OFFICE OF
THE PARLIAMENTARY BUDGET OFFICER

CANADA

BUREAU DU
DIRECTEUR PARLEMENTAIRE DU BUDGET

Economic and Fiscal Impacts of population Ageing in Canada

Presentation to the CEA-CDESG Panel
Calgary
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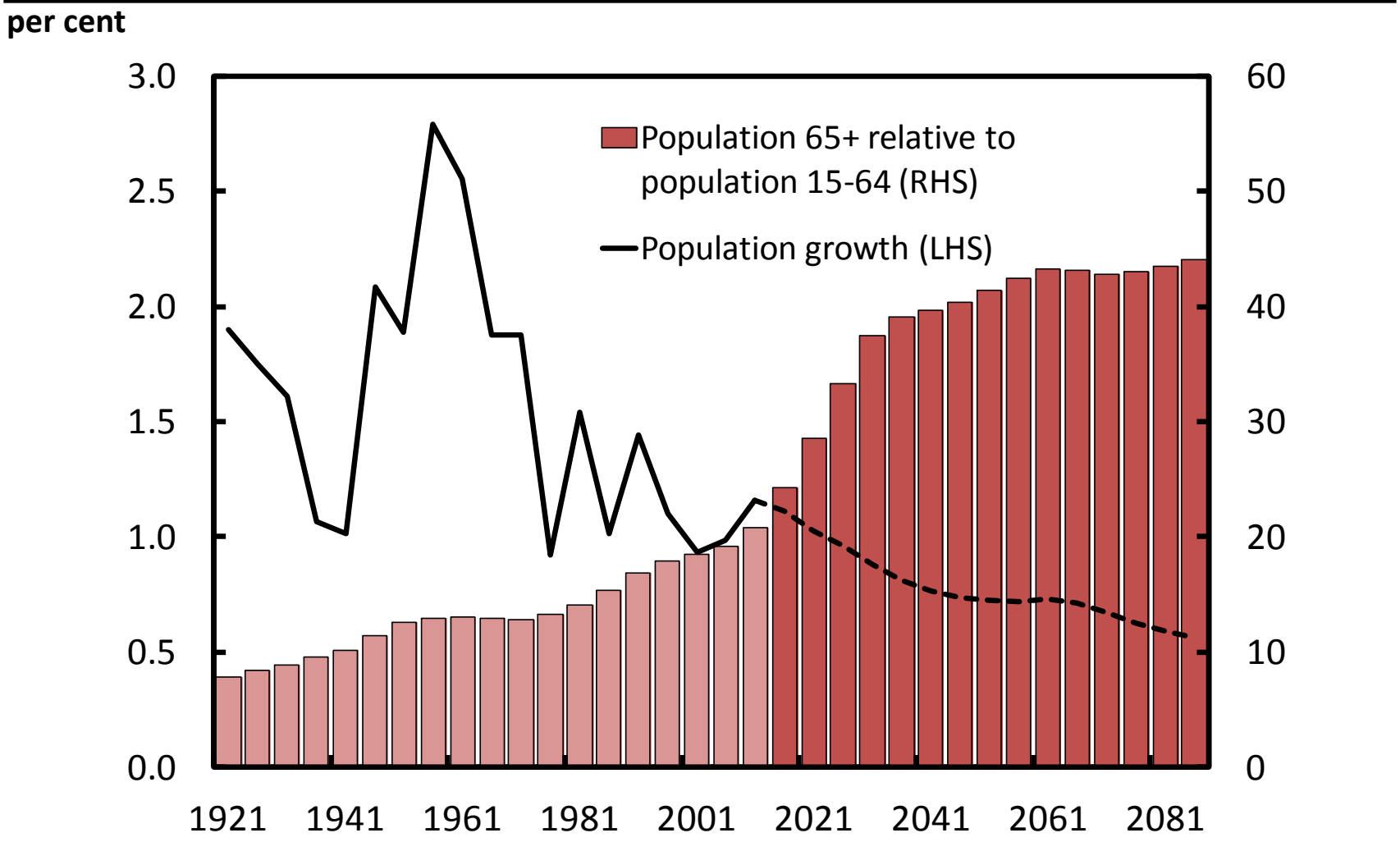
Economic and Fiscal Analysis

The Demographic Transition



Source: Office of the PBO; Statistics Canada

Projection of potential output

1. **Potential, or trend, GDP is projected from the supply side of the economy using the following identity:**

$$Y = L \times \frac{Y}{L}$$

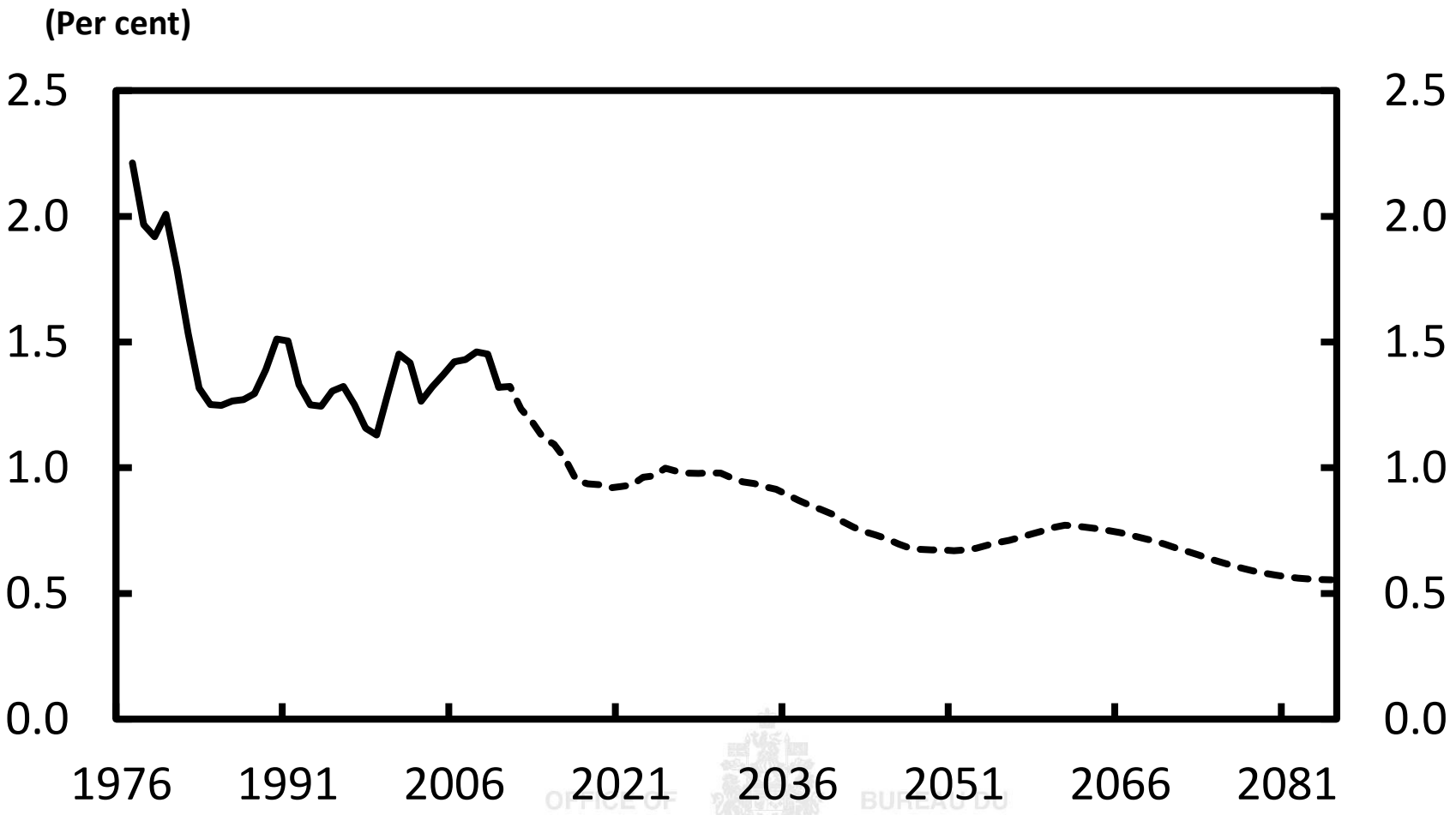
where: Y is real GDP, L is total labour input and (Y/L) is labour productivity

