Deloitte.

The future of productivity

Clear choices for a competitive Canada

Industry Canada

November 1st, 2012

Deloitte believes that unless immediate collective action is taken productivity will be the most significant threat to Canada's standard of living

Employment rate		Work effort		Productivity		Standard of living
% of total population that is employed	X	$\frac{\text{Hours}}{\text{Worker}}$	X	$\frac{\text{Output}}{\text{Hour}}$	=	$\frac{\text{GDP}}{\text{Population}}$

Is this a problem for Canada?

No	No	Yes	Yes
Canada's unemployment rate is comparable to the U.S. over the last few decades	Canadians work a similar number of hours as the U.S. and European OECD countries	Canada's productivity growth has been declining in recent years on both an absolute basis and relative to its peers	GDP per capita is increasing at a slower rate than many of our peers

Over the past three decades a major productivity gap has emerged between Canada and the United States

Employment rate
% of total population that is employed

X

Work effort
$\frac{\text{Hours}}{\text{Worker}}$

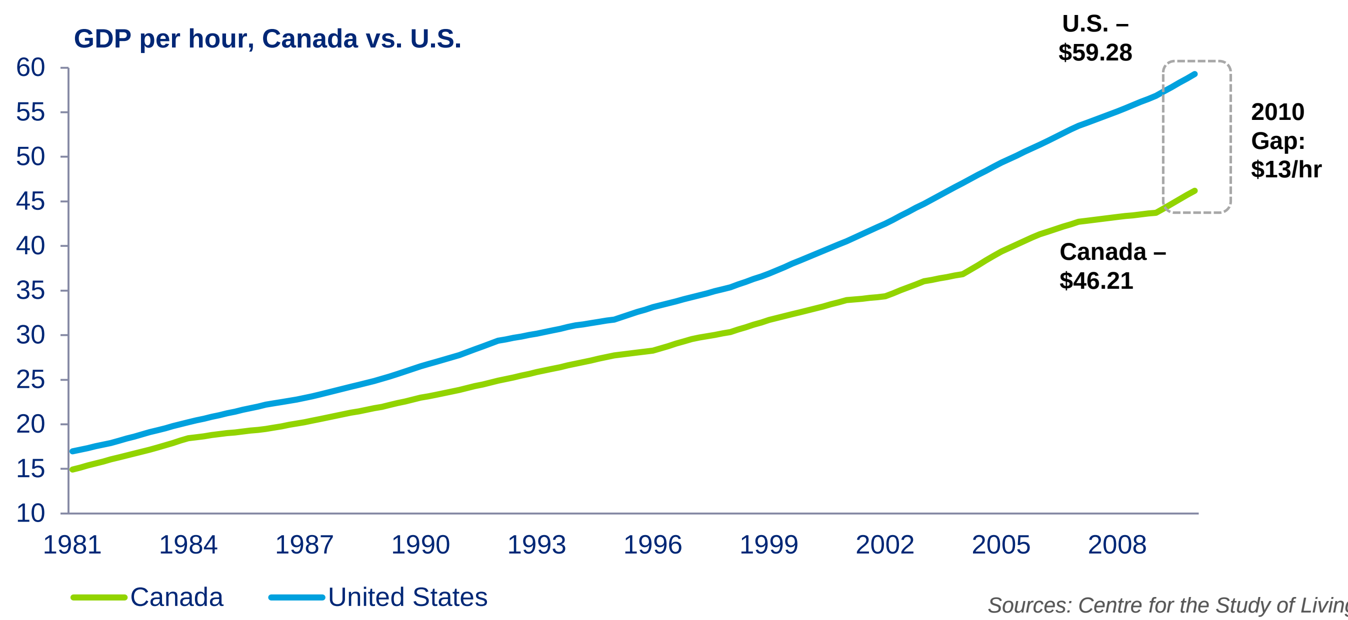
X

Productivity
$\frac{\text{Output}}{\text{Hour}}$

=

Standard of living
$\frac{\text{GDP}}{\text{Population}}$

Over the past 30 years, productivity growth has taken different paths in Canada and the United States



Sources: Centre for the Study of Living Standards, OECD

Our research on Canadian productivity dispels long standing myths and highlights growth as a key driver of productivity

Common myths about productivity

Size distribution

- **The size of our firms does not matter**, as small, medium, and large Canadian firms all trail the U.S. in productivity
- Productivity needs to **improve at all firm sizes**

Sector composition

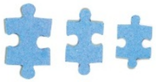
- **Sector composition does not matter**. Research shows we lag the U.S. in most sectors
- **Lagging sectors need a productivity boost**

Key driver of productivity

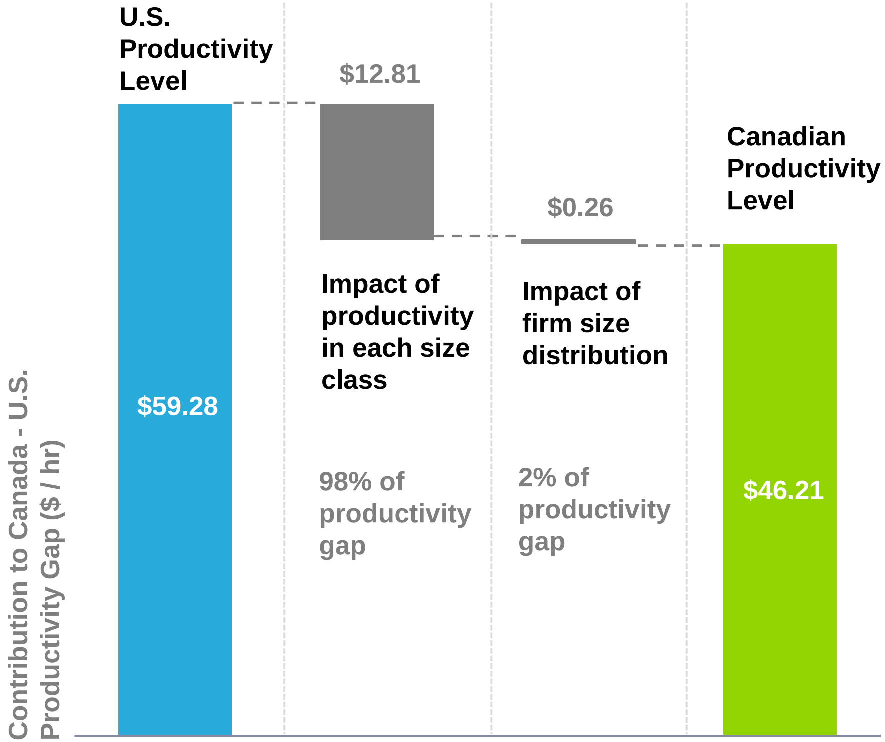
Growth

- **Growth, is the simple solution to productivity**. High growth firms exhibit higher productivity levels
- To improve productivity, we need to **stimulate high firm-level growth**

