Transport, Infrastructure and Communities
Transports, Infrastructure et Collectivités

CIMS #: 41075

SECURITY DESIGNATION : PROTECTED B
DÉSIGNATION DE SÉCURITÉ

SCENARIO NOTE/NOTE DE SCÉNARIO (DEPUTY MINISTER/SOUS-MINISTRE)

ATIA - 20(1)(c)
ATIA - 20(1)(d)
ATIA - 21(1)(a)

ROUTE SLIP/BORDEREAU D'ACHEMINEMENT

TO/À (TITLE/TITRE)	ACTION	INITIALS/ INITIALES	DATE
Director, Strategic Policy Directeur ou Directrice	For approval		
Director General, Strategic Policy and Priority Initiatives Directeur général ou Directrice générale	For approval		
Assistant Deputy Minister/ Sous-ministre adjoint	For approval		
Executive Correspondence Unit/ Unité de la correspondance exécutive	For review		
Associate Deputy Minister/ Sous-ministre déléguée	For approval		
Deputy Minister/ Sous-ministre	For information		

REMARKS/ REMARQUES

- Consultation — √ Yes/Oui - Environmental Policy, Transport Canada
  ☐ No/Non
- Translation/Traduction — ☐ Yes/Oui
  √ No/Non (no need for translation)

Meeting between
Deputy Minister of Infrastructure Canada and [redacted]

CONTEXT FOR THE DOCUMENT/CONTEXTE DU DOCUMENT :

- [redacted]

FROM/DE Mark Bolby Author/Auteur	DATE April 7, 2015	TELEPHONE/TÉLÉPHONE 613-960-5657

Canada

ATIA - 20(1)(c) PROTECTED-B

ATIA - 20(1)(d)

SCENARIO NOTE ATIA - 21(1)(a) ATIA - 19(1)

Meeting between the Deputy Minister of Infrastructure and Communities and [redacted]

Date/Time:	April 7, 2016, 9:30 a.m. – 11:00 a.m.
Location:	Boardroom 11-111
Subject:	Update on the Government of Canada's plan to establish a Canada Infrastructure Bank
Participants:	• Jean-François Tremblay, Deputy Minister, Infrastructure and Communities • Yazmine Laroche, Associate Deputy Minister, Infrastructure and Communities • Jeff Moore, Assistant Deputy Minister, Policy and Communications, Infrastructure Canada • [redacted]

Departmental Objectives

- This meeting provides an opportunity to reinforce t[redacted] that discussions and engagement on the potential role of a Canada Infrastructure Bank (CIB) will involve broad consultation with municipal, provincial and private sector stakeholders.
- It is also an opportunity to identify any potential positive or negative impacts the financial services sector may see with regard to the activities of a future CIB.

Stakeholder Objectives

- [redacted] is expected to seek an update on the status of the Government of Canada's implementation plan regarding the Canada Infrastructure Bank (CIB) and [redacted]
- [redacted] may also seek details on what types of products the CIB may offer and [redacted]
- [redacted]

Context

- [redacted]

1

- [redacted]
- [redacted]
- Finance Canada and INFC are continuing to examine options to implement the Government's commitment with regard to the CIB. [redacted]
- [redacted]
- INFC and Finance Canada are continuing to examine options to meet the Government's commitment with regards to the CIB. Financing of infrastructure projects is also one of the potential topic areas for the Phase 2 engagement process.

Points to Register

- To help finance the construction of public infrastructure, the Government of Canada committed to establishing the Canada Infrastructure Bank to provide low-cost financing to build new infrastructure projects.
- I am currently working on this file with my colleague Paul Rochon, Deputy Minister of Finance.
- Discussions on the potential role of a Canada Infrastructure Bank will involve broad consultation with municipal, provincial and private sector stakeholders.
- The Government will be engaging Canadians soon on Phase 2 of the infrastructure plan. I would be interested to hear your early views on what the focus of these future investments should be.
- [redacted]
- What gaps have you seen in the area of infrastructure financing which may require the need for a CIB? What kind of instruments could you see a proposed CIB delivering?

Annexes

[redacted]

Page(s) 5 to 9
are excluded
pursuant to paragraph
20(1)(c) and (d)
of the *Access to Information Act*

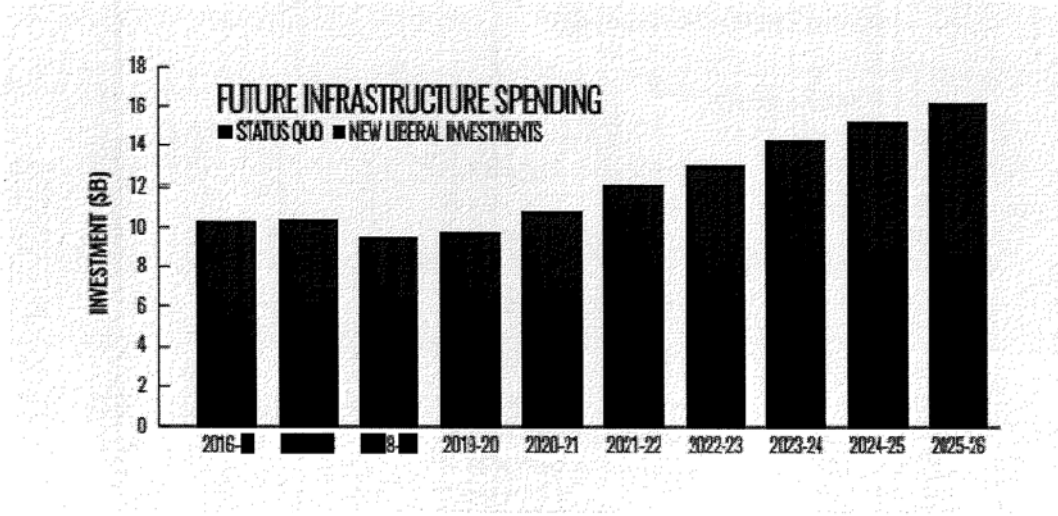
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conformément aux dispositions de paragraphe
20(1)(c) et (d)
de la loi sur l'accès à l'information

ATIA - 20(1)(c) ATIA - 20(1)(d)

[redacted] – [redacted]

[redacted]



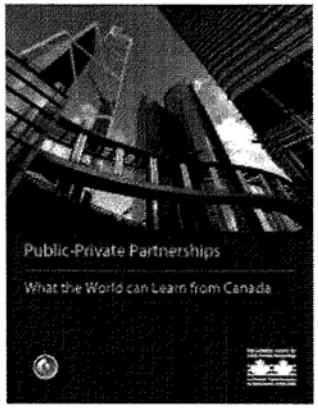
Canadian P3 Projects

Sector	Number	Value $millions
Transportation	54	38,451
Hospitals & Healthcare	88	24,708
Energy	7	5,888
Justice/Corrections	19	5,458
Education	14	1,936
Recreation & Culture	20	1,471
Environmental	24	1,229
Real Estate	4	944
Defence	2	867
Government Services	4	482
IT Infrastructure	2	1
Total	**238**	**81,435**

Canadian Public Infrastructure Market

- $50+ Billion annual Governments investment in infrastructure
- $7+ Billion in P3 Projects annually (15-20%)
- Future P3 Growth in Municipal and Federal Projects
- Municipalities investing Federal Gas Tax Rebate ($2B) in Infrastructure (Water, Transportation and Energy)
- **Current Federal Programs– $70B Infrastructure Funding - 10 Years**
- **New Liberal Government - $126B commitment to Infrastructure - 10 Years**

[redacted]

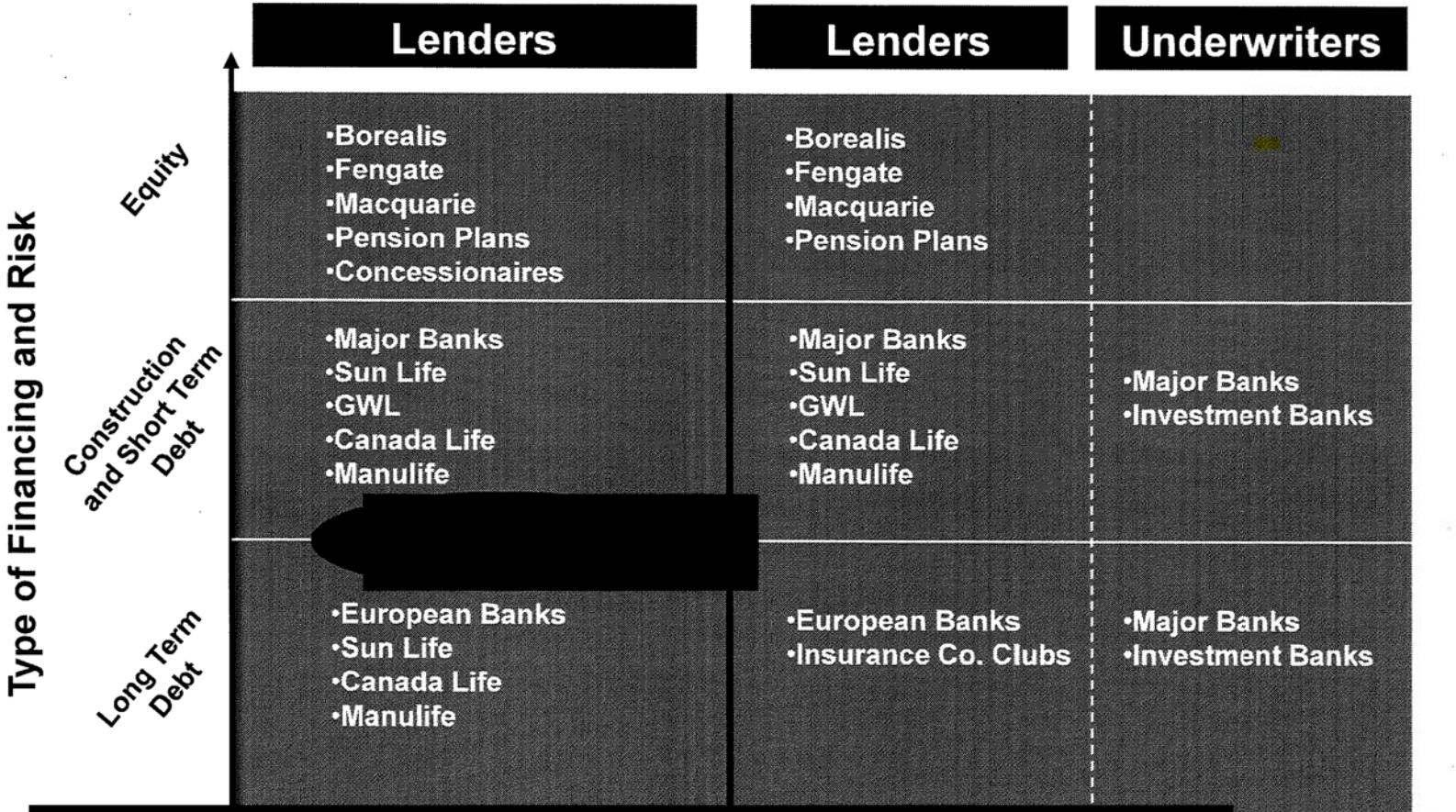


11/6/2015

ATIA - 20(1)(c) ATIA - 20(1)(d)

[redacted]

5 [redacted]



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11/6/2015

Page(s) 12 to 17
are excluded
pursuant to paragraph
19(1) and 20(1)(c)(d)
of the *Access to Information Act*

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La/les page(s) 12 à 17
Font l'objet d'une exception totale
conformément aux dispositions de paragraphe
19(1) et 20(1)(c)(d)
de la loi sur l'accès à l'information

Reasons to Invest in Canadian Infrastructure

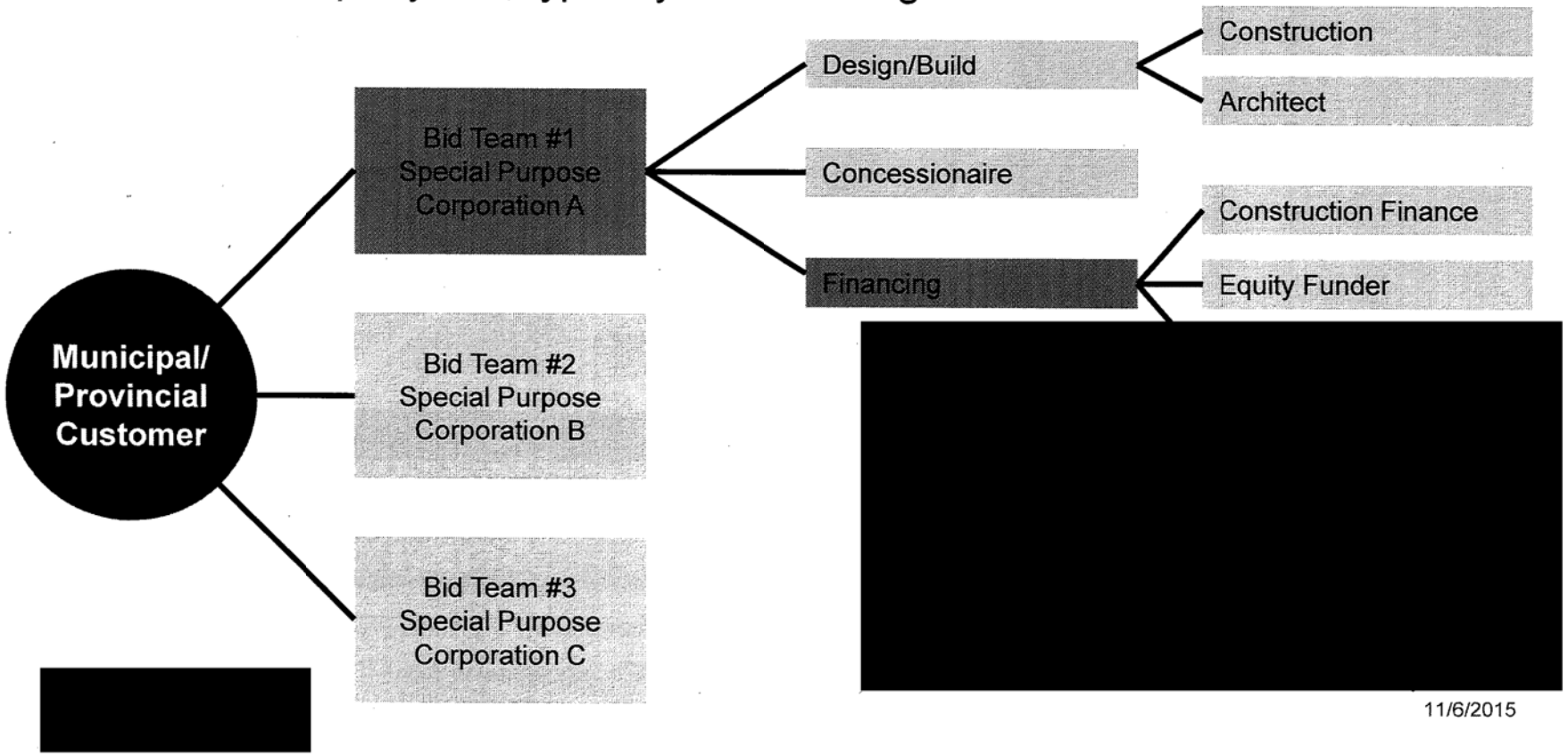
- Stable and strong currency backed by natural resources and exports. Nearly 60% of Canada's GDP is linked to trade, making Canada one of the world's most open economies.
- National Infrastructure Framework for Federal, Provincial and Municipal Infrastructure programs
  - Build Canada Fund, matching Provincial Infrastructure Programs
  - P3 Canada Inc. established $2.5B program to grow P3 projects at all levels of Government
  - Municipalities receive $2B annually from the Gas Tax to fund Infrastructure projects
  - 2014 and 15 Federal Budget announced a new $70B 10 Year Federal Infrastructure Programs
- Municipal governments account for 51%, provincial governments for 35%, and the federal government for 14% of all public sector infrastructure procurement in Canada
- Public investment in infrastructure projects is projected to grow at greater than 10% annually for the next decade
- Spending on Infrastructure promotes economic growth:
  - Every dollar invested in infrastructure creates as much as $1.11 in economic growth, reduces business costs by an average of 11 cents

[redacted]

Sample P3 Project Structure

13

- Loan customers are Canadian municipal/provincial/federal governments with tax revenue backed cash flows
- Low counter party risk, typically investment grade



11/6/2015

Transport, Infrastructure and Communities
Transports, Infrastructure et Collectivités

CIMS #: 42212

SECURITY DESIGNATION : CONFIDENTIAL
DÉSIGNATION DE SÉCURITÉ

SCENARIO NOTE/NOTE DE SCÉNARIO (DEPUTY MINISTER/SOUS-MINISTRE)

ROUTE SLIP/BORDEREAU D'ACHEMINEMENT

TO/À (TITLE/TITRE)	ACTION	INITIALS/ INITIALES	DATE
Director, Strategic Policy Directeur ou Directrice	For approval		
Director General, Strategic Policy and Priority Initiatives Directeur général ou Directrice générale	For approval		
Assistant Deputy Minister/ Sous-ministre adjoint	For approval		
Executive Correspondence Unit/ Unité de la correspondance exécutive	For review		
Associate Deputy Minister/ Sous-ministre déléguée	For approval		
Deputy Minister/ Sous-ministre	For information		

REMARKS/ REMARQUES

- Consultation ☐ Yes/Oui (Please specify/Veuillez préciser)_____
  ☐ No/Non
- Translation/Traduction ☐ Yes/Oui
  ☐ No/Non (Rationale/Justification)

Meeting between
Selected Deputy Ministers and Jean Boivin (BlackRock)

CONTEXT FOR THE DOCUMENT/CONTEXTE DU DOCUMENT :

An event has been scheduled with the investment firm BlackRock, involving the Prime Minister, a number of Ministers and major global investors in order to make a compelling pitch on why major investors should choose Canada and gain insight on how investments can be deployed to help Canada realise its full potential. The event is set to take place on November 14, 2016 in Toronto.

In order to prepare for productive sessions, it was agreed to form small working groups with representation from lead Departments, political staff and BlackRock. The intent is notably to use the working groups to 'test' the presentations scheduled for November 14 so they resonate with investors and to prepare for constructive engagement during the sessions, which will help support the preparation of Ministers.

FROM/DE	DATE	TELEPHONE/TÉLÉPHONE
Bogdan Wisniowski- Wong	August 10, 2016	613-941-2429

Canada

SCENARIO NOTE

Meeting between
Deputy Minister of Infrastructure and Communities and
Jean Boivin of BlackRock Investment Institute

Date/Time:	August 12, 2016 – from 2:15 to 3:15 p.m.
Location:	80 Wellington - Room 411
Subject:	BlackRock Event – Meeting with Selected Deputy Ministers
Participants:	• Jean Boivin, Managing Director, Head of Economic and Markets Research of the BlackRock Investment Institute (see **Annex A** for biography) • Jean-François Tremblay, DM INFC • Timothy Sargent, Associate DM FIN • Christyne Tremblay, DM NRCan • Marta Morgan, DM CIC • Louise Levonian, DM ESDC • Mitch Davies, ADM ISED • Kirsten Hilman, ADM GAC • Jean-Frédéric Lafaille, PCO

Background

An event has been scheduled with the investment firm BlackRock, involving the Prime Minister, a number of Ministers and major global investors in order to make a compelling pitch on why major investors should choose Canada and gain insight on how investments can be deployed to help Canada realize its full potential. The event is set to take place on November 14, 2016, in Toronto.

In order to prepare for productive sessions, PCO has created small working groups with representation from lead Departments, political staff and BlackRock. The intent is to use the working groups to "test" the presentations scheduled for November 14 so they resonate with investors to prepare for constructive engagement during the sessions, and to help support the preparation of Ministers.

BlackRock Event Overview

BlackRock is the largest investment manager in the world with over $4.5 trillion in assets. BlackRock's 2015 annual report signaled an anticipated increase in investment in the "Alternatives" category, which includes infrastructure. The interest of BlackRock and other investment firms in attendance at the November 14 meeting (such as GIC, Norges, QIA, Zurich, ADIA, GPIF, Chubb, CIC, Florida SBA) will be to understand the opportunities for private investment in Canada, in particular through a new Infrastructure Institution. In addition, the potential privatization of major Canadian airports will likely be of significant interest to the investor audience.

The November 14 event with Ministers and BlackRock will include four working sessions on specific topics, during which Ministers are to make relatively short presentations (10 to 15 minutes), followed by facilitated discussions. The topics include:

- **Macro-economic outlook, investment climate, government growth agenda (1.5 hours)**: To set the overall frame, expected to cover factors relevant to investors (including labour market), major international trade agreements, a specific request to summarize the ICA process, and the Government's general agenda for growth. To be presented by Minister Morneau, with the participation of Minister Freeland, Governor Poloz and Dominic Barton.

- **Natural resources (45 minutes):** To present overall evolution of the sector and Government agenda for a transition towards a greener economy (clean tech and other initiatives in context of addressing climate change). To be presented by Minister Carr, with the participation of Minister McKenna.

- **Innovation and Tech industry opportunities (1 hour):** To present overview and evidence of emerging sectors, clusters of probable interest for investors. To be presented by Minister Bains, with the participation of Ministers Philpott and Joly, and Tiff Macklem.

- **Canadian infrastructure (1 hour):** To present Government plans for investment and where/how there could be opportunities for private/foreign investments to further Government goals. To be presented by Minister Sohi with the participation of Minister Garneau.

Objectives for August 12 Meeting

PCO has organized three meetings on August 12 with representatives from BlackRock (led by Jean Boivin):

[redacted]

2) with Deputy Ministers from implicated departments for the same purpose; and

3) between PCO/Dupont, Finance/Nevison and BlackRock on the macro-economic outlook, investment climate, and government growth agenda. At the first two meetings, BlackRock is expected to discuss their expectations and past experience with previous "Heads of Government" meetings held with some of their key global clients such as USA, Mexico and Germany.

To initiate the formation of the presentations and guide discussion at the meetings on August 12, PCO requested a draft of the presentation Minister Sohi would make in November; see **Annex B** – BlackRock Event – Canadian Infrastructure Deck Outline for the draft officials provided to PCO. Initial feedback from PCO is that the outline is on target with what they imagine would be addressed, [redacted] However, the August 12 meeting with BlackRock representatives should shed more light on the topics of most interest to them.

Poi to Register

- The Minister of Infrastructure's presentation could focus on the current and future infrastructure investments and how these will strengthen communities, create jobs and stimulate the economy.

- We anticipate that our plan will encourage greater private sector investment in public infrastructure through P3 projects.

- Key topics (as shown in the BlackRock Event – Canadian Infrastructure Deck Outline in **Annex B**) include:
    - Federal Government Direction on Infrastructure (including doubling federal infrastructure spending over next 10 years to $120 billion);
    - Opportunities for Private Sector Investment (including high level presentation on P3s, asset recycling and other opportunities potentially made possible by a new Institution);
    - Questions for BlackRock (including how to make Canadian infrastructure attractive for private sector investment).

Annexes
Annex A – Biography – Jean Boivin
Annex B – Black Event – Canadian Infrastructure Deck Outline (for November 14 event with Ministers)

JEAN BOIVIN



Managing Director, Head of Economic and Markets Research of the BlackRock Investment Institute

Dr. Jean Boivin is Head of Economic and Markets Research of the Blackrock Investment Institute. The Institute provides connectivity between BlackRock's portfolio managers, originates economic and markets research, and publishes insights.

Prior to joining BlackRock, Dr. Boivin served as Deputy Governor of the Bank of Canada and then as Associate Deputy Finance Minister, and Finance Canada's representative at the G7, G20 and Financial Stability Board. Dr. Boivin has also taught at INSEAD, HEC Montreal and Columbia Business School and has written widely on macroeconomics, monetary policy and finance.

Dr. Boivin earned a B.Sc. degree in economics from the Université de Montréal in 1995, an M.A. in economics from Princeton University in 1997, and a Ph.D. in economics from Princeton University in 2000.

BlackRock Event – Canadian Infrastructure Deck Outline

Slides:

1. Federal Government Direction on Infrastructure
    a. Highlight of federal infrastructure spending (e.g. "Budget 2016 includes historic new investments in infrastructure totaling more than $120 billion over the next decade. This includes $60 billion in new money – for public transit, green and social infrastructure." – Minister Sohi)
    b. Public quotes on role of private sector investment (e.g. "P3s will continue to be an important tool for effective delivery of some infrastructure projects." – Minister Sohi at the P3 Global Hub Event in April 2016)

2. Opportunities for Private Sector Investment
    a. Public-Private Partnerships (P3s)
    b. Asset Recycling[1]
    c. New Approaches to Equity Participation from Investors

3. P3 Environment in Canada
    a. Government Support for P3s
        i. PPP Canada (federal level)
        ii. Provincial Agencies (e.g. Partnerships BC, Infrastructure Ontario)
    b. P3 Market History (e.g. approximately 240 P3s across Canada)
    c. P3 Market Pipeline (e.g. P3 Canada Fund applications totaled an estimated $20 billion in latest round)
    d. Typical P3 Asset Classes (e.g. transit, hospitals, justice, transportation, water/wastewater)

4. Asset Recycling in Canada
    a. Federal Assets
    b. Other Levels of Government Assets

5. New Approaches to Equity Participation from Investors
    a. Note: Pending outcome of ongoing policy discussion
    b. A potential opportunity could be to support green energy projects which marginally do not have a business case without government subsidy (e.g. through subordinated financing provided by the new Institution). The public benefit in this case would be environmental.

6. Questions for BlackRock
    a. Are there any international models that incorporate private sector infrastructure financing or funding that could benefit Canada?
    b. What can the federal government do to make Canadian infrastructure attractive for private sector investment?
    c. What are the primary obstacles to private sector investment in Canadian infrastructure today?

[1] "Asset recycling" is the use of the proceeds of full or partial privatization of existing government assets to fund new infrastructure investment. The privatized/sold assets do not necessarily need to be public infrastructure assets themselves – they could be government-owned businesses or buildings for example.

Infrastructure Canada

CIMS #: 42672

SECURITY DESIGNATION : SECRET
DÉSIGNATION DE SÉCURITÉ

SCENARIO NOTE/NOTE DE SCÉNARIO

(DEPUTY MINISTER/SOUS-MINISTRE)

ROUTE SLIP/BORDEREAU D'ACHEMINEMENT

TO/À (TITLE/TITRE)	ACTION	INITIALS/ INITIALES	DATE
Director/ Directeur ou Directrice	For approval Pour approbation		
Director General/ Directeur général ou Directrice générale	For approval Pour approbaton		
Assistant Deputy Minister/ Sous-ministre adjoint	For approval Pour approbation		
Executive Correspondence Unit/ Unité de la correspondance exécutive	For review Pour révision		
Associate Deputy Minister/ Sous-ministre déléguée	For approval Pour approbation		
Deputy Minister/ Sous-ministre	For information Pour information		

REMARKS/ REMARQUES

➢ Consultation □ Yes/Oui (Please specify/Veuillez préciser)
√ No/Non

➢ Translation/Traduction □ Yes/Oui
√ No/Non (Rationale/Justification)

Meeting between Deputy Minister of Infrastructure and Communities and Mining Association of Canada (MAC)

CONTEXT FOR THE DOCUMENT/CONTEXTE DU DOCUMENT :

MAC promotes Canada's mining industry nationally and internationally, with memberships accounting for most of Canada's production of base and precious metals, uranium, diamonds, metallurgical coal, mined oil sands and industrial minerals. MAC members are also engaged in exploration and processing activities. MAC sees an efficient and effective infrastructure network as key to supporting responsible mining growth in the North, along with efficient and robust regulatory regimes, strong participation and inclusion of Aboriginal and Inuit peoples, skills and employment training, and innovation and research and development.

FROM/DE	DATE	TELEPHONE/TÉLÉPHONE
Catherine Kim	October 12, 2016	613-946-2288

Canada

SCENARIO NOTE

Meeting between
Deputy Minister of Infrastructure and Communities and
Vice-Chairman - Mining Association of Canada

Date/Time:	Monday, October 17, 2016, 1:00 p.m. - 1:30 p.m.
Location:	427 Laurier Ave West, 10th Floor, Boardroom 10-009
Subject:	Infrastructure and Northern Canada
Participants:	[redacted], Office of the Minister of Infrastructure and Communities Jean-François Tremblay, Deputy Minister, Infrastructure and Communities Sean Boyd, Vice-Chairman of the Mining Association of Canada, and CEO of Agnico Eagle Mines

Departmental Objectives

This meeting will be an opportunity to provide the Mining Association of Canada (MAC) information related to Phase 2 of the infrastructure plan and to indicate that they should start thinking about potential support through a bank and related financing mechanisms

Stakeholder Objectives

It is expected that MAC will advocate for Phase 2 of the infrastructure plan to provide support for resource-related infrastructure projects, highlighting potential benefits for northern development.

Context/Overview

MAC promotes Canada's mining industry nationally and internationally, with memberships accounting for most of Canada's production of base and precious metals, uranium, diamonds, metallurgical coal, mined oil sands and industrial minerals. MAC members are also engaged in exploration and processing activities. MAC sees an efficient and effective infrastructure network as key to supporting responsible mining growth in the North, along with efficient and robust regulatory regimes, strong participation and inclusion of Aboriginal and Inuit peoples, skills and employment training, and innovation and research and development.

Along with the Prospectors and Developers Association of Canada, MAC has been advocating for federal investment in northern infrastructure projects that support resource development. These organizations and others in the resource sector parties suggest that there is a federal role given benefits that could include resource sector jobs, spinoff economic opportunities, and improved access for communities (physical access or access to services).

In recent years, a number of significant projects have been presented as funding pressures under Infrastructure Canada (INFC) programs, including road development in the Ring of Fire, and the Grays Bay Road and Port project. INFC has not received a proposal for a Ring of Fire project, [redacted] INFC continues to work closely with Finance Canada, Natural Resources Canada, Indigenous and Northern Affairs Canada and Transport Canada to develop a proposal for the infrastructure bank and to assess the types of projects it could support.

Benefits for communities

Often the public benefit of resource-related infrastructure projects is associated with shared community-industry benefits from a built asset, opportunities related to employment and training, or specific benefits for proximate communities negotiated in impact and benefit agreements.

[redacted]

Points to Register

- The potential economic and social benefits of responsible development of minerals and metals in the North has been widely acknowledged.
- With regard to infrastructure that supports sector development, there remain questions about an appropriate federal role.
- In this context it is important to fully understand what financing gap may exist, and whether it could be appropriate for the federal government to assume risks in cases where the cost of private financing is perceived to be prohibitive.
    - Determining likely public benefit is a key to assessing the case for federal involvement.

Potential questions for discussion

- The Government has committed to establishing an infrastructure bank. What potential role do you see for governments to support northern infrastructure projects that align with opportunities in the natural resource development sector?

- Do you see opportunities to think outside the scope of a project, to innovate in the way we work together with communities to improve infrastructure outcomes for Northerners?

Annex

Annex A – Biography of Sean Boyd

BIOGRAPHY:
SEAN BOYD



Mr. Sean Boyd, C.A. is the Vice-Chairman and Chief Executive Officer of Agnico Eagle. Mr. Boyd has been with Agnico Eagle since 1985 and has served as President and Chief Executive Officer since 1998, Vice-President and Chief Financial Officer from 1996 to 1998, Treasurer and Chief Financial Officer from 1990 to 1996 and Comptroller from 1985 to 1990.

Prior to joining Agnico Eagle, he was a staff accountant with Clarkson Gordon (Ernst & Young).

Mr. Boyd is a Chartered Accountant and a graduate of the University of Toronto (B.Comm.).

Infrastructure Canada

CIMS #: 42540

SECURITY DESIGNATION/
DÉSIGNATION DE SÉCURITÉ

SCENARIO NOTE/NOTE DE SCÉNARIO

(DEPUTY MINISTER/SOUS-MINISTRE)

ROUTE SLIP/BORDEREAU D'ACHEMINEMENT

TO/À (TITLE/TITRE)	ACTION	INITIALS/ INITIALES	DATE
Director/ Directeur ou Directrice	For approval Pour approbation		
Director General/ Directeur général ou Directrice générale	For approval Pour approbaton		
Assistant Deputy Minister/ Sous-ministre adjoint	For approval Pour approbation		
Executive Correspondence Unit/ Unité de la correspondance exécutive	For review Pour révision		
Associate Deputy Minister/ Sous-ministre déléguée	For approval Pour approbation		
Deputy Minister/ Sous-ministre	For information Pour information		

REMARKS/ REMARQUES

- Consultation — □ Yes/Oui (Please specify/Veuillez préciser) □ No/Non
- Translation/Traduction — □ Yes/Oui □ No/Non (Rationale/Justification)

Meeting with Deputy Clerk of the Privy Council

CONTEXT FOR THE DOCUMENT/CONTEXTE DU DOCUMENT :

BlackRock is the largest investment manager in the world with over $4.5 trillion in assets. BlackRock's 2015 annual report signaled an anticipated increase in investment in the "Alternatives" category, which includes infrastructure. The interest of BlackRock and other investment firms in attendance at the November 14 meeting (such as GIC, Norges, QIA, Zurich, ADIA, GPIF, Chubb, CIC, Florida SBA) will be to understand the opportunities for private investment in Canada, in particular through a the proposed infrastructure institution.

FROM/DE	DATE	TELEPHONE/TÉLÉPHONE
Mark Bowlby	September 22, 2016	613- 960-9639

Canada

ATIA - 21(1)(b)

CONFIDENTIAL

SCENARIO NOTE

Meeting between the Deputy Minister of Infrastructure and Communities and the Deputy Clerk of the Privy Council

Date/Time:	Friday, September 23, 2016
Location:	80 Wellington, Room 328
Subject:	Canada Head of Government – BlackRock Deck Discussion
Participants:	• Serge Dupont, Deputy Clerk of the Privy Council, Privy Council Office • Jean-François Tremblay, Deputy Minister, Infrastructure and Communities • Jean-Frédéric Lafaille, Assistant Secretary to the Cabinet, Privy Council Office • Jeff Moore, Assistant Deputy Minister, Infrastructure Canada

Departmental Objectives

This meeting offers you an opportunity to discuss the process and current status of the deck being developed for the November 14 meeting with BlackRock and private investors. A copy of the first draft of the deck that Minister Sohi will present at the meeting is at **Annex A.** You may wish to highlight to the Deputy Clerk that the most recent discussions with BlackRock held on September 20, 2016 indicated high level approval of the approach being taken by Infrastructure Canada in the draft deck.

[redacted]

Privy Council Objectives

The Deputy Clerk will share your objective of discussing the process to date and next steps to finalize the deck ahead of the November 14 meeting. [redacted]

Context

BlackRock is the largest investment manager in the world with over $4.5 trillion in assets. BlackRock's 2015 annual report signaled an anticipated increase in investment in the "Alternatives" category, which includes infrastructure. [redacted]

Infrastructure Canada has been participating in bi-weekly working group conference calls with BlackRock and the Privy Council Office, to construct a deck that will be presented by Minister Sohi at the November 14 meeting. The deck will outline Canada's current infrastructure situation, investment under Phase 1 and Phase 2, and provide details on the new infrastructure institution.

The most recent working group call took place on Tuesday September 20. The objective of the call was to gather feedback from participants on the first draft of the deck developed by Infrastructure Canada. Overall the results were positive as both BlackRock and the Privy Council Office suggested that the approach in the deck – type of information presented, key messages – were what they think will make a full presentation.

[redacted]

[redacted] A copy of the draft agenda is at **Annex B.**

[redacted]

Next Steps

A new version of the deck will be completed for Friday September 30 taking into consideration comments from the meeting on September 20 and those that the Deputy Clerk may provide to you. Additional statistics on Canada's current infrastructure position and upcoming funding will be added. Statistics will also be gathered on PT's and large municipalities' capital plans to illustrate the upcoming pipeline for capital investment. The market benefits of the new institution will also be outlined to showcase the value of the new institution. Lastly, Infrastructure Canada has begun to engage its Communications Team to ensure the deck is of a high presentation quality. The format and layout will be informed by the Privy Council Office, which is creating a "common look & feel" for the Government of Canada presentations at the event. A copy of the Draft Participants List is at **Annex C**. The draft Critical Path developed by the Privy Council Office is at **Annex D.**

Annex A – Draft Deck
Annex B – Draft Agenda
Annex C – Draft Participants List
Annex D - Critical Path

Points to Register

- The deck has been received positively by BlackRock and aligns with their key interests for the meeting in November.
- Infrastructure Canada is continuing to work with the Privy Council Office to have the deck developed in advance of the meeting on November 14.
- Additional detail is being developed with regard to Canada's current infrastructure position and upcoming funding.
- Statistics will also be gathered on PT's and large municipalities' capital plans to illustrate the upcoming pipeline for capital investment, and the market benefits of the new institution will be outlined to showcase the value of the new institution.

[redacted]

ATIA - 21(1)(b)

Canadian Infrastructure

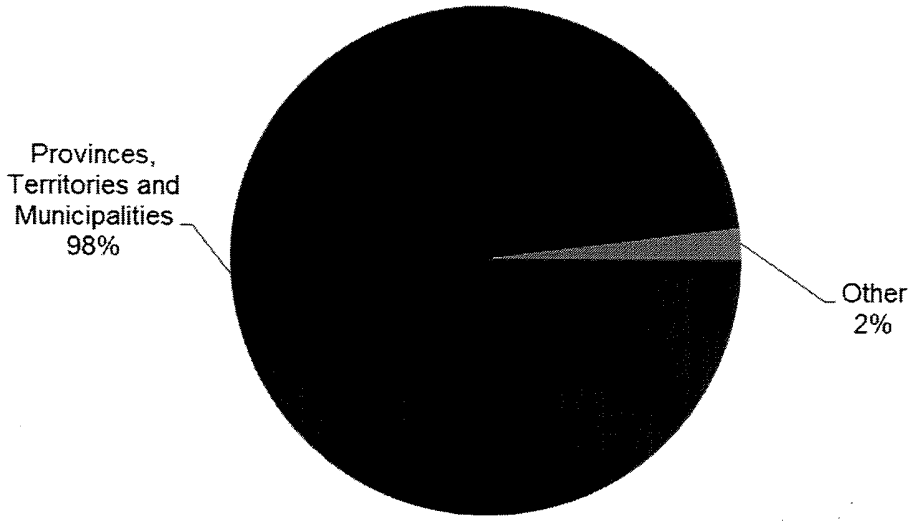
Heads of Government FDI Summit

November 14th, 2016

Canada's Public Infrastructure

- The vast majority of public infrastructure is owned by Provinces, Territories, and Municipalities (PTM) with federal ownership limited to small number of bridges, highways and First Nation infrastructure on reserve.
  - In fact **98%** of transit, roads, bridges, water, wastewater, culture, and recreational facilities are owned by PTMs.
- The federal government's primary role in PTM infrastructure is as a funding partner.

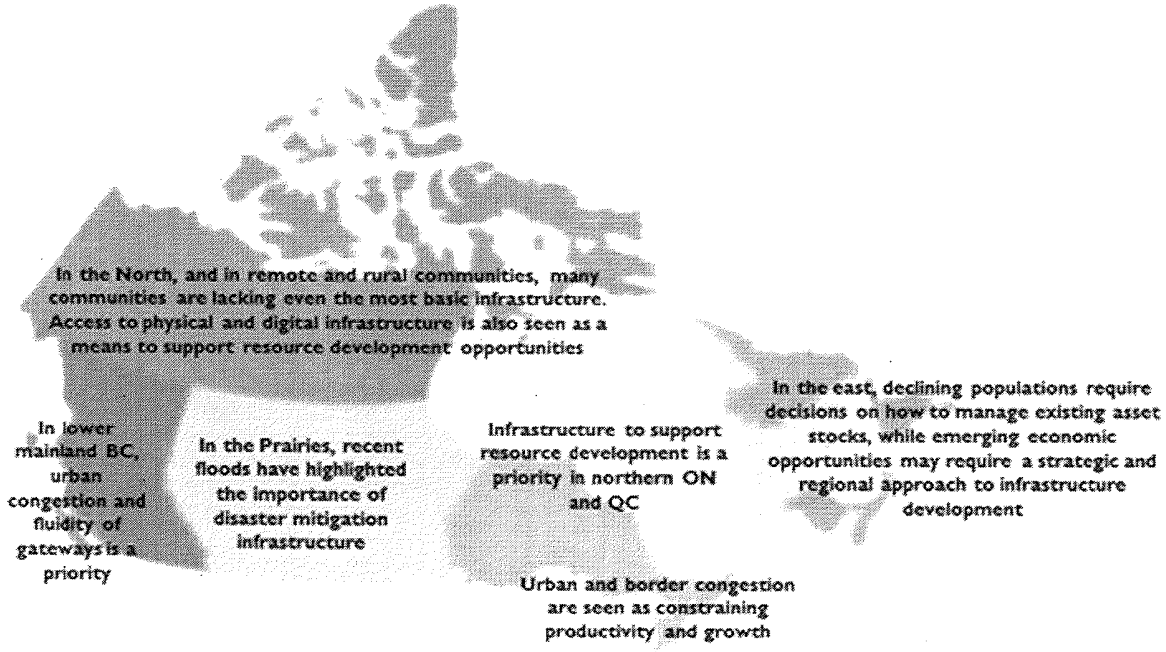
Ownership of Canada's Public Infrastructure



Infrastructure Gap

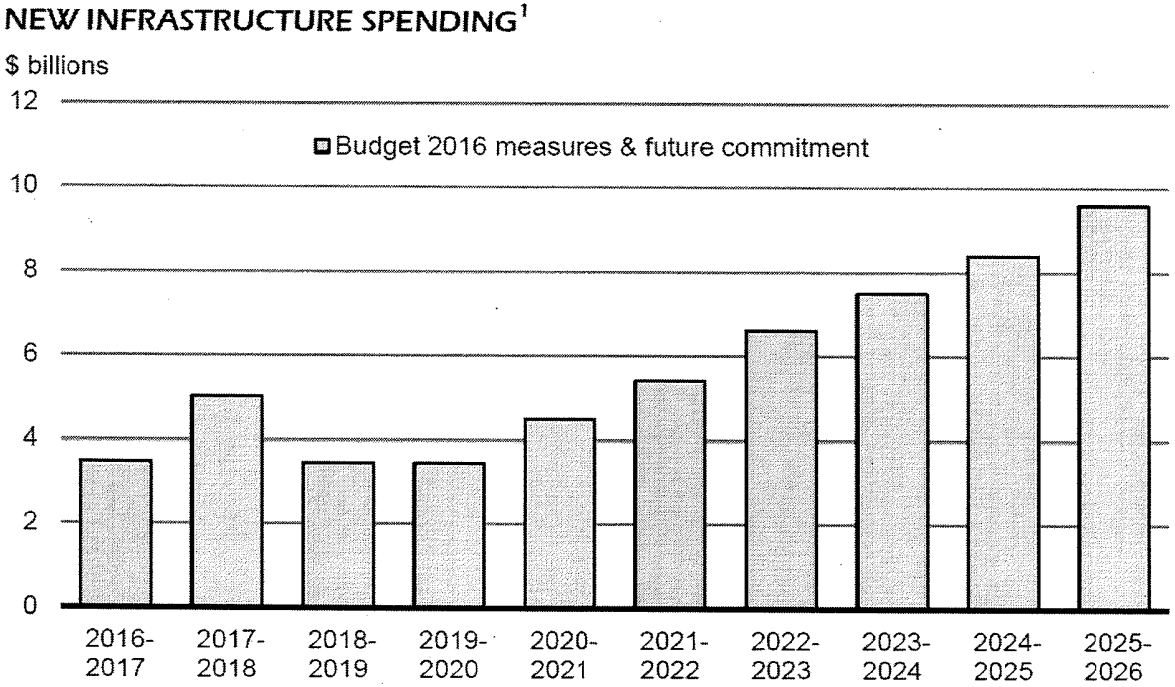
- Calls continue for the federal government to increase funding in response to the perceived infrastructure deficit
  - Many estimates of Canada's infrastructure deficit have been made – most ranging from **$50 to $130 billion**, with variations in the estimates related to differences in scope, methodology, and measurement practices

Varying Infrastructure Demands Across the Country



Infrastructure Plan Overview

- To help address this infrastructure gap and better position Canada's economy for the future, the Government launched a transformative plan in Budget 2016 to invest more than **$120 billion** in infrastructure over 10 years, including **$60 billion in new funding** commitments.
- The Government's plan will be implemented in **two phases.**

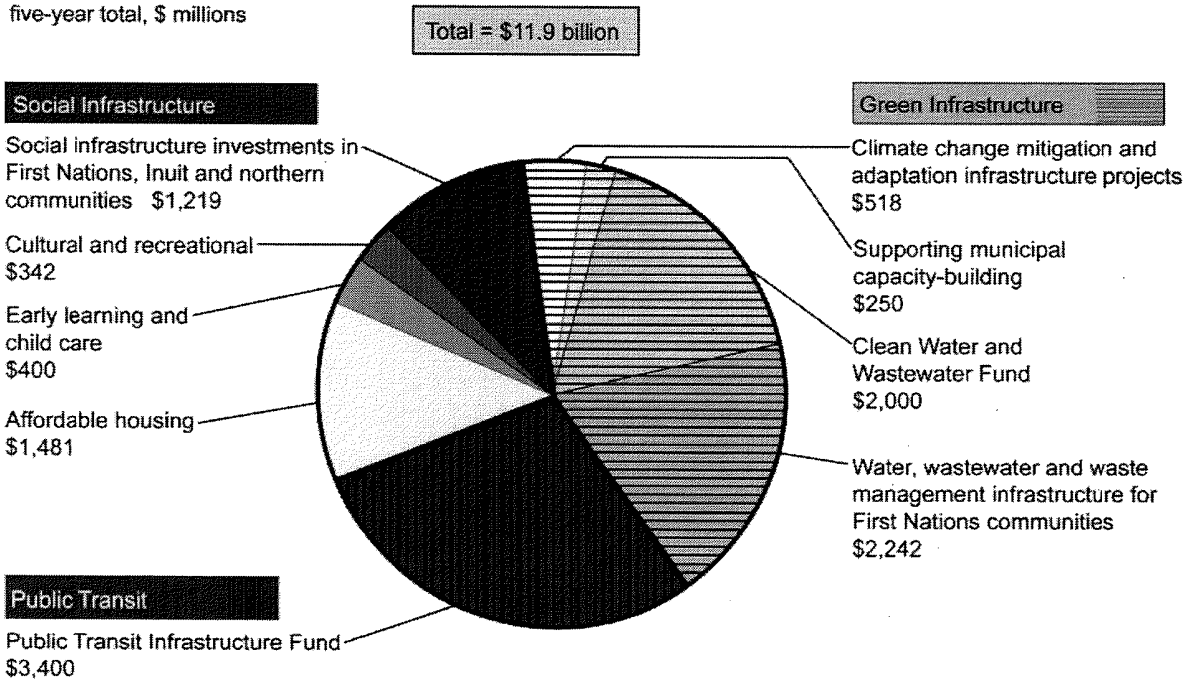


[1] Public transit, green infrastructure and social infrastructure.

Infrastructure Plan – Phase 1

- Phase 1 focuses primarily on infrastructure investments over the next two years to immediately invest in infrastructure Canadians need. These investments represent **$11.9 billion** of the Government's 10-year commitment.

Phase 1 Overview



Other Federal Support

- In addition to the new funding announced in Budget 2016, the Government will support the infrastructure priorities of communities across Canada. The Government will:

  - Continue to make available approximately **$3 billion each year** in dedicated funding for municipal infrastructure projects through the Gas Tax Fund and the incremental Goods and Services Tax Rebate for Municipalities.

  - Work with provincial, territorial and municipal partners to get projects underway, by accelerating spending from the **$9 billion available** under the New Building Canada Fund's Provincial-Territorial Infrastructure Component and other existing infrastructure programs.

  - Transfer remaining uncommitted funds from **older federal infrastructure programs** to municipalities through the Gas Tax Fund in 2016–17 in order to ensure funds are directed towards municipal infrastructure priorities in the near term.

Infrastructure Plan – Phase 2

- Phase 2 will deliver on the remaining eight years of the Government's long-term infrastructure plan. In this phase, the goals will be broader and more ambitious: a more modern, cleaner economy; a more inclusive society; and an economy better positioned to capitalize on the potential of global trade.

- This second phase will go hand in hand with the transition to a low-carbon economy. It will make Canada's largest cities better places to live, through cost effective, sustainable, integrated transportation networks. And it will aim to deliver fast, efficient trade corridors that allow Canadian exporters to benefit fully from international trade.

- [PLACEHOLDER - Official announcements on Phase 2]

new Canadian entity

- The [new entity] is the Government's centerpiece for the long-term infrastructure plan. It will be:

  - **Targeted** - dedicated to improving the funding, procurement and management of public infrastructure by levering private sector investment.
  - **Private Sector Focused** - led by experts in the field of financing, mandated to structure, negotiate and deliver federal support for infrastructure projects with revenue generating potential.
  - **Flexible** – provided innovative financial instruments to advance national and regional infrastructure projects and attract private sector capital to public infrastructure projects.
  - **Effective** – offer a single-window for unsolicited proposals from the private sector and provide a national project pipeline in order to facilitate planning by the market.
  - **Collaborative** – building on the procurement expertise of provincial, territorial, and municipal governments to ensure the best value for Canadians.

ATIA - 21(1)(a)
ATIA - 21(1)(c)

Public-Private Partnerships (P3s)

- Canada has a well developed Public-Private Partnership (P3) market with over 240 P3s across the country. These projects involve a range of asset classes including roads, bridges, public transit, water/wastewater treatment, health care and justice.

- The Canadian P3 market is supported by the federal government, through PPP Canada, and by provincial governments, through P3 agencies such as Infrastructure Ontario and Partnerships British Columbia.

- The latest round of applications to the P3 Canada Fund (a fund managed by PPP Canada which provides federal investment for P3 projects)

New Private Investment Opportunities

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ATIA - 21(1)(c)

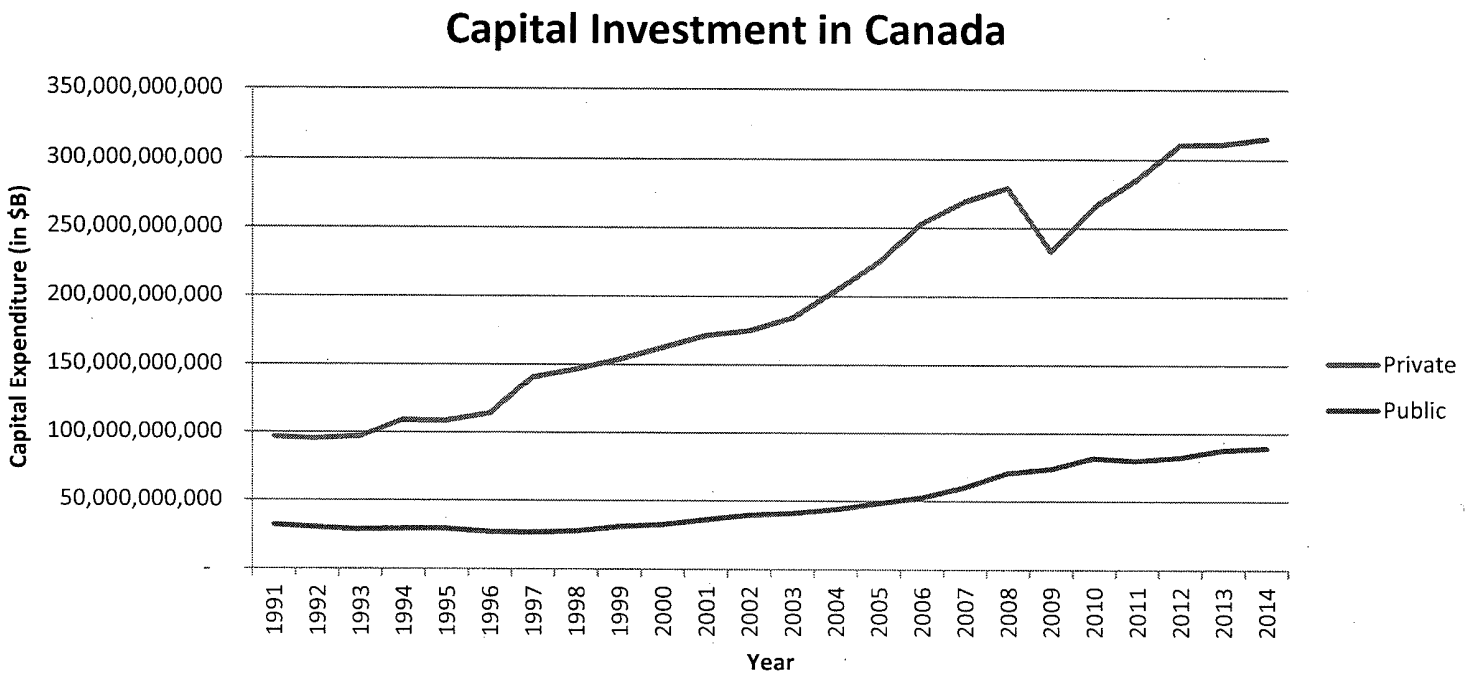
The list below presents large projects (typically $100M+) that are under development or are proposed

Asset Class	Known Pipeline (CapEx $ billions)*
Transit (LRT/BRT)	[redacted]
Transportation (Highway/Roads/Bridges/Gateway/Rail)	31.2
Water/Wastewater	6.4
Social Housing	3.3
Green Energy	67.2
Total	[redacted]

-

- [PLACEHOLDER – [redacted]

Estimated Future Capital Investment in Canada



- [PLACEHOLDER – Expected to include:
  - Provincial/Territorial Capital Plans
  - Toronto/Montreal/Vancouver Capital Plans]

Questions for Discussion

- Are there any international models that incorporate private sector infrastructure financing or funding that could benefit Canada? In particular, ones that focus on an agency working with those who own the asset?

- What can the federal government do to make Canadian infrastructure attractive for private sector investment?

- What are the primary obstacles to private sector investment in Canadian infrastructure today?

2016 Draft Canada Summit Agenda			Monday, November 14, 2016
Event	**Timing**	**Description**	**Leads**
Lunch	12:00 - 13:30	**Client Lunch and Briefing Session** • Objective setting	-- Larry Fink -- All Client Participants
Break	13:30 - 14:00		
Welcome Remarks	14:00 – 14:15	**Official Welcome to CANADA and the Head of Government / Long Term Investor Summit**	-- Justin Trudeau *Prime Minister, Canada* -- Larry Fink *BlackRock CEO*
Opening Session	14:15 - 15:15	**Canadian Economic Outlook and New Policy Priorities** • Presentation on Canada's economy • New policy priorities, foreign and domestic • Foreign direct investment objectives • Q&A with all attendees	-- Honorable Bill Morneau *Minister of Finance* -- Hon. Chrystia Freeland *Minister of International Trade* -- Stephen Poloz *Governor, Bank of Canada* -- Dominic Barton (TBC) *McKinsey & Co* -- Jean Boivin *BII, BlackRock*
Second Session	15:15 - 16:00	**Natural Resources** • Energy sector • Paper and wood products • Metals and mining	-- Honorable Jim Carr *Minister of Natural Resources* -- Hon. Catherine McKenna *Minister of the Environment & Climate Change* -- Poppy Allonby *BlackRock NR Team*
Break	16:00 – 16:30		
Third Session	16:30 – 17:30	**Innovation and Tech Industry Opportunities in Canada** • Artificial Intelligence • FinTech • Health and Pharma • Digital • Q&A with all attendees	-- Honorable Navdeep Bains *Minister of Innovation, Science & Economic Development* -- Hon. Jane Philpott *Minister of Health* -- Hon. Melanie Joly *Minister of Canadian Heritage* -- Brian Stern *BlackRock Private Markets*
Fourth Session	17:30 - 19:00	**Canadian Infrastructure: Promoting Connectivity and Sustainability** • Government of Canada's infrastructure policy framework • Federal, provincial and municipal opportunities for private-public partnership	-- Honorable Amarjeet Sohi *Minister of Infrastructure* -- Honorable Marc Garneau *Minister of Transport* -- Anne Valentine Andrews *BlackRock Real Assets*
Reception	19:00	**Formal Dinner Reception**	-- Justin Trudeau -- Prime Minister's Cabinet -- All client participants

ATIA - 19(1)
ATIA - 20(1)(b)
ATIA - 20(1)(c)

Canada Head of Government Initial Invitee List RSVPs

As of August 26, 2016

Client	Name	Last	Response
[redacted]			

*indicates change since last planning session.

Heads of Government FDI Summit – Toronto, November 14, 2016

CRITICAL PATH

SEPTEMBER	
Week of September 6-9	- ADM coordination / alignment call
Week of September 12-16	- Next round of four Working Group meetings: vetting draft presentations, integration of BlackRock input
Week of September 19-25	- ADM coordination / alignment call (including initiating work on common format and flow of presentations) - Deputy Clerk / DM Bilaterals
Week of September 26-30	- Next round of four Working Group meetings - Finalize draft presentations/briefing package for Ministers
OCTOBER	
Week of October 3-7	- Briefing of Ministers by Departments - Integrate common format and visuals pour pre-reading material - ADM coordination / alignment call
Week of October 10-14	
Week of October 17-21	- Next round of four Working Group meetings: review revised presentations based on Ministerial guidance
Week of October 24-28	- Deputy Clerk / DMs meeting - Briefing books for Ministers (agenda, overview scenario note, presentations and speaking points, guest list and bios), ready but for input from Economic and Fiscal Update (EFU)
NOVEMBER	
Week of October 31 – Nov 4	- EFU (TBC) - Adjust presentations to reflect EFU - Common Briefing of all Ministers involved - Dry-run - Final round of four Working Group meetings - Distribution of pre-reading material to attendees
Week of November 7-11 (US elections: Nov 8)	
November 14	**Heads of Government FDI Summit** *News Release with links to presentations in both languages*

Transport, Infrastructure and Communities
Transports, Infrastructure et Collectivités

CIMS #: 42295

SECURITY DESIGNATION : CONFIDENTIAL
DÉSIGNATION DE SÉCURITÉ

SCENARIO NOTE/NOTE DE SCÉNARIO (DEPUTY MINISTER/SOUS-MINISTRE)

ROUTE SLIP/BORDEREAU D'ACHEMINEMENT

TO/À (TITLE/TITRE)	ACTION	INITIALS/ INITIALES	DATE
Director, Strategic Policy Directeur ou Directrice	For approval		
Director General, Strategic Policy and Priority Initiatives Directeur général ou Directrice générale	For approval		
Assistant Deputy Minister/ Sous-ministre adjoint	For approval		
Executive Correspondence Unit/ Unité de la correspondance exécutive	For review		
Associate Deputy Minister/ Sous-ministre déléguée	For approval		
Deputy Minister/ Sous-ministre	For information		

REMARKS/ REMARQUES

- Consultation ☐ Yes/Oui (Please specify/Veuillez préciser)_____
  ☐ No/Non
- Translation/Traduction ☐ Yes/Oui
  ☐ No/Non (Rationale/Justification)

Meeting between Deputy Minister of Infrastructure and Communities and The Advisory Council on Economic Growth

CONTEXT FOR THE DOCUMENT/CONTEXTE DU DOCUMENT :

The Advisory Council on Economic Growth includes 14 Canadian and international business and academic leaders. The Council's objective is to advise the Government in the development of its economic growth strategy, which is expected to be delivered by the end of the year. There are four key themes of the Council: Talent & Labour Markets (led by Katherine Barr), Innovation (led by Angela Strange), Capital Investment & Infrastructure (led by Michael Sabia) and Competitiveness & Market Environment (led by Chris Ragan). The Council's work is part of a whole-of-government approach, and its efforts will be complementary to consultations being led by other departments.

FROM/DE	DATE	TELEPHONE/TÉLÉPHONE
Bogdan Wisniowski- Wong	August 22, 2016	613-941-2429

Canada

SCENARIO NOTE

Meeting between
Deputy Minister of Infrastructure and Communities and
The Advisory Council on Economic Growth

Date/Time:	Wednesday, August 24, 2016 • Meeting 9:00 am – 5:00 pm • Dinner begins at 6:00 pm Thursday, August 25, 2016 • Working Breakfast 7:30 am – 10:30 am
Location:	Evergreen Brick Works, located at 550 Bayview Ave Toronto
Subject:	Advisory Council on Economic Growth – Meeting on Initial Policy Proposals
Participants:	See **Annex VIII - List of Attendees at the August 24 Council Meeting** for full list of participants which includes Minister Morneau, Minister Bains, Deputy Ministers from numerous departments and others.

Departmental Objectives

This meeting is in follow-up to the June 15th teleconference that provided direction to the Advisory Council on Economic Growth (the Council). The purpose of these sessions will be to discuss initial policy proposals in each of the four key themes (themes are listed in Stakeholder Objectives section below) and will be hosted by Finance Canada. It will provide an opportunity to hear the Council's recommendations on key policy items and could influence INFC and other departments' (e.g. FIN and PCO) recommendations on Phase II. There will be no formal role for Deputy Ministers at this meeting other than to participate in the Council's discussions. Although, the Deputy Minister of INFC may be expected to provide his views or comments on recommendations.

Stakeholder Objectives

The Council will discuss initial policy proposals in each of the four key themes which include: Talent & Labour Markets (led by Katherine Barr), Innovation (led by Angela Strange), Capital Investment & Infrastructure (led by Michael Sabia) and Competitiveness & Market Environment (led by Chris Ragan). This session and the pre-read materials (see attached Annexes) are INFC's first exposure to the Council's recommendations.

Initial policy proposals for the Capital Investment & Infrastructure theme include (see **Annex II – Infrastructure pre-read** for full details):

[redacted]

[redacted]

- [redacted]

[redacted]

Key questions and next steps to be addressed in the meeting:

- **Council's deliverable**
  - When should the Council release its recommendations?
    - *INFC Thoughts:* [redacted]
  - How should they be released?
    - *INFC Thoughts: To Finance Canada, INFC and other relevant federal government departments through a report.*

- **"Phase 2" analysis**
  - What areas/themes are in need of deeper analysis?

- *INFC Thoughts:* [redacted]

  - How detailed should the recommendations be?
    - *INFC Thoughts: Recommendations should be supported by detailed analysis (format of report should include summaries of findings in the body with details in the annex).*

- **What's missing?**
  - Should there be a sector lens added to the strategy?
    - *INFC Thoughts: If there is a strong case for it, then yes. Willing to hear proposed recommendations.*

- **Working model**
  - [redacted]
  - Are more resources needed?
    - *INFC Thoughts: Please elaborate what additional resources would be required for. If there is rationale for it, then yes.*

Context/Overview

The Advisory Council on Economic Growth includes 14 Canadian and international business and academic leaders. The Council's objective is to advise the Government in the development of its economic growth strategy, which is expected to be delivered by the end of the year. The Council's work is part of a whole-of-government approach, and its efforts will be complementary to consultations being led by other departments.

Points to Register

Questions

[redacted]

Annexes

Annex I - Agenda, Objective, Narrative and Stakeholder Engagement
Annex II - Infrastructure pre-read
Annex III - Looking Ahead - Demographics, Jobs, and Global Trade
Annex IV - Innovation pre-read
Annex V - Competitiveness pre-read

Annex VI - Annex Talent and Labour Markets pre-read
Annex VII - [redacted]
Annex VIII - List of Attendees at the August 24 Council Meeting

Advisory Council on Economic Growth



TORONTO COUNCIL MEETING

August 24th – 25th

CONFIDENTIAL

Contents

- **Agendas**
- Objectives & Target
- Overall narrative
- Stakeholder engagement
- Key questions & next steps

Agenda for August 24th (1/2)

	Timing	Overview	Facilitator
Context and objectives	▪ 9-9:15am ▪ 9:15-9:25am	▪ **Opening remarks to kick-off our session** – Thoughts from Minister Morneau ▪ **Align on objectives for today's session** – Set a baseline for trends that will shape Canada in coming decades – Share thinking on cross-cutting themes and overall narrative – Debate and discuss our top ideas – Select the format and sequence for our deliverable – Ensure our process is inclusive (e.g., First Nation's perspective, public engagement)	▪ Minister Morneau ▪ Dominic Barton
Looking ahead	▪ 9:25-10am	▪ **Set context for what's ahead for Canada** – Playback reactions to our *Looking Ahead* piece – Align on the implications for our narrative and four themes	▪ Jennifer Blanke
Narrative & deliverable	▪ 10-11am	▪ **Discuss emerging themes and integrating narrative** – Debate and discuss the Council's story – how we should communicate the challenges ahead for Canada and frame our recommendations ▪ **Align on the format and sequence for our deliverables** – Debate and discuss format (e.g., website, deck) and sequencing (e.g., multiple periodic releases) for the Council's final deliverable	▪ Mark Wiseman
Top ideas	▪ 11-12pm	▪ **Debate and discuss top ideas: innovation** – Theme lead presents top ideas – Minister Bains provides initial views – Council members discuss and debate	▪ Angela Strange ▪ Minister Bains

Agenda for August 24th (2/2)

	Timing	Overview	Facilitator
Lunch	▪ 12-1pm		
Top ideas	▪ 1-4pm	▪ **Debate and discuss top ideas: Capital investment & infrastructure, Talent & labour markets, and Competitive market environment** – Theme lead presents top ideas for each workstream – Council members discuss and debate	▪ Michael Sabia ▪ Katherine Barr ▪ Chris Ragan
Growth and First Nations communities	▪ 4-4:30pm	▪ **Incorporate a First Nation's perspective** – Hear a perspective on opportunities for growth in Canada's indigenous communities	▪ Carol Anne Hilton
Public engagement	▪ 4:30-4:45pm	▪ **Share progress on our public engagement strategy** – Update on regional roundtables (Vancouver, Calgary, Montreal, Halifax) – Discuss strategy for online platform	▪ Ilse Treurnicht
Closing remarks & next steps	▪ 4:45-5pm	▪ **Share information on what's coming next** – Overview of critical next steps	▪ Dominic Barton
Dinner	▪ 6-9pm	▪ **Council member dinner** – Get to know each other in a casual setting	▪ Dominic Barton

Agenda for August 25th

	Timing	Overview	Facilitator
Deep dive on Infrastructure Agency	▪ 8:30-9:30	▪ **Align on key features of the Infrastructure Agency** – Debate and discuss critical design options – Align on proposal to the federal government	▪ Michael Sabia
Next steps	▪ 9:30-10:30	▪ **Align on the critical path forward** – Discuss working groups moving forward – Set key milestones – Align on deliverable for October 20th – Discuss communications plan	▪ Dominic Barton

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ATIA - 21(1)(a)
ATIA - 21(1)(b)

A reminder of the Council's overall objectives...

Aspiration

- Develop a **plan for inclusive growth & prosperity**, targeting **income growth across the entire income distribution**

Mandate

- Bring forward **bold ideas and policy approaches** that are **not bound by operational or political constraints**

Target

[redacted]

What can we do differently to ensure our efforts drive impact?

PROBLEM-SOLVING – iterating with each other and leading experts to identify the most critical issues and opportunities

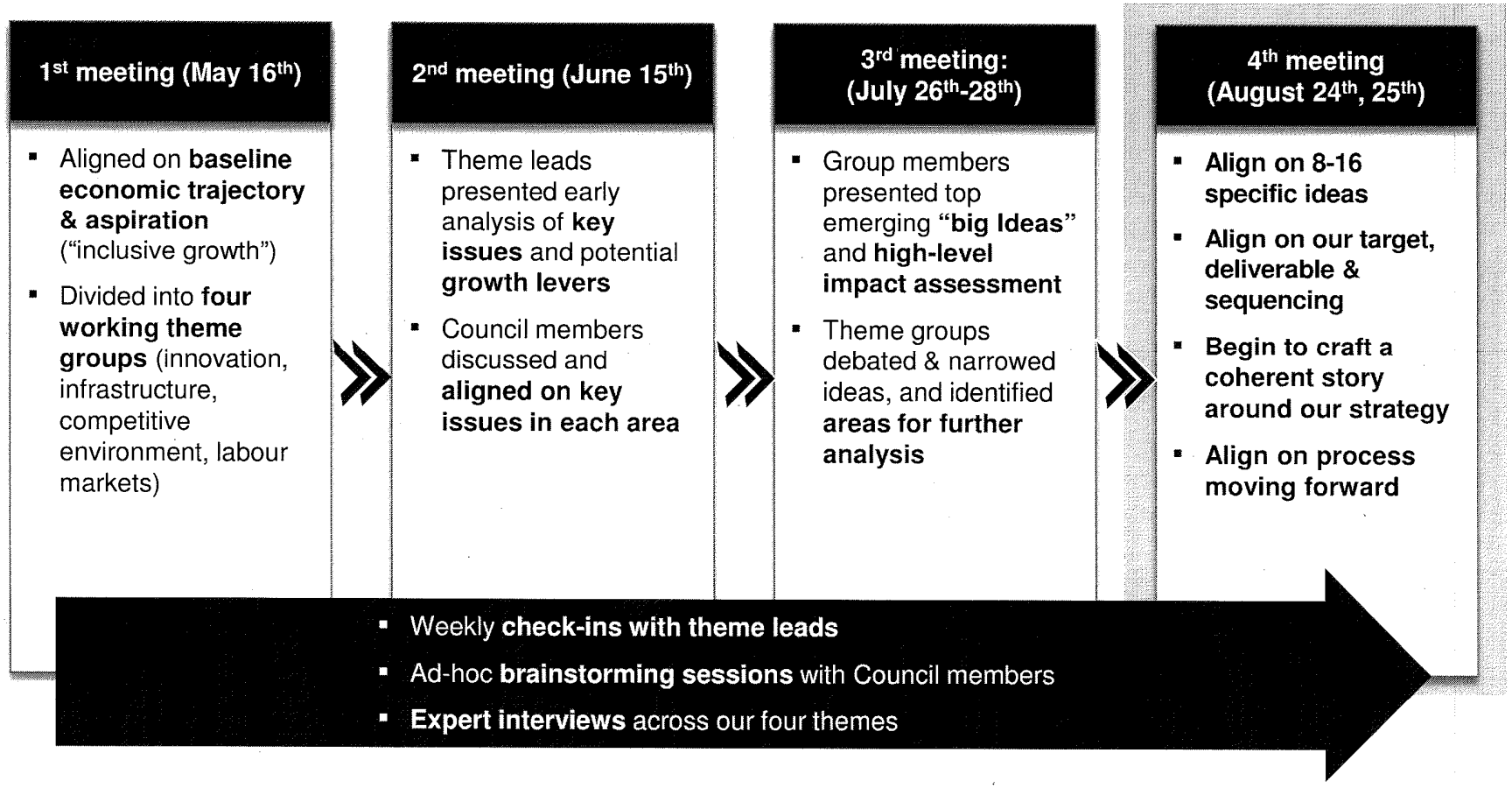
FOCUS – narrowing in on 8-16 top ideas & bringing the right level of detail

ENGAGEMENT – working with other Ministries & stakeholders to get diverse perspectives

COMMUNICATION – developing a plan to "myth-bust" and socialize our ideas with the public

7

Our objective for August 24th/25th is to align on a few specific ideas and begin to craft a coherent narrative



High level overview of our top ideas

PRELIMINARY

Capital investment & infrastructure

1A Develop **a federal infrastructure strategy** to "jolt" the flywheel of growth and productivity

1B Create an arm's length **Canadian Infrastructure Development Bank** leveraging private capital for $200B+ in project impact

[redacted]

Competitive market environment

2A Create **Office of FDI** and supporting FDI strategy to attract anchor companies

[redacted]

ATIA - 21(1)(a)

ATIA - 21(1)(b)

Talent & labour markets

[redacted]

Innovation

[redacted]

[redacted]

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of the *Access to Information Act*

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FACTS – Canada starts from a position of strength but faces economic headwinds in the medium- to long-term

- Canada starts from a position of strength with a **world-class banking** and **business climate**
- We have strong fundamentals with a **highly educated workforce** and **abundant natural resources**
- Canada is fiscally stable, boasting a **low government debt-to-GDP** ratio relative to global peers
- We benefit from a **vibrant democracy & rule of law**

But…

- Canada's **demographic deficit** will substantially reduce per capita GDP growth over the long-term
- Continued **underperformance on productivity** could cause Canada to see the largest decline in GDP growth among developed countries
- We face an **infrastructure gap** that will require significant funding
- Over 50% of Canadians are **questioning expectations of a better future**

CONTEXT – Five global forces are expected to shape the global economy over the next 20-50 years



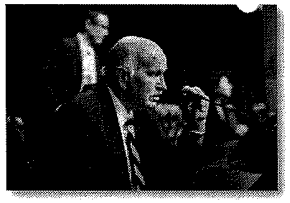
Increasing connectivity in trade, capital, people, and information



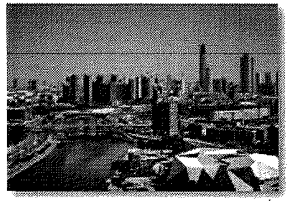
Disruptive technologies & automation of jobs



Competition among countries making "big bets" on core strengths



Growing international backlash against freer trade & immigration



Urbanization & increasing demands on scarce public resources

SOURCE: McKinsey Global Institute

ATIA - 21(1)(a) ATIA - 21(1)(b)

BELIEFS – The Council's recommendations are grounded in a set of fundamental beliefs about how economies and governments function



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ATIA - 21(1)(a) ATIA - 21(1)(b)

SUCCESS METRICS – The success of the growth plan should be measured through high-level metrics and KPI's

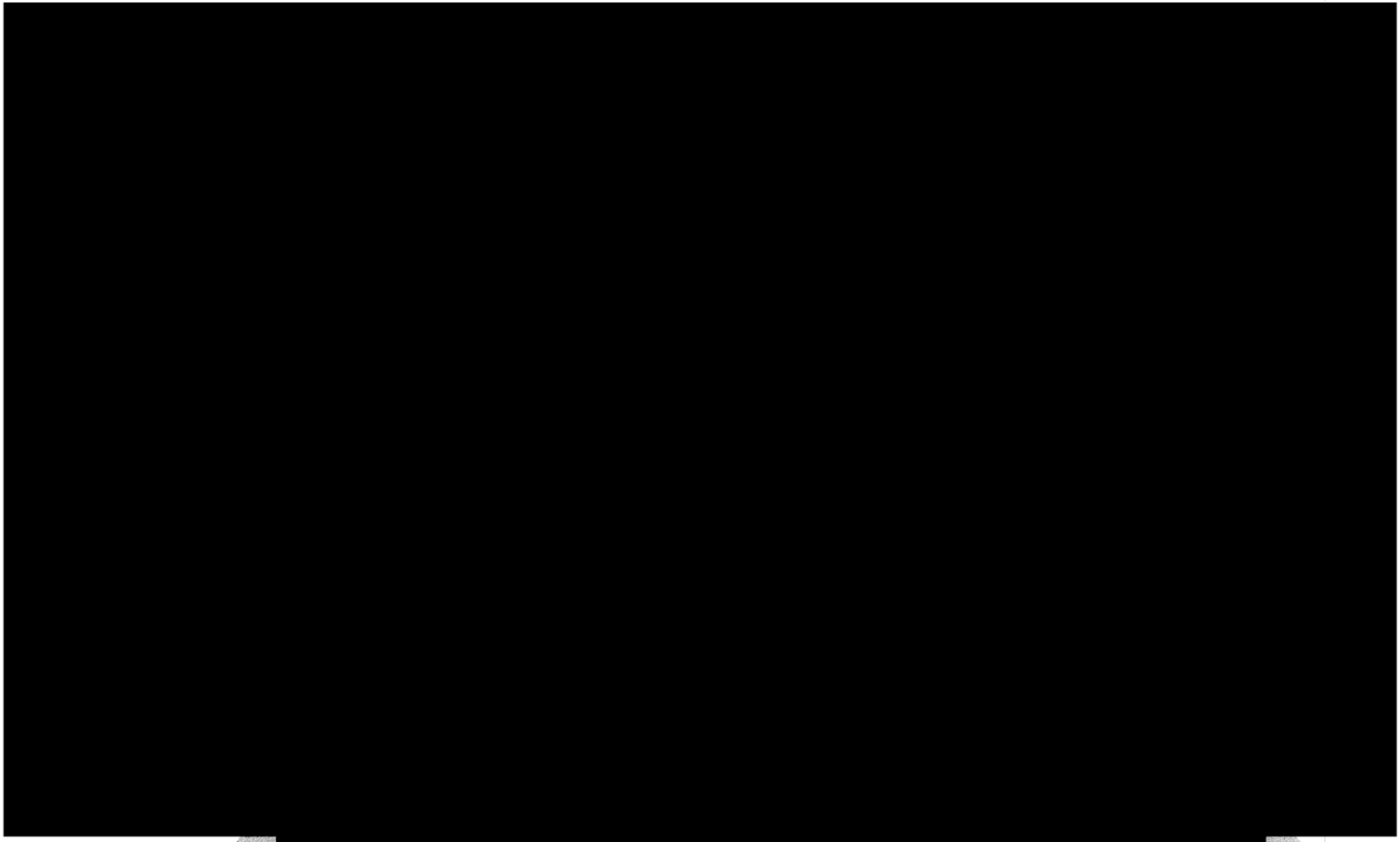
Aspiration

- Canada aspires to become a **global leader in both sustainable economic growth and income equality**

[redacted]

Is this target bold enough to stretch us to dream big?

ATIA - 21(1)(a) ATIA - 21(1)(b)



- In each phase, the Council could release a suite of recommendations and provide the government with a 60-80 page background document
- Key questions:
  - How public should the Council be with its recommendations & themes?
  - When will the Council wrap up its work?

