



Construction of the Economic Freedom Ratings of the Provinces and Supporting Data

The following is a technical section that lists the components and data underlying the index of provincial economic freedom. Readers not interested in these more technical details may wish to skip this section. A written analysis of the results of this study on a province-by-province basis begins on page 41. A graphical overview (figures 4, 5, 6) of the economic freedom ratings for the provinces over the measurement period can be found on pages 38 to 40.

I: Government Operations and Regulations

I(a): General Consumption Expenditures by Government as a Percentage of GDP

The rating system for this component was adapted from the system used in the three editions of *Economic Freedom of the World* (Gwartney, Lawson, and Block 1995; Gwartney and Lawson 1997; Gwartney and Lawson 1998). Provinces were given a score determined by the scale shown in table I(a)-2. The highest score was given to provinces with government consumption that did not exceed 15.6 percent of provincial GDP and the lowest score was awarded to provinces with government consumption greater than 31.8 percent of provincial GDP.

Data Source: System of National Accounts, Provincial Economic Accounts, Annual Estimates, disk version (1961-1996), Statistics Canada, Catalogue No. 13-213.

Table I(a)-1. Total Government Consumption as a Percentage of GDP

	BC	AB	SK	MB	ON	QC	NB	NS	PEI	NF
1981	17.3	15.6	18.9	21.5	17.0	24.3	26.9	27.1	32.2	25.3
1985	19.8	17.1	23.4	24.5	17.4	25.2	28.1	24.3	31.8	28.0
1989	18.1	20.7	27.3	25.7	16.3	22.7	25.3	25.3	30.3	27.9
1993	20.6	19.9	26.6	27.0	19.7	24.5	28.0	27.6	30.5	26.9
1994	20.2	17.6	25.2	26.4	19.1	24.2	26.8	25.1	28.9	26.2
1995	20.0	16.7	23.6	24.9	18.8	24.1	26.7	25.0	27.2	25.9
1996	20.6	15.8	20.6	24.2	17.8	23.4	26.2	24.3	24.8	25.9

Table I(a)-2. Rating Criteria

Rating	General Consumption as Percentage of GDP
10	< 15.7%
9	15.7% – 17.4%
8	17.5% – 19.2%
7	19.3% – 21.0%
6	21.1% – 22.8%
5	22.9% – 24.6%
4	24.7% – 26.4%
3	26.5% – 28.2%
2	28.3% – 30.0%
1	30.1% – 31.8%
0	> 31.8%

Table I(a)-3. Index Ratings for Government Consumption as a Percentage of GDP

	1981	1985	1989	1993	1994	1995	1996
Alberta	10	9	7	7	8	9	9
British Columbia	9	7	8	7	7	7	7
Manitoba	6	5	4	3	4	4	5
New Brunswick	3	3	4	3	3	3	4
Newfoundland	4	3	3	3	4	4	4
Nova Scotia	3	5	4	3	4	4	5
Ontario	9	9	9	7	8	8	8
Prince Edward Island	0	1	1	1	2	3	4
Quebec	5	4	6	5	5	5	5
Saskatchewan	8	5	3	3	4	5	7

I(b): Size of Government-Operated Enterprises and Debt Guarantees as a Percentage of GDP

To estimate the importance of decision-making about business by the government within a province we measure the value of total liabilities and the net worth of government-operated business enterprises, and the value of government debt guarantees as a percentage of provincial GDP. This illustrates the relative size of such enterprises within provincial economies and allows for comparisons from province to province.

Data Source: Public Sector Assets and Liabilities, Historical Overview, Financial Management System, Statistics Canada, Catalogue No. 68-508. In the case of Quebec, the dollar value of the Quebec Pension Plan has been deducted because, for the other provinces, this service is provided federally.

Table I(b)-1: Size of Government-Operated Business Enterprises and Debt Guarantees (% of GDP)

	BC	AB	SK	MB	ON	QC	NB	NS	PEI	NF
1981	31	25	36	52	23	62	87	36	5	61
1985	51	28	45	43	25	64	68	32	9	60
1989	34	39	57	41	23	56	47	34	8	50
1993	30	32	42	46	28	52	49	32	7	41
1994	28	29	39	42	29	54	43	30	9	40

Table 1(b)-2: Rating Criteria

Rating	Size of Government-Operated Business Enterprises and Debt Guarantees as a percentage of GDP
10	< 10.1% of GDP
8	10.1% – 25% of GDP
6	25.1% – 40% of GDP
4	40.1% – 55% of GDP
2	55.1% – 70% of GDP
0	> 70% of GDP

Table 1(b)-3: Index Rating for Size of Government Business Enterprises and Debt Guarantees (% of GDP)

	1981	1985	1989	1993	1994
Alberta	8	6	6	6	6
British Columbia	6	4	6	6	6
Manitoba	4	4	4	4	4
New Brunswick	0	2	4	4	4
Newfoundland	2	2	4	4	4
Nova Scotia	6	6	6	6	6
Ontario	8	6	8	6	6
Prince Edward Island	10	10	10	10	10
Quebec	2	2	2	4	4
Saskatchewan	6	4	2	4	6

I(c): Price Controls

The score for each province was based on an overall assessment of the controls that the province had placed on different goods and services. The scale was taken from the system used in *Economic Freedom of the World*.

Data Source: Research by Faisal Arman into provincial government regulations.

Table I(c)-1: Presence of Price Controls

	BC	AB	SK	MB	ON	QC	NB	NS	PEI	NF
Power Generation	√	√	√	√	√	√	√	√	√	√
Marketing Boards	√	√	√	√	√	√	√	√	√	√
Telecommunications	√	√	√	√	√	√	√	√	√	√
Minimum Wages	√	√	√	√	√	√	√	√	√	√
Alcohol Pricing	√	no	√	√	√	√	√	√	√	√
Rent Control	√	√	√	√	√	√	√	√	√	√
Insurance	√	no	√	√	no	no	no	no	no	no

Table I(c)-2: Rating Criteria

Rating	Description of Price Controls
10	No price controls or marketing boards are present
8	Except in industries (e.g. generation of electric power) where economies of scale may reduce the effectiveness of competition, prices are generally determined by market forces
6	Price controls are often applied in energy markets; marketing boards often influence prices of agricultural products; controls are also present in a few other areas, but most prices are determined by market forces
4	Price controls are levied on energy, agricultural, and many staple products (e.g. food, clothing, and housing) that are widely purchased by households; most other prices are set by market forces.
2	Price controls apply to a significant number of products in both agricultural and manufacturing industries.
0	There is widespread use of price controls throughout the economy.

Table I(c)-3: Index Rating for Price Controls

	1981	1985	1989	1993	1994
Alberta	6	6	6	6	8
British Columbia	6	6	6	6	6
Manitoba	6	6	6	6	6
New Brunswick	6	6	6	6	6
Newfoundland	6	6	6	6	6
Nova Scotia	6	6	6	6	6
Ontario	6	6	6	6	6
Prince Edward Island	6	6	6	6	6
Quebec	6	6	6	6	6
Saskatchewan	6	6	6	6	6

I(d): Regulatory Effort

This component measures expenditure by provincial governments in regulating business as a percentage of business revenue. Business revenue has been calculated by subtracting total government consumption from GDP. Technically, this is a measure of private income within the economy.

Data Source: Business revenue data was compiled from the Provincial Economic Accounts, Statistics Canada, Catalogue No. 13-213 (subtracting total government consumption from GDP). Government expenditure on regulation data was prepared on a public accounts basis by Dr. Paul Reed, Senior Social Scientist, Statistics Canada, 1996.