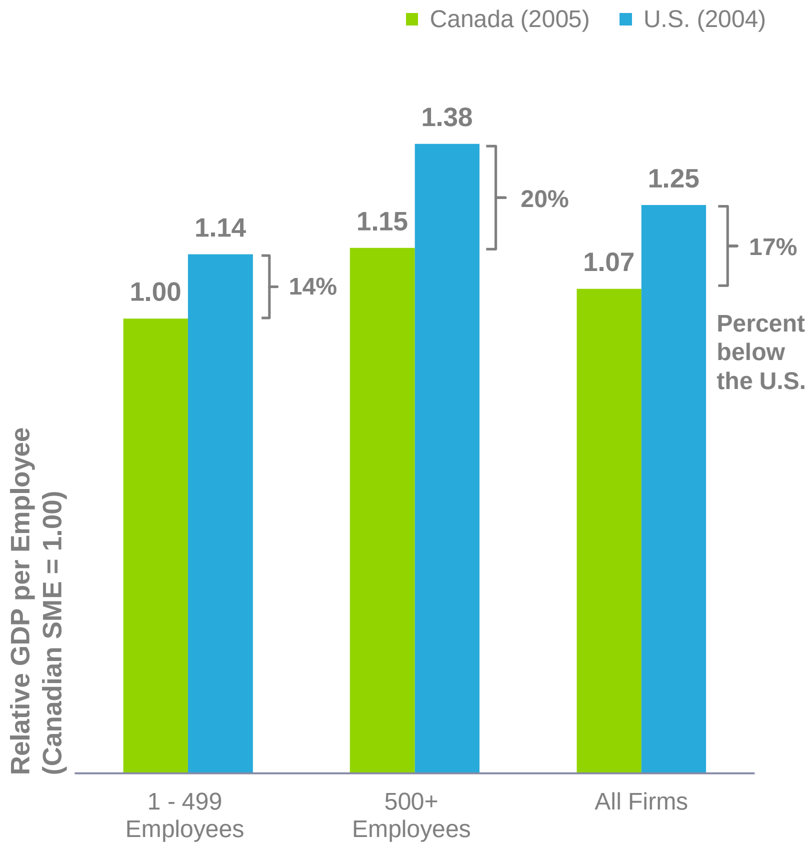
Our analysis shows that differences in size distribution account for only 2% of the Canada – U.S. productivity gap



Contribution to Canada – U.S. productivity gap, 2009



Relative productivity by firm size in Canada and U.S.

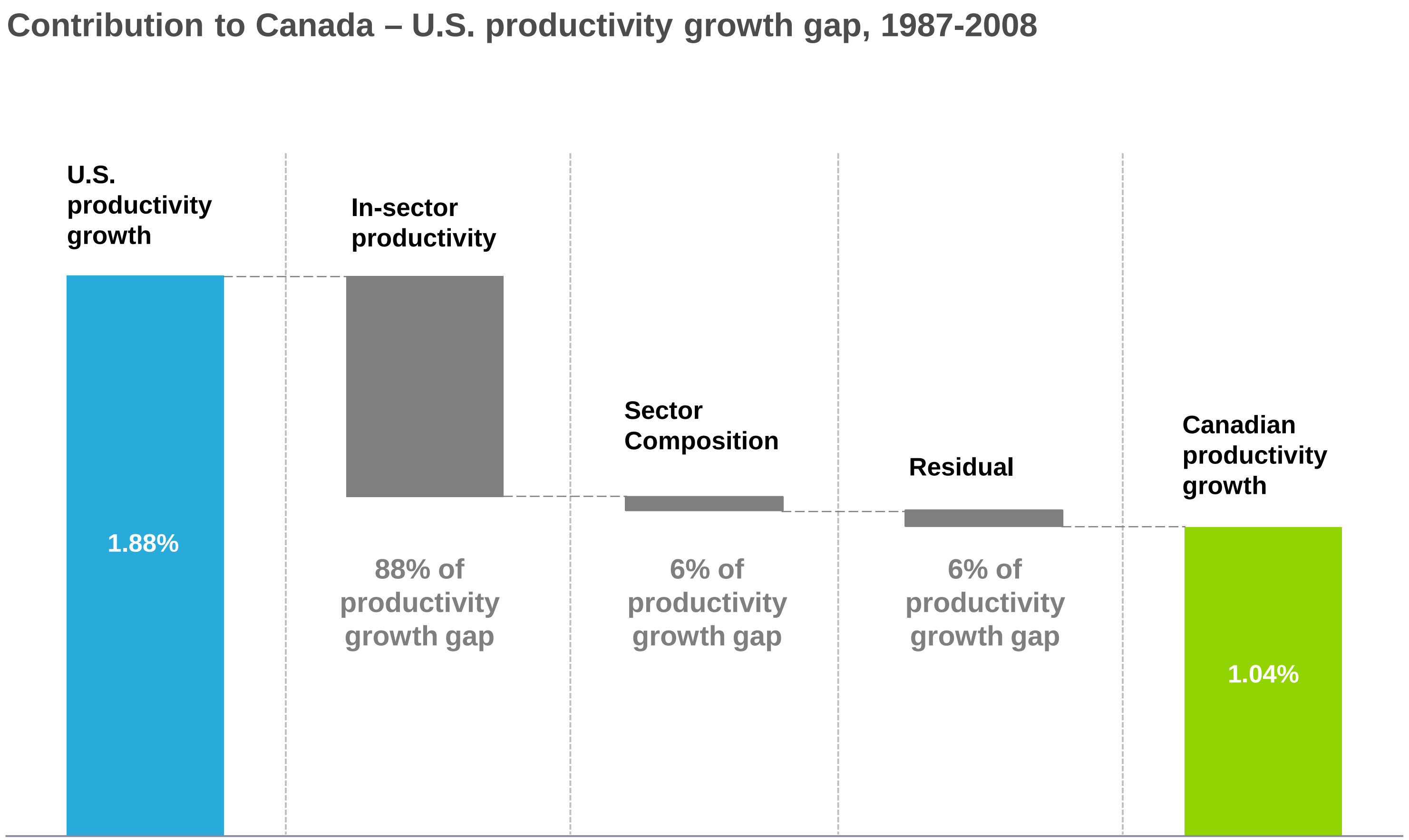


Note: *Productivity gap refers to the Business sector, excluding Public Administration, but including Public Education and Healthcare. Productivity is defined as annual GDP per employee.*

Source: *Statistics Canada, Industry Canada, U.S. Bureau of Labor Statistics, Deloitte Analysis*

Similarly, weaker productivity growth within a range of sectors, not sector composition drives the productivity gap between Canada and the U.S.

Sector

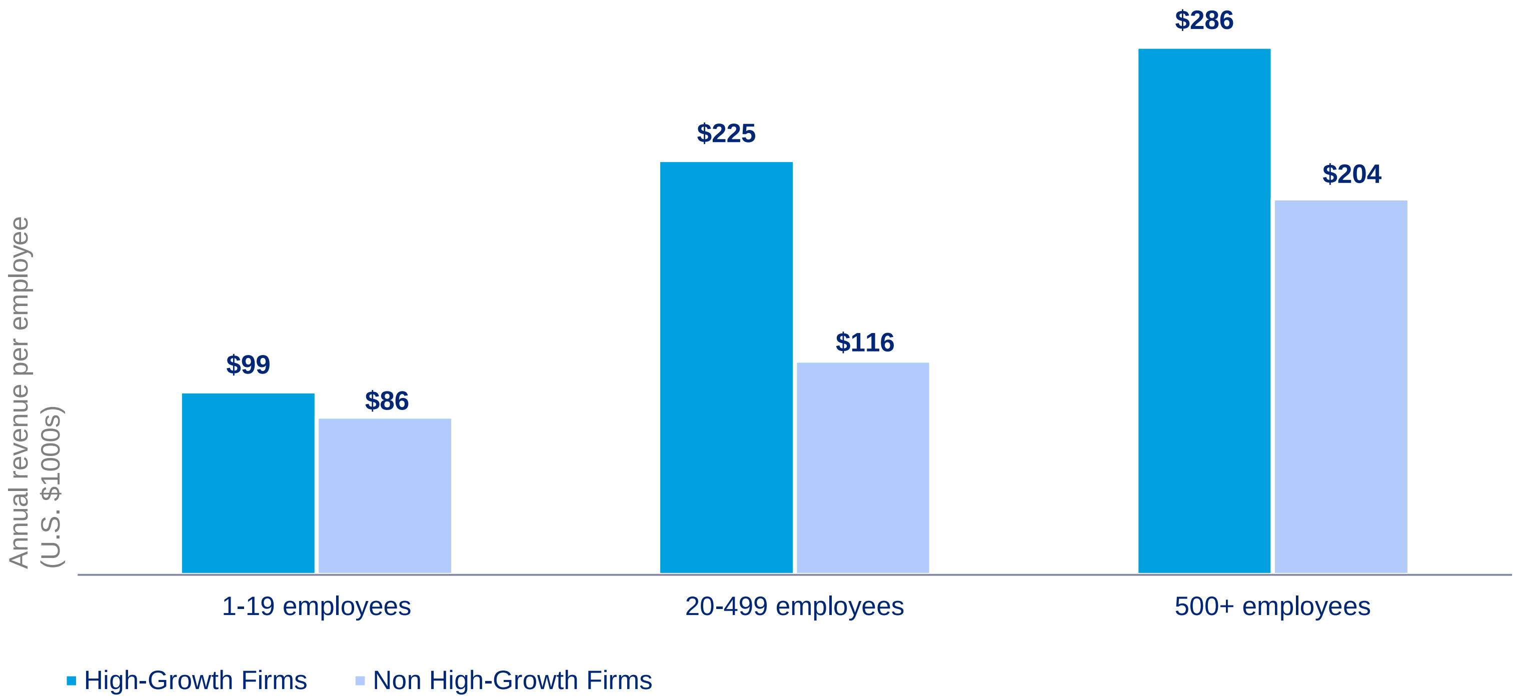


Source: Centre for the Study of Living Standards, Statistics Canada, U.S. Bureau of Economic Analysis

