Skills in the Age of Disruption

Sunil Johal @johalsunil

CESBA

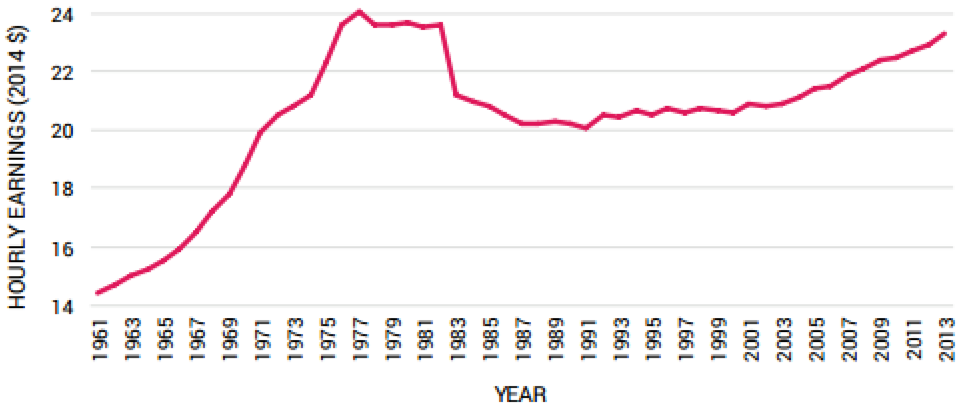
Mowat Centre

ONTARIO'S VOICE ON PUBLIC POLICY

1. Longer-term labour market trends
   Emerging issues – digital economy
2. Impact on jobs and skills
3. Canada’s approach to skills-training
4. Policy Options

Unequal Prosperity

Real Wage Growth (Average Hourly Earnings, Adjusted)



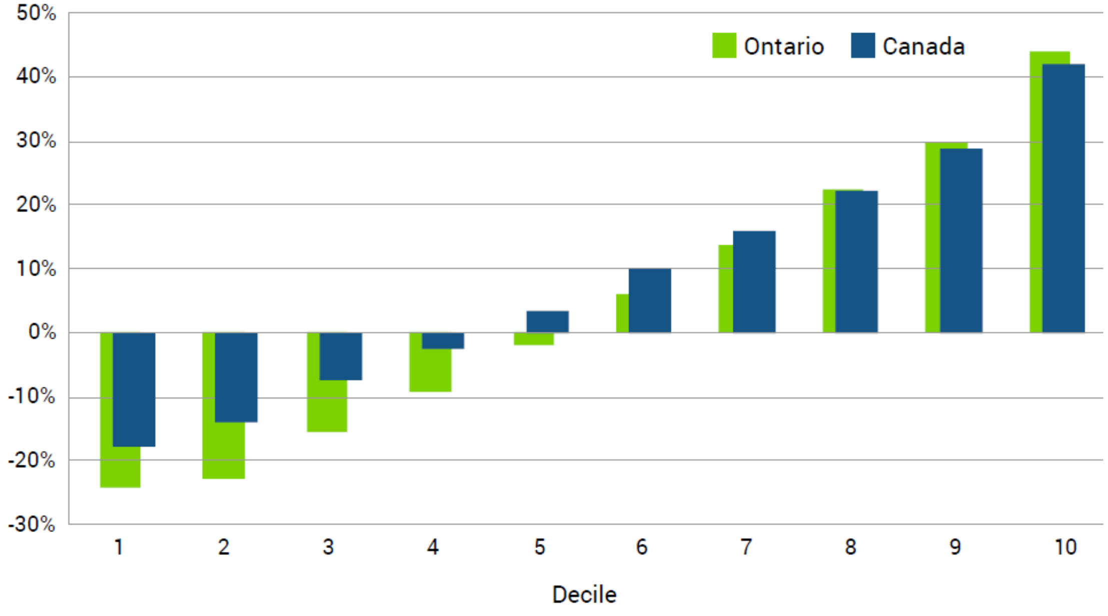
Source: CANSIM Tables 281-0022, 281-0008, 281-0030. Note: the method used by Statistics Canada to categorize employment changed in 1983 and again 1997. The slight shift upwards after 1997 can partially be attributed to this change in categorization, not substantial wage increases[10]

The "Great Decoupling" while the economy continues to grow, wages have remained mostly stagnant for almost 30 years

Unequal Prosperity

FIGURE 4

Percentage Change in Average Incomes between the Periods of 1976-79 and 2012-15 for Income After Tax (2015 $'s) by Decile | Non-Senior Economic Households, Canada and Ontario



Source: Statistics Canada, Custom Tabulation from Canada Income Survey.