Table I(d)-1: Expenditures on Regulations as a Percentage of Business Revenue

	BC	AB	SK	MB	ON	QC	NB	NS	PEI	NF
1980-1981	0.203	0.179	0.199	0.251	0.203	0.313	0.348	0.303	0.417	0.356
1987-1988	0.184	0.186	0.337	0.243	0.193	0.294	0.366	0.267	0.403	0.279
1993-1994	0.263	0.231	0.419	0.349	0.286	0.358	0.445	0.332	0.421	0.357
1995-1996	0.297	0.200	0.425	0.293	0.245	0.378	0.441	0.359	0.378	0.476

Table I(d)-2: Rating Criteria

Rating	Regulations as Percentage of Business Revenue
10	< 0.180%
9	0.180% - 0.203%
8	0.204% - 0.227%
7	0.228% - 0.250%
6	0.251% - 0.275%
5	0.276% - 0.299%
4	0.300% - 0.323%
3	0.324% - 0.347%
2	0.348% - 0.371%
1	0.372% - 0.395%
0	> .395%

Table I(d)-3: Index Value for Regulatory Effort

	1980-1981	1987-1988	1993-1994	1995-1996
Alberta	10	9	7	9
British Columbia	9	9	6	5
Manitoba	6	7	2	5
New Brunswick	2	2	0	0
Newfoundland	2	5	2	0
Nova Scotia	4	6	3	2
Ontario	9	9	5	7
Prince Edward Island	0	0	0	1
Quebec	4	5	2	1
Saskatchewan	9	3	0	0

II: Takings and Discriminatory Taxation

II(a): Transfers and Subsidies as a Percentage of GDP

The ratio of transfers and subsidies to GDP indicates the degree to which various provinces use their budgets to engage in taking and transfer activities. Low levels of transfers and subsidies as a percentage of GDP generate high scores in this component.

Data Source: System of National Accounts, Provincial Economic Accounts, Annual Estimates, disk version (1961-1996), Statistics Canada, Catalogue No. 13-213.

Table II(a)-1: Transfers and Subsidies as a Percentage of GDP

	BC	AB	SK	MB	ON	QC	NB	NS	PEI	NF
1981	4.9	4.2	5.7	4.2	3.3	7.0	6.1	7.1	6.0	12.3
1985	5.1	7.2	7.5	5.0	3.5	8.0	6.2	5.0	6.9	12.8
1989	4.7	6.6	7.8	5.5	3.9	7.1	5.5	5.1	7.0	12.6
1993	6.2	5.5	7.4	6.3	5.6	8.5	6.5	5.2	6.7	13.3
1994	6.1	4.2	6.3	6.1	5.3	8.4	6.0	4.9	6.8	13.0
1995	6.1	3.7	5.8	5.2	5.0	8.3	5.8	4.9	6.2	12.5

Table II(a)-2: Rating Criteria

Rating	Transfers and Subsidies as Percentage of GDP
10	< 3.4%
9	3.4% – 4.2%
8	4.3% – 5.2%
7	5.3% – 6.2%
6	6.3% – 7.2%
5	7.3% – 8.2%
4	8.3% – 9.2%
3	9.3% – 10.2%
2	10.3% – 11.2%
1	11.3% – 12.2%
0	> 12.2%

Table II(a)-3: Index Ratings for Transfers and Subsidies

	1981	1985	1989	1993	1994	1995
Alberta	9	6	6	7	9	9
British Columbia	8	8	8	7	7	7
Manitoba	9	8	7	6	7	8
New Brunswick	7	7	7	6	7	7
Newfoundland	0	0	0	0	0	0
Nova Scotia	6	8	8	8	8	8
Ontario	10	9	9	7	7	8
Prince Edward Island	7	6	6	6	6	7
Quebec	6	5	6	4	4	4
Saskatchewan	7	5	5	5	6	7

II(b): Top Marginal Tax Rate and the Income Threshold at Which It Applies

This component measures the top marginal tax rate as well as the income threshold at which it applies. This is an attempt to gauge the distortionary nature of each province’s tax system.

Data Source: “Finances of the Nation,” Canadian Tax Foundation 1982, 1985, 1989, 1993, 1994, 1995, 1996, 1997 (entitled “The National Finances” before 1995).

Table II(b)-1: Top Marginal Tax Rate and the Income Threshold at Which It Applies

	BC	AB	SK	MB	ON	QC	NB	NS	PEI	NF
1982 Rate	50.46%	42.09%	53.42%	56.03%	50.32%	60.40%	52.87%	53.21%	51.85%	54.06%
Threshold	\$53,377	\$53,377	\$53,377	\$53,377	\$53,377	\$60,715	\$53,377	\$53,377	\$53,337	\$53,377
1985 Rate	53.47%	50.49%	54.93%	57.73%	52.02%	62.81%	55.42%	54.91%	53.55%	56.10%
Threshold	\$62,161	\$62,161	\$62,161	\$62,161	\$62,161	\$62,161	\$62,161	\$62,161	\$62,161	\$62,161
1989 Rate	45.53%	45.66%	49.08%	49.68%	47.18%	49.81%	48.00%	46.98%	48.78%	48.29%
Threshold	\$70,330	\$70,330	\$70,330	\$70,330	\$84,917	\$70,330	\$70,330	\$70,330	\$94,223	\$70,330
1993 Rate	54.20%	46.10%	51.90%	50.40%	50.70%	50.50%	50.70%	50.30%	50.30%	51.30%
Threshold	\$79,326	\$63,315	\$63,315	\$63,315	\$82,908	\$63,315	\$95,295	\$78,165	\$92,655	\$63,315
1994 Rate	54.20%	46.10%	51.90%	50.40%	53.30%	52.90%	51.40%	53.80%	50.30%	51.30%
Threshold	\$79,406	\$63,396	\$63,396	\$63,396	\$63,396	\$63,396	\$93,034	\$81,137	\$92,734	\$63,396
1995 Rate	54.20%	46.10%	51.90%	50.40%	53.30%	52.90%	51.40%	50.30%	50.30%	51.30%
Threshold	\$79,447	\$63,438	\$63,438	\$63,438	\$63,438	\$63,438	\$93,071	\$78,288	\$92,777	\$63,438
1996 Rate	54.20%	46.10%	51.90%	50.40%	52.90%	52.90%	51.40%	50.30%	50.30%	53.30%
Threshold	\$78,207	\$63,438	\$63,438	\$63,438	\$63,438	\$63,438	\$93,071	\$78,288	\$92,777	\$63,438

Table II(b)-2: Rating Criteria

Top Marginal Tax Rate	Income Threshold		
	\$50,000– \$74,999	\$75,000– \$99,999	\$100,000 and over
< 42.2%	10	10	10
42.2% – 44.3%	9	9	10
44.4% – 46%	8	8	9
46.1% – 47.7%	7	7	8
47.8% – 49.4%	5	6	7
49.5% – 51.1%	4	5	6
51.2% – 52.8%	3	4	5
52.9% – 54.5%	2	3	4
54.6% – 56.2%	1	2	3
56.3% – 57.9%	0	1	2
> 57.9%	0	0	1

Table: Index Ratings for Marginal Tax Rates and Income Threshold

	1982	1985	1989	1993	1994	1995	1996
AB	10	4	8	7	7	7	7
BC	4	2	8	3	3	3	3
MB	1	0	4	4	4	4	4
NB	2	1	5	5	4	4	4
NF	2	1	5	3	3	3	2
NS	2	1	7	5	3	5	5
ON	4	3	7	5	2	2	2
PEI	3	2	6	5	5	5	5
QC	0	0	4	4	2	2	2
SK	2	1	5	3	3	3	3

II(c): Direct Corporate Taxes as a Percentage of Corporate Profits

This component was calculated by looking at direct taxes paid by corporations within each jurisdiction as a percentage of corporate profits. Although a marginal measure would be preferable, due to differences in the tax code there is no accurate marginal measure for cross-provincial comparisons.

Data Source: Provincial Economic Accounts 13–213, Statistics Canada.

