Studies in
Economic Prosperity

35 YEARS 1974-2009 FRASER INSTITUTE

February 2009

Saskatchewan Prosperity: Building on Success

by Niels Veldhuis, Milagros Palacios, Charles Lammam, and Alex Gainer

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Executive summary

Saskatchewan possesses an opportunity to build on its recent economic prosperity to develop a foundation for unprecedented prosperity and wealth creation in the province that would extend for years, if not decades. This study was written for Saskatchewanians to better understand the reasons why so many of their fellow citizens have left over the years and, more importantly, how to create an improved economic environment for lasting prosperity which continues to attract people back to the province. The recent downturn in economic conditions in Canada and around the world only provides added incentive to ensure Saskatchewan is on the right path for economic success.

Population and migration: Saskatchewanians have left

Over the last 35 years (1973–2007), the population of Saskatchewan has grown from roughly 912,000 in 1973 to its current level of 997,000 in 2007 (9.3% growth). This stands in stark contrast to the population growth experienced by Alberta (101.4%) and British Columbia (85.0%) over the same period. Even neighboring Manitoba (17.8%) managed to post population growth that exceeded that of Saskatchewan. Indeed, Saskatchewan's population growth of 9.3% (1973–2007) ranks ahead of only Newfoundland & Labrador, which actually experienced a decline in its population of 7.2% over the same period.

Perhaps more indicative and illustrative of the challenges facing Saskatchewan is the movement of existing citizens out of the province. In total, Saskatchewan experienced a net loss of 115,636 people between 1973 and 2007 after accounting for both the inflows and outflows of people. This represented 12.7% of the original population of the province in 1973. This ranks Saskatchewan as the second worst province for net migration in Canada over the 35-year period.

Both the overall population data and the interprovincial migration data illustrate that Saskatchewanians have been, to a large and disconcerting level, voting with their feet and leaving the province. Although recent net-migration levels have been positive, much more needs to be done in order to ensure that the trend is indeed broken for the long term.

Dearth of investment

The main reason that Saskatchewanians have left is because the province has failed to create an opportunities economy. Critically, Saskatchewan has suffered from a dearth of investment and business development. Two key measures that best highlight the dearth of investment in Saskatchewan are used to provide empirical evidence: net business investment per worker, and net business investment in machinery and equipment per worker.

In terms of net business investment per worker—the accumulated investment by business (adjusted for the number of workers and inflation)—Saskatchewan fairs poorly for the period between 1978 and 2007 when compared to the western provinces and the national average. As of 2007, Saskatchewan ranked 9th among all Canadian provinces in terms of net business investment per worker. Indeed, Saskatchewan's performance was only 49.4% of the national average as of 2007.

The results for the more narrow measure of business investment, namely net business investment in machinery and equipment (adjusted for the number of workers and inflation), are equally as poor. By 2007, Saskatchewan had the lowest level of accumulated per-worker net business investment in machinery and equipment among all Canadian provinces. Indeed, Saskatchewan's performance of $7,175 in accumulated net business investment in machinery and equipment in 2007 was only 38.1% of the national average, 73.0% of that achieved in Manitoba, and just 15.8% of that achieved in Alberta.

Investment is the foundation upon which a thriving and prosperous economy exists. The dearth of investment in Saskatchewan over the last 30 years is quite informative in terms of the province's generally poor economic performance and, more specifically, the out-migration of Saskatchewanians. Although the province has thankfully improved its performance over the last three years, more is needed to secure this change in fortune and indeed create a stronger foundation for the future.

Explaining the dearth of investment

In examining the economic landscape of the province and reviewing economic research on what drives investment, four key areas emerge in which Saskatchewan faces serious economic challenges and in which opportunities exist for improvement. The four areas identified and developed in this section are tax policy, labour market regulation, Crown corporations, and barriers to interprovincial trade.

Tax policy

Of the three areas identified, Saskatchewan has made the most progress in taxation. Large and meaningful changes have been aggressively advanced in recent years for personal income and business taxes. These changes have made the province's tax system more competitive and more supportive of investment. However, additional steps are required to fully harness the potential and opportunity facing the province.

The following summarizes the various recommendations emanating from the analysis of the four key tax areas (i.e., personal income taxes, sales taxes, corporate income taxes, and corporate capital taxes) addressed in the main section of the paper:

- Implement a single personal income tax rate of 9.0%;
- Harmonize the provincial sales tax (PST) with the federal goods and services tax (GST) in a revenue-neutral manner;
- Reduce the general corporate income tax (CIT) rate to 9.0%; and,
- Eliminate corporate capital taxes (CCTs) on the financial services sector.

Government spending: Restraint needed

Provincial spending is the other side of the tax issue. The resources collected by governments are used to finance spending. The tax program outlined previously represents a realistic but nonetheless aggressive plan to create a lasting tax advantage in Saskatchewan. Such a plan will require restraint and, if necessary, reductions in provincial spending.

Unfortunately, the province has increased spending to the point where Saskatchewan now has one of the highest rates of per-capita program spending in the country. Per-person program spending of $11,773 in 2007/08 ranks Saskatchewan third in the country behind Alberta and Quebec in its level of per-capita spending. Indeed, Saskatchewan is some 5.4% above the national average.

A more purposeful effort to control both budgeted spending (limiting it to an agreed-upon percentage using population growth and inflation) as well as unplanned year-end spending must be implemented over the next five years. In addition, all unplanned surpluses should be reserved specifically for debt reduction. Such measures will better control the growth of government spending in the province and provide the resources necessary to finance the tax relief measures outlined above.

Labour market regulation

Labour market regulation and industrial policy (regarding government ownership of businesses) in Saskatchewan are in need of fundamental large-scale change. It is in these two areas where Saskatchewan maintains a pronounced anti-investment policy, which must be altered if the province is to capitalize on its current opportunity.

Labour market regulation refers to the rules imposed on employers and employees in the labour market. It covers such issues as minimum wages, work hours, occupational licensing, and the process through which a union gains the right to collectively represent workers. Given the importance of labour and everything related to it such as ingenuity, creativity, and diligence, the regulation of labour is a critical driver in attracting or alternatively impeding economic development broadly and investment specifically.

In general, economic evidence indicates that flexible labour markets outperform non-flexible labour markets. Flexibility simply refers to the ease to which workers and employers alike are able to adjust their efforts given changes in the marketplace. For example, how easily can a worker shift his or her efforts away from a declining industry or region to a faster growing one? Or how easily can an employer invest in new technology to improve the firm's productivity? These are simple examples of labour flexibility that in aggregate have enormous influence over the performance of an economy and investment.

Unfortunately, in case after case, Saskatchewan has a pronounced history of maintaining labour laws and regulations that impede flexibility and that are decidedly biased. The prescriptive nature of Saskatchewan's laws and their barrier effects to flexibility mean that the province's labour market performs less than its potential, which hurts both workers and businesses alike.

In order for the province to fully capitalize on the opportunities it faces today, Saskatchewan must undertake broad-based reform of its labour laws. First and foremost, the province must acknowledge the benefits of and begin focusing on labour market flexibility. While several improvements where made to provincial labour-relations laws in May 2008, much more needs to be done to bring them more in line with other North American jurisdictions (i.e., provinces and US states) and to focus more specifically on balance. In particular, changes should be made to prohibit mandatory union membership and dues-payment clauses in collective bargaining agreements as well as eliminate successor rights, technological change laws, and forced arbitration. In addition, residents of Saskatchewan would benefit from a freeze of the minimum wage.

Crown corporations

Saskatchewan has a government business enterprise (GBE) sector unlike any other province and continues to be a peculiar anomaly in the Western world. One of the most marked outcomes from an economic landscape dominated by GBEs, which are more commonly known as Crown corporations, is their tendency to underinvest in capital (e.g., property, plant, and equipment) compared to similar firms in the private sector. Their tendency to underinvest has several important consequences; for example, it means that employees working at GBEs are unable to access tools and technologies that raise productivity. This loss in productivity translates into lower wages and ultimately a lower standard of living for workers.

There are four main reasons why GBEs underinvest compared to equivalent private-sector firms:

- GBEs are restricted in their ability to finance existing or expansive business activity with debt;
- GBEs are largely, if not entirely, prohibited from using private equity;
- GBEs tend to stress labour over capital inputs in their production processes in response to demands from political interest groups; and,
- GBEs normally operate as monopolies, free from competitive pressure.

The study contains an empirical analysis of three of the four larger GBEs in Saskatchewan: SaskTel, SaskPower, and SaskEnergy. The analysis compares investment by these GBEs to that of equivalent private-sector firms. Based on two key capital investment indicators (i.e., capital expenditures per worker, and long-term assets per worker), the results showed that private-sector firms tend to invest more intensely than their state-owned counterparts. Specifically, SaskTel, SaskPower, and SaskEnergy were out-performed by their private-sector counterparts in 17 out of a possible 20 comparisons, representing an 85.0% failure rate. In other words, Crown corporations in Saskatchewan overwhelmingly underinvested in capital compared to their private-sector equivalents. These findings corroborate the scholarly research cited in this section of the study.

The recommendation for overcoming the problem of Crown corporations underinvesting in capital and for moving towards greater prosperity is privatization. Regardless of the mechanism used to privatize provincial GBEs, the key is for policy makers in Saskatchewan to commit to transferring ownership of these businesses to private interests. As the research shows, doing so will unleash and indeed promote investment in specific industries as well as in other areas of the Saskatchewan economy. It is, however, important to ensure that any and all proceeds from such sales be tied to debt reduction rather than used for other purposes, such as financing increased program spending by the provincial government.

TILMA: A missed opportunity

In 2007, the Saskatchewan government turned down an opportunity to join the Trade, Investment and Labour Mobility Agreement (TILMA). TILMA was forged between British Columbia and Alberta in 2006 to create a seamless economic region between the two provinces. TILMA will be fully implemented in 2009 and will have a beneficial impact on worker mobility between Alberta and British Columbia and could help initiate strong economic performance in the years to come.

TILMA is a major advance from its predecessor, the Agreement on Internal Trade (AIT)—an interprovincial trade agreement made between all the Canadian provinces in 1995. The AIT is ineffective because it is complex, has limited scope, and is unenforceable. By being much broader in scope and including enforceable measures, TILMA achieves a more open market for trade and commerce.

In order to improve interprovincial trade, Saskatchewan should immediately reverse its decision and join TILMA.

Conclusion

Saskatchewan has experienced a remarkable reversal of fortunes over the past two years. Even with a general slowing of the global economy, Saskatchewan continues to enjoy strong economic performance relative to other jurisdictions. The province should not, however, rest on its recent successes. Saskatchewan should use its recent success to create a foundation for lasting economic prosperity by improving the investment and business development environment within the province. Specifically, the province needs to build on past improvements in tax policy, implement fundamental changes to its labour laws and government-owned businesses, and join TILMA. By making these changes now, Saskatchewan can gain a significant competitive advantage which will herald in a new era of economic strength and prosperity for Saskatchewanians.

Introduction

For far too long, the "Land of Living Skies" province has been exporting its best and brightest to other parts of Canada and abroad. Saskatchewanians from Lloydminster to Yorkton to Estevan and everywhere in between have worried about the departure of the province's young and skilled workers. Although the exodus of working-age Saskatchewanians has reversed in recent years, it is still a contentious and worrying issue for citizens.

Saskatchewan now possesses a chance to fundamentally rectify this problem and establish a path of prosperity that will see not only current residents remaining in the province but indeed see Saskatchewanians who have left returning. Indeed, by continuing the reforms that the NDP government started in 2000, Saskatchewan has an opportunity to build on its recent economic prosperity to create an unprecedented period of wealth and prosperity in the province that would extend for years, if not decades.

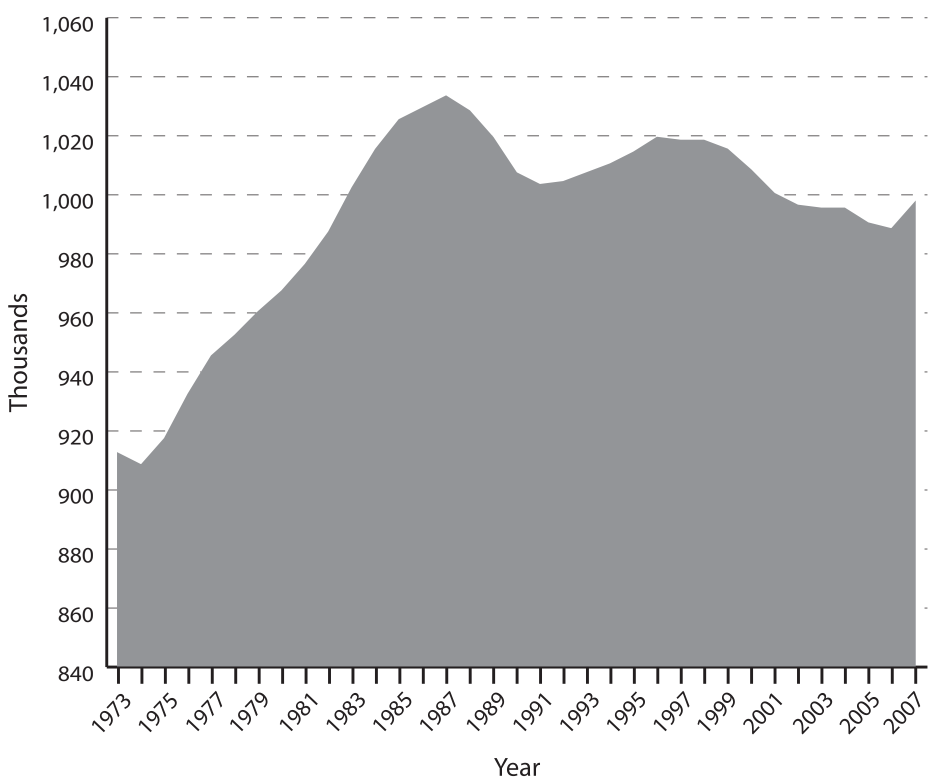
This study was written for Saskatchewanians to better understand the reasons why so many of their fellow citizens have left over the years and, more importantly, how to create an improved economic environment for lasting prosperity which continues to attract people back to the province.

This study begins by documenting the long understood and far too often experienced outflow of Saskatchewanians. It then outlines the reasons for this exporting of people and promise to other jurisdictions. Most importantly, however, it establishes a blueprint for reversing the outflow based on extending and deepening current reforms to create a foundation for unprecedented prosperity.

Migration: Saskatchewanians have left

Over the last 35 years (1973–2007), the population of Saskatchewan has grown from roughly 912,000 in 1973 to 1,033,000 in 1987 and then dropped back down to its current level of 997,000 in 2007 (figure 1).[1] The province's overall population growth for this period was 9.3%. This stands in stark contrast to the population growth experienced by Alberta (101.4%) and British Columbia (85.0%) over the same period (figure 2). Even neighboring Manitoba (17.8%) managed to post population growth that well exceeded that of Saskatchewan over the same period.

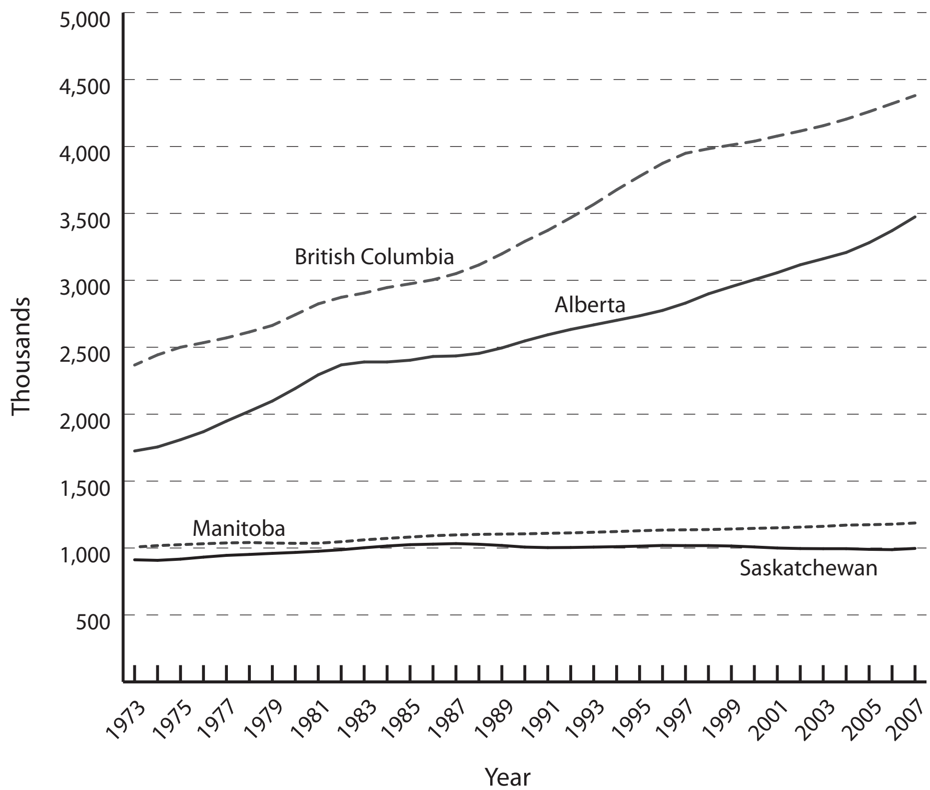
Figure 1: Saskatchewan population, 1973–2007



Source: Statistics Canada, 2008a; calculations by the authors.

1 These population statistics include births and deaths, the movement of existing citizens (residents) between provinces, the inflow of immigrants from other countries, and the outflow of existing residents to foreign countries.

Figure 2: Western Canadian provincial populations, 1973–2007



Source: Statistics Canada, 2008a; calculations by the authors.

