



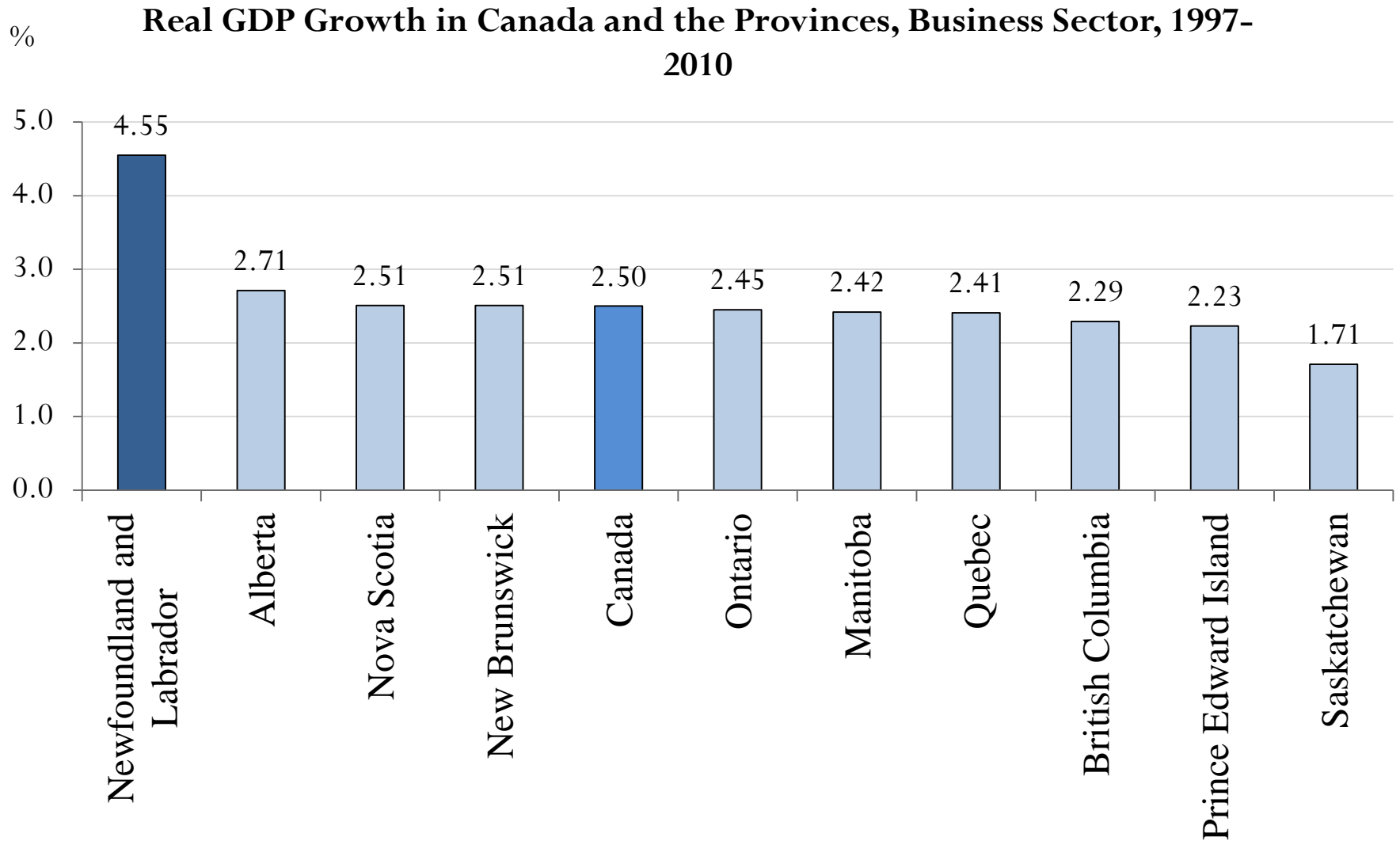
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A Detailed Analysis of Productivity Performance in Newfoundland and Labrador, 1997-2010: the Role of the Oil and Gas Sector

