

# STUDIES IN ENTREPRENEURSHIP & MARKETS



Number 3 / January 2007

## Canadian Provincial Investment Climate Report: 2007 Edition

*Jason Clemens, Milagros Palacios, Martin Massé, Niels Veldhuis, & Keith Godin*

### Contents

Executive summary .....	3
Introduction .....	7
1 Overview of the Investment Managers Survey .....	8
2 Provincial Investment Climate Index, 2007 .....	14
3 Comparing the Provincial Investment Climate Index, 2006, and the Investment Manager Survey, 2004 ...	33
Conclusions and recommendations .....	35
Appendix A: Methodology.....	36
Appendix B: Review of scholarly research on each component.....	38
Notes .....	41
References.....	45
About the authors .....	49
Acknowledgments .....	51

**Studies in Entrepreneurship and Markets** are published periodically throughout the year by The Fraser Institute, Vancouver, British Columbia, Canada.

### The Fraser Institute

Our vision is a free and prosperous world where individuals benefit from greater choice, competitive markets, and personal responsibility. Our mission is to measure, study, and communicate the impact of competitive markets and government interventions on the welfare of individuals.

Founded in 1974, we are an independent research and educational organization with offices in Vancouver, Calgary, and Toronto, and international partners in over 70 countries. Our work is financed by tax-deductible contributions from thousands of individuals, organizations, and foundations. In order to protect its independence, the Institute does not accept grants from government or contracts for research.

To order additional copies of *Studies in Entrepreneurship and Markets*, any of our other publications, or a catalogue of the Institute's publications, please contact the publications coordinator via e-mail: [sales@fraserinstitute.ca](mailto:sales@fraserinstitute.ca); via telephone: 604.688.0221, ext. 580 or, toll-free, 1.800.665.3558, ext. 580; via fax: 604.688.8539.

For media enquiries, please contact our Communications department via 604.714.4582 or [communications@fraserinstitute.ca](mailto:communications@fraserinstitute.ca).

To learn more about the Institute, please visit our web site at [www.fraserinstitute.ca](http://www.fraserinstitute.ca).

Copyright© 2007 The Fraser Institute. All rights reserved. No part of this publication may be reproduced in any manner whatsoever without written permission except in the case of brief quotations in critical articles and reviews.

The authors of this study have worked independently and opinions expressed by them are, therefore, their own, and do not necessarily reflect the opinions of the supporters, employees, or trustees of The Fraser Institute.

Editing, design and typesetting: Kristin McCahon and Lindsey Thomas Martin

Printed and bound in Canada

ISSN 1718-0724 *Studies in Entrepreneurship and Markets* (print)

ISSN 1718-0732 *Studies in Entrepreneurship and Markets* (online)

Date of issue: January 2007

For information about **how to support The Fraser Institute**, please write to:

- Development Department, The Fraser Institute  
Fourth Floor, 1770 Burrard Street  
Vancouver, British Columbia, V6J 3G7 Canada

or contact the Development Department:

- via telephone, toll-free: 1.800.665.3558 ext. 586
- via e-mail: [development@fraserinstitute.ca](mailto:development@fraserinstitute.ca)

#### Vancouver

- via telephone: 604.688.0221 ext. 586
- via fax: 604.688.8539

#### Calgary

- via telephone: 403.216.7175 ext. 227
- via fax: 403.234.9010

#### Toronto

- via telephone: 416.363.6575 ext. 232
- via fax: 416.934.1639.

---

**This publication contains a number of large tables that span two pages. To view these tables on screen, turn on View > Page Layout > Facing [pages] in Adobe Acrobat or Reader.**

---

## Executive summary

The allocation of investment capital, both internationally and domestically, is increasingly acknowledged as a leading contributor to a jurisdiction’s economic success or failure. It is, therefore, critical to have objective, empirical measurements that document differences in investment climates. The Provincial Investment Climate Index is an important step in creating empirical measurements of investment climates since it quantitatively evaluates public policies that create and sustain positive investment climates.

The basis of the Index is the Investment Managers Survey (IMS) series undertaken by The Fraser Institute between 1994 and 2004. The IMS regularly surveyed Canada’s leading money managers on a host of issues, including provincial investment climates and the policies that contributed to positive and negative climates. The policies identified in those surveys (1998–2004) were used to create the Provincial Investment Climate Index.

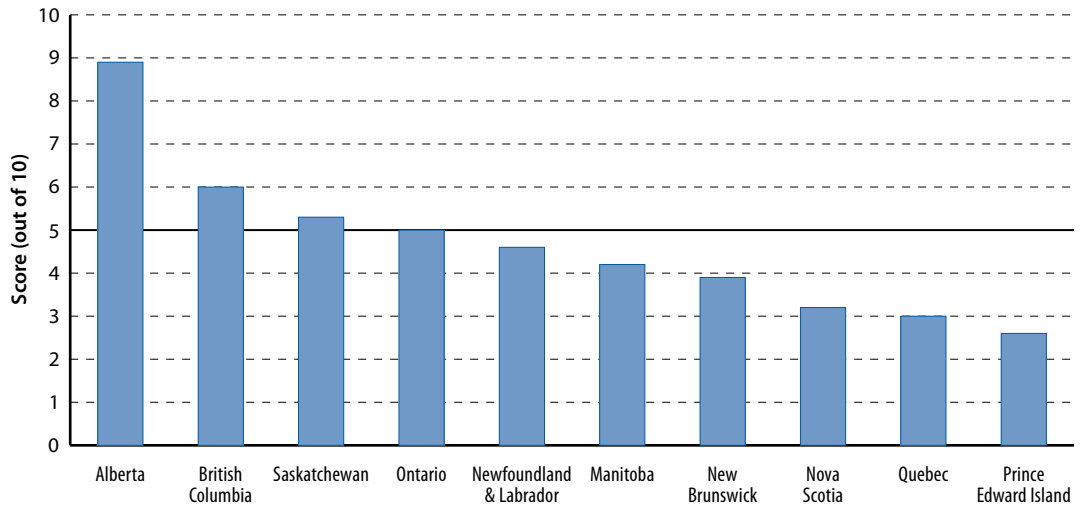
### Provincial Investment Climate Index

The Provincial Investment Climate Index includes seven components: 1. Corporate income tax (CIT), 2. Fiscal prudence, 3. Personal income tax (PIT), 4. Transportation infrastructure, 5. Corporate capital tax (CCT), 6. Labour market regulation, and 7. Burden of regulation. These components were assessed by the IMS respondents as having an important influence on the creation and maintenance of a positive investment climate.

Canada’s three western provinces, Alberta, British Columbia, and Saskatchewan, topped the rankings for the Provincial Investment Climate Index. Alberta ranked first with a score of 8.9 out of 10 and was clearly Canada’s top province [Exsum figure 1, Exsum table 1]. British Columbia followed in second position, but some distance behind, with a score of 6.0 out of 10. Saskatchewan ranked third with a score of 5.3 out of 10. Ontario ranked fourth and was the last province to score at or above 5.0.

---

**Exsum figure 1: Provincial Investment Climate Index, 2007**



Exsum table 1: Provincial Investment Climate Index, 2007—scores and ranks out of 10

	Overall		Component 1 Corporate income tax		Component 2 Fiscal prudence	
	Score	Rank	Score	Rank	Score	Rank
Alberta	8.9	1	9.8	2	10.0	1
British Columbia	6.0	2	6.6	3	6.9	2
Saskatchewan	5.3	3	4.1	5	4.3	7
Ontario	5.0	4	3.3	6	5.1	5
Newfoundland & Labrador	4.6	5	3.3	6	6.4	3
Manitoba	4.2	6	2.9	8	5.3	4
New Brunswick	3.9	7	6.6	3	3.6	8
Nova Scotia	3.2	8	0.0	9	4.6	6
Quebec	3.0	9	10.0	1	2.2	10
Prince Edward Island	2.6	10	0.0	9	2.3	9

Sources: The formula used to calculate each component may be found in Appendix A.

All of the remaining provinces received scores below 5.0, indicating poor relative performance in creating and maintaining a positive investment climate. Quebec (3.0) ranked ninth, which is troubling since it is one of the most populous provinces in Canada and is of great economic importance to the country. Prince Edward Island ranked last with a score of 2.6 out of 10.

### **Components of the Provincial Investment Climate Index**

**1. Corporate income tax** This component assesses the degree to which provinces tax business profits in the form of corporate income taxes. Quebec received the highest score with a perfect 10.0 out of 10. Unfortunately, most provinces performed poorly on this measure. For example, only four provinces had scores above 5.0: Quebec, Alberta, British Columbia, and New Brunswick. The remaining six provinces all received scores below 5.0 with Nova Scotia and Prince Edward Island tying for last place.

**2. Fiscal prudence** Fiscal prudence measures how well provincial governments have managed their budgets and whether government spending is sustainable. Alberta received the highest score (10.0 out of 10), followed by British Columbia with a score of 6.9. Only three other provinces received scores above 5.0: Newfoundland (6.4), Manitoba (5.3), and Ontario (5.1). The remaining five provinces failed to receive a score above 5.0 and Quebec received the lowest score (2.2).

**3. Personal income tax** This component measures the personal income tax burden based on income-tax rates and the levels of income at which the various rates apply. The three western Canadian provinces (Alberta, British Columbia, and Saskatchewan) dominate this component of the Index. Alberta ranks first with a perfect score of 10.0 because of its single-rate income tax. British Columbia and Saskatchewan followed with scores of 7.5 and 5.8. The only other provinces to receive a score above 5.0 were Ontario (5.5) and New Brunswick (5.1). The remaining five

Component 3 Personal income tax		Component 4 Transportation infrastructure		Component 5 Corporate capital tax		Component 6 Labour market regulation		Component 7 Burden of regulation	
Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank
10.0	1	6.0	3	10.0	1	6.0	1	10.0	1
7.5	2	6.1	2	7.8	2	2.9	6	3.5	7
5.8	3	6.8	1	6.9	3	1.8	10	7.4	4
5.5	4	4.8	5	6.5	4	3.6	2	6.3	5
1.3	9	3.5	8	5.8	5	3.6	2	8.8	2
2.5	7	4.9	4	4.3	7	2.0	9	7.5	3
5.1	5	3.8	7	3.8	8	2.4	7	1.2	9
4.2	6	4.7	6	2.3	9	3.1	4	3.8	6
0.7	10	3.3	9	2.1	10	2.1	8	0.0	10
2.4	8	2.5	10	5.1	6	3.0	5	2.9	8

provinces all received scores below 5.0. Quebec received the lowest score (0.7) and ranked last on this component of the Index because it has relatively high personal income-tax rates that are effective at relatively low levels of income.

**4. Transportation infrastructure** This component assesses the transportation infrastructure in each province including road network as well as railroad, seaport, and airport capacity. Overall, Saskatchewan ranked first although with a somewhat weak score of 6.8 out of 10. British Columbia and Alberta followed with scores of 6.1 and 6.0, respectively. All of the remaining provinces had scores below 5.0. Prince Edward Island ranked last with a score 2.5 out of 10. The weak scores of the leading provinces coupled with the failure of seven provinces to achieve scores above 5.0 indicates a real need for investment in transportation infrastructure.

**5. Corporate capital tax** This component of the Index evaluates the use of corporate capital taxes. Alberta ranked first (10.0 out of 10) since it is the only province to have completely eliminated the use of such taxes. British Columbia also performed well with a score of 7.8. Saskatchewan (6.9), Ontario (6.5), Newfoundland (5.8), and Prince Edward Island (5.1) all received scores at or above 5.0. The scores generally reflect the trend away from using such taxes, given their high economic costs. The remaining four provinces received scores below 5.0. Quebec received the lowest score of 2.1, ranking it last among the provinces.

**6. Labour market regulation** This component of the Index evaluates the labour relations laws present as a method by which to gauge differences in labour laws generally. Alberta received a score of 6.0 out of 10 and was the only province to receive a score of 5.0 or higher. Saskatchewan received the lowest score of 1.8. The low scores across the board indicate that provincial labour-market regulation needs to be reformed.

**7. Burden of regulation** This component measures the burden of government regulations, often referred to as “red tape.” This measure is based on a survey of regulatory costs completed by the Canadian Federation of Independent Business (CFIB). The specific measure used is the estimated regulatory cost as a percentage of the provincial economy. The results are quite striking. Alberta ranked first with a score of 10.0 out of 10. However, Alberta’s regulatory costs represent an alarming 2.6% of GDP. Quebec ranked last with regulatory costs at an even more worrisome 4.4% of GDP; it received a score of 0.0.

## **Conclusion**

The Provincial Investment Climate Index results indicate that, to varying degrees, all provinces have room to improve their public policies so as to make their jurisdictions more conducive to investment. Provinces are encouraged to continue policies in areas where they performed well and to pursue reforms in areas where they fared poorly.

---

## Introduction

Business investment is a powerful driver of economic growth, providing the necessary resources to acquire new machinery and equipment, introduce new technologies, create new job opportunities, and improve productivity. Politicians, bureaucrats, and citizens in general are becoming more aware of the importance of business investment as a critical determinant of current and future economic prosperity.

Jurisdictions are constantly in competition with one another to provide a positive investment climate—a business environment that is conducive to investment. Investors respond to differing investment climates by allocating investment resources in a way that maximizes the rates of returns on their investments. Attracting and sustaining high levels of investment requires an ongoing commitment to those policies and factors that contribute to a positive investment climate.

This study represents a step forward in understanding and, more importantly, documenting the public policies that contribute to, and sustain, positive investment climates. It assesses empirically, and then ranks, the investment climates of the Canadian provinces based on a number of public policies that were identified by money managers in surveys conducted over a seven-year period as contributing to a positive investment climate. [1] The Fraser Institute has been surveying senior investment managers in Canada on a variety of issues since 1994. From 1998 to 2004, the surveys were used to assess and rank the investment climate of the Canadian provinces. [2] This study uses the results from those surveys to create a quantifiable index of provincial investment climates.

### ***Organization of this study***

**Section 1** provides an overview of the Investment Managers Survey, including a brief history and a profile of respondents. This section also outlines how respondents rated the degree to which different public policies promote and maintain a positive investment climate. This is particularly important since it is these results that are the foundation for our quantitative index measuring provincial investment climates.

**Section 2** presents the provincial rankings and index scores for each component of investment climate as well as the overall scores and rankings for the Provincial Investment Climate Index.

**Section 3** compares the quantitative index scores with the results from the 2004 Investment Managers Survey in order to determine and explain deviations.

### **Conclusions and recommendations**

**Appendix A** provides more detailed methodological information about the construction of the index.

**Appendix B** provides an overview of research completed on the economics of the various components used in this study

## 1 Overview of the Investment Managers Survey

The first Investment Managers Survey (IMS), which asked respondents a broad range of questions, was completed in the winter of 1994. The surveys were originally issued on a quarterly basis. [3] Each survey included about a dozen questions with topics ranging from the likelihood of Quebec's sovereignty to the financial outlook for markets. All surveys included questions rating the performances of the Bank of Canada and the federal minister of finance.

Beginning in 1998, each issue of the Investment Managers Survey featured a focus chosen from a range of topics from financial regulation to provincial investment climates. [4] There were two sets of questions asked about investment climate. The first inquired about what policies, such as taxation, regulation, and infrastructure were important to implementing and maintaining a positive investment climate. The second set of questions related to subjective evaluations by the respondents of the state of the investment climate in each of the Canadian provinces.

### Profiles of investment managers

**Profile of investment managers—size of portfolio** Between 1998 and 2004, six Investment Managers Surveys dealing with provincial investment climates were completed. [5] During this period, a total of 193 responses were received from investment managers, an average response rate of 23%. In the final year of the survey (2004), respondents maintained over \$335 billion in assets under administration [table 1]. [6]

**Profile of investment managers—nature of business** Table 2 provides information on the nature of financial firms responding to the surveys between 2000 and 2004. [7] Nearly half the responses (48%) came from pension-fund managers and another 41% came from investment-fund managers. Managers of venture-capital funds made up only 5% of survey respondents. The results for years between 2000 and 2004 mirror the weighted average results with little deviation.

**Profile of investment managers—location** Table 3 provides information about the geographic location of respondents to the survey. Not surprisingly, a large portion of respondents identified their operations as being based in Ontario (56%). Significant responses were also received from Quebec (16%), Alberta (13%) and British Columbia (11%).

