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IS CANADA FIT FOR THE FUTURE?

A PGI Working Paper

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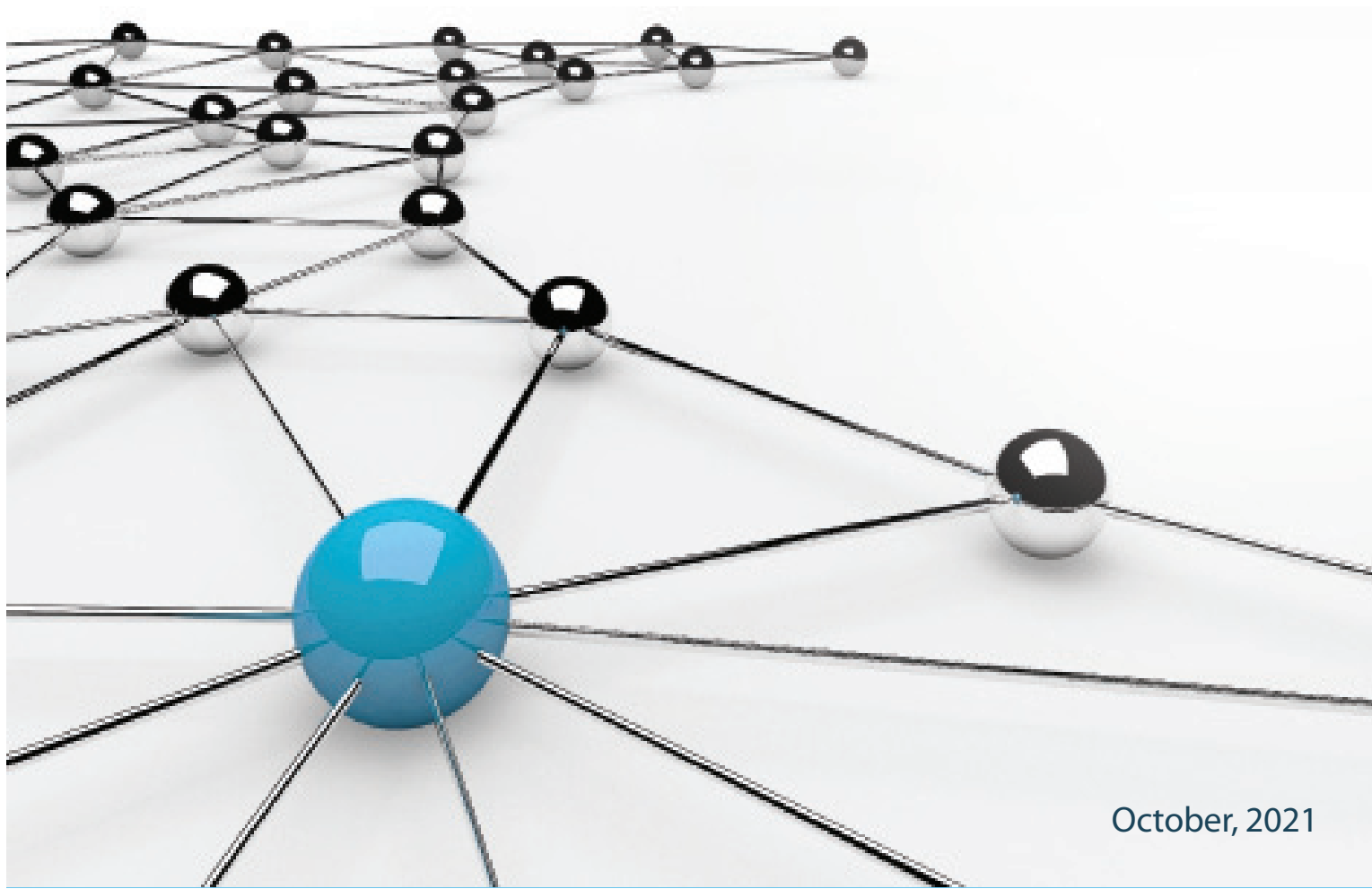
A PGI Working Paper:

Is Canada Fit for the Future?

Foreword

Public Governance International (PGI) would like to acknowledge the contribution of Ms. *Nisrine Dandache*, Ph.D. student in Economics, joint program of Carleton and Ottawa Universities*.* Ms. Dandache was responsible for the data collection, compilation as well as the preparation of *the Fit for the Future Matrix for Canada,* including the charts and graphics presented in this paper. She conducted this work over the summer of 2021. She will remain associated to the work of the PGI team on similar topics over the coming months.

Ms. Rhonda Moore, Senior Practice Lead in Science and Innovation at the Institute on Governance provided editing support for this publication.

Mr. Felipe Cabrera ensured the overall coordination for the preparation of this publication including text production, revision, design, website publication and paper production.

PGI is a corporation dedicated to exploring the new frontiers of public administration to support the efforts of public sector leaders called upon to serve in this early part of the 21st century. Ms. *Jocelyne Bourgon* is President of PGI and the leader of an international research effort aimed at modernising public administration (the New Synthesis Project). She is President Emerita of the Canada School of Public Service.

The *Fit for the Future Project* began as a four-months project during the summer of 2021 with the assistance of a Ph.D. student in Economics. The *Fit for the Future* initiative was conducted as a pilot project using Canada as a test case*.*

The *FFF-Matrix* was built using 10 indexes to enable an international and longitudinal perspective. As we come to the end of this project, we know that it would be possible to build a much more sophisticated *FFF- Matrix* with double the number of variables. It would also be possible to take a deep dive in areas of particular interest.

We believe that the *Fit for the Future Project* and the *FFF-Matrix* have served their purpose. The project gave rise to probing and challenging questions. It brought to the forefront the trajectory, and velocity of change along multiple dimensions.

Executive Summary

What needs to be done to ensure that Canada will be among the countries that will successfully navigate through an accelerating period of change, adapt to a fast-changing landscape and continue to prosper in the future?

Governing is never easy. The size, scale, or the complexity of the governing system of a country does not explain its overall success. It is the capacity to invent solutions that distinguishes the most successful countries. Decisions made today determine a country's future successes.

Many of the problems countries are facing today result from a mechanistic view of the world that leads governments to take economic decisions in isolation from their social and environmental dimensions. In reality, economic, social, and ecological dimensions of the world we live in are intertwined, and interact dynamically.

The Fit for Future Matrix (FFF-M) brings together economic, social and environmental performance indexes to provide a multidimensional perspective. The FFF-M differs from other analysis by focusing primarily on the trajectory and velocity of change. In doing so, FFF-M gives rise to important questions that challenge our pre-conceptions about Canada's strengths and seeks to identify structural weaknesses that require creative solutions.

The Fit for Future Matrix helps to think beyond the conventional and to identify lines of inquiry that may not otherwise surface.

Governing is a search for balance to steer society through an accelerating process of change. It is this search for an ever-shifting balance that makes the work of government unique, irreplaceable, and most valuable for society. It is the responsibility of government to ensure that the overall balance between the economic, social, and environmental spheres of life serve the overall interests of society over time and into the future. **This is what makes the role of public sector leaders so important.**

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Is Canada Fit for the Future?

Introduction

It is difficult to have a view of the overall performance of a country or to detect the early signs of change that may conflict with what *one expects to see*. Canadians see their country as one of the best in the world. Public sector leaders have a high opinion of the governance system of their country. The Canadian public service is held in high standing and seen as one of the best in the world. To be sure, there are elements of truth behind each one of these statements and enough evidence to give credence to these claims. But does this reflect an historical perspective or Canada's capacity to prosper in the future?

The results we are experiencing today reflect previous decisions and choices a country has made. It does not guarantee that it will be able to keep up with the accelerating velocity of change or that it is well positioned to face the challenges ahead. Success is a relative notion and a double-edged sword. It may generate a false sense of comfort, blind us to emerging challenges and make us oblivious of the progress achieved by others. *A country may be doing well and at the same time lose ground compared to others.*

Governing is *a process of invention* aimed at ensuring that a country can adapt and prosper in all circumstances. The challenge faced by public sector leaders is to ensure that their country will be among the ones that will successfully navigate through an accelerating period of change. Today's choices will set Canada's trajectory for the future. It is with this in mind that this project was initiated.

How well is Canada doing? Is it fit for the challenges ahead? Is it possible to pull together a mental map or a composite picture of the overall performance of Canada that would be simple enough to be usable in practice and robust enough to take into account the complexity of the issues governments are facing in practice?

The Fit for the Future Project

Many of the problems we are experiencing today result from a mechanistic view of the world and a linear approach to problem solving. This leads to economic decisions taken in isolation from their social and environmental impact or to social and environmental initiatives conducted as if they were subordinated to economic considerations. In reality, the economic, social, ecological, and technological dimensions of the world we live in are intertwined and interacting dynamically with each other.

The *Fit for the Future Project* is attempting to focus on *the whole* rather than the *parts*. It is not a substitute for the expert body of knowledge generated by international and national organizations. The work of the United Nations, the Organization for Economic Cooperation and Development (OECD), the World Bank, and the International Monetary Fund (IMF) is irreplaceable. The knowledge base in the custody of individual Ministries, Departments and national statistics agencies is invaluable to support public policy decision makers.

The *Fit for the Future Project* draws exclusively from *existing sources of information* from reputable organizations. It hopes to shed some light on the *overall trajectory* of a country. It does not aspire to provide a comprehensive review of all the performance indicators currently available but to extract a coherent set of observations.

It is looking beyond conventional indicators to bring a *multidimensional* perspective. It is focusing on *trends, trajectory* and the *velocity* of change. It is hoped that a different way of thinking and a broader perspective may improve the likelihood of success of government interventions.

In the first instance, *the Fit for the Future Project* is applied to Canada. It will next be applied to other country-partners that have been associated with PGI's initiative on a *New Synthesis of Public Administration*[1]. A measure of success of the project at this stage would be to elicit discussion among Canadian public sector leaders about:

- What needs to be done to ensure that Canada can successfully navigate through an accelerating period of change? And
- What do we need to do to ensure that Canada's capacity to invent solutions will keep pace with the increasing complexity of the world we live in?

The Economic Sphere of Life

Most often, public sector leaders keep track of the performance of the Canadian economy by comparing it to other G7 countries and by focussing on conventional economic indicators such as GDP, GDP per Capita, Purchasing Power Parity (PPP), productivity, competitiveness, etc.

This is necessary but insufficient because it hides the relative decline of the G7 countries and masks the rapid transformation of the economic landscape (See Table 1).There is a need:

- to look *beyond* the *G7* countries;
- to pay attention to the *trajectory* rather than current results;
- to be mindful of the *velocity of change* that transforms the inter-relationships among countries; and
- to encourage a *multidimensional perspective.*

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[1] Bourgon, Jocelyne. 2011. *A New Synthesis of Public Administration*. Kingston: McGill-Queen's University Press.

Beyond the G7

The G7 is a political forum consisting of Canada, France, Germany, Italy, Japan, United Kingdom, and the United States. Its members are among the wealthiest liberal democracies in the world. Canada joined the group in 1976. Belonging to this group looms large in the public perception of Canadians about Canada's place in the world. This perception may be misleading.

In 1976, the G7 represented 62% of global gross domestic product[2], 48% of exports[3] and 40% of imports[4]. Today, this group accounts for *less than 50% of global GDP*, 35% of exports and 35% of imports. Canada was the 7th largest [5] economy in 1976; in 2021, it is in 9th position followed closely by South Korea (10th).

China was the 2nd largest economy in 2021 and India was in 6th position; the world today is a very different place than it was in 1976. *The global economic footprint of the G7 countries is declining* and is expected to continue to decline as China, India and other Asian countries continue to grow their economy.

Rank	Countries	Top 10 GDP (2021)
	Table 1: Top 10 Countries by GDP, Current Prices (Billions of U.S. dollars) (2021)	
1	United Sates	22,675
2	**China, People's Republic of**	16,642
3	Japan	5,378
4	Germany	4,319
5	United Kingdom	3,125
6	**India**	3,050
7	France	2,938
8	Italy	2,106
9	Canada	1,883
10	**Korea, Republic of**	1,807

Source: https://www.imf.org/external/datamapper/NGDPD@WEO/OEMDC/ADVEC/WEOWORLD

Table 1 shows GDP results in 2021. This is the *stock*. The trajectory however sheds a different light (see Figure 1). *The G7 countries are not all on the same trajectory*. The USA remained in first position from 1976 to 2021. Japan, Germany, and the United Kingdom managed to maintain their relative position. But this is not the case for France that went from 4th to 7th position between 1995 and 2020, Italy went from the 6th to 8th position. Canada went from the 7th position in 1976 to the 11th position in 1995 before moving up to the 9th position in 2020.

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[2] Gross domestic product; https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?end=2020&start=1976
[3] Exports of goods and services; https://data.worldbank.org/indicator/NE.EXP.GNFS.CD?end=2020&start=1976
[4] Imports of goods and services; https://data.worldbank.org/indicator/BM.GSR.GNFS.CD?end=2020&start=1974
[5] GDP per capita rank in 1976; https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?end=2020&start=1976

Figure 1: Top 10 Countries Trajectory by Rank GDP, Current Prices (Billions of U.S. Dollars) 1976 - 2020

Rank 2020: USA (1), China (2), Japan (3), Germany (4), UK (5), India (6), France (7), Italy (8), Canada (9), Korea, Rep. (10)

South Korea's Rank in 1976 startst as 31st

Source: https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?end=2020&start=1976
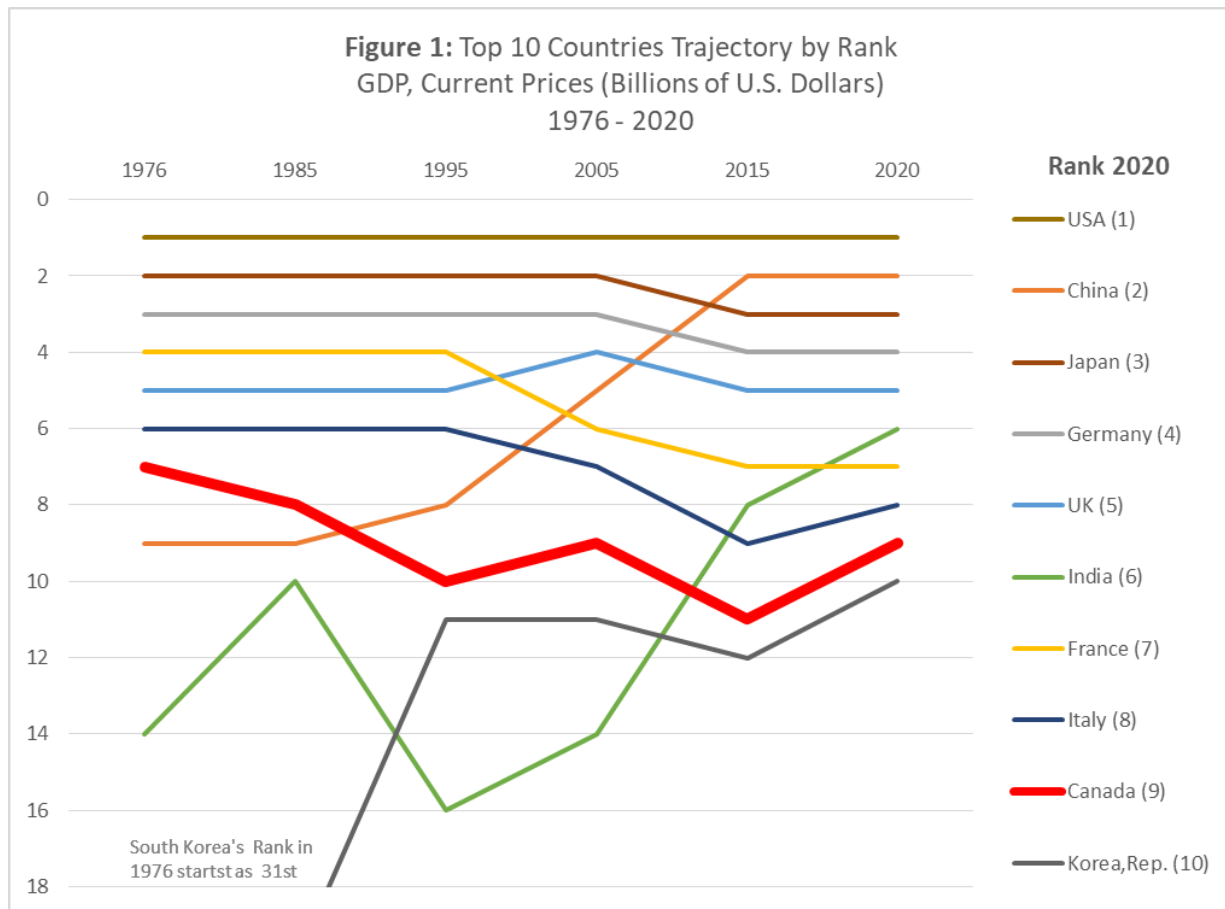
The most important insight from Figure 1 is not the ranking but the *velocity of change*: the speed of change that may be indicative of changes to come. For instance, *China* moved from the 8th to 2nd position and India from the 16th to 6th position between 1995 and 2020. South Korea was in 31st position in 1976 when Canada joined the G7, it is now in 10th position and it may soon surpass Canada. Other countries have recorded equally impressive progress. This is the case for Malaysia that moved up from the 45th to 36th, Singapore from 55th to 35th or Thailand from 36th to 24th position between 1976 and 2020. There is no reason to believe that the velocity of change achieved by these countries in recent years is about to abate. *The relative decline experienced by the G7 countries during the last 25 years may accelerate in the future.*

Paying attention to *trajectory* and *velocity* provides a better reading of a country dynamic position relative to others and helps to identify emerging trends.

