



The future of productivity

An eight-step game plan for Canada

Part of Deloitte's Future of Canada series

Message from Bill Currie



“Deloitte believes it has an obligation to be involved in things that matter to our country, and particularly to our business community. Productivity is an issue that has been growing unchecked in Canada for a long time. It's not about how hard we work, but what we accomplish.”

Bill Currie

Vice Chair and Americas Managing Director, Consulting



The Deloitte study

To uncover the source of Canada's productivity challenge and specific measures to correct it, Deloitte undertook a comprehensive year-long study. We surveyed 902 North American business leaders and conducted a deep examination of more than 25 drivers of productivity – everything from our national brand to military spending.

Our study substantiated for the first time that Canadians are indeed more risk averse than Americans, despite the current positive economic climate. In a global marketplace where our traditional competitive advantages are quickly eroding, what does this mean for Canada's future?

Defining productivity

A nation's productivity is determined by the amount of output, measured by GDP, which the average employee in that country creates in an hour.

Improving productivity does not mean, as so many believe, working longer hours for lower pay – it relies on employing a significant proportion of the population in jobs whose outputs are not "commoditized," and can command a premium.



The productivity gap

The erosion of Canada's traditional competitive advantages is exposing Canada's high standard of living to a problem that has been growing unchecked for almost thirty years. In the early 1980s, the productivity of the Canadian economy was comparable to that of the United States.

As growth in U.S. productivity outstripped Canada's in the ensuing decade, a gap opened between the two countries. Today, Canadian output per worker is only 86% of American output.

Canada's poor productivity performance is not limited to comparisons with the United States. From 2001-2009, our annualized productivity growth of 0.7% was in the bottom quartile of the OECD, far below traditional comparators like Australia (1.1%), as well as other small economies like Israel (1.3%) and Austria (1.4%).

Canada's decreasing competitive advantages

	In the past...	Today...
Demographics	Canada's labour force was growing hours worked were on the rise	More retirees and fewer hours worked
Canadian dollar	A low Canadian dollar created a price advantage	A falling U.S. dollar is eroding Canada's price advantage
Access to U.S. markets	NAFTA gave Canada unrivaled access to U.S. markets	Canada's share of U.S. imports is declining
Global marketplace	Mature economies with similar labour costs dominated	Developing economies have increased competition and the availability of lower-cost substitutes
Commodity extraction	Strong demand for Canadian resources depleted the most accessible reserves	Resource companies are forced to explore less productive reserves such as the oil sands



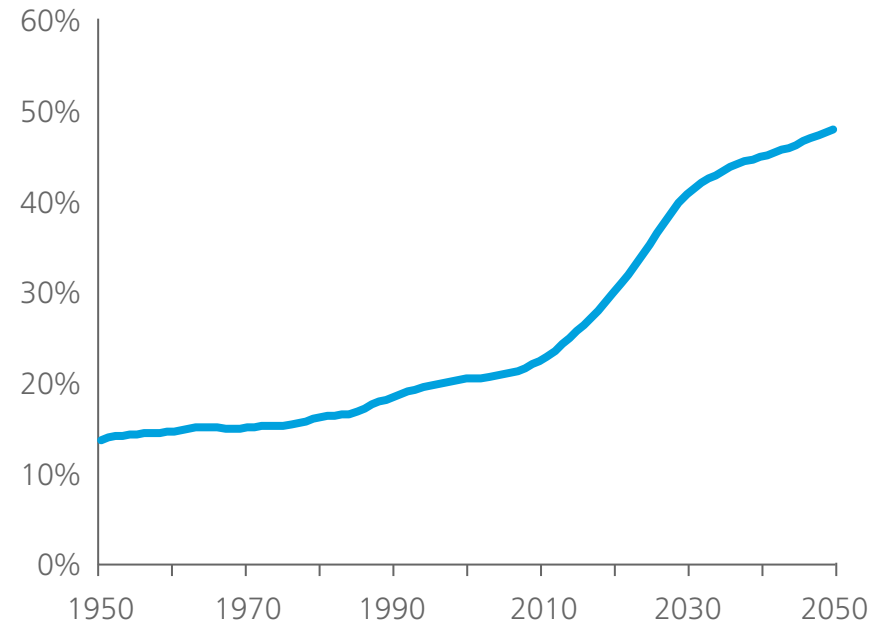
Demographic pressure

GDP per capita is the single most important factor in determining a country's overall standard of living. This measure comprises the employment rate of the country; the average number of hours worked; and the productivity of the work done by employed citizens.