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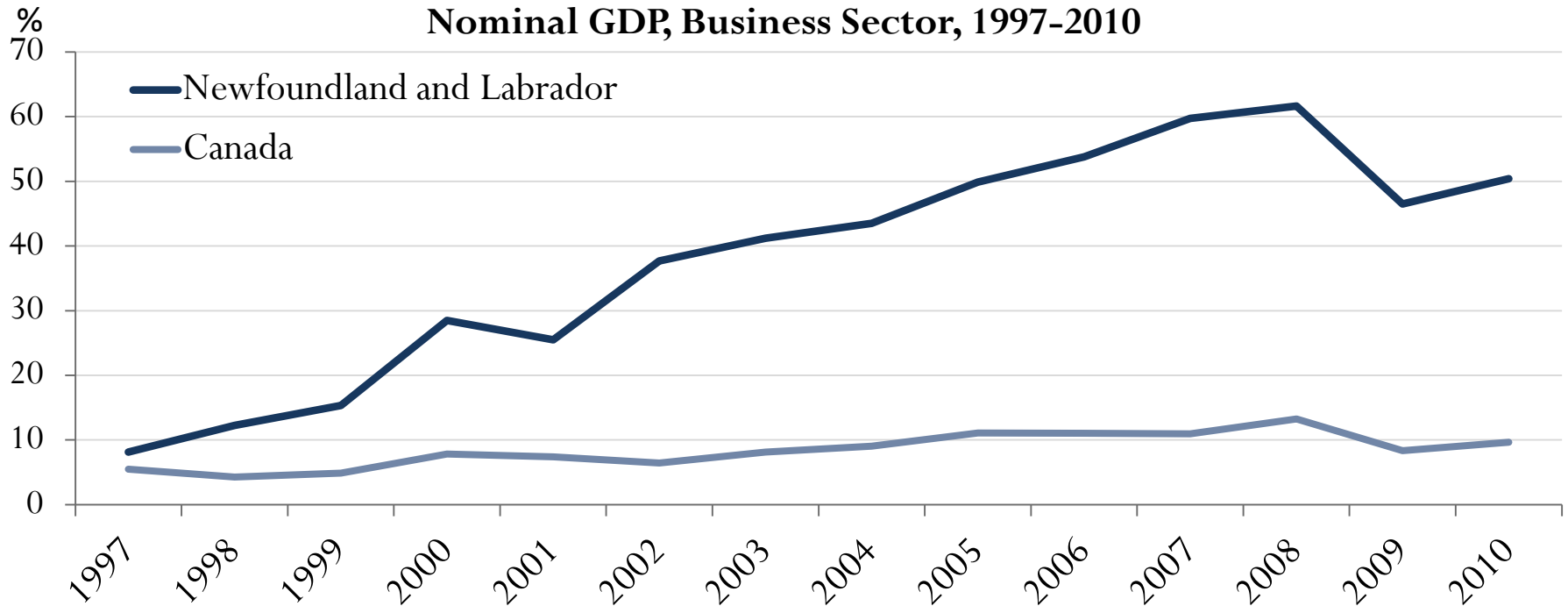
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Background: Economic Growth



Background: The Mining and Oil and Gas Sector

Mining and Oil and Gas Extraction Industries Output as a Share of Nominal GDP, Business Sector, 1997-2010

