# Translating today's decisions into economic growth

How supporting the growth of Canadian tech companies alters the path of the economy

# CAN HE LTH NETWORK 2020 AGM

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Rob Riddell, Canadian Space Agency

Steve Masson, FedDev

Vanessa Marsan, Ministère de l'Économie et de l'Innovation

#### **ENERGIZER: WHERE ARE YOU & WHAT ARE YOU THINKING?**

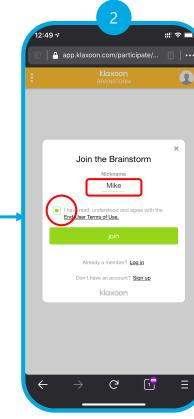
# TRANSLATING TODAY'S DECISIONS INTO ECONOMIC GROWTH



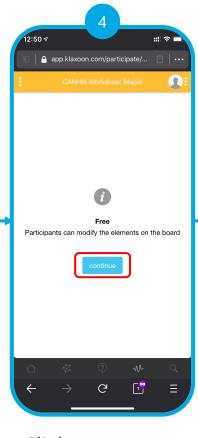
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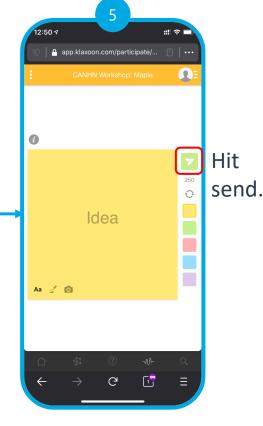
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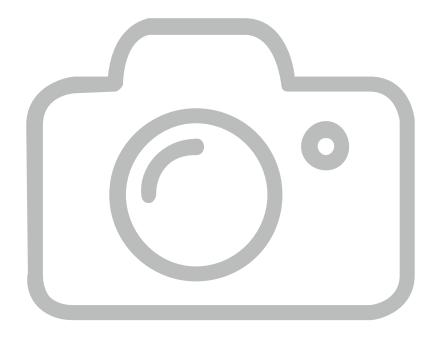
Enter your name

Click on **participate** 

Click on **continue** 

#### Type in:

- Your name
- Location (city)
- Organization name



# **Group Photo!**



Paul Thompson
Associate Deputy Minister, Innovation, Science and Economic Development Canada



Craig Alexander
Partner & Chief Economist, Deloitte Canada

# Paul Thompson

Associate Deputy Minister

Innovation, Science and Economic Development Canada





#### **Shifting Global Landscape On All Fronts**

### Imperative to build the foundations for a resilient economic recovery



Disruptive technologies

Invest in science, innovation and companies

Advance partnership models

Facilitate collaboration across public and private organizations

Deploy demand-driven approach to technology adoption

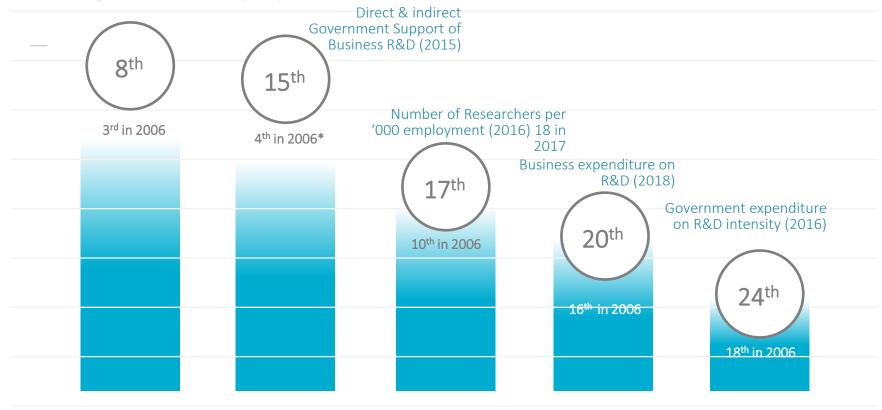
The foundation for a better future

#### **Canada is Facing Pressure Points**

### Competitors pulling ahead over the past 20 years

### Canada's Ranking on Key Indicators Among 35 OECD Countries

R&D Spending in the Higher Education Sector (2016)



Canada

# SUPPORTING INNOVATORS



{၀ှဲ႕က Economic Strategy Tables

Innovation Superclusters



Strategic Innovation Fund



Regional Growth



Innovative Solutions Canada



### 4 AREAS OF ACTION

Investment & Scale



VC Catalyst Initiative

VC Bridge Financing Program

**BDC** programs

Public - Private Partnerships



Industry Strategy Council

**Economic Strategy Tables** 

Health and Biosciences Economic Strategy Table Research, Technology, Commercialization



Technology & Procurement



Strategic Innovation Fund

 Digital Health and Discovery Platform / Industry Consortium for Image-Guided Therapy