Interestingly, evidence indicates that growth is a strong driver of improvements in firm level productivity for all but the smallest firms …

Growth

U.S. productivity by firm size and growth rate



Observations

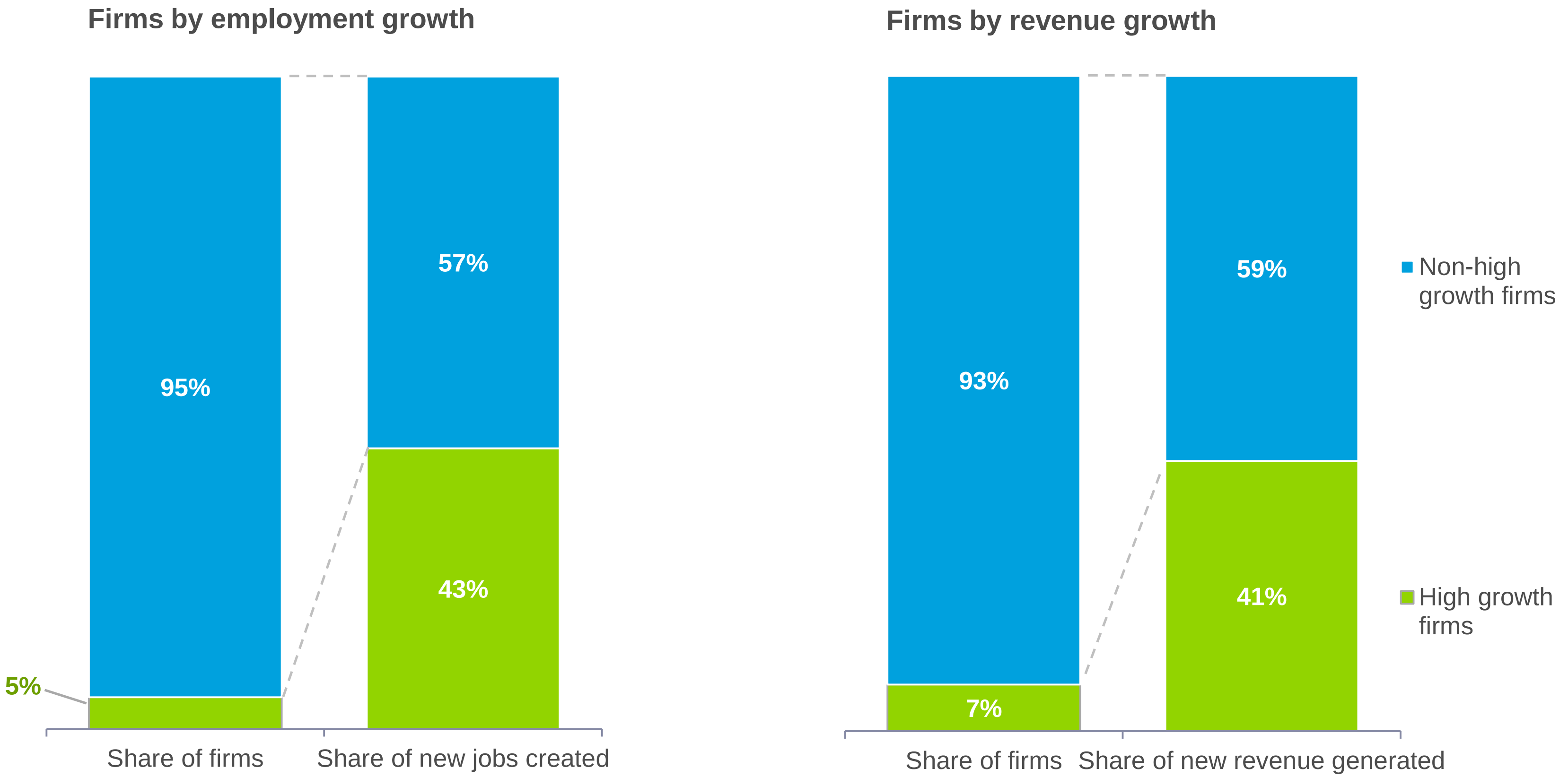
- From 2002-2006, high-growth firms exhibited a 94% productivity advantage over low-growth peers in the 20-499 employee segment, and a 40% productivity advantage over low-growth peers in the 500+ employee segment

Note: *High Growth U.S. Firms are defined as firms with 100% revenue growth over a 4-year period and an Employment Growth Quantifier of >2 for the same period. The EGQ is the product of the absolute job change and the percent job change.*

Source: *U.S. Small Business Administration*

… and a small percentage of these high growth firms contribute a disproportionate amount of Canada's job and revenue growth

Economic impact of high growth firms, 2001-2006



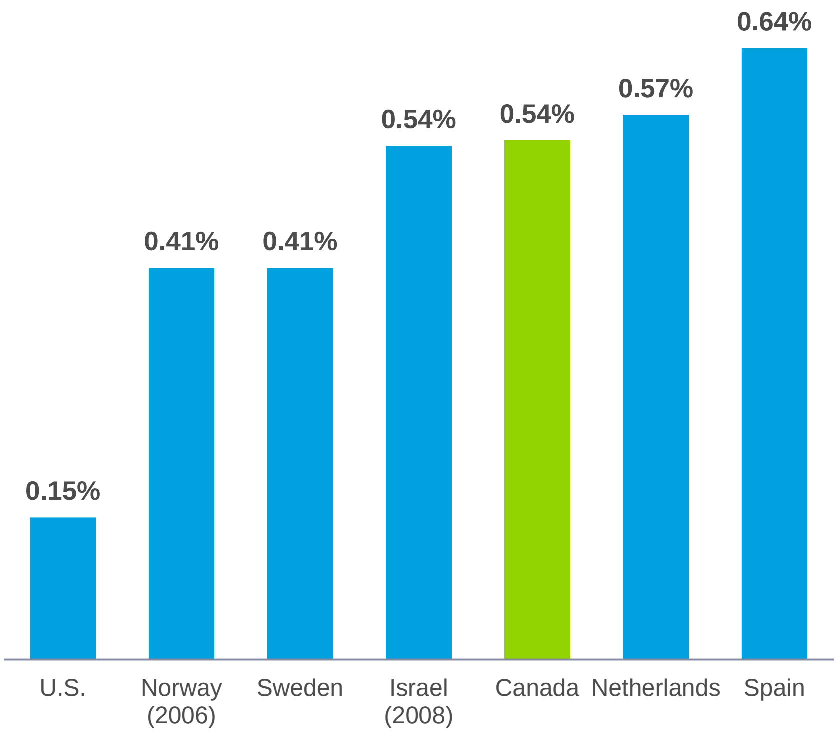
Note: *High Growth Firms are defined as firms averaging 20%+ annualized growth in employment or revenue over a 5 year period. Scope is limited to private sector firms with 10-250 employees and $30K-$50M revenues in 2001.*