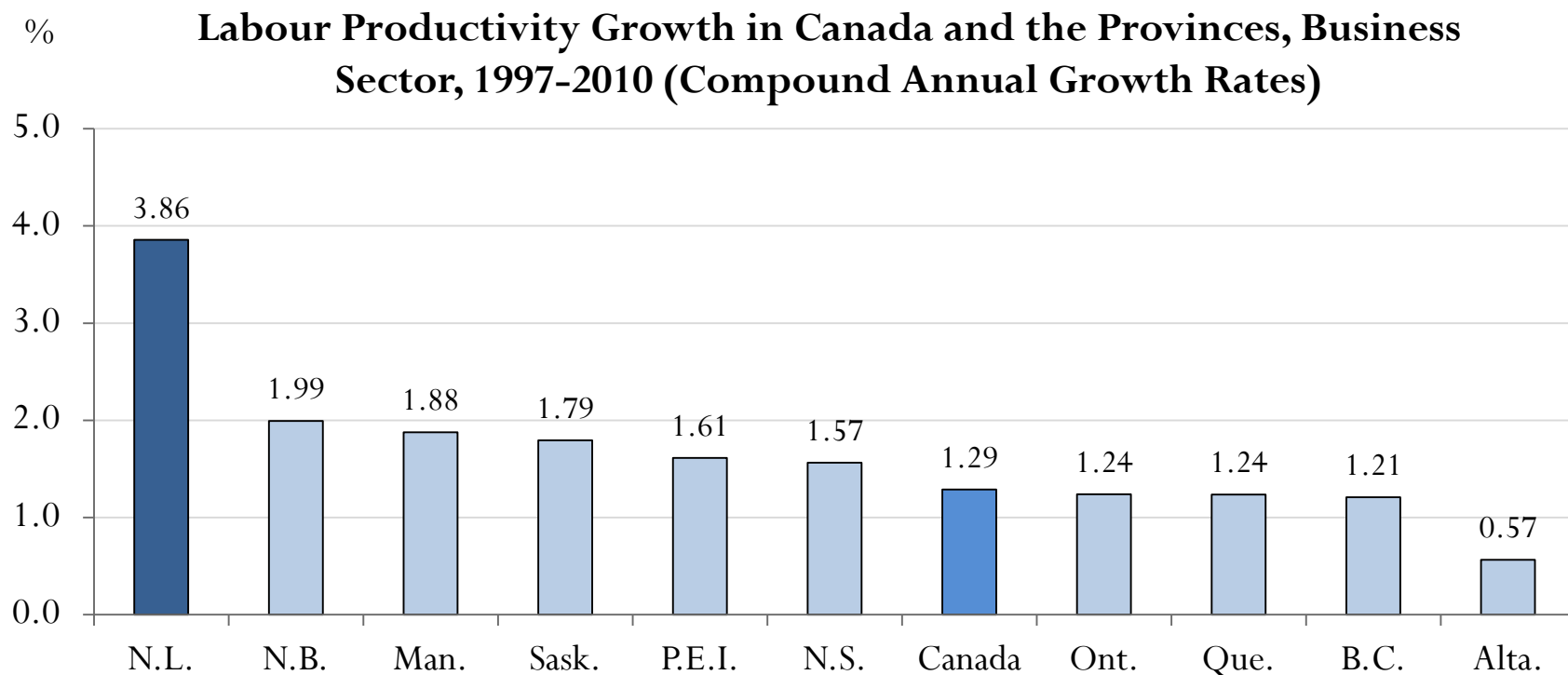


Growth of the mining and oil and gas sector real GDP between 1997-2010

- 14.4 per cent per year for Newfoundland and Labrador
- 0.67 per cent for Canada

When the mining and oil and gas is excluded from the calculation of real GDP, Newfoundland and Labrador and Canada are on par in terms of real GDP Growth (2.66 vs. 2.63).