Innovation Superclusters / NRC-IRAP

Innovative Solutions Canada

NRC COVID-19 Challenge

CAN Health Network

**MEDTEQ** 

# Craig Alexander

Partner & Chief Economist

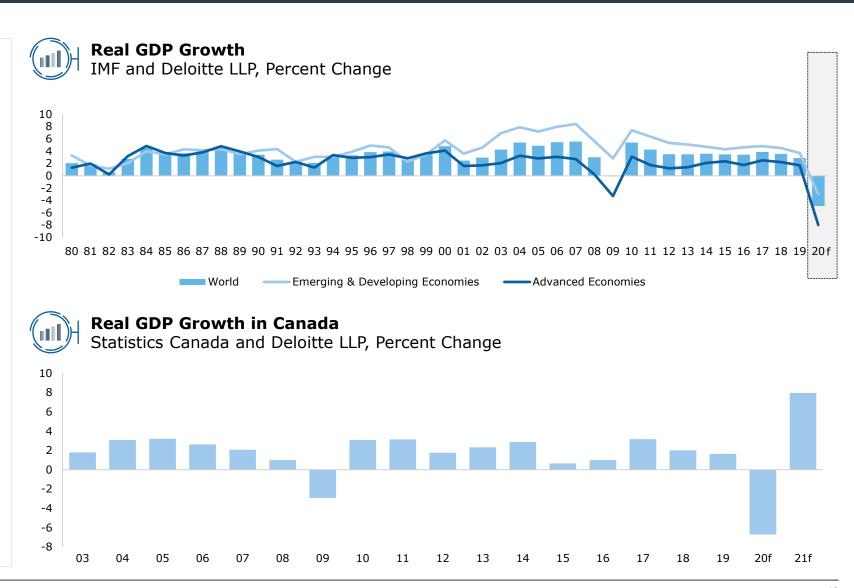
Deloitte Canada





#### The global and North American economies are in the midst of the worst recession since the Great Depression

- The COVID-19 pandemic is a public health crisis which quickly evolved into an economic crisis with lasting global effects
- The Canadian economy experienced an estimated drop in GDP of 40 per cent in 2020Q2, putting it on track for the largest annual decline on record, following the Great Depression
- Several factors, including timing for a vaccine, vastly different public health/reopening policies and the possibility of a second wave of infection is creating elevated uncertainty around the pace of recovery
- Both advanced and emerging economies will feel the economic impacts of COVID-19 for years to come, as they contend with large debts, poor labour outcomes, and growing political unrest



The economic contraction we are witnessing is a result of businesses being forced to close – the forecasted recovery could look different.

#### **Optimistic**

#### A Steep but Short-lived Downturn

Pandemic containment efforts prove successful, economic activity manifests in a steep but short-lived decline.

- Shutdowns result in a global recession in 2020, with global growth slowing to zero.
- Real GDP in Canada experiences a sharp decline of 40% in Q2 as a result of socialdistancing measures. GDP declines by 6.7% in 2020.
- Canadian economy hit by a "perfect storm" of pandemic shutdowns, transitory slump in global demand, and a collapse in oil prices.
- Containment efforts are relaxed in the summer.
- Gradual recovery of the Canadian economy begins in late 2020, followed by a large rebound of 8 per cent growth in 2021.

#### **Prolonged Pandemic & Delayed Rebound**

Pandemic lasts longer than we're ready for with a virus resurgence leading into 2021.

- The **global economy experiences a 2-3% decline** in real **!** GDP in 2020. Recession expected to last 9 Quarters. **!**
- In the first half of the year, the Canadian economy. experiences a similar decline as scenario 1, with a short rebound in Q3 of 2020.
- A resurgence of the virus occurs in late 2020, stifling further recovery efforts. There is a projected GDP decline of 7.5% in 2020.
- Canada's economy faces another shutdown in the first few months of 2021.
- Advanced economies struggle to fully reopen for business as the virus resurges towards the end of 2020. Emerging countries ramp-up containment measures in Q2 and Q3.
- The government is quick to respond to the second wave of infections, with safe re-openings being possible by Q2 of 2021. A gradual recovery begins in late-spring 2021.
- Canadas recovery is slower than in scenario 1 with
   6.4 per cent growth in real GDP in 2021

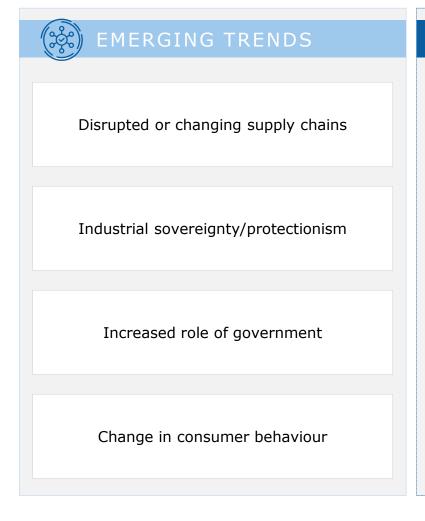
#### **Pessimistic**

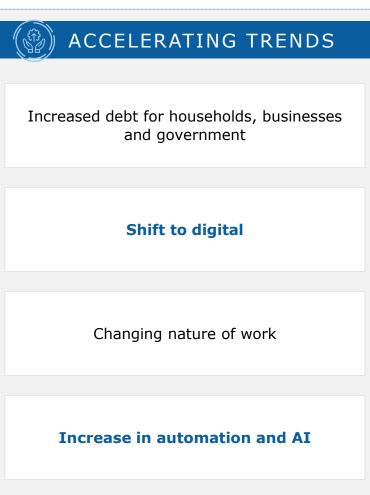
#### **Worst Case Scenario**

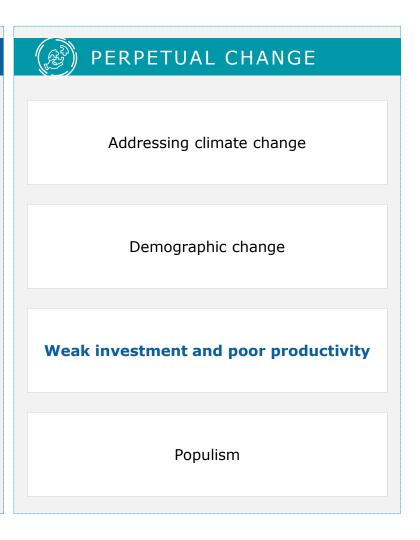
Containment fails. The virus continues to mutate preventing the development of a successful vaccine.

