

Population Aging in NL:

Impacts of demographic shift in a small open economy

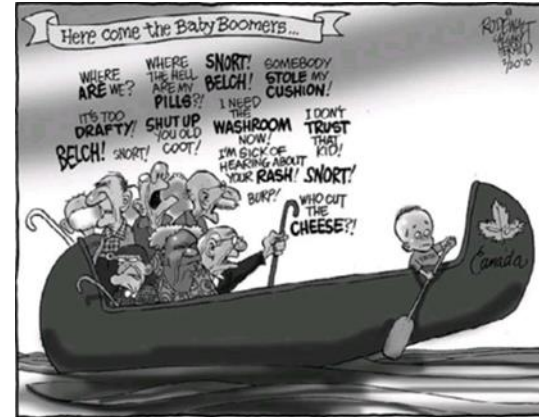
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Impacts of population aging depend how much aging of the population we will see

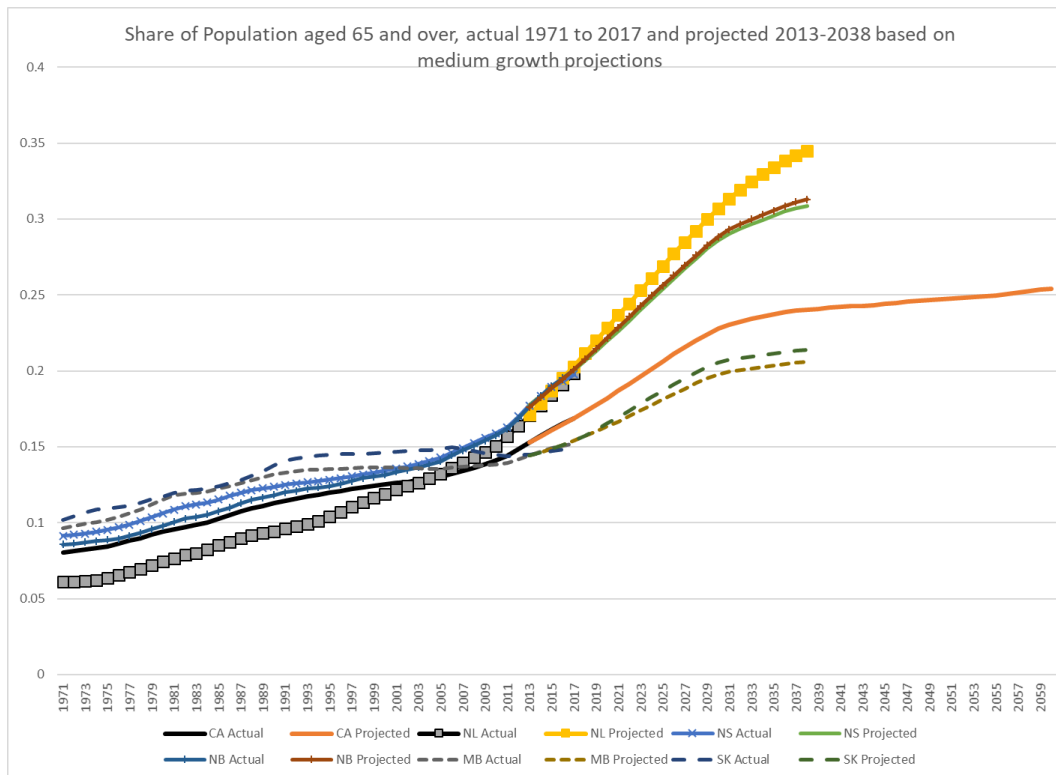
- Impact of population aging on:
 - the economy
 - the nature of employment of labour force
 - on delivery of government services
 - challenges for the youth population.