Source: Industry Canada, U.S. Small Business Administration

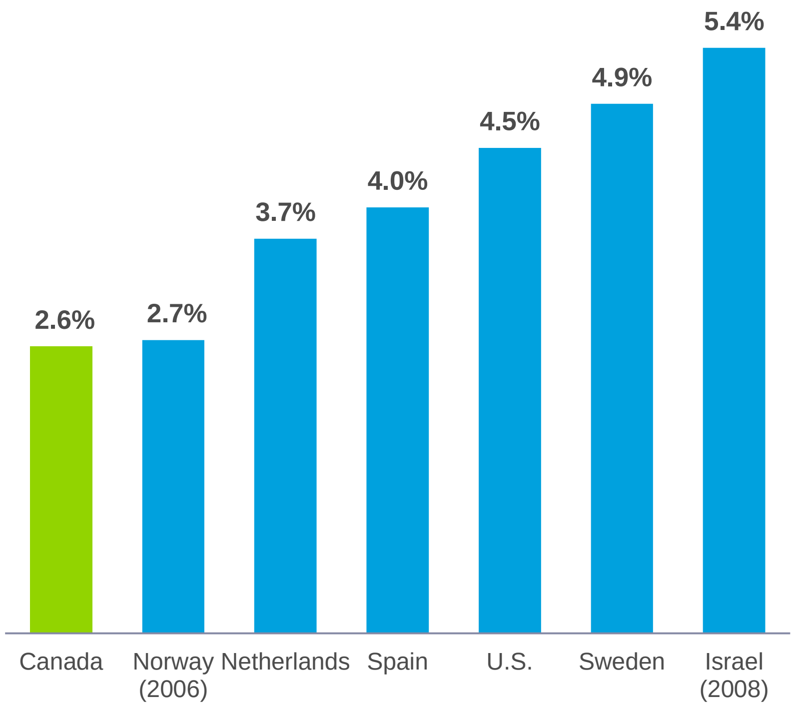
Although Canada has a high level of entrepreneurial activity, over time our firms are unable to sustain high growth compared to other OECD nations

Growth in services firms, 2005 - 2007

Young Firms (< 5 years old)
Percentage of high growth firms by country



Mature Firms (> 5 years old)
Percentage of high growth firms by country



Note: *High growth firms are defined as firms with 20%+ annualized employment growth over a 3 year period. Scope of firms is limited to those with 10-250 employees with $30K-$50M revenues in the first year of the period. Similar trend is observed in manufacturing firms.*

Source: OECD

Factors affecting growth

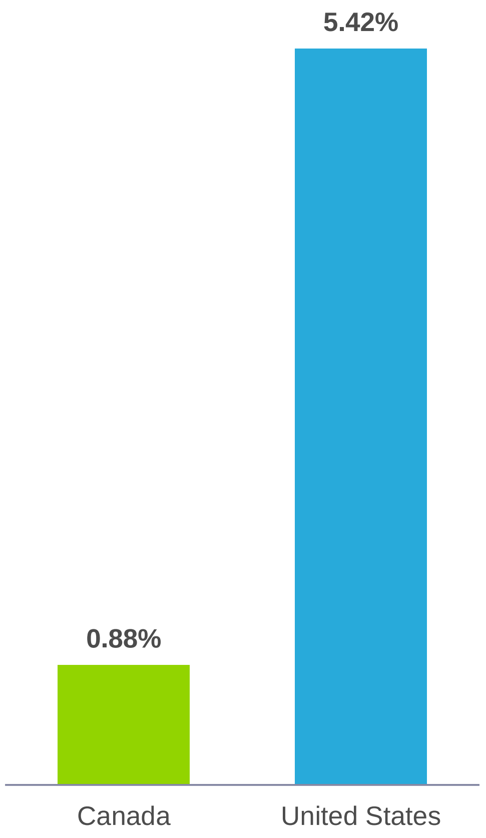
This inability to sustain growth is due to factors such as a lack of competitive intensity, low risk tolerance, poor trade activity and weak investment

Lack of competitive intensity	Low risk tolerance	Poor trade activity	Weak investment
			
• High competitive intensity drives higher levels of growth, innovation and investment • Canada’s focus on preserving the status quo has caused businesses to shy away from competition	• Canadian business leaders are substantially more risk averse than U.S. leaders • As Canadian companies mature, they become less likely to engage in activities that contribute to rapid growth	• Openness to trade has a tangible positive effect on GDP and income growth • Canadian firms have very poor export intensity compared to counterparts in advanced economies	• Investment in R&D and ICT improves productivity growth • Canadian investment in R&D and ICT lags other OECD countries

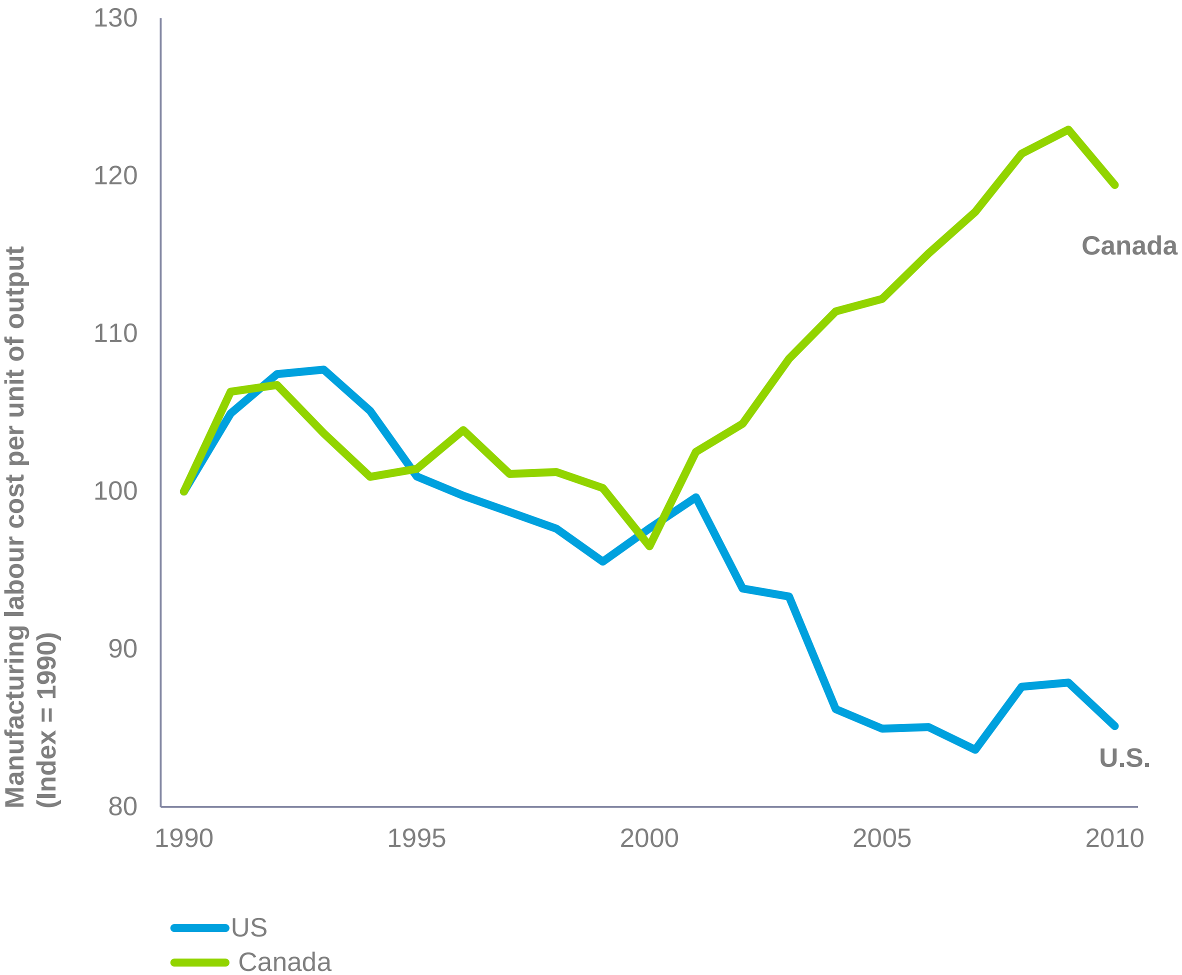
Lack of competitive intensity in manufacturing, partly due to a weak Canadian dollar, led to an enormous gap in productivity growth