Beyond Gross Domestic Products

GDP is the most universally recognized economic indicator. It is a monetary measure of the market value of final goods and services. It measures what can be monetized. It was never intended to measure a country's welfare or the wellbeing of its people. *GDP per capita* and *GDP purchasing power parity* provide additional information about emerging trends. A cursory look reveals a *slow but continuous decline of Canada's ranking since the mid 1970's.*

GDP per Capita and Purchasing Power Parity (PPP)

In 2021, Canada was 19th in terms of GDP per capita after the USA (5th) and Germany (16th) but ahead of the UK (23rd), France (24th), Japan (25th) and Italy (27th) (See Table 2). From that perspective, Canada is doing well relative to other G7 countries. But this is not the whole picture.

Table 2: Top 10 and G7 Countries in GDP Per Capita, Current Prices (U.S. dollars per capita) (2021)					
Rank	Countries	GPD Per Capita	Rank	Countries	GPD Per Capita
1	Luxembourg	131,782	9	Australia	62,723
2	Switzerland	94,696	10	Qatar	59,143
3	Ireland	94,556	**16**	**Germany**	51,860
4	Norway	81,995	**19**	**Canada**	49,222
5	**USA**	68,309	**23**	**UK**	46,344
6	Denmark	67,218	**24**	**France**	44,995
7	Iceland	65,273	**25**	**Japan**	42,928
8	Singapore	64,103	**27**	**Italy**	34,997

Source: https://www.imf.org/external/datamapper/NGDP_RPCH@WEO/OEMDC/ADVEC/WEOWORLD

The G7 countries are on a downward trend. Most are between the 16th and 27th positions. Norway, Denmark, Singapore and Australia, to name a few, enjoy a higher GDP per capita than Canadians (See Table 2). *This was not always the case*.

Figure 2: Selected Countries' Trajectory by Rank
GDP Per Capita (Current US Dollars)
1976 - 2020

Source: https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?end=2020&start=1976
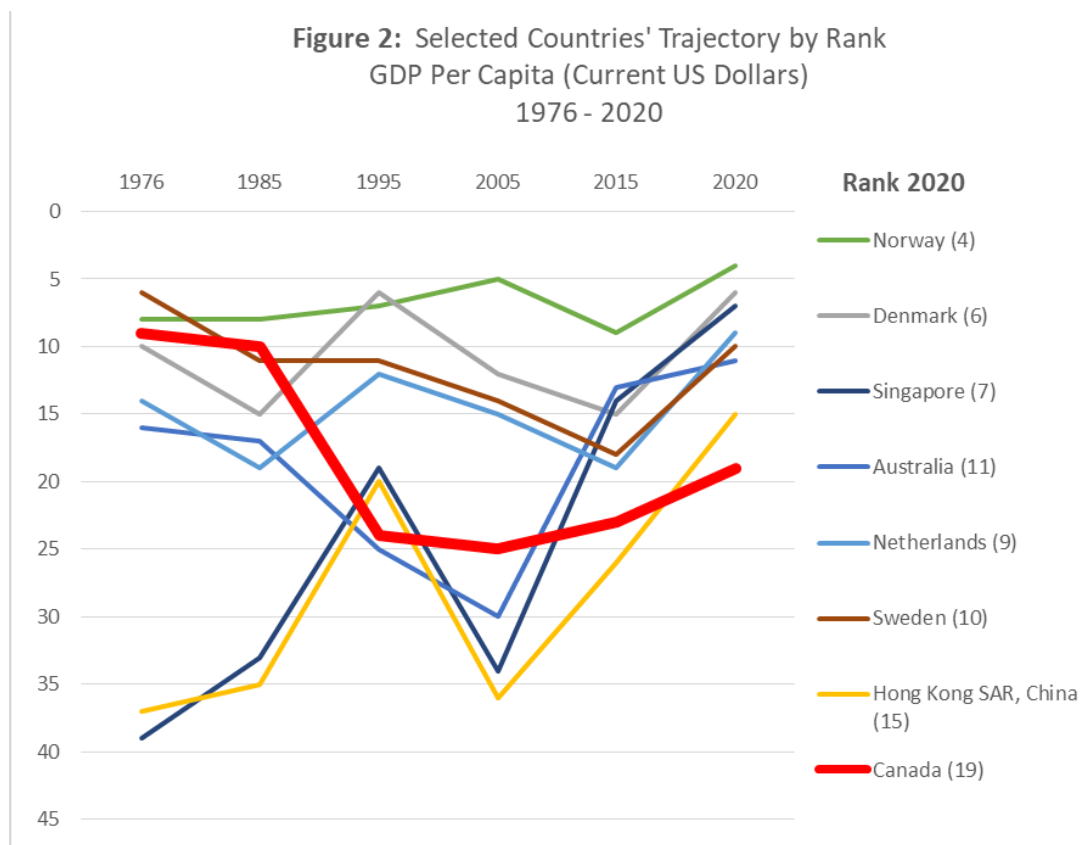
The trajectory is more instructive than the current level of GDP per capita. Canada's ranking dropped steeply from 9th to 24th position between 1976 to 1995 before moving up progressively to the 19th in 2020 (See Figure 2).Australia (30th to 11th), Singapore (34th to 7th), Hong Kong China (36th to 15th) caught up with Canada in 2008, 2011 and 2016 respectively. They are now significantly ahead of Canada.

A word about the selected countries in Figure 2. Several charts in this paper present results from some "selected" countries. They were chosen for several reasons. First, a list of all countries is too cumbersome to work with. However, the data for all countries is available in the websites identified below each figure. Second, some countries were selected to make a point or to illustrate *a significant trend*. Other choices were possible and equally valuable. For instance, while we identified the countries that have *already overtaken* Canada in GDP per capita, it would be equally useful to pay attention to the countries *most likely to overtake* Canada in the coming years or to identify the *fastest-growing countries* over the last 30 years. In that case, the selected countries would have been *Vietnam, Malaysia, Thailand, and the Philippines.* They had the fastest growth in GDP per capita for the last 30 years.

The key point is that focusing on *trajectories* brings a *dynamic perspective* and sheds a different light on the implications of a trend for the future.

Purchasing Power Parity (PPP)

GDP PPP is a better way to compare living standards between countries because it considers the relative cost of living and the inflation rate of the countries. PPP calculations are done by various organizations including the IMF and the World Bank.

The ranking of G7 countries in PPP is similar to the ones observed in terms of GDP per capita. In 2020, the USA and Germany were ahead of other G7 countries. *Canada* was in *24th position* followed by France, the United Kingdom, Japan, and Italy. PPP provides more granularity than GDP per capita. As a result, Canada steep downward trend appears more clearly as does the rapid progress of Singapore, Hong Kong, China, and Australia.

In 2020, twenty-three countries enjoyed a higher standard of living and a higher purchasing power than Canadians measured in PPP index compared to only 12 countries in 1980. There are many reasons for this, but the key point remains *that Canada has been on a steep downward trend for the last 40 years* (See Figure 3).

The results achieved by Singapore, Hong Kong, and Australia are of particular interest because of the diversity of policy choices used to propel these countries forward in very different circumstances.

Figure 3: Selected Countries' Trajectory by Rank GDP Per Capita, Current Prices (PPP; International Dollars Per Capita) 1980 - 2020

Source : https://www.imf.org/external/datamapper/PPPPC@WEO/WEOWORLD
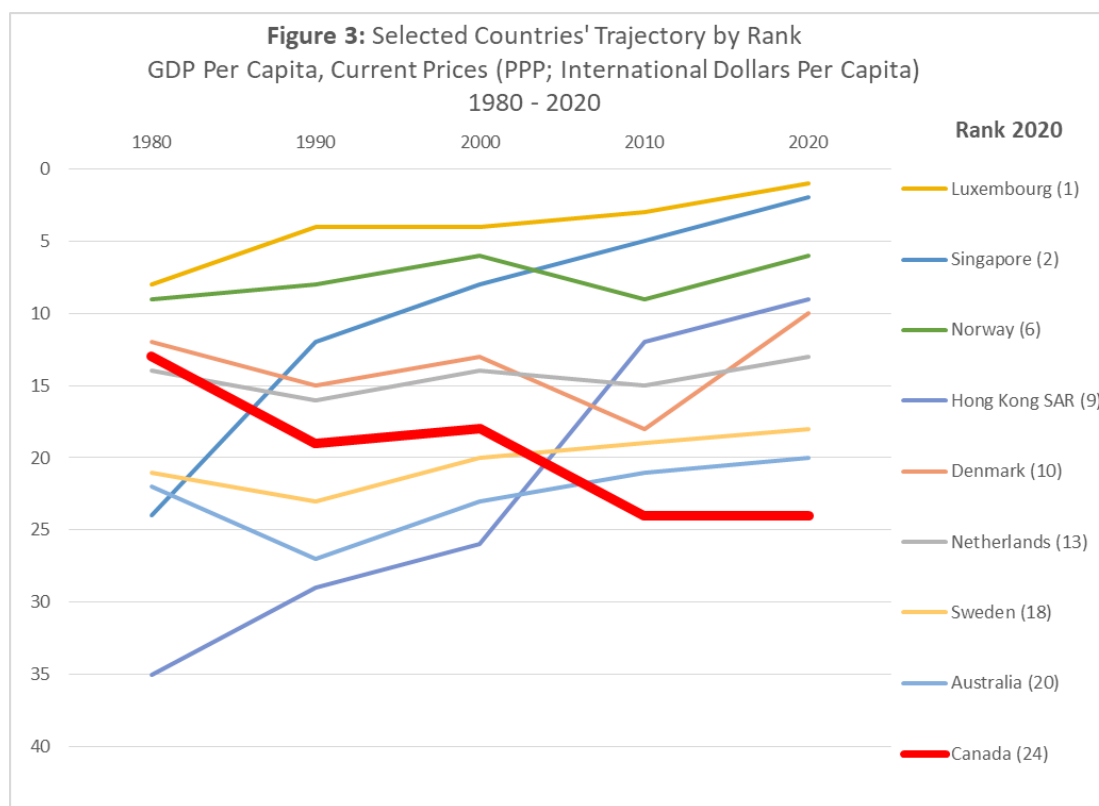
Prosperity and a high standard of living are not the preserve of the countries that dominated the economic scene during the last 30 years.

- *Size does not matter as much as before*. Large economies like Germany and the USA have managed to maintain their lead position. Small ones, like Luxembourg or Singapore have built prosperous economies.
- *Proximity to markets and easy access to natural resources* are not as important as before. Countries with limited access to natural resources like Hong Kong or Switzerland have achieved a higher standard of living than countries well-endowed with natural resources like Canada and Sweden.

Countries large and small achieve a high level of prosperity through a mix of public policy decisions and collective choices. More than ever, prosperity is not inherited but created.

Where Will the Wealth Come From?

The challenge for public sector leaders is to figure out how to ensure that their country will be among those that will successfully navigate through an accelerating period of change. The countries that will prosper in the future will be the ones best able to adapt to a fast changing economic, social, technological, and environmental landscape. For that, we need a different way of thinking and a mental map that is better aligned to the complexity of the world we live in and the dynamic interrelationships between the economic, social end ecological systems.

Complexity Matters (ECI)

The global economic system is a complex system. It is multidimensional and has emergent characteristics. The *Economic Complexity Index* (ECI) was developed by the Kennedy School of Government in 2009, to take account of the increasing complexity of the global economic system. Data like GDP reflects a given point in time, and is insufficient to detect a country's potential trajectory.

ECI is a holistic measure. It explores how accumulated knowledge is expressed in productive activities. The authors argue that ECI is predictive of future growth and that this helps explain why countries like India or the Philippines have been able to enter new sectors while others like Venezuela or Bangladesh have been unable to diversify their economy.

Table 3: G7 and Selected Countries Economic Complexity Index (ECI) - (2018)					
Country	Rank	Index value	Country	Rank	Index value
Japan	1	2.4265	France	16	1.3726
South Korea	3	2.1058	**China**	18	1.3409
Germany	4	2.0865	Denmark	24	1.094
Singapore	5	1.8512	**Malaysia**	26	1.0289
USA	11	1.5483	**Philippines**	35	0.6747
UK	13	1.5073	**Canada**	39	0.6462
Italy	14	1.44	India	42	0.5385

Source: https://atlas.cid.harvard.edu/rankings

The countries in Table 3 were selected to illustrate to high level of complexity index results achieved by east and south-east Asian countries relative to Canada and other G7 countries. *This is of interest because it could be indicative of the increasing competition that G7 countries can expect in the years to come*.