2. **Labour input is a function of the size of the working age population (LFPOP), the aggregate employment rate (LFER) and average weekly hours worked by those employed (AHW)**

$$L = LFPOP \times LFER \times AHW \times 52$$

3. **Labour productivity growth imbeds technological change and capital deepening**

Working Age Population Growth, 1977 to 2085



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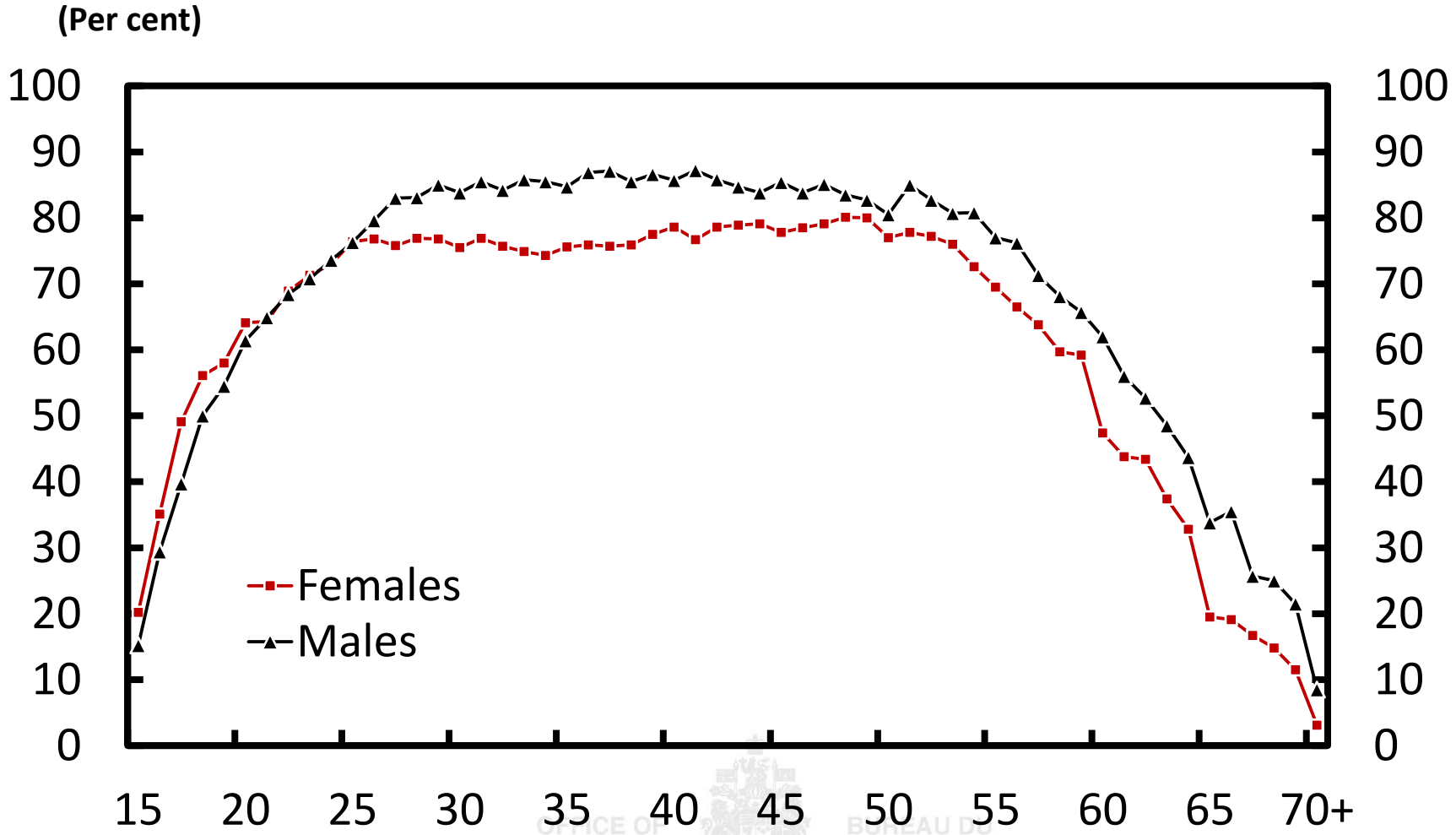
Employment Rate by Age