### Components of a positive investment climate: IMS results

The following section summarizes the results from the IMS about the policies identified and ranked by respondents as contributing to, and sustaining, a positive investment climate. This is a critical discussion since it forms the basis for the creation of an empirical measure of investment climates.



**Table 1: Profile of investment managers—size of portfolio**

Year of survey	Number of responses	Nominal value of assets (in billions of dollars)
1998	37	\$140.0
1999	26	\$130.0
2000	31	\$248.8
2001	24	\$282.2
2002	30	\$330.9
2004	45	\$335.5
<b>Total</b>	<b>193</b>	<b>\$1,467.4</b>

Note: There was no survey completed in 2003.

Sources: Karabegović, Clemens, and Godin, 2004; Clemens, 2002; The Fraser Institute, 2000, 2001; Clemens and Dixon, 1999; Dixon, Mihlar, and Clemens, 1998.

**Table 2: Profile of investment managers—nature of business**

Year of survey	Venture capital	Pension fund	Investment fund	Other	Total number of responses
2000	10%	55%	35%	0%	31
2001	0%	57%	35%	9%	24
2002	3%	52%	38%	7%	30
2004	4%	40%	51%	4%	45
<b>Total number of responses, 2000–2004</b>	<b>6</b>	<b>63</b>	<b>53</b>	<b>6</b>	<b>130</b>
<b>Average, 2000–2004</b>	<b>5%</b>	<b>48%</b>	<b>41%</b>	<b>5%</b>	

Note: Sum of annual results may not be 100% due to rounding.

Sources: Karabegović, Clemens, and Godin, 2004; Clemens, 2002; The Fraser Institute, 2000 and 2001; Clemens and Dixon, 1999; Dixon, Mihlar, and Clemens, 1998; calculations by the authors.

**Table 3: Profile of investment managers—location**

Year of survey	British Columbia	Alberta	Ontario	Quebec	Other
2000	10%	16%	58%	10%	6%
2001	21%	17%	38%	21%	4%
2002	11%	7%	52%	22%	7%
2004	7%	13%	67%	13%	0%
<b>Average, 2000–2004</b>	<b>11%</b>	<b>13%</b>	<b>56%</b>	<b>16%</b>	<b>4%</b>

Note: Sum of annual results may not be 100% due to rounding.

Sources: Karabegović, Clemens, and Godin, 2004; Clemens, 2002; The Fraser Institute, 2000 and 2001; Clemens and Dixon, 1999; Dixon, Mihlar, and Clemens, 1998.

---

The surveys issued between 2000 and 2004 evaluated 11 policies as having a potential effect on provincial investment climates. [8] These components were ranked by investment managers on a scale from 1 to 10, with 10 being the best possible score. Survey data from these four surveys was aggregated to produce an average rating for each of the components. [9]

### ***Descriptions of the components***

**[1] Corporate income tax** This component measures the amount of income tax corporations pay on their profits. Since all jurisdictions are subject to the federal corporate income tax, this component refers exclusively to provincial corporate income taxes.

**[2] Fiscal prudence** Fiscal prudence is the degree to which provincial budgets balance revenues and spending. Jurisdictions that avoid deficit spending or maintain comparatively small surpluses will exhibit strong fiscal prudence, which minimizes the need to raise taxes in the future. [10]

**[3] Personal income tax** This component measures the amount of tax individuals must pay on earned income such as salaries and wages. Only provincial income taxes were considered since all jurisdictions must pay federal personal income taxes.

**[4] Capital gains tax** Individuals and firms are subject to capital gains taxes when an asset whose value has increased beyond its nominal purchase price is sold. In Canada, at both the federal and provincial level, a portion of the capital gains is treated as income and taxed at the individual's highest marginal personal income-tax rate.

**[5] Infrastructure** Infrastructure generally represents the breadth, functionality, and effectiveness of a jurisdiction's transportation network (highways, railways, seaports, and airports), which facilitates the movement of goods, services, and labour.

**[6] Corporate capital tax** Corporate capital taxes are profit-insensitive levies assessed on the total capital (debt and equity) of a firm once it reaches a prescribed level of capital. The use of corporate capital taxes in Canada has been waning but they are still used both by the federal government and by a number of provinces.

**[7] Flexible labour markets** This component represents the ease with which labour markets can adjust wages and the mix of labour and capital in response to changes in the marketplace. Labour markets that can readily adjust exhibit a high degree of flexibility while those that are prescriptively regulated are considered rigid.

**[8] Regulatory burden** Regulations are the rules and standards, sometimes referred to as "red tape," that governments use to control the transactions, operations, and entry of firms. This intervention in the marketplace affects many aspects of an economy, including health-and-safety standards, business licensing, remittance of taxes, and ability of workers to engage in certain types of activities.

**[9] Cost-efficient environmental regulations** Cost-efficient environmental regulations measure the extent to which the social benefits of environmental policies outweigh their costs, as measured by their negative impact on employment and economic growth.

**[10] Provision of social services** This component measured the spending on social services undertaken by provinces. Programs included in this category were primary and secondary education, social assistance (welfare), health care, and child-care services.

**[11] Aid to the private sector** This component measured the level of government subsidies provided to private firms. This assistance took many forms, including special tax breaks, direct cash grants, and favourable regulations such as the imposition of trade barriers.

### ***Summary of survey results***

Overall, the survey results (table 4; figure 1) strongly suggest that properly structured and competitive taxes are imperative for the creation and maintenance of a positive investment climate. Taxes on corporate income (8.4), personal income (8.3), capital gains (8.0), and on corporate capital (7.9) were ranked as four of the most important components. Survey respondents also ranked fiscal prudence (8.3) and infrastructure (7.9) highly. The results of the surveys also indicate that flexible labour markets, appropriate general regulations, and cost-efficient environmental regulations are important though less so than the other components. In contrast, aid to the private sector (3.9) and the provision of social services (4.8) were seen to have negligible effect, if any, on creating and maintaining a positive investment climate.

### ***Selection of components***

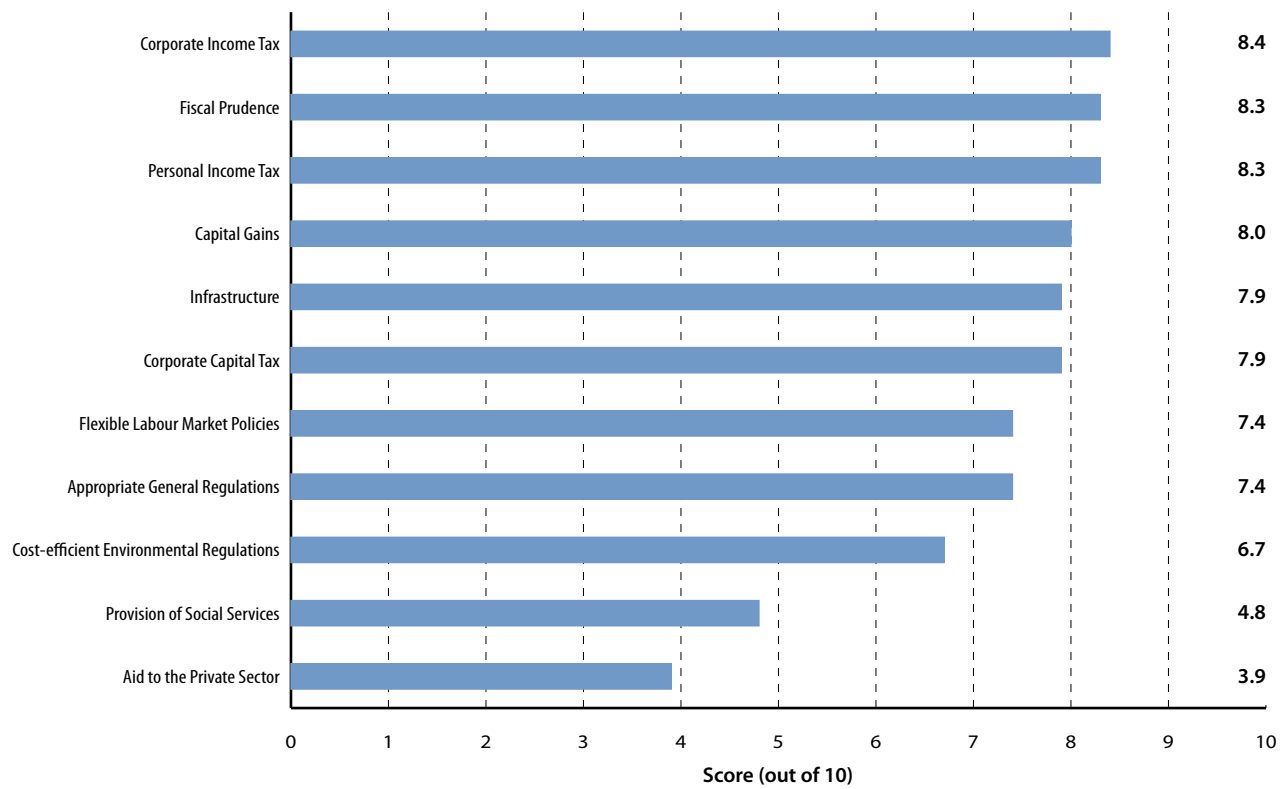
The study made every effort to include policy areas identified by the survey respondents as having an important effect on creating and maintaining a positive investment climate. Unfortunately, there were four policy areas that were not included due to a lack of data or because they were already included in other policy areas.

**Capital gains taxes** Capital gains taxes were excluded because of the way in which they are calculated. Recall that capital gains are taxed at an individual's highest personal income-tax rate. This treatment is consistent across the provinces. Thus, the results of an analysis of capital gains taxes across provinces would exactly parallel an analysis of personal income-tax rates, thus double counting their effect. As a result, the study excluded the capital gains tax from its components.

**Cost-efficient environmental regulations** There was no data-set available that adequately measured differences among the provinces' use of cost-efficient environmental regulations. It is hoped that data will become available so this component can be included in future editions.

**Provision of social services and Aid to the private sector** Finally, the study excluded both the provision of social services and aid to the private sector since ratings indicated that neither policy contributed to a positive investment climate. [11]

**Figure 1: The most important economic policies according to investment managers surveyed from 2000 to 2004**



Note: There was no survey completed in 2003; survey data from the four surveys (2000, 2001, 2002, 2004) was aggregated to produce an average rating for each of the indicators.

Sources: Karabegović, Clemens, and Godin, 2004; Clemens, 2002; The Fraser Institute, 2000 and 2001.

**Table 4: The most important economic policies according to the results from Investment Managers Surveys, 2000–2004**

	Score (out of 10)
Corporate income tax	8.4
Fiscal prudence	8.3
Personal income tax	8.3
Capital gains	8.0
Infrastructure	7.9
Corporate capital tax	7.9
Flexible labour-market policies	7.4
Appropriate general regulations	7.4
Cost-efficient environmental regulations	6.7
Provision of social services	4.8
Aid to the private sector	3.9

Note: Data from the four surveys of 2000, 2001, 2002, and 2004 were aggregated to produce an average rating for each of the components. There was no survey completed in 2003.

Sources: Karabegović, Clemens, and Godin, 2004; Clemens, 2002; The Fraser Institute, 2000, 2001.

***Final components and weighting***

The final list of components used to calculate the Provincial Investment Climate index, along with the relative weight given to each, is shown in table 5. Weights were determined by taking the average final scores from the survey respondents for each component and adjusting them so that they sum to 100.0.

---

**Table 5: Components and their relative weights**

Component	Weight (%)
1. Corporate income tax (CIT)	15.1
2. Fiscal prudence	14.9
3. Personal income tax (PIT)	14.9
4. Infrastructure	14.2
5. Corporate capital tax (CCT)	14.2
6. Flexible labour markets	13.4
7. Regulatory burden	13.3
<b>Total</b>	<b>100.0</b>

Sources: Karabegović, Clemens, and Godin, 2004; Clemens, 2002; The Fraser Institute, 2000, 2001; Clemens and Dixon, 1999; Dixon, Mihlar, and Clemens, 1998; calculations by the authors.

## 2 Provincial Investment Climate Index

This section of the study presents the scores and rankings for the Provincial Investment Climate Index (2007) as well as its components. The index reflects the extent to which the provinces have implemented policies highlighted by the IMS respondents as being important to the creation and maintenance of a positive investment climate.

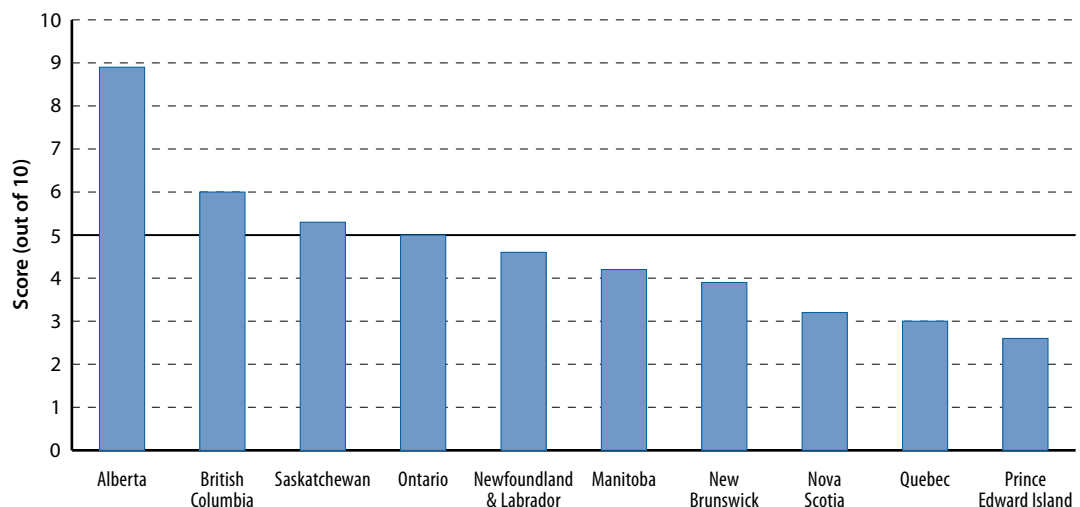
The Provincial Investment Climate Index includes seven components: 1. Corporate income tax (CIT), 2. Fiscal prudence, 3. Personal income tax (PIT), 4. Transportation infrastructure, 5. Corporate capital tax (CCT), 6. Labour market regulation, and 7. Burden of regulation. [12] Each component contains multiple measures and there are, in total, 26 measures (table 6). [13] Each measure is scored on a scale from 0 to 10, where the top-performing province is scored at 10 while the lowest performing province is given a zero. The scores for the measures are weighted equally within each category. To estimate an overall index, the seven components were weighted according to the final scores the investment managers assigned to each component (table 5). For further information on the methodology, please see Appendix A.

### ***Provincial Investment Climate Index—overall results***

Canada’s three most western provinces, Alberta, British Columbia, and Saskatchewan, received the top rankings for the Provincial Investment Climate Index 2007. Alberta ranked the highest with a score of 8.9 out of 10 and was clearly Canada’s top province for policies that encourage and sustain a positive investment climate (figure 2, table 7). British Columbia followed in second position, but some distance behind, with a score of 6.0 out of 10. Saskatchewan ranked third with a score of 5.3 out of 10. Ontario ranked fourth and was the last province to score at or above 5.0.

All of the remaining provinces received scores below 5.0, indicating poor relative performance in creating and maintaining a positive investment climate. Quebec (3.0) ranked ninth, which is troubling since it is one of the most populous provinces in Canada and is of great economic importance to the country. Prince Edward Island ranked last with a score of 2.6 out of 10.