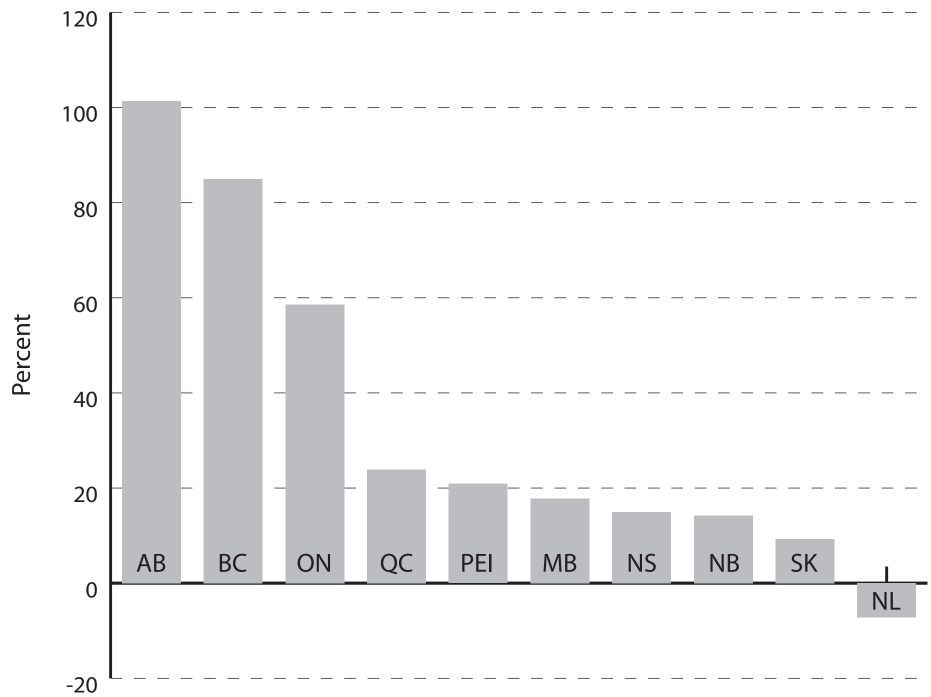
Saskatchewan's population growth of 9.3% (1973–2007) ranks ahead of only Newfoundland & Labrador, which actually experienced a decline in its population of 7.2% over the same period. Put differently, of the nine provinces that experienced an increase in their populations over this 35-year period, Saskatchewan ranked last (figure 3).

Table 1 provides information on total population change between 1973 and 2007 as well as data for specific segments of the population, including working-age population and dependent-age population.

The overall growth in Saskatchewan's working-age population, defined as 18 to 64 years of age, from 1973–2007 was the second lowest of any province at 24.1% (table 1).[2] Saskatchewan also experienced a reduction in the population of dependent-age people, defined as under the age of 17 and older than 65 years of age.

2 A recent paper by Guillemette and Robson (2007) raise an additional concern regarding future expected-demographic trends and aboriginal labour-force participation in Saskatchewan.

Figure 3: Change in population, 1973–2007



Source: Statistics Canada, 2008a; calculations by the authors.

Interprovincial migration

Perhaps more indicative and illustrative of the challenges facing Saskatchewan is the movement of existing citizens out of the province. Interprovincial migration data measures the movement of existing residents from one province or territory to another. A person who takes up residence in another province is counted as an out-migrant with reference to the province or territory of origin, and an in-migrant with reference to the province or territory of destination. It only includes what are deemed to be permanent changes in residence and excludes the movement of immigrants to Canada. Put simply, net interprovincial migration is the difference between the number of people permanently moving to a province (i.e., in-migrants) and the number of people permanently leaving a province (e.g., out-migrants).

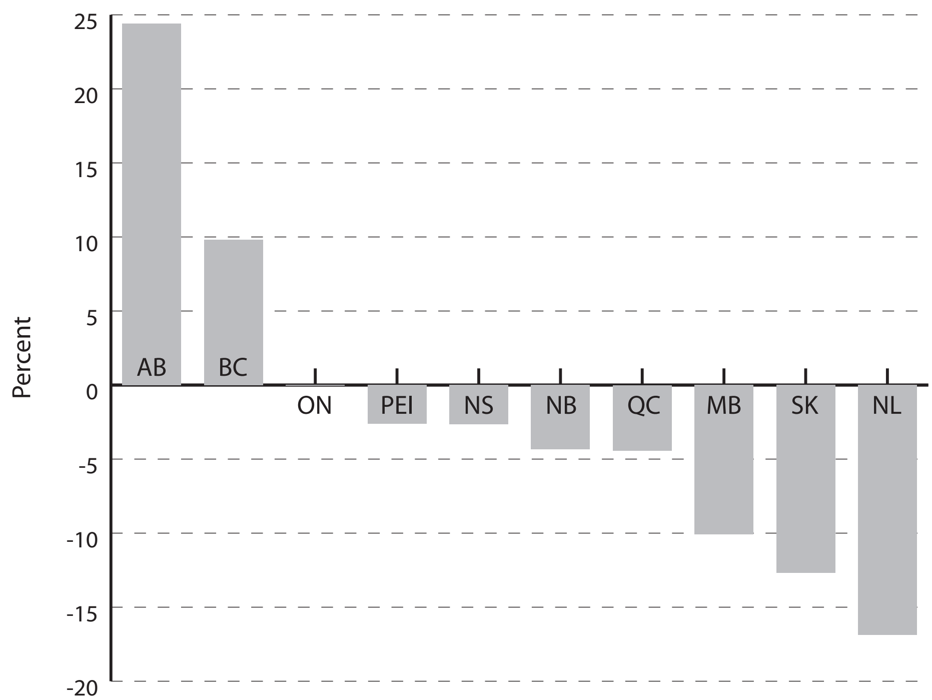
Table 2 and figure 4 contain information on the total net migration by province between 1973 and 2007. In total, Saskatchewan experienced a net loss of 115,636 people between 1973 and 2007 after accounting for both the inflows (408,355) and outflows (523,991) of people. This represented

Table 1: Population data, 1973–2007

	ALL AGES				WORKING AGE [1]				DEPENDENT AGE [2]			
	Total population (thousands)		Total change in population (%)	Average annual population growth (%)	Total population (thousands)		Total change in population (%)	Average annual population growth (%)	Total population (thousands)		Total change in population (%)	Average annual population growth (%)
	1973	2007	1973–2007	1973–2007	1973	2007	1973–2007	1973–2007	1973	2007	1973–2007	1973–2007
Canada	22,492	32,976	46.6	1.1	13,022	21,612	66.0	1.5	9,470	11,364	20.0	0.5
NL	546	506	−7.2	−0.2	280	339	21.3	0.6	266	167	−37.2	−1.4
PEI	115	139	20.9	0.6	60	89	48.9	1.2	55	50	−9.4	−0.3
NS	812	934	15.0	0.4	450	614	36.4	0.9	362	320	−11.6	−0.4
NB	657	750	14.2	0.4	356	496	39.5	1.0	301	253	−15.8	−0.5
QC	6,213	7,701	23.9	0.6	3,672	5,064	37.9	1.0	2,541	2,637	3.8	0.1
ON	8,076	12,804	58.6	1.4	4,742	8,358	76.2	1.7	3,333	4,446	33.4	0.9
MB	1,007	1,187	17.8	0.5	569	746	31.1	0.8	439	441	0.5	0.0
SK	912	997	9.3	0.3	494	613	24.1	0.6	418	384	−8.2	−0.2
AB	1,725	3,474	101.4	2.1	997	2,320	137.5	2.6	748	1,154	54.2	1.3
BC	2,367	4,380	85.0	1.8	1,389	2,905	109.1	2.2	978	1,475	50.8	1.2

Source: Statistics Canada, 2008a; calculations by the authors. Notes: [1] Persons aged 18–64 years old; [2] Persons under 17 years of age and 65 and older.

Figure 4: Net migration (all ages) as a percent of population, 1973–2007



Source: Statistics Canada, 2008a; calculations by the authors.

12.7% or over one tenth of the original population of the province in 1973.[3] This ranks Saskatchewan as the second worst province for net migration in Canada over the 35-year period examined (figure 4).

Table 3 and figure 5 shows net migration data for the working-age population only—defined as individuals between the ages of 18 and 64—between 1973 and 2007. A net total of 61,652 Saskatchewanians of working age left the province after adjusting for both in the inflow of working-age population (190,692) and the outflow of working-age population (252,344) over this period. This represented 12.5% of the entire working-age population of Saskatchewan in 1973. On average, 1,761 working-age Saskatchewanians left the province every year after accounting for the inflow and outflow of working-age people between 1973 and 2007. The performance of Saskatchewan was worse than any other province except Newfoundland & Labrador, which recorded a net outflow of 21.5% of its working-age population.

3 Please note that the comparison of migration and population uses the base year of 1973. This is done in order to compare migration with the starting population base.

Table 2: Interprovincial migration data for all ages, 1973–2007

	Total out migration	Total in migration	Total net migration	Total net migration as a percent of population in 1973	Average annual net migration
NL	286,775	194,686	−92,089	−16.9%	−2,631
PEI	68,447	65,459	−2,988	−2.6%	−85
NS	406,723	385,254	−21,469	−2.6%	−613
NB	312,880	284,298	−28,582	−4.4%	−817
QC	787,236	512,255	−274,981	−4.4%	−7,857
ON	1,621,875	1,617,663	−4,212	−0.1%	−120
MB	483,629	382,026	−101,603	−10.1%	−2,903
SK	523,991	408,355	−115,636	−12.7%	−3,304
AB	1,187,291	1,608,282	420,991	24.4%	12,028
BC	1,021,576	1,253,663	232,087	9.8%	6,631

Source: Statistics Canada, 2008a; calculations by the authors.

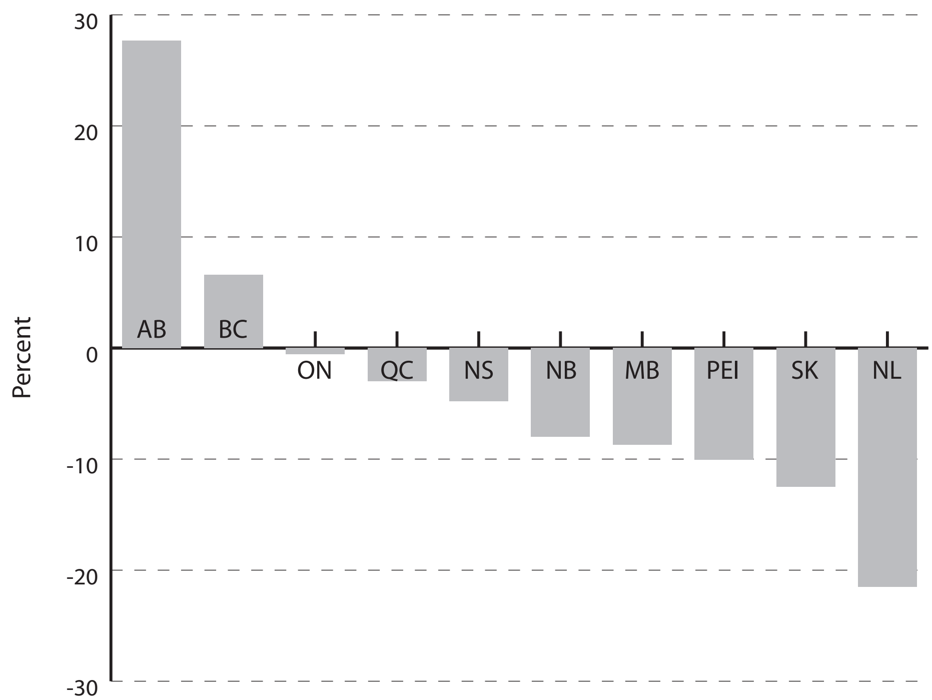
Table 3: Interprovincial migration data for working-age population, 1973–2007 [1]

	Total out migration	Total in migration	Total net migration	Total net migration as a percent of population in 1973	Average annual net migration
NL	163,650	103,429	−60,221	−21.5%	−1,721
PEI	37,444	31,432	−6,012	−10.1%	−172
NS	216,376	194,853	−21,523	−4.8%	−615
NB	165,900	137,464	−28,436	−8.0%	−812
QC	374,302	263,959	−110,343	−3.0%	−3,153
ON	818,767	791,890	−26,877	−0.6%	−768
MB	225,477	176,017	−49,460	−8.7%	−1,413
SK	252,344	190,692	−61,652	−12.5%	−1,761
AB	586,218	856,912	270,694	27.7%	7,734
BC	512,937	604,909	91,972	6.6%	2,628

Source: Statistics Canada, 2008a; calculations by the authors.

Note: [1] Persons aged 18–64 years old.

Figure 5: Net migration (working age) as a percent of population, 1973–2007



Source: Statistics Canada, 2008a; calculations by the authors.

Finally, table 4 and figure 6 contain information on the migration of dependent-age[4] citizens between 1973 and 2007. Saskatchewan experienced a net outflow of dependent-age population of 53,984 between 1973 and 2007. This represented a net outflow of 12.9% of the dependent-age population in 1973. Saskatchewan maintained the highest rate of net out-migration of dependent-age people between 1973 and 2007 (figure 6).

Both the overall population data as well as the interprovincial migration data illustrate that Saskatchewanians have been, to a large and disconcerting level, voting with their feet and leaving the province. Although recent net-migration levels have been positive, much more needs to be done in order to ensure that the trend is indeed broken for the long term and, more importantly, that it is reversed.

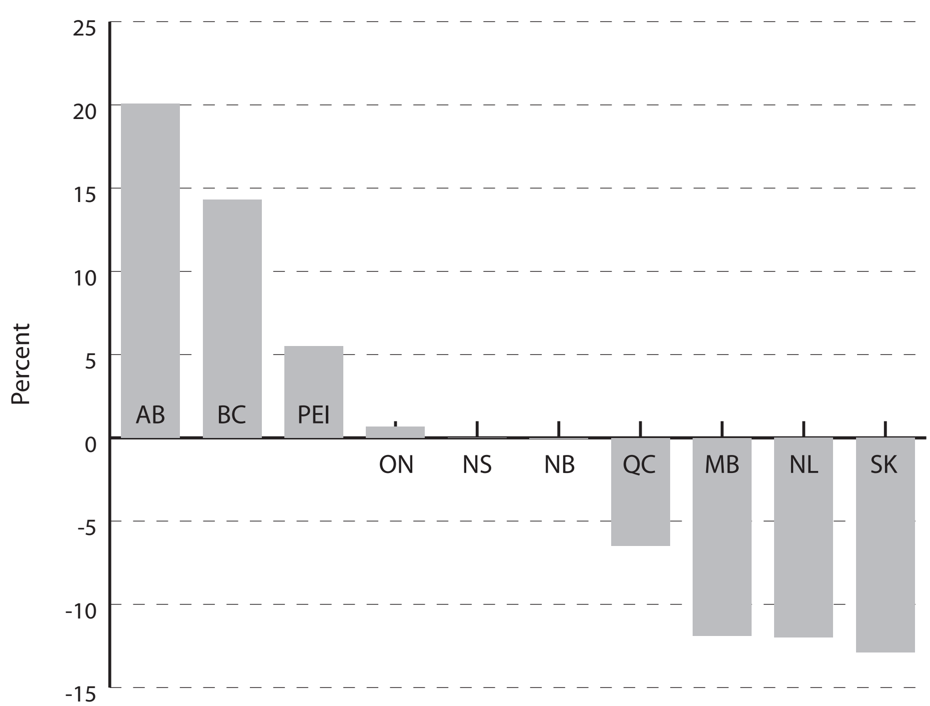
4 "Dependent" is defined as persons under 17 years of age and persons 65 years of age and older.

Table 4: Interprovincial migration data for dependent-age population, 1973–2007 [1]

	Total out migration	Total in migration	Total net migration	Total net migration as a percent of population in 1973	Average annual net migration
NL	123,125	91,257	–31,868	–12.0%	–911
PEI	31,003	34,027	3,024	5.5%	86
NS	190,347	190,401	54	0.0%	2
NB	146,980	146,834	–146	0.0%	–4
QC	412,934	248,296	–164,638	–6.5%	–4,704
ON	803,108	825,773	22,665	0.7%	648
MB	258,152	206,009	–52,143	–11.9%	–1,490
SK	271,647	217,663	–53,984	–12.9%	–1,542
AB	601,073	751,370	150,297	20.1%	4,294
BC	508,639	648,754	140,115	14.3%	4,003

Sources: Statistics Canada, 2008a; calculations by the authors.
Note: [1] Persons less than 17 years of age and 65 and older.

Figure 6: Net migration (dependent age) as a percent of population, 1973–2007



Source: Statistics Canada, 2008a; calculations by the authors.

Dearth of investment: Lack of an opportunities economy

The obvious next question is, why? Why have Saskatchewanians been leaving the province in such a pronounced and consistent manner? The answer to the question is complicated and there is no single solution to provide a magic bullet for improvement. However, one of the main, if not the most important, answers to the question is a lack of economic opportunities in Saskatchewan. This dearth of opportunities is largely premised on the lack of investment in the province and the accordant economic implications of a lack of investment. This section of the paper will provide evidence regarding the province's investment performance over the period of 1978–2007.[5]

There are a myriad of available measures examining investment. This study focuses on two key measures of investment that best highlight the problem of Saskatchewan's lacking an opportunities economy: net business investment per worker, and net business investment in machinery and equipment per worker.

