

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

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



99,68% of the Canadian population live in provinces



National Transfer Accounts in Canadian provinces

Aggregates for Canada and for provinces

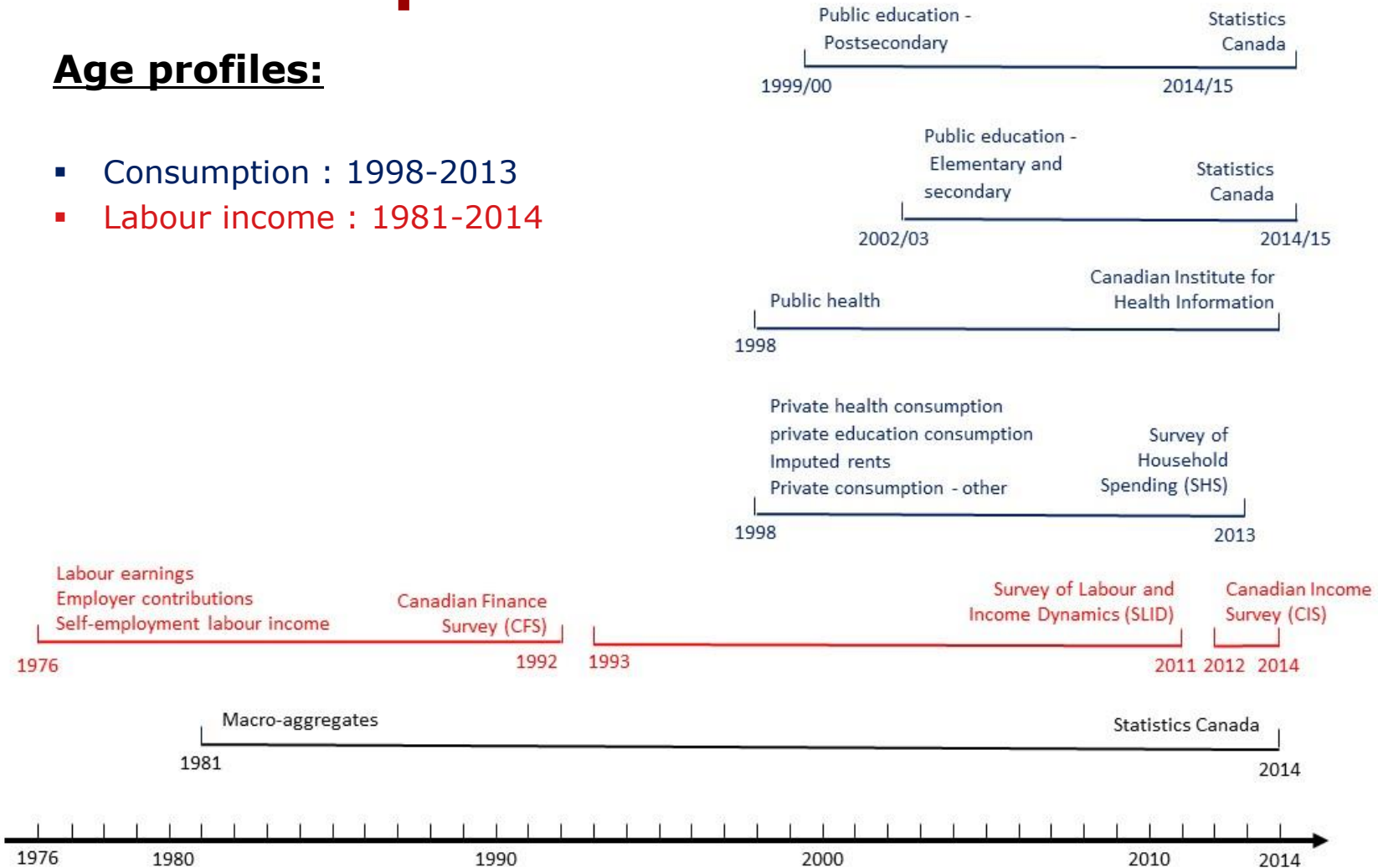
- Requires to create a new NTA methodology for regions:
 - Starting point : Gretchen's table
 - For each cell: requires that \sum provinces = Canada
- What is **good**, what is **bad**:
 - **Good**: GDP by expenditure and by income; labour share of self-employment income; CFC.
 - **Bad**: net CoE, YA 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

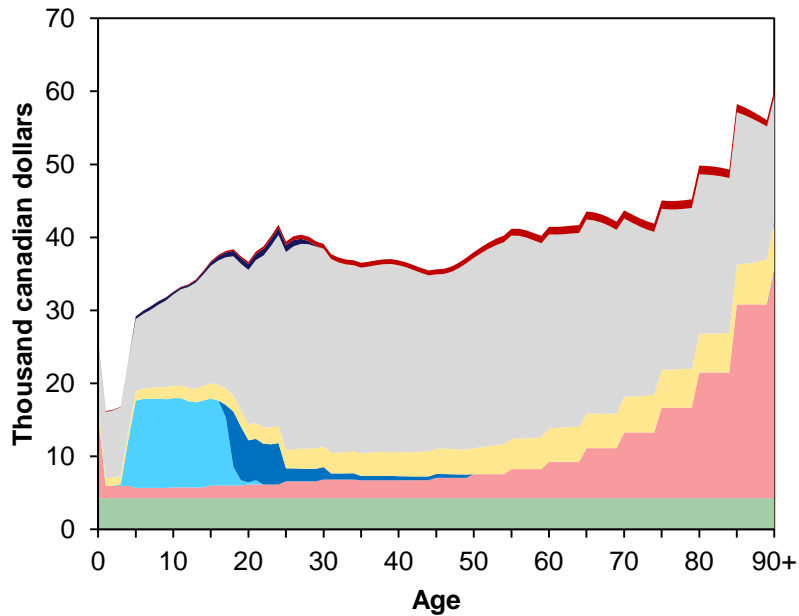
Age profiles:

- Consumption : 1998-2013
- Labour income : 1981-2014



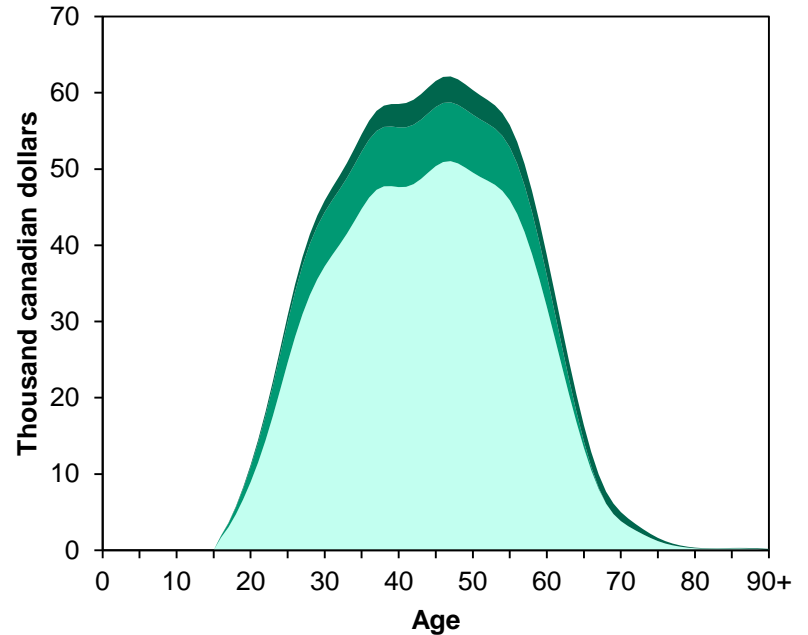
National Transfer Accounts in Canada

Per capita consumption in Canada, 2013



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

Per capita labour income in Canada, 2013



- Self-employment labour income
- Employer contributions
- Labour earnings

Three indicators of intergenerational equity

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

$$\frac{\frac{\sum_{60}^{90} C_a}{\sum_{60}^{90} N_a}}{\frac{\sum_{30}^{59} C_a}{\sum_{30}^{59} N_a}}$$

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

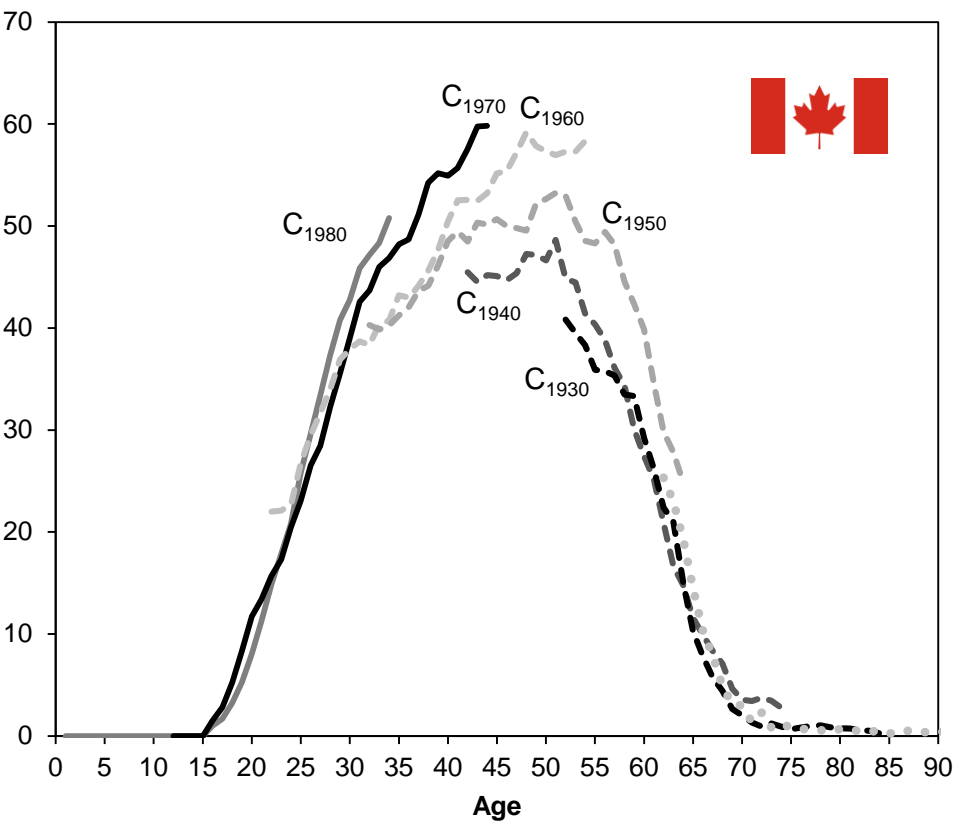
Indicator 3: inter-age and intergenerational indicator.