Rise of precarious work

The standard employment relationship - characterized by full-time hours, permanency and benefits - is becoming increasingly rare

57% increase

Temporary workers account for

13.5%

of Canada's workforce in **2016,** compared to **8.6% in 1997**

Part-time workers account for

19.6%

of Canada's workforce in **2016,** compared to **12.5% in 1976**

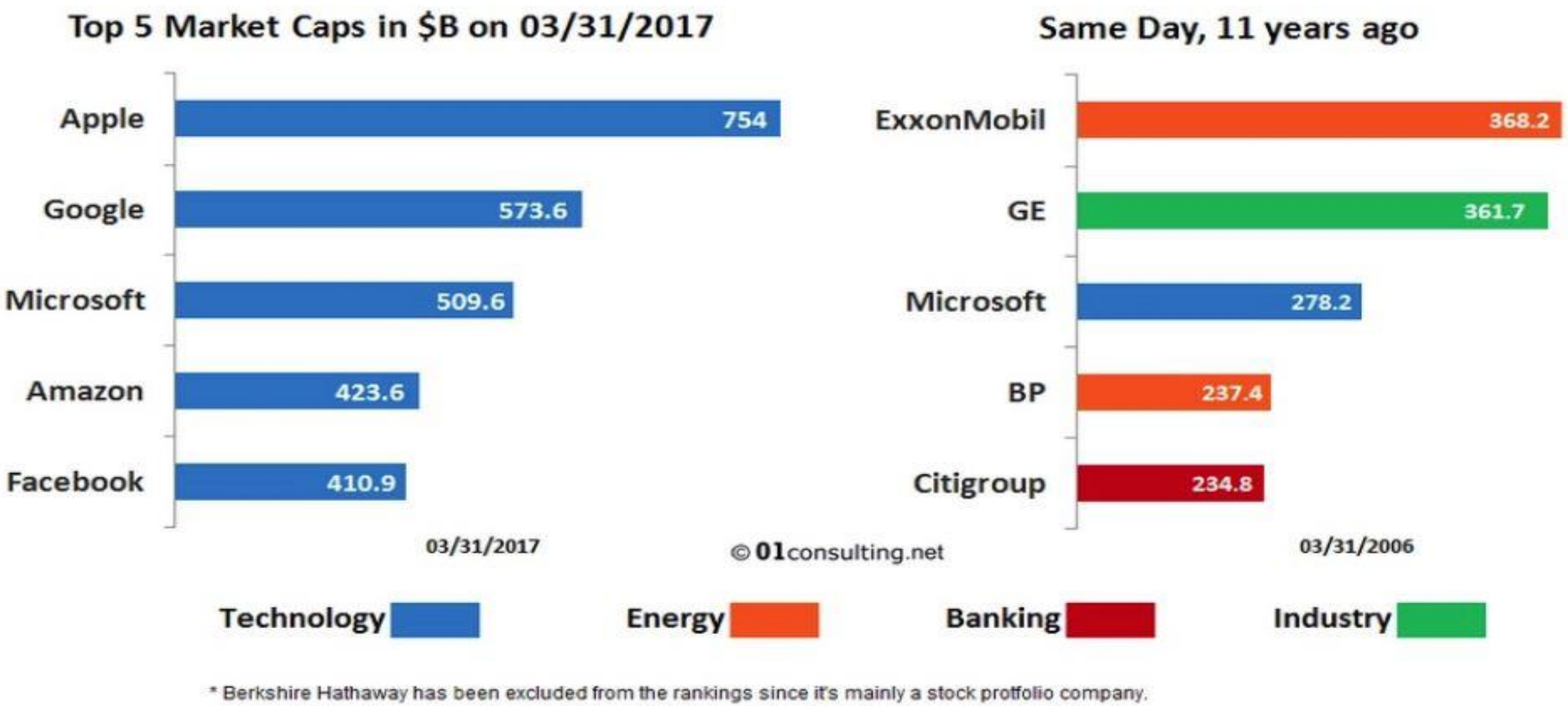
Source: CANSIM Table 282-0087, CANSIM Table 282-0079