Source: https://atlas.cid.harvard.edu/rankings
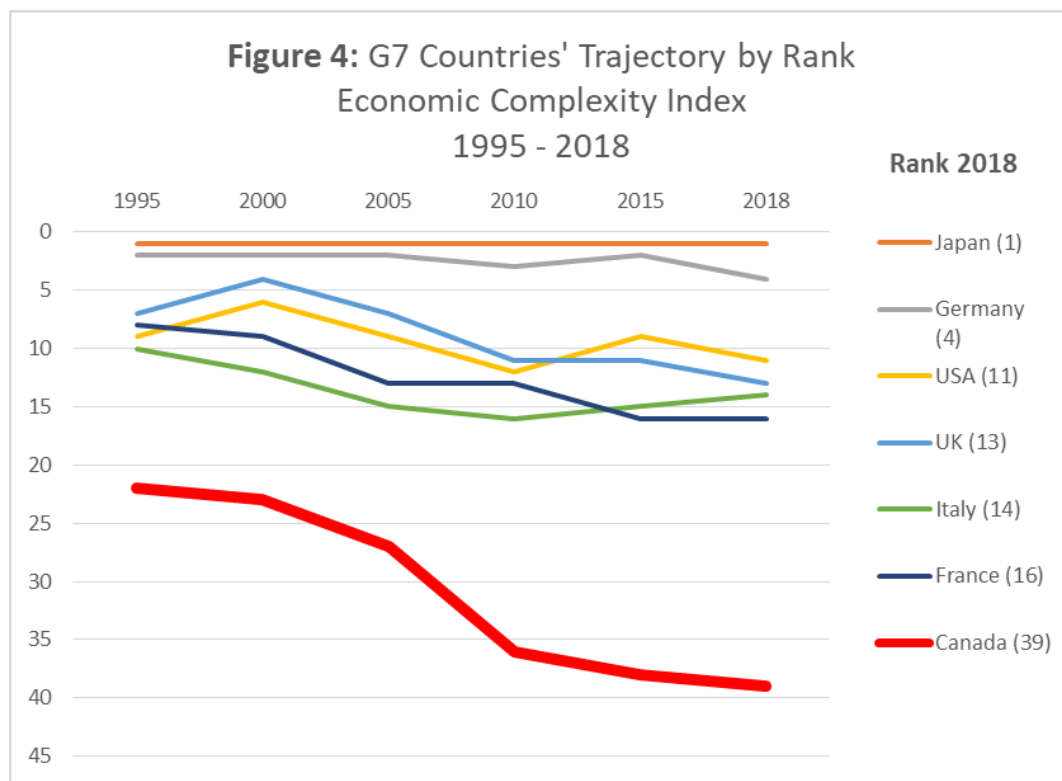
The Economic Complexity Index (ECI) reveals significant differences among the G7 countries. Based on 2018 data, Japan (1st; 2.43) and Germany (4th; 2.09) had a strong standing. The USA (11th; 1.55), the United Kingdom (13th; 1.51), Italy (14th; 1.44) and France (16th, 1.37) were within range from each other (See Figure 4). *Canada was in 39th position and on a steep*

downward trend from 22nd position in 1995. There is a growing gap between the complexity index results achieved by the other G7 countries and Canada. This should be of concern since it may signal that other G7 countries are better positioned than Canada to adapt to a fast changing economic and technological landscape and to benefit from knowledge-based products and services.

More challenging still is the fact that Canada's growing gap in ECI results is not limited to G7 countries. Many countries display much better ECI results than Canada and hence a greater capacity to generate complex products and difficult to replicate. This is the case for countries such as South Korea (3rd), Singapore (5th), China (18th), Malaysia (26th), Philippines (35th) and even India. India (42nd) is fast closing in and may soon surpass Canada (See Figure 5).

The rapid progress of China, South Korea, and Singapore over the period is worth noting. If the ECI is predictive of future growth potential, as its authors have argued, the *G7 countries and most of all Canada, can expect strong head winds in the years to come.*

Figure 5: Selected Countries' Trajectory by Rank
Economic Complexity Index
1995 - 2018

Source https://atlas.cid.harvard.edu/rankings
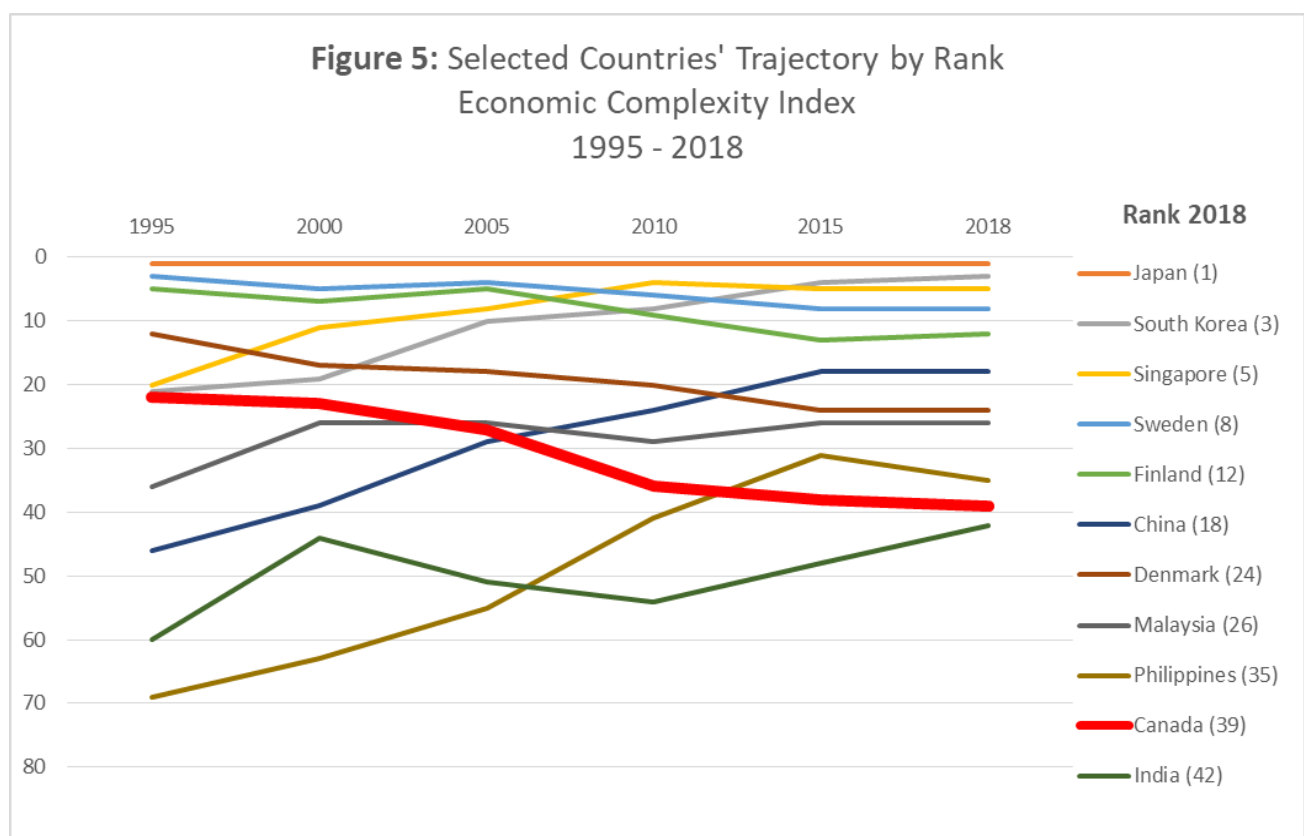
Fitness Matters (EFI)

Economic complexity matters but so does fitness. Inspired by complexity science, the *Universal Economic Fitness Index* (EFI) brings a complex *network* perspective to the discussion about a country's economic performance.

The EFI considers a country's exports as well as product's complexity. In essence, the index means that the more diverse a country's production and the more complex the product and services produced, the greater the *universal fitness* of the country. *Product fitness* (EFI) considers how many or few countries can successfully make a given product. The model argues that a country with a high EFI can be expected to see an increase in its GDP per capita in the future even if this growth is not yet reflected in its GDP. This would be the case for countries like China, Malaysia, and India.

Table 4: Economic Product Fitness Index (EFI) (2017) Top 10, G7 and Other Selected Countries					
Country	Rank	Index value	Country	Rank	Index value
China	1	11.16	Belgium	9	5.20
USA	2	10.89	UK	10	5.12
Germany	3	9.28	**Korea**	12	4.18
Japan	4	7.10	Sweden	17	2.89
Italy	5	6.40	Denmark	19	2.48
India	6	6.07	**Malaysia**	20	2.33
France	7	5.86	**Thailand**	22	2.29
Netherlands	8	5.22	**Singapore**	23	2.19
			Canada	26	2.01

Source: https://datacatalog.worldbank.org/dataset/economic-fitness

Table 4 includes the ten countries that achieved the highest EFI results in 2017. The *selected countries* in this case illustrate the diversity of countries that have managed to outperform Canada - from Sweden to Thailand, from Belgium to Singapore - with a particular emphasis on east and south-east Asian countries.

Canada is recording significantly lower EFI score than the other G7 countries. They are among the top 10 countries while *Canada is lagging behind in 26th* (See Figure 6).

Figure 6: G7 Countries' Trajectory by Rank
Economic Fitness Index - Product
2007 - 2017

Source: https://databank.worldbank.org/reports.aspx?source=economic-fitness&preview=on
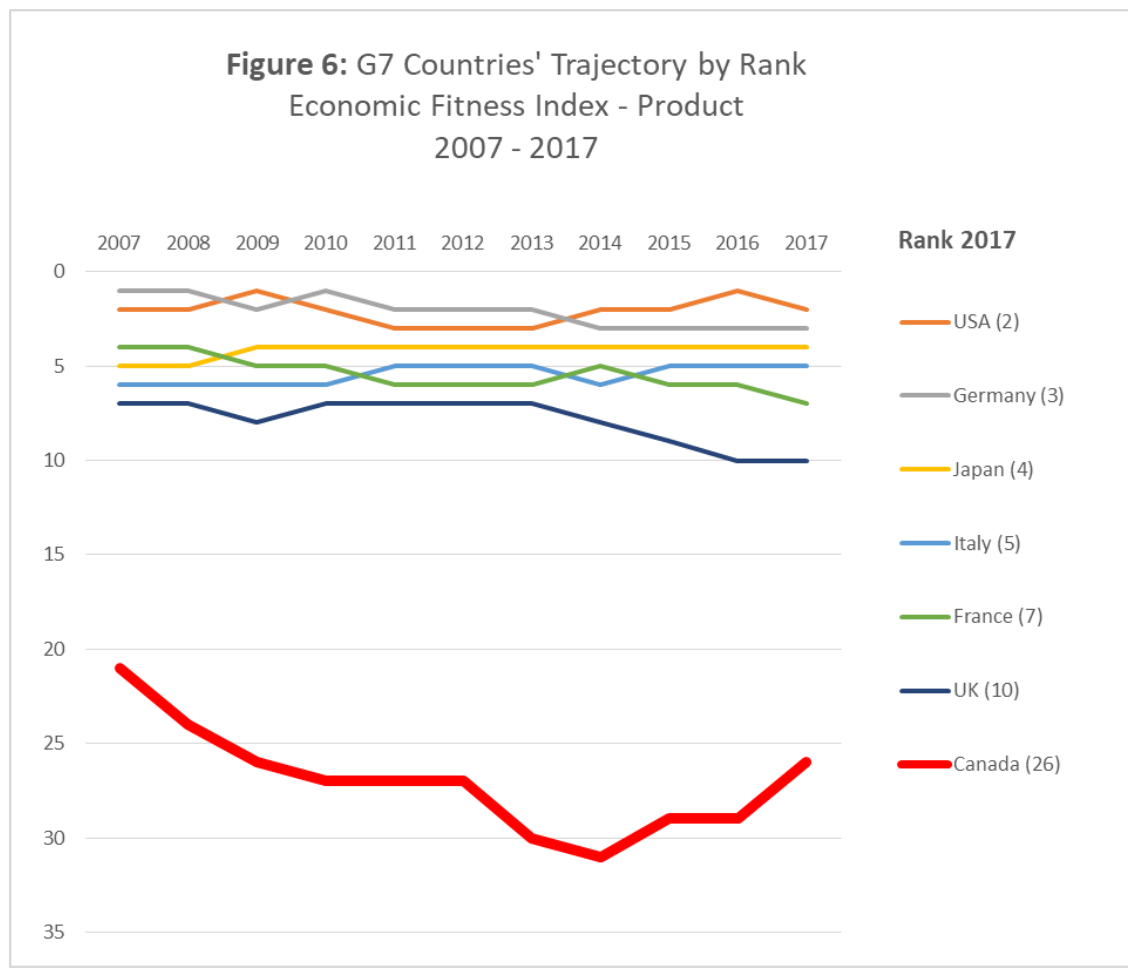
China was number one in terms of EFI in 2017. This is the last year the EFI results are available. India (6th), Korea (12th) Malaysia (20th), Thailand (22nd) and Singapore (23rd) have better ranking than Canada and are poised for further growth (See Figure 7).

Figure 7: Selected Countries' Trajectory by Rank
Economic Fitness Index - Product
2007 - 2017

Source: https://databank.worldbank.org/reports.aspx?source=economic-fitness&preview=on
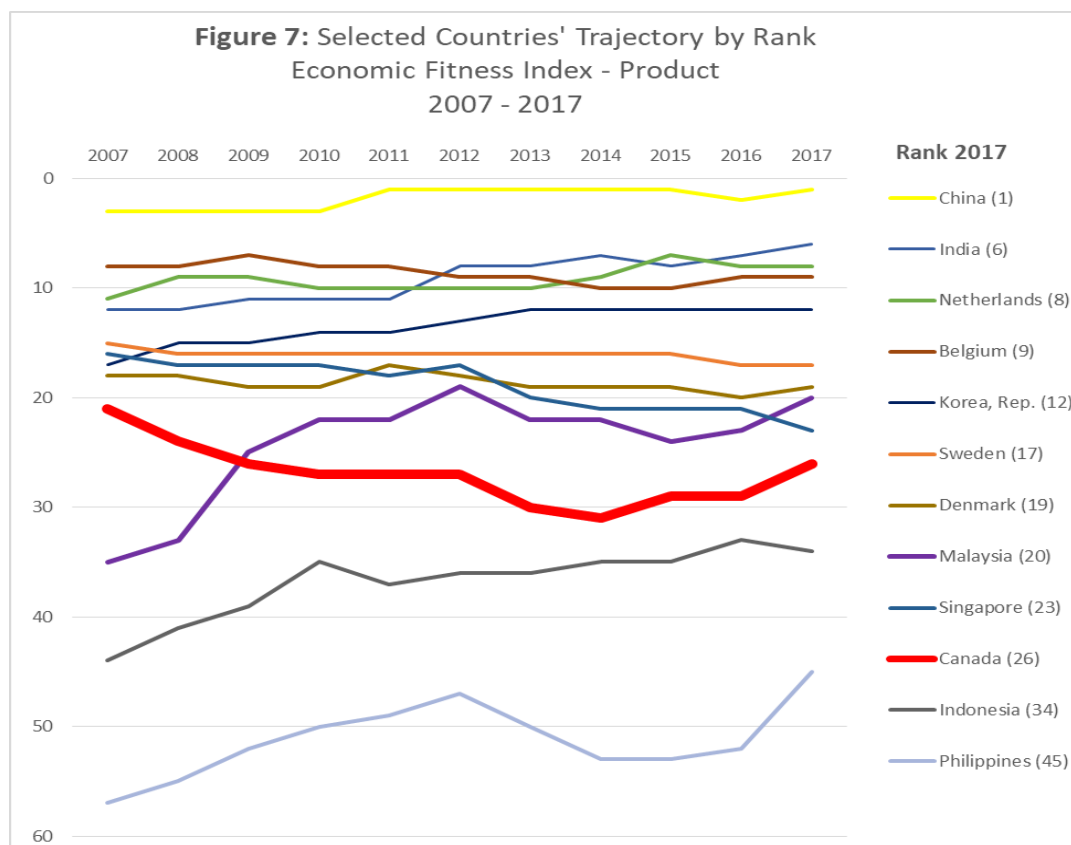
Canada fared somewhat better in term of *Universal Economic Fitness Index* results. This Index includes services as well as products. Canada ranked 12th in 2017, well below other G7 countries and closely followed by India (See Table 5).

Table 5: Universal Economic Fitness Index, Top 13 – (2016)					
Country	Rank	Index value	Country	Rank	Index value
China	1	21.11	Netherlands	7	5
USA	2	17.28	**Italy**	8	4.65
Germany	3	12.59	Korea, Rep.	9	3.91
Japan	4	7.22	Belgium	10	3.7
France	5	6.88	Switzerland	11	3.06
UK	6	6.22	**Canada**	12	3.05
			India	13	2.84

Source : https://databank.worldbank.org/source/economic-fitness-2

Taken together ECI and EFI reveal a capacity to adapt to a fast changing and increasingly complex economic environment. *Canada's steep downward trend in Universal Economic Fitness Index results since 2010 should trigger some alarm bells* (See Figure 8).