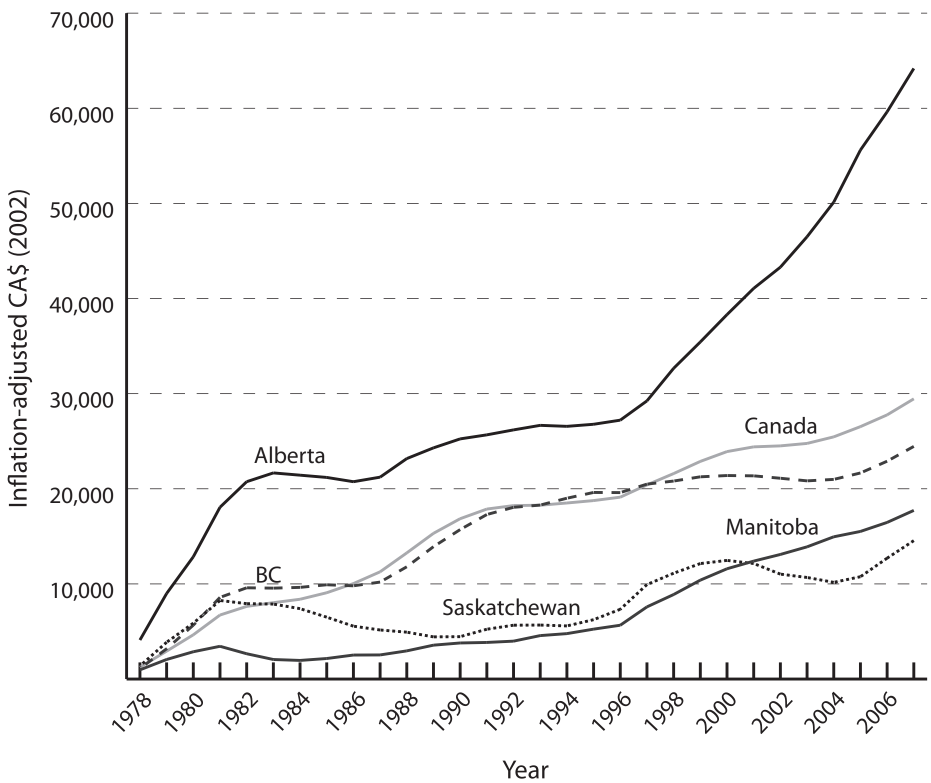
These two measures were selected for a number of reasons. First, it is critical to examine private-sector (i.e., business) investment in order to differentiate between investment made by the government (i.e., public sector) and the private business sector. Second, it is important to examine net investment, which adjusts for depreciation, since the study is interested in looking at effective new investment rather than investments that may be made to simply offset the deterioration of existing assets. Third, the data needs to be adjusted for the size of the workforce in order to avoid measuring the size of a province's economy. The two measures employed achieve all of the aims and provide readers with a broad and a more narrow view of business investment in Saskatchewan over the last three decades.

Figure 7 depicts the accumulated investment by business[6] (adjusted for the number of workers and inflation) between 1978 and 2007 for the western provinces as well as the national average. Saskatchewan actually performs strongly for the first several years. In fact, as of 1980, Saskatchewan ranked third in terms of per-worker net business investment among all 10 Canadian provinces. However, by 2007, Saskatchewan had dropped to the 9th place among all Canadian provinces in terms of net business investment per worker.

5 2007 is the latest year for which comparable data is currently available.

6 Business investment includes building construction and machinery and equipment investment. It excludes engineering construction investment.

Figure 7: Accumulated net business investment per worker, 1978–2007



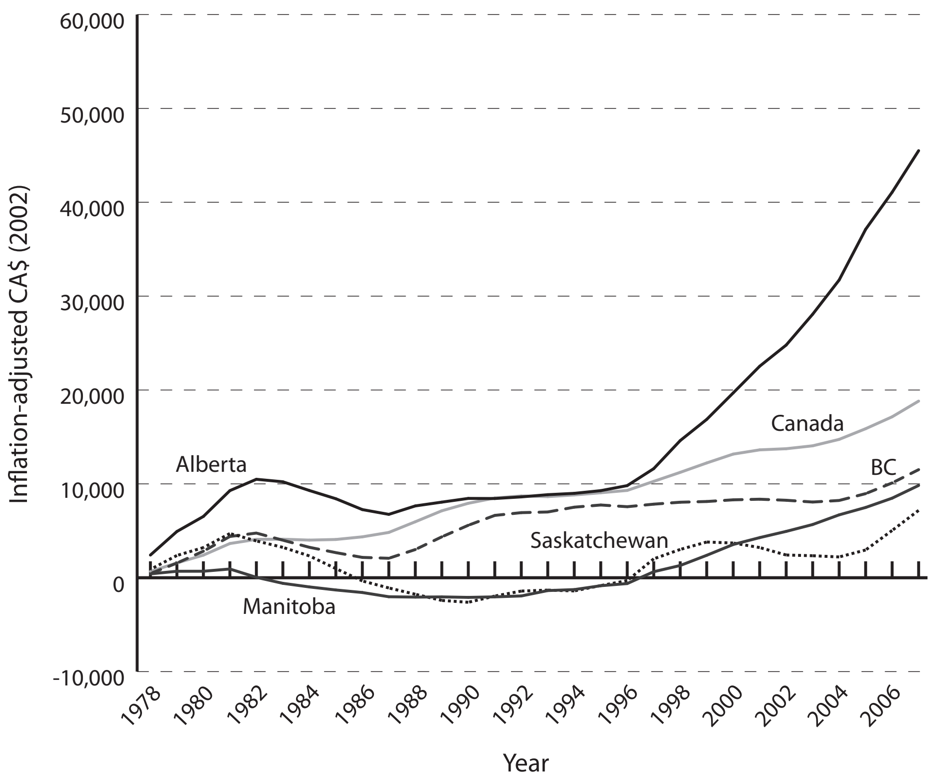
Sources: Statistics Canada, 2008b, 2008c; calculations by the authors.
Note: Business investment excludes engineering construction investment.

Indeed, Saskatchewan's performance was only 49.4% of the national average as of 2007.[7] More telling, however, is that Saskatchewan was only able to achieve 82.1% of the performance attained in neighboring Manitoba and only 22.7% of the performance attained in Alberta.

Figure 8 illustrates a more narrow measure of business investment than figure 7. Specifically, figure 8 illustrates the net business investment in machinery and equipment (adjusted for the number of workers and inflation) for the same jurisdictions over the same period as included in figure 7. Unfortunately for Saskatchewanians, the results are almost identical to those in figure 7. Saskatchewan begins the period strongly but drops early on and ends the period with the lowest level of accumulated per-worker net business investment in machinery and equipment among all Canadian provinces. Indeed, Saskatchewan's performance of $7,175 in accumulated net business investment in machinery and equipment in 2007 was only 38.1% of

7 This figure improves slightly to 57.6% if Alberta is removed from the national average.

Figure 8: Accumulated net business investment in machinery and equipment per worker, 1978–2007



Sources: Statistics Canada, 2008b, 2008c; calculations by the authors.

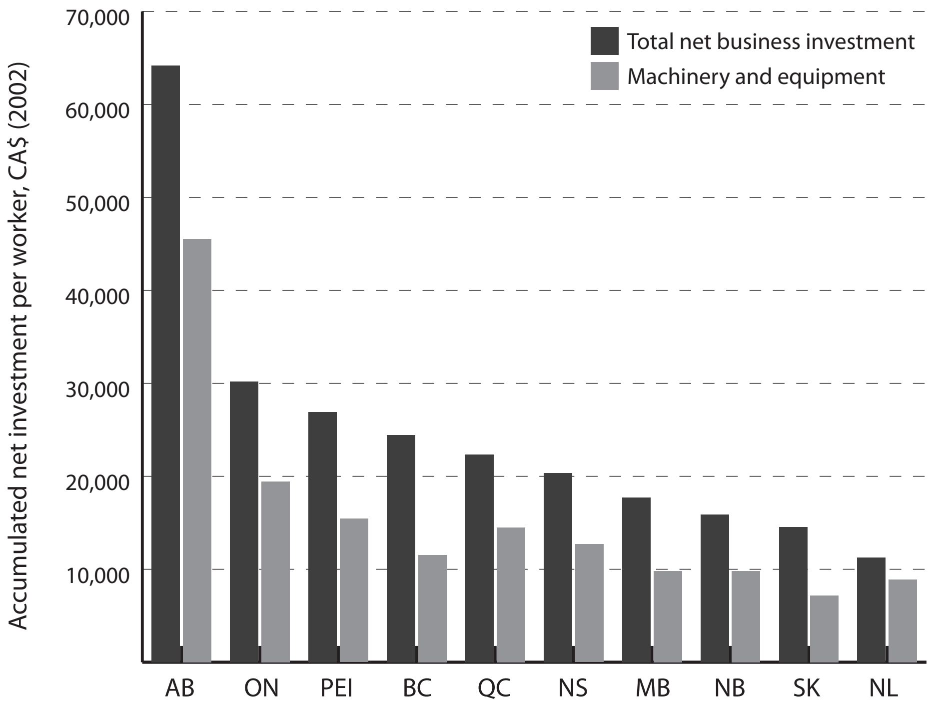
the national average[8], 73.0% of that achieved in Manitoba, and just 15.8% of that achieved Alberta.

Finally, figure 9 presents a summary ranking for the two measures depicted in figures 7 and 8 for all 10 Canadian provinces. Unfortunately for Saskatchewanians, the province ranks 9th in accumulated total net business investment and last in accumulated net business investment in machinery and equipment. In other words, Saskatchewan attracted the least amount of net business investment broadly defined and, more narrowly defined, in terms of machinery and equipment between 1978 and 2007 amongst all the provinces. It is this dearth of investment that formed the basis for a lackluster opportunities economy in the province.

Thankfully, there is a way forward that promises greater economic prosperity and it is based on the historic work of the NDP government in terms of personal income and business taxes. Beginning in 2000, the NDP

8 Saskatchewan's performance improves slightly to 46.3% if Alberta is removed from the national average data.

Figure 9: Provincial ranking of business investment measures, 1978–2007



Sources: Statistics Canada, 2008b, 2008c; calculations by the authors.
Note: The data contained in figure 9 is drawn from the same data used for figures 7 and 8.

government enacted critical, indeed historic changes to personal income and business taxes that focused on improving the incentives in the province for work effort, savings, investment, and entrepreneurship. These changes have established the foundation for the current economic prosperity being enjoyed in the province. The key for the "Land of Living Skies" province is to continue on this path of reform in order to improve and solidify this base of economic incentives and create a platform for unprecedented economic prosperity.

Why does Saskatchewan lack investment?

So far, this study of Saskatchewan should have established two points. Firstly, Saskatchewanians, particularly those of working age, have been leaving the province on a fairly consistent and meaningful basis for well over a quarter of a century. Secondly, one of the principal explanations for this exodus is a lack of opportunity founded on a dearth of investment. This section of the study establishes the main reasons for this lack of investment. In addition, and perhaps more importantly, this section offers specific recommendations on how to create an environment of prosperity and opportunity unparalleled in the province's history.

In scanning the economic landscape of the province and reviewing economic research on what drives investment, four key areas emerge in which Saskatchewan faces serious economic challenges and in which opportunities for improvement exist. The four areas identified and developed in this section are tax policy, labour market regulation, Crown corporations, and barriers to interprovincial trade.

Each of these four areas is analyzed, including recommendations.

Tax policy: Additional tax cuts needed

Of the three areas identified, Saskatchewan has made the most progress in taxation. Large and meaningful changes for personal income and business taxes have been implemented in recent years. These changes have made the province's tax system more competitive and more supportive of investment. However, additional steps are required to fully harness the potential and opportunity facing the province.

Current tax environment

Four key areas of tax policy are examined: personal income tax, sales tax, corporate income tax, and corporate capital tax.

Personal income tax

The Government of Saskatchewan has already made major strides in improving the province's personal income taxes by implementing most of the main recommendations offered by the Personal Income Tax Review Committee.[9] The Government of Saskatchewan committed itself to most of the committee's main recommendations in its 2000 budget. Indeed, the last of the committed reforms were implemented effective January 1, 2003 (Saskatchewan, Ministry of Finance, 2003).

The key reforms were replacing the old personal income tax system, which included a basic tax, a flat tax, a high-income surtax, and a deficit-reduction tax with a three-tiered (brackets) system of personal income tax. There are currently (2008) three statutory personal income tax rates in the province: 11.0% on income up to $39,135, 13.0% on income between $39,135 and $111,814, and 15.0% on income in excess of $111,814.

9 On May 6, 1999, the Government of Saskatchewan commissioned the Personal Income Tax Review Committee to assess the province's personal income tax regime. The Committee was chaired by Professor Jack Vicq and released its report on November 19, 1999. For the entire report, see S-PITRC (1999).

The changes implemented to date have been critical in improving the province's personal income taxes. For example, table 5 shows that Saskatchewan now has the third-lowest top marginal personal income tax rate of 15.0% behind only Alberta at 10.0% and British Columbia at 14.7%. In addition, Saskatchewan has the third highest threshold at which the top marginal rate becomes effective. It also has a relatively competitive middle rate, which is the fourth lowest.

However, more needs to be done not only to retain the province's best and brightest but also to attract back those who have left. Saskatchewan still maintains a far too high top marginal personal income tax rate (15.0%) when compared to Alberta (10.0%). The dearth of investment in Saskatchewan is at least partially driven by this lack of competitiveness on upper-income personal income taxes since these are the individuals and families able to save,

Table 5: Top and middle provincial rates on personal income taxes, rates effective 2008

	Top personal income tax rate [1]	Threshold at which the top personal tax rate applies [2]	Middle personal income tax rate [1], [3]	Threshold at which the middle personal tax rate applies [2], [3]
Alberta	10.0%	NA	10.0%	NA
British Columbia [4]	14.7%	$97,636	10.2%	$61,818
Saskatchewan	15.0%	$111,814	13.0%	$39,135
Ontario	17.4%	$74,721	11.2%	$57,164
New Brunswick	18.0%	$113,273	16.1%	$52,255
Nova Scotia	19.2%	$123,184	18.5%	$56,539
Manitoba	18.4%	$98,143	15.3%	$47,977
Prince Edward Island	19.3%	$93,000	16.7%	$56,625
Newfoundland & Labrador	17.4%	$66,000	12.8%	$30,545
Quebec	16.0%	$60,429	13.3%	$30,216

Sources: 2008 federal and provincial budgets (listed by jurisdiction—see references); calculations by the authors.

Notes:

[1] Reported rates and thresholds are effective 2008. Personal income tax rates include surtaxes, when applicable. Quebec's tax rate is adjusted for abatement.

[2] Since Alberta has a single tax rate, the threshold does not apply.

[3] The middle personal income tax rate is defined as the rate between a jurisdiction's minimum and maximum rate. When there are several rates that fit that definition, the rates and thresholds are averaged.

[4] This includes the announcement by the BC government of a 5% personal income tax reduction retroactive to January 1, 2008.

invest, and undertake entrepreneurial endeavors. Personal income tax rates, particularly the middle and upper rates, must be reduced further not only to close the gap with other provinces but also to improve the incentives for Saskatchewanians to work, save, invest, and act entrepreneurially.

To that end, Saskatchewan should initiate a three-to-five-year plan to eliminate the middle- (13.0%) and upper-income (15.0%) personal income tax rates in their entirety. This would result in Saskatchewan being the only province other than Alberta to maintain a single tax rate for personal income taxes. Saskatchewan must also reduce the remaining personal income tax rate to at least 9.0% over the period in order to gain an advantage over Alberta's single rate tax. This would result in a personal income tax advantage for Saskatchewan within Canada and indeed within the region, with only Alberta remaining competitive.

Sales tax

In 2006, the Government of Saskatchewan lowered the provincial sales tax (PST) from 7.0% to 5.0%. Saskatchewan faces a difficult predicament in that consumption taxes, which sales taxes are generally considered, are one of the most efficient types of taxes available in terms of their relatively low economic costs.[10] In other words, the economic costs incurred by an economy and its citizens are much lower with respect to consumption taxes than they are with respect to other taxes, such as personal income or business taxes broadly. However, Saskatchewan is situated next to the only Canadian province that maintains no sales tax: Alberta. There are incentives and economic cost reasons for Saskatchewan to rely more on sales taxes but there are also important competitive reasons for the province to rely on them less. The tension between these two opposing rationales for change in the sales tax rate does not provide a clear path for reform for Saskatchewanians.

The most significant problem with Saskatchewan's provincial sales tax and the issue that provides clarity for reform is the fact that Saskatchewan, like four other Canadian provinces[11], applies its provincial sales tax to business inputs. Consumption taxes by design impose the tax on final consumption. These five Canadian provinces use sales taxes in a broader sense than just taxing consumption. Indeed, Saskatchewan's Business Tax Review Committee estimated that 54.0% of all sales tax revenue in the province was collected from business purchases (S-BTRC, 2005: 77). In other words, over half of the sales tax revenues were garnered from taxing inputs rather than

10 See Clemens, Veldhuis, and Palacios (2007) for more information on tax efficiency.

11 The four other Canadian provinces that apply their provincial sales tax to business inputs are British Columbia, Manitoba, Ontario, and Prince Edward Island.

final consumption.[12] This raises the cost of investing in plants, machinery, equipment, and new technologies. This is critical in the case of Saskatchewan since one of the main determents to greater prosperity and opportunity is the lack of investment, which has been shown to be sensitive to marginal effective tax rates. Applying sales taxes to business inputs raises the effective tax rate on business.

There is a relatively easy mechanism to rectify this problem: harmonize the provincial sales tax with the federal GST.[13] Harmonizing the provincial sales tax (PST) with the federal GST ends the taxation of business inputs. In addition, harmonizing the two taxes would reduce administrative costs for businesses by reducing the reporting and record-keeping requirements.[14]

Such a reform should be done in a revenue-neutral manner. That is, the shift to a provincial GST in Saskatchewan should not be used to increase the total amount of revenues collected. Rather, the change should simply shift the tax base for the sales tax away from business inputs to a broader base of consumption goods.

Corporate income tax

Although corporate income taxes comprise only a small portion of government revenues in Saskatchewan, they are nonetheless an important driver of economic activity and, in particular, investment. The corporate income tax (CIT) rate determines the extent to which a province taxes business profits.

Prior to Budget 2006, Saskatchewan maintained the country's highest statutory corporate income tax (CIT) rate of 17.0%. The 2006 budget reduced the province's CIT to 14.0% in 2006, 13.0% in 2007, and further reduced the rate to 12.0% in 2008 (see table 6).[15] Thus, in 2008, Saskatchewan had the fourth lowest corporate income tax rate in the country.