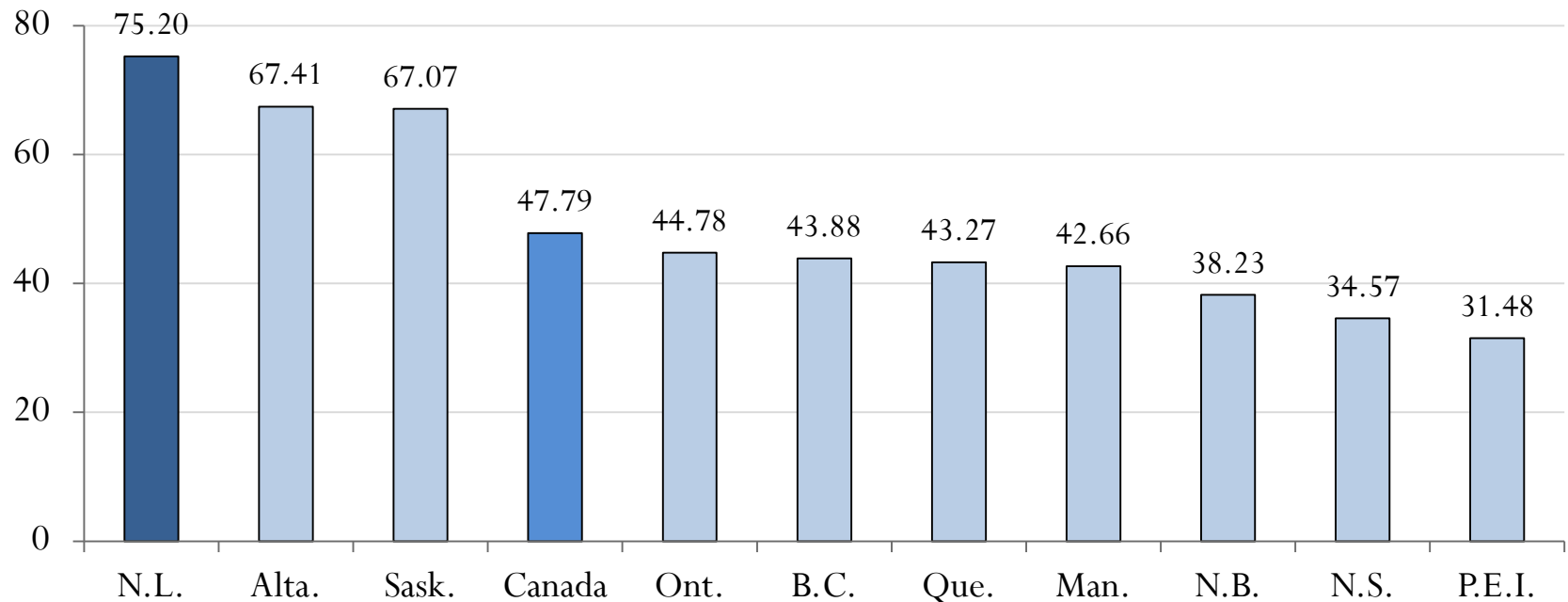
Background : Labour Productivity Growth



- At the two-digit NAICS sector level, only three sectors in Newfoundland and Labrador (out of 15), underperformed their Canadian counterparts in terms of labour productivity growth – namely, transportation and warehousing; professional, scientific and technical services; and arts, entertainment and recreation.
- Labour productivity in the mining and oil and gas extraction sector grew 11.34 per cent per year during the 1997-2010.