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The Council views broad, diverse and collaborative stakeholder engagement as a critical input and feedback mechanism

PRELIMINARY

Completed | In progress | TBD

Diverse stakeholder perspectives

General public
- Online Platform
- Opinion Polling

Youth
- Online Youth Platform
- Virtual Townhall and student Whitepapers

First Nations

New Canadians

Theme perspectives (Expert Interviews)

Innovation
- Academia
- Consulting
- Industry
- Research Institutes

Infrastructure
- Academia
- Consulting
- Government
- Research Institutes

Competitive Market Environment
- Academia
- Government
- Industry
- Research Institutes

Labour
- Academia
- Consulting
- Educational Institutions
- Government
- Research Institutes

Regional perspectives

B.C. -Vancouver
- PPF[1]
- Council
- BDC[2]

Prairies - Regina
- RBC[3]

Prairies- Calgary
- Council

Ontario- Toronto
- PPF
- Council
- BDC
- RBC

Ontario- Guelph
- RBC

Quebec -Montreal
- PPF
- Council
- BDC

Maritimes- Halifax
- PPF

Northern/ Remote

Public institution perspectives

Ministry of ISED
- DM Meeting

Ministry of Infrastructure

Ministry of Labour

Ministry of Trade

Provinces

Municipalities

1 Public Policy Forum, Infrastructure Focus 2 Business Development Council 3 Royal Bank of Canada

Roundtables are being held to collect Regional Engagement

RBC Workshops ***August***	▪ **Locations**: Toronto (August 1) Guelph (August 2), Regina (August 3) ▪ **Lead partners:** RBC ▪ **Attendees:** Representatives from different industries ▪ **Structure**: 2 hour roundtable discussion
PPF lead Workshops (Infra only) ***Ongoing***	▪ **Locations & Dates:** Toronto (July 4), Montreal (TBD), Vancouver (Sep 8), Halifax (Sep 30) ▪ **Lead partners:** Public Policy Forum (PPF) ▪ **Attendees:** Representatives from financial institutions, government, insurance industry, P3 operating groups, and transportation companies ▪ **Structure:** 1-2 hour discussions soliciting input around, project selection, investment gaps, governance and public-private partnership (P3) models
Council Lead Workshops ***Week of Aug 15th and early September***	▪ **Council lead:** Carol Lee (Vancouver - September) and Brian Ferguson (Calgary – September 28) ▪ **Attendees Vancouver**: Leadership from First Nations community, major corporates (e.g. Telus, Gold Corp., Seaspan, etc.) and high potential tech companies (e.g. D-wave, Hootsuite, Creation Technologies) ▪ **Attendees Calgary:** Corporate leadership and thought leaders on cleantech, oil & gas, and ag-food (e.g. EVOK Innovations, SDTC CleanTech, University of Alberta, etc.) ▪ **Structure**: 1-2 hour discussions introducing participants to Council's work and soliciting input across four theme groups
BDC Workshops ***Dates TBD***	▪ **Locations**: Montreal, Toronto, Vancouver ▪ **Lead partners:** BDC, Department of Finance ▪ **Attendees:** SME's across sectors and growth stages, particularly those considering international expansion ▪ **Structure**: TBD

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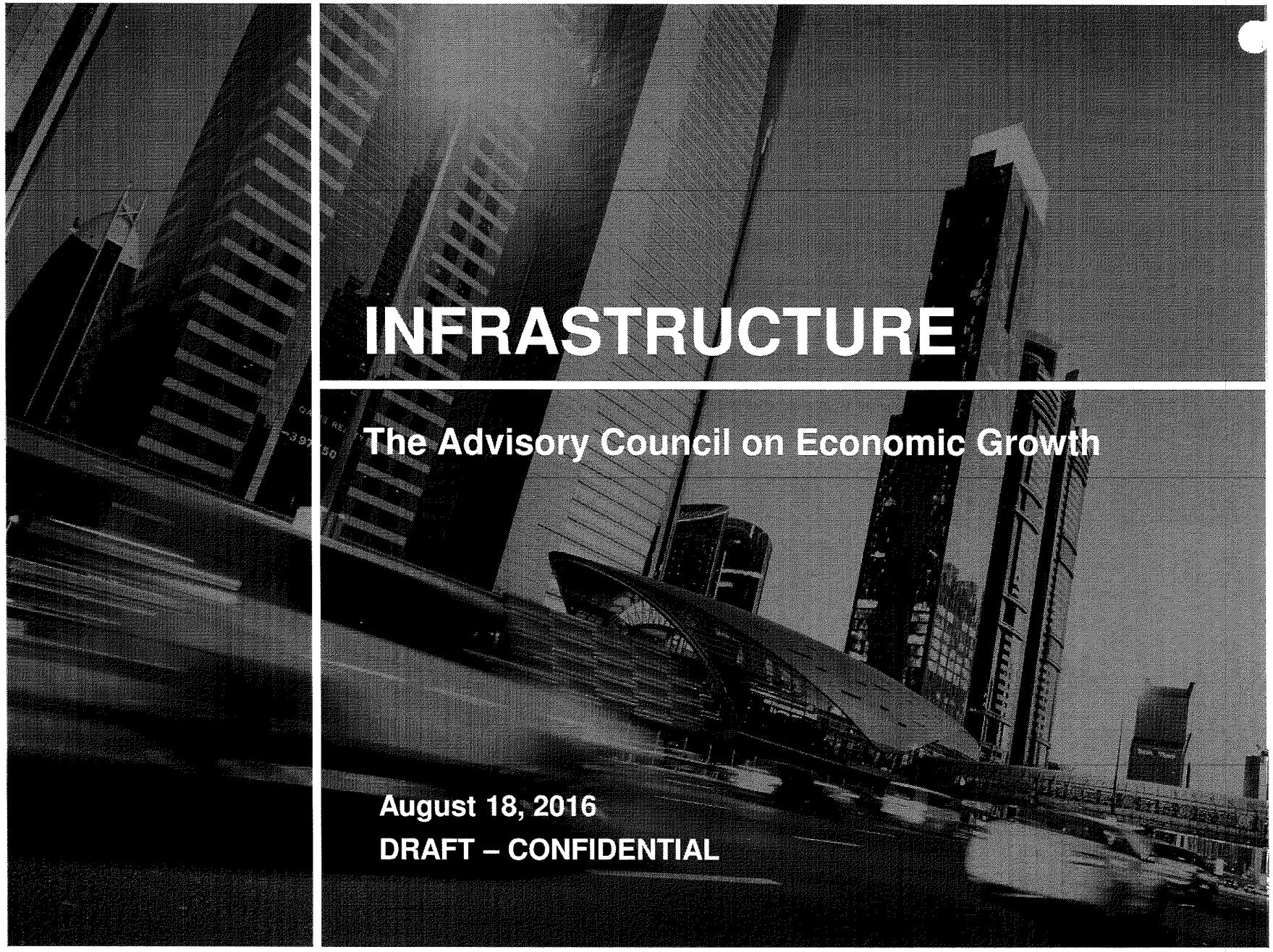
ATIA - 21(1)(a) ATIA - 21(1)(b)

Next steps – questions for discussion

PRELIMINARY

	Key questions	Strawman
Council's deliverable	▪ **When should the Council release its recommendations?** ▪ **How should they be released?**	▪ Rolling release with the first wave in October 2016 ▪ Medium To Be Determined
[redacted]		
Working model	▪ **Is now the time to shift gears to a top-down approach?** ▪ **Do we need more resources?**	▪ Now could be the time to: – Align on a vision – Shift into execution mode – Develop KPIs and a roll-out strategy

[redacted]



INFRASTRUCTURE

The Advisory Council on Economic Growth

August 18, 2016

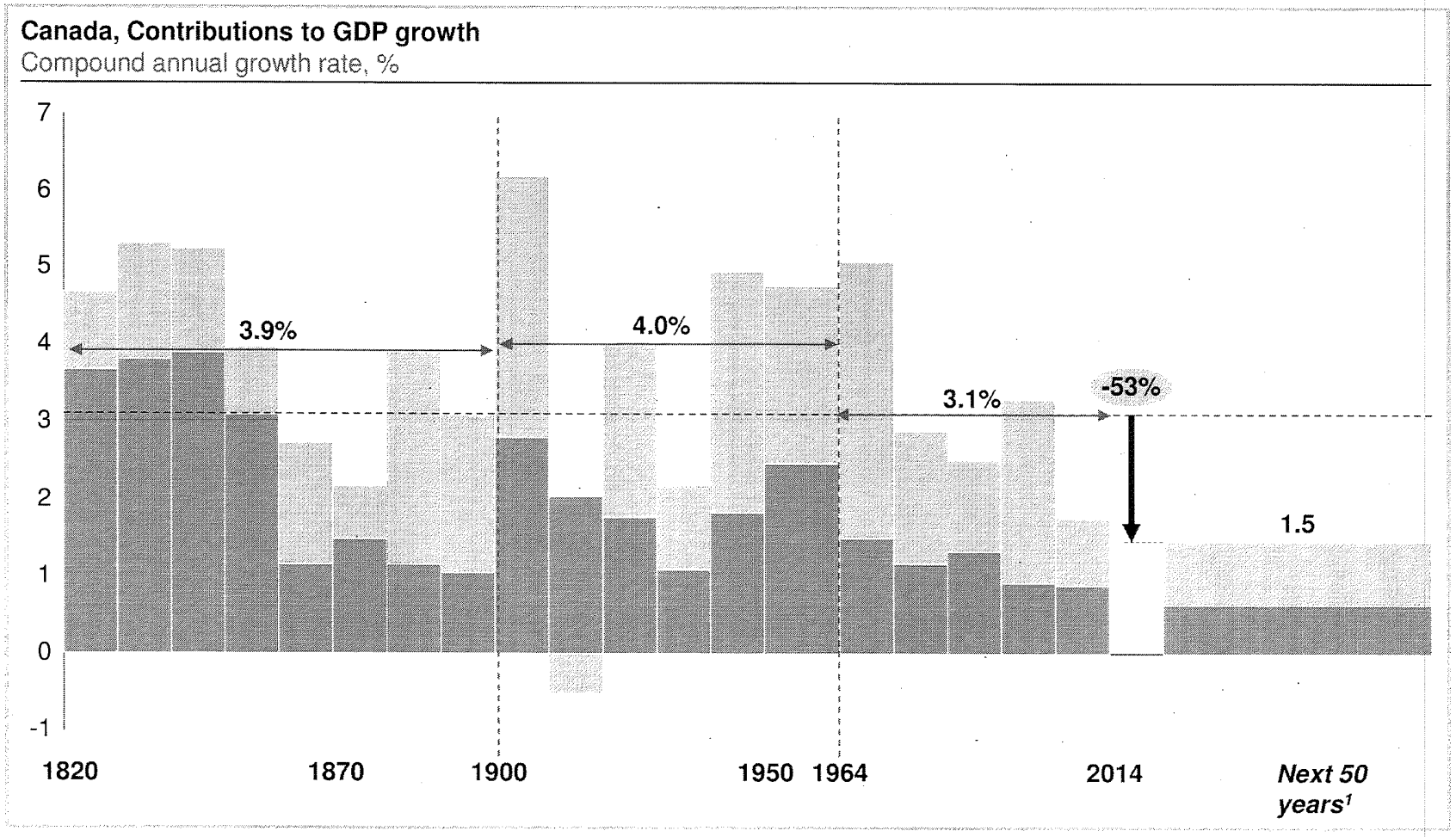
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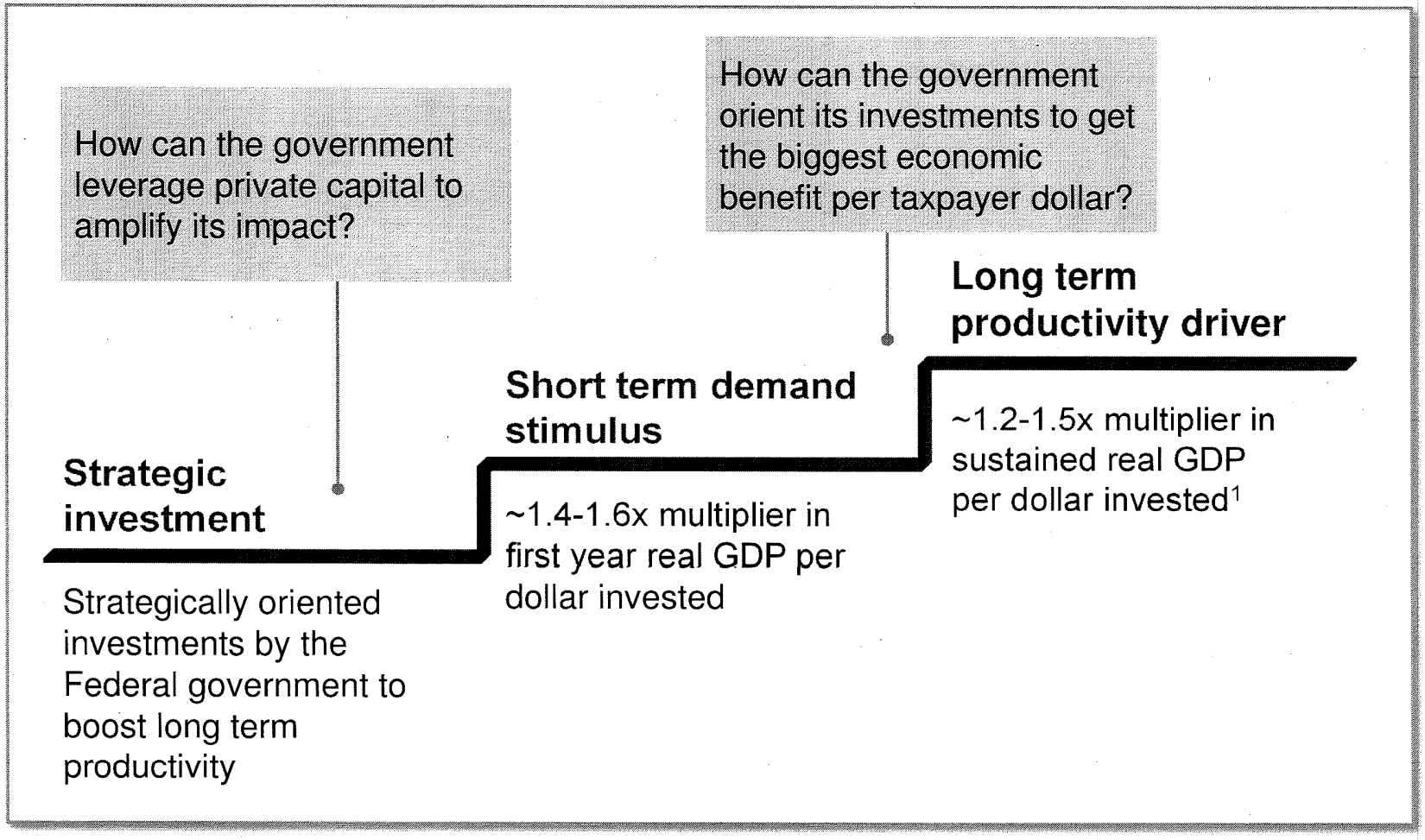
Without productivity-focused stimulus, Canada will face a very low level of growth over the long-term



1 Assuming past 50 years (1964-2014) productivity growth
NOTE: Numbers may not sum due to rounding.

SOURCE: Jutta Bolt and Jan Luiten van Zanden, The first update of the Maddison Project:Re-estimating growth before 1820, Maddison Project working paper number 4, University of Groningen, January 2013; UN Population Division; McKinsey Global Institute analysis

Infrastructure investments can be among the most powerful of growth levers, for both the short and long term



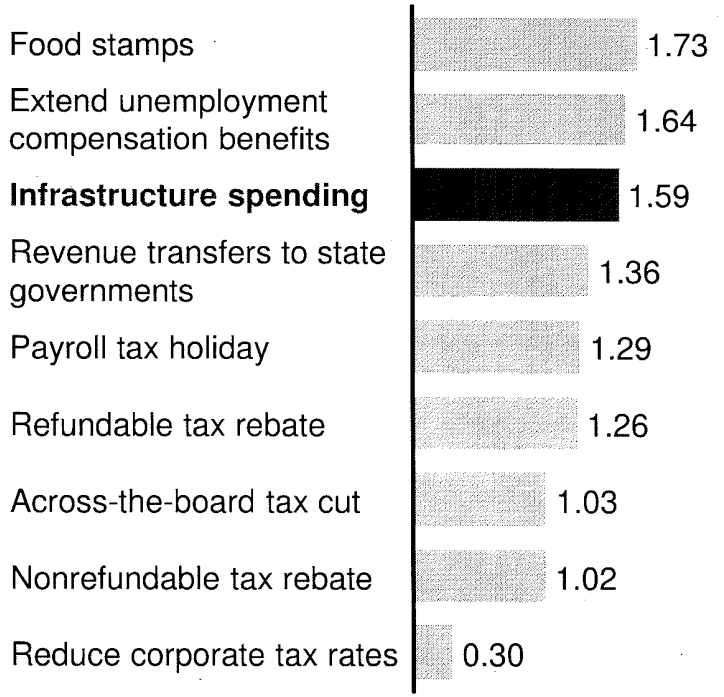
1 From IMF: In a sample of advanced economies, an increase of 1 percentage point of GDP in investment spending raises the level of output by about 0.4% in the same year and by 1.5% 4 years after the increase

SOURCE: Moodys.com; Global Insight; White House Council of Economic Advisers; McKinsey Global Institute, IMF

"Getting it right" can yield high dividends for the country

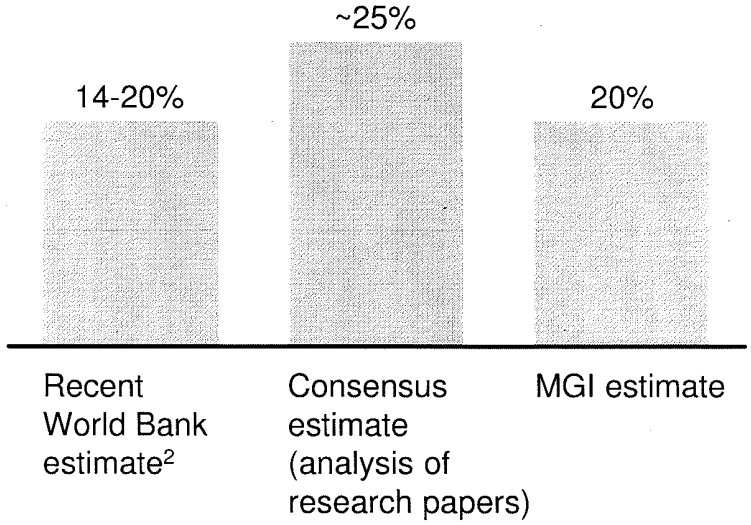
A SHORT TERM stimulus

One year $ change in real GDP for a given $ invested



And LONG TERM productivity booster

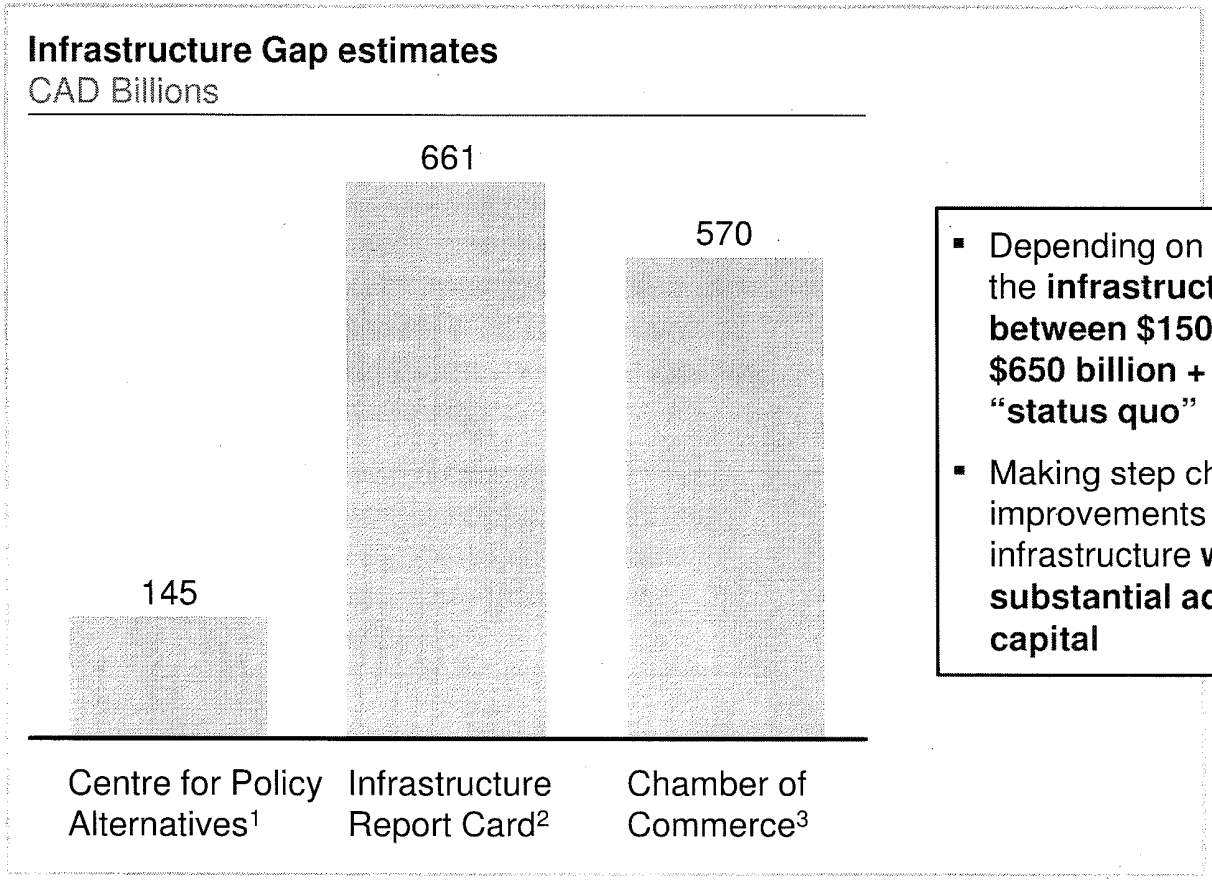
$1 invested in infrastructure returns X% in sustained GDP



Sustained impact is heavily influenced by selection of the right projects (e.g. transport of goods and people)

Note: The above analysis is based on a US Example
Sources: Moodys.com; Global Insight; White House Council of Economic Advisers; McKinsey Global Institute

Canadian Infrastructure gap estimates range from $150B to $650B+



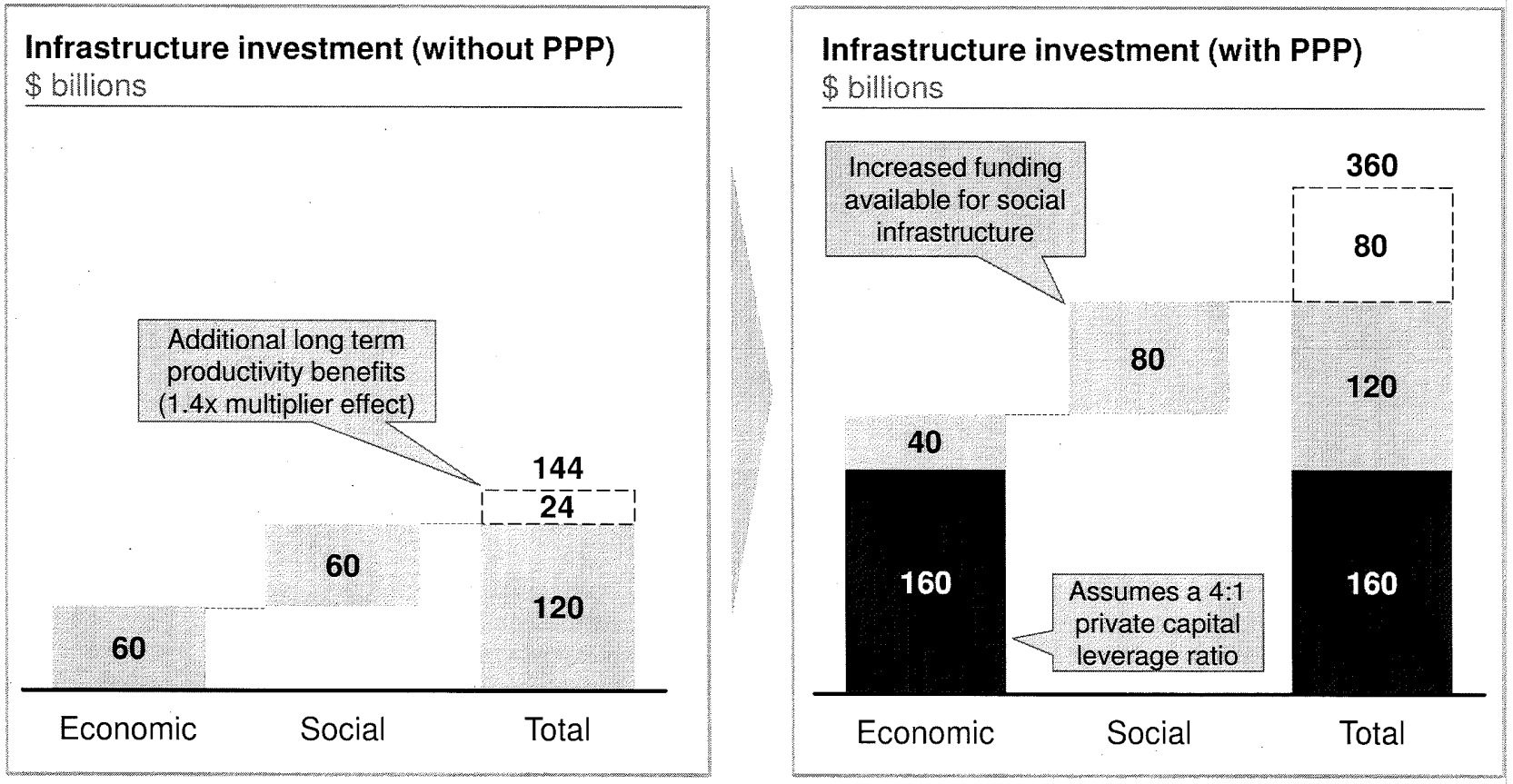
- Depending on methodology, the **infrastructure deficit is between $150 billion and $650 billion + - just to get to "status quo"**
- Making step change improvements in additional infrastructure **will require substantial additional capital**

1 Measured by what it would cost to bring the stock of public capital as a share of GDP back to early 1980s levels (2013 estimate)
2 Estimates that 1/3 of municipal infrastructure assets are in "fair" or "poor" condition, with an estimated replacement cost of $661B nationally ($141 billion for assets in poor and very poor condition, and $247 billion for assets in fair physical condition) (2016 estimate)
3 Chamber of commerce "foundations of a competitive Canada" estimates range from $50B to $570B depending on methodology (2013 estimate)

SOURCE: The foundations of a competitive Canada – Canadian Chamber of Commerce, Infrastructure report card, Centre for Policy alternatives

Increasing participation in the PPP[1] market with economic infrastructure projects[2] will increase the size of the pie to invest in social projects

Multiplier effect | Public funding | Private funding | ILLUSTRATIVE



1 – PPP: Public Private Partnerships
2 – "Economic infrastructure projects" are defined as projects with a direct return on invested capital

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BANK

The Infrastructure Development Bank (CIDB) will perform three key roles – attracting private capital paramount

PRIVATE CAPITAL
Set the necessary conditions to attract private capital

PRIORITIZE

Select projects on the basis of their beneficial impact on **productivity** and **economic growth**

STRUCTURE & INVEST

Design transactions to **attract private/ institutional capital** by de-risking and streamlining early stage development in particular

ADVISE & DELIVER

Serve as a collaborative **delivery agency** and **center of excellence** on inter-jurisdictional project structuring, financing, permitting and execution

BANK

Guiding principles in structuring a new infrastructure development bank

Principles

1	**Attract private capital**	**Maximize third party capital** to leverage allocated federal government spending
2	**Maintain independence and objectivity**	Be sufficiently **arm's to objectively select projects based on long term strategy** and provide comfort to private investors
3	**Optimize existing assets**	**Make the most of existing infrastructure** through innovations in revenue stream creation and asset recycling
4	**Attract world class talent**	Allow for the **conditions to be in place to** attract world class talent
5	**Add value beyond capital**	Play a complementary role as a **center of excellence** to existing institutions, implementing best-in class procurement and project delivery where necessary
6	**Encourage federal-provincial cooperation**	Leave the door open for **future provincial participation in the Bank** (e.g., CPPIB model)

BANK

Overview of infrastructure institution

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PRELIMINARY

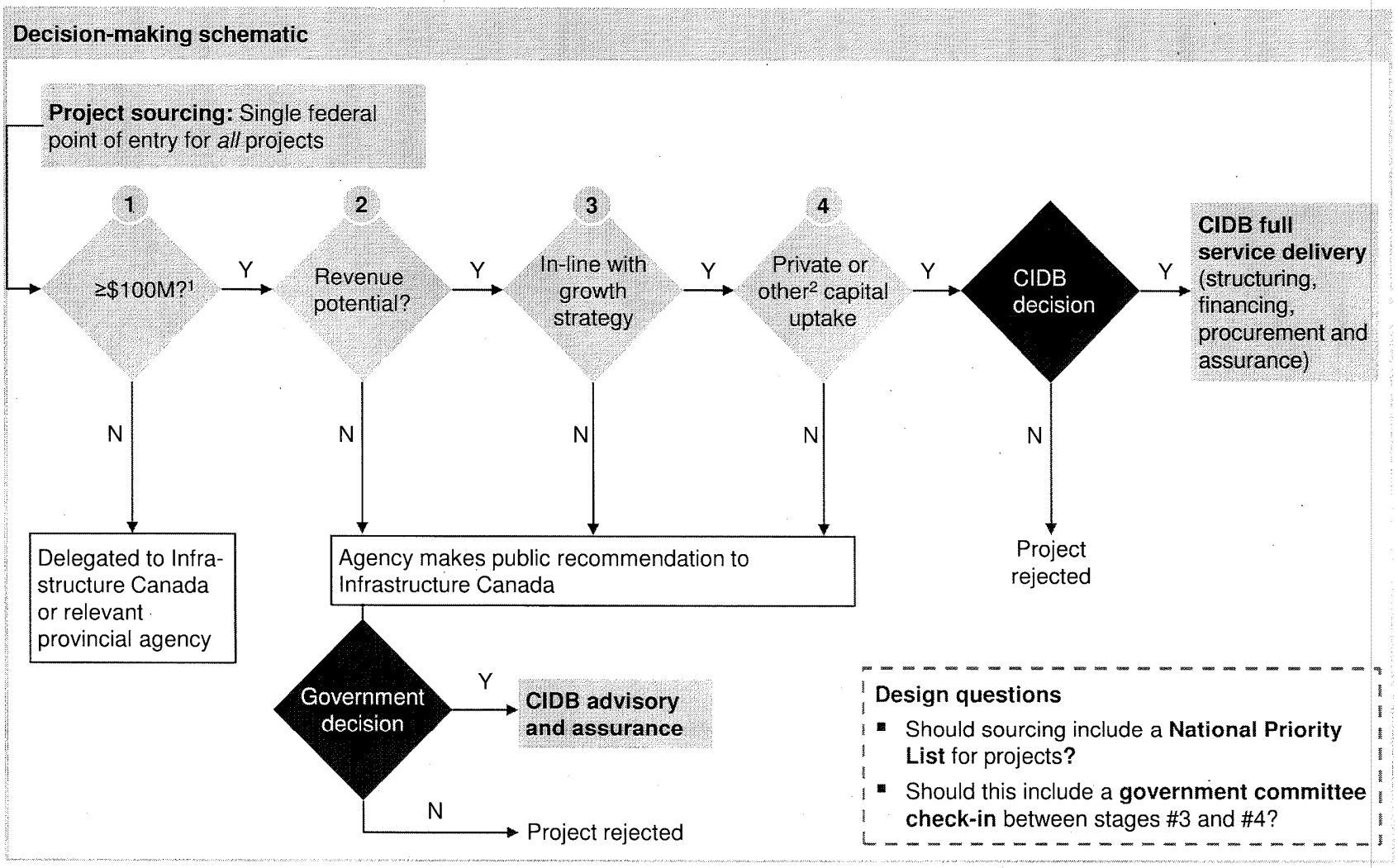
Mandate from the elected Government	▪ **Lever global private and institutional capital** to optimize the scale of infrastructure investment in Canada ▪ **Achieve strategic infrastructure objectives set out by government** through ROIC-based project selection
Scope	▪ **Source, review, prioritize & recommend 100M+ projects** concerned with the transportation of goods, people, energy and data and with the development of cities ▪ Facilitate **development, procurement, and permitting** of projects as needed
Assistance provided	▪ **De-risk early stage project development**, and provide **flexible bridge-finance** to attract private capital ▪ **Provide procurement and contracting assistance** to provinces and municipalities that need it ▪ Provide **assurance and advisory services to federal government** on non-CIDB projects
Governance	▪ Strong independence to be **viewed as stable and credible by capital markets** ▪ Chairman appointed [redacted] **Board of Directors with relevant, diverse world class experience recommended by Chairman** (could include provincial nominees if inter-governmental) ▪ **Performance** measured against: – **Strategic mandate** given by government – Achieving financial **self-sustainability over time** (while cycling initial capital) – **Amount of leverage** obtained from initial capitalization
Financial model and capitalization	▪ **Initial injection of $40B over 10 years**, leverage 4:1 for an investment potential of ~200B[1] ▪ **Long-term funding commitment** (e.g., $5 billion per year) from government ▪ **Initially no independent debt issuance**, but may become self-sustaining (to be revisited)

1 Sufficient funding to operate but some pressure to recycle assets

BANK

Overview of project selection process

FOR DISCUSSION



1 Total project cost
2 Provincial or municipal; with estimated private capital participation either at the greenfield or brownfield stage – threshold could be established

BANK

Our perspective on key design choices for the CIDB (1/4)

[redacted]

		Description
Mandate focus	What types of projects should the Bank focus on?	▪ Federal government sets strategic guidance ▪ Primarily focus on financing, procurement and delivery of all projects greater than $100M ▪ Economic ROIC requirement ▪ Opportunity to involve the private sector ▪ Act as a center of Expertise for the delivery of large "public good" projects
Governance	How should the Bank's governance be structured?	▪ Government would set strategic priorities for investment, including broad criteria to consider in making project investment decisions ▪ The investment mandate should align with the government's medium and long term strategy ▪ The government should not directly influence individual decisions on specific projects ▪ Legislative protection signals stability to private sector investors ▪ Market-based compensation to attract talent

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BANK

Our perspective on key design choices for the CIDB (2/4)

			Description
Scope of activities	What stages of a project life cycle should the Bank focus on?	[redacted]	▪ Federal government sets strategic guidance ▪ Agency improves efficiency in the procurement and delivery ▪ Delivery support model tailored based on the capabilities of the responsible government ▪ Full-range financing/funding tools ▪ Permitting coordination
Scale of institution	How much initial capital is needed for the institution to move the needle?		▪ Given the scope of projects and assuming a ~4:1 leverage on capital with private sector participation, an injection of CAD~ 40 billion over ~10yrs would be reasonable to deliver 200B of projects over 10yrs ▪ Furthermore, asset recycling could allow an additional USD ~ 10+ billion in capital
Funding and leverage	How much leverage should be utilized and at what level?		▪ Initially, leverage should occur at the project level through debt financing and private sector participation (e.g., PPP model) ▪ Could eventually move towards securitization (e.g., issue bonds) ▪ Flexible model allows Bank to de-risk early project-phase and encourage greater private sector participation

[redacted]

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BANK

Our perspective on key design choices for the CIDB (3/4)

		[redacted]	Description
Perform-ance manage-ment	**How should the Bank's performance be assessed?**		▪ The Bank should deliver against a set of objectives established by government ▪ Over the long term, the Bank should have a self-sustaining approach to capital
Relation-ship with provinces & munici-palities	**How should dynamics with provinces and municipalities be managed?**		▪ The Bank would vary support based on the specific jurisdiction and type of project – In some cases, full end-to-end support will be required – In others, it may be only funding, coaching or value assurance ▪ Provincial and municipal projects above a certain threshold (e.g. 100M) are considered with Bank providing federal "due diligence"
Deal sourcing	**Who should submit projects for approval?**		▪ The Bank should evaluate project proposals from all entities including federal, provincial and municipal governments, private sector, and unsolicited bids

BANK

Our perspective on key design choices for the CIDB (4/4)

[redacted]

Asset value capture program

What should be the Bank's role in asset recycling?

[redacted]

Description

- The Bank would conduct the valuation and provide oversight for the sale/lease of the federal asset
  - Held accountable for public benefit optimization
- Potential roles at provincial level:
  - Advisory
  - Partner or support federal incentive programs

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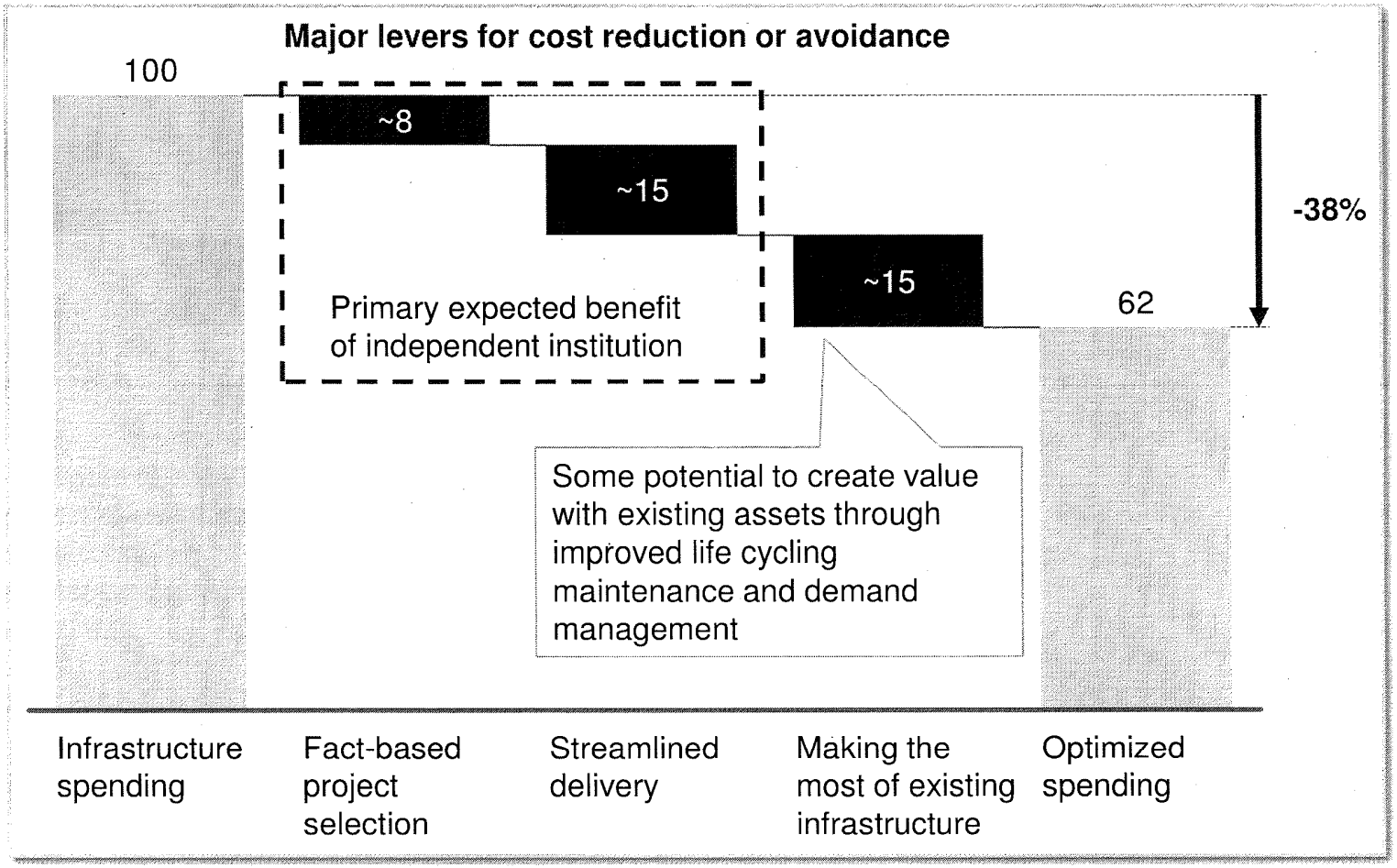
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BANK

There is significant opportunity for the institution to improve outcomes using best practices – in the range of 23 percent savings

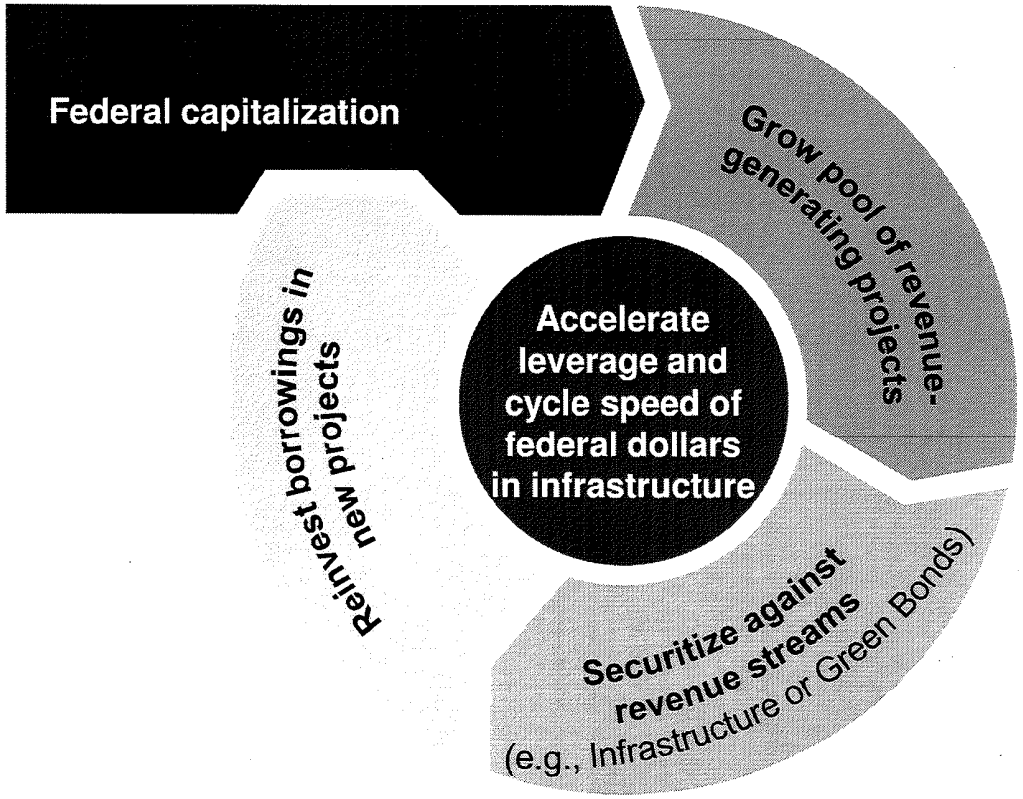
% of project cost



SOURCE: McKinsey Global Institute analysis

BANK

Over the long term, the Bank could consider securitization to raise additional capital



- Could **require a few years to build up** sufficient revenue-generating assets
- Ability to raise debt independently would reduce the development bank's dependence on new federal allocations, resulting in greater stability and private sector appeal

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Primary questions to be addressed



CASE STUDY

Infrastructure New South Wales

we transform insw Infrastructure New South Wales

Mandate	▪ **Assesses & publicly recommends projects** to State ▪ Guided by strategic priorities set by **20 year infrastructure plan**
Governance	▪ **Statutory law sets out independence** ▪ Board consists of **6 independent members and 3 government department heads**
Scope of activities	▪ Produces a **public list of priority projects over 5 years** ▪ **Assurance for all projects over 100M** ▪ **Manages the Restart Fund** (proceeds from asset recycling and excess taxes)
Financial model and capitalization	▪ Government remains the investor (vs. the Agency) ▪ **5M operating budget per year** ▪ Use of **Restart Fund** ▪ **Infrastructure Bonds** (eligible investments for immigrant-investors)

Project example – "Darling Harbour Live"

- Australia's largest **convention, exhibition, and entertainment precinct**
- **$3.4 billion** for 20-hectare transformation
- PPP delivery
- Will **generate $200M annual** economic benefit for New South Wales
- Job creation
  - 3,700 during construction
  - 4,000 upon completion

SOURCE: Interview with Graham Bradley, Chair of INSW

CASE STUDY

The European Investment Bank – Infrastructure Branch

European Investment Bank The EU bank

Mandate	▪ **Long term loans** to support infra projects in (and out of) the EU ▪ **Commonly owned** by European Union Member States
Governance	▪ **Governors are the finance ministers** of all EU countries
Scope of activities	▪ Considers **loans greater than EUR 25 million** ▪ **Structured finance and project bonds** ▪ Technical and financial **expertise**
Financial model and capitalization	▪ **Funding complemented by loan repayments** (cost recovery) ▪ In 2010, total financing amounted to **EUR 71.8B**[1]

Project Example – French-Spanish Interconnector Power Line

- **Doubles electricity exchange capacity** between Spain and EU
- Construction cost of **EUR 700 million**
  - **350M loan from the European Investment Bank**
  - **225M subsidy** under the European Energy Programme for Recovery
- Improved competitiveness has **lowered electricity prices in EU**
- **Improved reliability and quality** of electricity supply

1 Infrastructure projects represented about 51% of the EIB's total loans in 2010.

SOURCE: European Investment Bank

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CASE STUDY

The Asian Infrastructure Investment Bank

AIIB ASIAN INFRASTRUCTURE INVESTMENT BANK

Mandate	▪ Regional financing for **infrastructure that enhances interconnectivity in Asia** ▪ **Cooperates** with the Asian Development Bank, the European Bank for Reconstruction & Development and the European Investment Bank
Governance	▪ **Board of Governors represent member countries** ▪ Board of Directors is the authority on project funding
Scope of activities	▪ **Sovereign backed and non-sovereign backed** investments ▪ Project delivery **assurance**
Financial model and capitalization	▪ Overall **capitalization of USD 100B** ▪ **Expected to lend USD 10-15B/yr for the first 5 years** ▪ **Financed through sovereign investments** – China has largest share $30B

Project example – Tarbela 5 hydropower extension

- Expand Pakistan's electricity generation capacity at the Tarbela Dam
- Includes construction of a transmission line to the national grid
- Cost of $823.5 million
  - **$300 million** provided by the AIIB
  - $390 million provided by the World Bank
- **Translates into low cost, clean, renewable energy option** in a relatively short period of time

SOURCE: Asian Infrastructure Investment Bank

UK Green Infrastructure Investment Bank

Mandate	▪ Mandated to accelerate the UK's transition to a greener economy ▪ Financing on commercial terms, levered by private sector capital
Governance	▪ Independent Board
Scope of activities	▪ Focus on 4 industries: offshore wind power, energy efficiency, waste and bioenergy, onshore renewables
Financial model and capitalization	▪ UK government is the sole shareholder ▪ Initial investment capital £2.7bn into transactions worth £10.9bn

Project example – Craigellachie Combined Heat and Power Plant

- **New renewable energy plant** in the north east of Scotland
- Delivers heat to a local distillery, fuelled by local forestry residue
- Will result in **42,000 tonnes of carbon reduction**
- Bank is an **equity investor** in addition to managing delivery
- Increases energy supply by generating up to **87.4 GWh** of electricity annually

SOURCE: UK Green Infrastructure Investment Bank

CASE STUDY

In 2011, the US considered standing up a national infrastructure bank, but the legislation was turned down…

Highlights

1. **Did not pass** with stimulus legislation because of **concerns over its complexity** and late objections from senior White House aides
2. Congress would **appropriate $10 billion** to capitalize the bank with hopes to **lever 30x to 300B**
3. The bank would identify transportation, energy, and water infrastructure projects that are **worth at least $100 million or $25 million for rural projects**
4. Loans would then be matched by private sector or by local governments – so that the **bank provides half or less than half the total funding**
5. **Each project would generate its own revenues** to help ensure repayment of the loan
6. Decisions would be made by a **seven-person board of governors** – no more than four could be from the same political party – and a CEO chosen by the President

The Transportation and Infrastructure Finance and Innovation Act (TIFIA) remains the closest thing to an infrastructure bank in the US

- **Limited in scope** and funding capacity
- **Operates as a program within the Transportation Department**, rather than as an external quasi-government agency

"I think [the Bank] can be part of the mix…but it's not going to be the 100 percent solution for our challenges. We're still going to need public funding."

- Transportation Secretary Anthony Foxx

SOURCE: Whithouse.Org, Politico "Bank of Asphalt", by Darren Samuelsohn (July 22, 2015)

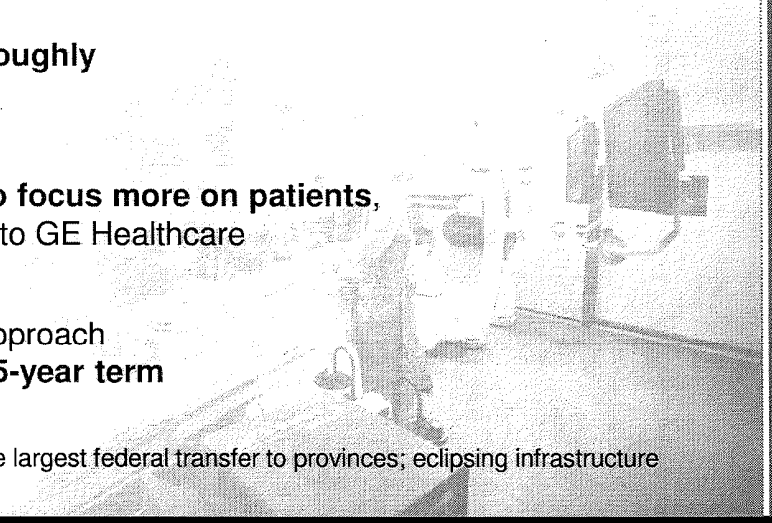
CASE STUDY

The GE-Humber PPP showcases innovation in healthcare infrastructure that could be federally incentivized[1] through transfer programs

GE Healthcare

HUMBER RIVER HOSPITAL

- Humber River Regional Humber Hospital (HRRH) is a **major 560-bed acute care facility** that serves 800,000 residents north-west of Toronto
- In 2015, GE and HRRH entered **the first Managed Equipment Services (MES) partnership in North America**
- Under the MES, **GE Healthcare will manage the ongoing acquisition, installation and replacement of medical technology** in an array of departments, including Diagnostic Imaging, Surgical and ER
- The MES agreement **covers roughly 1,320 pieces of equipment**
- **Care providers will be able to focus more on patients**, leaving the equipment upkeep to GE Healthcare
- HRRH expects that this new approach **will save $20-24M over the 15-year term**

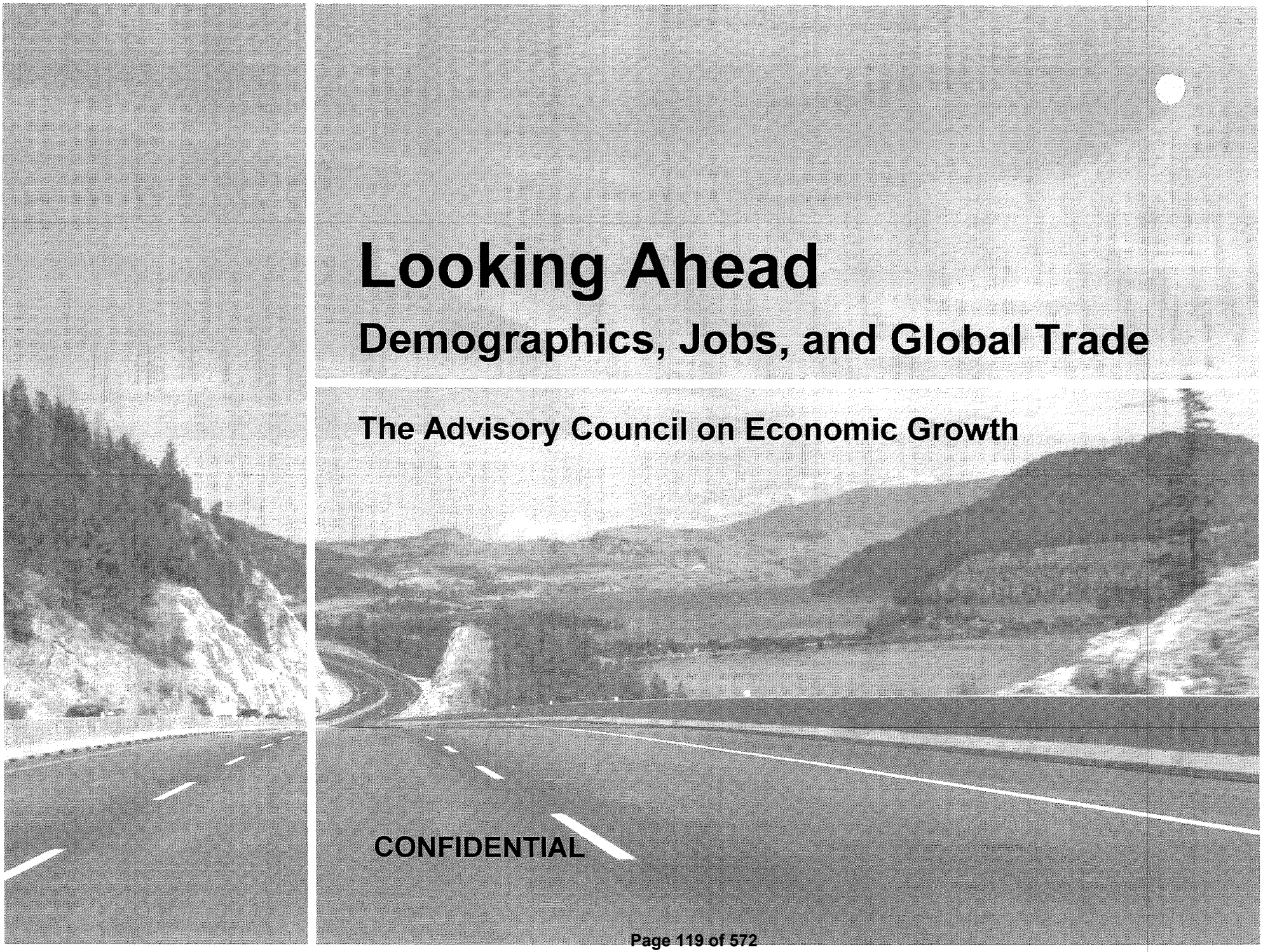


"Patients will benefit from the latest technology... physicians will receive results faster, reducing wait times. The cost savings from an MES model compared to traditional RFP approach for capital equipment purchases will be re-invested in patient care programs"

-Dr. Rueben Devlin, President and CEO of HRRH

1 At $40B per year, healthcare represents the largest federal transfer to provinces; eclipsing infrastructure spending by a wide margin

SOURCE: GE Healthcare, Canadian Healthcare Engineering Society



Looking Ahead

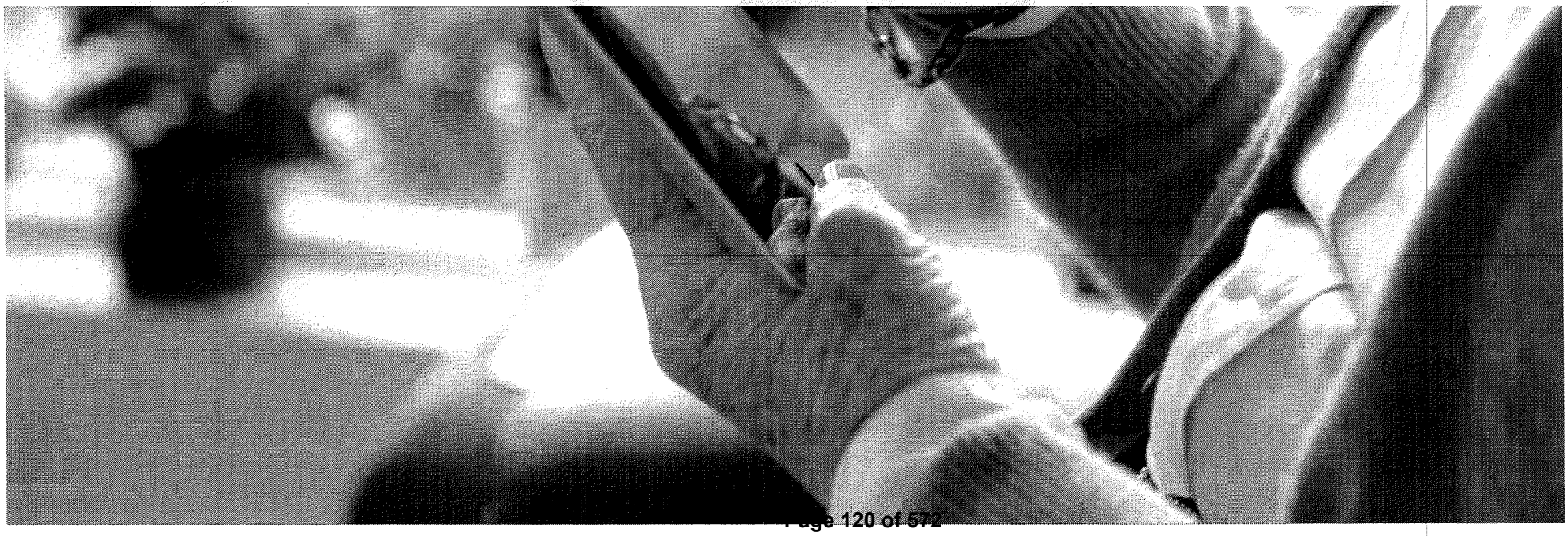
Demographics, Jobs, and Global Trade

The Advisory Council on Economic Growth

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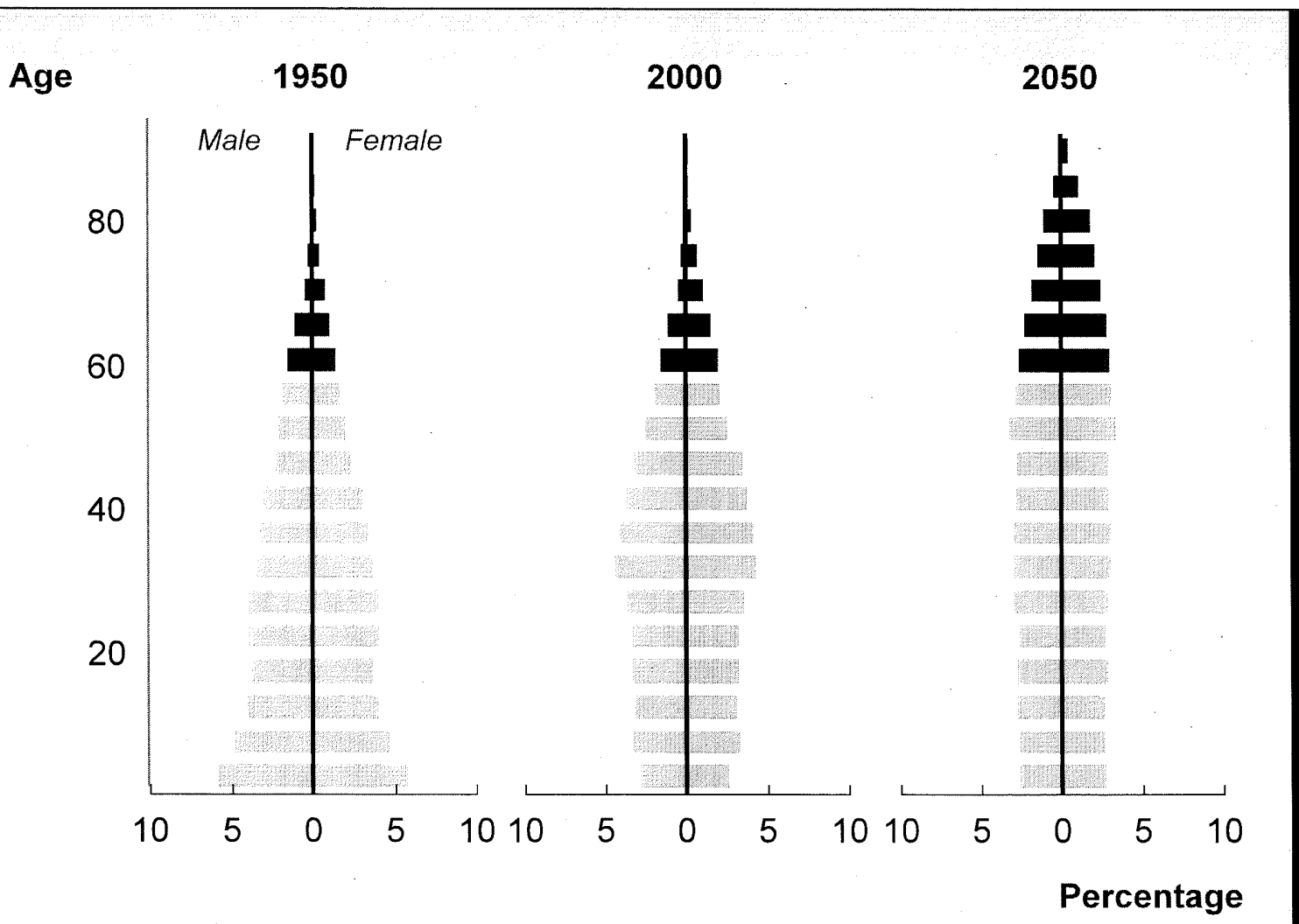
What macroeconomic trends will Canada face in coming decades?



Canada's demographics are fundamentally transforming

Canada's population pyramids

Distribution of total population



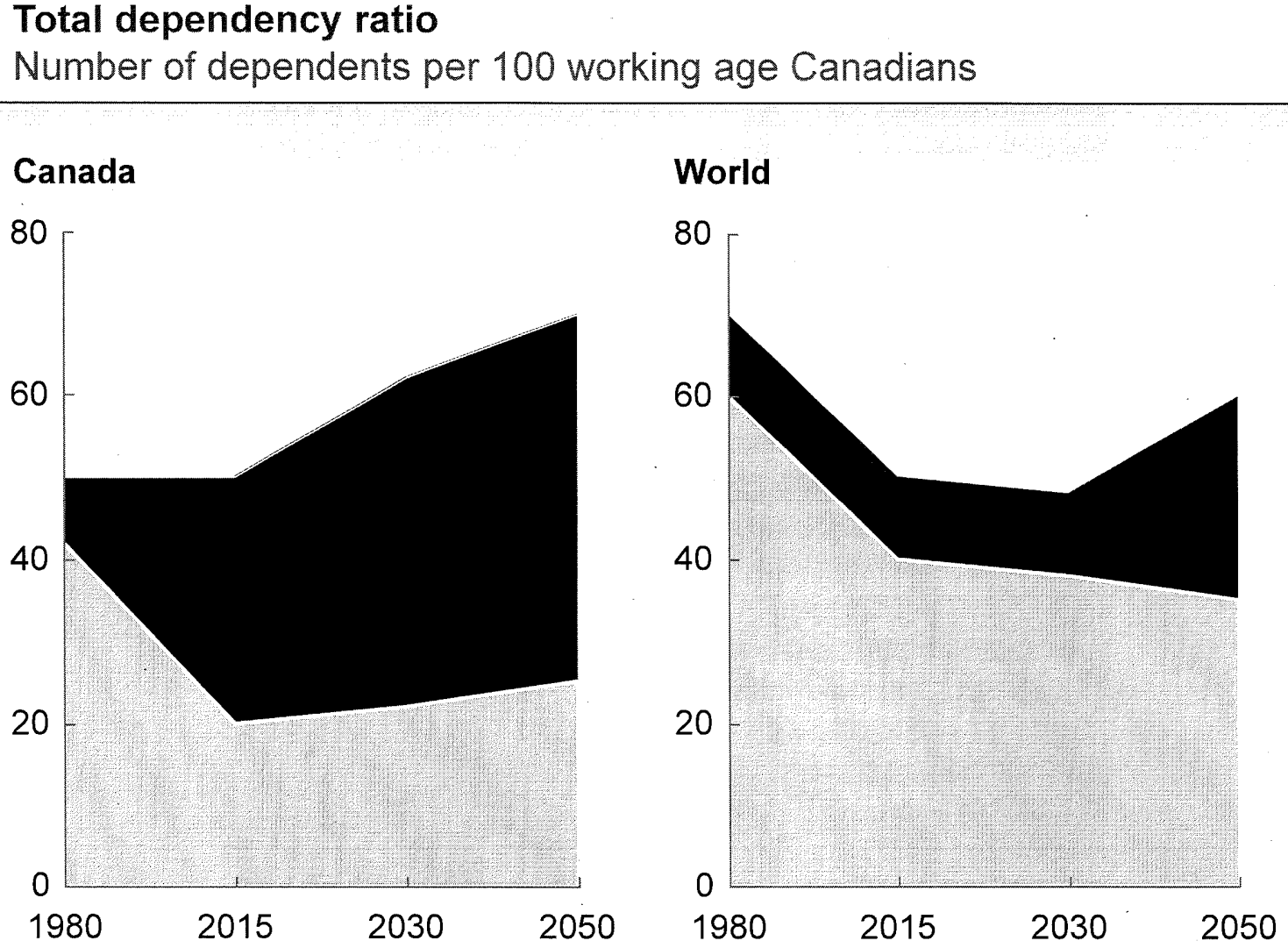
Canada's population is aging rapidly and our working age population is shrinking—in 2011 1-in-7 Canadians was 65+, but by 2050 this could increase to 1-in-4

SOURCE: United Nations DESA

The nation's aging population will present a burden for future generations

Total dependency ratio

Number of dependents per 100 working age Canadians



The number of dependents relative to workers in Canada will increase significantly in coming decades, which will lower the tax base and put tremendous pressure on Canada's pension and health care systems

SOURCE: United Nations DESA

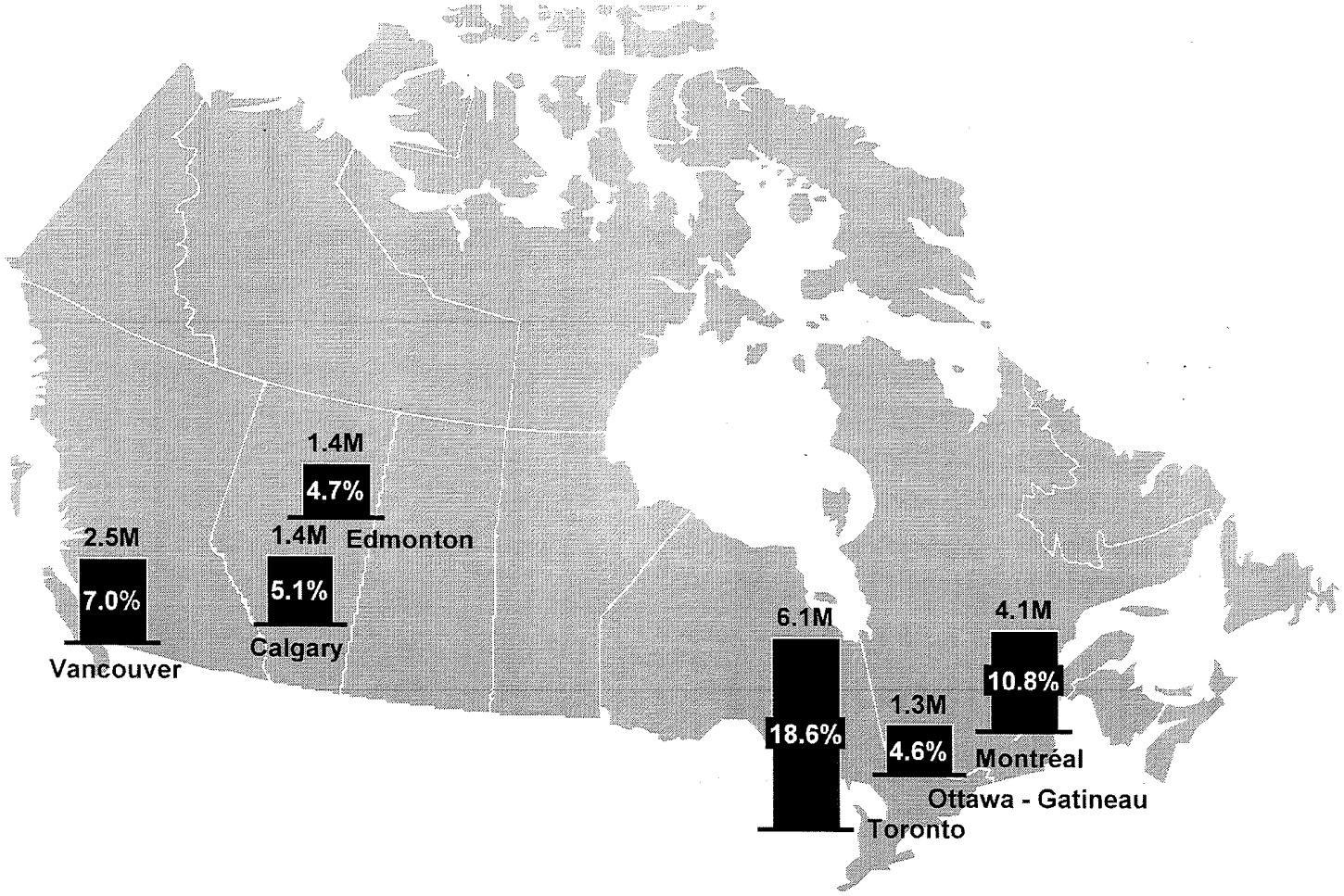
Cities will be Canada's engine for growth and will require more investment

Population

%

Population, 2015

Millions of people, % of GDP



Over 70% of Canadians currently live in cities, which collectively account for about 70% of Canada's GDP—Canada's urban population is growing about 2.5X faster than its rural population, which will strain city services including transit networks

SOURCE: Statistics Canada, 2015

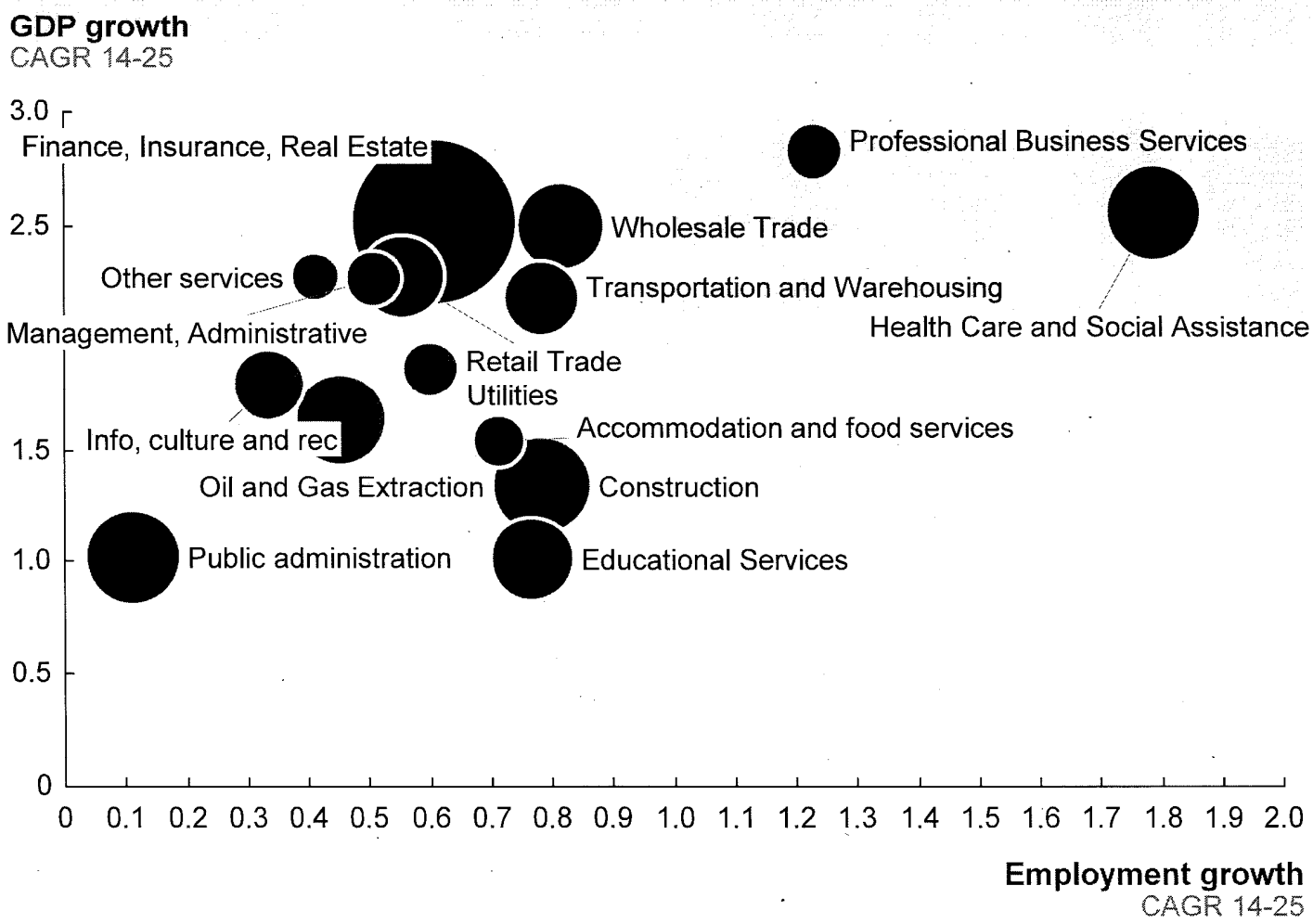
Core sectors will provide modest growth in GDP and employment; where should Canada look to pursue new opportunities?

"Sweet spot"

Contribution to GDP

Canadian sector outlook[1]

Top 15 largest clusters



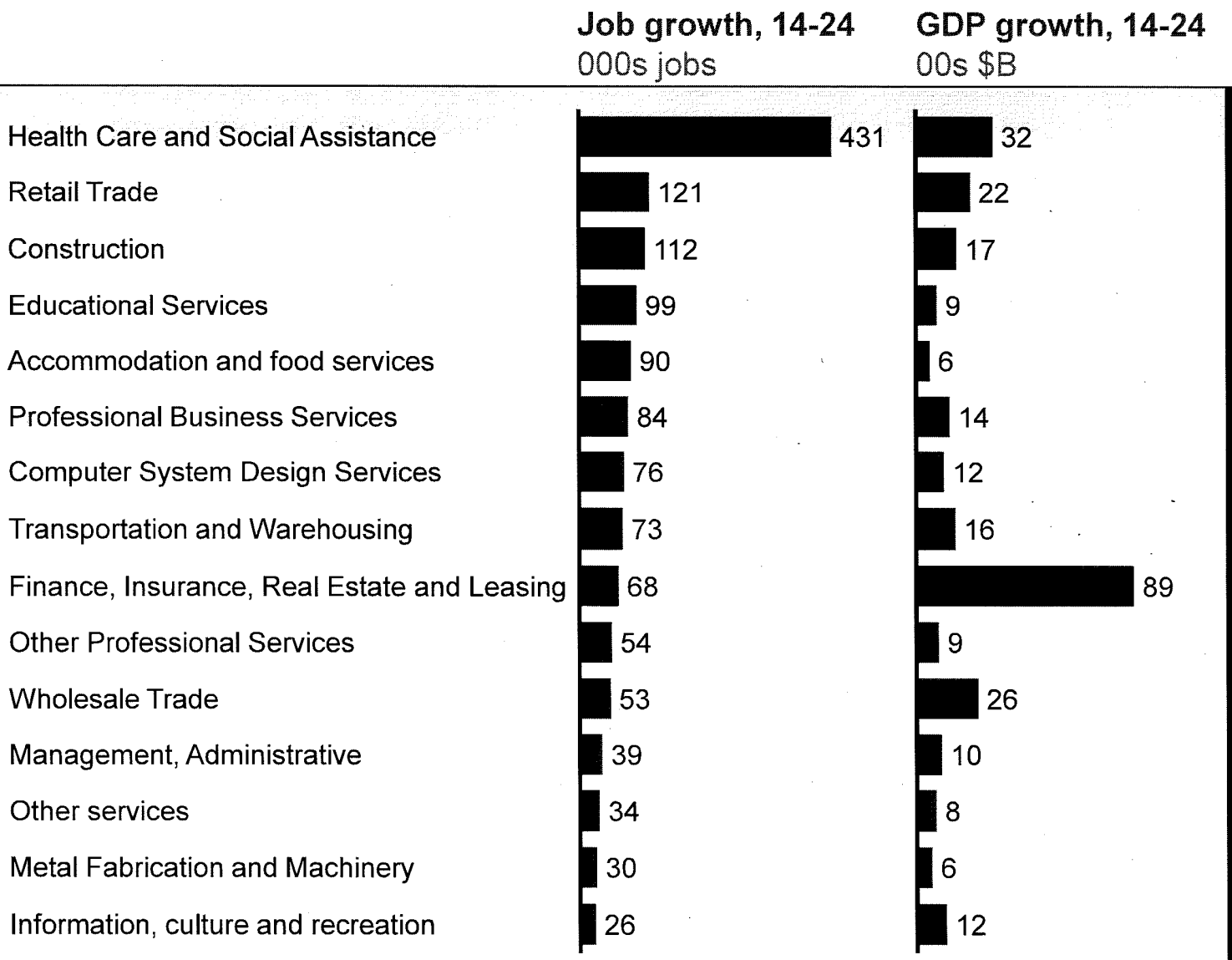
The outlook for growth in Canada's traditional sectors is weaker than in the past—where does Canada have the potential to develop new sources of global competitive advantage?

1 Over the next ten years Canada's GDP and employment are expected to grow at 2% p.a. and 0.8% p.a. respectively

SOURCE: Canadian Occupational Projection System (COPS)

Health care and social assistance will be the biggest source of new jobs, while finance and real estate will drive GDP

NON-EXHAUSTIVE



Growth in jobs and GDP will diverge in key sectors—what implications does this have for skills, inequality, and Canada's approach to sectors?

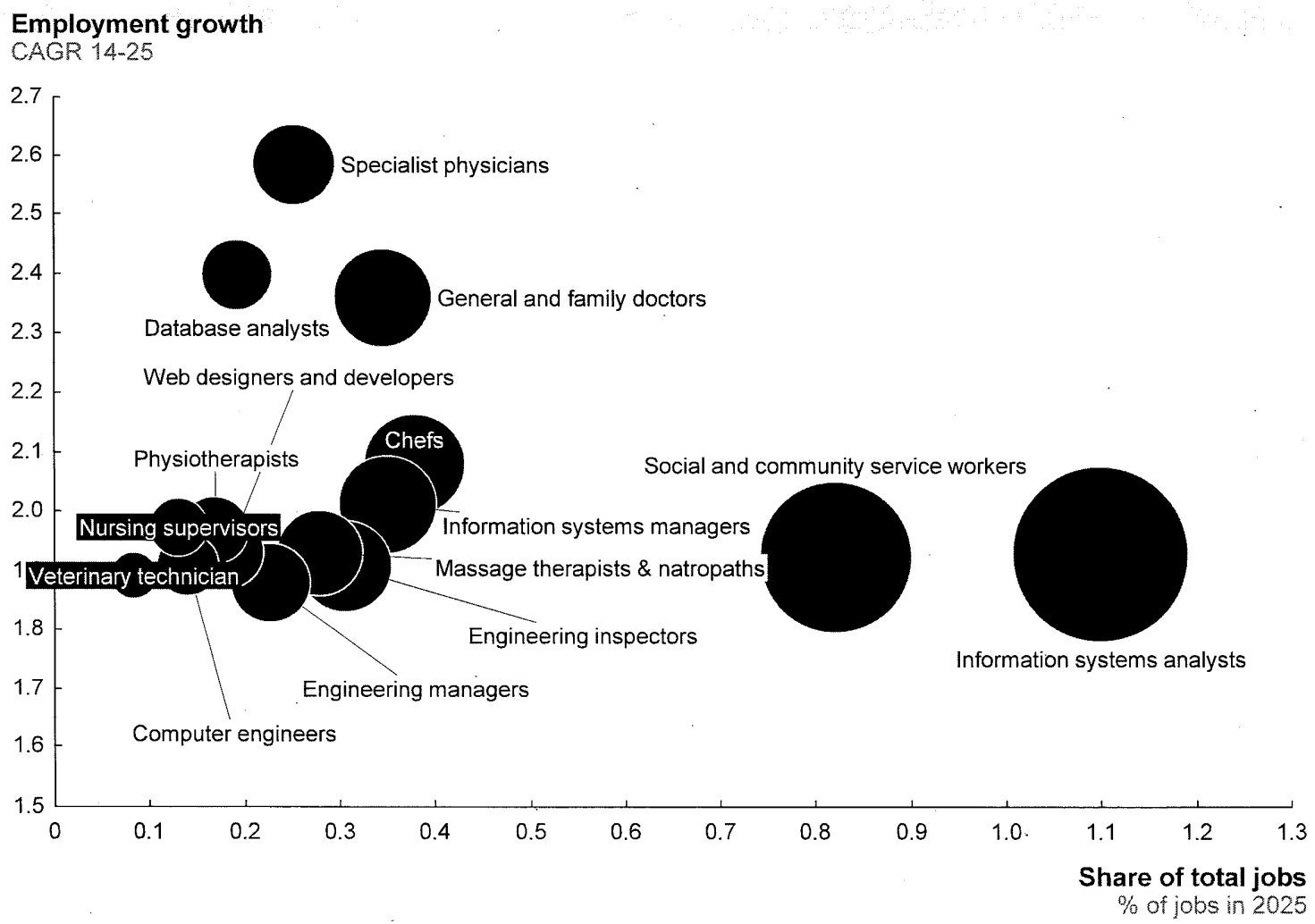
SOURCE: Canadian Occupational Projection System (COPS)

What might the jobs of the future look like?

50K 200K

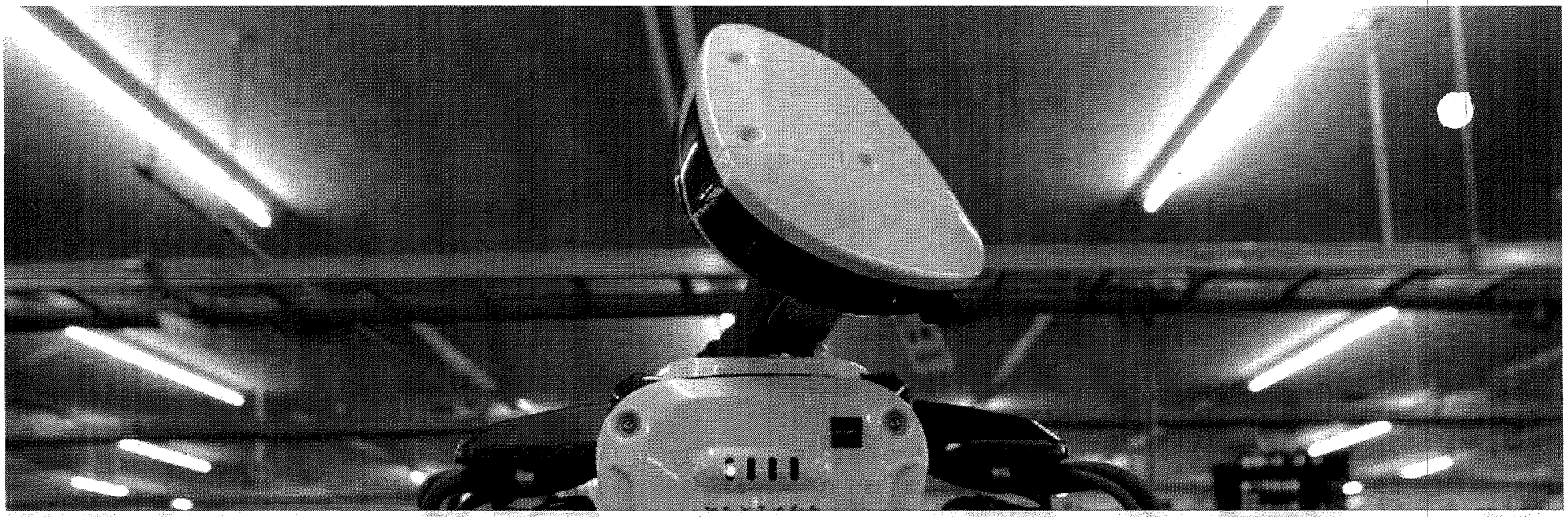
Top 15 fastest growing jobs in Canada, 14-25

000s

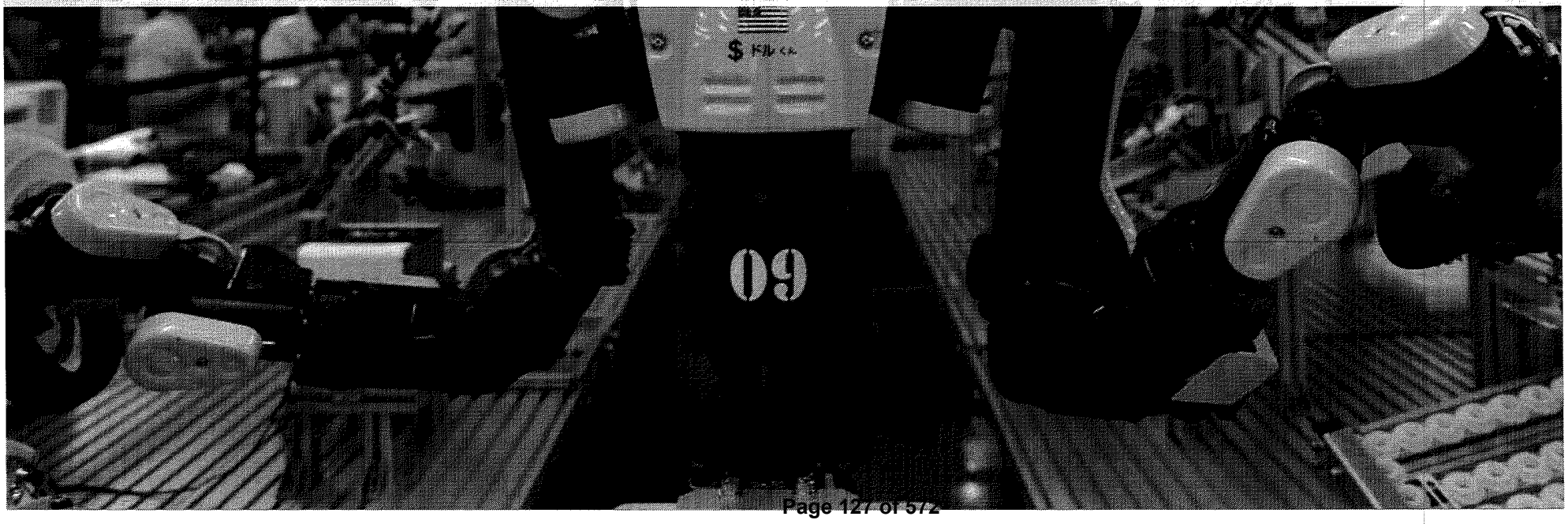


High-skilled jobs in healthcare, technology, and engineering fields are expected to grow fastest in Canada over the next decade—what other kinds of new jobs have yet to emerge?

SOURCE: Canadian Occupational Projection System (COPS)



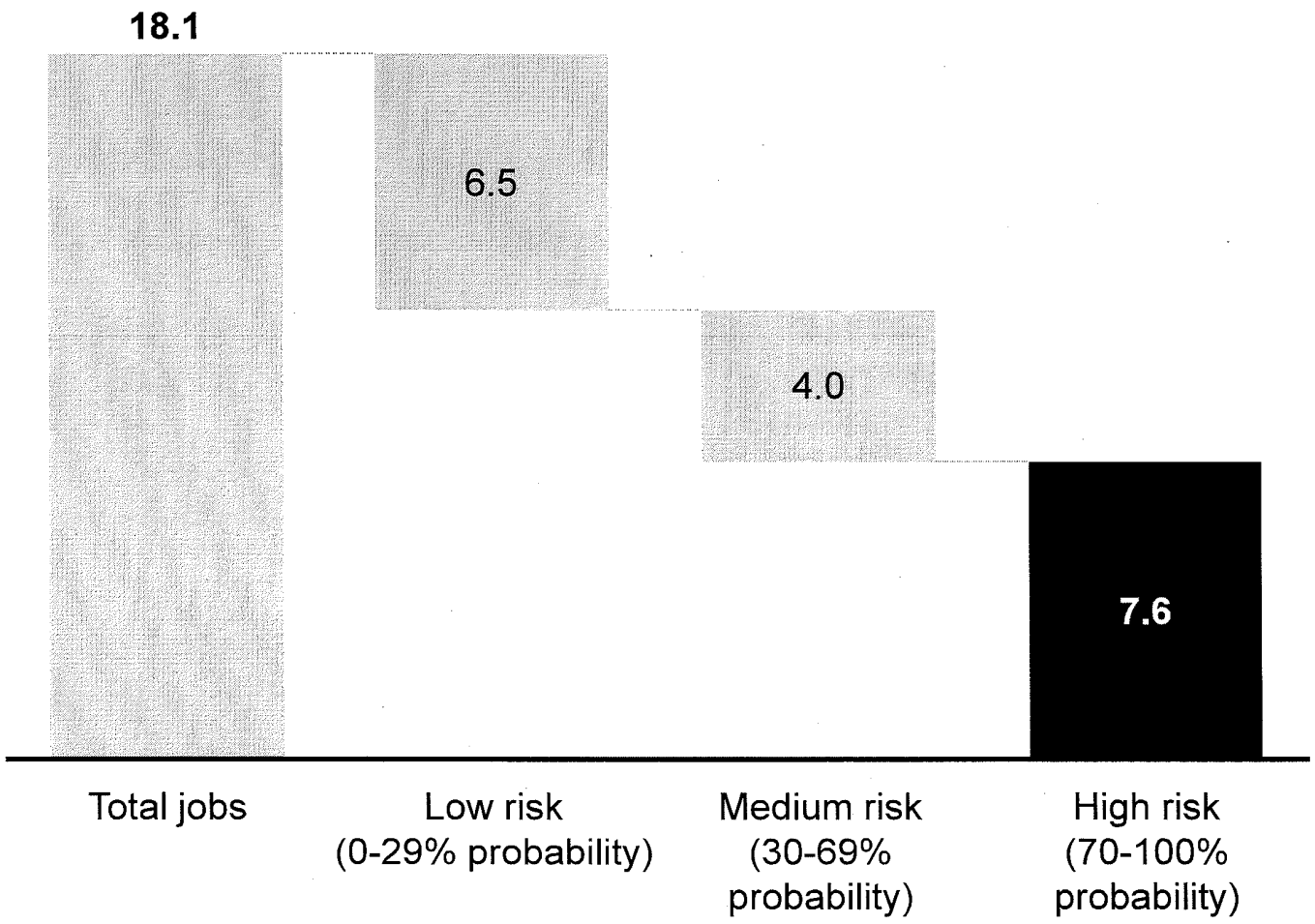
What impact might technology and automation have on Canada's job outlook?



Over the next 10 to 20 years, nearly half of Canada's jobs face a high risk of being affected by automation

Projected employment by automation risk profile, 2016

Millions of jobs



The impact of automation on jobs in Canada over the next ten years remains to be seen – technology may complement labour, increase productivity and create more jobs in certain areas, but it may substitute for labour in other areas and cause major job and task restructuring

SOURCE: Frey and Osborne (2013), Brookfield

Automation and technology have the potential to both enhance Canada's productivity and cause disruption in the workforce

Where could automation enhance jobs?
Jobs facing low-risk

- **High-skilled,** higher-wage jobs are at a **low risk of being negatively affected by automation**
- These occupations are **growing faster** than the rest of the labour force in Canada
- Technology has the **potential to complement and enhance labour** in these fields, creating more specialized jobs

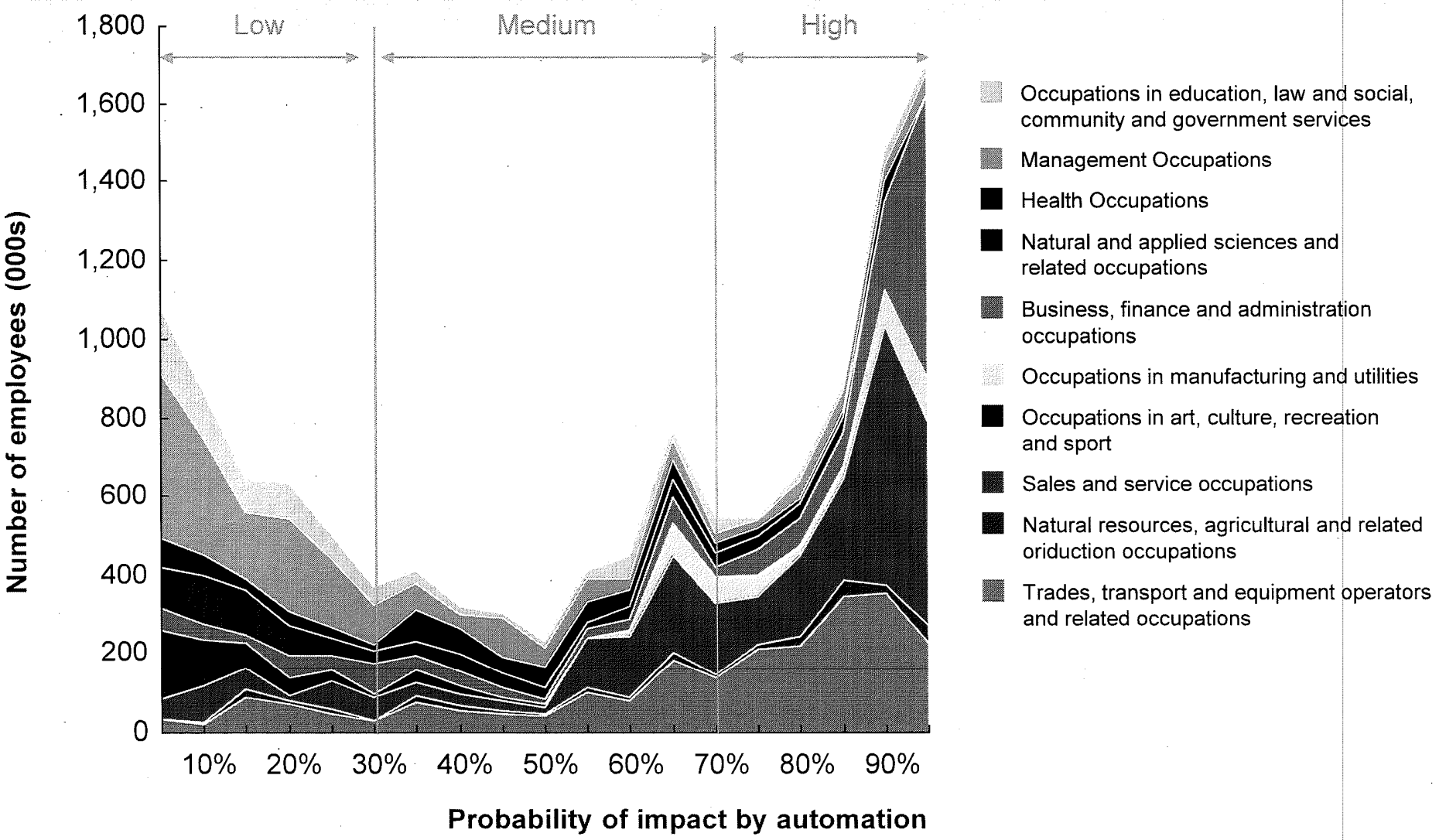
Where could automation disrupt jobs?
Jobs facing high-risk

- **Occupations that are administrative,** routine, or oriented toward sales and service **face a high risk of being impacted**
- These jobs with **not necessarily be lost,** but possess characteristics that make them **more susceptible to automation**
- In the medium term, **task and job restructuring is likely**

SOURCE: Frey and Osborne (2013), Brookfield

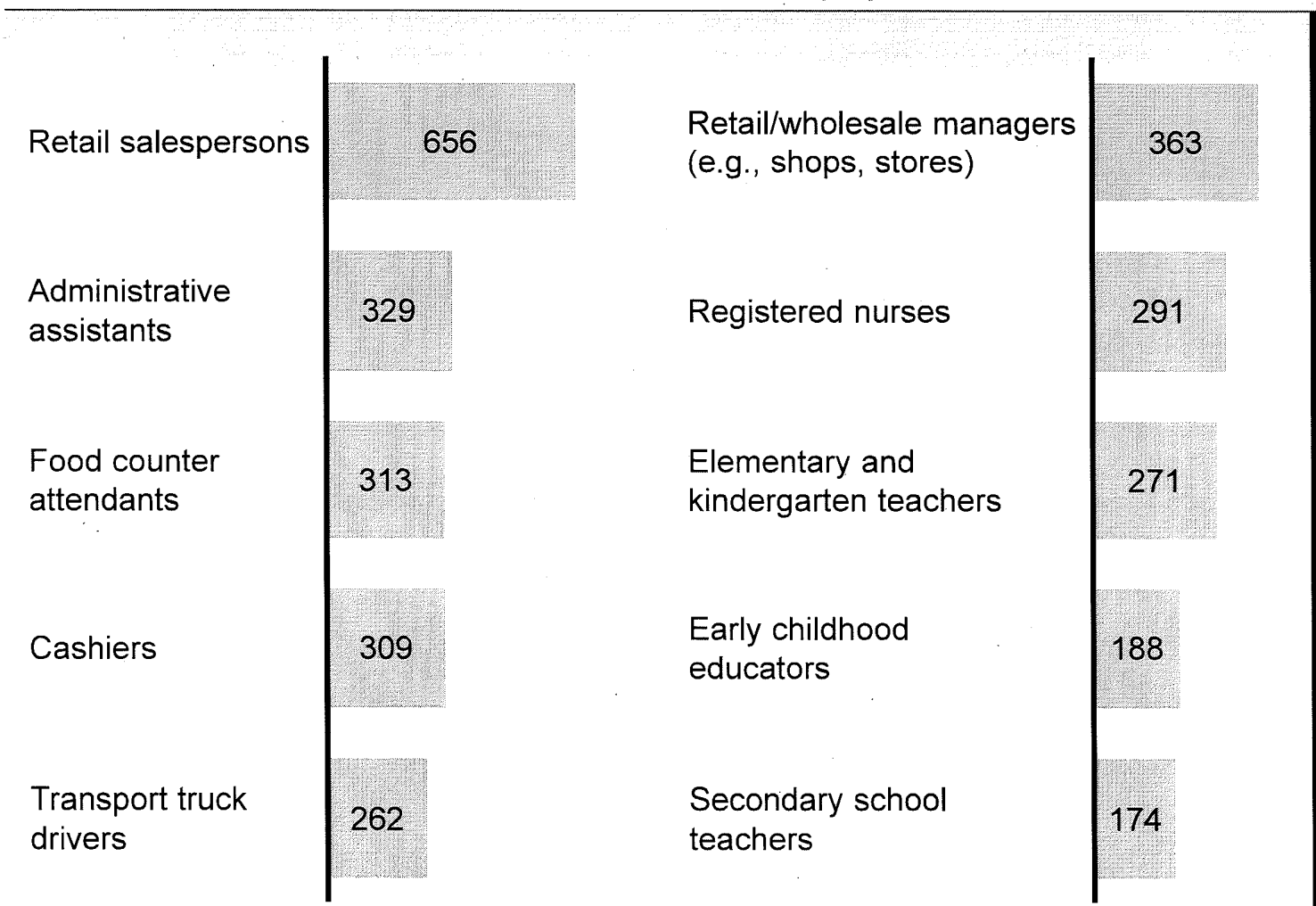
Administrative, sales, and service-oriented fields will be most impacted by automation, while specialized and management fields will be less affected

Probability of Canadian occupational fields being affected by automation



SOURCE: Frey and Osborne (2013), Brookfield

Automation will occur most significantly in low-skill jobs that are administrative, routine, or oriented toward sales and service



Lower-skill and routine jobs typically held by disadvantaged groups (e.g., new immigrants, less educated Canadians, women) are most at risk—what implications does this have for inclusive growth?

