



Intelligence MEMOS

From: John Lester
To: Canadians Concerned About Innovation
Date: April 26, 2022
Re: **BROADENING THE NEW REVIEW OF TAX SUPPORT FOR R&D**

Canadians concerned about our lacklustre innovation performance were cheered by the budget announcement that the Scientific Research and Experimental Development (SR&ED) program would be reviewed.

Canada's business research and development performance is dismal, ranking 26th in the 37-member OECD. In 2019, business R&D spending represented just .81 percent of GDP, the lowest in the G7. Canada ranked higher, 20th, in terms of total assistance for R&D, suggesting effectiveness is more of an issue than the volume of support.

The budget announcement highlights concern about the program's effectiveness in encouraging R&D, but restricts the scope of the review to simplifying the program and changing the criteria for work to be eligible for credits.

This is too narrow.

At best, only small gains in effectiveness will be obtained through simplification and by tweaking eligibility requirements. The scope of the review should be broadened to include rebalancing support provided by size of firm, among other issues.

Simplification to reduce business compliance costs and regulatory expenses has two positive effects. First, it raises the net social benefit by freeing resources for productive use elsewhere. Second, reducing the cost of making a claim is equivalent to an increase in the tax credit, which would boost R&D spending.

However, eliminating these costs would raise the effective subsidy rate by about .6 percentage points for large firms and 4.5 percentage points for smaller firms. Feasible changes are likely to realize a small fraction of these amounts. Nevertheless, simplification efforts should be pursued, bearing in mind the trade-off between simplicity and program integrity.

Under current criteria, only work performed with the intention of generating new scientific or technical knowledge is eligible. This is consistent with the internationally accepted definition of R&D developed by the OECD, so changes to the eligibility criteria run the risk of weakening the connection between higher fiscal costs and additional R&D.

This is important because there is a solid case for subsidizing R&D, but no case for subsidizing activities such as marketing research, quality control, routine data collection, and style changes, which are now explicitly excluded from the list of eligible activities.

The case for excluding prospecting and exploring for minerals, oil, and natural gas from eligible activities is more nuanced. Under the OECD guidelines, scientific research on exploration methods and analysis of geological formations are considered R&D, but expenditures on exploration are not. This is a distinction worth maintaining.

The creation of new knowledge in the social sciences and humanities is considered R&D in the OECD guidelines, but these are not SR&ED-eligible. The review could assess the merits of removing this restriction.

The review should address at least two other issues. First, it should assess the merits of varying the subsidy rate by the type of R&D performed, while keeping the overall subsidy rate roughly constant. Firms are now required to classify R&D projects as basic or applied research, which is undertaken to advance scientific knowledge, or as experimental development, which is undertaken to create new products and processes or to improve existing products or processes. Theory and limited empirical evidence suggest that spillovers are higher for basic/applied research, so the subsidy rate should also be higher.

Second, as I have [discussed elsewhere](#), the SR&ED tax credit could be substantially improved by rebalancing support for small and large firms. Combined with provincial measures, the tax credit for small firms is 39 percent, compared to 19 percent for large firms. In addition, about 2,000 small firms top up the SR&ED incentive with targeted assistance from the federal Industrial Research Assistance Program (IRAP), raising the subsidy rate to almost 60 percent on average for these firms.

The huge gap in subsidy rates between large and small firms would be justified if spillovers from small firms are greater than those from larger firms. The [evidence](#), however, suggests the opposite. Setting both rates at 25 percent would raise the net social benefit of the SR&ED program per dollar of tax revenue forgone. Small firms with particularly promising R&D projects would continue to benefit from IRAP, bringing their overall subsidy rate to about 45 percent.

Rebalancing the rates would also improve Canada's innovation performance. Subsidies lower the hurdle rate for private investment, which allows R&D projects with less commercial potential to go ahead. Excessive subsidies therefore reduce the share of R&D-intensive products that are brought to market.

The increase in support for R&D performed by large firms should be achieved through an increase in the credit rate combined with implementation of a special low rate on income received from intellectual property (IP) developed from R&D performed in Canada. As I discussed in a recent [CD Howe e-Brief](#), a carefully designed IP box is a more cost effective way to stimulate and commercialize R&D than the SR&ED tax credit.

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