Competitive intensity

Manufacturing productivity, CAGR 2000 - 2008



Manufacturing labour cost per unit of output, 1990 - 2010

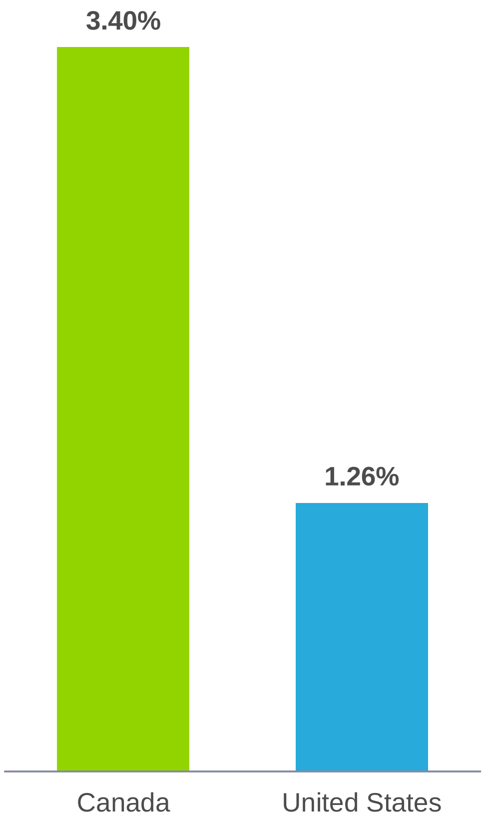


Source: Centre for the Study of Living Standards, OECD

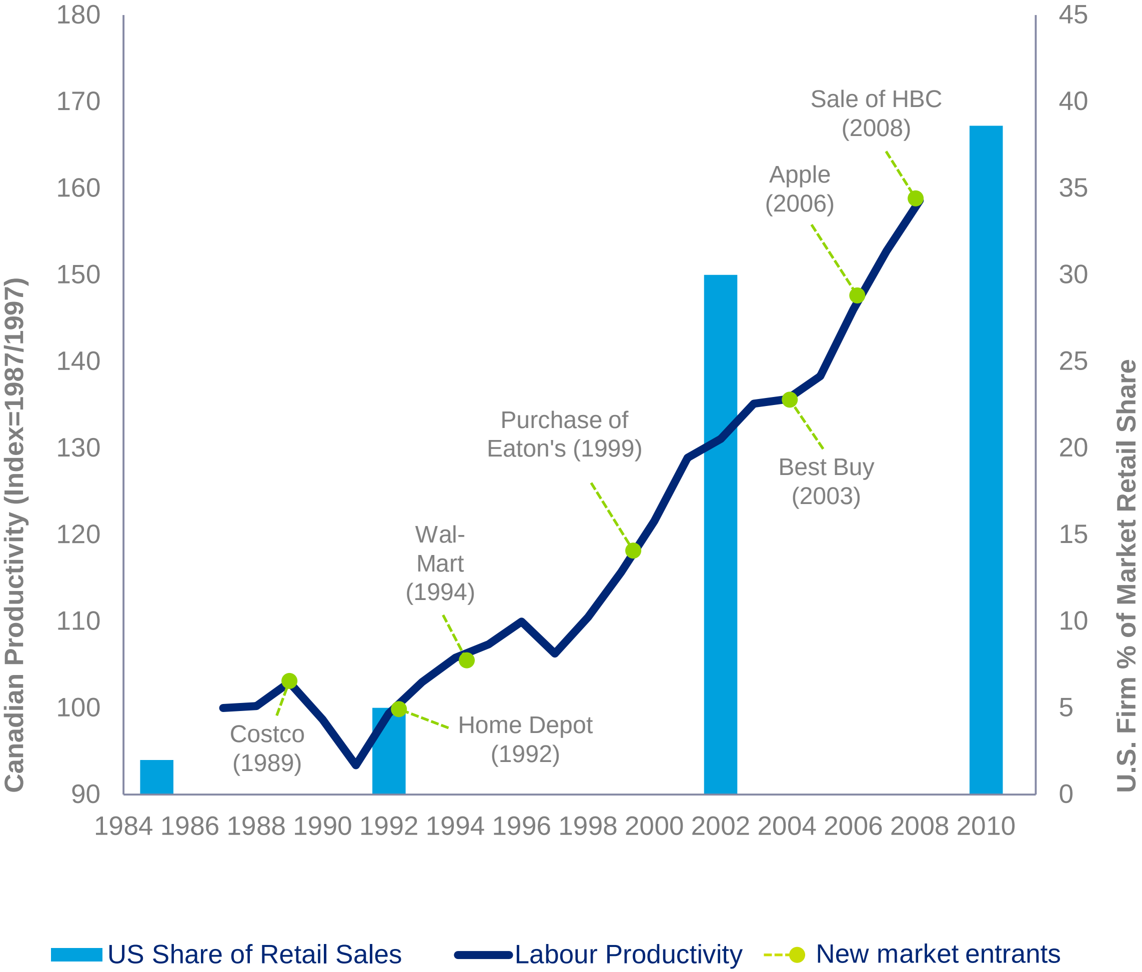
In contrast, Canada's retail sector outperformed the U.S. as foreign entrants increased competitive intensity and stimulated adoption of best practices

Competitive intensity

Retail productivity growth, CAGR 2000-2008



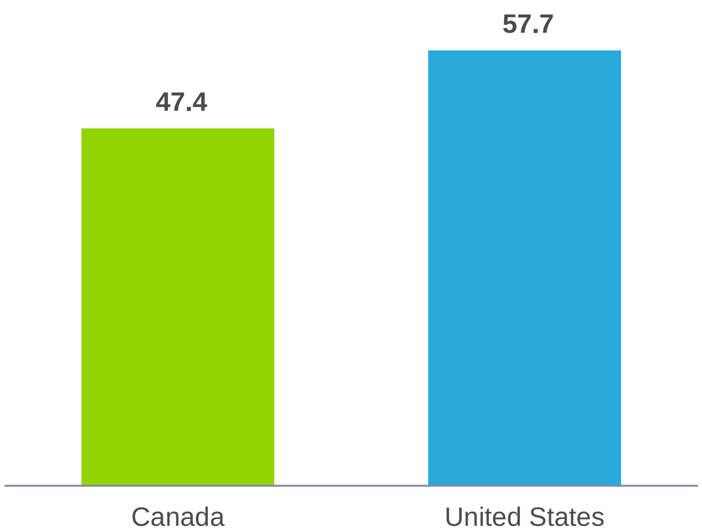
Canadian retail productivity and U.S. share of sales, 1984-2010



Source: Centre for the Study of Living Standards

Our research shows that many Canadian small business owners choose not to be growth oriented which may be attributable to higher risk aversion

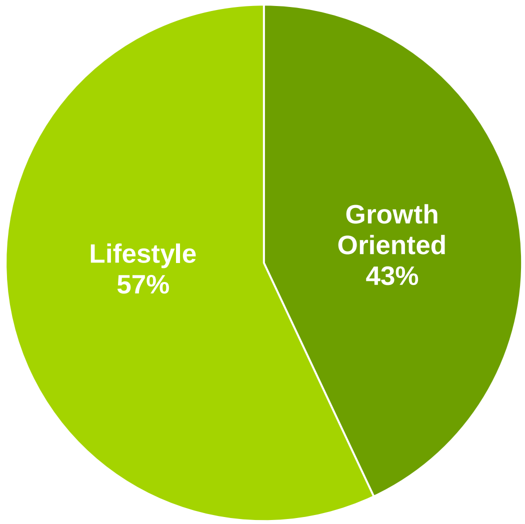
The Deloitte executive risk behaviour index



