

RESEARCH AND NATIONAL DEVELOPMENT: A STUDY OF CANADA

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Abstract: This paper looked at Research and its impact on the National Development of Canada. With the understanding that a country's national development is impacted by many variables, there was a focus on those variables within the domestic sphere of Canada. Using the Endogenous Growth Theory to understand those internal processes, the paper focused on research and development efforts within Canada, including funding and expenditures on research, the trend lines and some comparative analysis with other G-7 as well as OECD countries. Quantitative secondary data were sourced from open sources like Statistics Canada and OECD data. There was also empirical review of relevant literatures. The paper is of the view that there are strong positive relationship between Research and National development in Canada and while Canada has been able to appropriate this linkage over the years, which has made it one of the more developed countries in the world, there are trend lines which suggest a decline in research efforts in Canada. If not reversed, this decline could have a negative impact on Canada's National development down the road. Among other things, this paper is recommending the Federal government play a more active role in research, especially in areas where the private sector has not seen enough profit potentials to invest in.

Keywords: Endogenous Growth, National Development, OECD, Research, Statistics Canada.

Key Concepts

Gross domestic expenditures on research and development (GERD): This is the totality of expenditures on research and development within the geopolitical territory of a given country within a certain period of time. It includes those researches funded by foreigners and from abroad.

Scientific Research and Experimental Development (SR&ED) Tax Incentives: The government of Canada through its Revenue Agency offers tax credits and refund to individuals and companies for expenses incurred for purposes of research and developments.

Organisation for Economic Co-operation and Development (OECD): It was founded in 1961 as an intergovernmental economic organization and currently has 37 members including Canada.

Endogenous Growth Theory: Made popular in the 1980s by authors like Paul Romer (1986) and R. Lucas (1988), this concept is of the view that economic growth and development comes as a direct result of internal processes and these domestic variables include research activities among other things.

G-7: Group of Seven industrialized countries. These includes: United States, Canada, France, United Kingdom, Italy, German and Japan

1. INTRODUCTION

In development studies and related fields, the words 'research' and 'development' are used as intimates where developments are considered the ultimate outcome of research. While research is generally understood as "any organized enquiry that aims at providing information for solving identified problems" (Nwaodu et al, 2018), it was not until after World War II that governments around the world started taking the "solving identified problems" part of this definition very seriously. Solving these identified problems ultimately lead to development.

In the early days of research and development, individuals and companies had taken the lead in finding innovative solutions to specific problems of the time, but the needs of World War I exposed the lags in scientific research as military departments struggled to manufacture weaponry necessary to prosecute the war. As a solution to these needs, the United Kingdom set up the Department of Scientific and Industrial Research in 1915 and the US did same with the setting up of the National Research Council in 1916 with both having similar objective of "stimulating and coordinating the scientific support to the war effort" (Holstein, July 02, 2013). The gradual progress being made in this sphere got halted in the 1930s as companies and governments retreated from investments in scientific research consequent on the economic pressure from the Great Depression of that period.

The challenges of war again forced governments to refocus on scientific research and innovation as the world faced an even more demanding war in late 1930s and early 1940s. The periods of World War II marked a time of significant government investments in scientific research and development leading to lots of innovations that, not only helped the allied forces defeat Germany, but some of those technological innovations became part of civilian lives post World War II. Such things as radar and even computers have very strong historical roots to technological innovations of WWII. Even the Penicillin commonly in used all over the world now has its historical commercial production root to the same war period. (Suciu, July 31, 2020).

The importance of scientific innovation to the successful prosecution of the war by the allied forces motivated the US and other allied countries to harness the lessons of the war to further national developments. In his famous report of 1945, 'Science - The Endless Frontier' Vannevar Bush, the then Director of the Office of Scientific Research and Development in the US laid out ways in which the scientific successes of WWII would be harnessed for civilian benefits. Part recommendation of this report led to the establishment of the National Science Foundation that essentially gave the US government the responsibility for the 'development and continued support of science and engineering research and education' (Bloch, 1990).

Like her neighbour in the South, Canada's history with research and development also tracked the necessities of the world wars. It established the National Research Council in 1916 (Enros, October 25, 2014) right at the peak of WWI and by the end of World War II, the Canadian investment in Research and Development had increased exponentially as the country also tried to harness the technological innovations that helped win the war in 1945. From this period onwards, Canada has been one of the leading countries in research and investment in research activities and this has reflected in the enormous progress it has made in the field of science and technology and is among the most developed countries in the world.