Figure 8: Top 13 Countries' Trajectory by Rank Universal Economic Fitness Index 2008 - 2016

Source : https://databank.worldbank.org/source/economic-fitness-2/Series/EF.EFM.UNIV.XD
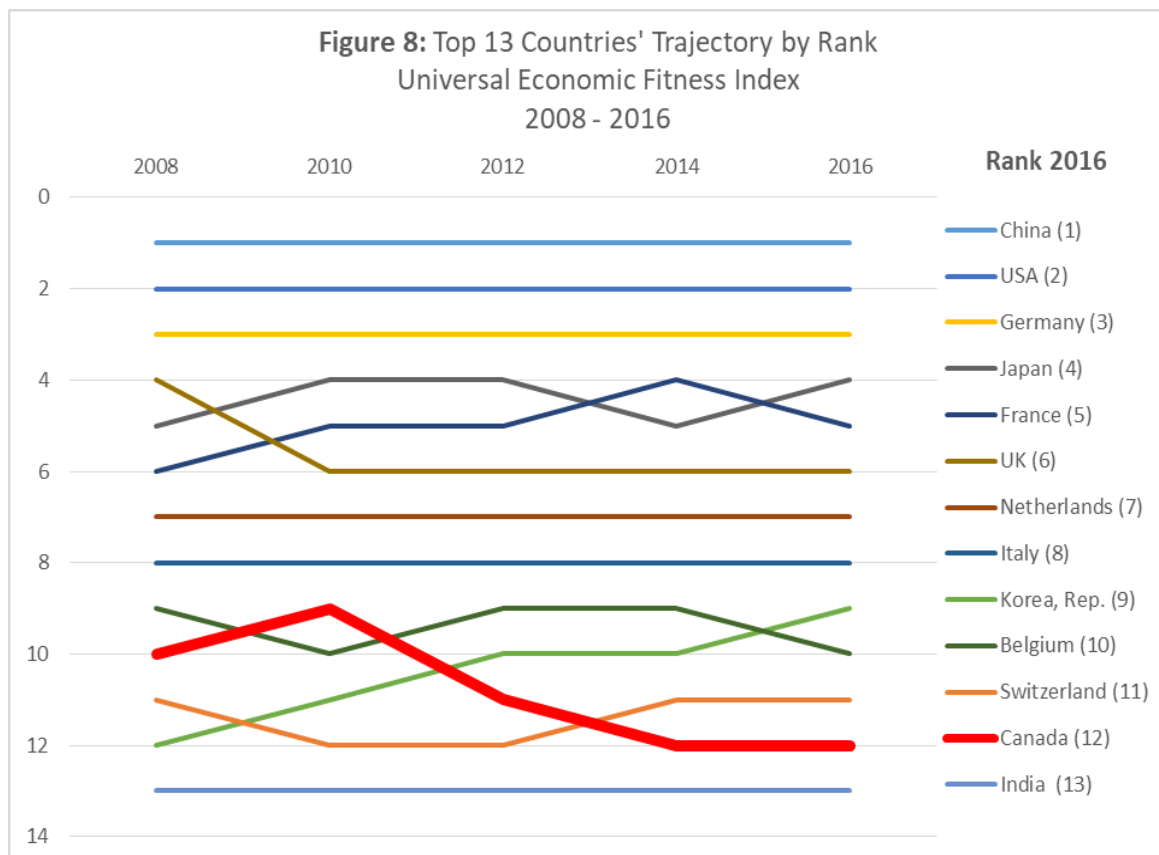
Competitiveness Matters (GCI)

ECI and EFI bring complexity theory and a network perspective to the discussion about a country's economic performance. The results signal that Canada has reasons to worry about its capacity to ensure its future prosperity by generating an increasing range of complex products and services. What about Canada's competitiveness?

The World Economic Forum generates the *World Competitiveness Report* annually. The GCI integrates macro and microeconomic factors. It measures the set of institutions, policies and factors contributing to economic prosperity. The index is made of 110 variables; two thirds are based on executive survey and one third from data sets generated by the United Nations, the World Bank, and the International Monetary Fund (IMF). The report divides countries in three phases of development: factor-driven, efficiency-driven, and innovation-driven. In the factor-driven stage, countries compete based on factor endowments. In the efficiency driven stage, competitiveness is increasingly driven by efficient labor markets, higher education and the

ability to harness the benefits of existing technologies. An innovation-driven country is expected to maintain high wages and a high standard of living by offering new and unique goods and services, by using sophisticated processes and competing through innovation.

While the GCI is an improvement over the *Growth Development Index* and the *Business Competitiveness Index,* the GCI is nonetheless oblivious of the environmental dimensions and risks like climate change, water scarcity, or food security.

Table 6: Global Competitiveness Index (GCI) Top 15 and G7 – (2019)					
Country	Rank	Index value	Country	Rank	Index value
Singapore	1	84.80	**UK**	9	81.20
USA	2	83.70	Denmark	10	81.20
Hong Kong	3	83.90	Finland	11	80.20
Netherlands	4	82.40	Taiwan, China	12	80.20
Switzerland	5	82.30	South Korea	13	79.60
Japan	6	82.30	**Canada**	14	79.60
Germany	7	81.80	**France**	15	78.80
Sweden	8	81.20	**Italy**	30	71.50

Source : https://www.weforum.org/reports?utf8=%E2%9C%93&query=competitiveness

Four countries among the G7 ranked among the top ten in 2019; the USA (2nd, 83.7), Japan (6th; 82.3), Germany (7th; 81.8) and the United Kingdom (9th; 81.2). Canada is in 14th position (79.6) followed by France (15th, 78.8) and Italy (30th; 71.50) (See Table 6).

It is interesting to note that Germany and Japan outperformed Canada in all the dimensions discussed so far. They had higher Economic Complexity Index (ECI), Universal Economic Fitness, product fitness (EFI) and Global Competitiveness Index (GCI) results. Germany and Japan are two very different countries but that have managed to generate a mix of policies to keep pace with their competitors in a period characterized by an accelerating, digital and technological revolution. What can be learned from the choices they have made? What insights may be relevant to Canada going forward?

Figure 9: Top 14 Countries' Trajectory by Rank
Global Competitiveness Index
2007 - 2019

Rank 2019

- Singapore (1)
- USA (2)
- Hong Kong (3)
- Netherlands (4)
- Switzerland (5)
- Japan (6)
- Germany (7)
- Sweden (8)
- UK (9)
- Denmark (10)
- Finland (11)
- Taiwan, China (12)
- South Korea (13)
- Canada (14)

Source : https://www.weforum.org/reports?utf8=%E2%9C%93&query=competitiveness
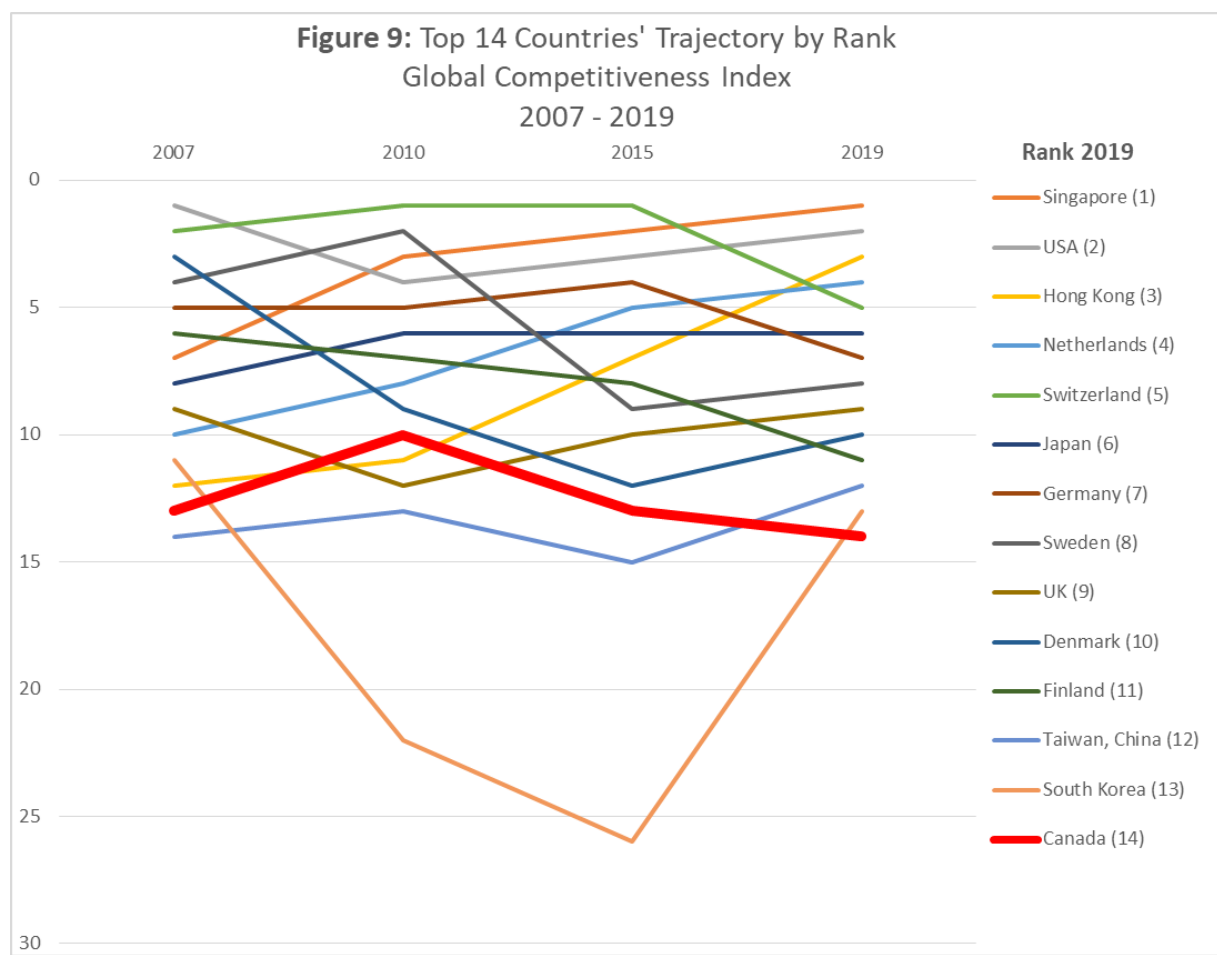
In 2019 Singapore (1st; 84.8) had the highest GCI rating. It surpassed the USA in 2010 and stayed ahead ever since.

It is the velocity of change in Figure 9 that is most interesting. The rapid progression of Hong Kong, Netherlands and South Korea is impressive. Countries with relatively small internal markets outperformed much larger economies. This is the case for Hong Kong, the Netherlands, Switzerland, Taiwan, Denmark, Finland, and South Korea.

In a global environment, the size of country's domestic market is not as significant as it once was but competitiveness, fitness, and inventiveness matter more. For instance, Canada has a sizable internal market and it enjoys a special relationship with the United States. Yet, it has experienced a continued drop in its exports to the United States due to its declining competitiveness when compared to China, Mexico, and others.

The cumulative effect of the index results discussed so far is beginning to shed some light on how Canada's position has evolved over time and the risks associated with the trajectory it is on compared to others.

A Sustainable Trajectory and a Resilient Society

The performance of a country is not limited to its economic performance. Growth is a mean to an end: to build a better future, improve human condition and set society on a sustainable trajectory. A successful economic system should contribute to shared prosperity and social progress in ways that are also respectful of the planet's capacity to sustain life.

Social Progress (SPI)

The Social Progress Index (SPI) was developed to consider the social dimension of a country's performance. It measures the extent to which countries provide for the social and environmental needs of their citizens compared to others. The index is based on the work of Amartya Sen, Douglass North, and Joseph Stiglitz[6, 7]. The social and environmental factors include wellness, equality, inclusion, sustainability, personal freedom, and safety[8].

The SPI is based on multiple indicators grouped in three dimensions. The *Basic Human Needs* dimension includes nutrition, basic medical care, water, and sanitation. The *Opportunity* dimension includes rights and freedom, access to advance education and inclusiveness. *The Foundation of Wellbeing* dimension includes health and wellness, education, environment, information, and communication.

Table 7: Social Progress Index (SPI) G7 Countries – (2020)					
Country	Rank	Score	Basic Human Needs	Foundation of Wellbeing	Opportunity
Canada	7	**91.40**	97.03	90.88	86.31
Germany	11	90.56	96.14	89.02	**86.53**
Japan	13	90.14	**97.78**	**92.15**	80.50
France	18	88.78	94.48	90.78	81.09
United Kingdom	20	88.54	94.36	90.21	81.06
Italy	23	87.36	93.19	88.59	80.30
United States	28	85.71	92.08	83.14	81.89

Source: https://www.socialprogress.org/

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[6] See Beyond GDP ,August 2013
[7] See Social Progress Imperative website
[8] ibid

Canada ranked 7th (91:40) in 2020; the *best rank among the G7* countries. Furthermore, Canada's performance improved along all three dimensions between 2015 and 2020.

Germany, Japan, and France were in 11th, 13th, and 18th positions respectively in 2020. Canada had the best score overall, Germany had the best score for opportunity, France for foundation of well being and Japan for basic human needs. Italy and the United States had a less stellar performance; they were in 23rd and 28th position respectively (See Table 7).

Figure 10: G7 Countries' Trajectory by Rank Social Progress Index 2011 - 2020

Source: https://www.socialprogress.org/
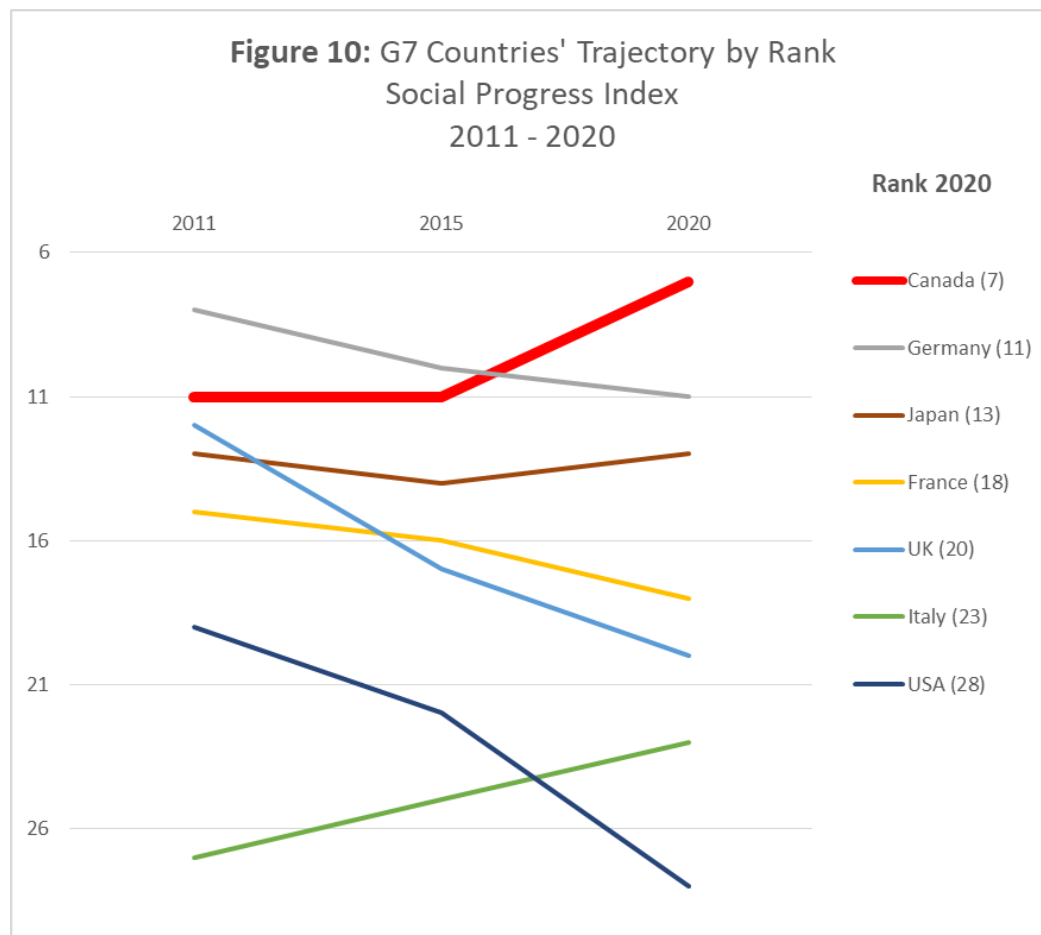
The trajectory during the period of 2011 to 2020 shows a downward trend for France (15th to 18th position), Germany (8th to 11th position), the United Kingdom (12th to 20th position) and the United States (19th to 28th position). Japan, Italy and Canada each show an upward trend, though Canada's trajectory grew the quickest (See Figure 10).These results may be related to the rise of social tensions and to the declining trust in government that some developed countries experienced in recent time.