Both employment rate and average hours will come under intense pressure from the demographic shift of the coming decades. As baby boomers leave the workforce, the retired (65+) portion of the population is forecast to grow rapidly from 23% today to 31% in 2021, reaching 47% by 2050. At the same time, older individuals deferring retirement are expected to demand more flexible schedules and fewer hours, driving down the average hours worked per employee.

Given the unavoidable prospect of a falling employment ratio and declining hours worked, Canada must determine a way to drive higher productivity growth or face a declining standard of living.

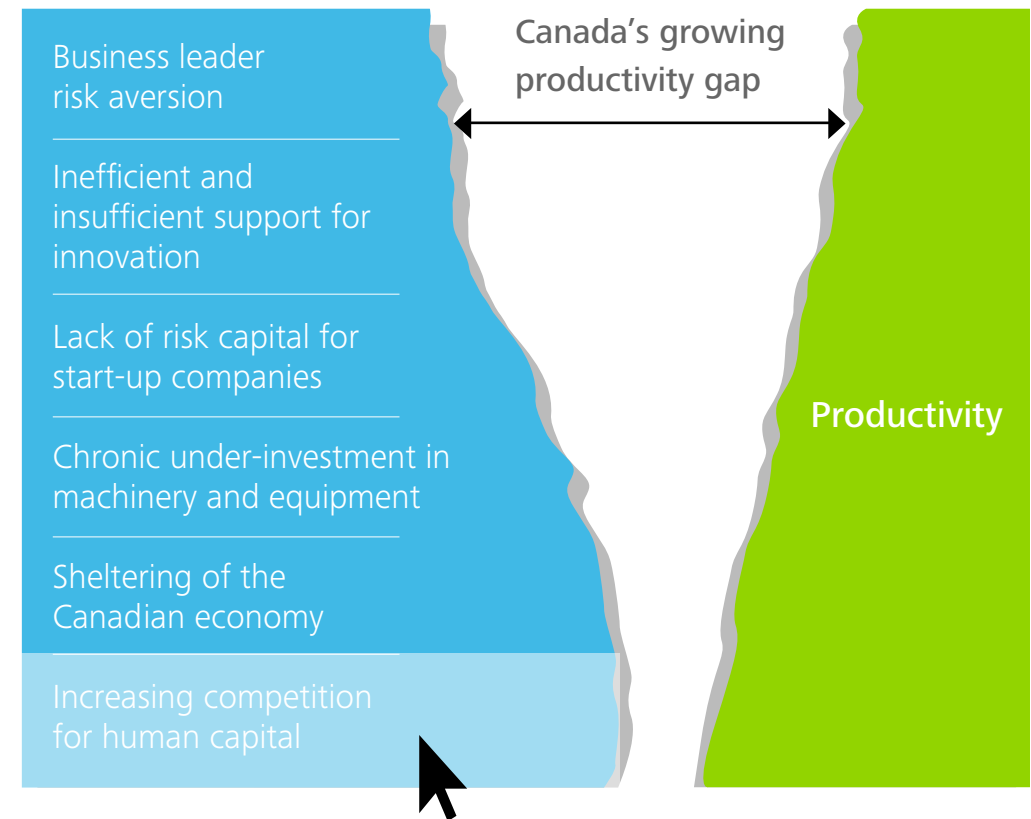
Ratio of people 65+ to those 18-64



Productivity barriers



Bill Currie
Vice Chair and Americas Managing Director, Consulting



Business leader risk aversion

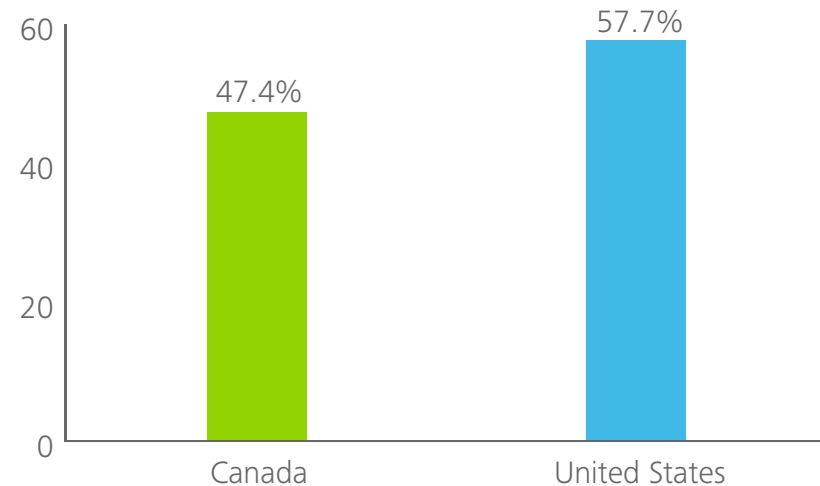
In Deloitte's survey of Canadian and American business leaders, we determined that Canadians are far more optimistic about the current and future state of their nation's economy than their U.S. peers are about their own economy.

Canadian executives view themselves as being no more or less willing to take on intelligent risks than their American counterparts.

Despite self-reporting similar risk tolerances, however, the actual decisions American business leaders make and the criteria they use to make those decisions show that they have a higher tolerance for risk than their Canadian counterparts – even with a more pessimistic outlook on their economy.