To adequately understand the 'why' Canada and indeed the world have devoted so much resources to research and the 'how' such effort has positively impacted the national development of various countries, this paper adopted the Endogenous Growth Theory as the foundation. Made popular in the 1980s by authors like Paul Romer (1986) and R. Lucas (1988), the theory essentially "argues that economic growth and development is generated from within the system (country) as a direct result of internal process (including research)" and among other things concludes that "...investment in research and development is a crucial source of technological process". (Liberto, December 30, 2020). There is a direct relationship between government policies especially in the area of research and development and the national economic development. Endogenous growth also sees economic growth as significant where there are investments in human capital, knowledge and

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innovation. Obviously there are other variables that contribute to a country's national developments but the focus of this paper is on those internal research processes and how those have contributed to various innovations that have brought Canada as one of the leading industrial nations of the world. The paper subsequently looks at the investments Canada has made in these human capital (research), innovations and the impact such have made in the national development of Canada.

Federal and provincial policies aimed at encouraging research and developments in Canada have also been reviewed. To this end, the progress of Canada vis-a-vis other G7 were also looked at. Empirical material data have been drawn from such reliable source as statistics Canada (statcan) as well as the OECD data.

Also the politics of research and development have been analyzed considering the dynamics of Canadian politics in the light of the Liberal - Conservative political divide that mirrors to some extends the ideological dichotomy in the US.

2. CANADA, RESEARCH AND NATIONAL DEVELOPMENT

Canada is a multi-cultural state officially a bilingual - English and French - country and geographically located in the continent of North America -North of the United States. With a population of a little over 38 million people, Canada is the 10th largest economy in the world with a nominally measured GDP of about US\$1.74 trillion in 2019 (Silver, December 24, 2020) and also a member of G-7, a group of seven of the most industrialized countries in the world.

To fully comprehend the dynamics of research in Canada, it is pertinent to remind us some of the political structures of the country. Canada's is a Federal structure with ten provinces and three territories. The provinces retain wide powers and research is one area the provinces have done as much as the Federal government, investing in technological research and making policies to attract investments in research and developments.

Research efforts in Canada have come in different forms which include: direct government investments in research and setting up agencies and institutions designated for researches. Enacting laws and policies aimed at encouraging private sector investments in research as well as research investments and efforts coming from the business as well as the education sectors.

(i) Government Agencies and Expenditures

As stated earlier in this paper, the first federal attempt at a Canadian national research body was in 1916 with the establishment of the National Research Council for the purpose of researching and advising the Canadian government on scientific and industrial research matters, as the first world war raged. Over the years this body has undergone various transformations including being the hub for research and development of military wares during World War II, partnering with similar agencies and institutions in the US and the United Kingdom. The Canadian federal government has gone ahead since then to establish other bodies and sub agencies to coordinate and advice the government on issues of research and development. There were the Science Council of Canada (1966-1992) as well as The Ministry of State for Science and Technology (1971).

Like the federal agencies, most Canadian provinces have set up provincial bodies advising them on research and promoting economic development within the provinces as shown on the table below.

Table 1: Canadian Provinces and Respective Research Bodies

Province	Research Body
Ontario	Ontario Research Foundation
Quebec	Centre Du Recherche Industrielle Du Quebec
Alberta	Alberta Research Council
Nova Scotia	Research Foundation and Corporation
British Columbia	BC Research Council
New Brunswick	Research and Productivity Council
Manitoba	Manitoba Research Council
Saskatchewan	Saskatchewan Research Council

Source: <https://www.thecanadianencyclopedia.ca/en/article/provincial-organizations-research>. Accessed April 30, 2021.

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Apart from these agencies, the Canadian government, provinces and private bodies over the years have committed substantial amount of money toward research and development. When measured in terms of the Gross Domestic Product, expenditures in research and development account for billions of dollars annually in GDP. Between 2005 and 2015, the Gross Domestic Expenditure on Research and Development (GERD) amounted to an average of about \$30.1m annually.

