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Corporate Welfare A \$144 billion addiction

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Executive Summary

Corporate welfare: \$144 billion over ten years

- Between 1995 and 2004, the last year for which statistics are available, Canada's federal, provincial, and local governments spent almost \$144 billion on tax-financed subsidies to business.
- In 2004 alone, Canada's federal, provincial, and local governments spent \$19 billion on corporate welfare, almost double the 1995 figure of \$10.3 billion. The cost to each taxpayer who paid income tax in 2004 was \$1,259, which was 35% higher than the 1995 figure of \$934.
- Between 1995 and 2004, the total cost amounted to \$11,030 per tax filer (all figures adjusted for inflation to 2007 dollars).
- The World Trade Organization estimates that governments worldwide spent over \$300 billion US on business subsidies in 2003. Through business subsidies, governments fund "battles" between businesses, draft taxpayers into funding such skirmishes, and do so at a significant domestic and worldwide cost.

Industry Canada's top 50 business subsidy recipients: \$203 billion in cash-on-hand

- The top 50 recipients of corporate subsidies in Canada between 1982 and 2006 were collectively authorized to receive \$5.9 billion. That figure is only part of the story. Financial statements from the last available fiscal year show that revenues amounted to \$1.2 trillion for 34 of those companies or parent companies. The remaining 16 companies could not be tracked or no longer exist.
- For the most recent fiscal year, total cash-on-hand for those 34 companies or parent companies amounted to \$203 billion.
- One justification advanced for government subsidies to business is that they help start-up companies. However, many on the top 50 list are anything but start-ups. The list includes the Ford Motor Company, Rolls-Royce, Noranda, International Business Machines (IBM), General Dynamics, Pratt & Whitney, Lockheed Martin, and Raytheon. While every company has a gestation stage, many companies on this list

began long ago, and, in some cases, as far back as one century. For example, the Ford Motor Company was first incorporated in 1903, Rolls-Royce was founded in 1906, and IBM was incorporated in 1911.

It's not just the \$144 billion—it's also the opportunity cost of subsidies

- In addition to the initial cost of subsidies—the \$144 billion spent between 1995 and 2004, as well as failure to repay and/or interest costs—which most observers would readily identify, another loss associated with corporate welfare must be recorded: opportunity costs. Opportunity costs result from the lost opportunity to use such money for other purposes, such as tax relief.
- For example, if the federal government had ended corporate welfare in 2004, calculated to have cost \$6.6 billion in that year, the government could have reduced the federal corporate income tax rate to 14.6% from its then-current rate of 21.0%. In other words, the elimination of federal corporate subsidies could have resulted in a 30.5% reduction in federal corporate income tax rates.

Industry Canada repayment records

Repayment records for three business subsidy programs were obtained through Access to Information requests. Two of the programs existed within the federal department of Industry: the recently replaced Technology Partnerships Canada (TPC) program and the program it replaced in the 1990s, the Defence Industry Productivity Program (DIPP). Records were also available for the Atlantic Canada Opportunities Agency (ACOA), an agency under the jurisdiction of Industry Canada. Repayment records are as follows.

Repayable loan programs at TPC

- Total expenditures on repayable loan programs at Technology Partnerships Canada (TPC) amounted to \$2,236,773,334 between 1996/97 and 2005/06. TPC has recouped \$181,316,725 or 8.1% of its repayable loan programs. The net amount outstanding is \$2,055,456,609 or 91.9% of its total expenditures.
- A conservative estimate of the opportunity cost of TPC's net expenditures is \$791.2 million as of October 30, 2006.

Repayable loan programs at DIPP

- Total expenditures on repayable loan programs at the now-defunct Defence Industry Productivity Program (DIPP) amounted to \$2,594,103,116 between 1982/83 and 1996/97. DIPP recouped \$520,463,997—just 20.1% of its repayable loan programs. Ten years after DIPP was shut down, the net amount outstanding is still \$2,073,639,119, or 79.9% of its portfolio.
- M A conservative estimate of the opportunity cost of DIPP's net expenditures is \$2.3 billion.

Repayable loan programs at ACOA

- Total expenditures on repayable loan programs at the Atlantic Canada Opportunity Agency (ACOA) amounted to \$975,282,851 between 1995/96 and 2005/06. ACOA has recouped \$356,445,186 or 36.5% of its repayable loan programs. The net amount outstanding is \$618,837,665 or 63.5% of its total expenditures.
- A conservative estimate of the opportunity cost of ACOA's net expenditures is \$213.9 million as of March 31, 2006.

Peer-reviewed judgments on business subsidies

Peer-reviewed research on business subsidies does not support government or recipient claims that corporate welfare is responsible for widespread economic growth. At best, a generous interpretation of the literature suggests that subsidies *may* in very specific locations produce *some* effect on *some* economic behaviour. For example, the World Trade Organization notes that even when considering the most celebrated examples of assistance to business—industrial policy in East Asia, for instance—the results indicate that, at best, industrial policy made "a minor contribution to growth in Asia."

At worst, the literature overwhelmingly concludes that there may not be a demonstrable positive impact upon the economy, employment, or tax revenues because of the substitution effect. The substitution effect occurs when employment and tax revenues are shifted to another business at a significant cost, and no new investment or employment is created, on a net basis, when the national or international economy is considered. For example, a subsidy meant to "create" film jobs in Alberta may simply shift intended investment away from British Columbia or Ontario; or, a subsidy offered to the Embraer aerospace company in Brazil may simply create jobs that otherwise would have been created in Montreal or Paris.

So why do business subsidies continue? A public choice answer

If the empirical evidence for corporate welfare's economic utility is lacking, the question arises: why does it continue to persist? Here, public choice theory is helpful in explaining less-than-optimal public policy. The theory explains that corporate welfare continues because:

- it is in the interest of some special interests who desire a specific lucrative benefit;
- it allows political actors to appear to be "doing something" (i.e. they are "saving jobs"), which is in their interest as "vote-maximizers";
- it is not likely to be opposed by most civil servants as that would contradict their own self-interest (i.e. for job security and/or a larger budget);
- its cost per person is not enough to arouse the general public to active opposition; and,
- its cancellation would politically endanger some and offend others in a small group of politicians and bureaucrats, which includes the caucus and other civil servants.

Contribution to the literature and main argument

This paper contributes to the literature on subsidies to business by offering a snapshot of how much tax money Canadian governments of all levels spent on corporate welfare over a ten-year period. It provides repayment records by year with respect to specific programs or agencies involved in corporate welfare. It notes the cash-in-hand position of companies or parent companies that have received corporate welfare. As well, this study offers an opportunity cost calculation for such disbursements.

The main conclusion drawn from the evidence—and this paper's argument for changed policy—is that given the negligible or even negative consequences of corporate welfare, governments should be advised to trade business and sector-specific subsidies for general and widespread tax reductions. Specifically, the author recommends that the government take the following actions:

1 Wind down and end business assistance programs within Crown corporations, the Department of Industry, its sub-agencies, other departments, and their sub-agencies.

- 2 Require companies to repay already allocated subsidies as per the terms of their contracts and agreements.
- 3 Continue to support international efforts to end subsidies, including bilateral and multilateral agreements, as well as efforts to strengthen existing country-to-country treaties and to initiate new ones. It is in Canada's interest to reduce barriers to our imports and to compete with non-subsidized companies from other jurisdictions.
- **4** Use the money that would have been spent on business subsidies for business tax reductions.

Introduction

An overview of corporate welfare

Definitions, contribution to the literature, and main argument

A government subsidy to business occurs when a government transfers tax dollars to business for reasons other than for goods or services. In academic jargon, such a subsidy is often referred to as "targeting" because government support is "targeted" at a particular business or industry. In common parlance, business subsidies are known as "corporate welfare." These terms are largely interchangeable.

Note that this definition of corporate welfare does not include tax reductions, deductions, credits, or exemptions for individual businesses or business as a sector. Money earned by individuals or businesses belongs first to those who earned or created it. Thus, in most cases, it is incorrect to label a tax reduction, deduction, credit, or exemption as a subsidy. [1]

This paper contributes to the literature on corporate welfare in four ways. First, it offers a comprehensive total of how much tax money all Canadian governments spent on subsidies to business between 1995 and 2004, the last year for which comprehensive data is available. Second, based on Access to Information data released by Industry Canada, it provides repayment records by year for specific programs or agencies involved in corporate welfare. Third, it offers the cash-in-hand position of companies or parent companies that have received subsidies from Industry Canada. Fourth, it offers not only the nominal cost of corporate welfare over the decades, but also the opportunity cost calculations for the same.

The main conclusion drawn from the evidence—and this paper's argument for a changed policy—is that given the negligible or even negative consequences of corporate welfare, governments should be advised to trade business and sector-specific subsidies for general and widespread business tax reductions.

\$144 billion over ten years: \$1,259 per taxpayer in 2004 alone

The business of subsidies is big business. Between April 1, 1995 and March 30, 2004, federal, provincial, and local governments spent almost \$144 billion on subsidies to business (Statistics Canada, 2006a; see table 1).

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An exception to this is arguably where one business or sector is given preferential treatment on its own tax burden vis-à-vis other businesses who must pay regular rates. The Statistics Canada and Industry Canada data used in this study concerns direct government payments to individual businesses.

Federal subsidies	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	1995- 2004
Operating transfers	3,270	3,252	4,135	3,825	3,587	3,537	3,682	2,969	4,270	5,048	
Capital transfers	721	493	304	808	1,604	1,541	1,906	1,604	1,605	1,570	
Total	3,991	3,745	4,439	4,633	5,191	5,078	5,588	4,573	5,875	6,618	49,731
Provincial subsidies											
Operating transfers	4,264	4,242	4,025	5,069	5,171	6,043	10,289	8,836	11,665	9,738	
Capital transfers	419	225	398	302	1,495	1,502	494	585	660	543	
Total	4,683	4,467	4,423	5,371	6,666	7,545	10,783	9,421	12,325	10,281	75,965
Local subsidies											
Operating transfers	1,212	1,216	1,201	1,006	1,095	1,078	1,159	1,566	1,678	1,713	
Capital transfers	488	473	610	737	769	540	395	364	360	417	
Total	1,700	1,689	1,811	1,743	1,864	1,618	1,554	1,930	2,038	2,130	18,077
Grand Total	10,374	9,901	10,673	11,747	13,721	14,241	17,925	15,924	20,238	19,029	143,773
Opportunity costs											
Nominal	775	683	704	771	873	874	1,059	862	1,082	979	8,661
Adjusted to 2006 \$	966	838	850	922	1,026	1,000	1,182	941	1,149	1,021	9,894

Table 1: The cost of business subsidies in Canada, 1995-2004 (in millions of dollars)

*Note: Some but not all government business enterprises are included in above figures. Statistics Canada only includes businesses that it considers independent of the government, which are defined as those that receive less than 50% of their operating budget from the government. Thus, transfers to VIA Rail, which are substantial, are included in the above figures. Transfers to the Canadian Broadcasting Corporation (CBC), while also substantial, are not included, as CBC receives more than 50% of its revenue from the government and is not considered by Statistics Canada to be financially independent of the government. If transfers to CBC were included, the above figures would be higher (Personal communication, Ben Finnerty, Statistics Canada, February 12, 2007).

Source: Statistics Canada, 2006a; calculations by Jason Clemens and Joel Emes.

In 2004 alone, federal, provincial, and local governments spent \$19 billion in subsidies to business (Statistics Canada, 2006a). That is almost double the amount spent in 1995, which was \$10.3 billion. The cost to each taxpayer who paid income tax in 2004 was \$1,259 (see table 2). This amount is 35% higher than the 1995 figure of \$934 per taxpayer. Between 1995 and 2004, the total cost amounted to \$11,030 per tax filer (all figures adjusted for inflation to 2007 dollars).

Breakdown by level of government, 2004

Federally, multiple ministries offer taxpayer assistance to business. The manner in which business assistance is paid varies. It can come in the form of grants, loans or loan guarantees, repayable contributions, interest forgiveness, conditionally or provisionally repayable contributions, and non-repayable contributions. The federal government spent \$6.6 billion on corporate welfare in 2004, the last year for which statistics are available. In 2004, our provincial governments collectively spent almost \$10.3 billion on subsidies to business (see table 3), while local governments spent just over \$2.1 billion (Statistics Canada, 2006a).