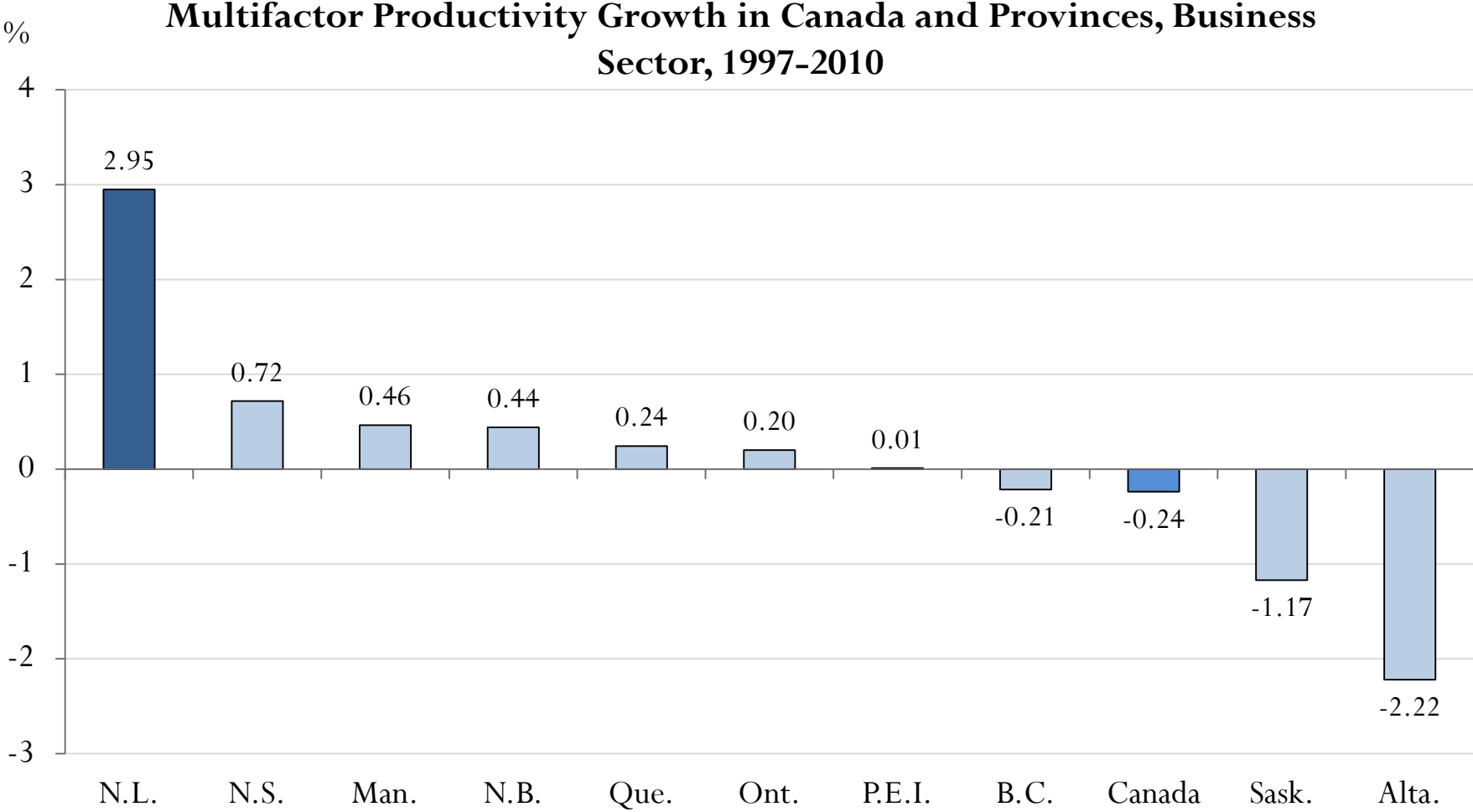
Background : Labour Productivity Levels

Labour Productivity Levels in Canada and the Provinces, Business Sector, 2010 (Current Dollars per Hour Worked)

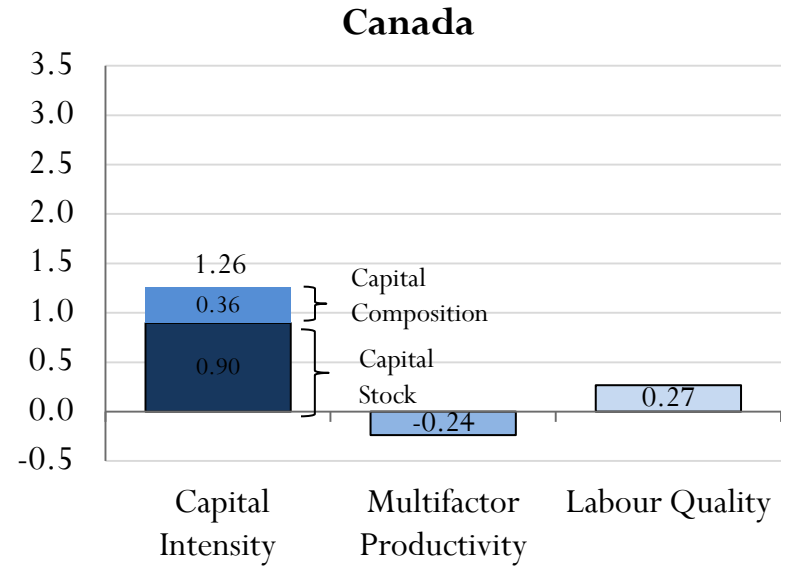
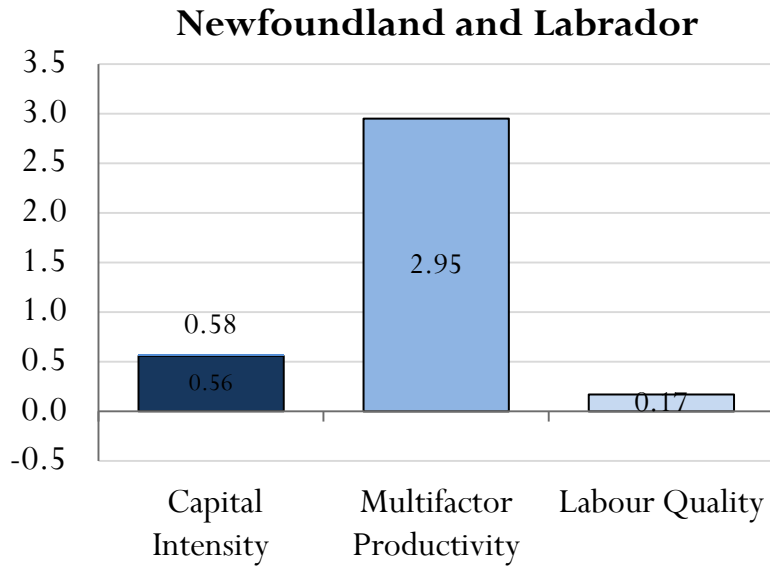