Table 2: Gross Domestic Expenditures on Research and Development (GERD) (2005 - 2015)

	Gross domestic expenditure on research and development	Gross domestic product	Gross domestic expenditure on research and development as a percentage of Gross domestic product
	Billions of Dollars		Percent
2005	28,022	1,410,710	1.99
2006	29,079	1,486,918	1.96
2007	30,038	1,565,900	1.92
2008	30,751	1,645,974	1.87
2009	30,129	1,567,007	1.92
2010	30,555	1,662,757	1.84
2011	31,834	1,770,014	1.80
2012	32,707	1,831,228	1.79
2013	31,972	1,893,759	1.69
2014	31,825	1,974,825	1.61
2015	31,604	1,986,193	1.60

Source: Statistics Canada, <https://www150.statcan.gc.ca/n1/en/pub/88-221-x/88-221-x2015001-eng.pdf?st=KWz05v> Gu. Accessed April 30, 2021.

A breakdown of the gross domestic expenditure on research and development - GERD is "defined as the total expenditure (current and capital) on R&D carried out by all resident companies, research institutes, university and government laboratories, etc., in a country" (OECD, 2021) - shows that business enterprises accounted for over 50% of the expenditure on research and development. Ontario is the largest Canadian province and also accounted for the greater portion of provincial expenditure in research and development.

A further breakdown of Table 2 above shows that, though the annual expenditure had a marginal increase in dollars over these periods, the percentage of research and development expenditure vis-a-vis the GDP has actually been declining from almost 2% of the GDP in 2005 to just 1.6% of the 2015 total GDP reflecting a diminished appetite to invest in research and innovations. This declining trend has continued to 2019 when Canada posted just 1.54% in GERD. (OECD, 2021).

Compared globally, Canada is doing much better ranking 21st on the OECD 2019 table in terms of Gross Domestic Expenditure in Research and Development (GERD) with 1.54%, though it still performed below the OECD average of 2.5% in 2019. As a member of the Group of seven (G-7) industrialized nations of the world, Canada's GERD ranks way below Japan, Germany and the United States as depicted in Table 3 below.

It is worthy to note though, more than half of the G-7 member did not hit the OECD average of 2.5% in 2019 and like the declining GERD situation in Canada, there is a general declining trend in GERD in some other countries including some of the more advanced ones. The United States has only had very little marginal increase in GERD over some period. Israel leads the pack with over 4.9% in GERD in 2019.

Table 3: Gross domestic expenditures on R&D (GERD) as a percentage of GDP, by G7 country, 2019

Country	GERD (%)	Global Ranking
Japan	3.2	4
Germany	3.2	6
United States	3.1	7
France	2.2	13
United Kingdom	1.8	19
Canada	1.5	21
Italy	1.4	23

Source: OECD Data, <https://data.oecd.org/rd/gross-domestic-spending-on-r-d.htm> Accessed May 1, 2021.

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While the Canadian GERD has been declining over the years, the actual federal government spending on science and Technology which includes Research and development has actually picked up especially since 2015. the GERD measures the totality of expenditures including those from the private sectors.

Table 4: Federal expenditures on science and technology 2016 - 2021

Type Of Expenditure	2016/17	2017/18	2018/19	2019/20	2020/21
	Current Dollars (Billion)				
Total Science and Technology	11,427	12,054	12,259	12,709	12,663
Research And Development	7,092	7,742	7,554	7,947	7,942
Related Scientific Activities	4,335	4,312	4,705	4,762	4,721

Source: Statistics Canada. <https://www150.statcan.gc.ca/n1/daily-quotidien/200611/dq200611b-eng.htm?indid=4032-1&indgeo=0>. Accessed May 2, 2021

A comparative analysis of Tables 2 and 4 above reveals a much more government participation in research investment in Canada and a dwindling private sector participation when compared with the previous years. Federal dollar investment in research and development has been increasing or holding steady apart from 2018/19 when expenditure decreased by about 2.4%. The fiscal year 2020/21 will not be a normal indicator because of the global health pandemic. Despite this increase however, the 2015 data still shows the federal funding only accounted for about 19.6% of the total expenditure on research and development. (StatCan).

(ii) Official Policies and Acts of Parliament.

Various administrations in Canada have introduced policies and enacted laws aimed at stimulating research endeavors as a way to achieve national development. In its 1968 fourth report titled "Towards a National Science Policy in Canada ", the Science Council of Canada which was established by a Federal Statute in 1966, among other things concluded that the "application of science and technology will make significant contributions to the solution of economic and social problems in Canada and in so doing will contribute to the realization of the goals of the nation". (Clowater, 2012). It is this thinking that has motivated the enactment of several laws at both the federal as well as provincial levels aimed at encouraging research efforts in the country. The policies keep evolving as ways of doing things evolve and new technologies emerge.