- The global economy experiences a 6% decline in real GDP in 2020.
- The Canadian economy declines by a similar amount as the other two scenarios in the first half of the year. However, the recovery in the second half remains muted.
   GDP declines 11.5% in 2020.
- Unprecedented contractions in advanced and emerging economies keeps global demand subdued for 2.5 years.
- Socio-political unrest materializes in a large number of countries.
- We expect another mild contraction in Canadian GDP in 2021, followed by a modest rebound in 2022.

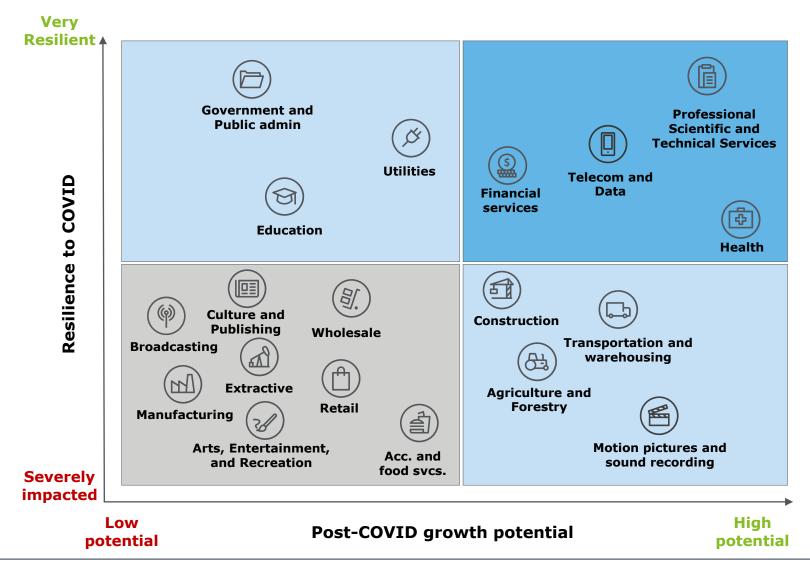
#### COVID-19 has reoriented the direction and speed of certain trends impacting the Canadian economy







The pandemic has varying impacts on industries' recovery depending on the degree of exposure to economic closures, and the ability and speed of adaptation

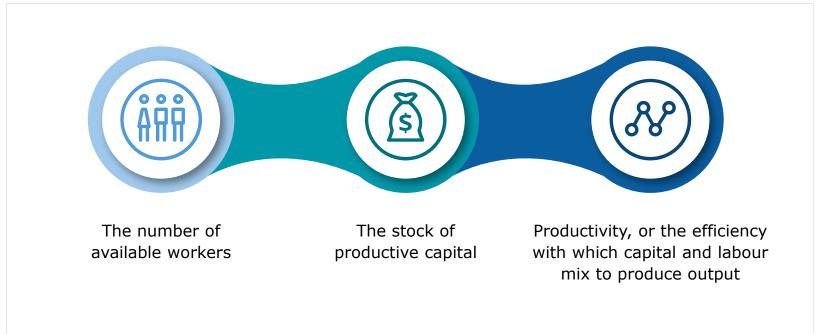


Beyond the immediate recovery, prospects for economic growth will be held back by falling labour participation, weak business investment, and sluggish productivity growth

Long-term economic growth will be determined by growth in Canada's underlying potential.



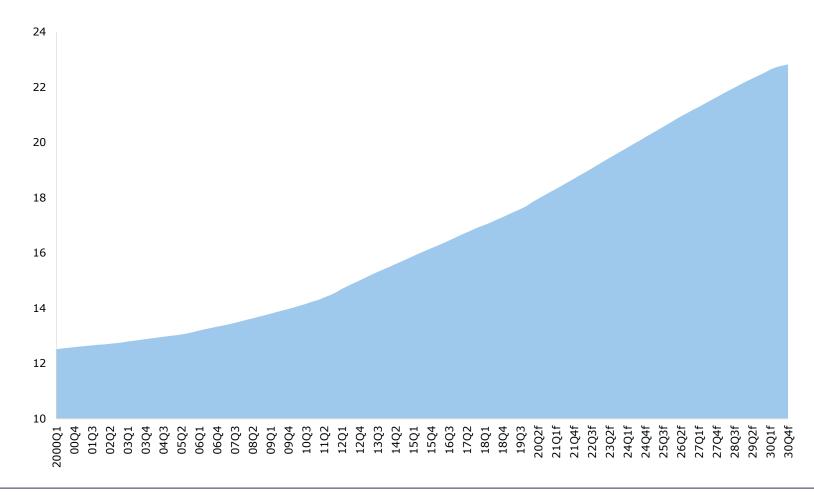
#### The estimate of potential economic growth is based on three key components:



#### Aging demographics will result in a rapid increase in the share of Canadians over 65



**Share of the Population Over 65 is Rising**Statistics Canada and Deloitte LLP, Share of the population over 65, percent