Per capita current consumption of persons aged a at time t

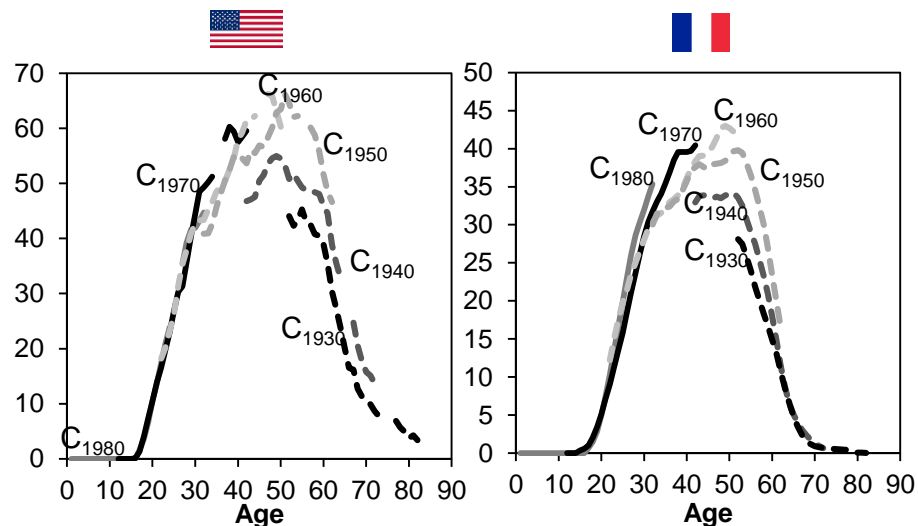
Average of per capita consumption by age (unweighted by demography)
of people aged 0 – 90 + at time t

d'Albis *et al.* (2017),
The Journal of the Economics of Ageing

Labour inc., per capita cohorts, constant | 1981 to 2013

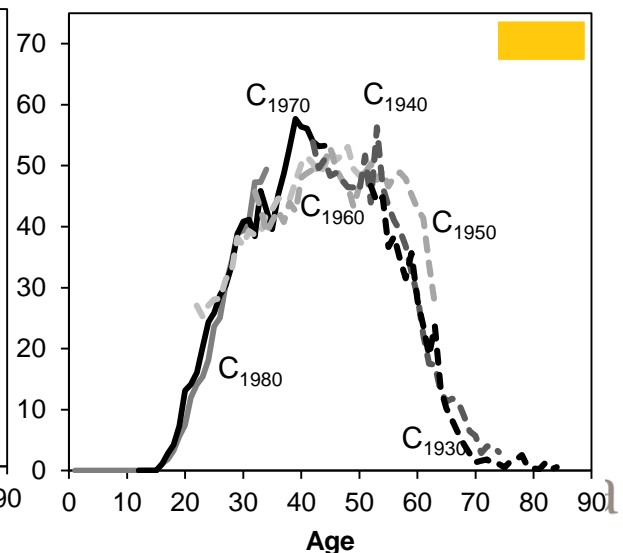
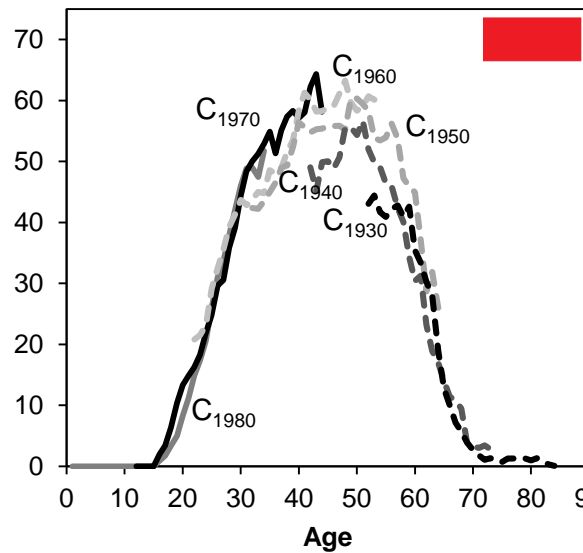
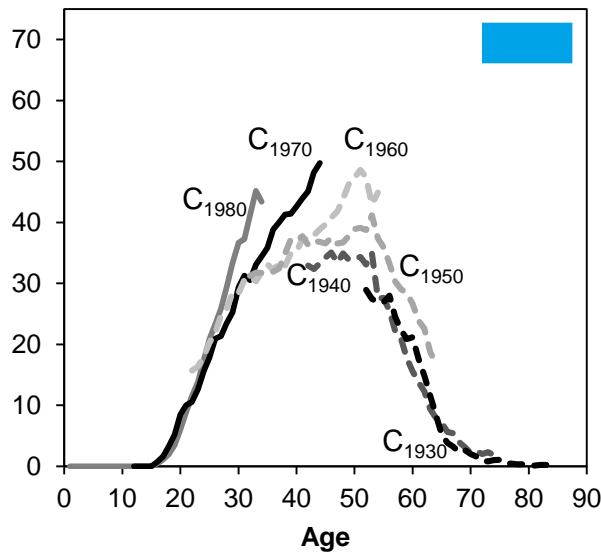
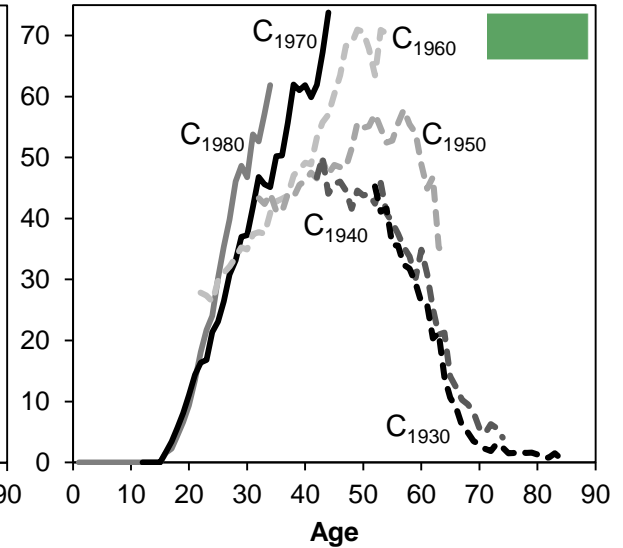
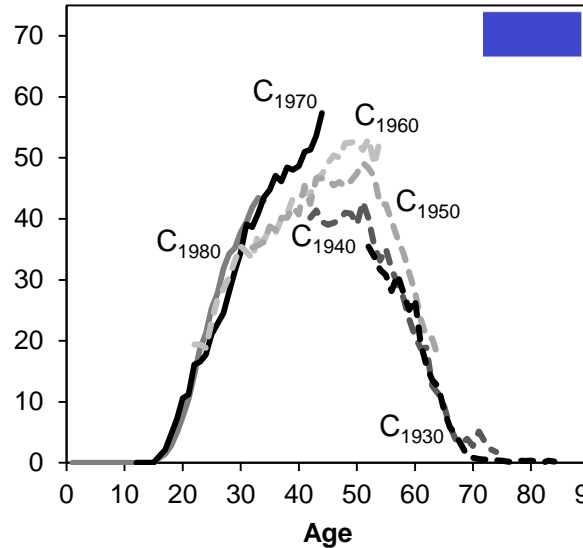