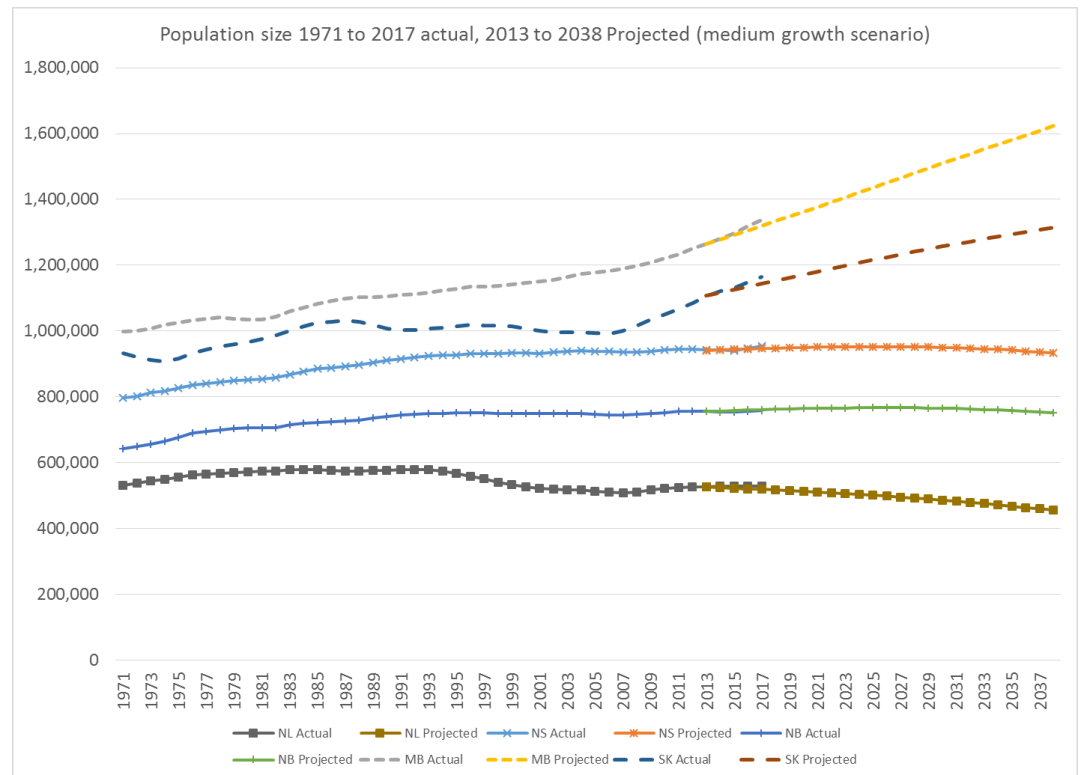
Observation: Population Growth Slows Population Aging



Share of population 65+, 1971 to 2038



Population size 1971 to 2038



Does the economy have a population growth problem or does the population have an economic growth problem?

Do we need

population growth to spur economic growth?

or

economic growth to spur population growth?

Closed Economy: population aging not necessarily a problem

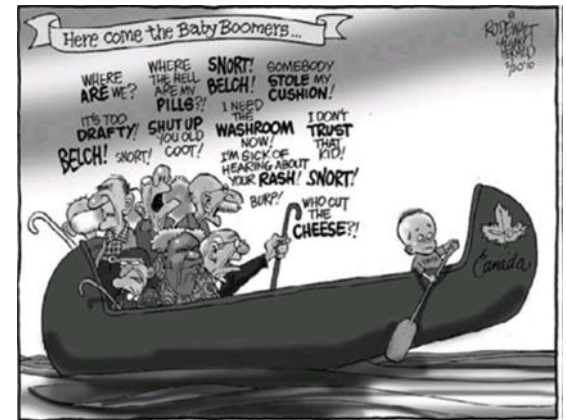
- Capital stock/investment from domestic savings
 - Young consume out of labour income and save for when old
 - Old consume out of savings
- Wages and interest rates depend on the amount of capital per worker
 - When boomers were young, lots of L relative to K
 - Wages low, interest rates high
 - Now that boomers old old, less L relative to K
 - Wages high, interest rates low
 - Productivity can rise

MUCH ADO ABOUT NOTHING? DEMOGRAPHIC BULGES, THE
PRODUCTIVITY PUZZLE, AND CPP REFORM

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population aging is a political issue due to distributional impacts