Observations

- The Deloitte risk behaviour index was constructed based on a wide array of factors including a firm's risk practices, R&D involvement, and reliance on government support
- Canadian firms exhibited a greater need for government incentives to induce productivity-boosting behaviours

Growth attitudes of Canadian small business owners, 2005



Observations

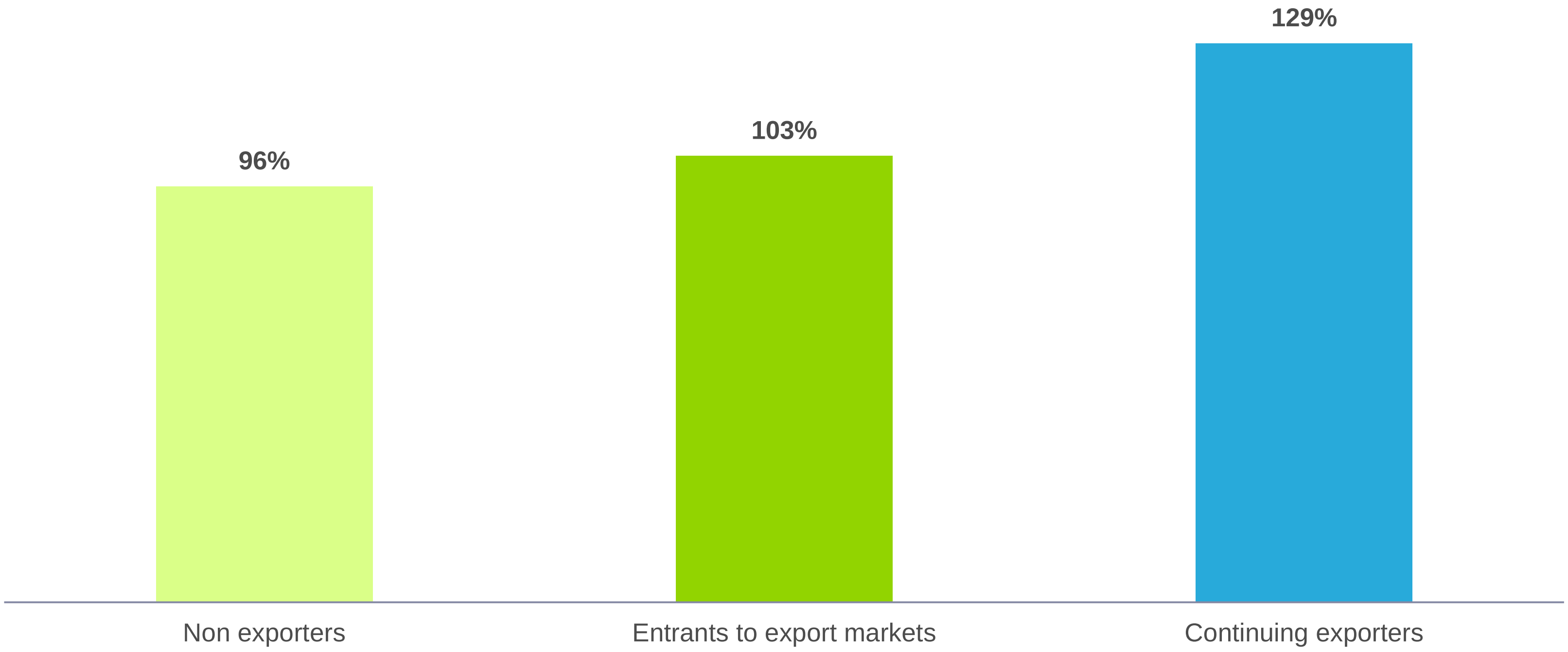
- 57% of small business owners consider their business a "lifestyle" choice – a source of income that importantly affords the owner work-life balance and flexibility
- 75% of American entrepreneurs surveyed find the desire to build wealth to be an important or very important motivation

Source: Source: *Deloitte, CIBC, Small Business Outlook Poll, Kauffman Foundation*

Evidence shows that businesses who participate in the export market experience better productivity levels than non-exporters

Trade

Manufacturing exporters productivity level, 2006



Observations

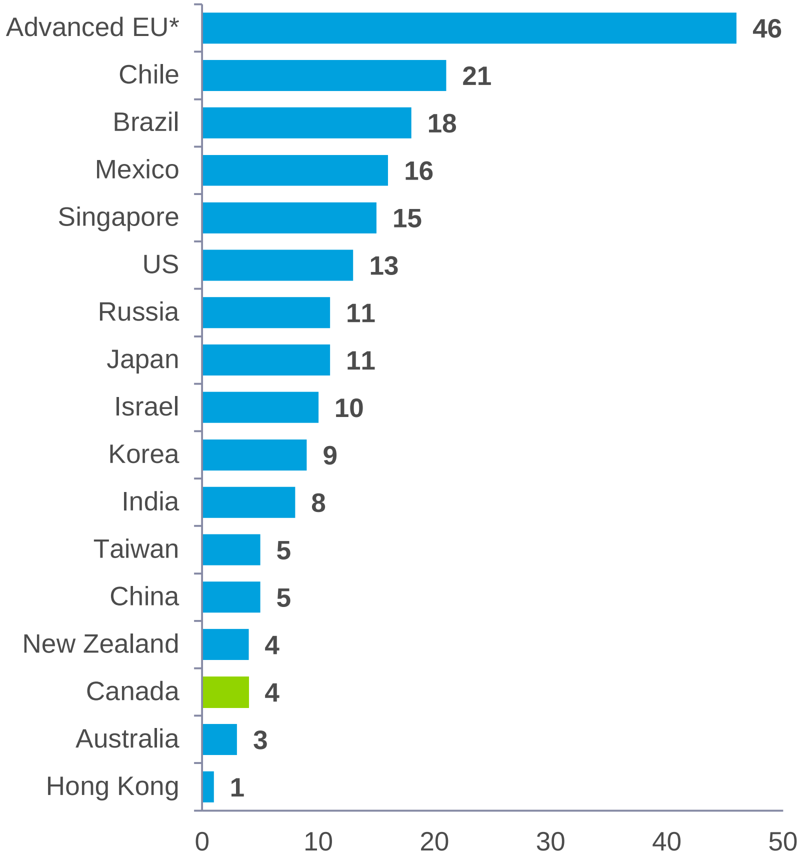
- Firms that enter international markets are more productive than firms that do not, as exporting leads increased competition and exposure to best practices
- Non-exporters that pursued new provincial domestic markets also saw productivity gains over those maintaining the status quo

Source: Statistics Canada

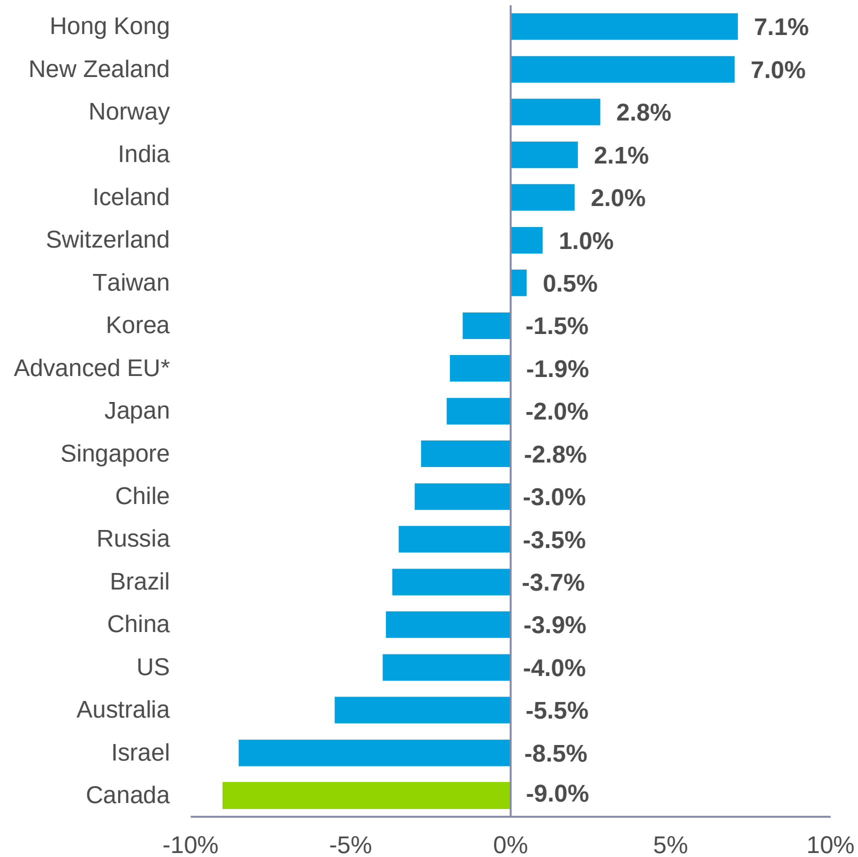
However, Canada exhibits an over-reliance on U.S. markets, reducing exposure to global competition and best-practices

