

## **Fiscal Restraint and Subsidies to Businesses: Regional Dimensions\***

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The 1990s witnessed a dramatic turnaround in the fiscal position of federal and provincial governments in Canada. The federal government built a fiscal structure that eliminated the budget deficit and is capable, in the absence of discretionary policies, of generating large and increasing surpluses over time. Provincial governments also stabilised their fiscal systems and were successful in moving towards balanced budgets. This fiscal re-structuring involved changes to both taxation and government spending. This paper focuses on one special component of government spending, subsidies to businesses.

Government subsidies to businesses have been criticised on various grounds. They are viewed as government interference in the operation of the free markets that leads to distortions of private choices and the mis-allocation of resources. Some authors have argued that the distortions generated by subsidies when used for regional development policy may have been harmful to the economies of the less affluent provinces and have retarded the process of convergence. The issues arising from the efficiency effects of subsidies are not discussed in this paper. The focus of this paper, instead, is an evaluation of the pattern of government subsidies during the period of fiscal restraint from 1992 to 1998. Its main purpose is to answer the following questions:

- To what extent did fiscal restraint by federal and provincial-local governments, separately and in total, affect the level of subsidies to businesses?
- Did fiscal restraint reduce inter-provincial differences in subsidies?
- Did fiscal restraint affect the relative amount of subsidies received by businesses in the three richest ("have") provinces and the equalisation-receiving

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(“have-not”) provinces?

The answers to the above questions will provide some insights into the changes in government policies aimed at regional disparities, and delivered through government subsidies to businesses, brought about by fiscal restraint. The paper is organised as follows. First, the methodology is discussed. Then, some basic information on the level of subsidies provided by federal and provincial-local governments during the 1992-98 period is presented. Following this, the changes in the inter-provincial variation in indicators of subsidies that occurred during the 1992-98 period and the changes in the relationship between “have” and “have-not” provinces are evaluated. The final section contains some concluding remarks.

## **Methodological Issues**

### **Definition**

Business enterprises receive assistance from government through two main channels: (a) direct cash payments, and (b) indirect assistance through vehicles such as forgivable loans, loan guarantees, technical assistance, and preferential tax treatment in the personal and corporate income tax systems (tax expenditures). This paper focuses on the first component only.

Data on government subsidies are found in Statistics Canada’s Provincial Economic Accounts (PEA). A recent study by AIMS (2001) argues that Employment Insurance (EI) benefits to fishermen should be treated as subsidies to business. According to this study, agricultural subsidies end up as transfer payments to farmers and are similar in effect to the EI transfers received by fishermen. Therefore, we should either add those EI payments to the list of subsidies or exclude the subsidies to farmers. This argument is not convincing for a number of reasons.

First, subsidies are paid to the business of farming while EI benefits are paid to individuals who earn a living as fishermen. The two programmes serve different purposes. Individual fishermen must contribute to the EI program in order to be eligible for benefits, but farmers may receive subsidies without making contributions. Farmers receive subsidies to offset the costs of producing food while fishermen receive benefits because they are not employed for part of the year. Combining the two involves a selective mix of transfers to business and transfers to persons. Second, making selective additions to the list of subsidies introduces an element of arbitrariness that taints the results. As pointed out earlier, businesses benefit from a variety of government programs. These benefits are ultimately shared by consumers and factors of production, but in different proportions for each subsidy depending on market structures. Let us consider the special tax preferences for the oil and gas industry delivered by the corporate income tax (the regional distribution of tax preferences contained in the corporate income tax system is analysed by Leblanc and Vaillancourt (1995)). Since oil prices are set in the world market, the benefits of these indirect subsidies are not passed on to

consumers, but are shared by the governments of producing provinces, owners of capital and workers. With respect to the provincial distribution of federal benefits to businesses, the effects of this tax preference are not different from the direct subsidies to farming businesses or the indirect subsidies to fishermen. The tax preference benefits mostly Alberta residents, farm subsidies are largely received by western farmers and special EI benefits are largely a benefit to eastern fishermen. How can one justify adding the EI benefits to fishermen and not the tax preferences to oil and gas producers? Both items are not direct subsidies; they are delivered through special programs and yield the equivalent distributional results. Third, the distribution of subsidies to business can be evaluated in two ways. One may confine the analysis to the official classification used in Statistics Canada's publications, which is based on the businesses that receive these direct payments. Alternatively, one may look at the incidence of these subsidies by allocating them to the ultimate beneficiaries. Combining the two approaches selectively may result in misleading conclusions. Given the complexity of including all government programs aimed at businesses, the analysis in this paper is limited to the list of subsidies contained in the PEA.