Table II(c): Direct Taxes Paid by Corporations as a Percentage of Corporate Profits

	BC	AB	SK	MB	ON	QC	NB	NS	PEI	NF
1981	39.4	41.9	28.3	29.4	29.6	33.3	26.7	36.0	25.3	29.0
1985	31.4	43.6	25.8	24.0	27.5	25.9	26.8	36.8	21.9	24.6
1989	34.5	41.8	26.5	32.7	30.4	27.0	25.7	31.9	28.5	26.6
1993	47.2	33.2	25.9	38.3	31.1	39.0	38.7	34.2	30.0	28.6
1994	43.1	28.3	24.5	37.8	29.1	32.1	26.2	31.9	25.3	27.5
1995	44.1	30.6	22.9	39.7	29.5	33.2	21.7	31.3	25.5	25.4

Table II(c)-2: Rating Criteria

Rating	Direct Corporate Taxes as a Percentage of Corporate Profits
10	< 22%
9	22% – 24%
8	24% – 26%
7	26% – 28%
6	28% – 30%
5	30% – 32%
4	32% – 34%
3	34% – 36%
2	36% – 38%
1	38% – 40%
0	> 40%

Table II(c)-3: Index Rating for Corporate Taxes

	1981	1985	1989	1993	1994	1995
Alberta	0	0	0	4	6	5
British Columbia	1	5	3	0	0	0
Manitoba	6	8	4	1	2	1
New Brunswick	7	7	8	1	7	10
Newfoundland	6	8	7	6	7	8
Nova Scotia	2	2	5	3	5	5
Ontario	6	7	5	5	6	6
Prince Edward Island	8	10	6	6	8	8
Quebec	4	8	7	1	4	4
Saskatchewan	6	8	7	8	8	9

II(d): Provincial Sales Tax

This component of the index looked at the level of sales tax levied in each of the provinces.

Data Source: Finances of the Nation, Canadian Tax Foundation 1982, 1985, 1989, 1991, 1995, 1996, 1997 (entitled The National Finances before 1995).

Table II(d)-1: Provincial Sales Tax

	BC	AB	SK	MB	ON	QC	NB	NS	PEI	NF
1981	6%	nil	5%	5%	7%	8%	8%	8%	10%	11%
1985	6%	nil	5%	5%	7%	9%	11%	10%	10%	12%
1989	6%	nil	7%	7%	8%	9%	11%	10%	10%	12%
1991	6%	nil	7%	7%	8%	8%	11%	10%	10%	12%
1995	7%	nil	9%	7%	8%	6.50%	11%	11%	10%	12%
1996	7%	nil	9%	7%	8%	6.50%	11%	11%	10%	12%

Table II(d)-2: Index Criteria

Rating	Provincial Sales Tax
10	< 2.1%
8	2.1% – 4.0%
6	4.1% – 6.0%
4	6.1% – 8.0%
2	8.1% – 10%
0	> 10%

Table II(d)-3: Index Ratings for Provincial Sales Tax

	1981	1985	1989	1991	1995	1996
Alberta	10	10	10	10	10	10
British Columbia	6	6	6	6	4	4
Manitoba	6	6	4	4	4	4
New Brunswick	4	0	0	0	0	0
Newfoundland	0	0	0	0	0	0
Nova Scotia	4	2	2	2	0	0
Ontario	4	4	4	4	4	4
Prince Edward Island	2	2	2	2	2	2
Quebec	4	2	2	4	4	4
Saskatchewan	6	6	4	4	2	2



III: Interprovincial Trade

III(a): Occupational Licensing

The extent to which labour mobility is hampered in each of the provinces is reflected in the number of occupations each of the provinces regulates. The higher the number of regulated occupations, the more labour mobility is restricted and, therefore, the lower the score obtained by a province.

Data Source: R.G. Evans and W.T. Stanbury, Occupational Regulation in Canada, a background study prepared for the Economic Council of Canada, Regulation Reference, 1980. Updated through to 1995/96 by Faisal Arman using provincial statute records.

Table III(a)-1: Number of Regulated Occupations

	BC	AB	SK	MB	ON	QC	NB	NS	PEI	NF
1980	44	48	44	44	39	52	43	44	34	36
1997	46	41	46	47	45	50	40	27	46	26

Table III(a)-2: Rating Criteria

Rating	Number of regulated occupations
10	1 – 11 (mostly within the medical professions)
8	12 – 23 (medical and other professions—lawyers, engineers, accountants etc.)
6	24 – 35
4	36 – 47
2	48 – 59
0	>59

Table III(a)-3: Index Ratings for Regulation of Occupations

	1980	1997
Alberta	2	4
British Columbia	4	4
Manitoba	4	4
New Brunswick	4	4
Newfoundland	4	6
Nova Scotia	4	6
Ontario	4	4
Prince Edward Island	6	4
Quebec	2	2
Saskatchewan	4	4

III(b): Marketing Boards (Agricultural)

This component of the index measures the share, in each province, of farm receipts under the supply management powers of marketing boards as a percentage of total farm receipts (Canadian Wheat Board payments are excluded from total farm receipts where relevant). The greater the share of farm receipts collected through supply management boards, the lower the score given.

Data Source: Farm Cash Receipts and Payments Summary Report, Agricultural Division, Statistics Canada, 1981, 1985, 1989, 1993, 1994, 1995, 1996, Catalogue No. 21-603 UPE.

Table III(b)-1: Percentage of Farm Receipts under Marketing Boards, by Province 1981-1996

	BC	AB	SK	MB	ON	QC	NB	NS	PEI	NF
1981	37.9	7.4	2.7	10.2	33.4	43.3	34.6	46.4	15.4	59.3
1985	35.9	9.0	2.9	9.7	30.9	42.8	40.6	47.0	18.4	70.3
1989	35.1	8.4	3.3	10.8	33.1	41.9	37.5	45.4	16.5	67.4
1993	35.0	8.1	3.2	9.1	33.4	40.9	36.4	47.4	19.1	70.6
1994	35.3	7.6	2.9	9.5	35.4	39.9	36.9	46.7	15.5	68.9
1995	35.8	7.3	2.8	9.5	33.2	40.2	36.3	47.6	16.3	71.3
1996	37.4	7.3	2.9	9.4	34.5	39.0	38.5	43.3	18.5	71.6

Table III(b)-2: Rating Criteria

Rating	Share of Farm Receipts under Marketing Boards
10	< 2.8%
9	2.8% – 8.4%
8	8.5% – 14.1%
7	14.2% – 19.8%
6	19.9% – 25.5%
5	25.6% – 31.2%
4	31.3% – 36.9%
3	37.0% – 42.6%
2	42.7% – 48.3%
1	48.4% – 54.0%
0	> 54%

Table III(b)-3: Ratings for Marketing Boards

	1981	1985	1989	1993	1994	1995	1996
Alberta	9	8	9	9	9	9	9
British Columbia	3	4	4	4	4	4	3
Manitoba	8	8	8	8	8	8	8
New Brunswick	4	3	3	4	4	4	3
Newfoundland	0	0	0	0	0	0	0
Nova Scotia	2	2	2	2	2	2	2
Ontario	4	5	4	4	4	4	4
Prince Edward Island	7	7	7	7	7	7	7
Quebec	2	2	3	3	3	3	3
Saskatchewan	10	9	9	9	9	9	9

IV: Regulation of the Labour Market

IV(a): Minimum Wage Legislation

This component measures annual minimum wage as a percentage of per-capita GDP. This is a measure of a province's ability to bear a higher wage since per-capita GDP is a proxy for the average productivity of the labour force. As the minimum wage grows to be a higher percentage of per-capita GDP, the resulting inefficiencies would tend to grow as well.

Data Source: Human Resources Development Canada, Statistics Canada and the Provincial Economic Accounts, Statistics Canada, 1961–1996, disk version, Catalogue No. 13–213.