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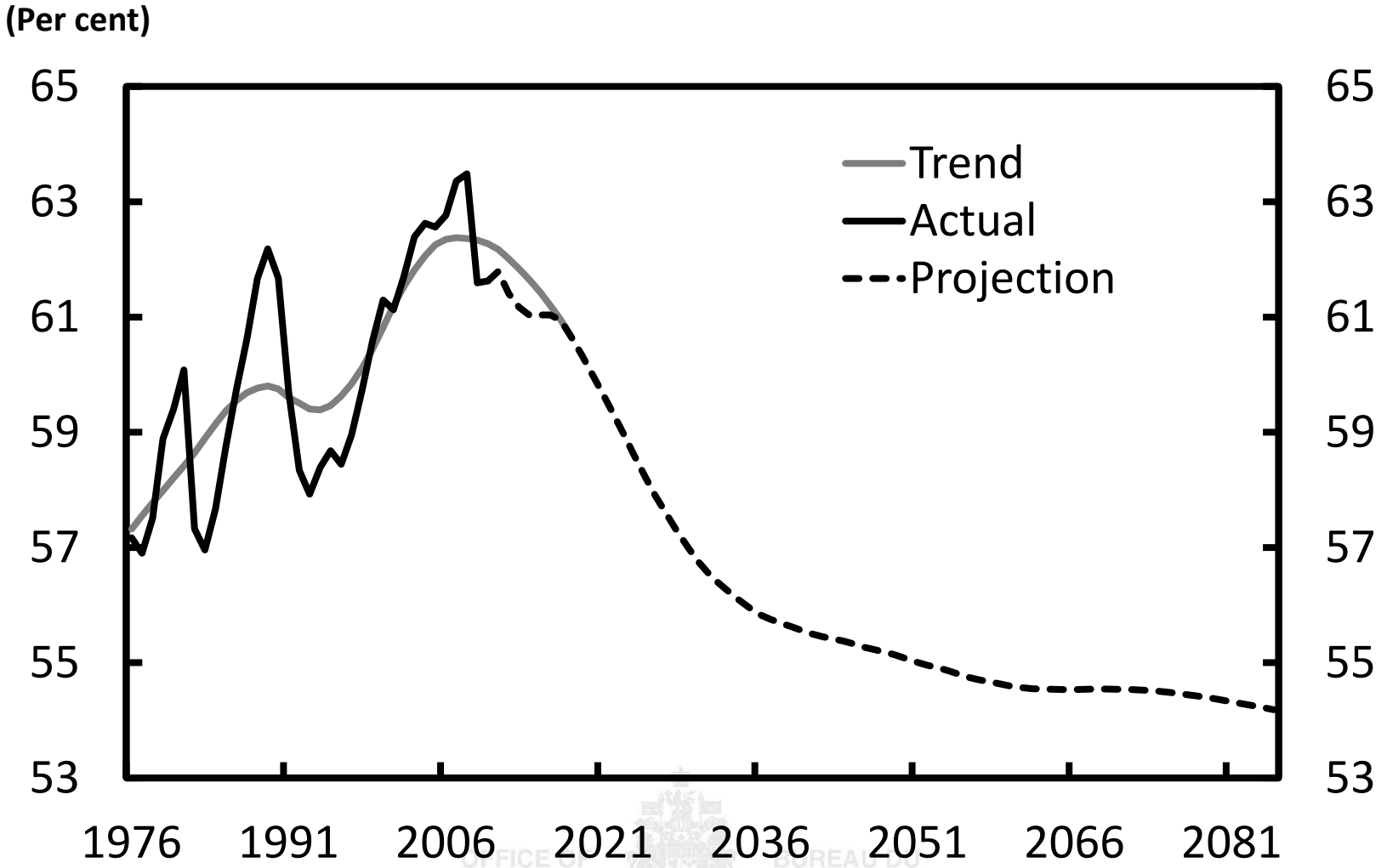
Aggregate Employment Rate, 1976 to 2085



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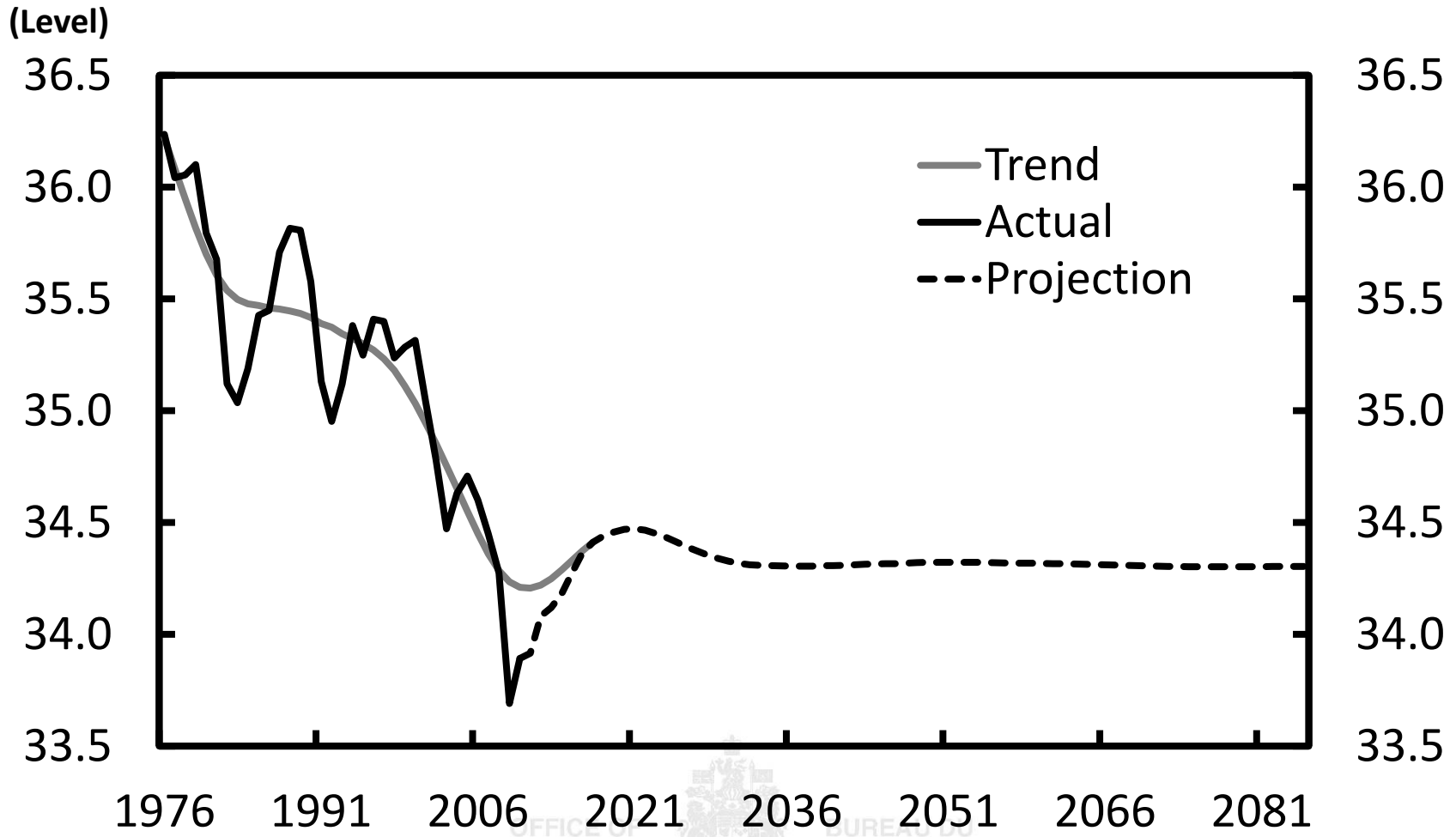
Average Weekly Hours Worked, 1976 to 2085