- In nominal terms, labour productivity went from \$24.10 per hour in 1997 to 75.20 per hour in 2010. In comparison, Canada's labour productivity went from 29.98 per hour in 1997 to \$47.79 per hour in 2010.

Analysis: Multifactor Productivity Growth



Analysis: Contribution of the Mining and Oil and Gas Extraction Sector to Labour Productivity Growth



Hard to pinpoint the exact reason why MFP increased, but we may easily assume that it is due to a shift from low-productivity activities (like fishing) to the production of oil, a natural resource associated with high-productivity levels.

Analysis: Contribution of the Mining and Oil and Gas Extraction Sector to Labour Productivity Growth

- Newfoundland and Labrador's mining and oil and gas extraction sector was responsible for 78.3 per cent of the province's overall labour productivity growth during the 1997-2010 period.

Sectoral Contribution to Business Sector Labour Productivity Growth

	Within-Sector Effect	Reallocation Level Effect	Reallocation Growth Effect	Total
	(as a share of total labour productivity change)			
Business Sector Industries	82.1	3.7	14.2	100.0
Mining and Oil and Gas Extraction	57.0	4.5	16.7	78.3

- Most of the overall Newfoundland and Labrador and Canada labour productivity level differential is due to the mining and oil and gas extraction sector (114.4 per cent).

Analysis: Spillover-Effects

Evidence:

- Acceleration of Labour productivity growth in the non-mining and oil and gas extraction sector.

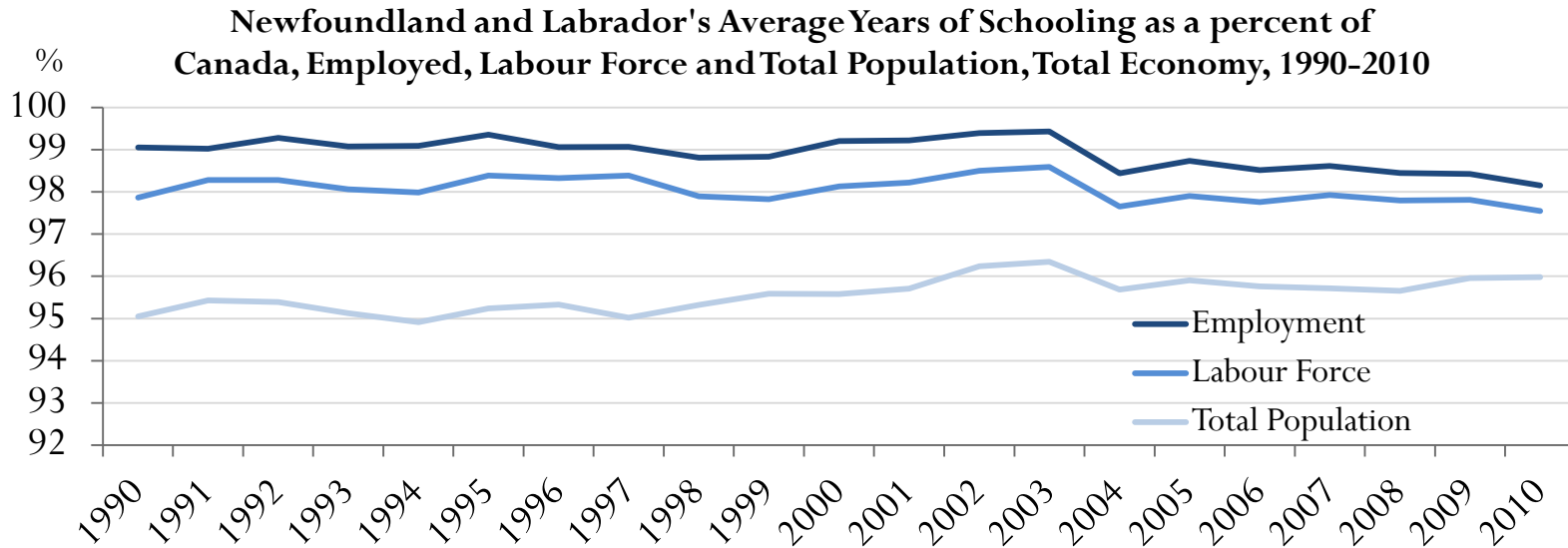
	1987-1997	1997-2010	Acceleration
Newfoundland and Labrador	0.96	1.61	0.65
Canada	1.02	1.38	0.36