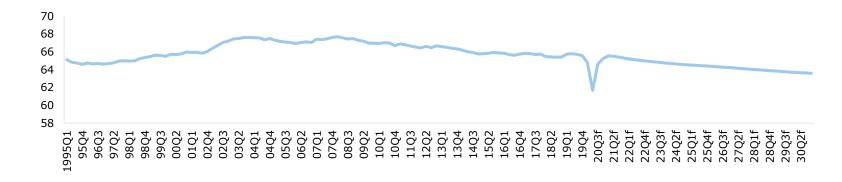


#### Population aging will reduce our labour force growth



#### **Labour participation rate**

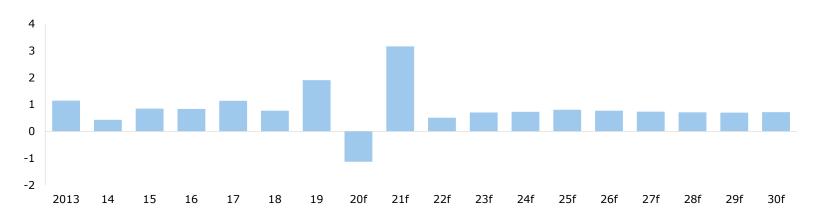
Statistics Canada and Deloitte LLP, Percent



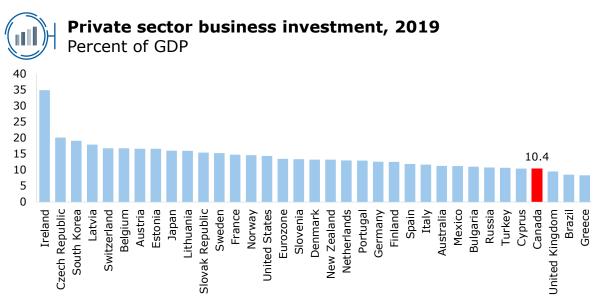


#### Labour force growth

Statistics Canada and Deloitte LLP, Percent Change

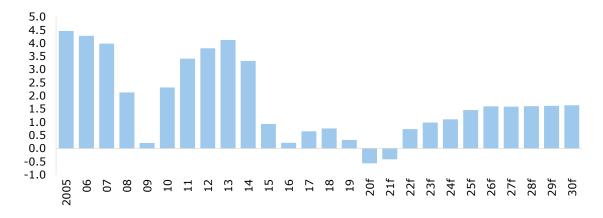


#### Weak business investment limits growth in Canada's productive capital



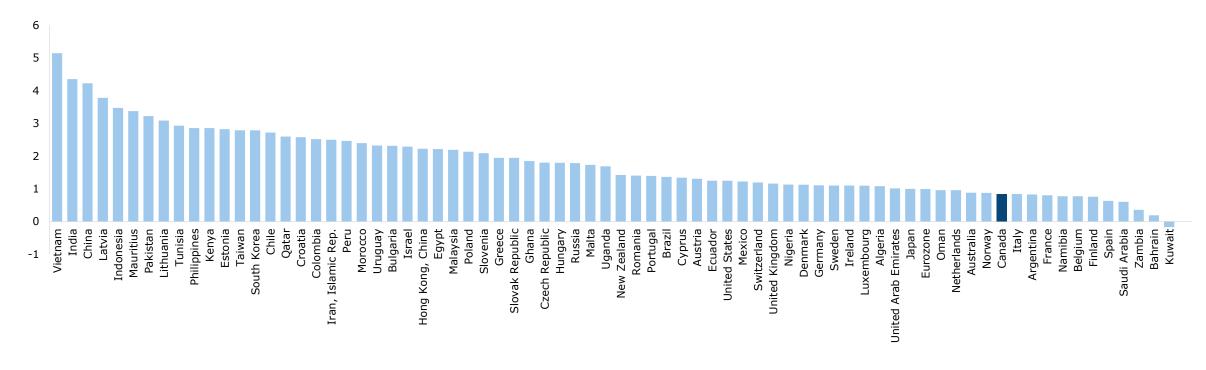
#### Growth in productive capital (business capital stock)

