AGENTA Final Conference: Economic Consequences of Population Ageing and Intergenerational Equity

Lifecycle deficit in Canada: A longitudinal and provincial assessment

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National Transfer Accounts in Canadian provinces

- Canadian Project started in 2017.

- We achieved:
  - LCD:
    - \( C \) between 1998 and 2013.
    - \( Y^L \) between 1981 and 2014
  - We did it for Canada and for provinces.

- Three interesting topics in mind:
  - Population aging in Canada.
  - Transfers between provinces.
  - Intergenerational equity.

A lot of work!
National Transfer Accounts in Canadian provinces

99.68% of the Canadian population live in provinces
National Transfer Accounts in Canadian provinces

Aggregates for Canada and for provinces

- Requires to create a new NTA methodology for regions:
  - Starting point: Gretchen’s table
  - For each cell: requires that $\sum$ provinces = Canada

- What is **good**, what is **bad**:
  - **Good**: GDP by expenditure and by income; labour share of self-employment income; CFC.
  - **Bad**: net CoE, YA and ITLS from ROW, Saving-related amounts $\rightarrow$ we applied simple hypothesis

- **Major issue** (no solution): net transfers between provinces.
National Transfer Accounts in Canadian provinces

Age profiles:

- Consumption: 1998-2013
- Labour income: 1981-2014
National Transfer Accounts in Canada

Per capita consumption in Canada, 2013

Per capita labour income in Canada, 2013

- Private health
- Private education
- Private other
- Private - imputed rents
- Public education, Post-secondary
- Public education, Elementary and secondary
- Public health
- Public other

- Self-employment labour income
- Employer contributions
- Labour earnings
Three indicators of intergenerational equity

**Indicator 1:** inter-age ratio. At age $a$:

\[
\frac{\sum_{60}^{90} Ca}{\sum_{60}^{90} Na} / \frac{\sum_{30}^{59} Ca}{\sum_{30}^{59} Na}
\]

**Indicator 2:** intergenerational indicator. Compares the $C$ of successive generations at the same age (normalized in constant C$).

**Indicator 3:** inter-age and intergenerational indicator.

*Per capita current consumption of persons aged $a$ at time $t*

*Average of per capita consumption by age (unweighted by demography) of people aged 0 – 90 + at time $t* 

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d’Albis et al. (2017),
The Journal of the Economics of Ageing
Labour inc., per capita cohorts, constant | 1981 to 2013

- ↗ for each cohort / working age groups
- Cohort 1960 = cohort 1950 between 30 & 40 years old:
  - Same in France
  - Same in US
Labour inc., per capita cohorts, constant thousand C$ | 1981 to 2013
Inter age indicator

Per capita consumption of people aged 60+
Per capita consumption of people aged 30–59

Per capita consumption of people aged 60+
Per capita consumption of people aged 0–29
**Inter age indicator**

**Per capita consumption of people aged 60+**
Per capita consumption of people aged 30−59

**Per capita consumption of people aged 60+**
Per capita consumption of people aged 0−29
Total consumption, per capita cohorts, constant thousand C$ | 1998 to 2013

- $C \uparrow$ for each cohort
- Stability of YL between cohort 1960 and cohort 1950 does not result in the same effects for consumption
Total consumption, per capita cohorts, constant thousand C$ | 1998 to 2013
Per capita current consumption of persons aged a at time t

Average of per capita consumption by age (unweighted by demography) of people aged 0 – 90 + at time t

- No obvious generational effects in Canada.
- Generational effect in France and in US from cohort 1950 to cohort 1960.
**Per capita current consumption of persons aged a at time t**

*Average of per capita consumption by age (unweighted by demography) of people aged 0 – 90 + at time t*

**Indicator 3**

- Atlantic Provinces
- Québec
- Ontario
- Prairies
- British Columbia
Conclusion

- 1998-2013: Intergenerational equity in Canada wrt our 3 indicators.

Issue:
- Population aging is not homogenous in Canada
- An imbalances of transfers to provinces and territories (CHT*, CST**, TFF***)?
- A future break of intergenerational equity?

* Canada Health Transfer
** Canada Social Transfer
***Equalization and Territorial Formula Financing (TFF)