#### **Time-frame**

The provincial distribution of subsidies is likely to change over time; therefore, the conclusions reached depend on the period under consideration. Some items, such as agricultural subsidies, fluctuate widely from year to year. Other programs are temporary. For example, federal subsidies under the Petroleum Compensation Fund reached a peak of \$2.4 billion in 1984 and now no longer exist. Because of the above factors, the choice of any period involves an arbitrary decision that depends on the questions being addressed. In this paper, the analysis covers the period from 1992 to 1998 inclusive because this period is associated with fiscal restraint by all levels of government and, therefore, represents a suitable base for determining the effects of fiscal retrenchment on business subsidies.

#### **Dis-aggregation by Order of Government**

Subsidies to business are provided by federal, provincial and local governments and are recorded separately by Statistics Canada. Whether one performs the analysis on aggregate data for all three levels of government or for each government separately depends on the question being asked. In this paper, total subsidies are dis-aggregated into a federal component and a provincial-local component because each component addresses different questions. The analysis of the federal component sheds some light on the changes in the regional orientation of federal spending policy carried out through subsidies to businesses. The analysis of the provincial-local component provides information on changes in the approach by different provincial governments towards the instruments of economic develop-

ment within a province.

### **Choice of Indicators**

The conclusions that one may reach with respect to the inter-provincial distribution of government subsidies depends on the choice of indicators. This choice depends on the question being asked.

One of the indicators used in the analysis of subsidies is the per capita value. This indicator addresses the following question: if the amount of all these subsidies were given directly to individuals, how much would each one of them receive? In the case of provincial-local subsidies, since these subsidies are fully paid by the residents of a province, per capita values can also address a different question: if the costs to taxpayers were allocated on an equal per capita basis, how much would each individual contribute?

Relating subsidies to economic activity is a more complex exercise. If these subsidies were offered to all businesses, a suitable indicator would be a measure of private output such as Gross Domestic Product (GDP) produced in the private sector. This measure is consistent with the PEA which defines subsidies as

“transfers from government to business, whether incorporated or unincorporated, towards current costs of production. These transfers, because they are related to the quantity or value of output produced, exported or consumed, represent additions to the income of producers from current production”.

Because subsidies to businesses are highly selective, measuring them in relation to a broad measure of economic activity does not allow general conclusions about their effects on economic efficiency. To make those kinds of judgments would require a detailed analysis of each subsidy within the context of the industry that receives it. This broad indicator is useful in answering questions such as: how much does the private sector receive in subsidies for each dollar of output produced?

Within the framework of regional analysis, the above two indicators represent polar cases. If subsidies are provided exclusively to private producers of selected goods and services, using per capita values to make inter-provincial comparisons will tend to underestimate the relative level of subsidies received by businesses in the less affluent regions for two reasons: (a) these regions have below-average levels of output per capita and (b) they have above-average government sectors which create larger differences in per capita output in the private sector relative to the national average. On the other hand, using the ratio of subsidies to private sector output may overestimate the relative amount of subsidies received in the less affluent provinces because not all subsidies have a strictly economic objective which can be captured by this ratio. For example, subsidies to Canada Post are aimed to benefit all Canadians and subsidies to

housing serve largely a social objective. This ratio, therefore, is likely to generate a biased indicator with the bias in the opposite direction of that associated with the per capita indicator. The potential biases associated with the exclusive use of either of the above two indicators may be minimised by using some kind of average. This paper uses the simple average of subsidies per capita and as percent of private sector GDP. Since one indicator is expressed in dollars and the other in percentages, a direct average of the two is not meaningful. The average, however, is meaningful when it is used in comparisons between a province or a group of provinces and other groups of provinces. In this case, the summary indicator is an average of two ratios. For example, if per capita subsidies in province A are 90% of the national average, but are 110% of the national average when expressed as a percent of private sector GDP, the summary indicator will show that businesses in province A receive national average level of subsidies. This paper provides information on all three indicators in a selective manner. A comparison of the first two, subsidies per capita and as percentage of private sector GDP, provides a measure of the range of the estimates while the third indicator will be used in deriving general conclusions.