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12 Saskatchewan does offer a sales tax exemption for farm machinery and repair parts as well as an investment tax credit for manufacturing and processing. All other businesses are charged sales taxes on inputs used to produce goods that are subject to sales taxes when sold. Such double-taxation is an impediment to business development and productivity since it discourages investment in plants, machinery, and other equipment.

13 The federal government has repeatedly indicated its willingness to work with the five non-harmonized provinces in bringing about reform in provincial sales taxes. Indeed, it is expected that the federal government will establish a fund to help the provinces transition from non-harmonized sales taxes to GST-harmonized provincial sales taxes in the near future.

14 See Plamondon & Associates Inc. (1997) and Plamondon and Zussman (1998) for an extensive discussion on the compliance and administrative costs of taxation.

15 Please note that the changes were implemented effective July 1 of each year. This means that the effective changes were smaller than the statutory changes since they only covered half of the calendar year.

The three-year reduction of the province's CIT rate from 17.0% to 12.0% will materially lower the tax burden for businesses and improve the province's attractiveness for investment and economic development.

However, the reduction to 12.0% in 2008 should not be viewed as a final resolution. Saskatchewan has an opportunity to further enhance its investment appeal and attractiveness by implementing additional reductions to the CIT rate with a minimum target of 9.0%. Such reductions would result in Saskatchewan's possessing the lowest statutory corporate income tax rate in Canada, which would improve the incentives for business investment and development and also signal to Saskatchewanians and investors outside the province that the environment for economic and business development has improved dramatically.

Table 6: Provincial statutory corporate income taxes, rates effective 2008

	Statutory general corporate income tax rate
Alberta	10.0%
Quebec	11.4%
British Columbia [1]	11.5%
Saskatchewan [2]	12.5%
New Brunswick	13.0%
Manitoba [3]	13.5%
Newfoundland & Labrador	14.0%
Ontario	14.0%
Prince Edward Island	16.0%
Nova Scotia	16.0%

Sources: 2008 federal and provincial budgets (listed by jurisdiction—see references).

Notes:

[1] British Columbia reduced its general corporate income tax rate from 12% to 11% effective July 1, 2008. The rate presented is an average of both rates.

[2] Saskatchewan reduced its general corporate income tax rate from 13% to 12% effective July 1, 2008. The rate presented is an average of both rates.

[3] Manitoba reduced its general corporate income tax rate from 14% to 13% effective July 1, 2008.

Corporate capital tax

The corporate capital tax is a tax levied on the value of a firm's debt and equity, regardless of whether or not it incurs a profit or loss. The capital tax is a little-known aspect of the tax system but it imposes enormous economic costs. It increases the cost of doing business for firms operating in industries that require high levels of capital investment. This type of tax is particularly damaging given the capital-intense nature of many of Saskatchewan's principle industries, such as oil and gas and mining.

The corporate capital tax reforms announced in the 2006 provincial budget will yield enormous benefits for Saskatchewanians. Prior to Budget 2006, Saskatchewan was the only province to raise more revenue through the corporate capital tax than the corporate income tax, which indicates the heavy reliance the province placed on this particularly damaging and costly tax.[16] In the 2006 provincial budget, the government committed to phasing out the general corporate capital tax for most private non-financial firms[17]—a reduction from 0.6% to 0.3% on July 1, 2006, with a further reduction to 0.15% on July 1, 2007, and elimination on July 1, 2008.

However, there is still room for improvement. Saskatchewan can gain a significant competitive edge by eliminating the application of the capital tax to financial institutions. Saskatchewan currently applies a 3.25% capital tax to financial institutions, which is the third highest rate in the country.[18] By eliminating this tax, Saskatchewan would share the distinction with Alberta as being the only province to have abolished financial capital taxes. The long-term advantages of the tax include more economic activity, more investment, and more employment opportunities.

Business taxes: Marginal effective tax rates (METRs)

The marginal effective tax rate (METR) on capital calculates the overall combination of various business taxes in one simple tax rate. The METR takes into account differing tax bases, the presence of tax credits, and other characteristics of provincial tax systems that are not readily apparent in a simple comparison of statutory rates (Chen, 2000). The METR enables people to measure, in a comprehensive manner, the true marginal taxes facing businesses

16 See Clemens, Emes, and Scott (2002b) for more information on the damaging and costly nature of capital taxes in Canada.

17 Corporate capital taxes continue to be applied to Crown corporations and financial institutions.

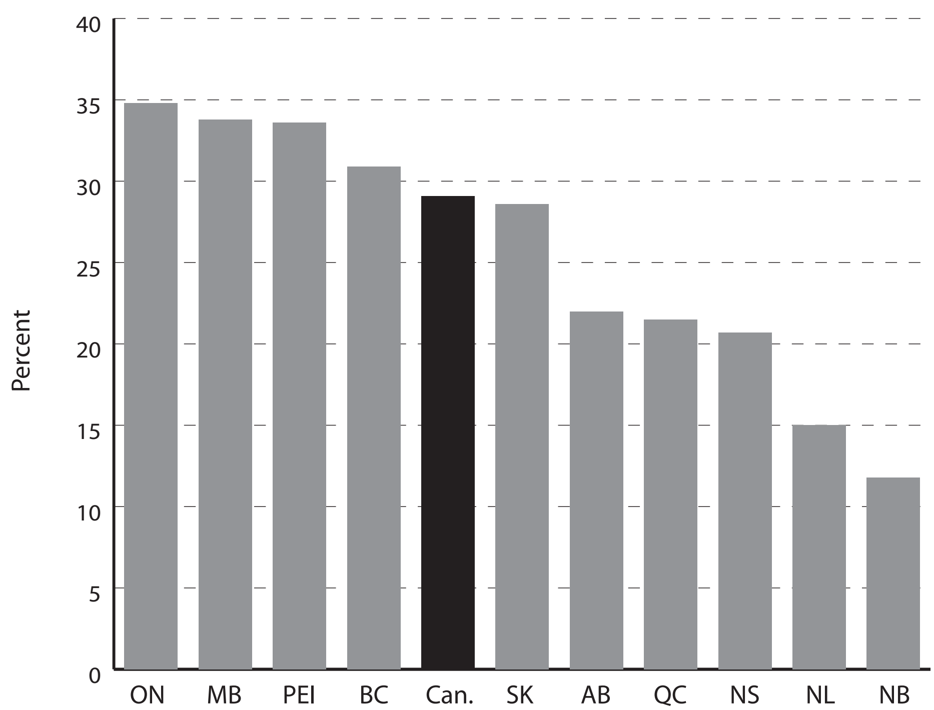
18 Note that the threshold at which the top financial corporate capital rate applies is $1 billion, which is among the highest in the country.

in a jurisdiction by including all the relevant taxes as well as any programs that mitigate the effects of business taxes.

Chen and Mintz (2008) provide the most recent Canadian estimates of provincial marginal effective tax rates on capital investment. Chen and his colleagues also offer an aggregate METR measure that includes both federal and provincial corporate tax rates on capital. Figure 10 illustrates the METRs for the 10 Canadian provinces. Saskatchewan's aggregate METR of 28.6% is the fifth highest in the country, which is a dramatic improvement from 2006 when it recorded the second highest rate. Ontario maintains the highest rate of 34.8%.

More indicative of the challenges facing Saskatchewan in attracting investment, however, is the comparison with other resource-dependent economies such as Alberta. Alberta's METR was 22.0% in 2008, 6.6 percentage points (or 30.0%) lower than the METR calculated for Saskatchewan.

Figure 10: Marginal effective tax rates (METRs) on capital investment by province, 2008



Source: Chen and Mintz, 2008.

Budget 2006: A step in the right direction

The provincial budget in 2006 implemented a number of the main recommendations offered by the Business Tax Review Committee (BTRC).[19] The two main recommendations implemented in the budget, which are critical to improving the economic environment in Saskatchewan and attracting investment, are the elimination of the corporate capital tax for most private non-financial firms and the reductions in the corporate income tax rate.

Tax recommendations

The following summarizes the various recommendations emanating from the analysis of the four key tax areas addressed in this section:

- Implement a single personal income tax rate of 9.0%;
- Harmonize the provincial sales tax (PST) with the federal goods and services tax (GST) in a revenue-neutral manner;
- Reduce the general corporate income tax (CIT) rate to 9.0%; and,
- Eliminate corporate capital taxes (CCTs) on the financial services sector.

Government spending: Restraint needed

Provincial spending is the other side of the tax issue. The resources collected by governments are used to finance program spending and payment of debt charges on a province's overall debt. The tax program outlined previously represents a realistic but nonetheless aggressive plan to create a lasting tax advantage in Saskatchewan. Such a plan will require restraint and, if necessary, reductions in provincial spending. It is, therefore, important to understand these constraints and other implications of the tax plan.

Figure 11 illustrates the growth in provincial total spending and program spending since 1994/95.[20] Total spending increased, on average, by

19 Professor Jack Vicq chaired the Saskatchewan Business Tax Review Committee. For a copy of the final report, see S-BTRC (2005).

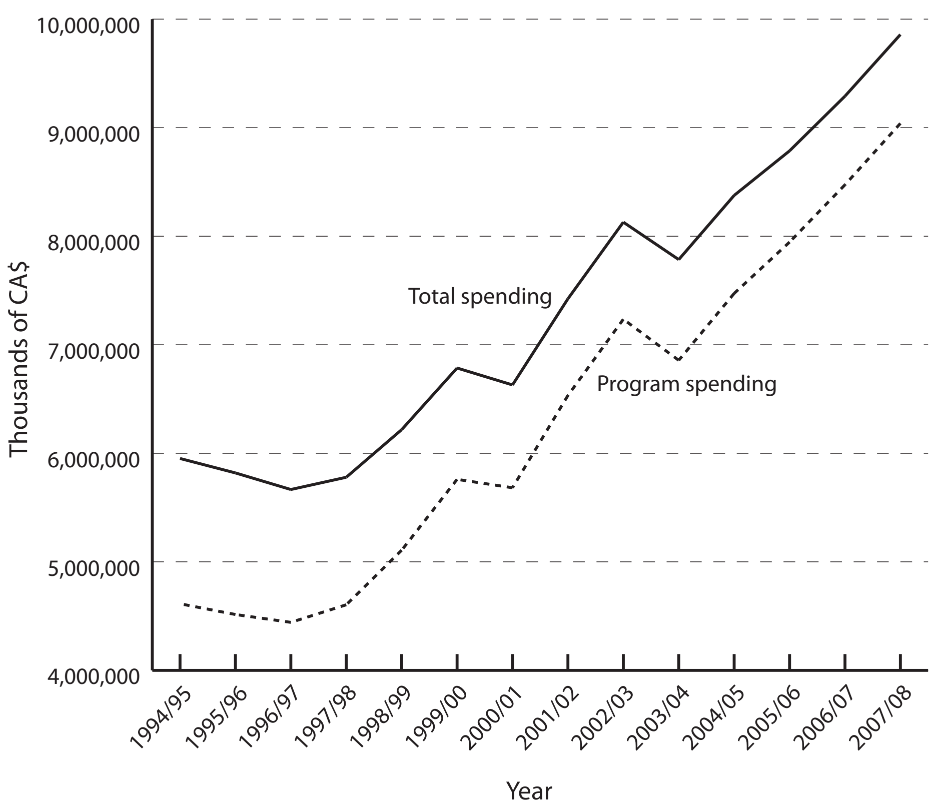
20 The significance of 1994/95 is that Saskatchewan essentially moved into a surplus position in this year. Please note that the province recorded small deficits from 2001/02–2003/04, at least partially due to critical tax cuts implemented by the province that have contributed to the economy's robust performance and strong growth in government revenues.

4.1% during this period. This compares with average population and inflation growth of 2.1%. In other words, provincial total spending has been growing faster than the amount needed to compensate for population and inflation growth since 1994/95.

Figure 11 also includes provincial program spending, which excludes debt charges, over the same period. Program spending actually increased by 5.5% on average over the period. Again, this means that program spending in Saskatchewan increased at a faster pace than population plus inflation. In addition, program spending adjusted for inflation increased at an average rate of 3.2% from 1994/95 to 2007/08, a faster pace than growth in the real economy (2.2%).

While it appears in figure 11 that total spending and program spending track identically with one another, the reality is that debt charges have been falling steadily throughout the period examined. Figure 12 illustrates the nominal debt charges incurred by the province. It shows that the nominal debt charges in Saskatchewan have declined from $1.3 billion in 1994/95 to $818.6 million in 2007/08, representing an average decline of 3.7% per year

Figure 11: Nominal provincial program and total spending, 1994/95–2007/08

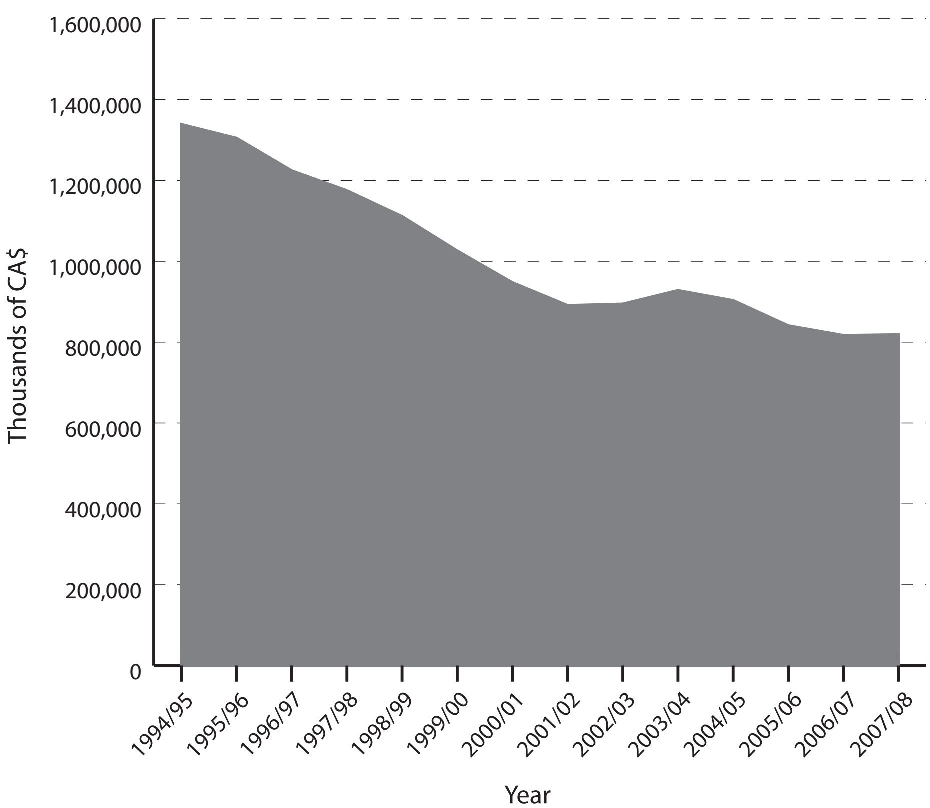


Source: Saskatchewan, Ministry of Finance, various editions.

over the period. Put differently, the wedge between the taxes paid by citizens in Saskatchewan and the value of the services (programs) they receive has been declining.

The decline in debt charges and the accordant freeing up of resources should have allowed for more constrained total spending increases over the period. Unfortunately, the province increased spending to the point where Saskatchewan now has one of the highest rates of per-capita program spending in the country. Figure 13 illustrates the provincial rankings for per-person program spending in Canada for 2007/08.[21] With a per-person program spending level of $11,773, Saskatchewan ranks third in the country behind Alberta and Quebec in its level of per-capita spending. Indeed, Saskatchewan is some 5.4% above the national average, which includes the relatively high level of per-capita spending in Alberta.

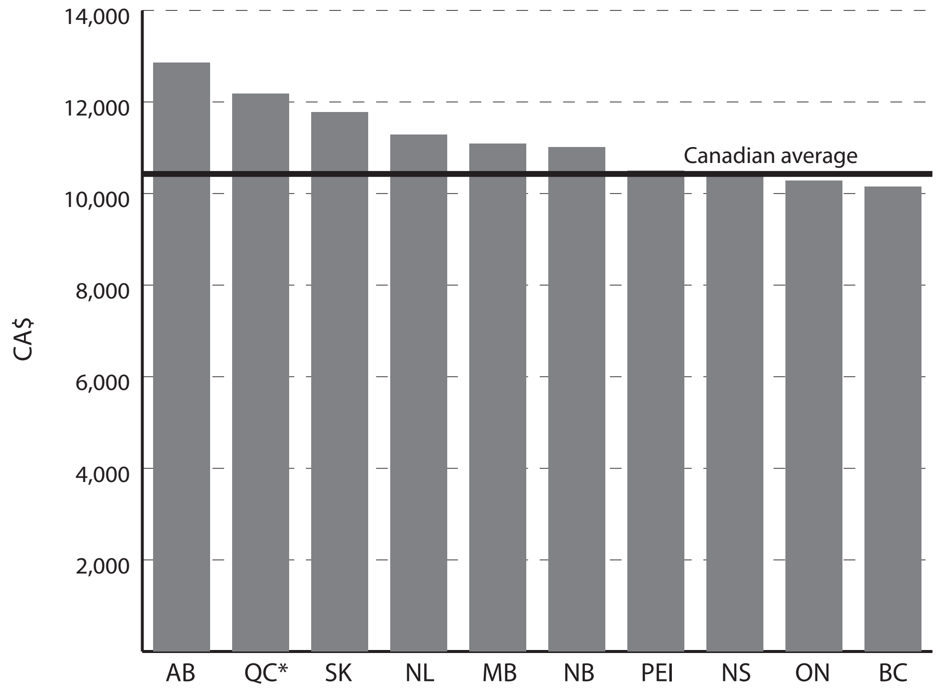
Figure 12: Nominal provincial debt charges, 1994/95–2007/08



Source: Saskatchewan, Ministry of Finance, various editions.