This analysis is reflected in the **Deloitte Executive Risk Behaviour Index**, which evaluates the risk tolerance of firms based on a number of criteria including investments in R&D, investments in commercialization of innovation, and risk evaluation practices.

Deloitte Executive Risk Behaviour Index



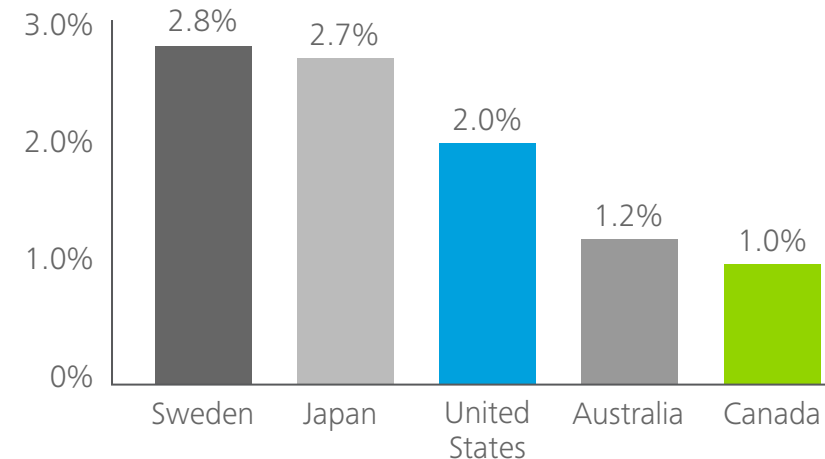
Inefficient and insufficient support for innovation

Canada offers one of the highest levels of support for R&D in the OECD, delivered overwhelmingly in the form of tax credits. Yet our private sector R&D activity is among the lowest in the OECD.

There is also evidence that firms may be overly reliant on these incentives. Canadian firms are more likely to adjust their R&D spending in response to government support, while American firms would be directionally more likely to adjust their R&D spending in response to circumstances such as expansion in the availability of risk capital or an improvement in the protections offered to innovations by intellectual property rights.

Canadian firms, particularly those who classify themselves as “risk avoiders,” report a significantly lower participation in R&D. The same does not hold true among American firms. This behaviour difference accounts for the majority of Canadian underperformance on R&D participation.