Explanations:

- Productivity-augmenting effects of increased government spending
- Tighter labour market
- Increase in competition
- Knowledge spillovers from the oil sector

Analysis: Productivity Drivers

Human Capital:



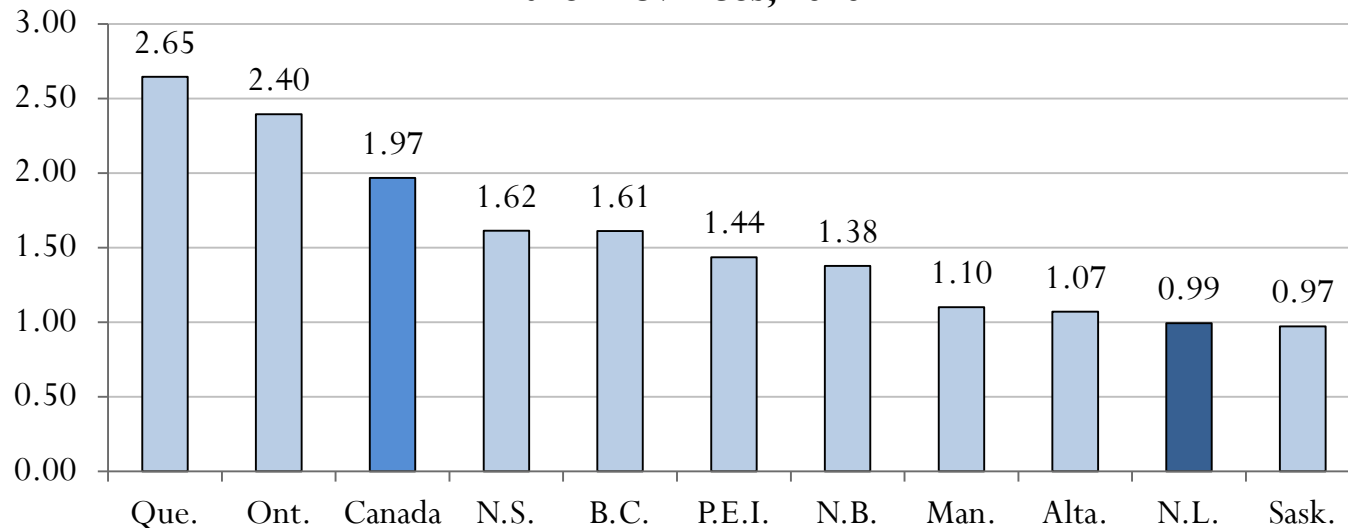
- In 2010, the employed population of Newfoundland and Labrador had, on average, 13.46 years of schooling while the employed population in Canada as a whole had, on average, 13.71 years of schooling.
- In 2010, the province had the least educated population of all Canadian provinces, with an average of 12.6 years of schooling (vs. 13.1 for Canada as a whole)

Analysis: Productivity Drivers (continued)

Innovation

- Newfoundland and Labrador ranks fourth in terms of R&D expenditures growth for the 1997-2010 Period.