21 Please note that the rankings are based on consolidated provincial and local spending. The reason for including local spending in this measure is to avoid biases based on differing patterns of provincial-local spending between the provinces. This is particularly relevant in the case of Ontario, which tends to spend more than other provinces at the local level.

Figure 13: Consolidated provincial and local program spending per capita, 2007/08

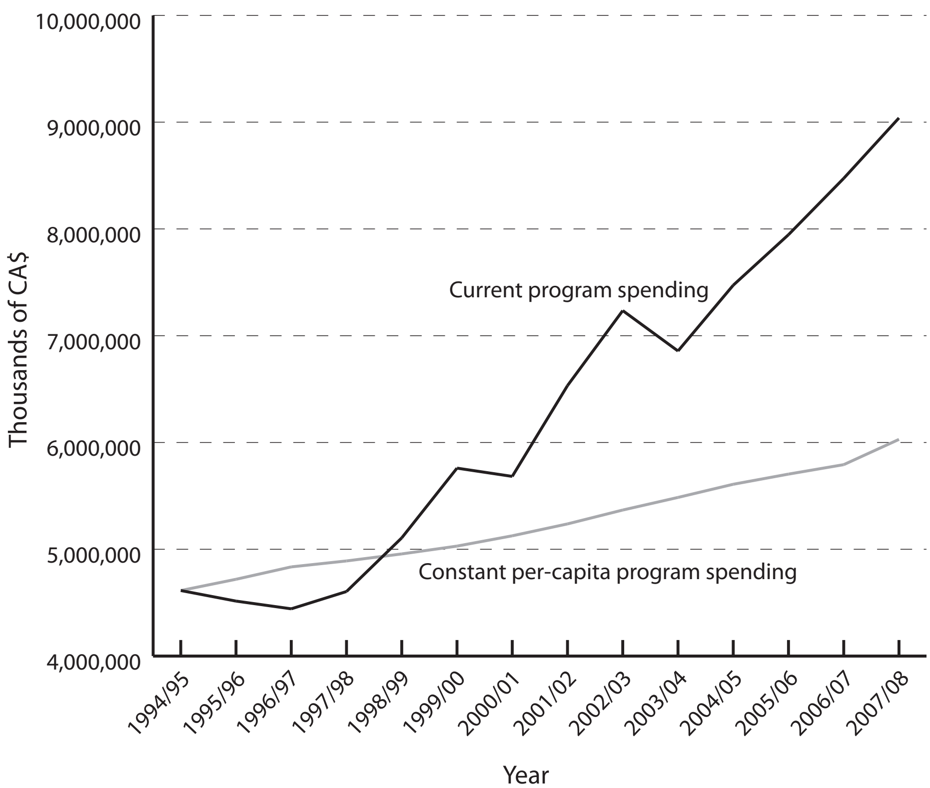


Sources: Statistics Canada, 2008d, 2008e; Canada, Department of Finance, 2007; calculations by the authors.
*Quebec figure is adjusted for the federal abatement.

There is perhaps another more insightful way to examine the effect of the growth in Saskatchewan's spending since 1994/95. Figure 14 depicts actual total program spending for the province since 1994/95 compared to the level of program spending required to compensate for population growth and inflation. In other words, figure 14 compares actual program spending to what would have been required to keep per-person program spending constant after adjusting for the effects of population growth and inflation. The difference between the two is stark. There has been a total of $14.9 billion in extra program spending by the provincial government since 1994/95 beyond what would have been required to compensate for a growing population and the effects of inflation. It is this marked increase in per-person program spending that explains the high level of per-capita spending in Saskatchewan compared to the rest of the country (figure 13).

At a minimum, greater restraint by the provincial government is required for the tax plan outlined previously to be implemented over the next three to five years. In addition, much of the burden of spending restraint or reductions could be mitigated by reforming the way in which services are

Figure 14: Current program spending compared to constant per-capita program spending, 1994/95–2007/08



Sources: Statistics Canada, 2008d; Saskatchewan, Ministry of Finance, various editions; calculations by the authors.

delivered.[22] Finally, many of the tax cuts proposed include strong supply-side incentives related to effort, savings, investment, and entrepreneurship, which would result in a stronger economy and ultimately more revenues than currently anticipated.[23]

22 For discussions on reforming service delivery in sectors such as health care, education, and welfare, please see Irvine et al. (2002), Coulson (2001), and Richards (1997).

23 For a discussion on the extent to which a tax cut pays for itself through higher economic growth, please see Mankiw and Weinzierl (2006).

Recommendations

The following are specific recommendations that would provide Saskatchewan with a stable set of principles and rules to achieve the fiscal goals outlined above:

- At a minimum, the government should freeze per-capita program spending levels for the next two to three years in order to bring the province's rate closer to the national average;
- Going forward, it must commit to limiting the growth in provincial program spending to the rate of population growth plus inflation.
- Second, it must implement and enforce clear incentives for politicians and bureaucrats not to overspend, particularly at the end of each year; and,
- Third, the spending of surpluses in the current year should be expressly prohibited. Any surpluses, whether expected or unexpected, should be specifically and legislatively tied to debt reduction.

Labour market regulation: Biased labour laws reduce and impede investment

Labour market regulation and industrial policy regarding government ownership of businesses are in need of fundamental change. It is in these two areas where Saskatchewan maintains a pronounced anti-investment policy, which must be drastically altered if the province is to capitalize on its current opportunity.

Labour market regulation refers to the rules imposed on employers and employees in the labour market. It covers such issues as minimum wages, work hours, occupational licensing, and the process through which a union gains the right to collectively represent workers. Given the importance of labour and everything related to it such as ingenuity, creativity, and diligence, the regulation of labour is a critical driver in attracting or alternatively impeding economic development broadly and investment specifically.

In general, economic evidence indicates that flexible labour markets outperform non-flexible labour markets. Flexibility simply refers to the ease with which workers and employers alike are able to adjust their efforts to changes in the marketplace. For example, how easily can a worker shift his or her efforts away from a declining industry or region to a faster growing one? Or how easily can an employer invest in new technology to improve the firm's productivity? These are simple examples of labour flexibility that, in aggregate, have enormous influence over the performance of an economy and investment.

There is a solid body of scholarly research examining the effect of labour regulation on investment. For example, Beata Javorcik and Mariana Spatareanu (2004) investigated for the World Bank the impact of labour regulation on foreign direct investment in 25 European countries. They reported that "the more flexible the labour market is in the host economy relative to the investor's home country, the higher the likelihood of investment is in the host country" (Javorcik and Spatareanu, 2004: 14). In other words, the more flexible a labour market, the more likely it is to generate foreign direct investment from other countries with less flexible labour markets.[24]

24 For example, they found that if a country improves its regulation from inflexible (e.g., Slovakia) to flexible (e.g., Hungary), investment increases by 14.0%–18.0%.

Another study by Morris Kleiner and Hwikwon Ham (2002) for the National Bureau of Economic Research (NBER) using data from 20 OECD countries (1985–1995) and US states (1990–1999) found that a restrictive labour relations environment[25] was linked with lower levels of foreign direct investment and slower economic growth. That is, a labour environment that was more restrictive and impeded the ability of employers and employees to reallocate their resources ended up deterring investment from other regions.

Finally, a paper by professors Timothy Besley and Robin Burgess (2004) published in the prestigious *Quarterly Journal of Economics* concluded that biased labour relations laws favoring one group (e.g., workers, employers, or unions) over another led to reduced investment levels.

Put more simply, labour laws should promote flexibility while balancing the needs of workers and employers. It is this balance and flexibility that promote and encourage investment and economic development. Unfortunately, labour laws in Saskatchewan tend to favor organized labour (i.e., unions) and impose rigidity rather than flexibility, which has impeded investment in the province. There is no aspect of labour laws where this bias and rigidity is more prominent than in the province's labour relations laws.

Saskatchewan's labour relations laws

This component of labour laws regulates the interactions between employees, unions, and employers. Specifically, labour relations laws govern the process through which unions gain and lose the right to collectively represent workers and the regulation of firms once they are unionized. There are two aspects of labour relations laws that illustrate the province's bias and rigid approach: certification and decertification rules, and post-certification laws that directly limit investment.

Certification and decertification

Certification and decertification refer to the process through which unions gain and lose the right to collectively represent workers. Certification and decertification rules matter to investment because they determine, in part, the level of unionization. A set of certification and decertification rules that

25 As measured by such indicators as union coverage, strikes, and degree of bargaining centralization.

are biased in the favor of unions over workers and employers will likely result in a higher rate of unionization.

One of the most important aspects of how unions become certified is whether workers can indicate support through a secret ballot vote or through publicly signed union cards. Research shows that using the more democratic process of secret ballot votes results in less unionization. For example, a study by Professor Chris Riddell of Queen's University found that unionization success rates fell by 19% after mandatory voting was introduced, and then increased by nearly the same amount when it was eliminated in British Columbia (Riddell, 2004).[26] Similarly, Professor Sara Slinn of Queen's University concluded that the "introduction of mandatory votes had a highly significant negative effect on the probability of certification" (Slinn, 2004: 259).[27] In other words, allowing the certification of unions without a secret ballot vote facilitates unionization at the expense of worker choice. The ensuing higher unionization rates impose additional economic costs, particularly with respect to investment.

Unionization and investment

Economic research has repeatedly and consistently shown the negative consequences of high unionization rates. A study by Cameron Odgers and Julian Betts (1997) that appeared in the *Industrial and Labour Relations Review* using data from 18 industries in Canada for the period 1967–1987 concluded that "in an industry moving from no unions to the mean level of unionization, net investment and gross investment are predicted to fall by 66–74% and 18–25%, respectively" (Odgers and Betts, 1997: 18).

Similarly, another Canadian study by Julian Betts and his colleagues (2001), using data from 13 industries for the period 1968–1986 found unionization had a negative impact on research and development (R&D) spending, a particular type of investment. Specifically, the authors found that if an industry moved from having a lower rate of unionization (e.g., 25th percentile) to

26 Interestingly, Riddell's previous study (2001), which used 1984–1993 data for British Columbia, similarly concluded that unionization success rates fell by 20% and the number of certification attempts fell by over 50% when mandatory voting was implemented.

27 Studies on the certification process by Susan Johnson of Wilfred Laurier University buttress these findings, particularly the importance of the certification process in determining unionization rates. Johnson (2004) concluded that 17–24% of the difference in unionization rates between Canada and the United States could be explained by the widespread use of mandatory votes in the United States, compared to the less widespread use of such votes in Canada. A previous study by Johnson (2002) using 19 years of data covering nine Canadian provinces concluded that mandatory vote policies reduced certification success rates by nine percentage points.

a high rate (e.g., 75th percentile). R&D spending would be expected to fall by roughly 40.0%.

There is similar evidence from the United States. For example, a study by Bruce Fallick and Kevin Hassett (1999) which appeared in the *Journal of Labour Economics* found that firms significantly decreased investment after unionization. On average, firms that became unionized decreased their ratio of investment to capital by 0.04, or roughly 33.0%.

Another study by Stephen Bronars and Donald Deere (1993) examined the impact of changes in unionization on 667 firms in the United States between 1970 and 1976 and found that an increase in a firm's unionization rate of 12.9 percentage points (or 35.0%) was linked with a decrease of 7.7% in the ratio of investment to physical capital (i.e., plant and equipment) and a decrease of 51.1% in research and development spending.

Saskatchewan has one of the highest unionization rates in North America.[28] Table 7 shows the rates of unionization for the Canadian provinces and the three states neighboring Saskatchewan (Montana, North Dakota, and South Dakota) as well as the Canadian and American averages for 2007.

In 2007, Saskatchewan had a total unionization rate of 34.8%, the fourth highest among the 10 Canadian provinces and 50 US states.[29] In comparison, British Columbia had a unionization rate of 32.1% while Alberta had a rate nearly one third lower at 23.8% (Statistics Canada, 2008c). Neighboring states Montana, North Dakota, and South Dakota had unionization rates of 15.6%, 7.7%, and 7.6%, respectively (Hirsch and Macpherson, 2007).

Importantly though, and indicative of the bias and prescriptive approach of Saskatchewan's labour relations laws, is the fact that Saskatchewan's high unionization rates are not necessarily due to worker choice. In fact, Saskatchewan has had one of the most biased set of rules, favoring unions over workers and employers, for how a union becomes "certified"—the exclusive bargaining agent for a group of workers.

It is important to acknowledge that Saskatchewan made several changes to the way unions become certified in May 2008. However, given that these recent changes will take time to have effect, it is important to understand Saskatchewan's approach to certification prior to these changes that have helped determine investment attractiveness for most of 2008 and over the past several years. Examining Saskatchewan's previous approach also helps us understand the importance of the recent changes and areas for further improvement.

28 In addition to labour relations laws, Saskatchewan's rather large public sector also helps explain its high rate of unionization.

29 Saskatchewan had the fifth highest private-sector unionization rate among the Canadian provinces and US states in 2006 at 18.2%.

Table 7: Unionization in Canadian provinces and selected US states, 2007

	Unionization rate (%)	Private sector unionization rate (%)	Public sector unionization rate (%)
Quebec	39.7	26.3	81.5
Newfoundland & Labrador	37.7	20.6	75.7
Manitoba	37.1	19.7	78.1
Saskatchewan	34.8	17.1	75.5
British Columbia	32.1	19.5	77.3
Prince Edward Island	30.0	10.0	77.1
Nova Scotia	29.4	13.6	71.4
New Brunswick	28.2	12.4	71.2
Ontario	28.2	16.6	70.6
Alberta	23.8	12.3	68.0
Montana	15.6	7.6	44.7
South Dakota	7.7	3.7	27.6
North Dakota	7.6	4.7	18.7
Canada average	31.5	18.7	74.5
US average	13.3	8.2	39.8

Sources: Statistics Canada, 2008c; Hirsch and Macpherson, 2007; calculations by the authors.
Note: Unionization is calculated as union coverage as a percent of employment.

Prior to the 2008 changes, Saskatchewan required the lowest threshold of support (25% of workers) to apply for certification out of the 10 Canadian provinces and 50 US states. This means that unions needed to gather written support (i.e., signed union cards) from at least 25% of workers in order to trigger a vote for certification. The remaining 59 jurisdictions have requirements ranging from 30%–50%+1. Tellingly, the requirement to apply for decertification—the process through which a union ceases to be a bargaining agent for a group of workers—was 50%+1, over double that of certification. In other words, it has been much easier to apply for certification than to apply for decertification

The mechanism used to approve the application for certification was also biased in favor of unions over workers and employers. Saskatchewan was one of only five jurisdictions in Canada and the United States that did not require a secret ballot vote for employees to become unionized, provided unions gather more than 50% support for their application. That is, Saskatchewan labour laws allowed automatic certification, meaning a union could be certified without a secret ballot vote when a majority (i.e., 50%+1) of workers indicated their support for a union by signing union cards. Put differently, it was possible for unions in Saskatchewan to become unionized without providing workers the opportunity to make a private, autonomous decision through a secret ballot certification vote. Again, there was bias towards certification over decertification: secret ballot votes were always required for decertification. Coupled with the fact that it is easier to apply for certification than decertification, the lack of a secret ballot vote for workers helps explain why Saskatchewan has historically had one of the most biased approaches to labour relations policy in North America.

In May 2008, the Saskatchewan government made several important changes to the way unions become certified in the province. The threshold of support to apply for certification was increased to 45% of workers. The same threshold of 45% was also applied to applications for decertification, eliminating the differential that existed between application for certification and decertification. The government also made democratic secret ballot elections required for all certification applications, thereby eliminating the option to certify a union through a card-check. These changes have dramatically improved the degree of balance in the province's labour relations policy and will likely have significant long-term economic benefits for workers and employers in Saskatchewan.

While the changes in 2008 were a positive step forward, there are still many important aspects of Saskatchewan's labour relations policy that impede flexibility in the labour market. Perhaps the most important aspect of what went overlooked in the 2008 reforms is union security laws—that is, the rules governing union dues and membership. Union security laws regulate the extent to which unions can require union-dues payments and union membership as a condition of employment in unionized firms. Tellingly, Saskatchewan allows both union membership and full union-dues payment (i.e., representation- and non-representation-related costs) to be included in a collective agreement as a condition of employment.[30]

Economic research has shown that allowing mandatory union membership as a condition of employment results in higher rates of unionization. For

30 These laws are not a phenomenon limited to Saskatchewan; all other Canadian provinces also have such laws. However, neighboring US states (North Dakota, South Dakota, and Montana) prohibit mandatory union membership and union-dues payment relating to non-representation costs (e.g., political support, lobbying). Montana takes this one step further by prohibiting mandatory dues payment of any kind.

example, professors Daphne Taras and Allen Ponak (2001) examining union security differences between Canada and the United States concluded:

> the financial security provided by the agency shop laws [where all workers must pay union dues] enhanced servicing and organizing activities, leading to higher union membership, which in turn generated more financial resources. In the US, in contrast, the weakening of financial security engendered by RTW laws [laws in 22 U.S. states allowing workers the choice to pay union dues] reduced servicing and organizing resources, leading to a loss in membership and further financial erosion.
>
> (Taras and Ponak, 2001: 548)

An important study by William Moore (1998), which reviewed union security laws in the United States, supports the conclusions reached by Taras and Ponak. Moore concluded that allowing workers to choose whether or not to pay union dues reduced unionization rates. He specifically found that union membership was lower by 5%–8% in the 22 US states that allow workers to choose whether or not to pay union dues. Moore also found that union organizing efforts and successes in certification elections were significantly reduced in those states.

Accordingly, Saskatchewan has a tremendous opportunity to simultaneously achieve more labour market flexibility and thus investment, as well as more freedom of choice for workers, by eliminating the ability of unions to exert forced union membership and dues payments over workers. Eliminating forced union membership and dues payments will bring much needed balance to its labour relations environment and compliment its recent reforms. It will also have the added positive effect of allowing Saskatchewan to cast a powerful signal to potential investors that it has dramatically improved its labour regulation and welcomes business activity.