Private sector expenditure on R&D as a percent of GDP



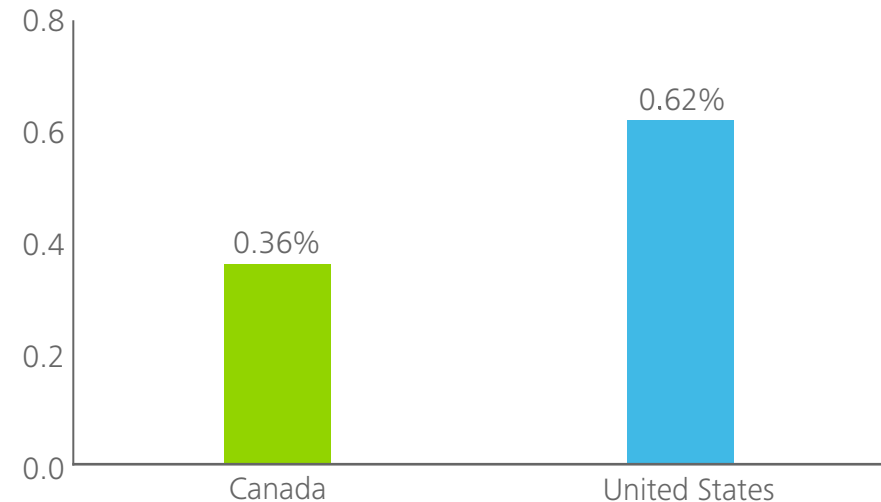
Lack of risk capital for start-up companies

Small innovative start-up firms have the potential to be disproportionate drivers of productivity. As they are associated with a high risk of failure, these firms are typically unable to access traditional capital markets.

Many indications point to a dearth of capital and skilled individuals providing start-up financing in Canada.

Canadian family and friends are less likely to invest in start-ups than Americans, and Canadian “angel” investors constitute about half the proportion of the American angel investor group. The availability of venture capital in Canada has consistently lagged the U.S. by as much as twentyfold.

Angel investors as a percentage of total population



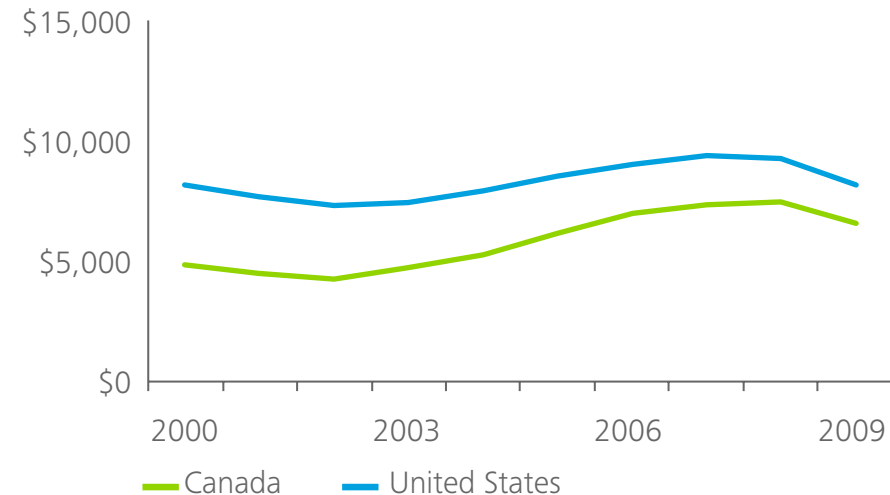
Chronic under-investment in machinery and equipment

A direct way to improve productivity is to augment individual efforts with capital stock in the form of machinery and equipment (M&E).

Canadian firms have historically under-invested in M&E relative to their U.S. peers. In 2009, the level of M&E stock per Canadian worker was 49% of that in the United States.

Over the past five years, the real cost of machinery and equipment investment for Canadian businesses has shifted dramatically. There is directional indication that Canadian firms are making new investments in M&E, but very significant and sustained spending will be required to close the M&E gap between Canada and the United States.