Table IV(a)-1: Minimum Wage as a Percentage of Per-Capita GDP

	BC	AB	SK	MB	ON	QC	NB	NS	PEI	NF
1981	46.2	33.6	52.9	56.9	47.8	65.8	77.3	72.3	81.9	81.1
1985	41.3	28.3	51.9	52.5	40.2	49.9	61.1	57.3	75.2	71.6
1989	40.7	34.2	47.1	46.3	36.7	46.8	51.2	50.8	61.6	57.5
1993	47.0	34.5	49.7	47.3	47.5	52.3	51.6	53.3	54.3	58.3
1994	44.6	32.8	46.7	45.2	48.7	52.2	49.2	52.5	53.8	56.2
1995	51.6	32.4	44.3	45.6	48.4	54.7	46.9	51.4	51.5	54.0
1996	52.0	30.9	43.3	45.1	47.7	56.4	52.1	53.5	53.2	56.7

Table IV(a)-2: Rating Criteria

Rating	Minimum Wage as a Percentage of Per-Capita GDP
10	< 33.7%
9	33.7% – 38.5%
8	38.6% – 43.4%
7	43.5% – 48.3%
6	48.4% – 53.2%
5	53.3% – 58.1%
4	58.2% – 63.0%
3	64.0% – 68.8%
2	68.9% – 73.8%
1	73.8% – 78.6%
0	>78.6%

Table IV(a)-3: Index Rating for Minimum Wages

	1981	1985	1989	1993	1994	1995	1996
Alberta	10	10	9	9	10	10	10
British Columbia	7	8	8	7	7	6	6
Manitoba	5	6	7	7	7	7	7
New Brunswick	1	4	6	6	6	7	6
Newfoundland	0	2	5	4	5	5	5
Nova Scotia	2	5	6	5	6	6	5
Ontario	7	8	9	7	6	6	7
Prince Edward Island	0	1	4	5	5	6	6
Quebec	3	6	7	6	6	5	5
Saskatchewan	6	6	7	6	7	7	8

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Summary Tables, 1981–1998

Component, Area and Summary Index Ratings for 1981 and 1985

Part 1: Component Ratings

Part 2: Area Ratings

Part 3: Provincial Freedom Index

Part 4: Provincial Rankings

	I. Government Operations and Regulations				II. Takings and Discriminatory Taxation				III. Interprovincial Trade		IV. Labour Market Regulation	I. II. III. IV.				Provincial Freedom Index	Provincial Rankings
	(a)	(b)	(c)	(d)	(a)	(b)	(c)	(d)	(a)	(a)							
1981																	
Alberta	10	8	6	10	9	10	0	10	2	9	10	8.6	7.4	5.7	10.0	7.7	1
British Columbia	9	6	6	9	8	4	1	6	4	3	7	7.6	4.8	3.5	7.0	5.6	4
Manitoba	6	4	6	6	9	1	6	6	4	8	5	5.6	5.3	6.1	5.0	5.5	5
New Brunswick	3	0	6	2	7	2	7	4	4	4	1	2.8	4.9	4.0	1.0	3.9	7
Newfoundland	4	2	6	2	0	2	6	0	4	0	0	3.5	2.0	1.9	0.0	2.3	10
Nova Scotia	3	6	6	4	6	2	2	4	4	2	2	4.7	3.5	2.9	2.0	3.7	8
Ontario	9	8	6	9	10	4	6	4	4	4	7	8.1	6.0	4.0	7.0	6.4	2
Prince Edward Island	0	10	6	0	7	3	8	2	6	7	0	3.7	4.9	6.5	0.0	4.5	6
Quebec	5	2	6	4	6	0	4	4	2	2	3	4.3	3.4	2.0	3.0	3.4	9
Saskatchewan	8	6	6	9	7	2	6	6	4	10	6	7.4	5.1	7.2	6.0	6.2	3
1985																	
Alberta	9	6	6	10	6	4	0	10	3	8	10	7.8	4.9	5.4	10.0	6.2	2
British Columbia	7	4	6	9	8	2	5	6	4	4	8	6.7	5.1	4.0	8.0	5.6	3
Manitoba	5	4	6	7	8	0	8	6	4	8	6	5.5	5.2	6.1	6.0	5.5	4
New Brunswick	3	2	6	2	7	1	7	0	4	3	4	3.2	3.7	3.5	4.0	3.5	9
Newfoundland	3	2	6	4	0	1	8	0	5	0	2	3.6	2.2	2.1	2.0	2.6	10
Nova Scotia	5	6	6	5	8	1	2	2	5	2	5	5.5	3.2	3.2	5.0	4.0	7
Ontario	9	6	6	9	9	3	7	4	4	5	8	7.6	5.7	4.5	8.0	6.2	1
Prince Edward Island	1	10	6	0	6	2	10	2	5	7	1	3.9	4.9	6.3	1.0	4.5	6
Quebec	4	2	6	5	5	0	8	2	2	2	6	4.2	3.6	2.0	6.0	3.7	8
Saskatchewan	5	4	6	6	5	1	8	6	4	9	6	5.3	4.8	6.6	6.0	5.3	5

Component, Area and Summary Index Ratings for 1989 and 1993

Part 1: Component Ratings

Part 2: Area Ratings

Part 3: Provincial Freedom Index

Part 4: Provincial Rankings

	I. Government Operations and Regulations				II. Takings and Discriminatory Taxation				III. Interprovincial Trade		IV. Labour Market Regulation	I. II. III. IV.				Provincial Freedom Index	Provincial Rankings
	(a)	(b)	(c)	(d)	(a)	(b)	(c)	(d)	(a)	(a)							
1989																	
Alberta	7	6	6	9	6	8	0	10	3	9	9	7.1	6.1	6.2	9.0	6.6	2
British Columbia	8	6	6	9	8	8	3	6	4	4	8	7.4	6.4	4.0	8.0	6.4	3
Manitoba	4	4	6	7	7	4	4	4	4	8	7	5.3	4.7	6.1	7.0	5.3	5
New Brunswick	4	4	6	2	7	5	8	0	4	3	6	3.9	5.1	3.5	6.0	4.5	9
Newfoundland	3	4	6	5	0	5	7	0	5	0	5	4.5	3.1	2.4	5.0	3.5	10
Nova Scotia	4	6	6	6	8	7	5	2	5	2	6	5.5	5.6	3.5	6.0	5.3	4
Ontario	9	8	6	9	9	7	5	4	4	4	9	8.1	6.3	4.0	9.0	6.7	1
Prince Edward Island	1	10	6	0	6	6	6	2	5	7	4	3.9	5.1	6.0	4.0	4.8	7
Quebec	6	2	6	5	6	4	7	2	2	3	7	4.8	4.7	2.5	7.0	4.6	8
Saskatchewan	3	2	6	3	5	5	7	4	4	9	7	3.5	5.2	6.6	7.0	5.0	6
1993																	
Alberta	7	6	6	7	7	7	4	10	4	9	9	6.5	7.0	6.4	9.0	6.9	1
British Columbia	7	6	6	6	7	3	0	6	4	4	7	6.3	4.0	4.0	7.0	4.9	3
Manitoba	3	4	6	2	6	4	1	4	4	8	7	3.7	3.8	6.1	7.0	4.3	7
New Brunswick	3	4	6	0	6	5	1	0	4	4	6	3.1	3.2	4.0	6.0	3.4	9
Newfoundland	3	4	6	2	0	3	6	0	6	0	4	3.7	2.3	2.7	4.0	2.9	10
Nova Scotia	3	6	6	3	8	5	3	2	6	2	5	4.4	4.6	3.7	5.0	4.4	6
Ontario	7	6	6	5	7	5	5	4	4	4	7	6.0	5.3	4.0	7.0	5.4	2
Prince Edward Island	1	10	6	0	6	5	6	2	4	7	5	3.9	4.8	5.8	5.0	4.7	4
Quebec	5	4	6	2	4	4	1	4	2	3	6	4.2	3.3	2.5	6.0	3.6	8
Saskatchewan	3	4	6	0	5	3	8	4	4	9	6	3.1	4.9	6.6	6.0	4.7	5