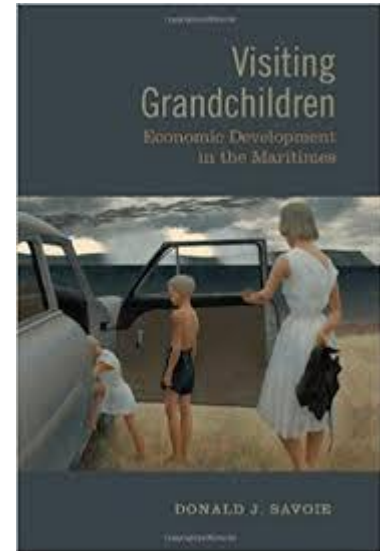
- Important distributional impacts
 - Generational - baby boomers faced low wages then low return on savings
 - Factor based – labour versus capital
- Higher taxes on young workers not a problem
 - Labour incomes are higher, so intergenerationally progressive
 - still better off than previous generations
 - Can cover the higher costs of pensions, health care etc...
 - Baby boomers can vote for higher taxes on labour, generous pensions and health care
- Overall living standards fall since boomers are large relative to young who gain
 - Scarth suggests long run p.c. GDP 2% lower due to population aging



But NFLD is a Small Open Economy

population aging and the economic death spiral

- Population Aging is a Growth Problem
 - Important impacts are real and borne by the immobile population
- Labour and capital are mobile to other markets, wages and return to capital set in external market
 - K/L is fixed since w/r set externally
 - Population aging does not raise productivity
- As population ages, L falls, decreasing r , so K falls
 - GDP gets smaller, p.c. GDP does not (unless you have a fixed factor = house prices)
- Higher aged dependency ratio results in
 - higher taxes which further reduces L and K and GDP
 - After tax wage can't diverge from that of alternative markets
 - If part of L immobile, then wages can fall Krugman (1991)



Can immigration solve the growth problem of the small open economy?

- Is the value of the new worker determined by :
 - the human capital of the worker
 - or
 - labour demand (K/L)?

“Pushing a rope”: immigration and growth in a small open economy

- value of human capital determined by labour demand
 - which reflects investment, technical progress (innovation), demand for exports
- Migration driven by labour demand
 - Human capital policies alone (education, training, experience, immigration) do not cause growth
 - Unless a skills glut attracts investment
 - Can you attract or keep in migrants at less than the alternative wage until you attract capital?
 - Wage subsidies? Immigration quotas for locale?

So how can small open economies spur investment?

- Producing and exporting stuff causes investment and population growth
 - Government and service sector does not create wealth unless they cause transfer payments from outside the province
 - “fishing for federal subsidies” or “the cargo economy”
- region’s economic engine based on export demand for its natural resources
- Policy decisions of province have big influence on investment
 - Fracking ban; uncertainty over taxes, power/energy costs, policy stability, unresolved social license issues, uncertain carbon pricing regime, minimum wages, worksafe premiums
 - Bad policy by a province or a city just drives the investment to another locale...

What to do while waiting for export and labour demand to return... if they do...