The best social performance index results in 2020 belong to Norway, Denmark, Finland, New Zealand, and Sweden. New Zealand (4th), Canada (7th) and Australia (8th) rank with the Nordic countries among the top 10 for the best Social Progress Index results (see Table 8).

Table 8: Social Progress Index, Top 12 – (2020)		
Country	Rank	Index value
Norway	1	92.73
Denmark	2	92.11
Finland	3	91.89
New Zealand	**4**	91.64
Sweden	5	91.62
Switzerland	6	91.42
Canada	7	91.40
Australia	**8**	91.29
Iceland	9	91.09
Netherlands	10	91.06
Germany	11	90.56

Source: https://www.socialprogress.org/

Canada was on a steep upward trend from 2015 to 2020 compared to other G7 countries. Among the top 10 countries, only New Zealand and Switzerland show such a fast upward trend (See Figure 11).

A key question is whether Canada will remain among the top 10 countries in years to come? The other G7 countries have better economic complexity, fitness, and competitiveness index results than Canada. They may be better positioned to generate the wealth needed to improve their Social Performance Index results. Countries like Norway, Denmark, Sweden, Switzerland, and Netherlands enjoy a higher standard of living than Canada as measured in GDP per capita; as a result, they may also be better positioned than Canada to stay in the top 10.

Canada may be on path difficult to sustain at a time when the fiscal situations of municipal, provincial, and federal governments have deteriorated, and while there is a public expectation that new social programs will be financed through debt. Unforeseen events will emerge, and crises will occur that will require government's intervention. *The challenge will be to balance economic prosperity and social wellbeing.* This is not an unsurmountable challenge but it will require to shape an agenda that aligns collective needs and collective capacity.

Figure 11: Top 11 Countries' Trajectory by Rank
Social Progress Index
2011-2020

Source: https://www.socialprogress.org/
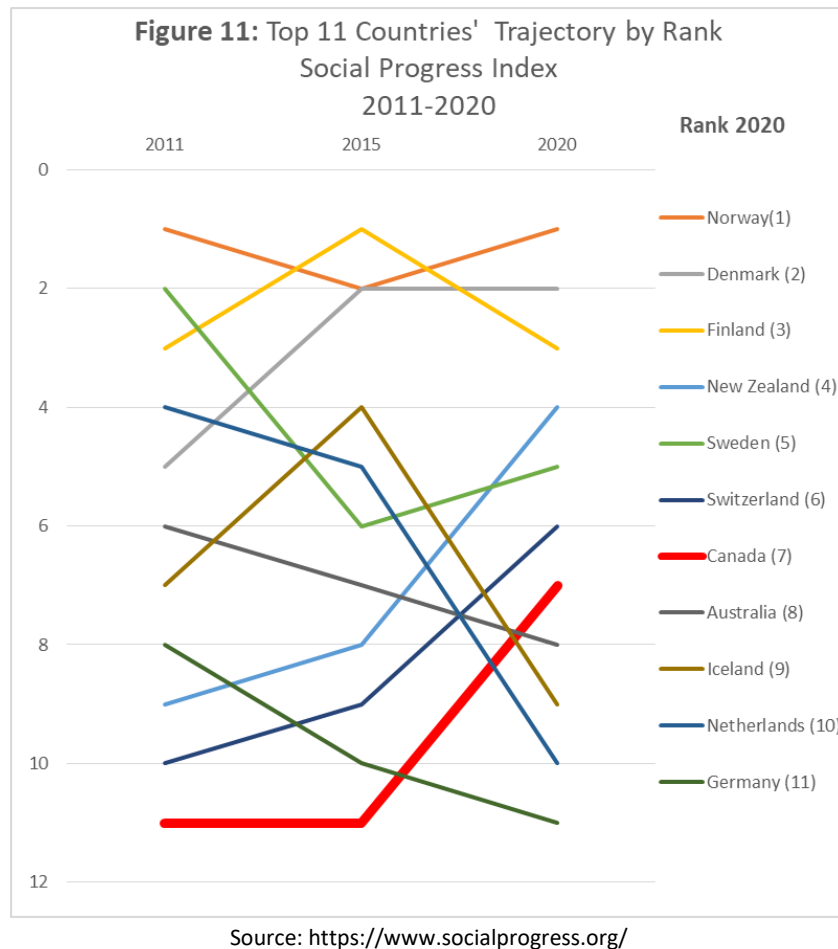
Social performance indexes like the SPI, the Gross National Well-being index, and the World Happiness Report were developed to overcome some of the limitations of conventional economic measures. By virtue of their age and ongoing changes, they do not yet have the sophistication of some of the economic indexes discussed before. The results must therefore be used with caution and complemented by deeper sectoral analysis[9].

Environmental Performance (EPI)

Setting a country on a sustainable trajectory means to achieve prosperity and human progress in ways that respect ecological principles and protect the capacity of the planet to sustain life.

The Environmental Performance Index (EPI) was first published in 2002. It was developed by Yale University and Columbia University in collaboration with the World Economic Forum and

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[9] The works of the OECD on a Better Life Index Report or of Waterloo University on a Canadian Index of Wellbeing (CIW) provide more in-depth analysis. However, since the work of the OECD does not lead to a single index result and the CIW cannot be used for international comparison, they were not used in the context of the *Fit for the Future Project*.

the joint research center of the European Commission. It was designed to supplement the United Nations Millennium Development goals[10]. The EPI ranked 180 countries in 2020.

The key variables used in the 2020 report include indicators of *environmental health* such as air quality, water and sanitation and indicators of *ecosystem vitality* such as climate, biodiversity, habitat, etc.

Among the G7 countries, four countries stand out in 2020: the United Kingdom (4th; 81.3), France (5th; 80), Germany (10[th,] 77.2) and Japan (12th, 75.1). Canada was *in 20th position,* ex-aequo with Italy. The United States was in 24th position, below Malta and just above Greece (See Figure 12).

In recent years, the G7 countries have improved their EPI results. This is against the backdrop of increasing public awareness about the urgency to act to prevent an acceleration of climate changes and to mitigate the impact of environmental disasters.

Figure 12: G7 Countries' Trajectory by Rank Environmental Performance Index (2006 - 2020)

Source https://sedac.ciesin.columbia.edu/data/set/epi-pilot-environmental-performance-index-2006/data-download

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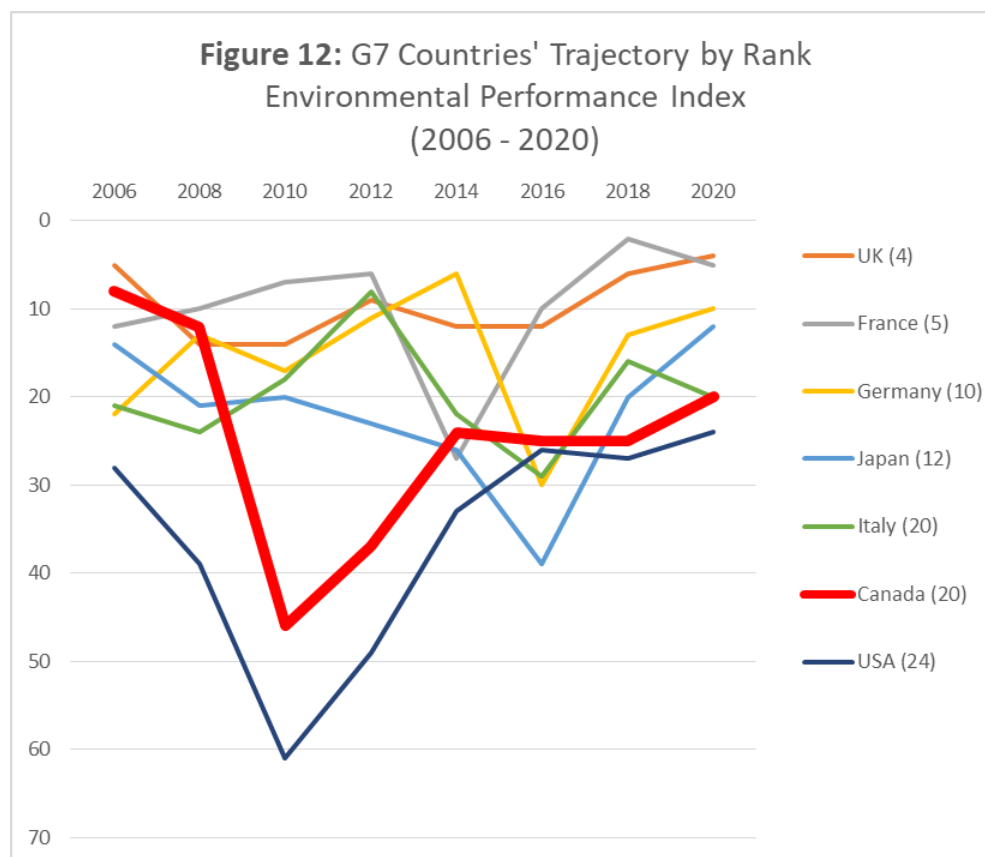
[10] See Yale Center for Environmental Law &Policy and center for international Earth science Information Network , Columbia University

The gap between Canada and other G7 countries is noteworthy. Canada is doing relatively well in the environmental health dimension of the Index, but is lagging behind in the ecosystem vitality dimension of the EPI.

What would it take for Canada to close the gap with other G7 countries in term of EPI results? It is useful to remember that the other G7 countries have achieved better results than Canada in term of economic complexity, fitness, and competitiveness. Except for the USA and Italy, they also have better EPI results.

What are the implications for Canada going forward? Are other G7 countries better positioned than Canada to take advantage of a "greening" of the economy and the increasing demand for leading edge green technologies, products, and services? Is Canada at risk of missing out on the benefits of being at the forefront on environmental issues? A number of countries including Germany, Sweden, and Netherlands, are aggressively exploring strategies to set their society on a more sustainable trajectory while benefiting from the economic and technological shifts that these changes entail.

Table 9: Environmental Performance Index, Top 10 and Others – (2020)					
Country	Rank	Index value	Country	Rank	Index value
Denmark	1	82.5	Sweden	8	78.7
Luxembourg	2	82.3	Norway	9	77.7
Switzerland	3	81.5	**Germany**	10	77.2
UK	4	81.3	Netherlands	11	75.3
France	5	80	Australia	13	74.9
Austria	6	79.6	New Zealand	19	71.3
Finland	7	78.9	**Canada**	20	71

Source: https://sedac.ciesin.columbia.edu/data/set/epi-pilot-environmental-performance-index-2006/data-download

The countries with the best EPI results in 2020 were Denmark, Luxembourg, Switzerland, United Kingdom and France[11] (See Table 9). Australia (13th; 74.9) and New Zealand (19th; 71.3) had better EPI results than Canada in 2020.

Keeping in mind the results across the indexes discussed in the previous sections of this report, some patterns are beginning to emerge:

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[11] See 2020 EPI results , Nov.2020

- Some countries with the best social performance index results also have the best environmental performance index results. Among the G7 countries Germany stands out. It outperformed Canada in terms of social and environmental performance as well as economic complexity, fitness, and competitiveness over the period under review.
- Countries like Norway, Denmark, Finland, Sweden, and Switzerland achieved higher social and environmental performance index results than Canada. They also enjoy a higher standard of living than Canadians measured in GDP per capita.
- Australia and New-Zealand show impressive results on many fronts including in social and environmental performance results.

A key insight is that prosperity is compatible with human progress and environmental protection. Some authors have even argued that social and environmental performance may be acting as accelerators of economic innovation and drivers of future prosperity[12]. It is a matter of balance. W*ill Canada be among the countries able to balance economic prosperity, social well-being, and sustainability in the future?*

Happiness (WHI)

At the end of the day, not everything can or should be monetized. A good quality of life, a just society and a person's life satisfaction are subjective notions that play a crucial role in building the *collective capacity* to set an ambitious course for the future.

The *World Happiness Report* is a publication of the United Nation Sustainable Development Solutions Network. It was first published in 2012. It contains rankings of national happiness based on respondent ratings about their own lives[13]. The Editors of the 2020 report included, among others, John Helliwell a well know Canadian scholar recognized internationally for his work on wellness and life satisfaction. The United Nations have recognized the importance of wellbeing and happiness as a New Economic Paradigm[14].

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[12] See- Circular Economy Innovation and Environmental Sustainability Impact on Economic Growth: An Integrated Model for Sustainable Development: https://www.mdpi.com/2071-1050/12/12/4831/htm
[13] See https://worldhappiness.report/archive/
[14] See "Defining a New Economic Paradigm: The Report of the High-Level Meeting on Wellbeing and Happiness .:. Sustainable Development Knowledge Platform." United Nations. United Nations. Accessed October 20, 2021. https://sustainabledevelopment.un.org/index.php?page=view&type=400&nr=617&menu=35.

Overall ranking	Country	Score	GDP per Capita	Social Support	Healthy Life Expectancy	Freedom to Make Life Choices	Generosity	Perceptions of Corruption
Table 10: World Happiness Report, Top 10 and G7 Countries – (2020)								
1	Finland	7.809	1.285	1.500	0.961	0.662	0.160	0.478
2	Denmark	7.646	1.327	1.503	0.979	0.665	0.243	0.495
3	Switzerland	7.560	1.391	1.472	1.041	0.629	0.269	0.408
4	Iceland	7.504	1.327	1.548	1.001	0.662	0.362	0.145
5	Norway	7.488	1.424	1.495	1.008	0.670	0.288	0.434
6	Netherlands	7.449	1.339	1.464	0.976	0.614	0.336	0.369
7	Sweden	7.353	1.322	1.433	0.986	0.650	0.273	0.442
8	New Zealand	7.300	1.242	1.487	1.008	0.647	0.326	0.461
9	Austria	7.294	1.317	1.437	1.001	0.603	0.256	0.281
10	Luxembourg	7.238	1.537	1.388	0.986	0.610	0.196	0.367
11	**Canada**	7.232	1.302	1.435	1.023	**0.644**	0.282	**0.352**
13	United Kingdom	7.165	1.273	1.458	0.976	0.525	**0.373**	0.323
17	Germany	7.076	1.314	1.369	0.972	0.564	0.252	0.309
18	United States	6.940	1.374	1.405	0.832	0.535	0.298	0.152
23	France	6.664	1.268	**1.459**	1.030	0.514	0.113	0.227
30	Italy	6.387	1.236	1.347	1.023	0.321	0.170	0.040
62	Japan	5.871	1.267	1.332	**1.073**	0.495	0.036	0.181

Source: https://worldhappiness.report/ed/2020/

Are the citizens of the wealthiest countries the most satisfied about their life? It does not seem to be the case. No G7 countries were among the top ten countries with the highest Happiness Index results in 2020 (See Table 10).