Trade

Number of FTAs with developing countries, 2010



Merchandise trade covered by FTAs, 2000-2008



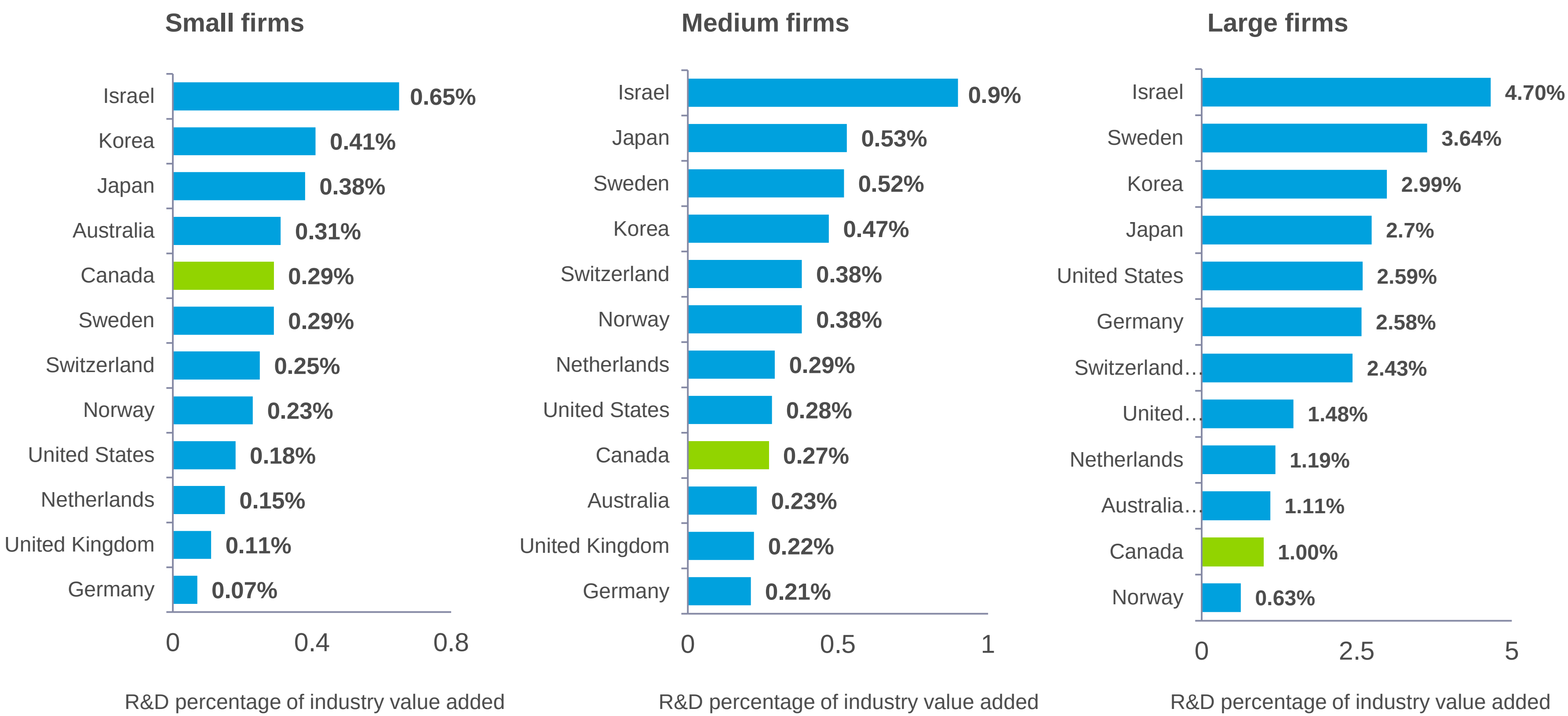
Source: World Bank, OECD, International Trade Centre

Percentage change in total merchandise trade covered by FTAs

Canada's weak R&D investment as a percentage of GDP substantially lags other OECD countries across all firm sizes