**Figure 2: Provincial Investment Climate Index, 2007**



**Table 6: Components of the Provincial Investment Climate Index**

- 1. Corporate income tax (CIT)**
  - A. General corporate income-tax rate
- 2. Fiscal prudence**
  - A. Average deficit as a percentage of GDP
  - B. Average government spending as a percentage of GDP
  - C. Average debt service charges as a percentage of GDP
  - D. Average annual change in spending as a percentage of GDP
- 3. Personal income tax (PIT)**
  - A. Top marginal tax rate and threshold
  - B. Middle marginal tax rate and threshold
- 4. Transportation Infrastructure**
  - A. Road network (total length of highway network per capita)
  - B. Railroad capacity (total length of first main railway track as a percentage of land area)
  - C. Seaport capacity (total tonnage of goods shipped)
  - D. Airport capacity (total passengers enplaned and deplaned per capita)
- 5. Corporate capital tax (CCT)**
  - A. General, non-financial corporate capital tax
    - i. Introductory rate and threshold at which CCT applies
    - ii. Maximum rate and threshold at which it applies
  - B. Financial corporate capital tax
    - i. Introductory rate and threshold at which CCT applies
    - ii. Maximum rate and threshold at which it applies
- 6. Labour market regulation**
  - A. Certification and decertification
    - i. Remedial certification
    - ii. Difference between certification and decertification application thresholds
    - iii. Secret ballot for certification and decertification
  - B. Union security
    - i. Mandatory union membership allowed
    - ii. Mandatory union dues allowed
  - C. Regulation of unionized firms
    - i. Successor rights—existing collective agreement is binding
    - ii. Technological change
    - iii. Arbitration
    - iv. Replacement workers
    - v. Second-site picketing
- 7. Burden of regulation**
  - A. Total cost of regulation as a percentage of GDP minus government activity

Table 7: Provincial Investment Climate Index, 2007—scores and ranks out of 10

	Overall		Component 1 Corporate income tax		Component 2 Fiscal prudence	
	Score	Rank	Score	Rank	Score	Rank
Alberta	8.9	1	9.8	2	10.0	1
British Columbia	6.0	2	6.6	3	6.9	2
Saskatchewan	5.3	3	4.1	5	4.3	7
Ontario	5.0	4	3.3	6	5.1	5
Newfoundland & Labrador	4.6	5	3.3	6	6.4	3
Manitoba	4.2	6	2.9	8	5.3	4
New Brunswick	3.9	7	6.6	3	3.6	8
Nova Scotia	3.2	8	0.0	9	4.6	6
Quebec	3.0	9	10.0	1	2.2	10
Prince Edward Island	2.6	10	0.0	9	2.3	9

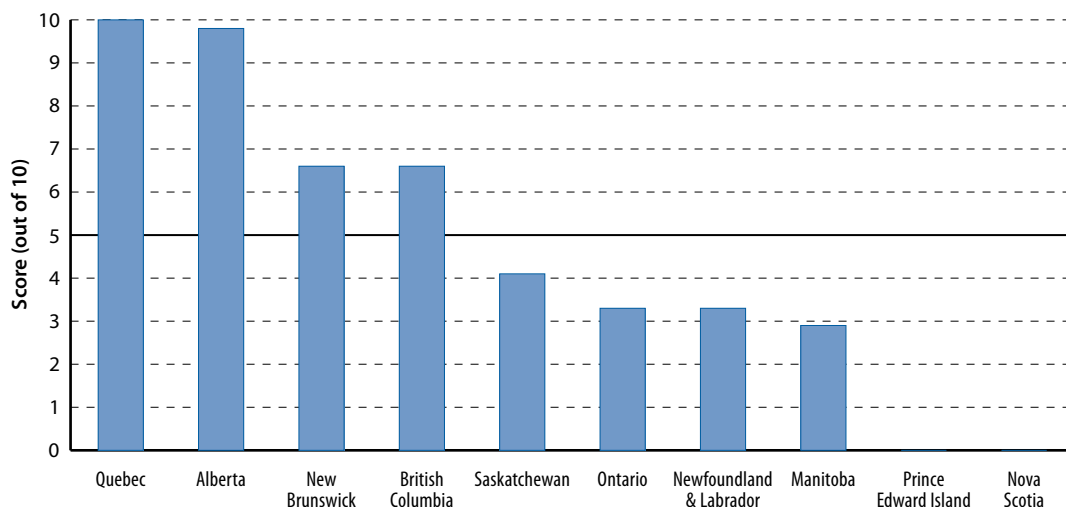
Sources: The formula used to calculate each component may be found in Appendix A.

### 1. Corporate income tax

This component measures the degree to which provincial governments tax business profits in the form of corporate income taxes (figure 3, table 8) based on the general statutory corporate income tax rate. [14] Overall, Quebec received the highest score with a 10.0 out of 10 based on its corporate income tax rate of 9.9%. [15] Alberta ranked second with a score of 9.8. British Columbia and New Brunswick followed, both with scores of 6.6 out of 10.

The remaining six provinces all received scores below 5.0 indicating relatively high statutory corporate income-tax rates in the remaining provinces. Prince Edward Island and Nova Scotia tied for last position based on their corporate income-tax rates of 16.0%.

Figure 3: Corporate income tax (CIT)





Component 3 Personal income tax		Component 4 Transportation infrastructure		Component 5 Corporate capital tax		Component 6 Labour market regulation		Component 7 Burden of regulation	
Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank
10.0	1	6.0	3	10.0	1	6.0	1	10.0	1
7.5	2	6.1	2	7.8	2	2.9	6	3.5	7
5.8	3	6.8	1	6.9	3	1.8	10	7.4	4
5.5	4	4.8	5	6.5	4	3.6	2	6.3	5
1.3	9	3.5	8	5.8	5	3.6	2	8.8	2
2.5	7	4.9	4	4.3	7	2.0	9	7.5	3
5.1	5	3.8	7	3.8	8	2.4	7	1.2	9
4.2	6	4.7	6	2.3	9	3.1	4	3.8	6
0.7	10	3.3	9	2.1	10	2.1	8	0.0	10
2.4	8	2.5	10	5.1	6	3.0	5	2.9	8

**Table 8: Corporate income taxes (CIT)—scores and ranks out of 10; rates effective 2007**

	Score	Rank	General corporate income-tax rate
<b>Quebec</b>	10.0	1	9.9%
<b>Alberta</b>	9.8	2	10.0%
<b>New Brunswick</b>	6.6	3	12.0%
<b>British Columbia</b>	6.6	3	12.0%
<b>Saskatchewan [1]</b>	4.1	5	13.5%
<b>Ontario</b>	3.3	6	14.0%
<b>Newfoundland &amp; Labrador</b>	3.3	6	14.0%
<b>Manitoba [2]</b>	2.9	8	14.25%
<b>Prince Edward Island</b>	0.0	9	16.0%
<b>Nova Scotia</b>	0.0	9	16.0%

Note 1: Saskatchewan will decrease its corporate tax rate from 14% to 13% effective July 1, 2007. The rate presented is the average of both rates.

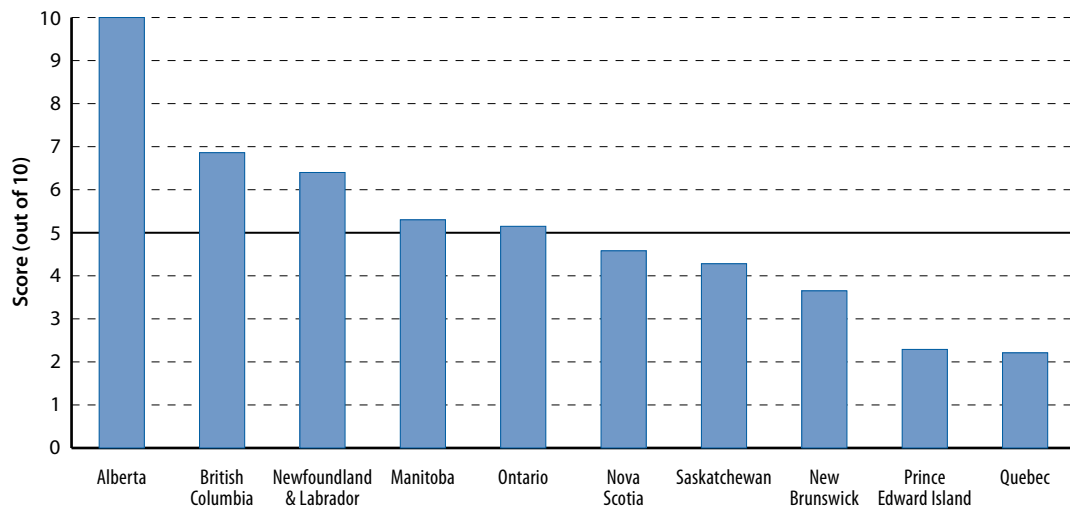
Note 2: Manitoba will decrease its rate from 14.5% to 14% on July 1, 2007. The rate presented is the average of both rates.

Sources: Alberta, Ministry of Finance (2006); British Columbia, Department of Finance (2006); Manitoba, Department of Finance (2006a); New Brunswick, Department of Finance (2006); Newfoundland and Labrador, Department of Finance (2006); Nova Scotia, Department of Finance (2006); Ontario, Ministry of Finance (2006); Prince Edward Island, Department of Finance (2006); Quebec, Ministry of Finance (2005, 2006); Saskatchewan, Department of Finance (2006a); Treff and Perry, 2006; calculations by the authors.

## 2. Fiscal prudence

Fiscal prudence measures how well provincial governments have balanced their budgets and whether or not government spending is sustainable (figure 4, table 9). This component of the Index evaluates provincial fiscal performance across four measures: average deficit as a percentage of gross domestic product (GDP), average government spending as a percentage of GDP,

**Figure 4: Fiscal prudence**



**Table 9: Fiscal prudence—scores and ranks out of 10, overall and for surplus (deficit),**

	Overall		Five-year average net surplus (deficit) as a percentage of GDP [1]		
	Score	Rank	%	Score	Rank
Alberta	10.0	1	2.3	10.0	1
British Columbia	6.9	2	(0.8)	7.0	8
Newfoundland & Labrador	6.4	3	0.0	10.0	1
Manitoba	5.3	4	0.1	10.0	1
Ontario	5.1	5	(0.8)	7.1	7
Nova Scotia	4.6	6	0.3	10.0	1
Saskatchewan	4.3	7	(0.6)	7.8	6
New Brunswick	3.6	8	(0.02)	9.9	5
Prince Edward Island	2.3	9	(2.6)	0.0	10
Quebec	2.2	10	(1.7)	3.7	9

Note 1: Provinces that generated surpluses over the period of analysis are treated as though they balanced surplus for the 2000-to-2005 term is automatically assigned a score of 10.

Note 2: Quebec’s spending is adjusted for the federal tax abatement.

Note 3: From 2001 to 2005, Newfoundland experienced significant increases in nominal GDP (51.9%). The Brunswick to 42.7% in Alberta. As a result, Newfoundland registered the lowest 5-year average annual removed from the score’s calculation and received a score of 10. The scores and rankings for the remaining If Newfoundland were considered in the score’s calculation, the remaining nine provinces would receive

Sources: Statistics Canada, 2006a, 2006b; calculations by the authors.

average annual change in spending as a percentage of GDP, and average debt-service (interest) charges as a percentage of GDP. [16, 17] Overall, Alberta showed the most fiscal prudence of any Canadian province with a score of 10.0 out of 10. British Columbia ranked second with a score of 6.9; again there was a gap between its performance and that of first-ranked Alberta. Three other provinces received scores above 5.0: Newfoundland (6.4), Manitoba (5.3) and Ontario (5.1). The remaining five provinces all failed to receive scores above 5.0. Quebec received the lowest score (2.2) and ranked last.

#### **A. Average deficit as a percentage of GDP**

This subcomponent measures the average fiscal balance (deficits and surpluses) between 2001/02 and 2005/06 as a share of GDP. All provinces maintaining average surpluses, regardless of the size, received a score of 10.0 while the lowest score was reserved for the province with the largest average deficit. [18] Four provinces maintained an average surplus over the time period, resulting in a perfect score of 10.0: Alberta (2.3% of GDP), Nova Scotia (0.3% of GDP), Manitoba (0.1% of GDP), and Newfoundland (0.0% of GDP). The remaining six provinces all maintained an average deficit over the same period. The average deficit varied from a low of 0.02% of GDP in New Brunswick to a high of 2.6% of GDP in Prince Edward Island, which ranked last.

#### **B. Average government spending as a percentage of GDP**

The second subcomponent in fiscal prudence measures the size of provincial and local spending compared to the size of the economy over the same five-year period (2001/02 to 2005/06). [19]

#### average spending, change in spending and cost of servicing debt, 2001/02–2005/06

Five-year average spending as a percentage of GDP [2]			Five-year average annual change in spending as a percentage of GDP [3]			Five-year average cost of servicing debt as a percentage of GDP		
%	Score	Rank	%	Score	Rank	%	Score	Rank
18.9	10.0	1	(1.1)	10.0	1	0.5	10.0	1
26.2	5.6	3	(0.6)	8.2	3	1.8	6.6	2
30.6	2.9	7	(5.0)	10.0	1	3.3	2.7	6
30.4	3.0	6	(0.1)	6.0	4	3.5	2.1	7
23.4	7.3	2	1.5	0.0	10	1.9	6.2	3
29.9	3.3	5	0.4	4.2	6	4.0	0.8	9
29.6	3.5	4	1.3	0.7	9	2.4	5.0	4
31.6	2.3	9	0.9	2.4	7	4.3	0.0	10
35.4	0.0	10	(0.1)	5.9	5	3.1	3.2	5
31.3	2.5	8	1.3	0.8	8	3.6	1.8	8

their budgets. This is done because, by definition, surplus money either is spent or reduces net debt. A province that registers an average

rest of the provinces also registered increases, though these were not as high as Newfoundland's; they ranged from 14.7% in New change in spending as a share of GDP. To ensure Newfoundland's score does not distort scores of the other Canadian provinces, it was nine provinces were calculated considering just these provinces. This affords a more revealing distribution of scores and rankings. scores below 5.0 despite marked fiscal prudence in some provinces.

Alberta received the highest score and ranked first on this measure with average government spending representing 18.9% of provincial GDP. Ontario ranked second with spending consuming 23.4% of GDP. British Columbia ranked third with government spending representing 26.2% of GDP. These three provinces were the only jurisdictions to receive scores in excess of 5.0.

The remaining seven provinces all had scores below 5.0. Prince Edward Island had the highest share of government spending compared to the economy at 35.4%, ranking it last among the provinces.

### ***C. Average annual change in spending as a percentage of GDP***

This measure is linked with the previous in that it assesses annual changes in government spending (as a share of the economy) between 2001/02 and 2005/06. [20] Newfoundland recorded a pronounced 5.0% decline in government spending as a share of the provincial economy. [21] Alberta managed the next largest decline in government spending (compared to the size of the economy) with a 1.1% reduction. British Columbia (-0.6% of GDP), Manitoba (-0.1% of GDP), and Prince Edward Island (-0.1% of GDP) were the three other provinces that also recorded declines in government spending as a share of the provincial economy.

The five remaining provinces all recorded increases in the size of government. Ontario ranked last among the provinces with government spending increasing by 1.5% of GDP.

### ***D. Average debt-service charges as a percentage of GDP***

Debt charges are annual costs required to service government debt. These charges act as a wedge between the amount of revenue a government extracts from the economy and the amount actually spent on government programs.

Alberta maintained the lowest debt charges as a share of GDP, on average, over the period from 2001/02 to 2005/06 with 0.5% of GDP allocated to servicing debt. British Columbia ranked second with a debt charge of 1.8% of GDP. Ontario followed in third with a debt charge of 1.9% of GDP. Saskatchewan was the only other province to receive a score of 5.0 or better.

The remaining six provinces all failed to receive scores (representative of performance) in excess of 5.0. New Brunswick received the lowest score (0.0) and ranked last with a cost for servicing the debt of 4.3% of GDP.

## **3. Personal income tax (PIT)**

This component measures the personal income-tax burden based on both tax rates and the level of income at which the rates apply (figure 5, table 10). [22] This component of the Index examines both the top marginal personal income-tax rate and the threshold at which it applies as well as the middle income-tax rate and its threshold.

The three western Canadian provinces, Alberta, British Columbia, and Saskatchewan, dominate the overall scores and rankings for this component of the Index. Alberta ranks first with a perfect score of 10.0 based on its single-rate personal income tax, which is the only single-rate tax in the country. British Columbia ranked second with a score of 7.5 while Saskatchewan followed in third with a score of 5.8. It is important to note once again the rather large gap between

Alberta (first place) and British Columbia (second place). Ontario (5.5) and New Brunswick (5.1) were the only other jurisdictions to receive a score at or above 5.0.

The other five provinces all received scores below 5.0. Quebec received the lowest score (0.7) and ranked last on this component of the Index due to the fact that it has relatively high personal income-tax rates that are effective at relatively low levels of income.

**A. Top marginal personal income-tax rate and threshold**

Western Canadian provinces dominate this measure, which combines the top personal income-tax rate and the level of income at which it applies. Alberta ranks first with its single-rate personal income tax of 10.0%. Saskatchewan ranks second with a score of 7.3 and a top personal income-tax rate of 15.0% that applies to income over \$107,367. British Columbia ranks third with a score of 6.1 with a top personal income-tax rate of 14.7% on income over \$94,121. New Brunswick is the only other Canadian province to receive a score above 5.0: it received a 5.9.