- ↗ for each cohort / working age groups
- Cohort 1960 = cohort 1950 between 30 & 40 years old :
 - Same in France
 - Same in US



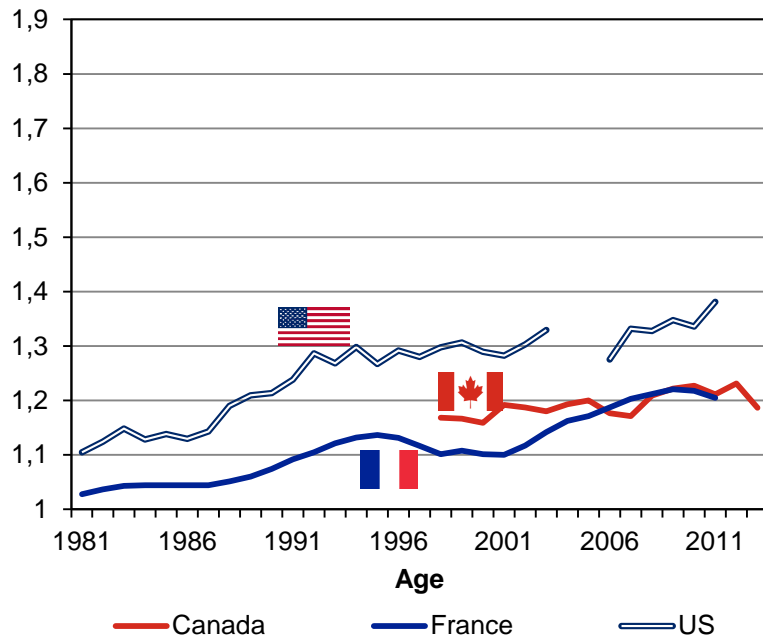
Labour inc., per capita cohorts, constant thousand C\$ | 1981 to 2013

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

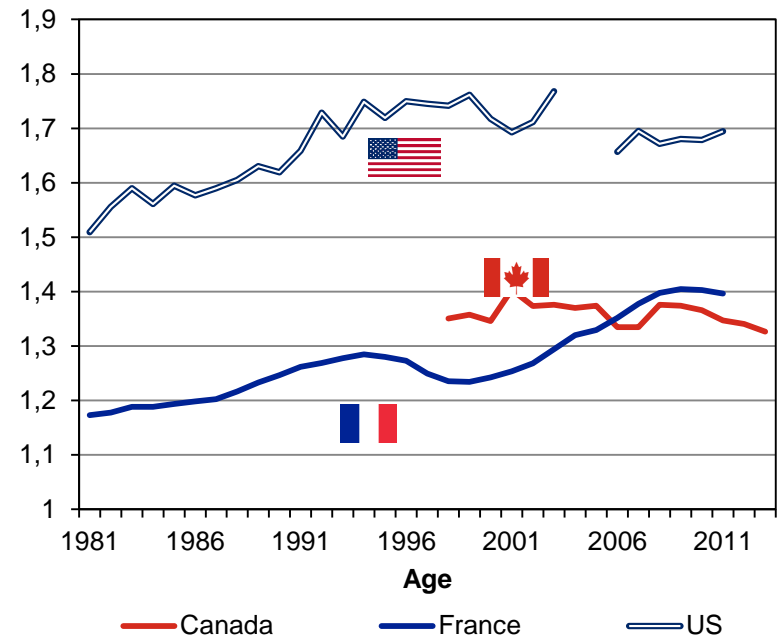


Inter age indicator

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

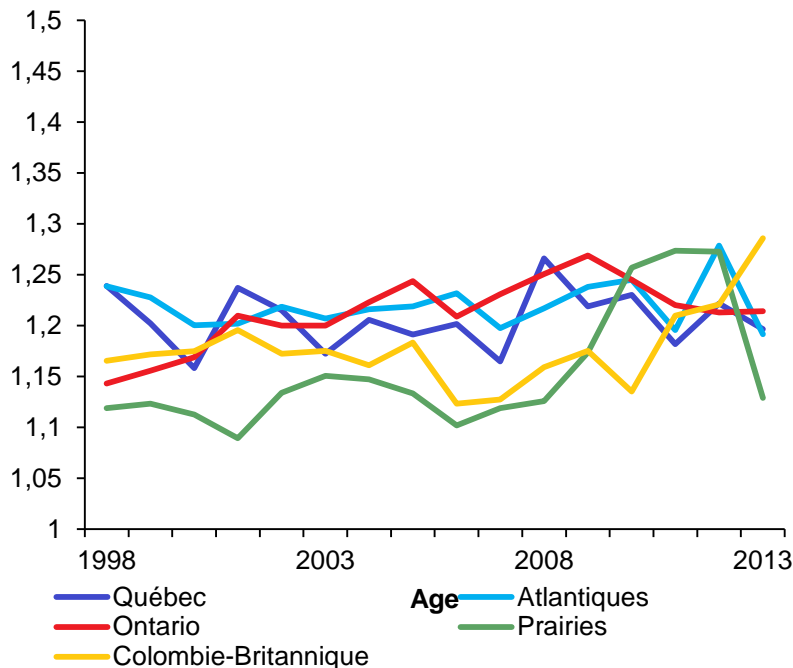


Per capita consumption of people aged 60+
Per capita consumption of people aged 0–29