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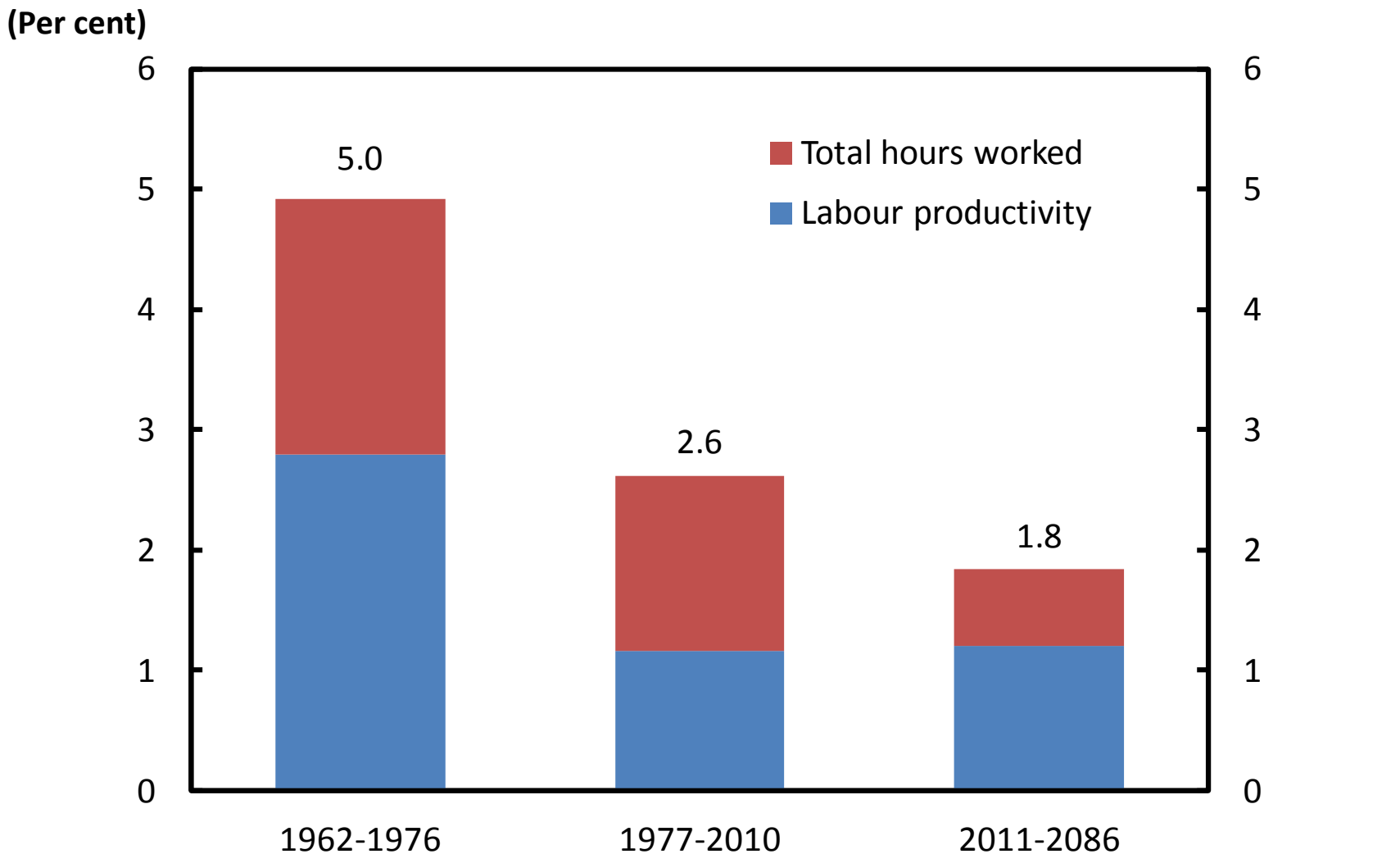
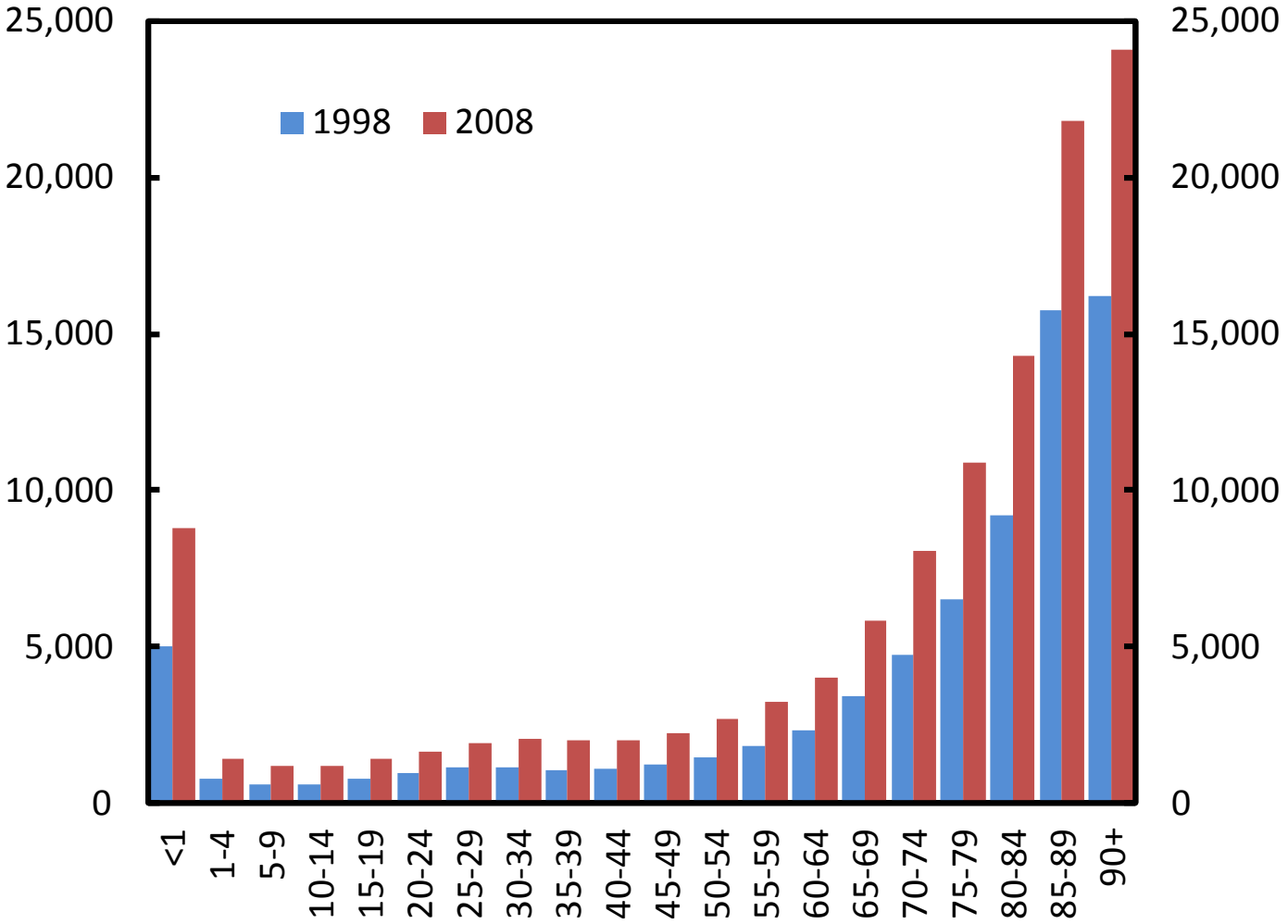
Average Annual Real GDP Growth