Post-certification rules

There are other aspects of Saskatchewan's labour relations laws that take effect after a firm is unionized that have a direct negative impact on investment. Three examples of such laws are successor rights, technological change provisions, and arbitration.

Successor rights

Successor rights determine whether and how collective bargaining agreements survive the transfer of ownership from one employer (i.e., owner) to another.[31] Successor rights are important to investment because they may deter potential investors from purchasing a business if an existing collective agreement which they had no part in negotiating prevents them from reorganizing the business to improve its performance. That is, if a business or portion of a business is struggling, stringent successor laws will impede the reorganization of the business.

Legislation in Saskatchewan makes an existing collective agreement binding upon a new employer when a business, in whole or in part, is sold, transferred, leased, merged, or otherwise disposed of.[32] In other words, a purchasing employer is bound by a contract that it had no part in negotiating. In contrast, no such legislation exists in any US state.

Technological change provisions

Saskatchewan is one of only five jurisdictions in Canada and the United States to require a notice of technological investment. Technological change provisions in labour relations laws require employers to send affected unions a notice of technological investment and change.[33] In addition, the provision allows the union to object to the investment if it is deemed it will affect the existing collective agreement.

Technological change provisions impede investment because they limit the ability of unionized firms to adapt to changing conditions. That is, a firm that is constantly subject to delays in adopting new technologies will likely experience lower performance than a firm that can quickly adopt new technologies. Accordingly, technological change requirements explain, in part, why unionized firms tend to attract less investment.

A barrier to technological change can also have adverse effects on the competitiveness of firms in Saskatchewan. If unionized firms are subject to delays in adopting new technologies to improve productivity, then they will trail their non-unionized counterparts that have no such barriers. Put differently, technological change provisions place unionized firms at a competitive

31 More accurately, a transfer means the sale, consolidation, or otherwise disposal of a business.

32 This approach to existing collective agreements is similar across the Canadian provinces.

33 Affected employers in Saskatchewan have to provide at least a 90-day notice of any technological change to the union.

disadvantage. This is the case not only compared to non-unionized firms in Saskatchewan, but with globalization continuing to increase, it also places Saskatchewan firms at an international disadvantage.

Arbitration of disputes

In Saskatchewan, every collective bargaining agreement must include a mechanism for the final and binding settlement of a grievance (i.e., arbitration). Grievance disputes are disagreements about the meaning, application, or an alleged violation of an existing collective bargaining agreement. This is an important aspect of labour relations laws since it means that most disputes will be resolved immediately using binding arbitration. The selection of arbitrators and, indeed, the members of provincial labour relations boards thus have the potential to exert great influence over the resolution of industrial disputes.

It is generally seen as beneficial to exhaust voluntary alternatives such as mediation before relying on final and binding mechanisms such as arbitration. Proceeding immediately to binding arbitration without taking prior steps may not only result in increased costs for both parties but it may also create hostility between the parties. A stronger commitment to voluntary negotiation may increase the odds that both parties will be satisfied with the agreement. In other words, greater balance and flexibility in the labour relations environment is achieved if parties are free to prolong the dispute until it's in the best interests of all parties to *voluntarily* enter a process of final and binding resolution (i.e., arbitration). To compare, all US states allow parties to exhaust non-binding mechanisms and cannot force parties into arbitration.

Other labour laws affecting investment

There are other aspects of labour laws in Saskatchewan which, like labour relations laws, tend to be prescriptive and biased, particularly against employers. Similar to labour relations laws, research shows these too have an impact on investment by reducing the level of flexibility in the labour market.[34] Below are just two examples among many of other aspects of Saskatchewan's labour regulations that decrease labour market flexibility.

Overtime requirements

Overtime requirements are rules regulating when and how much employers must pay a wage premium to workers. Saskatchewan is one of only four provinces to have overtime requirements based on both the number of hours worked within a day and the number of hours worked within a week. All other provinces allow flexible hours during each day but require overtime based on hours worked within a week. In addition, Saskatchewan is one of only four provinces to maintain the lowest weekly threshold for the number of hours required to receive overtime pay: 40 hours. Saskatchewan's low threshold and daily overtime requirements impose additional labour costs and reduce flexibility for both workers and employers.

Minimum wage laws

Minimum wages laws establish the lowest level of hourly pay that employers must legally pay workers. The most commonly cited purpose of minimum wages is to increase the incomes of society's low-income workers. While minimum wages are implemented and increased with the best of intentions, the economic reality is that they likely do much more harm than good, especially for those they intend to help. There is a vast amount of research from Canada and around the world that demonstrates convincingly that high minimum wages lead to lower employment levels, fewer benefits, less training, and lower school enrolment rates.[35] Fewer employment opportunities and less training are particularly harmful, given that experience and skill development are important drivers of higher wages. Research also shows that earning the minimum wage is largely a temporary experience. This,

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34 For example, a recent study for the World Bank by Giorgio Calcagnini and Germana Giombini (2006) found that stringent employment protection legislation (EPL) making it costly to hire and fire workers is associated with lower levels of investment in European countries. The authors conclude: "we find that current EPL has a negative impact on current investment" (Calcagnini and Giombini, 2006: 35). See also the Organization for Economic Cooperation and Development's 2006 study OECD Employment Outlook (OECD, 2006) for a discussion on how employment protection legislation and other aspects of labour market regulation compare among the 30 OECD countries.

35 See Godin and Veldhuis (2009) for a review of the economic effects of minimum wages.

coupled with the fact higher minimum wages actually retard employment and training opportunities, leads to the conclusion that minimum wages will have no appreciable effect of alleviating poverty—a conclusion reached by most economists.

Saskatchewan's minimum wage rate increased from $8.25 to $8.60 per hour on May 1, 2008, for an average rate of $8.48 per hour.[36] Saskatchewan had the second highest minimum wage out of the Canadian provinces in 2008. Ontario had the highest average rate in 2008 at $8.56 per hour while the other western provinces Alberta and British Columbia had average minimum wage rates of $8.30 and $8.00 per hour, respectively. Saskatchewan has scheduled a large increase in the minimum wage to $9.25, effective May 1, 2009.

An important aspect of minimum wage laws is the number and scope of minimum wage exemptions. Exemptions allow workers who might otherwise not be able to secure a job because of their lack of experience or skills a greater chance of finding a job. They also provide employers a larger body of workers from which to hire. As a result, jurisdictions with many exemptions for the minimum wage can react to changing market conditions much faster and to a greater extent than jurisdictions with few or no exemptions. In effect, exemptions lower the minimum wage. Tellingly, Saskatchewan is one of only three provinces (along with New Brunswick and Newfoundland & Labrador) that does not provide exemptions from the minimum wage for certain types of employment.

Labour recommendations

The following summarizes the various recommendations emanating from the analysis of labour regulation in Saskatchewan:

- First and foremost, the province must acknowledge the benefits of and begin focusing on labour market flexibility.
- In particular, changes should be made to the province's labour relations laws to bring them more in line with other provinces and indeed US states, and to focus more specifically on balance, including:
    - prohibiting mandatory union membership and dues-payment clauses in collective bargaining agreements; and,
    - removing successor rights, technological change laws, and forced arbitration.
- Residents of Saskatchewan would also benefit from a freeze of the minimum wage.

36 The average is prorated to capture the number of months of the year in which each wage rate is effective.

Crown corporations: Industrial policy that reduces and impedes investment

This study has emphasized the importance of investment and its role in creating an environment of opportunity for Saskatchewanians. In addition to fiscal policies and labour market regulation, the province faces another critical economic challenge in attracting and retaining investment: an unusually high concentration of government business enterprises, more commonly known as Crown corporations.

Government business enterprises (GBEs) in Saskatchewan

Saskatchewan has a government business enterprise (GBE) sector unlike any other province and continues to be a peculiar anomaly in the Western world. In fact, the GBE sector is so large that it requires a separate organization to manage and administer its operations. The Crown Investments Corporation (CIC) of Saskatchewan is a holding company for 11 subsidiary commercial Crown corporations controlled by the provincial government. Table 8 lists the 11 major corporations under the CIC umbrella. The CIC's holdings span a wide range of industries, including telecommunications, finance, infrastructure, and transportation, as well as various utilities such as energy, electricity, and water.

In addition to the 11 major Crown corporations listed in table 8, the CIC directs a large and varied portfolio of public investments. In 2007, the CIC estimated that its subsidiary Crown corporations and other major investments had assets valued over $9.5 billion (CIC, 2007).[37] The CIC's annual report gives a detailed financial description of the holding company's extensive interests (see CIC, 2007). Perhaps the most telling message from the report is the provincial government's extensive involvement in Saskatchewan's economy.

37 The four major Crown corporations (SGI, SaskPower, SaskTel, and SaskEnergy) alone represent accumulated assets of $9.3 billion in 2007 (CIC, 2007).

Table 8: Holdings of the Crown Investments Corporation (CIC) of Saskatchewan

Line of business	Name	Form of investment
Electricity	Saskatchewan Power Corporation (SaskPower)	Wholly owned subsidiary
Telecommunications	Saskatchewan Telecommunications Holding Corporation and Saskatchewan Telecommunications (collectively SaskTel)	Wholly owned subsidiary
Natural gas	SaskEnergy Incorporated (Sask Energy)	Wholly owned subsidiary
Water and wastewater	Saskatchewan Water Corporation (SaskWater)	Wholly owned subsidiary
Land and property registration services	Information Services Corporation of Saskatchewan (ISC)	Wholly owned subsidiary
Property and casualty	Saskatchewan Government Insurance (SGI)	Wholly owned subsidiary
Several	Investment Saskatchewan Inc. (IS)	Wholly owned subsidiary
Infrastructure	Saskatchewan Opportunities Corporation (SOCO)	Wholly owned subsidiary
Mutual fund	Saskatchewan Development Fund Corporation (SDFC)	Wholly owned subsidiary
Immigrant Investor Program	Saskatchewan Government Growth Fund Management Corporation (SGFF MC)	Wholly owned subsidiary
Passenger and freight transportation	Saskatchewan Transportation Company (STC)	Wholly owned subsidiary

Source: CIC, 2007.

As a percentage of total economic output (GDP), Saskatchewan has more Crown corporation activity than any other province. Clemens et al. (2002a) reported that in 2000 Saskatchewan's GBE expenses as a percentage of GDP were significantly greater than New Brunswick's, the province with the second most GBE activity. More importantly, Saskatchewan's share of GBE activity was well above neighboring Prairie provinces: 51.9% higher than Manitoba and a whopping 154.3% higher than Alberta. Saskatchewan maintained the highest share of GBE expenses as a percentage of the economy in 2005, the most recent year for which Statistics Canada data is available.[38] Clearly, the GBE sector in Saskatchewan commands an uncharacteristically large portion of the provincial economy, especially in the Canadian context.[39]

GBEs: Why do they matter?—A tendency to underinvest

One of the most marked outcomes from an economic landscape dominated by government business enterprises is their tendency to underinvest in capital (e.g., property, plant, and equipment) compared to similar firms in the private sector. Their tendency to underinvest has several important consequences; for example, it means that employees working at GBEs are unable to access tools and technologies that raise productivity. This loss in productivity translates into lower wages and ultimately a lower standard of living for workers.

There are four main reasons why government business enterprises underinvest compared to equivalent private-sector firms:

- GBEs are restricted by their ability to finance existing or expansive business activity with debt since the government must ultimately secure the debt. GBEs are thus politically constrained in their access to debt-financing.
- GBEs are largely, if not entirely, prohibited from using private equity financing since such funding would dilute the government's ownership. GBEs are thus also politically constrained in their access to equity financing.
- GBEs tend to stress labour over capital inputs in their production processes in response to demands from various political interest groups leaving them employee-rich and capital-poor.
- GBEs normally operate in monopoly environments that lack competition. The lack of competitive pressure means that GBEs are not required to con-

38 The 2005 data should be interpreted cautiously since the figures may not be comparable across provinces. Correspondence with the Financial Management System branch of Statistics Canada indicated that the accounting treatment of GBE expense data has changed since the Clemens et al. (2002a) study.

39 The number of GBE employees relative to total provincial employment also indicates the degree to which government business enterprises influence economic life in Saskatchewan. GBE employment as a percentage of total employment in Saskatchewan in 2007 was the highest of all Canadian provinces and nearly one third greater than second-place Manitoba. In comparison to other western provinces, GBE employment as a percentage of total employment in Saskatchewan was more than two times greater than British Columbia and almost five times greater than Alberta. As is discussed below, such a heavy reliance on government business enterprises has negative consequences for the level of investment undertaken in Saskatchewan.

stantly update their technologies and production processes and offer innovative products and services to their customers.

The first two explanations both relate to constraints placed on GBEs by the government in terms of their ability to raise investment capital. Under normal circumstances, private firms will raise capital, either through debt and/or equity, to finance updates of existing capital or expansions based on economic opportunities. This process is impeded, if not eliminated, with respect to GBEs. They are almost always prevented from raising equity-financing since doing so would mean non-governmental ownership. In addition, they often face stringent debt limits since the liabilities of the GBE are ultimately guaranteed by the government.

The third constraint relates to the fact that GBEs are influenced by, and to a certain extent operate in, the political marketplace, whereas their private-sector counterparts operate in the open market. This means that the considerations employed for decisions by a GBE are different than those used by a private-sector firm. For example, Maxim Boycko and his colleagues (1996) argued that GBEs respond to interest-group pressure because state officials pursue political goals that maximize votes rather than business objectives that maximize the rate of return to shareholders.[40] As a result, GBEs usually do not pursue opportunities to accumulate new capital, improve technologies, increase profitability, or expand market share.

The fourth reason for a lack of capital investment relates to competition. In the private sector, competition forces firms to regularly invest in new capital in order to survive and grow profitably. GBEs, however, typically operate in a state-provided monopoly shielded from competitive discipline. This means that dissatisfied consumers are unable to shop around for comparable goods and services from other providers. For example, if the citizens of Saskatchewan do not like the provision of motor vehicle insurance, they cannot seek alternative insurers. Conversely, in competitive industries the ability to switch providers serves as an important signal for sellers to change or improve their business model when customers are unhappy (Pirie, 1988).

Taken together, these limitations suggest that government business enterprises have a strong and persistent tendency to underinvest.

40 John Nellis (1994), former Director of the Private Sector Development Department at the World Bank, also maintains that politicians will distort government business enterprise functions to meet political goals.

Evidence of GBE underinvestment

There is a large body of empirical evidence showing that government business enterprises persistently underinvest compared to private-sector firms. To show this, researchers often compare the performance of GBEs before and after they have undergone privatization.[41] In general, the results indicate that firms increase the level of capital investment after privatization.

Professor William Megginson and colleagues (1994) analyzed the financial and operating performance of 61 companies in 18 countries and 32 industries that were privatized during the period 1961–1990. Quite strikingly, they found that privatizing GBEs resulted in profitability soaring by 45%, efficiency rising by 11%, output increasing by 27% and, most importantly, capital investment jumping 44% (Megginson et al., 1994).

A 2001 study by Professor Megginson and Jeffry Netter provides the most comprehensive review of academic studies on privatization to date.[42] A central finding in Megginson and Netter's broad review was that GBEs generally expend less on capital than private-sector firms. Megginson and Netter concluded their appraisal of the privatization literature by stressing that "privatization 'works,' in the sense that divested firms almost always become more efficient, more profitable, and financially healthier, and increase their capital investment spending" (Megginson and Netter, 2001: 281).

Another study by Professor Bortolotti and his colleagues (2002) investigated the impact of privatization in the telecommunications industry. Specifically, they looked at the operating performance of 31 telecommunications companies in 25 countries that were either fully or partially privatized through public share offering. Again, the results showed that profitability, output, operating efficiency, and capital investment spending increased significantly after privatization.

Most recently, Narjess Boubakri and colleagues (2009) analyzed 189 privatized firms from strategic industries located in 39 countries to estimate the impact of privatization and government ownership on firm performance. The researchers documented the performance of firms before and after privatization and found that "privatization is associated with significant improvements in profitability, operating efficiency and capital expenditures spending" (Boubakri et al., 2009: 377).

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41 In this context, privatization refers to the transfer of ownership from the government to the private sector. This typically refers to state-owned enterprises undergoing either full or partial privatization by public share offering.

42 Megginson and Netter's review includes scholarly research papers appearing in prestigious journals, such as the *American Economic Review, Journal of Political Economy, Quarterly Journal of Economics*, and *Journal of Economic Perspectives.*

In summary, scholarly research has shown repeatedly that private-sector companies have a decided advantage in many areas over government enterprises. Capital investment is one area that is especially relevant to Saskatchewan since the province has a dense and influential GBE sector.

Capital investment performance of GBEs in Saskatchewan

This section measures the capital investment performance of three of the four larger Crown corporations in Saskatchewan: SaskTel, SaskEnergy, and SaskPower. The capital investment performance of each government business enterprise is assessed by comparing them to equivalent private-sector firms operating in the same industry.[43]

To assess capital investment performance, the comparisons rely on two key indicators.[44] The first indicator divides a firm's capital expenditures by the number of full-time equivalent (FTE) workers.[45] This ratio measures the amount of capital spending done by a firm while adjusting for the number of employees. Capital expenditures include spending used to acquire or upgrade physical assets such as plant, property, and equipment.

The second indicator measures capital investment using a ratio that divides a firm's long-term assets by the number of FTE workers. Long-term assets include land, buildings, plants, equipment, and other long-term investments. These assets are usually referred to as being fixed because they last for an extended period of time.

These two measures combine to present a comprehensive view of investment by examining not only annual spending (i.e., capital expenditures) but also accumulated investment (i.e., long-term assets).

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43 All private-sector comparators are Canadian firms.

44 The data used to construct the indicators were collected directly from the annual reports or by correspondences with the financial and human resource departments of the specific companies.