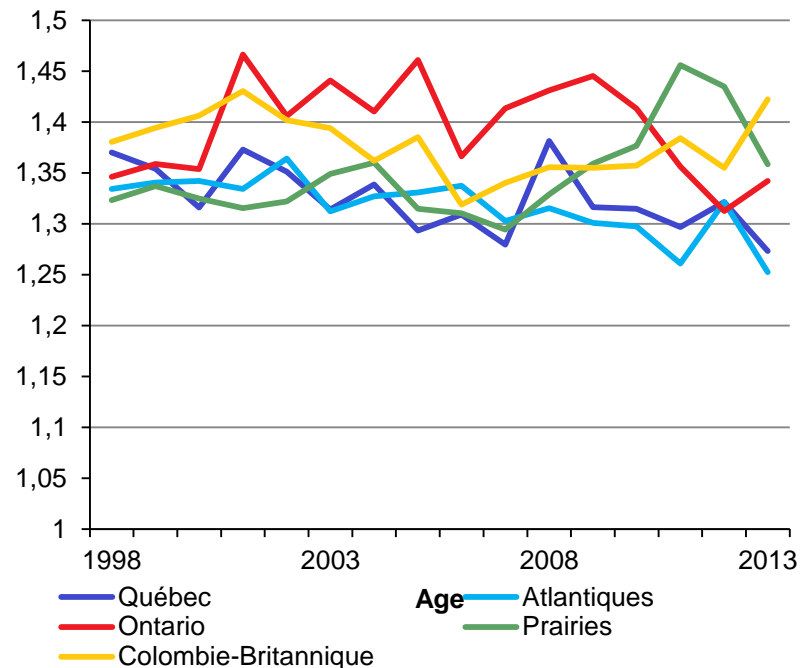


Inter age indicator

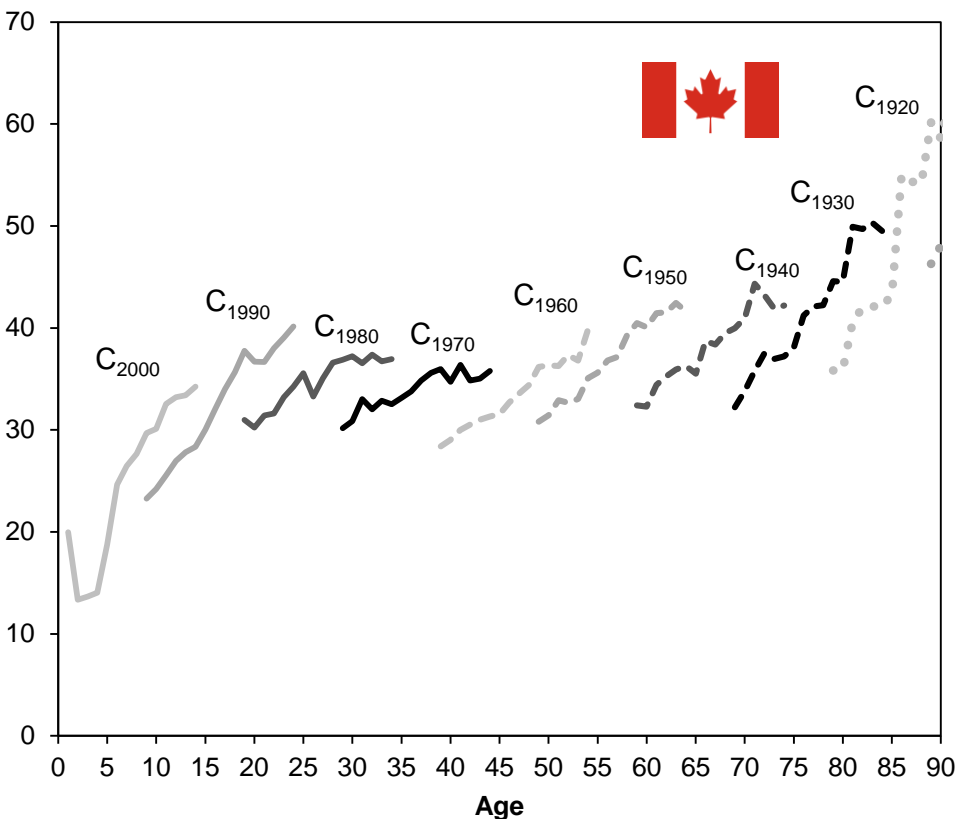
Per capita consumption of people aged 60+
Per capita consumption of people aged 30–59



