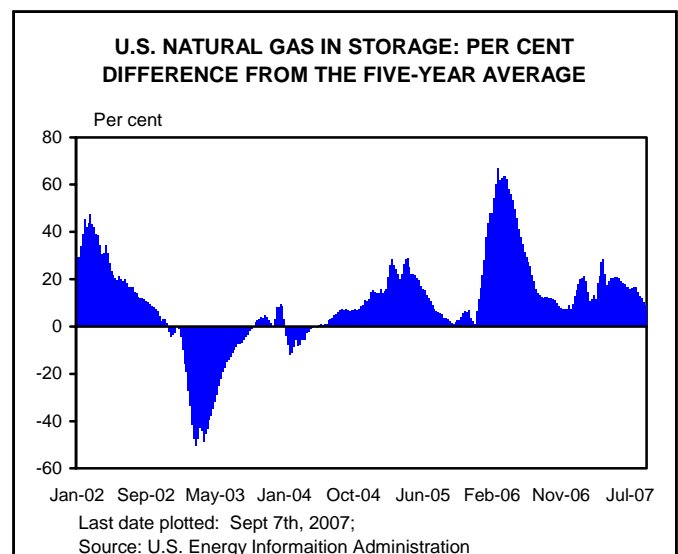
Based on TD Economics' medium-term energy price forecast, the oil patch – and notably the billions of dollars in oil sands investments – should remain in overall expan-

sion mode over the next few years. We present our 2008-10 real GDP growth and employment growth projections for Alberta and the regions on the next page. The projected growth rates of 2.5-3% in 2008-09 for Alberta and the Corridor equates to a sub-par performance, but far from the bust scenario that has followed past periods of euphoria. By 2010, the province's economy is forecast to return to an improved growth track which is more consistent with its long-term cruising speed.

The natural dampening forces on demand stemming from past cost increases will likely be the main culprit slowing down the economic juggernaut. What's more, with the prospects for continued low unemployment across the province in 2008 – and wage growth tending to be sticky in the downward direction – we wouldn't expect to see any meaningful relief on the cost side until 2009 at the earliest. And as we highlight in the next section, other potential developments – including a potential significant hike in royalties and measures to address climate change costs – place a further upside risk to the future path of costs over the next few years.

In the meantime, natural gas producers will be squeezed from both ends, as the price picture remains subdued (especially in Canadian dollar terms) until the second half of next year, leading to further cuts in drilling. Service companies in the sector, which has laid off as many as one in six workers over the past year, will continue to feel fallout from capital spending cutbacks in the short term.

But even in the oil sands, where price conditions remain favourable, output growth is expected to slow as the



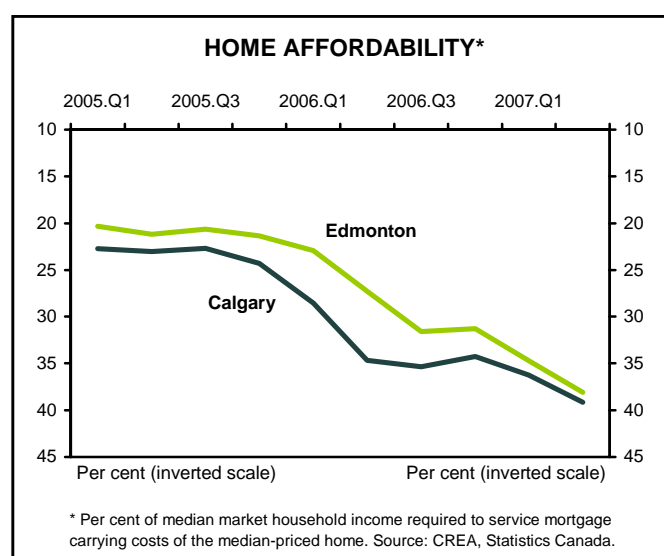
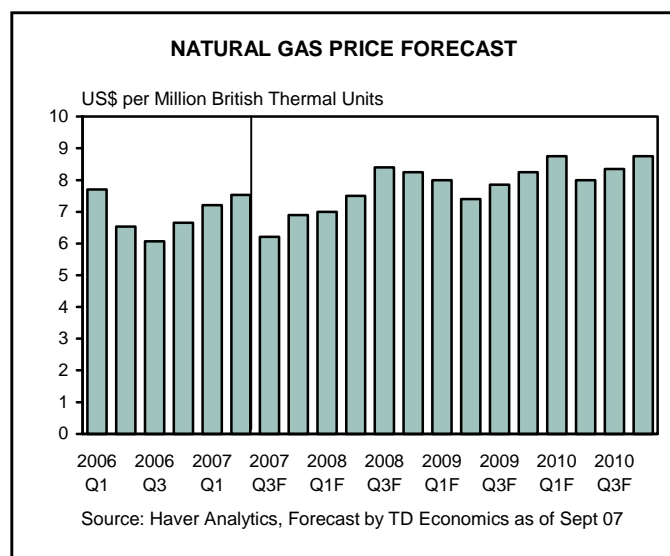
ALBERTA'S MEDIUM-TERM GROWTH PROSPECTS BY REGION										
Annual Average % Change										
	Real GDP growth					Employment Growth				
	2007E	2008F	2009F	2010F		2007E	2008F	2009F	2010F	
	Alberta	4.4	2.8	2.7		3.6	5.0	3.2	2.4	2.8
	Calgary	4.0	2.7	2.9		3.4	4.7	3.1	2.5	2.7
	Edmonton	5.2	3.3	2.5		4.0	6.3	3.5	2.2	3.0
ROCo*	4.6	3.6	3.0	3.7	5.3	3.8	2.7	2.7		
ROA**	3.9	2.2	2.6	3.3	3.8	2.8	2.4	2.5		
* Rest of Corridor; **Rest of Alberta										
Forecast by TD Economics as of September 2007										

impacts of recent soaring capital costs, wage pressures and the latest upswing in the Canadian dollar become increasingly visible in earnings reports. According to the Canadian Association of Petroleum Producers (CAPP), capital costs for oil sands projects have increased by 2-3 times since 2001, roughly in line with conventional crude oil prices.⁶ In a 2006 study, the National Energy Board estimated that integrated mining and extracting and steam assisted gravity drainage (SAGD) projects are economic at WTI prices of US\$30-35 per barrel.⁷ This calculation is based on estimated supply and capital costs along with a 10% rate of return. Since then, the further escalation of costs has likely raised this break-even figure on new projects to US\$40-50 per barrel or higher. Complicating matters for oil sands producers is a looming shortage of available pipeline capacity ahead of the planned startup of new lines by Enbridge and Transcanada Pipelines in 2010, which could lead to both lower product prices and production.

Cost increases will not only exert a natural drag on

growth in the oil patch, but put a damper on other of the province's economic drivers. We, like many others, are upbeat about the longer-term prospects for crop prices in the wake of rising Asian consumption, the impacts on supply on increasing incidences of drought and the recent thrust towards developing ethanol and biofuels. Hence, we believe that the province's crop sector is well-positioned to expand over the next few years. That said, some of the benefits to crop farmers from improved top lines are being eroded by rising costs of fertilizer, shipping and other costs, while producers in the livestock industry are feeling the pinch from higher feed prices.

