Past, Present and Future: Tense

From crisis and recovery to long-term economic challenges

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Lake Louise
1. Financial crisis and recession
2. Current recovery
3. Looming challenges
1. Financial crisis and recession
2. Current recovery
3. Looming challenges
It began in the housing market ...

U.S. Housing Starts and Overhang of Existing Homes

U.S. Home Price Index

per cent, year over year

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<th>2001 Q1</th>
<th>2002 Q1</th>
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<th>2008 Q1</th>
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<td>Housing Starts (left scale)</td>
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<td>Months supply of existing homes (right scale)</td>
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years, at annual rates

level, months supply at current sales rate
... and led to huge financial losses.

Source: Bloomberg. April 17, 2009
The shock in credit markets ...

Credit Spreads

- Canada (CDOR - OIS)
- U.S. (LIBOR - OIS)
- Euro area (LIBOR - OIS)

Notes: These spreads are a measure of banks’ funding costs relative to a risk-free rate and are a gauge of financial market stress and banks’ financing pressures. The rate on the overnight-indexed swap (OIS) is used as a proxy for expected overnight rates. LIBOR is the London Interbank Offered Rate. CDOR is the Canadian Dealer Offered Rate. Daily data up to and including April 24, 2009. Source: Bloomberg.
... and the collapse of confidence ...

Consumer Confidence

- Canada
- U.S.

Business Confidence

- Canada (left)
- U.S. (right)

Index, 2002=100 for Canada, 1985=100 for U.S.

Index, 2002=100

Sources: The Conference Board of Canada.
... caused industrial production to fall off a cliff ...

Source: Bank of Canada.
... and the first synchronized global recession in over 60 years.

World Economic Growth

Note: World real GDP growth on a purchasing-power parity basis. Source: International Monetary Fund World Economic Outlook, April 2009.
1. Financial crisis and recession

2. Current recovery

3. Looming challenges
A massive policy response ...

1. **Monetary policies**
   - sometimes “unconventional”

2. **Financial-market policies**
   - certainly “unfamiliar”

3. **Fiscal policies**
   - generally “timely, targeted, and temporary”
... helped to ensure our recovery ...

Components of Canadian GDP, 2008-2010

Source: Bank of Canada.
... but it will be a while before things are back to “normal”.

Current output gap = 1.8%

The key risks to the recovery?
1. Financial crisis and recession

2. Current recovery

3. Looming challenges
1. Debt and Demographics
2. Enhancing Productivity
3. Climate Change
MOTHER HUBBARD,
21st CENTURY...

GLOBAL AGING
DEMOGRAPHICS

HEALTHCARE BUDGET
Canada’s looming demographic “fiscal squeeze”:

- faster growth of expenditures
  - health care
  - elderly benefits

- slower growth of tax base
Declining fertility has been slowing population growth for decades ...

Current fertility rate is ~ 1.6.

... which inevitably leads to aging of the population ...

Share of age 15-64 in total population

per cent

Historical

Projected

Entry of the baby boom generation into the labour market.

Baby boomers gradually reaching retirement age.

Source: Department of Finance Calculations based on Statistics Canada and Chief Actuary data
... and an increase in “age-related” spending.

Source: Department of Finance Calculations
How to address this fiscal squeeze?

1. Improve efficiency in health-care delivery?

2. Reduce growth of “other” spending?

3. Increase taxes?

4. Increase borrowing? → more debt
How big is this problem?

Suppose we hold constant:
- “other” spending as share of GDP

We need to avoid a return to the “debt wall” of the mid 1990s!

➔ **Total** public debt rises by ~ 50-60 ppts between 2020 and 2050.
Enhancing Productivity
What drives “material” living standards?

\[ \text{GDP/POP} = (\text{GDP/E}) \times (\text{E/LF}) \times (\text{LF/POP}) \]

Per capita GDP = (labour productivity) \times (employment rate) \times (LF part. rate)

Past 40 years: ↑ — — ↑

Next 30 years: ↑ — — ↓
Sources of growth, past and future:

Decomposition of per capita Real GDP Growth

Historical

<table>
<thead>
<tr>
<th>Source</th>
<th>GDP/POP</th>
<th>GDP/E</th>
<th>E/LF</th>
<th>LF/POP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2.0</td>
<td>1.0</td>
<td>0.5</td>
<td>-1.0</td>
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</table>

Projected

|        | 2.5     | 1.5   | 0.5  | -0.5   |

Drag on future growth!

Source: Finance Canada calculations consistent with January 2009 average private sector forecast
Small differences in growth rates matter a lot over the long term!

Real GDP Per Capita (Dollars)
Chained $2002, Thousands

Historic

Projected
Assumes average productivity growth of 2%

Assumes 1997-2007 average productivity growth of 1.3%

We need to raise our productivity growth rate!
But we have a worrying trend:

Canada’s Average Annual Productivity Growth (GDP per hour)

<table>
<thead>
<tr>
<th>Period</th>
<th>Per cent</th>
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<tbody>
<tr>
<td>62-71</td>
<td>3.0</td>
</tr>
<tr>
<td>72-80</td>
<td>1.8</td>
</tr>
<tr>
<td>81-96</td>
<td>1.1</td>
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<tr>
<td>97-08</td>
<td>1.3</td>
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Notes: Total economy labour productivity measured using hours. Source: Center for the Study of Living Standards
Where does productivity growth come from?

- Productivity
  - Education and Training
  - R&D and Innovation
  - Capital Investment and Technology
Data from thermometers (red) and from tree rings, corals, ice cores and historical records (blue).
*550 ppmv (parts per million volumes) of CO2e is the greenhouse gas concentration that is targeted to keep global temperatures from rising beyond 2°C of preindustrial levels. Source: Department of Energy, Energy Information Agency, International Energy Outlook 2009 and IPCC.
Predicted impacts from global warming:

1. Melting Greenland and Antarctic ice caps

2. Rising sea levels ➔ low island states

3. Creeping desertification

4. Falling agricultural productivity
Reducing GHG emissions is difficult!

1. Stock vs. flow.

2. Link between GHG emissions, energy use, and GDP.

➤ Challenge:

How to reduce GHG emissions without reducing living standards?

➤ A huge technological challenge.
World energy consumption and energy-related CO₂ emissions

Index 1980 = 100

- World energy consumption
- World CO₂ emissions
Reducing GHG emissions will have significant economic effects:

1. Increase the costs of using carbon-based fuels.

2. Labour and capital will move between sectors and regions → winners and losers.

3. Modest decline in growth rate of GDP.

→ A huge challenge of political will
Plenty of thorny policy issues:

1. Carbon tax vs. “cap and trade”?  
2. Regional and sectoral reallocations?  
3. Public support for new technologies?  
4. The scope for international trading?  
5. Tense international negotiations.
Canada’s Looming Economic Challenges

Debt and Demographics

Climate Change

Enhancing Productivity
Thank you.