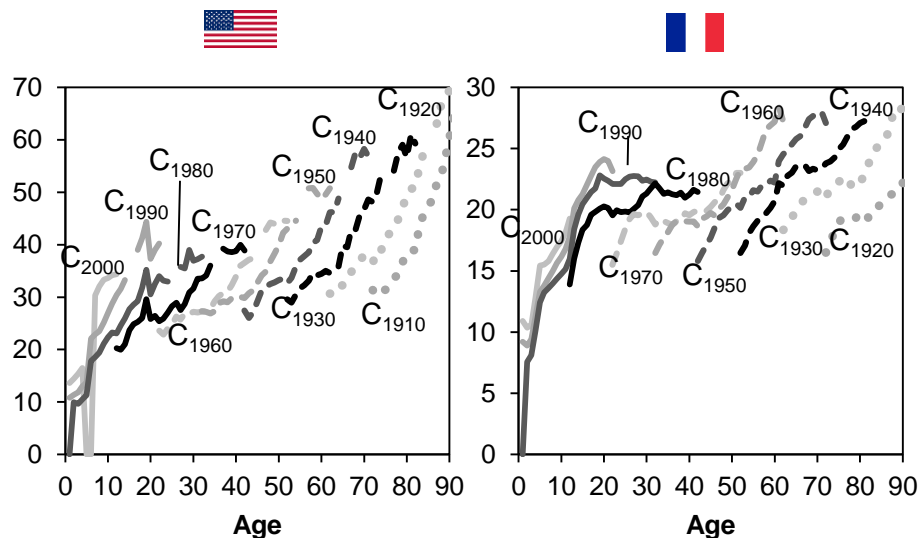
Per capita consumption of people aged 60+
Per capita consumption of people aged 0–29



Total consumption, per capita cohorts, constant thousand C\$ | 1998 to 2013

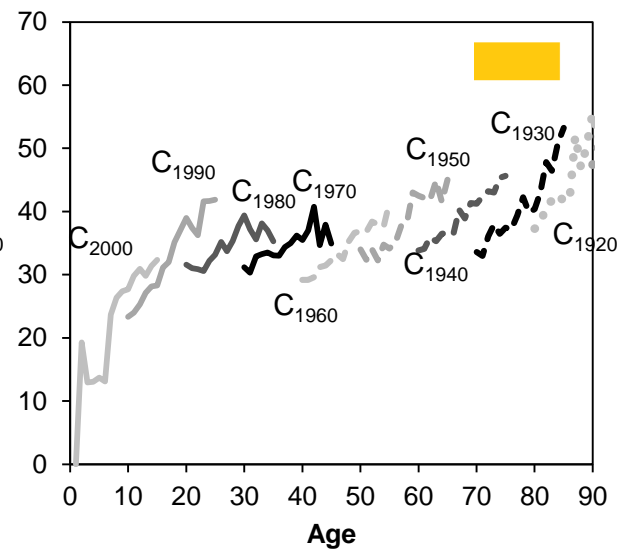
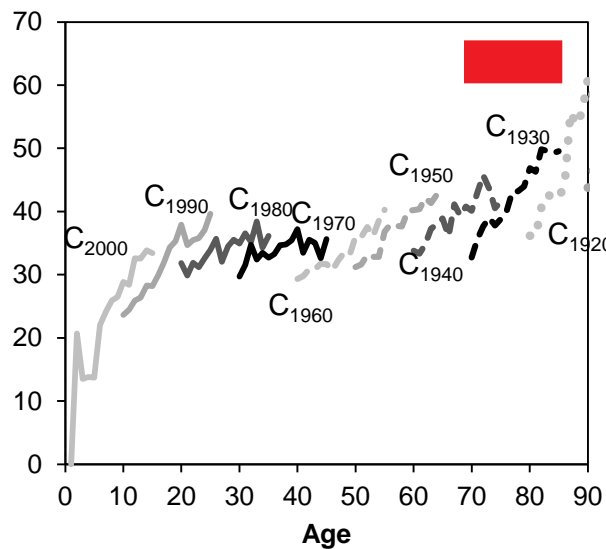
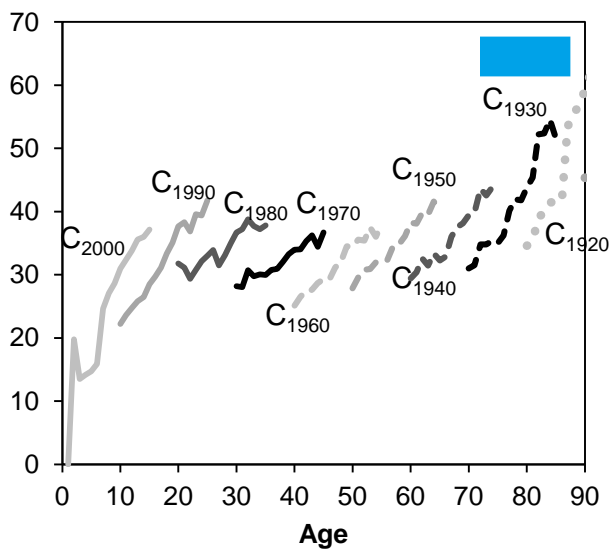
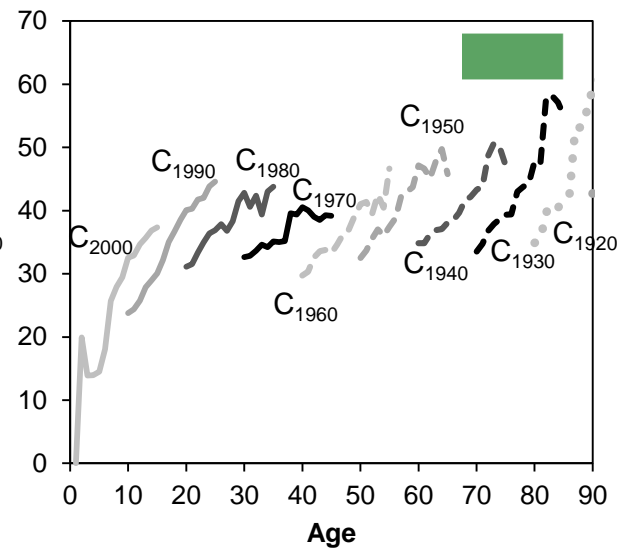
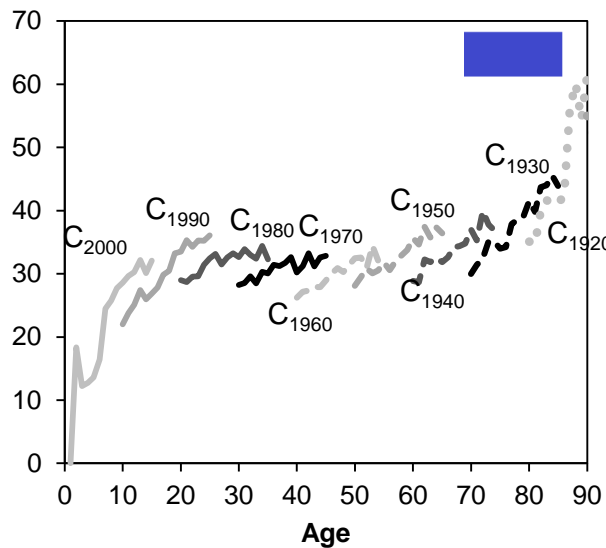