**Investment in M&E capital stock per worker
in the business sector (in \$USD)**



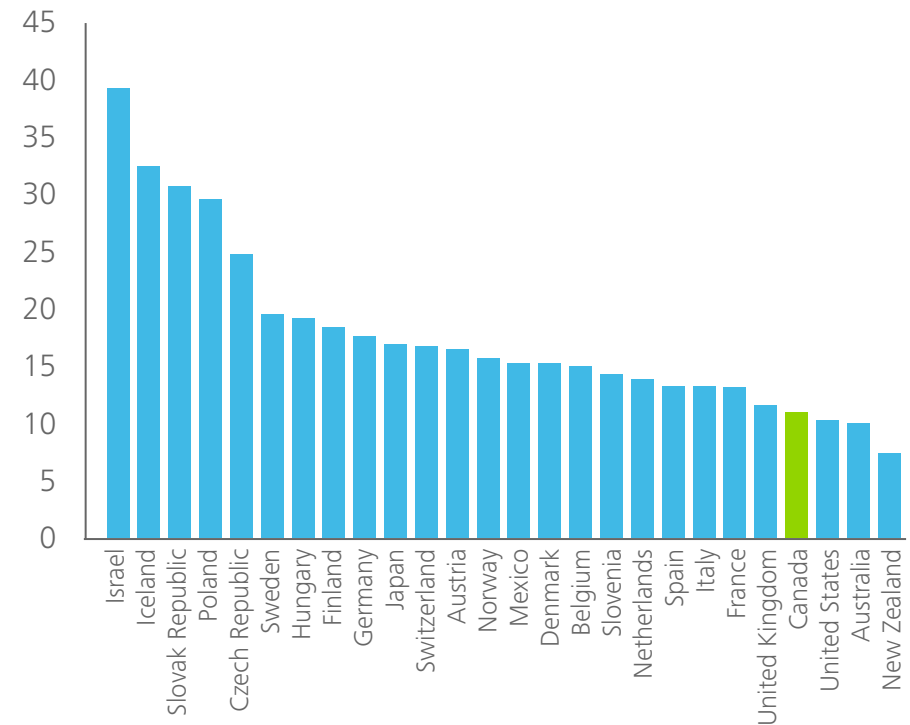
Sheltering of the Canadian economy

Canada made major steps in opening itself up to trade in 1994 with the implementation of NAFTA; however, since then, there has been limited additional progress.

Protection of provincial procurement markets and differing provincial product regulations can create additional hurdles for signing new free trade agreements.

Canada also faces problems in the realm of foreign direct investment. Over the past twenty years, our share of global inward foreign direct investment shrank from 5.4% in 1990 to approximately 3%. In isolation this is not surprising, as rapid growth among developing economies has driven growth in their share of global inward FDI from 25% to 30%. However, viewed relative to the other advanced economies of the OECD, Canada's average growth in FDI stock from 1994 to 2009 is in the bottom quartile.

FDI stock average annual growth rates, 1994 to 2009



Increasing competition for human capital

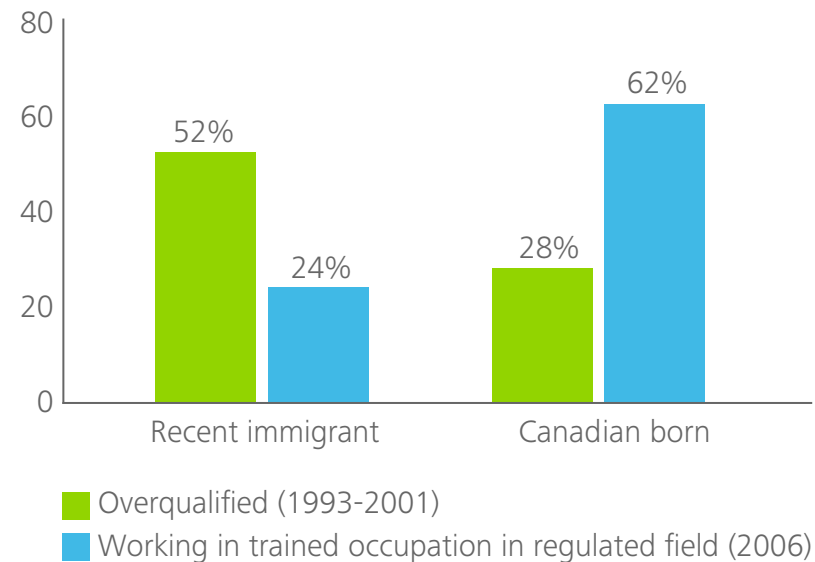
To develop the skills to drive productivity growth, we need to build the capabilities of people within our borders through education, and facilitate the immigration of skilled workers from other countries.