Some of the Federal Statutes have been enacted primarily to set up national research agencies while some have been designed to encourage private investments in research and development. One area the government has used policies to stimulate activities in research and development is the Tax system. Taxation has been used in Canada to redistribute wealth, fund social services among others, but since 1944, The Canadian income tax act has also been used to "stimulate research and development activities". (Canada.ca, April 24, 2015). Under this structure, individual and entities can claim tax refund from the federal government for expenses incurred in Scientific Research and Experimental Development (SR&ED) up to a certain percentage of the said expenditure. Though the title SR&ED was introduced into the Canadian Tax lexicon in 1986, the whole idea of tax incentives for research activities had been part of the Canadian Tax regime for years. Since 1963, Section 2900 which has been amended severally has been used for this purpose. The government views private research as ultimately beneficial to the entire society hence the need for federal encouragement in SR&ED. For the purpose of SR&ED incentives, the government has targeted the areas of basic research, applied research experimental development as well as work undertaken and this has provided billions in tax incentives for researchers. In 2018, there were more than 5000 beneficiaries of this tax incentives.

The Canadian provinces have similar tax incentives to encourage Research and Development. While some provinces have their SR&ED administered through the Canada Revenue Agency, Alberta and Quebec are some of the Provinces that have elected to administer their SR&ED. These tax incentives represent indirect expenditure form the various provinces and federal government on research for the purpose of national development.

(iii) Business Enterprises And Higher Education

The business enterprise and higher education sectors account for well over 50% of the total funding for research and development in Canada. They include those research activities and funding coming from these sectors.

Looking at data available from 2010 to 2015, the business enterprise sector averaged 46.4% of the Gross Domestic Expenditure on Research and Development (GERD) while higher education accounted for 18.5%.

Table 5. Gross domestic expenditures on research and development (GERD) by funding sector in % 2010 - 2015

	Federal government	Provincial governments	Business enterprise	Higher education	Private non-profit organizations	Foreign	Total
Year	SECTOR GERD IN PERCENT (%)						%
2010	21.2	5.6	47	16.3	3.5	6.5	100
2011	19.5	5.6	49	16.3	3.6	6	100
2012	18.5	6.3	47.1	18.9	3.6	5.7	100
2013	19.3	5.9	45.7	19.5	3.7	6	100
2014	19.1	5.9	45.4	19.8	3.7	6	100
2015	19.6	5.9	44.4	20.2	3.8	6	100
Total	19.5	5.9	46.4	18.5	3.6	6	100

Source: Computed from Statistics Canada table, <https://www150.statcan.gc.ca/n1/en/pub/88-221-x/88-221-x2015001-eng.pdf?st=KWz05vGu>. Accessed May 2, 2021. See Appendix A.

Though the Business sector accounts for the bulk of the GERD, the emerging trend is a marginal but significant decline in expenditure by this sector. Between 2011 and 2015, there was a decrease of more than 4% in investment from this sector. Though the share of Federal GERD has been inching up, it has not been nearly enough to compensate for the decline in the business sector investments.

The higher education is the one sector that saw a steady and significant increase in GERD over this period of time netting an increase of almost 4% over the periods 2011 and 2015. In 2019, about 63% of Canadian adults aged 25 to 34 years had some form of tertiary education which included bachelors degree or higher and in the same year, about 92% of all adults had high school education way over the OECD average.

The number of academic researchers and the PhD graduates are on the rise and above the OECD average. (Council of Canadian Academies, 2018). Most private enterprises partner with academic institutions in their research endeavors. Canadian university labs are often used as safe places to study emerging diseases and most health professionals advising the governments on the current COVID-19 pandemic are practitioners at some of the major Canadian university teaching hospitals.