Quebec and Newfoundland tie for last position, both with a score of 0.2. Quebec’s top personal income tax rate is 19.2% and applies to income over \$57,430 while Newfoundland’s top rate is slightly higher at 19.6% but applies to income over \$59,180.

**B. Middle marginal personal income-tax rate and threshold [23]**

Western Canadian provinces again dominate this measure, which combines the middle personal income-tax rate and the level of income at which it applies. Alberta ranks first with its single-rate personal income-tax rate. British Columbia ranks second with a score of 8.9 and a middle average personal income-tax rate of 11.5% that applies to income over \$59,592. Ontario ranks third with a score of 8.4 and a middle average personal income-tax rate of 11.2% that applies to income over \$55,160.

No other Canadian province received a score above 5.0, indicating that middle personal income-tax rates in almost all of the provinces have high rates, are effective at relatively low levels of income, or both. Quebec ranked last with a score of 1.2 out of 10.0 with a middle personal income-tax rate of 15.2% that applied to income over \$28,710.

**Figure 5: Personal income tax (PIT)**

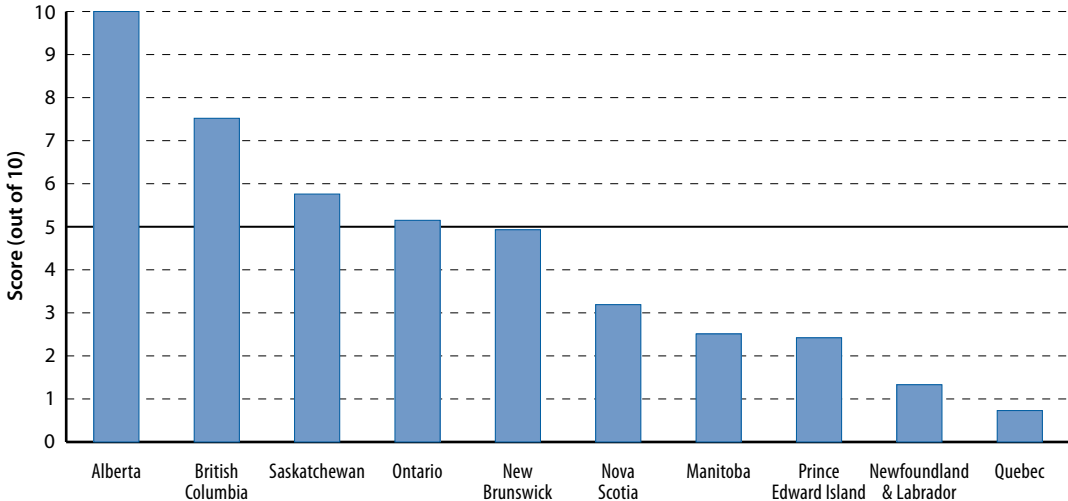


Table 10: Personal income taxes—top and middle provincial tax rates effective 2007,

	Overall		Top provincial tax rate (provincial portion only) and threshold at which rate applies					
	Score	Rank	Rate (%) [1]	Score	Threshold (\$ [2])	Score [3]	Score (rate + threshold)	Rank
Alberta	10.0	1	10.0	10.0	n/a	10.0	10.0	1
British Columbia	7.5	2	14.7	5.1	94,121	7.1	6.1	3
Saskatchewan	5.8	3	15.0	4.8	107,367	9.7	7.3	2
Ontario	5.5	4	17.4	2.3	72,102	2.9	2.6	6
New Brunswick	5.1	5	17.8	1.9	108,768	10.0	5.9	4
Nova Scotia	4.2	6	19.3	0.4	93,000	6.9	3.7	5
Manitoba	2.5	7	17.4	2.3	65,000	1.5	1.9	7
Prince Edward Island	2.4	8	18.4	1.3	61,509	0.8	1.1	8
Newfoundland & Labrador	1.3	9	19.6	0.0	59,180	0.3	0.2	9
Quebec	0.7	10	19.2	0.5	57,430	0.0	0.2	9

Note 1: Reported rates are effective 2007. Personal income tax rates include surtaxes, when applicable.

Note 2: The thresholds presented are effective 2006 and are adjusted for surtaxes when applicable. Some

Note 3: Since Alberta has a single tax rate, the threshold does not apply. The score for this measure was

Note 4: The middle personal income tax rate is defined as the rate between a jurisdiction's minimum and for example, with its five tax brackets, the middle three were averaged to produce a single middle rate.

Sources: Treff and Perry, 2005; calculations by the authors.

#### 4. Transportation infrastructure

This component assesses the transportation infrastructure in each province. Infrastructure facilitates the flow of goods, services, and labour within and between jurisdictions. This component includes measures of provincial road and railroad networks, as well as seaports [24] and airports (figure 6, table 11). [25]

The three most western provinces, Saskatchewan, British Columbia, and Alberta, lead the list of provinces in terms of transportation infrastructure. Saskatchewan ranked first overall although it had a somewhat weak score of 6.8 out of 10. British Columbia and Alberta followed with scores of 6.1 and 6.0, respectively. There were no other provinces that recorded scores in excess of 5.0 and Prince Edward Island ranked last with a score 2.5 out of 10. The overall scores indicate a general weakness in Canada with respect to comprehensive, integrated, transportation infrastructure and all of the provinces need to improve in this area.

There are some geographic biases inherent in the infrastructure analysis. For example, smaller provinces may economize on airport costs by using proximate international and high-volume airports rather than developing their own airport system. Even with these caveats, however, the data included in this component provide a broadly reliable assessment of the transportation infrastructure available in each of the provinces.

thresholds and scores and ranks (out of 10)

Middle provincial tax rate (provincial portion only) and threshold at which rate applies

Rate (%) [1, 4]	Score	Threshold (\$) [2]	Score	Score (rate + threshold)	Rank
10.0	10.0	n/a	10.0	10.0	1
11.5	7.8	59,592	10.0	8.9	2
13.0	5.6	37,579	2.9	4.3	6
11.2	8.3	55,160	8.6	8.4	3
15.7	1.8	50,176	7.0	4.4	5
16.7	0.3	56,537	9.0	4.7	4
13.0	5.6	30,544	0.6	3.1	8
14.5	3.5	41,306	4.1	3.8	7
16.9	0.0	44,094	5.0	2.5	9
15.2	2.4	28,710	0.0	1.2	10

Quebec’s tax rate is adjusted for abatement.

provinces will increase their thresholds by an inflation factor for 2007.

calculated using the other nine jurisdictions; Alberta was assigned a score of 10.

maximum rate. When there are several that fit this description, the rates and thresholds are averaged. In the case of British Columbia,

This same definition applies for the middle provincial threshold.

Figure 6: Transportation infrastructure

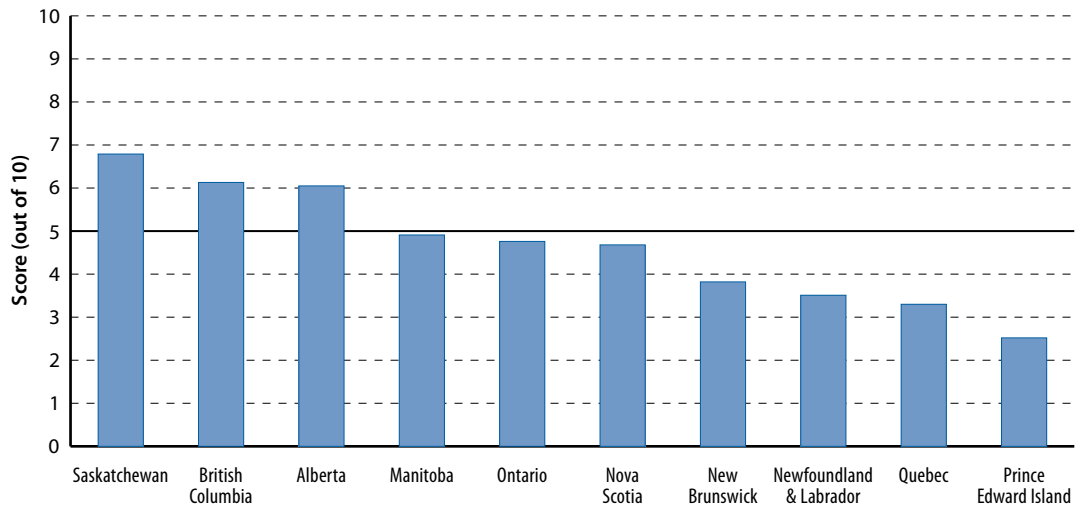


Table 11: Transportation Infrastructure—statistics and scores and ranks (out of 10)

	Transportation infrastructure		Road network		
	Score [1]	Rank	Kilometres of highways per 1000 inhabitants	Score	Rank
Saskatchewan	6.8	1	33.4	10.0	1
British Columbia	6.1	2	3.9	0.0	10
Alberta	6.0	3	10.7	2.3	6
Manitoba	4.9	4	16.4	4.2	3
Ontario	4.8	5	4.0	0.0	9
Nova Scotia	4.7	6	8.2	1.5	7
New Brunswick	3.8	7	12.0	2.7	5
Newfoundland & Labrador	3.5	8	13.5	3.3	4
Quebec	3.3	9	4.1	0.1	8
Prince Edward Island	2.5	10	25.4	7.3	2

[1] Since Alberta and Saskatchewan are land-locked provinces, their scores for this component were calculated considering just three they were not evaluated for seaport capacity due to the low level of activity in their seaports. Including either of these provinces results

[2] Ratio between number of passengers enplaned and deplaned during a year and the total provincial population.

Sources: Transport Canada, 2004; Statistics Canada, 2005a, 2005b, 2006a, 2006c; Statistics Canada, Land and Freshwater Area,

### **A. Road network**

One measure of road capacity was used: highway kilometres per capita. [26] Saskatchewan ranks the highest with 33.4 highway kilometres per 1000 inhabitants. Prince Edward Island ranks second with 25.4 kilometres per 1000 inhabitants and is the only other Canadian province to receive a score in excess of 5.0. British Columbia ranks last with 3.9 kilometres per 1000 inhabitants.

### **B. Railroad capacity**

Railroad capacity was measured by the length (kilometres) of the first main [27] railway track adjusted for the land area of each province. The results for this measure indicate fairly good railway networks across the country with six of the ten provinces receiving scores above 5.0. New Brunswick had the highest score (10.0) for its railway network. Saskatchewan ranked second with a score of 8.9 for its railway network. Of the nine provinces with railway networks, Newfoundland scored the poorest (0.8 out of 10).

### **C. Seaport capacity**

Seaport capacity was measured by the total tonnage of goods shipped by the province each year through its port system. It reflects the ease with which goods can reach domestic and international markets via waterways. [28] British Columbia ranked first in total international and domestic goods shipped through its seaports with 118,377,000 tonnes of goods. Quebec followed closely in second place (107,101,000). Ontario ranked third with 75,546,000 tonnes of goods shipped. Considering only the six provinces that have meaningful seaports (in terms of volume), Nova Scotia and New Brunswick received relatively low scores, ranking them fifth and sixth (table 11).



Railroad capacity			Seaport capacity			Airport capacity		
Kilometres of main track per 1000 km <sup>2</sup>	Score	Rank	International and domestic shipping (000s of tonnes)	Score	Rank (out of 6)	Number of passengers enplaned and deplaned [2]	Score	Rank
14.5	8.9	2	n/a	—	—	1.6	1.4	7
7.3	4.5	7	118,377	10.0	1	4.4	10.0	1
11.2	6.9	5	n/a	—	—	4.1	8.9	2
9.5	5.8	6	n/a	—	—	2.6	4.6	4
13.0	8.0	3	75,546	6.4	3	2.6	4.6	4
11.8	7.3	4	43,021	3.6	5	3.2	6.3	3
16.2	10.0	1	30,768	2.6	6	1.1	0.0	10
1.2	0.8	9	66,589	5.6	4	2.6	4.4	6
4.5	2.8	8	107,101	9.0	2	1.5	1.3	8
0.0	0.0	10	n/a	—	—	1.2	0.3	9

measures: road network, railroad capacity, and airport capacity. Although Manitoba and Prince Edward Island are not land-locked provinces, in misleading final scores and rankings. For the other jurisdictions, the scores were calculated using all four measures.

<<http://www40.statcan.ca/l01/cst01/phys01.htm>>; calculations by the authors.

#### **D. Airport capacity**

Airport capacity was measured by the number of passengers enplaned and deplaned yearly as a percentage of provincial population. [29] British Columbia recorded the highest number of passengers per population (4.4), ranking it first among the provinces with a score of 10. Alberta ranked second with a score of 8.9 (4.1 passengers per population) and Nova Scotia ranked third with a score of 6.3 (3.2 passengers per population). All of the remaining provinces received scores below 5.0, indicating a relatively low level of airport activity as measured by number of passengers adjusted for population.

#### **5. Corporate capital tax [30]**

This component of the Index measures the use of corporate capital taxes in each province. Corporate capital taxes are a profit-insensitive tax that is basically assessed on the value of a firm's debt and equity. [31] There are two different types of capital taxes and both are included in this study: non-financial (general) and financial. Two measures, namely the capital tax rate and threshold at which it applies are used to measure capital-tax policy for both introductory capital taxes (if applicable) and capital taxes designed for established, larger firms (figure 7). [32]

Overall, Alberta ranked first with the lowest use of corporate capital taxes among Canadian provinces (10.0 out of 10) (table 12a). It is the only province to have eliminated all use of such taxes. British Columbia ranks second with a score of 7.8 based on its elimination of the general corporate capital tax; it still retains a financial capital tax. Saskatchewan dramatically reduced

Figure 7: Corporate capital tax (CCT)

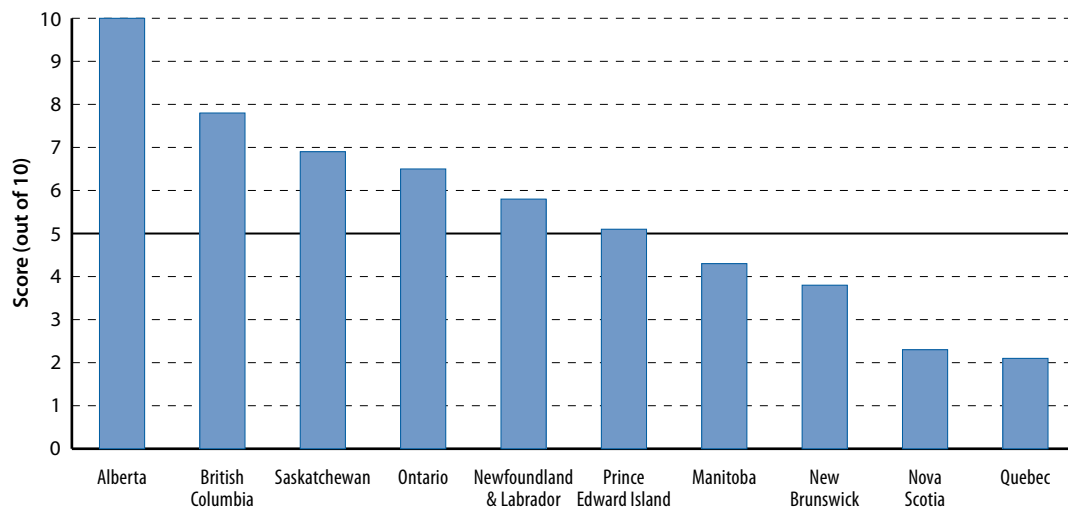


Table 12a: Corporate capital taxes—overall scores and rank (out of 10)

	Overall score: Corporate capital taxes	Rank: Corporate capital taxes	Overall score: non-financial	Overall score: financial
Alberta	10.0	1	10.0	10.0
British Columbia	7.8	2	10.0	5.5
Saskatchewan	6.9	3	5.9	8.0
Ontario	6.5	4	6.1	6.8
Newfoundland & Labrador	5.8	5	10.0	1.6
Prince Edward Island	5.1	6	10.0	0.3
Manitoba	4.3	7	5.4	3.3
New Brunswick	3.8	8	4.4	3.3
Nova Scotia	2.3	9	3.4	1.1
Quebec	2.1	10	0.1	4.1

its use of corporate capital taxes in 2006 and ranks third among the provinces with a score of 6.9. [33] Three other provinces received scores above 5.0: Ontario (6.5), Newfoundland (5.8), and Prince Edward Island (5.1).

