



Canada-United States Law Journal

Volume 21 | Issue

Article 38

January 1995

Tax Credit Aspects: Tax Climate for R & D: A Canadian Perspective

Peter Kastner

Follow this and additional works at: <https://scholarlycommons.law.case.edu/cuslj>

 Part of the [Transnational Law Commons](#)

Recommended Citation

Peter Kastner, *Tax Credit Aspects: Tax Climate for R & D: A Canadian Perspective*, 21 Can.-U.S. L.J. 289 (1995)

Available at: <https://scholarlycommons.law.case.edu/cuslj/vol21/iss/38>

This Speech is brought to you for free and open access by the Student Journals at Case Western Reserve University School of Law Scholarly Commons. It has been accepted for inclusion in Canada-United States Law Journal by an authorized administrator of Case Western Reserve University School of Law Scholarly Commons.

Tax Credit Aspects: Tax Climate for R & D: A Canadian Perspective

*Peter Kastner**

I think what I would like to do is, rather than take you through a technical discussion of the Canadian R&D incentive legislation on the federal and provincial level, is give you my views on the policy design behind it and why I think it is particularly attractive in the international environment. I will comment on why I think it is particularly well-suited for an international environment, multinational, and why the benefits of the ownership neutrality of the incentive program are particularly valuable and work as an incentive in Canada.

The question in the political policy debate forum is whether or not there is value for money in research and development incentives in Canada. And the context of my remarks will be the Canadian policy discussion. Is there value for money? As all of us are aware in Canada, and certainly the international press and the international finance community is aware, we have an incredible debt. We have a very large per capita deficit on an on-going basis. In terms of the G7, we probably rank in economic stability about the same as Italy. There is an incredible emphasis on tax expenditures and government grant programs in value for money. The research and development program in Canada in the last twenty-four months has undergone a review by the Auditor General's department, the Department of Industry, the Department of Revenue on the administration side, as well as the Department of Finance who are the crafters and authors of the legislation.

The question is particularly poignant in the Canadian context since the bulk of research and development incentives — and I think it would be roughly along the engineering rule — that twenty percent of the participants take eighty percent of the incentives. As all of us know, the ownership of large multinationals in Canada is predominantly foreign, which raises a domestic social policy issue as well as a fiscal policy issue. A large amount of the incentives are delivered on behalf of shareholders that reside outside of Canada.

So having set a bit of a context for that, let me give you a brief overview of the system and roughly how it works. I would not propose to take you through a technical discussion of it, but I will give you a

* Mr. Peter Kastner is Assistant Vice President, Major Accounts, Canada for Northern Telecom, Ltd.

The following text was compiled from the transcript of the remarks made by Mr. Kastner at the Conference.

brief overview.

The incentive is at a federal level in two parts. It is a twenty percent tax credit on the amount of qualifying research and development expenditures. The amount that qualifies is not dollar-for-dollar. On a fully loaded basis of the support costs, our experience on what the cost of a software engineer is — about eighty-five percent of the fully loaded cost of a software engineer would qualify as a research and development expenditure.

If the fully loaded cost of an engineer with all of his support costs and support staff and facilities and materials that he uses is say \$140,000 dollars a year (Canadian), eighty-five percent of that will qualify. It qualifies in two parts. It qualifies for the federal tax credit of twenty percent of that eighty-five percent that qualifies. That twenty percent for a large corporation can be used as an installment against your tax which is otherwise payable.

The good news is it is a fairly rich incentive. The bad news is, if you are in a cyclical industry where you have loss years — I look, say, at the automotive industry that tends to go like this — that you may have years when you generate tax credits you are not able to use in that year. I will discuss that later when I talk about the small corporations. The provisions are somewhat different.

There is a twenty percent federal tax credit. There are two provinces that are the main players in Canada; Ontario and Quebec. Ontario allows you a deduction over and above the actual expenditure for research and development performed in Ontario. And Quebec has a ten percent wage tax credit. In the example I used that the fully loaded cost of an engineer of \$140,000 dollars, if the salary cost is say \$75,000 dollars, then there is a \$7,500 dollar wage tax credit that you can use in the Province of Quebec.

The Quebec model is one that is more advanced and arguably friendlier to use than the federal model, since, if you have a year when you have no tax payable, it converts to a refundable tax credit. It is payable immediately. You can use it to grind down your installments. You can also use it to pay other Quebec taxes.