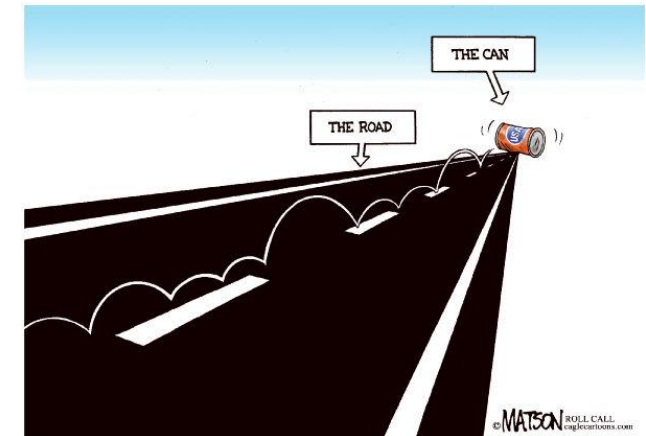
Borrow and Wait

Hope and pray for return of future resource rents

So nothing has to change

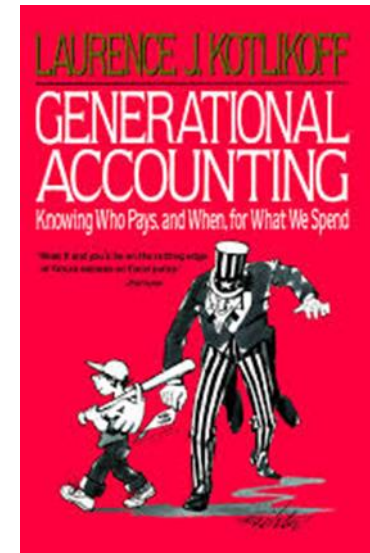
Change/Do something

So that it does not matter (as much) if growth doesn't return

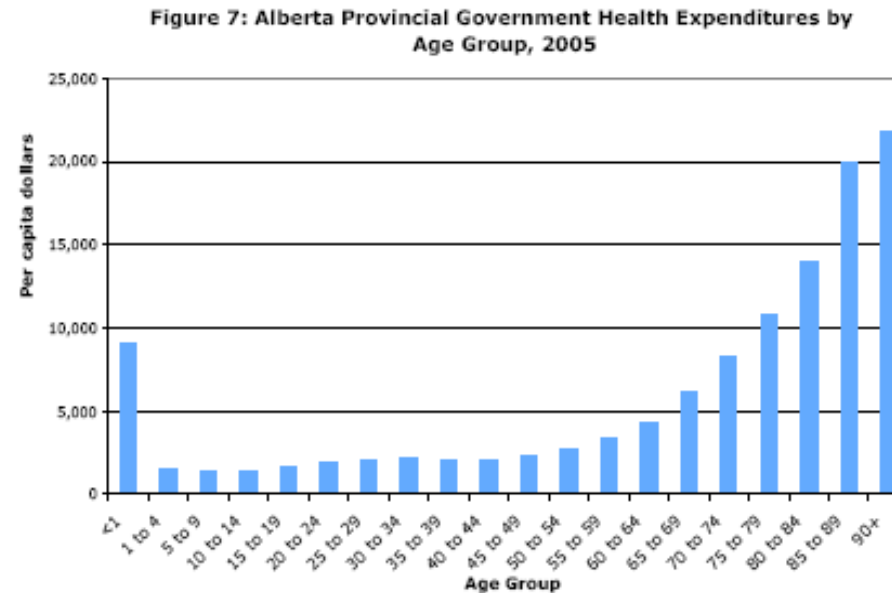


We built fiscal time bombs

- Historical choices
 - pay-as-you-go finance for health care, pensions, long term care
 - We did “reform” CPP, Quebec tried to pre-fund LTC
 - Provinces responsible for programs
 - health, senior care, home care
 - even though population and taxpayers are mobile across provinces
 - but federal for pensions
 - We addressed population aging in the CPP
 - We entrenched entitlements for the public revenues
 - prevent shifting of abundant resources to emerging needs
 - examples, ALC beds instead of LTC capacity; full payment for physicians but not for other services like non-medical care