Statistics Canada and Deloitte LLP, Percent Change

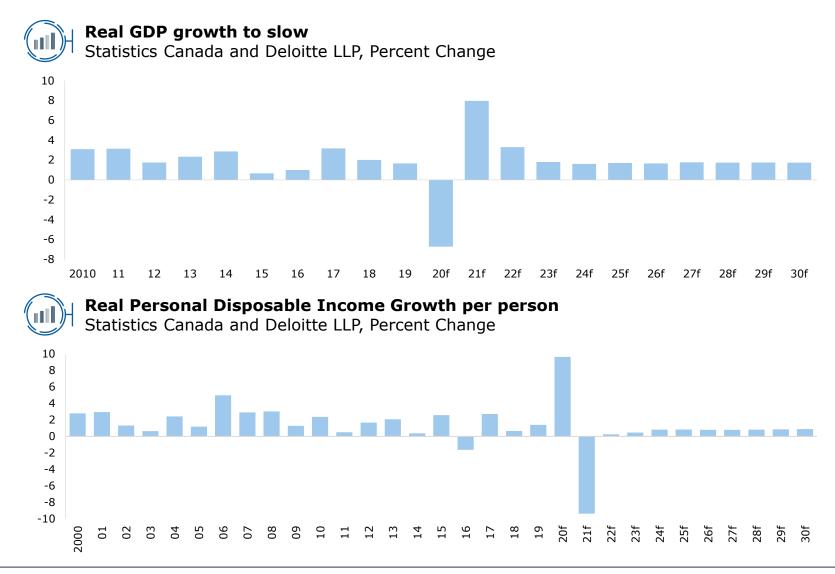


#### Canadian labour productivity has been slowing and is weak compared to peers

#### **Productivity Growth (%, GDP per Employee)**



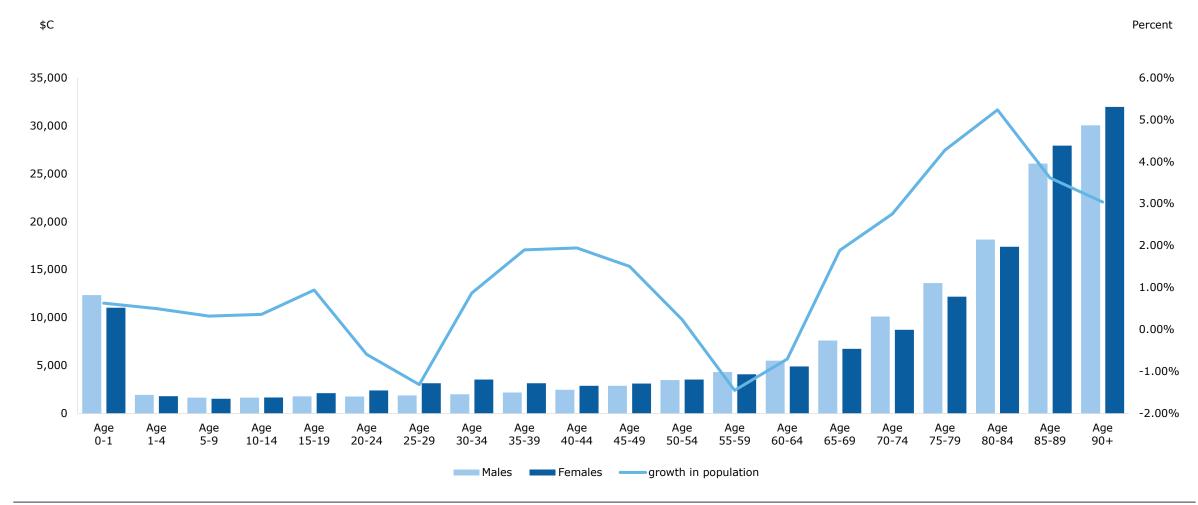
#### Weak potential output growth translates into a subdued outlook for GDP and Income



#### While GDP growth slows, aging demographics and rising health care costs will add fiscal strain



## Average health care costs per age cohort and growth in population CIHI and Deloitte LLP

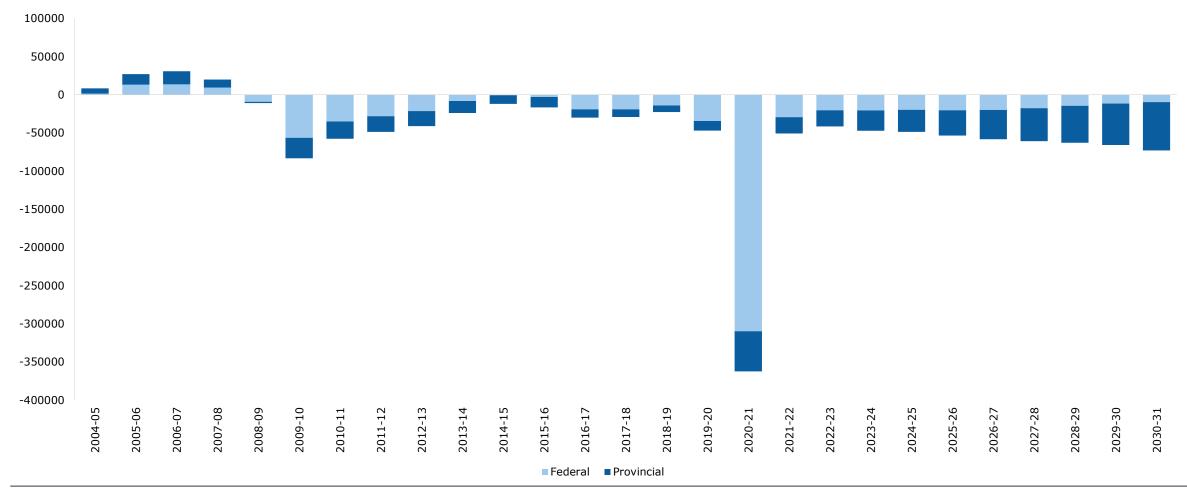


#### Federal and provincial governments will have trouble balancing its books as revenue growth slows



#### **Federal and provincial deficits**

Public Accounts (federal and provincial) and Deloitte LLP; Millions \$C



#### What areas can we focus on to make Canada more prosperous

#### Labour Markets

- Boosting labour market participation for women
- Keeping older Canadians in the labour market
- Boosting the number of Immigrants
- Improving labour market outcomes for Canada's Indigenous population

#### **Investment Spending**

 Improve Canada's business investment to match peer countries in relative terms

• Boost investment in software and development

Productivity Performance

- Investments in labour and capital work contemporaneously to boost productivity
- Make changes to improve wage gaps that prevail in our country, with the added benefit of fostering equality.
- Improve retraining to place employees in todays higher value added occupations

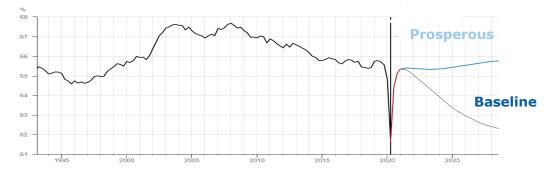
# Removing barriers to entering the job market among Canada's most under-represented groups adds 1.7 million workers to the labour force in the Prosperous Scenario



**1.7 Million workers** are added to the workforce in the Prosperous Scenario as compared to the base case as a result of increased opportunities for disabled and elderly Canadians, women, and aboriginal populations. This contributes to a rise in aggregate participation rates, placing a Prosperous Canada in a much better position as compared to its global peers.