Perhaps the area where the economics has deteriorated the most rapidly is in the region's major housing markets. In Calgary, the major run-up in prices has weakened demand and led to a sharp jump in the number of homes on the market. And, while the Edmonton market has continued to race ahead this year, we believe it's only a matter of time before it begins to follow suit – probably in 2008. We

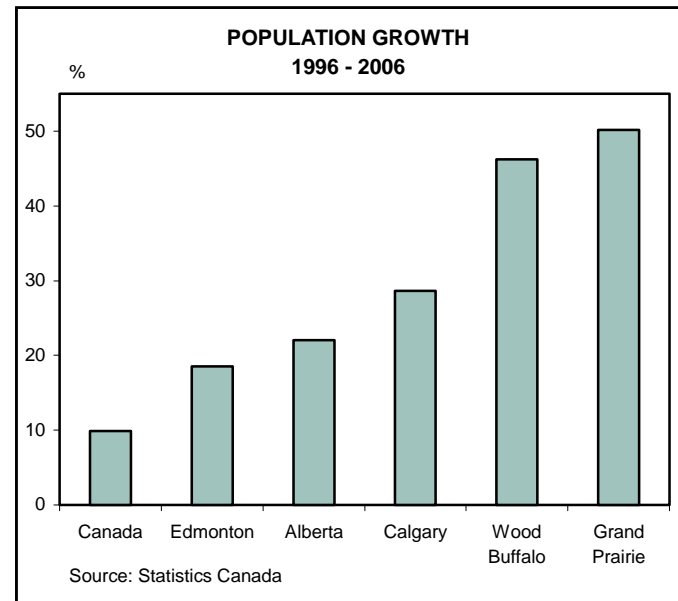


Fort McMurray and Grande Prairie: Oil sands development creating growth pains in the north

The northern Alberta communities of Fort McMurray/Wood Buffalo and Grande Prairie have raised eyebrows across the country, recording among the fastest rates of economic and population growth in the country. And the frenetic growth pace in these markets is not a new phenomenon – indeed, the acceleration picked up in earnest in the mid-1990s. Since 1996, the populations of Wood Buffalo and Grande Prairie have soared by about 50%.

Situated close to the province's largest oil sands deposit around the Athabasca River, Fort McMurray has received a particular boost from the development of the bitumen resource. In the 2001 Census, a striking one in three workers in the Regional Municipality of Wood Buffalo was employed in the mining sector. In Grande Prairie, oil sands activities in the surrounding Peace River region have been generating significant economic benefits in recent years, with total employment in mining likely having jumped from the 9% share registered in the 2001 Census. Nonetheless, the city continues to boast diversification across other industries such as forestry and tourism. In particular, residents of northeast B.C. flock to Grande Prairie to take advantage of the city's amenities and zero rate of provincial sales tax.

The stresses and strains of overly-robust growth have been evident in Fort McMurray and Grande Prairie, as the communities have scrambled to keep up with surging demands for housing, transportation, health care and education services, while labour has been in extremely short supply. Fort McMurray made headlines recently when average resale housing prices topped \$600,000 in mid-2007. With rental vacancy rates under pressure, rents in both cities for two bedroom apartments have risen above \$1,000 – and in the case of Fort McMurray, \$2000



is within reach.

Earlier this year, the Alberta government released an Oil Sands Action Plan that aims to remedy the gaps in public services, including a number of short-term measures. New funding has also been announced in areas such as affordable housing. Governments will need to proceed with some caution. To the extent that public spending in the regions is ramped up sharply, the flames of growth and cost pressures will be fanned, mitigating some of the positive benefits of the efforts undertaken. Careful prioritizing of infrastructure projects will be a challenging task, but a necessary one.

remain optimistic that the slowdown in housing activity should remain orderly, supported in part by a relatively stable interest rate environment in Canada over the next few years. And although the recent unsustainable pace of inter-provincial migration flows into Alberta and its major cities will probably continue to cool, flows are unlikely to dry up amid ongoing economic softness in central Canada. Nonetheless, the economies and job markets in the Corridor and the rest of the province will not receive the same positive kick from housing activity as they have over the past half decade.

There has been some concern about a potential weak-

ening in the government's fiscal position, which would necessitate major cuts in spending, thus accentuating the slowdown. Undoubtedly, based on our outlook for slower GDP (and hence revenue) growth, a significant paring back in the rate of spending *growth* in 2008-10 would be necessary to avoid a deficit. Some comfort can be taken in the government's efforts to protect its budget position against major swings in oil and gas prices in recent years through the creation of a sustainability fund, a capital fund and other contingencies separate from the Heritage Fund, which amount to about \$11 billion and could be drawn on if revenues suddenly fell short of plan.

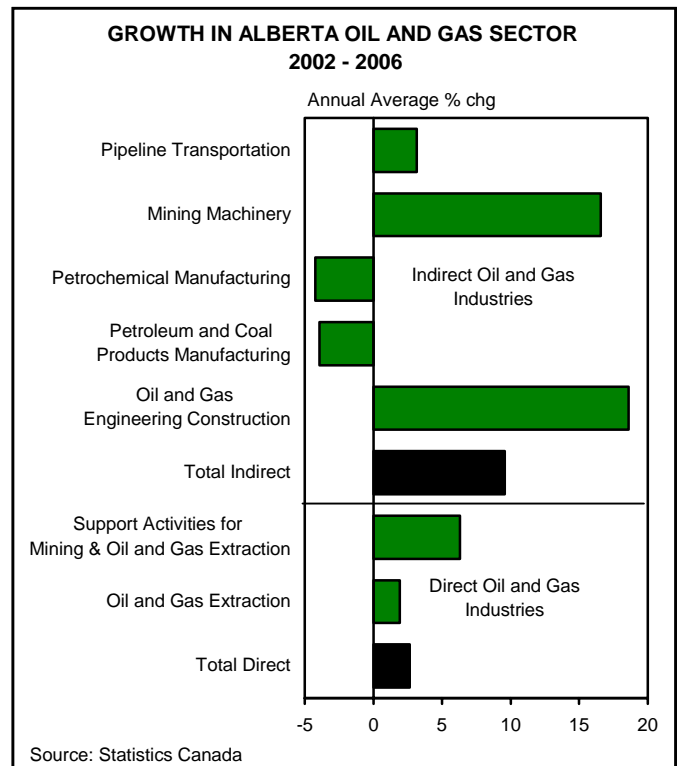
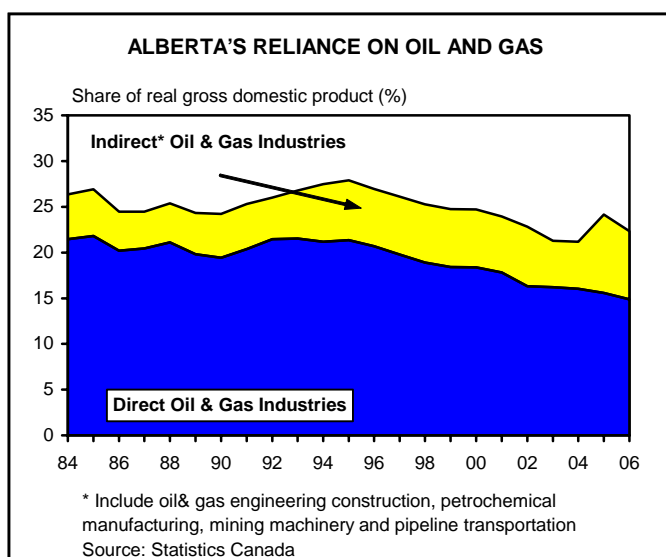
Addressing longer-term challenges

Our base-case growth forecast through the end of the decade reveals a U-shaped pattern for Alberta and its key regions. Over the next few years, Calgary and the Albertan regions outside the Corridor are expected to experience the largest slowdowns, while the ROCo economy is projected to reclaim the title as the province's leading pocket of growth – albeit turning in a more tempered rate of expansion than that recorded over the past five years. Looking out to the tale end of the decade, we are particularly upbeat about the longer-term growth prospects for the Edmonton Area economy, which will continue to receive significant support from the massive \$50 billion in oil sands-related investments underway or planned in the Capital region.

But what lies beyond 2010? In the 2003 study, we focused on a number of key longer-term barriers to growth that if left unaddressed would create impediments for sustained improvements in prosperity and quality of life. If anything, the developments in the province over the past four years have further highlighted these challenges, springing governments into action – although, as we argued on page 11 and 12 – with mixed consequences. This section assesses the progress made in each of these areas.

Economy still hinges on oil and gas

In the 2003 report, we indicated that during the 1990s, the Alberta economy continued along its longer-term path of diversification away from oil and gas towards other industries, including manufacturing, construction, professional



services and information-technology. What was noteworthy was that the diversification had taken place despite respectable growth in oil and gas activity. But while this progress had left the economy less vulnerable to swings in oil and gas prices, the extent of reliance on the sector – 23% in 2001 – was still significant.

An updated look shows that the trends in place a half decade ago have continued apace, with the GDP share of oil and gas and related industries (including construction, pipelines and petrochemicals) slipping to a new low of 19% in 2006. In addition, as the chart shows, this declining share conceals diversification within the sector, including a shift from direct to indirect activities. Furthermore, with oil sands now making up an increasing share of output, Alberta's energy mix has become better diversified across conventional and non-conventional oil, natural gas and coal.