### **Selected Dimensions of Subsidies**

The first dimension of subsidies presented in this section is the change that took place during the fiscal restraint period from 1992 to 1998. The relevant information is contained in Figure 1. Federal subsidies followed a shallow U-shape pattern, falling drastically in 1993, then sliding slightly during the next three years before increasing again in 1997 and 1998. By 1998, total federal subsidies in current dollars were \$369 million lower than in 1992, a reduction of 8%. A similar pattern is noticed for provincial-local subsidies, but with a somewhat different time-path. There was a steady and large drop from 1992 to 1995, followed by no change during the next three years and a sudden jump in 1998. The increase in 1998 was largely due to higher subsidies provided by Quebec. Whether this is a temporary change or a permanent policy shift must await analysis of data for 1999 and 2000 when they become available. Even with the large increase in 1998, the fall in provincial-local subsidies from 1992 to 1998 was larger than that of federal subsidies, both in absolute amount and in percentage terms. It seems that subsidies to businesses were on the priority list of government spending cuts in the initial stages of fiscal restraint. They may also be candidates for expansion now that the majority of governments in Canada have restored fiscal balance.

The second dimension of subsidies is the degree of inter-provincial variation that existed in 1992. The relevant information is contained in Table 1 where inter-provincial differences are measured with respect to two indicators:

- subsidies per capita, and
- as a percentage of private sector GDP.

This table shows that, at the beginning of the study period, there was considerable inter-provincial variation in the level of subsidies whether they are measured on a per capita basis or as percentage of private sector GDP. Moreover, the degree of dispersion, as measured by the coefficient of variation (CV), is very similar for the two indicators and also for federal and provincial-local subsidies. The CV values range from 70 % of the unweighted mean for total subsidies to 78% for federal subsidies as a percent of private sector GDP. This table also shows that, on average, businesses in “have-not” provinces received higher levels of subsidies, regardless of the indicator used. Inter-provincial variations in subsidies are analysed in more detail in the next section.

### **Inter-provincial Variation in Subsidies to Businesses: Changes from 1992 to 1998**

In this section, two aspects of subsidies are analysed:

- changes in dispersion of the indicators of subsidies among provinces, and
- changes in the relative level of subsidies received by businesses in “have-not” provinces compared to those in “have” provinces.

In the case of the federal government, analysing the changes in the degree of inter-provincial dispersion of federal subsidies may shed some light on the policy directions followed by policymakers. Since subsidies are provided to selected industries, they are not governed by some principle of equal distribution among provinces. However, when the policy decisions to reduce subsidies were made, the effects of those reductions by province would be known to the policy-makers. To the extent that federal subsidies serve regional development objectives, they should be relatively higher in the less affluent provinces, as is evident from Table 1. Analysing the pattern of the relationship between “have-not” and “have” provinces as recipients of federal subsidies should provide some indication of potential shifts in the policy rationale behind federal subsidies.

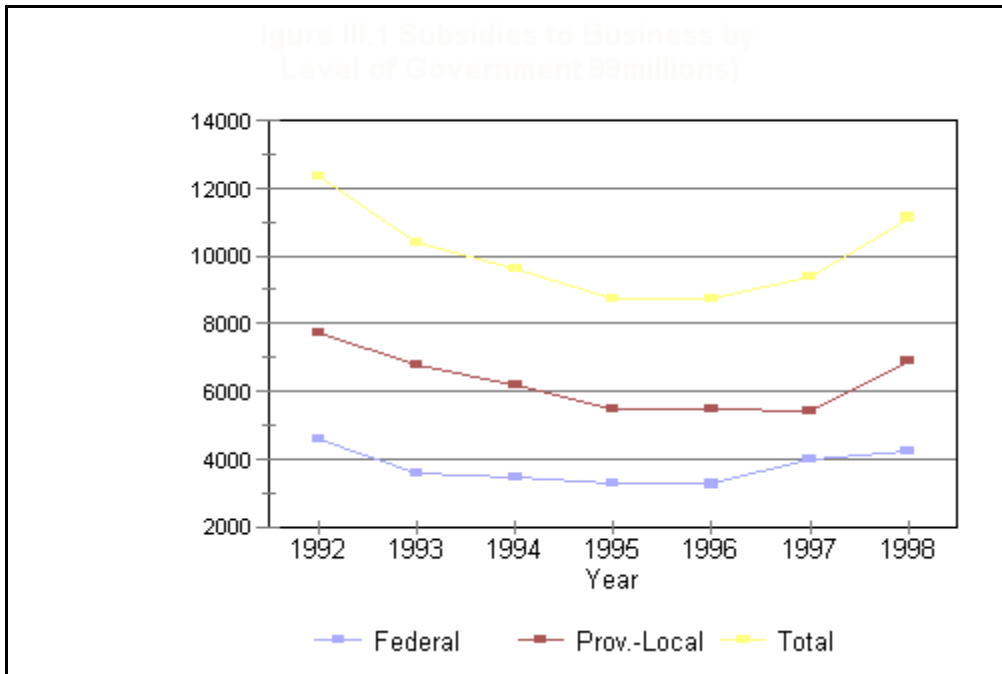


FIGURE 1 Subsidies to Business by Level of Government 1992-1998 (\$ millions)