The remaining four provinces scored below 5.0: Manitoba, New Brunswick, Nova Scotia, and Quebec. All are relatively heavy users of corporate capital taxes. Quebec received the lowest score (2.1), ranking it last among the provinces. [34]

**A. Non-financial (general) capital taxes**

This measure examines the tax rate and threshold at which the non-financial or general corporate capital tax applies (table 12b). Four Canadian provinces have eliminated the non-financial capital tax: Alberta, British Columbia, Newfoundland, and Prince Edward Island. [35] All the provinces

but Nova Scotia and Manitoba have a single tax rate. Of the provinces that still maintain general or non-financial corporate capital taxes, Ontario (6.1), Saskatchewan (5.9), and Manitoba (5.4) all received scores above 5.0. The remaining provinces all received scores below 5.0. Quebec ranked last with a score of 0.1.

### **B. Financial capital taxes**

This measure examines the tax rate and threshold at which the financial corporate capital tax applies (table 12c). This capital tax is restricted to firms, such as banks, that are deemed to be in the financial services sector. Only Alberta has eliminated the use of financial capital taxes. Only three provinces, Ontario, Saskatchewan and British Columbia, maintain different tax rates depending on the level of paid-up capital of the firm. The remaining six provinces have a single tax rate.

Since Alberta has eliminated the use of financial capital taxes, it is ranked first as ideal policy for capital taxes is their elimination. Of the nine Canadian provinces that maintain a financial capital tax, Saskatchewan (8.0), Ontario (6.8), and British Columbia (5.5) were the only provinces to receive scores above 5.0.

## **6. Labour market regulation [36]**

Labour market regulation is assessed using differences in labour-relations laws in Canada. There are obviously a whole host of labour laws, such as those governing occupational certification and employment standards, that also constitute labour-market regulation. However, empirical research documenting differences between national and sub-national levels of government policy on such laws is scarce. Thus, this study relies on a biennial study that quantifies differences in

**Table 12b: Corporate capital taxes for non-financial businesses—  
rates and thresholds [1] and scores and ranks (out of 10)**

	Introductory rate and threshold at which it applies [2]					Maximum rate and threshold at which it applies[2]					Overall score: non- financial
	Rate (%)	Score	Threshold (\$ millions)	Score	Score (rate + threshold)	Rate (%)	Score	Threshold (\$ millions)	Score	Score (rate + threshold)	
AB	n/a	10.0	n/a	10.0	<b>10.0</b>	n/a	10.0	n/a	10.0	<b>10.0</b>	<b>10.0</b>
BC	n/a	10.0	n/a	10.0	<b>10.0</b>	n/a	10.0	n/a	10.0	<b>10.0</b>	<b>10.0</b>
SK [3]	0.225	5.4	10.0	7.8	6.6	0.225	5.5	10.0	4.7	5.1	<b>5.9</b>
ON [4]	0.285	4.2	12.5	10.0	7.1	0.285	4.3	12.5	6.1	5.2	<b>6.1</b>
NL [5]	n/a	10.0	n/a	10.0	<b>10.0</b>	n/a	10.0	n/a	10.0	<b>10.0</b>	<b>10.0</b>
PE	n/a	10.0	n/a	10.0	<b>10.0</b>	n/a	10.0	n/a	10.0	<b>10.0</b>	<b>10.0</b>
MB [6]	0.30	3.9	10.0	7.8	5.9	0.50	0.0	20.0	10.0	5.0	<b>5.4</b>
NB [7]	0.20	5.9	5.0	3.5	4.7	0.20	6.0	5.0	2.1	4.1	<b>4.4</b>
NS [8]	0.475	0.3	5.0	3.5	1.9	0.24	5.3	10.0	4.7	5.0	<b>3.4</b>
QC	0.49	0.0	1.0	0.0	0.0	0.49	0.2	1.00	0.0	0.1	<b>0.1</b>

**Table 12c: Corporate capital taxes for financial businesses—  
rates and thresholds [1] and scores and ranks (out of 10)**

	Introductory rate and threshold at which it applies [2]					Maximum rate and threshold at which it applies [2]					Overall score: financial
	Rate (%)	Score	Threshold (\$ millions)	Score	Score (rate + threshold)	Rate (%)	Score	Threshold (\$ millions)	Score	Score (rate + threshold)	
AB	n/a	10.0	n/a	10.0	<b>10.0</b>	n/a	10.0	n/a	10.0	<b>10.0</b>	<b>10.0</b>
BC	1.00	8.0	0.0	0.0	<b>4.0</b>	3.00	4.0	1,000.0	10.0	<b>7.0</b>	<b>5.5</b>
SK [3]	0.70	8.6	20.0	10.0	<b>9.3</b>	3.25	3.5	1,000.0	10.0	<b>6.8</b>	<b>8.0</b>
ON [4]	0.57	8.9	12.5	6.3	<b>7.6</b>	0.86	8.3	400.0	4.0	<b>6.1</b>	<b>6.8</b>
NL [5]	4.00	2.0	5.0	2.5	<b>2.3</b>	4.00	2.0	10.0	0.1	<b>1.0</b>	<b>1.6</b>
PE	5.00	0.0	2.0	1.0	<b>0.5</b>	5.00	0.0	2.0	0.0	<b>0.0</b>	<b>0.3</b>
MB [6]	3.00	4.0	10.0	5.0	<b>4.5</b>	3.00	4.0	10.0	0.1	<b>2.0</b>	<b>3.3</b>
NB	3.00	4.0	10.0	5.0	<b>4.5</b>	3.00	4.0	10.0	0.1	<b>2.0</b>	<b>3.3</b>
NS	4.00	2.0	0.5	0.3	<b>1.1</b>	4.00	2.0	0.5	0.0	<b>1.0</b>	<b>1.1</b>
QC	0.98	8.0	1.0	0.5	<b>4.3</b>	0.98	8.0	1.0	0.0	<b>4.0</b>	<b>4.1</b>

Note 1: CCT rates and thresholds are effective for 2007. Scheduled changes for 2007 are included by averaging the rates and thresholds before and after the change and adjusting for the number of months the new rate or threshold was effective.

Note 2: Introductory and maximum CCT rates and thresholds are the equal for provinces with single corporate capital tax rates.

Note 3: For corporations, other than financial institutions, the tax rate will decrease from 0.3% to 0.15% on July 1, 2007. For financial institutions, Saskatchewan applies a rate of 0.7% if taxable paid-up capital is less than a billion; otherwise the rate imputed is 3.25%. In both cases there is an exemption of 20 million.

Note 4: For financial institutions, the tax rate is 0.57% for the first \$400 million of taxable capital and 0.855% for taxable capital above \$400 million, if the institution takes deposits. For non-deposit-taking institutions with taxable capital above \$400 million, the tax rate is 0.684%. In any case, the deduction is 12.5 million.

Note 5: For financial institutions, the tax rate is 4% with a deduction of \$5 million, if paid-up capital is less than \$10 million. Otherwise, there is no deduction.

Note 6: Corporations, other than financial institutions, with paid-up taxable capital of at least \$10 million are subject to the 0.3% tax rate. Manitoba will provide a deduction for the first \$10 million in capital. Corporations with taxable capital of at least \$20 million (less the \$10 million deduction) are subject to a rate of 0.5%.

Note 7: The non-financial general capital tax will be eliminated by 2009.

Note 8: The tax rate for non-financial institutions with paid-up capital less than \$10 million will decrease from 0.50% to 0.45% on July 1, 2007. For those corporations with paid-up capital above \$10 million, the tax rate will decrease from 0.25% to 0.225% effective July 1, 2007. In both cases, the tax rates presented reflects these changes. The deduction of \$5 million is only applicable for those corporations with paid-up capital less than \$10 million.

Sources: Alberta, Ministry of Finance (2006); British Columbia, Department of Finance (2006); Manitoba, Department of Finance (2006a, 2006b); New Brunswick, Department of Finance (2006); Newfoundland and Labrador, Department of Finance (2006); Nova Scotia, Department of Finance (2006); Ontario, Ministry of Finance (2006); Prince Edward Island, Department of Finance (2006); Quebec, Ministry of Finance (2005, 2006); Saskatchewan, Department of Finance (2006a, 2006b); Treff and Perry, 2006; calculations by the authors.

labour-relations laws, which are an important component of labour market regulation. Labour-relation laws regulate the interactions among unions, employees, and employers. Laws surrounding certification and decertification, union security, and the regulation of unionized firms are key elements in labour-relations laws (figure 8, table 13).

The labour market regulation component comprises three subcomponents: (1) Certification and decertification, (2) Union security, and (3) Regulation of unionized firms. [37] The first component, Certification and decertification, covers the process through which a union acquires and loses its power to be the exclusive bargaining agent for a group of employees. The second, Union security, relates to union membership and requirements for paying union dues. The third subcomponent examines regulations that apply to unionized firms.

Alberta was the only province to receive a score above 5.0; it scored 6.0 out of 10.0. The remaining nine provinces all received scores below 5.0, indicating poor performance across the country for the regulation of labour markets. Ontario and Newfoundland ranked second with scores of 3.6 each. Saskatchewan had the lowest score of 1.8 and ranked last.

**A. Certification and decertification**

This subcomponent examines labour-relations laws that relate to how a union gains and loses the right to represent workers. A number of issues are included in this area, such as whether or not secret-ballot votes are required to certify or decertify a union, the difference between certification and decertification application thresholds, and whether remedial certification power exists. Alberta ranks first with a score of 10.0 out of 10. Most provinces fare quite well on this measure of labour relations laws with seven of the ten provinces receiving scores of 5.0 or higher. Manitoba received the lowest score of 2.0 on this measure.

There were three specific aspects of certification and decertification examined in this subcomponent: automatic certification (i.e., whether or not a secret ballot vote is mandatory), differences in certification and decertification thresholds, and remedial certification. The results for each are summarized below. [38] Unions can be certified or decertified by either a secret-ballot vote or automatically, based on a prescribed level of support. [39] Currently, British

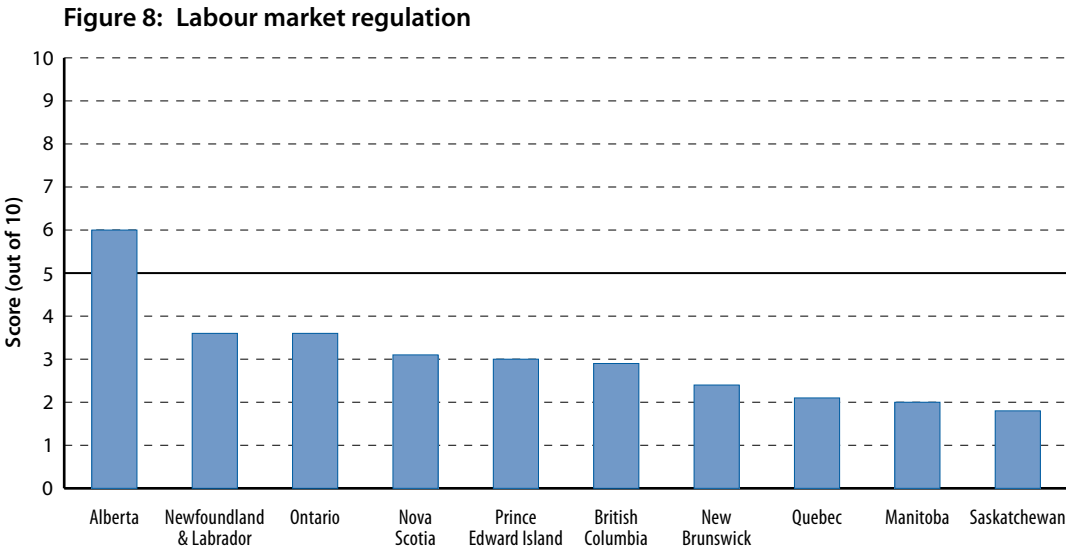


Table 13: Labour market regulation—scores and ranks (out of 10)

	Flexible labour markets		Certification and decertification				
	Overall score	Rank	Mandatory secret-ballot vote cert/decert score	Certification/decertification differential, percentage points score	Remedial certification score	Overall score	Rank
Alberta	6.0	1	10.0	10.0	10.0	10.0	1
Newfoundland & Labrador	3.6	2	10.0	10.0	0.0	6.7	2
Ontario	3.6	2	10.0	10.0	0.0	6.7	2
Nova Scotia	3.1	4	10.0	6.0	0.0	5.3	6
Prince Edward Island	3.0	5	5.0	10.0	0.0	5.0	7
British Columbia	2.9	6	10.0	10.0	0.0	6.7	2
New Brunswick	2.4	7	0.0	10.0	0.0	3.3	8
Quebec	2.1	8	5.0	4.0	10.0	6.3	5
Manitoba	2.0	9	0.0	6.0	0.0	2.0	10
Saskatchewan	1.8	10	0.0	0.0	10.0	3.3	8

Sources: Godin et al., 2006; calculations by the authors.

Columbia, Alberta, Ontario, Nova Scotia, and Newfoundland require a mandatory secret-ballot vote to certify or decertify a union. Three provinces, Saskatchewan, Manitoba, and New Brunswick, require a secret-ballot vote to decertify a union but allow automatic certification if the level of support exceeds a specific threshold. The remaining two provinces, Quebec and Prince Edward Island, do not require a secret-ballot vote either to certify or decertify a union (table 13). [40] The first step in a certification or decertification drive is to establish a given level of support of workers for the change. There are four provinces, Saskatchewan, Manitoba, Quebec, and Nova Scotia, that maintain a lower threshold for certification application than for decertification application. The remaining provinces have the same thresholds and requirements for certification and decertification.

Labour Relations Boards in seven Canadian provinces, British Columbia, Manitoba, Ontario, New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland, have the power to certify a union automatically in the event an employer has been deemed to have committed an unfair labour practice (remedial certification). Alberta, Saskatchewan, and Quebec do not permit such remedial certification (table 13).

### ***B. Union security***

This subcomponent examines whether or not workers are afforded choice with respect to union membership and dues payment. Unfortunately, all Canadian provinces permit both mandatory union membership and full dues payment as a condition of employment and all, therefore, receive a score of zero.

Union Security				Regulation of unionized firms						
Mandatory union membership allowed score	Mandatory union dues allowed score	Overall score	Rank	Successor rights-existing collective agreement is binding score	Technological change score	Arbitration score	Replacement workers score	Second-site picketing	Overall score	Rank
0.0	0.0	0.0	1	0.0	10.0	10.0	10.0	10.0	8.0	1
0.0	0.0	0.0	1	0.0	10.0	10.0	0.0	0.0	4.0	2
0.0	0.0	0.0	1	0.0	10.0	0.0	10.0	0.0	4.0	2
0.0	0.0	0.0	1	0.0	10.0	10.0	0.0	0.0	4.0	2
0.0	0.0	0.0	1	0.0	10.0	0.0	10.0	0.0	4.0	2
0.0	0.0	0.0	1	0.0	0.0	0.0	0.0	10.0	2.0	8
0.0	0.0	0.0	1	0.0	0.0	10.0	10.0	0.0	4.0	2
0.0	0.0	0.0	1	0.0	0.0	0.0	0.0	0.0	0.0	10
0.0	0.0	0.0	1	0.0	0.0	10.0	10.0	0.0	4.0	2
0.0	0.0	0.0	1	0.0	0.0	0.0	10.0	0.0	2.0	8

### ***C. Regulation of unionized firms***

This subcomponent looks at regulations that affect unionized companies. Overall, Alberta received the highest score (8.0) and ranked first. The remaining nine provinces all scored below 5.0. Specifically, six provinces, Ontario, Newfoundland, Prince Edward Island, Nova Scotia, New Brunswick, and Manitoba, received scores of 4.0 while two provinces, British Columbia and Saskatchewan, received scores of 2.0. Quebec ranked last with a score of 0.0.