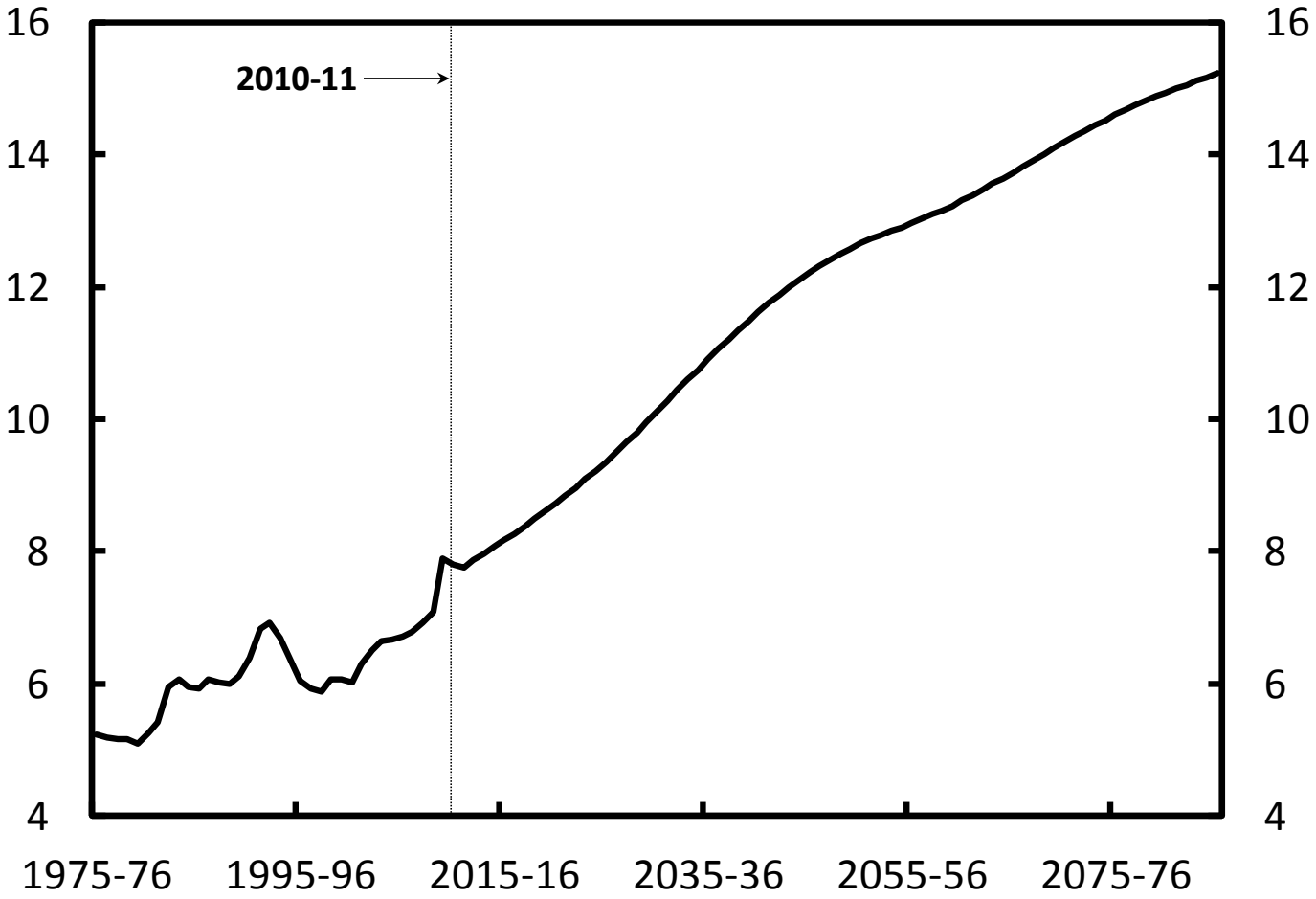
Provincial-Territorial Government Health Expenditures by Age Group, 1998 and 2008

(Dollars per capita)