Digitization

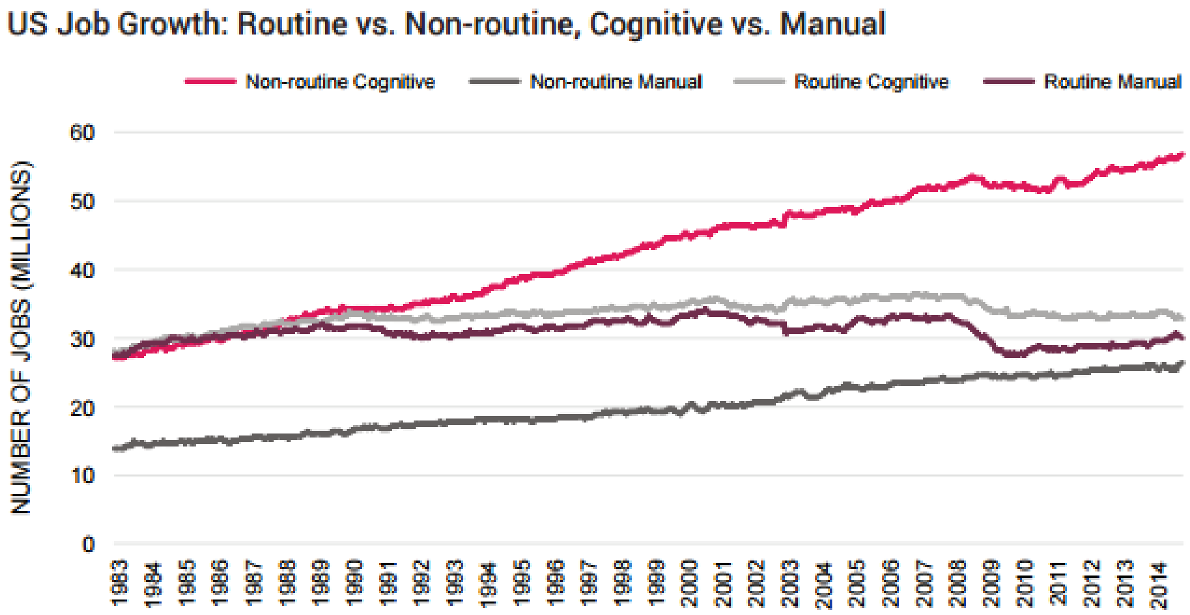
Firms in the digital economy are characterized by a number of key features:

- Small physical infrastructure footprints
- Low costs of replication
- Rapid scalability
- Powerful network effects
- Low barriers to entry and constant development of new business models

New Tech and “Natural Monopolies”



Automation of industry

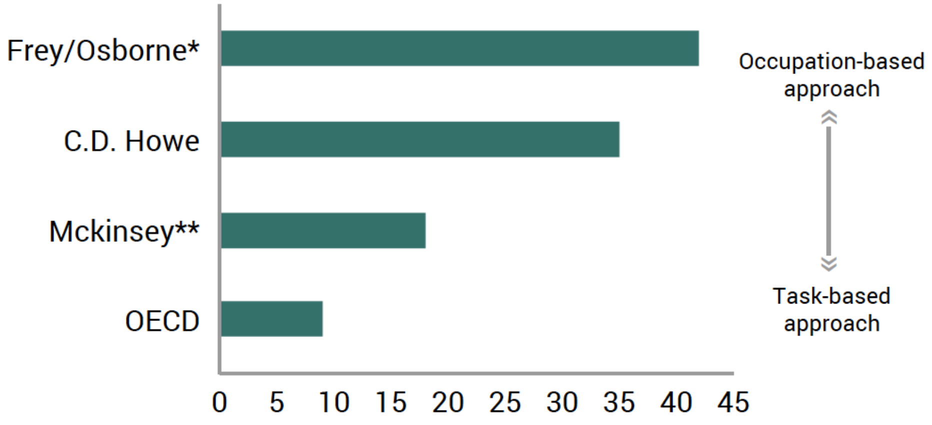


Source: Maximiliano Dvorkin (2016) "Jobs involving routine tasks aren't growing" Federal Reserve Bank of St. Louis

Automation of industry

FIGURE 8

Estimates of the share of Canadian workers at high risk of being affected by automation in the next 10 to 20 years