Long-term risks facing oil patch growing

Looking ahead, the region must strive to ensure that diversification in the province occurs around a thriving oil and gas sector. Yet there are many hard policy decisions being made that, if poorly thought out, could have a detrimental longer-term impact on the sector's prospects. For one, as has been witnessed on a global scale, there has been a push by governments in both Alberta and across

many parts of Canada to extract a larger share of the benefits of energy development on behalf of their residents:

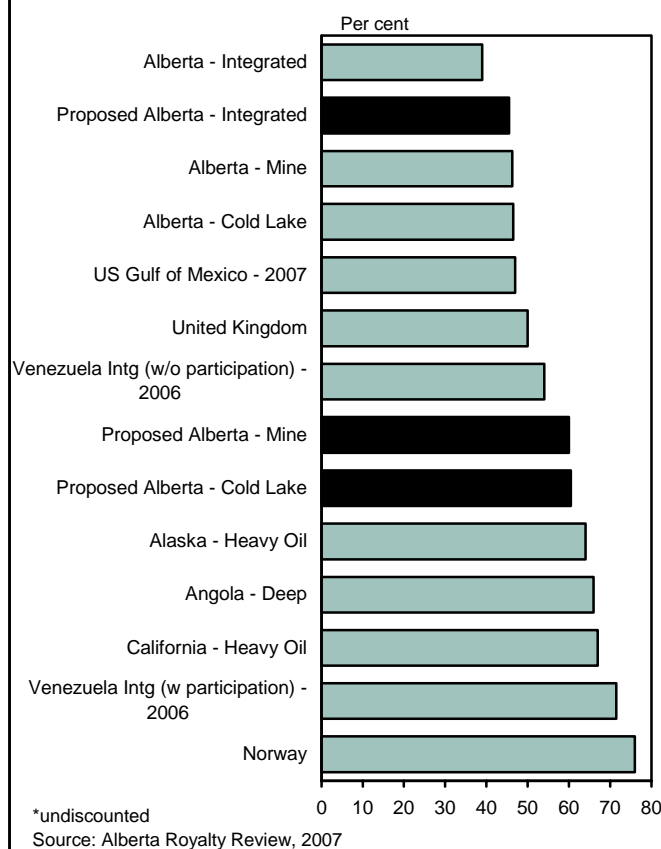
- In its 2006 budget, the Alberta government made a number of changes to royalty and tax programs in the oil and gas sector that generated \$300 million in additional revenues.
- In October 2006, the federal government announced that it would levy a corporate tax on distributions of all energy and non-energy trusts (excluding real estate), although existing entities wouldn't be subject to the 32% tax rate until 2011. We discuss some of the impacts of the move in the text box.
- In its 2007 budget, the federal government eliminated the accelerated capital cost provision on new oil sands projects and will be phasing it out on existing projects by 2015.

The next major event is set to take place within the next month, when the Alberta government reveals its much-awaited response to the recently-released report by the Royalty Review Panel.⁸ As was widely expected, the Panel has recommended that the government re-balance the energy and royalty tax regime by increasing its share of the benefits reaped from non-renewable energy resource development – to 60% from the current level of 47%, which would yield roughly \$2 billion per year in additional revenues. Royalties and taxes on oil sands development would be the most affected under the proposed changes, rising from 47% to 64% (see table). Although the panel recommended that the favourable existing 1% pre-payout gross royalty on oil sands projects remain in place, it supported a hike in the post-payout royalty from 25% to 33%. The report also favoured increasing the province's share of conventional oil and gas revenues.

The government's decision to review the royalty structure is a sound one if only for the reason that a sober assessment of the province's regime has not been carried out for many years. According to the Review Panel's find-

Alberta Royalty Review Panel Recommended Royalty Regime		
	Alberta's Share of Total Royalties and Taxes	
	Current	Proposed
Oil Sands	47%	64%
Conventional Oil	44%	49%
Natural Gas	58%	63%

OIL SANDS AND OFFSHORE/HEAVY OIL PROJECTS COMBINED OWNERSHIP & GOVERNMENT SHARE*



ings, Alberta's share of the total take from non-renewable development remains on the low side compared to other jurisdictions around the globe. And with many countries around the globe moving to raise their respective take in recent years, the gap appears to have widened. Based on the Panel's estimates, the proposals in the report would bring the government's proportion of the pie closer to the international average.

Still, the opportunities at hand run much deeper than merely striking a better balance of total revenues on behalf of Albertans. Rather, there is potential to improve the system so that it is more grounded in fairness and efficiency. And on this count, a number of the Panel's recommendations make sense. For example, under the proposals, almost 60% of low production, higher cost conventional oil wells would actually pay lower royalties. The comparable figure for natural gas is 82%. Moreover, the report supports several changes that would make the regime more price sensitive, including the adoption of an oil sands severance tax that escalates based on market prices. Lastly,

Income trust tax fuelling change

At the time of the decision by Canadian Finance Minister Jim Flaherty late last year, there were 31 trusts engaged in oil and gas, with a collective market capitalization of \$100 billion. About one million barrels of oil equivalent production (or 25% of the nation's total production) was attributable to these companies. Most of these companies are mid-sized (between 10,000-100,000 bpd), as the trust structure has been well suited for their role. Mid-sized companies tend to exploit and optimize mature properties that are either too large for the junior sector or not cost-effective for the large companies.

While the tax doesn't kick in until 2011, the shakeup in the trust sector has already begun. Some trusts have converted back to a corporate structure, or have been taken private through an acquisition. Other trusts – especially those that are already owned by U.S. interests or listed on a U.S. exchange – have moved to another tax-preferred structure, such as U.S.-based master limited partnership. (These vehicles offer tax advantages and

trade at higher values than income trusts following the ruling.) Many other entities have chosen to stay the course or are mulling over their options. In some cases, trusts have accumulated sizeable tax pools that will permit them to enjoy tax free status until well after 2011.

Thus, the adjustments to the trust ruling are likely to occur gradually over the next 4 years and beyond, so no major upheaval come 2011 is expected. Still, the jury is out on how significantly the Alberta economy will be affected by the tax change. One thing is for sure. Junior companies will have to come up with new exit strategies, since they relied on selling proven and produced reserves to the trusts. Now they face more limited options of going public, amalgamate or become purchased by foreign investors. In general, increased foreign ownership appears to be a real likelihood in the oil patch. Oil and gas production could also fall over time as reserves too expensive to extract by the large firms will no longer be attractive to the mid-sized ones.

in response to concerns from oil sands developers of rising costs, the Panel's choice to leave the generous 1% prepayment intact should provide some comfort. This is because as costs go up project royalties decline.

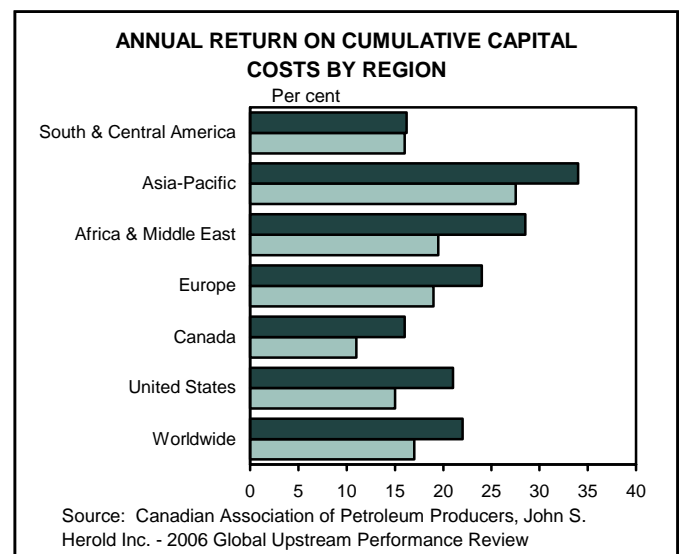
Still, the government is facing difficult choices. Some leaders in the oil and gas industry have recognized that there may be some wiggle room to raise the royalty and tax burden without inflicting undue harm on investment and growth. At the same time, the sector faces relatively high costs of finding and development, smaller-than-average discovery sizes, a higher regulatory burden and lower returns on investment than competing nations such as the U.S., Europe, Africa and Asia Pacific, all of which argue for an internationally competitive regime.

