Intelligence MEMOS

From: John Lester

To: Finance Canada Officials

Date: February 6, 2024

Re: **Consultations on a Cost-Neutral Modernization of SR&ED (Part 1)**

Finance Canada announced last week the start of consultations on a cost-neutral modernization and improvement of its scientific research and experimental development (SR&ED) tax incentive program, and on the suitability of creating a patent box regime. These consultations are the first step in a review of the SR&ED program first announced in Budget 2022.

The announcement sets out seven questions that will be addressed in the consultations. This Intelligence Memo responds to one of these questions: More effective targeting of the SR&ED tax credit. It proposes a rebalancing of the credit rates in favour of large firms.

R&D performed by large firms is eligible for a 15-percent SR&ED tax credit. Provincial measures raise the rate to 19 percent. This is about half the rate for small Canadian-controlled firms, which benefit from a 35 percent federal rate and a 4 percent provincial rate. In addition, about 3,000 small Canadian-controlled firms top up the SR&ED incentive with targeted assistance from the federal Industrial Research Assistance Program (IRAP), raising their subsidy rate to a staggering 63 percent on average.

This generosity implies a belief that the social benefits arising from small-firm R&D exceed those from large firms. The key social benefit from R&D comes from knowledge spillovers that allow firms to be more productive without performing the R&D themselves. By this metric, the amount of support provided should be proportional to the R&D spillover benefits. However, available evidence indicates spillovers per dollar of R&D performed by small firms are much lower than those generated by large firms, so the subsidy rate should be lower as well.

Another potential social benefit arises from the fact that some small firms with successful R&D programs may grow into large, highly productive firms that generate more tax revenue than other firms. The extra tax revenue benefits all Canadians, but there is no way of knowing if this benefit tips the balance in favour of a higher small-firm subsidy rate. However, this potential benefit does highlight the downside of relying exclusively on knowledge spillovers to set the tax credit rates for small and large firms.

A third justification advanced for more generous treatment of small firms is that they should be compensated for their higher costs of applying for the credit, measured per dollar of benefit received. While compliance costs reduce the net social benefit from subsidizing R&D, society may have an interest in levelling the playing field given the potential extra benefits from subsidizing small firms. Information from a compliance cost survey undertaken in 2011 suggests that the extra compliance costs of small firms reduce the effective credit rate by 3.5 percentage points.

Finally, the generous treatment of small firms is sometimes justified as compensation for the difficulties small innovative firms have in accessing financing. Addressing this market failure with a subsidy available to all firms performing R&D is wasteful because financing problems are concentrated in a subset of SR&ED recipients: Young firms that are often pre-revenue. Further, the federal government provides substantial support for small innovative firms seeking financing, largely through the Business Development Bank of Canada. The BDC is the largest venture capital investor in the country and its Growth and Transition Capital program has a $1.2 billion loan portfolio.

The high subsidy rates for small firms are hurting innovation in Canada. Subsidies reduce the hurdle rate for investment, which means that with subsidization some lower quality projects having less potential for commercialization will go ahead. And the higher the subsidy the greater the reduction in the average quality of projects undertaken.

If the hurdle rate for undertaking an R&D investment is 15 percent, a 39 percent subsidy lets you hit that goal with just a 9 percent return from the market. With a 63-percent subsidy, the required return drops even further to 5.5 percent, setting a much lower bar for success.

Setting the tax credit rate at 24 percent for small firms and 19 percent for large firms would be approximately cost neutral. The small firm rate would be too high based on the spillover metric and the large firm rate would be too low. Nevertheless, this rebalancing would raise the net social benefit from the SR&ED investment tax credit. The higher small firm credit rate could be justified as levelling the playing field with large firms given the greater compliance costs faced by small firms.

The increase in support for R&D performed by large firms should be accompanied by implementation of a special low tax rate on income received from intellectual property (IP) developed from R&D performed in Canada. More on that in the next instalment of my response to the federal invitation to comment on SR&ED modernization and the suitability of creating a patent box regime.

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