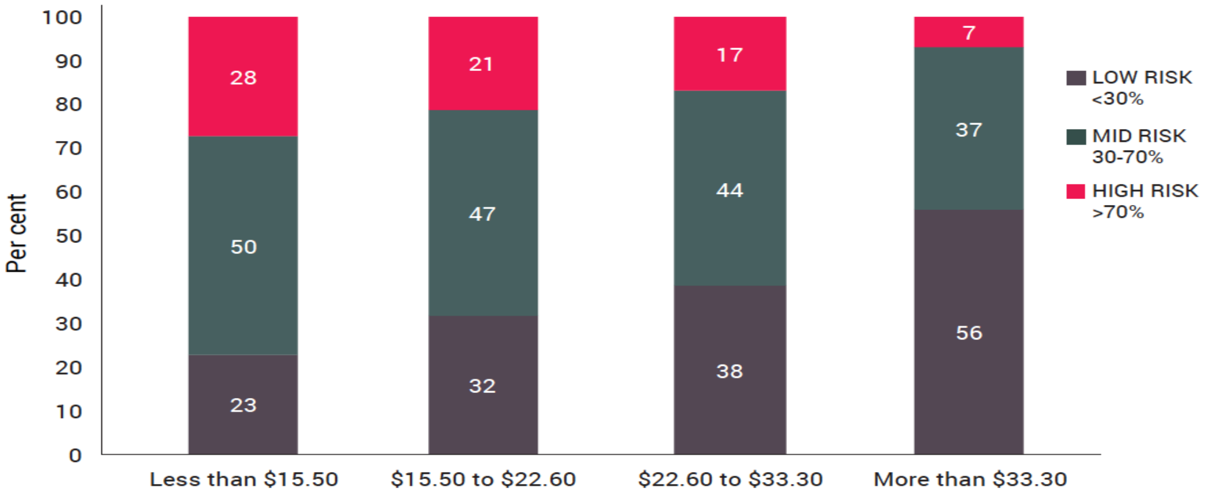


Many studies have attempted to estimate the size of job loss due to automation across various jurisdictions, using different methodologies

Automation of industry

FIGURE 10

Distribution of employment by vulnerability to automation, by hourly wage group



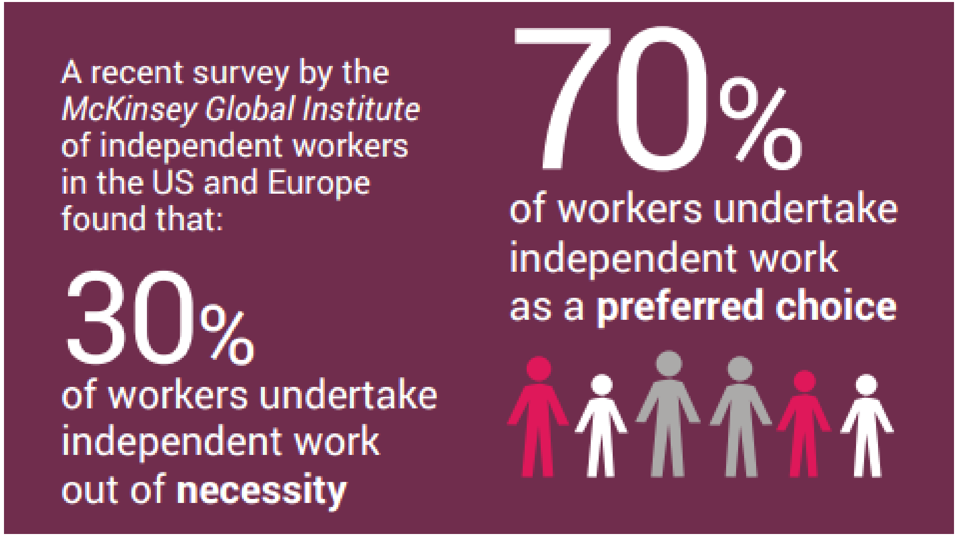
Automation of industry

Deconstructing a job and outsourcing its constituent tasks can be understood as part of a progression towards automation in which jobs become less stable and less well-paid

The Unbundling of Work

Source: Policy Horizons Canada (2016), "Canada and the Changing Nature of Work"

Living in an on-demand society



New and emerging digital platforms easily connect those looking for short-term work, many of which use alternative worker classifications such as "independent contractor"