3. POLITICS OF RESEARCH IN CANADA

Canada is a mainly centre-left country with three of the four main national political parties advocating for policies aptly located towards the left of the political spectrum and these parties account for over 50% of the total popular votes in most of the recent federal election in Canada. Despite this however, the debate on the role of government in the country's economy mirrors what obtains in the United States, Canada's neighbour to the South. On the one hand there are the Liberal Party, The Green Party and the New Democratic Party whose governing philosophies are for active government participation in the economy with the private sector still the main driver of economic growth. On the right side of the political spectrum is the Conservative Party whose ideology on the role of government aligns with that of the Republican Party of the United States and will want the government play little to no role in the economy.

These somewhat divergent governing philosophies have to some extent, influenced how each of these blocs view government role in research and development in Canada.

While the Liberal Party which has always led the government from the left has always advocated for a more government involvement in research, the right leaning Conservative Party argues for a more private sector driver for research and development.

During the Pierre Trudeau (Liberal Government) era in 1970s the Science Council of Canada (SCC) pushed for a much more government intervention in science and technology policies, advocated for Technological sovereignty, a form of

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economic nationalism that would let Canadian government take a much hands on approach to protect Canadian technology companies and domestic innovations.

The SCC under this government also pushed for decision making related to industrial research and policies to be centralized within the federal government. The general economic philosophy of this era was for an active government participation in the economy. To curtail the influx of American investors especially in the area of science and technology the Trudeau government pushed for economic nationalism and encouraged Canada based research initiatives.

The Conservative government of Prime Minister Brian Mulroney that succeeded Trudeau in 1984 took a much less government intervention in research endeavors. It privatized some government corporations and cut funding for the Science Council of Canada that eventually led to the closure of the council. Though the Mulroney government established other research bodies, the orientation was for a fully private sector driven research entities with less government intervention.

Another comparative analysis of the Liberal - Conservative divergence in government approach to research in Canada can be seen in the trends between 2010 and 2020. This period covers the last five years of the Conservative government of Prime Minister Stephen Harper and the first five years of the Liberal Government of Justin Trudeau. Using the metrics of federal government expenditure on research and development, the trend line was a marginal decline in federal government funding of research and development in the periods of 2010 and 2015 and an increase in the rate of federal expenditure in research and development between 2016 and 2020.

Table 6. Annual Change in Federal Funding of R&D 2010 – 2020

Conservative Vs Liberal.

Conservative Era			Liberal Era		
YEAR	GERD(B\$)	% CHANGE	YEAR	GERD(B\$)	% CHANGE
2011	6094	-3.7	2016	5982	6.4
2012	5971	-2	2017	6589	10.1
2013	6017	0.8	2018	6857	4
2014	6122	1.7	2019	6943	1.2
2015	5622	-8.2	2020	7044	1.4
Total	29826	-4		33415	23.1

Source: Statistics Canada. Computed from GERD by Science type and by Funder and Performer sector. <https://www150.statcan.gc.ca/t1/tb11/en/tv.action?pid=2710027301&pickMembers%5B0%5D=1.1&pickMembers%5B1%5D=4.2&cubeTimeFrame.startYear=2014&cubeTimeFrame.endYear=2014&referencePeriods=20140101%2C20140101>. Accessed May 4, 2021.

Consistent with their governing ideology, the federal funding of scientific research declined to -4% for the last five year period of the conservative government of Stephen Harper. The biggest government year over increase in research and development spending was in 2014 with a marginal increase of 1.7% over the 2013 total government spending. The liberal government of Justin Trudeau, believing in more active government role in the economy and specifically in research has seen a more federal funding with a total of about 23.1% increase within the first five years. Also with the lock down occasioned by current pandemic, the federal government has moved in with series of economic stimulus aimed at keeping the economy afloat as private sectors are shuttered down. Various subsidies have been introduced to sustain the economy including the rent subsidies for businesses including those engaged in research activities. It is predictable that a liberal government will intervene heavily to sustain the economy during a health crises like the current one, it would be a wild guess how a Conservative government would react considering their governing ideology of less government intervention.

The current scramble by the Canadian government to import COVID-19 vaccines for its citizens has exposed the consequences of research policies made by previous governments based on political ideologies. The privatization policies of the Conservative government of Prime Minister Brian Mulroney swept away Connaught Labs into foreign interest (McQuaig, November 30, 2020). Connaught Labs was a federal corporation with ground breaking research and innovation in drug and vaccines including vaccines against small pox and tetanus amongst others, until 1984 when it was privatized leaving Canada with no other company with global research status as Pfizer. When

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Covid-19 hit the world in late 2019, there were no Canadian firms or government supported research institutes with the required resources and expertise to engage in vaccine research and development against the new virus. The consequence is Canada has come to rely wholly on vaccines developed and produced in other countries including India. This in turn has adversely impacted the pace of vaccination against, and containment of, the virus leaving the economy still shuttered more than a year into the health crises.