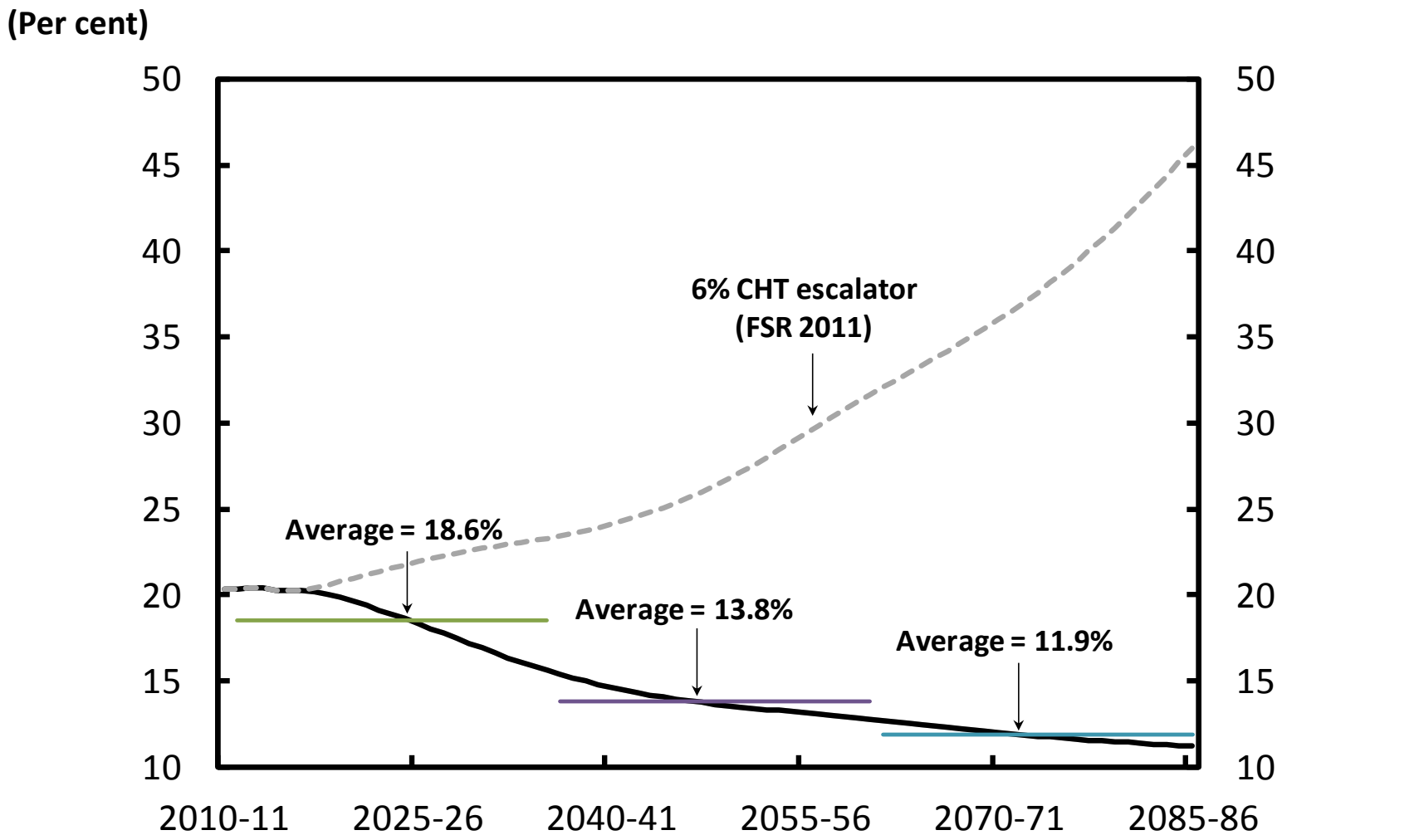


Provincial-Territorial Health Spending

(Per cent of GDP)