Canada was in *11th position in 2020;* the highest score among G7 countries*.* Canada had the best results of the G7 under the "Freedom to Make Life Choices" dimension. It also had good results under the "corruption" dimension of the index. It should be noted however, that *Canada's Happiness Index results have been steadily declining since 2015* (See Figure 13).

Figure 13: G7 Countries' Trajectory by Rank
World Happiness Report
2013 - 2021
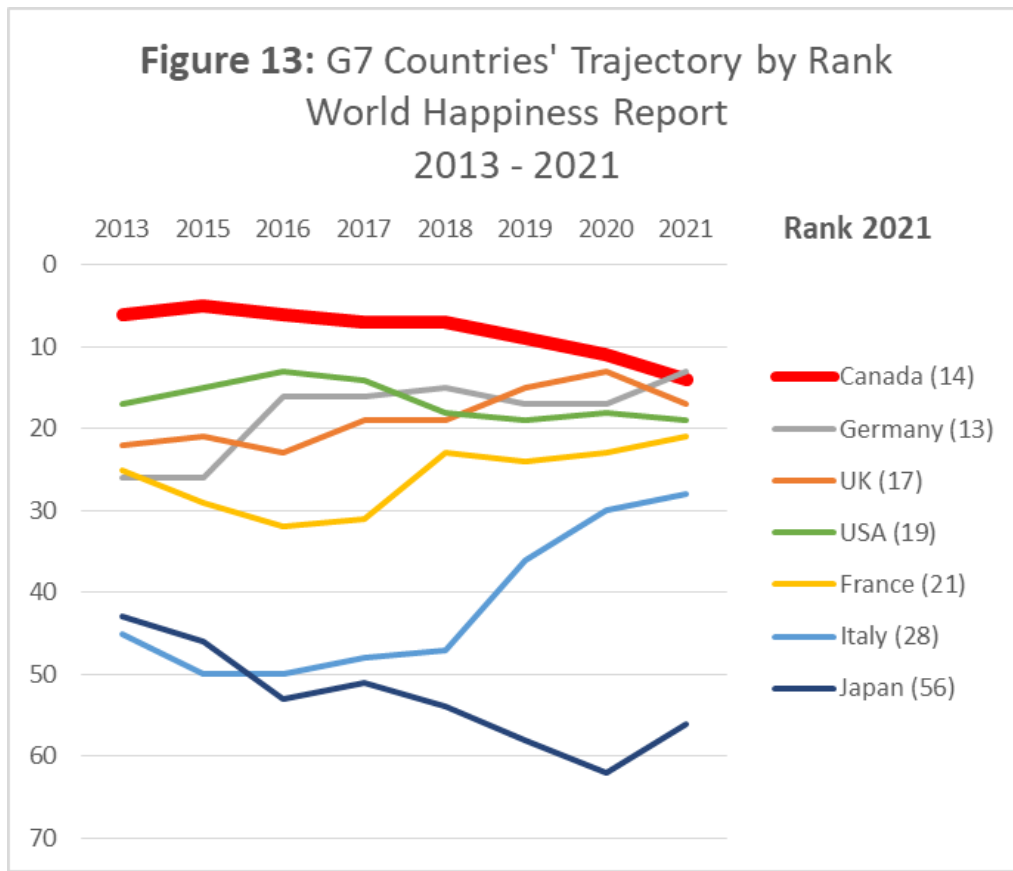
Source: https://worldhappiness.report/archive/

So, what can we learn from countries that have consistently achieved the best World Happiness Index results? Finland, Denmark, Switzerland, Iceland, and Netherlands were the top five countries in 2020, the period of the COVID-19 pandemic. The results were essentially the same in 2021. In fact, the list of the top ten countries has been relatively stable over the last ten years with the notable exceptions of Canada on a downward trend and Luxembourg on a fast upward trend (See Figure 14).

The countries with the highest Happiness Index results display a mix of social solidarity, freedoms, and trust in their fellow citizens as well as in their public institutions. They also enjoy a high standard of living. Inequality in solidarity and declining trust appear to be better predictors of Happiness Index results than income inequalities.

Figure 14: Top 10 Countries and Canada's Trajectory by Rank
World happiness report
2013 - 2021

Source: https://worldhappiness.report/archive/ - 2021 report
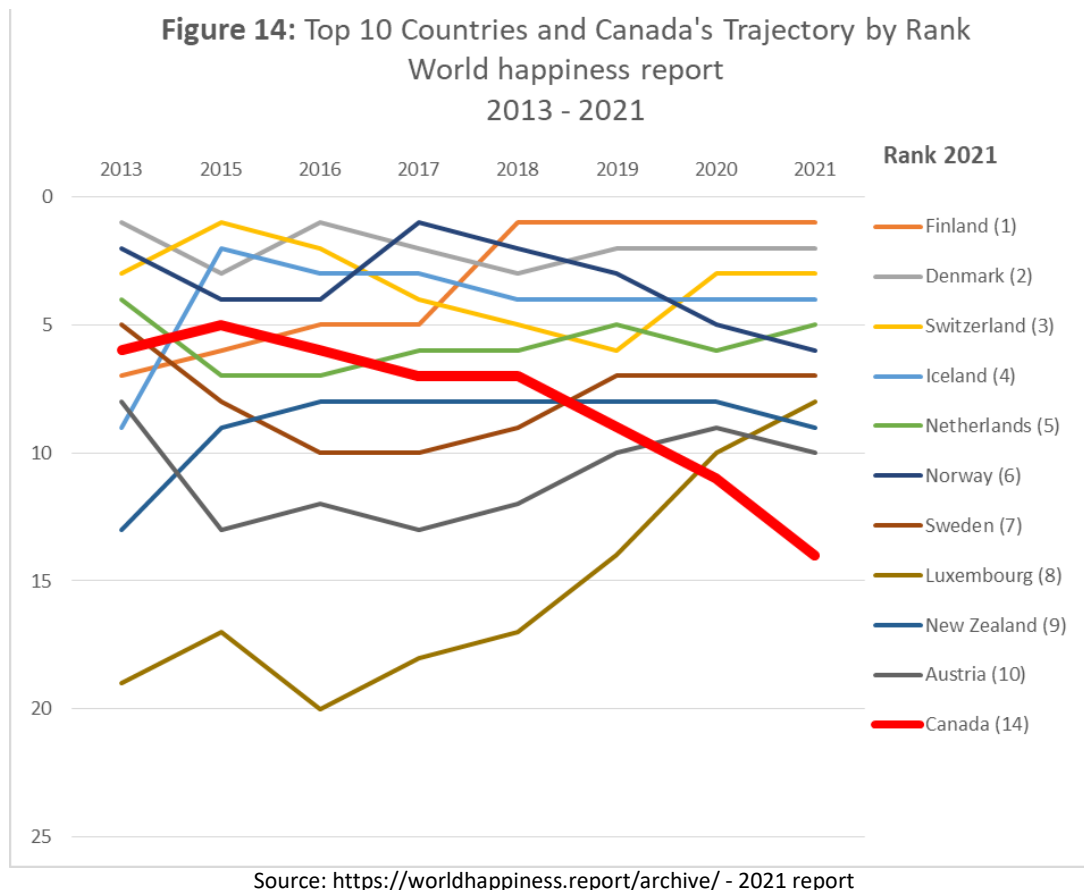
No correlation was found between Happiness Index rankings and taxation. The top ten countries, except New Zealand, have a higher tax to GDP ratio than Canada and higher Happiness Index results. *A higher level of taxation does not translate into a lower level of life satisfaction.*

Fit for the Future?

So far, 10 data sets have been collected to get a multidimensional perspective of Canada's performance over time: GDP per capita, purchasing power parity, ECI, EFI-product and universal, GCI, SDI, EDI, and two data sets on taxes, one from the OECD and the other from the IMF. This represents a huge amount of data that must now be brought together to highlight significant trends.

The starting point of this paper was that a narrow perspective leads to a narrow understanding of the overall performance of a country and hides from view issues and opportunities that lie ahead. On the other hand, the risk associated with a multidimensional perspective is that it *becomes difficult to take it all in.* There is a need for *simplicity* to read an increasingly *complex picture.*

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The approach selected was to generate *a matrix* using the ten sets of indexes. The matrix was built for Canada as a pilot project to test the approach. This means that Canada's result for each index is used as the baseline to generate the *Fit for the Future Matrix* (*FFF-Matrix*). Imagine an algorithm used to generate a matrix of 0 and 1 to capture the country's results from ten data sets over multiple years:

- 1 means that a given country has outperformed Canada *most of the time or all the time* during the period under review for a given index. For instance, the period under review for GDP per capita is ten years; a 1 in the matrix indicates that a country had a higher GDP per capita than Canada 6 years out of ten years.
- 0 means, that a country did not get better results than Canada most of the time. In the above example this would mean 5 times or less.

The *FFF-Matrix* helps to identify the countries that have consistently outperformed Canada by achieving better economic, social, environmental, and happiness results irrespective of their scale, the size of the population or their governing system.

The *FFF-Matrix* generated for Canada covers 50 countries. It is presented in Annex A. The methodology used to generate the *FFF-Matrix* is described in more details in Annex B and the supporting data sets for the ten indexes are presented in Annex C.

Exploring the *Fit for the Future Matrix* for Canada

At the outset, it is important to recognize that Canada is a well performing modern and democratic country. Its citizens enjoy a high standard living. Better than most, it has managed to reconcile prosperity, individual freedoms, and social progress. It has avoided some of the most acute problems associated to an over-reliance on market forces and some of the difficulties associated to an over-dependence on government. Upward mobility is a reality in Canada. Governments have acted to prevent increasing income inequalities. The country may be far from perfect, but poverty and in particular child poverty has been declining. Canada is growing and rejuvenating itself; it embodies the reality that immigration policy is as much an economic as a social policy. Canada just had an election – there was no insurrection – transition was peaceful and in accordance with democratic principles. Much can be said about Canada's many achievements.

The FFF project does not challenge Canada's many achievements; it operates at a different level. Past successes reveal the quality of prior decisions. The FFF project attempts to shed some light on factors that may affect the *future trajectory* of a country. It is deliberately designed to bring a multidimensional perspective and to focus systematically on countries that have managed *to do better* than the country under the review; in this case *countries that have outperformed Canada most or all of the time* during the period under review through whatever mix of policies they choose to pursue.

Building a country's capacity to adapt to a fast-changing landscape and steering a country through an accelerating process of change means, first and foremost, to *accelerate the learning*. This is done by thinking beyond the conventional and exploring ideas beyond the traditional circle of friends.

The FFF-Matrix does not provide answers. This can only be done by people on position of authority in the unique context and circumstances of a country, but the exercise helps to reveal lines of inquiries that might not have surfaced otherwise. It blends economic, social, and environmental perspectives. It helps practitioners to think through the challenges they are facing in practice and explore *what needs to be done to ensure that Canada will successfully navigate through an accelerating period of change?* What must be done to ensure that government's capacity to invent solutions to the collective problems of living in society will keep pace with the increasing complexity of the world we live in?

A Better Future: Trajectory and Velocity

So, what can we learn from the FFF-Matrix for Canada presented in Annex A? The summary tables presented in this section are extracted from the FFF- Matrix. They are generated to highlight significant trends.

No country is fit for all time or preordained to succeed. Today's ranking is less relevant than the overall *trajectory and the velocity* of change that reveal a country's capacity to adapt, evolve and prosper in changing circumstances.

Closing the Gap with other G7 Countries

The G7 is an important club of wealthy like-*minded countries* that embrace democratic values, human rights, and market economy as a basis for their governance and future prosperity. The overall weight of the G7 countries in the world economy is declining as east and south-east Asian countries continue to grow their economies. That said, keeping up with the other G7 countries is important for Canada.

Score	GDP per Capita	ECI	Universal EFI	EFI	GCI	SPI	EPI
Summary Table 1: The *FFF-Matrix* for Canada - G7 countries							
France	0	1	1	1	0	0	1
Germany	0	1	1	1	1	1	1
Italy	0	1	1	1	0	0	0
Japan	0	1	1	1	1	0	0
UK	0	1	1	1	1	0	1
USA	1	1	1	1	1	0	0
Baseline = Canada's results; 1 = Higher than Canada; 0 = Lower than Canada							

All the other G7 countries have better *Economic Complexity Index (ECI) , Universal Fitness Index and Product Fitness Index (EFI)* results than Canada . This is a significant trend because it may signal that they are better positioned than Canada to generate increasingly complex products and services and to prosper through innovation.

Most G7 countries, except France and Italy, also display *better Global Competitiveness Index results (GCI) than Canada*. They are better positioned than Canada to compete and prosper in a fast-changing global economic landscape. This is already visible in Canada's declining export to the USA.

> *What needs to be done for Canada to close the gap with other G7 countries in term of complexity, fitness, and competitiveness index results?* Are there systemic and structural weaknesses that will affect Canada's capacity to prosper through innovation by generating products and services of increasing complexity?

Accelerating the Adaptive Capacity of Canada

The rapid progress of east and south-east Asian countries is particularly significant (See Summary Table 2).

Summary Table 2:	The *FFF-Matrix* for Canada - Selected Asian countries					
Score	GDP per Capita	ECI	EFI combined	GCI	SPI	EPI
China	0	1	1	0	0	0
Malaysia	0	1	1	0	0	0
South Korea	0	1	1	0	0	0
Thailand	0	1	1	0	0	0
Singapore	1	1	1	1	0	0
Philippines	0	1	0	0	0	0
Baseline = Canada's results; 1 = Higher than Canada; 0 = Lower than Canada						

China, South Korea, Singapore, Malaysia, and Thailand *have consistently outperformed Canada in term of economic complexity index (ECI) and fitness results (EFI)* over the period. This is a significant trend since these countries display an accelerating velocity of change over the last 30 years and they are poised to experience rapid growth in coming years. Better complexity and fitness results were achieved through a mix of steady investments in scientific research, embracing modern technologies, rolling out modern infrastructures and steadily increasing labour skills and higher education enrollment.

These results signal that G7 countries and Canadian are likely to face significant head winds in coming years.

> *What would an innovation strategy aimed at preventing a widening gap with Asian countries look like for Canada? What needs to be done to accelerate the adaptive capacity of Canada to compete and prosper in a fast-changing global economic landscape?*

A Search for Balance: Prosperity, Social progress, and Environment Sustainability

Governing is a search for an ever-changing balance. Canada has done well in striking such a balance in the past but it may be on a path difficult to sustain as the fiscal situation of all three levels of government has deteriorated in recent past and as significant adjustments will be needed to address climate changes and to benefit from the greening of the economy.

What can be learned from countries that have consistently outperformed Canada in term of economic, social, and environmental Index results during the period under review?

Summary Table 3: The *FFF-Matrix* for Canada					
Score	ECI	EFI combined	GCI	SPI	EPI
Denmark	1	1	1	1	1
Finland	1	1	1	1	1
Germany	1	1	1	1	1
Sweden	1	1	1	1	1
Switzerland	1	1	1	1	1
Baseline = Canada's results ; 1 = Higher than Canada ; 0 = Lower than Canada					

Denmark, Finland, Germany, Sweden, and Switzerland have achieved better economic complexity, fitness, and competitiveness index results *as well as* better social and environmental index results.