45 A full-time equivalent (FTE) measures a worker's degree of employment. For instance, an FTE of 1.0 means the worker works full-time hours, whereas an FTE of 0.5 means that the worker works only half-time. All employee counts in this study reflect full-time equivalent hours worked. The number of FTE workers was generally available for the firms examined in the study. However, if the number of FTE workers was not directly available (from annual reports or by correspondences), then an estimate was made where possible.

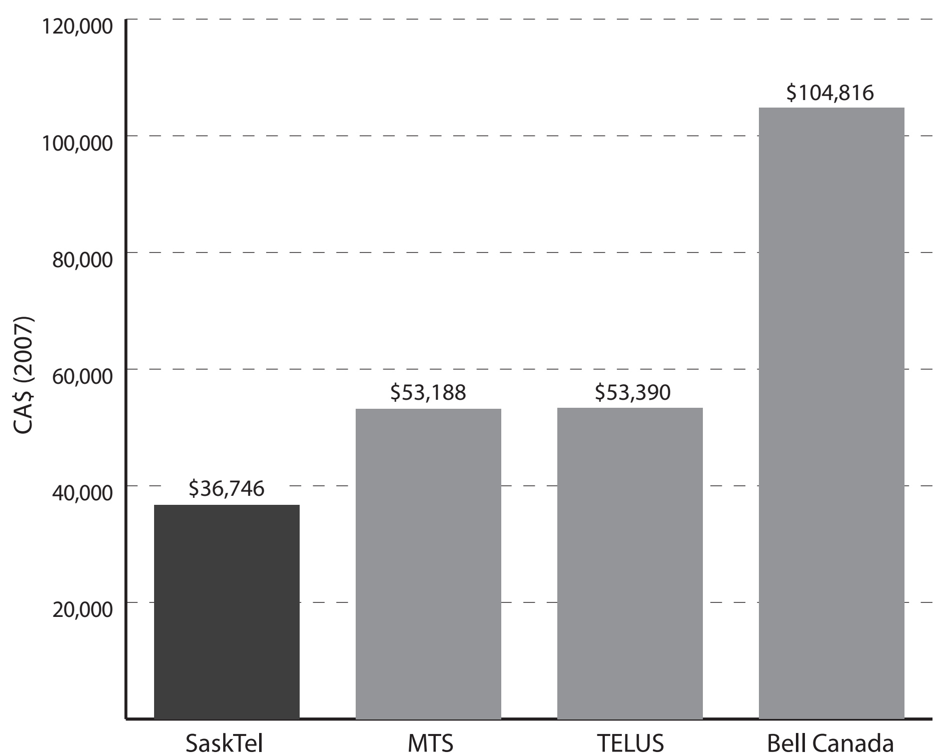
SaskTel (telecommunications)

The Saskatchewan Telecommunications Holding Corporation (SaskTel) is a Crown corporation of Saskatchewan. SaskTel's main business lines offer voice, data, dial-up and high-speed Internet, entertainment and multimedia services, security, web hosting, text and messaging services, and cellular and wireless data services (SaskTel, 2007). Along with its wholly owned subsidiaries, SaskTel maintained approximately $1.3 billion in assets in 2007 (SaskTel, 2007).

Table 9 displays the average value of capital investment undertaken and workers employed at SaskTel and at three private-sector firms in the telecommunications industry over the period 2003–2007. More specifically, the table displays the five-year average of capital expenditures, long-term assets, and FTE workers at SaskTel, MTS Allstream (MTS), TELUS, and Bell Canada. The investment figures are adjusted for inflation.

Using the information contained in table 9, calculations of the two performance indicators—capital expenditures per worker and long-term assets per worker—are presented in figures 15 and 16. The results are quite telling.

Figure 15: Capital expenditures per worker, 2003–2007 average, SaskTel and telecommunications firms



Source: Table 9; calculations by the authors.

SaskTel spends a fraction of what MTS, TELUS, and Bell Canada spend on capital investment. In fact, on an average per-worker basis, SaskTel's capital expenditures per worker amounted to only 69.1%, 68.8%, and 35.1% of the total invested by MTS, TELUS, and Bell Canada, respectively.

SaskTel performs even worse on the second measure, which looks at the average value of long-term assets per worker. SaskTel reached only 57.9%

Table 9: Investment and workers at SaskTel and private-sector equivalents, 2003–2007 average, in 2007 dollars [1]

	SaskTel [7]	MTS [9]	TELUS [4]	Bell Canada [3], [5], [8]
Capital expenditures (millions)	164	288	1,509	3,095
Long-term assets (millions) [2]	1,103	2,315	16,038	31,364
Workers [6]	4,462	5,421	28,260	29,526

Sources: SaskTel, 2003, 2004, 2005, 2006, 2007; MTS, 2003, 2004, 2005, 2006, 2007; TELUS Corporation, 2007; Bell Canada Enterprises, 2003, 2004, 2005, 2006, 2007; CIC, 2007; Statistics Canada, 2008d; correspondences with the financial and human resource departments of the respective firms; calculations by the authors.

Notes:

[1] All financial figures are adjusted for inflation.

[2] Long-term assets calculated by deducting current assets from total assets.

[3] Bell Canada's current assets were not listed in the financial reports so we could not calculate long-term asset values by deducting current assets from total assets. Instead, Bell Canada's long-term assets in a given year were estimated by multiplying total assets by the ratio of its parent company's (i.e., Bell Canada Enterprises (BCE)) long-term assets to total assets. This method was used to estimate Bell Canada's long-term assets in the period 2003–2006; a separate method was used for 2007.

[4] A full-time equivalent (FTE) worker count at TELUS was not available in 2005 so the average number of FTE workers is over four years (2003, 2004, 2006, and 2007).

[5] Bell Canada's FTE worker counts were retrieved through correspondence with the human resources department.

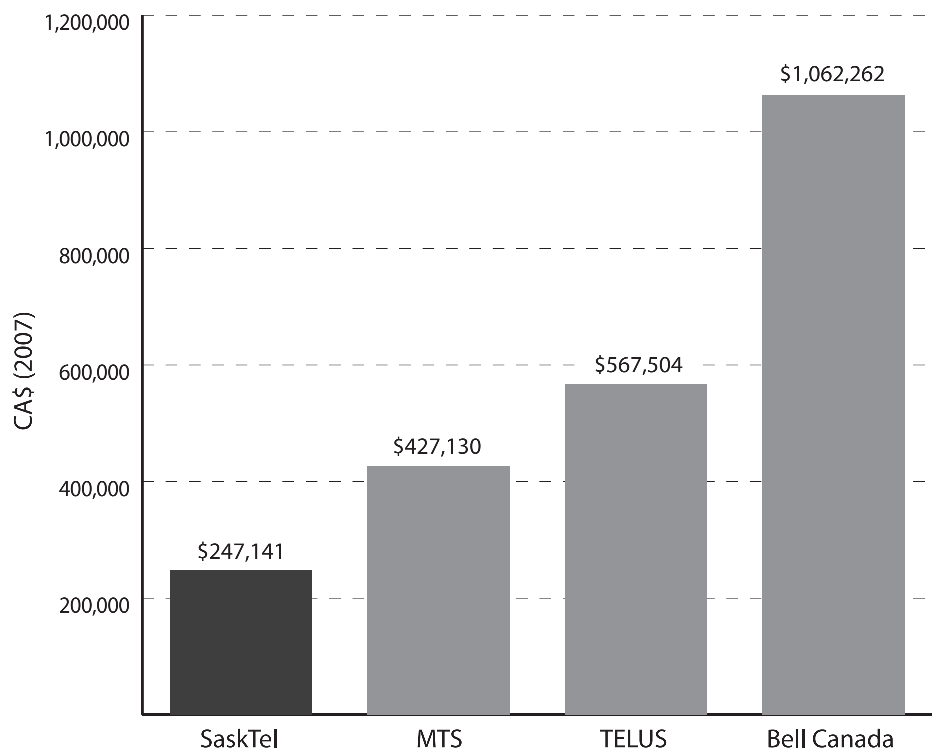
[6] Worker counts are measured in full-time equivalents (FTEs).

[7] Sasktel's FTE worker counts in the 2003–2007 period were estimated by multiplying the number of permanent full-time employees in a given year by 1.119—SaskEnergy's FTE to permanent full-time employee ratio in 2007. The number of permanent full-time employees at SaskTel is available in the CIC's (2007) annual report.

[8] Bell Canada was not listed as a separate entity in BCE's 2007 annual report so its financial figures were not available. We estimated long-term assets and capital expenditures in 2007 as follows: first, we estimated total assets by multiplying the parent company's (BCE) total assets in 2007 by Bell Canada's to BCE's average total asset ratio (0.866) in the five-year period 2002–2006, then we estimated Bell Canada's long-term assets by multiplying the estimated value of Bell Canada's 2007 total assets by BCE's long-term assets to total assets ratio (0.862) in 2007. In addition, to estimate Bell Canada's capital expenditures in 2007, we multiplied BCE's 2007 capital expenditures by Bell Canada's to BCE's average capital expenditure ratio (0.927) in the five-year period 2002–2006.

[9] MTS's FTE worker counts in the 2003–2007 period were estimated by multiplying the number of total employees in a given year by 0.967—TELUS's average FTE to total employee ratio in 2003, 2004, 2006 and 2007. The number of total employees at MTS is available in the company's annual reports.

Figure 16: Long-term assets per worker, 2003–2007 average, SaskTel and telecommunications firms



Source: Table 9; calculations by the authors.

of the value accumulated by MTS, 43.5% of the value accumulated by TELUS, and just 23.3% of what Bell Canada accumulated over the five-year period.

These results show that the private telecommunication firms examined in this comparison, namely Bell Canada, TELUS, and MTS, significantly outperformed SaskTel on both measures of capital investment.

SaskEnergy (energy transmission, distribution, and storage)

SaskEnergy Incorporated is the Crown corporation responsible for the transmission, distribution, and storage of natural gas in Saskatchewan (SaskEnergy, 2007). SaskEnergy's corporate structure consists of seven wholly owned subsidiaries including TransGas, its transmission utility. In 2007, SaskEnergy held consolidated assets exceeding $1.4 billion (SaskEnergy, 2007).

Table 10 displays the average value of capital expenditures, long-term assets, and FTE workers at SaskEnergy and at three private-sector equivalents over the period 2003–2007. The investment figures are adjusted for inflation and the private-sector firms included in this comparison are Union Gas, Terasen Gas, and Enbridge Gas.[46]

Figures 17 and 18 illustrate the two performance indicators, which were calculated using the information contained in table 10. Both figures show the private natural gas companies drastically outperforming SaskEnergy. On an average per-worker basis, SaskEnergy's capital expenditures amounted to a fraction of what the private-sector firms spent (figure 17). Specifically,

Table 10: Investment and workers at SaskEnergy and private-sector equivalents, 2003–2007 average, in 2007 dollars [1]

	SaskEnergy [3], [9]	Union Gas [4]	Terasen Gas [6], [10]	Enbridge Gas [5], [7]
Capital expenditures (millions)	78	252	142	340
Long-term assets (millions) [2]	1,071	3,594	3,600	4,219
Workers [8]	938	2,214	1,027	1,718

Sources: SaskEnergy, 2003, 2004, 2005, 2006, 2007; Union Gas, 2003, 2004, 2005, 2006, 2007; Terasen Gas Inc., 2003, 2004, 2006, 2007; Enbridge Gas Distribution Inc., 2003, 2004, 2005, 2006, 2007; CIC, 2007; Statistics Canada, 2008d; correspondences with the financial and human resource departments of the respective firms; calculations by the authors.

Notes:

[1] All financial figures are adjusted for inflation.

[2] Long-term assets calculated by deducting current assets from total assets.

[3] Figures for SaskEnergy include TransGas, the transmission arm of SaskEnergy Inc.

[4] Union Gas's FTE worker counts were retrieved through correspondence with the financial reporting department.

[5] Enbridge Gas's FTE worker counts in the 2003–2007 period were estimated by multiplying the number of total employees in a given year by 0.911—Terasen Gas's average FTE to total employee ratio in the period 2002–2007. The number of total employees at Enbridge Gas was retrieved through correspondence with the human resources department.

[6] In 2003, BC Gas became Terasen Gas, which was a subsidiary of Kinder Morgan Inc. between November 2005 and April 2007. In February 2007, Terasen Gas was amalgamated with Terasen Pipelines Inc. and 0731297 BC Ltd. to form Terasen Inc., which became a Fortis company in May 2007.

[7] Financial figures for Enbridge Gas in 2003 reflect the fiscal period ending September 30.

[8] Worker counts are measured in full-time equivalents (FTEs).

[9] An FTE worker count for SaskEnergy was available only for 2007 and retrieved through correspondence with a company representative. To estimate FTEs in the period 2003–2006, we calculated the ratio of FTEs to permanent full-time employees in 2007 and multiplied this ratio (1.119) by the number of permanent full-time employees. The number of permanent full-time employees at SaskEnergy is available in the CIC's (2007) annual report.

[10] Terasen Gas's FTE worker counts were retrieved through correspondence with the human resources department.

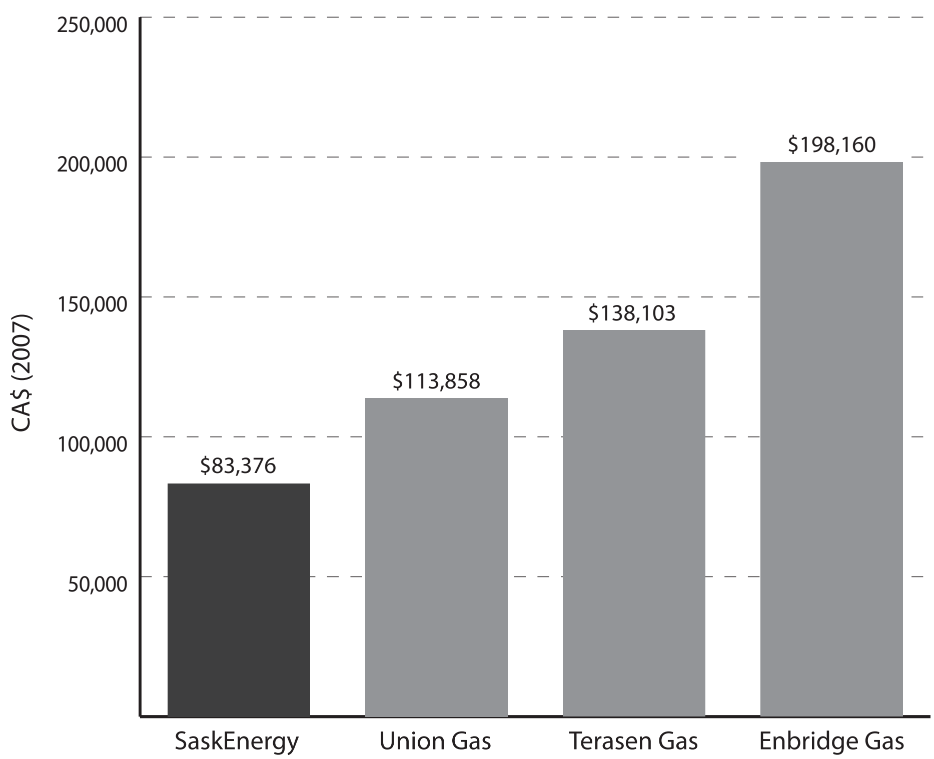
46 ATCO's utilities segment was also considered for the energy comparison but it was ultimately excluded due to insufficient data on capital spending and FTE worker counts.

SaskEnergy's capital expenditures equalled 73.2% of Union Gas, 60.4% of Terasen Gas, and a dismal 42.1% of Enbridge Gas.

SaskEnergy's capital investment performance measured by the second indicator is similarly lacking, as its long-term assets per worker were valued at a fraction of the level recorded by equivalent private-sector firms (figure 18). In particular, SaskEnergy's long-term assets per worker were valued at 70.3% of Union Gas, 46.5% of Enbridge Gas, and 32.6% of Terasen Gas.

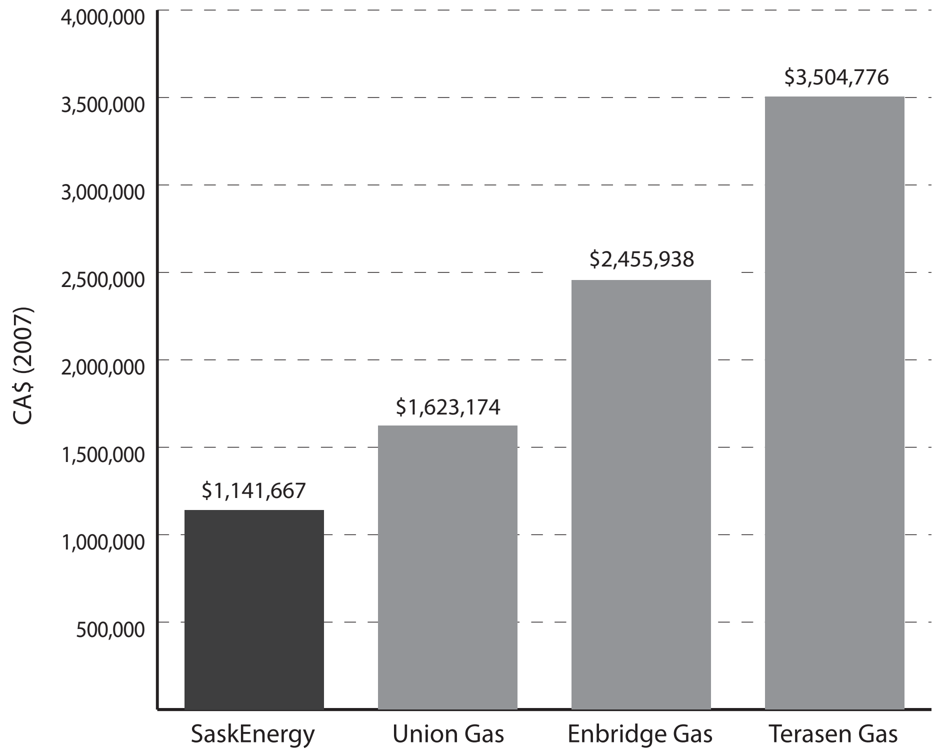
The comparison of SaskEnergy with private-sector providers of natural gas—Union Gas, Terasen Gas, and Enbridge Gas—reveals similar results to the telecommunication comparison: government business enterprises tend to underinvest.