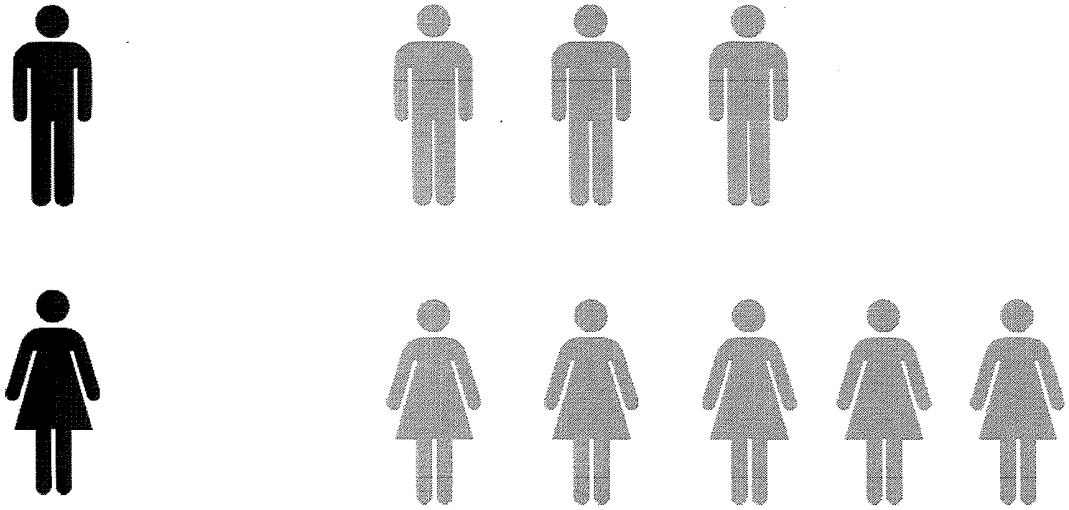
SOURCE: Frey and Osborne (2013), Brookfield

As jobs are restructured globally, the potential for net job loss is expected to affect women disproportionately

Jobs created and disrupted for men and women, 2015-2020

TO BE UPDATED

For every job created... **...several will be disrupted[1]**



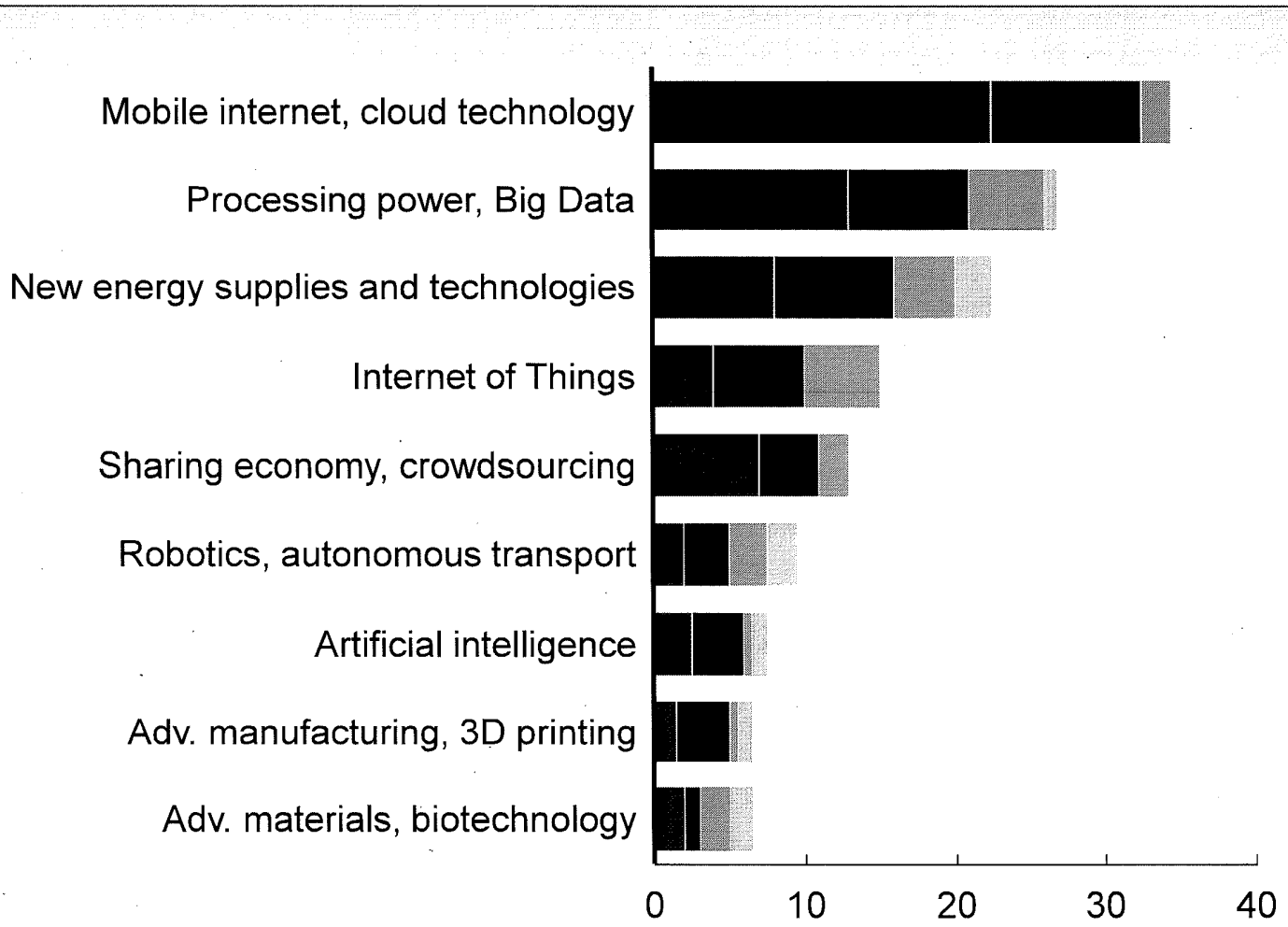
Globally, current trends could lead to millions of jobs being lost to disruptive labour market changes—for men, 1 new job will be created for every 3 that will be disrupted, while for women 1 new job will be created for every 5 that will be disrupted

1 This trend is forecast to occur on an aggregate global level and will not necessarily be observed in Canada

SOURCE: World Economic Forum

Independent of the impact of automation, technology will define the skills required to succeed in the jobs of tomorrow

Top-cited technologies impacting employees' skills
% of respondents[1]



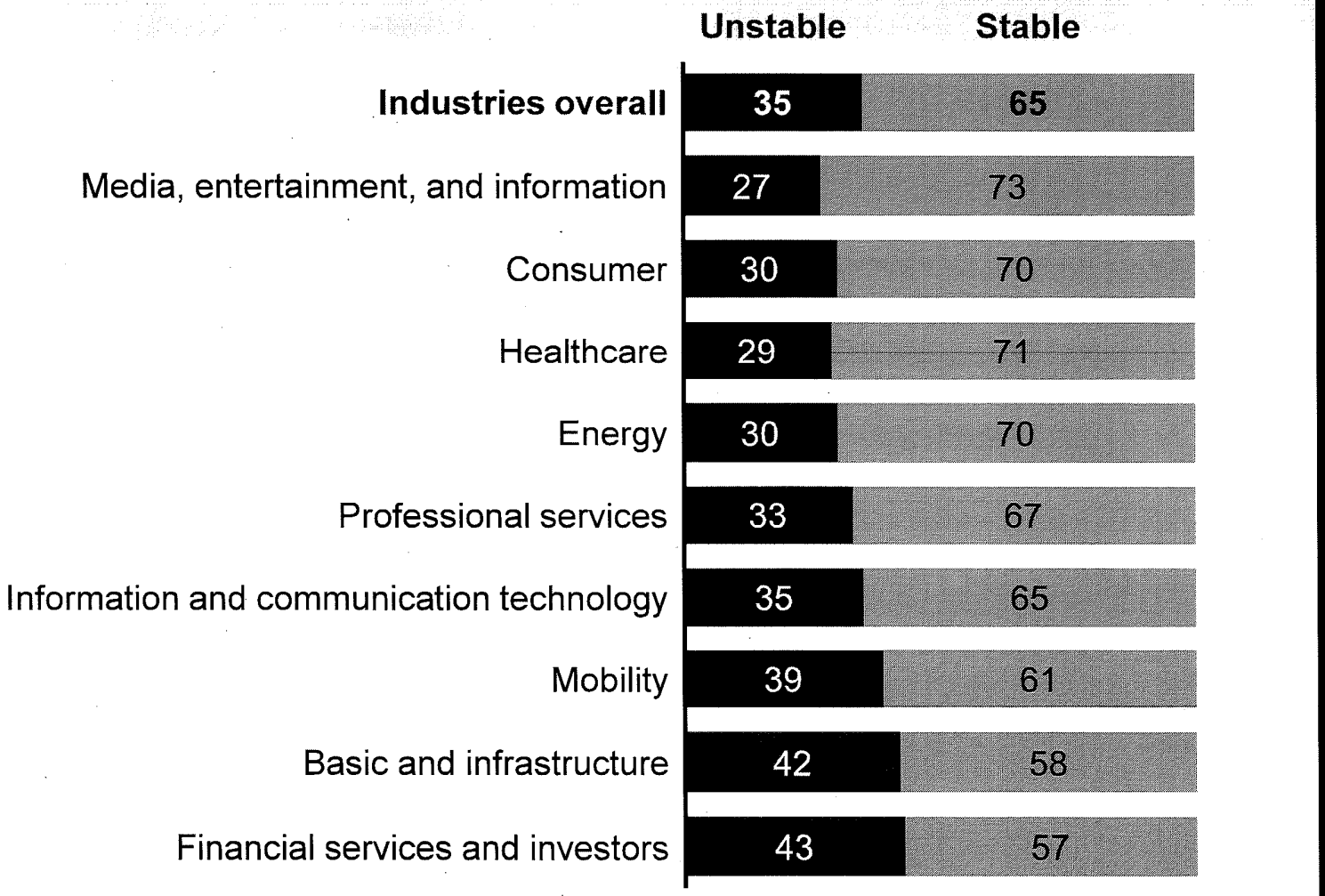
New technologies are shaping business models and changing the skills that employees need—in many cases, the impact of this disruption on the adequacy of employees' existing skill sets can already be felt

1 Future of Jobs survey (responses of 371 large employers from around the world)

SOURCE: World Economic Forum

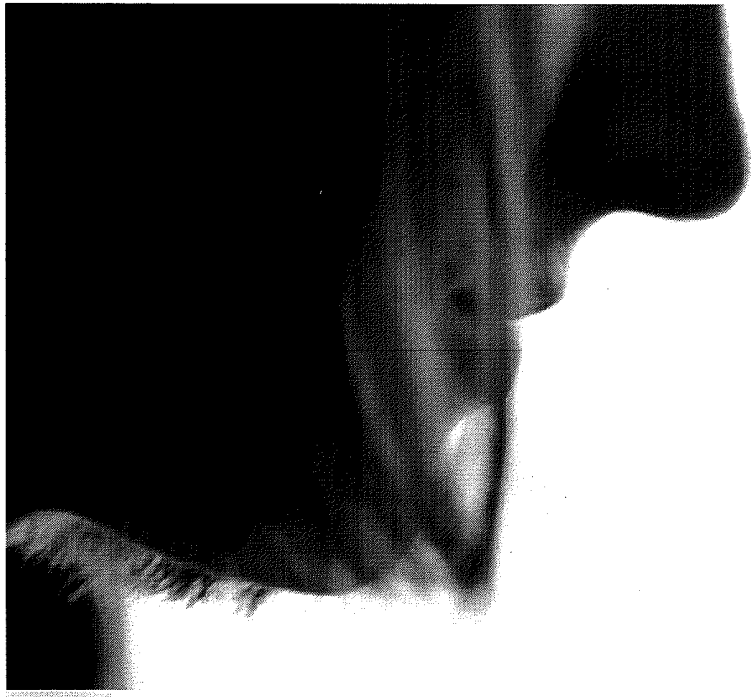
By 2020, more than a third of the core skill sets of most occupations will be comprised of skills that are not yet considered crucial to the job today

Stability of skills across industries, 2015-2020
% of skills



New technologies are shortening the shelf-life of employees' existing skill sets—even jobs that are less directly affected by technological change may require very different skill sets in the near term as ecosystems evolve

SOURCE: World Economic Forum



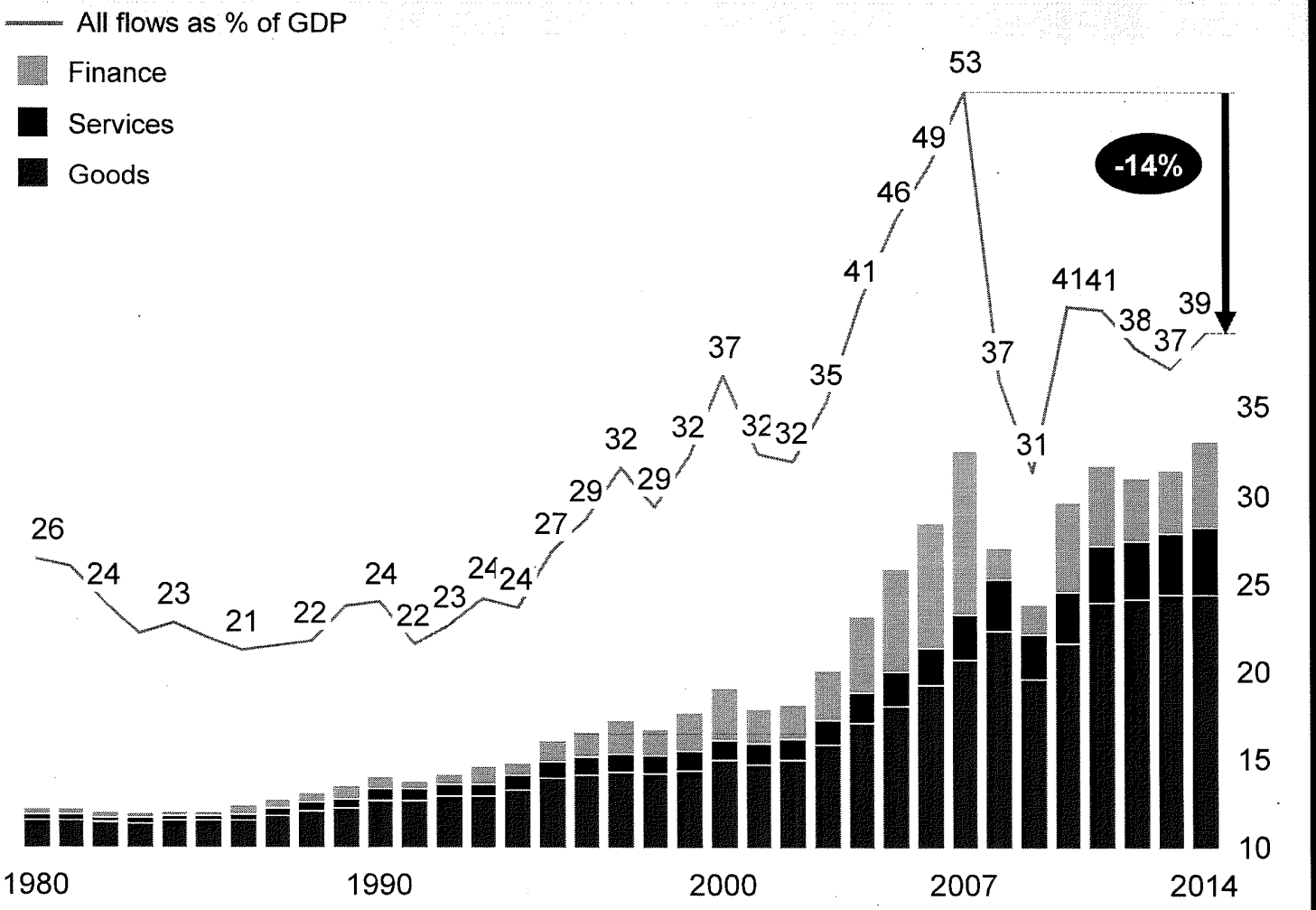
How is the global trade system evolving?



After 20 years of rapid growth, traditional flows of goods, services, and finance have declined relative to global GDP...

Flows of goods, services, and finance, 1980–2014

$ trillions, nominal



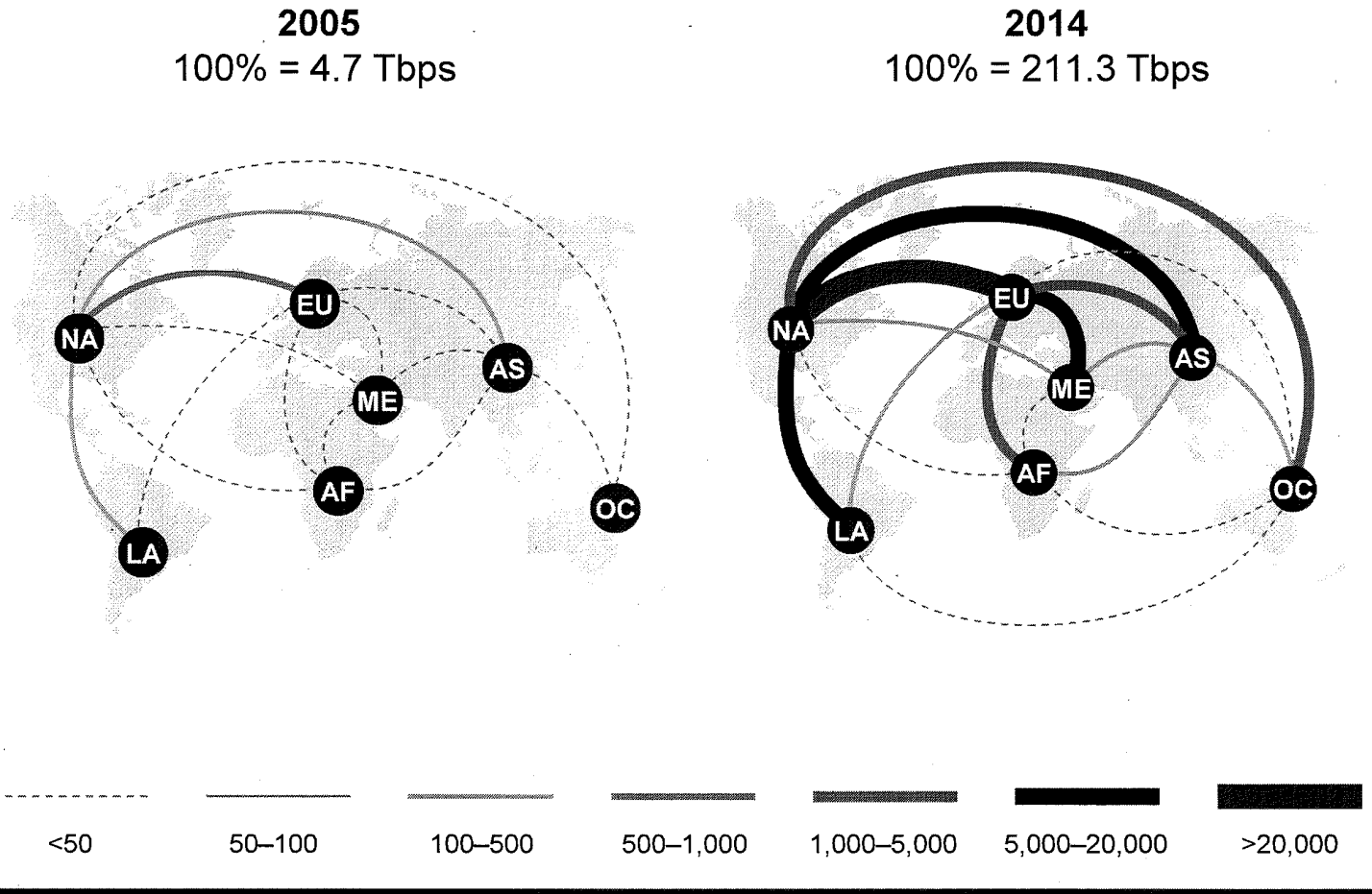
Since the financial crisis, traditional flows of goods, services, and capital have declined relative to economic activity—some believe this trend reflects a shift in sentiment against globalization and trade

SOURCE: UNCTAD; IMF Balance of Payments; World Bank; McKinsey Global Institute analysis

…but cross-border data flows have grown almost 50X in the last decade and are connecting countries in new ways

Used cross-border bandwidth, 2005–2014

Bandwidth, Terabits per second (Tbps)



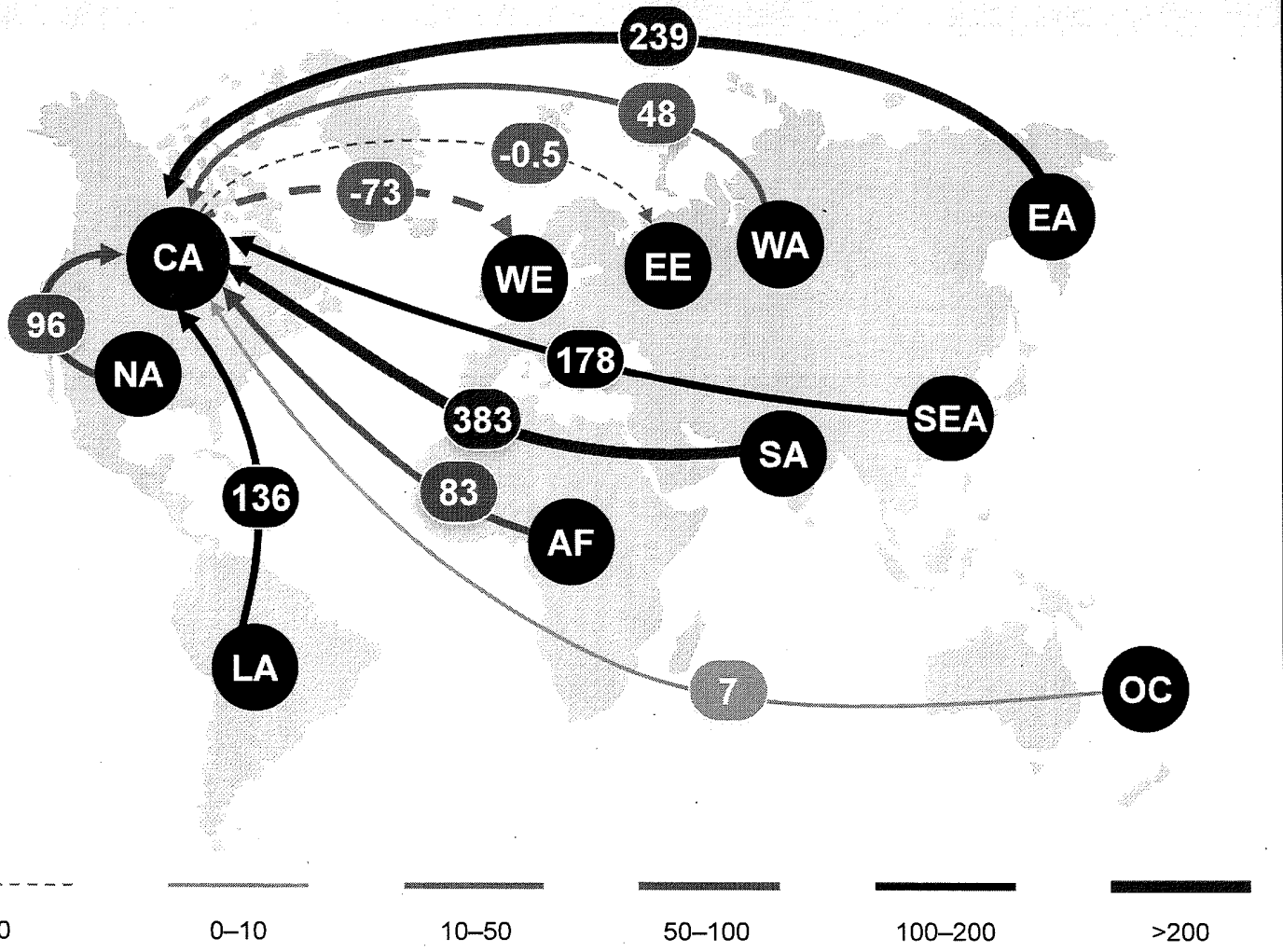
Soaring flows of data and information now exert a larger impact on GDP growth than conventional trade flows; this shift makes it possible for companies to reach international markets with less capital-intensive business models

SOURCE: TeleGeography, Global Internet Geography; McKinsey Global Institute analysis

Mobility and flexibility for human capital will be critical to compete in a more connected world

Net migration to and from Canada, 2005–2010

000s of people



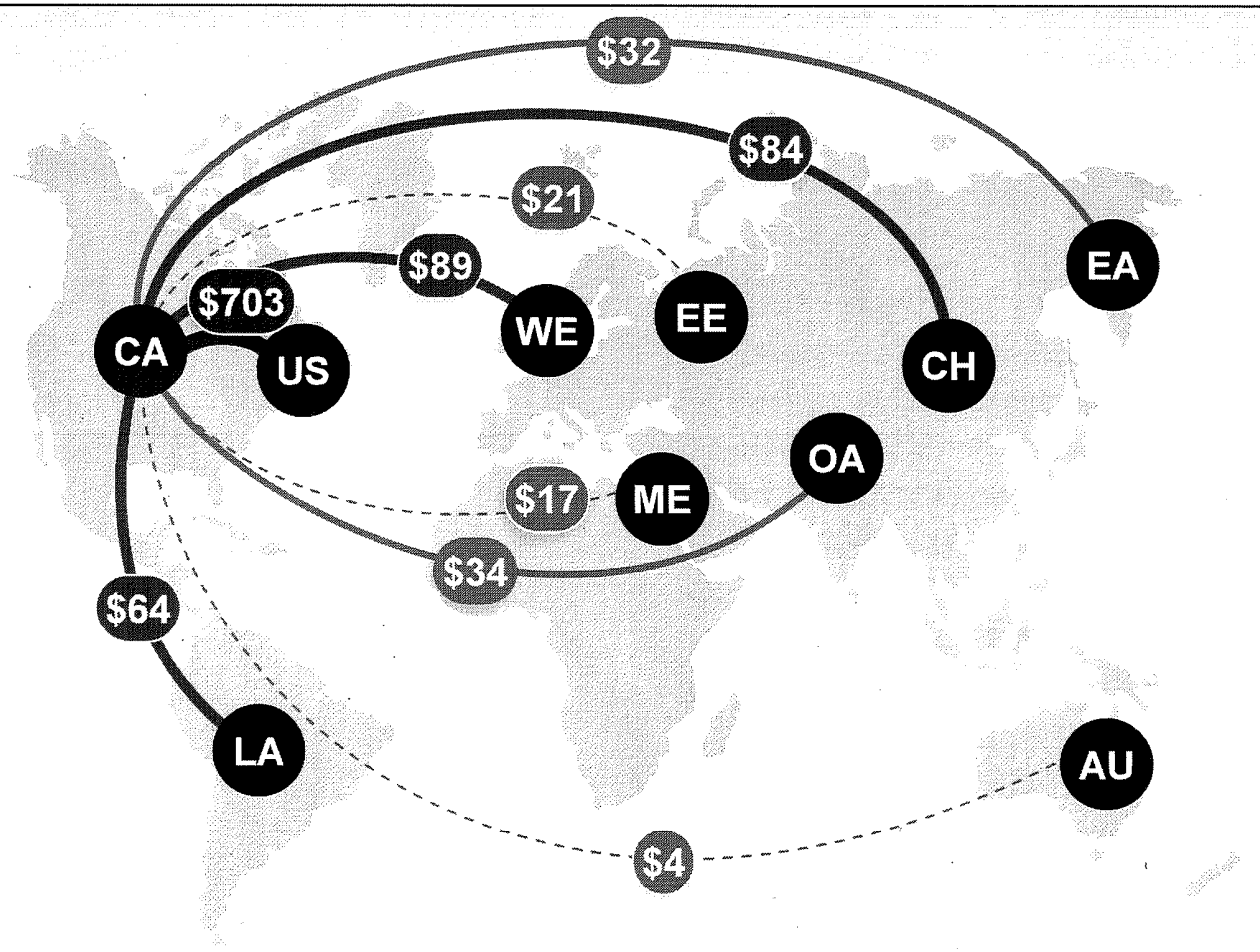
Canada's net migration from 2005-2010 was approximately 1.1M people—how does Canada's immigration system need to change for the country to continue to attract and retain talent from around the world?

SOURCE: Wittgenstein Centre for Demography and Global Human Capital

Over the next ten years, Canada's trade flows will grow 20% to $1.1 trillion, with the US continuing to be our main trade partner

Canada's trade flows in 2025

$B



The U.S. will represent about 65% of trade activity, but emerging markets like China and Latin America will become increasingly important—what does Canada need to do to super-charge trade relationships?

NOTE: Total Flows as sum of total exports and imports

SOURCE: Global Insight - WTS, MGI Economics Research analysis

Signing new trade agreements currently in negotiation would expand Canada's market access by 1.3B people and add almost 1% to GDP

Canada's potential free trade partners

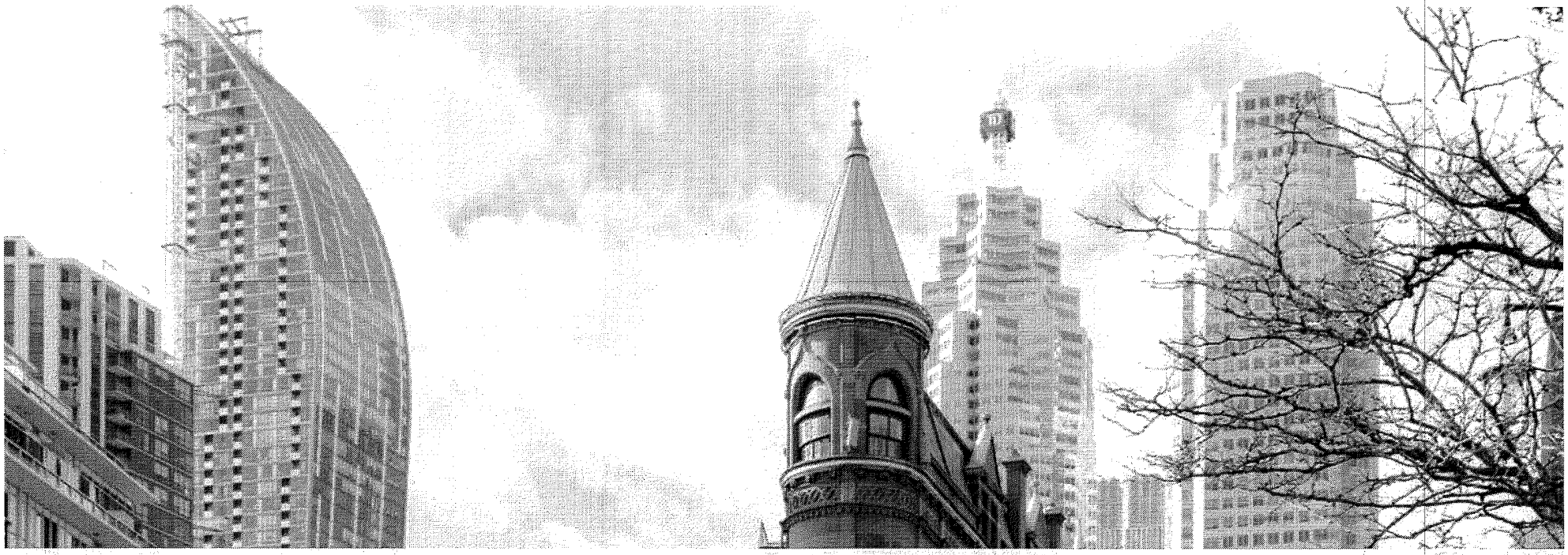
Countries covered under in-negotiation trade agreements

■ Area covered under CETA and TPP

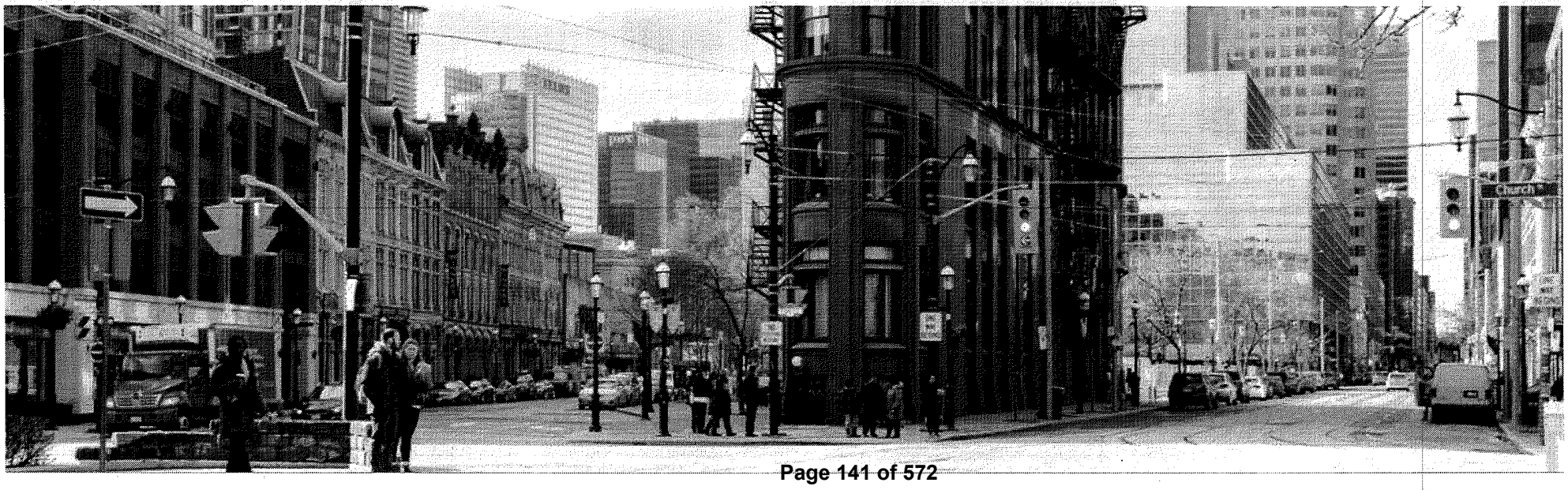


CETA and TPP would give Canada greater market access and enable the country to focus on higher value-add exports—what other trade agreements does Canada need to pursue, and in what areas should Canada specialize its future exports?

SOURCE: RBC Economics Research, European Commission

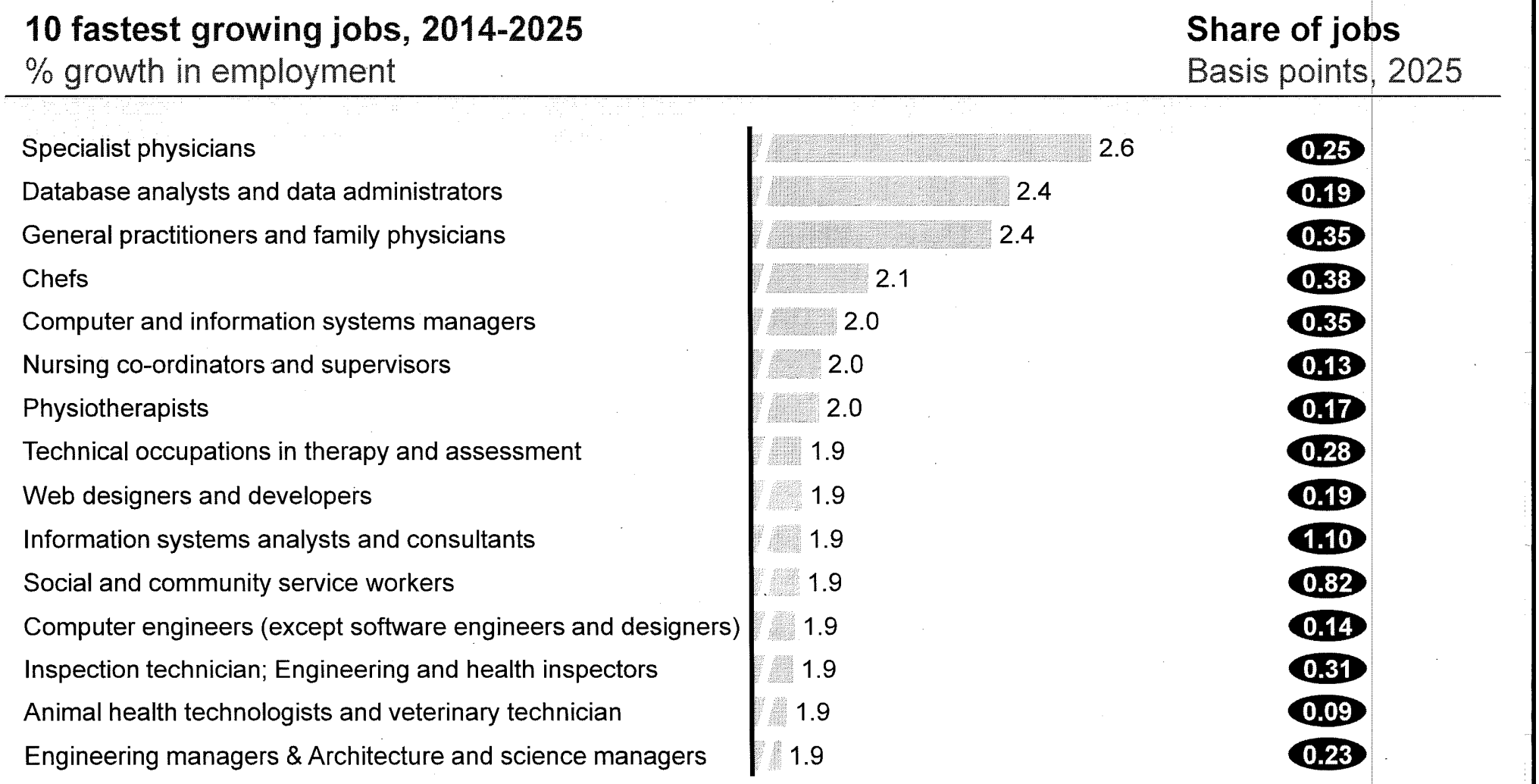


What are the implications for innovation, labour markets, infrastructure, and trade in Canada?



APPENDIX

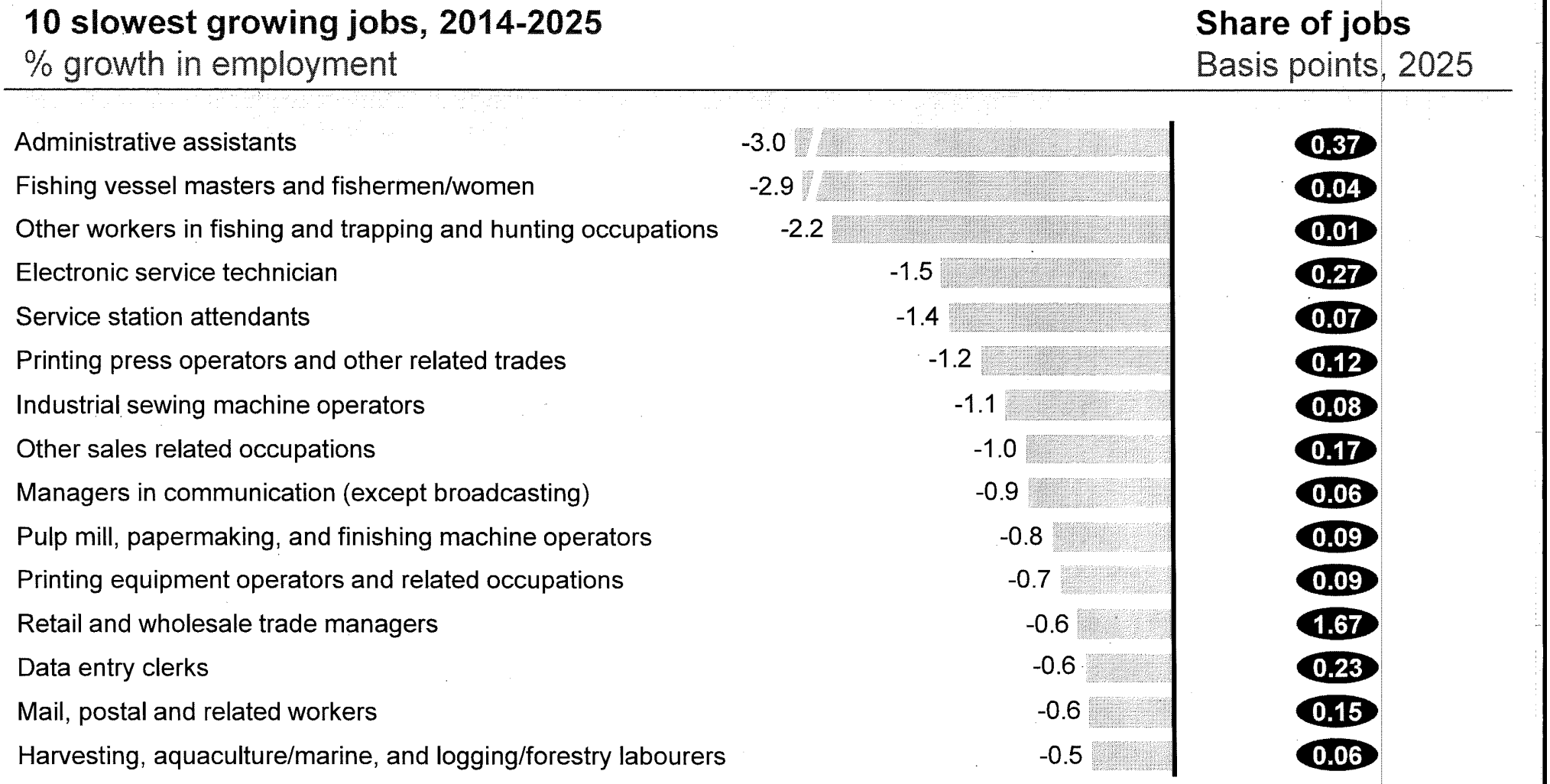
What are the fastest growing jobs for the next ten years?



Technical and creative jobs with high value-add are expected to be Canada's fastest growing sources of employment for the next ten years

SOURCE: Canadian Occupational Projection System (COPS)

What are the slowest growing jobs for the next ten years?



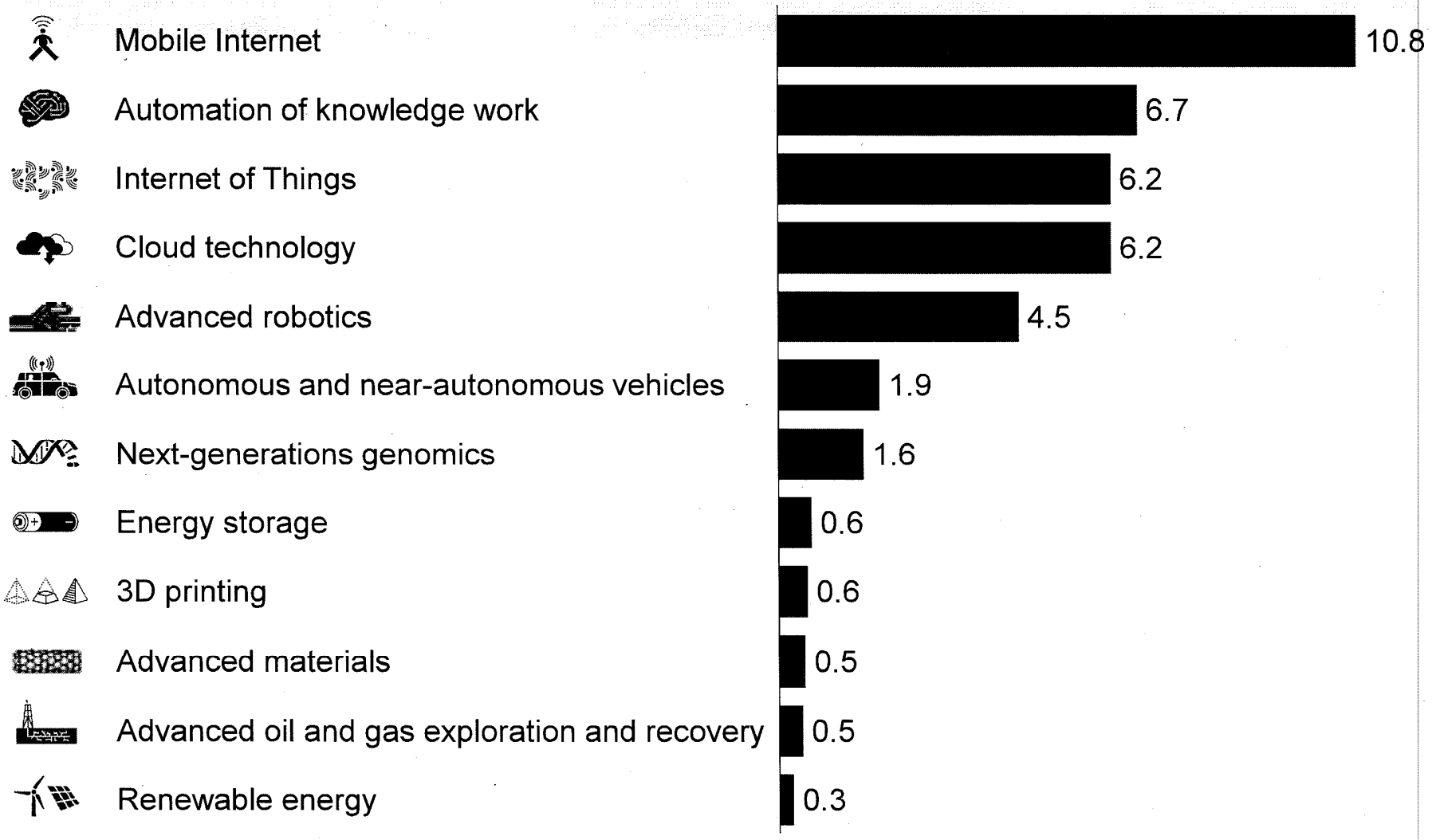
Administrative, service-oriented, and machine operating jobs will supply less employment in the future

SOURCE: Canadian Occupational Projection System (COPS)

In the next decade, disruptive technologies will have enormous economic impact on the global economy

Potential annual economic impact by 2025

USD Trillions, Annual

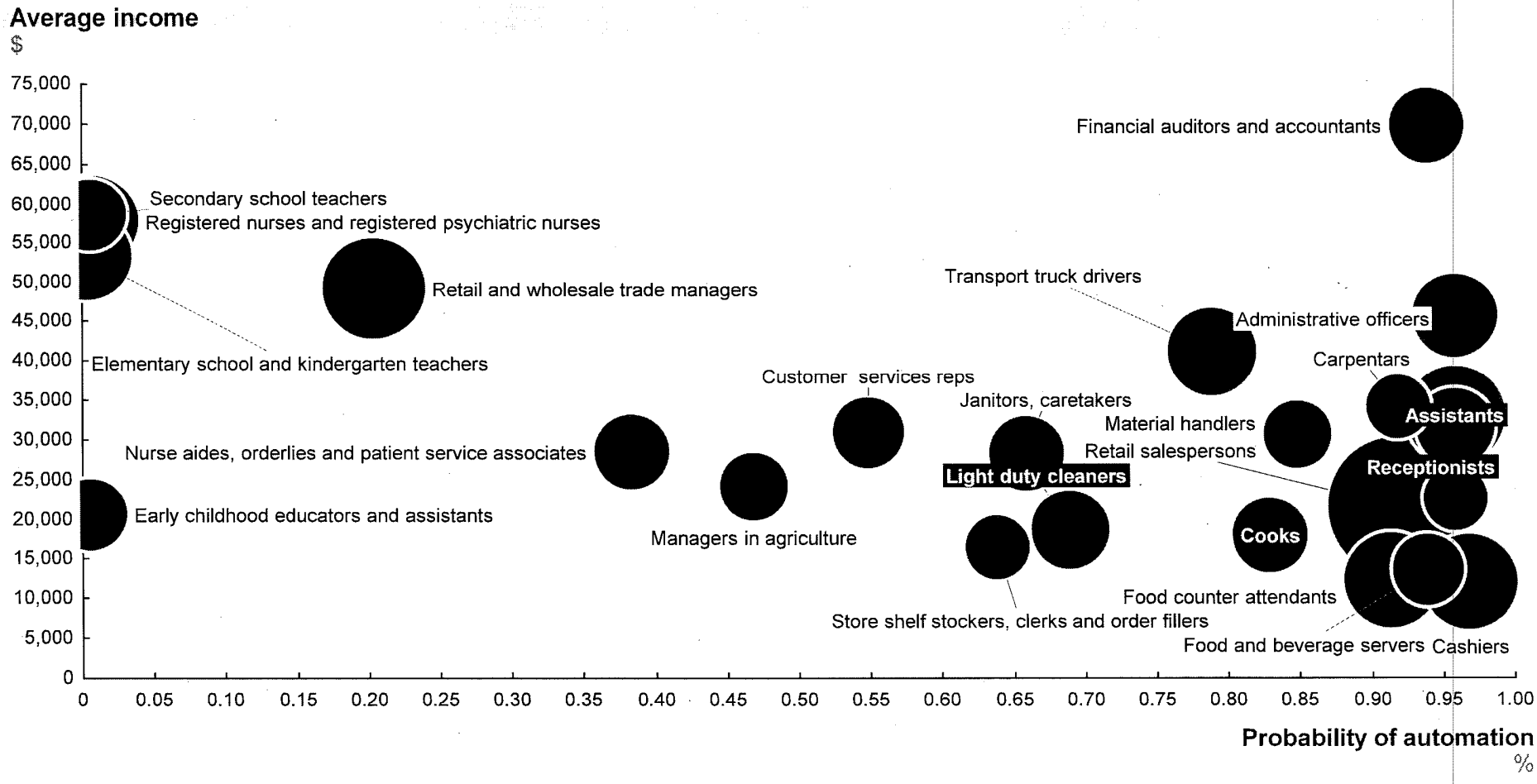


SOURCE: McKinsey Global Institute

Probability of automation by occupation

NON-EXHAUSTIVE

Automation potential of Canadian occupations



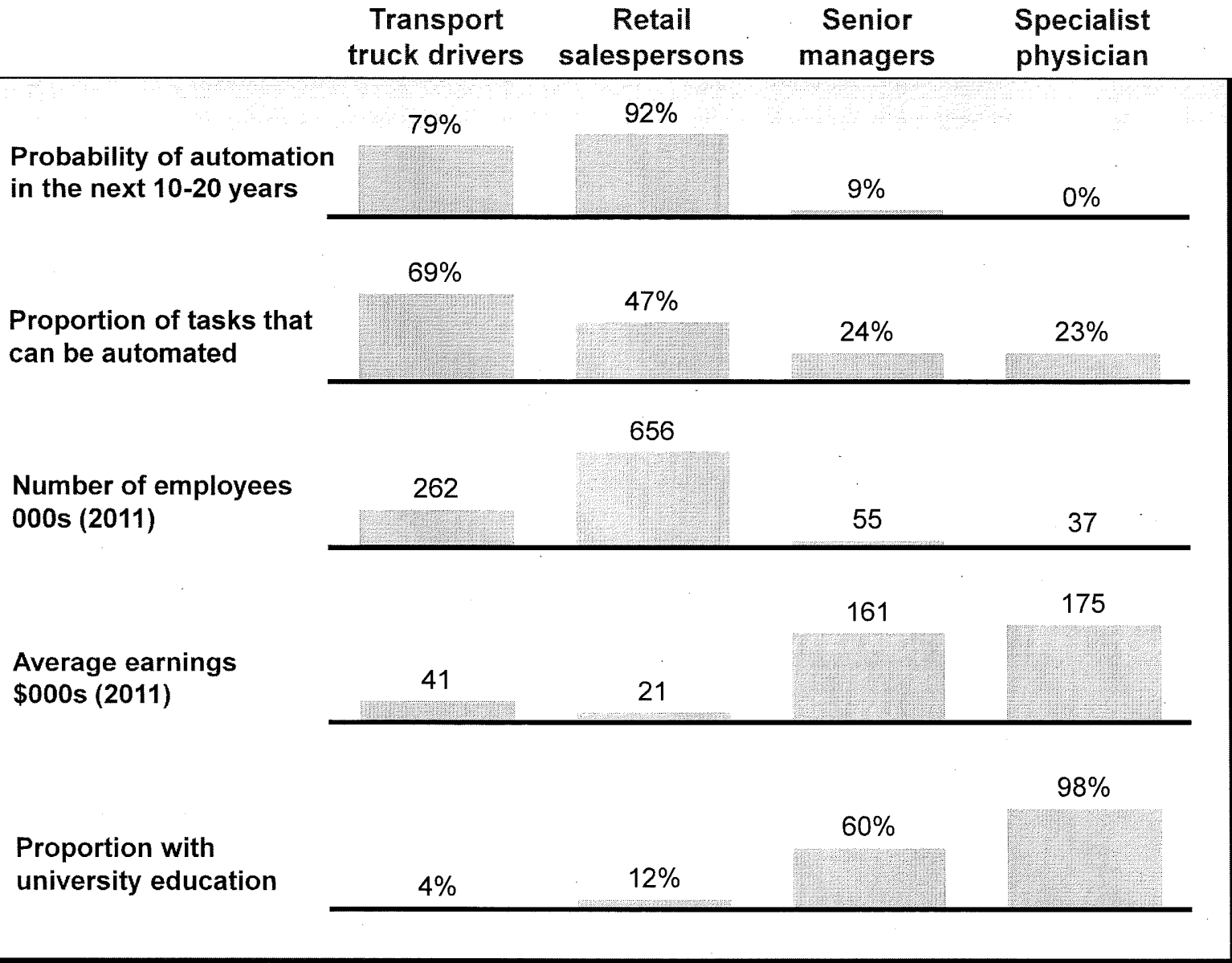
Find an interactive data set here:

https://public.tableau.com/profile/brookfield.institute.for.innovation.and.entrepreneurship#!/vizhome/AutomationofCanadianOccupations/Analysis

SOURCE: Frey and Osborne (2013), Brookfield

What could this mean for different profiles across the Canadian workforce?

NON-EXHAUSTIVE



In coming decades, low-skilled, lower-wage jobs will be dramatically impacted by technology, while specialized occupations are less likely to be disrupted—how does Canada need to respond to support these transitions?

SOURCE: Frey and Osborne (2013), McKinsey & Company, Brookfield

To interpret the potential impact of automation on the Canadian workforce, it is critical to understand the limitations of our analysis

Methodologies to assess impact of automation

- **Frey and Osborne** have drawn from machine learning experts to…
  - **Classify occupations as either automatable or not** (based on task structure)
  - Subjectively **define tasks that cannot be substituted** by computers in the near term, (e.g., related to perception, manipulation, creativity, and social intelligence)
  - Build a model that assigns a **probability of being impact by automation**
- **McKinsey & Company has** examined the percentage of work activities that could be automated using existing technologies…
  - **Analyzed detailed work activities** across occupations
  - Assessed these activities against 18 **capabilities identified as automatable**

Interpreting the results

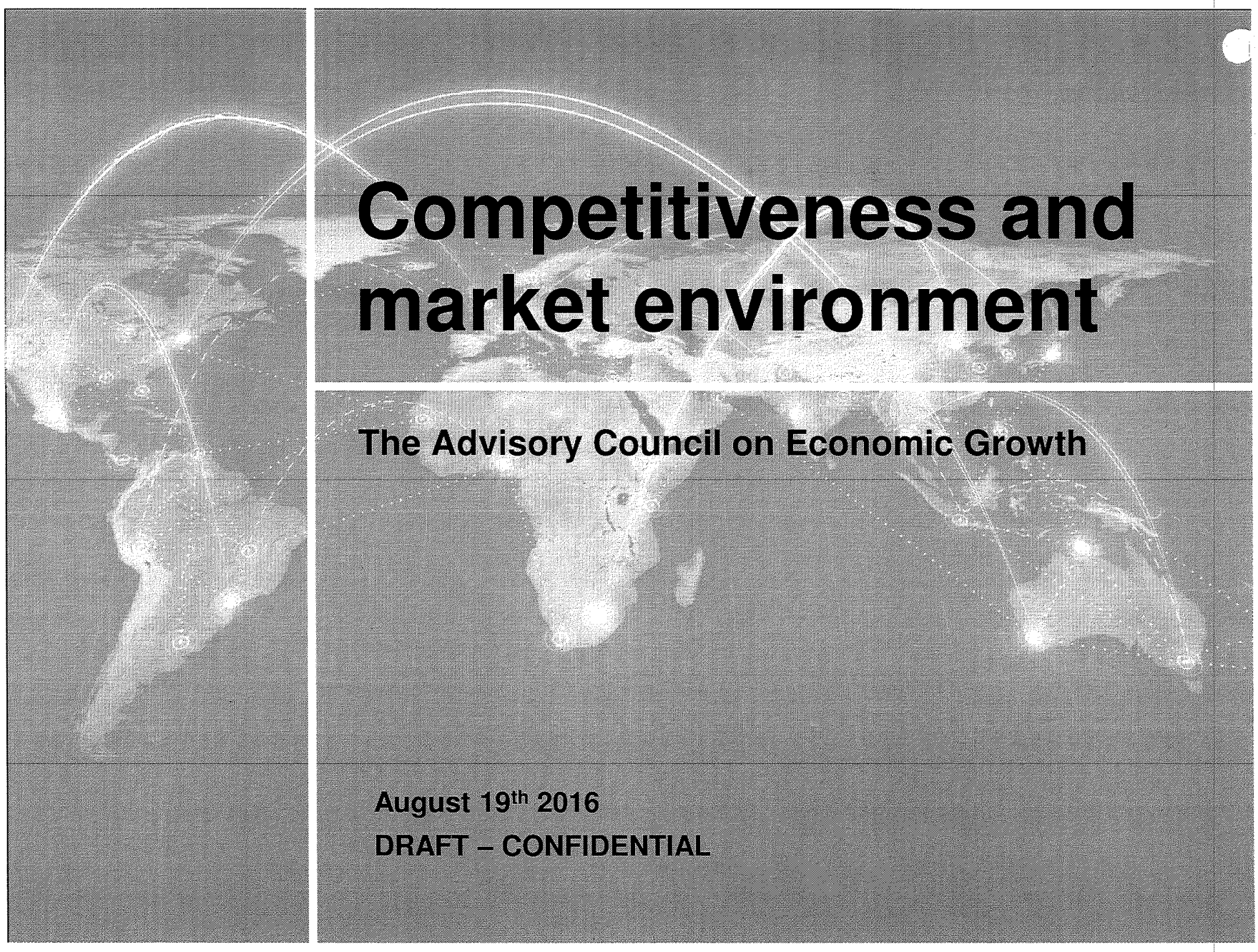
- **The true impact of automation on Canadian jobs remains to be seen**
  - Technology may complement labour, increase productivity and create more jobs in some areas
  - It may also substitute for labour in other areas
- **Jobs will change in unexpected ways but come up in unexpected ways**, and we cannot predict the future

SOURCE: Frey and Osborne (2013), McKinsey & Company, Brookfield

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Competitiveness and market environment

The Advisory Council on Economic Growth

August 19th 2016

DRAFT – CONFIDENTIAL

What's different this time to attract investments and spur trade?

ATIA - 21(1)(a) ATIA - 21(1)(b)

01

Be **strategic in FDI attraction**

A **lead agency** to strategically pursue and cater to **investors**

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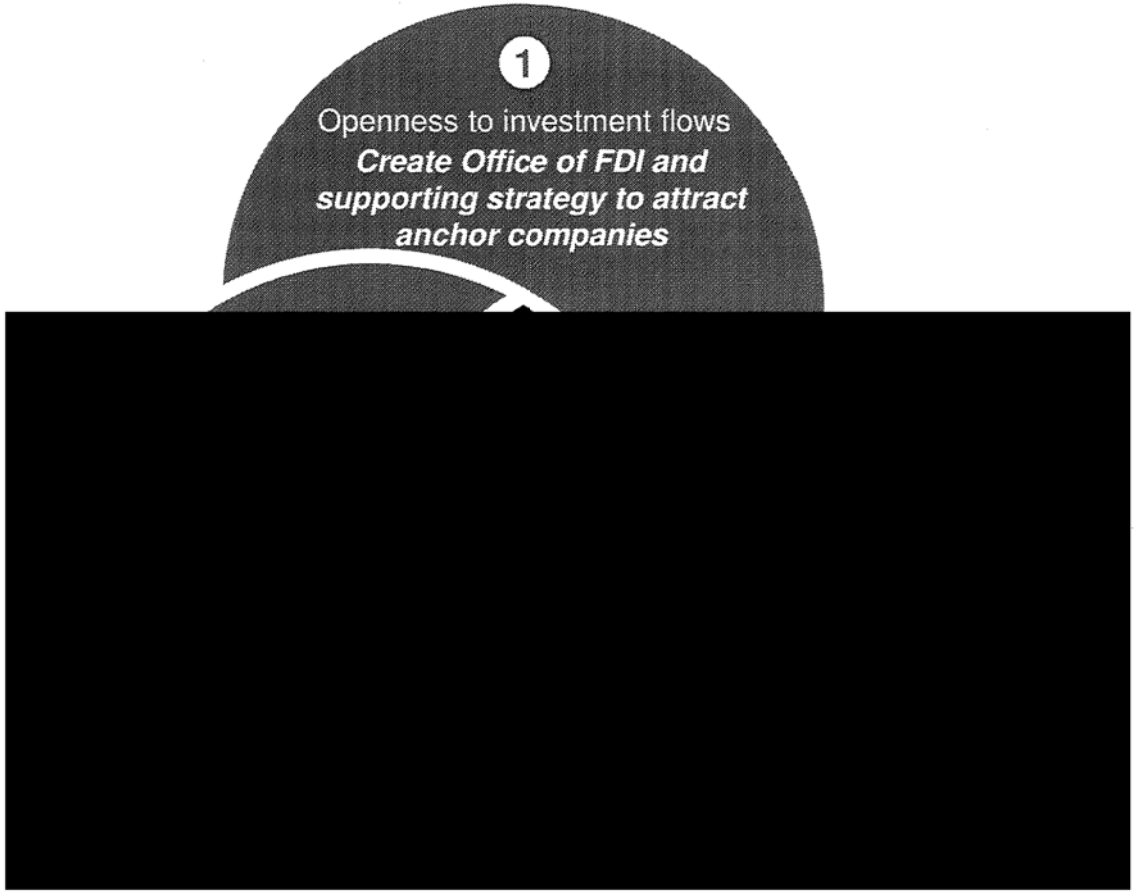
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Growing our economy through competitiveness and trade – [redacted]

Ingredients for a competitive market environment and recommendations

ATIA - 21(1)(a)
ATIA - 21(1)(b)



SOURCE: Advisory Council on Economic Growth

ATIA - 21(1)(a) ATIA - 21(1)(b)

Growing our economy through competitiveness and trade –
Three interlocking recommendations

1

Create an Office of FDI and supporting strategy to attract anchor companies

- Stand-up a **lead agency** to coordinate FDI attraction and aftercare
- Make it **easier to invest** by easing FDI restrictiveness where it makes sense
- Adopt a **strategic cluster growth and GVC[1] focus** to attract the right investments
- Get the **right people involved at the right levels** within the deal value stream

[redacted]

1 Global value chain - Inward FDI pulls Canadian innovation, resources, products and services into integrated global trade flows (e.g. GM Tech [R&D] Center in Oshawa pulls Canadian engineering and R&D services into GM's GVCs)

SOURCE: Advisory Council on Economic Growth

Discussion on FDI – Aug 19

Questions	Preliminary views from the Council ....
1 What are the **benefits from increased inward flows of FDI**?	▪ Standard benefits of investment (**GDP impact**) ▪ Potential benefit from **technology transfer** ▪ **Enables the trade hub (gateway) strategy** (e.g. to serve US market)
2 Why is now a **good time (if it is) to pursue greater FDI**?	▪ Inward FDI stock **has lagged benchmarks** ($175B missed opportunity 2000-15) ▪ Post-2008, **Canada has been viewed as a fiscally stable** place to invest in ▪ Current **global excitement about Canada**
3 Should we focus on encouraging **greenfield or brownfield as well**?	▪ Focus on **greenfield for now**; brownfield is contentious issue and benefits not as clear as greenfield
4 **What kind of agency** can best attract FDI?	▪ Agency is **needed to address failure in information** for investors – assemble **information that is relevant to the target** ▪ **Market Canada** as a destination ▪ Obtain **high level support (e.g. Prime Minister)** ▪ Consider: **"Venture Canada"** to arrange ventures between Canadian and global firms
5 Should we be attracting FDI only to **specific "clusters" or more generally**?	▪ Mandate should be entirely **consistent with economic growth strategy of government**

▪ Further questions to discuss: Sources of FDI (e.g. Asia)? Does the agency provide incentives?

SOURCE: Advisory Council on Economic Growth

1 Openness to investment flows –
Create an Office of FDI and supporting strategy to attract anchor companies

Opportunity

- **Inward FDI is needed to grow strategic clusters** and pull Canadian content[1] into integrated global value flows
- In real terms, **Canada's FDI stock has grown at a CAGR of 2% since 2005, vs. the OECD average of 7%** and Australia's 8%
- **Canada's FDI attraction suffers from a lack of coordination and focus**
  - Referred to as "a dog's breakfast," with no single agency in the lead
- **We rank 33rd of 40** in OECD's FDI restrictiveness index
- **Canadian FDI attraction is poorly diversified –**
  - **Mining and manufacturing account for 50% of all FDI;** e.g., opportunity to increase FDI in agrifood, tech and infrastructure
  - **US accounts for 50% of Canada's FDI-in stock;** Opportunity to grow European and Asian investments through CETA and TPP

Initiative

1A Stand-up a lead agency for greenfield attraction
- Coordinate federal activity, work with provincial and municipal agencies to prioritize clusters
- Staff with top talent and organize as a B2B firm

1B Make it easier to invest where it makes sense
- Consider amendments to the ICA to reduce restrictiveness and increase transparency (with SOE caveats)
- Consider closer tie-in of EDC and lead agency to offer financial intermediation when required

1C Adopt a strategic cluster growth and GVC focus to attract the right investments
- Develop detailed national cluster and sector growth strategies in concert with innovation recommendations

1D Get the right people involved at the right levels
- Engage PM (and PCO) as a central catalyst to closing A-list investor deals
- Enlist the private sector to carry the Canada brand

What would success look like?
- Achieving 6%+ CAGR for inward FDI stock (real terms) over the next decade vs. 2% between 2005 and 2015
- Ranking in the 1st or 2nd OECD quartile for non-restrictiveness (vs. 4th quartile)

SOURCE: Global Affairs Canada; Statistics Canada; OECD; expert interviews

1 Innovation, resources, goods and services (e.g. GM tech center [R&D] in Oshawa focused on vehicle connectivity)

1. FDI

Foreign investors should be targeted on account that they will boost Canada's economic growth in at least one of 3 ways

"Cluster anchor" role

in building or growing emerging industry clusters (e.g., Ubisoft in gaming)

Boosting innovation and commercialization

"Global value chain" role

in pulling Canadian resources, goods and services into integrated trade flows (e.g., DeBeers in mining)

Increasing trade with emerging markets

"Sector competitiveness booster" role

in deploying new capital or attracting new entrants into mature sectors (e.g., Rio Tinto in base metals transformation)

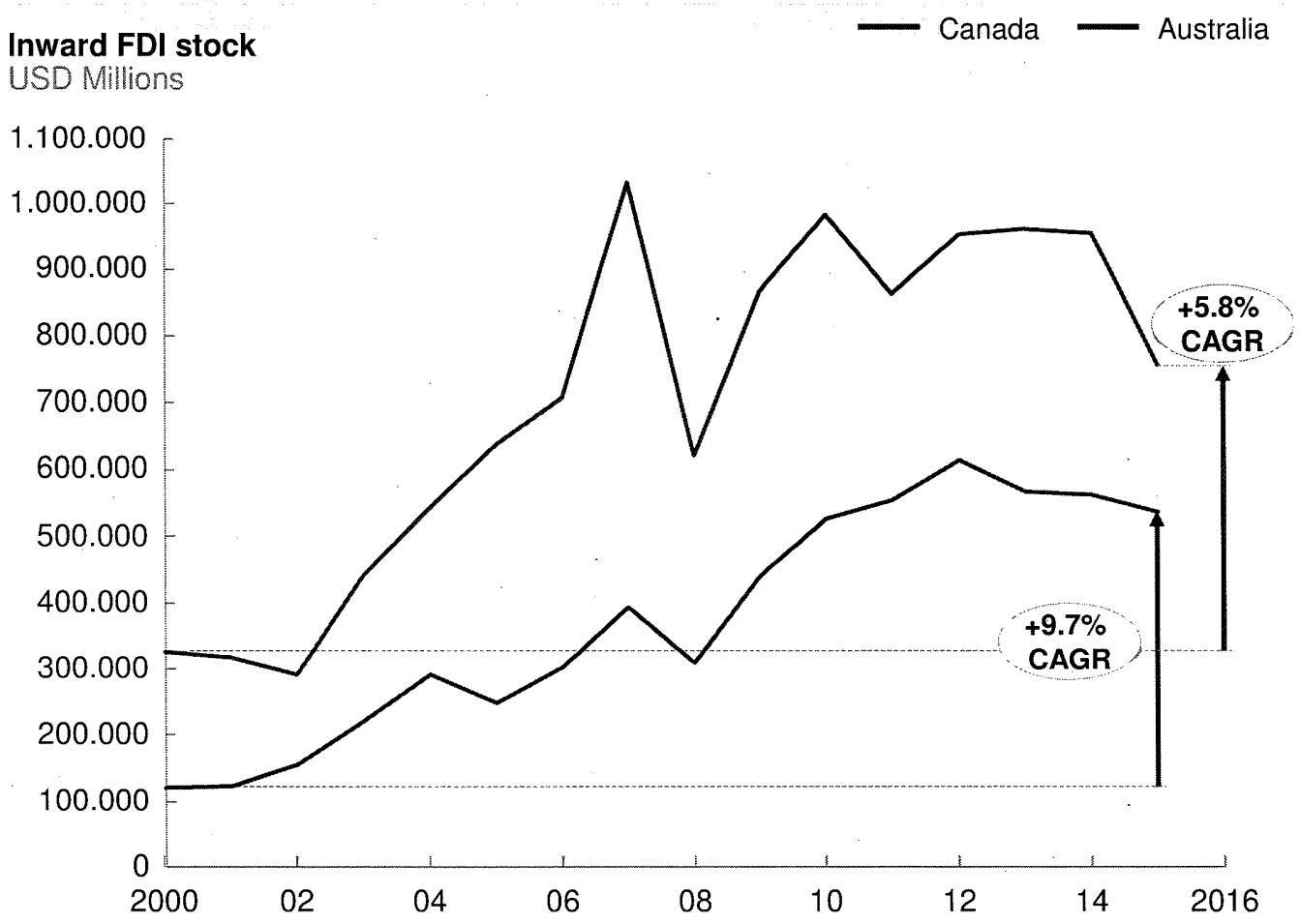
Improving productivity

SOURCE: Advisory Council on Economic Growth, expert interviews

1. FDI

Canada's inward FDI stock growth has lagged peers[1]

Canada's stagnating inward FDI compared, %, CAGR



1 FX fluctuations has an impact on FDI stock levels denominated in USD - but a low CAD will typically attract greater FDI

Inward FDI is a direct contributor to GDP, in addition to providing an economic multiplier effect through innovation adoption and re-exports through global value chains

From 2000 to 2015, **Canada's inward FDI stock grew at a CAGR of 5.4%, compared to the OECD total's 6.8%, and Australia's 9.7%**

+175B

Additional Inward FDI stock (and GDP) if Canada had attracted FDI at the OECD rate

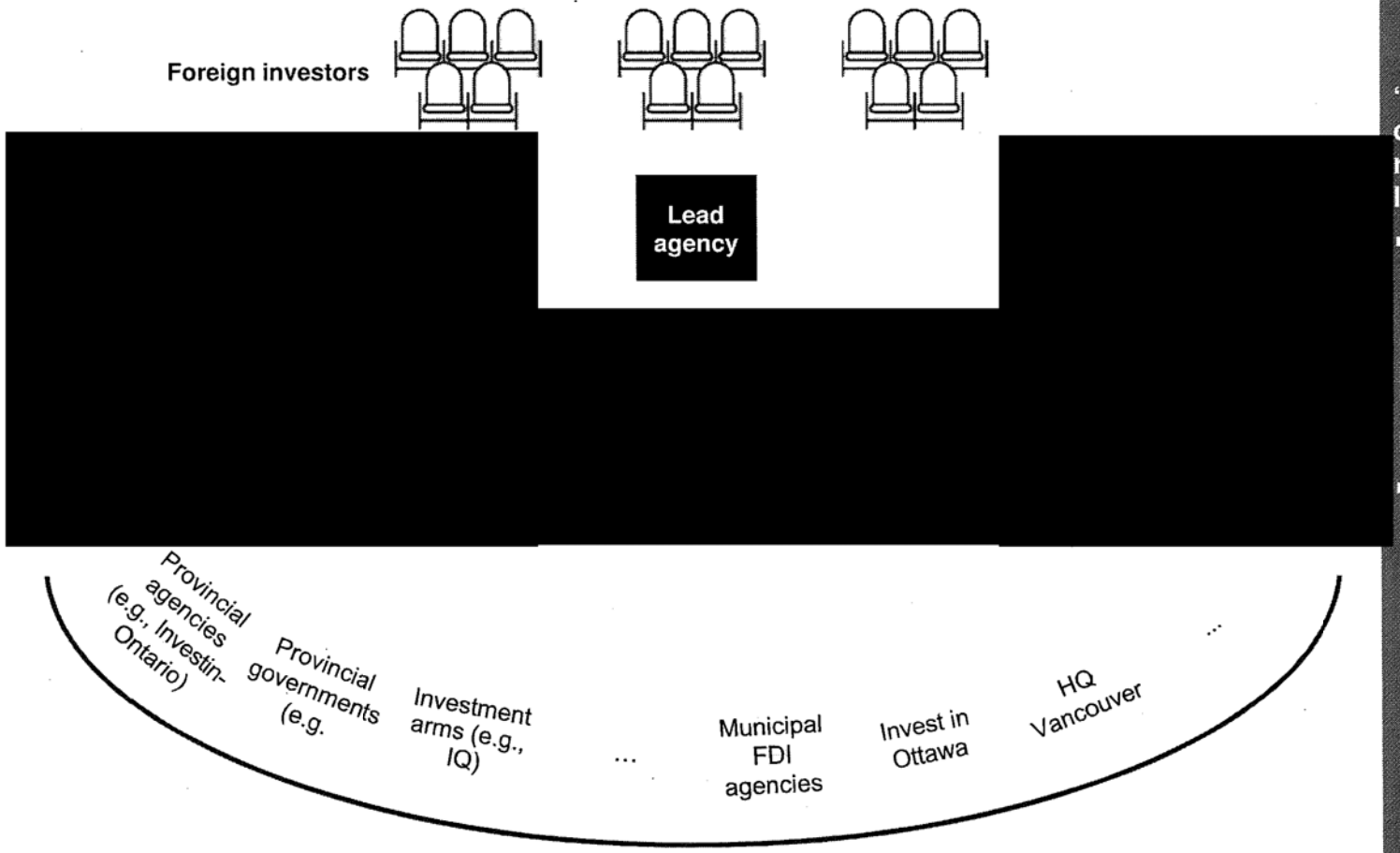
SOURCE: OECD, McKinsey Analysis

ATIA - 21(1)(a) ATIA - 21(1)(b)

1A. LEAD AGENCY

A lead FDI agency is needed to conduct the orchestra in attracting greenfield investments…

Existing [redacted]



"Right now, it's a dog's breakfast – nobody's in the lead"

- **Provinces need to work together through an agency** to avoid a zero-sum game
- A lead agency is needed to act as a **"one-stop shop" for information to address the market failure of information**

SOURCE: Expert interviews

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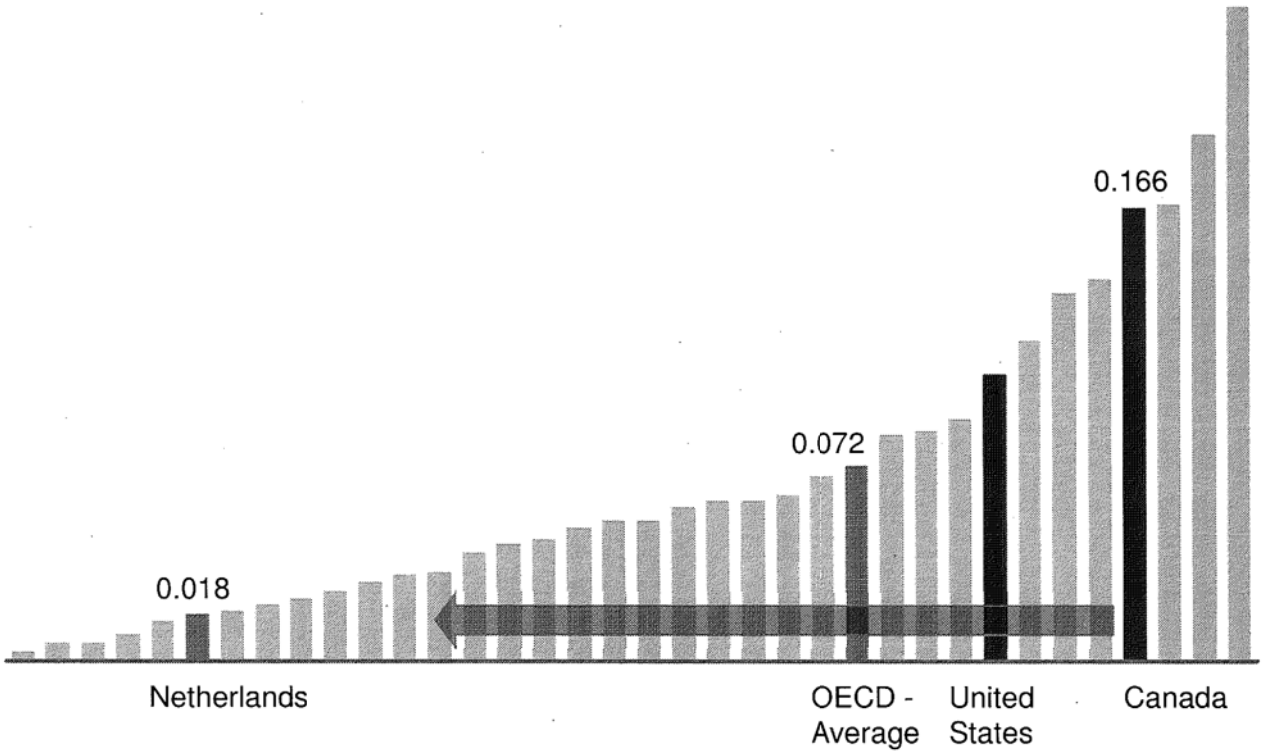
1B. EASE OF INVESTMENT

We are perceived as one of the most restrictive markets for inward FDI... we should aim for the first or second quartile

Desired outcome

OECD Restrictiveness Index, 2015

Higher index indicates a strong investor perception of restrictivenesss



Canada ranks 33rd out of 36 in OECD surveys of regulatory restrictiveness perceptions by investors

Index gauges rules on

- Foreign equity limitations
- Screening mechanisms
- Foreign employee restrictions
- Operational restrictions, e.g., on land ownership

SOURCE: OECD; McKinsey analysis

1B. EASE OF INVESTMENT

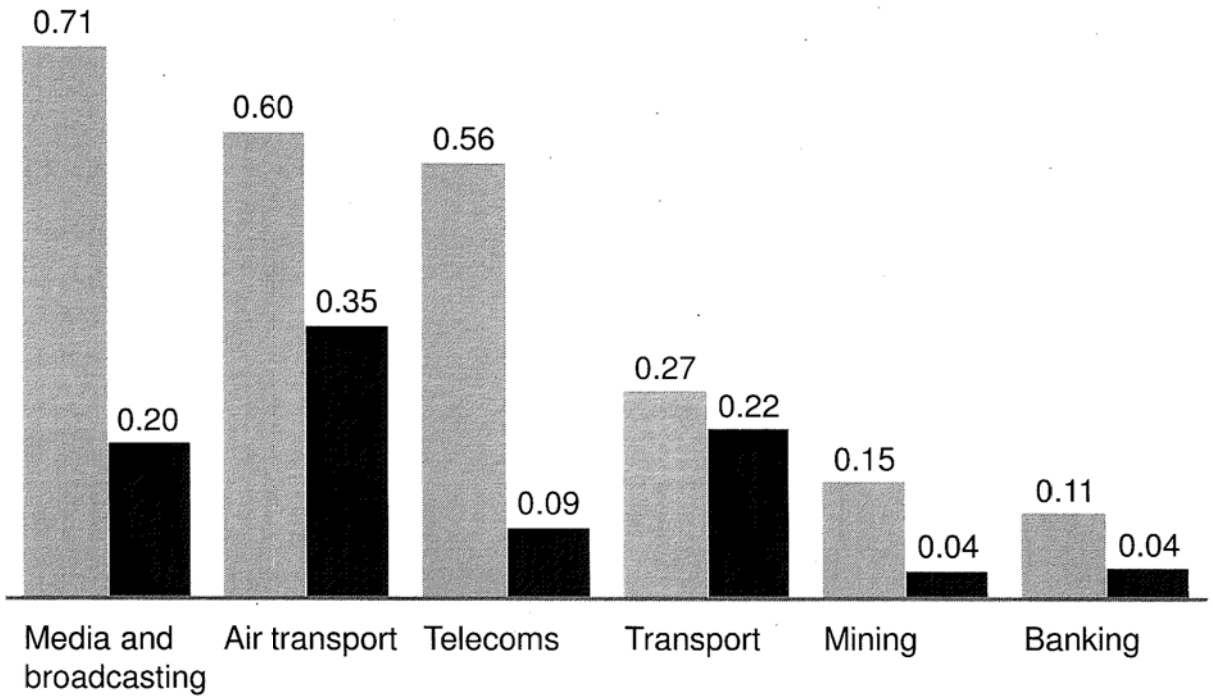
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Canada
OECD average

Canada's 5 most restrictive sectors, by investor perception

OECD Restrictiveness Index

Higher index indicates a strong investor perception of restrictivenesss



[redacted]

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1B. EASE OF INVESTMENT

The benefits of FDI to Canadian competitiveness generally outweigh the risks...even in brownfield investments

Conference Board findings on foreign corporate takeover effects (CTEs)

- **Corporate takeovers are driven by firm-level needs**, not national interests
- **Nationality of the acquirer is less important than the rationale** for the acquisition
  - **Growth**: increase size of enterprise to reap economies of scale
  - **Downsizing**: dispense with non-performing assets and refocus operations
  - **Value Extraction:** get more out of existing assets by changing way they are managed
- Since geographic and product overlap is greater between Canadian companies, **domestic acquisitions produce somewhat more "hollowing out" than foreign acquisitions**
- **M&A activity is key to addressing lagging productivity growth**
- **Largest projects in Canada** are generally made possible, or at least **expedited, by infusions of foreign capital**

SOURCE: Interviews, Conference Board of Canada - "Hollowing Out": Myth and Reality Corporate Takeovers in an Age of Transformation – 2008

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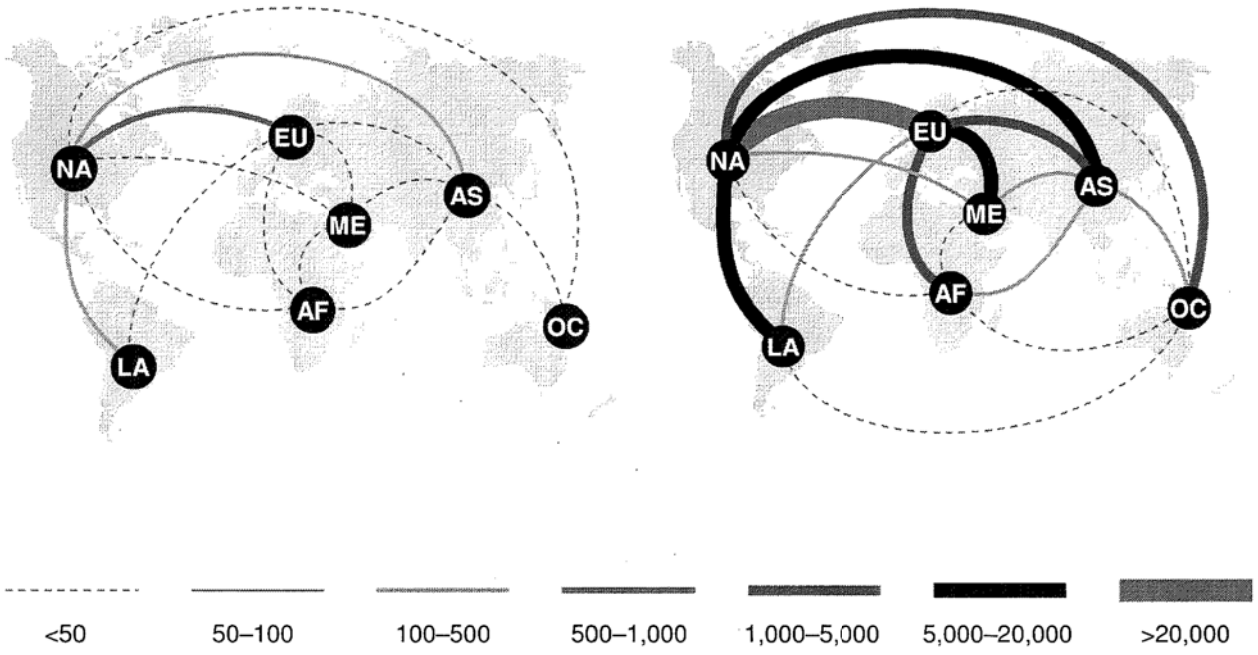
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[redacted]

Digital flows have exploded 45x, 2005-2014

Bandwidth, Terabits per second (Tbps)

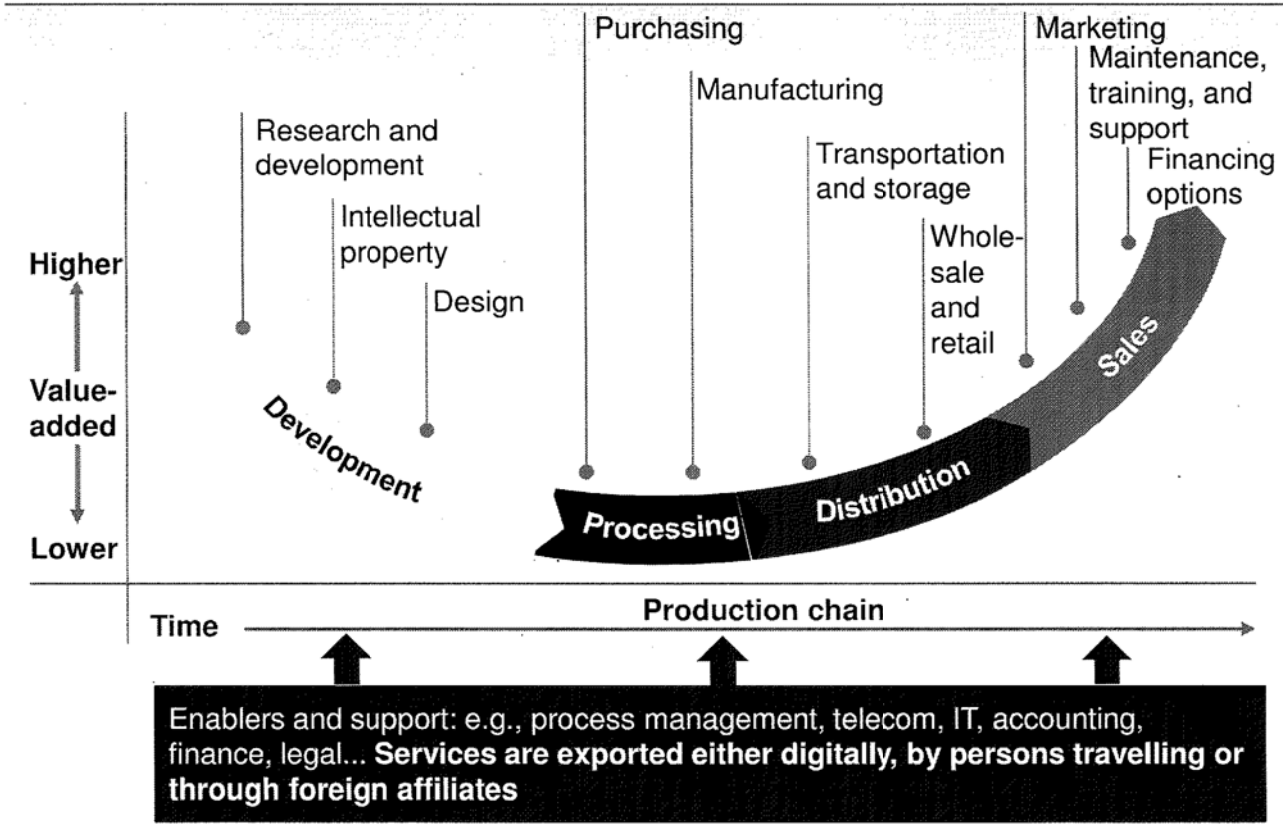


[redacted]

SOURCE: TeleGeography, Global Internet Geography; McKinsey Global Institute analysis

[redacted]

Services are integrated throughout the value chain



~50%

Of Canada's export value now consists of services[1]

[redacted]

1 If services that go into the production of traded products are included. Four out of 5 Canadians are employed by the services sector

[redacted]

SOURCE: **"The smiling curve of production value"** Conference Board of Canada, Palladini, *Spotlight on Services in Canada's Global Commerce*

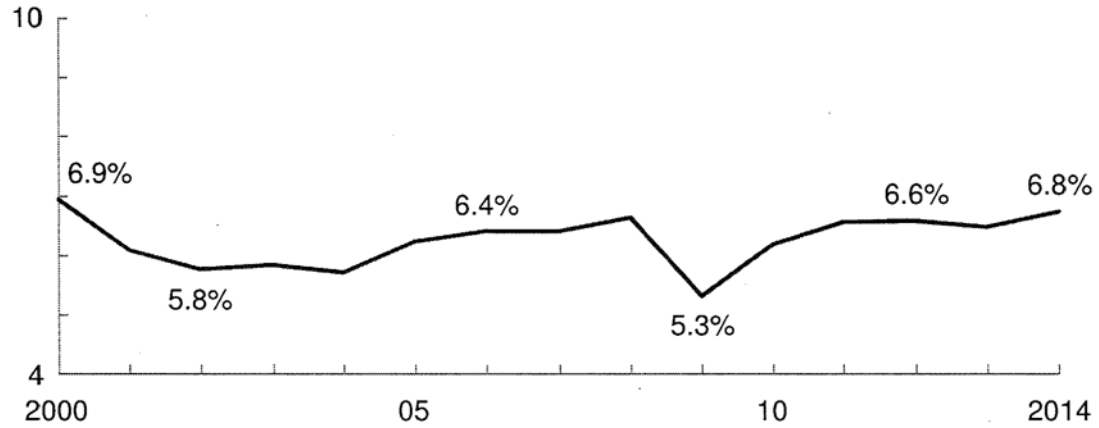
ATIA - 21(1)(a) ATIA - 21(1)(b)

[redacted]

North American intraregional trade needs high-payoff upgrades to compete globally as a true "market-block"

[redacted]

Goods and services flows within North America
As a % of regional GDP



Notes

- Intra-region flows have **still not recovered to 2000 levels**
- We **lag other regions as a market-block**: intra-region flows are 32% of GDP in the EU and 13% in ASEAN

[redacted]

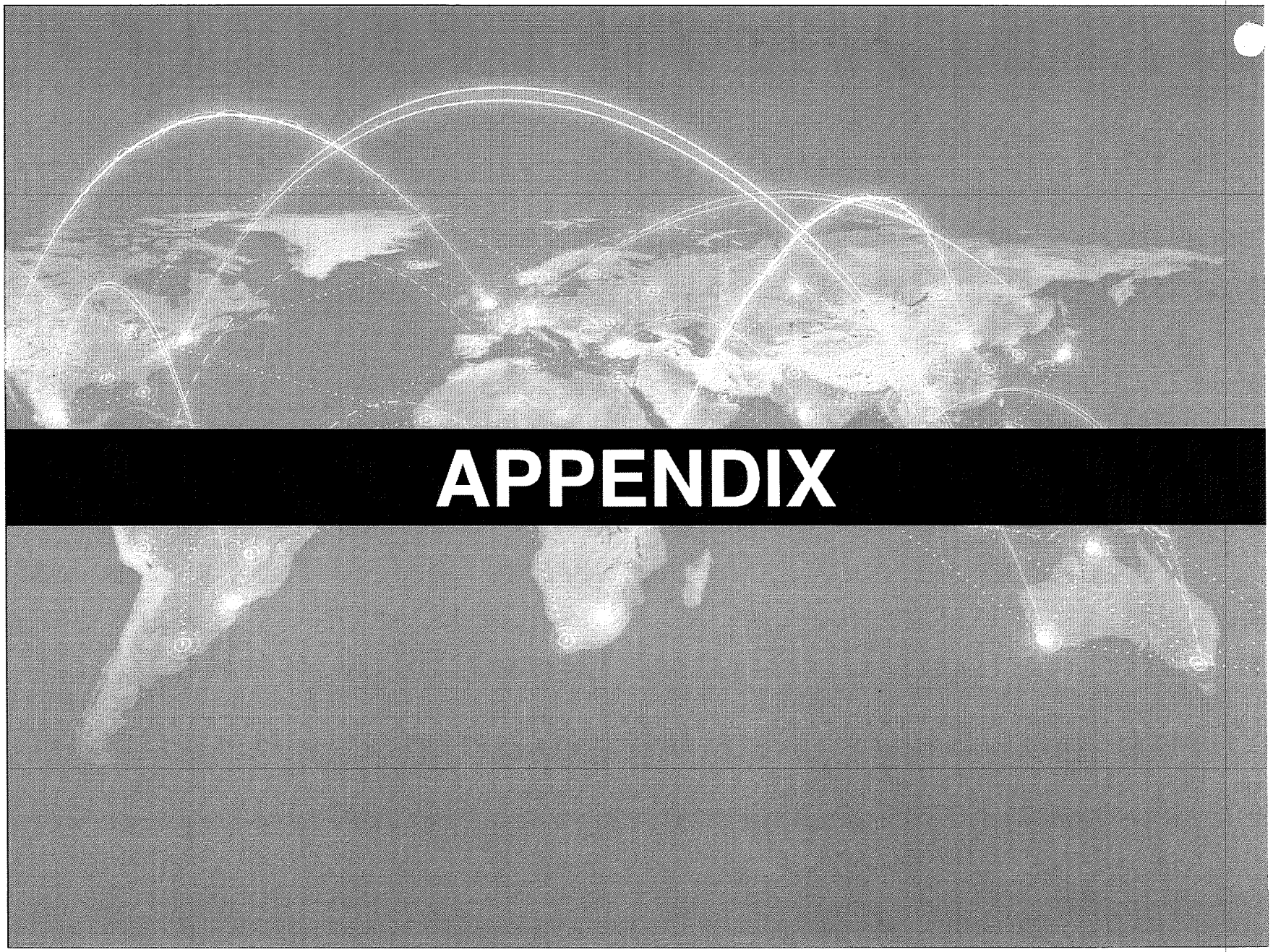
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SOURCE: Advisory council on Economic Growth, McKinsey Global Institute

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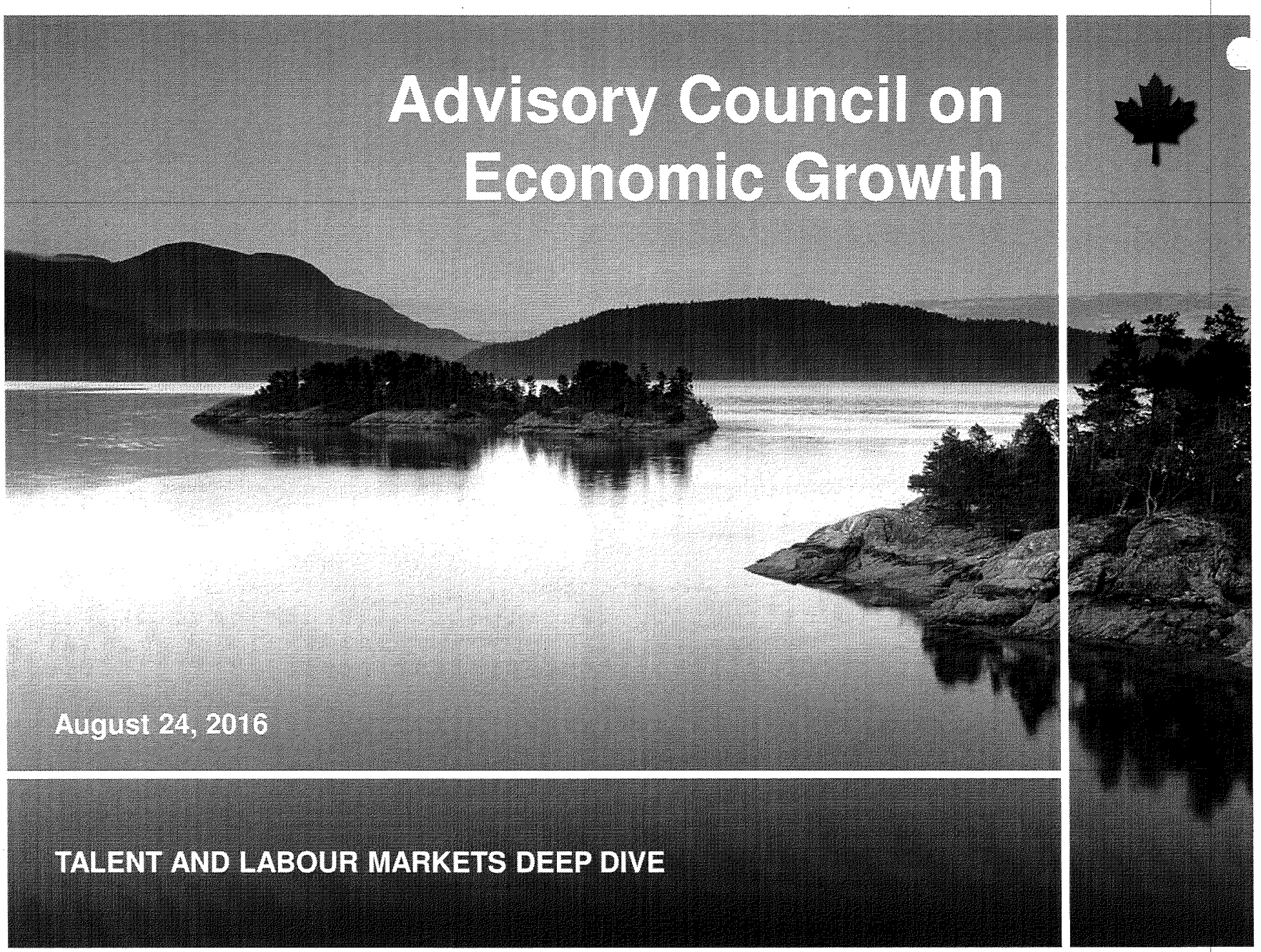
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Advisory Council on
Economic Growth
August 24, 2016
TALENT AND LABOUR MARKETS DEEP DIVE

ATIA - 21(1)(a) ATIA - 21(1)(b)

Key insights from our prior discussions



Immigration will be increasingly important for population and labour force growth

- Migratory increase could account for more than 80% of Canada's population growth beginning in 2031 and without immigration, Canada's labour force growth could be close to zero

What's different this time to make a step change in Canada's labour force?