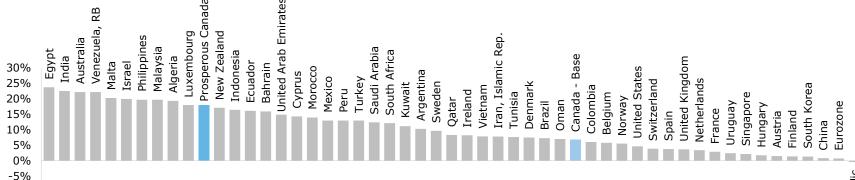
#### Canadian labour force participation rate: Base vs Prosperous; Deloitte LLP, Percent





-10% -15% -20%

# Projected labour force growth between 2020-2030 (number of workers)



Czech Republic
Italy
Thailand |
Germany
Slovak Republic |
Poland |
Romania |
Chile |
Chile |
Slovenia |
Japan |
Mauritius |
Estonia |
Greece |
Taiwan |
Croatia |
Bulgaria |
Latvia |

# Lifting investment as a share of GDP to match the average in advanced countries makes a huge difference to Canada's investment outlook.

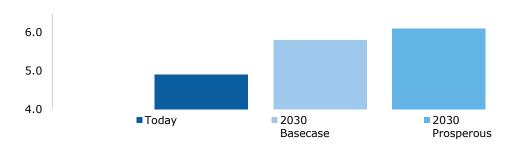
In the prosperous scenario, private investment accelerates to the share of GDP seen in other advanced countries, boosting the country's capital stock. This allows businesses to be more competitive on a global scale. The prosperous scenario assumes that policies are implemented to encourage technological enhancing investment that transform services-oriented sectors as well as resource and goods-producing sectors. This investment has the potential to boost GDP by 0.3 parcentage points per year.

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	Investment Growth	Investment share of GDP	Cumulative boost to GDP relative to baseline ppts.
Baseline	2.4	10.3	
Prosperous (ranking in the OECD top quartile)	5.6	12.8	2.7

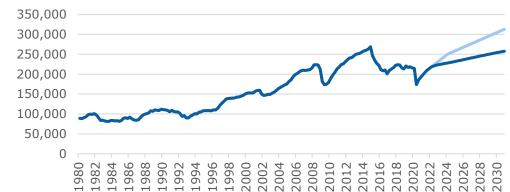
After accounting for demolitions and depreciation, this pace of investment would raise the capital stock by **25%** (from \$4.9Tn dollars today to \$6.1Tn by 2030). This is about \$250 billion dollars more than in the base case.