In addition to the tax credits at the federal and provincial level, the amount that you spend on research and development in a year is deductible in that year. There is no requirement to capitalize it. That is particularly attractive in looking at the amount of capital that it takes to sustain a research and development lab. The exception to that is on account of buildings; buildings are subject to the normal tax depreciation rules.

There is indeed a richer program for smaller corporations, and it is a somewhat discriminatory program in that it is triggered by two things. One is the gross revenues of the corporation, and the other one is the ownership. The richer program, which has a thirty-five percent

tax credit on the first two million dollars of research and development expenditures is limited to companies that are private, that is, not traded or controlled by a public corporation, and the shares must be controlled by a majority of Canadian residents.

It is certainly an attractive program, and I think that the Canadian history with that program is that it does indeed provide a lot of support at the entrepreneurial level, particularly in the electronic and software industry where you have mom and pop shops that get quite a significant tax credit advantage. It is thirty-five percent on the first two million dollars, and the balance is at twenty percent. It is fully refundable, and in some cases that works particularly well for start-up corporations where, in some provinces, they may have pioneer status or tax-exempt status for the first twenty-four months or thirty-six months, or until their gross revenues hit a particular threshold, or until their accumulative profits hit a particular threshold.

All the comparisons that we do in looking at the Canadian environment — and we typically do most of our research and development within the Provinces of Ontario and Quebec. The analysis and comparisons that we do to the rest of G7 are that the Canadian program is indeed the richest.

The amount that is spent on it is not a trivial amount. My estimate internally within Northern Telecom is that, depending on the province and the activity that is performed and the type of taxpayer that is involved, it is probably worth no less than fifteen cents on the dollar, and may be as high as twenty cents on the dollar. And that is for a large, multinational corporation. That is not for the small players. So there is an uptake of fifteen to twenty cents on the dollar for the credit. That has been confirmed by a number of studies, including a somewhat self-serving study by the Department of Industry in Canada. But the OECD has also recognized that the program is as rich as any in the G7. It is richer than most of the programs in a lot of the industrialized world as well.

That has also been part of the fuel for the public debate on whether or not the program is indeed too rich. The Canadian argument from industry, which is not all together balanced, I suppose, is that the program in Canada has to be better. It has to be more attractive than our international competition in order to attract and retain research and development into a country where the climate is harsh. And in terms of geography, it is a market that is about 5,200 miles long and 200 miles wide. The argument that it has to be better than the international competition so far has prevailed. And I think some of the success stories that have happened in the Canadian environment would support that.

The decision process in a multinational enterprise is completely different than it is in a small entrepreneurial shop. The entrepreneurial

shop with a limited amount of capital, usually has a cash requirement to meet payroll rather than long-term, three-to-five-year strategic planning. Their decision model is based upon whether or not the R&D will be done, can they afford it, can they afford not to do it, and what is the time to market. The process of decisionmaking within a multinational — and I would suggest to you it is within most multinationals — it is not a Canadian case, or a telecommunications case, or an electronics industry case. It is not a question of whether the R&D will be done, but where will it be done?

The R&D program is probably mapped out in great part, twenty-four to thirty-six months in advance and certainly has some tolerance for guiding things to the left or guiding things to the right, fueling one program with more R&D and cutting off a program that looks like it is not going to be successful. But generally, the decision to spend R&D dollars is there. It is a ratio that our shareholders and the analysts look at. What percentage of gross revenues are we spending on R&D? So the decision is not particularly will we spend one billion dollars on R&D, so much as where will we spend it?

The attraction to spend on R&D is driven by a number of features. Certainly the cost of labor is one. We have had some successes in India and Eastern Europe in software development, which are complementary to a twenty-four-hour research and development lab. What happens in India can be down-loaded to a lab in England which can be down-loaded to the east coast of the United States and then back to India. You can, in effect, get nonstop research and development. We have had problems convincing the developers who work for Northern Telecom in Canada and the United States to work nights and weekends on a regular shift basis. Being able to take advantage of the international clock is a factor.