01	Embracing change	Canada must be ready and willing to embrace the increasing pace and scope of economic and technological change and the corresponding public policy challenges that come with it
02	Collaboration	The federal government, provincial and territorial governments, educational institutions, employers, and other stakeholders all have roles to play in strengthening Canada's labour market
03	Evidence-based	Interventions must be established with proper data tracking and be evaluated at regular intervals and the government must be willing to change non-performing intervention

ATIA - 21(1)(a) ATIA - 21(1)(b)

Priority initiatives for Talent & Labour Markets

[redacted]

C

- **Target immigration to attract talent from around the world**
  - **Gradually increase permanent immigration** [redacted] with a focus on high-skilled immigrants and top talent
  - Create a **simple and flexible** temporary entrance system across industries
  - Double-down on attraction and retention of **international students**

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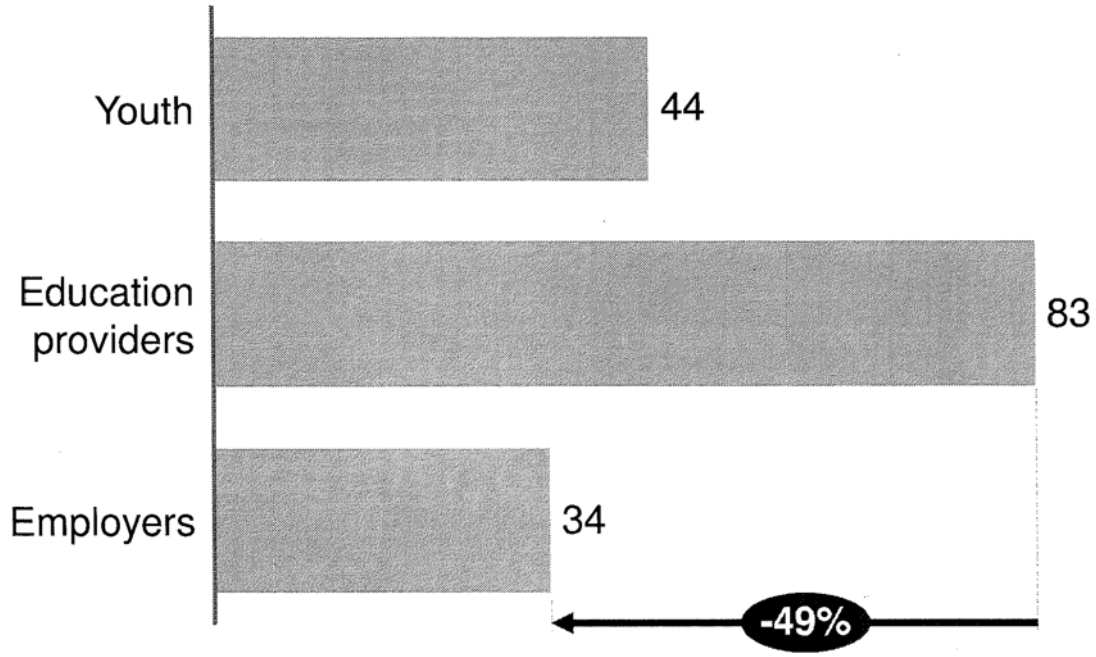
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Preparedness of graduates for employment

% respondents who agree that youth are adequately prepared for work



The Canadian perception gap on graduate preparedness is the largest of its peer nations

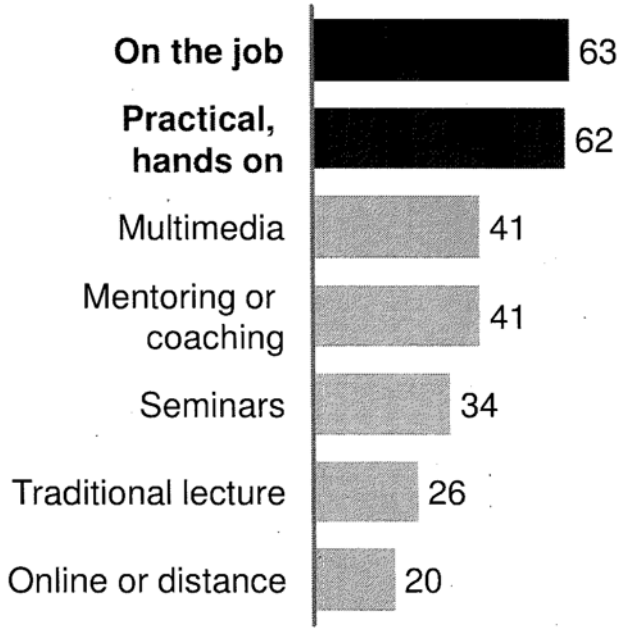
SOURCE: McKinsey education to employment surveys, Sep-Oct 2013

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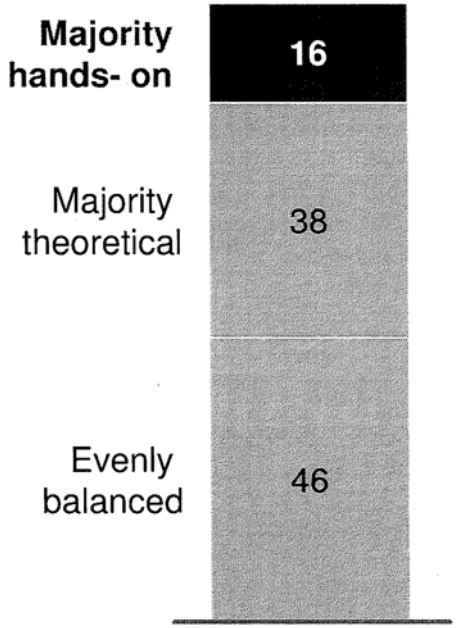
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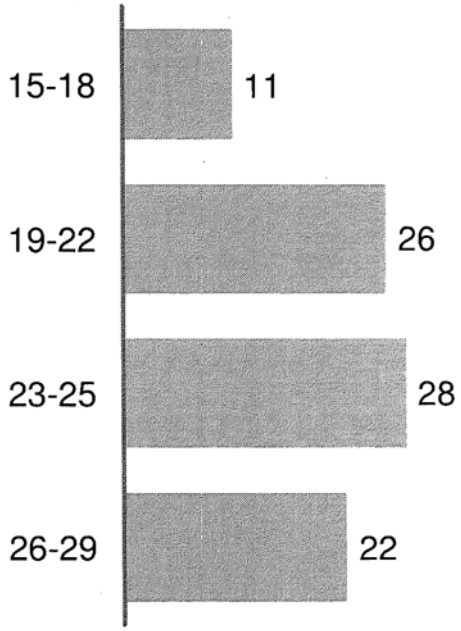
% of youth respondents who find practical and theoretical learning "effective" or "extremely effective"



Time spent on different learning methods
Youth respondents, %



Youth engaging in a paid internship or coop, by age
%



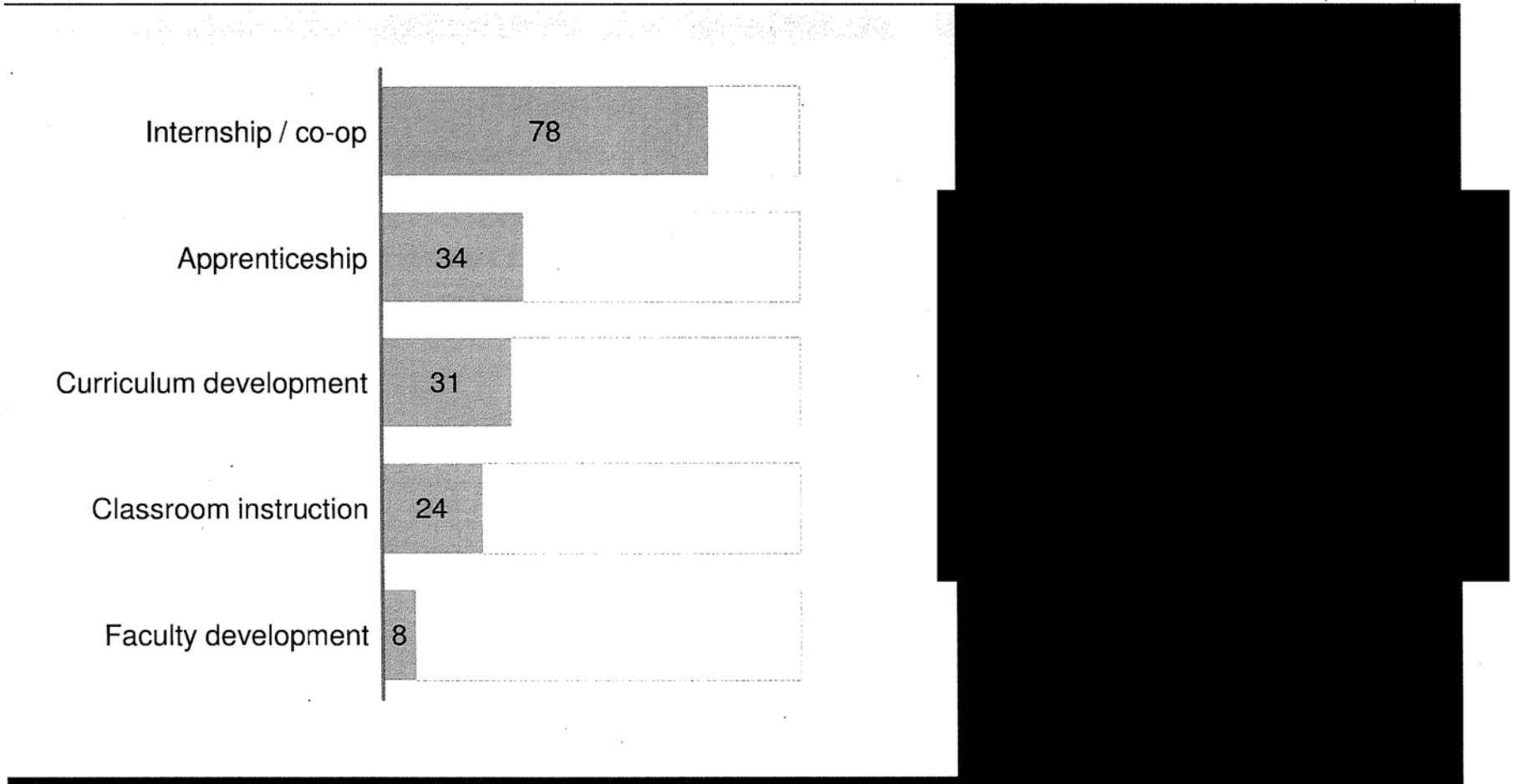
SOURCE: McKinsey education to employment surveys, Sep-Oct 2013

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[redacted]

Canadian business partnerships with post-secondary institutions

% of business respondents



[redacted]

SOURCE: Conference Board of Canada; Canadian Council of Chief Executives

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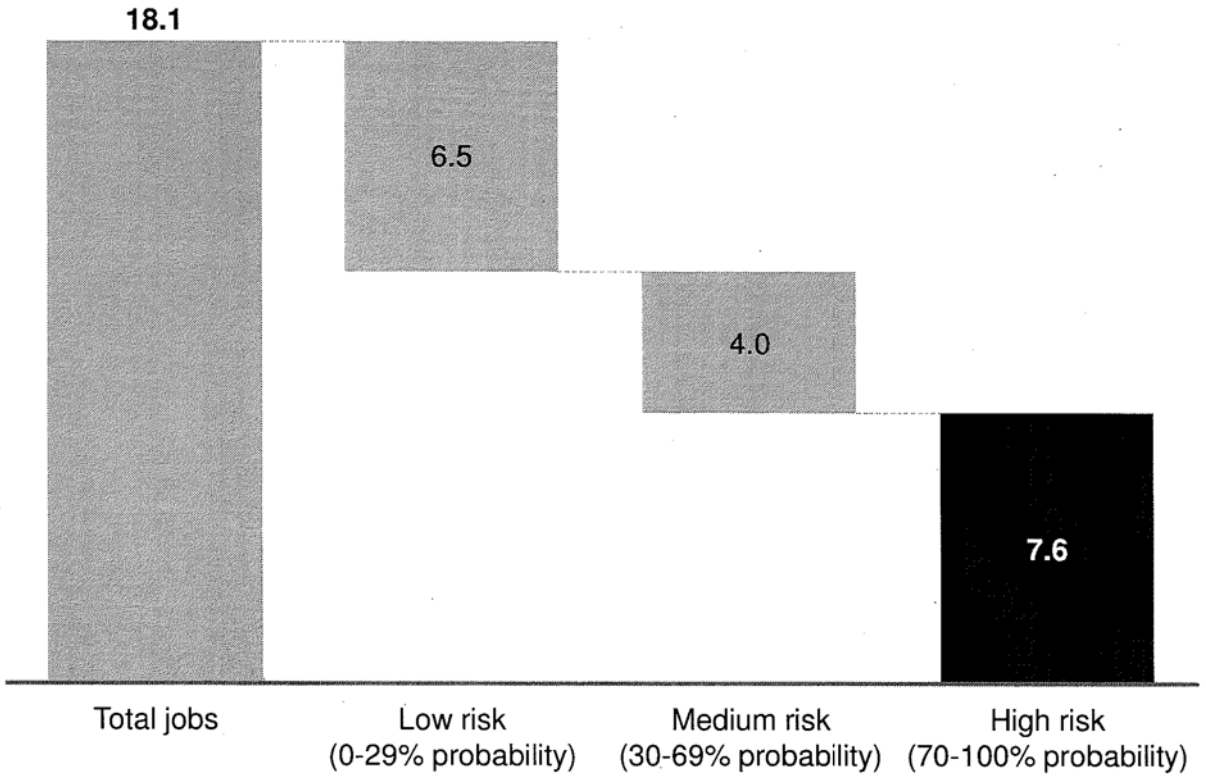
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[redacted]

1 Over the next 10 to 20 years, nearly half of Canada's jobs face a high risk of being affected by automation

Projected employment by automation risk profile, 2016

Millions of jobs



The impact of automation on jobs in Canada over the next ten years remains to be seen—technology may complement labour, increase productivity and create more jobs in certain areas, but it may substitute for labour in other areas and cause major job and task restructuring

SOURCE: Frey and Osborne (2013), Brookfield

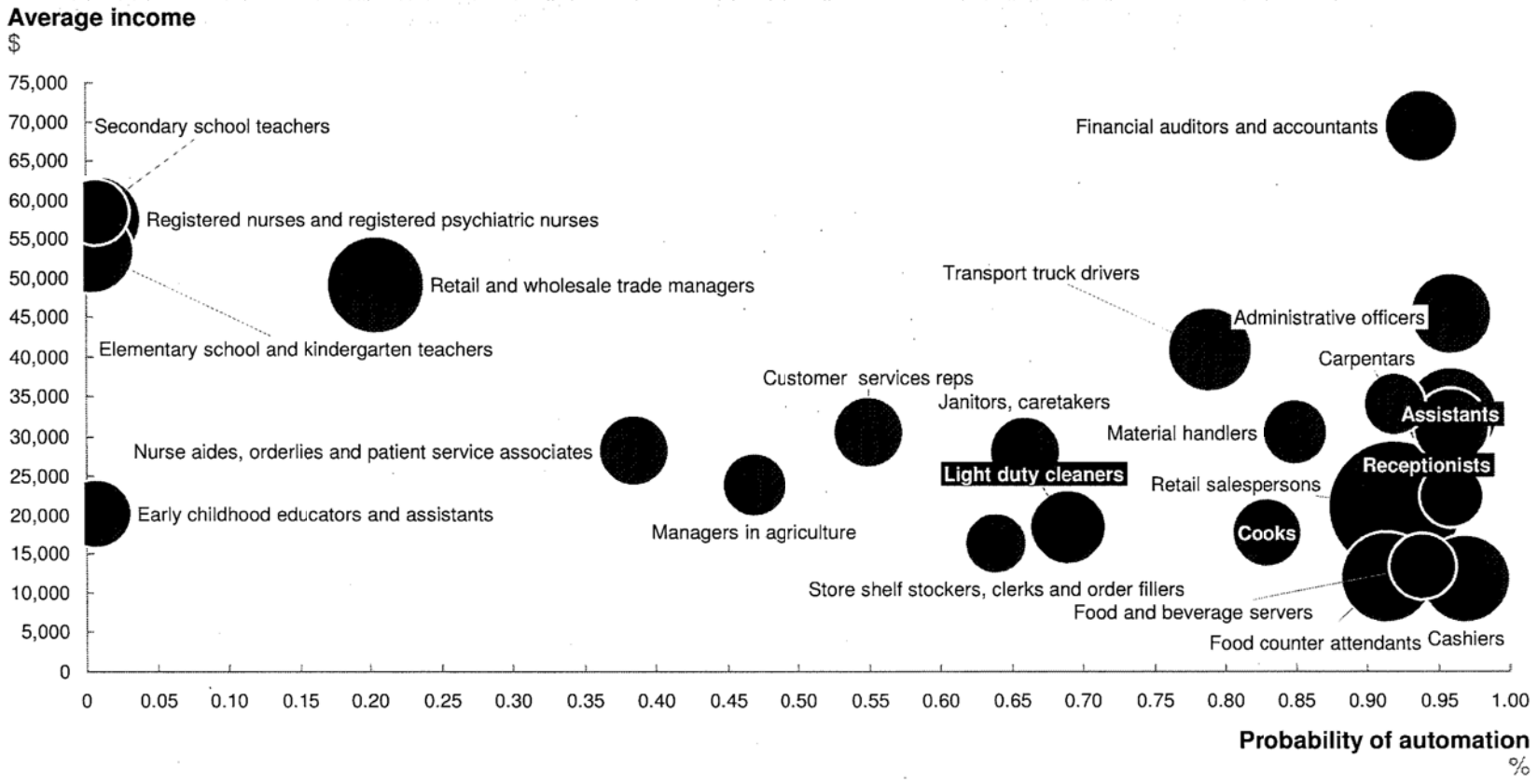
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1 Probability of automation by occupation

NON-EXHAUSTIVE

Automation potential of Canadian occupations



Find an interactive data set here:

https://public.tableau.com/profile/brookfield.institute.for.innovation.and.entrepreneurship#!/vizhome/AutomationofCanadianOccupations/Analysis

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- Immigration

2 Workforce participation – engaging underrepresented groups

PRELIMINARY

Details follow

Opportunity

- **Labour force participation in Canada is strong, but must be an area of concerted focus by policy makers, given the realities of an aging population and slowing labour force growth**
  - Labour force growth has slowed from 1.6% p.a. between 1976 and 2015 to a projected rate of 0.7% p.a. between 2016 and 2024
  - 47% of older workers would remain in the workforce if they had more flexible work arrangements
- **Women are underrepresented in the workforce**
  - There is an 16% gap in the participation rate of women aged 25-54 with children under 6 relative to men
- **Other groups of Canadians are also underrepresented in the workforce**
  - Individuals with disabilities participate 31% less in the workforce than white men

Initiatives

2A Assist working parents through **affordable childcare, flexible parental benefits, and support to re-integrate** into the workforce

- Holistic approach to childcare and parental benefits that supports working parents
- Private-public partnerships to up-skill and re-integrate women into the workforce

2B Make **structural changes to pensions, tax systems, and retirement benefits to remove barriers to** remaining in the workforce

- Commit to gradually raising the age of eligibility and earliest age of collecting for OAS, CPP, and QPP in conjunction with the provinces
- Adjust contribution schemes rules for workers that stay in the workforce longer (e.g. allow for RRSP contributions past 71 for employed workers)

2C Increase incentives for **all working-age Canadians** to stay in the workforce

- Expand tax breaks for low income families in the workforce

What would success look like?

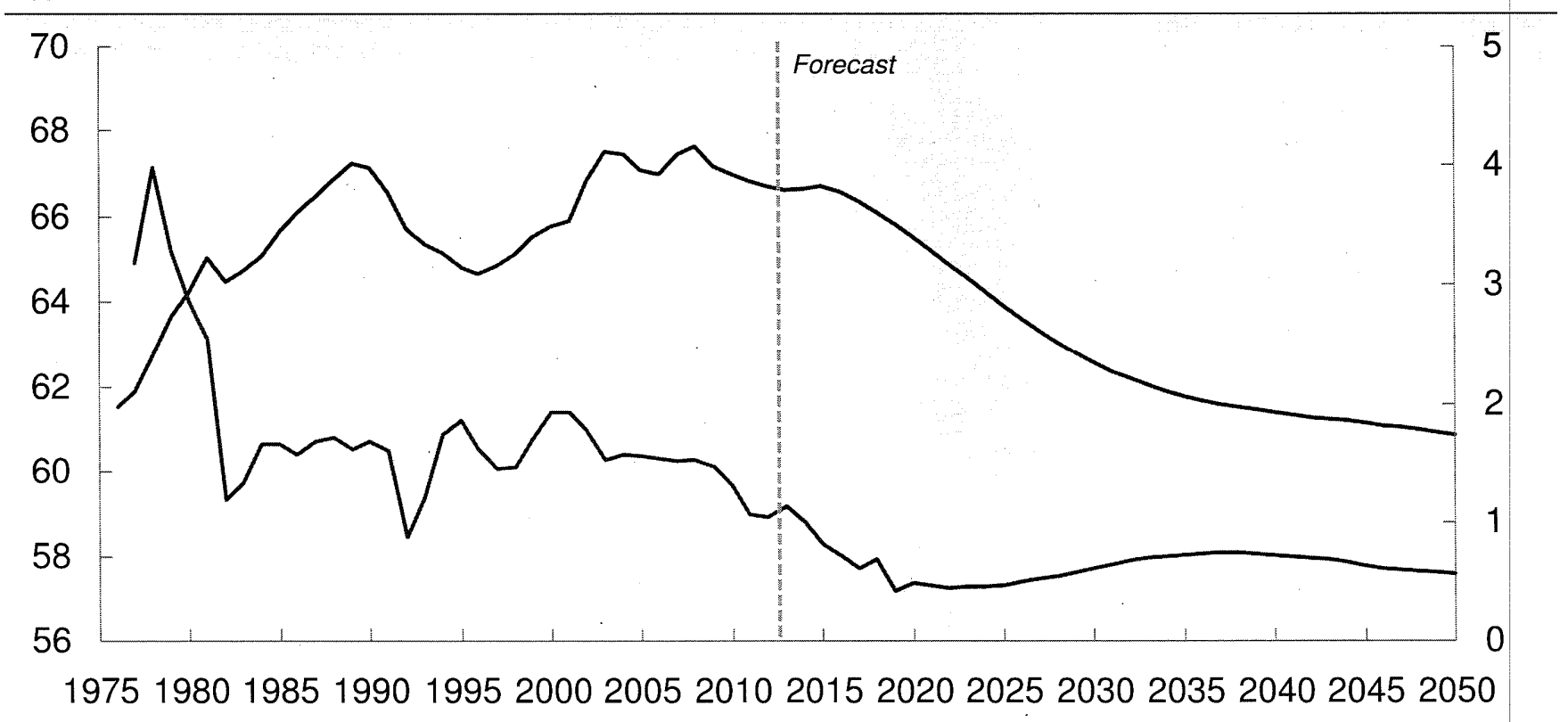
- Increase workforce participation of older workers and women in-line with top-performing OECD countries

SOURCE: Statistics Canada

2 Demographic changes are expected to limit employment over the medium-term

— Labour force participation rate (left scale)
— Employment growth (right scale)

Labour Force Participation Rate and Employment Growth



The impact of the shift toward an older population will drive overall labour force participation rate down to ~62% by 2035

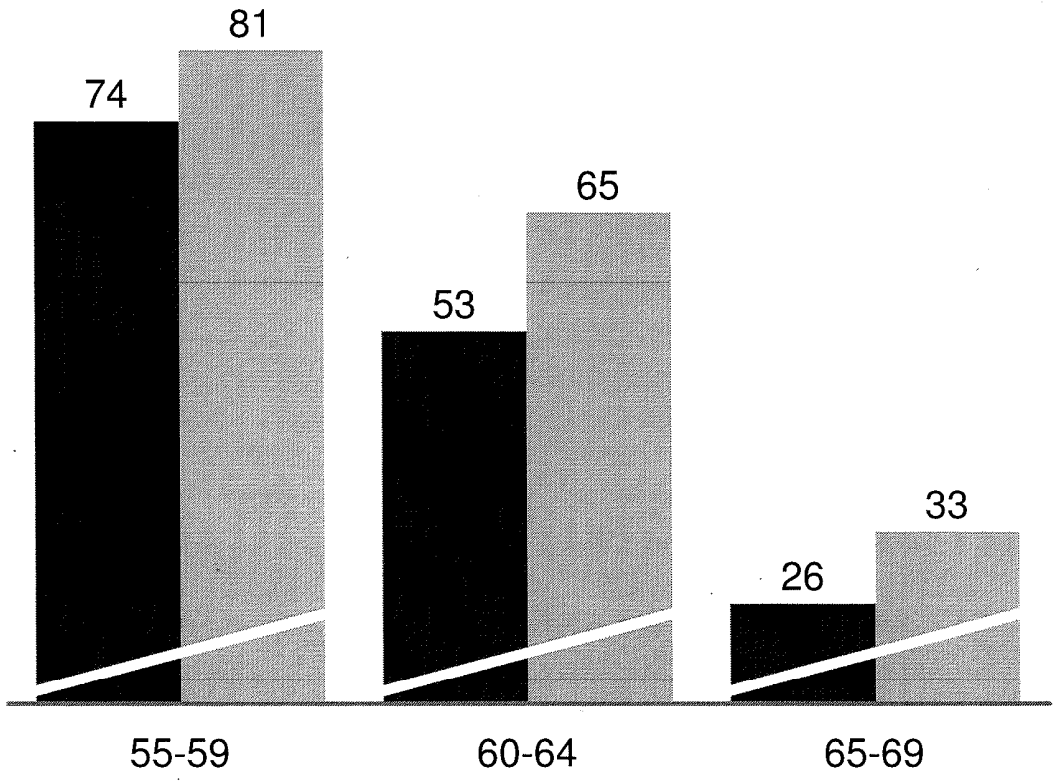
SOURCE: Statistics Canada (Labour Force Survey); Department of Finance projections

WORKFORCE PARTICIPATION

2 Canada lags behind leading nations on labour force participation for older age categories

Labour force participation rate amongst older population, 2014

%



Older workers labour force participation has increased in recent years, however Canada lags behind best performing nations

In some high-participation rate countries (e.g., New Zealand, Japan and the U.S.) narrow coverage in pension and health care systems helps explain higher participation amongst older Canadians; in other nations (e.g., Sweden and Norway) labour force participation is higher across all age categories

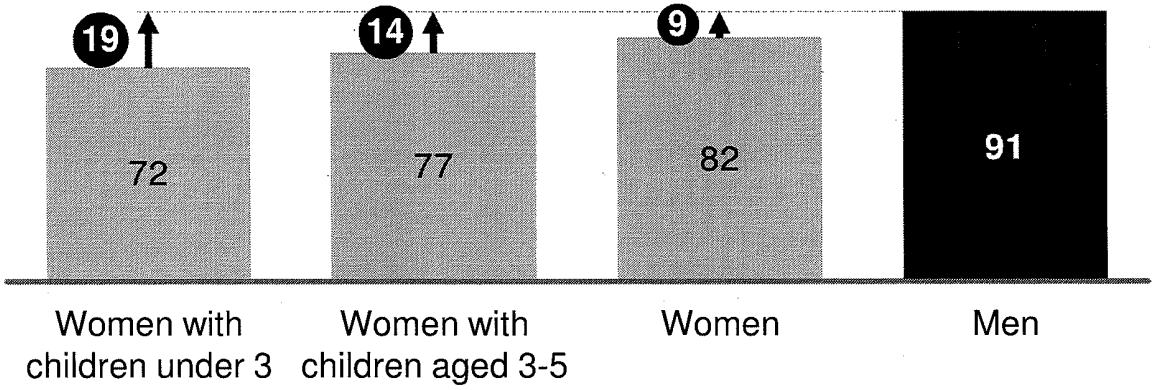
1 Includes Japan, New Zealand, US, Sweden, Norway

SOURCE: Department of Finance, OECD

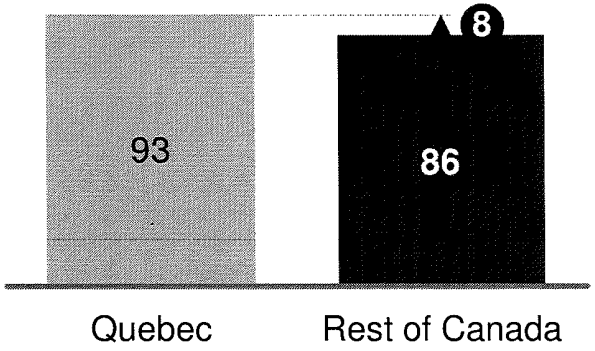
WORKFORCE PARTICIPATION

2 Women's labour force participation rates are strong but gaps remain, especially for women with children

Labour force participation rates[1] for women, 2014, %



Labour force participation rates[1] for women with children under 16 compared to similar aged men, 2014, %



1 All figures are for prime aged Canadians (25-54)

Canadian women with young children are less engaged in the workforce; in general mothers' participation rates increase with the age of the youngest child

Reproducing Quebec's system of reliable and affordable childcare could boost women's labour force participation across the country

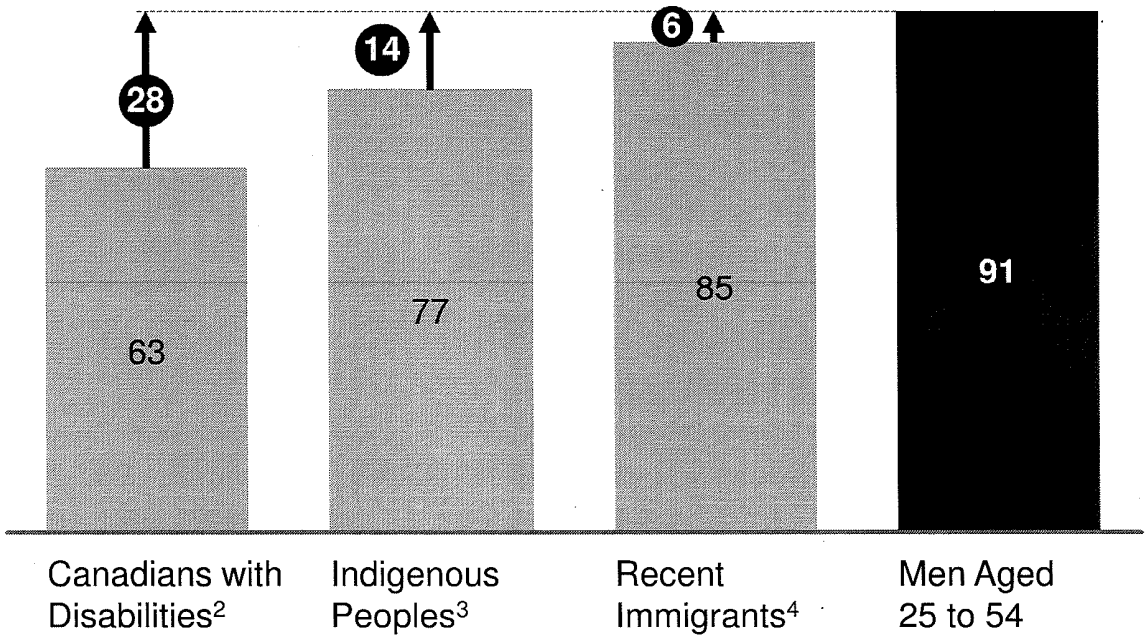
SOURCE: Statistics Canada, Department of Finance Calculations

WORKFORCE PARTICIPATION

2 Other groups of Canadians are also underrepresented in the labour market

Labour force participation rates for selected groups[1] of Canadians, 2014

%



1 The share of foreign-born within the Canadian population is expected to increase from 20 per cent to 25 per cent within the next twenty five years. The share of Aboriginals within the Canadian population is expected to increase from 4 to 5 per cent with slightly larger increases in Manitoba, Saskatchewan, Western Ontario, and the territories

2 Population aged 25-54 with disability (excluding women with children)

3 Aboriginal population aged 25-54 (excluding women with children)

4 Population aged 25-54 who came to Canada in the last ten years (excluding women with children)

While the rate at which Canadians participate in the workforce is high by international standards, participation is significantly lower for some segments of the population—these groups face challenges when entering the workforce including a lack of social capital (e.g., workplace familiarity, networks, mentors, and other social support)

SOURCE: Statistics Canada, Department of Finance Calculations

2B Canada should take a segmented approach to raising the CPP retirement age

Retirement systems are expensive to maintain

- **Longer life spans** means that systems will have to keep paying out for longer
- **An aging population** means there will be fewer working age adults to support retirees
- **Lower returns outlooks** from the period of slow growth and low interest following the 2008 financial crisis puts long term solvency at risk

Adjusting the OAS, CPP and QPP ages would increase workforce participation

- **Benefits for plan finances and contributors**
  - A gradual increase in retirement age could increase the CPP's assets to CAD ~$100B by 2050[1]
  - Savings could be passed on in the form of lower contributions
- **Higher pension ages would encourage workers to stay in the workforce for longer**
  - Catalyze a cultural change in expectation for when to leave the workforce
- **A segmented approach could ease the transition, e.g.:**
  - For blue collar and manual occupations, eligible at age 65, other occupations, eligible at age 67

1 2010 estimate

SOURCE: CDC, Mowat Center for Policy Innovation

Contents

- Skills development
- Workforce participation
- Immigration

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PRELIMINARY

Details follow

3 Immigration – attracting talent

Opportunity

- Labour force growth is slowing as natural birthrates fall and the country ages; **immigration will be increasingly important for population and labour force growth**
  - Migratory increase could account for more than **80% of Canada's population growth** beginning in 2031
  - Without immigration, Canada's **labour force growth could be close to zero**
- **Canada needs more experienced top talent**
  - Lack of experienced business talent is the top-cited bottleneck that inhibits Canadian companies from scaling
  - Immigrants are nearly twice as likely as their native-born counterparts to start a 'knowledge-based' business (e.g., manufacturing outlet, data processing center)
- **International students offer talent, diversity, global networks, and labour market readiness**
  - Contribute in excess of $10-billion in GDP to the economy
  - Offering a commitment that students can stay after graduation is key to attract top talent

Initiatives

3A Gradually increase permanent immigration by 100K with a focus on high-skilled immigrants and top talent

- Actively match immigrants without job offers to employers in need of skills and experience through Express Entry

3B Create a simple and flexible temporary entrance system across industries

- Build a transparent and efficient system for all stakeholders
- Provide a frictionless path to permanent residency by reconsidering points allocations for human capital characteristics

3C Double-down on **attraction and retention of international students**

- Coordinated marketing effort to brand Canada as the best place to study and work after graduation,
- Prioritize international students for permanent residency

[redacted]

What would success look like?

- Double permanent immigrants with a focus on high-skilled immigrants and top talent
- Best-in-class processing times for top talent work permits
- Frictionless path to permanent residency and support for students

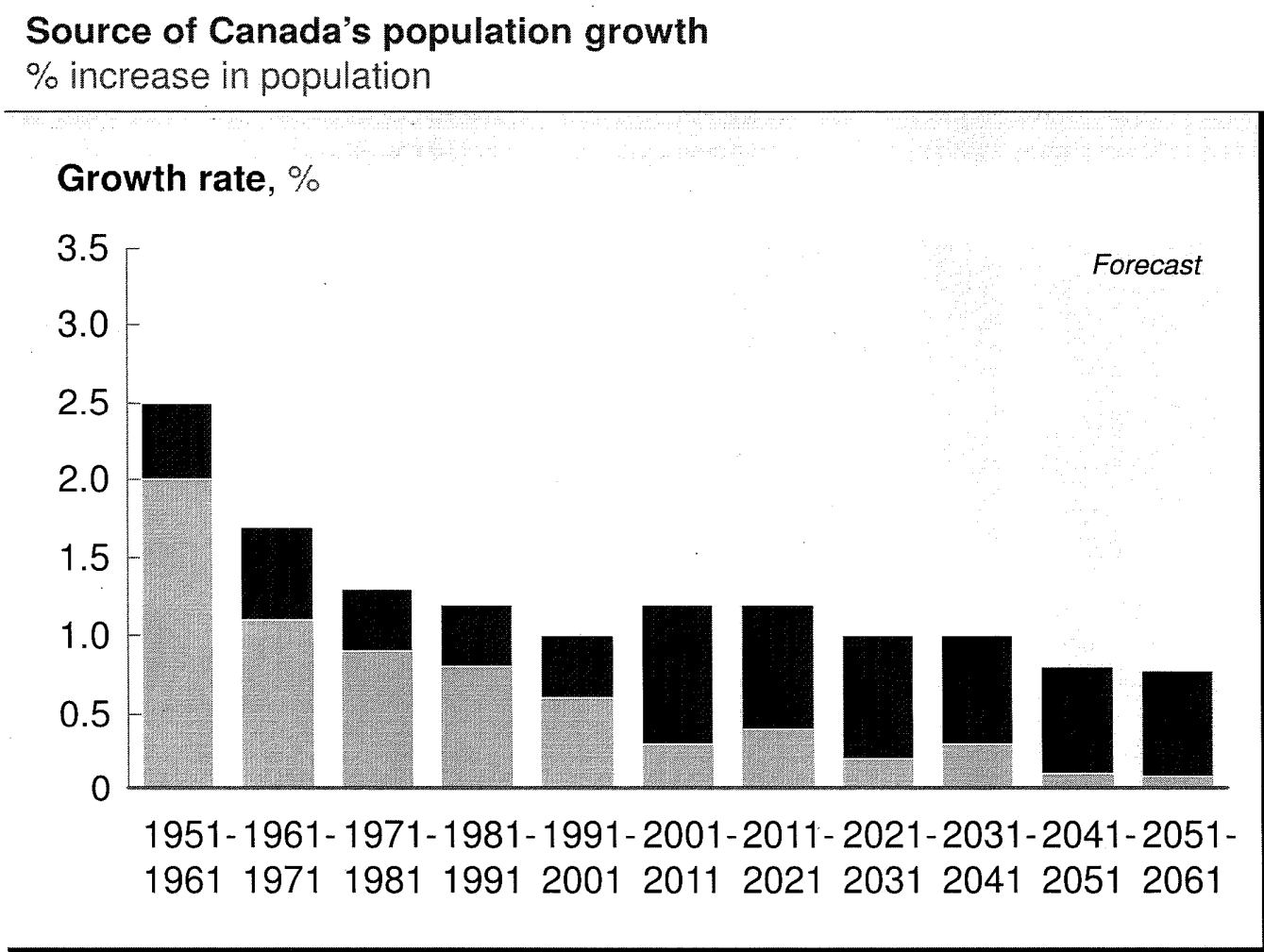
SOURCE: Statistics Canada

IMMIGRATION

3 As natural population growth slows, immigration will become even more critical for Canada's growth and global relevance

Source of Canada's population growth

% increase in population



Migratory increase could account for more than 80% of Canada's population growth beginning in 2031—without a sustained level of immigration, Canada's population growth could be close to zero within 20 years

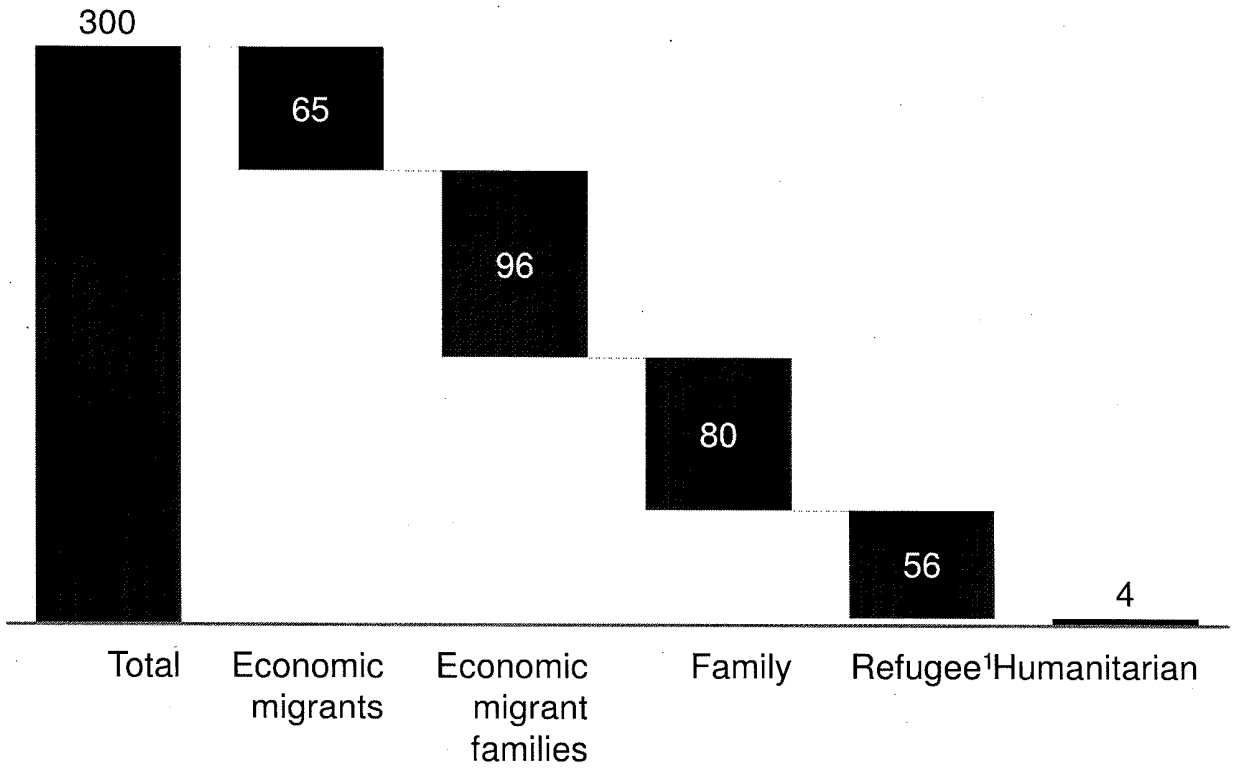
SOURCE: Statistics Canada

IMMIGRATION

3 This year Canada is targeting 300K permanent immigrants, which represents ~0.8% of population

Permanent immigration targets, 2016

Number of immigrants, 000s



Canada's permanent immigration levels are set annually; scaling economic immigration and supporting the full labour market integration of working age immigrants could help Canada drive growth in its workforce and pool of skilled labour

1 This year's figure for refugee immigration is higher than average due to the government's response to the Syrian refugee crisis

SOURCE: Government of Canada

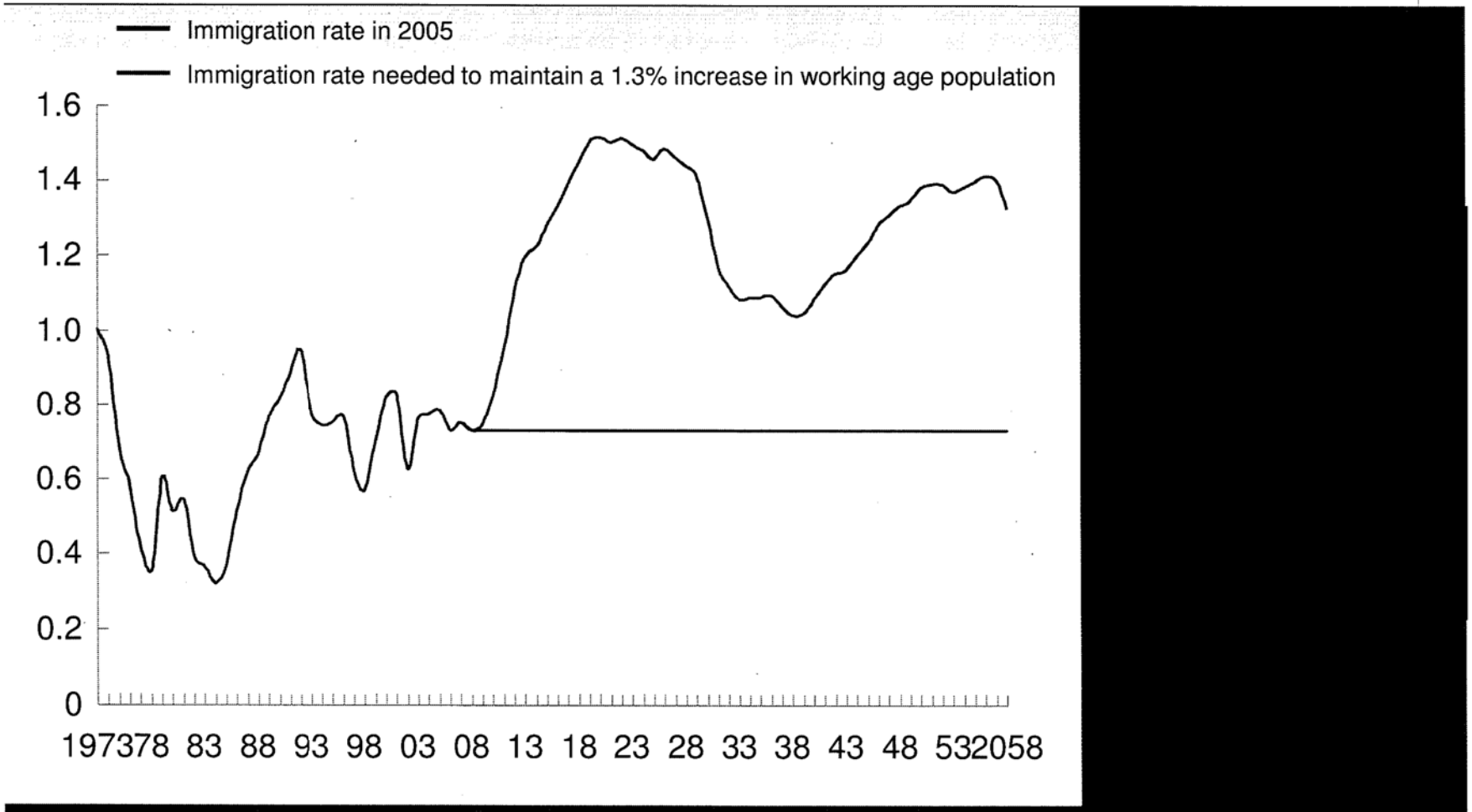
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IMMIGRATION

3 Permanent immigration would need to be scaled significantly over time to sustain growth in Canada's working age population

Immigration rate required to maintain 1.3% growth in working-age population

% of population



SOURCE: Statistics Canada, CD Howe

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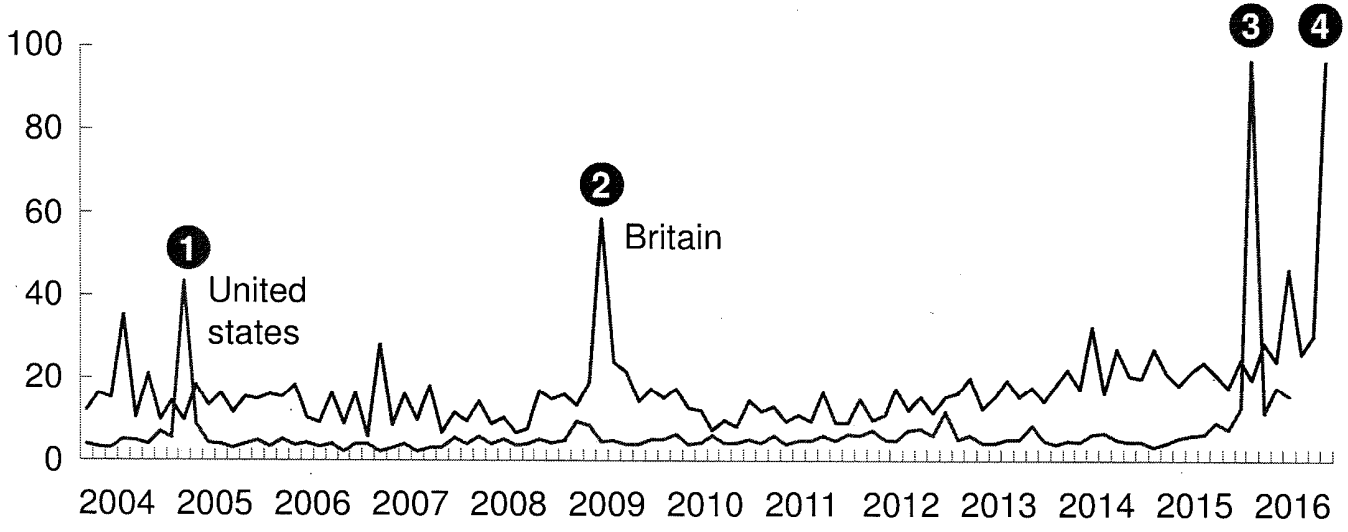
IMMIGRATION

3 There is an opportunity in today's political context to "double down" on recruiting highly-skilled immigrants

Interest in moving to Canada

Google search volume for *"Move to Canada"*
100=peak volume

1. George W. Bush is re-elected
2. Canadian ministers visits Britain, encourages skilled workers to move
3. Super Tuesday: Donald Trump wins seven out of 11 Republican primaries
4. Britain votes 52-48% to leave the European Union



- **Recent political events in Britain and the US (e.g., Brexit, growing support for Donald Trump) have spurred greater interest in immigration to Canada**
- **Canada's relatively calm political situation makes it an attractive destination for high human-capital individuals in search of stability**

SOURCE: The Economist

ATIA - 21(1)(a)
ATIA - 21(1)(b)

IMMIGRATION

3B We could facilitate entry through a simple and flexible temporary entrance system across industries

Initiative	Explanation
Build a transparent and efficient system for both employees and employers	[redacted]
Design a frictionless path to permanent residency targeted at highly skilled workers and top talent	

ATIA - 21(1)(a)
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IMMIGRATION

3C Foreign students are "quick win" source of top talent – what could a successful recruitment & retention strategy look like?

Initiative	Explanation	Example
Launch a coordinated marketing effort to attract and retain international students	[redacted]	BRITISH COUNCIL; Education UK innovative. individual. inspirational.; Future Unlimited studyinaustralia.gov.au
Improve settlement services for recent international graduates		QUIC Queen's University International Centre

ATIA - 21(1)(a)
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Questions for today's discussion

[redacted]

Immigration

- Is the Council being bold enough in its recommendation to scale permanent residency by 100K?

[redacted]

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List of Attendees at the August 24 Council Meeting

Count		Names
		Council Members
1	Main Table	Dominic Barton (Chair)
2	Main Table	Elyse Allan
3	Main Table	Katherine Barr
4	Main Table	Jennifer Blanke
5	Main Table	Kenneth Courtis
6	Main Table	Brian Ferguson
7	Main Table	Suzanne Fortier
8	Main Table	Carol Anne Hilton
9	Main Table	Carol Lee
10	Main Table	Christopher Ragan
11	Main Table	Michael Sabia
12	Main Table	Angela Strange
13	Main Table	Ilse Treurnicht
14	Main Table	Mark Wiseman
		Ministers
15	Main Table	Bill Morneau, Minister of Finance
17	Main Table	Navdeep Bains, Minister of Innovation, Science and Economic Development
		Deputy Ministers
20	Main Table	Paul Rochon, Finance
21	DM Table	Christine Hogan, International Trade
22	DM Table	John Knubley, Innovation, Science and Economic Development
23	DM Table	Jeff Moore (for Jean-François Tremblay), Infrastructure and Communities
24	DM Table	Benoit Robidoux (for Louise Levonian) Employment and Social Development
25	DM Table	Marta Morgan, Immigration, Refugees and Citizenship
26	DM Table	Serge Dupont, PCO
		Minister of Finance's Office
27		[redacted]
28		[redacted]
29		[redacted]
30		[redacted]
		Department of Finance Officials
32		Harriet Jackson, General Director, EFP
33		Nelson Paterson, Chief, EFP
34		Ailish Campbell, General Director, EDCF
35		Richard Botham, ADM, EDCF (TBD)
36		Pamela Aung-Thin, ADM C&C
37		Glenn Purves, General Director FP&SP
		McKinsey and Company
38	[redacted]	Senior Partner
39		Partner
40		Partner

41
42
43
44

[redacted]

Infrastructure Canada

CIMS #: 41492

SECURITY DESIGNATION/
DÉSIGNATION DE SÉCURITÉ

SCENARIO NOTE/NOTE DE SCÉNARIO

(MINISTER/MINISTRE)

ROUTE SLIP/BORDEREAU D'ACHEMINEMENT

TO/À (TITLE/TITRE)	ACTION	INITIALS/ INITIALES	DATE
Director/ Directeur ou Directrice	For approval Pour approbation		
Director General/ Directeur général ou Directrice générale	For approval Pour approbation		
Assistant Deputy Minister/ Sous-ministre adjoint	For approval Pour approbation		
Executive Correspondence Unit/ Unité de la correspondance exécutive	For review Pour révision		
Associate Deputy Minister/ Sous-ministre déléguée	For approval Pour approbation		
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- Consultation — □ Yes/Oui □ No/Non (Please specify/Veuillez préciser)
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Ministerial Participation at Minister Morneau's Advisory Council on Economic Growth

CONTEXT FOR THE DOCUMENT/CONTEXTE DU DOCUMENT :

FROM/DE	DATE	TELEPHONE/TÉLÉPHONE
Mélanie Rivest	May 11, 2016	613-960-6391

Canada

SCENARIO NOTE

Ministerial Participation at Minister Morneau's Advisory Council on Economic Growth

Date/Time:	May 16, 2016 – 8:45 a.m. to 1:30 p.m.
Location:	Willson House, Meech Lake, Quebec
Subject:	First Meeting of the Advisory Council on Economic Growth
Participants:	• The Honourable Amarjeet Sohi, Minister of Infrastructure and Communities • The Honourable William Francis Morneau, Minister of Finance • The Honourable Chrystia Freeland, Minister of International Trade • The Honourable Navdeep Singh Bains, Minister of Innovation, Science and Economic Development • The Honourable MaryAnn Mihychuk, Minister of Employment, Workforce Development and Labour • The Advisory Council on Economic Growth (14 Canadian and international business and academic leaders) • Deputy Ministers responsible for Infrastructure, Trade, Innovation and Labour

Departmental Objectives

- The Minister of Finance, William Francis Morneau, has invited you and selected colleagues to participate at the first meeting of the Advisory Council on Economic Growth on May 16, 2016, from 8:45 a.m. to 1:30 p.m.

- During the lunch session of the meeting, you have been asked to give a short 5-minute presentation on the Government's infrastructure priorities. Key messages have been prepared for you and are attached as **Annex A**. A deck presentation has also been attached in **Annex B** and could be used for your presentation (although not required).

- As Minister of Infrastructure and Communities, this meeting provides an opportunity to speak about the Government's infrastructure commitments and hear from key economic leaders on how to maximize economic return from the Government's infrastructure investments. Discussion may be useful in the development of Phase 2 of the 10-year infrastructure plan.

- Of note, the Deputy Minister, Jean-François Tremblay, will be participating in an afternoon roundtable table discussion on the key challenges and opportunities for infrastructure investments. The full agenda of the Council is attached as **Annex C** for your information.

Stakeholder Objectives

- The Council includes 14 Canadian and international business and academic leaders (see biographies in **Annex D**). The Council's objective is to advise the Government in the development of its economic growth strategy, which is expected to be delivered by the end of the year.

- The Council will likely want to understand the Government's commitments and objectives with regards to the 10-year infrastructure plan: Phase 1 and Phase 2.

Context

- The Government of Canada has committed to develop an economic growth strategy to improve Canada's economy and help create conditions for strong and sustainable long-term growth. In order to do so, the Government announced in March, the creation of the Advisory Council on Economic Growth and named Dominic Barton, Global Managing Director at McKinsey & Company as Chair of the Council.

- The Council's mandate is to bring forward bold ideas and policy approaches that are not bound by operational or political constraints and develop recommendations to inform Budget 2017. The Council's will be organised by four themes: labour, innovation, capital investment and infrastructure, and trade. Members will be assigned to specific working group. They will be expected to attend up to four in-person meetings in 2016 in addition to working groups meetings on the specific themes. A more detailed overview of the Council and its mandate is attached as **Annex E.**

- Going forward, it will be important for Infrastructure Canada (INFC) to coordinate the work of the Council with its own engagement strategy. INFC is working closely with the Department of Finance officials on this as well as on the work being done on alternative financing methods and the Canada Infrastructure Bank.

Annexes

Annex A – Key Messages
Annex B – Background Presentation: A Framework for a 10-Year Infrastructure Plan
Annex C – Agenda
Annex D – Biographies of the Advisory Council on Economic Growth
Annex E – Overview and Introduction of the Advisory Council on Economic Growth

Key Messages
Presentation to the Advisory Council on Economic Growth

Introduction

Good afternoon, I am pleased to be here today to speak to the Advisory Council on Economic Growth about how our Government will rebuild Canada for the 21st Century.

Our Government has taken a bold decision to end decades of underinvestment in public infrastructure that has hurt our economy, the environment and Canadian communities.

Our election platform made a commitment to a ten year infrastructure plan that includes $60 billion in new investments towards public transit, green and social infrastructure - it is a centerpiece of our economic platform.

With this investment, our Government has an opportunity to make changes that could rebuild Canada for the 21st century. The opportunity:

- to create clean growth and well-paid jobs, and restore economic security to the middle class, help create cities for the 21st century by reducing gridlock, reducing poverty and strengthening social inclusion;
- to better prepare for extreme weather events caused by climate change and implement the Paris agreement; and,
- to significantly increase the standard of living in northern and remote communities, including indigenous communities.

But to achieve those outcomes, we are adopting a new way of doing things by working together as a government and by working collaboratively with provinces, territories, municipalities and indigenous communities.

Infrastructure Needs

Let me give you some context on Canada's current infrastructure landscape to help us with our discussion today.

Canada has significant infrastructure needs due to decades of underinvestment. Unfortunately, we don't have reliable information to give us a national picture of what these needs are. This in itself speaks to the need for better data and asset management to help governments identify needs and plan strategically. However, Canadians are already feeling the impact of this underinvestment.

Provinces, territories and municipalities also have their own important regional and local priorities which affect Canadians every day. These include everything from making sure transit systems service is adequate and affordable to building wastewater infrastructure to accommodate growth.

Federal investments

The Government of Canada began to reinvest in provincial, territorial and local infrastructure around 2000 and its level of investment has grown significantly. In 2000-2001, federal spending was less than $500 million per year. By 2016 it had increased to $5 billion per year.

While this increase is significant, it is always good to remember that the Government of Canada is one player in core public infrastructure. In fact, provinces, territories and municipalities own over 98% of core public infrastructure in Canada and provide the vast majority of funding towards these assets.

Even with new funding, federal investments would not exceed 20% of investments across all levels of governments.

So, as infrastructure owners and funders, partnering with provinces, territories and municipalities will therefore be critical to achieve our outcomes.

Expectations

To build the infrastructure this country needs, trust and ongoing collaboration will be key to succeeding.

There are expectations from our partners and stakeholders on how we should use our new funding given that the needs exceed available funding.

So expectations are high. This is why our Government have listened to our partners

Budget 2016

Budget 2016 announced the implementation of an historic plan to invest more than $120 billion in infrastructure over 10 years, including $60 billion in new funding for public transit, green infrastructure, and social infrastructure, to better meet the needs of Canadians and better position Canada's economy for the future.

The Government will implement a short-term Phase 1 plan to immediately invest in the infrastructure Canadians need. This includes modernizing and rehabilitating public transit, water and wastewater systems, provide affordable housing, and protect existing infrastructure from the effects of climate change. Phase 1 focuses primarily on infrastructure investments over the next two years.

Starting with Budget 2016, Canadians will see real investments made in their communities.

The Department of Finance estimates that these and other measures announced in Budget 2016 will raise the level of real gross domestic product by 0.5 per cent in the first year and by 1.0 per cent by the second year.

Budget 2016 lays the groundwork for future growth, by making immediate investments in infrastructure. The Government has started to engage with its provincial, territorial, municipal and Indigenous partners, as well as global institutional investors and other stakeholders, and will announce Phase 2 of the long-term plan in the next year.

Phase 2 will deliver on the remaining eight years of the Government's long-term infrastructure plan. In this phase, the goals will be broader and more ambitious: a more modern, cleaner economy; a more inclusive society; and an economy better positioned to capitalize on the potential of global trade.

With that mind, I am very interested and excited to hear the Council's views on how our Government can maximize economic return on our infrastructure investments and create a better economy for all Canadians.

Infrastructure Canada

Rebuilding Canada for the 21st Century:

A Framework for a 10-Year Infrastructure Plan

A generous and ambitious plan that will define our government…

- A 10 year, $60 billion infrastructure plan for public transit, social and green infrastructure including a short-term commitment of $10 billion being spent in the first two years to spur economic growth
- Investments that will rebuild Canada for the 21st century by:
  - Growing the economy (jobs, increased productivity)
  - Reducing the gridlock in the major cities
  - Ensuring that more Canadians are connected to water/wastewater systems
  - Adapting to climate change and reducing GHG emissions
  - Reducing poverty and strengthening social inclusion
  - Raising standard of living in northern/ remote communities

NEW INFRASTRUCTURE SPENDING ($ BILLIONS)

YEAR	PUBLIC TRANSIT	SOCIAL	GREEN
2016-17	1.7	1.7	1.7
2017-18	1.7	1.7	1.7
2018-19	1.2	1.2	1.2
2019-20	1.2	1.2	1.2
2020-21	1.5	1.5	1.5
2021-22	1.8	1.8	1.8
2022-23	2.2	2.2	2.2
2023-24	2.5	2.5	2.5
2024-25	2.8	2.8	2.8
2025-26	3.2	3.2	3.2
10-year total	19.7	19.7	19.7

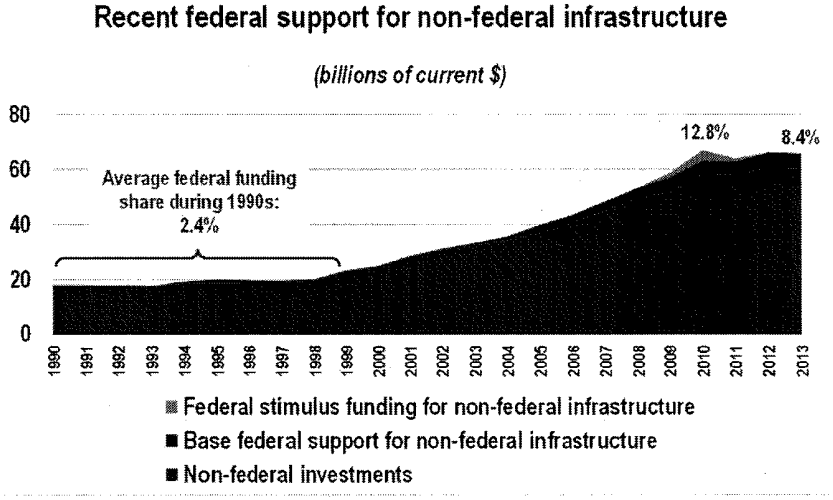
A whole of government initiative which will achieve multiple priorities and outcomes

... and help address Canada's diverse infrastructure needs

- Canada's infrastructure needs are great- estimates vary significantly
  - Federation of Canadian Municipalities (FCM) indicates $170 billion and McKinsey & Company $500 billion
- There is a need for better asset management and data in order to make informed investment decisions by being able to identify greatest needs and maximize the return on investment
- There are significant and diverse needs related to affordable housing, transit, GHG emission reduction, essential infrastructure for Indigenous communities, and economic growth
- Provinces, territories and municipalities (PTMs) also have important regional and local priorities including transit, clean energy, water/wastewater

Federal investments significant but partnerships will be critical ....

- Federal investments have grown over the past 15 years, but not kept pace with demand
- Federal investments in 2015 represented 8% of total public infrastructure investments



- Even with new funding, federal investments would not exceed 20% of investments
- Partnership with PTMs critical to achievement of outcomes

... as expectations exceed proposed funding

- Provinces and Territories (PTs) will likely seek an allocation-based approach (rather than application-based approach) and flexibility to identify priorities
- Municipalities will want their "fair share", as well as long-term, predictable funding with limited conditionality (e.g. Gas Tax Fund)
- Indigenous communities will want dedicated funding and flexibility
- Some business stakeholders (e.g. Canadian Council of Chief Executives) will push for investments in national priorities like trade/ transportation
- Numerous campaign commitments for public transit, social and green infrastructure projects will have to be considered

Moving forward with a new 10 year infrastructure plan

Phase 1 (years 1-5)
$11.9 billion to modernize and rehabilitate public infrastructure

Phase 2 (years 2-10)
$49 billion to create a more inclusive society and a modern, cleaner economy

PUBLIC TRANSIT AND TRANSPORTATION INFRASTRUCTURE — **$3.4 billion for public transit infrastructure**

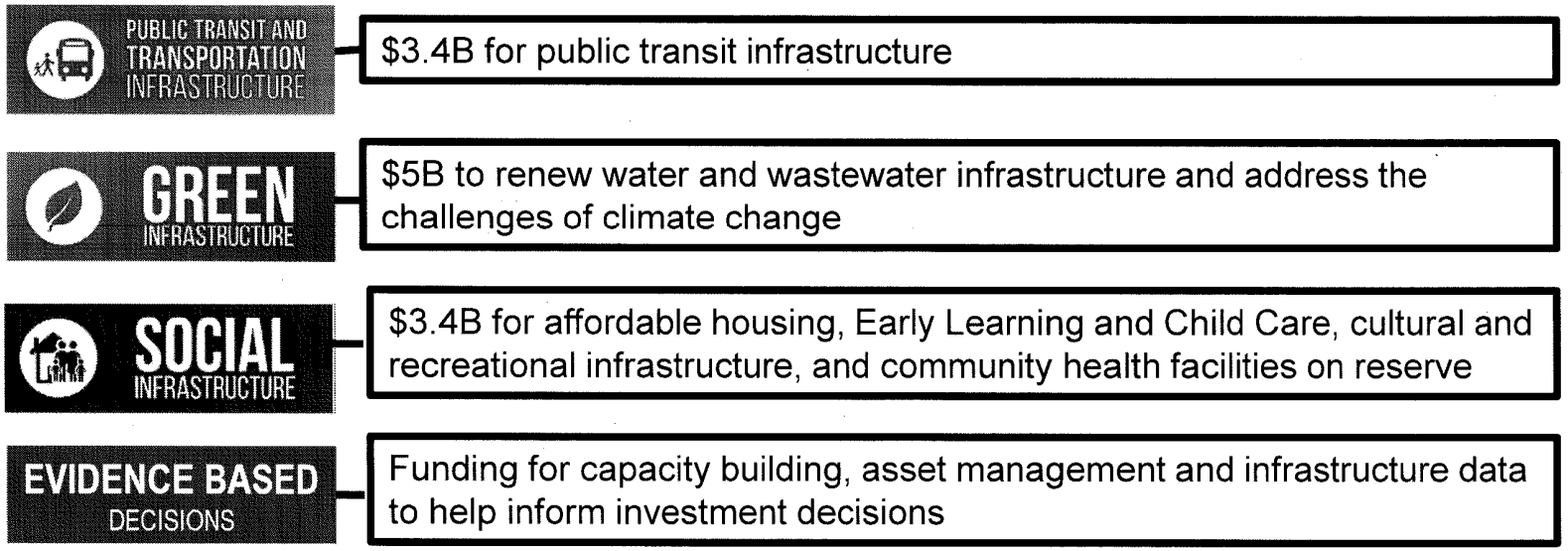
GREEN INFRASTRUCTURE — **$5.0 billion for green infrastructure**

SOCIAL INFRASTRUCTURE — **$3.4 billion for social infrastructure**



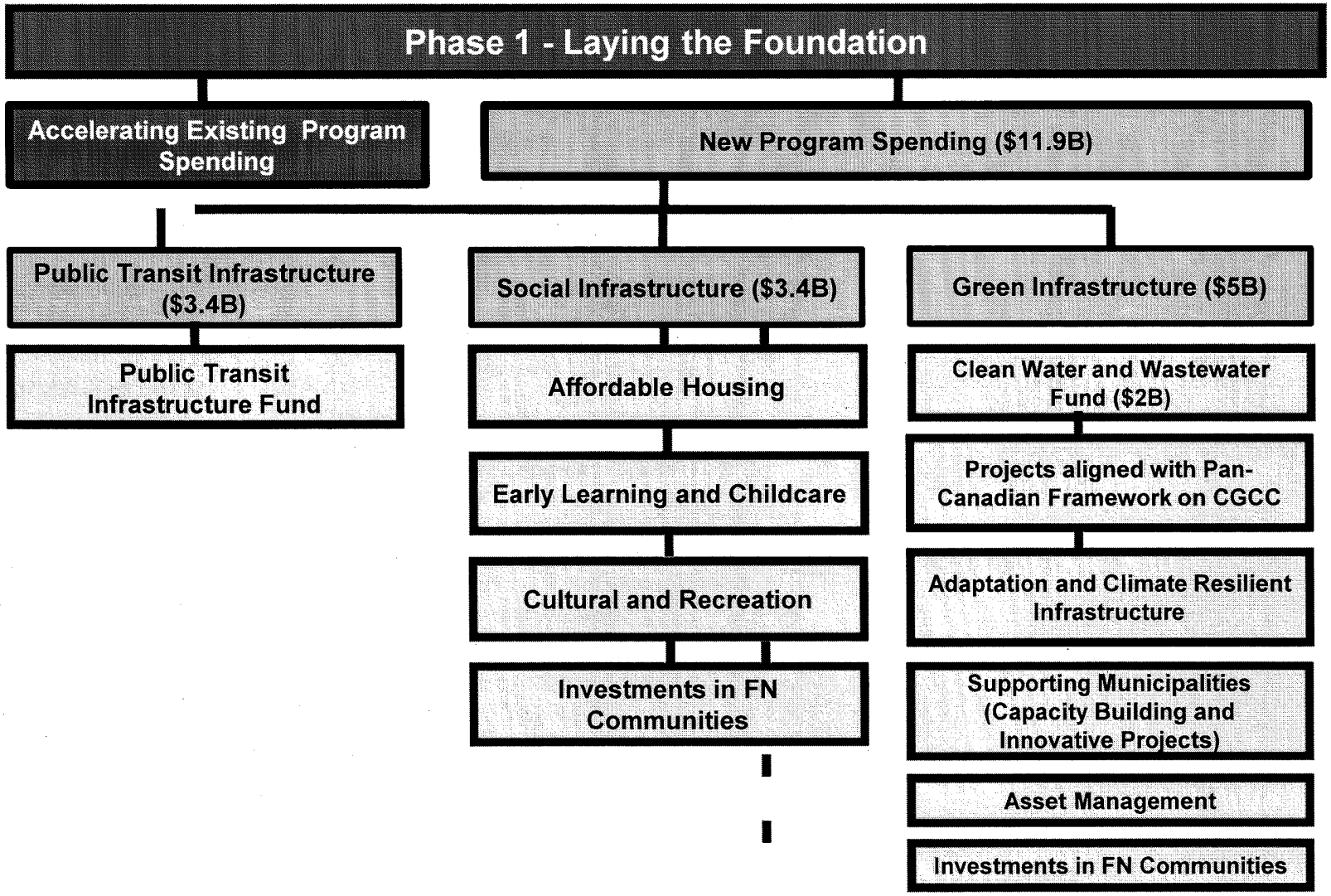
Phase 1 of the our plan was announced in Budget 2016

- Phase 1 of Canada's new infrastructure plan provides $11.9 billion in short-term funding – with investments focused primarily on the next 2 years



Beyond the infrastructure plan, Budget 2016 also included over $5.8 billion in additional infrastructure investments in post-secondary education, broadband and federal assets

Phase 1 Framework



Moving Forward with Phase 2

"the goals will be broader and more ambitious: a more modern, cleaner economy; a more inclusive society; and an economy better positioned to capitalize on the potential of global trade."

"Ambitious projects will be supported to reduce urban transportation congestion, improve and expand trade corridors, and reduce the carbon footprint of the national energy system."

"The Government will engage with its provincial, territorial, municipal and Indigenous partners, as well as global institutional investors and other stakeholders, ***and will announce Phase 2 of the long-term plan in the next year****."*

Source: Budget 2016

Agenda for the first meeting of the Advisory Council on Economic Growth
May 16th, 2016

	Agenda item	Timing	Facilitator	Slides/material	Objective
1 AM	▪ **Introductions**	8:45-9:30am	▪ Morneau ▪ Barton	▪ N/A	▪ Get to know each other
	▪ **Current economic trajectory and case for change**	9:30-10:30am	▪ Barton	▪ Initial diagnostic	▪ Set a common starting point ▪ Align on themes
	▪ **Lessons learned from around the world & aspiration**	10:45am-12:00pm	▪ Barton	▪ Case studies	▪ Inspiration (ideas, aspiration)
	▪ **Lunch with Ministers**	12:00-1:30pm	▪ Ministers	▪ N/A	▪ Share Ministers' perspectives
2 PM	▪ **Breakouts by theme (X2)**	1:30-3:00pm	▪ Deputy Ministers	▪ N/A	▪ Understand issues, generate hypotheses
	▪ **Group playback of themes**	3:00-3:45pm	▪ Barton	▪ N/A	▪ Synthesize and test ideas
	▪ **Working model and wrap-up**	3:45-4:30pm	▪ Barton	▪ Draft working model and timeline	▪ Set next steps

Biographical Notes

Dominic Barton

Global Managing Director, McKinsey & Company



Dominic Barton is the Global Managing Director of McKinsey & Company. In his 30 years with the firm, he has advised clients in a range of industries including banking, consumer goods, high tech and industrial. Prior to his current role, Mr. Barton was based in Shanghai as McKinsey's Asia Chairman from 2004 to 2009 and led the Korea office from 2000 to 2004.

Mr. Barton is an active participant in international fora including the World Economic Forum, the St. Petersburg International Economic Forum, Les Rencontres Économiques d'Aix-en-Provence, the Asia Business Council and the China Development Forum. He has authored more than 80 articles on the role of business in society, leadership, financial services, Asia, history and the issues and opportunities facing markets worldwide. Mr. Barton is a co-author, with Roberto Newell and Gregory Wilson of *Dangerous Markets: Managing in Financial Crises* (Wiley & Sons, 2002) and *China Vignettes: An Inside Look at China* (Talisman, 2007).

Mr. Barton is the Co-Chair of the Focusing Capital on the Long Term initiative, along with Mark Wiseman of the Canada Pension Plan Investment Board and Larry Fink (BlackRock). The initiative seeks to develop practical structures, metrics and approaches for longer-term behaviours in the investment and business worlds.

He is on the Board of Memorial Sloan Kettering Cancer Center, is Chair of the Seoul International Business Advisory Council, a Trustee of the Brookings Institution, a member of the Singapore Economic Development Board's International Advisory Council, a Board member of the Asia Pacific Foundation of Canada, and Chairman of the U.S. President's Advisory Council on Doing Business in Africa.

Mr. Barton has received multiple awards for his business leadership and contributions to the communities in which he has lived and worked. For example, in February 2013, he received the Order of Civil Merit (Peony Medal) from former President Lee of South Korea, and in August 2014, he was awarded the Singaporean Public Service Star (Distinguished Friends of Singapore). He is a Rhodes Trustee and an Honorary Fellow at Brasenose College, Oxford.

Mr. Barton is also an Adjunct Professor at Tsinghua University, Beijing.

Elyse Allan

President and Chief Executive Officer, General Electric Canada



In her role as President and Chief Executive Officer of GE Canada and Vice President, GE, Elyse Allan is a passionate champion for Canada's competitiveness, advancing the country's science and technology base and competitive fiscal policy.

Ms. Allan actively engages in developing and shaping public policy through industry groups, research and advocacy organizations. She serves on the Board of Directors of the C.D. Howe Institute and The Conference Board of Canada, and the advisory board of Canada's Ecofiscal Commission. As well, she recently completed her Board term at the Canadian Council of Chief Executives and the Canadian Chamber of Commerce, where she served as Chair. Ms. Allan has participated on a number of federal and provincial government advisory boards focused on Canada's competitiveness, energy strategy, economic development, transportation strategy and access to credit. Ms. Allan works to advance innovation and entrepreneurism through her role on the MaRS Discovery District Board of Directors and the leadership council for Scale Up Ventures. She has been recognized as a Top 100 Women of Influence by the Women's Executive Network and as the YWCA 2012 Woman of Distinction (Business), and by *Maclean's* and *Canadian Business* magazines as one of Canada's most influential business leaders. In 2014, Ms. Allan was appointed Member of the Order of Canada for her community engagement and achievements as an innovative business leader.