Year	Tax filers (taxable returns in millions of \$)	Business subsidies (in millions of \$)	Amount per tax filer (nominal \$)	Amount per tax filer (adjusted to 2007 \$)
1995	14.027	10,374	740	934.18
1996	14.173	9,901	699	878.23
1997	14.069	10,673	759	934.97
1998	14.578	11,747	806	983.71
1999	14.925	13,721	919	1,110.35
2000	15.412	14,241	924	1,083.73
2001	15.602	17,925	1,149	1,314.99
2002	15.516	15,924	1,026	1,153.27
2003	15.836	20,238	1,278	1,376.87
2004	16.173	19,029	1,177	1,259.85

Table 2: Business subsidies per tax filer who paid income tax, 1995-2004

Source: Canada Revenue Agency, 2007.

Conversion to 2007 dollars courtesy of Bank of Canada Inflation Calculator.

Province	NF	PE	NS	NB	PQ	ON	MB	SK	AB	BC	ΥT	NT	NU	All
Operating transfers	45	44	76	51	4,840	1,923	271	499	1,067	903	8	4	7	9,738
Capital transfers	2	14	0	2	277	238	2	8	0	0	0	0	0	543
Total	47	58	76	53	5,117	2,161	273	507	1,067	903	8	4	7	10,281

Table 3: Provincial subsidy amounts, 2004(in millions of dollars)

*Note: Some but not all government business enterprises are included in above figures. Statistics Canada only includes businesses that it considers independent of the government, which are defined as those that receive less than 50% of their operating budget from the government. Thus, transfers to VIA Rail, which are substantial, are included in the above figures. Transfers to the Canadian Broadcasting Corporation (CBC), while also substantial, are not included, as CBC receives more than 50% of its revenue from the government and is not considered by Statistics Canada to be financially independent of the government. If transfers to CBC were included, the above figures would be higher (Personal communication, Ben Finnerty, Statistics Canada, February 12, 2007).

Source: Statistics Canada, 2006a.

The focus of this study

Others, including the Canadian Taxpayers Federation, have already noted the "raw" statistics concerning Industry Canada's payments to corporations since 1982 (Canadian Taxpayers Federation, 2007). This study will profile three federal corporate welfare programs, providing additional information obtained through Access to Information requests.

Two of the programs profiled were administered within Industry Canada: the now defunct Technology Partnerships Canada (TPC), and the program it replaced in the 1990s, the Defence Industry Productivity Program (DIPP). The reason for profiling these programs, though they have ended, is that both programs still owe a significant amount of money. In the case of DIPP, it has now been a quarter-century since taxpayer money was first disbursed in 1982, under the justification that these funds were long-term investments and would eventually be returned to taxpayers. As for TPC, a quarter-century may elapse and significant money may yet need to be repaid by the program, which was just replaced last April, if similar past programs are any guide.

The Atlantic Canada Opportunities Agency (ACOA), an agency under the jurisdiction of Industry Canada that disburses taxpayer assistance to business in one geographic region, will also be profiled.

A note on Technology Partnerships Canada and its replacement program SADI

In April 2007, Technology Partnerships Canada was terminated and replaced by a new business subsidy program, the Strategic Aerospace and Defence Initiative (SADI). The federal government announced that its "[n]ew transparency and accountability measures" would include public information on SADI's project assessment criteria, the assessment process, contribution recipients, and regular updates on project results, program performance, and program accomplishments.

However, similar promises were made with respect to Technology Partnerships Canada when it replaced the Defence Industry Productivity Program. While increased accountability mechanisms are always desirable, the key policy question is whether public financing of private business is an effective use of scarce resources—our tax dollars. Industry Canada estimates that the budget for the replacement program, SADI, will be \$900 million over five years (Industry Canada, 2007).

Former Industry Canada Minister Maxime Bernier once stated that a new business subsidy program should be supported because such industries are "economic drivers" and "all Canadians will benefit from the economic growth and technological advancements developed under this new initiative" (Industry Canada, 2007). These reasons are the same as those that have been offered in support of past subsidy programs. This study analyzes how justifiable these reasons are by detailing past and present programs supported with largely the same justifications.

In particular, this study profiles TPC, DIPP and ACOA, but excludes others such as the Federal Economic Development Initiative in Northern Ontario (FedNor), as these three agencies' responses to Access of Information requests showed repayment records that correlated to the original year in which payments to the companies were made. [2]

All three corporate welfare conduits profiled in this study have disbursed tax dollars to business with similar justifications: employment, the advancement of Canadian industry, and the levelling the playing field between domestic and foreign competitors. All three have offered repayable payment programs in addition to grants. The foregone interest on interest-free loans and non-repayable contributions will not be analyzed in this study.

^[2] For example, if agency "X" paid out \$100 million in 1997 and received back \$15 million from 1998 through to 2004, the \$15 million is recorded as having been paid back in 1997. Thus, the amounts repaid are correlated with the project year. That approach will give the reader some idea of how projects approved and paid for *in that year* are doing in terms of repayment. Other programs did not provide information in this manner.

Terms, definitions, and organization

Taxpayer assistance to business is known by a variety of terms: "corporate welfare" in everyday usage and "targeting" in the formal academic literature. These terms communicate two key concepts: first, that this assistance is public intervention through a wide variety of means, and second, that this assistance is justified as a means by which to retain existing firms or attract outside firms because of the oft-promised employment and tax revenue gains. Industry Canada and its associated agencies routinely offer such justifications for corporate welfare.

Within Industry Canada, business assistance has been delivered in a variety of forms over the past two decades: grants, interest contributions, repayable contributions, conditionally or provisionally repayable contributions, loan guarantees, interest contributions, and other assistance.

Grants and contributions are disbursements of taxpayer dollars to businesses that are not required to be repaid. Interest contributions occur when interest on a loan to a business is forgiven and/or granted up front, though the lent principal must still be repaid. Repayable contributions must be repaid in full, while conditionally repayable contributions are contingent on production or sales; for example, if a jet manufacturer sells 100 airplanes, then it begins repayment.

Except as noted in the repayment records of Bombardier and Pratt & Whitney, the Access to Information requests for DIPP, TPC and ACOA *excluded* grants, interest forgiveness, and other costs to the public treasury. The analysis in this study of DIPP, TPC, and ACOA focuses only on repayable and conditionally or provisionally repayable contributions—i.e., money disbursed that should have been returned at some point or is, hypothetically, still meant to be returned to the federal treasury. The Statistics Canada calculations for all government assistance to business between 1995 and 2004 (the \$144 billion figure) includes all forms of assistance and is not limited to loans exclusively.

This study is organized in the following manner: first, the top 50 corporate recipients of government assistance in Canada (1982-2006) are listed, along with their current revenues (or, where applicable, the current revenues of their parent companies) and their cash-on-hand; second, two frequent recipients of assistance—Pratt & Whitney and Bombardier—are listed along with their repayment records; third, the business assistance expenditures and repayment records of DIPP, TPC, and ACOA are noted; fourth, the frequent claims, motivations, and goals for assistance to business are given; fifth, the academic review of those claims is detailed; sixth, public choice theory is explained and offered as a key explanation for the continuance of corporate welfare, despite the lack of empirical support for such policies; seventh, the prospect for reform on this issue is analyzed; and eighth, the lower tax rates which would be possible if corporate welfare were ended are detailed.

Findings

The top 50 corporate welfare recipients by authorizations

Ford, Rolls-Royce, and IBM are not "start-ups"

Table 4 (pp. 13-15) lists the amounts authorized by Industry Canada to some of Canada's and the world's largest corporations, and shows the corporations' (or their parent companies') revenues and cash-on-hand for the latest available fiscal year. [3]

This information is useful for a number of reasons. First, it discredits the justification for corporate welfare that suggests it helps start-up companies. As this list shows, many corporations or their parents companies are anything but start-ups. In some cases, their start-up phases date back about one century. For example, the Ford Motor Company was first incorporated in 1903, Rolls-Royce was founded as a company in 1906, and International Business Machines (IBM) was incorporated in 1911.

Second, in many cases, cash-on-hand possessed by the company or parent company exceeds the original corporate welfare amount disbursed. In other words, depending on the year in which the taxpayer money was loaned, the company or parent company may have had sufficient funds to finance such ventures on its own. At a minimum, some have certainly had ample time and resources to reimburse taxpayers for the subsidies they have received in the past.

Third, as table 4 shows, many firms that receive assistance from the government do so repeatedly, no matter their current size and no matter how substantial their cashon-hand or parent company's cash reserves.

Findings about the top 50 recipients

- In total, almost \$5.9 billion was authorized to just 50 companies between 1982 and 2006.
- Revenues or parent company revenues of 34 of those companies amounted to \$1.2 trillion for the most recent fiscal year available (figures for 16 of these companies were unavailable as some are privately held and others are no longer operating).
- Cash-on-hand for the most recent fiscal year for those 34 companies or parent companies amounted to \$203 billion (all figures in Canadian dollars or converted to Canadian dollars unless otherwise stated).
- [3] While table 4, which contains recipient names and authorized amounts, was previously released by the Canadian Taxpayers Federation, I have added the amount of revenue and cash-on-hand for each company in question (or parent company where applicable). This shows the financial resources that might have been or still are available apart from government financing.

ank	Rank Applicant's Legal Name	Amount Authorized,	Revenues**	Revenues,* \$Cdn	Cash***	Cash-on- hand,*	Parent Company or Companies
		ocan (in millions)	tin millions) (in millions) (in millions) (in millions)	in millions) (i	n millions) (عروا in millions)	
-	Pratt & Whitney Canada Corp.	1,495.51	47,829.00	56,213.42	2,546.00	2,992.31	United Technologies Corp.
2	Bombardier Canadair	745.28		14,726.00		2,917.00	
e	General Motors of Canada Ltd	360.83	192,604.00	226,367.48	50,542.00	59,402.01	General Motors Corp.
4	Bell Helicopter Textron Canada Ltd	338.75	11,490.00	13,504.20	780.00	916.73	Textron
5	CAE Inc.	321.02		2.04	0.23	0.27	
9	Societe Generale de Financement du QC	293.00				176.00	
\sim	Groupe Mil Inc. (Le)	230.50		N/A		N/A	
8	Honeywell Aerospatiale Inc.	207.92	31,367.00	36,865.64	1,224.00	1,438.57	Honeywell
6	CMC Electronics Inc.	158.80		N/A		N/A	Private company held in ONCAP L.P.
10	Trentonworks Ltd.	127.75	1,024.00	1,203.51	73.20	86.03	Greenbrier Companies Inc
11	Ford Motor Company of Canada	104.20	177,089.00	208,132.70	39,082.00	45,933.07	Ford Motor Company
12	Spar Aerospace Ltd.	99.88	9,445.00	11,100.71	394.00	463.07	L-3
13	Petromont Inc.	95.80	46,307.00	54,424.62	3,838.00	4,510.80	Dow Chemcial/SGFQC
14	Litton Systems Canada	89.32		Inc in L-3		Inc in L-3	L-3
15	Rolls-Royce Canada Limited	87.60	6,603.00	15,099.08	826.00	1,888.81	Rolls-Royce
16	Cascade Data Services, Richmond BC	77.21		N/A		N/A	
17	Repap New Brunswick Inc.	74.56		N/A		N/A	Now owned by Avenor
18	Indal Technologies Inc.	60.09	1,131.00	1,329.26	59.00	69.34	Curtiss-Wright Corporation
19	Mitel Networks Corporation	60.00		N/A		N/A	Mitel (Private)
20	Inco's Voisey's Bay Nickel Company Ltd	60.00	35,350.00	19,583.90	2,703.00	1,497.46	CVRD Inco Limited