TABLE 1 Selected Indicators of Subsidies by Province, 1992

	Federal		Provincial-Local		Total	
	Per Capita (\$)	% of Private GDP	Per Capita (\$)	% of Private GDP	Per Capita (\$)	% of Private GDP
Nfld.	179.3	1.82	103.4	1.05	282.7	2.88
PEI	519.6	4.75	275.1	2.51	794.6	7.26
NS	183.8	1.56	77.2	0.65	261	2.21
NB	187.1	1.55	110.9	0.92	297.9	2.46
Quebec	74	0.47	434.7	2.76	508.7	3.23
Ont.	130.9	0.64	138.3	0.68	269.2	1.32
Man.	355.8	2.3	399.8	2.59	755.6	4.89
Sask.	745	4.89	845.6	5.55	1590.7	10.45
Alberta	206.9	0.95	424.2	1.95	632	2.9
BC	136.3	0.72	139.5	0.74	275.8	1.46
Canada	161.6	0.9	272.6	1.52	434.3	2.41
"Have-not" Provinces	185.3	1.25	399.4	2.7	584.6	3.96
"Have" Provinces	144.1	0.71	183.9	0.91	327.9	1.62
Unweighted Mean	291.9	1.97	295	0.94	566.8	3.91
Coefficient of Variation	0.73	0.78	0.77	0.75	0.7	0.7

**TABLE 2 Coefficient of Variation for Selected Indicators of Subsidies, 1992-1998**

Year	Federal			Provincial-Local			Total		
	Per Ca-pita	% of Private GDP		Per Ca-pita	% of Private GDP		Per Ca-pita	% of Private GDP	
		Av.			Av.			Av.	
1992	0.73	0.78	0.76	0.77	0.75	0.76	0.70	0.70	0.70
1993	0.69	0.74	0.72	0.60	0.58	0.59	0.57	0.59	0.58
1994	0.68	0.70	0.69	0.54	0.59	0.57	0.52	0.57	0.55
1995	0.71	0.81	0.76	0.54	0.57	0.56	0.55	0.64	0.60
1996	0.58	0.76	0.67	0.60	0.59	0.60	0.49	0.59	0.54
1997	0.48	0.72	0.60	0.52	0.53	0.53	0.36	0.54	0.45
1998	0.49	0.65	0.57	0.64	0.65	0.65	0.43	0.53	0.48

### Inter-provincial Differences

The degree of dispersion in the two indicators of subsidies as measured by the coefficient of variation (CV) is shown in Table 2. Because this measure of dispersion standardises the degree of variation with respect to the mean, it is possible also to derive an average measure of dispersion as the simple mean of the two indicators. It is also possible to make direct comparisons between federal and provincial-local subsidies.

For federal subsidies, one notices a clear downward trend in the degree of dispersion regardless of the indicator used. From 1992 to 1998, the CV value fell by one-third for per capita subsidies, by 17 % for the ratio to private GDP and by 25 % for the average of the two. This result suggests that the reduction in the federal subsidisation of businesses resulted in a reduction in the regional bias that was incorporated in those programmes. A similar, but less pronounced, trend is found for provincial-local subsidies. The CV fell by 17 % for per capita values, 13 % for ratios to private GDP and 15 % for the average of the two. No policy directions can be derived from this apparent trend, because it is the result of independent policy decisions made by a large number of jurisdictions (provincial and local governments).

