

Intelligence MEMOS



From: Robert Asselin

To: Finance Minister Chrystia Freeland

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Re: SCIENTIFIC RESEARCH AND EXPERIMENTAL DEVELOPMENT (SR&ED) REFORM

The modern application of science and technology is the new frontier of economic competitiveness.

[Advanced industries](#) – with their high concentration of R&D and STEM workers – are the core of the world’s high-value economy because this is where most productivity gains reside. They also make up the majority of business R&D.

[The Hamilton Center on Industrial Strategy Index](#) tallied national change in global share of output in seven key industries across 10 countries between 1995 and 2018 (the last year for which OECD data were available). In a nutshell, it found Canada doing poorly, trailing Mexico on total production and global market shares, with our relative performance declining. This is the result of a lack of a comprehensive policy strategy targeted at encouraging the scaling of our advanced industries. Building these advanced industries at scale (ag-tech or clean tech and biotech for example) is key to our future economic prosperity.

The problem is that Canada has science and technology organizational structure that has not adapted to the 21st century. Our [capacity](#) to do industrial research at scale is almost nonexistent and our technology transfer mechanisms have not kept pace with developments in knowledge creation. There is still an overreliance on incremental innovation or safe bets. Furthermore, our research strengths (mostly in social sciences) [do not align](#) with our industrial needs/strengths.

If we are to compete in the new highly valuable and highly competitive areas of growth and productivity, wasteful subsidies or untargeted tax credits are not the answer. There must be a laser focus on de-risking private investments on high-growth industries in ways that the private actors who look for short-term gains do not.

The 2022 federal budget committed to undertake a “review of the Scientific Research and Experimental Development (SR&ED) program, first to ensure that it is effective in encouraging R&D that benefits Canada, and second to explore opportunities to modernize and simplify it”.

There is no compelling evidence that the existing SR&ED regime has been a cost-effective tool to foster business R&D in Canada over the last decades. In fact, our relative performance in both public and private R&D is declining.

This is increasingly due to the composition of our economy. The growing [gap](#) between residential and business investment is highly problematic and reflects an economy over-reliant on consumption with diminishing productive capacity.

And it also speaks to an unfocused industrial policy that doesn’t make important distinctions on sectors and firms’ ability to boost productivity and enhance business R&D.

Propositions for SR&ED reform:

1. Providing a preferential rate to advanced industries with high concentration of R&D

If SR&ED is to be effective, it must be targeted to sectors where productivity gains are the most significant. This is the case for advanced industries.

According to the Brookings Institution, advanced industries can be defined by two key metrics: R&D spending above the 80th percentile of Canadian industry intensity and STEM workers share of industry that exceeds the Canadian average. Advanced industries are the core of Canada’s high-value economy. From a relatively small share of jobs, [advanced industries](#) generated 17 percent of Canada’s GDP, 61 percent of exports, and 78 percent of research and development in 2015. The average value added per employee in advanced industries was 34 percent higher than in the economy overall. These industries should be prioritized in SR&ED allocation.

2. Fixing the imbalance between small and large firms

In its current configuration, SR&ED is heavily tilted to favour small firms. The federal government provides a tax credit equal to 15 percent of current expenditures on R&D by large firms and 35 percent for current expenditures by Canadian-controlled small-and medium-sized private corporations. Small firms get a 35-percent subsidy on up to \$3 million in R&D investment. While SR&ED is refundable for small firms, large firms must use the credit to reduce taxes otherwise payable.

The problem is that R&D performed by large firms [generates spillovers](#) that are much greater than those generated by small firms. Rebalancing the SR&ED tax credit in favour of large firms over small firms would therefore produce a larger benefit for the Canadian economy.

3. IP considerations and commercialization of research

An [IP box](#) would be a better way to incentivize commercialization of R&D than SR&ED. And as John Lester has rightly [argued](#), a global minimum corporate tax rate OECD agreement would also protect the integrity of our tax base and ensure income taxed at a preferential rate would originate from R&D performed in the implementing jurisdiction.

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