 Table 4: Canada's top 50 corporate welfare recipients,

 April 1, 1982 to March 31, 2006

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Amount Authorized, \$Cdn (in millions)	Revenues** (in millions)	Revenues,* \$Cdn (in millions) (i	Cash*** in millions) (Cash-on- hand,* \$Cdn in millions)	Parent Company or Companies
55.00	27,335,000.00	34,059.41	N/A	N/A	Hyundai Motor Company
		833.00		13.30	Macdonald Dettweiler & Associates Ltd
	13,681.00	16,079.28	6,429.00	7,556.00	Wachovia****
42.27		N/A		N/A	
41.92		N/A		N/A	Private
41.67	8,049.00	9,459.99	956.00	1,123.59	XStrata
38.60	2,066.00	2,428.17	460.00	540.64	
33.05	91,134.00	107,109.79	13,686.00	16,085.16	International Business Machines Corp
31.42		41,392.00		9,356.00	
30.65		139,114.00		21,133.00	Northstar Aerospace
30.00		33.61	116.00	136.33	Westaim Corp.
28.66	21,244.00	24,968.07	2,331.00	2,739.62	General Dynamics Corp
28.50		N/A		N/A	Private
		N/A		N/A	
23.41		256.20		8.26	
23.04	5,878.00	6,908.41	201.00	236.24	Goodrich Corporation
		N/A		N/A	CSE Group (Private)
20.41		43,736.44	2,244.00	2,637.37	Lockheed Martin Corp
20.32	20,291.00	23,848.01	2,460.00	2,891.24	Raytheon Co.
20.04		568.48		7,426.00	
Applicant's Legal Name Hyundai Auto Canada Inc. MacDonald, Dettwiler & Associates I Wachovia Bank National of N Carolin Statewest Airlines Inc. Metro Express Inc. Metro Express Inc. Metro Express Inc. Metro Express Inc. Moranda Inc. Research In Motion Limited IBM Canada Ltd. Aeterna Zentaris Inc. Northstar Aerospace (Canada) Inc. Ifire Technology Inc. General Dynamics Canada Ltd Zenon Environmental Inc. Canadian Opera House Corp., Toro Héroux Devtek Inc. Goodrich Aerospace Canada Ltd. Con Shipbuilding & Engineering Lt Lockheed Martin Canada Raytheon Canada Limited	d. no and a state a st	Authorized, S55.00 55.00 55.00 55.00 42.66 42.27 41.92 33.05 33.05 33.05 33.05 33.05 23.04 28.50 28.50 28.50 28.50 28.50 23.04 23.04 23.04 23.04 23.04 23.04 23.04 20.32 20.32 20.32 20.32 20.03	Amount Authorized, (in millions) 55.00 55.00 52.06 42.66 41.67 33.05 33.05 33.05 33.05 33.05 33.05 33.05 23.06 23.07 23.06 33.05 33.06 33.07 33.08 33.08 33.08 33.08 33.08 33.08 33.08 33.08 33.08 34.19 <tr< td=""><td>Amount Authorized, (in millions) 55.00 55.00 52.06 42.66 41.67 33.05 33.05 33.05 33.05 33.05 33.05 33.05 23.06 23.07 23.06 33.05 33.06 33.07 33.08 33.08 33.08 33.08 33.08 33.08 33.08 33.08 33.08 34.19 <tr< td=""><td>Amount Revenues** Revenues,* Cash*** Cash**** Cash**** Cash****</td></tr<></td></tr<>	Amount Authorized, (in millions) 55.00 55.00 52.06 42.66 41.67 33.05 33.05 33.05 33.05 33.05 33.05 33.05 23.06 23.07 23.06 33.05 33.06 33.07 33.08 33.08 33.08 33.08 33.08 33.08 33.08 33.08 33.08 34.19 <tr< td=""><td>Amount Revenues** Revenues,* Cash*** Cash**** Cash**** Cash****</td></tr<>	Amount Revenues** Revenues,* Cash*** Cash**** Cash**** Cash****

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2 4: Canada's top 50 corporate welfare recipients,	

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Table 4: Canada's top 50 corporate welfare recipien	
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Rank	Rank Applicant's Legal Name	AmountRevenues**Revenues,*Cash***Cash-on-Authorized,\$Cdnhand,*\$Cdn\$Cdn\$Cdn(in millions)(in millions) (in millions) (in millions)	Revenues** (in millions)	Revenues** Revenues,* Cash*** \$Cdn (in millions) (in millions) (in millions	Cash*** in millions) (i	Cash-on- hand,* \$Cdn n millions)	Parent Company or Companies
41	Westport Innovations Inc.	18.91		43,552.00		7,832.00	
42	Magna International Inc.	18.02	22,811.00	26,809.77	1,682.00	1,976.85	
43	Western Star Trucks Inc.	16.22		N/A		N/A	
44	Working Ventures Canadian Fund Inc.	14.55		N/A		N/A	Parteq Innvoations
45	Messier-Dowty Inc.	13.48	11,329.00	17,550.89	-419.00	-649.11	SAFRAN Group
46	Ulnooweg Development Group Inc.	13.45		N/A		N/A	
47	Sydney Steel Corporation	10.97		N/A		N/A	Nova Scotia government
48	World Heart Corporation	9.98	11.65	13.69	10.66	12.53	
49	Premier Tech 2000 Itée	9.00		267.37		1.79	Premier Tech
50	50 St. Eugene Mission Hotel & Golf Course	8.88		N/A		N/A	
*Total		5,881		1,197,541.14		203,348.29	
Source	Source: Industry Canada. 2006a: Annual Reports (various vears). from Standard & Poor's. General Motors. SGFOC. Honevwell	various vears). f	rom Standard 8	& Poor's. Gene	ral Motors, SG	FOC, Honev	well

International Inc., CMC Electronics Inc., Rolls-Royce Canada Ltd., CVRD Inco Ltd., Hyundai Auto Canada Inc., Aeterna Zentaris Source: Industry Canada, 2006a; Annual Reports (various years), from Standard & Poor's, General Motors, כשדעכ, Honeyweii Inc., Northstar Aerospace (Canada) Inc., Héroux Devtek Inc., Magellan Aerospace Ltd., Westport Innovations Inc., SAFRAN Group, and SEC; calculations by author.

All final figures in Canadian dollars. Figures obtained which listed financial results in other currencies were converted to Canadian dollars using the Bank of Canada's conversion rates as of March 5, 2007. * Where applicable, revenues shown and/or cash-on-hand are those of the parent company. Amounts shown are for the most recent fiscal year.

**ln \$US, British pound, Euro, Korean Won, or Brazilian Real

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*** In in \$US, British pound, or Korean Won.

**** Net income in the case of Wachovia.

The top two recipients: Pratt & Whitney and Bombardier

Pratt & Whitney: \$1.25 billion in assistance since 1982

Since 1982, Pratt & Whitney has been authorized to receive almost \$1.5 billion in subsidies, has received \$1.25 billion, and has repaid just over \$92 million—only 7.4% of the money they have received (Industry Canada, 2006a; see table 5, pp. 17-18). These figures do not include the \$350 million in assistance promised to the company by the federal government in December 2006 (Industry Canada, 2006b). It is not possible to know details of the corporation's repayment schedule as Industry Canada has blacked out individual years in Pratt & Whitney's repayment records, and has only provided the total repayment figure of \$92 million (Industry Canada, 2006a).

Bombardier: \$723 million in assistance since 1982

Since 1982, Bombardier, as well as companies such as Canadair and De Havilland Inc. that have been incorporated into Bombardier, has been authorized to receive over \$745 million in subsidies, has received \$723 million, and has repaid just under \$188 million—only 26.0% of the money Bombardier received (Industry Canada, 2006a; see table 6, pp. 19-20). These calculations do not include the \$350 million in assistance promised to the company by the federal government in November 2006 (Vieira, 2006).

The justification for such aid, among other reasons advanced, has been that these funds help Canada's aerospace industry. But results have not always been as anticipated. In 2005, the *Montreal Gazette* noted that for its new C-Series airliner, Bombardier "ha[d] already received provisionally about \$700 million US [about \$820 million CDN] in loans from Ottawa, Quebec and the British governments, not counting a \$350-million final-assembly factory to be built by Quebec and leased back to Bombardier. Then there are training tax credits and other forms of aid" (*Montreal Gazette*, 2005). In early 2007, Bombardier announced that the delivery of its C-Series jet would be further delayed to 2013 from a previously promised date of 2010 (Bombardier Inc., 2007).

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Table 5: Authorized assistance, net expenditures, and repayment recordsfor Pratt & Whitney, April 1, 1982 to January 20, 2005

Project location	Program	Date offer accepted	Type of assistance	Authorized assistance	Net expenditures	Total repayments
Longeuil, Quebec	DIPP	15-Feb-83	CRC	85,000.00	0.00	Blacked out by IC
Longeuil, Quebec	DIPP	12-Dec-83	CRC	50,700,000.00	50,634,622.00	Blacked out by IC
Longeuil, Quebec	DIPP	12-Dec-83	CRC	49,600,000.00	49,370,957.00	Blacked out by IC
Longeuil, Quebec	DIPP	12-Dec-83	CRC	100,035,608.00	99,912,195.00	Blacked out by IC
Longeuil, Quebec	DIPP	5-Sep-84	С	1,064,073.00	887,575.71	0
Longeuil, Quebec	DIPP	6-Mar-85	С	16,100,000.00	15,865,073.00	0
Longeuil, Quebec	DIPP	27-Mar-86	CRC	35,750,443.00	11,659,499.00	Blacked out by IC
Enfiled, Nova Scotia	DIPP	27-Mar-86	С	12,935,000.00	12,935,000.00	0
Longeuil, Quebec	DIPP	27-Mar-86	CRC	130,919,049.00	130,919,049.00	Blacked out by IC
Longeuil, Quebec	DIPP	5-Mar-87	С	13,000,000.00	13,000,000.00	0
Longeuil, Quebec	DIPP	13-Mar-87	С	3,601,302.00	3,266,423.40	0
Enfiled, Nova Scotia	DIPP	14-May-87	С	19,845,000.00	13,057,572.53	0
Longeuil, Quebec	DIPP	10-Nov-88	С	9,890,000.00	9,890,000.00	0
Longeuil, Quebec	DIPP	28-Nov-88	С	203,558.00	197,110.00	0
Longeuil, Quebec	DIPP	15-Dec-88	С	420,000.00	328,850.00	0
Longeuil, Quebec	DIPP	12-Jan-90	С	9,850,000.00	9,850,000.00	0
Longeuil, Quebec	DIPP	30-Jan-90	С	3,669,544.00	3,669,443.31	0
Longeuil, Quebec	DIPP	27-Mar-90	CRC	81,300,000.00	5,247,036.00	Blacked out by IC
Longeuil, Quebec	DIPP	11-Mar-91	С	19,000,000.00	19,000,000.00	0
Longeuil, Quebec	DIPP	5-Mar-92	С	8,400,000.00	5,314,892.50	0
Longeuil, Quebec	DIPP	31-Mar-92	CRC	19,000,000.00	19,000,000.00	Blacked out by IC
Longeuil, Quebec	DIPP	24-Aug-92	С	9,900,000.00	9,900,000.00	0
Longeuil, Quebec	DIPP	25-Mar-93	CRC	17,000,000.00	1,924,354.00	Blacked out by IC
Longeuil, Quebec	DIPP	25-Mar-93	CRC	131,000,000.00	131,000,000.00	Blacked out by IC
Longeuil, Quebec	DIPP	26-Mar-93	С	48,600,000.00	48,600,000.00	0
Longeuil, Quebec	SC-AM	19-Jan-94	С	75,874.00	65,873.58	0
Longeuil, Quebec	DESA-KG	1-Mar-96	CRC	11,760,560.00	11,760,560.00	Blacked out by IC
Longeuil, Quebec	TPC	6-Mar-97	CRC	84,701,641.00	84,701,641.00	Blacked out by IC
Longeuil, Quebec	TPC	6-Mar-97	CRC	46,390,998.00	46,390,998.00	Blacked out by IC

Table 5: Authorized assistance, net expenditures, and repayment records for Pratt & Whitney, April 1, 1982 to January 20, 2005

Project location	Program	Date offer accepted	Type of assistance	Authorized assistance	Net expenditures	Total repayments
Longeuil, Quebec	TPC	31-Mar-99	CRC	99,354,675.00	99,354,674.00	Blacked out by IC
Mississauga, Ontario	TPC	31-Mar-99	CRC	3,397,239.00	3,397,239.00	Blacked out by IC
Longeuil, Quebec	TPC	22-Jun-99	CRC	51,959,515.00	51,959,515.00	Blacked out by IC
Longeuil, Quebec	TPC	31-Mar-01	CRC	99,600,000.00	99,600,000.00	Blacked out by IC
Longeuil, Quebec	TPC	31-Mar-03	CRC	99,400,000.00	99,399,999.00	Blacked out by IC
Longeuil, Quebec	TPC	19-Dec-03	CRC	42,000,000.00	42,000,000.00	Blacked out by IC
Longeuil, Quebec	TPC	28-Jun-04	CRC	72,000,000.00	17,649,238.00	Blacked out by IC
Longeuil, Quebec	TPC	28-Jun-04	CRC	93,000,000.00	30,000,000.00	Blacked out by IC
Total				1,495,509,079.00	1,251,709,390.03	92,253,197.30

Abbreviations:

IC: Industry Canada

DIPP: Defence Industry Productivity Program

SC-AM: Sector Campaign for Advanced Manufacturing Technology

DESA-KG: Subagreement with Quebec for industrial development (1991)

CRC: Conditionally Repayable Contribution

C: Contribution

Source: Industry Canada, 2006a.