Ms. Allan's GE career began in 1984 and has spanned the U.S., Canada and several industrial and consumer GE businesses including aviation, energy and lighting. Her career outside GE included executive positions in the health care, energy and non-profit sectors.

Ms. Allan received a Bachelor of Arts degree from Dartmouth College in New Hampshire, where she studied biology and environmental studies, and an MBA from the Amos Tuck School of Business at Dartmouth. An active alumnus, she currently serves on the Tuck School Board of Overseers. She holds honorary doctorate degrees from Ryerson University, Saint Mary's University and Royal Roads University.

Katherine Barr

General Partner, Mohr Davidow Ventures



A General Partner at Mohr Davidow Ventures, Katherine Barr focuses primarily on investments in technology platforms and services that leverage data analytics and machine learning to disrupt large markets. Her specific areas of investment focus include Retail and E-Commerce Innovation, Consumer Marketplaces and Services, and Work Force Innovation.

Ms. Barr is a Founding Board and Charter Member as well as former Co-Chair of C100, the leading Canadian technology entrepreneur association in North America, and guest lectures a yearly executive education negotiation session at Stanford University. She is on the board of Communitech, the leading technology innovation hub in Waterloo, Canada, is an advisor to 500Startups, and is an Emmy Noether Council Member at the Perimeter Institute, one of the world's leading institutes of theoretical physics.

Ms. Barr currently sits on the boards of BuildDirect, WorkFusion and Ruby Ribbon, sourced and was a board observer for Ticketfly (acquired by Pandora (NASDAQ:P)), is an investor in Reserve, Ritual, KEY Concierge, Zuckerberg Media, FIGS, Retention Science and Storefront, and is responsible for the investments in Visible Measures and Infusionsoft.

Ms. Barr received a B.A. from McGill University, and completed an M.A. and the M.S. core curriculum in Management Science and Engineering at Stanford University.

Jennifer Blanke

Chief Economist, Member of the Executive Committee, World Economic Forum



Jennifer Blanke worked with the World Economic Forum from 1998 to 2002 as the Senior Programme Manager responsible for developing the business, management and technology section of the World Economic Forum's Annual Meeting in Davos. Since 2002, she has been with the Global Competitiveness and Benchmarking team, including from 2007 to 2014 as team head. She is currently their Chief Economist.

Ms. Blanke has written and lectured extensively on issues related to national competitiveness and has served as lead editor of a number of regional and topical reports related to economic growth and development. Her expertise is in economic growth and development, national competitiveness and political economy.

She is the former Management Consultant for Eurogroup, Mazars Group, Paris, specializing in banking and financial market organization.

Ms. Blanke has a Master's in International Affairs, Columbia University, and a Master's and PhD in International Economics, Graduate Institute of International Studies, Geneva.

Kenneth Courtis

Chairman, Starfort Investment Holdings



As one of the world's leading investment bankers and analysts of Asian economies, Kenneth Courtis influences major business decisions and moves markets with his public comments. For his unusual accuracy as a predictor of economic trends, business and government leaders seek his advice on matters of international economics, finance and investment.

He is widely sought after by the heads of major corporations and investors for his knowledge of how global market forces, financial and political developments, and corporate strategy interact. He has also worked closely with central banks, ministries of finance and heads of government. He has been called upon to advise the heads of governments of countries in Europe, the Middle East, Asia and North America, including four U.S. Presidents.

Dr. Courtis advises major clients throughout the Asia-Pacific region, Europe and North America, and has led a number of large, international corporate transactions centered on Asia and pioneered a number of investment banking areas across the region.

Dr. Courtis is currently finishing a new book on economic, financial, business and political developments in Asia and their broader implications internationally. He also is a regular columnist for *Time International*, writing mostly on Asian issues; and for *Fortune* magazine, covering global economic issues.

Dr. Courtis is Chairman of Starfort Investment Holdings, which has interests in financial advisory, funds management, private equity and commodities. He is the former Managing Director and Vice Chairman of Goldman Sachs Asia, where he advised on large corporate transactions, government financing programs and privatizations. Formerly a Chief Economist and Strategist, Dr. Courtis has lectured at Keio and Tokyo universities, Japan's two most prestigious educational institutions, at the Institut d'études politiques, Paris, and at universities in North America, including Université Laval, in Quebec, as a tenured professor. He is a member of the boards and advisory councils and a trustee of a number of international firms, universities and research institutes in Asia, Europe and North America.

Dr. Courtis received an undergraduate degree from Glendon College in Toronto and an M.A. in international relations from Sussex University in the United Kingdom. He earned an M.B.A. at INSEAD (the European Institute of Business Administration), where he was recipient of the Heath Prize, and received a Doctorate with honors and high distinction from the Institut d'études politiques, Paris. He has lived and worked in Asia for more than two decades.

Brian Ferguson

President and Chief Executive Officer, Cenovus Energy Inc



As President and Chief Executive Officer, Brian Ferguson is accountable for overall leadership of Cenovus's strategic and operational performance.

Mr. Ferguson joined a predecessor company in 1984 and became a member of the Management Team in 1994. His business experience spans a variety of areas including finance, business development, reserves, strategic planning, evaluations and communications.

Mr. Ferguson earned a Bachelor of Commerce degree from the University of Alberta, and has completed the University of Western Ontario's Executive Management program. He is a Fellow of the Chartered Professional Accountants of Alberta.

Mr. Ferguson is a member of the TD Board of Directors. He is also a board member of the Business Council of Canada and a member of the Chartered Professional Accountants of Canada. He has served on several other boards, including the Canadian Association of Petroleum Producers (CAPP) Board of Governors. He continues to serve on CAPP's Oil Sands CEO Council.

Suzanne Fortier

Principal and Vice-chancellor, McGill University



Suzanne Fortier has served as Principal and Vice-chancellor of McGill University since September 2013. Prior to her appointment as Principal, Professor Fortier was President of the Natural Sciences and Engineering Research Council of Canada from 2006 to 2013, and held the position of Vice-Principal (Academic) from 2000 to 2005 and Vice-Principal (Research) from 1995 to 2000 at Queen's University in Kingston, Ontario, where she was a Professor in the Department of Chemistry and in the School of Computing.

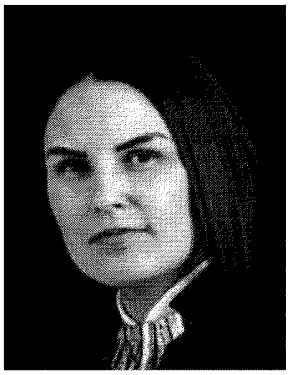
Professor Fortier graduated from McGill with a BSc (1972) and a PhD in Crystallography (1976). Her research work has focused on the development of mathematical and artificial intelligence methodologies for protein structure determination. She has also made contributions to the development of novel techniques in crystallographic data mining to gain new insights from the large structural databases.

Professor Fortier is currently a member and Vice-Chair of the Science, Technology and Innovation Council. She is a member of the International Jury of France's Investissements d'Avenir IDEX/I-SITE 2014, the Strategic Committee of Investissements d'Excellence Bordeaux, and the Canadian Business-Higher Education Roundtable. She also serves on the Board of Directors of Montreal International, The Conference Board of Canada and Universities Canada.

She has served as a member of several boards and councils, including the federal government's Council of Science and Technology Advisors, the Board of Directors of the Canada Foundation for Innovation, the Steering Committee of the Networks of Centres of Excellence, the Ontario Task Force on Competitiveness, Productivity and Economic Progress, and the Board of Trade of Metropolitan Montreal.

Carol Anne Hilton

Chief Executive Officer, Transformation



Carol Anne Hilton is the Chief Executive Officer of Transformation International. Ms. Hilton is from the Nuu-chah-nulth Nation and is a recognized leading First Nations business entrepreneur with a Master's Degree in Business Management from the University of Hertfordshire, England.

She has a solid understanding and application of First Nations economic development best practices and brings extensive knowledge and experience in community development, business management, corporate relations, engagement strategies and project management.

Ms. Hilton's work involves incorporating an Aboriginal world view, while bringing First Nations, industry and government together to design new approaches for sustainable, inclusive development. Ms. Hilton has developed a new line of thought called Indigenomics, which is based on economic reconciliation.

Carol Lee

Chief Executive Officer and co-founder, Linacare Cosmetherapy Inc.



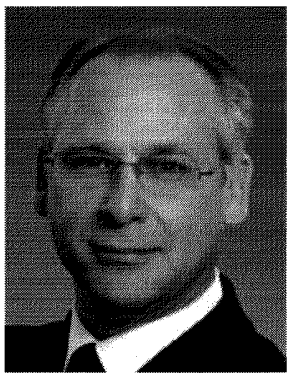
Carol Anne Lee is the Chief Executive Officer and co-founder of Linacare Cosmetherapy Inc. The company is headquartered in Vancouver's historic Chinatown district. With longstanding family ties to the history of Chinatown, she is strongly committed to the revitalization of the area and is the Chair of the Vancouver Chinatown Foundation and the Vancouver Chinatown Revitalization Committee.

Ms. Lee has a Bachelor of Commerce from the Sauder School of Business at the University of British Columbia and an MBA from Harvard Business School. She serves on several boards and organizations including the Faculty Advisory Board of the Sauder School of Business, the Harvard Business School Canadian Advisory Board, the Leadership Council of the Perimeter Institute for Theoretical Physics in Waterloo, and the Rideau Hall Foundation.

In 2015, *Vancouver* magazine listed her as one of the top 50 most powerful people in Vancouver.

Christopher Ragan

Associate Professor, Macroeconomics and Economic Policy, McGill University



Christopher Ragan is an Associate Professor in the Department of Economics at McGill University. He is the Chair of Canada's Ecofiscal Commission, which launched in November 2014 with a five-year horizon to identify policy options to improve environmental and economic performance in Canada.

Mr. Ragan is also a Research Fellow at the C.D. Howe Institute. From 2010 to 2013, he held the Institute's David Dodge Chair in Monetary Policy, and for many years, was a member of the Monetary Policy Council. In 2009 and 2010, he was the Clifford Clark Visiting Economist at the Department of Finance Canada. In 2004 and 2005, he served as Special Advisor to the Governor of the Bank of Canada.

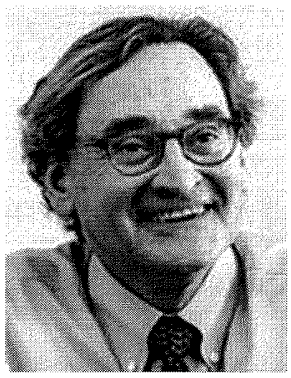
Mr. Ragan's published research focuses mostly on the conduct of macroeconomic policy. His 2004 book, co-edited with William Watson, is called, *Is the Debt War Over?* In2007, Mr. Ragan published *A Canadian Priorities Agenda*, co-edited with Jeremy Leonard and France St-Hilaire, from the Institute for Research on Public Policy. Mr. Ragan is also the author of *Economics* (formerly co-authored with Richard Lipsey), which after 14 editions is still the most widely used introductory economics textbook in Canada. Mr. Ragan also has a regular column in *The Globe and Mail*. During the mid-1990s, he was the founding Editor-in-Chief of *World Economic Affairs.*

Mr. Ragan has taught a wide variety of courses, at both the undergraduate and graduate levels, and in 2007, was awarded the Noel Fieldhouse teaching prize in the Faculty of Arts. For more than 15 years, Mr. Ragan has been teaching microeconomics for McKinsey & Company, a leading international consulting firm. He also teaches in EDHEC's Global MBA program in France, and in the McGill-HEC Executive MBA program.

Mr. Ragan received his B.A. (Honours) in economics in 1984 from the University of Victoria, and his M.A. in economics from Queen's University in 1985. He then moved to Cambridge, Massachusetts, where he completed his Ph.D. in economics at M.I.T. in 1989.

Michael Sabia

President and Chief Executive Officer, Caisse de dépôt et placement du Québec



Michael Sabia is President and Chief Executive Officer of the Caisse de dépôt et placement du Québec. Appointed in March 2009, Mr. Sabia is responsible for the strategic direction of the fund and the global growth of the organization.

Before joining the Caisse, Mr. Sabia was with BCE, holding such positions as President and Chief Executive Officer, Executive Vice-President and Chief Operating Officer, and Chief Executive Officer of Bell Canada International. From 1993 to 1999, he occupied various roles with Canadian National Railway, including Chief Financial Officer. He spent the preceding decade working as a senior official in the Department of Finance and the Privy Council Office of the Government of Canada.

Mr. Sabia obtained a Bachelor of Arts in politics and economics from the University of Toronto and holds graduate degrees in politics and economics from Yale University.

He is a trustee of the Foreign Policy Association of New York, and a member of the Canada-Mexico Leadership Group and the Asia Business Leaders Advisory Council.

Among many other community activities, Mr. Sabia currently co-chairs the capital campaign of Université de Montréal, Polytechnique Montréal and HEC Montréal.

Angela Strange

Partner, Andreessen Horowitz



Angela Strange is a FinTech and Consumer focused Investment Partner at Andreessen Horowitz. She is also co-chair of C100, a non-profit that bridges Canadian entrepreneurs with Silicon Valley's most influential expat technology entrepreneurs, executives, and investors, to help Canadian companies succeed on the global stage.

Ms. Strange came to A16Z from Google, where as a Product Manager, she launched and grew Chrome for Android and Chrome for iOS into one of Google's most successful mobile products.

Prior to Google, Ms. Strange was Director of Product Management and Business Development at Ruba.com (acquired by Google), and a Senior Associate Partner at Bay Partners, where she focused on the Consumer Internet sector.

Ms. Strange has also worked as a consultant at Mercer Management Consulting in its technology practice in Toronto. While at Mercer, Ms. Strange won several marathons and achieved a seventh place national ranking in Canada. She spent two years training as a professional athlete.

While pursuing her MBA at Stanford, Ms. Strange helped to develop the curriculum for a new course on Women in Entrepreneurship, and served on the Board of StartUP, a non-profit organization supporting entrepreneurs in East Palo Alto.

Ilse Treurnicht

Chief Executive Officer, MaRS Discovery District



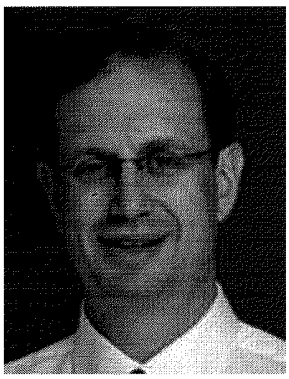
Ilse Treurnicht is the CEO of MaRS Discovery District, a leading innovation hub in Toronto. MaRS supports entrepreneurs building young high growth firms in the health, clean technology, work and learning, and finance and commerce sectors, and works with partners to catalyze, scale and adopt innovation.

Ms. Treurnicht joined MaRS in early 2005 from her role as President and CEO of Primaxis Technology Ventures, a startup-stage venture capital fund focused on the advanced technologies sector. Prior to Primaxis, she was an entrepreneur with senior management roles in a number of emerging technology companies. She served as Chair of the Canadian Task Force on Social Finance in 2010, and is a member of the Science, Technology and Innovation Council.

Ms. Treurnicht holds a DPhil in chemistry from Oxford University, which she attended as a Rhodes scholar.

Mark Wiseman

President and Chief Executive Officer, CPP Investment Board



Mark Wiseman assumed the role of President and Chief Executive Officer in July 2012 and is responsible for leading the CPP Investment Board and its investment activities.

Mr. Wiseman joined the CPP Investment Board in June 2005 as the organization's Senior Vice-President, Private Investments. He was later named Executive Vice-President, Investments, responsible for managing all of the investment activities of the CPP Investment Board—Public Market Investments, Private Investments and Real Estate Investments.

Prior to joining the CPP Investment Board, Mr. Wiseman was responsible for the private equity fund and co-investment program at the Ontario Teachers' Pension Plan. Previously, he was an officer with Harrowston Inc., a publicly traded Canadian merchant bank, and a lawyer with Sullivan & Cromwell, practising in New York and Paris.

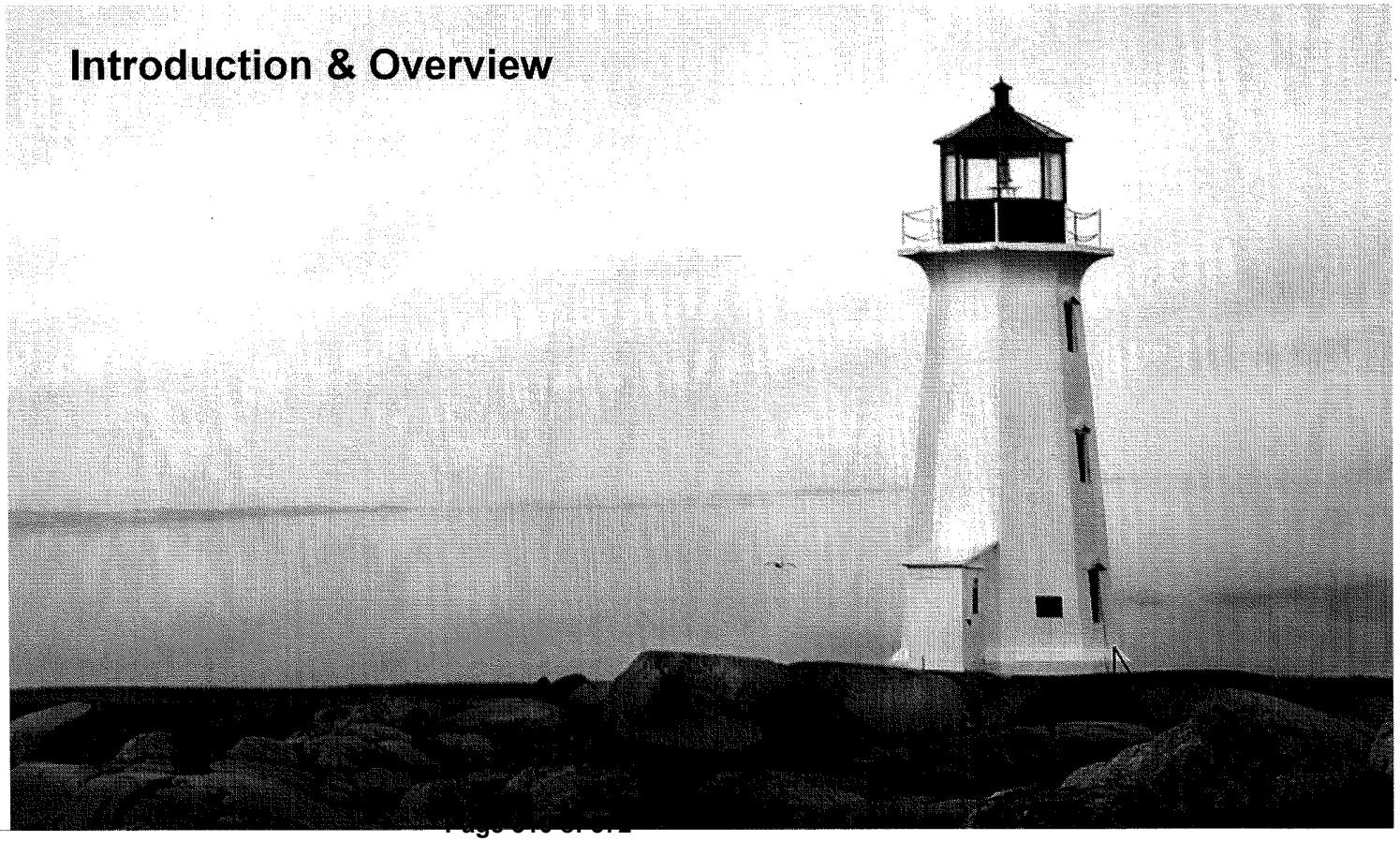
He also served as a law clerk to Madam Justice Beverley McLachlin at the Supreme Court of Canada. From 2004 to 2007, Mr. Wiseman was Chairman of the Institutional Limited Partners Association, a non-profit organization committed to serving limited partner investors in the global private equity industry.

Mr. Wiseman is a Board member for the Canadian Coalition for Good Governance, is Co-Chair of the Focusing Capital on the Long Term initiative and serves on the Boards of several not-for-profit organizations, including the Capital Markets Institute, Mount Sinai Hospital in Toronto and Right To Play International. He was the United Way Toronto Campaign Chair for 2015 and is also a past Chairman of Youth Without Shelter, an emergency shelter for homeless youth.

Mr. Wiseman holds a BA from Queen's University and a law degree and MBA from the University of Toronto. He was also a Fulbright Scholar at Yale University, where he obtained a master's degree in law and is a certified member of the Canadian Institute of Corporate Directors.

The Advisory Council on Economic Growth

Introduction & Overview



Summary of the Growth Council's mandate and working approach

Council member activities

ASPIRATION

- **Improve the current trajectory of the Canadian economy**, targeting a step change improvement in economic growth
- Inform a **coherent economic plan** that will help **create conditions for strong and sustained long-term economic growth**

MANDATE

- Bring forward **bold ideas and policy approaches** that are **not bound by operational or political constraints**
- Develop initial recommendations in time to **inform budget 2017,** with likely mandate beyond 2016
- Exact deliverable for discussion, potentially series of creative publications

ORGANIZING CONSTRUCT

- **Organize recommendations around four themes** to be agreed upon in first meeting, e.g.:
  - Innovation
  - Capital investment and infrastructure
  - Trade
  - Labour
- Assign members by theme for deeper dive working sessions aligned to passion/expertise

CONSULT-ATION

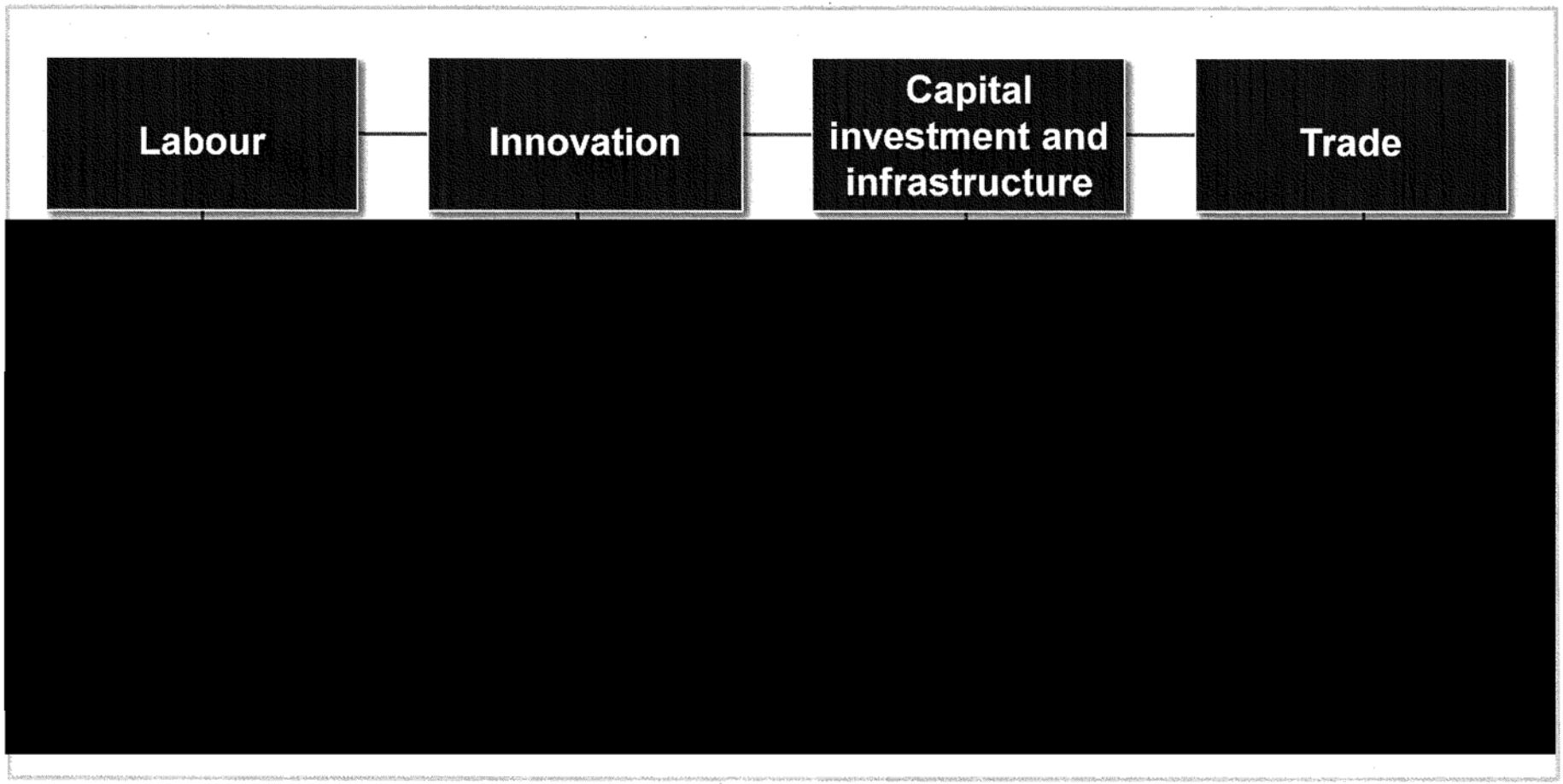
- Access **expert opinions** from wide range of **Canadian and global experts** by theme

WORKING MODEL

- **Up to 4 in-person Council meetings in 2016** (May 16th kick-off)
- Additionally, **two+ sub-group working meetings** (potentially by videoconference) on specific themes
- **Council will be supported by a "Secretariat'** providing research, analysis, synthesis, and logistical support

ATIA - 21(1)(b)

The Chair and the Minister of Finance have identified four themes that might allow us to organize the Council's work



FEEDBACK

What do you think?

Questions

DIAGNOSTIC

- What is your **ambition for the Canadian economy**?
  - GDP growth? Job growth? Other?
- Are we missing (or over-emphasizing) any **broad macroeconomic trends** in the Initial Diagnostic?

THEMES

- We have drafted a list of 4 broad themes for our work – Capital investment & infrastructure, Innovation, Trade, and Labour—encompassing a number of specific potential ideas in each. **Are we missing any broad themes** / is there anything you want to **add, delete, or modify**?
- How would you **prioritize the proposed themes** (labour, innovation, infrastructure, trade) weighing both **impact** and **feasibility**?

WORKING GROUPS

- Which specific themes or areas would you prefer to work on?
- Any other input or direction?

If possible, please send along your comments by Monday, May 9th in advance of the first Council meeting

Agenda for the first meeting of the Advisory Council on Economic Growth
May 16th, 2016

	Agenda item	Timing	Facilitator	Slides/material	Objective
1 AM	▪ **Introductions**	8:45-9:30am	▪ Morneau ▪ Barton	▪ N/A	▪ Get to know each other
	▪ **Current economic trajectory and case for change**	9:30-10:30am	▪ Barton	▪ Initial diagnostic	▪ Set a common starting point ▪ Align on themes
	▪ **Lessons learned from around the world & aspiration**	10:45am-12:00pm	▪ Barton	▪ Case studies	▪ Inspiration (ideas, aspiration)
	▪ **Lunch with Ministers**	12:00-1:30pm	▪ Ministers	▪ N/A	▪ Share Ministers' perspectives
2 PM	▪ **Breakouts by theme (X2)**	1:30-3:00pm	▪ Deputy Ministers	▪ N/A	▪ Understand issues, generate hypotheses
	▪ **Group playback of themes**	3:00-3:45pm	▪ Barton	▪ N/A	▪ Synthesize and test ideas
	▪ **Working model and wrap-up**	3:45-4:30pm	▪ Barton	▪ Draft working model and timeline	▪ Set next steps

ATIA - 21(1)(b)

Proposed timeline and sequence of meetings

PRELIMINARY

Activity	2016 Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2017 Jan
1st Council meeting: ▪ Align on baseline Canadian economic trajectory and growth outlook ▪ Discuss preliminary themes and growth levers ▪ Divide into theme sub-groups			▲ May 16th								
[redacted]											

WORKING MODEL

Proposed working construct

ATIA - 21(1)(b)

PRELIMINARY

[redacted]

Infrastructure Canada

Ottawa, Canada
K1P 0B6

SECRET

ATIA-16(2)(c)

SCENARIO NOTE

Call between
the Minister of Infrastructure and Communities and
Mr. Tony Comper, Chair of PPP Canada

Date/Time:	Monday, June 13, 2016 – 10:00 a.m. – 10:30 a.m.
Location:	427 Laurier Minister's Office Toll-free Dial-in number: 1 877-413-4788 Local Dial-in number: 613-960-7513 Conference ID: [redacted]
Subject:	Call with Tony Comper of P3 Canada
Participants:	The Honourable Amarjeet Sohi, Minister of Infrastructure and Communities Tony Comper, Chair of the Board of Directors, PPP Canada John McBride, Chief Executive Officer, PPP Canada Kim Butler, Vice-President of Project Development Michael Mills, Vice-President of Investments Jean-François Tremblay, Deputy Minister of Infrastructure and Communities

Departmental Objectives

- This introductory discussion with Mr. Tony Comper, the Chair of PPP Canada, will provide you with an opportunity to learn more about PPP Canada's role and operations as well as how it improves the delivery of public infrastructure for Canadians. It will also allow you to better understand your role as the new Minister responsible for PPP Canada in advance of the transfer of responsibilities from the Minister of Finance. The transfer will occur in the next few weeks through the Budget 2016 Implementation Act (BIA 1).

Stakeholder Objectives

- It is our understanding that Mr. Comper will want to give you an overview of PPP Canada and update you on its current investment activities. Documents provided by PPP Canada, an overview deck and a corporate summary, are attached as **Annex A and B** respectively, to help you with this discussion. A scenario note prepared for Mr. Comper, and shared by PPP Canada in advance of this call, is attached as **Annex C**.

- Mr. Comper will be interested in knowing your views on P3s, the future of PPP Canada and the P3 Fund in the context of the 10-year infrastructure plan. His biography is attached as **Annex D**. As part of the discussion, he may highlight the importance of beginning to renew the Board of Directors.

Background

- Budget 2007 announced the establishment of PPP Canada and the P3 Canada Fund. PPP Canada became fully operational in 2009, reporting to Parliament through the Minister of Finance.

Canada

- The P3 Canada Fund provides approximately $2.4 billion to support innovative ways to build public infrastructure and provide better value for Canadian taxpayers and develop the Canadian P3 market. The Fund is now in its seventh round of project intakes and to date, has funded, or committed to fund, 23 projects through a total of $1.3B in funding. Currently, 7 projects are in operation, 13 projects are under construction, 3 projects are in procurement and 1 project is in the pre-procurement stage. PPP Canada's mandate is to improve the delivery of public infrastructure by achieving better value, timeliness and accountability to taxpayers, through P3s. It delivers on this mandate through three lines of business:

  1) Knowledge Development and Sharing (including the management of the P3 Canada Fund);

  2) Advancing Provincial, Territorial, Municipal and Indigenous First Nations P3s; and

  3) Advancing Federal P3s.

- The Board of Directors of PPP Canada is responsible for providing strategic insight, guidance and oversight to the operational direction proposed by its senior management. It also has the duty to challenge the organization's governance practices in order to deliver the greatest possible value for Canadians. Currently, the Board of Directors is composed of eight members including the Chair and the Chief Executive Officer. The Board also approves the five-year Corporate Plan and Annual Report tabled in Parliament. With regards to project approvals, the Board reviews, approves and makes recommendations to the responsible Minister.

Considerations

- [redacted] Further details on the status of Round 7 projects are attached as **Annex E**.

- There is currently one vacancy on the Board of Directors and over the next two years, the terms of five current board members, including the Chair, will expire. These members are in their second or third term, highlighting a need for potential consideration of Board renewal. In addition, considerations will need to be given with regards to the new process for Governor in Council appointments being developed as per the announcement made by the Prime Minister on February 25, 2016. The new approach will be open and transparent, representative of Canada's diversity and merit-based. Additional information on the members of the Board and when their term expires can be found in **Annex B**.

- While BIA 1, currently undergoing second reading in the House of Commons, will transfer the responsibility for PPP Canada to you as the Minister of Infrastructure and Communities, the authority to approve projects for funding through the P3 Canada Fund [redacted] At present, funding of up to $25 million can be approved by the Minister of Finance. Funding amounts over $25 million and up to $100 million require approval of both the Minister of Finance and the Minister of Infrastructure and Communities. Contributions over this amount require approval of the Treasury Board. [redacted] In addition, PPP Canada is required to table its annual report in Parliament by June 30, 2016. Officials at PPP Canada and Infrastructure Canada are to work closely together to ensure this deadline is respected and to make necessary changes to the Terms and Conditions of the P3 Fund. PPP Canada is considered to be well-managed, a view that was shared by the Auditor General and KPMG following a recent special examination. In addition, PPP Canada has knowledge of a variety of provincial-territorial-municipal infrastructure financing issues, a knowledge base which will be leveraged during the engagement process for Phase 2.

Points to Register

- I appreciate you meeting with me and giving me an overview of PPP Canada and its current activities.

- I am pleased to be the new Minister responsible for PPP Canada. I look forward to working with you and Board members.

If pressed on the Government's vision for P3s in Phase 2 of the Government's infrastructure plan:

- As you know, our Government sees many benefits in choosing P3s as a procurement method. P3s can allow for more innovation in the design and building of infrastructure as well as the transferring of risk from taxpayers to the private sector.

- Through consultations with many stakeholders, it was found that the P3 screen could delay project approvals. Therefore, to address this issue, Budget 2016 announced the removal of the P3 screen to reduce administrative burden and to speed up project approvals. Removing the P3 screen also respects the ability of provinces, territories and municipalities to make their own decisions on how to best meet their infrastructure needs including their procurement choice.

- Our Government believes that P3s will continue to be a necessary method to address the significant infrastructure needs in Canada. That is why the Government will be engaging with provincial, territorial, municipal and Indigenous partners as well as global institutional investors and stakeholders including PPP Canada starting in the late spring, to help develop Phase 2 of the 10-year infrastructure plan.

- I understand that officials from INFC are working closely with your PPP Canada officials to ensure a smooth transition between ministerial responsibilities as well as to ensure that your organization's knowledge and expertise is leveraged in the engagement process.

If pressed on the potential role for PPP Canada and the P3 Fund in Phase 2 of the infrastructure plan:

- The role of PPP Canada in the context of Phase 2 will be part of a larger process of the development of options for consideration for the Government's priorities for future infrastructure investment. As such, I would be interested to learn your views on what future role you see for PPP Canada in the growing P3 market in Canada.

If pressed on the role for PPP Canada with regards to federal projects such as the Gordie Howe Bridge:

- The role of PPP Canada in the context of Phase 2 will be part of a larger process of the development of options for consideration for the Government's priorities for future infrastructure investment.

If pressed on the issue of renewal of the PPP Canada Board of Directors:

- Timing on the renewal of the PPP Canada Board of Directors will be an issue for consideration in the development of Phase 2 of the infrastructure plan.

Annex A – Overview Deck of PPP Canada
Annex B – Background Information on PPP Canada
Annex C – Scenario Note for Mr. Tony Comper
Annex D – Biography of Tony Comper
Annex E – Project Status for Round 7

Annex A



Achieving better value, timeliness, innovation and accountability through public-private partnerships

PPP Canada

Briefing to the Office of the Minister of Infrastructure and Communities
April 5, 2016



Procurement: Governments Sought an Alternative Approach

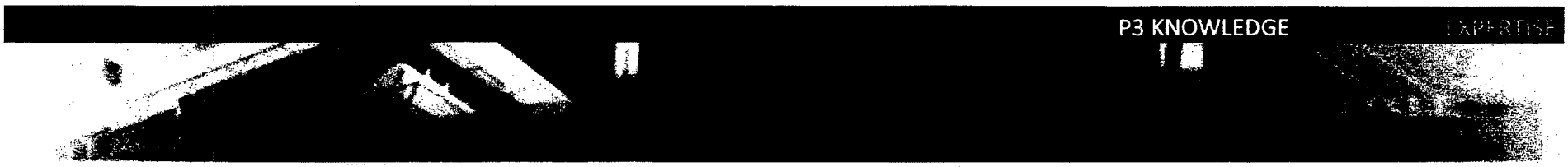
- Large complex infrastructure projects are inherently risky

- Important risks are often unaccounted for in conventional public procurement
  - Schedule and cost overruns, expensive maintenance, etc.

- Cost and schedule increases occur in Canada and internationally
  - In 2015, 16 of the 20 traditionally procured public transit projects were behind schedule and/or over budget (ReNew Canada's Top 100)
  - Globally, a landmark study concluded that 90% of traditionally procured projects face cost overruns (Flyvbjerg, Oxford University)

- Governments recognized a need for an alternative
  - Alternative procurement / P3s become part of the national agenda

Go-to model for large complex projects

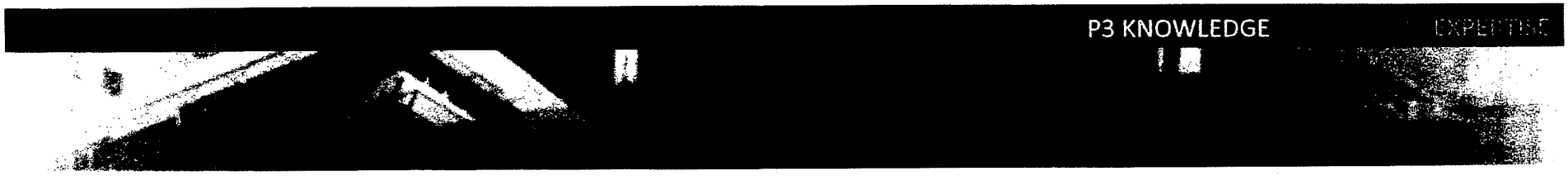


A National Agenda

- Canada is the recognized global leader in alternative procurement / P3s
  - Rooted in collaborative approach to achieving best project value
  - Provincial partners: Partnerships British Columbia, Infrastructure Ontario, SaskBuilds, strategic procurement offices (AB & NB), Caisse de dépôt
- Provinces - P3 trail blazers
  - Partnerships British Columbia (2002), Infrastructure Ontario (2006)
- Federal and municipal governments enter the market
  - PPP Canada (2009) – national P3 agency leadership
  - Increased municipal interest, capacity and growing pipeline

A Global Agenda

- Ongoing thought leadership
  - Continuous learning: collaborative project support & delivery (federal, provincial, municipal, indigenous communities) + knowledge development & sharing + innovation
  - Growing international network: OECD, G7, G20, APEC, World Bank, 12 delegations hosted in 2015-16



A Different Approach to Infrastructure Procurement & Delivery

- P3s are not the answer to all projects, but are well suited for large-scale complex infrastructure projects with clear and measurable performance specifications

Payment tied to performance

- Focus on output
- Transfer of key risks to the private partner
- Clear performance standards

Life-cycle considerations

- Integrated infrastructure models
- Optimizes costs over the whole life-cycle

Dynamic procurement process

- Rooted in a disciplined planning process and procurement strategy
- Iterative public and private sector project analysis and due diligence

Innovation

- Greater scope for creativity and innovation – design, construction, operations, and maintenance
- Output based: What - not how



Our Organization

- The unique P3 characteristics require a special set of skills
- Knowledge-based organization led by a dynamic and experienced team of professionals with public and private sector experience:
  - project development, transaction structuring, procurement and project finance
  - legal and technical expertise across a variety of asset classes
- Approx. 65 employees across 4 business units

PPP Canada is a strong and well-managed organization committed to the delivery of sound, transparent and risk-based stewardship of public resources (OAG / KPMG – Special Examination, 2015)



Our Expertise

- ✓ Focus on objective, rigorous, independent, value focused due diligence and evidence-based decision-making
- ✓ Leveraging a world-class infrastructure model to deliver on Government of Canada commitments
- ✓ Significant experience on large, complex projects
- ✓ Ready-made mix of professionals from both the public and private sector
- ✓ Direct experience with the sourcing and deployment of private and public capital for infrastructure projects
- ✓ Understanding of the institutional frameworks and the market
- ✓ Established relationships with key players

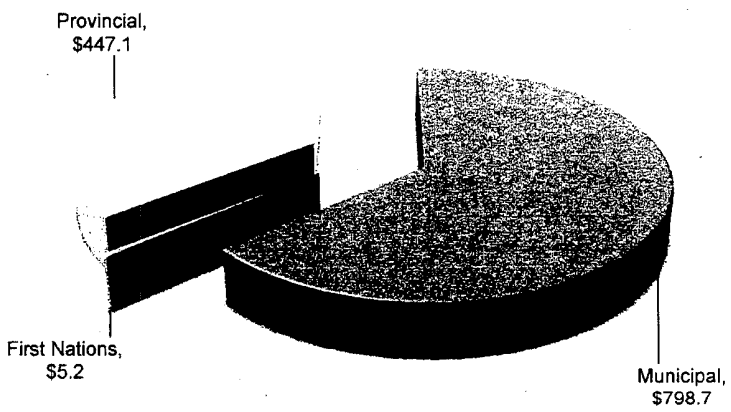
P3s require a strong public partner –

We are adaptable to our client's needs / capacity

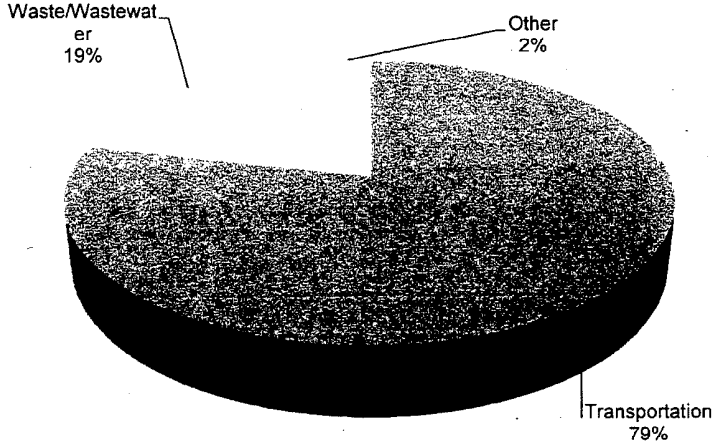
Our Collaboration with Other Levels of Government

- Through our work with the P3 Canada Fund, we have worked with all levels of government along priority sectors
- Established a strong and trust-based relationship with other levels of government

P3 FUNDING BY GVT. LEVEL



P3 FUNDING BY INFRASTRUCTURE





Our Successes

- Since 2009, PPP Canada has helped double the number of P3s in the market by:
  - Investing $1.3B in projects across the country leveraging more than $6.4 billion in investment and over $2 billion in savings*;
  - Reviewing 300+ project proposals for P3 suitability;
  - Evaluating 50+ P3 business cases; and
  - Conducting due diligence on 20+ projects in various phases of procurement and post financial close.
- Largest federal P3 under construction – New Champlain Bridge Corridor
- Steady pipeline of federal projects
- Worked with over 15 municipalities - many of which were inexperienced
- Developed a series of tools, templates and guides for our clients and key stakeholders to support cost reduction, transparency and consistency
- Procurement culture at all levels of government is changing

*Estimated value for money – includes projects in construction and operations



Our Projects

ATIA - 18(b)
ATIA - 21(1)(c)

- 7 projects currently in operations, including:
  - Barrie Transit Facility (est. [redacted] in savings)
- Currently, 13 projects are under construction, estimated expenditures of approximately $5.5 B over next 2 to 3 years, including:
  - Edmonton Valley Line LRT (est. [redacted] in savings)
  - Regina Wastewater Treatment Plant (est. [redacted] in savings)
- 3 projects in procurement, including the Hamilton Biosolids Plant
- 1 project in pre-procurement, Capital Regional District (granted an extension)
- Working with six federal departments / agencies on eight projects, including:
  - [redacted]
  - Energy Services Acquisition Program (PSPC)



Our Pipeline

- 8 projects in development representing a value of over **$10 Billion**
  - Water/wastewater treatment, highways & bridges

ATIA - 21(1)(c)
ATIA - 18(b)

- Strong & transformative transit pipeline:
  - Surrey LRT (Surrey, BC)
  - Ottawa LRT Phase II (Ottawa, ON)
  - Broadway Skytrain (Vancouver, BC)
  - Hurontario LRT (GTA, ON)

[redacted] **Billion**

- PPP Canada has identified a potential pipeline of over $50 billion in public transit projects

- Significant transit experience and increased capacity to deliver
  - Established relationships with key stakeholders
  - Developed new knowledge tools and fostered internal learnings
  - In depth knowledge of current/proposed systems and requirements



Short-Term Priorities / Considerations

ATIA - 18(b)
ATIA - 21(1)(c)

1. Managing our existing portfolio
   - Projects in procurement, under construction and in operations
   - Knowledge tools and templates (procurement templates, federal suite, leading market practices analysis)
2. Managing projects in development, expectations of our clients and coordinating messaging
   [redacted]
3. Harnessing capacity to support INFC
   - Phase 1 / Phase II
   - Infrastructure bank, asset recycling, pension fund investments
   - Gordie Howe International Bridge
   - CDPQ
4. [redacted]
5. Role in federal projects
   - Minister's views on PPP Canada involvement
6. Working together – collaborating with local governments on the delivery of their complex and innovative infrastructure priorities
   - Economically strategic and nationally transformative projects
   - P3 Canada Fund



Thank you

100 Queen Street, Suite 630
Ottawa, Ontario K1P 1J9
Canada

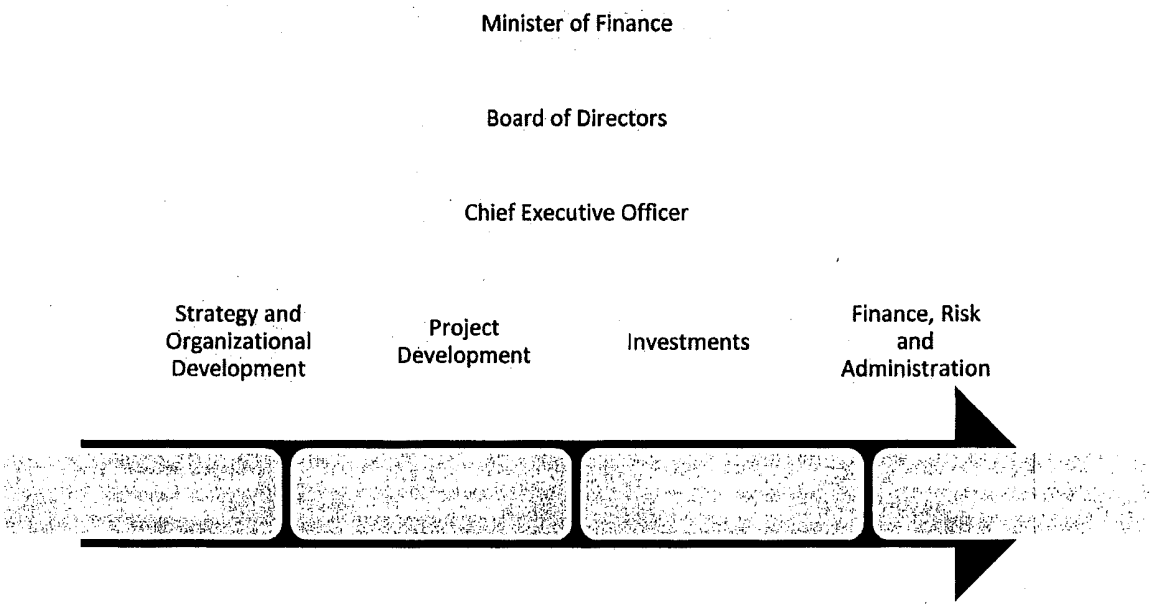
Telephone: (613) 947-9480
Fax: (613) 947-2289
Toll Free : (877) 947-9480
Email: info@p3canada.ca

Annex B

PPP Canada

Established in 2008 by Order-in-Council, PPP Canada is a Crown Corporation created to build P3 procurement knowledge and capacity federally, and leverage greater value for money from federal investments in provincial, territorial, municipal and Indigenous communities infrastructure through the P3 Canada Fund. With the appointments of the Chair of the Board of Directors and the Chief Executive Officer, PPP Canada became operational in 2009.

Our Business Structure



Strategy and Organizational Development

Along with providing some corporate functions for PPP Canada (legal services, human resources, editing/translation, ATIP, parliamentary affairs), Strategy and Organizational Development also supports PPP Canada in developing and safeguarding our brand as a leading national and international P3 expert, this includes informing the Corporation and the Government of Canada of market trends and developments. The unit also provides advice on matters of policy, governance, programing in order to position PPP Canada to achieve its mandate.

Project Development

Our Project Development unit leads on the Corporation's efforts to identify potential P3 projects, foster relationships with key stakeholders at all levels and manage project

intake through annual funding rounds of the P3 Canada Fund and the Federal P3 Screen. The unit also leads the development of P3 Business Cases and Procurement Options Analysis, collaborating with our Investments unit to ensure that all project development and pre-procurement activities are aligned to produce the best value possible.

Investments

Our Investments unit takes over leadership of our projects once their business case is complet and they are ready to enter into procurement. Our core objective is to conclude a successful procurement process that delivers value for money. Investments will identify risks to realizing this objective and, in collaboration with our clients, ensure that they are properly monitored and managed throughout the entire procurement. Examples of specific services provided to clients include systematic reviews of procurement process, governance, schedule, documentation & contract, all of which is based on market precedents and lessons learned.

Finance, Risk and Administration (FRA)

FRA performs corporate functions from PPP Canada and protects overall integrity of the Corporation. This includes: instituting sound financial controls, processes for risk management, financial planning, budgeting, processing and reporting, payroll and employee benefits. The unit also manages the investment portfolio (P3 Canada Fund investments which have yet to be disbursed) as well as the Financial Agreements for P3 Canada Fund clients. This latter responsibility includes: conducting due-diligence on financial and risk transfer, and supporting the resolution of major contract related issues.

Our Board of Directors

PPP Canada's Board of Directors bring a remarkable depth and breadth of experience in numerous industries including accounting, auditing, law, finance, management, contract structuring, project finance, government, policy development, engineering and construction, alongside extensive understanding of the overall infrastructure sector.

The Board provides strategic insight, guidance, and oversight to the operational direction proposed by PPP Canada's senior management. It is the Board's duty and responsibility to challenge itself and senior management to develop best-in-class corporate governance practices, including the policies, procedures, internal controls, and risk management measures necessary to inspire the confidence of our stakeholders and enable the Corporation to deliver the greatest possible value to Canadians. The Board approves PPP Canada's five-year Corporate Plan and Annual Reports, which are tabled in Parliament.

Name	Role	First Appointed	Current Term Expires
Tony Comper	Chair, Board of Directors Chair, Human Resources & Governance Committee	May 14, 2009	March 7, 2017
Carol Pennycook	Chair, Investments Committee	May 14, 2009	February 4, 2018
Bill McMackin	Chair, Audit Committee	June 19, 2009	February 4, 2018
John McBride	Ex-Officio	January 19, 2009	February 16, 2019
Peter Armstrong	Member	May 28, 2009	February 4, 2018
Rick Byers	Member	December 9, 2010	June 13, 2017
Sheila O'Brien	Member	October 9, 2014	October 9, 2017
John Beck	Member	May 28, 2015	May 27, 2018
Vacant	*Member*	*Vacant*	*Vacant*

Our Mandate & Business Lines

To improve the delivery of public infrastructure by achieving better value, timeliness and accountability to taxpayers, through P3s.

The Corporation delivers on this mandate through three lines of business:

1. P3 Knowledge Development and Sharing;
2. Advancing Provincial, Territorial, Municipal and First Nations P3s; and
3. Advancing Federal P3s.

P3 Knowledge Development and Sharing (KDS)

Corporate object:

1. Act as a source of expertise and advice on public-private partnership matters

PPP Canada is the Government of Canada's centre of P3 expertise. Developing and sharing this expertise, based on sound evidence and experience, is essential to successfully procuring public infrastructure and realizing value for Canadians. By developing tools and guides based on leading-practices, transaction costs are minimized, the time needed for up front planning is lowered, and procurement practices are streamlined, thus ensuring better value for money for Canadians.

Since its beginning, PPP Canada has placed the development of knowledge and expertise as a high priority in the growth of the Corporation. PPP Canada has significantly increased its efforts to build, develop and share tools and products to cultivate its own internal capacity and knowledge, as well as that of its clients and broader audience.

Meaningful contribution to the KDS business line is the responsibility of the entire Corporation. Given the dynamic nature of the P3 market, focus continues to be placed on internal knowledge and growth in addition to the knowledge needs of our clients through all phases of a project's life-cycle. This contributes greatly to building our own internal capacity as well as that of our current and potential clients.



Advancing Provincial, Territorial, Municipal and First Nations P3s

Corporate object:

2. Manage the Public-Private Partnerships Funds (P3 Canada Fund) in accordance with the policies and authorities established by the Treasury Board

3. Negotiate, sign and administer agreements to be funded through the P3 Canada Fund in accordance with the policies and authorities established by the Treasury Board

The P3 Canada Fund, launched in 2009, is now in its seventh round of funding. The success of the P3 Canada Fund, and the projects in which it has invested in, has been due to the collaborative approach with applicants. The cultural shift from traditional procurement to the P3 approach, can be challenging from project development, through procurement and into operations. Working alongside the provinces and municipalities, to provide expertise, advice and guidance at every stage, has created a strong network of relationships across the provinces, territories, and municipalities.

Over the years, PPP Canada has created a solid pipeline of projects which has allowed us to fulfill our mandate to commit the entirety of the first tranche of the P3 Canada Fund by the end of the 2013-14 planning period. These 23 announced projects have leveraged over $6.4 billion in total investments and will deliver an estimated $861 million in extra value for taxpayer dollars when compared to a traditional procurement. This was achieved through corporate-wide efforts to improve the quality and P3 feasibility of projects submitted through the Fund. Targeted pre-procurement activities such as

tailored outreach and intake assessment strategies have greatly contributed to development of the Canadian pipeline, especially over the last three rounds.

Advancing Federal P3s

Corporate object:

4. Assess public-private partnerships opportunities at the federal level in accordance with criteria established by the Treasury Board

5. Assess the suitability of public-private partnership projects seeking funding from federal infrastructure programs in accordance with criteria established by or pursuant to Treasury Board authorities

6. Advise on the execution of public-private partnership projects at the federal level

In 2012, the Treasury Board of Canada Secretariat (TBS) launched the Guide to Implementing Budget 2011 Direction of Public-Private Partnerships thus formally establishing the Federal P3 Screen. These TBS guidelines require all federal projects in excess of $100 million with a useful life of 20 years or longer to be assessed for P3 suitability.

To coincide with the implementation of the Federal P3 Screen, PPP Canada began the roll-out of targeted outreach strategies, primarily to engage senior level officials at capital intensive departments. The strategic outreach undertaken by the CEO targeted capital intensive departments and agencies to bring awareness not only to the Screen, but to the suite of advisory services PPP Canada offers to its federal clients.

In addition, the Corporation also began holding federal P3 primer sessions open to federal executives and senior staff in capital investment, planning, project management, finance & procurement aimed at introducing employees of federal departments, agencies, and Crown corporations to P3s and the Federal P3 Screen. These sessions initially had a multi-pronged approach and were designed to bring greater understanding of PPP Canada and its role in the federal context; on what is and isn't a P3; various P3 models and the P3 structure; a comparison of traditional delivery versus P3 delivery; as well as on the nature of the screen and its application.

Now in its third year, the Federal P3 Screen and PPP Canada's outreach efforts have resulted in a small but diverse pipeline of federal projects. Furthermore, the Corporation has moved away from needing to build awareness of P3s and its advisory services within the federal family, towards focusing on the individual asset needs of capital intensive departments and tailoring its engagement to those potential projects. We continue to employ a strategy based on a self-reinforcing cycle of visibility, credibility

and influence in order to successfully assess and advise on the execution of P3 projects at the federal level.

ATIA - 18(b)

ATIA - 21(1)(c)

ANNEX II – P3 Canada Fund Projects

	Project	Location	Project Status
1	Chief Peguis Trail Extension	Winnipeg, MB	In operation
2	Lachine Train Maintenance Centre	Montreal, QB	In construction
3	Lac La Biche Wastewater Treatment Facility	Lac La Biche, AB	In operation
4	Evan Thomas Water and Wastewater	Kananaskis County, AB	In operation
5	Barrie Transit Facility	Barrie, ON	In operation
6	Sudbury Biosolids Management Facility	Sudbury, ON	In operation
7	Kokish River Hydroelectric Project	Kokish First Nation, BC	In operation
8	BC Eastside Housing Project	Vancouver, BC	In partial operation and construction
9	Lincoln Station – Evergreen Line	Vancouver, BC	In construction
10	Surrey Organic Biofuels Processing Facility	Surrey, BC	In construction
11	GO Transit East Rail Maintenance Facility	Whitby, ON	In construction
12	Iqaluit Airport Improvements	Iqaluit, NVT	In construction
13	North Saskatchewan River Bridge – NE Anthony Henday	Edmonton, AB	In construction
14	Saskatoon Transit Operations Centre	Saskatoon, SK	In construction
[redacted]			
16	Edmonton LRT	Edmonton, AB	In construction
17	Regina Wastewater Treatment Plant	Regina, SK	In construction
18	Saint John Safe Clean Drinking Water Program	St John , NB	In construction
19	Regina Bypass	Regina, SK	In construction
20	North Commuter Parkway and Traffic Bridge	Saskatoon, SK	In construction
21	Hamilton Biosolids Plant	Hamilton, ON	In procurement
22	Stoney Natural Gas Bus Storage and Maintenance Facility	Calgary, AB	In procurement
23	Winnipeg BRT Extension	Winnipeg, AB	In procurement



ATIA - 18(b)

ATIA - 21(1)(c)

ANNEX III – Federal Projects

	Project	Sponsor	Project Status
1	Land Border Crossings	Canadian Border Services Canada	In development
2	Archival Preservation Facility	Library and Archives Canada	In development
3	Chalk River Laboratories	Canadian Nuclear Laboratories	In development
4	Cambrai Road Accommodations CFB Borden	Department of National Defence	In development
5	Energy Services Acquisition Program (ESAP)	Public Services and Procurement Canada	In development
6	Valcartier	Department of National Defence	In development
7	Public Safety Data Centres	Public Safety	In development
8	Land Vehicle Crew Training Systems (LVCTS)	Department of National Defence	In development

Annex C

PPP Canada

Note

To: Tony Comper

From: John McBride

Date: May 16, 2016

Re: Meeting with Minister Sohi

You are scheduled to meet Minister Sohi on Thursday May 19 at 4:00 p.m. The meeting will take place at 427 Laurier West on the 10th floor.

The purpose of this note is to set out key messages and areas of enquiry that you may wish to pursue with the Minister.

Summary

A summary of the key points is set out below:

- Board and Management of Corporation keen to support the Minister and the Government's priorities.

- The Corporation has an excellent track record of results and sound stewardship. We have worked with all levels of Government to produce over $10 billion of infrastructure investment, achieving $3 billion in savings underpinned by excellent management and sound stewardship as evidenced by the recent Special Examination by the Auditor General.

- When used in the right circumstances and with the right expertise, P3s have a demonstrated ability to deliver value. Public sector expertise is a critical success factor. We have worked hard to build, apply and share expertise.

- The Board of Directors is comprised of very accomplished individuals. They are looking forward to meeting with you on June 1 to hear your priorities and to discuss how the Corporation can support their achievement. Particular areas of interest for the Board include:

a. How the Corporation can Best Support the Minister's Priorities ATIA - 21(1)(a)



c. What are the Minister's expectations regarding the Corporation's work with federal P3 projects? Does he anticipate an enhanced role with respect to the Gordie Howe bridge project.

d. The Board is facing a Board renewal challenge and the Board has put forward options to help manage this challenge. How can the Board best support the Minister with this challenge, particularly in light of the recent announced changes in the Order-in-Council appointment process.

Further context and information is provided in the next section and attachments.

Context and Background

Budget 2016

The 2016 Federal Budget set out the first steps in implementing the Government's Infrastructure Plan. As part of the plan, the Government announced its intent to transfer PPP Canada's reporting relationship to the Minister of Infrastructure and Communities from the Minister of Finance. This will be effected through the Budget Implementation Act (BIA) that was recently tabled in Parliament. It is expected that the BIA will be passed in June and the related Orders-in-Councils shortly thereafter. The objective is to strengthen the Infrastructure and Communities portfolio. In this context, the Department is separating from Transport Canada, and has been given responsibility for the Windsor Detroit Bridge Authority (WDBA), and the Toronto Waterfront Corporation in addition to PPP Canada.

The Budget also announced a two phase approach for rolling out the Government's Infrastructure Plan. Phase 1 addresses short-term urgent needs and involves expenditures over the next 2-3 years. The focus is on maintenance, rehabilitation and continued development of larger projects. Phase 2 will focus on larger project. The parameters of Phase 2 are to be developed over the coming year. Minister Sohi has lead responsibility for bringing forward proposals for Phase 2, including any institutional changes.



PPP Canada—A well-managed Corporation Delivering Results

The Corporation in a relatively short period has had a significant impact. It has developed a strong team of dedicated professionals. In its work with Provinces, Municipalities and First Nation, it has leveraged its expertise and the P3 Canada Fund to make a significant difference. Attached as annex A is the draft Executive Summary of the Evaluation of the P3 Canada Fund undertaken by KPMG provides an objective and extremely positive assessment of the impacts.

Annex B provides a list of the projects funded under the P3 Canada Fund

The Corporation has also undertaken a significant amount of work with federal clients. It has a clear mandate to review all federal capital projects in excess of $100 million. It has also worked, at the discretion of departments, on business case development and procurement. Its highest profile work has been on the development and procurement of the New Bridge over the St. Laurent (NBSL). This complex project will be delivered a year early and $1.7 billion under budget. The Corporation continues to work to broaden its involvement in business cases and procurement of federal projects, relying on its growing reputation and track record given that federal departments are not required to seek our expertise. The WDBA reports to Minister Sohi and has responsibility for the Gordie Howe Bridge. To date, the WDBA has declined the services of PPP Canada. The role that the Minister chooses to assign to PPP Canada with respect to the Gordie Howe bridge will be an indicator of the role the Minister has in mind for PPP Canada of federal projects. It will certainly be watched by other federal institutions.

In terms of stewardships and controls, the Auditor General recently tabled in Parliament its in-depth Special Examination of PPP Canada. The assessment was very positive with no significant deficiencies.

P3s – A Proven Tool in the Toolkit which requires New Skills to Use

P3s are a proven procurement model which can deliver superior results, especially for large complex projects. The portfolio of projects funded under the P3 Canada Fund for example have delivered over $2 billion in incremental value. In contrast, traditional procurement has often disappointed. A study of 258 transportation projects worth $90 billion which were procured traditionally showed:

- In 9 out of 10 projects, costs were underestimated
- Cost overruns averaged 28%
- Cost underestimation was endemic – it occurred in 20 countries across 5 continents
- Cost underestimation has not improved for 70 years.

P3s address many of the weaknesses of traditional procurement. It employs private capital to bring discipline; it encourages whole life-cycle cost optimization; it stimulates innovation and it enables a dynamic procurement process. P3s represent change. They require new skills and a willingness to try a new approach.

Board Renewal

The Corporation has been working with the shareholder for more than 18 months to develop a plan for Board renewal. This will be the first opportunity to engage Minister Sohi on this topic. Attached as annex C is a list of current Board members, with among other things, their expiry dates.

P3 Canada Fund Summative Evaluation

Annex A

Draft Report by KPMG – May 2016

Executive Summary

PPP Canada Inc. (the Corporation) is a Crown corporation incorporated in February 2008 that reports to Parliament through the Minister of Finance.[1] Its mandate is to improve the delivery of public infrastructure by achieving better value, timeliness, and accountability to taxpayers through Public-Private Partnerships (P3s).

PPP Canada is required to conduct an evaluation of the P3 Canada Fund (the Fund) in accordance with its Terms and Conditions. The evaluation covers all key components as required in the Treasury Board *Policy on Evaluation* (i.e. the issues of relevance, efficiency, effectiveness and economy), as well as other areas yielding information useful for informing future decision-making related to the Fund by PPP Canada management. The evaluation is summative in nature, therefore focuses on the achievement of program outcomes.

The evaluation used multiple lines of evidence in the methodology including document and data review, interviews with five stakeholder groups (P3Canada Fund recipients, federal, provincial and private sector stakeholders; and internal PPP Canada respondents), and the development of three case studies.

Overall, the P3 Canada Fund is relevant, addresses an ongoing need for infrastructure development in Canada and remains aligned with Federal Government roles and responsibilities. PPP Canada has committed the entire first tranche of the $1.2 billion P3 Canada Fund leveraging more than $6 billion in investments across 24 P3 projects in 14 jurisdictions generating an estimated $2 billion[2] in Value for Money (VfM).

P3 Canada Fund performance is on track given the long timeframe to benefits realization and has made impacted the Canadian P3 market by serving inexperienced jurisdictions and increasing capacity.

Specific key findings from the evaluation include:

Relevance

- The establishment of the P3 Canada Fund, its renewal in 2014, and the continuing recognition of the role that P3s play in infrastructure development emphasize the importance the Canadian federal government has placed on the consideration of P3 models for infrastructure investment.
- The objectives of the P3 Canada Fund are aligned with federal government plans and priorities over the evaluation period and with federal government roles and responsibilities. Continued federal involvement in infrastructure renewal and development was found to be critical among interviewees.
- The P3 Canada Fund is differentiated from other funding programs through the provision of advice and guidance, in addition to funding, filling the need for learning, capacity development, and knowledge sharing in relation to best practices in P3 infrastructure development.

[1] PPP Canada is in the process of being transferred to the Department of Infrastructure and Communities once Budget 2016 is approved in the House of Commons.

[2] The majority of estimates were obtained through public value for money reports. The remaining VfM estimates generated through business cases provided by the Procuring Authority and Comprehensive Assessments completed by PPP Canada.

- The P3 Canada Fund has strengthened the connection between municipalities and the federal government and has accelerated infrastructure investment being made by provinces and municipalities in the view of recipients.
- The involvement of the federal government in P3 projects is seen by both private and public sector stakeholders as reducing project risk. Federal involvement provides increased confidence that an organization has internal resources and support to procure a project properly. Federal involvement has also provided increased ability of the procuring authority to negotiate lower financing rates than when operating under a traditional model.

In terms of continued relevance, three key areas were identified for potential future change by key stakeholders that may improve the design and effectiveness of the Fund:

- **Funding contribution limits.** There is a need to increase the 25% funding contribution limit of the P3 Canada Fund to better align with other infrastructure support programs.
- **Scope of P3 model.** There are differences of opinion regarding how to best leverage the P3 model with varying degrees of private sector involvement. While some stakeholders believe there are opportunities to achieve benefits from the P3 model with varying degrees of private sector involvement, many viewed the higher levels of private sector involvement under full scope Design-Build-Finance-Operate-Maintain and Design-Build-Finance-Maintain models as the optimal way to generate the greatest value for money under a P3 model.
- **Eligible asset categories.** There is some support for the expansion of eligible asset categories or additional prioritization in some categories to broaden the P3 market in Canada (e.g., social infrastructure, green infrastructure and recreational facilities), provided these remain aligned with government priorities.

It is recommended that management conduct further engagement with its stakeholders to consider the benefits and feasibility of these areas for change in the future design of the Fund.

Performance

- The P3 Canada Fund has been successful in attracting 14 new and inexperienced jurisdictions to employ a P3 model for their projects. The P3 Canada Fund has invested in projects that have brought $6.6 billion in capital to the Canadian infrastructure market.
- P3 Canada Fund projects are anticipated to generate more than $2 billion in value-for-money compared to traditional procurement methods.
- P3 Canada Fund projects identify a number of public benefits including reducing environmental impacts, improved health for Canadians and the creation of jobs and a skilled work force.
- PPP Canada is noted for its development of collaborative relationships with provinces and municipalities. Provincial agencies value the collaboration and sharing of best practices with the P3 Canada Fund.
- The P3 Canada Fund has played a significant role in shifting the cultural views of the value of the P3 model of procurement for infrastructure. However, there is still more to be done and it is recognized that the provinces have had an influence in this area as well.
- Infrastructure procurement processes have been streamlined through the use of the P3 Canada Fund, providing municipalities with more flexibility in determining priorities and projects.
- P3 Canada Fund processes and best practices are being applied and implemented by project proponents and provincial agencies, which is bringing increased rigour to the planning and delivery of all types of infrastructure projects, not solely P3 projects.

- The P3 Canada Fund has increased the capacity of other levels of government to work within and employ a P3 model. PPP Canada is recognized as being a Centre of Expertise and sound source of advice on P3 models by many within the federal government as well.
- PPP Canada knowledge products are being used by stakeholders and stakeholders are satisfied with these products.

In terms of continued performance, there are four areas for improvement that have the potential to improve overall program effectiveness and the achievement of outcomes:

Building Capacity: Continue to address capacity needs of stakeholders through development of products and tools, sharing of best practices, delivery of advice and networking with new and existing P3 proponents (other levels of government) to share knowledge and experience. These activities are of value to stakeholders groups and have been successful in changing behaviours.
Project Transition: Review processes and competencies to enable an efficient transition of staff either moving on or off recipient projects and between project stages (e.g., moving from business case development and qualification to financial agreement) to maximize knowledge transfer and efficiency of role and responsibility hand offs. This should be supported by ensuring project documentation is accessible to staff and that staff decisions and/or P3 Canada Fund requirements in relation to the project are fully documented, available, with supporting rationale included. This will ease the burden on recipients in the provision of duplicate information, as well as alleviate issues related to the transparency of PPP Canada requirements and formalized decisions taken on the project.

- **Recipient Project Processes**: Clarify upfront with the procuring authority about PPP Canada's involvement in directing recipient project processes. It is unclear to some recipients the extent of PPP Canada's role in developing, structuring and procuring P3 Canada Fund projects and funding approvals. Further clarification of roles and responsibilities will increase transparency and manage expectations for both PPP Canada and a P3 Canada Fund recipient.

Economy and Efficiency

- The Office of the Auditor General's 2015 Special Examination of PPP Canada found PPP Canada has maintained systems and practices in a manner that provides reasonable assurance that its resources are managed economically and efficiently, and its operations are carried out effectively.
- Private financing makes up 45% of the P3 Canada Fund projects' funding dollars and the anticipated greater certainty regarding on-time and on-budget project delivery by stakeholders is of benefit to public entities.

ATIA - 18(b)

ATIA-14(a)

Canada Fund Portfolio

Annex B

ATIA - 21(1)(c)

P3 The following represents information on the phase and status of projects in the P3 Canada Fund Portfolio.

	Project	Project Capital Costs ($M)	Estimated Value for Money ($M)	Project Phase	Project Status	
					Time	Budget
1	Chief Peguis Trail Extension					
2	Lachine Train Maintenance Centre – Agence Métropolitaine de Transport (AMT)					
3	Lac La Biche Wastewater Treatment Facility					
4	Evan Thomas Water and Wastewater					
5	Barrie Transit Facility					
6	Sudbury Biosolids Management Facility					
7	Downtown Eastside Housing Project					
8	Kokish River Hydroelectric Project					
9	Capital Regional District Biosolids Energy Centre					
10	Lincoln Station					
11	Surrey Organic Biofuels Processing Facility					
12	GO Transit East Rail Maintenance Facility					
13	Iqaluit Airport Improvements					
14	North Saskatchewan River Bridge – NE Anthony Henday					
15	New Transit Operations Center and Snow Salt-Laden Decontamination Facility					
16						
17	Edmonton LRT					
18	Regina Wastewater Treatment Plant					
19	Saint John Safe Clean Drinking Water Program					
20	Hamilton Biosolids Project					
21	Stoney Compressed Natural Gas Bus Storage & Maintenance Facility					
22	Regina Bypass					
23	North Commuter Parkway and Traffic Bridge					
24	Southwest Rapid Transitway (Stage 2) & Pembina Highway Underpass					
	TOTAL					

PPP Canada

Annex C

Board Membership and Skills Matrix

	John McBRIDE	Tony COMPER	Bill McMACKIN	Peter ARMSTRONG	Carol PENNYCOOK	Rick BYERS	Sheila O'BRIEN	John BECK
Appointment Date	2009-01-19	2009-05-14	2009-06-19	2009-05-28	2009-05-14	2010-12-09	2014-10-09	2015-05-28
End of Term	2019-02-16	2017-03-07	2018-02-04	2018-02-04	2018-02-04	2017-06-12	2017-10-08	2018-05-27
# of Terms	2	3	3	3	3	2	1	1
Regional Representation	Ontario	Ontario	New Brunswick	British Columbia	Ontario	Ontario	Alberta	Ontario
COMBINED SKILLS	Accounting Auditing Legal Executive/Management Finance P3 Contracting P3 Finance Structure Government Policy Development Engineering/Construction Infrastructure Sector Governance							

Annex D

Tony Comper



Tony Comper is the immediate past President and Chief Executive Officer of BMO Financial Group. Appointed Chief Executive Officer in February 1999, Mr. Comper served as Chairman from July 1999 to May 2004, when the bank moved to a non-executive chairman model.

He serves as Independent Lead Director of Spectra Energy Corporation, Houston; Chair of the Board of Directors, PPP Canada; Member of the International Advisory Committee, Li Ka Shing Knowledge Institute of St. Michael's Hospital; Honorary Chair of the Board of Governors, Yee Hong Centre for Geriatric Care; The Advisory Board, The Conference Board of Canada/Spencer Stuart National Governance Award and Member of the Investment Committee, Catalyst.

He received the Human Relations Award from the Canadian Council of Christians and Jews and the Award of Merit from B'nai Brith Canada. He holds honorary degrees from the University of Toronto (LL.D.), Mount Saint Vincent University (D.Hum.L.), the University of New Brunswick (D.Litt.) and Haifa University with his wife Elizabeth.

Mr. Comper and his wife Elizabeth also received the Scopus Award from the Hebrew University of Jerusalem. They also founded FAST, a new initiative to combat antisemitism in Canada. In November 2009, Concordia University conferred the degree of Doctor of Philosophy (*honoris causa*) to Tony and his wife Elizabeth. In January 2011, he received the Order of Canada together with his wife Elizabeth.

Annex E

P3 Canada Fund Projects in Development – Round Seven

Snapshot

ATIA-14(a) ATIA - 18(b) ATIA - 21(1)(c)

	Project	Round 7 Application Requested Contribution ($M)	Current* Requested Contribution ($M)	Jurisdiction
1	[redacted]			
2				
3				
4				
5				
6				
7				
8				
Public Transit Projects				
9	Hurontario LRT	[redacted]		Metrolinx, Ontario
10	Surrey Light Rail Transit			South Coast British Columbia Transportation Authority (TransLink), British Columbia
11	Ottawa Stage 2 Light Rail Transit			City of Ottawa, Ontario
12	Millennium Line SkyTrain Extension to Central Broadway			South Coast British Columbia Transportation Authority (TransLink), British Columbia
	Total			

**Differences in requested contributions arise due to updates in project scope, design, costing, etc.*

Projects in Development

Screened-in Projects in Development	
1 [redacted]	Milestones
[redacted]	
[redacted]	

2	[redacted]	Milestones
	[redacted]	

[redacted]

3	[redacted]	Milestones
	[redacted]	
[redacted]		

4	[redacted]	Milestones
	[redacted]	
	[redacted]	

5	[redacted]	Milestones
	[redacted]	

[redacted]

6	[redacted]	Milestones
	[redacted]	

7	[redacted]	Milestones
	[redacted]	

[redacted]

8	[redacted]	Milestones
	[redacted]	
[redacted]		

9 Hurontario Light Rail Transit (Metrolinx, Ontario)

- Project Structure: DBFOM
- CAPEX: [redacted]
- [redacted]requested P3 CANADA FUND commitment (Non-Repayable Contribution), as per the Round 7 Application based on 25.0% of eligible costs

Background

- The project involves the construction of a light rail transit line to service the City of Mississauga and a small portion of the City of Brampton. The project includes the construction of 20 km track along Hurontario Street, a maintenance and storage facility, 44 light rail vehicles, 22 transit stops and 21 traction power sub stations.
- In October 2015, Brampton City Council voted against allowing the Hurontario LRT to run along the Main Street portion of the route citing low ridership projections. The LRT will terminate at the Brampton Gateway Terminal instead of the Brampton GO Station. [redacted]
- Metrolinx is the applicant for the project. The Provincial Government has supported the project moving forward

Status

- The Project Team is led by Metrolinx and Infrastructure Ontario, with support from the city of Mississauga, the City of Brampton and the Region of Peel.
- Owner's Engineer CH2M has been retained. E&Y is retained by Infrastructure Ontario as the financial advisor.
- A Preliminary Design and Engineering and Transit Project Assessment is complete, [redacted]
- [redacted]
- [redacted]

10	**Surrey Light Rail Transit (South Coast British Columbia Transportation Authority (TransLink), British Columbia)**

- Project Structure: DBFOM
- CAPEX: [redacted]
- [redacted] requested P3 CANADA FUND commitment (Non-Repayable Contribution) as per the Round 7 Application based on 25.0% of eligible costs

Background

- The project involves the construction of a 27 km at-grade, low-floor, street-running LRT system operating in the road right of way connecting the City of Surrey with Newton, Guildford, and Fleetwood Town, the City of Langford, and the Township of Langford. The LRT system will be procured as one project and constructed in two phases. Phase one will consist of a 10 km stretch along 104 Avenue and King George with 11 stops. Phase two consists of a 17 km line from Langley to Surrey Central with 10 stops. TransLink will supply and maintain the infrastructure associated with fare collection system.
- TransLink is looking for all three levels (regional, provincial, and federal) to contribute funding to the Project.

Status

- A Project Steering Committee with representation from TransLink, the City of Surrey, the BC Ministry of Transportation and Infrastructure, and Partnerships BC is in place.

[redacted]

- Technical advisors include Steer Davies Gleave and Hatch Mott McDonald; Tony Steadman is costing consultant.

[redacted]

11 Stage 2 Light Rail Transit (City of Ottawa, Ontario)

- Project Structure: DBFM
- CAPEX: [redacted]
- [redacted] requested P3 CANADA FUND commitment (Non-Repayable Contribution), as per the Round 7 Application based on 25.0% of eligible costs

Background

- The project is the second stage of the Ottawa LRT Confederation Line and involves the construction of 30 km of new rail and 18 new LRT stations to the Nation's Capital, as well as the vehicles to services these extensions. The project scope also includes an expansion of the maintenance and storage facility at Walkley and a possible expansion of the facility at Belfast or construction of a new facility. Since the project is an extension to the Confederation Line, responsibility for operations will be retained by the City.
- The City of Ottawa is looking for all three levels (regional, provincial, and federal) to contribute funding to the project.

Current Status

- Business advisors Deloitte and Boxfish Group have been retained through a competitive procurement process.
- Technical advisors are the same consortium of advisors which advised the City for the previous procurement, the Confederation Line, Capital Transit Phase 2 is comprised of STV Canada Consulting, AECOM, Jacobs Associates Canada Corporation and Morrison Hershfield.
- The Ontario provincial budget, released Feb. 25, 2016, included the Ottawa Stage 2 LRT project but did not include a specific budget figure.

[redacted]

12	**Broadway SkyTrain (Millennium Line) Extension (South Coast British Columbia Transportation Authority (TransLink), British Columbia**

- Project Structure: DBF
- CAPEX: [redacted]
- [redacted] requested P3 CANADA FUND commitment (Non-Repayable Contribution), as per the Round 7 Application based on 25.0% of eligible costs

Background

- The project involves the extension of the Skytrain Millennium Line westward, connecting to the Canada Line rail network and enabling improved bus rapid service to the University of British Columbia. It involves the construction of 5.1 km of new Rapid Transit tracks (primarily underground), 6 new stations, and 56 additional rail rapid transit vehicles.
- The project envisions cost sharing between the region, province, and federal government.

Status

- A Project Steering Committee with representation from TransLink, the City of Vancouver, Partnerships BC, and the Ministry of Transport and Infrastructure is in place.
- [redacted]
- Geotechnical work is ongoing to identify locations of landfill and the depth of bedrock. [redacted]
- Technical Advisors include Stantec, McMillan Jacobs and BTY. Tony Steadman is the costing consultant.
- [redacted]

Infrastructure Canada

CIMS #: 41173

SECURITY DESIGNATION/
DÉSIGNATION DE SÉCURITÉ

SCENARIO NOTE/NOTE DE SCÉNARIO

(DEPUTY MINISTER/SOUS-MINISTRE)

ROUTE SLIP/BORDEREAU D'ACHEMINEMENT

TO/À (TITLE/TITRE)	ACTION	INITIALS/ INITIALES	DATE
Director, Strategic Policy Directeur ou Directrice	For approval Pour approbation	DP	APR 13 2016
Director General, Strategic Policy and Priority Initiatives Directeur général ou Directrice générale	For approval Pour approbaton		APR 13 2016
Assistant Deputy Minister/ Sous-ministre adjoint	For approval Pour approbation		14 AVR. 2016
Executive Correspondence Unit/ Unité de la correspondance exécutive	For review Pour révision	D. Gauthier	April 14, 2016
Associate Deputy Minister/ Sous-ministre déléguée	For approval Pour approbation		18 AVR. 2016
Deputy Minister/ Sous-ministre	For information Pour information		

REMARKS/ REMARQUES

➢ Consultation
- □ Yes/Oui (Please specify/Veuillez préciser)
- □ No/Non

➢ Translation/Traduction
- □ Yes/Oui
- □ No/Non (Rationale/Justification)

P3 Hub Canada Roundtables Session

CONTEXT FOR THE DOCUMENT/CONTEXTE DU DOCUMENT :

•Hosted by the Canadian Council for Public-Private Partnerships (CCPPP) with the support of P3 Bulletin, the second P3 Hub Canada annual event will be held in Ottawa on April 18-19, 2016. A detailed agenda is included in Annex A.

FROM/DE	DATE	TELEPHONE/TÉLÉPHONE
Melanie Rivest	April 8, 2016	613-960-6391

Canada

Infrastructure Canada

Ottawa, Canada
K1P 0B6

POLICY AND COMMUNICATIONS STRATEGIC POLICY

SCENARIO NOTE

P3 Hub Canada: Roundtables Session

Date/Time:	April 18, 2016, 3:30 p.m. - 6:15 p.m.
Location:	The Westin, 11 Colonel By Drive, Ottawa, ON
Subject:	P3 Hub Canada: Roundtable Session
Participants:	• Jean-François Tremblay, Deputy Minister of Infrastructure and Communities • John McBride, Chief Executive Officer of PPP Canada • Councillor Josh Colle, Chair of the Toronto Transit Commission • Mélinda Nycholat, Vice President, Operations, Procurement at Defence Construction Canada • Approximately 50 delegates from P3 organizations, construction companies, law firms as well as provincial and municipal governments

Departmental Objectives

- You have been asked to participate along with three other public officials (John McBride, Josh Colle and Mélinda Nycholat) in a Roundtable session the first evening of the P3 Hub event. Over the course of the session, you will rotate between tables of 10 delegates, spending 20 minutes at each table answering questions and discussing Public-Private Partnership (P3) opportunities for the future. The list of delegates has been attached in **Annex A**.
- The Roundtable session provides an opportunity for Infrastructure Canada (INFC) to gain an understanding of what the P3 industry may advocate for during engagement on the Government of Canada's 10-year infrastructure plan. As the new department responsible for PPP Canada, this event will also be beneficial for INFC in building relationships with key P3 stakeholders.
- Of note, Jeff Moore, Assistant Deputy Minister of Policy and Communications, will be attending the P3 Hub sessions the following day.

Stakeholder Objectives

- Given that the attendees of this event will be P3 stakeholders, they will likely be seeking details on the Government of Canada's commitments in Budget 2016. Given the removal of the P3 screen under the New Building Canada Fund, delegates will likely also be looking for confirmation of the Government of Canada's continued commitment to P3 procurement and to gain an understanding of P3 Canada's role moving forward.

Context/Overview

- Hosted by the Canadian Council for Public-Private Partnerships, P3 Hub Canada is intended to be an annual event for P3 stakeholders to discuss the opportunities and challenges for the P3 market. This year's event, which is only the second P3 Hub Canada, is being held in Ottawa on April 18-19, 2016, and is entitled *What's next? Delivering Infrastructure in a new Canada.* A detailed agenda is included in **Annex B**.

Canada

- The Minister will be delivering the key note address in the morning of day two of the event. The speech entitled: *What plans do the new government have for P3s over the next 12 months?* is being prepared by the communications team and will come to you for approval under separate cover.
- General speaking points on Budget 2016 and P3s are provided below to facilitate the discussions. Responsive lines on specific issues delegates may raise and questions you can ask delegates are also provided.
- Also, for your reference in **Annex C**, is a breakdown of the 2016 Budget commitments made under Phase 1 of the 10-year infrastructure plan.

Speaking points

Budget 2016

- Budget 2016, tabled on March 22nd, announced the implementation of a new 10-year plan, investing more than $120 billion in infrastructure including an additional $60 billion for green, social and public transit infrastructure to better meet the needs of Canadians and well position Canada's economy for the future.

- The first phase of the Government's infrastructure plan will provide $11.9 billion over 5 years to modernize public transit, improve water and wastewater systems, expand affordable housing, and protect infrastructure from the effects of climate change.

- The funding announced in Budget 2016 is largely in support of Provincial, Territorial, and Municipal infrastructure projects. In making these investments, the Government will balance support for projects of different size and scope both those of local and regional importance, and larger, economically strategic projects that can provide transformative change at the national level.

- Federal investments over the short-term will lay the foundation for a long-term investment strategy, which will be developed in the coming months.

- While Budget 2016 provided a high level description of these programs, more detailed program terms and conditions are still being developed, and will be announced in the coming weeks.

- As indicated in Budget 2016, the Government will engage with its provincial, territorial, municipal and indigenous partners as well as global institutional investors and stakeholders including the P3 industry starting in the late spring, and will launch Phase 2 of the long-term plan in the next year.

Public Private Partnerships

- Canada is a world leader in P3s and has demonstrated this via many successful infrastructure projects including the new Champlain Bridge.

- Infrastructure Canada sees many benefits in choosing Public-Private Partnerships as a procurement method. P3s can allow for more innovation in the design and build of infrastructure as well as the transferring of risk from taxpayers to the private sector.

- Established in 2009, the P3 Canada Fund, which is operated and managed by PPP Canada, provides approximately $2.4 billion to support innovative ways to build public infrastructure and provide better value for Canadian taxpayers and develop the Canadian P3 market.

- Under the NBCF, the program was originally designed for projects with total eligible costs of over $100 million to be subjected to a mandatory and binding P3 screen. However, it was found that the screen could delay project approvals. To address this issue, Budget 2016 announced that the P3 screen will no longer be mandatory to reduce administrative burden and speed up project approvals. The removal of P3 screen also respects the ability of Provinces, Territories and Municipalities to make their own decisions on how to best meet their infrastructure needs including their procurement choice.

- The Government believes that P3s were and will continue to be a necessary method to address the significant infrastructure needs in Canada. That is why the Government will be engaging with provincial, territorial, municipal and indigenous partners as well as global institutional investors and stakeholders including the P3 industry starting in the late spring, to help develop Phase 2 of the 10-year infrastructure plan.

If pressed on specific issues (i.e. P3 screen, status of P3 submissions, Round 8, the Canada Infrastructure Bank)

1) What does removal of the P3 screen mean?

- Through Budget 2016, the P3 screen was removed to help streamline the New Building Canada Fund projects approval process and to allow more flexibility to Provinces, Territories and Municipalities in their procurement choice. It also respects their ability to make their own decisions on how to best meet their infrastructure needs, and speed up the project approvals at the same time.

- The removal is intended to be more of an incentive approach to P3s, rather than a coercive approach by the federal government.

- The Government believes that P3s will continue to be a necessary method to addressing the significant infrastructure needs of Canada.

2) What does the transfer of PPP Canada from Finance Canada to INFC mean for the P3 industry?

- To ensure that Government institutions are aligned to best support infrastructure innovation, Budget 2016 announced the transfer of responsibility for PPP Canada Inc. to the Minister of Infrastructure and Communities.

- I am working with my colleague, Paul Rochon, Deputy Minister of Finance Canada, to ensure a smooth transition.

3) What is the status of my P3 project submitted under Round 7?

- I would recommend you speak directly to PPP Canada on this matter given this is a specific operational question.

4) When will Round 8 begin?

- I would recommend you speak directly to PPP Canada on this matter given this is a specific operational question.

5) How will the Canada Infrastructure Bank (CIB) work?

- I am currently working on this file with my colleague Paul Rochon, Deputy Minister of Finance, as the CIB falls under both our Ministers' mandates.

- We will be engaging on this with Provinces, Territories and Municipalities as well as the financial community to development Phase 2 of the 10-year infrastructure plan.