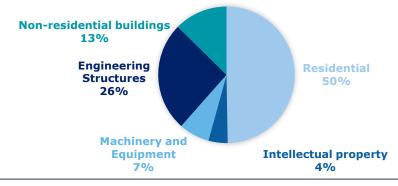


## **Projection out to 2030 Canadian** private sector business investment



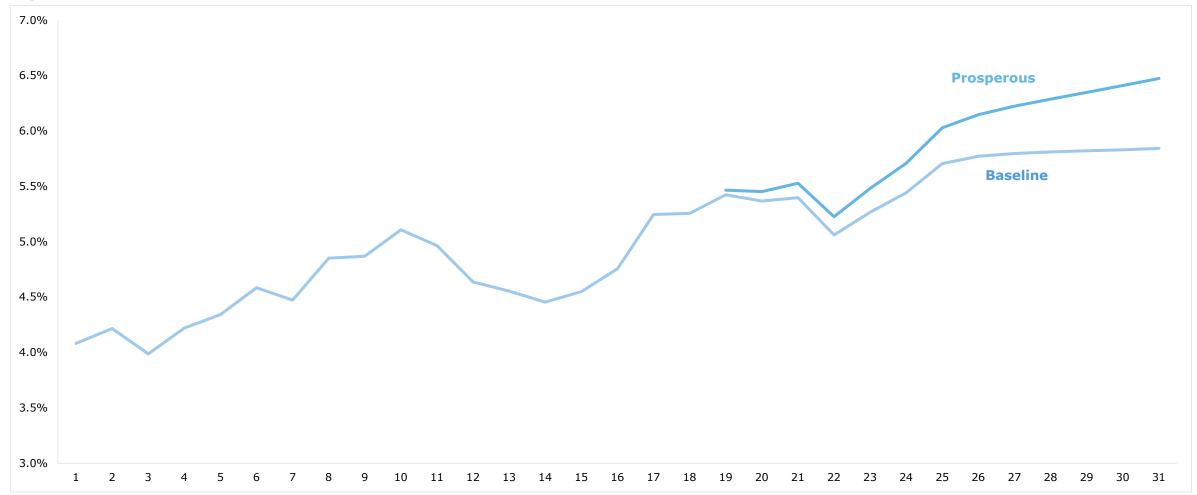


#### **Distribution of Capital stock**



#### In the Prosperous Canada scenario, a shift to digital will result in a boost to software development

## **Software investment share of private investment**Percent



# Stronger economic growth allows governments to ramp up spending on critical and productivity enhancing infrastructure

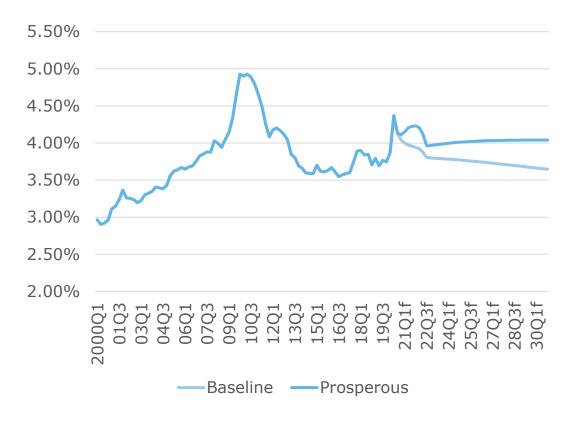


#### Public sector infrastructure gets a boost

- In the Prosperous scenario, Canada experiences stronger economic growth.
  This will boost government revenue collection given that nominal GDP is
  the broadest measure of the tax base from which government revenues
  are generated.
- With a boost to their revenues, governments will ramp up their investment spending resulting in numerous benefits.
- Infrastructure spending contributed directly to GDP growth as people are employed to create or upgrade the infrastructure and demand increases throughout the supply chain for component parts. The economy is further stimulated as the profits generated and wages paid are spent.
- There are also lasting economic impacts to infrastructure spending with broad consensus that public sector infrastructure boosts the economy's productivity performance. In fact, research has shown that public infrastructure is behind half of Canada's multifactor productivity growth.
- Furthermore, investments in public infrastructure can have wide reaching societal benefits from providing shorter and safer commutes to improving the quality of our drinking water.



## **Government Investment as a Share of GDP**Statistics Canada and Deloitte LLP, Per cent



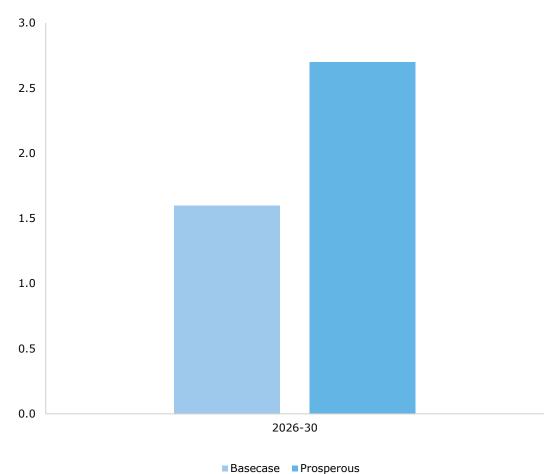
#### Achieving a stronger sustainable pace of growth would support a much stronger economy

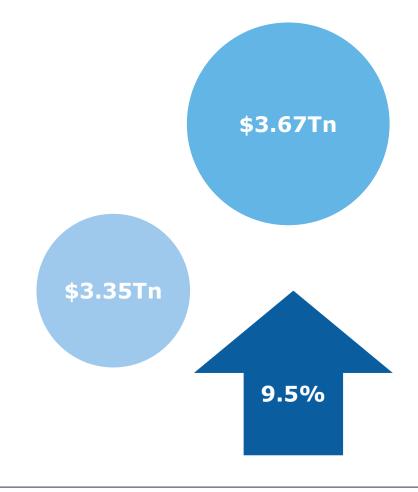


#### Post-recovery sustainable pace of real GDP growth



This pace would increase nominal GDP by \$300 billion—a 9.5% increase over the basecase





#### A Prosperous Canada means more Canadians with Jobs



### 22.6 Million

Canadian workers will be employed by 2030 in the prosperous scenario



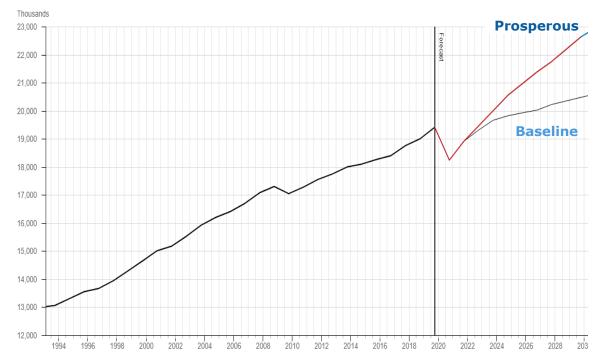
That means there would be

17.5% More

Jobs relative to 2019 levels



#### **Canadian Employment projection**





### ~2.26 Million

Workers are employed in the prosperous scenario that were not accounted for in the base case



### **8.1% More** Jobs

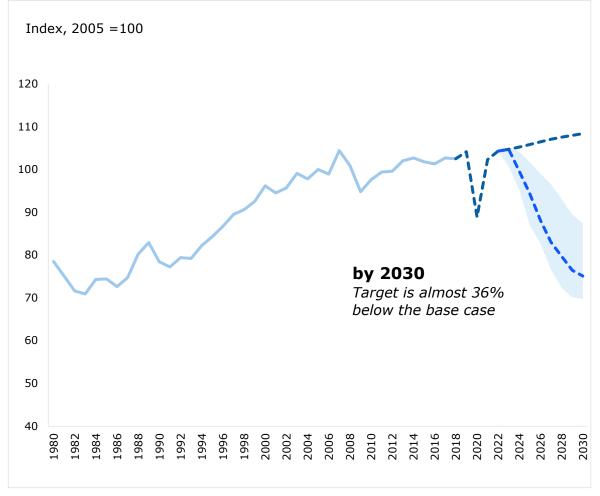
are created in the prosperous scenario relative to the base case

In the prosperous scenario we assume Canada is able to achieve their Paris Agreement emissions target through a carbon-pricing strategy that incrementally increases the price of emissions.