Component, Area and Summary Index Ratings for 1994 and 1995

Part 1: Component Ratings

Part 2: Area Ratings

Part 3: Provincial Freedom Index

Part 4: Provincial Rankings

	I. Government Operations and Regulations				II. Takings and Discriminatory Taxation				III. Interprovincial Trade		IV. Labour Market Regulation	I.	II.	III.	IV.	Provincial Freedom Index	Provincial Rankings
	(a)	(b)	(c)	(d)	(a)	(b)	(c)	(d)	(a)	(a)							
1994																	
Alberta	8	6	8	7	9	7	6	10	4	9	10	7.3	8.0	6.5	10.0	7.6	1
British Columbia	7	6	6	6	7	3	0	4	4	4	7	6.3	3.5	4.0	7.0	4.7	5
Manitoba	4	4	6	2	7	4	2	4	4	8	7	3.9	4.3	6.1	7.0	4.6	6
New Brunswick	3	4	6	0	7	4	7	0	4	4	6	3.1	4.5	4.0	6.0	4.1	8
Newfoundland	4	4	6	2	0	3	7	0	6	0	5	3.9	2.5	2.7	5.0	3.1	10
Nova Scotia	4	6	6	3	8	3	5	0	6	2	6	4.6	4.0	3.8	6.0	4.3	7
Ontario	8	6	6	5	7	2	6	4	4	4	6	6.2	4.6	4.0	6.0	5.1	2
Prince Edward Island	2	10	6	0	6	5	8	2	4	7	5	4.2	5.3	5.7	5.0	5.0	3
Quebec	5	4	6	2	4	2	4	4	2	3	6	4.2	3.4	2.5	6.0	3.7	9
Saskatchewan	4	6	6	0	6	3	8	2	4	9	7	3.8	4.7	6.6	7.0	4.8	4
1995																	
Alberta	9	6	8	9	9	7	5	10	4	9	10	8.1	7.7	6.6	10.0	7.8	1
British Columbia	7	6	6	5	7	3	0	4	4	4	6	6.0	3.5	4.0	6.0	4.5	6
Manitoba	4	4	6	5	8	4	1	4	4	8	7	4.8	4.3	6.1	7.0	4.9	5
New Brunswick	3	4	6	0	7	4	10	0	4	4	7	3.1	5.2	4.0	7.0	4.5	8
Newfoundland	4	4	6	0	0	3	8	0	6	0	5	3.3	2.7	2.8	5.0	3.1	10
Nova Scotia	4	6	6	2	8	5	5	0	6	2	6	4.3	4.6	3.8	6.0	4.5	7
Ontario	8	6	6	7	8	2	6	4	4	4	6	6.8	4.9	4.0	6.0	5.4	2
Prince Edward Island	3	10	6	1	7	5	8	2	4	7	6	4.7	5.5	5.6	6.0	5.3	3
Quebec	5	4	6	1	4	2	4	4	2	3	5	3.9	3.4	2.5	5.0	3.5	9
Saskatchewan	5	6	6	0	7	3	9	2	4	9	7	4.0	5.2	6.6	7.0	5.1	4

Component, Area and Summary Index Ratings for 1998

Part 1: Component Ratings

Part 2: Area Ratings

Part 3: Provincial Freedom Index

Part 4: Provincial Rankings

	I. Government Operations and Regulations				II. Takings and Discriminatory Taxation				III. Interprovincial Trade		IV. Labour Market Regulation	I.	II.	III.	IV.	Provincial Freedom Index	Provincial Rankings
	(a)	(b)	(c)	(d)	(a)	(b)	(c)	(d)	(a)	(a)							
1998 Estimate																	
Alberta	9	6	8	9	9	7	5	10	4	9	10	8.1	7.7	6.6	10.0	7.8	1
British Columbia	7	6	6	5	7	3	0	4	4	3	6	6.0	3.5	3.5	6.0	4.4	8
Manitoba	5	4	6	5	8	4	1	4	4	8	7	5.0	4.3	6.1	7.0	5.0	5
New Brunswick	4	4	6	0	7	4	10	0	4	3	7	3.3	5.2	3.5	7.0	4.5	7
Newfoundland	4	4	6	0	0	2	8	0	6	0	5	3.3	2.4	2.8	5.0	2.9	10
Nova Scotia	5	6	6	2	8	5	5	0	6	2	6	4.6	4.6	3.9	6.0	4.6	6
Ontario	8	6	6	7	8	2	6	4	4	4	6	6.8	4.9	4.0	6.0	5.4	2
Prince Edward Island	4	10	6	1	7	5	8	2	4	7	6	4.9	5.5	5.6	6.0	5.4	3
Quebec	5	4	6	1	4	2	4	4	2	3	5	3.9	3.4	2.5	5.0	3.5	9
Saskatchewan	7	6	6	0	7	3	9	2	4	9	7	4.5	5.2	6.6	7.0	5.3	4

The Relationship between Economic Freedom and Provincial Well-Being

A recent article in the *American Economic Review* examines the relationship between economic freedom and economic growth in a cross-section of 59 countries (Easton and Walker 1997). The study found that the level of economic freedom exerted a separate influence on economic growth, even when the level of technology, the level of education of the workforce, and the amount of investment in machinery and equipment and other capital goods were taken into account. The implication is that economic freedom is a separate driver of economic growth and development. The publications in The Fraser Institute’s series, Economic Freedom of the World—a collaboration of institutes in 53 countries—also show a clear relationship between economic freedom and both the level of per-capita GDP and its rate of growth.

The calculation of the Index of Provincial Economic Freedom makes possible for the first time the investigation of the relationship between economic freedom and other economic variables in a Canadian national context. In order to test this relationship, we first of all correlated the per-capita GDP of each province over the period from 1981 to 1996 with the index of economic freedom outcome for that province in each of those years. The result of this correlation is presented in figure 1.

In assessing this scatter, the reader should bear in mind that the components of the index are unrelated statistically to provincial gross domestic product and there is, therefore, no particular statistical reason to expect a corre-

lation between the level of economic freedom and per-capita GDP. To the extent that a relationship exists, therefore, it seems that there is a link between economic freedom and economic welfare. As we report in exhibit 2, 68 percent of the variation in per-capita GDP amongst the provinces over that period is explained by variations in provincial economic freedom. Given all of the influences that are exerted on GDP over this period of time, this is an extraordinarily tight statistical relationship and suggests a strong link between economic freedom and economic welfare.

In order to isolate many of the economic factors that influence all of the provinces over the period since 1981—world wide recessions, global changes in interest rates and that sort of thing—we have calculated the relative rates of economic freedom and the relative standard of living in each of the provinces, as measured by relative per-capita GDP. Figure 2 displays the relationship between relative per-capita GDP and relative provincial economic freedom. As can be seen, there appears to be an even tighter relationship in the relative magnitudes. The second equation in exhibit 2 finds that variations between the provinces in their relative degree of economic freedom explains 65 percent of the variation of the per-capita GDP of the provinces from the average of the other provinces.