Our customers want us to do R&D close to where they are. We do business with a lot of the RBOC's in the United States through U.S. manufacturing facilities, and Bell South would like our developers to be very close to Bell South. That is a business concern. There is a lot of political push from countries outside of Canada and the United States for us to have a research and development presence in their country. They look to us to establish a long-term relationship. We are not there with an order pad to hit, ship, and run. They look for us to provide an R&D infrastructure in their country, and quite often that is a pressure that is very difficult to resist. The world of telecommunications manufacturing in a large part tends to have a domestic manufacturer that is either state-supported or aligned with the state-owned telecom. And the examples are particularly sharp in Europe with Siemens, Alcatel, and Ericson. There is an alignment with the state, so there is a lot of political pressure in our foreign markets to take our R&D presence there.

As an accountant, the thing that I warm up to is the bottom line.

The key measure is the after-tax cost of performing R&D. Clearly the Canadian incentive, the U.S. incentive, the Irish incentive, the European incentives, the incentives in the Far East all factor into that. I think that the temptation is at times to contemplate the gross cost of performing research and development in a particular jurisdiction. We have a formula, which I think probably has in excess of twenty variables in it, that starts with the cost of a software engineer, say 140,000 Canadian dollars or 100,000 U.S. dollars, or so many Irish funds or so many Malaysian funds. But by the time we work through all of the tax implications of that, including the write-off for capital and the tax credits, we find that gives us a much more appropriate answer.

I think what I would like to do now is spend a few minutes on the Northern Telecom/Bell-Northern Research example. And given my confession of self-interest, I would like to hold it up as an example of a public policy that has succeeded.

Ottawa is the home of the Bell-Northern Labs. There is no particular reason for research and development to be carried on in Ottawa. It is a city that, even for Canada, has a particularly harsh climate. It is not a commercial center in its own right. It is the center of government, which is the primary employer. It is located part way between Montreal and Toronto, and is located far too distant from the U.S. border to be a manufacturing area that could be cost-competitive. We think as a result of the Bell-Northern Research/Northern Telecom affinity and campus setting in Ottawa, that we have managed to develop a lot of high-paying and clean jobs. Approximately 5,000 people are involved in research in Ottawa. And Ottawa is not a large city. It is not a city of two or three million people by any means.

From that, there has been a critical mass of developers in the Ottawa area. I have referred to it as Silicone Valley North. As a result of the Northern Telecom relationship with other manufacturers, with spin-offs that have come out of there; suppliers, new companies, and start-ups, there is indeed a critical mass of researchers and engineers. There are not as many venture capital people as I would like, but there is indeed a Silicone Valley-type environment in the Ottawa area. It had its start probably in the early 1970s when the federal government, in conjunction with Northern Electric at the time, decided to make some concessions on account of research and development. And in return for that, Bell-Northern Research was established. There was a nucleus of scientists and engineers in Ottawa. That has indeed promoted a lot of interface with campuses in eastern Ontario and western Quebec, sort of within the 100 or 200 miles of Ottawa. It has generated a scientific community and a commercial community of quite some significance. Partly to our chagrin, it has also spun off some start-up companies that have turned into pretty formidable competitors.

One thing that the Canadian government has had to come to grips

with — and I think if you reflect on my earlier comments about research and development being performed in India — is that human capital is almost as mobile as financial capital. It is very difficult to move presses around, and it is very difficult to move mines around, but it is very easy to move human capital around. And in our research environment, you can do research almost anywhere in the world that you have got a PC, a phone line that is adequate, and a modem.

There is indeed a lot of international competition, and there is no particular geographical argument to say that R&D for other reasons must be done in a particular area. In facing that, I think the Canadian government wisely decided that they should come up with a program that is industry-neutral. It is science-neutral, and it is product-neutral, and most importantly, it is ownership-neutral.

What they have tried to do is provide a climate for research and development that favors the world product mandate. Some of the examples of that would be DuPont, who has a number of world product mandates even though they are not a Canadian-owned company. Pratt and Whitney, part of United Technologies, has a propeller engine mandate that is very successful on a worldwide basis.

I think it would be fair to say that the shareholders of Northern Telecom are probably like the shareholders of most multinational companies. They are not particularly patriotic. They are looking where their investments should be made and they are looking for the best return, and the maximization of shareholder value.

In doing that, the world product mandate not only generates the nucleus of research and development from a Canadian government and social policy point of view, it also provides high-paying jobs that are fairly stable. It provides the interfaces with the university and adds fuel to an academic research environment. It also tends to support a manufacturing base in Canada, which does one of two things. If you develop a technology, whatever country you are in, you can market it in two ways. You can manufacture the product and export it, which is great. It is a good balance-of-payments issue, and any politician would like that. The alternative is to export the technology itself, either through royalty agreements or licensing agreements, which again provides the infusion of foreign capital.