Reducing GGEs an opportunity

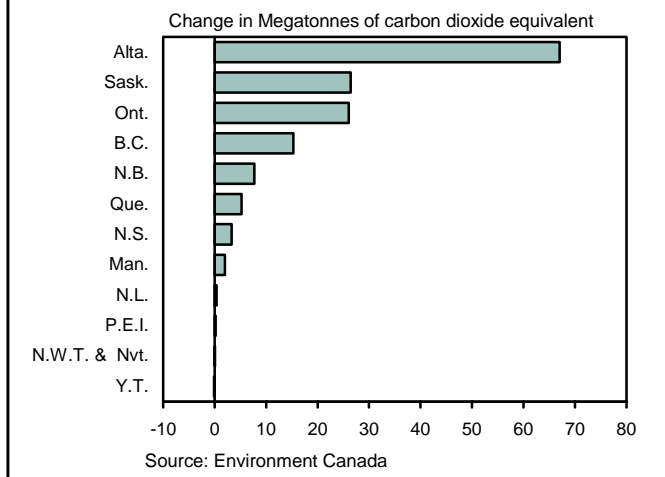
An even greater longer-term uncertainty confronting the oil and gas sector is the environment. While the environmental challenge was discussed in the 2003 study, the issue has since shot up to the top of public opinion polls, placing pressure on governments to take action. And no industry leaves a larger footprint on land, water and air than the oil and gas sector. For example, driven by its massive operations in both oil sands and coal-fired elec-

tricity generation, Alberta makes up a hefty 30% of Canada's total greenhouse gas emissions, while the oil sands accounts for about 10%.

The future costs to the oil and gas industry of reducing greenhouse gas emissions are very difficult to predict at this stage, since policies are still developing. Both the Alberta and federal governments have issued different climate change plans, although the latter appears to be the



CHANGE IN GREENHOUSE GAS EMISSIONS BY PROVINCE & TERRITORY - 1990 to 2004



more stringent of the two. While details remain scant, the federal plan has set out to achieve an 18% cut in GGE intensity by large emitters from 2006 levels by 2010 – a target which is slated to rise by 2% per year thereafter. For the aggregate economy, the federal government is seeking a 20% reduction below 2006 levels and a 45-65% drop by 2050. Keep in mind that the federal government's Clean Air Act died on prorogation of Parliament, so this could all change in the new session.

In Alberta, the government has set an initial goal requiring large emitters to reduce GGE intensity by 12% over their 2003-05 average level or face a compliance payment of \$15 for every tonne in excess of the target. With respect to its long-term aggregate economy intensity targets, Alberta will be striving to attain a 50% reduction in intensity by 2020. Given that oil sands and coal producers have been lowering their emissions intensity in recent years – for example, Suncor recently reported that its oil sands emissions intensity had tumbled by 51% since 1990 – the costs of compliance are expected to be relatively small. The provincial government estimates a price of \$170 million in the first year.

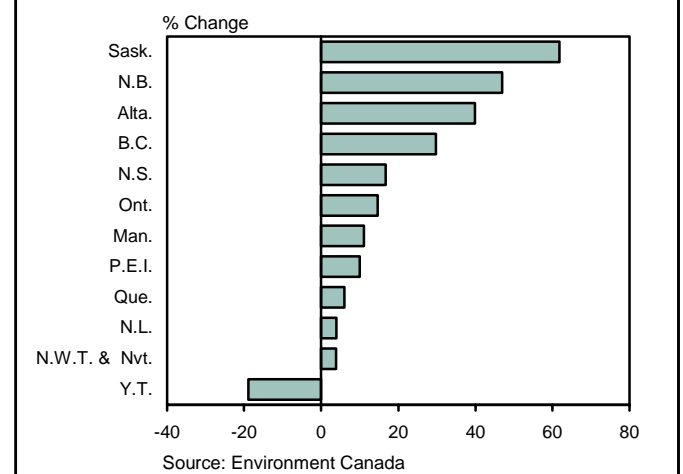
Regardless of how these plans unfold, one thing is for certain – that there will be efforts to deliberately raise the price of carbon. A price of \$30 per tonne is widely considered to be a minimum price that will achieve meaningful reductions in emissions. However, modeling by the National Roundtable on the Economy and Environment (NRTEE) shows that in order to achieve a 45% reduction in emissions by 2050, the carbon price would need to be

set at least as high as \$200 in 2003 dollars.⁹ Based on current oil sands emissions (i.e., assuming no reduction), the \$30 price tag would translate into an extra \$3 per barrel of oil. At \$200 per tonne, oil sands costs would be driven up by \$20 per barrel. Although these are simplistic assumptions, the picture does illustrate the risk from carbon pricing on the economics of the oil sands. In the NRTEE's "fast start" scenario, the carbon price rises to almost \$100 by 2020, so the cost escalation may not be that far off. If world oil demand remains strong, prices may be high enough to support extraction. However, depending upon the environment responses in other countries, cost escalation could threaten upgrading and refining activities in Canada.

As we argued in 2003, climate change represents a huge opportunity for Alberta to become a global leader in clean energy. According to the National Energy Board, accelerated efforts to take advantage of new production processes and technologies, such as cogeneration in oil sands and gas plants, leak detection programs for pipelines and gas plants, and power generation using micro turbines, will be critical.

Above all, success will be tied to forging ahead with new technologies to capture and store carbon and coal gasification and developing a pipeline to transport the gas. The cost of moving down this path is undeniably a challenge, as highlighted by the fact that at carbon prices of less than \$60-\$80 per tonne, the cost of carbon capture and storage is not currently economical. The Alberta government has estimated that constructing a carbon pipeline

PER CENT CHANGE IN GREENHOUSE GAS EMISSIONS BY PROVINCE - 1990 TO 2004

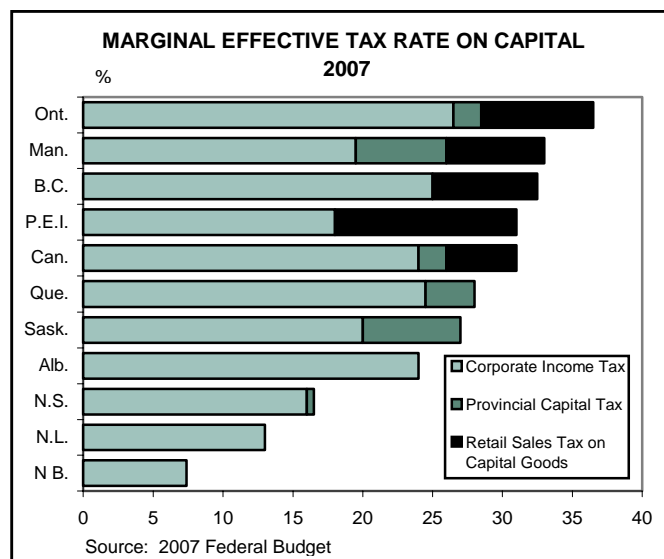


would cost in the order of \$1-1.5 billion alone. While the federal and provincial governments could provide support to such an initiative, the private sector needs to lead the charge. Saskatchewan Power had recently generated excitement when it announced it was considering a \$2 billion clean-coal facility, one of the world's first commercial-scale that would be virtually carbon free. However, it later abandoned the plan due to the high cost and will instead proceed with natural gas.

Other actions could help to both diversify the province's energy base and achieve its emissions goals. The bio-fuel industry in Alberta's southern and central Canadian regions is showing considerable promise. In fact, a U.S.-led consortium recently announced that it would build a \$400 million integrated bio-diesel and ethanol refinery in central Alberta – the first of its kind in North America – with support from the provincial government. The government's consideration of a foray into nuclear power is also wise. Although nuclear power has some disadvantages – notably its high capital cost and waste disposal challenges – a move in that direction would reduce greenhouse gas emissions and diversify the province's power supplies away from coal. Just as importantly, with the plan to build a natural gas pipeline along the Mackenzie Valley mired in setbacks and conventional gas production in Alberta in decline, nuclear power would provide an excellent alternative to the oil sands in powering their operations.