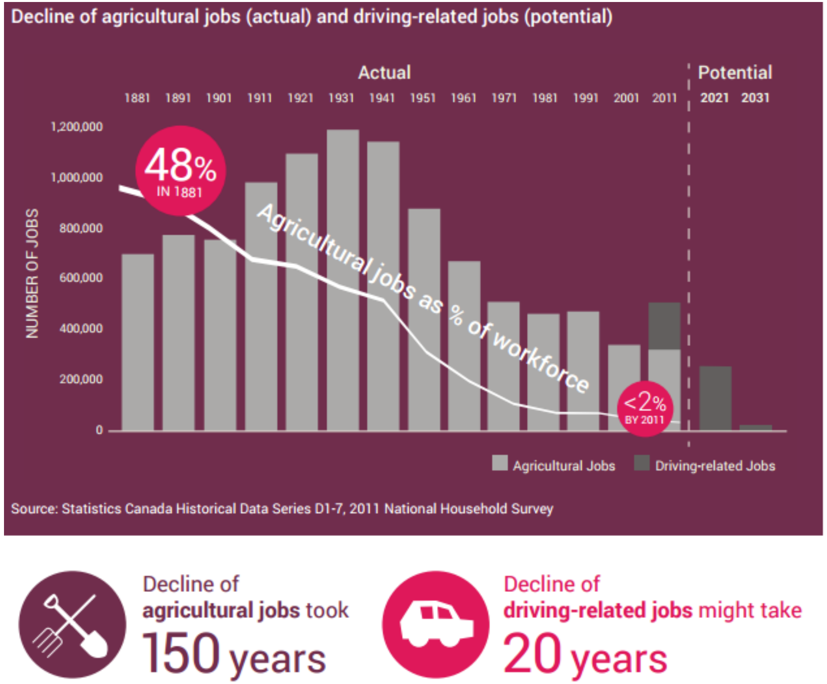
2. What's the impact?

- Increased uncertainty
- Increased pace of change
- Constant disruption and volatility
- Significant pressure on existing regulatory/social and economic frameworks
- Increased need for quick, flexible, coordinated and international responses

The pace of disruption

- Decline of agricultural jobs in Canada took 150 years (from 48% of workers to under 2%)

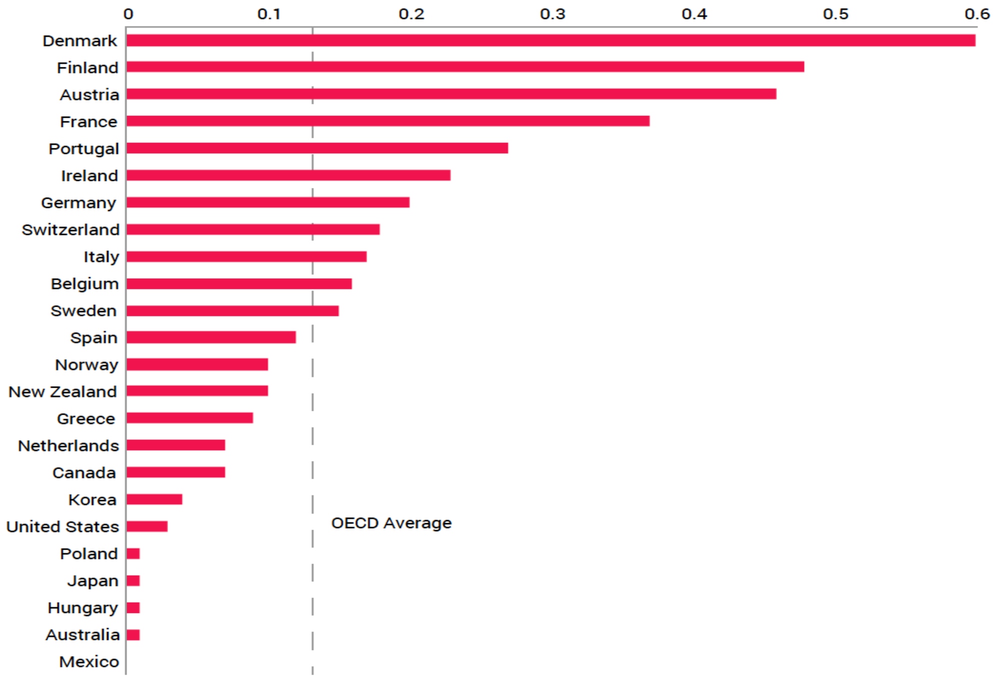
- 500,000 Canadians who drive for a living could be out of work within 10-15 years