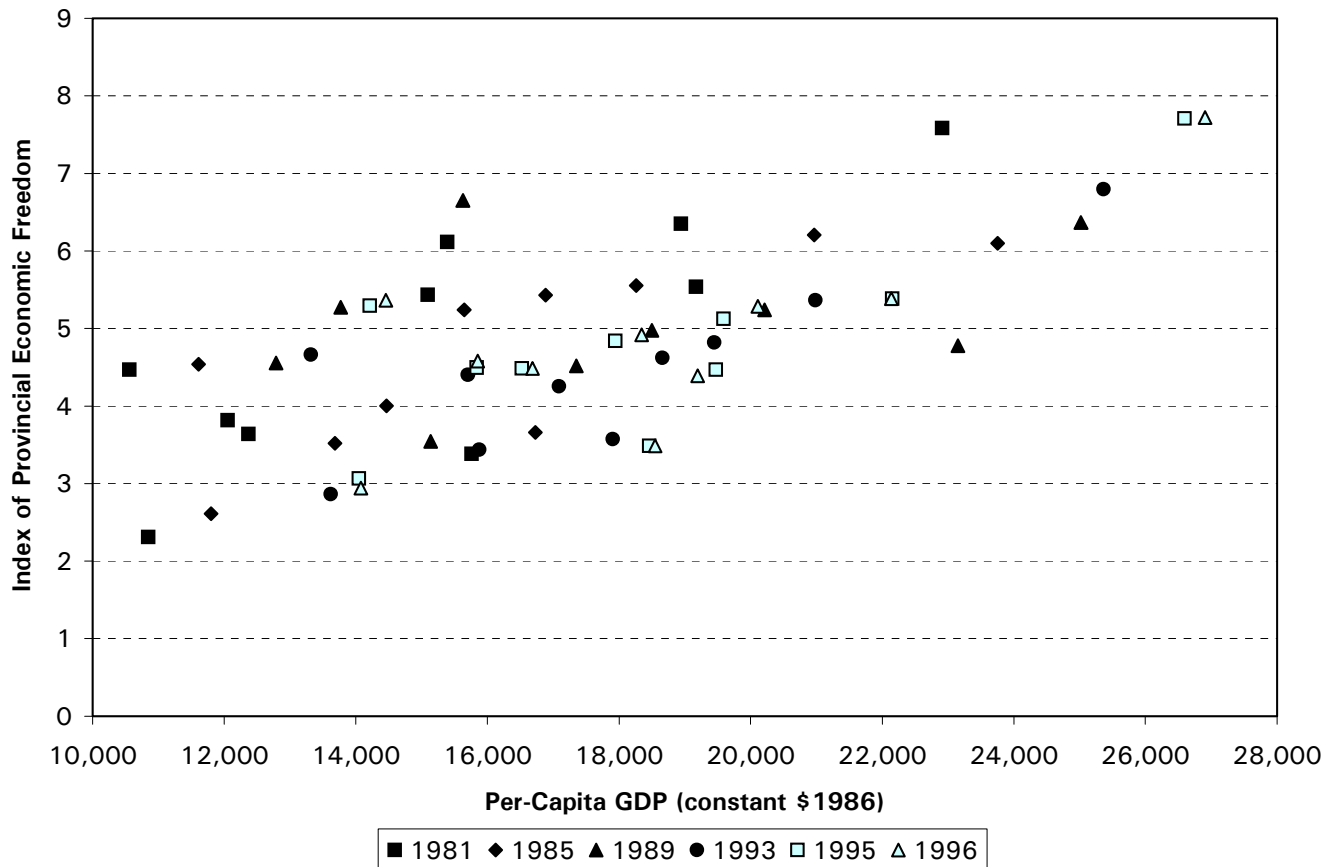
In other words, this relative relationship measures the extent to which differences between the level of economic freedom in a particular province and the level of

Exhibit 2: Regression Analysis^A

Equation	Constant	B ₁	B ₂	R ²
1. ^B Per-Capita GDP = a + B ₁ (provincial economic freedom) + e	3327.7 (4.34)	2432.5 (17.12)		0.68
2 Relative Per-Capita GDP = a + B ₂ (relative provincial economic freedom) + e (T statistics are underneath coefficients in brackets)	0.32 (7.70)		0.75 (17.06)	0.65

^A Heteroscedasticity was not detected. Autocorrelation was detected but corrections do not significantly alter the results.
^B Regression analysis of this equation was performed with a time variable that was also statistically significant.

Figure 1: Relationship between Provincial Per-Capita GDP and the Index of Provincial Economic Freedom



Note: The graph above shows how economic welfare, as measured by per-capita GDP, is related to economic freedom, as measured by the index of provincial economic freedom. Each data-point in a series represents, for the year indicated, the economic freedom rating of a province plotted against its per-capita GDP.

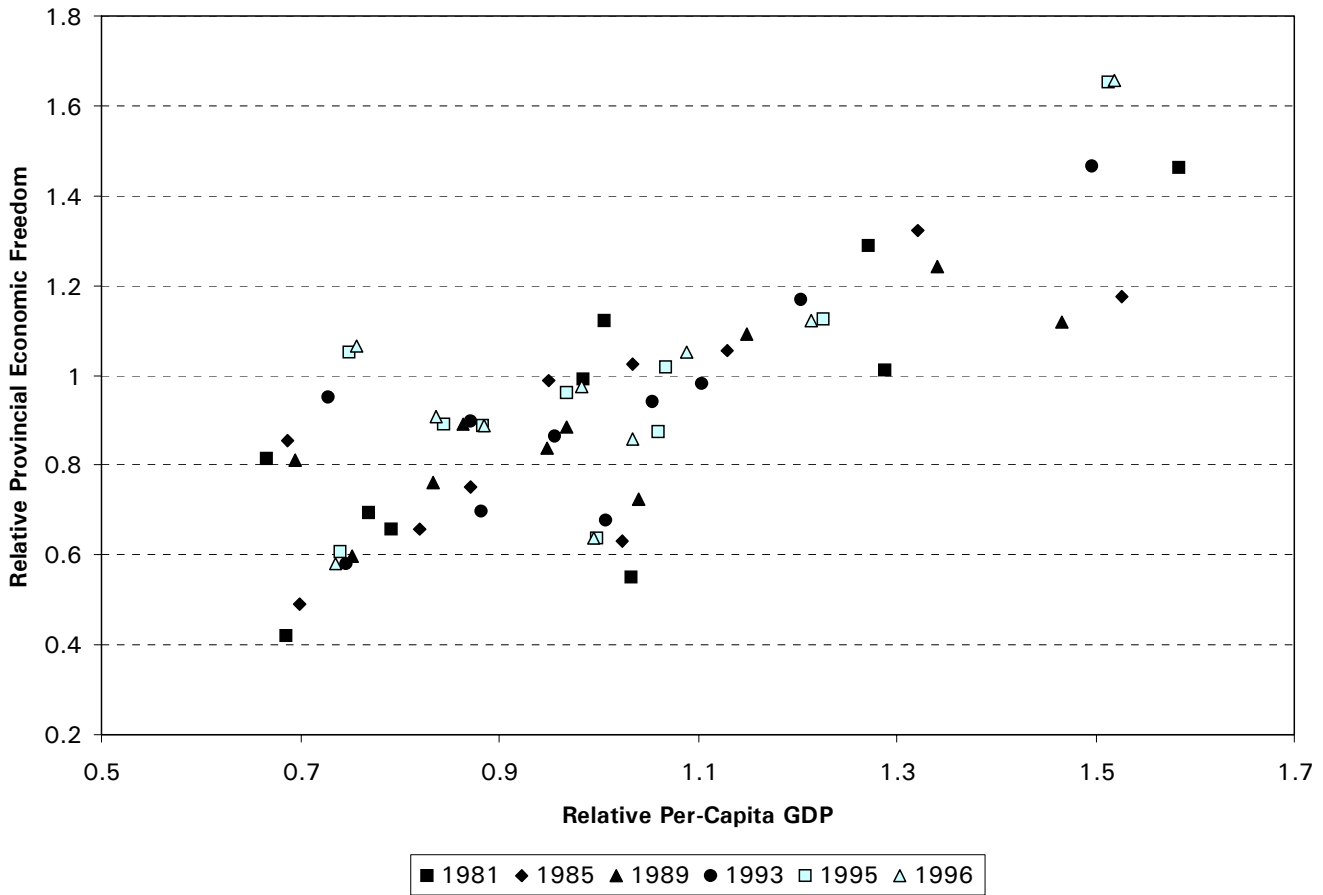
economic freedom in the average of the other nine provinces are reflected in differences between the per-capita GDP in that province and the average per-capita GDP of the other nine provinces. In keeping with the results found in the international studies, the relationship in figures 1 and 2 and in exhibit 2 indicate that those provinces that pursue policies restricting economic freedom bear the consequence of lower levels of per-capita income in absolute terms and lower levels of per-capita income relative to the other provinces. Provinces that have relatively lower levels of economic freedom seem to be relatively more susceptible to disruptions in the level of economic activity than those provinces that have relatively higher levels of economic freedom.

From the equations in exhibit 2, it is possible to calculate more precisely the relationship between the level of economic freedom and the level of per-capita GDP in a

province. Equation 1 relates the level of per-capita GDP to the level of economic freedom. The equation indicates that an increase of one ranking point in the level of economic freedom will produce a \$2433 increase in the level of per-capita income in that province. In the provincial analyses that follow, we have indicated the extent to which per-capita incomes in each of the provinces could have been boosted by moving the level of economic freedom in the province closer to that of the top performing provinces.

We also explicitly examine the relationship between changes in economic freedom and changes in the level of per-capita GDP. The results of a test of this relationship are presented in exhibit 3. Here we find that change in per-capita GDP is significantly related to change in provincial economic freedom and that change in relative per-capita GDP is significantly related to change in relative provincial economic freedom.