- $C \nearrow$ for each cohort
- Stability of YL between cohort 1960 and cohort 1950 does not result in the same effects for consumption

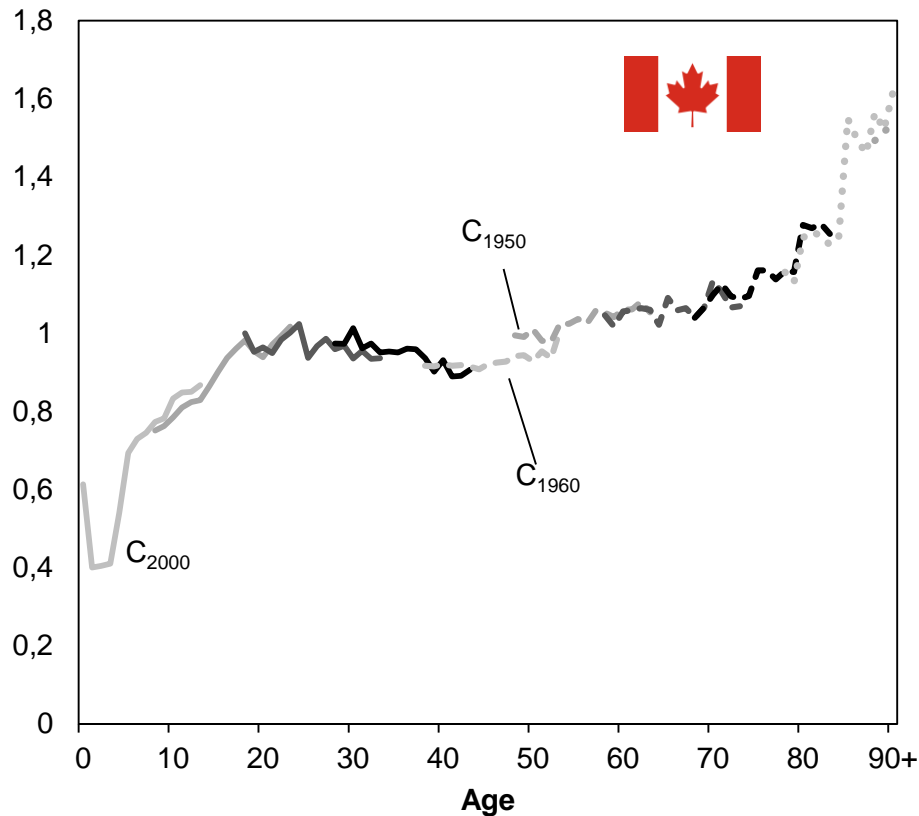


Total consumption, per capita cohorts, constant thousand C\$ | 1998 to 2013

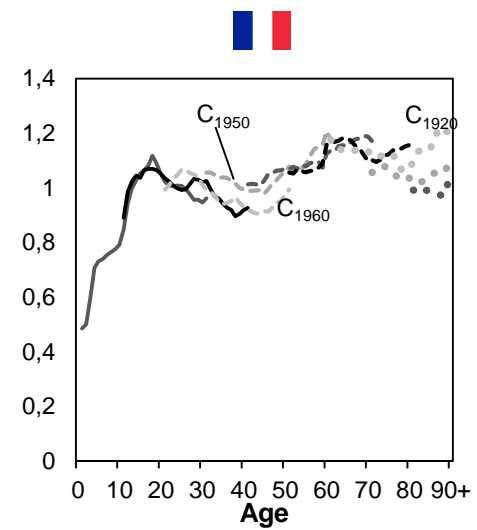
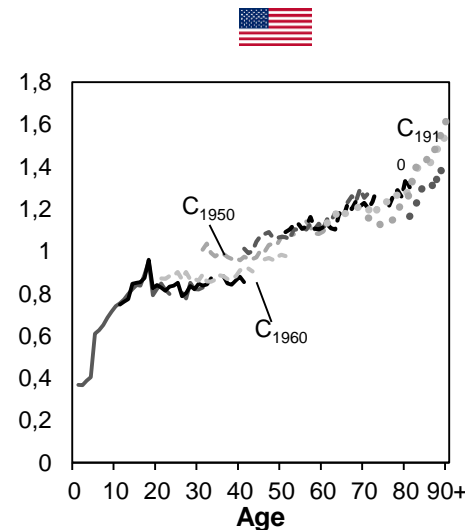
- Atlantic Provinces
- Québec
- Ontario
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Per capita current consumption of persons aged a at time t
Average of per capita consumption by age (unweighted by demography)
of people aged 0 – 90+ at time t