Questions to raise with delegates

- As part of Phase 2 of the 10-year infrastructure plan, what role do you see for P3s in the context of the Government's three infrastructure priorities (i.e. social, green, transit)?

- What can the Government of Canada do to enable large, strategic infrastructure investments?

- What barriers related to P3s do you encounter in your industry?

Annexes
A) List of delegates
B) Agenda
C) Breakdown of Budget 2016 commitments under Phase 1

Annex A

ATIA - 19(1) **ANNEX A**

Preliminary List of Delegates Attending Roundtables session

First name	Surname	Title	Company
[redacted]			
John	McBride	Chief Executive Officer	PPP Canada

[redacted]			
Terresa	McIntosh	Director - Gatineau 2 Project, Real Property Branch	Library and Archives Canada
[redacted]			
Mélinda	Nycholat	Vice-President, Operations	Defence Construction Canada
[redacted]			
Jean-François	Tremblay	Deputy Minister for Infrastructure and Communities	Infrastructure Canada
[redacted]			

Annex B

The Canadian Council for Public-Private Partnerships presents

The Canadian Council for Public-Private Partnerships

Le Conseil Canadien pour les Partenariats Public-Privé

P3Hub

CANADA

What next?
Delivering infrastructure in the new Canada

The Westin
Ottawa, Ontario
18-19 April 2016

Sponsored by:

HOCHTIEF PPP SOLUTIONS NORTH AMERICA

Supported by:

P3Bulletin

ABOUT

Welcome to P3Hub Ottawa.

Infrastructure investment by the public and private sectors is and will remain front and centre on the political agenda in Canada over the coming years. Whether it's addressing increased transit and housing pressures or the need to build climate resilient water treatment plants and roads, Canadians have made it clear they want value for their money and expect publicly owned assets to be well and properly maintained.

The public-private partnership procurement model was developed to address those expectations. Over the past two decades, independent research makes it clear that P3 projects consistently outperform the traditionally procured projects on delivery and budget objectives. They show a higher rate of being on-time and on budget.

But it's important to understand that P3s are only suitable for a fraction of the infrastructure projects undertaken by governments. So the time is right to ask "What's next" as we consider how and where infrastructure must be delivered for the next generation. We're looking forward to exploring those questions and new ideas with you over the next couple of days.

The Canadian Council for Public-Private Partnerships is pleased to present this two day event with the support of P3 Bulletin.

Mark Romoff President and CEO, CCPPP



After last year's successful event in Vancouver, this year we are hosting the event from the capital Ottawa, amid recent changes to the political landscape of the country. After a decade of stability under the Conservatives, new Prime Minister Justin Trudeau has assumed power and has made no secret of his vast infrastructure plans.

With the government looking to double federal infrastructure spend over the next decade, P3 will surely play a key role in these proposals. But with recent changes to the Building Canada Fund and a policy shift to widen options for the development of new infrastructure, the role of P3s looks to have changed in what has traditionally been the world's most potent market.

This event will highlight the latest issues facing the market and bring you all the information on how the public and private sectors are adapting to the changes under the new regime. We will bring you expert speakers from across the industry who will provide the latest insight into where the latest opportunities lie across Canada in 2016 and beyond.

Dan Colombini Editor, *P3 Bulletin*



PREVIOUS ATTENDEES

[redacted]
[redacted]
[redacted]

Program

18 APRIL 2016 - ROUNDTABLES

Roundtables with public officials:

John McBride Chief Executive Officer - PPP Canada

Jean-François Tremblay Deputy Minister for Infrastructure and Communities - Infrastructure Canada

Councillor Josh Colle Chair - Toronto Transit Commission

Mélinda Nycholat Vice President, Operations, Procurement - Defence Construction Canada

Each of our public officials will rotate around tables of 10 and spend 20 minutes on each table answering questions and discussing P3 opportunities for the future. They will look at how their private sector partners can better assist in procurement and what kind of partnerships they are seeking. This is limited to 50 delegates on a first-come, first-serve basis.

3.30 pm	**Registration with coffee**
4.00 pm	**Roundtables**
6.15 pm	**Networking drinks reception**

19 APRIL 2016 - MAIN CONFERENCE

07.45 am	**Registration and breakfast**
08.30	**Keynote address:** What plans do the new government have for P3s over the next 12 months? **The Honourable Amarjeet Sohi** Minister of Infrastructure and Communities in the Federal Cabinet
09.00	**Welcoming remarks: Mark Romoff** President and CEO – The Canadian Council for Public Private Partnerships
09.20	**Panel: A response to the Budget** • What does the Budget mean for the P3 industry? • New projects, new opportunities? • What does the Budget tell us about the government's view on infrastructure?
10.10	**Morning coffee**
10.30	**Mid morning welcoming remarks from the chair:** **Lindsay Krauss** Senior Legal Counsel – HOCHTIEF PPP Solutions North America

10.40

Panel: Municipal Perspective and Pipeline

Some of Canada's largest P3s currently in procurement have been led by cities and municipal authorities, with support from the federal government. This panel will discuss these deals and what future projects may emerge and how the standardisation template is going to encourage quicker procurement.

- Ensuring sustainable and green infrastructure
- Innovation in smaller projects
- Pathfinder projects economically for the community

Chris Swail Director of the Stage 2 Light Rail Transit Project – The City of Ottawa

11.30

Speaker: The Northern Territories

Looking more broadly at infrastructure this slot will cover the following:

- The cost of building in the Northern Territories
- The length of the viable building season
- How the P3 model can be utilized
- How the climate affects the build

The Honourable Robert C. McLeod Deputy Premier and Minister of Finance – Government of the Northwest Territories

12:00 pm

Panel: The standardisation template

In line with the new government's pillars for future infrastructure this panel will look at the suggested standardisation template for the smaller projects in the newer sectors, and how it might assist municipalities and the private sector with procurement.

- Creating a more robust template
- Managing the ever growing costs
- Tying the funding to the asset class
- Locking down 90% of the project specifics
- Centralised procurement bodies

Joey Comeau Senior Vice President, Capital Services – EllisDon Corporation
Chris McBean Director, Investments – PPP Canada
Marni Dicker Executive Vice President, General Counsel & Corporate Secretary – Infrastructure Ontario

12:50

Networking lunch

2:00

Afternoon welcoming remarks from the chair

2:10

Afternoon keynote address: What does the new partnerships between the Federal Government and Ontario mean for the province?

The Honourable Brad Duguid Minister of Economic Development, Employment and Infrastructure – Government of Ontario



2:40

Panel: First Nations and climate change

This panel will look at the investment that is needed to improve vital infrastructure for the First Nations communities such as schools, homes, roads, water and waste water and the part P3 has to play in delivering it.

- The infrastructure challenge facing First Nation communities
- Engaging with communities about P3
- The potential for projects to deliver much needed investment
- P3 projects across or in reserves – managing the process

Dale Booth President – Tiree Innovation

JP Gladu President and CEO – Canadian Council for Aboriginal Business

John G. Paul Executive Director – Atlantic Policy Congress of First Nation Chiefs

3:30

Panel: Innovation driving Canadian P3 projects

A panel looking at areas where the public and private sector are driving innovation in new project models and structure and in the operation of projects on the ground.

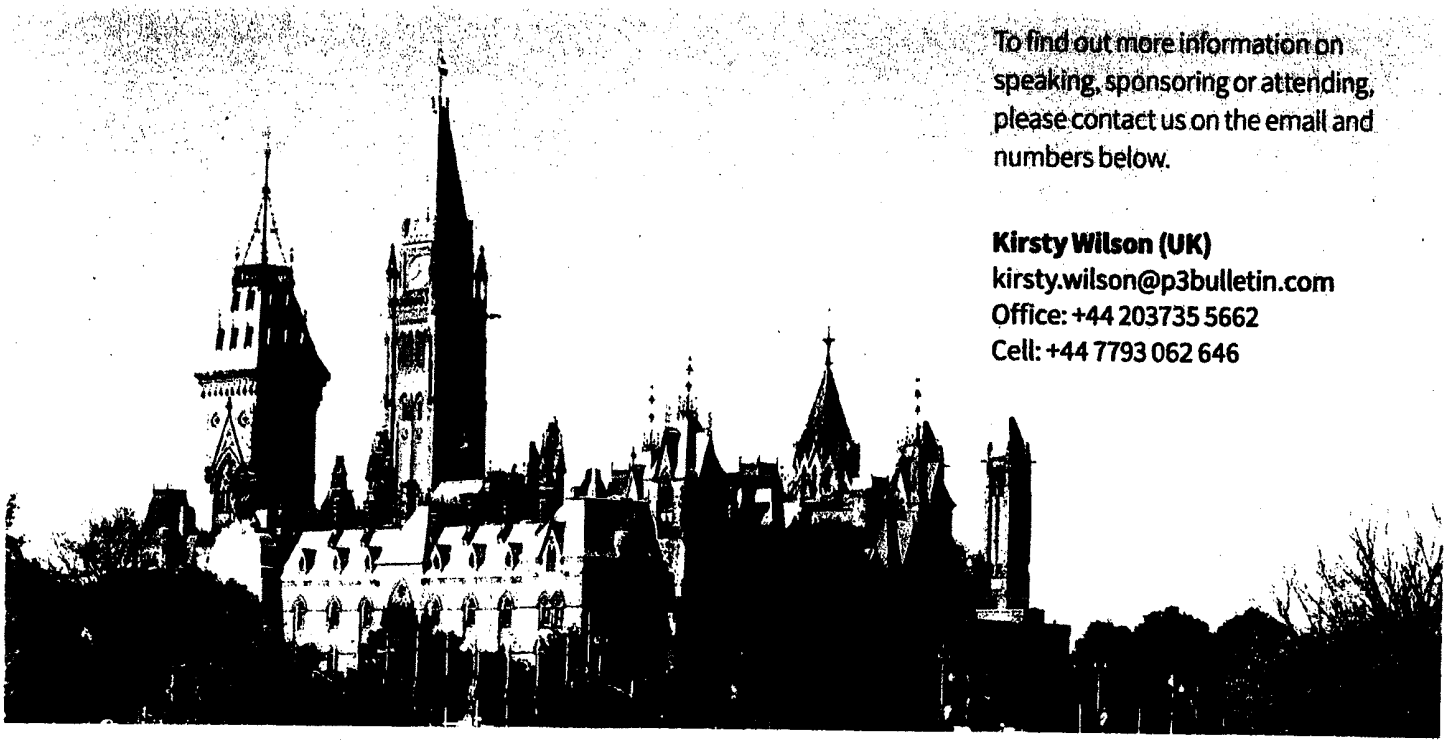
- Where are we seeing innovation and how will this shape the market
- The future of fully digitalised hospitals
- What can advances in technology bring
- 'Going Green' in all areas

Mike Marasco Chief Executive Officer, Capital Services – Plenary Concessions

David Damboise Senior Director – Hochtief PPP Solutions

4:20

Close of conference



To find out more information on speaking, sponsoring or attending, please contact us on the email and numbers below.

Kirsty Wilson (UK)
kirsty.wilson@p3bulletin.com
Office: +44 203735 5662
Cell: +44 7793 062 646

We have a reduced rate for the public sector, please contact **anna.robinson@p3bulletin.com** to book your place

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Surname:

Job Title:

Email:

Telephone:

DELEGATE DETAILS

Delegate 1

Mr / Mrs / Ms / Other: First Name:

Surname:

Job Title:

Email:

Telephone:

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Delegate 2

Mr / Mrs / Ms / Other: First Name:

Surname:

Job Title:

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Delegate 3

Mr / Mrs / Ms / Other: First Name:

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Email:

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DELEGATE PRICING STRUCTURE

P3 HUB CANADA CONFERENCE

CCPPP members:

☐ Early bird: Private sector including afternoon roundtable discussions - CADS1070
(standard price CADS1245)

☐ Early Bird: Private sector - CADS850
(standard price CADS1000)

Non CCPPP members:

☐ Early bird: private sector including roundtable discussions - CADS1515
(standard price CADS1750)

☐ Early Bird: Private sector - CADS1200
(standard price CADS1400)

Overnight accommodation: We have a reduced rate for overnight accommodation at the Westin Ottawa. The price per room is CADS268 and can be booked through the P3 Hub Canada website at p3hubcanada.partnershipsevents.com

PAYMENT TERMS

Full payment is required before the event takes place. Online registration cannot be processed. Please tick your preferred payment option:

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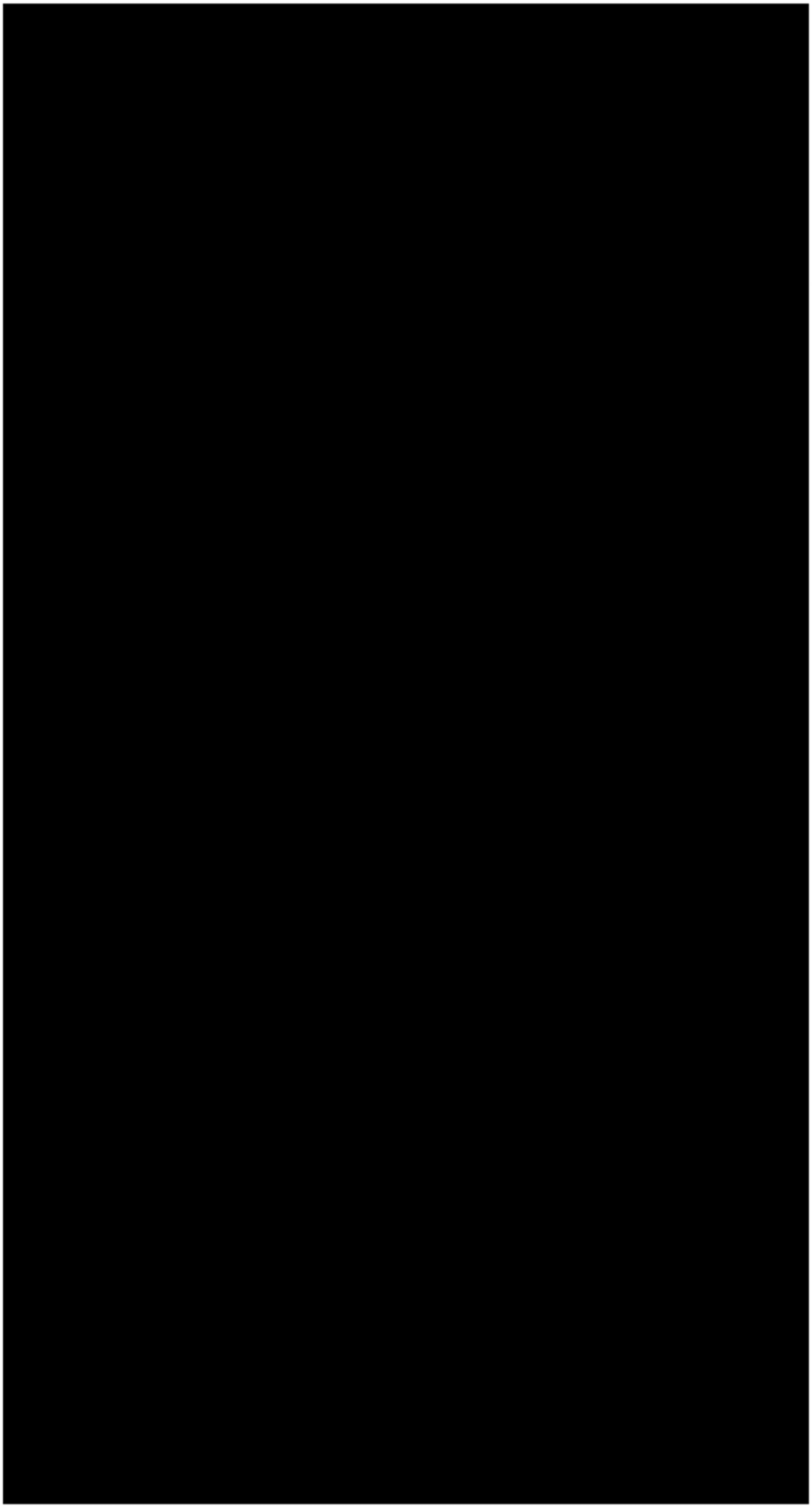
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I have read and agree to be bound by the delegate conditions, payment terms and booking terms and conditions

Signature: Date:

Annex C

ATIA - 21(1)(a)



Transport, Infrastructure and Communities
Transports, Infrastructure et Collectivités

CIMS #: 41107

SECURITY DESIGNATION :
DÉSIGNATION DE SÉCURITÉ

SCENARIO NOTE/NOTE DE SCÉNARIO (DEPUTY MINISTER/SOUS-MINISTRE)

ROUTE SLIP/BORDEREAU D'ACHEMINEMENT

TO/À (TITLE/TITRE)	ACTION	INITIALS/ INITIALES	DATE
Director, Strategic Policy Directeur ou Directrice	For approval		
Director General, Strategic Policy and Priority Initiatives Directeur général ou Directrice générale	For approval		
Assistant Deputy Minister/ Sous-ministre adjoint	For approval		
Executive Correspondence Unit/ Unité de la correspondance exécutive	For review		
Associate Deputy Minister/ Sous-ministre déléguée	For approval		
Deputy Minister/ Sous-ministre	For information		

REMARKS/ REMARQUES

- Consultation ☐ Yes/Oui -
  √ No/Non
- Translation/Traduction ☐ Yes/Oui
  √ No/Non (no need for translation)

Meeting between Deputy Minister of Infrastructure and Communities and Mark Moseley from Global Infrastructure Hub

CONTEXT FOR THE DOCUMENT/CONTEXTE DU DOCUMENT :

FROM/DE Kate Borowec Author/Auteur	DATE April 7, 2015	TELEPHONE/TÉLÉPHONE 613-948-2690

Canada

SCENARIO NOTE

Meeting between the Deputy Minister of Infrastructure and Communities and the Global Infrastructure Hub

Date/Time:	April 11, 2016, 1:30 p.m. - 2:15 p.m.
Location:	DM's office, 180 Kent Street, 11th floor
Subject:	The G20 Global Infrastructure Hub
Participants:	• Jean-François Tremblay, Deputy Minister of Infrastructure and Communities • Yazmine Laroche, Associate Deputy Minister of Infrastructure and Communities • Jeff Moore, Assistant Deputy Minister of Policy and Communications • Mark Moseley, Senior Director, Legal Frameworks and Procurement Policies of the Global Infrastructure Hub (Biography attached as **Annex A**) • Samantha Tattersall, Executive Director, Resource Division, Treasury Board Secretariat (being seconded on behalf of Canada to the Global Infrastructure Hub)

Departmental Objectives

- Requested by the Global Infrastructure Hub (GI Hub), this meeting will provide an opportunity for Infrastructure Canada to better understand the GI Hub's mandate and to develop a relationship which could become useful in the context of engagement for the development of the 10-year infrastructure plan.

Stakeholder Objectives

- Mark Moseley from the GI Hub will be interested in receiving an overview of Infrastructure Canada, the federal role vis-à-vis other levels of government, how project selection is conducted under our funding programs and how P3 projects are supported. He will also enquire on lessons learned from the Champlain Bridge procurement process given it is a P3 project. Speaking points as well as questions to raise are provided below to facilitate the discussion.
- Of note, Mr. Moseley will also be meeting with senior officials at Finance Canada and PPP Canada during his visit.

Context/Overview

- Launched in November 2015, the GI Hub is a non-profit organization established under the Australian G20 presidency in 2014 to help increase the flow of private and public infrastructure investment opportunities in G20 and non-G20 countries. Expiring in 2019, the organization's mandate is to grow the global pipeline of quality, bankable infrastructure projects by addressing data gaps, lowering barriers to investment, increasing the availability of investment-ready projects and improving project and policy environments for infrastructure.
- The GI Hub works in formal partnership with the OECD, the World Bank Group and other multilateral development banks to deliver on its objectives.
- The GI Hub is governed by a Board with representatives from six G20 countries and is supported by a number of independent directors. Australia is Chair of the Board for the term of the Hub's mandate, represented by the Secretary to the Australian Treasury. The GI Hub is funded by Australia, China, Mexico, New Zealand, the Republic of Korea, Saudi Arabia, Singapore and the United Kingdom.
- Attached in **Annex B** is a more detailed backgrounder on the GI HUB.

Points to Register

Public Infrastructure in Canada

- In Canada, public infrastructure includes a wide range of assets such as hospitals, schools, telecommunications, energy, highways, roads and bridges, arenas, public housing, water and wastewater facilities.

- The vast majority of Canada's public infrastructure is owned by provinces, territories, and municipalities with federal ownership limited to small number of bridges, highways and First Nation infrastructure on reserve. In fact 98% of transit, roads, bridges, water, wastewater, culture, and recreational facilities are owned by provinces, territories and municipalities.

- A period of divestiture and commercialization starting in the 1990s resulted in limited federal ownership and control of airports and ports, with digital and rail infrastructure predominantly owned by private sector.

Overview of INFC

- INFC was established as a new department by the Government of Canada in August 2002. Its mandate is to ensure that Canadians benefit from world-class, modern public infrastructure.

- Infrastructure Canada (INFC) does not own or manage public infrastructure with the exception of the Champlain Bridge and the Gordie Howe International Bridge.

- Despite limited ownership, the Government of Canada has an important strategic role to play by providing comprehensive, flexible, and predictable support to help PTMs plan and modernize their infrastructure – in turn contributing to national objectives.

- Through INFC's programs, the federal government provides funding for other levels of government infrastructure.

- Recognizing that 98% percent of core public infrastructure in Canada is owned by provinces, territories and municipalities, federal investments have been based on supporting a long-term commitment to fiscal balance, ensuring predictable funding for provinces, territories and municipalities and also respecting provincial-territorial-municipal jurisdiction.

New Building Canada Plan: New Building Canada Fund

- Launched in March, 2014, 10-year New Building Canada Plan, includes $53 billion in funding focused largely on provincial, territorial and municipal infrastructure.

- The New Building Canada Plan provides funding through a suite of programs, which support infrastructure projects that foster economic growth, job creation and long-term prosperity. These programs support larger strategic projects of national significance as well as community infrastructure priorities.

- Under the New Building Canada Fund (NCBF), there are a few different mechanisms for project identification.

  - Under the Provincial-Territorial Infrastructure Component (PTIC), projects are jointly identified between the Government of Canada and our respective provincial and territorial partners. This is a program that funds large- and medium-scale projects of national, regional and local significance, and therefore it is important that all partners play a role in the decision making process.
  - Under the New Building Canada Fund – National Infrastructure Component (NIC), projects are submitted directly to the federal government for review and consideration. These projects may be submitted by provincial or territorial partners, amongst others, but it is ultimately left to the federal decision making process to determine whether or not investments will be made under this funding envelope given that they are for projects of national significance.

- Under Budget 2016, the Government of Canada committed to work with provincial, territorial and municipal partners to get projects underway, by accelerating spending from the $9 billion available under PTIC and other existing infrastructure programs.

Gas Tax Fund

- The Gas Tax Fund (GTF) provides municipalities with long-term predictable infrastructure funding to Canadian municipalities. This permanent fund includes base funding at approximately $2B annually, and is indexed at 2% per year.

- The federal government does not play a role in project selection under the GTF. This program focuses on community infrastructure allowing municipalities to make decisions about what projects are important to their communities.

Public Private Partnerships

The P3 Canada Fund, which is operated and managed by PPP Canada, provides $1.25 billion over 5 years to continue supporting innovative ways to build public infrastructure and provide better value for Canadian taxpayers and develop the Canadian P3 market. This fund focuses, in particular, on jurisdictions inexperienced with P3 procurement.

- Under the NBCF, the program was originally designed for projects with total eligible costs of over $100 million to be subjected to a mandatory and binding P3 Screen. However, Budget 2016 announced that the P3 screen will no longer be mandatory in order to allow more flexibility to provinces, territories and municipalities in their procurement choice.

Example of a P3: The New Champlain Bridge Corridor Project

- Infrastructure Canada is the lead department for the New Champlain Bridge Corridor Project in Montréal, Quebec, a large, complex, corridor-wide project, which includes the replacement of the Champlain Bridge, the replacement of the île des Soeurs Bridge, and the reconstruction and widening of Highway 15.

- The existing Champlain Bridge is one of the busiest bridges in Canada and supports a significant amount of Canada-United States trade. However, the bridge is rapidly reaching the end of its useful life and needed to be replaced on an accelerated schedule.

- The New Champlain Bridge Corridor Project is proceeding under a very ambitious schedule: the RFQ was launched in March 2014, the RFP in July 2014 and the Project Agreement was signed in

June 2015. Construction is well underway and should be completed in December 2018 for the main bridge and in October 2019 for the rest of the corridor.

- The Project Agreement covers the design, construction, financing, operation, maintenance and rehabilitation of the project over a 34-year period (2015- 2049) at a cost of $3.977 billion (excluding taxes).

- The studies done prior to the signature of the Project Agreement as part of our due diligence showed that the PPP model will result in significant value for money for Canadian taxpayers. The value for money assessment demonstrated that the PPP model results in net present value savings of almost 34% – or about $1.75 billion dollars – when compared to the traditional method.

- Furthermore, project delay risks have been transferred to the private partner, resulting in time certainty for government. Significant financial penalties will be incurred for any delays. This time certainty was critical for Infrastructure Canada due to the deteriorating condition of the existing bridge.

- Infrastructure Canada has found that the success of the project to date has hinged on a number of key factors, including:

    1. Securing a strong team of advisors
    2. Building a solid governance structure
    3. Developing relationships with key project partners
    4. Ensuring integrity of the procurement process
    5. Engaging industry throughout the process
    6. Managing risk

Budget 2016

- The recent federal Budget, tabled on March 22, announced the implementation of a new 10-year plan, investing more than $120 billion in infrastructure including an additional $60 billion for green, social and public transit infrastructure to better meet the needs of Canadians and well position Canada's economy for the future.

- The first phase of the government's infrastructure plan will provide $11.9 billion over 5 years to modernize public transit, improve water and wastewater systems, expand affordable housing, and protect infrastructure from the effects of climate change.

- The funding announced in the budget is largely in support of provincial, territorial, and municipal infrastructure projects. In making these investments, the government will balance support for projects of different size and scope—both those of local and regional importance, and larger, economically strategic projects that can provide transformative change at the national level

- Federal investments over the short-term will lay the foundation for a long-term investment strategy, which will be developed in the coming months.

- While the Budget provided a high level description of these programs, more detailed program terms and conditions are still being developed, and will be announced in the coming weeks.

- As indicated in Budget 2016, the government will engage with its provincial, territorial, municipal and indigenous partners as well as global institutional investors and other stakeholders starting in the late spring, and will announce Phase 2 of the long-term plan in the next year.

Questions to raise

- Given the GI Hub's objective to grow the global pipeline of quality and bankable infrastructure projects by 2019, what do you see as barriers in achieving this?
- What can governments do to enable large, strategic, infrastructure investments?
- What best practices has the GI Hub identified to date that Canada may want to consider?

Annexes
A) Biography
B) Background on the Global Infrastructure Hub



Mark Moseley is the Senior Director for Legal Frameworks and Procurement Policies at the Global Infrastructure Hub, on secondment from the World Bank. His work is primarily focused on the contractual and procurement arrangements for public-private partnership transactions and the legal and regulatory arrangements for such transactions. Mark has responsibilities for developing the Leading Practices component of the GIH mandate, including responsibility for progressing the Annotated PPP Risk Allocation Matrices Initiative.

Mark's secondment to the GIH began in November 2015. He joined the World Bank in 2005 and, prior to that, Mark was the Practice Group Manager of the Energy, Projects and Construction Group of a major international law firm based in London, which he joined in 1997. Before that, Mark practised as an energy lawyer in Canada for over twenty years. He was born in 1953 in Vancouver, Canada and received his LL.B. from the University of British Columbia in 1976. He is an occasional lecturer at the Harvard Kennedy School and at the University of Dundee's Centre for Energy, Petroleum and Mineral Law and Policy.

Mark's contact details are as follows:

Mark M. Moseley
Senior Director, Legal Frameworks & Procurement Policies
Global Infrastructure Hub, Sydney
Tel: +61 2 8315 5300
Email: mark.moseley@gihub.org

Global Infrastructure Hub

A G20 INITIATIVE

Global Infrastructure Hub

Connecting global insights to unlock infrastructure potential

Launched by the G20, the Global Infrastructure Hub is mandated to grow the global pipeline of quality, bankable infrastructure projects.

An ambitious program

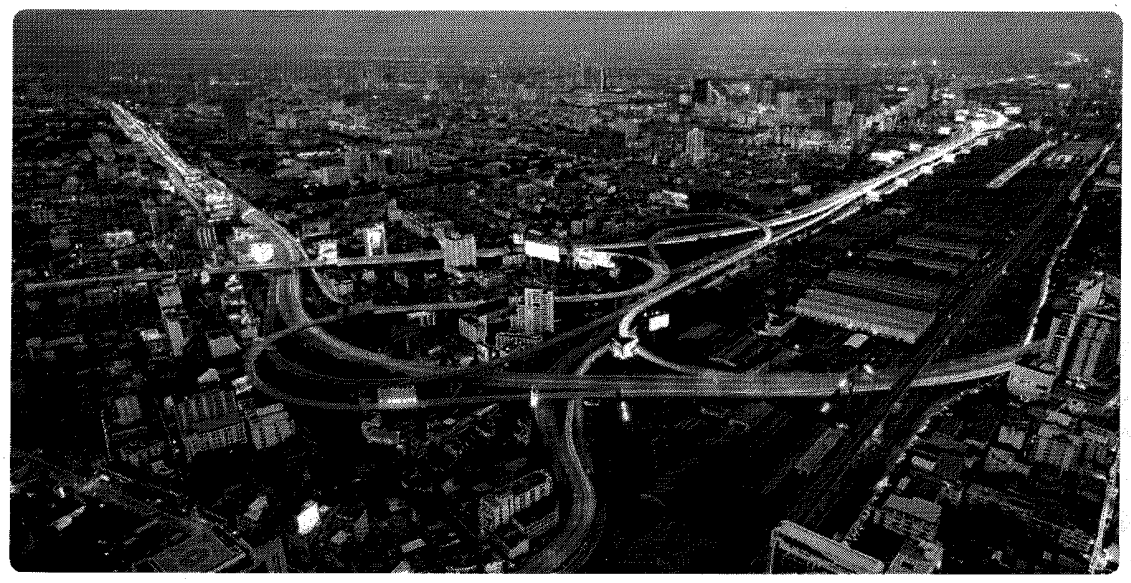
By facilitating knowledge sharing, highlighting reform opportunities and connecting the public and private sectors, we have the ambitious goal to increase the flow and quality of opportunities for private and public infrastructure investment in G20 and non-G20 countries.

Our size, independence, unique mix of expertise, and international scope gives us speed and agility. By 2019, when our initial mandate expires, we hope to have developed market-changing new mechanisms, embraced by both the private sector and governments.

Unlocking infrastructure potential, globally

With an expected global infrastructure deficit estimated at up to US$20 trillion to 2030, it is clear that this gap needs to be addressed. The barrier is not a lack of funding, but rather the need for more infrastructure projects that are well-prepared and investment ready.

We will work to facilitate a better supply of quality, bankable infrastructure projects to the private sector. We will shine a light on what reforms, planning approaches and risk management strategies will drive investment in the infrastructure sector. We leverage local insight to drive excellence in global infrastructure procurement, transforming and streamlining the lifecycle for infrastructure investment. Becoming the leading reference on infrastructure best practices, we will provide innovations that enhance the market's ability to finance, build and secure the best returns from infrastructure projects.



Insights, tools and connections to transform infrastructure outcomes

The GI Hub provides independent data and analysis of the addressable opportunities for investment, the specific blockages to infrastructure development, and tools and insights to help overcome them. Our resources are informed by the private, public and multilateral sectors, and validated by independent bodies and GI Hub experts. We zero in on the knowledge, improvements and innovations that will really make a difference.

The GI Hub's resources include data mapping, a tool to assess country level infrastructure environments, a knowledge platform, project pipeline and leading practices. These resources make it easier for government procurement professionals to understand how reforms can help them attract finance and deliver infrastructure, connect to international peers for advice and support, access best practice tools, as well as showcase their projects to private investors.

We believe that targeted reforms to adopt best practices in project development and procurement will transform infrastructure outcomes: more bankable projects, more productive economies and more livable communities for investors, governments, and communities.

About the Global Infrastructure Hub

In November 2014, G20 Leaders agreed a new initiative to lift quality public and private infrastructure investment (the Global Infrastructure Initiative), including the establishment of a Global Infrastructure Hub based in Sydney, Australia.

Our Board comprises representatives of six G20 countries as well as independent directors. Australia is Chair of the Board for the term of the Hub's mandate, represented by the Secretary to the Australian Treasury. In 2016, a strategic advisory council is being appointed to provide additional expertise from multilateral and private sector G20 country representatives.

Following an international search, Chris Heathcote is the appointed CEO of the GI Hub. He has worked at senior levels in both the private sector and public sector in the UK. He leads an international team of leaders in their fields, applying a unique mix of industry, finance, legal, development bank and public sector expertise. Collectively, the team has acted for the public and the private sector in designing projects, structuring private finance and setting policy at the highest levels of government.

The GI Hub is funded by Australia, China, Mexico, New Zealand, the Republic of Korea, Saudi Arabia, Singapore and the United Kingdom. We work in formal partnership with the OECD, the World Bank Group and other multilateral development banks to deliver on our objectives.

More information about our organisation, our mandate and our latest infrastructure reform initiatives can be found on:

www.globalinfrastructurehub.org.

Global Infrastructure Hub

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Transport, Infrastructure and Communities
Transports, Infrastructure et Collectivités

CIMS #: 41076

SECURITY DESIGNATION : SECRET
DÉSIGNATION DE SÉCURITÉ

SCENARIO NOTE/NOTE DE SCÉNARIO (DEPUTY MINISTER/SOUS-MINISTRE)

ROUTE SLIP/BORDEREAU D'ACHEMINEMENT

TO/À (TITLE/TITRE)	ACTION	INITIALS/ INITIALES	DATE
Director, Strategic Policy Directeur ou Directrice	For approval		
Director General, Strategic Policy and Priority Initiatives Directeur général ou Directrice générale	For approval		
Assistant Deputy Minister/ Sous-ministre adjoint	For approval		
Executive Correspondence Unit/ Unité de la correspondance exécutive	For review		
Associate Deputy Minister/ Sous-ministre déléguée	For approval		
Deputy Minister/ Sous-ministre	For information		

REMARKS/ REMARQUES

- Consultation ☐ Yes/Oui ☐ No/Non
- Translation/Traduction ☐ Yes/Oui √ No/Non (no need for translation)

OPTIONS FOR EXTERNAL ADVICE ON INFRASTRUCTURE FINANCING ISSUES

CONTEXT FOR THE DOCUMENT/CONTEXTE DU DOCUMENT :

Our understanding from PCO officials is that the draft agenda for the FMM will try to position the meeting as broader than just the Climate Change framework but more around economic growth. This economic growth would be driven by green and sustainability measures, including more sustainable economic growth, by making significant new investments in green infrastructure. To support this discussion, an "Economic Growth" paper would be released before the budget but in time for the FMM. A draft FMM agenda prepared by PCO will likely be table dropped at today's meeting.

FROM/DE Mark Bolby Author/Auteur	DATE March 30, 2015	TELEPHONE/TÉLÉPHONE 613-960-5657

Canada

ATIA - 69(1)(g) - (a)
ATIA - 21(1)(a)
ATIA - 21(1)(b)

PROTECTED B
POLICY AND COMMUNICATIONS
STRATEGIC POLICY

BRIEFING NOTE TO THE DEPUTY MINISTER

OPTIONS FOR EXTERNAL ADVICE ON INFRASTRUCTURE FINANCING ISSUES

(For Information)

ISSUE

- The Government of Canada has committed to establish a Canada Infrastructure Bank (CIB) to provide affordable financing for municipalities for a broad range of infrastructure projects and to issue green bonds.
- During the March 16, 2016 Departmental Management Committee, you had requested that INFC develop and assess options that could provide the Minister with external advice on infrastructure financing.
- [redacted] The following note provides and overview of this policy work and options for the provision of external advice going forward.

BACKGROUND

- In general, financing of infrastructure investments is a broad term that describes a range of policy instruments that typically includes: infrastructure banks (loans and credit enhancement); green bonds; divestiture and privatization; and public private partnerships. While user fees are a funding source - similar to taxation - they are also often included in financing discussions due to their ability to attract private sector investment in assets with defined revenue streams.
- [redacted] A discussion of each instrument and the status of policy work is below.

Infrastructure Banks

  - The Government of Canada has committed to establish a Canada Infrastructure Bank (CIB) to provide affordable financing for municipalities for a broad range of infrastructure projects and to issue green bonds.
  - [redacted] INFC and Finance Canada are examining options to implement the Government's commitments on the CIB, which are contained in both Minister Sohi's and Minister Morneau's mandate letters.
  - [redacted]

[redacted]

- Externally, the Mowat Institute and KPMG are examining the applicability of a public bank to support large-scale commercially viable projects. A final paper by the Mowat Institute is expected in 2 weeks' time.

Green Bonds

- The Government has committed that the CIB would issue "Green Bonds", the proceeds from which would be targeted to support clean energy projects. Debt policy, including bond issuances, is the responsibility of Finance Canada. [redacted]

Divestiture/Asset Recycling/Privatization

- Some institutional investors, specifically pension funds, prefer large equity investments in brownfield assets due to the potential for immediate revenue streams and known operational costs. [redacted]
- [redacted]

Public Private Partnerships

- [redacted]
- During the Long-Term Infrastructure Plan process some commentators suggested that to increase P3 equity investment opportunities provinces with P3 frameworks should lower their project screens to $20M, thereby potentially increasing the overall number of P3 projects. Additionally, others have suggested that bundling several P3 projects into one investment opportunity could increase the amount of equity required, thus making them attractive to pension funds, which seek larger deals due to high transaction costs.
- Bundling could, in part, be supported through the standardization of P3 application processes. [redacted]

[redacted]

User Fees (Pricing/Tolling)

- User fees are typically considered a method to fund infrastructure – similar to taxation. However, they can create revenue streams that can be used to attract private sector investment in an asset through a public private partnership model, or full privatization; or be used to incent behavioural change (i.e., demand management). [redacted]
- [redacted]

- It should be noted that Budget 2016 included a reference to the possible establishment of "new institutions" that could examine new innovative financing instruments to reduce the cost of municipal infrastructure projects; and engage public pension plans and other innovative sources of funding—such as demand management initiatives and asset recycling—to increase the long-term affordability and sustainability of infrastructure in Canada. Of note, there was no specific mention of the CIB in the Budget.
- [redacted]

OPTIONS

[redacted]

[redacted]

NEXT STEPS

- My staff and I would welcome further discussion with you on these issues as we move forward with in implementing the engagement strategy to support Phase 2 of the Infrastructure Plan.

- In the interim, we will continue to work collaboratively with Finance Canada in examining options related to the Canada Infrastructure Bank and other related financing issues.

Jeff Moore
Assistant Deputy Minister,
Policy and Communications

Transport, Infrastructure and Communities
Transports, Infrastructure et Collectivités

CIMS #: 40759

SECURITY DESIGNATION/
DÉSIGNATION DE SÉCURITÉ

SCENARIO NOTE/NOTE DE SCÉNARIO

(MINISTER/MINISTRE)

ROUTE SLIP/BORDEREAU D'ACHEMINEMENT

TO/À (TITLE/TITRE)	ACTION	INITIALS/ INITIALES	DATE
Director/ Directeur ou Directrice	For approval		Feb 29/15
Director General/ Directeur général ou Directrice générale	For approval		March 1, 16
Assistant Deputy Minister/ Sous-ministre adjoint	For approval		March 2
Executive Correspondence Unit/ Unité de la correspondance exécutive	For review	D. Gudrin	March 2, 2016
Associate Deputy Minister/ Sous-ministre déléguée	For approval		04 MARS 2016
Deputy Minister's Office/ Bureau du sous-ministre	For information		
Minister/ Ministre	For information		

REMARKS/ REMARQUES

- Consultation ☐ Yes/Oui ☐ No/Non (Please specify/Veuillez préciser)
- Translation/Traduction ☐ Yes/Oui ☐ No/Non (Rationale/Justification)

Meeting between the Minister of Infrastructure and Communities and David Dodge

CONTEXT FOR THE DOCUMENT/CONTEXTE DU DOCUMENT :

David Dodge, economist and former Governor of the Bank of Canada, has been major commentator on economic issues and the role of infrastructure investments. He has specifically advocated for governments to spend on infrastructure rather than reducing deficits in the current economic climate. Last year, Mr. Dodge was commissioned by the Government of Alberta to produce a report in support of the development of the province's capital plan for 2015-2018. Dodge's report and the complete capital plan informed Alberta's 2015 budget and aimed to make the case against pursuing 'pro-cyclical' investment policy, which means the time for government to invest is when labour and borrowing costs are lower.

FROM/DE	DATE	TELEPHONE/TÉLÉPHONE
Marielle McGovern	February 29, 2016	613-946-0742

Canada

Infrastructure Canada

Ottawa, Canada
K1P 0B6

SCENARIO NOTE

Meeting between
Minister of Infrastructure and Communities and
David Dodge

Date/Time:	9:15 a.m. – 10:45 a.m. Thursday, March 10, 2016
Location:	Boardroom OTT – C 2912
Subject:	Infrastructure spending and the economy
Participants:	The Honourable Amarjeet Sohi, Minister of Infrastructure and Communities Yazmine Laroche, Associate Deputy Minister of Transport, Infrastructure and Communities David Dodge, Senior Advisor, Bennett Jones Ottawa A biography is included as **Annex A**.

Departmental Objectives
This meeting will provide you with the opportunity to discuss the role of infrastructure in supporting economic growth, as well as to outline the government's approach to the 10-year infrastructure plan.

Stakeholder Objectives
David Dodge has advised several levels of government as well as private sector stakeholders on a wide range of economic issues. He will likely be interested in sharing his expertise on infrastructure issues and the economy.

Context/Overview
David Dodge, economist and former Governor of the Bank of Canada, has been a major commentator on economic issues and the role of infrastructure investments. He has specifically advocated for governments to spend more on infrastructure rather than reducing deficits in the current economic climate. Last year, Mr. Dodge was commissioned by the Government of Alberta to produce a report in support of the development of the province's capital plan for 2015-2018. His report and the complete capital plan informed Alberta's 2015 budget and aimed to make the case for government to invest when labour and borrowing costs are lower.

The report states that taking this approach brings stability to the economy when private sector investment is not as robust - "by following this policy of counter-cyclical budgeting, public debt can be sustained at a manageable level over long periods of time — rising somewhat during periods of weak private sector demand ... and falling during periods of excess demand." Dodge also stresses that government's singular focus on balancing the budget every year actually exaggerates cyclical economic volatility and can have a perverse impact on long run growth.

In his report, Dodge ultimately recommends that government spending on capital should be greatest when government resource revenues are lowest and that capital spending should be lowest when revenues are strong to avoid putting upward pressure on costs of private sector investments. He also recommends that the Government of Alberta draw down net financial assets or borrow from the market to finance capital

Canada

investment when resource prices are low and when interest rates are at cyclical lows.

Dodge also states that there is no universally accepted benchmark for the appropriate level of infrastructure capital to support economic growth and the provision of public services, however, for the purposes of assessing the Alberta capital plan the interprovincial average of public capital to GDP ratio (16%) was used.

Lastly, the report recommends that the province consider changes to its collection of taxes to improve revenue and the use of tolls.

The complete report can be found attached in **Annex B**.

Points to Register

- The Government of Canada understands how vital infrastructure is to the entire country. This is why we are bringing new and increased funding to the table. The plan is to more than double current investments over the next 10 years – investments that will act as an enabler to building greener, stronger and more resilient communities across the country.

- In the short term, the focus of our plan will be on:
  - delivering $10 billion over the next two years focusing on new investments in green, social and transit infrastructure particularly with regard to recapitalization of existing assets;
  - commit remaining funds under the Provincial-Territorial Infrastructure Component of the New Building Canada Fund; and,
  - investing in asset management, and municipal capacity building.

- We intend to work collaboratively and constructively with our partners to deliver on our infrastructure commitments.

Questions for Consideration

- The government is proposing the creation of an infrastructure bank. Do you have any views on what public policy gaps or issues the bank could address, as well as the nature of services or products it could deliver?

- Do you believe that municipalities have the capacity to borrow more, in order to invest more in infrastructure?

- In your view, which types of infrastructure investments offer the greatest potential for long-term economic growth?

- What would be your key considerations to keep in mind as we begin developing our 10-year plan for infrastructure?

Annexes

Annex A – Biography
Annex B – Report to the Government of Alberta on the Development, Renewal and Financing of the Government's plan for Spending on Capital Projects to 2019

Annex A



David A. Dodge O.C.

Tel: 613.683.2304 | Email: dodged@bennettjones.com

Office: Ottawa

Education:
Queen's University, BA (Economics, Hons.) | Princeton University (USA), PhD (Economics), 1972

A native of Toronto, Mr. Dodge received a bachelor's degree (honours) from Queen's University, and a PhD in economics from Princeton.

During his academic career, he taught economics at Queen's University; at the School of Advanced International Studies, Johns Hopkins University; at the Faculty of Commerce at the University of British Columbia; and at Simon Fraser University. He also served as Director of the International Economics Program of the Institute for Research on Public Policy. Mr. Dodge has been awarded honorary degrees from a number of Canadian universities. In 2009, he was elected a fellow of the Royal Society of Canada.

During a distinguished career in the federal public service, Mr. Dodge held senior positions in the Central Mortgage and Housing Corporation, the Anti-Inflation Board, and the Department of Employment and Immigration. After serving in a number of increasingly senior positions at the Department of Finance, including that of G-7 Deputy, he was Deputy Minister of Finance from 1992 to 1997. In that role, he served as a member of the Bank of Canada's Board of Directors. In 1998 he was appointed Deputy Minister of Health, a position he held until his appointment as Governor of the Bank of Canada.

Mr. Dodge, appointed Governor of the Bank of Canada, effective 1 February 2001 for a term of seven years, retired on 31 January 2008. From July 2008 to June 2014, he served as Chancellor of Queen's University. From 2009 to 2015, he was a member of the board of directors of Canadian Utilities Limited, ATCO Limited and the Bank of Nova Scotia.

Mr. Dodge is Senior Advisor at Bennett Jones LLP one of Canada's leading law firms. He also serves on the board of the Canadian Institute for Advanced

Research, and Chairs the National Council of the C.D. Howe Institute.

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Annex B



The Alberta Way

2015-18 STRATEGIC PLAN

Alberta

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Appendix A: Report to the Government of Alberta on the Development, Renewal and Financing of the Government's plan for Spending on Capital Projects to 2019 20

KEY OUTCOMES

1. Alberta has an open, sustainable and increasingly diversified economy that attracts investment and facilitates diversification and expands market access.
2. Alberta's education system enables all Albertans with the necessary skills to participate in a diversified, 21st century economy.
3. Alberta supports and preserves a natural environment for Albertans that has clean air, water, and protected wilderness areas.
4. A health care system that is sustainable, patient-focused and meets the needs of a growing province.
5. A system of supports for seniors that will assist them in remaining independent and participating in their communities.
6. An integrated approach to improving the socio-economic well-being of all Albertans.
7. Indigenous communities and people participate as equal partners in Alberta's economy and society.
8. Increased gender equality in Alberta.

Strategic Plan Overview

Alberta is home to an abundance of resources and natural beauty. It is home to a hard-working and innovative people who are optimistic, entrepreneurial and enterprising. While we have enjoyed tremendous wealth over the last decade, not all Albertans have had the same opportunities to share in this prosperity. The Government of Alberta is committed to restoring economic growth so that all Albertans share in our future prosperity.

The government will drive economic recovery by making targeted investments that encourage innovation and diversification. By attracting and supporting entrepreneurs and job creators we'll enhance our overall competitiveness. The government will promote Alberta's energy interests, working with industry, our federal and provincial counterparts and others to position Alberta as a global supplier of safe, reliable and environmentally responsible energy products. Finally, by investing in infrastructure, public transit, roads and bridges, the government will get Albertans working again and build a strong foundation for our future.

All of this can be accomplished while stabilizing public services that support our communities and protect our most vulnerable. Supporting stable, long-term funding for health care, education and social services will help to build up the next generation of Alberta's leaders and innovators.

We will restore a respectful relationship with this province's First Nations, Metis and Inuit peoples, forging partnerships that recognize the unique and invaluable contribution that Alberta's Aboriginal peoples make to the life of this province. Finally, we will begin to take the steps necessary to ensure that women are afforded no less opportunity, feel no less security, and encounter no greater barriers to success than men in our society.

These changes will be made in a responsible manner, being mindful of our economic circumstances and after consulting widely. Change is only successful when there is openness and transparency. That is the Alberta way.

Together, we will develop a new path as we focus on the following strategic principles:

- **Stabilizing key public services**
- **Returning to fiscal balance**
- **Supporting jobs, economic growth and diversification**

The government will assess 2015-16 performance in relation to the following eight key strategic outcomes:

1. Alberta has an open, sustainable and increasingly diversified economy that attracts investment, facilitates diversification and expands market access.
2. Alberta's education system enables all Albertans with the necessary skills to participate in a diversified, 21st century economy.
3. Alberta supports and preserves a natural environment for Albertans that has clean air, water and protected wilderness areas.
4. A health care system that is sustainable, patient-focused and meets the needs of a growing province.
5. A system of supports for seniors that will assist them in remaining independent and participating in their communities.
6. An integrated approach to improving the socio-economic well-being of all Albertans.
7. Indigenous communities and people participate as equal partners in Alberta's economy and society.
8. Increased gender equality in Alberta.

The outcomes described throughout this strategic plan align with the new government's priorities. However, the metrics, while aligned with the priorities, do not yet reflect the reality of the new government's planned initiatives. The government aims to update these metrics and targets in the 2016 Budget to better reflect its long-term goals and commitments to Albertans.

Outcome 1: Alberta has an open, sustainable and increasingly diversified economy that attracts investment and facilitates diversification and market access

The government recognizes the importance of taking decisive action to diversify Alberta's economy to proportionately reduce our economic reliance on oil, by building on our strengths to increase economic activity in other key sectors. The government is committed to increasing the economic value of oil and gas activity and creating more in value-added downstream oil and gas, including manufacturing and refining. The province will also support innovation that reduces greenhouse gas emissions and fresh water use and enhances reclamation in the entire petroleum production chain.

New diversification efforts are being launched from the base of the province's existing strengths, including a skilled workforce and low-cost business environment, as well as expertise in agriculture, energy, petrochemicals and tourism. Diversification creates opportunities in other sectors such as alternative energy, high tech, advanced research, film and television production, small brewing, wind power, forestry, value-added agriculture, food processing and tourism.

Ensuring a full and fair return to the people of Alberta for their energy resources is also a priority for the government and supports the vision of Alberta's Heritage Savings Trust Fund. Albertans deserve a royalty system they can trust to optimize returns to Albertans from the natural resources they collectively own. The government will engage with industry and Albertans in open discussions about how Alberta's royalty system can better serve the province for generations to come.

Other top priorities for the government are working with partners and stakeholders to coordinate resources and develop long-term strategies that encourage innovation and diversification; promoting higher-value production; building a modern transportation system and infrastructure; and, improving socio-economic outcomes for all Albertans. Following on the advice of former Bank of Canada governor and leading economist, David Dodge, the government is increasing the Capital Plan by 15% and is taking a counter-cyclical approach to investing in needed infrastructure to take advantage of available industry capacity and low interest rates. The report produced by Mr. David Dodge is attached at Appendix A.

Finally, the government will actively promote Alberta's energy interests by: supporting sector expansion; making investments in value-added processing and refining; gaining access to new markets; and, creating a stable, open and welcoming investment environment that promotes development of the province's energy resources in an environmentally responsible and sustainable manner.

Performance Measures

	Last Actual		Target		
Tourism Expenditures	Results	Year	2015–16	2016–17	2017–18
Total tourism expenditures in Alberta ($ billions)	7.4	2012	7.7	7.9	8.3

	Last Actual		Target		
Agri-food Exports by Market	Results	Year	2015-16	2016-17	2017-18
Alberta's agri-food exports by market ($ millions):					
• United States	3,080	2013	3,144	3,357	3,619
• China	1,511	2013	1,481	1,596	1,719
• India	39	2013	45	50	54
• CETA member countries[1]	248	2013	329	355	382
• TPP member countries (excluding USA)	2,062	2013	2,292	2,470	2,663
• Rest of the world	1,807	2013	2,169	2,338	2,520

	Last Actual		Target		
Agri-food Exports by Sector	Results	Year	2015-16	2016-17	2017-18
Alberta's agri-food exports by sector ($ millions):					
• Primary commodities	5,103	2013	5,483	5,911	6,372
• Processed/manufactured products	3,645	2013	3,947	4,254	4,586

Note 1: CETA: the Canada-EU Comprehensive Economic and Trade Agreement

1. Performance Indicator

	Actual			
	2010	2011	2012	2013
Alternative and Renewable Generation Capacity in Alberta (megawatts)	5,678	5,805	6,461	6,573
• Wind	805	895	1,113	1,113
• Hydro	900	900	900	900
• Biomass	340	359	414	417
• Gas cogeneration	3,633	3,651	4,034	4,143

Outcome 2: Alberta's education system enables all Albertans with the necessary skills to participate in a diversified 21st century economy

Albertans are on the front lines of economic growth, international competitiveness and responsible government every day in their workplaces. The government contributes to this thriving workforce by: ensuring that workplaces are safe, fair and healthy; ensuring that workers having the necessary skills and resources to do their jobs; and, by assisting employers to understand and adhere to their statutory obligations. Safe, fair and healthy workplaces improve labour productivity and the well-being of Albertans. They also make Alberta a more attractive place to live and work.

Investing in an accessible high-quality education system that provides relevant skills and key competencies is the single best investment our province can make to ensure our future prosperity. By helping Albertans develop the right skills, and helping employers to find and retain the workers they need, our economy will continue to expand and grow. Stable funding and support for our education system allows the government to equip Albertans with the relevant skills and key competencies they need to participate and contribute to this growth.

The government is committed to ensuring that students graduating from high school have the knowledge and skills to succeed in the economy now and in the future. In a competitive global environment, there needs to be close alignment between the K-12 education system and post-secondary institutions, the apprenticeship and industry training system, as well as business and industry.

Priorities in the area of education include keeping class sizes low while responding to growing enrollment in the K-12 system, and ensuring that schools have the people and resources to respond to the complexity of Alberta's classrooms. New schools will continue to be built and modernized in order to decrease class sizes and to improve learning conditions for children.

Further, by freezing tuition for two years, the government is making education more accessible to more students. Long-term, stable funding for post-secondary institutions will support expanding our educated workforce for the challenges that lie ahead.

The government is committed to working with industry stakeholders to refine and develop programs and services that attract workers and will continue to work with industry and the Government of Canada to shape Alberta's labour market policy. Working with partners and stakeholders, the government is committed to policy and program development and delivery in areas such as: increasing the participation of all Albertans in the workforce; improving productivity; governance and licensing of professions; facilitating foreign qualification recognition; and, supporting labour attraction.

1 Performance Measures

	Last Actual		Target		
Labour Force Participation – Interprovincial Rank[1]	Results	Year	2015–16	2016–17	2017–18
Interprovincial rank of Alberta's labour force participation rate (#1 is the highest)	#1	2013	#1	#1	#1

	Last Actual		Target		
	Results	Year	2015–16	2016–17	2017–18
Post-secondary Education					
Percentage of Albertans age 18-34 participating in post-secondary education	17%	2014	18%	18%	19%
Lost-time Claim Rate					
Number of lost-time claims per 100 person-years worked	1.35	2013	1 35	1.33	1.31
High School Completion					
High school completion rate of students within five years of entering grade 10	82.1%	2013-14	82.5%	82.7%	83.0%
Post-secondary Transition					
Percentage of students entering post-secondary programs (including apprenticeship) within six years of entering grade 10	59.8%	2013-14	60.0%	60.2%	60.2%
Literacy[2]	Results A | E	Year	2015–16 A | E	2016–17 A | E	2017–18 A | E
Percentages of students who achieved standards on Language Arts diploma examinations	87.6% | 11.4%	2014-15	88.0% | 11.8%	88.2% | 12.0%	88.4% | 12.1%

Note 1: Labour force participation rate represents the percentage of Albertans aged 15 to 64 who are either employed or actively seeking employment.

Note 2: A | E: Acceptable | Excellence – the acceptable standard results include the standard of excellence results. Performance measure targets are considered met if the result is not significantly different from the target value using statistical tests.

2 Performance Indicators

	Actual			
Labour Force Participation Rate	2010	2011	2012	2013
Rate of:				
• All Albertans	73.0%	73.6%	73.6%	73.1%
• Aboriginal Albertans living off-reserve	70.4%	67.5%	71.0%	71.9%
• Alberta's immigrant population	68.9%	70.2%	70.1%	68.4%
• Alberta youth (age 15–24)	69.1%	69.9%	68.2%	67.9%

	Actual			
Alberta Immigrant Nominee Program (AINP)	2009	2010	2011	2012
Percentage of AINP nominees who report that they are still residing and working in Alberta one year after obtaining permanent residency	90.4%	87.8%	82.4%	88.5%

Outcome 3 Alberta supports and preserves a natural environment for Albertans that has clean air, water and protected wilderness areas

Environmental impacts must be considered in the government's decisions and decision-making processes in order to reconcile competing demands on the landscape. The government acknowledges that Albertans and our economic partners demand that Alberta take significant and effective action to promote clean air, water, land and biodiversity conditions that contribute to a sustainable, healthy environment. Coal-fired electricity generation will be phased out to reduce smog and greenhouse gas emissions. Cleaner, greener sources of electricity, including wind, solar and more industrial cogeneration in the oil sands will be encouraged. Attention will be given to a green retrofitting loan program that will assist Alberta families, farms and small businesses to reduce their energy usage affordably. This will reduce negative environmental impacts and create jobs in the construction industry.

The government is committed to being part of the solution on climate change and will improve environmental standards, inspection, monitoring and enforcement to protect Alberta's water, land and air. Standards will be based on independent science and international best practices, designed in consultation with Albertans.

3. Performance Measures

	Last Actual		Target		
	Results	Year	2015-16	2016-17	2017-18
Total Greenhouse Gas Emissions[1]					
Measured in million tonnes of CO_2 equivalent as outlined in *Alberta's 2008 Climate Change Strategy*	267	2013	263	264	265
Municipal Solid Waste[2]					
Kilograms of municipal solid waste per capita disposed of in landfills	911	2013	666	654	632

Note 1: Targets and data are measured on a calendar year and there is a reporting lag period.

Note 2: The 2013 actual is not reflective of historical trends due to the Southern Alberta floods; therefore targets are based on the 2012 actual of 691 kg/capita.

3. Performance Indicators

	Actual			
	2010	2011	2012	2013
Air Quality Index[1]				
Quality of Alberta's air based on five major pollutants: carbon monoxide, nitrogen dioxide, ozone, sulphur dioxide, and fine particulate matter	93%	95%	97%	96%
		Good air quality days		
Visitor Satisfaction				
Visitor satisfaction with quality of services and facilities at provincial parks			85.6% (2013)	86.4% (2014)

Note 1: In 2011-13 five out of six air zones in Alberta achieved the new Canadian Ambient Air Quality Standards, which focuses on a three-year average of the highest occurring concentration levels of two major pollutants; fine particulate matter and ozone. Management action is being taken in the Red Deer region to achieve the standard.

Outcome 4: A health care system that is sustainable, patient-focused and meets the needs of a growing province

Universal public health care is one of Canada's proudest accomplishments. This government is committed to ensuring that Albertans have access to a health care system that is accessible, relevant and high-quality—a system that is capable of providing Albertans with the support they need, when they need it. Universal access to high-quality public health care plays a vital role in promoting and protecting the health of Albertans. Timely access to quality health care leads to improved health outcomes and mitigates lost productivity due to illness. It also reduces individual suffering and leads to lower long-term health care costs.

The health-care system must be sustainable to meet the needs of a growing province and to ensure a quality system exists for the benefit of future generations. Also, Albertans expect their health system to be accessible and empower them to take more responsibility for their health.

The government is committed to working with partners and community service providers and agencies to ensure that Albertans have the supports they need to lead healthy lives. A new model for public homecare will enhance and stabilize the health-care system by directing care to where individuals need it. Finally, a mental health strategy is being developed to meet the need for mental health services to Albertans.

4 Performance Measures

	Last Actual		Target		
	Results	Year	2015–16	2016–17	2017–18
Satisfaction with Health Care Services Received					
Percentage of Albertans satisfied or very satisfied with health care services personally received in Alberta within the past year	66%	2013-14	68%	70%	70%
Healthy Alberta Risk Trend Index (HARTI)[1]					
Average number of health risk factors per person aged 20 to 64 years	2.12	2013	2.06	2.00	1.94

	Last Actual (Year)	Target 2015-16	Target 2016-17	Target 2017-18
Influenza immunization				
• Percentage of Albertans who have received the recommended annual influenza immunization:				
• Seniors aged 65 and over	64%	75%	75%	75%
• Children aged 6 to 23 months	34%	75%	75%	75%
• Residents of long-term care facilities	88% (2013-14)	95%	95%	95%
Childhood immunization rates (by age two)				
• Diphtheria, tetanus, pertussis, polio, Hib	74%	97%	97%	97%
• Measles, mumps, rubella	85% (2013)	98%	98%	98%

	Last Actual		Target		
	Results	Year	2015–16	2016–17	2017–18
Access to Primary Care through Primary Care Networks					
Percentage of Albertans enrolled in a Primary Care Network	75%	2013-14	76%	77%	78%
Access to Continuing Care Spaces					
Percentage of clients placed in continuing care within 30 days of being assessed	69%	2013-14	70%	70%	70%

Note 1: This measure is calculated using six self-reported indicators of health behaviours known to be risk factors for health, including life stress, body mass index, fruit and vegetable consumption, physical activity, smoking status and frequency of binge drinking.

4. Performance Indicators

	Actual				
	2010	2011	2012	2013	2014
Life expectancy at birth:					
• First Nations	72.14	70.79	72.16	72.53	
• Non-First Nations	81.78	82.00	82.02	82.07	
Life Expectancy at Birth[1]					
Provincial		81.59	81.68	81.71	81.80

Note 1: Adjusted population estimates are used for the denominators of the mortality rates used in the life expectancy calculations. The newly recalculated life expectancy figures will differ slightly from previously reported life expectancy figures released in the Health Business Plan 2014-17.

Outcome 5: A system of supports for seniors that will assist them in remaining independent and participating in their communities

Albertans have indicated their preference to live in their own residences and communities throughout their senior years. It is essential that progress be made on the continuing care system to provide the health care, personal care and accommodations needed to meet the increasing demand for seniors' independence and participation in family and community life.

The government will finalize plans to create 2,000 public long-term and high-acuity spaces over the next four years, which will contribute to shortening waiting times, easing overcrowding in hospitals and reducing the number of patients being treated in hallways. Repairing hospitals and seniors' facilities and constructing new facilities will also be a priority.

5. Performance Measures

	Last Actual		Target		
	Results	Year	2015–16	2016–17	2017-18
Access to Continuing Care Spaces					
Percentage of clients placed in continuing care within 30 days of being assessed	69%	2013-14	70%	70%	70%
Housing Facilities Condition Rating Index					
Percentage of housing facilities in:					
• Good Condition	33%	2013-14	34%	35%	36%
• Fair Condition	62%	2013-14	62%	62%	62%
• Poor Condition	5%	2013-14	4%	3%	2%

Outcome 6: An integrated approach to improving the socio-economic well-being of all Albertans

The Government of Alberta will work collaboratively with community partners and other levels of government to improve quality of life for Albertans. An integrated service delivery approach that focuses on the individual's unique needs and circumstances will make the system of supports both easier to navigate for clients and more efficient to deliver.

Improving the socio-economic well-being of individuals, families and the community through benefits, skills training, community and entrepreneur supports, workplace and education supports, and preventative supports that foster social, cultural and economic well-being in the community is a critical component of achieving the best quality of life for all Albertans. The government will increase the emphasis on preventative programs and services and will continue to work with communities to reduce poverty, family violence, bullying and homelessness.

The government also recognizes the importance that Albertans place on their safety, security and protection. Engaging Albertans in addressing legal issues and ensuring vulnerable Albertans are protected and supported leads to increased confidence in the province's justice system through decisions and determinations that are transparent, defensible, timely and fair.

	Last Actual		Target		
	Results	Year	2015–16	2016–17	2017–18
Support for Albertans with Low Incomes Who Need Temporary Help					
Percentage of participants employed after leaving Income Support[1,2]	57%	2013-14	60%	60%	61%

Note 1: Starting in 2015, this measure will be based on a sample of clients surveyed between January and December each year rather than a sample surveyed between September and January.

Note 2: Those that stopped receiving Income Support without obtaining employment could have transitioned to training programs, entered new partnerships (e.g., change in marital status) or received support from other sources (e.g., Canada Pension Plan, Employment Insurance and Assured Income for the Severely Handicapped).

	Last Actual		Target		
	Results	Year	2015–16	2016–17	2017–18
Family Enhancement and Child Protection Services					
Percentage of children and youth with a new child intervention file who did not have a file closure in the previous 12 months[1]	84%	2013-14	87%	87%	87%
Family Support for Children with Disabilities					
Percentage of families accessing the Family Support for Children with Disabilities program who indicate the services provided had a positive impact on their family[2]	91%	2012-13	n/a	92%	n/a

Note 1: Includes children and youth that are in care and in care.

Note 2: Biennial survey – conducted every two years.

	Last Actual		Target		
	Results	Year	2015–16	2016–17	2017–18
Assured Income for the Severely Handicapped					
AISH client quality-of-life index[1]	78%	2013-14	79%	80%	81%

Note 1: The index is made up of four equally weighted components based on questions from the annual AISH client survey related to meeting basic needs, the ability to live independently, manage health issues and get involved in the community.

	Last Actual		Target		
	Results	Year	2015–16	2016–17	2017–18
Satisfaction with Policing					
Percentage of Albertans satisfied with policing in Alberta over the past 12 months[1]	83%	2013-14	n/a	87%	n/a
Maintenance Enforcement Program					
Maintenance Enforcement Program's compliance rate on cases enrolled, by regular monthly payments	73%	2013-14	74%	74%	75%
Percentage of Victims Satisfied with Services					
Percentage of victims satisfied with services provided by employees and volunteers within the criminal justice system	85%	2013-14	86%	86%	87%

Note 1: Beginning in 2015-16, this measure is based on a biennial survey with targets and results available every other year.

Outcome 7: Indigenous communities and people participate as equal partners in Alberta's economy and society

The government will strengthen economic and social opportunities for Indigenous peoples in Alberta by transforming relationships with Indigenous communities and organizations, industry, government and other partners in a respectful way. This means enhancing collaboration and ongoing dialogue with First Nations to achieve progress in mutually identified priority areas through quarterly meetings and regional tables that recognize the diverse regional issues of First Nations and allow the government and First Nations to engage on a government-to-government basis.

The government will work with Indigenous communities and organizations to support the transfer of knowledge, skills and tools to support effective relationships, policies and initiatives as well as healthy, vibrant Indigenous communities and peoples. Educational attainment, health and well-being, community safety and economic opportunity are just some of the areas where Indigenous peoples and communities can be more engaged. The government will devote new energy to addressing the unacceptable gaps in educational achievement between Indigenous and non-Indigenous students by building partnerships and support for First Nations, Metis and Inuit people to use their skills, knowledge and perspective in the workforce.

7. Performance Measures

	Last Actual		Target		
	Results	Year	2015–16	2016–17	2017–18
Economic Initiatives					
Number of Indigenous strategic economic development initiatives, partnerships and capacity building projects	51	2013-14	37	40	43
Tribal Council Engagement					
Percentage of tribal councils that are engaged through a formal relationship to support land and resource management	44% (4 of 9)	2013-14	67% (6 of 9)	78% (7 of 9)	89% (8 of 9)
High School Completion					
High school completion rate of self-identified FNMI students within five years of entering grade 10	53.2%	2013-14	53.5%	54.0%	54.5%

7. Performance Indicators

	Actual			
	2010	2011	2012	2013
Average Employment Income				
Average employment income of Alberta's population 15 years and over who worked full-year, full time				
• Aboriginal Albertans	n/a	$55,668	n/a	n/a
– First Nations	n/a	$50,033	n/a	n/a
– Métis	n/a	$60,296	n/a	n/a
• Non-Aboriginal Albertans	n/a	$70,042 (2010)	n/a	n/a
Post-secondary Achievement				
Percentage of Alberta's employed off-reserve Aboriginal population that has a university degree compared to that of the non-Aboriginal population	15	13	12	16
		Percentage points lower		

Outcome 8 Increased gender equality in Alberta

Building a better Alberta includes ensuring the necessary policies, programs and services are in place to increase gender equality. The World Economic Forum has acknowledged numerous studies that confirm greater levels of gender equality enhance productivity and economic growth. Of equal importance to economic arguments for gender equality is the normative recognition that it is a social good to ensure that girls and women feel no less valued and have no less opportunity to live their lives with the same social and economic security as males. Empowering Alberta women and removing social barriers to their equal participation in our society will play an important part in continuing to build a stronger and more prosperous province. As it takes steps to reduce inequality, the government will also engage in a province-wide dialogue on the status of women. The government is committed to increasing support for organizations taking initiatives to end violence against women and within families.

Performance measures related to the participation of women will be reflected in the 2016 budget.

Appendix A

Report to the Government of Alberta on the Development, Renewal and Financing of the Government's plan for Spending on Capital Projects to 2019

Bennett Jones LLP

Report to the Government of Alberta on the Development, Renewal and Financing of the Government's plan for Spending on Capital Projects to 2019

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October 19, 2015

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INTRODUCTION

The purpose of this report is to set out the principles that should guide the Government of Alberta "on matters broadly relating to the development, reconsideration and renewal of the Government's plan for prioritization of and spending on capital projects, including without limitation of the financing of the capital projects".[1] The capital plan has three basic objectives:

1) to enhance long run growth, thus raising the real incomes of Albertans by improving the allocation of real resources, including raising private sector productivity;
2) to support the delivery of major social programs (education, healthcare, etc...) and,
3) to enhance stability, jobs and growth by making greater investment during periods of weak private investment and vice versa.

Specifically, the report will focus on the following areas:

- The overall size of the capital plan, with consideration to spending already underway or planned, as well as the availability of labour and the potential impact on prices and costs;
- The appropriate mix of capital investment to support both the delivery of education and healthcare services to Albertans and long-term growth of output and productivity, through better infrastructure and;
- Approaches to financing the capital plan in the current economic climate.

[1] Ministerial Order No1.2015

The paper is set out in five parts. In light of the basic principles for the overall expenditure plan to achieve growth and stability, the principles to guide the establishment of the capital component of the plan are discussed in the first section of Part I.[2]

But because private investment and government revenues in Alberta are highly dependent on very uncertain future north American oil and gas prices over which the Alberta government has no control, the Alberta government faces particular challenges in the application of these principles to its overall economic plan and in particular to its capital plan. This is discussed in a second section of Part I.

Part II looks at the capital plan in aggregate. A first section makes interprovincial comparisons to get some idea of the adequacy of infrastructure capital in Alberta and briefly assess the current fiscal room to accommodate capital spending. A second section provides an assessment of the implications of different possible oil price scenarios over the next decade for the appropriate size of the capital plan over 2015-2019. This assessment is based on analysis of the way in which "needs", affordability, and cost pressure are expected to evolve under the different oil price scenarios, and guides the recommendations related to the overall size of the capital plan.

Part III provides guidance on the quantum, financing and allocation of the capital budget for investment in infrastructure required as inputs for the provision of education, health, and general services by the government (schools, hospitals, public buildings and structures).

Guidance for allocation of investment in public use infrastructure (roads, water, sewers, etc) is set out in Part IV along with guidance for financing this investment. This section covers the appropriate mix of capital investment and the approaches to financing the capital plan.

Summary recommendations are presented in Part V.

[2] These principles are applicable in general to any provincial jurisdiction.

PART I – GUIDING PRINCIPLES

A. PRINCIPLES RELATED TO THE CAPITAL PLAN

The capital plan as part of the overall budget plan has three basic objectives:

1) enhance long run economic growth by improving the allocation of real economic resources, including raising productivity in the private sector;

2) support the delivery of major social programs; and,

3) mitigate cycles of boom and bust in the economy, thereby enhancing stability, jobs and growth.[3]

Growth

Growth is enhanced through: (a) the establishment of the legal and regulatory framework which guides private investment in infrastructure over time, most importantly with respect to railroads, electricity, telecom and pipelines, and (b) the direct provision and/or financing of infrastructure related to the provision of public services, such as those associated with schools, hospitals, roads, water, etc. While the main focus of this paper is on provincial government spending on the capital component of the direct provision of public services, the economic principles that should determine the allocation of that spending are similar to those that should determine the allocation of business spending on the provision of private services as guided by the government's legal and regulatory framework.

Just as a private enterprise should allocate its resources to the provision of services which yield the highest net revenues and to investments which yield the highest rate of return, so governments should allocate their resources to services which are judged to be most important for citizens and businesses and to investments which are judged to yield the highest rate of return. In both the private and public sectors, the allocation problem is the same – resources should be devoted to the service or investment which exceeds the next best use of those

[3] As a corollary, the capital plan should preserve or enhance fairness without jeopardizing the growth objective of improving the allocation of real resources.

resources, i.e. the "opportunity cost" of those resources. In both sectors, the allocation of spending between current operations and capital investment depends on the analysis of the mix that will yield the lowest ongoing cost of provision of the relevant service.

In both sectors, the total costs of provision of a service (operating, capital and financing charges) must **over time** be covered by revenues.[4] For services provided by private enterprise, in most cases the revenue comes from the customer who purchases the service because most of the benefit from consuming that service (or good) accrues to the customer exclusively.[5] On the other hand, for many public services, much of the revenue comes from general taxation for two reasons: a) because the benefit of the service is deemed in large part to accrue to the public at large (large externalities) and not exclusively to the user of the service, and b) in most cases because one person's consumption of the service does not usually preclude others from benefiting from the service, although congestion, waiting time and overcrowding can certainly reduce the value of the service.

In general private investment must **over time** be supported by revenues from sales of the service (or good) for which the capital is employed; government investment in public capital is generally supported from general tax revenues except to the extent that a fee or charge is levied for the use of that capital or a particular tax is "dedicated" to the provision of that service. But whatever the source of the revenue, **over time** the revenue must cover:

i. the associated operating and maintenance costs and

ii. the associated interest charges (cost of capital).

In making allocation decisions on any capital investment project, a government must take into account the total costs of the investment and decide on the appropriate revenue source (general taxation, specific dedicated tax and/or user charge) to cover these costs over time.

[4] At the aggregate level, however, total expenditures must over time be covered at least to an extent sufficient to maintain any net debt at a manageable level relative to GDP.
[5] The consumption of that service (or good) by the purchaser excludes others from benefiting from that service (exclusion principle).

Stabilization

Stability of the economy is enhanced by government restraining from spending during periods when private sector spending (consumption and investment) is very strong and inflationary pressures are rising. During these periods, governments should be a net lender[6] and take advantage of the relatively high interest rates which normally prevail during periods of excess demand. Conversely, stability of the economy is enhanced during periods when private consumption and investment are weak by government increasing public investment, consumption or transfers[7] and/or reducing taxes. During these periods, government should be a net borrower and take advantage of the relatively low interest rates and reduced construction costs that normally accompany periods of weak private sector demand. By following this policy of countercyclical budgeting, public debt can be sustained at a manageable level over long periods of time – rising somewhat during periods of weak private sector demand (unemployed resources) and falling during periods of excess demand (inflationary pressures).

Thus to promote sustained growth, government spending on capital should vary in a clearly countercyclical fashion. It should be curtailed during periods of strong private sector expansion and increased during periods of weak private sector investment. But getting the timing of actual investment under a counter-cyclical capital plan exactly right is very difficult to achieve in practice for two reasons. Because capital investment takes time to plan and then longer to execute, projects planned and commissioned when the private sector is weak often are finally executed in times of private sector strength. Second, it is very difficult to forecast how strong (or weak) the economy will be several years into the future. Thus, it is important to plan and prepare for a stream of investments many years into the future, the execution of which can be speeded up or slowed down in a countercyclical way as economic conditions warrant, not as current revenue availability dictates.

With a counter-cyclical policy in place, tax revenues will automatically increase quickly in periods of strong growth and much more slowly (or decline) during periods of weak growth or recession. The implication of this policy is that governments should be net borrowers to finance

[6] Their total revenues should exceed their operating and capital expenditures.
[7] The transfer component of operating expenditures will generally increase faster during slow growth periods so that there is some small "automatic" counter-cyclical pattern to operating expenditures providing a mild stabilizing impact on the economy.

capital spending during periods of slow growth and net lenders (savers) during periods of economic expansion. **Attempting to maintain a balanced budget each and every year will exaggerate cyclical economic volatility and have a perverse impact on long run growth.**

While it is desirable that governments borrow to finance capital spending in times of slow growth, such borrowing increases government debt and hence future debt service charges. Future interest payments must be sustainable under very pessimistic growth and interest rate assumptions. Consequently, capital expenditure plans must take into account the risk of adverse economic outcomes in the future.

Both the capital and operating components of the Budget plan should be designed to meet the same objectives as set out above, but what distinguishes the capital element of the plan from the operating component is the **time horizon** under consideration. While the operating component of the budget is planned and financed to meet the growth and stability objectives in the short run (usually one but at most three years), the capital component should be planned in such a way as to meet these objectives over the long run. This difference in time perspective creates a tension in the budget planning process. There is a natural incentive for both capital and maintenance expenditures to be deferred during periods of slow revenue growth in order to maximize current services that can be provided with limited current revenues, even though over the longer run the lack of capital will create inefficiencies which will limit both future private investment and government services that can be provided from future revenues.[8] In addition, there is a natural incentive for governments to keep general taxation below the level that is necessary to provide revenues necessary to finance the appropriate "efficient" level of capital spending.[9] These natural incentives have generally resulted in under-investment in public capital, in particular growth enhancing infrastructure, in many Canadian provinces and cities (including Alberta) with the result that future growth is constrained and unit cost of future operations is increased.

[8] And when revenues are robust during periods of strong growth, there is a natural tendency to undertake the government investment that has been deferred during periods of weak growth. This results in procyclical pattern of capital investment that drives up the costs of investment and construction for both the private sector and governments during cyclical peaks.

[9] Governments do not like to tax today's taxpayers to pay for capital expenditures which deliver only a small or even a negative benefit today, but will be important to future taxpayers.

To offset these natural incentives to under-invest both in maintenance and infrastructure, government should adopt the following **administrative** principles in planning their capital budget:

1) Departments and agencies need to go through a process to determine the optimal (lowest cost) mix of capital, labour and other inputs that is required to deliver their programs efficiently and assess their capital requirements against this optimal mix. From this analysis they then can produce an estimate of the "backlog" or "excess" of assets optimally needed to deliver current public services.

2) On the basis of macroeconomic projections provided by Treasury Board and Finance, departments and agencies need to plan for capital investment over a five to ten year horizon) to meet current needs and accommodate (and facilitate) future growth.

3) These "bottom up" requests for both operating and capital budgets are then rolled up and prioritized by Treasury Board and Cabinet.

4) Capital **expansion** spending should be financed from a planned excess of current revenue over operating expense (over the business cycle), from asset sales and (especially during periods of excess supply) by prudent borrowing.

5) Budgets for planned capital expansion should be based on prudent projections of future needs with both upside and downside assessment of risks. The degree of prudence should be greater the higher existing debt/GDP ratio.

B. PRINCIPLES AND OUTCOME RELATED TO THE CAPITAL PLAN: THE SPECIAL CASE OF ALBERTA

All of the above principles apply in Alberta but with some difference in emphasis because of the importance of the oil and gas industry to the economy and of non-renewable resource revenues to the government. The exploitation of hydrocarbon resources has been a powerful generator of rapid economic and population growth in Alberta. Because the requirement for infrastructure to support this rapid economic and demographic growth is very high, the requirement for capital spending (investment) by the Alberta government has been high relative to that in slower-growing provinces.

As set out in the general principles above, Alberta government capital expenditures on infrastructure should be planned to meet these high current and future requirements, but executed at a time when private sector investment is relatively weak both to minimize costs to government and to avoid putting additional cost pressures on private sector investment activity. This implies that relatively low levels of government capital spending should take place during the periods when resource activity and prices are high, and hence when revenues are high. Conversely relatively high levels of government capital spending should take place at the very time when resource revenue flows are relatively low, and private sector activity weak. In these circumstances, it is appropriate for the government to borrow to finance capital expenditures to meet the current and future needs of a growing population and expanding economy, whether it borrows from itself (by drawing down financial assets) or from the market.

Over the past two decades, successive Alberta governments have not adhered very closely to the principles set out above concerning the capital plan. Government capital spending has tended to be pro-cyclical in nature, generally rising as a share of GDP during years of strengthening resource revenues and falling after 2010 during a period of generally weakening resource revenues relative to GDP, although in this case the decline may have been warranted to some degree in view of the high level of business investment in the years to 2014.

PART II – THE CAPITAL PLAN IN AGGREGATE

A. THE CAPITAL PLAN IN CONTEXT

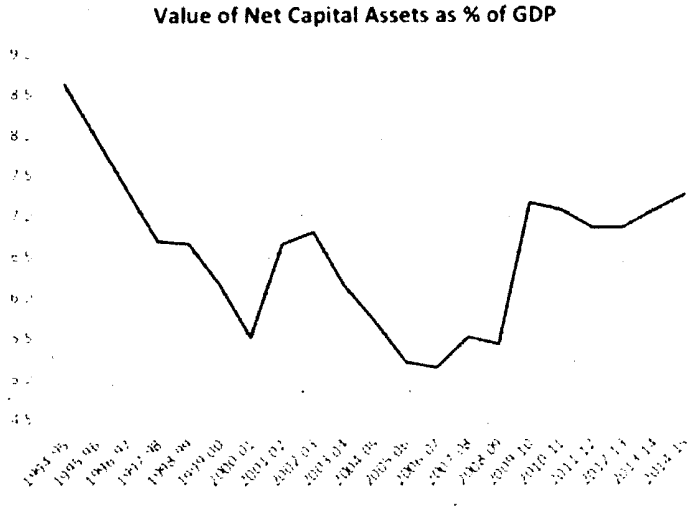
This sub-section aims to shed light on two issues:

- the adequacy of current infrastructure capital relative to needs:
- the current fiscal room to accommodate capital spending.

Adequacy of Infrastructure Capital Relative to Needs

Based on government accounting (fiscal plan basis), the ratio of the value of government capital assets (net of depreciation) to nominal GDP fell in the decade to the mid-2000s, but has since caught up partially to end up at 7.2 percent of GDP in 2014-2015, somewhat above the average for the whole period (Chart 1). Is this high or low in comparison to the needs related to population and economic activity in Alberta? More information is needed to have a judgment on this question.

Chart 1:



Sources: Government of Alberta, *2014-15 Annual Report*, June 30, 2015, and Statistics Canada, Cansim matrix 384-0038.

There is no universally established benchmark to determine what level of government capital is adequate to support economic growth and the provision of public services.[10] But at the

[10] The following publication is worth consulting to have a informative discussion of many issues related to government capital spending adequacy: Drummond, D., E. Capeluk and M. Calver. 2015. "The Key Challenge for Canadian Public Policy: Generating Inclusive and Sustainable Economic Growth", Centre for the Study of Living Standards, CSLS Research Report 2015-11, pp. 26-51

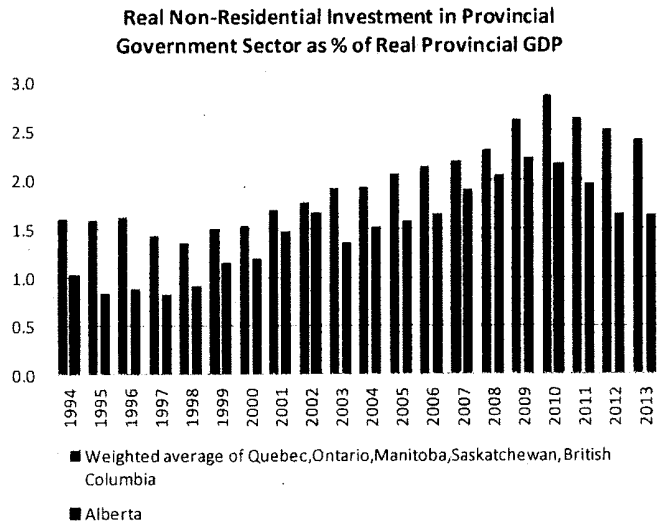
Canadian level, what other Canadian provinces spent on public capital relative to GDP compared to Alberta is relevant.

In trying to gauge how well is Alberta faring relative to other provinces, it makes sense to compare "real" measures of capital investment and capital stock to real GDP as this eliminates the impact of differences in relative price and cost levels across provinces. While it could also be useful to scale real investment and capital stock by population as some of the needs for public capital are demographically related (schools and hospitals for example), capital/population ratios are largely influenced by total population itself in the jurisdiction. (See Chart 3 below). For this reason, real investment and capital stock are best scaled by real GDP, as **real GDP encapsulates the needs to accommodate both population and real economic activity per capita**. I understand that GDP is rather loosely related to the needs for the capital assets that support well-being, but this is the best measure we have to do the job at a macroeconomic level.[11]

[11] There are some "microeconomic" indicators of underinvestment in public capital, such as long commuting time and congestion, for which very incomplete data exist. In this report, I do not rely on such indicators to assess the needs for public capital in Alberta at the aggregate level. For more on these microeconomic indicators, see for example Drummond, Capeluk and Calver (2015), ibid.

Considering now how Alberta fares in comparison with other provinces with respect to real net public capital[12] in relation to real GDP, the first thing to note is that real non-residential investment in the provincial government sector[13] in relation to real provincial GDP has been systematically lower in Alberta than in the other five largest provinces over 1994-2013, with the gap particularly large in the mid-1990s and after 2009 (Chart 2).

Chart 2:



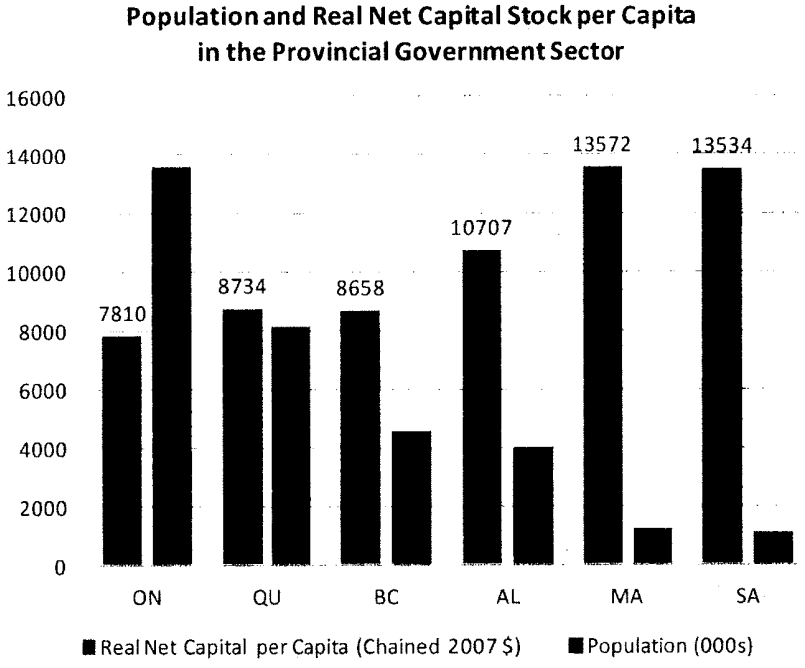
Source: Statistics Canada, Cansim matrices 031-0005 and 384-0038.

[12] Real investment, depreciation and net capital stocks are measured in chained 2007 dollars. Depreciation is linear. I am aware that taking the ratio of quantities measured in chained dollars is not strictly valid, but the distortion should be quite small. Moreover, the comparison of such ratios across provinces should be unaffected for all intents and purposes.

[13] There are no direct measures of real investment and capital stock for the provincial government sector. "Provincial government sector" was approximated by subtracting from "government sector" the following categories: "Other federal government services", "Other municipal government services", and "Other aboriginal government services". Data for "Defense services" were not available for subtracting, but would have been quite small in any event judging by the Canada totals, which are quite small (around 4% of total government sector).