Figure 2: Relation between Relative Per-Capita GDP and Relative Provincial Economic Freedom



Note: Relative per-capita GDP is calculated as the ratio of per-capita GDP in a province divided by the average per-capita GDP in the other nine provinces. Relative provincial economic freedom is derived by dividing the freedom rating of a province by the weighted average of the freedom rating in the other nine provinces. The weighted average was constructed by summing the rating of each province multiplied by its provincial GDP, and dividing this sum by the sum of all provincial GDPs. The index of provincial economic freedom was weighted because the size of a jurisdiction is important for the effect it has on the average level of economic freedom in the country.

Exhibit 3: Regression Analysis^A

Equation	Constant	B ₁	B ₂	R ²
1. Changes in per-capita GDP = $a + B_1$ (changes in provincial economic freedom) + e	0.014 (9.06)	0.23 (5.54)		0.39
2. Changes in relative per-capita GDP = $a + B_2$ (changes in relative provincial economic freedom) + e (T statistics are underneath coefficients in brackets.)	-0.0006 (-0.37)		0.18 (3.77)	0.23

^A Tests for heteroscedasticity and autocorrelation found no presence of either problem except in the first equation where evidence of autocorrelation was detected. Correction for autocorrelation did not significantly alter results

Figure 3: Change in Economic Freedom for Each Province Relative to the 1981 Average Provincial Economic Freedom

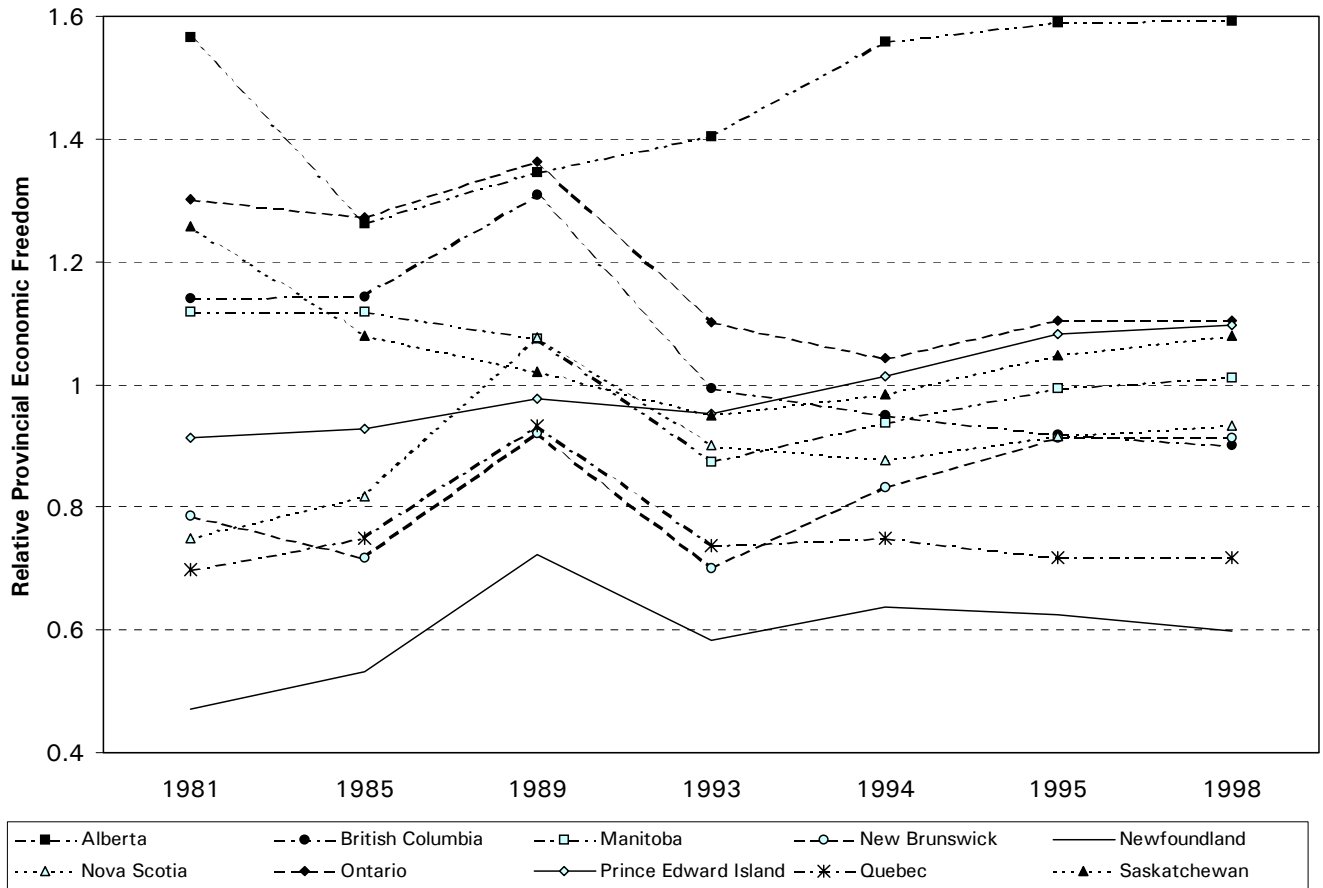


Figure 3 illustrates how economic freedom has changed over time in each of the provinces. It presents an index that measures each of the provincial economic freedom ratings relative to the 1981 average of the economic freedom ratings in all of the provinces. So a level of 1 in the chart would indicate that the province's level of economic freedom was the same as the average level in 1981. A level of 2 would indicate that the level of economic freedom in the province was twice as high as the average level in 1981, whereas a figure of 0.5 would indicate that the level of economic freedom was one-half the level of the average of the provinces in 1981.

As can be readily seen from the chart, the early 1980s were characterized by a generally declining level of economic freedom. This was followed by something of a rebound at the latter part of the 1980s.

- Alberta followed a similar trend even while it had a relatively high level of economic freedom through-

out the measurement period. Alberta's economic freedom was at its lowest level in 1985, growing from there and eventually surpassing its initial value.

- Ontario's decline in the early 1980s was modest and was followed by a rebound in 1989. From 1989 until 1994, the figure shows economic freedom declining in Ontario with a recovery starting after 1994.
- Saskatchewan's economic freedom declined from 1981 to 1993, even dipping below the 1981 average level of economic freedom. Saskatchewan's recovery since 1993 has been more gradual than its decline and thus the province has not equaled its initial 1981 level.
- British Columbia moved contrary to the general trend in the early 1980s and increased its level of economic freedom, peaking in 1989, and declining since then. While British Columbia started the measurement

period with a relatively high level of economic freedom, in 1993 economic freedom in this province fell below the 1981 average level of economic freedom.

- Figure 3 shows that Manitoba's economic freedom gradually declined, reaching its low point in 1993 when it moved below the 1981 average level of economic freedom. Manitoba's economic freedom has increased since 1993 and, in the 1998 estimate, reached the 1981 average level of economic freedom.
- Prince Edward Island began the measurement period below the 1981 average level of economic freedom but its economic freedom has been increasing since then, with a minor setback in 1993. By the 1998 estimate, Prince Edward Island had surpassed a number of other provinces that had started the measurement period with much higher economic freedom.
- New Brunswick's level of economic freedom has been moving erratically. From 1981 to 1985 economic freedom declined, jumped up in 1989, and again declined to its lowest point in 1993. Since 1993, economic freedom has been increasing in New Brunswick.
- Nova Scotia increased its level of economic freedom for most of the measurement period except from 1989 to 1993, when there was a decline in economic freedom. For most of the measurement period, except 1989, Nova Scotia has been below the 1981 average level of economic freedom.
- While Quebec has consistently had a relatively lower level of economic freedom than other provinces, it approached the 1981 average level of economic freedom in 1989. This was followed by a decline in 1993 and then a general stability in its level of economic freedom.
- Newfoundland's level of economic freedom peaked in 1989 before declining in 1993 and from 1994 onwards. Newfoundland's level of economic freedom has been consistently lower than every other province during the measurement period.