Canada faces challenges in both of these areas.

At every level above a high school education, Canadians face the disincentive of a poorer return on their investment in terms of future earnings than a comparably educated American.

In addition, ongoing issues with foreign credential recognition create challenges with matching skills to market needs. This threatens to limit our attractiveness to potential immigrants possessing the skills we require.

Percentage of overqualified and percentage working in trained occupation in regulated field

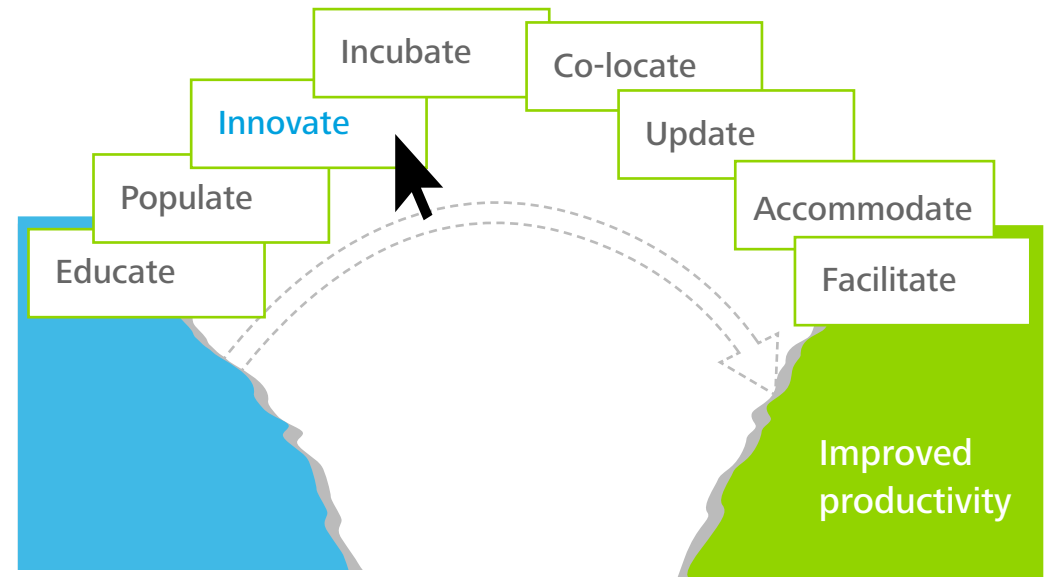


The game plan



Bill Currie

Vice Chair and Americas Managing Director, Consulting





Educate

ensure our education system fosters entrepreneurship and innovation at all levels

A focus on education is an essential element of any strategy for improving Canada's future, as it ensures we are developing the skills and capabilities necessary to drive a highly productive knowledge economy. Additionally, a strategic emphasis on education will foster a shift in Canadian attitudes and behaviours over the long term. Education can be used to help close the talent gaps experienced by Canadian firms, while allowing us to support an entrepreneurially minded culture that is more willing to accept measured risk.

Deloitte recommends the development of new content that equips the next generation with an awareness of entrepreneurial opportunities and seeds the skills to intelligently measure and manage risk.

Develop new K-12 education content that provides students with general business, managerial, and risk evaluation skills

Encourage post-secondary students to combine their specializations with business and managerial study

Leverage alumni and businesses to enrich the education experience



Populate

re-tool the immigration system so it attracts and fully utilizes skilled immigrants

In order to attract, retain, and fully utilize skilled immigrant talent, several key dimensions of the immigration system must be recalibrated. For economic class immigrants, the system should centre on the human capital needs of the economy as a whole. Deloitte recommends that screening criteria be geared to identifying potential immigrants with the greatest potential to fill skill gaps in the Canadian economy. Processing these applications should be expedited to ensure that these deficits are filled as quickly as possible.

Federal and provincials governments should work with professional associations and licensing bodies to identify more effective mechanisms for determining when foreign credentials do and do not meet their high standards.

Streamline the process for and targeting of highly desirable economic immigrants

Improve foreign credential recognition

Align immigration entrance criteria to the credential recognition standards



Innovate

improve the effectiveness of R&D (Research & Development)

It has been said that the Canadian innovation system is all “R” and no “D.” While overly simplistic, this statement contains an element of truth. Funding for pure research through universities as a percentage of GDP is among the highest in the OECD, and these organizations succeed admirably at publishing groundbreaking research in the fields of science and engineering.