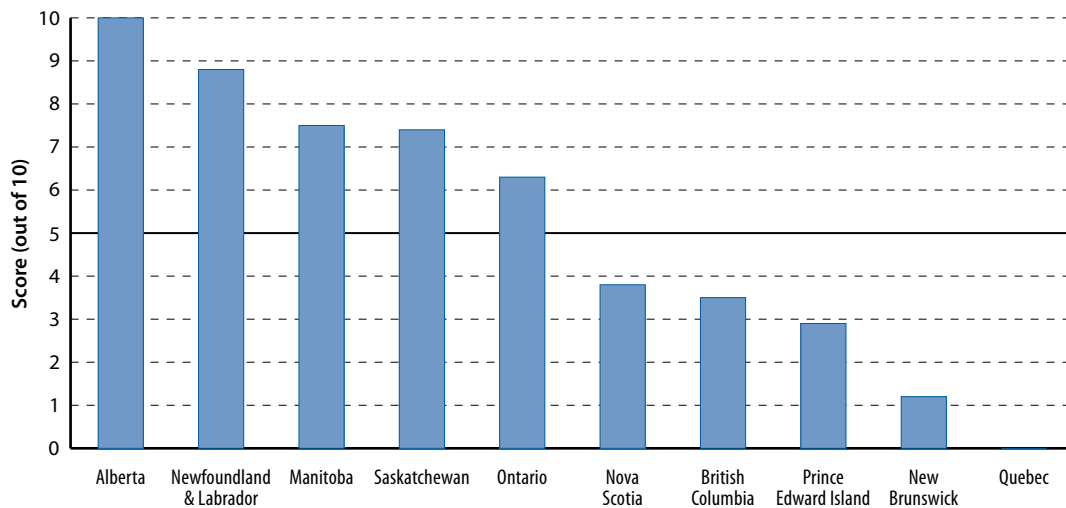
Five areas of regulation were included: successor rights, technological change, arbitration, the use of replacement workers, and third-party (or second-site) picketing. The results for each are summarized below. All ten provinces maintain successor rights laws wherein existing collective agreements are made binding on new owners when a business, in whole or in part, is sold, transferred, leased, merged, or otherwise disposed of. Five provinces, British Columbia, Saskatchewan, Manitoba, Quebec, and New Brunswick, require employers to notify unions in advance when proposed technological change may affect either the collective agreement or employment. Immediate, binding arbitration, pertaining to disputes regarding collective agreement, its meaning, application, and alleged violations, is prescribed in five provinces, British Columbia, Saskatchewan, Ontario, Quebec, and Prince Edward Island. Four provinces, British Columbia, Quebec, Newfoundland, and Nova Scotia, prohibit the use of replacement workers. Finally, only Alberta and British Columbia prohibit second-site picketing; all of the remaining eight provinces allow the picketing and disruption of operations at third parties such as suppliers or customers.

### 7. Burden of regulation [41]

Regulatory burden measures the cost of government regulations, often referred to as “red tape.” The cost of regulation as a percentage of GDP minus government activity is the measure used in this study to assess the regulatory burden (figure 9, table 14). [42] Please note that the regulatory costs were collected, analyzed, and reported by the Canadian Federation of Independent Business (CFIB) in a recent report (Jones et al., 2005). [43]

The overall results are quite striking. Alberta ranked first (score of 10.0) with regulatory costs representing 2.6% of GDP. Newfoundland followed in second position with a score of 8.8 out of 10 while Manitoba ranked third with a score of 7.5. Quebec ranked last with regulatory costs representing an alarming 4.4% of GDP. New Brunswick was slightly less at 4.2% of GDP, although the level is still disconcerting.

**Figure 9: Burden of regulation**



Source: Jones et al., 2005; Statistics Canada, 2006a, 2006b; calculations by the authors.

**Table 14: Burden of regulation—costs and score and ranks (out of 10)**

	Burden of regulation Score	Rank	Total cost of regulation as percentage of GDP minus government activity, 2004
Alberta	10.0	1	2.6
Newfoundland & Labrador	8.8	2	2.8
Manitoba	7.5	3	3.0
Saskatchewan	7.4	4	3.1
Ontario	6.3	5	3.3
Nova Scotia	3.8	6	3.7
British Columbia	3.5	7	3.8
Prince Edward Island	2.9	8	3.9
New Brunswick	1.2	9	4.2
Quebec	0.0	10	4.4

Sources: Jones et al., 2005; Statistics Canada, 2006a, 2006b; calculations by the authors.



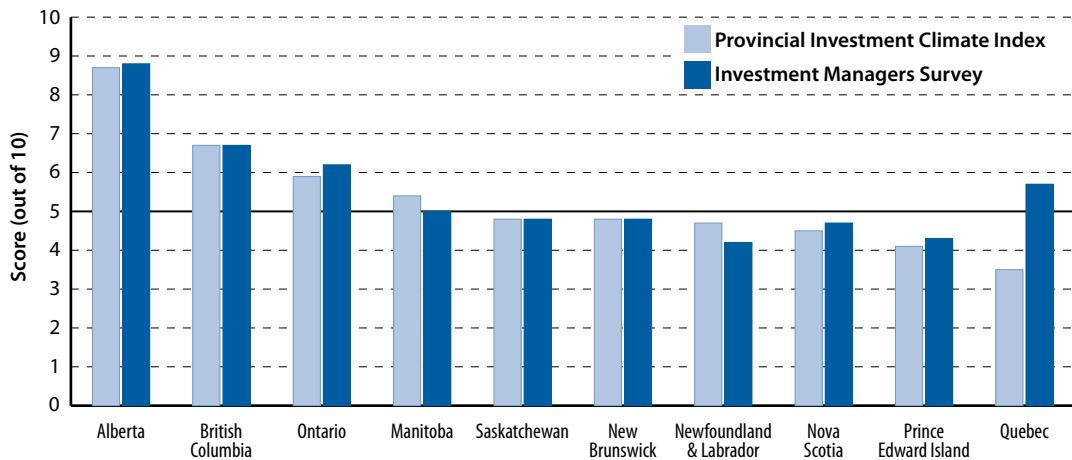
### 3 Comparing the Provincial Investment Climate Index, 2006, and the Investment Managers Survey, 2004

There is an important and interesting correlation between the results of the 2004 Investment Managers Survey (Karabegović, Clemens, and Godin, 2004) and the 2006 Provincial Investment Climate Index (Clemens et al., 2006). The two sets of ratings are quite similar. [44] For instance, the Index reveals that Alberta and British Columbia are the provinces with the most favourable investment climates in Canada. These results parallel those received in the 2004 IMS exactly (figure 10).

The most noticeable difference between the Index (2006) and the Investment Manager Survey (2004) lies in the results for the provinces of Quebec and Newfoundland. According to the Index, which relies on empirical evidence, Quebec has the worst investment climate in Canada. According to the survey respondents, however, Quebec was ranked fourth most attractive in Canada in terms of its investment climate in the most recent survey. Similarly, Newfoundland was considered by survey respondents to have the least favourable investment climate in Canada; however, according to the Index, Newfoundland ranks seventh.

“Home Bias” could explain these noticeable differences. According to this theory, one explanation for bias is the asymmetry of the information domestic and foreign investors have about the economic performance of domestic firms (Coval, 1999). This asymmetry influences investors’ decisions towards geographic areas for which they have more information. For example, investors may have access to information about local companies and thus would prefer to invest in local firms rather than in distant ones for which they have less information. There may also be differences in the awareness of potential investment locations. For instance, it may be that the investment industry has a greater awareness of the opportunities and potential in Quebec than it has of those in Newfoundland.

**Figure 10: Provincial Investment Climate Index, 2006, compared to the results of the 2004 Investment Managers Survey**



Sources: Clemens et al., 2006; Karabegović, Clemens, and Godin, 2004; calculations by the authors.

Finally, risk may be another factor explaining the differences as investors prefer to deal with familiar situations (Huberman, 2001) and the reputation of the location in other markets (provincial and international) plays an important role for investment decisions. For instance, Atlantic Canada has gained a reputation as an unattractive location for business investment and this may have had an impact upon investment managers' perception of Newfoundland.

## Conclusions and recommendations

The Provincial Investment Climate Index is a quantifiable measure that documents public policies that contribute to, and sustain, positive investment climates. These public policies were identified by investment managers in surveys conducted over a seven-year period, from 1998 to 2004, by The Fraser Institute.

Overall, the results indicate that all provinces have, to varying degrees, room to improve their public policies in order to attract investors to their jurisdictions. Public policies that contribute to positive investment climates are those that encourage productive economic activities: competitive tax rates (personal and business), adequate and effective transportation infrastructure, prudent fiscal policies on the part of government, labour laws that promote flexibility and balance, and appropriate, cost-effective regulations.

Canada's western provinces, Alberta, British Columbia, and Saskatchewan, dominated the top of the overall index. Alberta is the highest-ranking province in terms of public policies that create and sustain a positive investment climate. There is a large gap between Alberta (8.9 out of 10) and British Columbia (6.0), which ranked second. Saskatchewan ranked third (5.3). Ontario ranked fourth and was the last province to score at or above 5.0.

Unfortunately, the remaining six provinces all failed to receive scores above 5.0. Prince Edward Island received the lowest score (2.6). Equally worrying is that Quebec, one of Canada's most populous provinces, performed poorly. According to the Index, Quebec had the second least favourable investment climate in all Canada (score of 3.0).

## Appendix A: Methodology

The Provincial Investment Climate Index includes seven components: 1. Corporate income tax (CIT), 2. Fiscal prudence, 3. Personal income tax (PIT), 4. Transportation infrastructure, 5. Corporate capital tax (CCT), 6. Labour market regulation, and 7. Burden of regulation. Investment climates are measured using the most recent data available: 1. Corporate income tax (2007); 2. Fiscal prudence (2001/02–2005/06); 3. Personal income tax (2007); 4. Transportation infrastructure (2003/04); 5. Corporate capital tax (2007), 6. Labour market regulation (2006), and 7. Regulatory burden (2005). Five-year averages have been employed to balance the need for historical and current performance in certain areas. [45]

Five of the seven components contain multiple measures. In total, the seven components include 26 separate measures. [46] Each measure in the Index is scored on a scale from 0 to 10, where the top-performing province is scored at 10 while the lowest-performing province is given a 0 (zero). All measures are equally weighted within each component. To estimate an overall Index, the seven components were weighted according to the final scores the investment managers assigned to each component, as detailed on table 5.

For all the measures, except those in the 6. Labour market regulation, each observation was transformed into a number from zero to 10 using the following formula if a higher number is indicative of a worse performance:  $(V_{\max} - V_i) / (V_{\max} - V_{\min}) \times 10$ , where  $V_{\max}$  is the largest value found within a variable,  $V_{\min}$  is the smallest, and  $V_i$  is the observation to be transformed. The inverse formula is used where a higher number is indicative of better performance. [47]

The measures included under 6. Labour market regulation relied primarily on bi-modal scoring. [48] The following fall in this category.

---

**Remedial certification:** A jurisdiction gets a score of zero if the legislation gives the Labour Relations Board the power to certify a union without a mandatory vote; otherwise, it gets a score of 10.

**Secret ballot:** If the legislation requires a mandatory vote for certification and decertification, a jurisdiction gets a score of 10. If the legislation requires a mandatory vote for neither certification nor decertification, it gets a score of 5. If the legislation requires a mandatory vote for only one of certification or decertification, a jurisdiction gets a score of zero.

**Mandatory union membership allowed:** If the legislation allows a union and employer to include a clause in their collective agreement that requires membership in a union as a condition of employment, a jurisdiction gets a score of zero; otherwise, it gets a score of 10.

**Mandatory union dues allowed:** If the legislation requires or allows mandatory payment of dues by those employees who are not members of a union, a jurisdiction gets a score of zero; otherwise, it gets a score of 10.

**Successor rights:** If, in general, a new employer is bound by the existing collective agreement, a jurisdiction gets a score of zero; otherwise, it gets 10.

**Technological change:** If the legislation requires an employer to inform the union (or the Minister of Labour) in advance about any technological change, a jurisdiction gets a score of zero; otherwise, it gets a score of 10.

**Arbitration:** If the legislation has an intermediate step between procedures in the collective agreement for dealing with disputes (regarding collective agreement, its meaning, application, and alleged violations) and binding arbitration, a jurisdiction gets a score of 10, otherwise, it gets zero.

**Replacement workers:** If the legislation allows an employer to hire replacement workers during a legal strike or lockout, a jurisdiction gets a score of 10; otherwise, it gets zero.

**Third-party picketing:** If the legislation allows striking employees to picket businesses other than their own employer, a jurisdiction gets a score of zero; otherwise, it gets 10.

---

## Appendix B: Review of scholarly research on each component

### ***Taxes (personal income, corporate income, and corporate capital)*** [49]

Most economists agree that people respond to incentives. That is, people make decisions by comparing the costs and benefits of a particular action and when either the costs or benefits change, people's behaviour also changes. A critical question related to incentives is whether or not taxes distort people's incentives. In other words, do taxes change people's behaviour in regards to investment, risk-taking, and innovation?

When deciding whether to work an additional hour or invest an additional dollar, the most important tax rate is the marginal tax rate. [50] It matters most because it directly affects the proportion of increased income that is left after taxes. For an investor, the marginal tax rate indicates the additional taxes to be paid for an additional dollar earned through investment. The economic literature suggests that high marginal tax rates, whether in the form of personal income, corporate income, or corporate capital taxes, have a profound effect on entrepreneurial activity and investment.

Hall and Jorgenson (1967) wrote one of the most influential studies on the relationship between business tax policy and investment. The authors estimate the effects of changes in tax policy on investment behaviour for three major tax revisions in the postwar period in the United States. [51] Their findings suggest that tax policy is highly effective in changing the level and timing of investment expenditures.

Carroll et al. (1998) investigate the effects of entrepreneurs' personal income-tax situations on their capital investment decisions. Using the income-tax returns of a sample of sole proprietors before and after the US Tax Reform Act of 1986, they find that income taxes exert a statistically and quantitatively significant influence on investment decisions. Their results show that "a 5 percentage point rise in marginal tax rates would reduce the proportion of entrepreneurs who make new capital investment by 10.4%. Further, such a tax increase would lower mean capital outlays by 9.9%" (1998: 2).

### ***Fiscal prudence***

Economists are divided on the effects and desirability of fiscal deficits. The classical view holds that deficits may raise interest rates (and thus the cost of capital) by increasing the demand for loanable funds. Higher interest rates lead to a reduction in (or "crowding out" of) investment or net exports (or both), thus lowering national income in the long-run (Ball and Mankiw, 1995). Many studies have found a positive relationship between deficits and long-run interest rates (Feldstein, 1986; Hoelscher, 1986). For example, Feldstein (1986) determined that each percentage point increase in the five-year projected ratio of budget deficits to gross national product (GNP) raises the long-term government bond rate by approximately 1.2 percentage points. Moreover, Eric Engen and Glenn Hubbard (2004) conclude that an increase in government debt equivalent to 1% of gross domestic product (GDP) would increase the long-term real interest rate by about three basis points.

By contrast, other research has found that no significant relationship exists between deficits and interest rates (Hoelscher, 1983; McMillin, 1986; Evans, 1987; Barro, 1989). The empirical findings of Barro, for instance, suggest that households view deficits as an implicit future tax.

---

Accordingly, households will offset a rise in government debt by raising their own level of private savings, thereby mitigating any effect on interest rates.

### ***Transportation infrastructure***

A highly developed transportation network such as highways and airports can bolster a firm's productivity by providing an unpaid direct input (transportation services) and lowering the costs of existing inputs (Jiang, 2001). Many studies have investigated the rate of return of transportation infrastructure on productivity and economic growth.

The seminal work of Aschauer (1989) explores the relationship between public infrastructure capital and total factor productivity. He found that a 1% increase in core infrastructure, which included highways, mass transit, airports, sewers, and water systems, increases output in the private sector by 0.24%. Munnell (1990), using a similar definition of core infrastructure, corroborates this highly positive effect on output.

Harchaoui and Tarkhani (2003), using a panel dataset of 37 Canadian industries over a 40-year period, found that public capital contributed about 18% of overall business-sector multifactor productivity growth over the period from 1961 to 2000. They also estimated that the elasticity of output with respect to public capital at the aggregate level was about 0.066. Their approach also allowed them to estimate the industry-specific benefits to each of the 37 industries from increased public infrastructure. For instance, for the Canadian business sector, the marginal benefit associated with public infrastructure capital is about 0.17. In other words, a \$1.00 increase in the net capital stock generates 17¢ of cost-saving producer benefits per year.