As a ratio to total population, real net capital in the provincial government sector has been higher in Alberta than in a weighted average of the other five largest provinces from 1994 to 2013, the last year for which data on capital stocks by province and industry are available. The data shows a strong negative correlation between the size of the population of a province and the amount of real net public capital per capita (Chart 3). This suggests that there may be strong economies of scale to population in accommodating needs for public capital. As an extreme example, there are less kilometers of provincial highway in Ontario than in Alberta. To that extent, the relatively high level of real net capital per capita in the Alberta provincial government sector would not imply that public capital in this sector is more adequate in Alberta than elsewhere to serve population needs.

Chart 3:

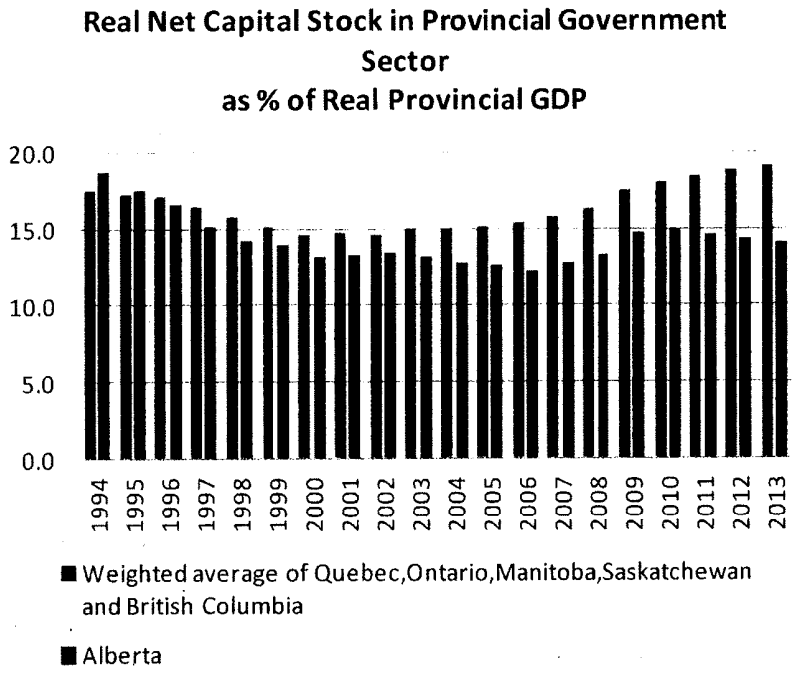


Sources: Statistics Canada Cansim matrices 031-0005 and 051-0001.

The end result is that the real net capital stock in the provincial government sector in relation to real provincial GDP, which was higher in Alberta than in the other five largest

provinces in the mid-1990s, has increasingly fallen below that in the other provinces since then (Chart 4).

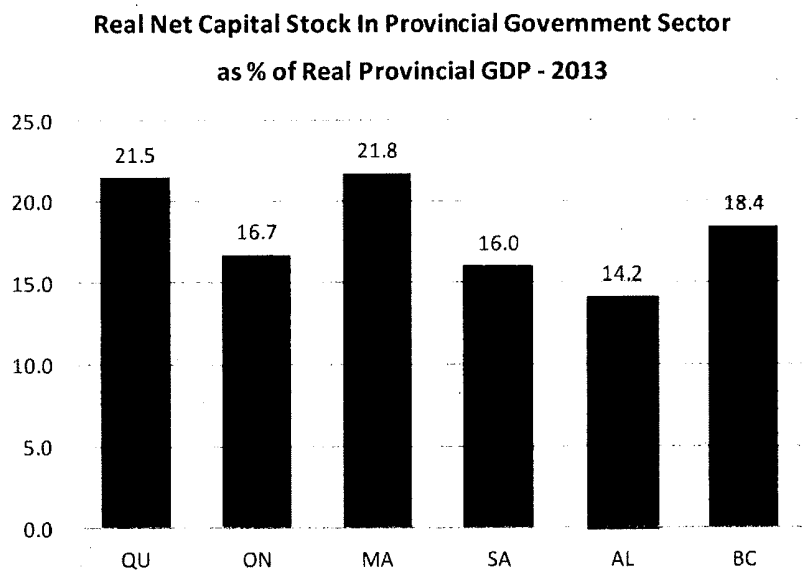
Chart 4:



Source: Statistics Canada, Cansim matrices 031-005 and 384-0038.

By the end of 2013, real net capital stock in the provincial government sector in relation to real GDP was 14 percent in Alberta, lower than in each of the other large 5 provinces (Chart 5). Why is Alberta lower than the other provinces by this measure and higher on average than the other provinces in terms of real net capital per capita? The answer is that real GDP per capita is much higher in Alberta than in the other provinces, reflecting more hours worked per capita in the Alberta economy and more capital used per worker in the business sector. In other words, real **economic activity per capita** is far more intense in Alberta than in the other provinces and public capital has not kept pace with this activity to the same extent as in the other provinces over the last 20 years.

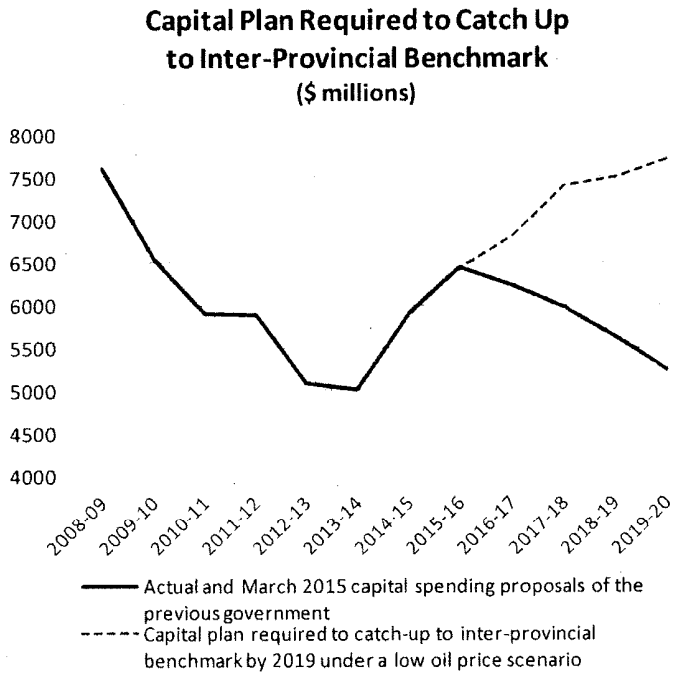
Chart 5:



Source: Statistics Canada, Cansim matrices 031-005 and 384-0038.

Over 1994 to 2013 the weighted mean ratio of real capital stock to real GDP in the other five largest provinces averaged 16 percent. This long-run average of 16 percent can be taken as a provincial benchmark against which to gauge the adequacy of Alberta's capital plan. This benchmark cannot be considered a precise indicator of what the "required" ratio for Alberta should be by any stretch of the imagination, if only because all provinces have underinvested in public infrastructure to a greater or lesser degree. Nevertheless the gap above Alberta that this ratio implies suggests that Alberta may have under-invested in public capital in the past and now has some catch-up to do to ensure an adequate level of public capital to meet current needs, let alone meet future needs. How much catch-up? There is no clear-cut answer to this question, at least at the macroeconomic level. Nevertheless, on the assumption that the backlog of unmet needs in Alberta has some relationship to Alberta's gap relative to the provincial benchmark, then it can be estimated that **to meet the 16 percent benchmark by 2019-2020, the Alberta government would need to add an average $1.6 billion per year from 2016 to 2019 to the March 2015 capital plan put forward by the previous government** (Chart 6).

Chart 6:



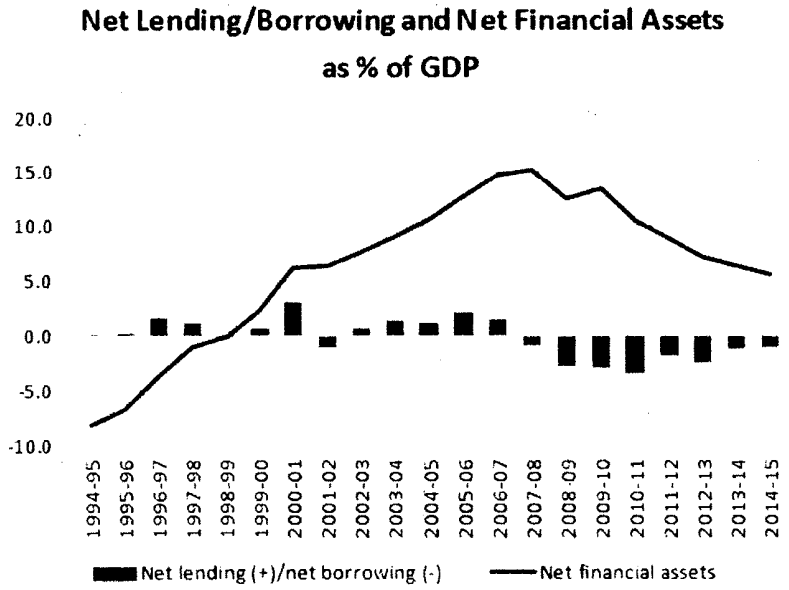
Sources: Calculations based on data from Government of Alberta, *2014-2015 Annual Report*, June 30, 2015,

Statistics Canada, Cansim matrix 384-0038, Government of Alberta, *Budget 2015*, March 2015, and real GDP projections provided by Alberta Treasury Board and Finance.

Fiscal Room to Accommodate Capital Spending

On an overall cash basis – total revenues less total expenditures – the government of Alberta was a net lender from 1994 to 2006 and a net borrower after 2006. While the net lending position from 1994 to 2006 led to a build-up in net financial assets, the net borrowing position after 2006 has resulted in a substantial reduction in net financial assets (Chart 7)

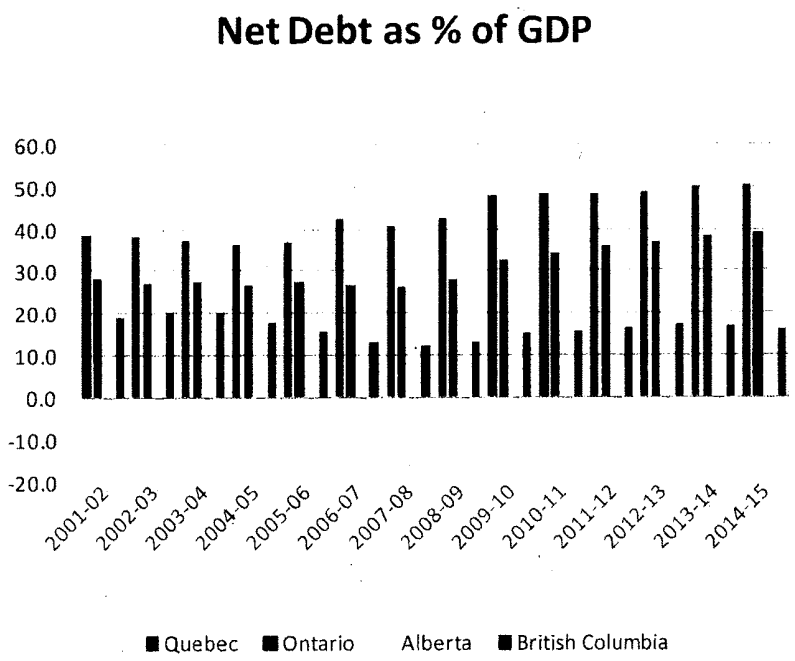
Chart 7:



Sources: Government of Alberta, *2014-15 Annual Report*, June 30, 2015 and Statistics Canada, Cansim matrix 384-0038.

Despite being in a net borrowing position since 2006, until the end of 2014-15 Alberta was unique among the four largest provinces in having a net financial asset (NFA) position rather than a net debt. On a fiscal plan basis, Alberta government's net financial assets reached a peak of 15.2 percent of GDP in 2007-2008 and gradually fell thereafter to 5.5 percent of GDP by 2014-2015 (Chart 8).[14] At the same time, the net debts of the governments of Quebec, Ontario and British Columbia rose to 51 percent, 39 percent and 16 percent of their respective provincial GDP by 2014-2015. **Thus, Alberta has prudent room for net borrowing before its debt/GDP reaches even the relatively low ratio of British Columbia.**

Chart 8:



Sources: Public Accounts and 2015 budgets of the governments and Statistics Canada Cansim matrix 384-0038.

[14] On a consolidated financial statements basis. NFA was forecast to be about 2.4% of GDP at the end of 2014-15 in *Budget 2015*

B. THE CAPITAL PLAN FOR 2015-2019

In drawing a public capital plan for the next five years, three factors must be taken into account: (1) the current and future needs for public capital to support long-term growth and the provision of adequate public services, (2) the large uncertainty about the economic outlook for Alberta in view of the hard-to-predict large movements in the price of oil, and (3) the degree of pressure on costs over the next five years. Indeed, these three factors are at the root of the answers to the following three questions:

- Is the capital plan consistent with achieving some target level of real public capital, account taken of the projected growth of population and real activity per capita?
- What is the range of capital spending growth that the government can afford to accommodate while keeping public finances on a sustainable path, assuming no discretionary change in the generation of revenues?
- Are the timing and size of the capital plan consistent with the degree of cost pressure in the Alberta economy?

This section will try to answer these three questions. In a first part the economic and fiscal context which any sensible capital planning must take into account will be defined. The risks that arise from uncertainty about future oil prices will be addressed through a range of economic and fiscal scenarios that derive from different oil price assumptions not only over 2015-2019 but also 2020-2024. All three factors conditioning capital planning, i.e. needs, affordability and cost pressure, depend on the economic scenario that is expected to prevail. In a second part, an analysis of how the three factors evolve in the context of the various oil price scenarios will underpin conclusions about the appropriate size of the capital plan over the period 2015 to 2019.

Oil Price Scenarios and Fiscal Implications

To address economic uncertainty, a range of economic scenarios driven by different assumptions about oil prices are considered. Oil price is key because it has a great deal of direct and indirect influence on the Alberta economy, and hence on government revenues, public capital needs and cost pressure. As first benchmark case, a low WTI oil price is assumed to prevail over the next five years, starting at U.S. $51/bbl in 2015 and edging up to U.S. $58/bbl in 2019. But this is not the end of it. In order to properly assess the risks implied by a public capital plan with respect to needs and affordability, one must take account of the outlook for the oil price and the Alberta economy over the following five years, i.e. 2020 to 2024. A scenario of rising real oil prices over 2020-2024 would boost the need for, and make financial room available to cover the cost of borrowing, for more capital spending over 2015-2020 than a scenario of flat, low real oil price from 2020 to 2024. Therefore, the first benchmark scenario, and the one that I consider the base case, is one in which low oil prices prevail over 2015-2019, as specified above, followed by a rise in the WTI oil price to the equivalent of U.S. $82/bbl (at 2020 U.S. prices) by 2024. A "low-low" variant aims at capturing downside risks to this first benchmark scenario by keeping the WTI oil price at the equivalent of U.S. $63/bbl (at 2020 U.S. prices from) from 2020 to 2024. A second benchmark scenario is also considered: one in which WTI oil price strengthens to U.S. $80/bbl by 2019 and is kept at the equivalent of U.S. $82/bbl at 2020 U.S. prices from 2020 to 2024. In a "mid-to-high" variant of this second benchmark, the oil price again rises to U.S. $80/bbl by 2019 but then escalates to the equivalent of U.S. $94/bbl at 2020 prices by 2024. This last scenario aims at capturing the upside risks to oil price expectations. Table 2.1 provides an overview of these oil price assumptions.

Table 2.1:

WTI Oil Price Assumptions

	At current U.S. prices		At 2020 U.S. prices	
	2015	2019	2020	2024
Low oil price scenarios:				
1. Low-low oil price (low variant)	51	58	63	63
2. Low-to-mid oil price (first benchmark)	51	58	63	82
Medium oil price scenarios:				
3. Mid-mid oil price (second benchmark)	54	80	82	82
4. Mid-to-high oil price (high variant)	54	80	83	94

Each of these scenarios generates different profiles for the Canadian dollar exchange rate, real and nominal GDP growth rates, population growth, CPI inflation, and growth in government resource revenues and other economic variables. For these profiles over 2015 to 2019, I rely on simulations provided by Alberta Treasury Board and Finance, the results of which I find reasonable. For the same profiles over 2020 to 2024 I use "rules of thumb" that are consistent with economic relationships (and Finance assumptions) imbedded in current economic models of the Albertan economy.[15] In order to illustrate fiscal outcomes under these four scenarios, illustrative operating and capital expenditures numbers are necessary. The assumptions used to construct numbers with respect to growth in government expenditures and non-resource revenues across the four oil price scenarios are summarized in Table 2.2. It is worth noting that from 2015-16 to 2019-20 operating expenses grow on average by 3.7 percent per year in the low oil price scenarios and by 4.6 percent per year in the medium oil price scenarios. This compares with an average growth rate of 5.6 percent per year from 1995-96 to 2014-15.

Table 2.2:

Working Assumptions about Expenditures and Non-Resource Revenues

	2015 - 2019	2020-2024
Operating expenses	Population growth + CPI inflation + 1%	Population growth + CPI inflation
Capital spending	As per March 2015 plan by the previous government	Population growth + CPI inflation
Non-resource revenues	As per Finance simulations based on status quo for taxation and fees	Fixed proportion of nominal GDP

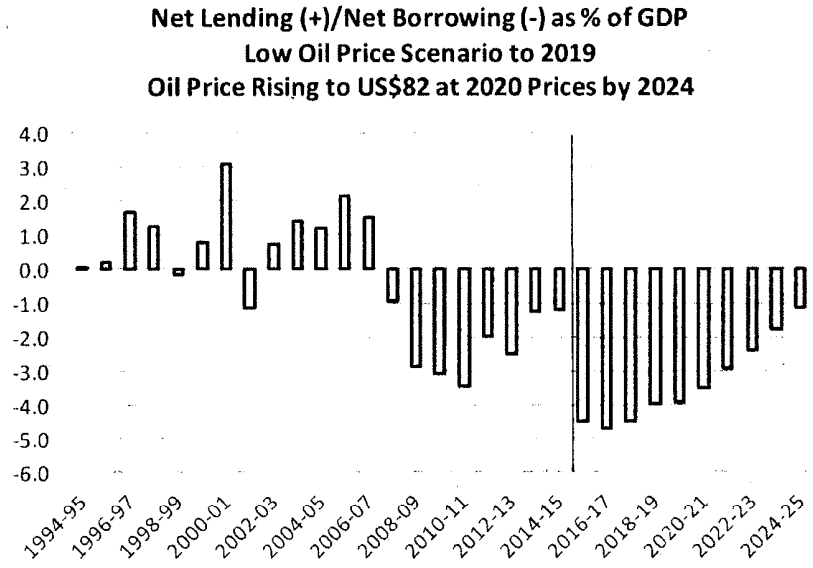
It is worth noting that the assumption regarding capital spending over 2015-2019 does not reflect any view that the March 2015 plan was most appropriate but rather the fact that this was the latest and only actual plan available this summer to serve as a basis for my analysis. At the moment, actual capital spending commitments amount to 94 percent of the March 2015 total capital plan.

[15] See Table 2.6 in the annex for projections of real GDP and population growth in Alberta under various oil price assumptions.

It is important to realize that the rules defined in Table 2.2 are **not recommendations** to the government but simply **working assumptions** that are necessary to calculate fiscal balances going forward. When the government has decided on the pace of spending growth and changes in taxation or fees, the precise fiscal balances will have to be recalculated. They will differ in detail from those based on the above working assumptions. Nevertheless, the simulated balances shown in Table 2.3 below give a good general picture of the outlook under the four oil price scenarios.

The **low-to-mid** oil price scenario is probably the one that best balances the risks. Under this scenario, net borrowing is at its peak in relation to GDP in 2016-2017 and gradually diminishes to 1.2 percent of GDP by 2024-2025 as both the operating deficit contracts and the surplus of resource revenues over capital spending expands in relation to GDP (Chart 9). Net financial assets turn to net debt in 2016-2017. Net debt stabilizes at 20.5 percent of GDP in 2023-2024 (Chart 10, low-to-mid case).

Chart 9:

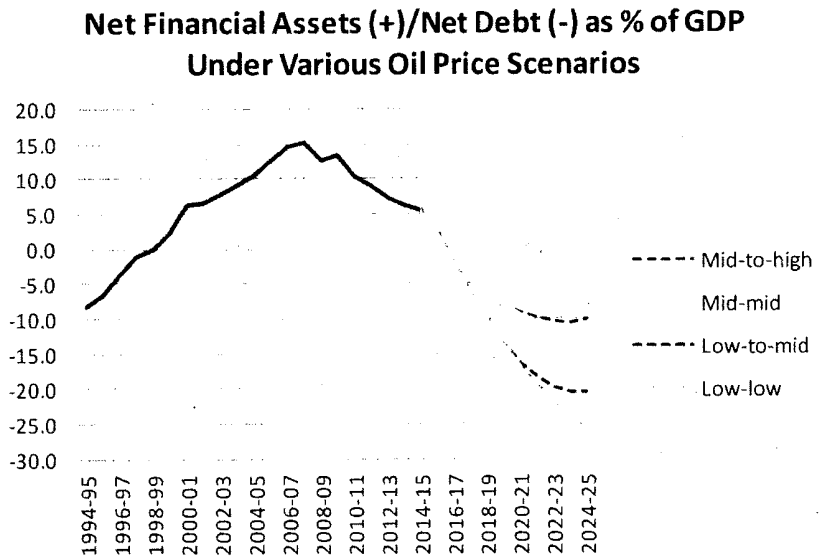


In the **low-low** oil price scenario, in contrast, net debt never stabilizes in relation to GDP. It grows rapidly to reach 26 percent of GDP by 2024-2025 and would likely continue to grow thereafter. Net borrowing averages 3.8 percent of GDP over the next decade with resource

revenues continuously falling short of capital spending. This is a high risk scenario under which the credit worthiness of the Alberta government could be seriously compromised, especially if there was slippage on the revenue side or the expenditure side relative to the illustrative levels assumed.

With the more optimistic second benchmark price scenario (**mid-mid**), net financial assets turn to net debt in 2016-17. Net debt subsequently progresses at an increasingly slower pace to reach 12 percent of GDP by 2024-2025. The illustrative expenditure and revenue assumptions in Table 2.2 would be sustainable under this benchmark scenario in the sense that Alberta would have a low and stable level of net debt in relation to GDP.[16] In the **mid-high** oil price variant, the net debt ratio stabilizes at 10.5 percent by 2023-24, then begins slowly to diminish.

Chart 10



[16] The net debt/GDP ratio in all likelihood would stabilize at a level not exceeding 15 percent in the second half of the 2020's

Table 2.3:

Fiscal Balance and Net Financial Assets Under Different Oil Price Scenarios

	As % of GDP				
	2014-15	**2015-16**	**2019-20**	**2022-23**	**2024-25**
1. LOW-LOW OIL PRICE: (LOW VARIANT)					
Net lending (+)/borrowing (-)	-1.2	-4.5	-3.9	-3.3	-2.9
Net financial assets (+)/net debt (-)	5.5	2.4	-13.4	-22.0	**-26.1**
2. LOW-TO-MID OIL PRICE: (FIRST BENCHMARK)					
Net lending (+)/borrowing (-)	-1.2	-4.5	-3.9	-2.4	-1.2
Net financial assets (+)/net debt (-)	5.5	2.4	-13.4	-19.7	**-20.5**
3. MID-MID OIL PRICE: (SECOND BENCHMARK)					
Net lending (+)/borrowing (-)	-1.2	-4.0	-2.0	-1.5	-0.9
Net financial assets (+)/net debt (-)	5.5	2.9	-7.8	-11.4	**-12.3**
4. MID-TO-HIGH OIL PRICE: (HIGH VARIANT)					
Net lending (+)/borrowing (-)	-1.2	-4.0	-2.0	-1.1	-0.2
Net financial assets (+)/net debt (-)	5.5	2.9	-7.8	-10.5	**-10.2**

Capital Planning for 2015-2019

The first conclusion that emerges from all the simulation results in Table 2.3 is that in all likelihood the Alberta government will not face financial constraints over the next four years in accommodating or even significantly expanding the capital plan put forward by the previous government in March 2015. Net borrowing will need to increase considerably and the net financial asset position of the government will switch to a growing net debt position.[17] But **affordability** over the remainder of this decade is highly unlikely to be an issue at current tax rates as long as growth in operating expenditures does not greatly exceed the assumptions in Table 2.2.[18]

However if there were to be no significant recovery in oil prices between 2020 and 2024, the debt situation would become more worrying. The one case that raises very real concern from an affordability standpoint is the low-low scenario, in which continuously low real oil prices over the full period to 2025 creates an unsustainable debt dynamics for the provincial government.

From a "needs" perspective, two considerations come into play. First, as discussed earlier, there is presumption from inter-provincial comparisons that capital spending needs to increase faster than GDP over the next five years just to bring the public capital stock more in line with the needs of both population and economic activity per capita over this period (Table 2.4). Second, these needs will grow at varying rates during 2020-2024 depending on the oil price scenario that will prevail. The growth in capital spending "needs" has a relationship to the growth in GDP, and therefore should be strongest in the mid-to-high scenario, lowest in the low-low scenario and in-between in the low-to-mid and mid-mid scenarios. Given that public capital projects typically have relatively long periods of gestation, additional capital spending must start being incurred well before 2020 if these future needs are to be at least partially met.

[17] This ignores possible reevaluation effects on net financial assets, for example the possibility of increases in the market value of net financial assets.

[18] I want to stress that the operating expenditures assumed in Table 2.2 are very restrictive over the next two years and could be very difficult to achieve in light of the very low oil prices, drought conditions and slow growth likely to prevail in 2015 and 2016.

Table 2.4:

Planning for Capital Spending over 2015-2019

	Affordability	Capital needs 2020-2024: Nominal GDP growth	Case for upgrade	Pressure on costs 2015-2019
1. Low-low oil price	Risky	4.3	moderate	Very low
2. Low-to-mid oil price	Yes	5.5	strong	Low
3. Mid-mid oil price	Yes	5.6	strong	Low
4. Mid-to-high oil price	certainly	6.1	very strong	Low to moderate

In light of this analysis, it is **recommended** that the government not only accommodate the capital plan proposed in March 2015 by the previous government but also **upgrade** it by an amount sufficient to bring the ratio of net public capital stock to GDP in real terms closer to the 16 percent provincial benchmark by 2019. As an illustration, suppose that 16 percent were to be targeted by 2019, the Alberta government would need to add an average $1.6 billion per year from 2016 to 2019 to the March 2015 capital plan put forward by the previous government, assuming that plan for 2015 -2016 is realized. A possible profile for the upgraded capital plan would be as in Table 2.5 (see also Chart 6):

Table 2.5 – RECOMMENDED CAPITAL PLAN AGGREGATE TARGETS

	March 2015 Capital Plan Proposal		Upgraded Capital Plan	
	$ Millions	Implied real (1) capital/GDP in %	$ Millions	Implied real (1) capital/GDP in %
2015-16	6431	14.6	6431	14.6
2016-17	6235	15.0	6800	15.2
2017-18	5979	15.2	7400	15.6
2018-19	5624	15.3	7500	15.8
2019-20	5233	15.3	7700	16.0

(1): Based on real GDP from low oil price scenario.

It is worth noting that out of the cumulative $35.8 billion upgraded capital plan to 2019, some $27.6 billion (77%) are already committed in some way to projects that are under construction or have contractual obligations for planning and design work. Thus the un-committed capital budget to 2019-2020 implied by the fully **upgraded** plan would be $8 billion.

It must be stressed that any capital plan must only incorporate projects that generate positive net social rates of return. In other words, the projects must pass the test of benefit-cost analysis for inclusion in the capital plan. In practice, the capital plan must rest on a bottom-up approach, as outlined in Part I and actually followed by the Alberta government. Priority projects that meet certain criteria that are consistent with the notion of social rate of return are submitted by ministries and then prioritized and approved by Treasury Board and Cabinet.

The economic context in which an upgraded plan such as illustrated above would unfold over the next five years would naturally depend on the evolution of oil prices. In the first benchmark scenario (low-to-mid oil price), this context is one in which: there is significant catch-up to do with respect to public capital; there would be little cost pressure at least up to 2019-2020 in the Alberta economy; capital needs for 2020-2024 would build up rapidly; there would be no market constraints on government borrowing as net debt with the upgraded plan would be at 15 percent of GDP by 2019-2020 (Chart 11), still less in relation to GDP than British

Columbia's net debt as at 2014-15; and interest costs on borrowing would be low.[19] As Chart 11 shows, net debt would stabilize about to 25 percent of GDP by the mid-2020s, a moderate level by provincial standards but one that would point to the need for the government to start taking measures to reduce net borrowing by the end of this decade.[20] Even in the low-low oil price scenario, some upgraded capital plan is warranted in view of the current capital needs and probably still warranted in light of the even somewhat reduced requirement to facilitate growth in the 2020-2024 time frame. In any event, the government needs to monitor closely oil developments and prospects and make adjustments to the capital plan if needed. For instance, if the government comes to firmly believe that oil prices will remain low over a full decade ahead, then it should take measures to reduce net borrowing, otherwise the debt dynamics would become unsustainable as net debt would not stabilize in relation to GDP. This might imply trimming the upgraded capital plan starting in 2018-19.

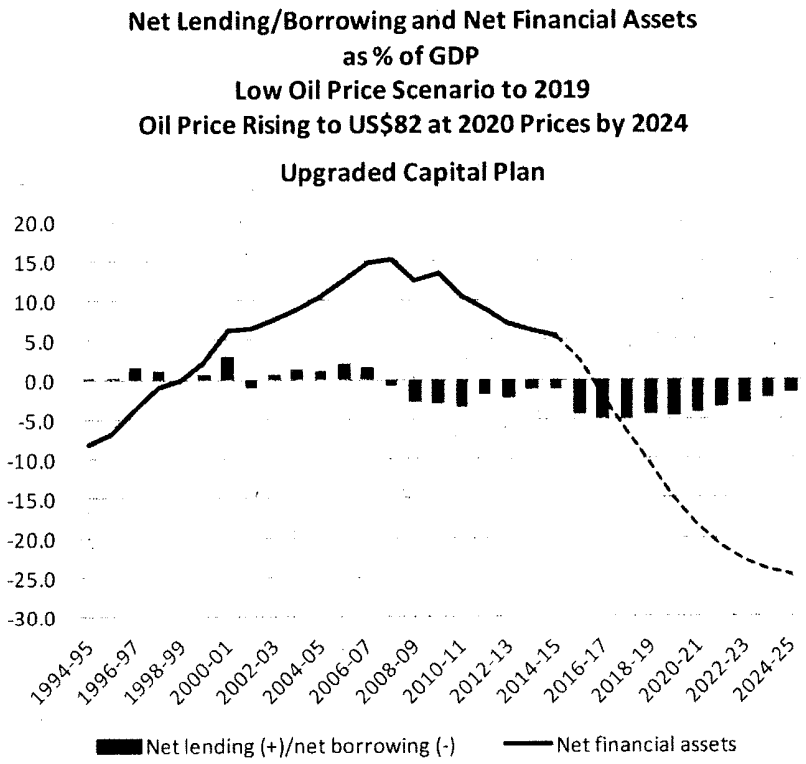
There is a case for upgrading the capital plan even further if either of the two higher oil price scenarios were to prevail because capital needs over the next 10 years would be even larger than in the low oil price scenarios.[21] While it is true that the higher capital expenditures might begin to exert some additional cost pressures in the Alberta economy by 2018 or 2019, the risk of this causing serious damage to private investment in those years is low. In any event, the amount and time profile of the upgrading would need to be carefully assessed in light of the evolving cost pressures in the economy as the end of the decade approaches.

[19] Consistent with a rather constrained growth profile for global demand through to 2019, interest rates are expected to remain "low for long" and therefore long-term interest rates on Alberta bonds should be low over the next several years.

[20] This 25% debt/GDP ratio reflects larger capital spending not only during 2015-2019 but also during 2020-2024 (the 2019 base level to which population growth and CPI inflation would apply during 2020-2014 is much higher in the upgraded plan). In fact, capital spending would rise from $7.7 billion in 2019-20 to $9.4 billion by 2024-25.

[21] Under the higher oil price scenarios the upgraded capital plan would bring the real capital/GDP ratio to only 15.3% by 2019-20.

Chart 11:



In setting the capital plan, it is necessary to balance the economic risk of having inadequate infrastructure to facilitate future output and population growth with the financial risk of incurring unsustainable amounts of debt to build unwarranted amounts of infrastructure. In my view, the expanded capital plan is warranted under both the first and second benchmark scenarios and the risks are evenly balanced. The financial risk of the expanded capital plan is clearly greater under the low-low variant price scenario (and the future growth constraint risk clearly lower). Nevertheless, even if one judges the low-low scenario highly likely, the expanded capital plan is warranted at least through 2017-2018 when cost pressures are lowest. (See Annex 2.1). Capital spending can always be slowed somewhat in 2018 and 2019 if the outlook for population growth and private investment weakens. The risk of constraining growth

through inadequate investment in public capital far outweighs the financial risk under the mid-to-high oil price variant. Thus, if one judges that this variant is most likely, even the upgraded capital plan may be insufficient, especially in the period to 2016-2018 when cost pressures are lowest. Considering the balance of risks, it would be wise for the government to adopt an upgraded capital plan similar to the one set out in Table 2.5, with the proviso that adjustments may be needed after 2017-18.

As of the end of August 2015, it now appears that oil prices in the near term (2015 and 2016) may well undershoot the prices in the first benchmark scenario. In this case, economic activity in Alberta for the remainder of this year, 2016 and the first half of 2017 may well be very weak and discretionary fiscal action may be warranted. In this case, accelerating the timing of the upgraded capital plan would be the best vehicle to deliver that discretionary fiscal action – especially if it were supported by federal support for investment in provincial and municipal infrastructure in Alberta. Among all the categories of government expenditures and revenues, additional infrastructure spending is the one with the highest fiscal multiplier, that is, the one which boosts real GDP the most per dollar spent or foregone by the government. Moreover, not only would additional infrastructure spending boost current real economic growth, it would have a positive impact in reducing constraints on future economic growth.

ANNEX 2.1

Table 2.6:

Working Assumptions about Real GDP and Population in Alberta

	Average % Growth		
	2015-2017	2018-2019	2020-2024
Low-low oil price			
Real GDP	0.1	1.9	1.8
Population	1.6	1.3	1.5
Low-mid oil price			
Real GDP	0.1	1.9	2.5
Population	1.6	1.3	2.0
Mid-mid oil price			
Real GDP	1.0	2.9	2.7
Population	1.8	1.9	1.9
Mid-high oil price			
Real GDP	1.0	2.9	3.0
Population	1.8	1.9	2.2

Sources: Alberta Treasury Board and Finance (2015-2017 and 2018-2019) and own assumptions (2020-2024)

PART III: CAPITAL COMPONENT OF GOVERNMENT PROGRAMS

General principles: Allocation

This section examines the practices for establishing capital budgets for infrastructure which supports the delivery of major public social programs (education, health care, security, etc.), programs which are financed through general revenues rather than specific user charges or fees. The capital to support these programs – schools, hospitals, flood and drainage infrastructure, etc – is thus generally financed from general revenues allocated to specific projects which best support the efficient delivery of those programs. For example the appropriate capital budget for schools must be determined in the context of the total budget allocation for delivery of educational services.

In principle, the allocation of a capital budget between projects should be based on cost-benefit analyses, the projects with the highest ratio of discounted benefits to costs being given priority over those with lower ratios. In practice, the difficulty of quantifying future social benefits largely rules out recourse to formal cost-benefit analyses for projects involving hospitals, schools, parks and flood control. The allocation mechanism must largely rest by necessity on an evaluation of infrastructure "needs" with regard to achieving particular goals and on a set of criteria to prioritize those needs. This is the way it currently works for schools and hospitals.

Currently infrastructure needs are twofold: (1) need for new expanded infrastructure to increase capacity to deal with a growing population or eliminate obsolescence in regards to functionality, and (2) the need for maintenance, repair and replacement of existing infrastructure. Because of implicit or explicit budget constraints in the past, there appears to be a considerable backlog of unmet capital needs in addition to the capital requirements to facilitate future growth and improvements. Thus, the 2015-2019 capital plan with respect to infrastructure to support services to the population needs to make provision for:

1) projects to deal with accumulated deferred maintenance, i.e. maintenance and normal replacement with respect to schools, hospitals and post-secondary institutions in Alberta which has inappropriately not been carried out in the past,

2) projects to address the need to accommodate past population growth and changes in the structure by age and location of population, projects which were appropriately deferred during the period of high private investment, and

3) projects to accommodate projected population growth and changes in the structure by age and location of population over the next five to ten years.

Infrastructure needs must be evaluated with a view to achieving the least-cost delivery of the services that they are designed to support. Total costs include not only capital costs (land, building and equipment) but also the operating costs and maintenance costs to be incurred during the life of a project. While the operating and maintenance costs should not normally be included in the capital plan, they should be part of the decision process in determining which design of an infrastructure project minimizes the total costs of delivering the services it would support. Thus, a first step in the evaluation should be to assess the substitutability of capital and current inputs (labour, energy, etc) in the delivery of the services needed and whether substitution of current inputs for capital would save total costs on a properly discounted basis. In some instances, it may be more cost effective to increase the hours of utilization of a facility than to expand this facility or undergo renovation rather than build a new facility. Likewise, an energy-efficient building may lower operating and maintenance costs to an extent that would more than compensate for higher capital costs. Thus, capital costs and the associated operating costs and maintenance costs should be jointly estimated with a view to choose a combination of capital, labour, and energy that minimizes total costs over the foreseeable future. To be sure, the range of technologies that can adequately meet specific service needs may be limited, but nevertheless it is important to take advantage of cost savings where possible.

In Alberta as in most provinces, individual ministries evaluate infrastructure needs and select projects deemed a priority for inclusion in the provincial capital plan. In principle, this selection should apply to projects that have been designed to support delivery of final services at the lowest costs after taking into account possible alternative combination of capital, labour and

energy in delivering the same services. It is therefore important that Alberta Infrastructure (AI), which has technical and cost expertise, provides technical advice and/or preliminary cost estimates on alternative choices before the design of a delivery system is finalized. Otherwise there is a risk that opportunities to deliver services at lower total costs to Albertans be ignored in the process.

It is also important that individual ministries consult with others and municipalities in the planning of projects. Often the most efficient and lowest overall cost projects are those designed to deliver multiple services. For example community health care, recreation, and education services can be efficiently and most effectively delivered from a multipurpose facility which efficiently utilizes other municipal infrastructure. Interagency and interdepartmental coordination is never easy but the benefits in the form of most efficient use of capital and maximum services to the public are large. In this regard, the infrastructure ministry can play a very useful role in facilitating interagency and provincial/municipal coordination.

Taking account of operating costs and maintenance costs matters not only for the optimal design of individual infrastructure projects but also for the selection of priority projects for the capital plan. It is important that the government have a clear picture of the total costs of the various infrastructure projects, including associated operating and maintenance costs, in order to make enlightened choices between the infrastructure projects themselves and between infrastructure projects and spending on non-capital programs within an overall expenditure constraint.

General principles: Financing

The total "costs" of infrastructure projects to be financed from current and future general revenues, from drawing down net financial assets (NFA) or from market borrowing at any given time should reflect:

- Expansion of infrastructure capital stock to meet currently unmet needs (lack of capacity or obsolescence of capital in view of new, different needs), upgrade technology and accommodate growth in future requirements for services. Such expenditures create net new capital assets which provide services over long periods of time.

- Future operating costs associated with making use of the infrastructure capital to provide services, mainly in the form of current spending on labour, energy, materials and on interest on debt; such spending does not increase capital assets.

- Future maintenance costs, which correspond to the costs associated with offsetting the depreciation or deterioration of capital and which involve replacement investment; spending on maintenance at best preserves capital assets but do not add to them on a net basis

Both lenders and the public can accept the rationale for governments to borrow to expand the quantity and technological quality of public infrastructure to facilitate future growth of output and revenues. Both lenders and the public can view borrowing for capital investment as "acceptable" (as long as "returns" on projects exceed the costs). Deficits incurred to finance growth-enhancing public capital are generally acceptable to financial markets and economic analysts as long as debt/GDP ratio remains reasonably low.

Because the public and market acceptability of deficits and debt depends on the perception of the purpose for which borrowing was undertaken, it is essential that government be clear and transparent that its "capital plan", which needs to be financed by borrowing, normally includes only those expenditures which are truly for capital expansion and exclude those expenditures which are for operating, repair, maintenance and normal replacement. However, past governments have provided insufficient funding to cover repair, maintenance and normal replacement. Thus, at the moment there is a very substantial volume of deferred repair, maintenance and replacement that needs to be done.[22] The government should quantify the backlog and attempt to work it down very substantially over the next three years when bid costs should be significantly lower than in the recent past. It would be appropriate to include borrowing for this accumulated deferred maintenance in the capital plan for the next three years while ensuring that newly accruing maintenance expenses for infrastructure are included in future operating budgets.

[22] In particular, transport, health, advanced education and education departments have indicated that there is substantial work to be done. I have not attempted to quantify this amount.

Because the distinction between capital and operating expenditures has not always been observed in the past in Alberta,[23] in my view the credibility of this distinction in official statements is, at the moment, probably weaker than it ought to be. Going forward, I thus recommend that Alberta rigorously adhere to the distinction in order to maintain credibility in financial markets and preserve the trust of Albertans.

Borrowing to Finance the Capital Plan

When borrowing in the market to finance the capital plan, it is appropriate for the government to issue long bonds (30 or even 50 years duration). First, this long-term financing matches the expected life of most schools, hospitals and other infrastructure facilities. Second, the term premium at the moment is very low so the current extra interest cost of extending duration is low by historic standards. And third, long duration financing greatly reduces refinancing risk, a factor which may be important if oil prices stay low for long.

In a situation of slack in the economy pending an eventual return of oil prices to levels that support solid growth in oil production and investment, as implied by the low-to-mid, mid-mid and mid-to-high oil price scenarios, it may be appropriate to rely on borrowing in the market to finance not only a strong program of new capital expenditures, but also a portion of immediate operating expenditures.[24] This would generate a "net borrowing" position larger than otherwise for the government of Alberta but this strategy would have two merits: it would help to meet the solid expansion of demand for services that has occurred and is to be expected in the future, and it would refurbish and modernize infrastructure when costs are cyclically lower and long-term borrowing costs at an all-time low. In a scenario of persistently low real oil prices over the next decade (low-low scenario), it would be appropriate to rely on bond borrowing to finance a strong program of capital expenditures, but only if the government recognizes that it would eventually have to put in place measures to reduce total net borrowing.

[23] And in other jurisdictions as well.
[24] See section on stabilization on page 6.

Schools

The procedure for selecting priority projects regarding schools rests in part on the community expertise of local school boards, but also most importantly, on rational criteria for gauging infrastructure needs, and on oversight and final selection by the Education ministry. Local school boards determine and prioritize lists of capital projects based on a set of criteria, including health and safety, building condition, utilization rate, enrolment projections, education program delivery and impact, and additional criteria. The lists are submitted to the Education ministry annually through the Capital Planning Initiative. The ministry reviews the projects to ensure that they truly meet the criteria that should be applied to schools and set priorities among them for the province as a whole. Alberta Infrastructure (AI) should provide detailed costing advice during this review process at the board and ministry levels. In the end, AI does currently provide cost estimates for these priority projects before the final set is submitted to the Treasury Board. This selection procedure, especially if AI provides advice at the earlier stage, is appropriate to ensure that the community needs are rationally assessed.

Infrastructure needs for the school sector are substantial as investments in the past have not kept pace with the growth in requirements set by the rapid expansion of population. The result has been a pent-up demand for new schools and modernization. At the same time deferred maintenance for schools has built up. It is important that the needs for both infrastructure and maintenance be evaluated on the basis of common criteria for meeting the future needs for education services, account taken of the fact that delaying maintenance increasingly raises the costs of rehabilitating facilities.

Going forward, three considerations should come into play. First, new configurations of schools are required to respond to the functional needs of education in the twenty-first century. Replacement facilities should not simply replicate the design and functionality of old schools. Second, the construction of new schools should take advantage of modularization inasmuch as standard components could be built more rapidly and at lower costs in manufacturing plants and assembled easily on site.[25] Third, multi-task facilities, grouping together school, recreational facility, healthcare clinic, etc., should be considered when land is scarce and community needs

[25] The importance of modularization/standardization to reducing cost of school buildings was made to me several times in my consultations. A.I. and the Ministry of Education are in a position to enforce standardization on local boards and should do so.

are multiple. Planning would have to be done by school boards in collaboration with municipalities and overseen by the Education ministry in collaboration with the ministry in charge of the Municipal Sustainability Initiative.

Post-Secondary Education

In the PSE sector in Alberta, infrastructure is needed to support continued enrolment growth and continued research growth requiring laboratories and equipment. Not only is capital spending required for capacity expansion and functional renewal of existing facilities, but so are expenditures for adequate infrastructure maintenance. In addition, deferred maintenance for the PSE sector is significant and needs to be addressed before the risks to the quality of teaching and research and to the health, safety and well-being of staff and students get too high. As far as I can judge, the large PSE institutions have sensible plans towards meeting infrastructure needs and addressing deferred maintenance.

Hospitals

The procedure for selecting priority projects regarding hospitals before they reach Treasury Board for submission in the provincial capital plan is fairly elaborate and well conceived. Alberta Health Services (AHS) produces an annual Multi-Year Facility Infrastructure Capital Submission to the Ministry of Health, which identifies all unfunded priority health capital needs. In making its selection of priority needs, AHS takes account of the quality of the patient/client experience to be derived from particular infrastructure (acceptable, accessible, etc.), strategic demand as it relates to the projected needs of patients/clients and care givers (population growth, changes in best practice, utilization rates, etc.), and risks to future delivery stemming from physical deficiency and functional obsolescence existing facilities. The highest priority projects are those involving both high strategic demand and high risk, then those involving high (low) strategic demand and low (high) risk. The Ministry of Health reviews the AHS submission, get cost estimates for priority projects from AI and submit a final list of priority projects to the Treasury Board for possible inclusion in the provincial capital plan. At

least on paper, the whole process for identifying and selecting health facility projects seems appropriate.

The problem in Alberta, as in other provinces, is that hospitals take on iconic stature in their local communities. From all sides there are political pressures in communities to have their own facility and that the facility be the biggest, best and most prestigious one possible. In smaller centres, acute care facilities are seen as "essential to the economic viability of the community" and resistance to closing inefficient acute care facilities is fierce. Thus, local pressure has led in the past to over-promising to build very expensive tertiary and quaternary care facilities while neglecting the provision of local clinical and chronic facilities. It has also led to the commitment to build a facility before planning has been fully completed and well before any detailed costing has been assessed. The result has been a large underestimation of costs and the eventual crowding of other valuable projects out of the capital plan.

If Albertans are to get quality health care facilities at a reasonable cost, the total process for planning and selecting health infrastructure projects must be rigorously adhered to. While some increase in capital expenditures for health care facilities is warranted in my view at the present time, much more rigorous adherence to the process of analyzing needs, planning, costing and finally committing funds to projects is even more important. While the final selection of competing projects for the provincial capital plan is of course a political prerogative, such prerogative should not be exercised until projects have been properly scoped and their capital and operating costs properly estimated.

Like schools, some hospitals have accumulated a large amount of deferred maintenance. It is important that the needs for both infrastructure and maintenance be evaluated on the basis of common criteria for meeting the future needs for services by patients/clients, account taken of the fact that delaying maintenance increasingly raises **the costs of rehabilitation.**

Water Control

Investment in infrastructure to capture the benefits of one of Alberta's most important resources – water – and to control its destructive power should be an important

element in the Government's capital plan. Some elements are relatively cheap and effective such as the building of a real-time water monitoring system or the funding of watershed protection and planning through Watershed Planning and Advisory Councils (WPAC) and the optimizing of existing reservoirs in the Bow, Oldman and other river basins. Others are more expensive such as the building of appropriate flood control facilities for Calgary and storm drainage systems for Edmonton. It is appropriate to consider the costs of establishing these systems and facilities as a capital expenditure. It is also appropriate to make these capital investments now while engineering services and construction capacity are available.

The selection of flood control projects must be based on an evaluation of their benefits in terms of the public and private costs that could be avoided by appropriate drainage or flood control relative to the costs of building, operating, maintaining and financing the required infrastructure. The benefits would be partly related to the size of the population, the value of the property and the amount of production at risk. They would also depend on the frequency and severity with which floods might occur during the life of the infrastructure, if this infrastructure was not in place. This may be very hard to predict with confidence. In any case, prioritization of projects for flood control should not be based solely on assessment of risks for specific areas, but also on some evaluation of the benefits from flood control for these areas, however imperfect such an evaluation may be.

A related issue stemming from the uncertainty regarding the severity of future floods is the degree of insurance against damages that flood control projects should provide. Presumably the higher the level of protection the higher the **actual** costs of flood control but also the higher the **potential** benefits of flood control as the time horizon lengthens. One level of protection that is currently considered a North American standard is the "100-year" level of flood protection, which could handle a flood whose severity occurs only once every one hundred years. Given recent global experience the traditional "100-year" event is now likely to be experienced more frequently and hence the premium to buy protection against such an event has markedly increased. If this is the level of protection that flood control projects aim at, then the costs of such protection for a given area over the life of the projects must be gauged against the potential benefits of flood control based on current probability distributions of flood frequency and severity (up to once-in-100-years severity) over the life of the projects.

There is now a greater awareness of the tail risks related to weather or climate, which is indeed reflected in higher property insurance costs. Reducing such risks would support growth in property values and economic prosperity more generally. Because the cost of such protection (in Calgary and Edmonton in particular) is much greater than was traditionally assumed, the Government of Alberta should consider partnering with local authorities to finance at least the engineering and cost/benefit studies as part of the current capital plan. Upgraded protection increases the attraction of Alberta as a location for business and hence contributes to future economic growth and diversification for the province as a whole.

PART IV: PUBLIC USE INFRASTRUCTURE

Unlike schools and hospitals which constitute only an indirect component of government provided services (education and health care), public use infrastructure – roads, sewers, airports, etc – is the direct service provided to the public by governments. Thus, the decision about proceeding on any given project (or on a regional transportation or water plan) can be made using conventional benefit – cost analysis. The direct "beneficiaries" of the investment in a project can generally be identified and the value of the improved road or water service from the project inputted. While the imputation of value is always subject to a fairly wide margin of error, rather good sophisticated techniques to estimate benefits have been widely used around the world. The future values of the enhanced services from the project can then be discounted at an appropriate rate to compare with today's cost of undertaking the project and a benefit-cost ratio calculated. When benefits significantly exceed the costs, there is at least a prima facie case for government to undertake the project.

The prioritization of **highway** projects currently proceeds from a ranking of their benefit/cost ratios. The benefits of a project correspond to the reductions in collision cost, travel delay and vehicle operating costs that are made possible by implementing the project whereas the costs correspond to the related construction and maintenance expenditures. This is a sensible approach although not necessarily an easy one to apply, at least in the estimation of the benefits. The Ministry of Transportation plans to make use of a spatial economic model to estimate the economic impacts of highway investments for Alberta and relevant regions over a horizon of several years, with a view to gaining assistance in priority setting, programming and delivery of highway infrastructure. This seems to be a sensible way to go forward, not least because the planning of a highway project could then take account of the feedback of the economic development resulting from the implementation of this project on the need for additional transportation infrastructure.

The benefit of a particular highway or road network project clearly accrues to individual users in terms of time and fuel cost savings to get from A to B and to commercial users in terms of savings on cost of moving goods. There are also some harder-to-estimate spillover benefits to non-users (network benefits) in terms a more vibrant economic climate, cleaner air, higher

property values, etc. While these general spillover benefits are significant and in a diffused way make an important contribution to overall economic growth in Alberta, the most visible and important benefits from an improved road transportation and public transit network accrue to the direct users. However, the costs of building and maintaining road and highway networks are not paid for by the direct users. These costs are generally paid for out of general revenues which are unrelated to the value to the users. The use of municipal roads and provincial highways is provided "free of charge" to the users while competing forms of transportation (rail, air, and in part municipal transit) must be paid for by the passengers or shippers.[26] This misalignment of taxation for and benefits from road and highway infrastructure causes two problems:

1) both the operating and capital budgets of provincial and municipal governments for roads are under pressure (and will be under even more pressure as shown in Part II) with the result that highways and municipal transit networks are insufficiently funded relative to their contribution to value to users, productivity, and

2) funding is allocated somewhat inefficiently as excess capacity is created in order to meet peak demand needs.

Appropriate direct pricing of the use of highways and roads to users to cover at least part of the operating and capital costs could mitigate both of these problems by raising additional revenue and by incenting a more rational use of roads.

Road tolls (especially if the charge was higher during rush hours) would reduce congestion costs through a financial incentive to use other modes of transport and avoid periods of high tolls. Congestion costs refer to the value of the time lost on the road (and increased direct costs) because of congested infrastructure. Each trucker or driver caught in a congested infrastructure incurs congestion costs and at the same time imposes congestion costs to other truckers/travelers by his/her very presence on the road. Road tolls would also raise the cost of driving in major cities, thus encouraging people to use public transit and making it feasible for transit authorities to charge higher fares.

[26] This is not strictly true as motive fuel taxes and license fees are borne by the users of roads and the cost of municipal transit is only partially covered by revenues from the farebox.

User fees could have two components: an "entry" component that helps cover the fixed costs of building the transportation infrastructure and a variable component that would be related to the distance traveled and the time of day in reflection of the usage and congestion costs associated with any specific trucker/traveler.[27] Electronic toll collection technology exists to program such structured fees and charge commuters/travelers accordingly with a minimum of fuss. This technology requires equipping vehicles with transponders which trigger electronic toll metering. Charges incurred are then automatically billed periodically just like charges for electricity or gas. This technology has been applied successfully elsewhere and could be applied in Alberta.

As suggested by Bazel and Mintz (2014), the adjustment costs to truckers/travelers arising from new user fees could be minimized by initially imposing user fees only with respect to new or upgraded infrastructure, while exempting older networks. Thus, the Alberta government should give serious consideration to setting user fees for the Calgary and Edmonton ring roads and the Northeast Alberta Strategic Project when they are completed. Cities could begin by imposing tolls only on major upgrades. Charging for the use of critical infrastructure would have two important advantages: it would free financial resources for investment in other socially desirable capital projects and would result in a more efficient use of infrastructure.

Other advantages of introducing an electronic toll system for new controlled access highways is that it would provide an opportunity to raise revenues to finance municipal construction of connector roads to maximize the value to users of new provincial controlled access highways and would improve the ability of governments to finance new or upgraded roads. Finally, an overriding advantage of introducing user charges for new or upgraded highways is that by forcing highway planners to make estimates of both revenue potential as well as construction costs, Cabinet can make an assessment of the strength of the economic rationale for a new project.

[27] For a useful discussion of user fees for urban infrastructure, see Bazel P. and J. Mintz, "The Free Ride is Over: Why Cities, and Citizens, Must Start Paying For Much-Needed Infrastructure", University of Calgary School of Public Policy, Vol. 7, Issue 14, May 2014. This is only one of many excellent articles and books on the usefulness of charges (including congestion charges) to pay for infrastructure.

Alternative modes of financing of public use infrastructure

In discussing the capital plan in Part II and Part III, it was implicitly assumed that the financing of public capital spending would come from government revenues, government market borrowing or drawdown of government net financial assets. There is of course a fourth mode of financing for public use infrastructure: special investment vehicles that would build and manage such infrastructure, borrow to finance it and charge user fees to generate revenues. The potential advantage for the government to farm out infrastructure building and financing to the private sector is not to shift public capital spending off budget, but rather to have infrastructure services being offered more efficiently and at lower costs to users than the government could do. Borrowing costs would be higher for the private infrastructure owners than for the government, but **if** this differential is more than compensated by lower operating costs with the private owners, then there is a case for relying on the private sector to supply public use infrastructure, at least on one condition. This condition is that risks are truly assumed by the private operators along with ownership of the infrastructure.

PART V: SUMMARY AND RECOMMENDATIONS

This paper has examined the factors which bear on the establishment of the capital plan for the Government of Alberta for the period from 2016 to 2019. The main emphasis has been placed on the factors that should determine the overall size of the plan over these four years in the context of the economic and fiscal outlook to 2024-2025 (Part II). the mix of capital investment to support delivering services to Albertans and the methods of financing the capital investment.

The basic principles that should guide the capital plan as set out in Part I of the paper relate to the overall objective of achieving growth and economic stability consistent with distributive fairness. While these principles apply to all provincial jurisdictions, Alberta is close to unique as it faces a particular challenge in stabilizing the economy because of the volatility imparted to both economic output and government revenues by the volatile North American price of oil and gas, volatility over which the Government of Alberta has absolutely no control.

This feature has implications for the application of the principles of good capital budgeting to the province of Alberta over the next two years: (1) capital plan should take into account the risk of exceptionally large volatility in the medium and long term economic outlook and hence volatility in the public infrastructure needed to facilitate future growth; (2) government spending on capital should be greatest when government resource revenues are lowest in order to take advantage of lower bids for projects and should be lowest when revenues are strong to avoid putting upward pressure on costs of private sector investment; and (3) the Government of Alberta should be drawing down net financial assets or borrowing from the market to finance capital investment when resource prices are low and when interest rates are at cyclical lows.

At the same time, as in other jurisdictions, operating expenditures should normally be financed by general tax revenues over the course of the cycle – revenues generally exceeding expenditures at the top of the cycle (surplus) and falling below operating expenditures at the bottom of the cycle (deficit).

There is no universally accepted benchmark for the appropriate level of infrastructure capital to support economic growth and the provision of public services. However, I think that a public capital to GDP ratio (in real terms) of 16% (the interprovincial average) is a reasonable benchmark to judge the adequacy of the Alberta capital plan over the period to 2019. To meet the 16 percent benchmark by 2019-2020, the Alberta government would need to add an average of $1.6 billion per year from 2016 to 2019 to the March 2015 capital plan proposed by the previous government. But in drawing up the capital plan to achieve this 16 percent target, the government must take into account the uncertainty about the outlook for economic and population growth over the decade to 2025 and consequently the revenue outlook in view of hard-to-predict movements in the price of oil.

To deal with this uncertainty, in Part II four scenarios for the evolution of oil prices were developed (Table 2.1) which bracket the reasonable range of possible outcomes. On the basis of these four scenarios, working assumptions about real GDP and population growth (Annex table 2.6) were developed based on the Government of Alberta's simulations and parameters imbedded in current economic models of the Alberta economy. Using Alberta Treasury Board and Finance revenue simulations based on these assumptions, assumed rates of growth of operating expenditures to 2024-2025 (Table 2.2) and the March 2015 capital plan put forward by the previous government (extended to 2024 at the growth of population and CPI), fiscal balances to 2024-2025 were simulated (Table 2.3). On the basis of the economic and financial simulations for the four oil price scenarios, I developed a judgement concerning the advisability of proceeding with the previously planned capital spending and/or upgrading the plan to meet the 16 percent capital/GDP benchmark by 2019-2020 (Table 2.4).

Under the low-low oil price scenario, the March 2015 plan would (as in all scenarios) allow a catch up to past needs and probably accommodate projected future growth. It would put no pressure on costs to 2019, BUT presents financial risks in the future. The March 2015 plan is probably "affordable", but quite risky as net debt would reach 26% of GDP by 2025 and would not stabilize (Table 2.3). Under this scenario fully upgraded capital plan would probably not be absolutely necessary to meet future requirements and would increase future financial risks.

Under the benchmark low-mid oil price scenario, the March 2015 plan would probably barely accommodate future growth. It would put no pressure on costs to 2019. While it presents some future financial risks, it is "affordable" as net debt would only reach 20.5% of GDP in 2023-2024 and be stable thereafter. Under this scenario, an upgraded capital plan (or something close to it) is recommended, as long as the government makes clear that future fiscal adjustments might be needed to mitigate financial risks as net debt would rise to about 25% of GDP (but stabilize there) (Chart 11).

Under the benchmark mid-mid oil price scenario, the March 2015 plan would not be fully adequate to accommodate future growth and an upgraded plan is clearly warranted. The upgraded plan would put some pressures on costs by the end of the period, but these are likely to be fairly moderate. The March 2015 plan is clearly "affordable" as net debt/GDP would only rise to about 12% by 2025 and would have stabilized. The upgraded plan under this scenario is also "affordable" although the government would be wise to signal that some fiscal adjustments might be required in the future to mitigate financial risks.

Under the mid-high oil price scenario, the March 2015 plan is very unlikely to be adequate to accommodate future growth and, at a minimum, the upgraded plan is definitely required. This upgraded plan is clearly "affordable" as the debt GDP ratio peaks at 10.5% in 2022-2023 and falls thereafter.

In light of this overall assessment, it is recommended that the government upgrade the Capital Plan by an amount sufficient to bring the ratio of real net public capital stock to real GDP closer to the 16 percent provincial benchmark ratio by 2019-20 as set out under the low oil price scenarios in Table 2.5. This upgraded plan clearly entails some financial risks, especially if the low oil price scenarios materialize. For this reason, it is also recommended that the government only commit to the upgraded capital expenditure plan of about $6.8 billion in 2016-17 and $7.4 billion in 2017-18. It should make any further increases contingent on the future evolution of economic growth.

Borrowing will be required to support the existing or upgraded capital plan. This is entirely appropriate. It is recommended that such borrowing be in the form of long term debt (30

year or even longer) to take advantage of historically low long term interest rates and match closely the useful life of public capital.

Finally, I would note that the assumed increases in operating expenditures assumed in this assessment (population growth and CPI and 1%) are at the low end of what the government can reasonably expect to achieve especially if growth is as weak as implied by the low oil price scenario. If this constrained operating expenditure growth is not achieved, some further increase in general taxation may be required or net debt may set on an unsustainable path.

In this report, I have concentrated on assessing the overall adequacy of the capital plan, the overall financing requirements for the plan, and the financial risks these requirements imply. I have put less emphasis on a detailed assessment of individual components of the plan in Parts III and IV, in part because in almost all areas there appears to be a significant backlog of unmet capital requirements. What I have tried to do in Part III is to set out some principles and procedures for prioritizing projects in the capital budgets for infrastructure which supports the delivery of education and health and flood protection services – all services which are financed out of general taxation revenues. In Part IV, I have put most emphasis on the potential for the use of user charges to finance and promote the optimal allocation of capital expenditures on transportation infrastructure.

What is clearly evident is that the Government of Alberta has had a strong bias to under-provide for maintenance, refurbishment and normal replacement of capital. This has led to a backlog of deferred needs and a continued call on the capital budget to meet what are really operating expenditures which should be included in operating budgets and financed by general tax revenues or user charges. This biased procedure leads to an inefficient allocation of resources and, over time, higher costs to the taxpayer. In my view, it also seriously undermines the credibility of the "capital plan" and thus the credibility to lenders of the government as a prudent fiscal manager. Thus, my recommendation is that procedures be put in place over the next few years to ensure that in the future departments and agencies include these expenditures in their annual operating budget submissions. However, on a "one-time" basis, the government should include funds to clear at least part of the backlog in its new four-year capital plan.

It is also evident that some decisions to proceed with capital projects have not always taken into account the ongoing requirements to support and maintain capital. Therefore, there has been a bias (perhaps most evidentially in the hospital sector) to build "iconic projects" which do not necessarily meet the overall service requirements. In section III, I have made very modest suggestions in this regard about how procedures might be improved to achieve greater allocative efficiency and effectiveness of capital investment.

In Part IV, I briefly examined the case for increased user charges for the use of roads and highways to improve allocative efficiency. There is a strong case for the use of electronic tolling mechanisms for roads and highways not only to improve allocative efficiency but also to generate revenues to support the expansion and improvement of the highway (and transit) system to facilitate future growth.

ANNEX: LIST OF CALLS, MEETINGS AND MATERIALS CONSULTED IN PREPARATION OF THIS REPORT

Meetings and calls

June 2015

- Meeting with the Premier and Minister Mason
- Meetings with Richard Dicerni, Brian Topp, and officials at Infrastructure and Treasury Board
- Calls to John Simpson (Cana), David Livingston (Ontario)

July 2015

- Meetings with Minister Mason and Minister Ceci
- Meetings with Glen Hodgson (Conference Board), Ken Uebelein (AIMCo), Paul Verhesen (Clark Builders), Mayor Nenshi and staff (City of Calgary), Jeff Lehrman (Chevron), John Simpson (Cana), Nancy Southern (ATCO)
- Meetings with officials of various departments: Transport, Treasury Board, Infrastructure, Education, Municipal Grants, Advanced Education, Executive Council, AHS
- Calls to Greg Stringham (CAPP), Chris Ragan (Ecofiscal Commission), Mayor Iveson (City of Edmonton), Kim Sturgess (Water smart), Jim Dinning (CWB) and Minister Phillips (Environment)

August 2015

- Meetings with Ministers Ceci, Mason and the Premier
- Meetings with officials from Treasury Board, Finance, Infrastructure, Health, and Executive Council

- Meetings with: Mayor Iveson and staff (City of Edmonton), Don Mazankowski, David Turpin (University of Alberta)

September / October 2015

- Further calls with officials at Infrastructure, Treasury Board and Executive Council

Papers/Submissions Received

Ecofiscal Commission: The Case for Congestion Pricing

CAPP: Crude Oil Forecast, Markets and Transportation

Alberta Construction Association: Infrastructure Investment

ARHCA: White Paper on Transportation: Infrastructure Debt in Alberta

Energy Services Association of Canada: Submission

Watersmart: Discussion Brief on Critical Water Infrastructure for Alberta

Other Recent Papers Consulted

IOSCO: Market Based Long Term Financing Solutions for SMEs and Infrastructure (September 2014)

B. Dahlby and M. Smart: The Structure and Presentation of Provincial Budgets

McKinsey and Company Infrastructure Index (June 2015)

CSLS: Generating Inclusive and Sustainable Economic Growth, Chapter 2 (September 2015)

Transport, Infrastructure and Communities
Transports, Infrastructure et Collectivités

CIMS #: 40548

SECURITY DESIGNATION/
DÉSIGNATION DE SÉCURITÉ

SCENARIO NOTE/NOTE DE SCÉNARIO
(ASSOCIATE DEPUTY MINISTER/SOUS-MINISTRE DÉLÉGUÉE)

ROUTE SLIP/BORDEREAU D'ACHEMINEMENT

TO/À (TITLE/TITRE)	ACTION	INITIALS/ INITIALES	DATE
Director/ Directeur ou Directrice	For approval		
Director General/ Directeur général ou Directrice générale	For approval		
Assistant Deputy Minister/ Sous-ministre adjoint	For approval		
Executive Correspondance Unit/ Unité de la correspondance exécutive	For review		
Associate Deputy Minister/ Sous-ministre déléguée	For information		

REMARKS/ REMARQUES

➢ Consultation ☐ Yes/Oui (Please specify/Veuillez préciser)_____
√ No/Non

➢ Translation/Traduction ☐ Yes/Oui
√ No/Non (Rationale/Justification)

Meeting between Associate Deputy Minister of Transport, Infrastructure and Communities and the Canadian Life and Health Insurance Association

CONTEXT FOR THE DOCUMENT/CONTEXTE DU DOCUMENT :

•The meeting has been requested by Frank Swedlove, President and CEO of the Canadian Life and Health Insurance Association (CLHIA). The objective of this meeting will be to gain a better understanding of the CLHIA's views on the government's infrastructure agenda. It will also be an opportunity to address any concerns the CLHIA may have regarding the Government's commitment to remove the P3 screen from the New Building Canada Fund (NBCF).

•Of note, the CLHIA is also trying to secure a meeting with Minister Sohi in the coming weeks.

FROM/DE Mélanie Rivest Author/Auteur	DATE February 10, 2016	TELEPHONE/TÉLÉPHONE 613-960-6391

Canada

SCENARIO NOTE

Meeting between the Associate Deputy Minister of Transport, Infrastructure and Communities and the Canadian Life and Health Insurance Association

Date/Time:	February 12, 2016, 11 a.m.-11:30 a.m.
Location:	180 Kent Street, 11th floor, Room 11-111
Subject:	Meeting with the Canadian Life and Health Insurance Association
Participants:	• Yazmine Laroche, Associate Deputy Minister, Transport, Infrastructure and Communities • Marc Fortin, Assistant Deputy Minister, Programs and Operations Branch • Alain Desruisseaux, Director General, Strategic Policy and Priority Initiatives • Frank Swedlove, President and CEO of the Canadian Life and Health Insurance Association (Biography is attached in **Annex A**) • Stephen Frank, Vice-President of Policy • Susan Murray, Vice-President of Government and International Relations

Departmental Objectives

- The meeting has been requested by Frank Swedlove, President and CEO of the Canadian Life and Health Insurance Association (CLHIA). The objective of this meeting will be to gain a better understanding of the CLHIA's views on the government's infrastructure agenda. It will also be an opportunity to address any concerns the CLHIA may have regarding the Government's commitment to remove the P3 screen from the New Building Canada Fund (NBCF).

- Of note, the CLHIA is also trying to secure a meeting with Minister Sohi in the coming weeks.

Stakeholder Objectives

- Since the life insurance industry is a significant long-term investor in infrastructure projects across Canada, the CLHIA is interested in meeting Infrastructure Canada (INFC) to discuss its role in infrastructure funding as the Government begins to implement its new infrastructure agenda.

Infrastructure Canada Connections/Partnerships

- You last met with Frank Swedlove in September of 2014 to discuss the CLHIA paper called: *Get it Built – Fostering Economic Growth and Prosperity through Enhancements to Canada's Long-Term Investment Market* (Get it Built). Prior to that meeting, INFC's dealings with the CLHIA had been minimal.

Context/Overview

- Established in 1894, CLHIA is a voluntary non-profit association with member companies, such as Sunlife Assurance Company of Canada and the Regroupement des assureurs de personnes à charte du Québec, accounting for 99 percent of Canada's life and health insurance business.

- The Canadian life and health insurance industry plays a key role in Canada's economy. It protects over 75 percent of Canadians through a wide variety of life and health insurance and annuity products. The industry is a major investor in Canada with more than $721 billion in assets, nearly 90 percent of which comprise long-term investments, an important source of long-term capital for the federal and provincial governments and businesses.

- Typically, insurance premiums are collected over long periods of time before related claims are paid. As such, the insurance sector favours investments that are of long duration (i.e., beyond 30 year durations).

- Consequently, P3 infrastructure investments are particularly attractive for insurers given the long-term nature and the predictable long-term cash flows provided by infrastructure assets. Additionally, life and health insurers prefer the diversification of the portfolio that P3 infrastructure projects provide and are interested in continuing to invest in these types of projects.

Issues

- In the past few years, the CLHIA has advocated an increase in the supply of viable P3 projects in the Canadian market. Of particular interest to INFC, the CLHIA recommends that, in order to increase the supply of projects in the P3 market, PPP Canada should facilitate the standardization of documents and process (i.e., aligning contract terms with clear rules of amendments, consents and waivers, etc.) across Canada. In turn, this would create an environment that would allow for disparate and heterogeneous projects to be considered for bundling, making smaller projects potentially P3 viable and therefore more attractive for private investment. CLHIA is particularly interested in the standardization of documentation for P3s under $50 million.

- In addition, while the CLHIA supports the P3 screen for projects with total eligible costs over $100 million under the NBCF, their members would, however, like to see all provinces introduce a P3 screen requirement for projects of sizes as low as $20 million as well as for the remaining provinces and territories to create dedicated investment agencies to promote P3 investments.

- With respect to enhancing the infrastructure P3 market in Canada, the CLHIA recommends that to meet the health and life insurer's industry demands for long-term investment that the length of the term of a P3 contract should be extended to more closely match the life cycle of select infrastructure assets such as hydroelectric projects, roads and hospitals.

- Finally, the CLHIA advocates for the need to increase the supply of the "ultra-long" government bonds to investors.

Considerations

- CLHIA has submitted a proposal to the House of Commons Standing Committee on Finance for the 2016 Budget which includes similar infrastructure recommendations outlined above. However, the proposal does not make any reference to the Government's new commitments. The submission is attached in **Annex B.**

[redacted]

Officials from Finance Canada and INFC have begun early collaboration and analysis on the commitment to establish a bank to provide loan cost financing to municipalities. Given the number of actors in this policy area, broad consultation with provinces, municipalities and the financial services sector would help to determine how to appropriately structure a new bank, identify the scope of potential borrowing, and the required level of funding for its establishment. Additionally, any proposals related to the CIB will fully examine the risk of potentially displacing private sector investment, and effects on the P3 market.

Points to Register

- I appreciate the opportunity to meet with you and to get a better sense of your views on public infrastructure financing and public-private partnerships.
- The Government's plan is to double current investments over the next 10 years – providing $60 billion in new funding for social, green, and public transit infrastructure. These investments will act as an enabler to build greener, stronger and more resilient communities across the country.
- As the Government moves quickly to develop its new 10-year infrastructure plan, we intend to work collaboratively and constructively with partners to deliver on the infrastructure commitments and to ensure the new plan addresses a range of infrastructure needs.
- I recognize that P3s can often be a valuable tool to achieve efficiencies and manage project risks and that Canada has a strong track record of delivering on P3 projects.
- To this end, I look forward to hearing your ideas on how we can build more effective partnerships to improve or enhance all forms of infrastructure.

Responsive:

P3 Screen under the New Building Canada Fund

- As you know, the Prime Minister has laid out a number of priorities related to the development of a 10-year plan to deliver significant new funding to provinces, territories and municipalities.
- As part of this plan, the Government has indicated that it will also make changes to the NBCF to speed up project approvals and increase transparency. This includes removing the mandatory P3 screen for projects.
- The Government of Canada recognizes the benefits of considering various procurement and financing models, including P3s, which can offer good value for money for public infrastructure projects. However, our government believes that individual project proponents are best positioned to determine what model works for them.

Canada Infrastructure Bank

- The Government is currently exploring options to deliver on the commitment to ensure that municipalities have access to financing to support their infrastructure investment priorities. I would be interested to hear your view on whether there is a financing gap that may be restricting municipal participation in P3 projects.

Public Transit Fund

- The Government has committed to increase investments in public transit by $6 billion over the next four years and by $20 billion over 10 years. We are working closely with partners to deliver on this commitment. I look forward to being able to provide more detail when the government delivers its budget next year.

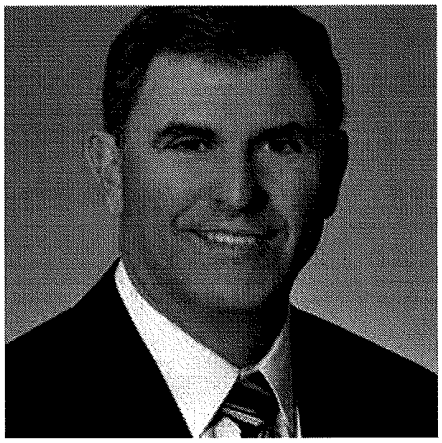
Possible questions to pose:

- Are there any systemic barriers to promoting more P3 projects in Canada?
- How can we more effectively encourage private sector funding in infrastructure projects in Canada?

Annexes
Annex A – Biographies
Annex B – CLHIA's 2106 Federal Budget Submission

Biography of Frank Swedlove President,

Canadian Life & Health Insurance Association, Inc.,



Frank Swedlove is President of the Canadian Life and Health Insurance Association. Established in 1894, CLHIA has 65 members accounting for 99 per cent of the life and health insurance in force in Canada.

Mr. Swedlove joined CLHIA in July 2007 after spending the previous year as President of the Financial Action Task Force, the international body headquartered in Paris responsible for the fight against global money laundering and terrorist financing.

Prior to that appointment, Mr. Swedlove served as a senior federal official. In his last position as Assistant Deputy Minister of the Financial Sector Policy Branch of the Department of Finance, Mr. Swedlove was the principal advisor to several Ministers of Finance regarding policy development on financial institutions and Canadian financial markets, playing a key role in issues throughout the sector and in international trade in financial services.

In previous positions at Finance, Mr. Swedlove was responsible for the 2001 financial sector review exercise, culminating in the total revamping of financial sector legislation. He was also the first Chair of the Committee on Trade in Financial Services of the World Trade Organization in Geneva, the Chair of the Negotiating Group on Financial Services in the Uruguay Round of the WTO, and lead negotiator for Canada in financial services at the NAFTA negotiations. Prior to joining Finance, Mr. Swedlove worked in the Industry and Energy departments of the federal government.

Submission

2016 Federal Budget

to the

House of Commons Standing Committee on Finance

by the

Canadian Life and Health Insurance Association

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EXECUTIVE SUMMARY

The Canadian Life and Health Insurance Association (the "CLHIA") commends the Government for delivering a balanced budget for the current fiscal year and its on-going commitment to fiscal discipline. We support the Government's key themes for the upcoming 2016 budget of ***Productivity, Infrastructure and Communities, Jobs*** and ***Personal and Business Tax Policy Initiatives.***

The Canadian life and health insurance industry plays a key role in Canada's economy. It protects over 75% of Canadians through a wide variety of life and health insurance and annuity products. The industry paid over $83 billion in benefits in 2014 or more than $1.6 billion a week, with over 90% paid to living policyholders. Almost 155,000 Canadians earn some or all of their income directly from the industry (as employees or independent agents). The industry is a major investor in Canada with more than $721 billion in assets, nearly 90% of which comprise long-term investments, an important source of long-term capital for the federal and provincial governments and businesses. Canadian life insurers contributed over $1 billion in corporate, capital, sales and other taxes to the federal government for the 2014 calendar year. Canada's life insurers have a longstanding record of operating in international markets, with almost $62 billion (or 41%) of their worldwide premiums, coming from outside Canada.

In this submission, we recommend the following five initiatives that align with the Government's key themes for the 2016 budget:

- *Support health, education, tools, and technology to improve Canada's productivity*

    1. ***Ensure access to affordable prescription drugs in Canada***

- *Ensure communities have the necessary infrastructure to support people and businesses*

    2. ***Increase use of public-private partnerships***

- *Personal and business taxation incentives for work, saving, spending, investment and job creation*

    3. ***Encourage Canadians to take responsibility for their long-term care needs***
    4. ***Enhance retirement income***
    5. ***Reduce or eliminate capital tax on financial institutions***

Our recommendations will help provide a wide range of cost effective risk management and protection options to Canadian consumers.

Support health, education, tools, and technology that would improve Canada's rate of productivity

1. Ensure Access to Affordable Prescription Drugs in Canada

Prescription drug coverage in Canada is a mixed public and private responsibility and generally works well. However, the continued rise in prescription drug costs is threatening the sustainability of existing drug coverage. Of particular concern is the increasing incidence of very high drug costs for relatively rare conditions.

Canadians pay some of the highest prices in the world for prescription drugs. High drug costs mean a significant number of consumers do not fill prescriptions, leading to absenteeism, lost productivity and protracted hospital costs. This places an undue financial burden on both employers and governments and undermines the ongoing financial sustainability of drug coverage in Canada. Canada is also the second highest per capita payer of drugs among 25 OECD countries. While we appreciate that a fair price should be paid for drugs to encourage research and development of new drugs, a more reasonable price mechanism would be of significant benefit for all Canadians. If Canada were at just the median level of these countries, Canadian governments, employers as plan sponsors and individuals would save almost $10 billion each year.

As a priority, ***we recommend that the federal agency that regulates prices for new drugs (the Patented Medicine Prices Review Board (PMPRB)) be mandated to negotiate the single lowest possible price for all Canadians,*** leveraging a market driven process with international price referencing being only one of many inputs to this process. While more fundamental reform is being implemented, we recommend that the list of international comparator countries be expanded in the near-term to make it more representative of the OECD. ***We also recommend that the PMPRB:***

- ***examine ways to access highly competitive prices using value-based pricing approaches;***
- ***be required to include private insurer representation to ensure that their perspectives are considered in the overall operations of the PMPRB going forward; and***
- ***review and regulate the maximum allowable prices for Subsequent Entry Biologics or SEBs going forward.***[1]

Ensure communities have the infrastructure to support people and businesses

2. Increase use of public-private partnerships

The CLHIA acknowledges and congratulates the Government for its efforts to provide long-term support for public infrastructure, including the measures in the 2015 Economic Action Plan to allocate additional funds for essential investments.

Public-private partnerships (P3s) are an attractive funding mechanism for long-term infrastructure projects such as hospitals, airports, roads, water supply and waste water treatment. The life insurance industry is ideally positioned to invest in such long-term projects to support their long-term liabilities and to bring their expertise on governance and execution, to deliver projects on time and within budget.

Given the bulk of Canada's $400 billion infrastructure deficit is at the smaller municipal government level, a more nuanced approach is needed to address this specific segment of the country's infrastructure deficit. The 2015 Economic Action Plan acknowledges the challenges that exist with smaller, less experienced jurisdictions in bringing projects to market. Active collaboration between all levels of government and the private sector

[1] Further details on CLHIA's recommendations can be found in its policy paper - http://clhia.uberflip.com/i/354914-clhia-report-on-long-term-care-policy.

to develop a comprehensive long-term plan to fund and facilitate identified needs at the local level will help speed projects to market and reduce the infrastructure deficit.

The Government can do more to encourage P3 investments in Canada – particularly for smaller infrastructure projects. ***In particular, we recommend that the Government lower the Building Canada Fund P3 screening threshold to $20 million. We also recommend that the Government instruct PPP Canada to take a leadership role in developing standardized P3 documentation for projects under $50 million, in close collaboration with key stakeholders, including provincial governments, life and health insurers and other institutional private investors.*** A targeted action plan will help reduce the infrastructure deficit at the municipal level and contribute to more prosperous and secure communities across Canada.

Personal and business taxation incentives for work, saving, investment and job creation

3. Encourage Canadians to take responsibility for their long-term care needs

The demand for long-term care (LTC) in Canada is growing dramatically as the baby boomers age. Statistics Canada projects that by 2030 24% of Canada's population will be over 65 years of age (compared to 15% in 2013), further seniors aged 80 and over will balloon from around 4% in 2013 to 10 % by 2045. Government programs aimed at assisting Canadians with LTC expenses are not adequate to cover the full costs of providing such care. Three quarters of Canadians admit they have no financial plan to pay for LTC if they need it and two-thirds of them believe government will cover half or more of the cost of their LTC needs. The CLHIA conservatively estimates that the unfunded LTC liability of Canadian baby boomers is over $600 billion.

It is important that the 2016 budget take steps to inform Canadians about their personal/family responsibility for their LTC needs and incent them to take prompt action to prepare for those potential costs. The longer all Canadians and governments wait to take action, the more difficult it will be to close this gap.

Pooling of risks through LTC insurance is a cost-effective way to protect against potentially debilitating LTC expenses, shifting the risk away from governments and families. But at the end of 2014, only about 350,000 Canadians were covered under LTC insurance plans and more than two-thirds of them were through group employer plans where coverage ends after retirement. By comparison, over 7.5 million Americans had private LTC insurance coverage in 2012, encouraged by the tax deduction for the purchase of private LTC insurance in the United States.

In order to incent Canadians to prepare financially for their potential LTC expenses, ***the CLHIA recommends that the Government introduce a non-refundable 15% tax credit on premiums paid for Qualifying LTC insurance[2]. Such targeted support for LTC will encourage Canadians to take personal responsibility in providing for their LTC needs and will help ensure subsequent generations are not burdened with more than their fair share of LTC costs.***

4. Enhance retirement income

Tax Free Savings Accounts (TFSAs) provide important opportunities for Canadians to save. They are currently short- to medium-term savings vehicles and are required to be portable and liquid, to give Canadians flexibility

[2] A ***Qualifying LTC policy*** would be a pure insurance product with no cash surrender value. Benefits would be limited to those expenses that would otherwise have been eligible for the medical expense tax credit (METC), such as nursing-home care, home-health care, personal or adult day care, etc., for individuals with long-term disabilities. In this respect, a ***Qualifying LTC policy*** would operate in a similar manner to the Private Health Service Plan, where the reimbursed costs are not eligible for METC, but would instead be specifically targeted to cover LTC expenses.

and access to their accumulated savings. However, increasingly, Canadians intend to use TFSAs for long-term savings to supplement their retirement income.

Permitting consumers to waive liquidity rights under TFSAs would allow them to hold life annuities as (or in) TFSAs, providing guaranteed lifetime incomes. By pooling longevity risk, life annuities can increase retirement income by about 50% compared to simply holding other investments in a TFSA and withdrawing the accumulated value during retirement.

Not all consumers may want to exchange liquidity and the possibility of a residual estate value on death for higher guaranteed incomes, payable for life. However, providing the choice to waive liquidity rights (say after age 55) in favour of guaranteed lifetime income serves a real public policy need to enhance retirement income security. The waiver of liquidity rights would not be necessary until a holder elects a guaranteed income, which would preserve liquidity and portability until that time.

To the extent that life annuities within TFSAs replace other investment instruments, there is no fiscal cost to annuitization. Permitting life annuities (in addition to term certain annuities currently contemplated by the TFSA rules) would eliminate an inequity in the TFSA marketplace and better serve retirement income needs of many Canadians.

CLHIA recommends that the TFSA rules permit holders to waive their liquidity rights in favour of obtaining a guaranteed income, payable for life, within a TFSA.

5. Reduce or eliminate capital tax on financial institutions

Around the globe, governments have continued to strengthen the quantity and quality of regulatory capital of financial institutions (FIs) to protect consumers and prevent the need for costly taxpayer bail-outs, and Canada is no exception. However, Canada is the only major country in the world that levies a tax on the very same regulatory capital held to protect consumers (at the rate of 1.25% on banks and life companies, since 1990).

While this capital tax is only payable to the extent it exceeds corporate income tax, the perverse nature of this tax is such that the level or amount of capital tax (which is not dependent on profitability) has often exceeded life insurers corporate income tax (which is based on profitability). As such, capital tax increases the hurdle rate of Canadian life insurers wanting to strengthen their capital level to underwrite additional risks to provide greater protection for consumers. This contrasts with the Government's general policy to reduce the hurdle rate for new investments for manufacturers and other businesses by providing tax incentives such as accelerated capital cost allowance and other tax credits.

This counterproductive tax penalizes financial institutions for strengthening their capital. As the only nation in the G20 to impose such a tax, it is time for the Government of Canada to eliminate capital tax on FIs. If elimination is not possible in the short term, ***the CLHIA recommends that the capital tax rate be reduced immediately from 1.25% to .67% (commensurate with recent corporate tax rate reductions and also align recoverability of capital tax with profitability levels).*** Elimination of the capital tax on FIs would not only contribute to the strength of the industry, but also bring Canada in line with other jurisdictions and our major trading partners. Such a clear action by the Government would send an unequivocal message that capital accumulation by FIs is encouraged and supported.

Infrastructure Canada

CIMS #: 41291

SECURITY DESIGNATION/
DÉSIGNATION DE SÉCURITÉ

SCENARIO NOTE/NOTE DE SCÉNARIO

(DEPUTY MINISTER/SOUS-MINISTRE)

ROUTE SLIP/BORDEREAU D'ACHEMINEMENT

TO/À (TITLE/TITRE)	ACTION	INITIALS/ INITIALES	DATE
Director, Strategic Policy Directeur ou Directrice	For approval Pour approbation		
Director General, Strategic Policy and Priority Initiatives Directeur général ou Directrice générale	For approval Pour approbaton		
Assistant Deputy Minister/ Sous-ministre adjoint	For approval Pour approbation		
Executive Correspondence Unit/ Unité de la correspondance exécutive	For review Pour révision		
Associate Deputy Minister/ Sous-ministre déléguée	For approval Pour approbation		
Deputy Minister/ Sous-ministre	For information Pour information		

REMARKS/ REMARQUES

- Consultation — □ Yes/Oui (Please specify/Veuillez préciser) □ No/Non
- Translation/Traduction — □ Yes/Oui □ No/Non (Rationale/Justification)

Roundtable discussion on the applicability of a Canada Infrastructure Bank

CONTEXT FOR THE DOCUMENT/CONTEXTE DU DOCUMENT :

- Dr. Siemiatycki's report examines whether a CIB is a viable option to finance, evaluate, and deliver infrastructure investments; ultimately, it concludes that while a CIB could provide some benefit to larger scale projects, there are important caveats to its establishment and it should instead also focus on providing advice to project proponents such as procurement best practices and project selection tools.