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Table 6: Authorized assistance, net expenditures, and repayment recordsfor Bombardier Group, April 1, 1982 to March 24, 2005

Project location	Program	Date offer accepted	Type of assistance	Authorized assistance	Net expenditures	Total repayments
Saint Laurent, Quebec	DIPP	4-Nov-82	CRC	2,930,000.00	2,853,622.00	1,385,204.50
Saint Laurent, Quebec	DIPP	5-Nov-84	С	505,500.00	465,328.00	0.00
Saint Laurent, Quebec	DIPP	6-Nov-84	С	5,084,660.00	4,913,125.00	0.00
Saint Laurent, Quebec	DIPP	15-Mar-85	С	130,000.00	108,000.00	0.00
Saint Laurent, Quebec	DIPP	7-May-85	CRC	3,825,981.00	3,825,981.00	0.00
Saint Laurent, Quebec	DIPP	16-Jan-86	CRC	27,049,019.00	27,049,019.00	0.00
Saint Laurent, Quebec	DIPP	17-Jan-86	CRC	33,030,000.00	28,363,100.00	0.00
Saint Laurent, Quebec	DIPP	31-Mar-86	CRC	15,300,000.00	14,986,349.85	5,649,849.00
Saint Laurent, Quebec	DIPP	21-Nov-88	CRC	6,880,000.00	6,880,000.00	6,880,000.00
Saint Laurent, Quebec	DIPP	23-Dec-88	CRC	29,785,000.00	29,785,000.00	29,302,104.00
Saint Laurent, Quebec	DIPP	23-Dec-88	CRC	7,455,000.00	7,454,999.99	0.00
Saint Laurent, Quebec	DIPP	31-Mar-89	RC	5,761,044.00	5,761,043.73	5,761,043.73
Saint Laurent, Quebec	DIPP	16-Feb-90	CRC	38,386,950.00	38,386,950.00	92,262,000.00
Saint Laurent, Quebec	DIPP	29-Mar-90	CRC	11,537,000.00	10,003,699.02	10,003,699.00
Saint Laurent, Quebec	DIPP	29-Mar-90	CRC	5,540,553.00	5,540,553.00	0.00
Saint Laurent, Quebec	DIPP	27-Aug-90	С	16,780,000.00	16,569,784.12	0.00
Saint Laurent, Quebec	DIPP	29-Jan-93	CRC	1,282,387.00	1,261,813.61	588,840.00
Montreal, Quebec	DESA-KG1	22-Oct-93	RC	10,875,000.00	10,875,000.00	5,250,000.00
Dorval, Quebec	DIPP	31-Mar-94	CRC	14,000,000.00	14,000,000.00	3,539,610.00
Dorval, Quebec	DIPP	31-Mar-94	CRC	7,750,000.00	7,750,000.00	12,399,420.00
Saint Laurent, Quebec	TPC	20-Mar-97	CRC	85,491,595.00	85,491,595.00	1,282,374.00
Saint Laurent, Quebec	DIPP	29-Oct-82	CRC	1,611,000.00	8,666.00	0.00
Montreal, Quebec	EDP	2-Aug-83	С	142,000.00	0.00	0.00
Valcourt, Quebec	DESA-KF4	17-Jan-86	С	1,022,000.00	770,558.00	0.00
Valcourt, Quebec	DIPP	17-Feb-86	CRC	4,727,250.00	4,595,683.74	0.00
Valcourt, Quebec	DESA-KF4	29-Jan-87	С	4,420,325.00	2,071,150.00	0.00
Saint Laurent, Quebec	DIPP	8-Dec-88	С	300,000.00	240,000.00	0.00
Valcourt, Quebec	DESA-KG1	4-Dec-92	RC	2,000,000.00	2,000,000.00	2,000,000.00
North York, Ontario	DIPP	21-May-97	CRC	56,345,998.00	56,345,998.00	0.00
Valcourt, Quebec	DESA-BAJ	15-Aug-89	С	212,586.00	1,842.89	0.00
Saint Laurent, Quebec	DIPP	29-Mar-91	С	88,235.00	83,281.06	0.00

Project location	Program	Date offer accepted	Type of assistance	Authorized assistance	Net expenditures	Total repayments
Downsview, Ontario	DIPP	5-May-82	С	244,560.00	244,560.00	0.00
Downsview, Ontario	DIPP	27-Nov-85	CRC	4,994,002.00	4,961,165.78	0.00
Downsview, Ontario	DIPP	1-May-86	CRC	3,027,000.00	-21,060.00	73,710.00
Downsview, Ontario	DIPP	13-Aug-86	RC	8,750,000.00	7,297,033.87	257,340.79
Downsview, Ontario	DIPP	17-Sep-85	CRC	7,000,000.00	6,999,999.99	0.00
Downsview, Ontario	DIPP	19-Dec-86	CRC	30,000,000.00	30,000,000.00	0.00
Downsview, Ontario	DIPP	18-Nov-88	С	202,182.00	202,182.00	0.00
Downsview, Ontario	DIPP	9-Feb-90	CRC	51,000,000.00	51,000,000.00	0.00
Downsview, Ontario	DIPP	22-Jan-91	С	6,138,093.00	5,614,539.51	0.00
Downsview, Ontario	DIPP	9-Mar-92	CRC	101,939,646.00	101,939,645.01	0.00
Downsview, Ontario	DIPP	9-Mar-92	CRC	38,208,033.00	38,208,032.90	0.00
Downsview, Ontario	DIPP	9-Mar-92	CRC	9,018,673.00	5,623,322.09	0.00
Downsview, Ontario	DIPP	31-Jan-94	С	854,841.00	813,526.08	0.00
Downsview, Ontario	DIPP	31-Jan-94	CRC	1,809,500.00	1,804,663.33	0.00
North York, Ontario	DIPP	30-Mar-94	CRC	34,850,621.00	34,850,621.00	7,484,419.22
Downsview, Ontario	DIPP	31-Mar-94	RC	191,506.00	189,759.75	189,759.75
Downsview, Ontario	DIPP	31-Mar-94	CRC	6,412,289.00	6,125,456.00	3,313,001.00
Downsview, Ontario	DIPP	7-Apr-94	CRC	5,203,161.00	3,460,142.00	0.00
Downsview, Ontario	DIPP	20-Dec-98	CRC	35,189,464.00	35,189,464.00	0.00
Total				745,282,654.00	722,945,196.32	187,622,374.99

Table 6: Authorized assistance, net expenditures, and repaymentrecords for Bombardier Group, April 1, 1982 to March 24, 2005

Abbreviations:

DIPP: Defence Industry Productivity Program TPC: Technology Partnerships Canada SC-AM: Sector Campaign for Advanced Manufacturing Technology DESA-KG1: Subagreement with Quebec for industrial development (1991) DESA-KF4: Subagreement with Quebec for science & technology development CRC: Conditionally Repayable Contribution RC: Repayable Contribution C: Contribution Source: Industry Canada, 2006a.

The cost of Industry Canada

Pratt & Whitney and Bombardier are two well-known recipients of assistance because they have been the two most expensive companies for taxpayers to subsidize since 1982. However, they are not the only recipients. For over two decades, Industry Canada has subsidized multiple businesses and non-profit ventures through 21 programs or agencies (Industry Canada, 2006b).

Three sources of corporate welfare are analyzed here: the now-defunct Defence Industry Productivity Program (DIPP), the more recent Technology Partnerships Canada (TPC), and the Atlantic Canada Opportunities Agency (ACOA) which, similar to DIPP and TPC, offers assistance but to business in one geographic region.

The following summaries, based on information provided by the ACOA and Industry Canada through Access to Information requests, detail annual disbursements, repayments, and net losses as released by the various agencies. Opportunity costs are then calculated according to the information provided by the various agencies.

Opportunity costs

In addition to the initial cost of subsidies which most observers would readily identify the money expended and/or the interest cost on money borrowed—another loss must be recorded with respect to corporate welfare: opportunity costs. Opportunity costs represent the lost potential for another use for that same money, and the lost potential returns from that money. For example, a consumer with limited resources who spends \$1,000 on a new television and later sees a piano for the same amount cannot buy it. The lost opportunity to buy the piano is the opportunity cost.

When the government chooses on behalf of the public to subsidize business, opportunity costs are incurred without personal priorities in play. But when the results of subsidies that incur such opportunity costs—for example, the creation of employment, wealth, and tax revenues—are neutral or negative, justification for subsidies is weak.

Atlantic Canada Opportunities Agency (ACOA)

The Atlantic Canada Opportunities Agency (ACOA) was established in 1987 with a broad mandate to encourage economic development in Atlantic Canada. That mandate includes increasing the number of jobs for and the earned income of Atlantic Canadians. According to the agency, the ACOA pursues two distinct goals to that end: "to ensure that a wide variety of business development tools and resources serve the diverse needs of the region's emerging and existing entrepreneurs; and, to ensure that

Fiscal year ending March 31	Total expenditures (nominal \$)	Total repayments* (nominal \$)	Net amount (nominal \$)	Percent repayed per year	Accumulated net amount outstanding (nominal \$)	Opportunity cost (in 2006 \$)
1995-96	61,277,460	35,514,488	25,762,972	57.96	25,762,972	2,493,045
1996-97	101,669,614	52,959,809	48,709,805	52.09	74,472,777	6,524,920
1997-98	131,025,367	64,433,257	66,592,110	49.18	141,064,887	11,353,032
1998-99	107,337,321	66,241,401	41,095,920	61.71	182,160,807	14,816,653
1999-00	68,913,620	39,195,629	29,717,991	56.88	211,878,798	16,761,152
2000-01	82,590,343	38,065,000	44,525,342	46.09	256,404,141	20,507,366
2001-02	83,320,672	27,704,145	55,616,526	33.25	312,020,667	22,585,776
2002-03	98,547,522	17,025,332	81,522,190	17.28	393,542,857	24,659,011
2003-04	120,667,233	11,561,829	109,105,405	9.58	502,648,262	29,820,572
2004-05	78,418,452	3,419,883	74,998,569	4.36	577,646,831	32,042,045
2005-06	41,515,247	324,413	41,190,834	0.78	618,837,665	32,362,058
Total	975,282,851	356,445,186	618,837,665	36.55	3,296,440,664	213,925,629

Table 7: Expenditures, repayment, and net amounts outstandingfor the Atlantic Canada Opportunities Agency, 1995-2006

Data current to August 2, 2006.

*Note that payments are applied retroactively to the year in question. For example, in 1995-96, total actual expenditures for projects that year amounted to \$35.5 million; by 2005-06, a total of \$25.7 million had been repaid. The repaid amount did not necessarily occur in that year but is the cumulative amount repaid for that project year ever since.