### ***Labour market regulation***

Labour markets are an essential component to a functioning economy because they provide the mechanism through which society allocates one of its most important sources of capital—human capital. In order to achieve an efficient and high-performing labour market, wages and the mix of labour and capital must be allowed to adjust to changes in market conditions. Flexible labour markets facilitate this process, producing high rates of job creation and improved productivity: employees are able to shift their efforts to endeavours that generate the greatest return to them while employers invest and focus on ventures that maximize profits.

There are a great number of studies supporting the argument that labour flexibility leads to stronger economic growth. The main study among these was completed by the Organisation for Economic Co-operation and Development (OECD) in 1994; it is commonly referred to as the *Jobs Study*. It concluded that countries with more flexible labour markets not only enjoyed better records for job creation but also experienced faster economic growth. A number of studies support the OECD's conclusions. For instance, Besley and Burgess (2004), in examining the manufacturing sector in India between 1958 and 1992, determined that labour-relation laws that favoured one group over another led to lower output, employment, investment, and productivity. Botero et al. (2004) concluded that increased regulation of the labour market is related with higher unemployment and lower labour-force participation. Di Tella and MacCulloch (2005), using data for 21 OECD countries for the period from 1984 to 1990, determined that increased flexibility of the labour market had a positive impact on employment and labour-force rates. Moreover, Alonso et al. (2004) found that income and capital (investment) per worker depended positively on the flexibility of the labour market.

Regulations that contribute to inflexible labour laws are often characterized by unionization. These include low union-certification thresholds, strong union influence over the resolution of labour disputes, and reduced work incentives (Conolly et al., 1986). Research has repeatedly demonstrated that unionized firms perform worse on productivity growth, profitability, and investment than non-unionized firms (Becker and Olsen, 1986; Addison and Hirsch, 1989; Kuhn, 1998). [52] Hirsch (1997) noted that unions tend to increase wages, reduce profitability, and reduce investment in physical capital and research and development. Hirsch describes the wage premium as a tax on capital, which effectively lowers the net rate of return on investment. Fallick and Hassett (1999) determined that the unionization of a firm has the same effect, over a one-year period, as raising the corporate tax rate by 33 percentage points. Lastly, Metcalf (2003) compared the productivity of unionized labour in the United States, Canada, United Kingdom, Japan, Germany, and Australia. He found that unionization reduced investment by one fifth compared with the investment rate in a non-union workplace for North America and parts of Europe.

### ***Burden of regulation***

Regulations impose costs on businesses through a variety of channels: restricting a firm's ability to expand operations, limiting allowable rates of return, and imposing barriers to entry and high compliance costs. Consumers are likewise affected, either through higher prices, fewer innovative products, lower wages, lost time, and fewer choices.

In Canada, it is estimated that complying with regulation in 1996 exceeded \$83 billion, or about \$11,000 per family (Mihlar, 1998: 3). South of the border, the total cost of US federal regulation alone is approximately US\$500 billion a year (Niskanen, 2001: 389). Weidenbaum and DeFina (1976) estimated that, for every \$1 that government spends to administer regulation, the private sector spends about \$20 to comply. The works of Moore (1995), Regulatory Affairs Directorate (1996), and Douglass et al. (1997) support this result.

Studies examining OECD data find that strict product-market regulation lowers productivity growth and investment (Nicoletti and Scarpetta, 2003; Alesina et al., 2003). In fact, Alesina et al. found that long-run differences in investment rates between some European countries and the United States can be largely attributable to differences in regulatory burden.

### ***Conclusion***

The economic literature on the significance of these policies is consistent with the views of the investment managers. The components highlighted have a powerful, positive effect on many outcomes favourable to the establishment of a strong investment climate: economic growth, investment, profitability, and employment.



## Notes

- 1 The authors readily acknowledge that there are other factors that influence investment climates, such as local market characteristics and path dependency. This study, however, is limited to the examination of public policies that have an impact in the provincial investment climate.
- 2 There was no survey completed in 2003.
- 3 The IMS was issued quarterly until the end of 2000, when it was done on an annual basis.
- 4 For information on past IMS reports, see Karabegović, Clemens, and Godin (2004); Clemens (2002); The Fraser Institute (2000, 2001); Clemens and Dixon (1999); and, Dixon, Mihlar, and Clemens (1998).
- 5 The exception was 2003, when there was no survey.
- 6 The 2000 survey also received 51 responses from investment managers based in the United States, with a total value of US\$430 billion in assets.
- 7 Data on the nature of firms responding was not available for the 1998 and 1999 surveys.
- 8 The 1998 and 1999 IMS Surveys were not included in this analysis because the policy areas considered in those surveys did not match up with the areas considered in the surveys from 2000 to 2004. The 1998 and 1999 surveys considered only five policy areas that are broader in definition than those of the 2000 to 2004 surveys: deficit reduction, national unity/Quebec referendum, social policy, tax reform/high taxes, and unemployment. The results from the 1998 and 1999 surveys generally support the findings from the 2000 to 2004 surveys.
- 9 It is not clear whether scores are perfectly analogous from one year to the next. That is, there may be a difference between a score of 7 in a survey issued in one year compared to a score of 7 in another. Over the course of the survey period, however, the rankings and values given to each component showed very little variance.
- 10 Data for the fiscal-prudence component was only available in the 2004 survey.
- 11 These policies have high opportunity costs given that they have little or no effect on investment climates. That is, rather than contribute to the formation of a positive investment climate, they impede the pursuit of more effective government policy, such as the lowering of tax rates.
- 12 The influence of Crown Corporations in the provincial investment climate is not included in this analysis. The authors acknowledge, however, that the presence of Crown Corporations could be a discouraging influence on private sector firms. For a thorough discussion of the theoretical and empirical evidence on the relative performance of state-owned versus privately-owned firms, the types of privatization, if and by how much privatization has improved the performance of former state-owned enterprises, how investors in privatizations have fared, and the impact of privatization on the development of capital markets and corporate governance, please see Megginson and Netter, 2001.
- 13 Please see Appendix B for a brief summary of some of the scholarly research on the economic importance of each of the seven components included in the study.
- 14 Every province maintains a preferential corporate income-tax rate for small businesses, which introduces artificial preferences or biases in the marketplace that can pose serious problems. For a thorough discussion of the economics associated with a preferential rate for small business, please see Clemens and Veldhuis, 2005.

- 15 Note that Quebec increased its general corporate income tax rate to 9.9% (effective January 1, 2006) from 8.9%. The general corporate income tax rate is set to increase to 11.9% by 2009.
- 16 The information used is consolidated data, which includes provincial and local government, as well as education, health, and social services institutions. For a complete definition, please see Statistics Canada, 2004b.
- 17 Note that unlike the previous components, these measures cover a five-year period from 2001/02 through to 2005/06 to smooth year-to-year variations.
- 18 Scores are calculated using a min-max formula and thus are relative. To avoid awarding provinces for larger surpluses and penalizing provinces for small surpluses, each province receives a score of 10.0 regardless of the size of its surplus.
- 19 Quebec's spending is adjusted for the federal tax abatement.
- 20 Quebec's spending is adjusted for the federal tax abatement.
- 21 From 2001 to 2005, Newfoundland experienced significant increases in nominal GDP (51.9%). The rest of the provinces also registered increases but they were not as high as that of Newfoundland; they ranged from 14.7% in New Brunswick to 42.7% in Alberta. As a result, Newfoundland registered the lowest 5-year average annual change in spending as a share of GDP. To ensure Newfoundland's score does not distort scores of the other Canadian provinces, it was removed from the score's calculation and received a score of 10. The scores and rankings for the remaining nine provinces were calculated considering just these provinces. This affords a more revealing distribution of scores and rankings. If Newfoundland were considered in the score's calculation, the remaining nine provinces would receive scores below 5.0 despite strong fiscal prudence in some provinces.
- 22 Please note that there was a change in the methodology used for this component of the Index. The 2006 edition of the study used a matrix to simultaneously measure tax rates and the income at which they applied. The 2007 edition uses a more standard approach (min-max formula) to measure tax rates and thresholds independently of one another. The two scores are then averaged to calculate an overall score.
- 23 The middle personal income-tax rate is defined as the rate between a jurisdiction's minimum and maximum rate. The same definition applies for the middle provincial threshold. When there are several that fit this description, the rates and thresholds are averaged. For example, in the case of British Columbia, which has five personal income-tax brackets, the middle three were averaged to produce a single middle rate and threshold.
- 24 Since Alberta and Saskatchewan are land-locked provinces, their scores for this component were calculated considering just three measures: road network, railroad capacity, and airport capacity. Although Manitoba and Prince Edward Island are not land-locked provinces, they were not evaluated for seaport capacity due to the low level of activity in their seaports. Including either of these provinces results in misleading final scores and rankings. For the other jurisdictions, the scores were calculated using all four measures.
- 25 The research team associated with this project is pleased to announce that Professor David T. Hartgen of the University of North Carolina at Charlotte has been contracted to complete a major study on provincial transportation infrastructure. This study will form the basis of this component of the Index beginning in 2008.
- 26 Freeways, primary highways, and secondary highways, as defined by Transportation Canada were included in this measure.

- 27 The first main railway track is defined as the amount of track that a train would have to use in order to get from one destination to another along the system. Excluded from this measure are passing tracks, double track, and yard track.
- 28 Alberta and Saskatchewan were excluded from this measure since they are land-locked provinces. In addition, Prince Edward Island and Manitoba were excluded because the level of activity in their seaports, while positive, does not reach a level of materiality. Including either of these provinces results in misleading rankings and scores. See notes 24 and 25 for further information.
- 29 One may argue that the availability of international airports and the number of international passengers would be an important variable to be included. However, there is concern about the available data mainly because information about deplaned and enplaned passengers in some cities could include transit passengers and these could “inflate” the real number of actual passengers that choose a particular airport as a final destination. These also could lead to double counting of passengers.
- 30 Please note that there was an important change in the methodology for this component of the Index. In the 2006 edition, some provinces with limited capital bases could perform well under based on their limited capital base rather than limited use of capital taxes. The new methodology ranks and scores provincial use of capital taxes based on the rates and the threshold of capital at which the rates become effective. The scores are calculated using a min-max formula and rates and threshold scores are calculated independently of one another. The two scores are then averaged to calculate an overall score.
- 31 For a more thorough discussion of corporate capital taxes in Canada, please see Clemens, Emes, and Scott, 2002.
- 32 For those provinces that have a single corporate capital-tax rate, the introductory rate and the rate applicable to larger firms (maximum CCT rate) and their thresholds are considered the same.
- 33 For further information on important changes in business taxes in Saskatchewan, please see Saskatchewan, Department of Finance, 2006.
- 34 It is important to note that Quebec has committed itself to reducing its use and reliance on capital taxes (Budget 2005). Specifically, the general capital tax rate is scheduled to decrease from 0.525% in 2006 to 0.29% in 2009. Similarly, the capital tax rate applicable to financial institutions will be reduced from 1.05% to 0.58% in 2009 (Quebec, Ministry of Finance, 2005).
- 35 Saskatchewan has dramatically reduced its use of general capital taxes but still applies them to certain firms, largely restricted to Crown Corporations.
- 36 The categorization of components for this portion of the Index has been re-structured to reflect the content of Godin et al., 2006, the study from which the data and results are drawn. Specifically, the two categories of the 2006 edition (pre- and post-union contract) have been replaced by three categories from the underlying study: (1) Certification and decertification, (2) Union security, and (3) Regulation of unionized firms.
- 37 The data used to evaluate this component comes from Godin et al., 2006. Please note that the study evaluates differences in labour-relations laws across Canadian provinces and US states. It is, therefore, a more extended analysis of labour-relations laws than is presented in this study.
- 38 For more detailed information, please see Godin et al., 2006.
- 39 For more information on the importance of mandatory voting, certification and decertification rules, mandatory membership and dues payment in explaining unionization rates, please see Clemens et al., 2005.

- 40 Interestingly, all provinces except Prince Edward Island and Quebec require a mandatory secret-ballot vote to decertify a union.
- 41 There is a major deficiency of regularly collected data on the cost of regulations in Canada. To date, only periodic examinations and estimates of regulatory costs have been collected. A more systematic study must be undertaken in order to understand more clearly the costs imposed on society by regulations.
- 42 Consolidated provincial-local government expenditures are used to measure government activity.
- 43 The cost of regulation was estimated using data compiled through a survey of members of the Canadian Federation of Independent Business (CFIB), mainly small businesses. The results were then extrapolated to account for large businesses. Although the methodology employed to obtain the total cost of regulation by province could be debatable, it is the only updated research available. In the CFIB's survey, both Newfoundland and Prince Edward Island, two provinces with low levels of manufacturing and non-financial activity, have the lowest cost of regulation among Canadian provinces. The lower cost of regulation could be a reflection of the industry structure rather than public policy. The cost of regulation is an area of economics that warrants further investigation.
- 44 There is a correlation of 0.86 between the 2006 Provincial Investment Climate Index and the 2004 Investment Manager Survey.
- 45 This approach was only used for the measures considered in the Fiscal prudence component.
- 46 The categories and specific measures are delineated in table 6.
- 47 For the average deficit as a percentage of GDP subcomponent under the Fiscal prudence component, a province that registers an average surplus for the 2001–2005 period is automatically assigned a score of 10.
- 48 The rationale used to assign the scoring for the subcomponents was taken from Godin et al., 2006.
- 49 Please see Clemens and Veldhuis, 2005 and Veldhuis and Clemens, 2006 for more thorough discussions of the academic research regarding the effects of taxation on firm and individual behaviour.
- 50 For further information, see Chen, 2000.
- 51 The three revisions are as follows: (1) the adoption of accelerated methods for computing depreciation for tax purposes in 1954; (2) the reduction of lifetimes used for calculating depreciation on equipment and machinery in 1962; (3) the investment tax credit for machinery and equipment of 1962.
- 52 For further details of unionization and productivity growth, see Becker and Olsen, 1996; Addison and Hirsch, 1989; and Hirsch and Schumacher, 2001. Fuchs et al. (1998) measured the views of labour economists at top universities. In response to the question: "What is your best estimate of the percentage impact of unions on the productivity of unionized companies" the median response was zero and mean response 3.1% (pp. 1392, 1418).

---

## References

- Addison, John, and Barry Hirsch (1989). Union Effects on Productivity, Profits, and Growth: Has the Long Run Arrived? *Journal of Labor Economics* 7 (January): 72–105.
- Aidt, Toke, and Zafiris Tzannatos (2002). *Unions and Collective Bargaining: Economic Effects in a Global Environment*. The World Bank.
- Alesina, Alberto, Silvia Ardagna, Giuseppe Nicoletti, Fabio Schiantarelli (2003). *Regulation and Investment*. NBER working paper 9560. National Bureau of Economic Research.
- Alonso, Alberto, Christina Exchevarria, and Kien Tran (2004). Long-Run Economic Performance and the Labor Market. *Southern Economic Journal* 70, 4: 905–19.
- Aschauer, D.A. (1989). Is Public Expenditure Productive? *Journal of Monetary Economics* 23: 177–200.
- Ball, Lawrence, and Gregory Mankiw (1995). *What Do Budget Deficits Do?* NBER working paper 5263. National Bureau of Economic Research.
- Barro, Robert J. (1989). The Ricardian Approach to Budget Deficits. *Journal of Political Economy* 3, 2 (Spring): 37–54.
- Becker, Brian, and Craig Olsen (1986). Unionization and Shareholder Interest. *Industrial and Labor Review* 42: 246–61.
- Besley, Timothy, and Robin Burgess (2004). Can Labor Regulation Hinder Economic Performance? Evidence from India. *Quarterly Journal of Economics* 119, 1 (February): 91–134.
- Botero, Juan C., Simeon Djankov, Rafael La Porta, Florencio Lopez-de-Silanes, and Andrei Shleifer (2004). “The Regulation of Labor.” *The Quarterly Journal of Economics* 119, 4 (November): 1339–82.
- Carroll, Robert, Douglas Holtz-Eakin, Mark Rider, and Harvey Rosen (1998). *Entrepreneurs, Income Taxes, and Investment*. NBER working paper 6374. National Bureau of Economic Research.
- Cassou, Stephen, and Kevin Lansing (2004). Growth Effects of Shifting from a Graduated-Rate Tax System to a Flat Tax. *Economic Inquiry* 42, 2 (April): 194–213.
- Cebula, J.R. (1988). Federal Budget Deficit and Interest Rates: An Empirical Analysis for the United States. *Public Finance* 43, 3: 337–47.
- Chen, Duanjie (2000). *The Marginal Effective Tax Rate: The Only Rate That Matters in Capital Allocation*. C.D. Howe Institute.
- Clemens, Jason, Joel Emes, and Rodger Scott (2002). *Corporate Capital Tax: Canada's Most Damaging Tax*. The Fraser Institute.
- Clemens, Jason, and Niels Veldhuis (2005). *Growing Small Businesses in Canada: Removing the Tax Barrier*. Centre for Entrepreneurship and Markets, The Fraser Institute.
- Clemens, Jason, Amela Karabegović, and Niels Veldhuis (2005). *Explaining Canada's High Unionization Rates*. Fraser Alert, Labour Market Series (August). The Fraser Institute.
- Clemens, Jason, Milagros Palacios, Todd Gabel, and Niels Veldhuis (2006). Canadian Provincial Investment Climate Report: 2006 Edition. Studies in Entrepreneurship and Markets 2 (February). The Fraser Institute.
- Connolly, Robert, Barry Hirsch, and Mark Hirschey (1986). Union Rent Seeking, Intangible Capital, and Market Value of the Firm. *Review of Economics and Statistics* 68 (November): 567–77.
- Coval, Joshua, and Tobias Moskowitz (1999). Home Bias at Home: Local Preference in Domestic Portfolios. *Journal of Finance* 54, 6: 2045–73.