I mentioned that we are pleased with the amount of spill-over effect in the Ottawa area. It is not just pens and pencils. It is also a lot of instrumentation companies, a lot of smaller software developers. Our experience has been that, since we set up the Northern Telecom/Bell-Northern Research campus in the Ottawa area, there are over 250 start-up companies that are still running from that. I would not contend they are all R&D companies, or they are all high-tech companies, but it is certainly a large chunk of the market. Some of them are more mundane services in the construction industry, but our success — the

Canadian policy success story has been such that the nucleus has generated over 250 start-ups.

One thing I think a government should look at is whether the program is efficient? Does the money get to the right places, and is it delivered at a reasonable cost? One of the benefits in having Revenue Canada handle the delivery system is that everyone who performs research and development in Canada that is a corporation is already on their mailing list. We are all members of the club, so it does not have to set up a parallel delivery system.

Revenue Canada has been a driving force on policy issues in working with the other government departments, specifically the Department of Industry, on what industries we should support and what sciences we should support. The Department of Finance has helped with determining how the law should be designed and how much can we afford. Revenue Canada has worked very hard at it. I would suggest to you for any of your clients or the firms that you represent that Revenue Canada probably has one of the friendliest tax incentive delivery systems. I also would not want you to think that this pervades all of Revenue Canada's population on all issues like intercompany pricing. They have a somewhat different view on some other issues. But the R&D incentive delivery system is indeed a very friendly one. Some of the programs that they have in place are a reply card that goes out with new corporation registration. It says, are you contemplating doing any research and development? If yes, check here. And then a science advisor, who is typically an engineer or a scientist from Revenue Canada, is pleased to come out and talk to people about what documentation is required to make sure they understand the system and even spend some time on some of the business case modeling you might want to do before you invest. Is this research and development?

The delivery system per dollar, Revenue Canada argues, is the cheapest in the world in that it does not have a parallel delivery system. The scientists who work there are Revenue Canada employees. The financial monitoring is done as an adjunct of the audit system. And the tax return itself is the vehicle through which you request your tax credits. Re-assessments and assessments are the tool for monitoring your tax credit claims to either adjust it up or adjust it down. And then if there is a recovery required from a taxpayer, it goes into the regular Revenue Canada administration system.

The research and development tax credit claim falls into the regular process in terms of notices of objection, which is the informal appeal level where you can have a further discussion. The Federal Tax Court is the next level, and then on through the regular series of steps of litigation that you would follow for any other tax issue. So the rules are the same in terms of the mechanics of it, as they would be for any other part of your tax return.

One of the keys to the Canadian system is that it is indeed industry-neutral. It is product-neutral, and it is ownership-neutral. The key for a multinational enterprise that invests in research and development in Canada, and from a policy point of view, is a good one. You have to be profitable to take advantage of it. That is not a bad issue, and that is not a bad clause to put into a public policy program, especially when it is so generous in the amount it puts out. I am not sure if GATTable is a word. If it was not, it should be. It is not GATTable. There has been a number of countries that reviewed the Canadian system and argued that it should be subject to GATT. That it is a discriminatory incentive. I think the answer lies in that it is ownership-neutral. Regardless of ownership, anyone who opens up a research and development shop in Canada and performs activities that qualify is entitled to the tax credits. That seems to have been generally accepted.

From a policy point-of-view, there is a certain amount of public protection built into the program in that shareholders' dollars must be submitted up front. And while I may get back eighteen cents on the dollar, I recover that eighteen cents after I spend my buck up front. I think I hold that up somewhat in contrast to a grant program. I am sure we are all familiar with the arguments on grant programs: that you have got a partner that is very slow, it is very difficult to work with grant programs on a research and development program, and that is likely to change course mid-stream. I guess in my own experience I cannot remember many grant programs where the company that was receiving the grant turned it back half way and said, we do not think this is going to work. We do not want the rest of the money. But if I invest my shareholders' money, I have that incentive to do it. So I think the public purse is in large part protected, because shareholders' money must be invested up front.

That concludes the points that I want to go through on the program. If you are interested in finding out more on the technical nature of it, Revenue Canada is indeed open for business. It took a long time to get there.