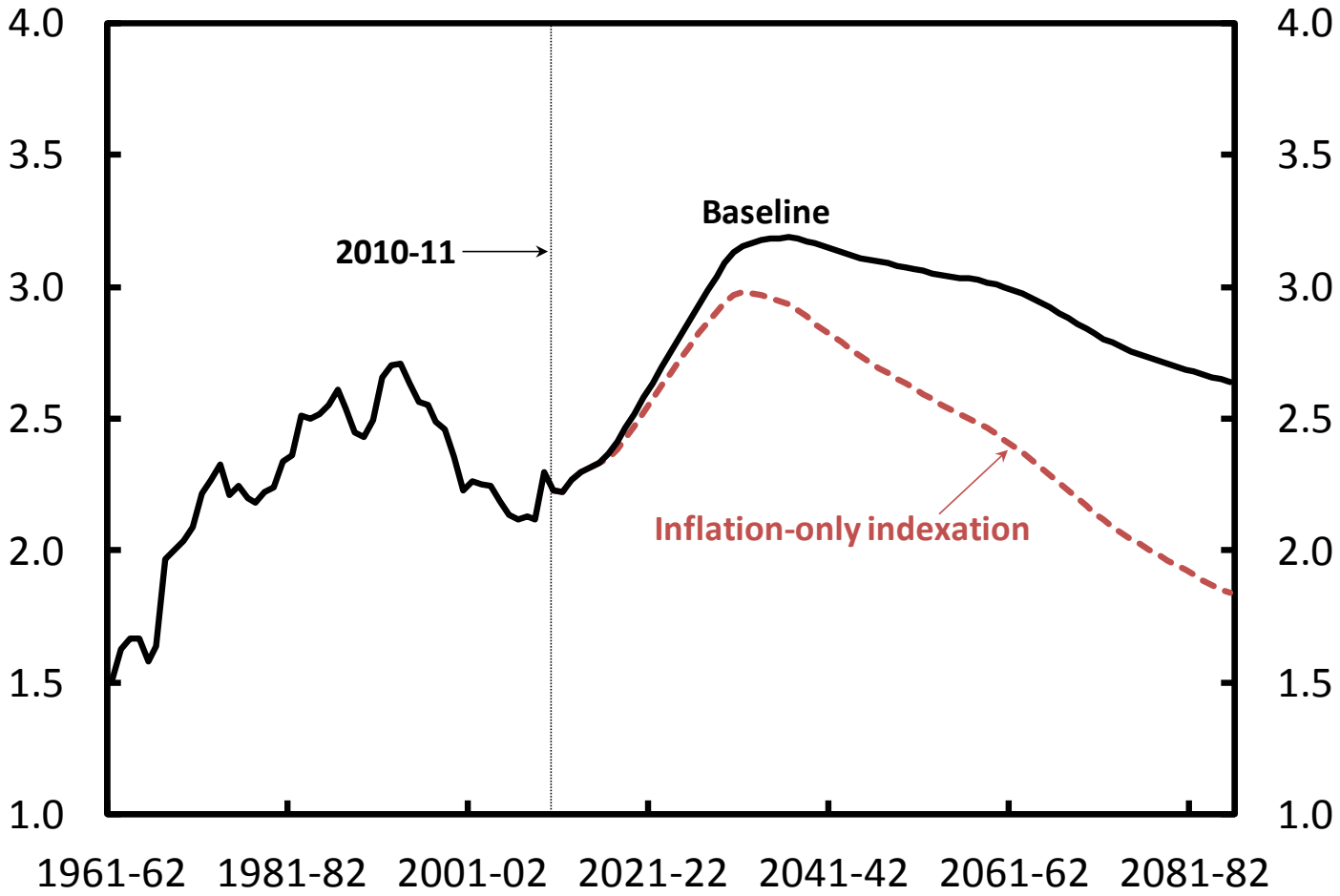


Federal CHT Relative to Provincial-Territorial Health Spending



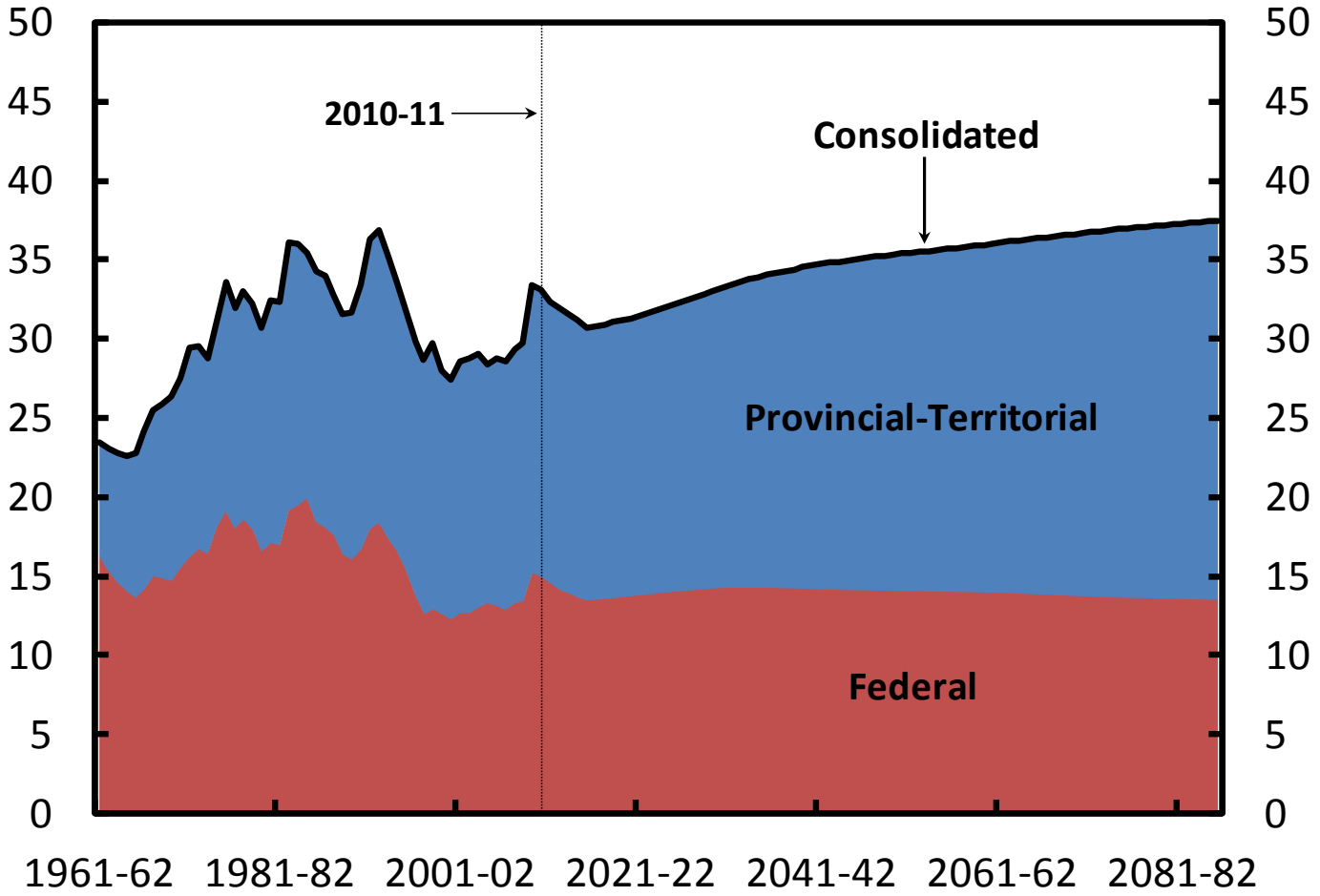
Federal Elderly Benefits

(Per cent of GDP)