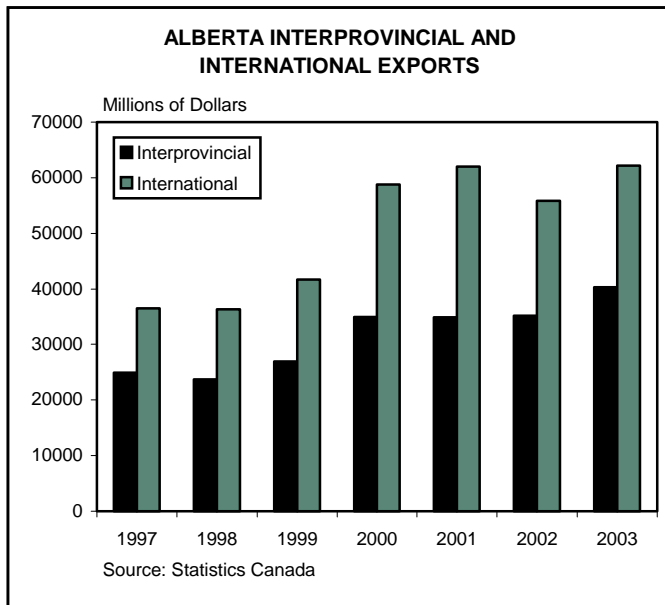
Governments in the province have been active on the diversification front since 2003, announcing programs to support industries such as nanotechnology, other high tech sectors and tourism. In July 2007, the provincial government announced to fanfare its Incremental Ethane Extraction Policy (IEEP), which will provide incentives aimed at boosting petrochemical and ethane production in the province. But while these types of efforts can contribute to diversification, governments' success around the world in "picking winners" through subsidies has been spotty at best – not to mention that incentives are a cost to the treasury and keep tax rates up for other industries that don't receive them. Put simply, the most powerful way to foster diversification is to continue with Alberta's past formula of creating a winning business climate.

On page 11, we highlighted the weakening cost competitiveness position in Alberta due to the rising loonie and increasing domestic costs. Efforts could be made to further improve the province's tax competitiveness¹⁰:



- Alberta's top combined federal-provincial personal income tax (PIT) rate is 39%, which is consistent with many OECD countries, but it is home to extremely high marginal tax rates on employment income and savings earned by low-income individuals. According to Finn Poschmann of the CD Howe, these effective rates rise to as high as 80%-85%.
- On the business side, Alberta is competitive on the Canadian landscape, but the current combined federal-provincial corporate income tax (CIT) rate in the province of 32% is above the OECD rate of about 30%. Taking into account other provisions, such as depreciation and inventory valuations, the combined effective marginal tax (METR) rate on capital is in the middle of the pack. Still, the METR on non-resource investments (at over 30%) is in the highest third of 37 industrialized and leading developing jurisdictions in terms of rate.
- There are other distortions, including high industrial and commercial property tax rates relative to the benefits of municipal services. Lower taxes on owner occupied compared to multi-residential rental property unfairly hurt the poor and encourage urban sprawl.

Measures to improve tax competitiveness need to be complemented by actions to spur trade opportunities and reduce regulation. The 2006 Trade Investment Labour Mobility Agreement (TILMA) between B.C. and Alberta is in its early stages, with the governments hammering out a framework and timetable on knocking down inter-provincial barriers. But while the jury remains out on the benefits it will deliver, it was a step in the right direction that



could create an integrated market larger than Quebec's. Continued efforts to cement the details and to bring other provinces on board could provide significant rewards to Alberta's exporters. Internationally, federal success in securing free trade agreements with South Korea, Europe and the Americas would open up opportunities abroad. And while Alberta already records the lowest regulatory burden among the provinces, according to the Fraser Institute, there is always room for improvement. The recent First Ministers' meeting provided some encouragement on this front, as all parties agreed to work with the federal government to speed up resource project approval.

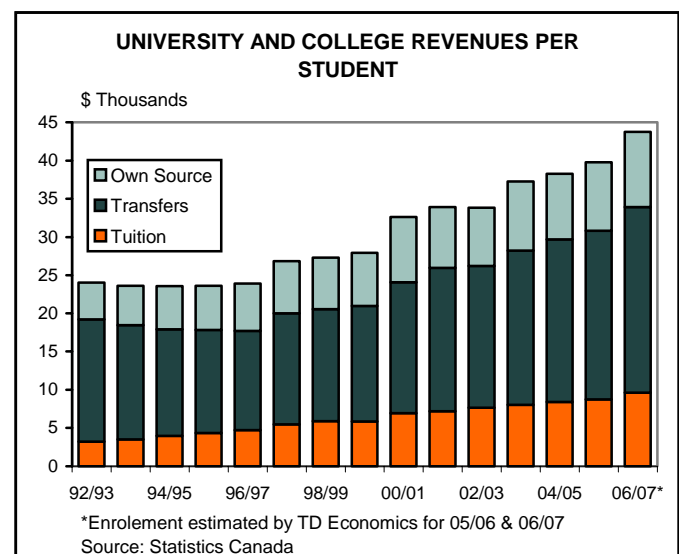
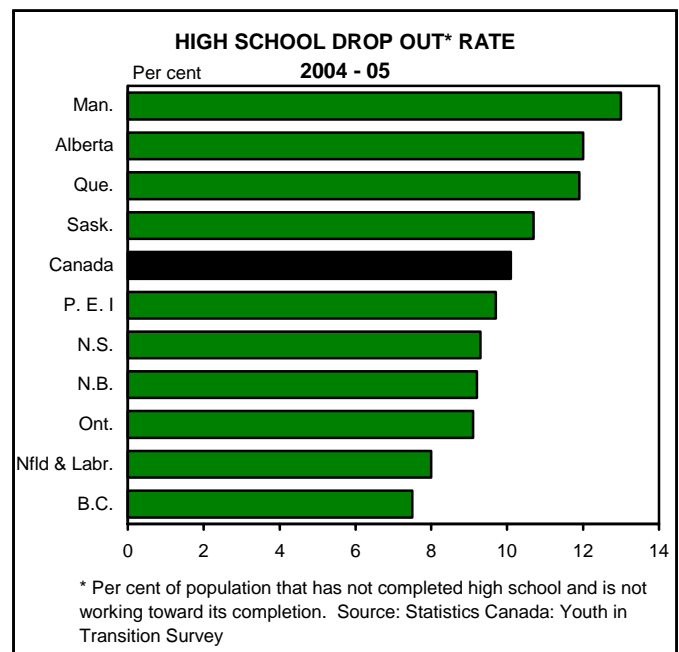
Labour and skills shortages unlikely to recede

The challenge of skilled labour shortages is one that is unlikely to recede over the next decade. The oil and gas sector will require 100,000 workers over the next decade, as the labour needs of oil sands producers continue to ramp up into the next decade.¹¹ A report by Alberta's Employment, Immigration and Industry Ministry forecasts significant labour market shortages across a number of industries by 2016, partly spurred by an increasing number of baby boomers heading into retirement.¹²

In 2003, we argued that the economy of the Calgary-Edmonton Corridor had reaped the benefits of one of the most highly-skilled workforces in the world. In 2001, 58% of the population had a university degree, college diploma or trade certificate, higher than the 53% and 55% recorded in Canada and Alberta, respectively. Yet, only 43% of high

school students moved on to PSE – the lowest rate in Canada – and of those, a relatively low share went to university. Although high school drop out rates had been following a downward track they remained above the national average. This suggested to us that Alberta's high average education rate was being supported by inter-provincial migration of educated workers, which is a source that often proves to be volatile. At the same time, PSE institutions had been starved of funding in the decade leading up to the report.