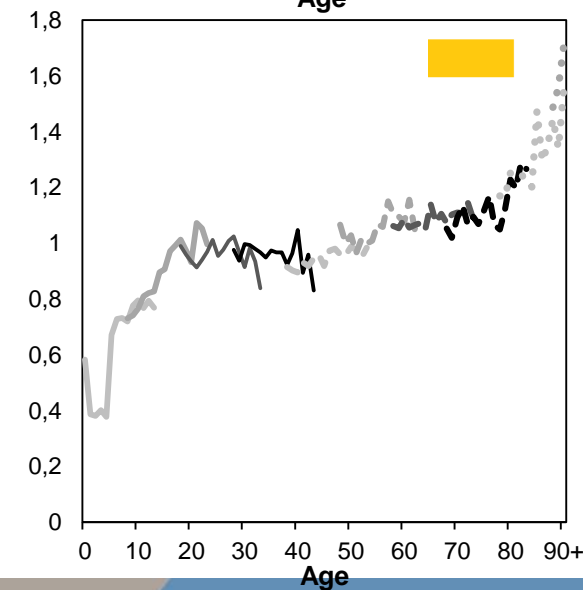
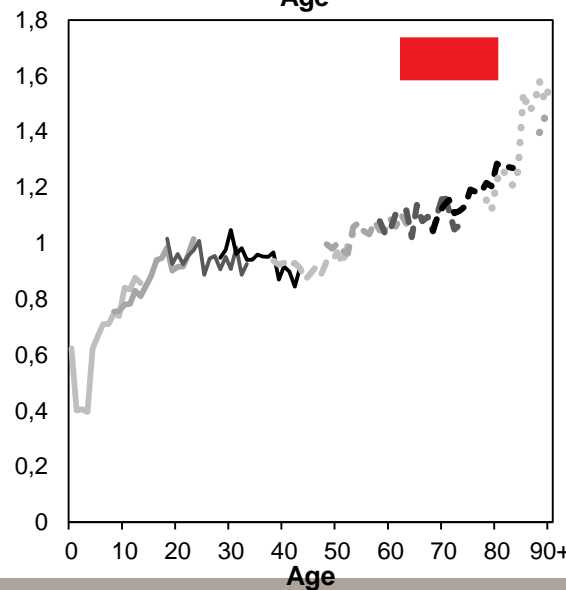
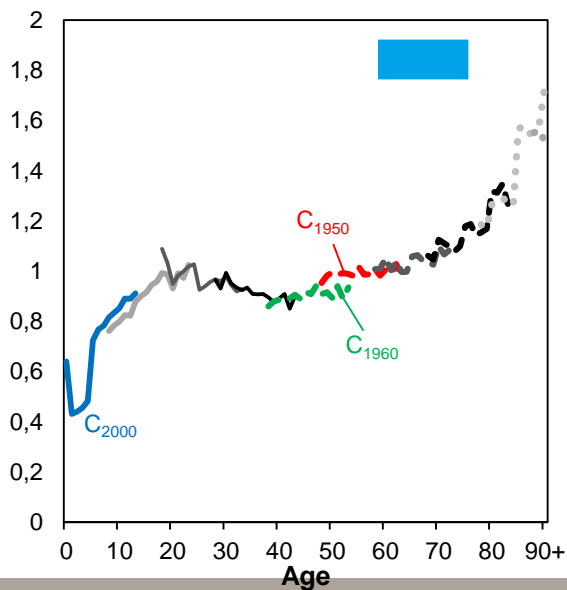
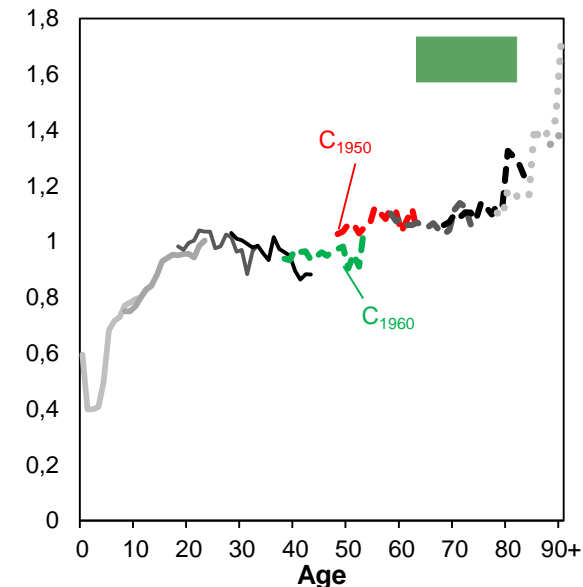
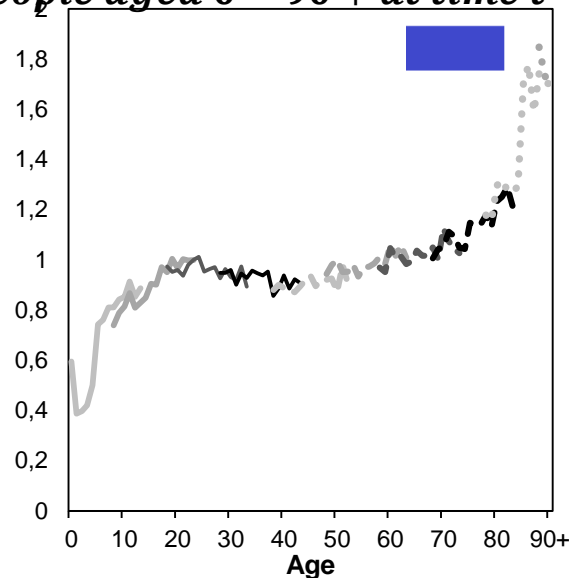


- No obvious generational effects in Canada.
- Generational effect in France and in US from cohort 1950 to cohort 1960.
- Limitations: first age profile in 1998 for Canada



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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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)

Share of people aged 65+ in 2018