Important lessons can be learned from countries that have outperformed Canada on all the dimensions reflected in the FFF-Matrix. A key lesson is that p*rosperity is not incompatible with solidarity and environmental performance.* In fact, social and environmental innovations may act as accelerator of economic innovation and future prosperity.

A second lesson is that *size does not matter*. Large and small countries have achieved a higher level of prosperity than Canada, large and small countries are positioning themselves to benefit from the transition to a greener economy.

Powerful insights can be gleaned from countries with different size, scale, governing system, and stages of development that managed to achieve prosperity *and s*olidarity, growth *and* social progress in ways that are *respectful of environmental principles*.

> - *What needs to be done to ensure that Canada will be among the countries that will successfully navigate through an accelerating period of change in ways that reconcile aspirations for a better future, a commitment to social progress and the protection of the life sustaining power of the planet?*
> - *What needs to be done for Canada to take advantage of the greening of the world economy?*

Inventive Capacity

As predicted, the list of countries that have consistently outperformed Canada across all data sets is short.

Among the G7 countries, Germany stands out. Canadian public sector leaders generally pay close attention to the United States and the United Kingdom. This is due to proximity and the ease of communication. However, when it comes to achieving a *balanced approach*, Germany has been in a class of its own over the last 10 to 20 years.

Germany is a decentralized federal state of 84 million people. Its economy is more than twice the size of Canada's. Coalition governments have been the norm since the end of World War two, and it has nonetheless managed to achieve better index results overall than all other G7 countries. Every country faces increasingly complex problems and Germany is no exception*.* It is going through a challenging leadership transition. Its economy has grown increasingly dependent on China. It will be challenging to reconcile energy supply choices and climate changes. *It is the only G7 country that has constantly achieved better economic, social, and environmental performance index results than Canada over the period.*

Some tends to dismiss the performance of smaller countries. This is a mistake. Powerful insights can be found in larger as well as much smaller countries. For instance, *Denmark* is a country of 6 million people. Its governance takes place within the framework of a parliamentary democracy, a constitutional monarchy, and a decentralized unitary state. No party has had enough representatives to rule on its own since 1909 . Denmark will need to find ways to deal with an aging population and a public increasingly concerned about immigration. *And yet, it has managed to outperform Canada, a larger and wealthier country, in all the dimensions of the FFF-Matrix .*

The size, scale, or the complexity of the governing system of these countries does not explain their performance results. *It is the capacity to invent solutions* that distinguishes the countries with the best results.

Conclusion

The *Fit for the Future Project* started with a question and ends with many more. Is it possible to look beyond the conventional to garner a more comprehensive, dynamic, and multidimensional perspective of the overall performance of a country? We believe so.

The *Fit for the Future Project* began as a four-months project during the summer of 2021 with the assistance of a Ph.D. student in Economics. It was conducted as a pilot project using Canada as a test case.

The *FFF-Matrix* was built using 10 indexes to enable an international and longitudinal perspective. Ten data sets were selected after considering many more ---some were left aside because they were too specialized, some were too narrow, others had changed too many times, etc. As we come to the end of this project, we know that it would be possible to build a much more sophisticated *FFF- Matrix* with double the number of variables.

We believe that the *Fit for the Future Project* and the *FFF-Matrix* have served their purpose. The project gave rise to probing and challenging questions. It brought to the forefront the trajectory, and velocity of change along multiple dimensions.

Good governance may be hard to achieve but it is easy to recognize; it leads to a better future, improved human condition, and a sustainable trajectory: All of it matters.

Governing is a search for balance[15] to steer society through an accelerating process of change. It is this search for an ever-shifting balance that makes the work of government unique, irreplaceable, and most valuable for society. It is the responsibility of government to ensure that the overall balance between the economic, social, and environmental spheres of life serve the overall interests of society over time and in the future. This is what makes the role of public sector leaders so important.

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[15] Bourgon, Jocelyne. 2017. T*he New Synthesis of Public Administration Fieldbook*. Copenhagen: Dansk Psykologisk Forlag.

Annex A: *Fit for the Future Matrix (FFF-M) for Canada*

Score	GDP per Capita	ECI	Universal EFI	EFI	GCI	SPI	Happiness	EPI	Tax -GDP Ratio (OECD)	TaxRevenue IMF
Australia	1	0	0	0	0	1	0	0	0	0
Austria	1	1	0	1	0	0	0	1	1	1
Belarus	0	1	0	0	0	0	0	0	N/A	0
Belgium	0	1	1	1	0	0	0	0	1	1
Bosnia and Herzegovina	0	1	0	0	0	0	0	0	N/A	0
China	0	1	1	1	0	0	0	0	N/A	0
Costa Rica	0	0	0	0	0	0	0	0	N/A	0
Croatia	0	1	0	0	0	0	0	0	N/A	0
Czechia	0	1	0	1	0	0	0	0	1	0
Denmark	1	1	0	1	1	1	1	1	1	1
Estonia	0	1	0	0	0	0	0	0	1	0
Finland	0	1	0	1	1	1	1	1	1	1
France	0	1	1	1	0	0	0	1	1	1
Germany	0	1	1	1	1	1	0	1	1	0
Greenland	0	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A
Hong Kong SAR, China	0	N/A	N/A	N/A	1	N/A	0	N/A	N/A	0
Hungary	0	1	0	1	0	0	0	0	1	0
Iceland	1	N/A	0	0	0	1	1	1	1	1
Ireland	1	1	0	0	0	0	0	1	0	0
Israel	0	1	0	1	0	0	0	0	0	0
Italy	0	1	1	1	0	0	0	0	1	1
Japan	0	1	1	1	1	0	0	0	0	0
Latvia	0	0	0	0	0	0	0	0	0	0
Lithuania	0	1	0	0	0	0	0	0	0	0
Luxembourg	1	N/A	0	0	0	0	0	1	1	1
Macao SAR, China	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1
Malaysia	0	1	0	1	0	0	0	0	N/A	0
Mexico	0	1	0	0	0	0	0	0	0	0
Netherlands	1	1	1	1	1	1	1	0	1	0
New Zealand	0	0	0	0	0	1	0	1	0	1
Norway	1	0	0	0	1	1	1	1	1	1
Panama	0	1	0	0	0	0	0	0	N/A	0
Philippines	0	1	0	0	0	0	0	0	N/A	0
Poland	0	1	0	1	0	0	0	0	1	0
Portugal	0	1	0	1	0	0	0	0	1	0
Qatar	1	0	0	0	0	0	0	0	N/A	0
Romania	0	1	0	0	0	0	0	0	N/A	0
Serbia	0	1	0	0	0	0	0	0	N/A	0
Singapore	1	1	0	1	1	0	0	0	N/A	0
Slovakia	0	1	0	0	0	0	0	0	0	0
Slovenia	0	1	0	1	0	0	0	0	1	0
South Korea	0	1	1	1	0	0	0	0	0	0
Spain	0	1	0	1	0	0	0	1	1	0
Sweden	1	1	0	1	1	1	0	1	1	1
Switzerland	1	1	0	1	1	1	1	1	0	0
Thailand	0	1	0	1	0	0	0	0	N/A	0
Turkey	0	0	0	1	0	0	N/A	0	0	0
United Kingdom	0	1	1	1	1	0	0	1	0	0
United States	1	1	1	1	1	0	0	0	0	0
India	0	0	0	1	0	0	N/A	0	N/A	0
Baseline = Canada's results ; 1 = Higher than Canada ; 0 = Lower than Canada										

Annex B: *The Fit for the Future* Matrix Methodology (*FFF-Matrix*)

1**. Indexes**: The *FFF-Matrix* use ten indexes, each one covering many countries over multiple years.

1. **The GDP per capita:** The data source was the World Bank. It covers the period 2010 - 2019.
2. **The Economic Complexity Index:** From Atlas of Economic Complexity. Period 2010 - 2018.
3. **The Economic Fitness Index:** From World Bank. Period 2010 - 2017.
4. **The Universal Economic Fitness Index:** From the World Bank. Period 2010 - 2016.
5. **The Global Competitiveness Matrix:** From the World Economic Forum. Period 2010 - 2017.
6. **The Social Progress Index:** From the Social Progress Imperative. Period 2011 - 2020.
7. **The Environmental Performance Index:** From the Socio Economic Data and Applications Center (SEDAC). Period 2010 - 2020
8. **The World Happiness Index:** From the World Happiness Report**.** Period 2010 - 2020.
9. **The tax to GDP ratio:** From the OECD. Period between 2010 -2019.
10. **The tax to GDP ratio:** From the IMF. Period between 2010 -2019.

2. Index Tables

A table was generated for each index to capture the results *per country per year*. (See Annex C)

- Canada's result is the baseline used to capture the data per country per year.
- A value of <u>1</u> is assigned if a country achieved a better index result than Canada in a given year.
- A value of <u>0</u> is assigned when a country's index result is equal or lower than Canada's index result for a given year.

Ten tables were prepared. They provided the material for the preparation of the *FFF-Matrix* for Canada

3. **The *Fit for the Future Matrix* for Canada (*FFF-Matrix*)**

The *FFF-Matrix* is a consolidation of the index tables:

- Canada's overall index result is the baseline of the *FFF-Matrix.*
- A value of <u>1 under</u> an Index is assigned to a country that has achieved better results than Canada *<u>most or all the time</u>* during the period under review.
- A value of <u>0</u> indicates that a country did not achieve better results than Canada most of the time during the period under review.

<u>Working through an example:</u> The tax to GDP ratio (IMF) Index covers a <u>10 year period</u>. A value of <u>1</u> in the *FFF-Matrix* means that a country had a higher GDP per capita than Canada 6<u> years out of ten.</u>

- A 9 year time series would require 5 years out of 9.
- A 8-year time series requires 5 years out of 8.
- A 7 -year time series require 4 years out of 7. (No index series covers less than 7 years)

Annex C

1. GPD Per Capita Matrix

Value	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Canada	47,448	52,087	52,678	52,653	50,893	43,586	42,322	45,146	46,304	46,190
Monaco	1	1	1	1	1	1	1	1	1	1
Liechtenstein	1	1	1	1	1	1	1	1	1	1
Luxembourg	1	1	1	1	1	1	1	1	1	1
Bermuda	1	1	1	1	1	1	1	1	1	1
Cayman Islands	1	1	1	1	1	1	1	1	1	N/A
Isle of Man	1	1	1	1	1	1	1	1	1	N/A
San Marino	1	1	0	0	0	0	1	1	1	N/A
Faroe Islands	1	0	0	1	1	1	1	1	1	N/A
Andorra	0	0	0	0	0	0	0	0	0	0
Brunei Darussalam	0	0	0	0	0	0	0	0	0	0
Virgin Islands (U.S.)	0	0	0	0	0	0	0	0	0	N/A
Bahamas, The	0	0	0	0	0	0	0	0	0	0
Norway	1	1	1	1	1	1	1	1	1	1
Switzerland	1	1	1	1	1	1	1	1	1	1
Qatar	1	1	1	1	1	1	1	1	1	1
Denmark	1	1	1	1	1	1	1	1	1	1
Sweden	1	1	1	1	1	1	1	1	1	1
Macao SAR, China	1	1	1	1	1	1	1	1	1	1
Australia	1	1	1	1	1	1	1	1	1	1
Netherlands	1	1	0	0	1	1	1	1	1	1
Ireland	1	0	0	0	1	1	1	1	1	1
United States	1	0	0	1	1	1	1	1	1	1
Singapore	0	1	1	1	1	1	1	1	1	1
Austria	0	0	0	0	1	1	1	1	1	1
Finland	0	0	0	0	0	0	1	1	1	1
Japan	0	0	0	0	0	0	0	0	0	0
Belgium	0	0	0	0	0	0	0	0	1	1
Greenland	0	0	0	0	0	1	1	1	1	N/A
Iceland	0	0	0	0	1	1	1	1	1	1
Germany	0	0	0	0	0	0	0	0	1	1
France	0	0	0	0	0	0	0	0	0	0
United Kingdom	0	0	0	0	0	1	0	0	0	0
Kuwait	0	0	0	0	0	0	0	0	0	0
Italy	0	0	0	0	0	0	0	0	0	0
United Arab Emirates	0	0	0	0	0	0	0	0	0	0
New Zealand	0	0	0	0	0	0	0	0	0	0
Hong Kong SAR, China	0	0	0	0	0	0	1	1	1	1
Cyprus	0	0	0	0	0	0	0	0	0	0
Guam	0	0	0	0	0	0	0	0	0	N/A
Israel	0	0	0	0	0	0	0	0	0	0
Spain	0	0	0	0	0	0	0	0	0	0
Korea, Rep.	0	0	0	0	0	0	0	0	0	0
Estonia	0	0	0	0	0	0	0	0	0	0
China	0	0	0	0	0	0	0	0	0	0

Source:https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?end=2019&start=1976

Baseline = Canada's results ; 1 = Higher than Canada ; 0 = Lower than Canada

2. *Economic Complexity Matrix (ECI)*

Score	2010	2011	2012	2013	2014	2015	2016	2017	2018
Canada	0.6319	0.5687	0.6267	0.5963	0.6158	0.5834	0.5402	0.6594	0.6462
Japan	1	1	1	1	1	1	1	1	1
Switzerland	1	1	1	1	1	1	1	1	1
South Korea	1	1	1	1	1	1	1	1	1
Germany	1	1	1	1	1	1	1	1	1
Singapore	1	1	1	1	1	1	1	1	1
Austria	1	1	1	1	1	1	1	1	1
Czechia	1	1	1	1	1	1	1	1	1
Sweden	1	1	1	1	1	1	1	1	1
Hungary	1	1	1	1	1	1	1	1	1
Slovenia	1	1	1	1	1	1	1	1	1
United States of America	1	1	1	1	1	1	1	1	1
Finland	1	1	1	1	1	1	1	1	1
United Kingdom	1	1	1	1	1	1	1	1	1
Italy	1	1	1	1	1	1	1	1	1
Slovakia	1	1	1	1	1	1	1	1	1
France	1	1	1	1	1	1	1	1	1
Ireland	1	1	1	1	1	1	1	1	1
China	1	1	1	1	1	1	1	1	1
Mexico	1	1	1	1	1	1	1	1	1
Israel	1	1	1	1	1	1	1	1	1
Belgium	1	1	1	1	1	1	1	1	1
Thailand	1	1	1	1	1	1	1	1	1
Poland	1	1	1	1	1	1	1	1	1
Denmark	1	1	1	1	1	1	1	1	1
Romania	1	1	1	1	1	1	1	1	1
Malaysia	1	1	1	1	1	1	1	1	1
Netherlands	1	1	1	1	1	1	1	1	1
Estonia	1	1	1	1	1	1	1	1	1
Belarus	1	1	1	1	1	1	1	1	1
Croatia	1	1	1	1	1	1	1	1	1
Lithuania	1	1	1	1	1	1	1	1	1
Spain	1	1	1	1	1	1	1	1	1
Portugal	1	1	1	1	1	1	1	1	1
Latvia	0	1	1	1	1	0	0	0	1
Philippines	0	0	0	1	1	1	1	1	1
Bosnia and Herzegovina	0	1	1	1	1	0	1	0	1
Serbia	0	1	1	1	0	1	1	0	1
Norway	0	0	0	1	1	1	1	0	0
Panama	1	1	1	1	1	1	1	0	0
Saudi Arabia	0	0	0	0	0	0	0	0	1
Source:https://atlas.cid.harvard.edu/rankings									
Baseline = Canada's results ; 1 = Higher than Canada ; 0 = Lower than Canada									