Investment

Business R&D intensity, 2007

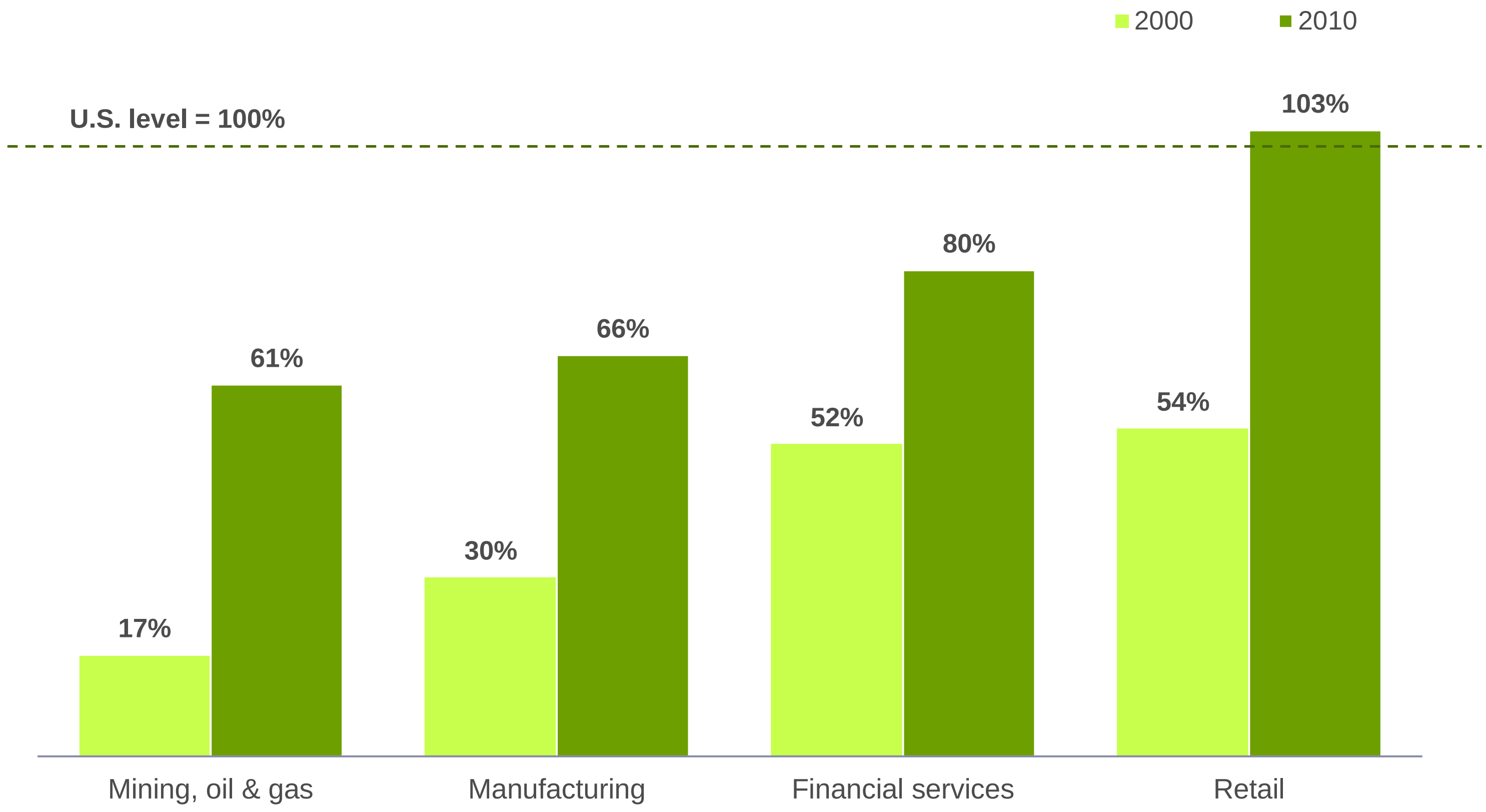


Note: *Israel and Japan R&D intensity data was not available by firm size; the average OECD ratio of SME to large firm R&D intensity was applied to Israel and Japan to approximate a size breakdown. R&D Intensive Firms are defined as firms that spend over 20% of business investment budget on R&D. High Growth Firms are defined here as firms that achieved annual employment growth of 20% or more for the period of 2001-2004.*

Source: Centre for the Study of Living Standards

Likewise, Canada's ICT investment, when compared to the U.S., is lagging in almost every sector contributing to low growth in productivity

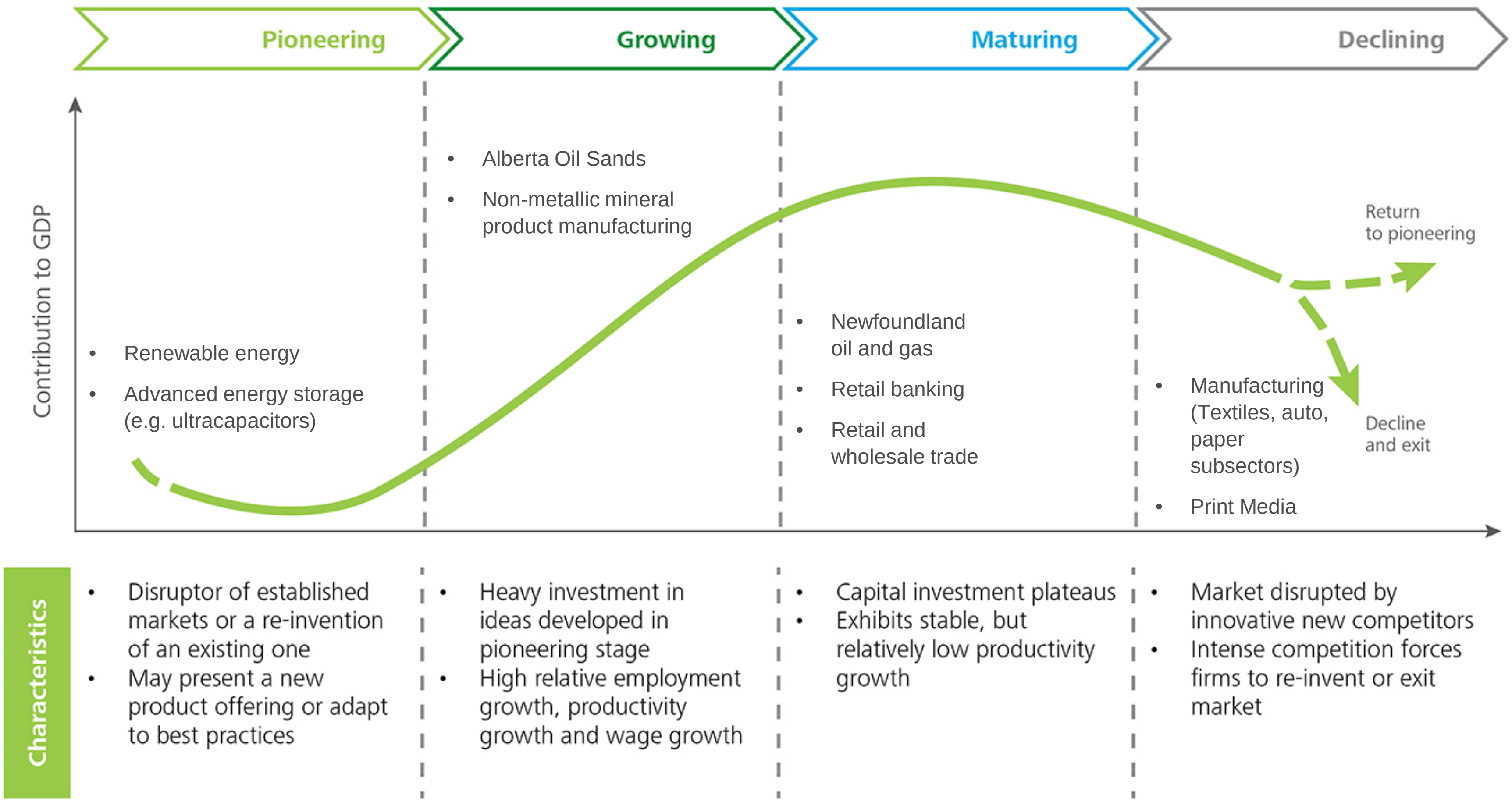
Canada's ICT investment per worker as a percent of the U.S.



Source: Centre for the Study of Living Standards

Our recommendations need to be applied within the context of the lifecycle of growth followed by sectors and firms within those sectors

Business Lifecycle



“The future of productivity: clear choices for a competitive Canada” report presents specific, detailed recommendations to reset Canada’s productivity trajectory

Businesses

Trade	**Build national and international business**
Talent	Invest in meeting talent needs
Investment	**Leverage new capital equipment**
Clusters	Create more clusters
Reinvention	Invent and then reinvent

Government

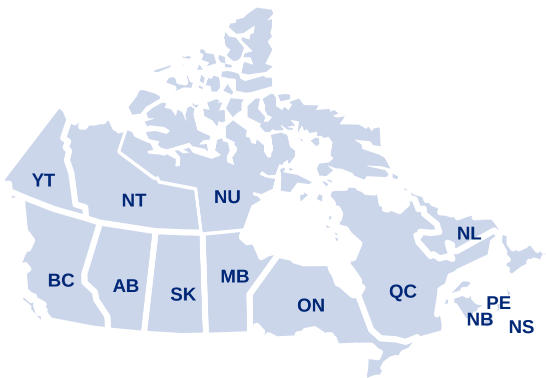
Trade	Expand trade inflows and outflows
Immigration	Continue to improve Canada’s immigration system
Growth	**Provide incentives for growing rather than for being small**
FDI	Encourage Foreign Direct Investment (FDI)
Decision-making	Foster fact-based decision making

Academia

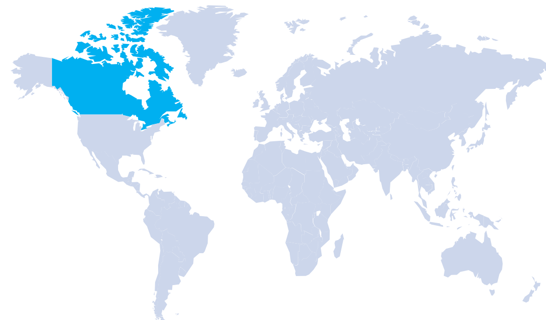
Commercialize	Focus on commercialization
Curriculum	Create the curriculum to support productivity

Business, academia and government must work collaboratively to enact a national strategy to accelerate Canadian productivity

Canada today



Today's global reality



Lack of competitive intensity

Canadian firms must be exposed to global competition

Low risk tolerance

Canadian firms must take the necessary risks to grow

Poor trade activity

Trade inflows and outflows must be encouraged both across Canada and globally

Weak investment

Canadian companies must refocus on growth, making the necessary investments for achievement

A national strategy for global competitiveness is imperative to solve Canada's productivity challenge

Deloitte.