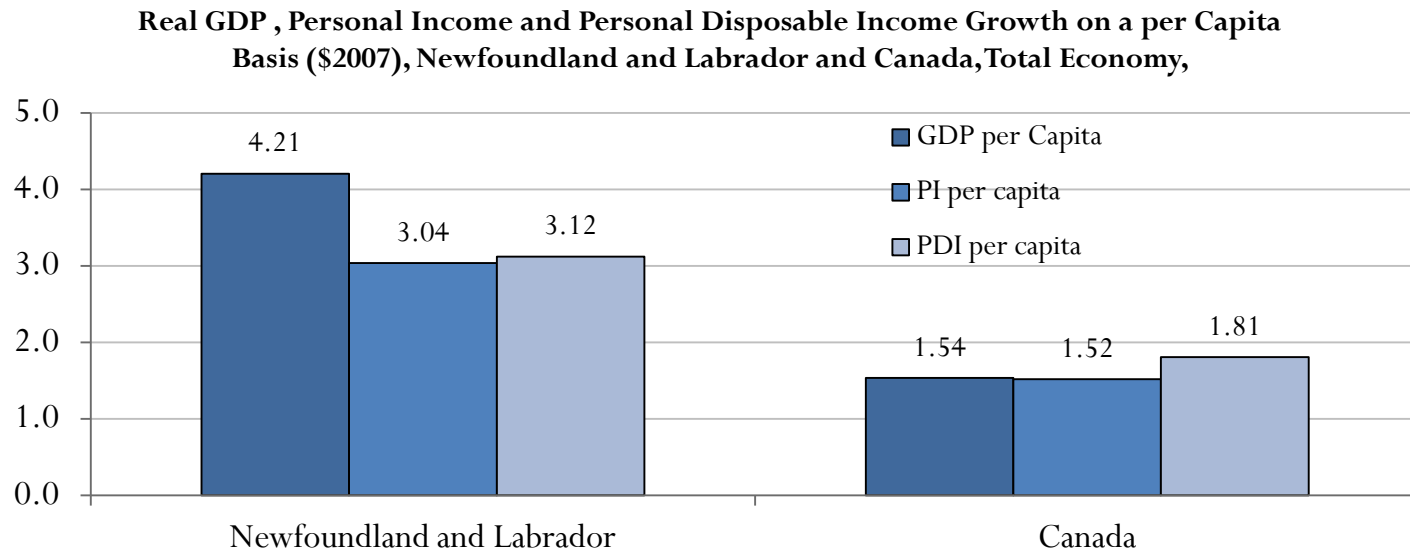
R&D Intensity (R&D as a percentage of GDP) in Canada and the Provinces, 2010



- Newfoundland and Labrador's BERD increased at an impressive compound annual rate of 10.80 per cent during the 1984-2010 period (vs. an increase of 6.39 per cent per year in the nation-wide BERD), from \$5 million in 1984 to 72 million in 2010. Newfoundland BERD still represented a quarter of Canada's in 2010 (0.29 vs. 0.99).

Living Standards

- Has the rise of the oil industry increased living standards in Newfoundland and Labrador?
 - Labour compensation fell from 58.0 per cent in 1997 to 33.7 per cent in 2010, with a low of 25.6 per cent in 2008.



Policy Recommendations

Re-investing in the economy :

- Human Capital
- Physical Capital
- Innovation
 - Research & Development Corporation of Newfoundland and Labrador

The problem of out-migration

- Development of common messages
- Investment in families
- Investment in education

Conclusion and Future Prospects

- The future of the mining and oil and gas sector
 - Drop in the production of all offshore platforms
 - Record-high investment in mining
- Major investments
 - Hebron, Lower Churchill and Vale.
 - Other mining projects
- Future government Revenue
 - Estimated \$42 billion in future royalties