FROM/DE	DATE	TELEPHONE/TÉLÉPHONE
Mark Bowlby	April 20, 2016	613-960-5657

Canada

SCENARIO NOTE

Roundtable Sessions on a Canada Infrastructure Bank

Date/Time:	April 26, 2016 – 2:00 p.m. – 5:00 p.m.
Location:	Munk School of Global Affairs, 1 Devonshire Place (at Hoskins Ave.), Room 108N North House
Subject:	Discussion on the applicability of a Canadian Infrastructure Bank
Participants:	• Jeff Moore, Assistant Deputy Minister, Policy and Communications, Infrastructure Canada • [redacted] to the Minister of Infrastructure and Communities • Professor Matti Siemiatycki, University of Toronto • Andy Manahan, Executive Director, Residential Civil Construction Alliance of Ontario • Tim Duncanson, Special Advisor to the Deputy Minister of Finance • Hersi Hajuleh, Policy Advisor to the Minister of Finance • Approximately 30 other attendees have confirmed including from the C.D. Howe Institute, the Federation of Canadian Municipalities, Infrastructure Ontario, the Canadian Council for Public-Private Partnerships and the Ontario provincial government

Departmental Objectives

- The Residential and Civil Construction Alliance of Ontario (RCCAO) and the Institute on Municipal Finance, University of Toronto, are jointly sponsoring roundtable sessions on the applicability of a Canada Infrastructure Bank (CIB). An agenda is attached as **Annex A.** To open the session, Dr. Matti Siemiatycki, Associate Professor, Geography and Planning, University of Toronto will present the findings of his report on the potential for a CIB entitled "Creating an Effective Canadian Infrastructure Bank". The Report was commissioned by the RCCAO as part of their role in engaging industry and the public sector. Biographies for Dr. Siemiatycki and Mr. Andy Manahan, Executive Director of the RCCAO are attached as **Annex B**. A copy of the Report is attached as **Annex C**.

- Following the presentation by Dr. Siemiatycki two roundtable sessions will discuss: 1) the objectives of an infrastructure bank, and 2) intergovernmental considerations. Points to register during each of the roundtables are below. The roundtable sessions offer an opportunity to broaden your understanding of infrastructure bank models and the financial products a CIB could offer. It will also provide an opportunity to discuss the key policy challenges associated with the implementation of such a bank. A list of confirmed attendees is attached as **Annex D.**

Stakeholder Objectives

- Participants at this meeting will share the same objectives as you. The roundtable sessions will provide an open forum to improve understanding of infrastructure banks and the Canadian municipal borrowing context.

Context

- Dr. Siemiatycki's report examines whether a CIB is a viable option to finance, evaluate, and deliver infrastructure investments; ultimately, it concludes that while a CIB could provide some benefit to larger scale projects, there are important caveats to its establishment and it should instead focus on providing advice to project proponents such as procurement best practices and project selection tools. Specifically, the Report recommends:

    - A CIB should be capitalized with new funds, not from existing announced program funding as Provinces, Territories and Municipalities (PTMs) prefer grant funding over loans. Such an approach would be viewed by PTMs as reducing their available level of funding.
    - Only projects over $10M should be eligible for CIB financing, as at this level, cost savings from reduced borrowing costs become substantive.
    - Selection of CIB-supported projects should be based on credible, independent analysis.
    - Lending should target areas where existing private sector financing is unavailable due to high risk (e.g., green technologies) or with low revenue offerings (e.g., affordable housing).
    - The mandate of a CIB should be expanded to include a centre of expertise on procurement.

Analysis

[redacted]

[redacted]

Next Steps

- INFC and Finance Canada continue to examine options for the establishment of a CIB. As part of the Phase 2 engagement process, we are preparing options for a possible Round Table on Financing, which could include discussion on infrastructure bank options.

General Points to register

- I would like to thank you and the Residential Civil Construction Association of Ontario for preparing a comprehensive report on creating an effective CIB.
- I appreciate the opportunity to meet with you and to discuss in more depth your report.
- As you know, the Government has committed to establishing a CIB and this issue is part of our engagement for the development of the 10-year infrastructure plan.
- In the past six months, Infrastructure Canada and Finance Canada officials have formed a working group to look at this issue and therefore, your views are very timely and of interest to us.
- To this end, I look forward to hearing your ideas and would like to ask you a few questions.

Questions to Raise Roundtable Session 1 – "Objectives and role of a Canadian Infrastructure Bank"

- Given most provinces have their own infrastructure bank model already in place i.e., municipal borrowing authorities, do you see this as a barrier for uptake in a CIB?

- Can you discuss what the potential uptake of loans would be and whether this would represent new incremental borrowing by municipalities, or if it would simply displace existing borrowing?

- As announced in Budget 2016, PPP Canada will now be under the responsibility of the Minister of Infrastructure and Communities. The model you are proposing – integrating a variety of lending, project selection, and procurement advisory services into one organization – suggests that the current federal institutional model is not effective. What issues have you identified that an integrated model could address?

Questions to Raise Roundtable Session 2 – "Intergovernmental considerations"

- Provinces are likely to be supportive of models that provide municipalities with low cost financing, and transfer the fiscal implications of lending from their balance sheet to the federal government.

- As you note, the potential role for the federal government for lending may in fact be small, and many jurisdictions already are considered to have significant capacity in the areas of procurement best practices. Further, project selection is a provincial and municipal responsibility.

- How can the federal government incent provinces and municipalities to access the other potential services a CIB could provide?

Attachments

Annex A - Agenda for Roundtables Session
Annex B - Biographies for Dr. Siemiatycki and Mr. Monahan
Annex C - Residential Civil Construction Alliance of Ontario Report on the Applicability of a Canada Infrastructure Bank
Annex D - Attendees List
Annex E - [redacted]

AGENDA

Roundtable on a Canadian Infrastructure Bank

April 26, 2016

Room 108N
Munk School of Global Affairs
1 Devonshire Place, Toronto

2:00-2:15pm Light refreshments and networking

2:15-2:25pm Welcome, introductions, overview of the context and objectives

2:25-2:45pm Matti Siemiatycki: Creating an Effective Canadian Infrastructure Bank

2:45-2:55pm Q&A

2:55-3:45pm Discussion 1: The objectives and role of a Canadian Infrastructure Bank

- What are the objectives of a Canadian Infrastructure Bank?
- Should this body act as a centre for excellence that brings infrastructure selection, finance and procurement into a single agency?

3:45-3:55pm Break

3:55-4:45pm Discussion 2: Intergovernmental considerations

- What will be the relationship between the Canadian Infrastructure Bank and provincial agencies, municipalities, etc.?

4:45-4:55pm Summary of key themes

4:55-5:00pm Closing Remarks

IMFG Institute on Municipal Finance & Governance

MUNK SCHOOL OF GLOBAL AFFAIRS

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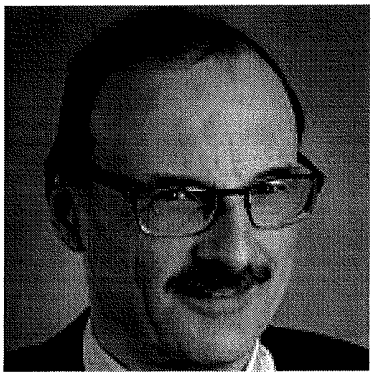
RESIDENTIAL AND CIVIL CONSTRUCTION ALLIANCE OF ONTARIO
RCCAO Constructing Ontario's Future

Matti Siemiatycki
Associate Professor at the University of Toronto



Matti Siemiatycki is Associate Professor of geography and planning at the University of Toronto. His teaching and research focuses on infrastructure planning, financing and project delivery. His recent studies, other than the Canada Infrastructure Bank, explore the merits of delivering infrastructure mega-projects through public-private partnerships, especially as they relate to value for money, risk transfer, and the meeting of public policy goals. His research draws on experiences from across Canada and around the world to provide insights into the global state of practice with public-private partnerships.

Andy Manahan
Executive Director of the Residential and Civil Construction Alliance of Ontario



Mr. Manahan is the Executive Director of the Residential and Civil Construction Alliance of Ontario. The RCCAO was formed in late 2005 to bring together contractor associations and construction unions in order to speak with a stronger voice and offer solutions to government on the importance of infrastructure investment, regulatory reform and other issues of significance. Over the past four years, the RCCAO has commissioned a number of independent reports on the infrastructure funding deficit, and ways to increase investment in a range of projects such as water and sewer, bridge, road and transit.

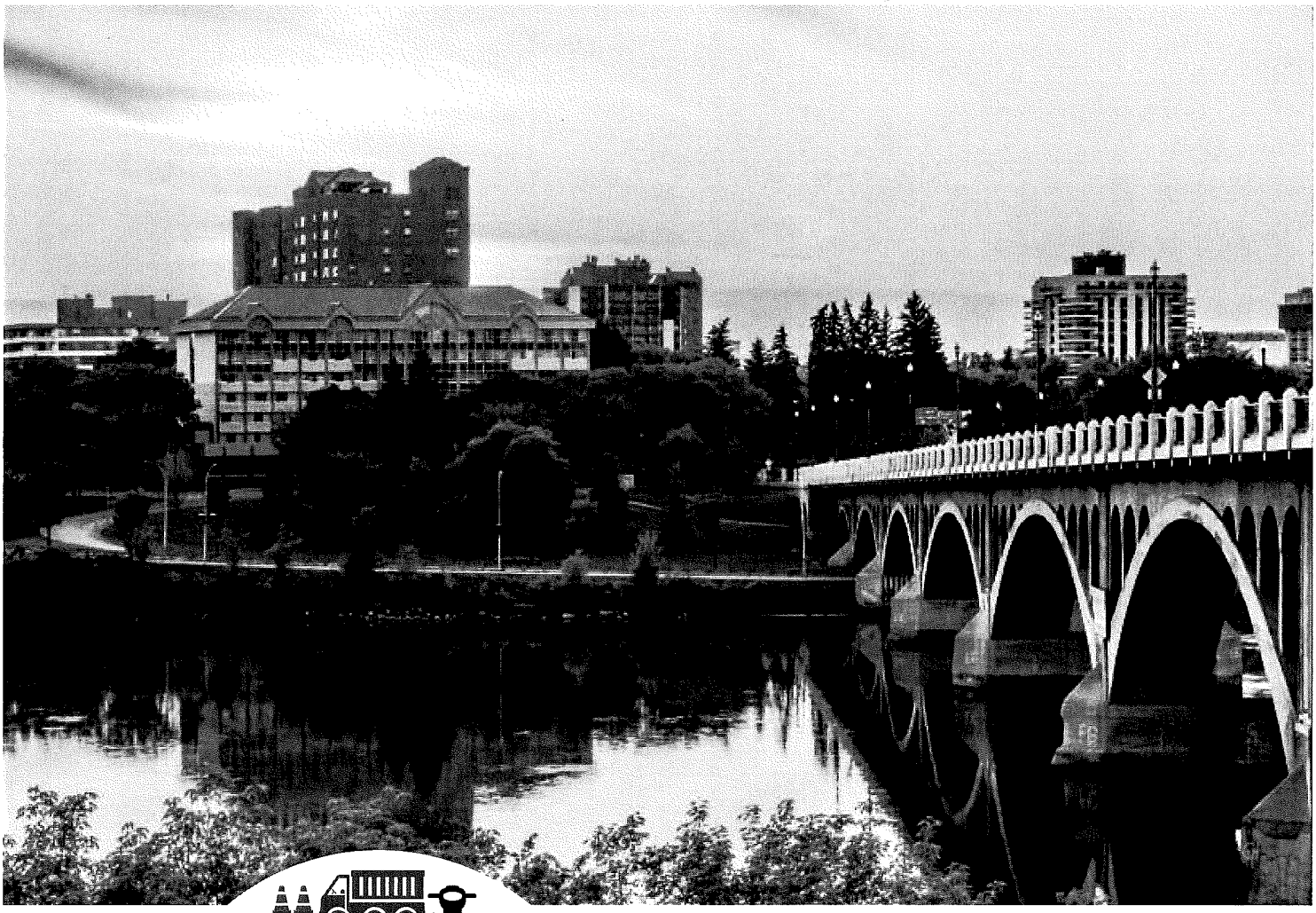
Mr. Manahan is an Advisory Committee Member of the Greater Toronto Region Economic Summit and is a member of the Toronto Board of Trade's Infrastructure Committee. Previous to his role at the RCCAO, he was responsible for government relations at a major construction union based in Toronto.

An Independent Study
Commissioned by

RESIDENTIAL AND
CIVIL
CONSTRUCTION
ALLIANCE OF
ONTARIO

RCCAO

Constructing Ontario's Future





Creating an Effective

Canadian Infrastructure Bank



RESIDENTIAL AND
CIVIL
CONSTRUCTION
ALLIANCE OF
ONTARIO

Constructing Ontario's Future

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The Residential and Civil Construction Alliance of Ontario (RCCAO) is composed of management and labour groups that represent a wide spectrum of the Ontario construction industry. The RCCAO's goal is to work in co-operation with governments and related stakeholders to offer realistic solutions to a variety of challenges facing the construction industry and which also have wider societal benefits.

RCCAO has independently commissioned 37 reports on planning, procuring, financing, and building infrastructure, and we have submitted position papers to politicians and staff to help influence government decisions.

For more information on the RCCAO or to view copies of other studies and submissions, please visit **rccao.com**

RCCAO members include:

- Carpenters' Union
- Greater Toronto Sewer and Watermain Contractors Association
- Heavy Construction Association of Toronto
- International Union of Operating Engineers, Local 793
- International Union of Painters and Allied Trades, District Council 46
- Joint Residential Construction Association
- LiUNA Local 183
- Ontario Formwork Association
- Residential Carpentry Contractors Association
- Toronto and Area Road Builders Association

Creating an Effective Canadian Infrastructure Bank

An independent research study prepared for the Residential and Civil Construction Alliance of Ontario (RCCAO)

By
Matti Siemiatycki
Associate Professor
Department of Geography and Planning
University of Toronto

February 2016

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EXECUTIVE SUMMARY



The establishment of a Canadian infrastructure bank has risen to the top of the national political agenda after being identified as a key piece of the new federal government's infrastructure investment program. The purpose of a Canadian infrastructure bank is to provide low interest loans and credit enhancement services to provincial and municipal governments investing in infrastructure for priority sectors. The cost of project financing is reduced by taking advantage of the federal government's top credit rating.

This report assesses the merits, likely benefits and optimal design of a Canadian infrastructure bank (CIB). It shows that because of the relatively small spread between the interest rates at which the federal and most provincial and municipal governments borrow money, the lending services of an infrastructure bank would provide significant benefits but only for the largest infrastructure projects.

Moreover, the cost of capital is only one challenge that provincial and municipal governments face: there is also often a struggle first with selecting projects that will provide the greatest benefit, and then delivering them effectively. A key financial hurdle is generating sufficient new revenues from user fees or other general taxation to pay the money back.

As such, to maximize the overall benefits of a CIB, it should have a broader mandate to screen or verify that projects have been selected using evidence-based assessments. Thus, the CIB would be an arm's-length federal institution that would be identified as a centre of excellence supporting rigorous project evaluation and procurement best practices, as well as providing loan support to suitable projects.

In recognition of this expanded role, the CIB could be referred to as the Canadian Infrastructure Investment Agency (CIIA). The CIB or CIIA would create synergies that not only lower the financing costs of infrastructure, but also improve the overall value of the projects that are delivered across Canada. This report concludes by making five key recommendations about the role and design of a CIB:

1. The CIB must be capitalized with funds that are in addition to, rather than a replacement for, existing federal capital grants dedicated to infrastructure.

2. A primary focus of the CIB should be on the provision of lending services to large infrastructure projects with capital values of at least $10 million. Smaller projects, which make up the majority of provincial and municipal infrastructure projects that receive federal government investment contributions, are more efficiently managed through federal block transfers.

3. All large infrastructure projects applying for financial support from the infrastructure bank should have a credible, independent study of the project's benefits and costs, and the project should be identified as a top priority by the sponsor government. The scope and depth of these project evaluation studies should be commensurate with the cost of the proposed project. The infrastructure bank should certify that these project evaluation reports have been conducted rigorously following best practices before financing is approved. The federal government is not selecting projects on behalf of provinces and municipalities, but rather creating a framework to ensure that decisions are made based on sound evidence.

4. Low interest loans or credit enhancement services provided to private sponsors should be targeted at innovative projects in priority sectors that may be deemed too risky to attract standard private financing. This includes affordable housing or green energy projects, as well as transportation projects which rely on unpredictable user-fee revenues to recoup the upfront investment. In these cases, to ensure that private investors are suitably motivated to evaluate and deliver projects effectively, the proponent should be required to invest at least one-third of the capital cost of the project without a government guarantee.

5. The infrastructure bank should become a centre of excellence on effective infrastructure project delivery and a convener of federal, provincial and municipal procurement practitioners to develop recognized best practices.

A: INTRODUCTION



Across Canada, infrastructure has risen to the top of the policy agenda. Infrastructure provides the foundation for economic prosperity, environmental sustainability and a high quality of life. It is now widely acknowledged that after decades of underinvestment, there is an urgent need for infrastructure development across the country to upgrade and expand the current capital stock. In the 2015 federal election, all three leading parties advocated for major increases in infrastructure spending, and the winning Liberal party pledged to make infrastructure investment a core component of its mandate. Over the next decade, the federal government plans to double spending on national, provincial, territorial and municipal infrastructure to $125 billion. Since the election, there has been some commentary and analysis on ways that the federal government should design an effective infrastructure investment program to allocate money effectively.[1]

Another key piece of the new federal government's infrastructure investment program, which has received less detailed assessment, is the development of a Canadian Infrastructure Bank (CIB) to provide low cost credit to projects in

priority sectors such as transit and affordable housing.[2] By taking advantage of the federal government's strong credit rating and having a centralized agency responsible for raising money, an infrastructure bank can lower the cost and improve the terms of public borrowing for infrastructure.[3] An infrastructure bank, as it is currently being conceived, may provide a range of **direct loan** and **credit enhancement facilities** to municipalities, provinces, government agencies and private project sponsors to finance infrastructure projects in priority areas:

Direct loans: An infrastructure bank would provide low interest loans directly to governments and/or private project sponsors to finance infrastructure in selected priority areas. The loan would be repaid to the infrastructure bank by the borrower, either from user fees on the facility, or from other general tax revenues collected.

Credit Enhancement: This refers to a variety of measures that improve the chances that loans will be repaid by the borrower.[4] They can be used to encourage lenders to lower interest rates, increase the length of the loan term, or support lending to governments or firms with lower than typical credit profiles. A CIB could offer a variety of credit enhancement services to public and private sector infrastructure project sponsors:

- **Loan Guarantees:** a commitment to cover the entire value of a lenders loan should the borrower default.

- **Loan Loss Reserve:** a reserve fund is established which covers lenders for a fixed amount or percentage of a loan should the borrower default. A 10% loan loss reserve on a $100-million loan would set aside $10 million to be repaid to the lender in case of a default.

- **Loan Loss Insurance:** a private insurance policy that can be purchased by the infrastructure bank on behalf of a borrower. Loan insurance differs from a loan loss reserve in that the infrastructure bank pays insurance premiums to a private provider as opposed to creating a reserve account to cover potential losses.

- **Subordinated Debt:** creates two tiers of capital in a loan, so that the infrastructure bank as the subordinated lender is first to take on losses should the borrower default on the loan. This can serve to attract other government or private lenders to finance a project as it makes the loan less risky for them, because the subordinate lender absorbs the first losses.

The purpose of this report is to explore the merits, likely benefits and optimal design of a CIB. The establishment of a national infrastructure bank is an idea that has been floating around Canadian public policy circles for some time. Numerous policy papers published by high profile think-tanks and newspaper articles have identified the merits of such an institution.[5] In fact, the federal government already provides many of the loan and credit enhancement services that an infrastructure bank would deliver, though these programs are delivered in an *ad hoc* manner by a variety of departments and agencies scattered across the federal government. Consolidating and formalizing the infrastructure financing and credit enhancement services of the federal government in a CIB is a worthwhile endeavour. However, as will be demonstrated, an infrastructure bank that is narrowly tasked with providing loans and credit enhancement services may be useful in somewhat lowering the cost for some public borrowing but will not be a wholesale game-changer on the Canadian infrastructure landscape.

Rather, to maximize the benefit of a CIB, the federal government should provide it with a broader mandate than only infrastructure financing. This can be achieved by creating a single federal institution that is responsible for loan support for public infrastructure through a bank-type facility, and also plays an arm's-length role as a centre of excellence for infrastructure procurement. This arm's-length Crown corporation will bring together

project finance, evaluation and procurement expertise that are currently undertaken by different departments and agencies of the federal government. In recognition of this expanded role, the CIB could be referred to as the Canadian Infrastructure Investment Agency. The CIB or CIIA would create synergies that not only lower the financing costs of infrastructure, but also improve the overall value of the projects that are delivered across Canada.

The remainder of the paper proceeds as follows:

- Section B establishes the context for a CIB.
- Section C examines how much borrowing cost savings may be realized through lending services provided by a federally sponsored infrastructure bank.
- Section D documents the existing Canadian and international agencies and institutions that provide infrastructure bank-type services.
- Section E explores how the lending services provided by a CIB would impact on the balance sheets of the federal government, and the municipal and provincial borrowers.
- Section F examines alternative models of capitalizing an infrastructure bank.
- Section G looks beyond the financial functions of an infrastructure bank, and identifies how national governments globally have created institutions to improve the rigour of project evaluation and delivery within their jurisdiction.
- Section H concludes by making recommendations about the optimal design and functions of a CIB.

B: CONTEXT FOR INFRASTRUCTURE INVESTMENT IN CANADA



This section sets the foundation for a discussion about the need, optimal role and structure of a national CIB. This is done by identifying five key facts about infrastructure finance and delivery in Canada.

❶ Accessing capital is not the main problem for Canadian governments; paying it back is

The popular perception of the global economy is a world of tight financial markets and cash-strapped governments that are unable to entice lenders to take up general obligation public debt and bond offerings, which have historically been the most common methods of financing public infrastructure investments. In fact, for most governments in Canada, their biggest challenge is not finding investors to subscribe to debt and bond offerings; Canadian governments generally have investment grade credit ratings and have not had trouble satisfying their borrowing requirements. Rather, the most daunting challenge is to collect sufficient new revenues or cut existing spending enough to make room to pay back the principal and carrying costs (interest) of any additional money borrowed. Moreover, the world is awash in liquidity, especially institutional investors such as pension funds, insurance companies,

private asset management firms and sovereign wealth funds looking for long-term, inflation-adjusted, stable returns. Increasingly, these institutional investors are turning to infrastructure as an attractive asset class for their vast pools of capital. Large Canadian pension funds and asset management firms, in particular, have become global leaders as direct investors in infrastructure. In 2012, the seven largest Canadian players had more than $42 billion invested in infrastructure assets worldwide.[6]

Importantly, unlike in Europe where the European Union imposes debt limits on member countries, Canadian provincial and federal governments do not have legal borrowing limits. That means policymakers are unencumbered to take on additional debt without legal restriction, though there are the balance sheet and credit rating consequences of taking on more debt – a lower credit rating which makes it more expensive to service existing and future debt. By contrast, across the country, the amount of municipal borrowing is restricted by a patchwork of provincial debt limit regulations or local conventions that limit borrowing (these debt limits have been identified as a key factor in ensuring the fiscal health and sustainability of Canadian municipalities).[7] Municipal debt limit restrictions can take one of two forms, and sometimes include both: a total amount of debt permissible as a percentage of total municipal revenues, and annual debt service costs as a percentage of annual revenues. Some municipal governments are nearing their borrowing limit under these regulations, and would not be able to take on the repayments for a large amount of additional borrowing under their current budgetary conditions. This could limit the utility of an infrastructure bank that is designed to provide loans rather than capital grants to finance municipal infrastructure.

❷ Infrastructure delivers major benefits ... but only if the right projects are selected

In an era of economic recession and tight government budgets, the reason that policy makers and politicians are advocating borrowing large sums of money to invest in infrastructure is because of the economic, environmental

and social benefits to society that it has the potential to deliver. Infrastructure provides a short-term stimulus to the economy and is the building block for long-term economic growth, competitiveness, environmental sustainability and social inclusion in Canada. Economic studies have found that every dollar invested in infrastructure provides an economic return of between $1.11 - $1.75, depending on the methodology that the study employs.[8]

The key to realizing such favourable economic returns, however, is picking the "right projects," otherwise infrastructure can actually be a net drain on public finances. According to a study by the Canadian Centre for Economic Analysis, only around 20% of the economic benefit of infrastructure investment comes from the short-term injection of capital during construction, while upwards of 80% of the long-term economic benefits of an infrastructure project come from spinoff growth activities that are supported by the project.[9] This suggests that to realize the full benefits of infrastructure investment, projects selected must be "shovel worthy."[10] Projects in the wrong location, in unproductive sectors, or built at the wrong time will not spur economic growth and productivity gains or make society more environmentally sustainable or inclusive, though they will add to the overall debt burden.

Despite the importance of selecting the correct projects, the project evaluation and selection methods vary widely. In some cases, public funds are allocated to projects that are identified as local or provincial infrastructure priorities based on detailed cost-benefit studies that document the merits of the project. However, there are also many cases where large sums of public money have been approved because projects meet political criteria or based on expedience because they are shovel ready, without sufficient evidence documenting the need, priority, or expected benefits and costs of the project. Two recent examples include what the Auditor General of Canada reported was a haphazard selection of infrastructure projects to receive federal funds in preparation for the G8/G20 conferences in 2010, and the approval of the federal funding for the Scarborough subway extension in Toronto without a formal application.[11] In the absence of consistent project evaluation and selection criteria it is difficult to ensure that scarce public resources – from

all levels of government – are being allocated to the highest priority projects that will deliver the greatest public good.

❸ Be aware of the distinction between financing and funding

An important distinction for public policy regarding infrastructure investment is the difference between **financing** and **funding**.

Financing refers to the money that is borrowed to pay for the upfront costs of building public infrastructure. Typically governments in Canada finance infrastructure projects by borrowing from private investors through the issuance of general debt obligations or bond issues. More recently, there has been a growing trend towards private investors directly financing some or all of the upfront capital costs of large public infrastructure projects through public-private partnerships or privatized infrastructure. Importantly, the creation of a CIB is designed to lower the cost and increase access to infrastructure project financing.

All infrastructure projects that receive project financing, however, require a **funding** source to repay the initial borrowing. The funding sources to repay the initial project finance can come from some combination of user fees on the facility or another type of dedicated revenue stream; or general tax revenues that are then allocated to repay any initial borrowing. Infrastructure can thus be usefully divided into two categories:

- Assets that cover all or most of their capital and operating costs entirely from user fees and other dedicated revenue streams. This commonly includes power projects and electricity grids, toll roads, city parking, seaports, airports, freight railways, telecommunications, and broadband Internet in large urban areas. In Canada, there is a mix of public and private ownership of these user-fee supported infrastructure assets, though the country is distinguished from Australia, as well as European and Latin American countries by having greater share of public ownership of these infrastructure assets.[12]

- Assets that typically do not have sufficient dedicated revenue streams to cover their capital and operating costs. Significantly, this includes most rapid transit lines and affordable/social housing projects, two sectors that the federal government and civic leaders have identified as urgent priorities in Canada.[13] It also includes health care and justice facilities, non-tolled roads, water and wastewater treatment facilities, many green energy projects, and broadband Internet in remote communities.

The distinction between user-fee and non-user-fee supported infrastructure has key implications for the structure and utility of an infrastructure bank, and the potential role of the federal government necessarily differs. For user-fee supported infrastructure, a federal infrastructure bank may be able to directly provide loans or provide credit enhancements to lower borrowing costs, with loan repayments being made in part or in full through user fees. It is important to note, however, that user-fee supported infrastructure projects are particularly high-risk deals. As extensive empirical research by Bent Flyvbjerg at Oxford University shows, revenue projections on infrastructure projects have been notoriously inaccurate and systematically overestimated.[14] Moreover, bankruptcies and contract negotiations are frequent on such projects, with lenders often taking considerable losses and governments required to provide bailouts to keep critical infrastructure operational.[15] As a result, there is a strong likelihood that at least some direct loans or credit enhancements provided to infrastructure projects supported through user-fee revenues would enter into default at some stage in the project and thus require funding support from the federal government.

For non-user-fee supported infrastructure, by contrast, a federal infrastructure bank could also provide loans or credit enhancement to the sponsors of public infrastructure to finance the upfront capital costs of a project. Because user fees are insufficient to cover capital and operating costs, governments sponsoring these projects will be required to provide ongoing subsidies to repay the initial borrowing. **In these instances, the services of a CIB do not alleviate the need for cash-strapped municipal or provincial governments to have**

sufficient general revenues to repay any borrowing from the infrastructure bank. Instead, it lowers the cost and increases the access and flexibility of municipal borrowing. Municipal or provincial governments that are provided with loans or credit enhancements through the CIB must have sufficient general revenues (taxes, user fees, levies charges, etc.) in order to repay the debt taken on.

❹ Infrastructure operating costs

While an infrastructure bank is focused on financing the capital costs of projects nationally, planners of infrastructure projects must also account for significant facility operation and maintenance costs. In key sectors such as transit and affordable/social housing, these operating costs are often primarily the responsibility of municipalities, and are not covered by user fees alone. Similarly, provincial investments in health care and justice infrastructure also have significant operating costs that are not covered by user fees. Regardless of the favourable interest rates achieved for capital development through an infrastructure bank, municipalities and provinces that take on additional debt obligations to pay for infrastructure assets in these sectors face the double budgetary pressure of having to identify additional revenues to repay the capital borrowing and fund ongoing operating and maintenance expenses.

As an illustrative example, the Sheppard subway line in suburban Toronto was built at a capital cost of approximately $945 million, of which $236 million or 25% was funded by Metro Toronto, with the province of Ontario funding the remainder.[16] Once operational, however, the Sheppard subway line has required an annual operating subsidy that one estimate placed at $10 million per year, or $130 million since the system opened in 2002.[17] This creates a new financial burden that must be covered from the tight Toronto Transit Commission operating budget, which is comprised mainly of user-fee revenues as well as a significant subsidy that comes primarily from the municipal government. This example is particularly pertinent as many of the new rapid transit lines currently being proposed and built across Canada are in suburban locations that are similar to the Sheppard subway line, and will require major ongoing operating subsidies beyond the capital costs of construction that are primarily borne by municipalities.

5 The current role of the federal government: block transfers and loans

Finally, in order to identify the unique role that a federal infrastructure bank could play in the Canadian institutional landscape, it is critical to understand how the federal government currently participates in provincial and municipal infrastructure projects. The federal government currently participates in provincial and municipal infrastructure projects in three main ways. First, there are long-established programs that provide large block transfers of funds from the federal government to provinces and municipalities. The primary federal block grant programs are the provincial and territorial equalization transfers, the Canada Health Transfer, and the Canada Social Transfer, which together amounted to an average annual disbursement of $56 billion per year between 2010 and 2015. Other smaller federal block transfers specifically dedicated to infrastructure investment include the $2-billion per year federal gas tax fund which is distributed to provinces and then flowed through to municipalities, and the Provincial-Territorial Infrastructure Base Fund. Money from these block grants may be spent on infrastructure capital and/or operation costs at the discretion of the receiving government, depending on the general spending criteria of the block grant. This discretion is seen by the receiving governments as particularly important as it enables local decision-makers to take ownership of the incoming funds and allocate these based on locally identified priorities.

Second, in addition to the large, regular transfers, the federal government provides grants to offset some or all of the capital cost of thousands of infrastructure projects across the country. Dahlby and Jackson identify 13 federal programs that between 2002 and 2015 together have provided around $1.2 billion per year in conditional grants to provinces and municipalities to fund a portion of specific infrastructure projects. During this period, the total amount of money allocated was $20.3 billion, which was distributed to 8,021 projects.[18] The common formula is that the federal government will fund up to a third of eligible infrastructure capital costs, with the remainder

split between the other levels of government.[19] This means that provincial and municipal governments receiving federal capital grants for their projects must still have their own funds available to pay for a significant portion of the project.

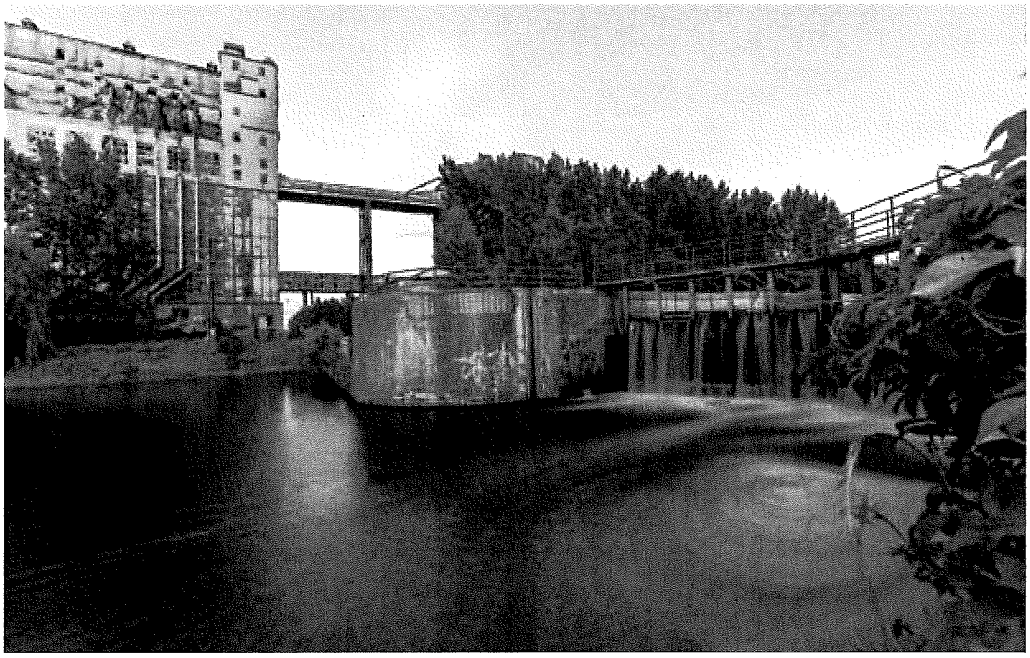
Most of the projects receiving federal contributions were small scale: over half had eligible costs of less than $1 million and more than 90% had eligible costs of below $10 million. Only 79 projects had eligible capital costs of over $100 million, and seven had capital costs of more than $1 billion. Since 2008, the federal government provided funding contributions towards an additional 23 large projects with capital values over $100 million through the $1.25-billion P3 Canada Fund. While these grant programs are important, the administrative cost of applying, evaluating, coordinating and monitoring these grant programs between multiple governments for small projects is time-consuming and inefficient. Dahlby and Jackson conclude that the transition to new block grant transfers from Ottawa would better cover these small projects so that lower levels of government can manage the funds.[20] This has important implications for the mandate of an infrastructure bank, as it suggests that providing loan and credit enhancement services for small projects nationally is likely to be expensive and inefficient. Rather such services are best concentrated on large cost infrastructure projects, though there are relatively few of these across the country.

Third, the federal government does currently provide credit enhancement to very large federal and provincial infrastructure projects on an *ad hoc* basis, similar to services that would be offered through a national infrastructure bank. In the case of the $1.3-billion Confederation Bridge linking New Brunswick and Prince Edward Island which opened in 1997, the Department of Public Works and Government Services negotiated a deal whereby the federal government guaranteed the private bridge developer a minimum amount of annual toll revenue for the facility.

More recently, in 2012, the federal government of Canada extended a loan guarantee to cover $5 billion in borrowing by the province of Newfoundland and Labrador to support the debt component of the $7.7-billion Muskrat Falls hydroelectric dam project. The federal loan guarantee will enable the province to borrow the money at the federal government's AAA credit rating and secure a 40-year loan at 3.8% interest rate, saving the province an estimated $1 billion in interest costs. The loan guarantee agreement specifies that any savings from the favourable interest rate must be used to lower electricity rates. However, the terms of the loan guarantee also highlight a potential risk to the borrower from such arrangements, as poor project management and delivery can undo the benefits. In particular, the federal loan guarantee agreement stipulates that any cost overruns are the responsibility of the province of Newfoundland and Labrador, and are ineligible for supplementary coverage by an additional federal loan guarantee. In 2015, this became a significant issue as project construction costs escalated, forcing Newfoundland to exacerbate its existing difficult fiscal position by borrowing more money on its own to pay for completing the dam project. Additionally, the escalated cost of the project will now require higher user fees to repay all of the public borrowing. To be certain, construction cost overruns and delays are not only reserved to the Muskrat Falls Dam project, but are a problem that plague infrastructure projects across Canada and around the world. Poor project delivery and rising construction costs create a major additional stress on the budgets of governments taking on debt to finance public infrastructure, and ultimately can contribute to defaults on loans or credit enhancement services provided by the CIB.

As the above discussion highlights, the cost and availability of capital is only one issue challenging the effective delivery of infrastructure in Canada. Selecting projects that generate the greatest benefit, while ensuring that effective project management techniques are in place are critical to infrastructure investments delivering broad public value. As will be documented below, the preferred design of a federally sponsored CIB addresses both project selection and financing considerations.

C: HOW MUCH FINANCING COST SAVINGS WOULD BE REALIZED THROUGH AN INFRASTRUCTURE BANK



Given the context for infrastructure investment in Canada described above, a key question regarding the value and usefulness of a federal infrastructure bank is how much the services of such an organization would save in borrowing costs. This question is especially relevant since most Canadian provinces and municipalities have relatively strong credit ratings on their own and have not struggled to attract investors to take up their debt issuances (see Appendix 1). The answer in terms of how much cost savings can be created by the lending facilities of an infrastructure bank depends on variations between the credit ratings of the municipalities, the provinces and the federal government. Currently, interest rates are at all-time low levels, yet the borrowing rates do differ by level of government. At present, the federal government has an AAA credit rating, the highest available, enabling it to borrow money at very low interest rates. Table 1 provides a sample of the average interest rates that different levels of Canadian government have borrowed money at in recent years. Appendix 2 provides a sample of current lending rates by provincial municipal finance authorities.

Table 1: Interest Rates on Bonds for Selected Canadian Cities, 2008-2014

Borrower	Mean	Standard Deviation	Median	Min	Max	S&P Rating	Moody's Rating
Toronto	3.96	.65	3.91	2.93	5.57	AA	Aa1
MFABC	3.80	.66	3.74	2.80	5.49	AAA	Aaa
York/Peel	3.92	.65	3.87	2.90	5.54	AAA	Aaa
Winnipeg	3.95	.68	3.88	2.93	5.68	AA	Aa1
Ontario	3.59	.61	3.61	2.60	5.00	AA-	Aa2
Canada	2.70	.63	2.76	1.58	3.82	AAA	Aaa

Source: Hanniman, 2014 [21]

As can be seen, on average the federal government borrows money at rates that are approximately 1.25 percentage points (125 basis points) lower than large municipalities and 0.9-1.1 percentage points lower than provinces with provincial financing authorities. The infrastructure bank will also charge fees to the municipal borrower to cover their operating and arranging costs, though these are likely to be lower than those charged by commercial financial institutions that currently arrange and place municipal debt. It is interesting to note that the borrowing rates for these large municipalities are fairly comparable to those realized by provincial borrowers as well as the Municipal Finance Authority of British Columbia (MFABC).

The spread is likely to be larger between the borrowing rate of the federal government and smaller municipalities and provinces, which typically have lower credit ratings and higher placement arranging costs, and thus borrow

money at higher costs. In Newfoundland and Labrador, for instance, a province that does not have a municipal financing authority, St. John's pays an average interest rate of 6.12% on $330 million of outstanding bonds. The rates of return on these municipal-issued bonds vary from 4.5%-9.4% depending on when they were released.[22] And in April of 2014, Cornwallis, Manitoba, borrowed $1.25 million for a road pavement project, which will be repaid over 20 years at a maximum interest rate of 6% per year. The municipality introduced a special property tax levy to repay the borrowing for the project.[23]

The borrowing cost savings of a CIB to municipal and provincial governments will depend on the services being offered:

- **Direct loans** from the CIB to municipalities may be offered at or near the federal government-borrowing rate, and thus **provide borrowing cost savings in and around 125 basis points for large municipalities and provinces and considerably more for smaller municipalities and provinces.** For projects being considered that are not assets with revenue streams, it is likely that the loan would be secured against the general revenues of the municipality or province taking on the loan. For projects in user-fee supporting asset classes, the loan could either be secured solely against the project revenue stream in which case it would be a higher risk, or the borrower could guarantee repayment of the loan should revenues fall short of necessary levels.

- **Credit enhancement** programs where the federal government provides municipalities or provinces with a loan guarantee or other types of loan insurance are likely to provide smaller interest rate savings. Loan guarantees from the infrastructure bank for the full amount of the loan would provide the most significant reduction in the rates that municipalities could borrow money at; programs such as loan loss insurance or loan loss reserves that cover only a portion of the loan value would provide smaller savings in interest costs.

To provide a sense of the magnitude of cost savings that could be realized through direct loans and credit enhancement programs provided by a national infrastructure bank, as a rough rule of thumb, every interest rate percentage point (ie. 100 basis points) on a $100-million loan carries about $20 million in repayment costs over the life of a 35-year loan. This means that if a CIB can shave 100 basis points off the cost of borrowing $500 million, it would save the borrower $100 million in interest payments over a 35-year loan term. On a $5-billion debt issuance for projects like the Muskrat Falls Dam described above, the savings from a credit enhancement can be quite significant – estimated at $1 billion by the government of Newfoundland and Labrador.

Lending facilities provided by an infrastructure bank would slightly lower the cost of municipal and provincial borrowing and provide some financial relief in terms of debt servicing for large municipalities and provinces. Borrowing cost savings may be especially significant for small- and medium-sized municipalities, where interest rates and transaction costs are currently particularly high. **But the creation of an infrastructure bank that provides lending services to municipalities and provinces is not on its own a complete game-changer.** It does not alleviate the need for municipalities and provinces to have sufficient revenue sources to repay the initial borrowing, no matter what the interest rate is on any dedicated borrowing for infrastructure. And with the federal government in a deficit position and a bleak economic outlook forecast for the years ahead, taking on significant additional borrowing to finance infrastructure projects could at some point lead to a downgrading of the federal government's top credit rating, thereby increasing the interest rates available through a CIB.

D: EXISTING INFRASTRUCTURE BANKS



Entities that provide similar services to the proposed CIB are common across the country, as well as internationally. In Canada, seven out of the 10 provinces have some type of financing authority or similar body that provides pooled borrowing and financing programs for municipalities and other provincial agency borrowers. Interest rates provided by these institutions depend on the credit rating of the parent provincial government, and these are capitalized by standard government borrowing or bond issues repaid through general tax revenues. These institutions tend to provide financing to projects that range widely in size, but many of which are quite small cost municipal facilities.

Internationally, the United States, Britain and the European Union have programs and facilities that provide similar services to a government infrastructure bank. And most recently China has initiated the formation of the Asian Infrastructure Investment Bank to support infrastructure development in the Asia-Pacific region. These institutions tend to primarily provide financing services to very large infrastructure projects, typically valued at $50 million or more, and often valued at hundreds of millions or even billions of dollars. A key reason is because there can be significant administrative costs associated with vetting and structuring credit services, and significant savings from credit enhancements are only realized on large tranches of borrowing.

Each of these infrastructure banks and lending programs is intended to finance projects that fulfill broad policy goals that are designated by their government sponsors. These policy objectives include the provision of municipal infrastructure in the case of the provincial municipal finance authorities, green infrastructure, surface transportation, cross-border cooperation, etc. Most of the international infrastructure banks and similarly functioning institutions are designed primarily to finance projects where initial borrowing is repaid through user-fee revenues. By contrast, Canadian municipal finance authorities typically provide low-cost financing to a greater mix of projects that are repaid by user fees as well as from general revenues.

In terms of specific project selection criteria, the infrastructure banks appear to function primarily as financial institutions: provided the designated projects are eligible for infrastructure bank funding under the prescribed terms of the program, they are primarily evaluated based on their creditworthiness. In other words, does the borrower have the financial capacity to repay their loan, either through user fees or general tax revenues? The infrastructure banks do not appear to be undertaking extensive evaluations of the policy rationales, cost-benefit analysis, or business case for the project when making loan decisions.

Below is a description of the services provided by a sample of these public lending institutions.

Municipal Finance Authority of British Columbia (MFABC)

MFABC is an independent authority of the province of British Columbia. Its mandate is to provide low-cost and flexible financing on short- and long-term time horizons to meet the needs of municipal governments in the province.[24] The MFABC keeps financing costs to a minimum by pooling long-term borrowing together, maintaining a high credit rating, and offering low administrative costs. It offers a range of services, including lending, investment management and leasing. The MFABC covers its operating costs by charging seven basis points as an administrative fee on loans, and offsets its costs further through revenues generated from investment returns and other financial services provided.

Alberta Capital Finance Authority (ACFA)

The ACFA finances capital projects on behalf of Alberta municipalities, school boards and other local entities. Loans are provided for a range of projects, including airport infrastructure, parks and recreation, sewer and water, and electric, gas and telephone projects. The AFCA has access to lower interest rate loans in the capital markets than individual municipalities, and borrowing that the AFCA undertakes is unconditionally guaranteed by the Province. In 2014, over $2 billion in new loans were issued.

Ontario Financing Authority (OFA)

The Ontario Financing Authority is an agency of the provincial government that manages the province's borrowing and debt. In 2014, the OFA launched a Green Bond program to raise money at low cost to finance transit and other environmentally sustainable projects in the province. In order to qualify for financing through this program, projects must have environmental benefits that are screened by an independent advisory panel. The Eglinton Crosstown Light Rail Transit project is the first project to receive funding through green bonds. Green bonds in Ontario are not repaid through infrastructure revenues; they are a standard debt obligation of the province of Ontario like other bonds and repaid out of general funds.

Infrastructure Ontario (IO)

IO provides long-term loans to public sector organizations and governments in Ontario, including aboriginal health access centres, universities, municipalities, housing providers, municipal corporations and others. IO provides lower interest rate loans of up to 30 years. (IO has assumed all loans issued under the previous Ontario Municipal Economic Infrastructure Financing Authority.) Since 2003, IO has issued more than $6.5 billion to nearly 350 public sector clients.

U.K. Green Investment Bank

The United Kingdom government wholly owns the Green Investment Bank. It was established with an initial £3.8 billion in public funds to invest in green infrastructure across the U.K. – primarily offshore wind, energy efficiency, waste and bioenergy. The bank invests in projects that contribute to the environmental objectives of the government, create local jobs, and generate commercial returns commensurate with the project's level of risk. All projects must be able to repay their initial financing through market rate user fees – the bank does not offer subsidized low-cost financing or grants. The intention of financing a project by the bank is to provide a supplementary source of financing that de-risks new investment sectors and attracts private sector capital. In 2015, the government began to explore the partial privatization of the bank in order to increase its access to capital, especially from institutional investors such as pension funds.

Asian Infrastructure Investment Bank (AIIB)

The AIIB is a multilateral development bank that was inaugurated in late 2015. Headquartered in Beijing, the AIIB will provide financial support for infrastructure projects in Asia with the purpose of promoting economic development and improving infrastructure connectivity in Asia. The bank was established with an initial $100 billion from countries within and outside

of Asia, raised primarily through the issuance of bonds in international markets. The AIIB's operations are intended to provide project financing rather than grants, and will include:

- Making direct loans or co-financing projects;
- Investing equity capital in an institution or enterprise that provides infrastructure;
- Providing loan guarantees for economic development;

European Investment Bank (EIB)

The EIB is a multilateral borrower and lender comprising the 28 member states of the European Union (EU). Its mandate is to provide financing and advice to projects that further the policy objectives of the EU. The sectors of investment are wide-ranging, from aviation and education to transportation, health, urban development, maritime and energy-related projects – many of these assets have user fees that can cover capital and operating costs. The EIB provides direct loans, loan guarantees, microfinance and equity investment. Importantly, the EIB also recognizes that a "[l]ack of finance is often only one barrier to investment" and thus they provide project administrative and management capacity to support effective implementation.[25]

Nordic Investment Bank (NIB)

The NIB is made up of eight Nordic countries, and finances projects that provide environmental and economic benefits, such as infrastructure, energy, research and development. The NIB is an international financial institution, which can facilitate the financing of cross-border projects. The NIB does not provide grants; it provides direct loans and loan guarantees to both public and private sector clients on competitive market terms. It issues bonds and borrows funds from the capital market and holds the highest credit rating by Standard & Poor's and Moody's.

U.S. Transportation Infrastructure Finance and Innovation Act (TIFIA)

TIFIA is a credit assistance program funded through general borrowing by the federal government and administered through the U.S. Department of Transportation (USDOT). Eligible projects include large-scale surface transportation projects (minimum US$50 million) including highway, transit, rail, intermodal freight and port access. Both public and private sector entities are eligible to apply. Eligible projects are required to provide a credit rating opinion from a recognized organization before assistance can be received. Financial assistance is provided in three ways:

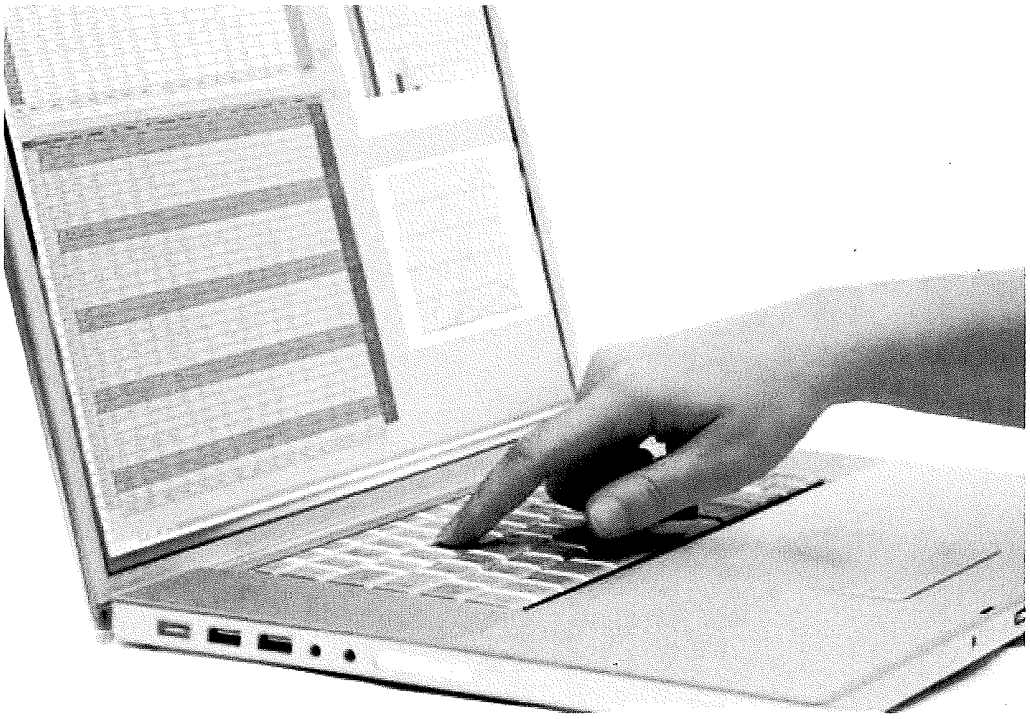
1. Secured (direct) loans, in which repayments can be delayed up to five years after construction is complete and must be fully repaid 35 years after substantial completion. Up to 49% of the eligible project costs may qualify for credit assistance.

2. Loan guarantees, in which the federal government guarantees a borrower's repayment of loans to non-government lenders.

3. Standby line of credit, which provides a federal loan to supplement revenue streams during the first 10 years of a project. The line of credit cannot exceed 33% of the eligible project cost.

Total federal assistance cannot exceed 80% of the total project cost. TIFIA provided a total of US$1 billion in credit assistance in 2014. TIFIA charges project sponsors for the costs of administering the credit assistance, and annual servicing fees ($13,000) are charged.

E: BALANCE SHEET IMPLICATIONS



How would increased provincial and municipal borrowing through a CIB capitalized by the federal government impact on the balance sheet of the federal, provincial and municipal governments? And could direct lending or credit enhancements through a national infrastructure bank be accounted for in such a way that lending does not appear on the federal government balance sheet, or enable municipal borrowing above and beyond current debt limit restrictions where they exist? A key goal of accounting treatments should be to transparently report with whom the liabilities for any infrastructure lending and borrowing resides. Below is a discussion of the accounting implications of a CIB for the federal government and the provincial and municipal borrowers.

Federal Government Balance Sheet

Based on the national and international models, a federal infrastructure bank could be structured in a number of different ways. One approach is to follow the norm for public financing authorities across Canada and form the infrastructure bank as an independent authority of the federal government. In this structure, the bank would be granted the authority to borrow money on the capital markets with the full backing of the federal government. This would enable the bank to borrow money at or near the federal government borrowing rate, and thus provide the lowest possible loans to its clients. Under general public sector accounting principles, it is likely that the assets and liabilities of a bank structured in this model would appear on the balance sheet of the federal government. This includes reporting loan guarantee obligations, which would be accounted for as contingent liabilities.

Conversely, the CIB could follow the model of some international infrastructure investment banks and be formed as an independent government business enterprise. Such organizations are wholly owned but separate legal entities from the government that can maintain their operations and cover their liabilities entirely from outside revenue. In this model, the bank could be initially capitalized with a large grant from the federal government that would be made from general public borrowing and accounted for on the public balance sheet. After this point, the bank would be entirely self-sufficient by generating income through its loan services on a commercial basis. However, the credit rating of a bank in this model would not benefit from being backed by that of the federal government, and it would thus pay a premium to raise money directly on the private capital markets.

Municipal and Provincial Government Balance Sheet

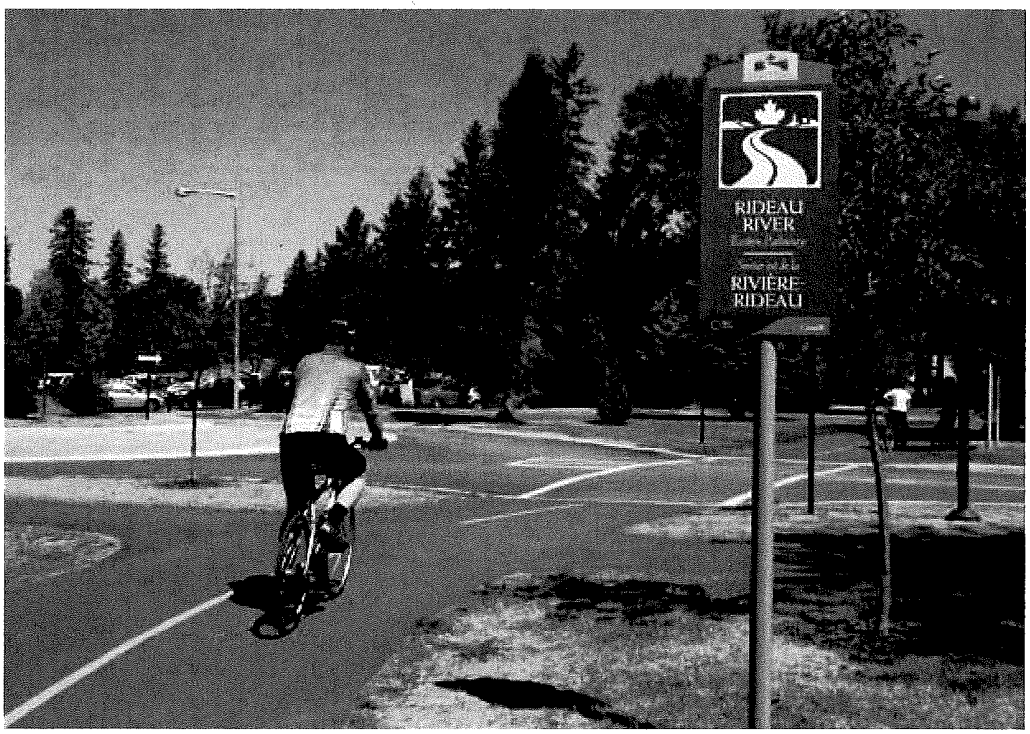
If the full amount of municipal borrowing through the CIB is contractually stipulated to be repaid through a **new user fee on the facility without a local government guarantee**, then the borrowing would not have an impact on

provincial or internally imposed debt limits. This is because municipal debt and revenues would increase commensurately, and the infrastructure bank rather than the municipality would bear the risk of revenues not meeting projections. An associated condition of the project not impacting on a locally imposed debt limit would likely be that the risk of additional funds being required to cover cost overruns or unforeseen operating costs is transferred to the infrastructure bank rather than being borne by the local government.

The infrastructure bank could also provide credit enhancements that make it possible for municipalities to access private lending that is backed only by project revenues. Yet lending to infrastructure projects secured only against project user-fee revenues is particularly risky, as revenues on infrastructure projects has often been overestimated. As such, the infrastructure bank would require assessment procedures and highly skilled staff to carefully vet such projects. And the loans would likely be made at higher than government borrowing interest rates to reflect the risk of revenues not meeting expectations, and this additional borrowing cost would be reflected in higher user fees needed to repay the loans than if the money was borrowed at lower government borrowing rates.

However, most municipal and provincial infrastructure projects in priority transit and social sectors do not have user-fee revenues to cover all of the capital and operating costs. In cases where loans from the infrastructure bank are repaid through general government revenues, there would be low risk of default and thus have low interest rates. This would only slightly reduce the financial burden that new borrowing would place on government budgets and would not provide a significant alternative to debt limits that impose a restriction on the share of debt servicing costs as a percentage of annual revenues. To take on significant amounts of additional borrowing backed by general government revenues to fund social infrastructure projects, most municipalities and provinces would need to cut existing expenses and/or raise new revenues. Both of these propositions have been difficult to achieve in practice.

F: PRIVATE CAPITALIZATION OF THE CIB



The proposed CIB, like its provincial counterparts, has been primarily conceived of as an institution designed to provide improved access to capital and lower the cost of borrowing for public infrastructure projects. This entails capitalizing the bank with publicly borrowed money and providing lending to municipal and provincial infrastructure projects at the federal government's superior credit rating.

A question that is commonly raised in discussions about the formation of a CIB, however, is whether an additional benefit of this financial institution would be to augment the total amount of public money available for infrastructure. This can be achieved in two ways. First, the infrastructure bank could be capitalizing with privately pledged equity. These private equity funds would then be invested by the infrastructure bank in equity stakes in infrastructure projects in priority sectors across the country, with investors earning a return on their investment either through user-fee revenues or guaranteed government payments over time.

In practice, capitalizing a government controlled infrastructure bank in such a way is likely to be of limited public benefit, as the key barrier to private investment in infrastructure is a lack of access to attractive projects for private investment rather than a lack of funds or expertise. In Canada, there is already a well-established ecosystem of investors with the capacity and expertise to invest directly in infrastructure projects, and therefore there is not a strong need for a new financial institution to serve a coordinating function on their behalf. In particular, large Canadian public sector pension funds and private asset management firms have become among the biggest and most sophisticated direct infrastructure investors in the world. These funds tend to seek to make large equity investments (upwards of $100 million) in assets that have long-term revenues from user fees, and seek to generate investment returns of between 8%-14%. More so than in Europe, Australia and Latin America, however, infrastructure assets that generate a profit through user fees in Canada – such as major airports, seaports, energy transmission grids, city parking authorities and toll roads – tend to be publicly owned.

There have been proposals that the federal government divest itself of profitable public assets and reinvest the proceeds in infrastructure through a national infrastructure bank – this would avoid the need to capitalize the infrastructure bank through government borrowing. Yet this capitalization approach is a public policy decision that requires careful study. It entails a calculation about the trade-offs between governments generating a one-time lump sum of capital from an asset sale that can be invested in other productive infrastructure through the infrastructure bank, versus government maintaining control of a profitable asset which generates revenues that can be borrowed against to finance other projects over the long term. It also entails an assessment of the public interest trade-offs between public and private ownership and operations. If such a strategy is followed, one clear prerequisite to offset the lost revenues from the assets being sold is that the sale proceeds would be invested by the infrastructure bank in top priority projects that will drive economic productivity, competitiveness and social equity returns. This is something that can only be assured if project selection is based on careful cost-benefit evaluations rather than political expedience.

As can be seen, private equity is not low-cost capital, and thus is not an appropriate substitute for provinces and municipalities seeking to finance public infrastructure through public borrowing at affordable rates. Rather, these private infrastructure investors are likely best suited to invest directly in infrastructure asset classes that are typically provided by the private market in Canada such as green energy production, telecommunications or freight rail, as well as emerging sectors such as privately provided affordable rental housing. An ideal role for a CIB in these asset classes would be to provide credit enhancements to private equity investors to lower project risks and increase the bankability of facilities of national significance that may otherwise have trouble being financed through traditional bank loans. Importantly, however, providing government loan guarantees can distort the rigour of project evaluation and shift risk for cost overruns and poor asset performance from private investors onto government. To ensure that private investors have sufficient incentive to select and complete projects effectively, the infrastructure bank should provide loan guarantees and credit enhancements that cover only up to a maximum of two thirds of the project capital cost. Conversely at least one-third of the private investment in a project should be made without a government guarantee.[26]

G: BEYOND A BANK: THE FEDERAL ROLE IN PROJECT PRIORITIZATION AND EVALUATION



While finding money for infrastructure projects is a top challenge for governments around the world, a related concern is ensuring that the highest priority projects are selected for scarce resources, and that these projects are then effectively delivered. In response, federal governments in countries globally have developed institutional arrangements and governance approaches to manage political dynamics and improve the rigour of infrastructure project selection and procurement. Examples from the United Kingdom and the United States provide insights into the possible approaches for Canada.

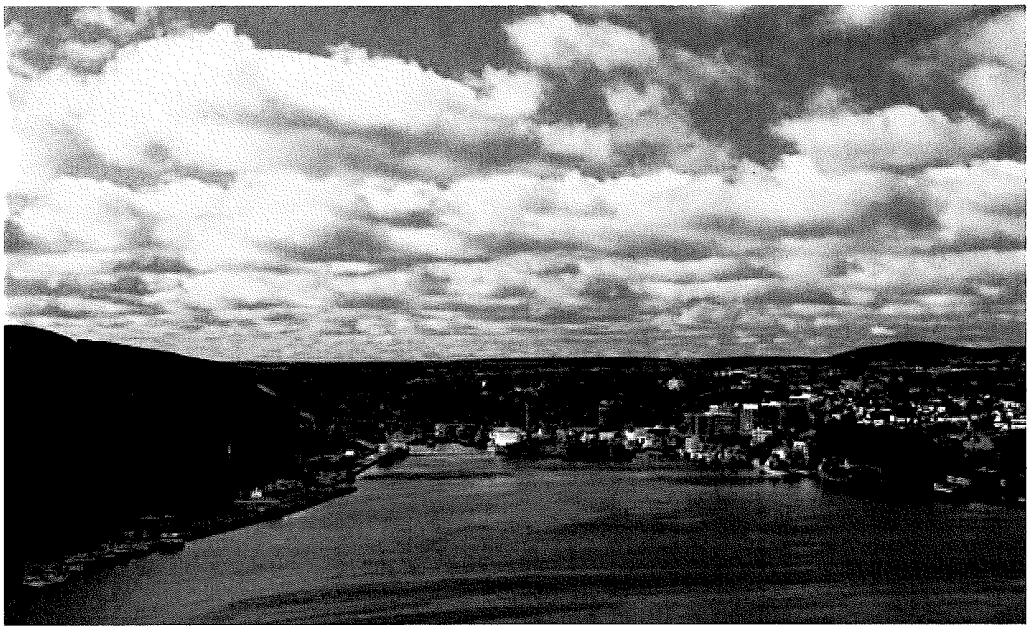
In the United Kingdom in late 2015, the central government created the National Infrastructure Commission. This commission is to be established as a team of 25-30 staff that will be stationed within the national treasury department, and supervised by a board of appointed expert commissioners. It is enabled by statutory legislative authority. The commission's mandate is to provide "unbiased analysis of the UK's long-term infrastructure needs," with a particular focus on reviewing the major transportation and energy system needs of the country.[27]

Another model of federal involvement in infrastructure project selection is the American Metropolitan Planning Organization (MPO) in the transportation sector, which dates back to legislation from the early 1960s. In this model, the federal government mandates that as a condition for receiving federal infrastructure funding, urbanized areas with a population over 50,000 must form a metropolitan planning organization that is federally funded and comprised of locally appointed officials. The organization is tasked with developing locally sensitive infrastructure investment plans and spending priorities. The production of these plans is a statutory requirement before federal funding is approved. Federal infrastructure spending is then channeled through the MPO, ensuring that the projects selected are based on the "3-Cs" – continuous, cooperative and comprehensive local transportation planning.[28] In the American context, the federal government sponsors and mandates the undertaking of a bottom-up approach to transportation planning where priorities are set at the regional scale.

Beyond federal involvement in project selection, the national government of the United Kingdom has been a leader in developing strategies to improve the procurement of projects in their jurisdiction. In particular, the United Kingdom government formed the Major Project Authority. The authority provides national training and certification programs for project managers that deliver large projects in order to improve procurement skills. It also provides Delivery Confidence Assessments to all major infrastructure projects in its portfolio. These assessments serve as a form of independent peer review, where a team of experts reviews the feasibility of the plans for major projects that are proposed. Projects are assessed using a traffic light system: projects given a green light are appraised as having a high likelihood of being delivered on time and on budget; yellow light projects require further scrutiny and attention; red light project are considered unachievable and must be reconceived before final approval is granted. The independent services provided by the Major Project Authority increase the level of staff skill and confidence that major projects can be delivered effectively. [29]

In Canada's decentralized federalist system, the provincial governments and municipalities have jurisdictional responsibility for planning and providing infrastructure in key sectors such as transportation, housing, water and waste, and energy services. There is little opportunity or appetite for the federal government to take a direct role in project selection or delivery in these sectors. However, a federal infrastructure finance and delivery institution in Canada could play a key role by creating a national framework for effective project selection and delivery of large infrastructure projects across all levels of government. This would be achieved by creating mechanisms to ensure that each provincial or municipal government applying for federal funding for a large project over a specified amount ($10 million) has a long-term capital plan that establishes a set of priorities in a given sector, and that the project for which they are applying for federal investment is at the top of the list. The federal government could also provide staff training services and project delivery confidence assessments to ensure that all large projects funded by the federal government have the best chance of being successfully delivered. In essence, the federal government would operate with a light touch, creating incentives for provincial and local governments to undertake systematic planning and project assessments as a condition of receiving federal government funding.

H: CONCLUSIONS AND RECOMMENDATIONS



After years of proposal and debate in Canadian public policy circles, the creation of a Canadian Infrastructure Bank (CIB) is an idea whose time has come. Indeed, in 2015 the creation of a CIB was identified as a priority in the mandate letters from Prime Minister Justin Trudeau to the Ministers of both Finance and Infrastructure and Communities.

Creating an infrastructure bank that provides low-interest loans and credit enhancement services is a financing strategy that can deliver borrowing cost savings for municipalities, provinces and private sponsors of large public infrastructure projects. Yet this mandate is too narrow given that the national benefit of infrastructure investment is predicated on selecting the highest benefit projects and then delivering them efficiently. Rather, this paper proposes the creation of a broader institution, which could be appropriately called the Canadian Infrastructure Investment Agency (CIIA), which has a mandate to bring together the federal government's involvement in large infrastructure project finance, evaluation and delivery. Based on the information presented above, a CIB or CIIA should have the following characteristics in order to maximize its value:

1. **The CIB must be capitalized with funds that are in addition to rather than a replacement of existing federal capital grants dedicated to infrastructure.** Municipalities and provinces depend on non-repayable matching grants from the federal government to pay for eligible capital costs of infrastructure in their jurisdiction. The budgetary health of these levels of government will be made significantly worse if infrastructure grants that currently amount to upwards of $1.2 billion per year are replaced by repayable loans.

2. **Focus on large infrastructure projects, with capital values of at least $10 million and up.** On projects of this size, which account for approximately 10% of all projects that the federal government makes capital contributions, the relatively small interest rate differences between the federal and provincial or municipal borrowing rate will deliver significant savings that outweigh the institution's administration costs. By contrast, the federal government currently provides capital contributions to thousands of infrastructure projects across the country, the overwhelming majority of which are less than $10 million. As has been noted in studies by Dachis, [30] and Dahlby and Jackson, contributions to these smaller projects would be more effectively managed through non-conditional block grants from the federal government: this would reduce the federal government's management costs and also provide greater accountability for project selection to the local or provincial governments. The existing provincial finance authorities are best set up and are already effective at handling pooled borrowing services for smaller scale municipal and provincial infrastructure projects.

3. **Require that provincial and municipal governments applying to the infrastructure bank for federal financing have a credible, independent study of the benefits and costs of the project, and that the project has been identified as a top priority by the sponsor government.** Canadian governments have a mixed record of using evidence-based assessments to make large infrastructure investment decisions in the transportation, housing and green energy sectors. Expedience and politics has sometimes

trumped careful empirical consideration and long-term strategic planning, leading to the allocation of scarce resources to infrastructure projects that do not always deliver the economic, environment or social benefits to warrant their cost. At a minimum capital cost of $10 million, the scale of these projects warrant the undertaking of a thorough benefit-cost analysis, which should be independently peer reviewed for accuracy by the technical staff of the CIB. The scope and depth of these project evaluation studies should be commensurate with the cost of the proposed project. Employing such a screen during the application evaluation processes does not mean that the CIB will be selecting which projects for the provincial or municipal governments to prioritize; this is an important municipal and provincial responsibility. Rather it is simply a requirement that a rigorous evaluation has been undertaken prior to awarding federal financial support to a large capital project, to maximize the public value of all investment in infrastructure.

4. **Low interest loans and credit enhancement services should be used as a way to attract private investors or non-profit agencies to invest in high priority sectors that may be deemed too risky or unprofitable to participate in otherwise.** This is especially the case in priority sectors such as affordable housing and green energy, where traditional banks may be reticent to provide loans, and small borrowing cost savings could contribute to making a project viable. Low interest federal loans and credit enhancement programs should be used to encourage experimentation with innovative project financing or public-private partnership arrangements that may not be bankable in commercial markets, but could deliver strong economic, social or environmental benefits. At the same time, to ensure that the private sector proponent continues to bear the risk for effective project evaluation and management, investors should be required to proceed with a project by making an investment of at least one-third of the capital value of the project that is not backed by a government guarantee or alternate credit enhancement. The infrastructure bank should thus provide loan guarantees and other credit enhancement services that cover up to two-thirds of the capital cost of privately sponsored projects.

5. **Become a centre of excellence on effective infrastructure project delivery and a convener of federal, provincial and municipal procurement practitioners to develop best practices based on experiences across the country.** Canadian infrastructure projects will not only benefit from low-cost financing options but also improved procurement practices to maximize the value of projects delivered. Indeed, effective lending to infrastructure projects is predicated on successful project delivery and, over time, the bank will be staffed with experts that have extensive experience appraising and procuring infrastructure projects. With this in mind, there are synergies to be experienced by combining the lending mandate of an infrastructure bank with a mandate to create a national centre of excellence on project evaluation and infrastructure procurement. As part of this mandate, the bank could be tasked with carrying out project delivery confidence assessments, establishing national data collection and infrastructure project monitoring standards, providing evidence upon which to make informed decisions about the quality and productivity of Canada's infrastructure.

As demonstrated above, the creation of an infrastructure bank that provides low interest loans and credit enhancement services to projects across the country is not in and of itself a panacea for the challenges that the Canadian infrastructure sector faces. It is a financing scheme that lowers the cost of borrowing for municipalities, provinces and private sector sponsors of infrastructure capital investments in priority sectors. Furthermore, it does not create new funding sources; these must come from either user fees that reflect the complete cost of building and operating the infrastructure, or policy decisions to raise general taxes or cut spending elsewhere. Moreover, an infrastructure bank does not address budgetary challenges that municipalities and provinces will have paying for the additional operating and maintenance costs of new infrastructure, much of which is not covered by user-fee revenues. These are challenges that are systemic across Canada and must be addressed if the country is going to successfully realize productivity, environmental and social gains from what is set to be the largest building boom of infrastructure in a generation.

APPENDIX 1: CANADIAN MUNICIPAL CREDIT RATINGS, FEBRUARY 2014

Issuer	S&P	Moody's	DBRS
Barrie, City of	AA		
Belleville, City of	AA-		
Brampton, City of	AAA		
Brandon, City of	AA-		
Brantford, City of	AA+		
Calgary, City of	AA+		AA (high)
Chatham-Kent, Municipality of	A+		
Durham, Regional Municipality of	AAA	Aaa	
Edmonton, City of	AA+		AA (high)
Essex, County of	AA		
Guelph, City of	AA+		
Halton, Regional Municipality of	AAA	Aaa	
Haldimand, County of	A+		
Halifax Regional Municipality	AA-		
Hamilton, City of	AA		
Kingston, City of	AA		
Lambton, County of	A+		
Laval, City of	AA-		
London, City of		Aaa	
Mississauga, City of	AAA		
Montreal, City of	A+	Aa2	A (high)
MFA-BC	AAA	Aaa	
Muskoka, District Municipality of		Aa2	
Niagara, Regional Municipality of	AA		
Norfolk County	A		
North Bay, City of		Aa2	
Ottawa, City of	AA+	Aaa	
Oxford, County of	AA		
Peel, Regional Municipality	AAA	Aaa	
Peterborough, City of	AA-		
Quebec, City of		Aa2	
Regina, City of	AA+		
Saskatoon, City of	AAA		
Sault St. Marie, City of	A+		
St. John's, City of	A+	Aa2	
Simcoe, County of	AA-		
Thunder Bay, City of	AA-		
Toronto, City of	AA	Aa1	AA
TransLink		Aa2	AA
Vancouver, City of	AA	Aaa	AA
Waterloo, Regional Municipality of		Aaa	
Wellington, County of	AA		
Windsor, City of	AA		
Winnipeg, City of	AA	Aa1	
Yellowknife		Aa2	
York, Regional Municipality of	AAA	Aaa	

Source: Hanniman, 2014 [31]

APPENDIX 2: CURRENT INTEREST RATES OFFERED BY PROVINCIAL MUNICIPAL LENDING AUTHORITIES

Below is a presentation of reported interest rates currently or recently being offered by provincial financing authorities. Note that these rates are not directly comparable to the rates identified in the table in Appendix 1 – those numbers represent the average interest rates being offered between 2008-2014, during which time interest rates have declined considerably.

Infrastructure Ontario

Below is a list of the indicative lending rates that Infrastructure Ontario offers for serial loans available to municipal borrowers in Ontario, as of February 7, 2016.

TERM	RATE
5-Year	1.64%
10-Year	2.34%
15-Year	2.83%
20-Year	3.15%
25-Year	3.34%
30-Year	3.46%

For further information on Infrastructure Ontario's lending program and interest rates offered to various types of borrowers and projects, see: http://www.infrastructureontario.ca/Templates/RateForm.aspx?ekfrm=2147483942&langtype=1033

Alberta Capital Finance Authority

Interest Rates as of February 1, 2016

LOAN TERM	RATE
3-Year	1.023%
5-Year	1.376%
10-Year	2.073%
15-Year	2.593%
20-Year	2.935%
25-Year	3.153%
30-Year	3.284%

For further information on the Alberta Capital Finance Authority lending program and interest rates, see: http://www.acfa.gov.ab.ca/nav/rates.html

Nova Scotia Municipal Finance Corporation

Interest Rates for serial, fixed loans based on October 22, 2015 debt issuance

TERM	RATE
5-Year	1.76%
10-Year	2.43%
15-Year	2.90%
20-Year	3.13%
25-Year	3.23%
30-Year	3.29%

For further information on the Nova Scotia Municipal Corporation lending program and interest rates, see: http://www.nsmfc.ca/fall-2015-debenture-results.html

ENDNOTES

1 See: Speer, S. and Flemming, B. (2016). Avoiding Short-Cuts on the Road to Investing in Canada's Infrastructure. Macdonald-Laurier Institute Publication;

Dachis, B. (2016). Getting More Buildings for our Bucks: Canadian Infrastructure Policy in 2016. C.D. Howe Institute.

2 The prime minister confirmed the urgency of this pledge in his mandate letter to the ministers of finance and infrastructure, where he tasked them to "develop the Canada Infrastructure Bank to provide low-cost financing (including loan guarantees) for new municipal infrastructure projects in our priority investment areas."

3 For a clear and concise definition of an Infrastructure Bank, see Cautillo, C. Zon, N. and and Mendelsohn, M. (2014). *Rebuilding Canada.* Mowat Centre., p12. http://mowatcentre.ca/wp-content/uploads/publications/92_rebuilding_canada.pdf

4 For a glossary of credit enhancement tools, see: U.S. Government Office of Energy Efficiency and Renewable Energy. http://energy.gov/eere/slsc/glossary-terms#L

5 See: Flemming, B. and Cooper, M. (2014). Catching Up: the Case for Infrastructure Banks in Canada. Calgary: Van Horne Institute;

Galston, W.A. and Davis, K. (2012). Setting Priorities, Meeting Needs: The Case for a National Infrastructure Bank. Washington: Brookings Institution.;

Fenn, M. (2014). Unlocking Ontario's Advantages: Building new infrastructure on the foundation of existing public assets. Vaughan: RCCAO.

6 See: Infrastructure Investor 30, Infrastructure Investor.com https://www.infrastructureinvestor.com/uploadedFiles/Infrastructure_Investor/Non-Pagebuilder/Non-Aliased/Widget_Content/II_30.pdf

7 Amborski, D. (2013). The Context of Municipal Borrowing in Canada. Presentation to the Institute on Municipal Finance and Governance, Munk School, University of Toronto. http://munkschool.utoronto.ca/imfg/uploads/226/context_of_municipal_borrowing_in_canada_col.pdf

8 Conference Board of Canada (2010). The Economic Impact of Public Infrastructure in Ontario. Economic Performance and Trends Report.

9 Canadian Centre for Economic Analysis (2015). Investing in Ontario's Public Infrastructure: A Prosperity at Risk Perspective. RCCAO: Vaughan, Ontario.

10 The term "shovel worthy" came to prominence after being used in a speech by Canadian Infrastructure Minister Amarjeet Sohi to the Toronto Regional Board of Trade, January 21, 2016.

11 Auditor General of Canada (2011). G8 Legacy Infrastructure Fund. Spring 2011 Report, Chapter 2. http://www.oag-bvg.gc.ca/internet/docs/parl_oag_201104_02_e.pdf

12 See: Bazel, P. and Mintz, J.M. (2015). Optimal Public Infrastructure: Some Guideposts to Ensure We Don't Overspend. School of Public Policy SPP Research Papers. Volume 8, Issue 37. University of Calgary.

13 The majority of the urban rapid transit projects currently being proposed across the country are located in suburban locations. While these projects may deliver social benefits, there is little chance that they will recover their costs from user fees or land value capture mechanisms.

14 Flyvbjerg, B., Bruzelius, N., and Rothengatter, W. 2003. *Megaprojects and Risk: An Anatomy of Ambition*. New York: Cambridge University Press.

15 Guasch, J.L., Benitez, D., Portabales, I. and Flor, L. (2014). The Renegotiation of PPP Contracts: An Overview of its Recent Evolution in Latin America. Discussion Paper 18. Washington D.C.: The World Bank.

16 Toronto City Auditor (1998). *Sheppard Subway project cost overruns.* Toronto, Canada: City Auditor.

17 See: Mizera, N. (2012) Subway subsidized to tune of $10 mil a year. http://www.postcity.com/Post-City-Magazines/October-2012/Subway-subsidized-to-tune-of-10-mil-a-year/

18 The largest federal conditional grant programs for infrastructure in Canada are the Build Canada Fund, Canada Strategic Infrastructure Fund, and the Infrastructure Stimulus Fund.

19 While the convention is for the federal government to provide matching grants of up to one-third of the capital costs of municipal or provincial infrastructure projects, there are numerous federal infrastructure programs that have permission to provide contributions of up to 50% of eligible capital costs. This includes the Border Infrastructure Fund, the Green Infrastructure Fund and the Infrastructure Stimulus Fund.

20 Dahlby, B. and Jackson, E. (2015). Striking the Right Balance: Federal Infrastructure Transfer Programs, 2002-2015. School of Public Policy SPP Research Papers. Volume 8, Issue 36. University of Calgary.

21 See Hanniman, K. (2014). A Good Crisis: Canadian Municipal Credit Conditions After the Lehman Brothers Bankruptcy. IMFG Papers on Municipal Finance and Governance. No. 22.

22 See St. John's Budget, 2014: http://www.stjohns.ca/sites/default/files/files/publication/Budget%202014%20Internet.pdf

23 See Cornwallis Notice of General Borrowing By-Law: http://www.gov.cornwallis.mb.ca/notices_detail.asp?notice_ID=229

24 The City of Vancouver is the only municipality in British Columbia that has access to but does not borrow capital through the MFABC.

25 See: EIB About Us: http://www.eib.org/about/index.htm

26 See: Flyvbjerg, B. Holm, M.S. and Buhl, S. (2005). How (In)accurate Are Demand Forecasts in Public Works Projects? The Case of Transportation. *Journal of the American Planning Association*, 71(2), 131-146.

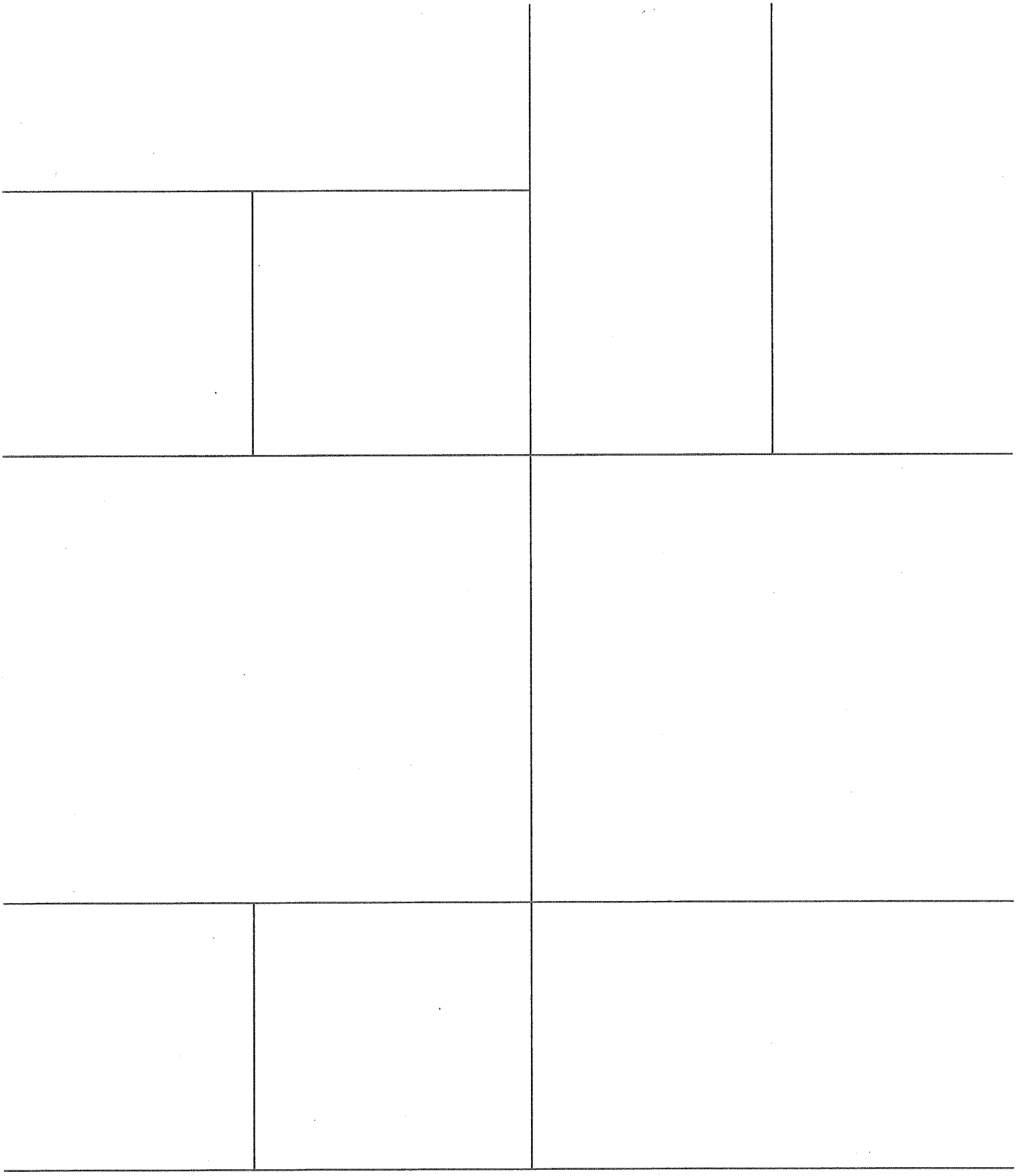
27 Rhodes, J. (2015). Infrastructure Policy. House of Commons Library. Briefing Paper Number 06594.

28 For a description of the history and current practice of American Metropolitan Planning Organizations, see: http://www.ampo.org/about-us/about-mpos/

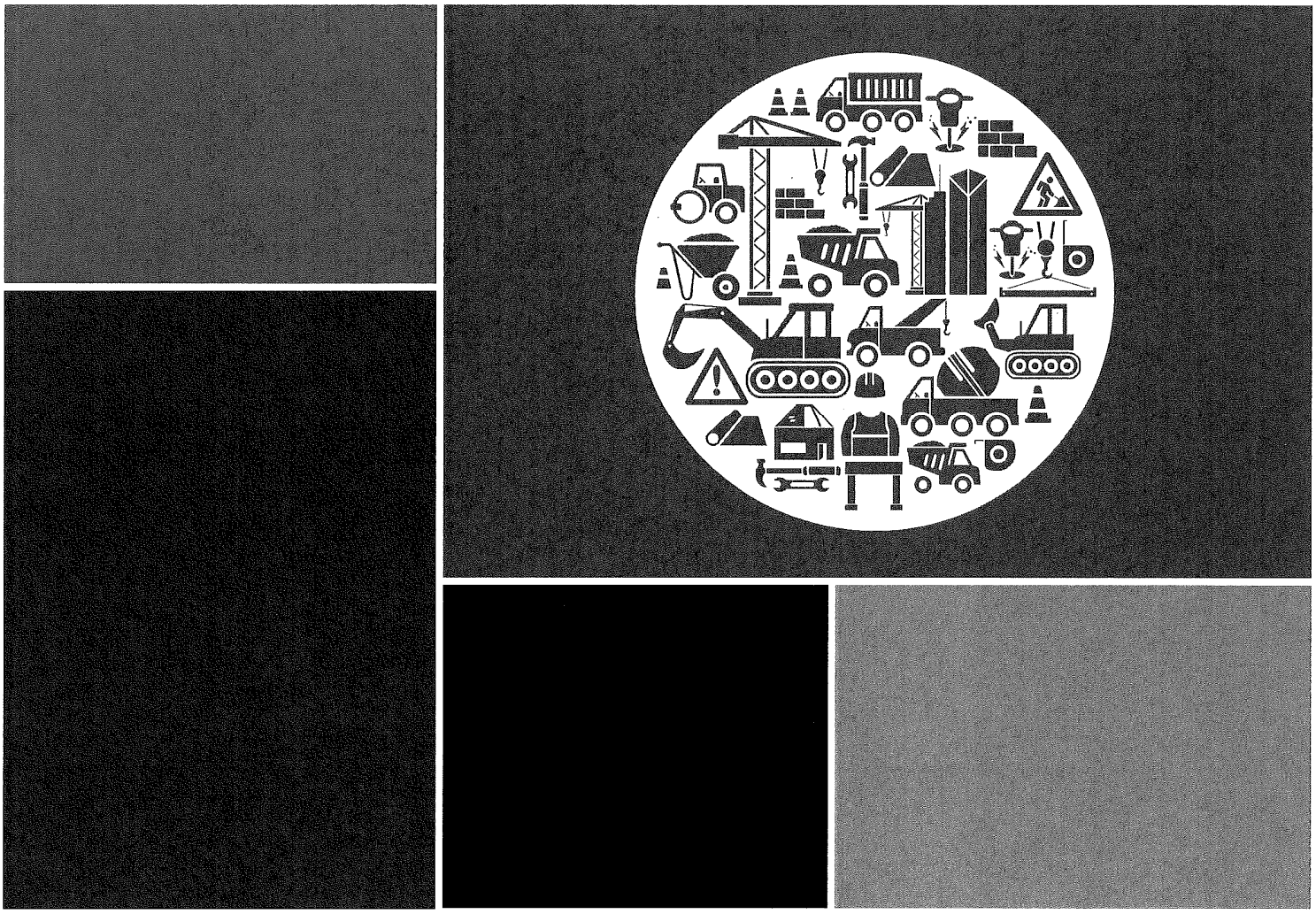
29 See Rhodes (2015).

30 Dachis, B. (2016).

31 Hanniman, K. (2014).



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