To ensure that success in scientific research lays the groundwork for R&D-intensive firms to actively convert this new knowledge into innovation, Deloitte believes that universities, businesses and governments must fix the linkages among the different stages of innovation and encourage the development and commercialization of new ideas.

Ensure that adequate support exists for the development of Canadian research

Align tax credits and grants to maximize business expenditure on R&D and commercialization

Streamline bureaucracy for start-ups and small businesses accessing government funds and services



Incubate

bolster the pool of risk capital for start-ups

To stimulate the expansion of capital investment at the seed and early stage, Deloitte suggests the establishment of angel tax credits at both the provincial and the federal level. British Columbia offers tax credits for investments in certain seed stage firms, and studies suggest this credit has increased the amount of angel investment in the province by 50-70%. For every dollar of tax credit funding spent, an average of \$1.98 in new tax revenue was created.

We also recommend that governments collaborate with leading experts and members of the start-up community to create a profitable, self-sustaining early-stage financing community. This new community would have sufficient assets to meet the financing needs of high-quality, innovative Canadian start-ups.

We recommend that any mechanism to create a Canadian early-stage financing sector focus, without conditions, on its long-term sustainability.

Create an Angel Investment tax credit

Support growth in the pool of available early-stage financing



Co-locate

create a national clustering strategy

Deloitte recommends that a comprehensive national clustering strategy be developed to capture significant productivity gains. Regions should capitalize on pre-existing concentrations of human capital, natural resources, institutions or firms. Local business, governments and nearby universities should be encouraged to collaborate in cluster management associations to design strategies for combining their region's advantages in ways that support the growth or emergence of a cluster.

Federal and provincial governments should help create conditions to support the clustering strategy, such as investing in infrastructure that helps to attract large anchor firms and delivers spillover benefits to smaller firms in similar industries wishing to co-locate.

A national clustering strategy will enable Canada to realize the benefits of clustering

Cluster development must be led by local businesses, governments and academia

Their strategies must be supported by federal and provincial governments



Update

invest in machinery and equipment

Conditions for investment in machinery and equipment are currently extremely favourable for Canadian businesses.

Executives in Canada exhibit strongly positive outlooks on the current and future state of our own economy; U.S. price levels remain depressed by the recent recession; the Canadian dollar is above parity with the U.S. dollar; and Canadian marginal tax rates on capital investments are the lowest among the G7.

However the convergence of the favourable conditions outlined below could dissipate at any time; the time to act is now.

Businesses should invest in
machinery and equipment



Accommodate

ease the flow of foreign direct investment

In Deloitte's view, poor FDI performance does not reflect a negative shift in the intrinsic or relative value of foreign investment in Canada. In fact, the sound performance of our economy and ongoing boom in commodity prices should serve to make many Canadian properties more desirable. Rather, we believe that the challenges are the real and perceived barriers to investment in Canada.

To counteract the growing perception that Canada is closed to major foreign direct investments and ensure that international investment continues unabated, Deloitte has several specific recommendations.

Increase the transparency of the net benefit test

Explicitly identify any "strategic" industries or companies that the government intends to protect

Expose "strategic" and protected industries and companies to competitive market forces



Facilitate

reduce trade barriers and pursue new markets

Deloitte recommends that the Canadian government foster conditions that allow our businesses to compete more easily and fairly around the world.

New trade agreements with emerging economies should be created, and the backlog of pending trade agreements finalized. National and provincial policies to protect specific sectors of

our economy should be routinely reviewed, and their benefits weighed against the harm they have on Canadian businesses and consumers in the form of lost revenues and higher prices for imports.

Businesses need to reframe their point of reference and look beyond the Canadian market

The Canadian government must reduce barriers to trade and establish trade agreements with emerging economies

Existing protectionist policies must be continually re-examined

Courage to lead



“Why now? We have a false sense of prosperity and many real challenges. We look at this study as a call to arms for business, academia and government to demonstrate the courage to lead around the productivity issue in Canada.”

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