Figure 17: Capital expenditures per worker, 2003–2007 average, SaskEnergy and energy firms



Source: Table 10; calculations by the authors.

Figure 18: Long-term assets per worker, 2003–2007 average, SaskEnergy and energy firms



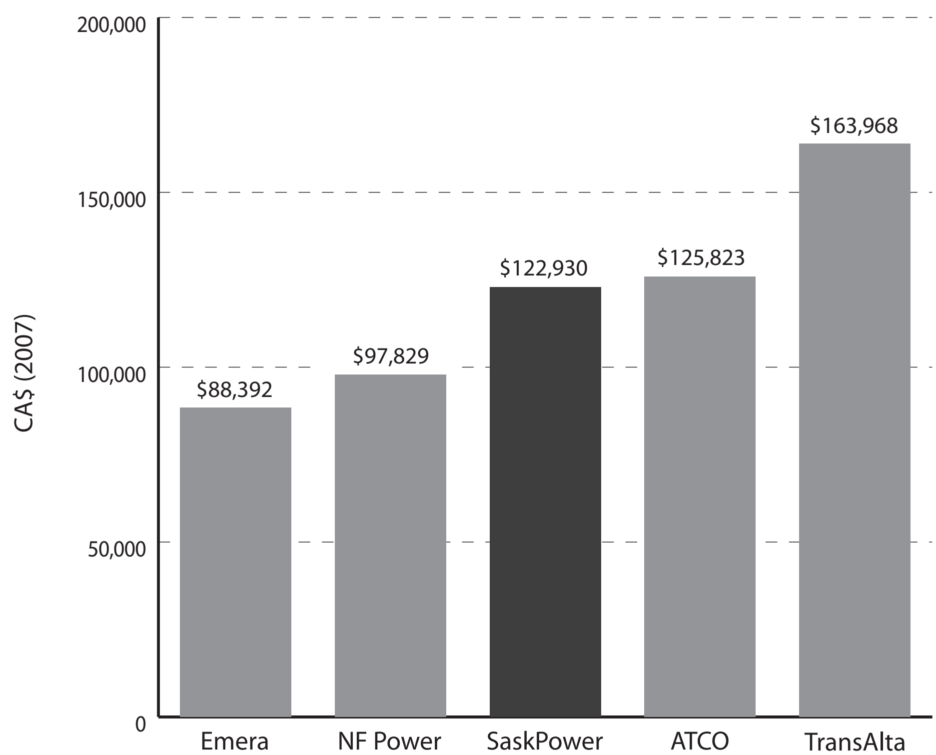
Source: Table 10; calculations by the authors.

SaskPower (electricity supply)

SaskPower is the principal supplier of electricity in Saskatchewan (SaskPower, 2007). It holds the exclusive right to supply, transmit, and distribute electricity to Saskatchewanians (SaskPower, 2007). Along with its three wholly owned subsidiaries, SaskPower maintained assets valued at $4.5 billion in 2007 (SaskPower, 2007).

Table 11 displays the average value of capital expenditures, long-term assets, and FTE workers over the period 2003–2007 at SaskPower and at four private electricity suppliers: Emera, TransAlta, Newfoundland Power, and ATCO.[47] Figures 19 and 20 illustrate the two key performance indicators.

Figure 19: Capital expenditures per worker, 2003–2007 average, SaskPower and electricity supply firms



Source: Table 11; calculations by the authors.

47 TransCanada Corporation's power generation segment was considered for the electricity provider comparison but ultimately excluded due to data limitations. Data on the number of FTE workers were not available and we could not provide a reasonable estimate. The human resource department was contacted but, unfortunately, TransCanada staff did not divulge the necessary information.

Figure 19 shows two of the four private power generation companies outperforming SaskPower on the capital expenditures per worker indicator. While TransAlta's and ATCO's power generation segments had capital investment levels that were greater than SaskPower's, Newfoundland Power's and Emera's capital spending trailed the government business enterprise.

Table 11: Investment and workers at SaskPower and private-sector equivalents, 2003–2007 average, in 2007 dollars [1]

	SaskPower [9]	Emera [4], [10]	TransAlta [6], [11]	Newfoundland Power [12]	ATCO [3], [5], [7]
Capital expenditures (millions)	334	187	400	63	81
Long-term assets (millions) [2]	3,860	3,738	7,164	826	2,141
Workers [8]	2,717	2,110	2,442	640	641

Sources: SaskPower, 2003, 2004, 2005, 2006, 2007; Emera, 2004, 2005, 2006, 2007; TransAlta, 2003, 2004, 2005, 2006, 2007; Newfoundland Power, 2003, 2004, 2005, 2006, 2007; ATCO Group, 2003, 2004, 2005, 2006, 2007; CIC, 2007; Statistics Canada, 2008d; correspondences with the financial and human resource departments of the respective firms; calculations by the authors.

Notes:

[1] All financial figures are adjusted for inflation.

[2] Long-term assets calculated by deducting current assets from total assets.

[3] ATCO's current assets were not listed in the financial reports so we could not calculate long-term asset values. Instead of long-term assets we used the net book value of plant, property, and equipment, which is a close substitute.

[4] Emera's FTE worker counts in 2003 and 2004 were estimated by multiplying the number of total employees by 0.968—Emera's average FTE to total employees ratio in the period 2005–2007. FTE and total employee counts were retrieved through correspondence with the investor relations department.

[5] ATCO's FTE worker counts were retrieved through correspondence with the human resources department; UK and Australian FTEs were excluded from the total.

[6] Figures for TransAlta include its Generation and Corportate Development & Marketing and Corporate segments. These segments do not significantly change the overall totals as they are a small fraction of TransAlta's main generation segment.

[7] Figures for ATCO include only the power generation segment.

[8] Worker counts are measured in full-time equivalents (FTEs).

[9] SaskPower's FTE worker counts in the 2003–2007 period were estimated by multiplying the number of permanent full-time employees in a given year by 1.119—SaskEnergy's FTE to permanent full-time employee ratio in 2007. The number of permanent full-time employees at SaskPower is available in the CIC's (2007) annual report.

[10] Emera's FTE and total employee counts were retrieved through correspondence with the investor relations department.

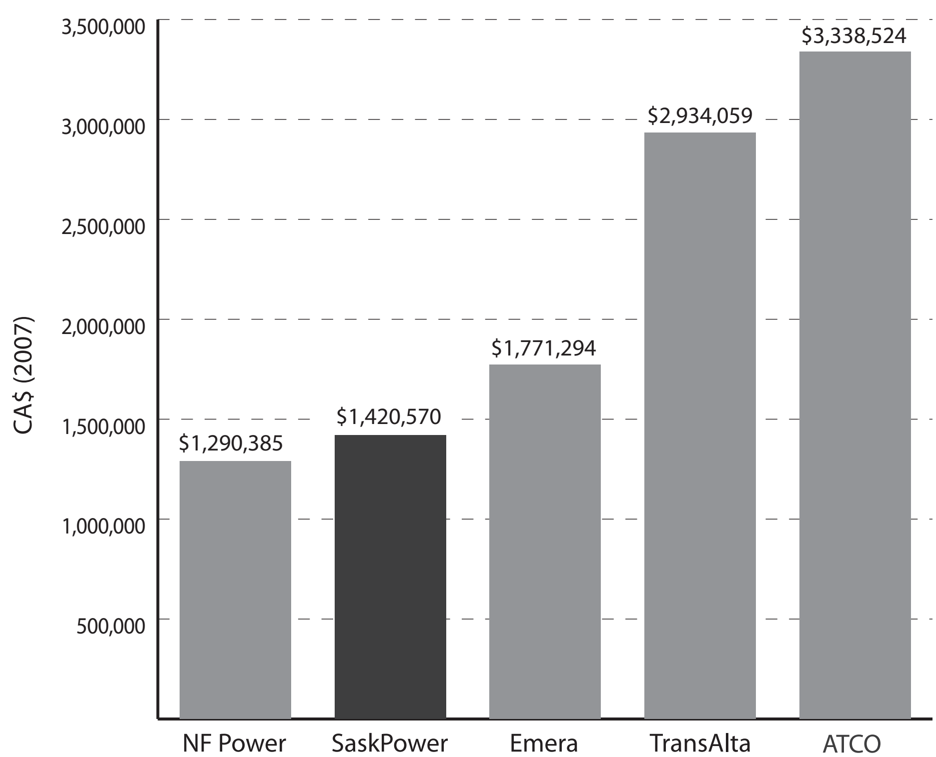
[11] TransAlta's FTE worker counts in the 2003–2007 period were estimated by multiplying the number of total employees in a given year by 0.968—Emera's average FTE to total employee ratio in the period 2005–2007. The number of total employees at TransAlta is available in the company's annual reports.

[12] Newfoundland Power's FTE worker counts were retrieved through correspondence with the human resources department.

Figure 20 illustrates the performance of power generation suppliers on the long-term assets indicator. This indicator shows that three of the four private firms outperformed SaskPower. On an average per-worker basis, the long-term assets of the three private power generators outpaced the government business enterprise by multiples ranging from 1.3 to 2.4. Newfoundland Power was the only private firm that lagged SaskPower.

Taken together, the results from the analysis above indicate that private-sector firms generally invest more intensely than their state-owned counterparts. Based on two key capital investment indicators—capital expenditures per worker and long-term assets per worker—SaskTel, SaskPower, and SaskEnergy were outperformed in 17 of a possible 20 comparisons, representing a failure rate of 85.0%. In other words, Crown corporations in Saskatchewan overwhelmingly underinvested in capital compared to their private-sector equivalents. Though not favorable for Saskatchewanians, these findings corroborate the scholarly research cited earlier.

Figure 20: Long-term assets per worker, 2003–2007 average, SaskPower and electricity supply firms



Source: Table 11; calculations by the authors.

Crown corporation recommendations

The recommendation for overcoming the problem of Crown corporations underinvesting in capital and for moving towards greater prosperity is privatization. Regardless of the mechanism used to privatize provincial government business enterprises, the key is for policy makers in Saskatchewan to commit to transferring ownership of these businesses to private interests. As the research shows, doing so will unleash and indeed promote investment in specific industries as well as in other areas of the Saskatchewan economy. It is important, however, to ensure that any and all proceeds from such sales be tied to debt reduction rather than used for other purposes, such as financing increased program spending by the provincial government.

TILMA: A missed opportunity

In 2007, the Saskatchewan government turned down an opportunity to join the Trade, Investment and Labour Mobility Agreement (TILMA). TILMA was forged between British Columbia and Alberta with a goal of creating a seamless economic region between the two provinces. TILMA will be fully implemented in April 2009.

A study by Robert Knox, noted trade expert and former executive director of the Internal Trade Secretariat, and Amela Karabegović (2009) conducts a comprehensive review of TILMA. TILMA eliminates many of the existing barriers to interprovincial trade that create inefficiency in the economy because they prevent businesses and workers from allocating their capital and labour to the most beneficial use. Restrictions and impediments to trade also create indirect costs which lead to uncertainty in the marketplace due to a lack of stable and enforced rules for business and workers. Examining the empirical research on the cost of trade barriers, Knox and Karabegović indicate that the cost of interprovincial trade barriers range from 0.05%–1.58% of Canada's gross domestic product (GDP). Taking the low estimate of 0.05% of GDP, the authors calculate that interprovincial trade barriers cost the Canadian economy $766 million in 2007 and about $9.1 billion since 1995.

In many ways, TILMA is an extension of, and an improvement over, the Agreement on Internal Trade (AIT)—an interprovincial trade agreement made between all the Canadian provinces in 1995. Knox and Karabegović explain that the AIT is ineffective because it is complex, has limited scope, and is unenforceable. TILMA is much broader in scope and has an enforceable dispute resolution mechanism. In fact, TILMA is purposefully based on the "open trade principle," which means all trade, investment, and labour mobility measures are covered by TILMA unless specifically excluded from the agreement.

In general, TILMA eliminates restrictions and impediments to trade between the two provinces but there are four specific areas which are worth highlighting. First, TILMA stipulates that anyone who is certified or licensed for an occupation in one province is automatically recognized in the other province. TILMA also eliminates duplicate business registration and reporting requirements, meaning that any business that registers in one province is automatically registered in the other. The third is procurement, which means the governments of British Columbia and Alberta are required to provide businesses in both provinces with full access to government procurement of goods, services, and construction.[48] Lastly, TILMA provides clear and enforceable dispute settlement provisions, where the non-complying party can be penalized up to $5 million by the panel.[49]

The first aspect outlined above, mutual recognition of occupational licenses, is critical to labour mobility. In general, occupational licensing requires workers in specific employment categories or fields to be certified or licensed in order to work in their chosen field in a specific jurisdiction. This process normally entails specific educational requirements, testing, residency requirements, and/or sufficient apprenticeship time completed in order to obtain certification, and these requirements vary by jurisdiction.[50]

Importantly, different occupational licensing requirements across Canada impede the movement of workers covered by such laws by increasing the costs and time to move locations.[51] If they choose to move, workers must bear the cost of recertifying or relicensing. This barrier to worker mobility ultimately restricts workers from flowing to where they are most needed and the areas that provide them the greatest benefit. A study by Pashigian (1979) found that "occupational licensing has had a quantitatively large effect in reducing the interstate mobility of professionals" (Pashigian, 1979: 24). Later, Kleiner et al. (1982) examined state licensing requirements and con-

48 TILMA's procurement provisions include conditions of $10,000 or greater for goods, $75,000 or greater for services, and $100,000 or greater for construction, which apply to all government entities.

49 Canadian governments, except Ontario, agreed to adopt similar dispute resolution provisions for non-compliance under the AIT (Committee on Internal Trade, 2008).

50 The traditional argument for certification or licensing is to ensure high-quality standards. Many economists have argued, however, that the effect of licensing requirements is the constraint of supply of workers in the licensed fields. For example, Gunderson (1994) argued that licensing requirements may create incentives for professionals to restrict entry into their profession and thus put upward pressure on wages and other compensation.

51 There are certainly other barriers to labour mobility in addition to occupational licensing. Canada's national Employment Insurance program and restrictions placed on foreign workers are two of the most important. See Angevine and Thomson (2008) for further discussion.

cluded that "more restrictive state licensing statutes reduced immigration" (Kleiner et al., 1982: 383).[52], [53]

In effect, TILMA reduces the negative effects of occupational licensing by mutually recognizing occupations and trades—that is, ones that do not require any further examination or regulation to practice in either province. The labour mobility provision in TILMA will come into full effect in April 2009, by which time the 85 occupations and trades with different standards identified by the two provincial governments will be reconciled.[54] Consequently, with the failure to join TILMA, Saskatchewan places itself at a disadvantage compared to Alberta and British Columbia where workers and employers will enjoy the benefits of greatly enhanced mobility. Saskatchewan must instead rely on the AIT.

It is important to note that in July 2008 and at their subsequent meeting in December, the 13 Canadian premiers agreed to amend the AIT labour mobility chapter by including the same mutual recognition principle as in TILMA. The changes to the AIT labour mobility chapter will come into effect in April 2009.

While achieving labour mobility on a national basis is great step forward, it is not the same as adopting TILMA in its entirety. In order to improve competitiveness, especially with Alberta and British Columbia, it is critical that Saskatchewan immediately reconsider joining TILMA since it will eliminate the remaining restrictions and impediments to trade.

52 The study also found that earnings for the covered groups were also increased due to the restraint on supply, which relates back to the motivation for these requirements.

53 In addition to impeding labour mobility, occupational licensing also has the effect of driving up wages for those workers with a license. Milton Friedman (1962) explained that occupational licensing in effect creates a monopoly for the supply of the licensed professions. By restricting entry to the labour market for these services, the licensing body can control the supply and drive up wages for workers. A recent study by Kleiner and Krueger (2008) surveyed 3,982 Americans about personal characteristics and whether or not they had an occupational license. One of the most important findings is that occupational licensing has a similar effect on wages as unions. The authors found that having a license was associated with approximately 15% higher hourly earnings—about the same wage premium found in previous research for unionized workers. This means that occupational licensing distorts the efficient allocation of labour in the economy.

54 There are an additional 132 occupations and trades for which certifications to practice are required in one of the two provinces. Employees moving from the province where certification is not available to the province in which certification is required have to obtain certification from the appropriate provincial authority (Government of British Columbia, 2007).

Recommendations

Saskatchewan should immediately reconsider joining TILMA to eliminate the remaining restrictions and impediments to trade and investment.

Conclusion

Saskatchewan is currently enjoying strong economic performance and the prosperity that accompanies it. The province should not, however, rest on its recent successes. Rather, the province should use this opportunity to create a foundation for lasting economic prosperity by improving the investment and business development environment within the province. Specifically, the province needs to build on past improvements in tax policy, implement fundamental changes to its labour laws and government-owned businesses, and join TILMA. Such changes will herald in a new era of economic strength and prosperity for Saskatchewanians.

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Acknowledgments

The authors would like to thank the supporters of the Fraser Institute who generously made resources available to undertake this study. We would also like to express our sincerest appreciation and thanks to Jason Clemens and Keith Godin for their work on previous drafts of this study. The authors would also like to thank Amela Karabegović for her comments. In addition, the authors would like to thank several employees at Crown corporations and government agencies in Saskatchewan and private-sector firms who supplied information and patiently answered questions, as well as the Publications and Communications departments of the Fraser Institute for their assistance and diligence.

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ISSN
1706-8991 Studies in Economic Prosperity (Online)
Printed and bound in Canada.

Date of issue
February 2009

Editing and production
Kendal Egli

Design
Lindsey Thomas Martin

Cover design
Bill Ray

Images for cover
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