The news since 2003 has been mixed. Over the past

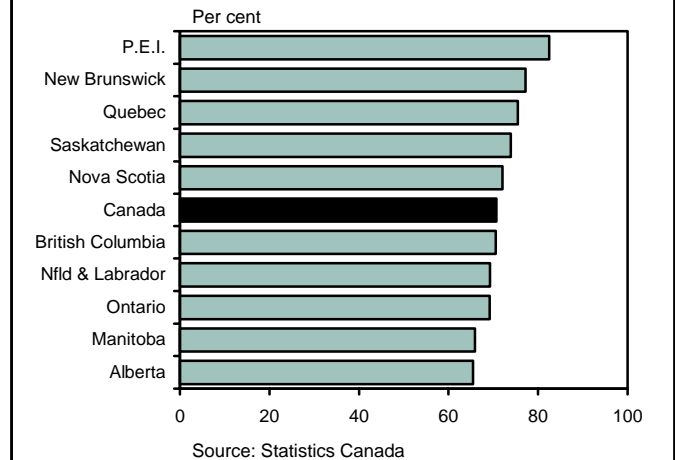


4-5 years, the province has recorded only modest improvements in high school drop out rates, while overall education attainment rates have remained stable at a nation-leading 58%. In the 18-34 year old category, the share participating in post secondary education (PSE) has actually declined since 2002. Clearly, the main culprit for the lack of progress has been the strength of the economy, where attractive wages have been a significant lure. On the plus side, participation in apprenticeships has soared – by almost 50% in the last two years alone.

PSE institutions have enjoyed a massive injection of new funding on the back of revenues from tuition and a sharp increase in government grants. Alberta currently continues to have among the highest tuition fees in Canada, prompting the government to freeze fees at 2004 levels with any increase held to the rate of inflation. (For 2007, the increase is set at 3.3%). The government will provide PSE institutions with \$136 million over the next three years in order to reimburse them for additional cost pressures above inflation. New monies for bursaries and grants have also assisted students to finance education.

Although Alberta is a particularly attractive location for Canadians to locate – including international migrants on a second-move basis – the province continues to attract less than its population share of new international migrants. Over the past five years, international in-migration to Alberta amounted to 90,000, or about 7% of Canada's total. Earlier this year, the federal and Alberta governments opened the doors to higher flows of international migration when it signed a bilateral immigration agreement. The deal

PARTICIPATION RATES: WOMEN WITH YOUNGEST CHILD LESS THAN 6 YEARS OF AGE

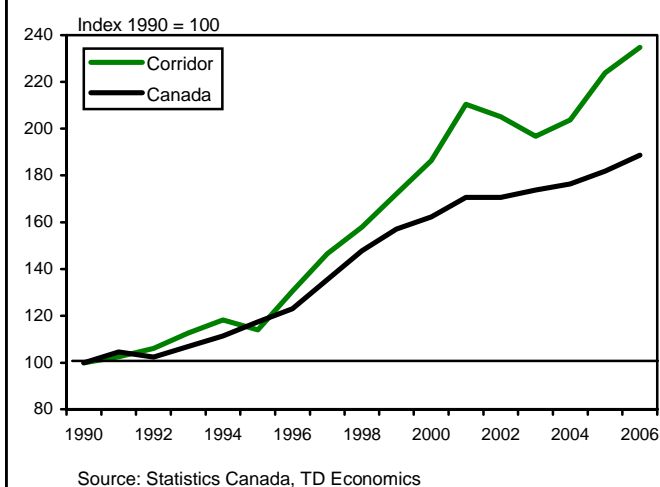


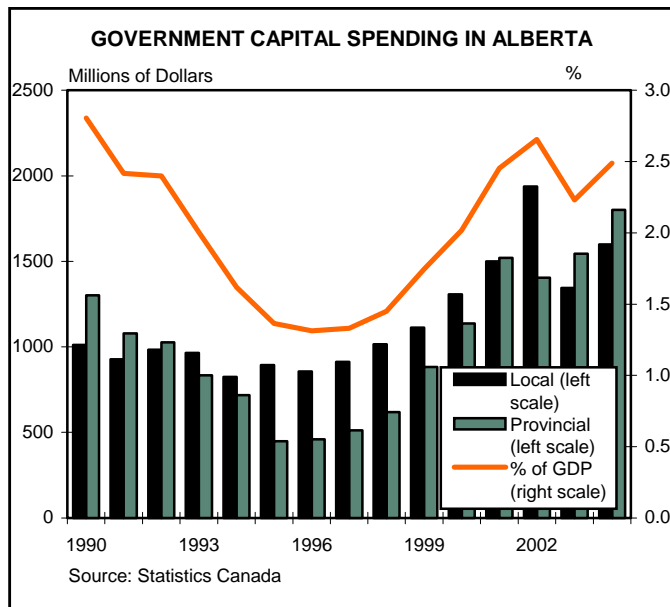
is expected to push Alberta's share of migrants to the country up to 25,000 per year or roughly its population share of the Canadian level. Changes made to the federal immigration process for temporary workers and plans by Alberta to streamline and expand the provincial nominee program have also been welcome news. As the number of migrants from abroad increases, however, Alberta will be faced with a newer set of challenges, including effectively integrating newcomers into the work force, language barriers, et cetera.

In addition to Alberta moving to knock down any barriers that exist for older workers to remain attached to the labour force, there may be opportunities to raise participation rates among women. Female participation rates in the province have fallen below the national average, and for women with children 6 years of age and younger, the province records the lowest rate among the provinces. This trend probably has something to do with the region's higher-than-average income levels, which reduces the need for double-income earners. Still, this causes of the low participation rate should be explored.

Alberta's weak record in research and development (R&D), commercialization and venture capital remain a challenge. Since 2003, the government has done its bit to support R&D, ramping up spending in the area by about \$750 million, including a \$200 million top up to Medical Research Endowment Fund and a \$100 million top up to Alberta Ingenuity Endowment Fund. As a result, government support for R&D has gone up from 1.5% of GDP in 2003-04 to 2.7% in 2006-07. Yet despite the explosion of

WORKERS IN KNOWLEDGE BASED-INDUSTRIES





corporate profit growth and rising head office count since 2003 in Alberta, the number of Alberta companies on Canada's list of 100 top R&D spenders remained unchanged at 10 since 2002.

Infrastructure a moving target

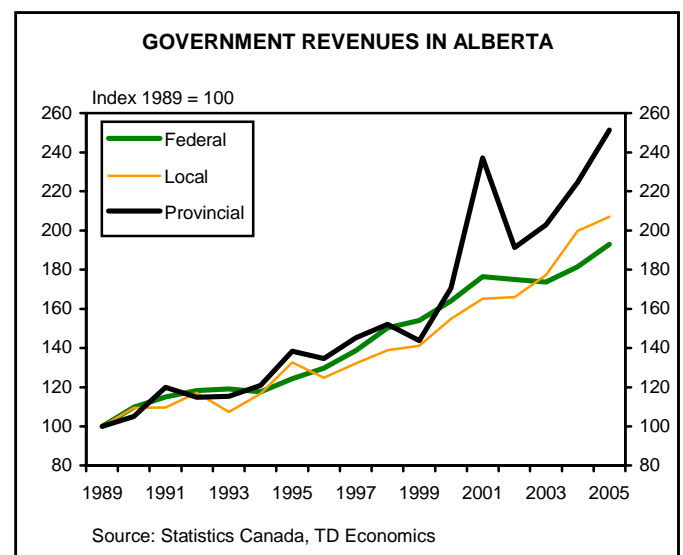
Five years ago, infrastructure was emerging as the number one priority outside of health care. Much of Alberta's infrastructure was put in place during the 1960s-1980s, while deficiencies were being observed in transit, water, wastewater, bridges and buildings. Just ahead of the release of our 2003 study, the Alberta government had suggested that its backlog of capital spending projects was as high as \$7 billion, with large gaps reported by City of Edmonton (\$3.2 billion over 10 years). We warned about the costs of pushing action into the future, since these costs would continue to mount and eventually put a significant damper on productivity.

Governments in the province have elected to take action – and with a vengeance. Combined local-provincial spending rose by a massive 20% annual rate over the past three years, with few major areas forgotten. It is hard to say with precision how much of the infrastructure gap has been made up, since the needs list appears to have grown just as rapidly. The City of Edmonton's estimated needs over the next decade have climbed to \$10 billion, while in Calgary, the calculation is an even higher \$12 billion. A significant share of those monies will come from cost-sharing with the federal and provincial governments. Rising

costs have also been a challenge holding back progress. For example, in Edmonton, the cost over-run on the 23rd Avenue Interchange has approached 100% of its initial price tag. While admittedly no easy feat, the cost issue speaks of the real need for governments in the province to devote considerable attention to setting priorities among projects and keeping overall spending moderate. Indeed, not all public infrastructure projects generate a positive return to society.