- To meet its 2015 Paris Agreement commitments, Canada must reduce greenhouse gas emissions by 30% below 2005 levels by 2030. In the prosperous scenario, we assume Canada is able to achieve this target through a carbon-pricing strategy that incrementally increases the price of emissions.
- Deloitte's modelling shows that Canadian GHG emissions can steadily decline and stay on track with the reduction targets outlined in the Paris Agreement. The main policy tool would be a steady increase in the carbon tax to \$114/tonne of  $\mathrm{CO}_2$  in 2030 and to \$200 /tonne of  $\mathrm{CO}_2$  in 2040.
- This lever would be complemented with other regulations including the implementation of ambitious standards and incentives that accelerate the adoption of clean technologies to support positive environmental outcomes across all industries.
- Through these measures, Canada will reach its emissions goals and be on track to becoming net zero by 2050. While the carbon tax leads to a 0.5 percent contraction of Canada's GDP versus a status quo scenario, the energy industry would still grow and continue to make a considerable contribution to the overall economy.

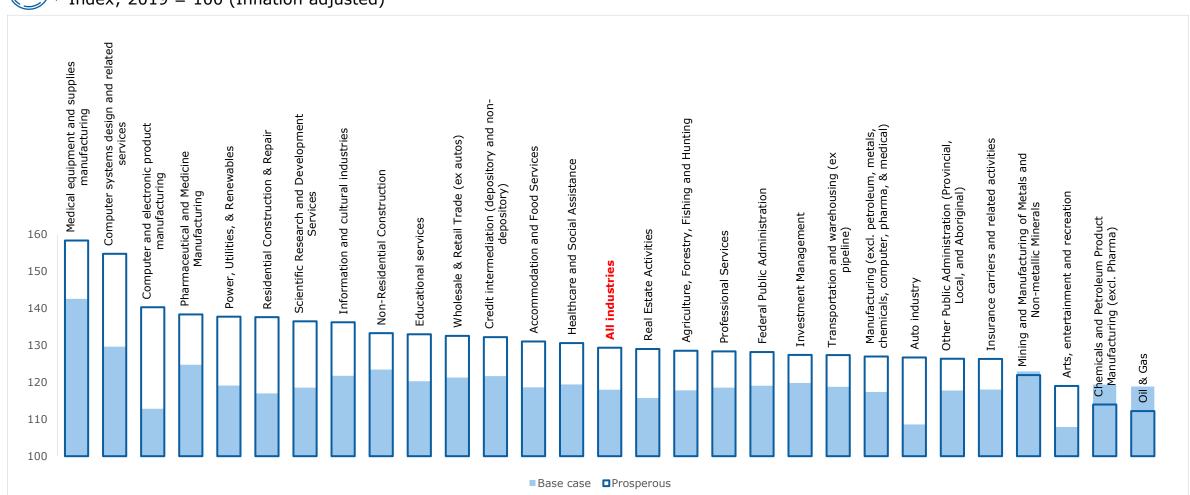


#### **CO2 Emissions**



#### Industries – base vs prosperous

Relative Industry Size by 2030 Index; 2019 = 100 (Inflation adjusted)

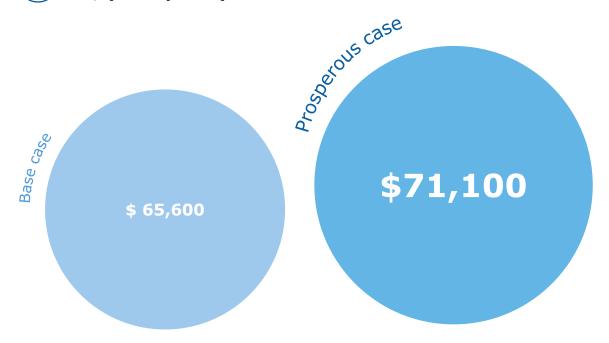


#### A stronger and more environmentally sustainable pace of GDP growth will lift our standard of living

 A higher pace of GDP growth will boost our standard of living and move us from a growth trajectory that sees us amongst the slowest growing advanced economies to one that is comfortably in the top half of the faster growing countries.

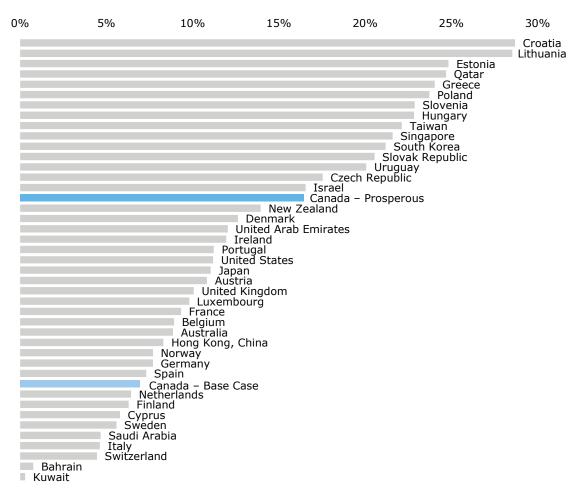


## GDP per capita in 2030 C\$ (2020 prices)





#### Projected growth in real GDP per Capita 2020-30



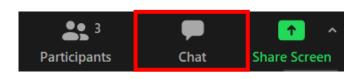
# Q&A







Please submit any questions using the chat function and send these to **Everyone** (selected by default).







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