- Cummins, Jason, Kevin Hassett, and Glenn Hubbard (1996). Tax Reforms and Investment: A Cross-Country Comparison. *Journal of Public Economics* 62: 237–73.
- De Mooij, Ruud, and Sjef Ederveen (2003). Taxation and Foreign Direct Investment: A Synthesis of Empirical Research. *International Tax and Public Finance* 10: 673–93.
- Di Tella, Rafael, and Robert MacCulloch (2005). The Consequences of Labor Market Flexibility: Panel Evidence Based on Survey Data. *European Economic Review* 49: 1225–59.
- Douglass, Christopher, Michael Orlando, and Melinda Warren (1997). *Regulatory Changes and Trends: An Analysis of the 1998 Budget of the US Government*. Policy brief 182. Center for the Study of American Business.
- Engen, Eric, and Glenn Hubbard (2004). *Federal Government Debts and Interest Rates*. NBER working paper 10681. National Bureau of Economic Research.
- Evans, Paul (1987). Interest Rates and Expected Future Deficits in the United States. *Journal of Political Economy* 95, 1: 34–58.
- Fallick, Bruce, and Kevin Hassett (1999). Investment and Union Certification. *Journal of Labor Economics* 17, 3 (July): 570–82.
- Feldstein, Martin (1986). *Budget Deficits, Tax Rules, and Real Interest Rates*. NBER working paper 1970. National Bureau of Economic Research.
- Fuchs, Victor R., Alan B. Krueger, and James M. Poterba (1998). Economists' Views about Parameters, Values, and Policies: Survey Results in Labor and Public Economics. *Journal of Economic Literature* 36: 1387–425.
- Godin, Keith, Milagros Palacios, Jason Clemens, Niels Veldhuis, and Amela Karabegovic (2006). *An Empirical Comparison of Labour Relations Laws in Canada and the United States*. Studies in Labour Markets 2 (May). The Fraser Institute.
- Gwartney, James D., and Robert A. Lawson (2004). *Economic Freedom of the World: 2004 Annual Report*. The Fraser Institute.
- Hall, Robert, and Dale W. Jorgenson (1967). Tax Policy and Investment Behavior. *American Economic Review* 57, 3: 391–414.
- Harchaoui, Tarek, and Faouzi Tarkhani (2003). *Public Capital and Its Contribution to the Productivity Performance of the Canadian Business Sector*. Economic Analysis Series 17. Statistics Canada.
- Hirsch, Barry T. (1997). *Unionization and Economic Performance: Evidence on Productivity, Profits, Investment, and Growth*. Public Policy Sources 3. The Fraser Institute.
- Hirsch, Barry T., and Edward J. Schumacher (2001). Private Sector Union Density and the Wage Premium: Past, Present, and Future. *Journal of Labor Research* 22, 3: 487–518.
- Hoelscher, Gregory (1983). "Federal Borrowing and Short-term Interest Rates." *Southern Economic Journal* 50, 2: 319–33.
- Hoelscher, Gregory (1986). "New Evidence on Deficits and Interest Rates." *Journal of Money, Credit and Banking* 18, 1: 1–17.
- Huberman, Gur (2001). Familiarity Breeds Investment. *Review of Financial Studies* 14, 3: 659–80.
- Jiang, Bangqiao (2001). *A Review of Studies on the Relationship between Transport Infrastructure Investments and Economic Growth: Research Conducted for the Canada Transportation Act Review*. University of British Columbia.
- Jones, Laura, Tom Charette, Leanne Hachey, Shannon Martin, Pierre Emmanuel Paradis, and Robert Taylor (2005). *Rated "R": Prosperity Restricted by Red Tape*. Canadian Federation of Independent Business.

- Karabegović, Amela, Keith Godin, Jason Clemens, and Niels Veldhuis (2004). *Measuring the Flexibility of Labour Relations Laws in Canada and the United States*. Fraser Institute Digital Publication. <<http://www.fraserinstitute.ca/admin/books/files/MeasuringFlexLabRelLaw.pdf>>.
- Kuhn, Peter (1998). Unions and the Economy: What We Know; What We Should Know. *Canadian Journal of Economics* 31: 1033–56.
- Meggison, William L., and Jeffrey M. Netter (2001). From State to Market: A Survey of Empirical Studies on Privatization. *Journal of Economic Literature* 339: 321–89.
- McMillin, W.D. (1986). Federal Deficits and Short-Term Interest Rates. *Journal of Macroeconomics* 8: 403–22.
- Metcalfe, David (2003). Unions and Productivity, Financial Performance and Investment: International Evidence. In John Addison and Claus Schnabel, eds., *International Handbook of Trade Unions*.
- Mihlar, Fazil (1998). *The Cost of Regulation in Canada*. The Fraser Institute.
- Moore, Stephen (1995). *Government: America's #1 Growth Industry*. Institute for Policy Innovation.
- Munnell, Alicia H. (1990). Why Has Productivity Growth Declined? Productivity and Public Investment. *New England Economic Review* (January/February): 3–22.
- Nadiri, M. Ishaq, and Theofanis Mamuneas (1994). The Effect of Public Infrastructure and R&D Capital on the Cost Structure and Performance of U.S. Manufacturing Industries. *Review of Economics and Statistics* 76 1: 22–37.
- Nicoletti, Giuseppe, and Stefano Scarpetta (2003). Regulation, Productivity, and Growth: OECD Evidence. *Economic Policy* (April): 9–72.
- Niskanen, William (2001). *Cato Handbook for Congress*. Cato Institute.
- Organisation for Economic Co-operation and Development (1994). *OECD Jobs Study: Part 1*. OECD.
- Pricewaterhouse Coopers (2006). *Tax Facts and Figures for Individuals and Corporations: Canada 2006*.
- Treff, Karin, and David B. Perry (2006). *Finances of the Nation 2005*. Canadian Tax Foundation.
- Veldhuis, Niels, and Jason Clemens (2006). *Productivity, Prosperity, and Business Taxes*. Studies in Economic Prosperity 3 (January). The Fraser Institute.
- Weidenbaum, Murray, and Robert DeFina (1976). *The Cost of Federal Regulation of Economic Activity*. Competitive Enterprise Institute.

## Government sources

- Alberta, Ministry of Finance (2006). *Budget 2006*. Government of Alberta.
- British Columbia, Department of Finance (2006). *Budget and Fiscal Plan 2006/07*. Government of British Columbia.
- Manitoba, Department of Finance (2006a). *Budget 2006*. Government of Manitoba.
- Manitoba, Department of Finance (2006b). *Major Taxes in Manitoba*. <<http://www.gov.mb.ca/finance/fedprov/majortaxes.html>> (as of November 22, 2006).
- New Brunswick, Department of Finance (2006). *Budget 2006*. Government of New Brunswick.
- Newfoundland and Labrador, Department of Finance (2006). *Budget 2006*. Government of Newfoundland.
- Nova Scotia, Department of Finance (2006). *Budget 2006*. Government of Nova Scotia.
- Ontario, Ministry of Finance (2006). *Budget 2006*. Government of Ontario.
- Prince Edward Island, Department of Finance (2006). *Budget 2006*. Government of Prince Edward Island.
- Quebec, Ministry of Finance (2005). *2005–2006 Budget Plan*. Government of Quebec.
- Quebec, Ministry of Finance (2006). *2006–2007 Budget Plan*. Government of Quebec.

- Regulatory Affairs Directorate (1996). *Comparison of Federal Regulatory Spending and the Cost of Regulation: The USA Evidence*. Treasury Board Secretariat.
- Saskatchewan, Department of Finance (2006a). *2006–07 Saskatchewan Provincial Budget*. Government of Saskatchewan.
- Saskatchewan, Department of Finance (2006b). *Taxation Information*. <<http://www.gov.sk.ca/finance/taxation/default.htm>> (as of November 22, 2006).
- Statistics Canada (2004a). *Financial Management System (FMS) 2004*. Catalogue No. 68F0023XIB.
- Statistics Canada (2005a). *Air Carrier Traffic at Canadian Airports 2004*. Catalogue No. 51-203-XIB.
- Statistics Canada (2005b). *Shipping in Canada—2003*. Catalogue No. 54-205-XWE.
- Statistics Canada (2006a). *Provincial Economic Accounts*. Statistics Canada.
- Statistics Canada (2006b). *Public Institutions Division, Financial Management System*. Statistics Canada.
- Statistics Canada (2006c). *Rail in Canada—2004*. Catalogue No. 52-216-XWE.
- Transport Canada (2004). *Transportation in Canada 2004, Annual Report*.

## The Fraser Institute's Investment Managers Surveys

- Dixon, Ted, Fazil Mihlar, and Jason Clemens (1998). *Survey of Senior Investment Managers in Canada: Results for Spring 1998*.
- Clemens, Jason, and Ted Dixon (1999). *Survey of Senior Investment Managers in Canada: Results for Summer 1999*.
- The Fraser Institute (2000). *Senior Investment Managers in Canada: Results for Summer 2000*.
- The Fraser Institute (2001). *Senior Investment Managers in Canada: Results for Spring 2001*.
- Clemens, Jason (2002). Investment Managers Survey: Provincial Investment Climates. *Fraser Forum* (May): 29–31.
- Karabegović, Amela, Jason Clemens, and Keith Godin (2004). Investment Managers Survey: Provincial Investment Climates. *Fraser Forum* (November): 16–18.



---

## About the Authors

**Jason Clemens** is the Director of Fiscal Studies and the Dobson Centre for Entrepreneurship and Markets at The Fraser Institute. He has an Honours Bachelors degree of Commerce and a Masters degree in Business Administration from the University of Windsor as well as a Post-baccalaureate degree in Economics from Simon Fraser University. He has published over 30 major studies on a wide range of topics, including taxation, government spending, labour-market regulation, banking, welfare reform, productivity, public-choice economics, and economic prosperity. He has published over 150 shorter articles, which have appeared in such newspapers as the *Wall Street Journal*, *Investors Business Daily*, *National Post*, *Globe & Mail*, *Toronto Star*, *Vancouver Sun*, *Calgary Herald*, *Ottawa Citizen*, *Montreal Gazette*, and *La Presse*. Mr. Clemens has been a guest on numerous radio programs across the country and has appeared on the *CBC National News*, *CTV News*, *CBC Business Newsworld*, *CBC's CounterSpin*, *Global TV*, *BCTV*, and *Report on Business TV* as an economic commentator. He has appeared before committees of both the House of Commons and the Senate as an expert witness. In 2006, he received the prestigious "Canada's Top 40 under 40" award presented by Caldwell Partners as well as the Odyssey Award from his alma mater, the University of Windsor.

**Keith Godin** is a Policy Analyst in the Dobson Centre for Entrepreneurship & Markets at The Fraser Institute. He holds a Bachelor's degree in economics and has recently completed a Masters degree in public policy from Simon Fraser University. His thesis focused on venture capital and entrepreneurship. His recent co-publications include *Measuring Labour Markets in Canada and the United States*, *An Empirical Examination of Labour Relations Laws in Canada and the United States*, and *Union Disclosure in Canada and the United States*. Since joining The Fraser Institute, Mr. Godin has written on a range of policy issues such as taxation, labour regulation, labour market performance, and fiscal policy.

**Martin Massé** was an intern in the Fiscal Studies Department of The Fraser Institute in the summer of 2006. Lawyer by trade, Mr. Massé was called to the Quebec Bar in 2000 after receiving a Bachelor of Civil Law from the University of Ottawa. He also has a Graduate Diploma in Management from HEC-Montreal. He is currently an MBA candidate from the University of British Columbia as well as an MPA candidate (on leave of absence) from the ÉNAP (École nationale d'administration publique). Prior to his internship, Mr. Massé acted as Vice-President, Policy and Partnerships, at the Board of Trade of Montreal where, in collaboration with INRS-Urbanisation et Société and *L'Actualité*, he conducted a comparative study, *The Montreal Health Report (2005)*, about the attraction, education, and retention of talent in Montreal. Previously, he worked as a political advisor to the Mayor of Montreal and at the law firm, Borden, Ladner, Gervais. He has also been a political staffer for many Quebec MLAs and has been one of the Vice-Presidents of the Quebec Liberal Party. He also served as a political analyst for the French radio station CKAC during the US Presidential Election of 2004.

**Milagros Palacios** is a Senior Economist in the Fiscal Studies Department at The Fraser Institute. She holds a Bachelors Degree in Industrial Engineering from the Pontifical Catholic University of Peru and a M.Sc. in Economics from the University of Concepción, Chile. She is co-author of the *An Empirical Comparison of Labour Relations Laws in Canada and the United States* (2006), *Union Disclosure in Canada and the United States* (2006), *Fiscal Performance Index* (2006), *Tax Freedom Day* (2006), *Canadian Provincial Investment Climate Report* (2006), *Transparency of Labour Relations Boards in Canada and the United States* (2005), and *The State of the Urban Air in Canada* (2005). Her recent commentaries have appeared in such newspapers as the *National Post* and *Windsor Star*. During her time at the University of Concepción, she spent several years researching environmental issues, such as the enforcement and compliance of the emissions' trading program in the Santiago de Chile Capital Region, which resulted in articles published in two academic publications, *Estudios Publicos* (2002) and *Environment and Development Economics* (2005). Since joining the Institute, Ms. Palacios has written regularly in *Fraser Forum* on a wide range of topics including labour regulation, fiscal matters, taxation, charitable giving, and a host of environmental issues such as air quality, Kyoto, and water transfers.

**Niels Veldhuis** is Associate Director of Fiscal Studies and Senior Economist at The Fraser Institute. He received a Bachelors degree in Business Administration, with joint majors in business and economics and a Masters Degree in Economics from Simon Fraser University. Since joining the Institute in 2002 he has been the author or co-author of 15 major studies on a wide range of topics including productivity, taxation, entrepreneurship, labour markets, government debt, government failure, and economic prosperity. Mr. Veldhuis is also the primary researcher for Tax Freedom Day. He has written over 80 articles, which have appeared in over 30 newspapers across North America including the *National Post*, *Globe & Mail*, and *Wall Street Journal*. Mr. Veldhuis has also been a guest on numerous radio and television programs and has appeared before committees of both the House of Commons and the Senate as an expert witness.

## Acknowledgments

We would first like to acknowledge and thank the John Dobson Foundation and John Dobson, personally, for their generous support of this project and the Dobson Centre for Entrepreneurship and Markets. In addition, we would like to express our thanks to Todd Gabel for his contributions to the first edition of the study. We also thank Professor Bob Poole of the Reason Foundation for his assistance in working through our measures for infrastructure; Amela Karabegović for her review of the original study; Professor Herb Emery of the University of Calgary and Professor Steve Easton of Simon Fraser University for their formal peer review of the original study; and David T. Hartgen of the University of North Carolina at Charlotte for his formal peer review of the 2007 update. Finally, we would like to acknowledge Ted Dixon and Fazil Mihlar who began the Investment Managers Survey, upon which this study is based. Any errors, omissions, or mistakes remain the sole responsibility of the authors. As the authors have worked independently, the views and analysis expressed in this document remain those of the authors and do not necessarily represent those of the supporters, trustees, or other staff at The Fraser Institute.