### Comparison between “Have-not” and “Have” Provinces

The indicators of subsidies to businesses in the seven equalisation-receiving provinces relative to those in the three richer provinces are shown in Table 3. This table shows the percentage difference between the indicators for “have-not” provinces and those for the “have” provinces. It is evident from inspection of this table that, in the initial year, businesses in “have-not” provinces received higher federal subsidies, regardless of the indicator used. The policies implemented during the fiscal restraint period led to a reduction of nearly 20 % in the ratio of “have-not” to “have” provinces. On a per capita basis, there was roughly a level



**TABLE 3 Subsidies to Businesses: Ratio of “Have-not” to “Have” Provinces**

	1992	1993	1994	1995	1996	1997	1998	% Change
Federal								
Per Capita	29	50	51	39	19	4	6	-79
% of Private GDP	76	108	107	90	63	44	42	-45
Average	52	79	79	64	41	24	24	-54
Prov.-Local								
Per Capita	117	87	130	137	139	122	184	57
% of Private GDP	197	159	221	227	224	208	286	45
Average	157	123	176	182	182	165	235	50
Total								
Per Capita	78	73	97	94	84	61	94	21
% of Private GDP	144	140	174	166	151	125	166	15
Average	111	106	136	130	118	193	130	17

Note: The numbers in the table are calculated as ( “Have-not”/”Have”) - 1.

playing field in 1998. As a percentage of private GDP, subsidies were still relatively higher in “have-not” provinces. According to the average indicator, in 1998 federal subsidies to businesses in “have-not” provinces were 24 % higher than in “have” provinces compared to 52 % in 1992. In other words, fiscal restraint reduced the percentage differential in federal subsidies in “have-not” provinces by more than half.

The opposite trend is noticeable for provincial-local subsidies. According to the average indicator, the ratio of “have-not” to “have” provinces fell in 1993, but rose again in 1994 and remained at a higher level for the next two years. After falling again in 1997, it took a sudden jump in 1998 primarily because of a large increase in Quebec. Even when 1998 is excluded from the analysis, there is an increase in the average indicator value between the first and last year.

When the two components of subsidies are combined, these two opposing trends partly offset each other and the net result is a moderate reduction in the value of the summary indicator from 1992 to 1997 and a moderate increase from 1992 to 1998. It would not be unwarranted to conclude that, during the 1992-1998 period, the relationship between subsidies to businesses in “have and “have-not” provinces did not change much.

## Conclusions

In this paper, the changes in federal and provincial-local subsidies to businesses during the 1992-1998 period have been analysed in order to determine the effects of fiscal restraint. The results show that both components of subsidies fell from 1992 to 1998, but the reduction was higher for provincial-local subsidies both in absolute amount and in percentage. There was also a reduction in the degree of

dispersion among provinces both for federal and provincial-local subsidies. The ratio of subsidies in “have-not” to subsidies in “have” provinces also changed during this period. Specifically, it fell in the case of federal subsidies and increased in the case of provincial-local subsidies. By 1998, federal subsidies to businesses in “have-not” provinces were only 6 % higher than those in “have” provinces.

The pattern of federal subsidies during the 1992-1998 period indicates a two-pronged federal policy: 1. a reduction in subsidies, and 2. a move towards a level playing field. The provincial distribution of subsidies to business at the end of the 1990s suggests that federal subsidies are not a factor in explaining different performances of regional economies in Canada.

## References

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 Leblanc, M. and F. Vaillancourt. 1995. “Regional Distribution of Federal Corporate Tax Expenditures”. *Choices*, 1. IRPP.  
 Statistics Canada. CANSIM series as listed in Appendix A.

## Appendix

**TABLE A-1 CANSIM Series Used**

	Subsidies			Population	GDP at Market Prices	Government Expenditures	
	Federal	Prov.	Local			Current	Capital
Nfld.	D27887	D27888	D27890	C892586	D24227	D24200	D24201
PEI	D27903	D27904	D27906	C892904	D24261	D24234	D24235
NS	D27919	D27920	D27922	C893222	D24295	D24268	D24269
NB	D27935	D27936	D27938	C893540	D24329	D24302	D24303
Quebec	D27951	D27952	D27954	C893858	D24363	D24336	D24337
Ont.	D27967	D27968	D27970	C894176	D24397	D24370	D24371
Man.	D27983	D27984	D27986	C894494	D24431	D24404	D24405
Sask.	D27999	D28000	D28002	C894812	D24465	D24438	D24439
Alb.	D28015	D28016	D28018	C895130	D24499	D24472	D24473
BC	D28031	D28032	D28034	C895448	D24533	D24506	D24507
Yukon	D28047	D28048	D28050	C895766	D24567	D24540	D24541
NWT	D28063	D28064	D28066	C896084	D24601	D24574	D24575
Canada	D18410	D27871	D18622	--	D24193	D24166	D24167