Source: ACOA, 2006d; calculations by author; opportunity costs calculated by Jason Clemens and Joel Emes.

all economic development programs and activities in Atlantic Canada are coordinated and designed to improve the climate for business growth generally" (ACOA, 2006a). The ACOA claims that for every dollar spent through its business assistance efforts, \$1.25 is generated in tax revenue (ACOA, 2006b). [4]

[4] A claim of a tax revenue feedback effect is common and curious. If governments could indeed recoup \$1.25 for every \$1.00 spent, the obvious question is, why have any limitation on subsidy expenditures? Such estimates are unsupportable because they are based on empirically unsound calculations and they violate basic economic reasoning (Buss, 1999a). These estimates also ignore the substitution effect, which occurs when economic gains are produced in one region at the cost to another (Baum, 1987; Fumagelli, 2003; Axarlogou, 2005).

Repayable loan programs at the ACOA

- Total expenditures on repayable loan programs at the ACOA between 1995/96 and 2005/06 amount to \$975.3 million. ACOA has recouped \$356.4 million or 36.6% of its expenditures on repayable loan programs (see table 7, pg. 22).
- % The net amount outstanding is \$618.8 million.
- A conservative estimate of the opportunity costs of the ACOA's net expenditures is \$213.9 million as of March 31, 2006 (ACOA, 2006d; opportunity costs calculated by Jason Clemens and Joel Emes). [5]

Technology Partnerships Canada (TPC)

The mandate of Technology Partnerships Canada (TPC), which was established in 1996, was to provide funding for "strategic research and development, and demonstration projects that will produce economic, social and environmental benefits to Canadians" (TPC, 2006c). TPC replaced the Defence Industry Productivity Program (DIPP). TPC claimed its programs provided social benefits such as the "protection and enhancement of Canada's food supply," as well as benefits to funding recipients and the industry in general, such as leveraging additional capital, supporting innovation, and creating and maintaining jobs in Canada.

In November 2006, the federal government announced that an additional \$350 million in new funding would be directed to Bombardier (Vieira, 2006), an amount not yet reflected in records obtained by this study from TPC.

Repayable loan programs at TPC

- Total expenditures on repayable loan programs at Technology Partnerships Canada (TPC) amounted to \$2.23 billion between 1996/97 and 2005/06. TPC recouped \$181 million or 8.1% of its expenditures on repayable loan programs (see table 8).
- % The net amount outstanding is \$2.05 billion.
- The opportunity cost of TPC's net expenditures is \$791.2 million as of October 30, 2006 (Industry Canada, 2006b).
- [5] The repayments listed in this study are allocated (by the respective program or agency) to the original year in which the project first received a disbursement. That year is not necessarily the year in which the actual repayment occurred. Thus, the reader will have a sense of how repayments for a particular year's projects are doing. Also, the opportunity cost calculations in this study are conservative; that is, they assume that repayments occurred in the very year they were listed, not later as is most often the case with repayment programs designed to stretch out over years or decades. As a result, the expected return to the public purse in the future is overestimated, and the opportunity costs of the subsidies are underestimated.

Fiscal year ending March 31	Total expenditures (nominal \$)	Total repayments* (nominal \$)	Net amount (nominal \$)	Percent repayed per year	Accumulated net amount outstanding (nominal \$)	Opportunity cost (in 2006 \$)
1996-97	299,894,156	62,519,368	237,374,788	20.85	237,374,788	20,797,552
1997-98	213,759,819	41,922,932	171,836,887	19.61	409,211,675	32,933,733
1998-99	208,228,214	25,685,179	182,543,035	12.34	591,754,710	48,132,330
1999-00	255,954,477	19,207,982	236,746,495	7.50	828,501,205	65,540,462
2000-01	415,383,861	22,214,120	393,169,741	5.35	1,221,670,946	97,710,016
2001-02	157,654,091	8,784,089	148,870,003	5.57	1,370,540,949	99,207,310
2002-03	282,937,672	841,263	282,096,410	0.30	1,652,637,359	103,552,643
2003-04	130,585,984	141,793	130,444,191	0.11	1,783,081,550	105,784,732
2004-05	201,667,941	0	201,667,941	0.00	1,984,749,491	110,093,970
2005-06	70,707,118	0	70,707,118	0.00	2,055,456,609	107,489,910
Total	2,236,773,334	181,316,725	2,055,456,609	8.11	12,134,979,281	791,242,658

Table 8: Expenditures, repayment, and net amounts outstandingfor Technology Partnerships Canada, 1996-2006

Data current to March 31, 2006.

*Note that payments are applied retroactively to the year in question. For example, in 1996-97, total actual expenditures for projects that year amounted to over \$299 million; by 2005-06, a total of \$62.5 million had been repaid. The repaid amount did not necessarily occur in that year but is the cumulative amount repaid for that project year ever since.

Source: Industry Canada 2006c; calculations by author; opportunity costs calculated by Jason Clemens and Joel Emes.

Defence Industry Productivity Program (DIPP)

As a 2003 Industry Canada evaluation of Technology Partnerships Canada (TPC) noted, TPC's forerunner, "the Defence Industries Productivity Program (DIPP) was designed to serve the needs of the mature, cold-war aerospace and defence industry of the 1970s and 1980s" (Industry Canada, 2003). DIPP was wound down in the mid-1990s and replaced with Technology Partnerships Canada. Based on records dating back to 1982, DIPP's repayments amount to just over 20.1% of its portfolio. [6] Taxpayers are still waiting for over \$2 billion to be repaid.

[6] DIPP's portfolio was not rolled into the similar lending programs in TPC. It is tracked separately by Industry Canada.

Table 9: Expenditures, repayment, and net amounts outstandingfor Defence Industry Productivity Program, 1982-1997

Fiscal year ending March 31	Total expenditures (nominal \$)	Total repayments* (nominal \$)	Net amount (nominal \$)	Percent repayed per year	Accumulated net amount outstanding (nominal \$)	Opportunity cost (in 2006 \$)
1982-83	89,223,906	13,511,346	75,712,560	15.14	75,712,560	17,379,884
1983-84	403,657,385	72,212,594	331,444,790	17.89	407,157,350	77,221,414
1984-85	81,443,998	1,706,835	79,737,163	2.10	486,894,513	88,038,898
1985-86	267,755,016	20,620,101	247,134,915	7.70	734,029,427	125,542,915
1986-87	163,077,957	13,354,171	149,723,785	8.19	883,753,213	135,669,003
1987-88	178,316,258	27,439,785	150,876,473	15.39	1,034,629,686	144,467,687
1988-89	198,477,888	68,743,488	129,734,400	34.64	1,164,364,086	161,649,938
1989-90	187,591,499	113,230,529	74,360,970	60.36	1,238,725,056	178,060,945
1990-91	196,145,281	34,230,498	161,914,783	17.45	1,400,639,838	200,856,954
1991-92	330,631,068	42,556,697	288,074,371	12.87	1,688,714,209	205,658,434
1992-93	308,812,124	37,198,806	271,613,317	12.05	1,960,327,526	211,577,892
1993-94	139,246,391	74,637,956	64,608,435	53.60	2,024,935,961	197,017,375
1994-95	14,534,882	1,021,188	13,513,694	7.03	2,038,449,655	186,958,127
1995-96	0	0	0	0	2,038,449,655	197,257,759
1996-97	35,189,464	0	35,189,464	0	2,073,639,119	181,681,543
Total	2,594,103,116	520,463,997	2,073,639,119	20.06	19,250,421,854	2,309,038,768

Data current to March 31, 2006.

*Note that payments are applied retroactively to the year in question. For example, in 1982-83, total actual expenditures for projects that year amounted to \$89.2 million; by 1996-97, the end of DIPP, a total of \$13.5 million had been repaid. The repaid amount did not necessarily occur in that year but is the cumulative amount repaid for that project year ever since. Source: Industry Canada 2006c; calculations by author; opportunity costs calculated by Jason Clemens and Joel Emes.

Repayable loan programs at DIPP

- Total expenditures on repayable loan programs at the now-defunct DIPP amounted to \$2.6 billion between 1982/83 and 1996/97. DIPP recouped \$525 million or just 20.1% of its expenditures (see table 9).
- % The net amount outstanding is \$2.07 billion.
- % The opportunity cost of DIPP's net expenditures was \$2.3 billion (Industry Canada, 2006b).

Three-program summary

The total, summary results for the ACOA, TPC, and DIPP concerning only repayable and conditionally or provisionally repayable contributions are as follows (see table 10):

- % The expenditures in the years for which these programs have operated constitute \$5.8 billion;
- \$1.06 billion has been repaid, or 18.2% of expenditures;
- % \$4.75 billion is outstanding, or 81.8% of expenditures;
- M The opportunity cost of the three programs amounts to \$3.3 billion.

These totals exclude all other federal, provincial, and municipal programs which direct taxpayer dollars to business in any manner.

Table 10: Summary statistics for the Atlantic Canada Opportunities Agency,Technology Partnerships Canada, and Defence Industry Productivity Program

Program	Years	Total expenditures (nominal \$)	Total repayments, (nominal \$)	Net amount outstanding (nominal \$)	Percent of total expenditures repaid	Total opportunity cost to 2006 (2006 \$)
ACOA	1995/96- 2005/06	975,282,851	356,445,186	618,837,665	36.55	213,925,629
DIPP	1982/83- 1996/97	2,594,103,116	520,463,997	2,073,639,119	20.06	2,309,038,768
TPC	1996/97- 2005/06	2,236,773,334	181,316,725	2,055,456,609	8.11	791,242,658
Totals		5,806,159,301	1,058,225,908	4,747,933,393	18.2	3,314,207,055

Source: Canada Revenue Agency, 2007.

Conversion to 2007 dollars courtesy of Bank of Canada Inflation Calculator.

Claims about corporate welfare

In general, the practice of corporate welfare assumes market failure. Yet its proponents claim the following as justification for government assistance:

- it improves certain local economies by concentrating limited resources (Bartik, 1994);
- it redirects or stimulates economic growth and development not otherwise likely to occur (Buss, 1999a);
- it helps "fledgling businesses to obtain financing that private lenders do not provide—the idea being that many lenders are insufficiently knowledgeable about profitable opportunities for investment or are unwilling to take on the risks" (Mintz and Smart, 2003); and
- it creates jobs that might be needed in a labour market "right now" (Finkle, 1999).

The academic literature on assistance to business is substantial. In the following section, the justifications for corporate welfare are listed first, followed by a review and analysis based on the peer-reviewed literature on business subsidies.

New investment, new employment, new tax revenues

Industry Canada and associated agencies make various claims in defence of government assistance to business. The Federal Economic Development Initiative in Northern Ontario (FedNor) has claimed that assistance increases economic growth and, as a result, employment. FedNor estimated that, over five years, \$52 million was expended on over 600 tourism-related projects in northern Ontario. FedNor claimed the initiatives resulted in half a million additional new visitors, and "supported" 18,000 new jobs (FedNor, 2006).

Technology Partnerships Canada (TPC) has made similar claims. TPC asserted that its business assistance created and maintained high-quality jobs in Canada, increased personal taxes for provincial and federal governments as a result of such employment, created spin-off employment at suppliers and support companies, and ensured opportunities for highly trained graduates in Canada (TPC, 2006a).

In 2006, TPC claimed that its portfolio "leveraged an additional \$12.2 billion in private sector innovation spending: \$4.00 for every \$1.00 invested by TPC" (TPC, 2006a). TPC also it claimed that it facilitated investment decisions totalling \$15.4 billion (TPC, 2006a). This claim assumes the companies in question would not have invested in innovation spending without subsidies from TPC.

In April 2007, then-Industry Minister Maxime Bernier offered a similar defence of the new Strategic Aerospace and Defense Initiative (SADI) when he asserted that "[a] Il Canadians will benefit from the economic growth and technological advancements developed under this new initiative" (Industry Canada, 2007).

If you subsidize it, they will come: attracting multinational companies and increasing regional welfare

Another justification for corporate welfare is the claim that assistance to business will cause multinational companies to locate in a particular region and, as a result, additional benefits will be created for the local economy. Through corporate welfare, industries and governments attempt to "leapfrog" other competitors, so as to speed up investment and thereby increase domestic profits, consumer surplus, and welfare (Herguera and Lutz, 2003).