4. CONCLUSION AND RECOMMENDATIONS.

It will be fair to say that the necessities of the two major world wars brought to the fore the linkages between research and national developments. The need to prosecute and win WW II led governments around the world especially the allied forces led by The US to create scientific research units within the military to develop weapons and other needs of the war. The scientific breakthroughs of the war were carried over into civilian sphere as countries tried to appropriate the war gains.

While there are so many variables that contribute to the national development of a country, the one variable that could be said to be wholly under the control of that particular country are the domestic variables or the variables located within the geopolitical boundaries of the country. The concept of Endogenous Growth helps to understand those internal or domestic variables that could propel national development. In the context of Canadian national development, this paper has used this concept to look at research, policies and other contending issues of research and national development.

While Canada is a major industrial power and ranks way ahead of many other countries of the world, its GERD is way below most of the other G-7 members and as shown earlier in table 3, by 2019 Canada ranked number six among other G-7 nations posting only 1.5 % GERD as a percentage of the GDP. That was not all the story, the trend lines show a country with a declining GERD over the years.

According to the OECD data, Canada's GERD has been in decline since it peaked in 2001 at 2.021%, between then and 2019, the country's GERD fell by almost 0.5% and was at 1.54% in 2019. (OECD, 2021). GERD or the Gross Domestic Expenditure on Research and Development is the totality of the funding that is carried out in a country for the purposes of research and development. As stated earlier, research ultimately leads to innovations which brings more development to a country so if the declining trend in Canada's GERD continues, it will be a safe bet that the pace of its national development will be negatively impacted.

As depicted on Table 5, the marginal decline in funding by the Business enterprise has been one of the factors driving down Canada's GERD and while the share of the federal funding has been relatively stable or slightly increasing, it has not been enough to offset the decline from the business enterprises.

The positive relationship between research and national development is too obvious for a government to sit back and let the business enterprise lead the way. Businesses are for profit and will have little appetite to invest in a research whose profit potentials are not obvious, to this end therefore, the Canadian government should step in and boost the country's GERD.

Canada uses tax policy to incentivize businesses to engage in research for the purpose of national development, data available from OECD has not shown a huge jump in the GDP share of this government incentive. In 2015, the percentage GDP of this indirect government support through R&D tax incentive or what is referred to as SR&ED in Canada, was 0.1308% and declined to 0.1161% in 2018. (OECD, 2021). Over the years the Canadian government has gradually reduced the deductible rate of qualified SR&ED activities and this has in turn impacted the overall tax incentives for the purpose of research and development. In this area though, Canada fares much better than most

G-7 countries including the United States.

It is expected the rent subsidies -which lets government cover up to a certain percent of business expenses on rent and or mortgage interests - introduced in the wake of COVID-19 pandemic will help sustain individuals and most small and medium scale business enterprises shuttered down by restrictions on economic activities. The government can still do better to boost the tax incentives by expanding activities covered under the SR&ED tax claims. Making the temporary wage subsidy permanent for industries engaged in research activities will be a big incentives for such companies and could encourage new ones.

As a capitalist country, it is understood why a Canadian government will want the government play a very minimal role in the economy and let private enterprises take the lead but like the Economic Interventionists have noted, there are certain times the government has to come in for the common economic good of all citizens. Businesses will only engage in research where there are potential profit to be made. Prior to the COVID-19 pandemic, it would have been a hard sell for most private entities to approach investors for a research on vaccine for a potential virus like this. This is where governments should take the lead and anticipate pandemic before they happen. While there are preliminary discussions to have federally funded laboratory for vaccine research, there are many more other areas where the private sector have not seen enough profit incentives to make research investments and these area, none the less serve for the common good of all and the government should proactively move to fill the void.

In a nutshell, there is obvious positive relationship between research and national development in Canada. While Canada has done fairly good appropriating the benefits of research in national development, the country can do more especially in the area of public spending. Since research is a long term project, the impact of investment or non investment in this sector now will be felt down the road, so if the declining funding trend continues, the long term national development of Canada will be negatively impacted.

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