Figures 4, 5, and 6 give a graphical overview of the economic freedom ratings for the provinces over the measurement period. In the next chapter we provide a province-by-province account of economic freedom and economic performance.

Figure 4: Index of Provincial Economic Freedom, 1981–1993

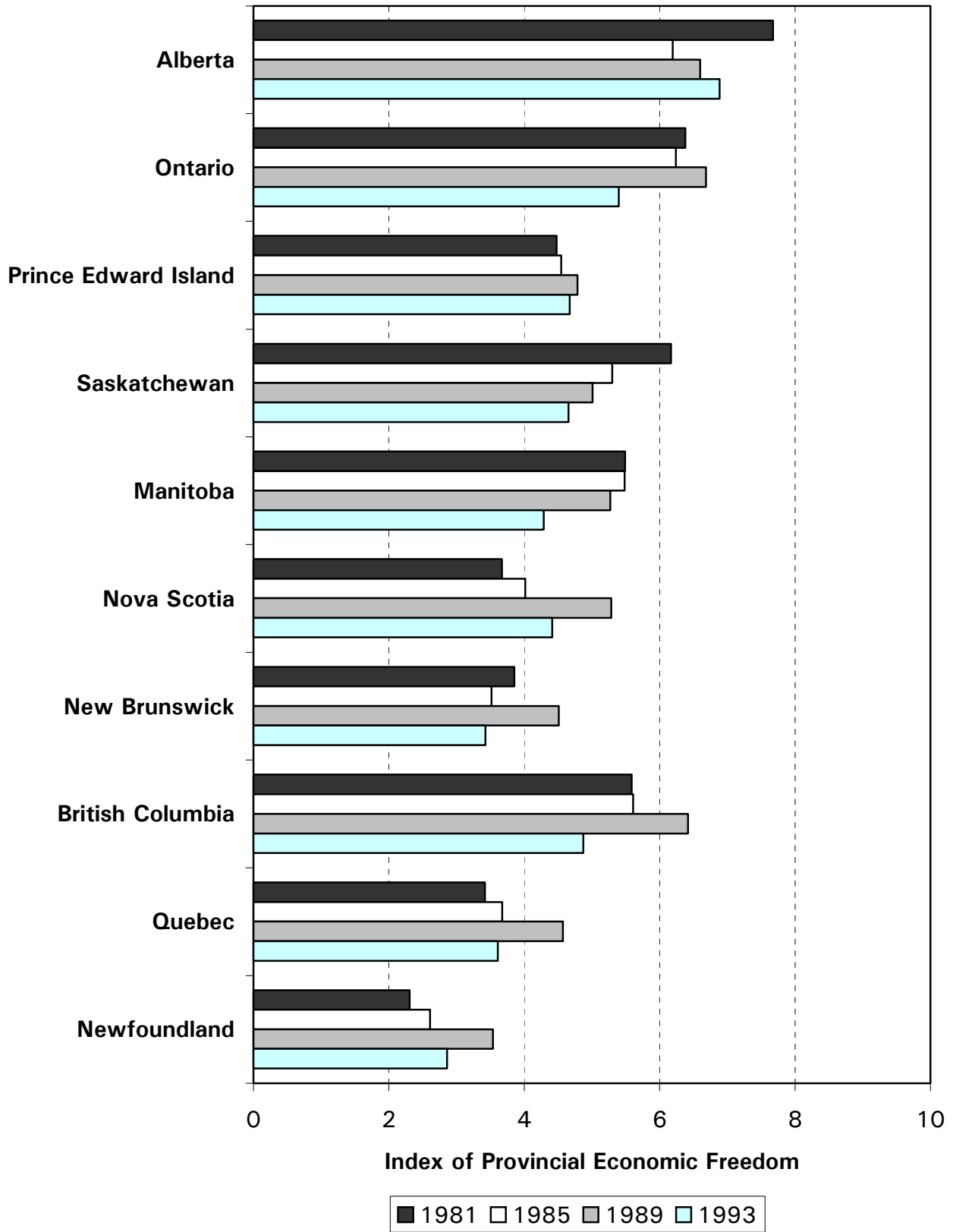


Figure 5: Index of Provincial Economic Freedom, Estimate for 1994-1998

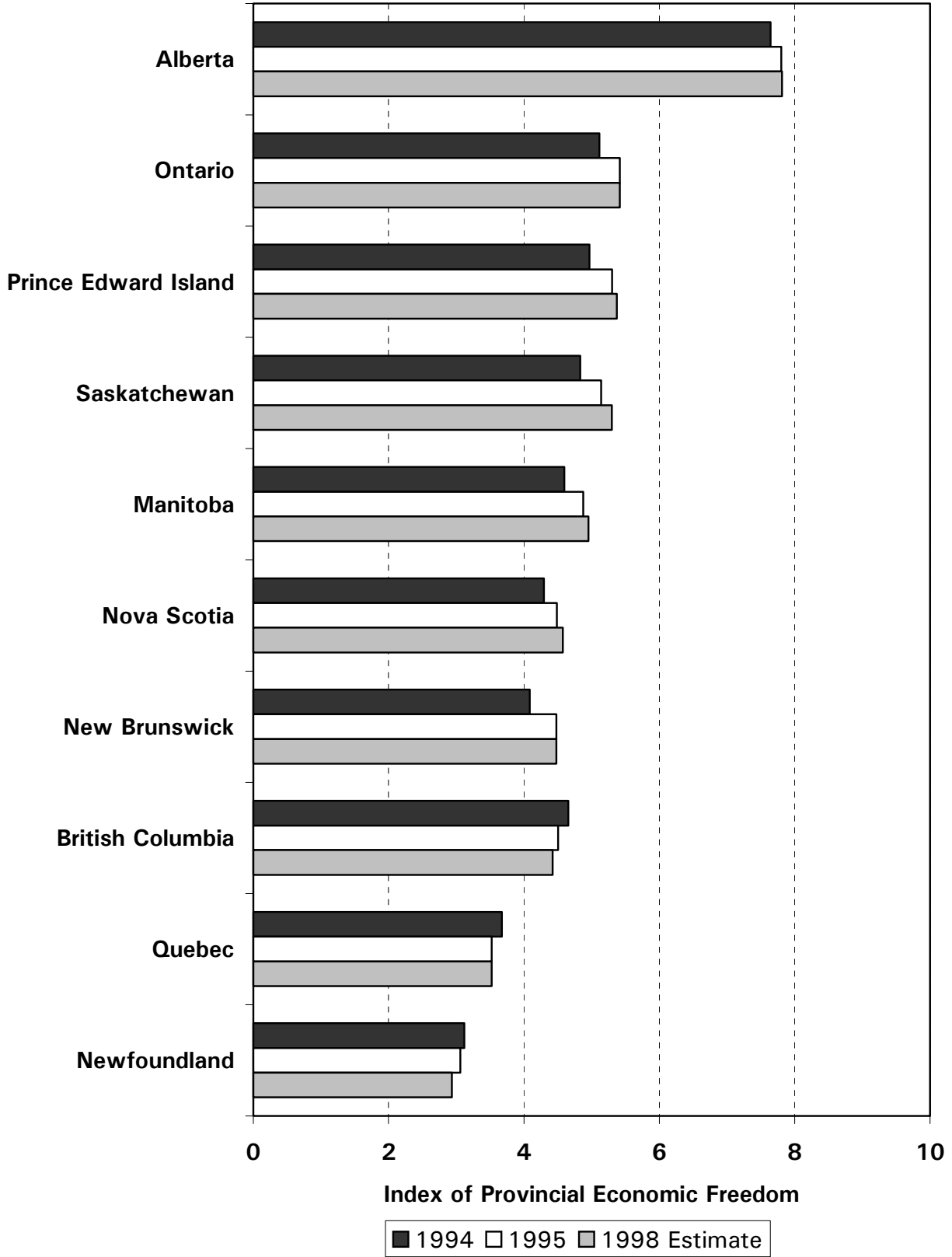


Figure 6: Summary of the Index of Provincial Economic Freedom, 1981–1998