The Organisation for Economic Co-operation and Development (OECD) notes that the strategic promotion of industries, especially research and development intensive industries, is a significant justification advanced by governments, despite the possibility of unintended distortions in the allocation of productive capital (OECD, 2006). As a justification for subsidies, some governments cite Porter (2003) and his assertion that the performance of regional economies is strongly influenced by the strength of local "clusters," as well as the vitality and plurality of innovation.

The appearance of "doing something"

Dennis Rondinelli and William Burpitt (2000) note that perception offsets reality in public policy-making. Thus, even if business subsidies are ineffective, politicians are compelled to support the subsidies because of their perceptive value. Potential political and public criticism creates a political unwillingness to change policy. Wim Wiewel (1999) notes that policy makers feel political pressure to address economic development issues. Jeffrey Finkle (1999) asserts that subsidies are *inherently* political and that politicians will not facilitate the transfer of residents out of their jurisdiction. He argues that taxpayer assistance to business is defensible on the grounds of inevitability, because "[in] a democracy, government *is* political. It exists to do politically popular things—also known as the will of the people. To expect elected policy makers to do otherwise is inconsistent with our system" (1999, emphasis original).

The truth about corporate welfare: an analysis of the peer-reviewed literature

Employment creation is expensive and the results are dubious

Empirical analyses of subsidies cast doubt on many of the claims advanced in support of business assistance. Nigel Driffield (2004) tests one fundamental assumption of regional policy makers over the last 20 years: job creation. He notes that western governments spent significant sums of public money on subsidies in order to attract internationally mobile capital in both the United States and Europe. However, he points out that the "cost per job" of the investment incentives cannot be justified "on the basis of the number of jobs directly associated with the investment alone."

Attracting investment may be a matter of switched locations

Timothy Bartik (1994) found that extra job growth in one locale due to targeting comes, in part, at the expense of reduced job growth in another region. Terry Buss (2001a) notes that for subsidies to be justified and for accompanying job creation estimates to be credible, such studies would have to identify new employment, not merely employment shifted from one job site to another.

Corporate Welfare Profile #1

Employment creation and the substitution effect

In 1986, Industry Canada-Regional Development paid for the construction of a new fish plant in Quebec at a cost of \$2.2 million. The justification was that an additional 250 jobs would be created when the fish-processing facility opened its doors. However, as the Auditor General noted in 1995, the nearby existing fish-processing plant (which also received federal subsidies) closed with job losses equivalent to those created by the newly subsidized fish processing plant. Net employment gains were zero because jobs were transferred—not created—at the cost of additional subsidies (Office of the Auditor General of Canada, 1995).

Corporate welfare targeted at specific regions has little to no positive effect

Margaret Dewar (1998) found that programs aimed at specific distressed geographic regions show "almost no effects on the growth of these areas." Dewar notes that exceptions exist when the distressed area "is so small that a program can influence a decision to locate or expand on one side of a border rather than another."

Driffield (2004) found that while spillovers from Foreign Direct Investment (FDI) do occur, they are only significant where the inward investment is motivated by the desire to exploit firm-specific advantages generated elsewhere. However, even in such cases, the beneficial effects are limited to the region that attracted the investment—there is no widespread positive economic effect.

Donald Baum (1987) evaluated the effect of state and local government business incentives and subsidies on local and national economic welfare. He found that subsidies may increase local welfare in a single community but reduce national welfare.

Kostas Axarloglou (2005) evaluates the relative impact of industry and statespecific economic factors on inward FDI in several American states that compete for the same inward FDI. Axarloglou found that relative labour productivity, relative spending on education, and relative crime rates are important in inter-state competitions. If the contest to attract inward FDI comes down to two states, relative tax incentives also become important in attracting FDI inflows. But the importance of tax incentives to attract FDI *cannot in itself* justify the policy from a national or international perspective. That one of the two states attracts a foreign company solely due to the subsidy leads to the conclusion that, absent the subsidy, the investment would have occurred in one of those two states, resulting in employment gains and tax revenues.

Chiara Fumagalli (2003) found that when regions compete for investment through subsidies, "one of the competing regions benefits more from the inward investment but, in the absence of incentives, the multinational's preferred location is the other, more advanced region" (964-965). He theorizes that subsidies, which tempt the multinational to switch locations, *may* increase aggregate welfare, but he also acknowledges that the competition effect, which hurts domestic firms, may cancel out any other positive role of incentives.

In a Canadian review on the effectiveness of corporate welfare, Joe Ruggeri (2002) considered changes to government subsidies to business from 1992 to 1998. He found that the distribution of federal subsidies suggested that these subsidies were not a factor in explaining different performances of regional economies.

Corporate Welfare Profile #2 Ford's subsidies and Ford's layoffs

In 2004, the federal government provided \$100 million to Ford Motor Company to build an automotive factory in Oakville, Ontario.* Then-Human Resources Minister Joe Volpe argued that Canada must offer incentives to retain Canadian automotive jobs, saying, "Regrettably, in recent years, more auto jobs have been created elsewhere as investment, private and public, is generated outside our country. We must reverse that trend" (Thompson, 2004).

In January 2006, Ford announced plans to shut 14 plants by 2012 and eliminate 25,000 to 30,000 jobs, including 350 in Windsor, Ontario (*Daily Mercury*, 2006). In December 2006, Ford announced the layoff of another 215 workers, this time in Oakville (*Oakville Beaver*, 2006).

*Note: Ford also received \$100 million from the provincial government for its Oakville facility. This, however, is not included in this study as the focus is on federal corporate welfare.

Subsidies are not important to foreign investors

Rondinelli and Burpitt (2000) surveyed executives in 118 internationally-owned firms in North Carolina. They found that, when making investment decisions, the factors

foreign-owned companies listed as being of high importance included the labour force, transportation, quality of life, and overall business climate. State tax, finance, plant services, and marketing assistance (financial incentives) were consistently considered to be of low importance.

Kelly Edmiston, Shannon Mudd, and Neven Valev (2004) found that if tax incentives are given to the wrong firms, such measures are not only ineffective in stimulating foreign direct investment, but they also result in tax shifting and may *reduce* Foreign Direct Investment.

Corporate welfare is not popular with voters

Finn Poschmann and William Robson (2004) provide one counter to Finkel's claim (1999) that business assistance is an inevitable outgrowth of democracy and can be justified on that basis:

As a guide to policymakers, this observation is not particularly helpful. While the redistributive effects of industrial policies are central to their appeal, the inefficiency of subsidies and preferences as tools for redistribution is central to the criticisms that economists and others level at them. Moreover, redistribution that favours politically powerful groups, including sectoral interests, is a potential outcome of democratic processes that most voters, at least in the abstract, would tend to deplore (Poschmann and Robson, 2004).

Moreover, as Roger Noll and Andrew Zimbalist (1997) report, when offered a referendum, voters often turn down proposals which would result in tax dollars transferred to a business. Such referendums are often on subsidies to professional sports teams, entities that would normally attract more favourable outcomes than other businesses with a much smaller "fan" base.

Corporate Welfare Profile #3

The Auditor General's comment on regional development results

Canada's Auditor General has noted the problem with regional development as a justification for business subsidies. In 1995, despite \$4 billion spent on economic development programs, there was no clear consensus among observers on the programs' results. Regional development programs targeted at Quebec, Atlantic Canada, and the West were particularly problematic because, for example, the information regarding the success rate of projects was incomplete (Office of the Auditor General of Canada, 1995).

Industry studies on assistance are often methodologically flawed

Many of the industry studies that advocate for corporate welfare are not peer-reviewed and, as a result, are methodologically flawed. Though it is possible for peer-reviewed studies to be methodologically flawed as well, the difference between studies that are peer-reviewed and those that are not is that the latter are not examined for possible bias or for mistaken or improper methods.

Buss (1999a) notes that many industry-sponsored studies are not peer-reviewed and thus lack scientific rigour. Industry studies which purport to show the value of corporate welfare routinely are "based on poor data, unsound social science methods, faulty economic reasoning, and is largely a political activity." As a result of this lack of peer review, Buss notes that propriety and secrecy are rife in studies. This is incompatible with a scientific approach, given that independent replication is necessary to ensure proper methodology. Moreover, Buss finds that claims of increased investment and employment in industry studies are the result of correlation-causation errors: [7]

A large part of the social science enterprise is meant to explain cause-and-effect relationships through theory or model building and empirical testing, all guided by stringent rules and methods. Targeting, by contrast, explores all available data, searching for relationships. Targeting eschews theory and causality in favor of any interesting or useful association that can justify targets. Philosophers of science refer to running everything against everything as "rank empiricism" (Buss, 1999a: 344).

However, because industry studies appear cloaked in the legitimacy of scientific and economical rationale, they provide politicians and bureaucracies with the justification to award political favours, without appearing to be political. It also gives politicians the false sense of being in command of economies over which, in reality, officials have little control. Buss concludes that the underlying economic premises for business subsidies are deeply and seriously flawed. He notes that benefit claims are exaggerated and double-counted, and growth factors are misapplied. Often, projects are justified on the basis that some entity other than the local government will pay all or a large portion of the costs. As Buss notes, "To most, targeting can be promoted as a

^[7] There is also a correlation-causation problem with political or industry conclusions drawn from research such as Porter (2003) on clusters. That regional economies are strongly influenced by the strength of local "clusters" (and the vitality and plurality of innovation present) is not in itself an argument for subsidies. Porter's conclusion should be regarded as an observation and not a justification. Similar businesses tend to attract similar businesses because of reasons such as access to a skilled workforce and the convenience of doing business with suppliers.

benefit without cost. Potential losers are always in other cities or states, and few people concern themselves with the national interest" (Buss, 2001a).

According to Buss, another problem with studies in favour of corporate welfare is that they are often wrong about what firms are likely to locate in a region, in part because of previously-mentioned methodological flaws within the studies. A lack of adequate infrastructure is often advanced as an important reason to target public dollars to a region, but that can and does lead to subsidized and under-utilized industrial research parks, half-empty technology centres, and would-be Silicon valleys (Buss, 2001a).

Despite their flaws, studies in favour of corporate welfare reinforce the selfinterested bias inherent in the industries and businesses that want subsidies, and they give politicians who are already hesitant to "pull the plug" on such subsidies more reason not to do so.

Corporate Welfare Profile #4

How industry studies miss the mark

Buss notes the many problems with industry studies which attempt to support corporate welfare. Here are a few examples from his review of the same:

"Consider Youngstown's experiences. In one study, results suggested that Youngstown could not support high-tech, computer-assisted manufacturing with a labor force dominated by ex-steelworkers. Yet, several months after the study, the region attracted a high-tech industry.

"In another Youngstown study, analysts identified a high-growth sector—children's wooden toys—for targeting. But analysts failed to note that all growth—and indeed, all sectoral employment— came from one firm, which doubled in size to produce special, short-term, one-time-only orders. Ironically, the company shut down shortly after the study."

"In a third Youngstown study, targeters recommended heavy investment and expansion of basic and specialty steel, only to see 15,000 steel jobs lost within 6 years of the analyst's report. Again, crunching numbers, in the absence of theory and method, flies in the face of science" (Buss, 1999a: 345-346).

The reality of competing subsidies: a zero-sum or negative sum game

In contrast to supporters of corporate welfare who argue business subsidies help economic growth, three authors note the problem with ignoring how subsidies merely displace capital investment which otherwise might have occurred. Wenli Li (1998) explains that government credit programs cannot make the private economy more efficient precisely because governments possess no informational or technological advantage over private agents. Rudy Aernoudt (2005) examines government efforts to stimulate growth, innovation, and the creation of new enterprises, and cautions that government should look at innovative ways to stimulate business angel financing (private investors who invest in start-ups companies), rather than coping with market failures by bureaucratic subsidy schemes. [8] Andrew Atherton (2005) revisits the case for supporting start-ups and notes academic evidence and arguments for and against intervention reveal that the literature has not been fully supportive of policy rationales for supporting new venture creation.

Given that locally financed subsidies are a negative sum game, how can such evidence be reconciled with their continued use by communities? One explanation, according to Baum (1987), is that "the theoretical result [that subsidies cannot be empirically justified] is correct, but government failure resulting from differences in the distribution of costs and benefits, ignorance, or an emphasis on short-run rather than long-run costs and benefits causes communities to offer subsidies" (352-353). He theorizes that local subsidies persist in part because some members of the community benefit even as others may be harmed, for example, because of "rent-seeking." Rentseeking occurs when firms find it easier to lobby for wealth transfers than to compete for wealth in an open marketplace.