In 2003, we went at length to discuss the importance of a sustainable fiscal arrangement for the province's cities. Progress has been made over the past four years. In March 2007, the cities of Calgary and Edmonton along with AUMA and the Alberta Association of Municipal Districts and Counties issued a report to the Minister of Municipal Affairs requesting a number of new tax sources (amusement, property transfer tax, vehicle registration tax, among others), additional funding support equivalent to the amount collected through the education property tax (\$1.4 billion per year), and increased provincial resource royalty rates with the incremental amount allocated to municipal needs along with new municipal revenue powers to raise revenues from resource producers. As well, the Council recommended increased regional cooperation among municipalities in land use planning and growth management. We pointed out in 2003 that weak cooperation was a barrier to growth, particularly in Edmonton's capital region, which is home to 24 municipalities.

Since the Council issued the report, the province has followed through by anteing up new funding that rises to



\$1.4 billion over the next three years, which will held at that level for an additional six years. The long-term nature of the program has enhanced funding reliability, and so too has the provincial government's move to remove any strings attached to the funding. At the same time, the province has deferred the decision on the cities request for the new tax powers, citing a need to examine them further. In our view, while the approval of the new tools would be a step forward – since the new tools would raise accountability and provide flexibility to meet cities' challenges – the municipalities would need to carefully weigh the pros and cons of each tax. We would prefer that the taxes be chosen on the grounds of efficiency and in their potential to achieve other goals simultaneously, including environmental goals. For example, a local gasoline tax, which is not currently on the table, could be a useful instrument to raise revenues efficiently and reduce car use and pollution.

While the recent funding announcement and possible new tax tools will provide Calgary and Edmonton with some additional wiggle room in meeting their challenges, we still believe that cities have some room for using their existing tools more optimally. Urban sprawl remains a particular challenge, with individuals flocking to the cheaper suburban areas to seek lower shelter costs. There still remains a reticence to apply the user pay model in areas outside of water. Moreover, despite skyrocketing real estate prices, residential property tax burdens in both Edmonton and Calgary remain relatively low when compared to other Canadian jurisdictions. Lastly, cities have considerable room to increase their borrowing for capital investments.

On the cooperation front, regional efforts have been moving forward in recent months to discuss some of the possible new arrangements. However, the jury remains out on how much progress will be made in the capital region, where past frictions remain a barrier. A major challenge in the way of future success is the lack of any regional government structure empowered to make binding decisions in the best interest of the region. At this time, all of the 24 municipalities within the capital region make virtually all decisions, including those related to land use and infrastructure, in isolation from each other. The province is currently leading a process aimed at developing an integrated growth management plan for the Edmonton area.

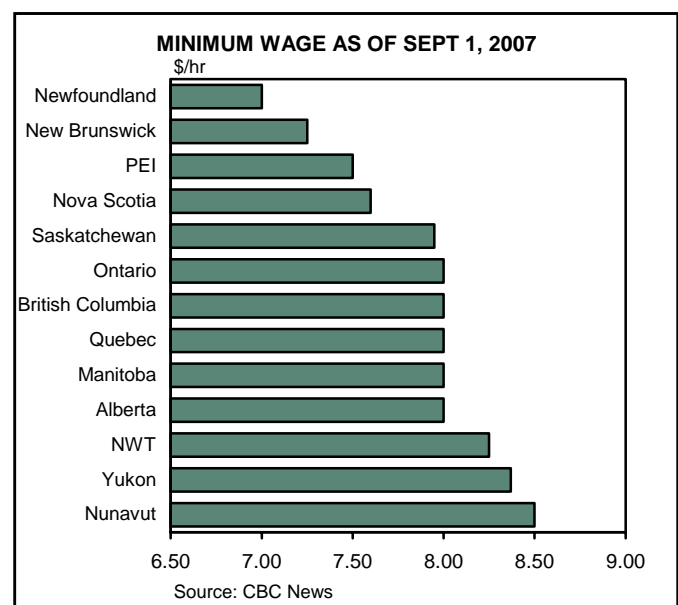
The risk of over-runs is one of the benefits of public-private-partnerships (P3s), which we've supported as a useful tool in eliminating infrastructure gaps. Happily, Al-

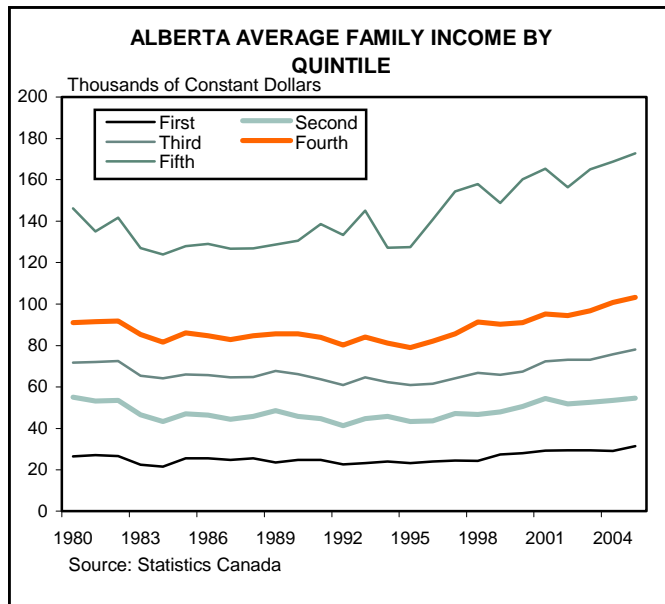
berta is opening the door to P3s, with the construction of the Calgary and Edmonton ring roads and is currently looking at 18 new P3 schools in both major cities. The success of these early projects will be important determinants to the future prospects of the P3s in Alberta.

Lastly, we noted in the 2003 study that a high speed train would be worth studying given the rising north-south flows along the Corridor. The rapid population growth since 2003 makes the case even stronger. Indeed, a new report prepared for the Alberta government, which interviewed some 5,000 motorists, 1,000 air travelers and 700 bus users, received strong support among respondents. An average trip between downtown Calgary and Edmonton would take about 84 minutes and cost \$130 round trip. The Premier has supported the project, optimistic about its potential to reduce cars off Highway 2 by 25% and cut back GGEs.

Growing gap between the haves and have nots

Among the various challenges facing the province, this one stands out as recording a significant step backwards over the past four years. Average statistics can be very misleading. And, in Alberta's case, this has been especially the case, with the bulk of the income gains falling to those individuals in the upper two quintiles in recent years. Perhaps the bigger surprise is that it is not individuals at the low end that have been hard-pressed to record any gains in inflation-adjusted terms, but those in the middle part of the income spectrum as well. Meanwhile, nobody has been sheltered from the rapid increases in costs for





essential needs such as housing. Case in point is the Edmonton rental market, where vacancy rates for lower-end rental units (i.e., \$500-\$700 per month) declined from 5-6% in 2005 to 1-1.5%, pushing up rents sharply. Not surprisingly, homelessness has soared – up about 20% in the City of Edmonton in 2006. In Calgary, estimates of the number of homeless show a near five-fold increase over the past decade.

Governments have been taking efforts to try and keep a lid on the problem. New programs aimed at relieving the affordable housing problem are being implemented, including provincial assistance to municipalities for rent supplements and to create additional units as part of a goal to generate some 11,000 affordable housing units across the province. And, the private sector is getting involved. At the City of Edmonton's request, a number of private developers in Edmonton have agreed to set aside 5% of their new units for the purposes of affordable housing. Out of necessity, companies have been taking an much more active role assisting new employees from outside of the province find housing.