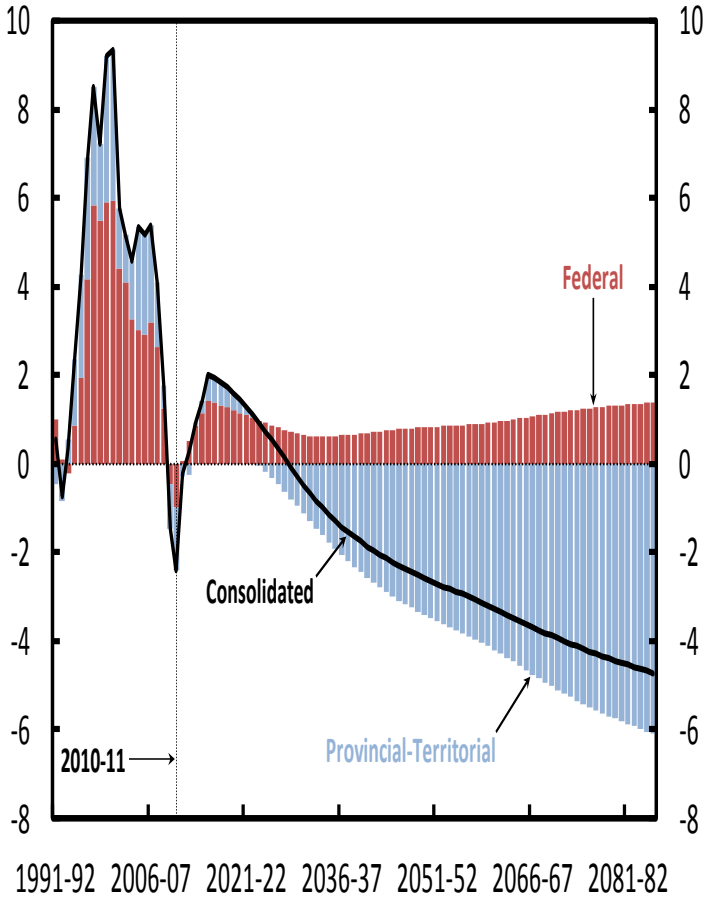


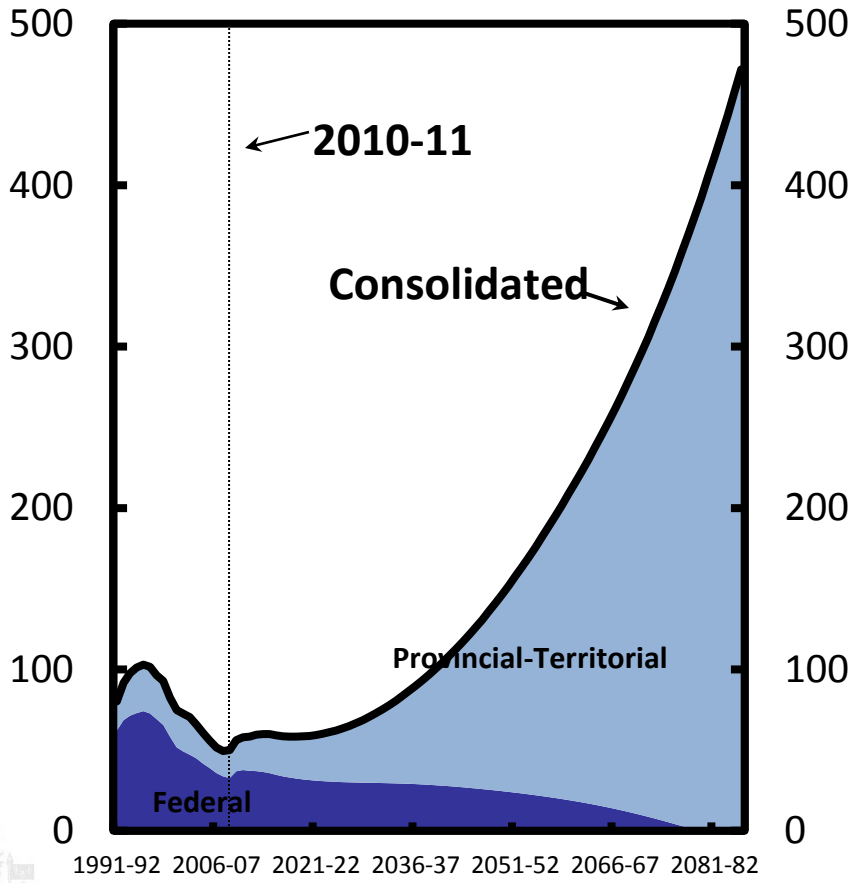
Consolidated Federal and Provincial-Territorial Program Spending

(Per cent of GDP)



Projection of long-term operating balance and debt-to-GDP ratio





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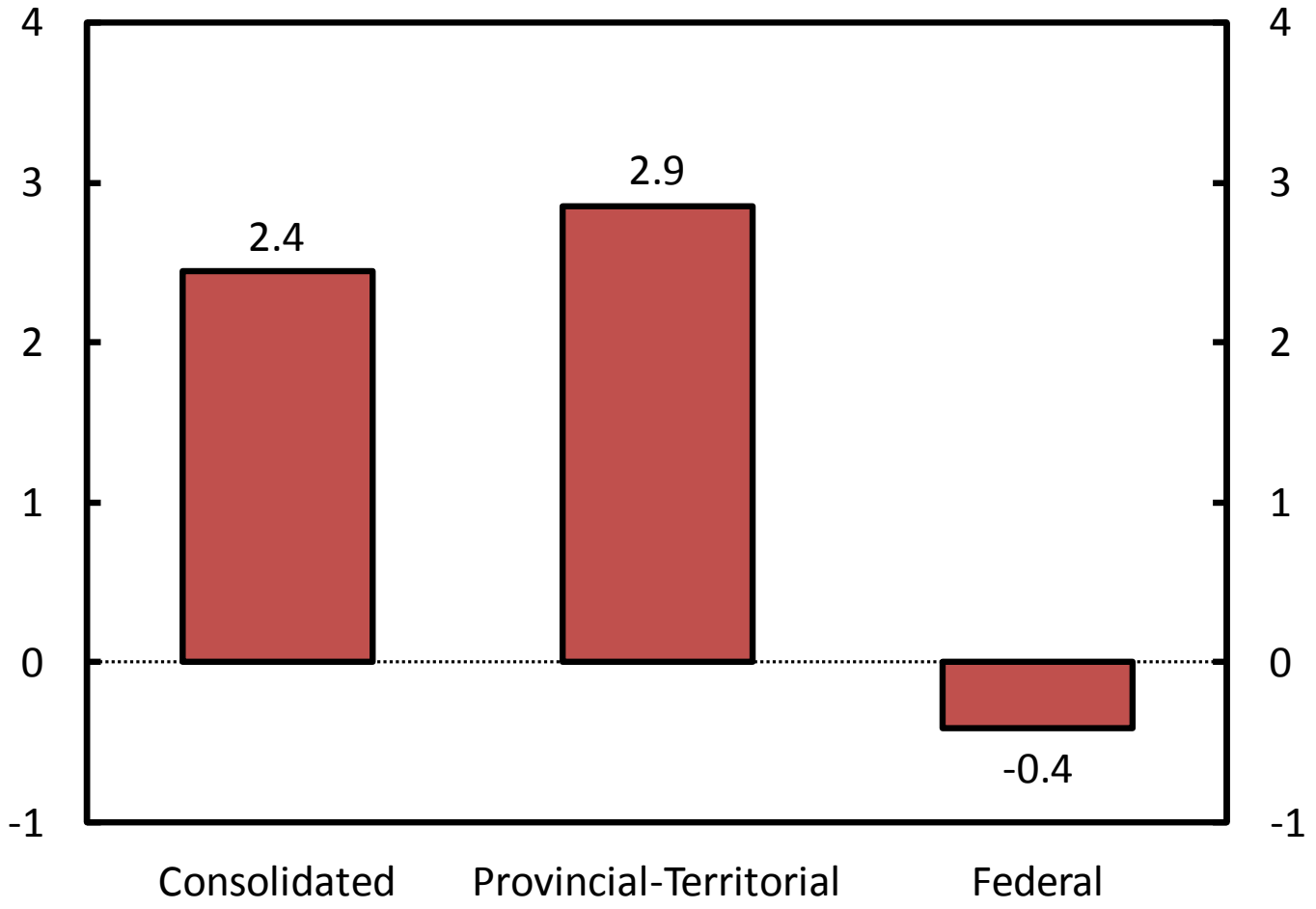
Fiscal Gap Estimates

(Per cent GDP)