Summary of the strongest arguments for corporate welfare

The strongest arguments in favour of business subsidies are anchored in the following claims:

- Subsidies may benefit a local economy, but it depends on multiple factors including an absence of a subsidy offer from a competing community;
- Where subsidies are granted, preference should be given to existing businesses over start-ups, given the high rate of failure among new enterprises and the accompanying risk for the lender (in this case, the government);
- Alternatively, start-ups should be subsidized because the "acorns" of today are the "oak trees" of tomorrow. Moreover, start-ups are the quickest way to create new jobs.
- [8] Despite his preference for angel financing, Aernoudt does make a "pitch" for public co-investment schemes, but his call rests upon the assumption that there should be a maximum spread of risk for the investor. He does not elaborate on why that risk should be extended to government, and by extension, to taxpayers.

Atherton (2005) details not only the broader policy research case for supporting startups, but he also highlights, perhaps unwittingly, the omission of any substantive proofs that subsidies have a demonstrable impact:

There is, in conclusion, debate in the literature on whether government should or should not support business start-ups. In broad terms, two general thrusts can be identified. Proponents of support for start-ups have tended to focus on what might be termed the aggregate, or overall, effects of new venture creation on the economy, finding positive and significant contributions to employment and, more indirectly flexibility and adaptability, to be primary rationales for intervention.

Critiques of government policy towards start-ups have questioned the feasibility and ease of delivery of initiatives, and in particular their effects and impact.

A conclusion from the research and academic debate around start-ups, therefore, might be that, although the broad case and rationale for supporting start-ups can be made (for example, Atherton *et al*, 1997) *what is not clear is why so many interventions have not achieved demonstrable impact and 'return' on public expenditure* (Atherton, 2005; emphasis mine).

One obvious answer to Atherton's query is that there may not be a demonstrable impact and return on public expenditures because of the substitution effect. The substitution effect occurs when employment and tax revenues are shifted to business at a significant cost, and no new investment or employment is created, on a net basis, when the national or international economy is considered. For example, a subsidy offered to "create" film jobs in Alberta may merely shift intended investment from British Columbia or Ontario; or, a subsidy offered to the Embraer aerospace company in Brazil may simply replace existing jobs in the same industry in Montreal or Paris.

In addition, the argument that existing businesses should be the preferred object of a subsidy unintentionally neglects to recognize that start-ups may fail because subsidies to existing industry players reduce their chance for success. Neither the stability and creditworthiness of established businesses nor the greater job-creation potential of start-ups is a valid reason to subsidize *either* business against each other.

Peer-reviewed research on business subsidies does not support political or recipient claims that corporate welfare is responsible for widespread economic growth. At best, a generous interpretation of the literature suggests that subsidies *may* in very specific locations produce *some* effect on *some* economic behaviour. The World Trade Organization (2006) notes that even when considering the most celebrated examples of assistance to business—industrial policy in East Asia—at best, the results indicate that industrial policy made "a minor contribution to growth in Asia." At worst, as the literature overwhelmingly concludes, there may not be a demonstrable positive impact upon the economy, employment, and tax revenues because of the substitution effect. Thus, the literature suggests that the best means by which to encourage economic growth is not through assistance from the government, but through neutrality in the competitive marketplace.

The top ten problems with corporate welfare

1. The government lacks self-correcting mechanisms to correct poor investment decisions

Market competitors act as a check on each other in a number of ways. First, competition encourages innovation, as well as more efficient investment and spending. Second, in a competitive system, money managers who benefit from sound investment decisions and suffer financially from poor calculations have a strong incentive to perform due diligence on potential investments. The self-correcting, constant fine-tuning process found in the private sector between businesses seeking capital and money managers seeking a place to deposit capital is absent in government and cannot be artificially recreated.

Governments can, as a 2003 review of Technology Partnerships Canada (TPC) demonstrates, discover, after the fact, that investment and business skills are not at work in the management of such programs (TPC, 2003). However, even with that hind-sight, it is unlikely that governments will be able to recreate the self-correcting mechanisms that exist naturally in a private lending environment.

Another excerpt from the 2003 audit noted that "documentation in a number of files was incomplete and/or non-standardized, especially surrounding due diligence. This increases the risk of TPC not being able to demonstrate the level of due diligence performed on funding proposals and the rationale for decisions made" (TPC, 2003: 6).

Corporate Welfare Profile #5

The lack of self-correcting mechanisms at Industry Canada

In a 2003 internal review of the subsidy program, Technology Partnerships Canada (TPC), the reviewer noted the following:

"Opportunities exist to strengthen project file documentation and ensure that technical advisors have the business backgrounds and/or business related experience needed to minimize the risk that items, of a critical financial nature, are not appropriately considered in the due diligence and monitoring processes" (TPC, 2003: 6).

2. Corporate welfare discriminates against other businesses and other industries

Business subsidies create uneven playing fields between business and industries that do not receive taxpayer support and those that do. Subsidized businesses receive an artificial, politically-created advantage.

Corporate Welfare Profile #6

Transferred jobs on the BC Coast

When the Skeena Cellulose pulp mill in Prince Rupert, BC, encountered financial difficulties in the 1990s, the provincial government intervened in 1997 to prevent the mill from closing. Part of the "bail out" package included loan guarantees, capital expenditures, loans, and, later, an ownership stake. In 2002, the Auditor General reported that the provincial government spent \$323.3 million on various subsidies to the troubled mill (Office of the Auditor General of British Columbia, 2002: 29-42).

By doing so, the government kept the mill in direct competition with other newer and more environmentally and economically efficient pulp mills in the province. In 2001, Doman Industries Ltd., which was ready to lay off 1,000 employees, threatened to sue the province for funding a competitor—Skeena Cellulose (Nuttal-Smith, 2001: A1).

3. There is no guarantee that the "saved" business will remain in the jurisdiction where funding for the company originated

When governments give taxpayer dollars to business in a particular region, there is generally no mechanism that can prevent such companies from later transferring all or part of their operations out of that jurisdiction. Even if location restrictions were written into a contract, a company could later make the case that absent such a change in locale, the company's existence itself is endangered, as is repayment of the original loan.

4. Corporate welfare is potentially harmful to trade-dependent countries

Countries that offer subsidies jeopardize the overall growth of worldwide free trade. Such policies are risky for trade dependent countries such as Canada where exports are worth \$453.6 billion annually (Statistics Canada, 2006b), and where the annual trade balance, at \$66.9 billion, is tilted in Canada's favour. Canada is highly dependent on trade and on a rules-based trading system. It is to Canada's advantage to promote fewer subsidies at home and abroad so as to avoid making Canadian firms and jobs targets of protectionist-minded governments and anti-trade coalitions elsewhere.

5. Corporate welfare costs each Canadian taxpayer \$1,259

Many jurisdictions attempt to attract similar businesses and industries. However, taxes paid out in the form of subsidies must first be paid by others in the system, domestically or abroad. In 2004, just over 23.5 million Canadians filed a tax return and almost 16.2 million of those paid income taxes. Thus, in 2004, corporate welfare in Canada cost each taxpayer who paid income tax \$1,259. This amount is 35% higher than the 1995 figure of \$934 (calculations by author, based on data and statistics from Canada Revenue Agency (2007) and Statistics Canada (2006a); both figures adjusted for inflation to 2007 dollars).

Corporate Welfare Profile #7

Subsidy received, plant operations moved south

In 1997, Western Star Trucks Inc. of Kelowna, BC, was given \$17,380,391 in government assistance (TPC, 2006d). While it retained some operations in Ontario, Western Star Trucks Inc. closed its Kelowna plant and moved its western operation to Portland, Oregon, in 2002 (MacNaull, 2005). As of March 17, 2006, only \$507,327 (2.9%) of the assistance it received in 1997 had been repaid (TPC, 2006d).

6. Corporate welfare results in misallocated tax expenditures worldwide

It is not only Canadian taxpayers who pay the price for corporate welfare. Worldwide, business subsidies amount to over \$300 billion US annually (World Trade Organization, 2006). Taxpayer and consumer dollars given to one business or sector represents foregone reductions in the overall tax burden in countries that would allow innovation, entrepreneurship, competition, and employment to flourish based on the unique strengths of competing jurisdictions.

7. Corporate welfare undermines confidence in democratic institutions

Firms that obtain subsidies risk the public perception that they received their taxfunded benefits because of close associations with a particular politician or political party. Kevin Milligan and Michael Smart (2005) investigated the political and economic factors that influenced the allocation of regional subsidies for a panel of Canadian electoral districts between 1988 and 2001. As well, two agencies were analyzed by the authors: the Atlantic Canada Opportunities Agency (ACOA) and Canada Economic Development Agency for Quebec (CED-Q). The authors found that in a strong party system such as Canada's, models of political competition predict little role for individual candidates. Instead, party leaders are predicted to allocate resources to maximize party success. In the case of the ACOA and CED-Q, Milligan and Smart found that spending was targeted toward some "swing" districts and was higher in districts represented by members of the government party.

Corporate Welfare Profile #8

\$100 million to a Quebec ski resort, \$100,000 to the Liberal Party

Between 1993 and 2004, the federal government gave \$100 million in grants and interest-free loans to Mont Tremblant, a Quebec resort owned by Intrawest Corporation. The money was for the construction of roads, water and sewer systems, and recreational and convention centres. The Quebec government matched the funds. During the same period of time, Intrawest and related companies donated more than \$100,000 to the federal Liberal Party (Adam, 2005).

8. Corporate welfare is unfriendly to the environment

When the Nova Scotia government subsidized the province's steel and coal industry, the high levels of local and airborne pollution were widely acknowledged, as was the need for hundreds of millions of dollars to properly clean up the pollution. This fact was acknowledged by the government as one reason it preferred to continue subsidizing government-owned companies and private entities, rather than deal with the cost of abandoned mines and pollution clean-up (McMahon, 2001).

9. Corporate welfare can undermine safety and worker regulations

When subsidies are available to companies which, because of financial difficulty, would otherwise shut down, safety regulations may be compromised in an effort to keep a company afloat for the sake of jobs and for the now-committed taxpayer money at stake. In Nova Scotia, the government ignored safety warnings about the government-supported Westray mine for years because complying with safety regulations would have resulted in a loss of jobs or a shut-down, both of which would have been politically unpalatable. The result of such inaction was seen in 1992, when a preventable underground mine explosion at Westray killed 26 men (McMahon, 2001).

10. Corporate welfare promotes rent-seeking and distorts economic growth

As governments grant subsidies to one business or industry, pressure grows for the government to grant additional subsidies to other corporations or sectors. This creates targeted programs for more state "clients" at the expense of a more efficient tax system with fewer subsidies but with lower overall tax rates. Corporate welfare promotes rent-

seeking by creating a competition for public money. The end effect is capital directed towards targeted businesses and sectors which may not be drivers of future economic growth.

Corporate Welfare Profile #9

The Auditor General on continued dependencies

The Atlantic Canada Opportunities Agency (ACOA) has stated that commercial viability is a principal criterion for loans, grants, and other forms of assistance, and that funding should be limited to a maximum of three years. In a 2001 report, the Auditor General found that over 10% of projects reviewed received funding for more than three years and that 20% of projects were unlikely to be financially sustainable without continued government assistance (Office of the Auditor General of Canada, 2001).

It's not about the economics, it's about the politics: public choice theory as an explanation for corporate welfare

Much of the academic literature is unsupportive and skeptical of the case for corporate welfare. Thus, an explanation as to why it continues must be found elsewhere. Baum's (1987) observation that there is a political emphasis on the short-term supports the theory of public choice as a key explanation for why government assistance persists, despite empirical evidence of its general undesirability and of its indefensibility once the national or international economic environment is considered.

Overview of the public choice model

In its simplest form, public choice theory asserts that "people are people" as it concerns their motivations. It employs traditional economic methods and principles to analyze government behaviour within politics and bureaucracies. This approach is critical to a proper analysis because an assumption that political actors or bureaucrats desire the wider public interest *no matter the effect on their own private interest*, economic, career, or otherwise, does not reflect actual human behaviour. That faulty assumption fails to recognize the forces and interests that act upon and compel decision-makers.