3. *Economic Fitness Matrix (EFI)*

Score	2010	2011	2012	2013	2014	2015	2016	2017
Canada	2.09	2.11	2.05	1.91	1.85	1.89	1.90	2.01
Austria	1	1	1	1	1	1	1	1
Belgium	1	1	1	1	1	1	1	1
China	1	1	1	1	1	1	1	1
Czech Republic	1	1	1	1	1	1	1	1
Denmark	1	1	1	1	1	1	1	1
France	1	1	1	1	1	1	1	1
Germany	1	1	1	1	1	1	1	1
India	1	1	1	1	1	1	1	1
Italy	1	1	1	1	1	1	1	1
Japan	1	1	1	1	1	1	1	1
South Korea	1	1	1	1	1	1	1	1
Netherlands	1	1	1	1	1	1	1	1
Poland	1	1	1	1	1	1	1	1
Singapore	1	1	1	1	1	1	1	1
Spain	1	1	1	1	1	1	1	1
Sweden	1	1	1	1	1	1	1	1
Switzerland	1	1	1	1	1	1	1	1
Thailand	1	1	1	1	1	1	1	1
United Kingdom	1	1	1	1	1	1	1	1
United States	1	1	1	1	1	1	1	1
Finland	0	1	1	1	1	0	1	0
Hungary	0	0	0	1	1	1	1	1
Israel	1	1	1	1	1	1	1	0
Lithuania	0	0	0	1	1	1	1	0
Malaysia	1	1	1	1	1	1	1	1
Mexico	1	0	0	0	0	0	0	0
Portugal	1	1	1	1	1	1	1	1
Slovak Republic	0	0	0	1	1	1	0	0
Slovenia	1	1	1	1	1	1	1	1
Turkey	1	1	1	1	1	1	1	1

Source:https://databank.worldbank.org/reports.aspx?source=1306&series=EF.EFM.OVRL.XD

Baseline = Canada's results ; 1 = Higher than Canada ; 0 = Lower than Canada

4. The Universal Economic Fitness Matrix (U-EFI)

Score	2010	2011	2012	2013	2014	2015	2016
Canada	3.7458	3.51	3.2267	3.1263	3.0441	3.0585	3.0514
Belgium	0	1	1	1	1	1	1
China	1	1	1	1	1	1	1
France	1	1	1	1	1	1	1
Germany	1	1	1	1	1	1	1
Italy	1	1	1	1	1	1	1
Japan	1	1	1	1	1	1	1
Korea, Rep.	0	0	1	1	1	1	1
Netherlands	1	1	1	1	1	1	1
United Kingdom	1	1	1	1	1	1	1
United States	1	1	1	1	1	1	1
Source:https://databank.worldbank.org/source/economic-fitness-2/Series/EF.EFM.UNIV.XD							
Baseline = Canada's results ; 1 = Higher than Canada ; 0 = Lower than Canada							

5. *The Global Competitiveness Matrix (GCI)*

Score	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Canada	5.34	5.37	5.33	5.30	5.33	5.27	5.20	5.24	5.31	5.27	5.35
Switzerland	1	1	1	1	1	1	1	1	1	1	1
United States	1	1	1	1	1	1	1	1	1	1	1
Singapore	1	1	1	1	1	1	1	1	1	1	1
Netherlands	1	1	0	1	1	1	1	1	1	1	1
Germany	1	1	1	1	1	1	1	1	1	1	1
Hong Kong SAR, China	1	0	0	0	1	1	1	1	1	1	1
Sweden	1	1	1	1	1	1	1	1	1	1	1
United Kingdom	1	0	0	0	1	1	1	1	1	1	1
Japan	1	1	1	1	1	1	1	1	1	1	1
Finland	1	1	1	1	1	1	1	1	1	1	1
Norway	0	0	0	0	0	0	1	1	1	1	1
Denmark	1	1	1	1	1	1	0	1	1	1	1
New Zealand	0	0	0	0	0	0	0	0	0	1	1
Israel	0	0	0	0	0	0	0	0	0	0	0
United Arab Emirates	0	0	0	0	0	0	0	1	0	0	0
Austria	0	0	0	0	0	0	0	0	0	0	0
Luxembourg	0	0	0	0	0	0	0	0	0	0	0
Belgium	0	0	0	0	0	0	0	0	0	0	0
Australia	0	0	0	0	0	0	0	0	0	0	0
France	0	0	0	0	0	0	0	0	0	0	0
Malaysia	0	0	0	0	0	0	0	0	0	0	0
Ireland	0	0	0	0	0	0	0	0	0	0	0
Qatar	0	0	0	0	0	1	1	0	0	0	0
Korea, Rep.	1	0	0	0	0	0	0	0	0	0	0
China	0	0	0	0	0	0	0	0	0	0	0
Iceland	0	0	0	0	0	0	0	0	0	0	0
Estonia	0	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	0	0	0	0	0	0	0	0	0	0	0
Czech Republic	0	0	0	0	0	0	0	0	0	0	0
Thailand	0	0	0	0	0	0	0	0	0	0	0
Chile	0	0	0	0	0	0	0	0	0	0	0
Spain	0	0	0	0	0	0	0	0	0	0	0
Azerbaijan	0	0	0	0	0	0	0	0	0	0	0
Indonesia	0	0	0	0	0	0	0	0	0	0	0
Malta	0	0	0	0	0	0	0	0	0	0	0
Russian Federation	0	0	0	0	0	0	0	0	0	0	0
Poland	0	0	0	0	0	0	0	0	0	0	0
India	0	0	0	0	0	0	0	0	0	0	0
Lithuania	0	0	0	0	0	0	0	0	0	0	0
Portugal	0	0	0	0	0	0	0	0	0	0	0
Italy	0	0	0	0	0	0	0	0	0	0	0
Source:https://www.weforum.org/reports											
Baseline = Canada's results ; 1 = Higher than Canada ; 0 = Lower than Canada											

6. The Social Progress Matrix (SPI)

Score	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Canada	88.47	88.76	89.39	89.35	89.70	89.89	90.10	90.95	91.26	91.40
Norway	1	1	1	1	1	1	1	1	1	1
Denmark	1	1	1	1	1	1	1	1	1	1
Finland	1	1	1	1	1	1	1	1	1	1
New Zealand	1	1	1	1	1	1	1	1	1	1
Sweden	1	1	1	1	1	1	1	1	1	1
Switzerland	1	1	0	1	1	1	1	1	1	1
Australia	1	1	1	1	1	1	1	1	0	0
Iceland	1	1	1	1	1	1	1	1	1	0
Netherlands	1	1	1	1	1	1	1	1	0	0
Germany	1	1	1	1	1	1	1	0	0	0
Ireland	0	0	0	0	0	0	1	0	0	0
Japan	0	0	0	0	0	0	0	0	0	0
Luxembourg	0	0	0	0	0	0	0	0	0	0
Austria	0	0	0	0	0	0	0	0	0	0
Belgium	0	0	0	0	0	0	0	0	0	0
Korea, Republic of	0	0	0	0	0	0	0	0	0	0
France	0	0	0	0	0	0	0	0	0	0
Spain	0	0	0	0	0	0	0	0	0	0
United Kingdom	0	0	0	0	0	0	0	0	0	0
Portugal	0	0	0	0	0	0	0	0	0	0
Slovakia	0	0	0	0	0	0	0	0	0	0
Italy	0	0	0	0	0	0	0	0	0	0
Estonia	0	0	0	0	0	0	0	0	0	0
Czechia	0	0	0	0	0	0	0	0	0	0
Cyprus	0	0	0	0	0	0	0	0	0	0
Greece	0	0	0	0	0	0	0	0	0	0
United States	0	0	0	0	0	0	0	0	0	0
Source:https://www.socialprogress.org/										
Baseline = Canada's results ; 1 = Higher than Canada ; 0 = Lower than Canada										

7. *The Environmental Performance Matrix (EPI)*

Score	2006	2008	2010	2012	2014	2016	2018	2020
Canada	84	87	66	58	73	85	72	71
Switzerland	0	1	1	1	1	1	1	1
Latvia	N/A	1	1	1	0	1	0	0
Norway	0	1	1	1	1	1	1	1
Luxembourg	0	0	1	1	1	1	1	1
Costa Rica	0	1	1	1	0	0	0	0
France	0	1	1	1	0	1	1	1
Austria	1	1	1	1	1	1	1	1
Italy	0	0	1	1	1	0	1	0
Sweden	1	1	1	1	1	1	1	1
United Kingdom	1	0	1	1	1	1	1	1
Germany	0	0	1	1	1	0	1	1
Slovakia	0	0	1	1	1	1	0	0
Iceland	0	1	1	1	1	1	1	1
New Zealand	1	1	1	1	1	1	1	1
Albania	0	0	1	1	0	0	0	0
Netherlands	0	0	0	1	1	0	1	1
Lithuania	N/A	0	1	1	0	1	0	0
Czech Republic	N/A	N/A	1	1	1	0	0	0
Finland	1	1	1	1	1	1	1	1
Croatia	0	0	1	1	0	1	0	0
Denmark	1	0	1	1	1	1	1	1
Poland	0	0	0	1	0	0	0	0
Japan	0	0	1	1	0	0	1	1
Belgium	0	0	0	1	0	0	1	1
Malaysia	0	0	0	1	0	0	0	0
Brunei Darussalam	N/A	N/A	0	1	0	0	0	0
Colombia	0	1	1	1	0	0	0	0
Slovenia	0	0	0	1	1	1	0	1
Taiwan	0	0	N/A	1	0	0	1	0
Brazil	0	0	0	1	0	0	0	0
Ecuador	0	0	1	1	0	0	0	0
Spain	0	0	1	1	1	1	1	1
Greece	0	0	0	1	1	1	1	0
Thailand	0	0	0	1	0	0	0	0
Nicaragua	0	0	0	1	0	0	0	0
Ireland	0	0	1	1	1	1	1	1
Nepal	0	0	1	0	0	0	0	0
Panama	0	0	1	0	0	0	0	0
Gabon	0	0	0	0	0	0	0	0
Portugal	0	0	1	0	1	1	0	0
Philippines	0	0	0	0	0	0	0	0
South Korea	0	0	0	0	0	0	0	0
Cyprus	0	0	0	0	0	0	1	0
Hungary	0	0	1	0	0	0	0	0
Uruguay	N/A	0	0	0	0	0	0	0
Georgia	0	0	0	0	0	0	0	0
Australia	0	0	0	0	1	1	1	1
United States of America	0	0	0	0	0	0	0	0
Cuba	0	0	1	0	0	0	0	0
Argentina	0	0	0	0	0	0	0	0
Singapore	N/A	N/A	1	0	1	1	0	0
Bulgaria	0	0	0	0	0	0	0	0
Estonia	N/A	0	0	0	1	1	0	0
Source:https://sedac.ciesin.columbia.edu/data/collection/epi/sets/browse								
Baseline = Canada's results ; 1 = Higher than Canada ; 0 = Lower than Canada								

8.   The Happiness Index Matrix - World Happiness Report

Score	2013	2015	2016	2017	2018	2019	2020	2021
Canada	7.477	7.427	7.404	7.316	7.328	7.278	7.232	7.103
Israel	0	0	0	0	0	0	0	1
Australia	0	0	0	0	0	0	0	1
UK	0	0	0	0	0	0	0	0
Austria	0	0	0	0	0	0	1	1
Germany	0	0	0	0	0	0	0	1
Sweden	1	0	0	0	0	1	1	1
New zealand	0	0	0	0	0	1	1	1
Luxembourg	0	0	0	0	0	0	1	1
Norway	1	1	1	1	1	1	1	1
Iceland	0	1	1	1	1	1	1	1
Netherlands	1	0	0	1	1	1	1	1
Switzerland	1	1	1	1	1	1	1	1
Denmark	1	1	1	1	1	1	1	1
Finland	0	0	1	1	1	1	1	1

Source:https://worldhappiness.report/

Baseline = Canada's results ; 1 = Higher than Canada ; 0 = Lower than Canada

9. The Tax to GDP Ratio (OECD) Matrix

%	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Canada	31.007	30.803	31.177	31.132	31.266	32.82	33.258	33.114	33.219	33.455
Australia	0	0	0	0	0	0	0	0	0	0
Austria	1	1	1	1	1	1	1	1	1	1
Belgium	1	1	1	1	1	1	1	1	1	1
Chile	0	0	0	0	0	0	0	0	0	0
Colombia	0	0	0	0	0	0	0	0	0	0
Czech Republique	1	1	1	1	1	1	1	1	1	1
Denmark	1	1	1	1	1	1	1	1	1	1
Estonia	1	1	1	1	1	1	0	0	0	0
Finland	1	1	1	1	1	1	1	1	1	1
France	1	1	1	1	1	1	1	1	1	1
Germany	1	1	1	1	1	1	1	1	1	1
Greece	1	1	1	1	1	1	1	1	1	1
Hungary	1	1	1	1	1	1	1	1	1	1
Iceland	1	1	1	1	1	1	1	1	1	1
Ireland	0	0	0	0	0	0	0	0	0	0
Israel	0	1	0	0	0	0	0	0	0	0
Italy	1	1	1	1	1	1	1	1	1	1
Japan	0	0	0	0	0	0	0	0	0	0
Korea	0	0	0	0	0	0	0	0	0	0
Latvia	0	0	0	0	0	0	0	0	0	0
Lithuania	0	0	0	0	0	0	0	0	0	0
Luxembourg	1	1	1	1	1	1	1	1	1	1
Mexico	0	0	0	0	0	0	0	0	0	0
Netherlands	1	1	1	1	1	1	1	1	1	1
New zealand	0	0	1	0	1	0	0	0	0	0
Norway	1	1	1	1	1	1	1	1	1	1
Poland	1	1	1	1	1	0	1	1	1	1
Portugal	0	1	1	1	1	1	1	1	1	1
Slovak republic	0	0	0	0	1	0	1	1	1	1
Slovenia	1	1	1	1	1	1	1	1	1	1
Spain	1	1	1	1	1	1	1	1	1	1
Sweden	1	1	1	1	1	1	1	1	1	1
Switzerland	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0	0	0	0
United kingdom	1	1	1	1	1	0	0	0	0	0
United states	0	0	0	0	0	0	0	0	0	0
Source: https://data.oecd.org/tax/tax-revenue.htm										
Baseline = Canada's results ; 1 = Higher than Canada ; 0 = Lower than Canada										

10. *The Tax to GDP Ratio (IMF) Matrix*

%	2010	2011	2012	2013	2014	2015	2016	2017	2018
Canada	26.40	26.26	26.48	26.38	26.59	27.98	28.29	28.17	28.38
Denmark	1	1	1	1	1	1	1	1	1
Macao SAR	1	1	1	1	1	1	0	1	1
Norway	1	1	1	1	1	1	0	1	1
Sweden	1	1	1	1	1	1	1	1	1
New Zealand	1	1	1	1	1	1	1	1	1
Italy	1	1	1	1	1	1	1	1	1
Belgium	1	1	1	1	1	1	1	1	1
Finland	1	1	1	1	1	1	1	1	1
Iceland	1	1	1	1	1	1	1	1	1
Austria	1	1	1	1	1	1	0	0	0
Luxembourg	1	0	1	1	1	0	0	0	1
Belarus	0	0	0	0	0	0	0	0	0
United Kingdom	0	1	0	0	0	0	0	0	0
France	0	1	1	1	1	1	1	1	1
Hungary	0	0	0	0	0	0	0	0	0
Israel	0	0	0	0	0	0	0	0	0
Australia	0	0	1	1	1	0	0	1	0
Source: https://data.imf.org/?sk=77413F1D-1525-450A-A23A-47AEED40FE78									
Baseline = Canada's results ; 1 = Higher than Canada ; 0 = Lower than Canada									

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