Training Challenges

FIGURE 13A

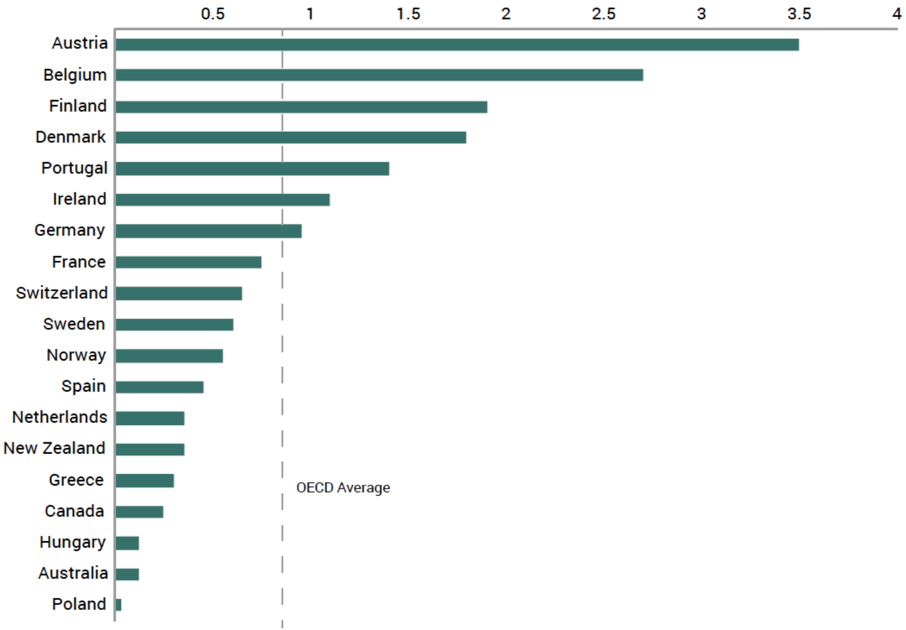
Government spending on training programs as a share of GDP, selected OECD countries, 2015



Training Challenges

FIGURE 13B

Share of labour force participating in publicly funded institutional training, selected OECD countries, 2015



Jobs of the future

- Occupations at highest risk of automation may disappear or have their tasks shared with robotics
- Jobs in industries such as education, health and nursing tend to be at the lowest risk of automation
- New jobs are likely to emerge in the development, maintenance and management of new technologies

Skills for the future

- **Social and emotional intelligence** are key skills that computers have not yet mastered
- **Adaptability, creativity, and desire for constant learning** will be critical in a rapidly changing economy
- **Computational and analytic thinking** are exceptionally important in complementing new technology

Canada’s approach to skills-training

Recent Innovations

Labour Market Information Council (2017)

- Will address issues around the timeliness, reliability and accessibility of labour market information
- Created by federal, provincial and territorial governments, registered as a not-for-profit corporation to ensure autonomy

Future Skills Centre (2019)

- The federal government funding Centre to serve as a laboratory for skills development and measurement. It will:
  - run pilot programs in skills development
  - gather new forms of labour market information
  - measure outcomes and identify best practices.

Policy Options to Drive Inclusive Growth

Pre-distribution: Shaping how markets perform

Redistribution: Shaping government policies

Pre-distribution: Shaping how markets perform

Various factors that can be targeted to shape market performance and enhance inclusive growth:

- Skills and education
  - “Badging”
  - More on-the-job training
- Wages
  - Improved negotiation
  - Increased transparency
- Profits
  - Profit-sharing or clustering
- Public Infrastructure
  - Community benefits agreements
- Statutory/public policy reform
  - Anchored minimum wage to 60% of average wage
  - Pro-rated benefits for part- and full-time workers

Redistribution: Shaping government policies

Two key ways governments can harness public policy to steer towards improved redistribution and inclusive growth:

- Taxation:
    - Review Canada’s tax system and all tax rates
    - Increase taxation on wealth
- Transfers/Public Expenditures:
    - Guaranteed Annual Income
    - Improve Canada’s existing social architecture

@johalsunil
sunil@mowatcentre.ca

Stay Connected

Mowat NEWS