Though he pre-dated the theory of public choice, Joseph Schumpeter (1942/1950) asserted that any study of economics must begin with the behaviour of individuals, a focus extrapolated later in public choice when economic theory was applied to the study of politics and government. Downs is credited with further breaking the ground that allowed economic tools to be used to analyze the political system (quoted in Cle-

mens *et al.*, 2005). In contrast, traditional analyses of government are characterized by assumptions such as those from Ritschl (1931/1958). Ritschl argued that the state economy is characterized by communal spirit within the community as opposed to private exchanges where self-interest governs all.

Mueller (1979) describes public choice as the economic study of non-market decision-making, and the application of economics to political science. The subject matter of public choice is in line with areas normally studied by political science: theories of the state, voting rules, political party behaviour, and so forth. However, the methodology and assumptions used by public choice are economic: man is egoistical, rational, and utilitarian, and he maximizes his own interest as he defines it. Thus, Tullock notes, we should expect people to engage in activities that further their own interests, be it in the private sector or in the public sector.

[G]iven that the same people engage in market activities and in politics, assuming that their behaviour has the same motivation in both of these areas seems simpler...the businessperson designs, let us say, the latest automobile so as to attract customers, the politician selects policies with the idea that the customers, who is the voter, will reward the politician in the next election" (Tullock *et al.*, 2002: 5-6).

Tullock remarks that no one considers this activity absolutely wicked—delivering what people desire is not usually seen as negative in a democracy—and that even where businesspeople and politicians occasionally sacrifice customers or support for high principle, as a rule, both maximize their own well-being.

Public choice does not reflexively favour a private or a government solution to a conundrum, though it is identified with a preference for non-intervention. It merely assumes human motivations are similar in each sector. Public choice's greatest strength is that it places the private and public sectors, human motivations, and proposed solutions on the same footing.

Motivations: self-interest and small group preferences

Public choice assumes competition matters in the public sector and for individuals and groups within that sector. Schumpeter (1942/1950) emphasizes the role of competition between political leaders for power. Party leaders are political entrepreneurs and obtaining votes in a democracy is the method by which they compete. Votes are the "currency" in which politicians deal, and their self-interest necessitates winning such votes.

Mancur Olson (1965/1971) notes that self-interest exists, regardless of the sector, and in fact may be exacerbated the larger the group of which one is part. He adds that assuming individuals in large groups (a bureaucracy or a political party, for example)

act to further the larger group interest is problematic. Olson rejects the notion put forth by Ritschl and others who assume "a curious dichotomy in the human psyche such that self-interest rules supreme in all transactions among individuals whereas self-sacrifice knows no bounds in the individual's relationship to the state" (1965/1971: 101). The assumption that individuals in large groups will act for the group interest is problematic for a variety of reasons. First, the smaller the fractional interest of any one member, the less incentive he has to provide additional amounts of the collective good. Second, the greater the number of members in any one group, the less influence any one member feels she has within the group. Thus, individuals will continue to act in a manner that furthers their own interests, rather than the interest of the group.

That is not to say that economic incentives are the only motivators that matter to individuals when making decisions, or that self-interest should be defined that narrowly. Other motivators include "the desire to win prestige, respect, friendship and other social and psychological objectives" (Olson, 1965/1971: 61). The recognition of human desires beyond just economic goals supports Olson's thesis and public choice theory, which extrapolates from Olson, because social status and acceptance are *individual*, non-collective goods. In government, those responsible for oversight are colleagues and social acquaintances, and, as a result, the desire to pass legislation with a minimum of social sanction is strong in such situations—even when it may be counter to the greater public good. Consequently, the motivation to work for the distant and vaguely defined public good—as opposed to one's individual interest—is weak.

The public choice model assumes human motivation is everywhere self-interested, though not necessarily "selfish." Public choice theory asserts that while other motivations exist, maximization of one's own interest is still paramount for a manager, whether he is employed by General Motors, Public Works Canada, or Industry Canada.

Prospects for change? A standing offer from the prime minister

In a speech during the 2004 election campaign entitled "Ending Corporate Welfare and Reducing Business Taxes," Conservative Party leader Stephen Harper (2004) was critical of Canada Steamship Lines for accepting corporate welfare, and of Bombardier, which Harper called "one of Canada's great success stories but also one of largest recipients of government assistance." He also criticized Technology Partnerships Canada (TPC) and its poor repayment record, saying TPC was clearly "not value for money." Harper's comprehensive list included criticism of the Atlantic Canada Opportunities Agency (ACOA), Canada Economic Development for Quebec (CED-Q), Federal Economic Development Initiative in Northern Ontario (FedNor), and Western Economic Diversification (WED). Harper noted that all these programs were responsible for "tens of millions of dollars given to corporations." Harper said he would only cut business taxes to the extent that corporate welfare was reduced, noting that he could find \$4 billion in savings from ending subsidies, grants, and contributions. Harper argued that "government should concentrate on creating a favourable tax environment rather than try and pick winners and losers" (Harper, 2004). But the new government's practice to date has not lived up to Harper's stated intentions (Vieira, 2006). Between September 2006 and February 2007, Industry Canada alone announced \$867.5 million in new corporate welfare. [9]

Despite his government's recent record, Prime Minister Harper may yet desire an end to assistance to business. But if so, public choice theory predicts that change in policy is unlikely until one of two events occur. First, the potential gains from rentseeking will need to be exhausted (Buchanan *et al.*, 1980); [10] or, second, the median voter must become "intransitive" or "stubborn" on a particular issue to the point that their vote is affected (Wittman, 2005). In other words, change will occur only when enough median or "swing" voters realize the undesirability of corporate welfare and are sufficiently disturbed by the practice to potentially change their vote.

While rare, such changed public sentiment is not unheard of. Alberta, for example, forswore loan guarantees for business as a result of a past public outcry, while British Columbia ended high-profile aid to a failed northern pulp mill and later restricted the practice of some business subsidies. [11]

Alberta and British Columbia both restrict the practice of corporate welfare in legislation and policy. [12] However, these restrictions only result in *relatively* less

- [10] Buchanan argues that as more and more efficiency-reducing institutions come to be established, providing more and more opportunities for rent-seeking behaviour to occur, dramatic change—for example, giving up subsidies for lower overall tax rates—will actually become more possible. That is because many groups (presumably, those who have not gained from rent-seeking) see that it is in their interest to combine and "agree to a generalized elimination of all rent-seeking opportunities" (Buchanan *et al.*, 1980). If and when the rent-seekers push too far, a reaction will be created that will allow for dramatic change.
- [11] British Columbia's reformed policy was provoked by a number of costly bailouts in BC in the late 1990s under the New Democratic Party government. One example of such a bailout was the Skeena Cellulose pulp mill in Prince Rupert. The mill was the victim of depressed pulp prices and competition from mills with newer, more efficient, and less polluting technology. In an effort to stave off Skeen Cellulose' closure, the BC government offered the mill \$300 million in loans and guarantees to help keep it open, but the mill eventually closed. In 2002-2003, the Auditor General estimated that the loss to BC taxpayers was \$323.3 million, with potential liabilities of another \$9.9 million, for a total loss of \$333.2 million (Office of the Auditor General of British Columbia, 2002: 36).
- [12] In British Columbia, the government passed a policy directive in August 2001 to eliminate some subsidies to business (Thorpe, 2001). A subsidy was defined as "a program or activity

^[9] This amount, \$867.5 million, was calculated based on amounts specified in news releases from Industry Canada (2006-2007).

corporate welfare than in previous decades. Though corporate welfare is limited, both provinces still deliver taxpayer support to the agricultural industry, aboriginal businesses, government enterprises, and others, including quasi-independent and private entities such as the BC Ferry Corporation (British Columbia Ferry Services, 2006). Despite their legislation and policy respectively, Alberta spent almost \$1.1 billion and British Columbia disbursed over \$900 million on corporate welfare in 2004 (Statistics Canada, 2006a). In the same year, Quebec spent more on business subsidies (\$5.1 billion) than any other province, followed by Ontario (\$2.1 billion).

It is possible to reduce subsidies to business, but it would require governments to plainly lay out the policy rationale. The government must show how expensive it is for taxpayers who each paid \$1,259 in 2004 to support these subsidies. The funds directed at corporate welfare could instead be put towards broad-based business and personal tax relief, which is in the wider public interest. A reduction in corporate welfare would likely require a "political entrepreneur" to make the case, perhaps the Prime Minister himself, or an opposition party.

The case must be simply and explicitly made, as it already has been partially, though not consistently, expressed: taxpayers will receive tax relief in exchange for an end to subsidies. The likelihood of such a public case succeeding is directly related to the profile the political entrepreneur is willing to give the issue. The higher the profile the political entrepreneur will give it, the more likely he is to succeed. This is because the total number of beneficiaries among both businesses and, critically, the voting public far outnumber the number of corporate welfare recipients.

The issue of ending or reducing corporate welfare for the few in favour of broadbased tax relief for the many must repeatedly be made and trumpeted if a political entrepreneur is to have a chance of persuading the median voter. The issue must be continually highlighted in order to help businesses and individuals who oppose rentseeking to coalesce in favour of a policy change on this \$144 billion file.

which transfers a benefit to a for-profit business or selected group of businesses beyond that which would be provided by the marketplace." However, the BC government exempted "programs where needed to maintain a level playing field." The meaning of a "level playing field" was not defined. The Conservative government of Ralph Klein in Alberta substantially reduced corporate welfare in the early 1990s and in 1996 passed the *Business Financial Assistance Limitations Statutes Amendment Act*. The Act required the Legislature to pass legislation to authorize any assistance to business that involves the Crown or Provincial Agencies in loaning money, acquiring an existing monetary loan, making a transaction involving the payment of any money; or supporting a joint venture or partnership. The Klein government passed such legislation after rising public anger over grants, defaulted loans, and provincial loan guarantees given in the 1980s and 1990s, which led to a \$2.1 billion loss to taxpayers by 1996 (Gray, 1996). Currently, Alberta's *Financial Administration Act* requires the Legislature to pass legislation to authorize any assistance to business that involves the Crown or Provincial Agencies in loaning money, acquiring an existing monetary loan, making a transaction involving the payment of authorize any assistance to business that involves the Crown or Provincial Agencies in loaning money, acquiring an existing monetary loan, making a transaction involving the payment of any money; or supporting a joint venture or partnership.

Recommendations

Recommendations specific to Industry Canada

- 1 Wind down and end business assistance programs within Industry Canada, its subagencies, other departments, their sub-agencies, and in Crown corporations.
- 2 Require companies to repay already-allocated subsidies as per the terms of their contracts and agreements.

General recommendations to governments

- 1 Continue to support international efforts to end subsidies, including bilateral and multilateral agreements, as well as efforts to strengthen existing country-to-country treaties and to initiate new ones. It is in Canada's interest to reduce rules against our imports and to be able to compete with non-subsidized companies from other jurisdictions.
- 2 Trade the money spent on business subsidies for business tax reductions. Should the federal government end corporate welfare, calculated to be \$6.6 billion in 2004, such expenditures could be redirected to corporate income tax reductions in equal dollar amounts. Had this been done in 2004, the corporate income tax rate could have been reduced from 21.0% to 14.6%.

Conclusion

With \$144 billion spent between 1995 and 2004 and \$19 billion allocated in 2004 alone, government assistance to business is significant in Canada. Where such assistance is not in the form of grants or quasi-grants (interest relief loans, for example) but has been allocated in the form of repayable loans or conditionally repayable loans, the repayments have been relatively marginal. Thus, there is a significant opportunity cost to such expenditures.

That opportunity cost, however, creates a policy opportunity. As the cost of corporate welfare, in 2004 alone, was \$1,259 per taxpayer who paid income tax, the potential of trading corporate welfare payments for general corporate or personal tax relief is significant. Consequently, there now exists an opportunity for a political entrepreneur to highlight the potential benefits of widespread business and personal tax relief if business subsidies can be substantially reduced or eliminated.

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