The province has delivered other measures to help individuals cope. The Alberta government recently raised the minimum wage from \$7 to \$8 per hour. Still, in light of the dramatic increase in nominal wages in the service sector, the share of those earning minimum wage in Alberta has dropped to a mere 1.3% compared to 4.5% on average in Canada. The province has also moved to cut the number of times landlords can raise rents from twice to

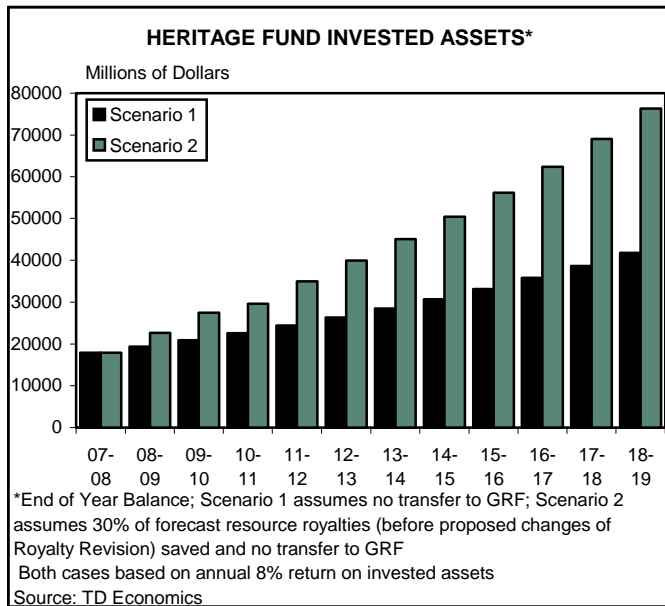
once a year in an attempt to alleviate upward pressure on rent. The government rejected an outright cap on rent increases, fearing its impact on the supply of new affordable housing, which has been scant.

Put simply, there is no quick fix when it comes to addressing many of the challenges of low income. Even prior the recent build-up in cost pressures, it had been evident that the tide was not lifting all boats. Governments will need to continue to set their sights on the many roadblocks to higher education and earnings, including lowering the punishingly high marginal income tax rate at the lower ends of the income spectrum and continuing support for public and PSE education. We have also argued that the complex issue of affordable housing can only be adequately addressed through a holistic approach that lowers demand (i.e., raise incomes for low-income individuals) and boosts supply. Recognizing that subsidies to create production of affordable units will need to be part of the solution, we have favoured the use of capital grants.

Saving for a rainy day

As we discussed earlier, governments in the region have been actively fanning the flames of the overheated economy, as they – paradoxically – attempt to address rising demands for services. Holding off on rapid spending during periods of boom is no easy task, since it requires significant prioritizing of which projects will deliver the biggest social bang for the buck. But the longer-term rewards would be substantial, as saving a share of the windfall would foster public investments down the road. This is especially critical in Alberta's context. If non-renewable resource revenues decline in the future – which is a real risk – an inadequate savings endowment to fund services would imply higher taxes, reduced public services and a lower standard of living.

It is not the case that the Alberta government has been squandering the bulk of its windfall. In addition to the spending earmarked for important priorities, the government has been setting aside significant amounts in a sustainability fund to protect against swings in revenues and building up endowments for R&D and capital. Moreover, spurred by deposits for inflation protection, the Heritage Fund is finally growing again after years of stagnation. The size of the fund has grown by \$5 billion since 2003, to \$17 billion. In total, the government's endowments add up to about \$40 billion, which is no chump change. At the same time,



however, savings has been carried out in an arbitrary way, while the leakage of income within the Heritage Fund back to general revenues is limiting the benefit of compounding. And while returns on the Fund have picked up in recent years, performance has lagged behind other large funds in Canada, including Ontario Teachers.

Further, the size of Alberta's endowment is a fraction of that of Norway, which currently boasts US\$200 billion in assets. Although the fact that Norway is a country rather than a state/province must be considered in any comparison, there are lessons to be learned. In Norway, all of the country's resource revenue is deposited in its Petroleum Fund, and returns are re-invested. At the end of the year, an appropriation from the Fund is included in general revenues to cover any anticipated non-oil deficit. As importantly, the management of the Fund has been turned over to an external manager (Norges Bank) which invests the proceeds in foreign securities.

There are few calls for the Alberta government to set aside all of its revenues in the Heritage Fund, since a sizeable share is desirable to fund the government's priorities. Some have recommended that 30% be saved. And, in its report, *Seizing Today and Tomorrow*, the Canada West Foundation argued that the government should follow a 50:50 rule, whereby half of the resource tally would be deposited into the endowment.¹³ In the same document, Ron Kneebone, a professor at the University of Calgary, provided an assessment on the feasibility of such a rule.

In his view, it is a feasible objective, but difficult to implement under a balanced-budget constraint, since governments would be forced to hike taxes or lower spending to eliminate any year-end shortfall that would emerge if resource revenues fell short of plan. University of Alberta Professor Bev Dahlby argued that the government could consider eliminating its no-deficit rule, allowing deficits to be recorded in bad years and surpluses in good years. In our view, such a move would not be undesirable, as long as some medium-term rule is adhered to.

The provincial government is currently considering the options as it reviews its royalty structure. Recently, the Premier indicated a desire to grow the Heritage Fund to \$40 billion over the next decade. This would be achievable, assuming an 8% return and that all deposits remain in the Fund. If a 30% rule was applied, the size of assets could grow to as much as \$80 billion by mid-way through the next decade. Part of the secret will be to improve the Fund's return performance. And, in that vein, we are also encouraged that the government has moved the Alberta Investment Management Corporation (AIMCO) from within Alberta Finance to a new corporation, to be chaired by former TD Bank CEO Charles Baillie and local Calgary investment banker George Gosbee of Tristone Capital Management. Although Finance will continue to determine the investment asset mix, the government has recently established a 5-member independent commission led by tax expert and Chairman of the University of Calgary, Jack Mintz, to assess the current investment strategy and to recommend changes that would maximize the returns.

The need for large institutional investment funds to review their strategies has become a global trend, as returns on traditional interest-bearing investments have fallen in recent years. Moreover, there is a growing body of opinion that long-term real yields will remain relatively low – a view we share, as reflected in TD Economics' recent report, *Shape of Yields of Come: An Outlook for U.S. and Canadian Interest Rates Through 2020*. So the question of aggressiveness of the strategy has never been so relevant, since funds won't be getting a good return from passive fixed-income investments. We clearly see advantages to diversifying the investments to markets not only outside Alberta but outside of Canada. This would mitigate the problem of too much capital chasing relatively fixed resources, resulting in the inefficient allocation of resources.

Bottom Line

The tiger's roar is likely to soften in 2008 and 2009, as cost pressures naturally apply the brakes to activity in key areas such as the oil sands and the housing market. Still, a substantial simmering down is what the doctor is ordering to ensure that expansion continues over the me-

dium term. Looking out further down the road, we remain upbeat about both the path of crude oil prices and the province's overall growth prospects. But so much will depend on how successfully governments and the private sector tackle the vulnerabilities that we have highlighted.

Derek Burleton
AVP & Director of Economic Studies
 416-982-2514

Don Drummond
SVP & Chief Economist
 416-982-2556

Endnotes

1. Canadian Association of Petroleum Producers, "Canadian Oil and Gas Outlook and Policy Impact", Presentation to the TD Newcrest Oil Sands Forum, July 12, 2007.
2. Ibid.
3. William Mercer, *World-wide Quality of Life Survey*, 2006.
4. KPMG, *Competitive Alternatives Study, Comparing Business Costs in North America, Europe and Japan*, 2006.
5. Canadian Energy Research Institute, *Oil Sands Impacts Across Canada*, September 2005.
6. Ibid, Canadian Association of Petroleum Producers.
7. National Energy Board, *Canada's Oil Sands, Opportunities and Challenges to 2015*, 2006.
8. Alberta Royalty Review Panel Final Report, *Our Fair Share*, September 18, 2007.
9. National Roundtable on the Environment and Economy (NRTEE), *Interim Report to the Minister of the Environment*, June 2007.
10. Jack Mintz, "The Case for Alberta Tax Reform", Speech to the Alberta Chamber of Commerce, March 3, 2006.
11. Alberta Chamber of Resources, Construction Owners Association of Alberta et al, *A Workforce Strategy for Alberta's Energy Sector*, 2007.
12. Alberta Employment, Immigration and Evaluation, *Alberta's Occupational Demand and Supply Outlook*, November 2006.
13. Canada West Foundation, *Seizing Today and Tomorrow; An Investment Strategy for Alberta's Future*, 2006.

The information contained in this report has been prepared for the information of our customers by TD Bank Financial Group. The information has been drawn from sources believed to be reliable, but the accuracy or completeness of the information is not guaranteed, nor in providing it does TD Bank Financial Group assume any responsibility or liability.