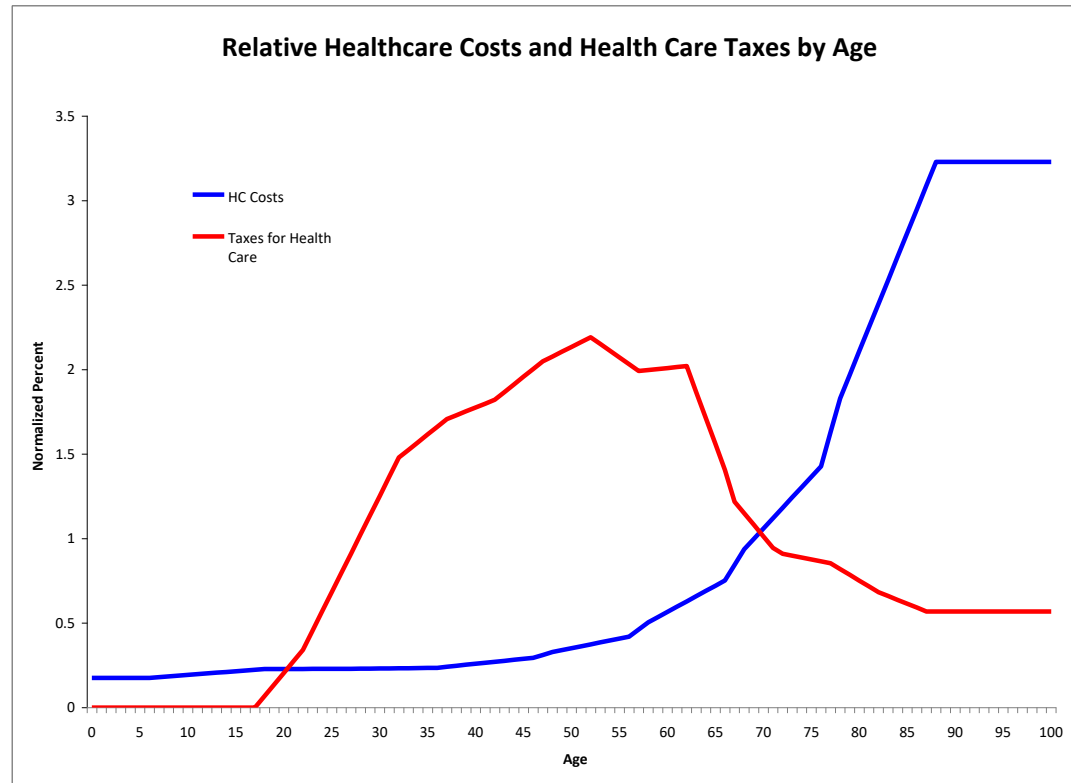


At birth, the government has promised you this age/health spending profile



- What is the present value of that stream of spending at birth?
 - Lump sum amount I can pay you at birth that if invested at 5% interest would have the same value?
- \$35,000

Incidence of taxes and health spending over the lifecycle

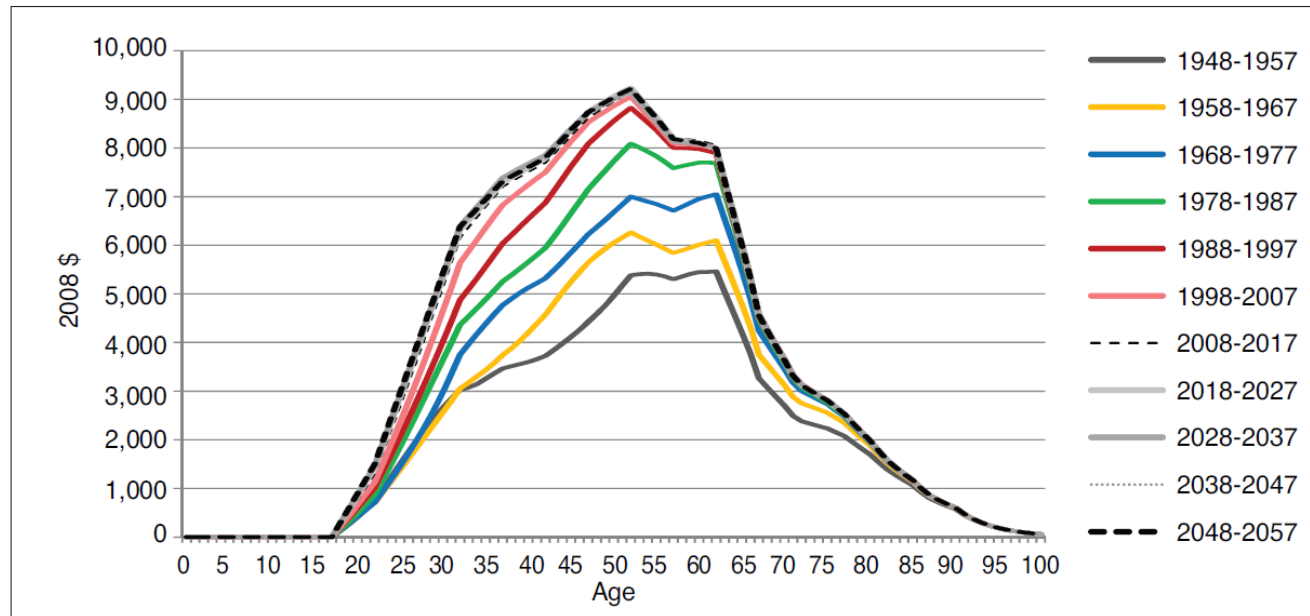


- When baby boomers young, low taxes for health care
 - Lots of taxpayers to pay promised spending
- When baby boomers old, high taxes for health care
 - Fewer taxpayers to pay promised spending
- What will happen if we always collect the taxes we need to pay the health spending we have promised forever?

Age Tax Profiles for required for meeting health care promises by 10 year birth cohort

Only cost driver is population aging – 1% per year

FIGURE 2: ANNUAL TAXES REQUIRED BY AGE FOR 10 YEAR BIRTH COHORTS TO BALANCE ANNUAL HEALTH CARE BUDGET (2008 \$)

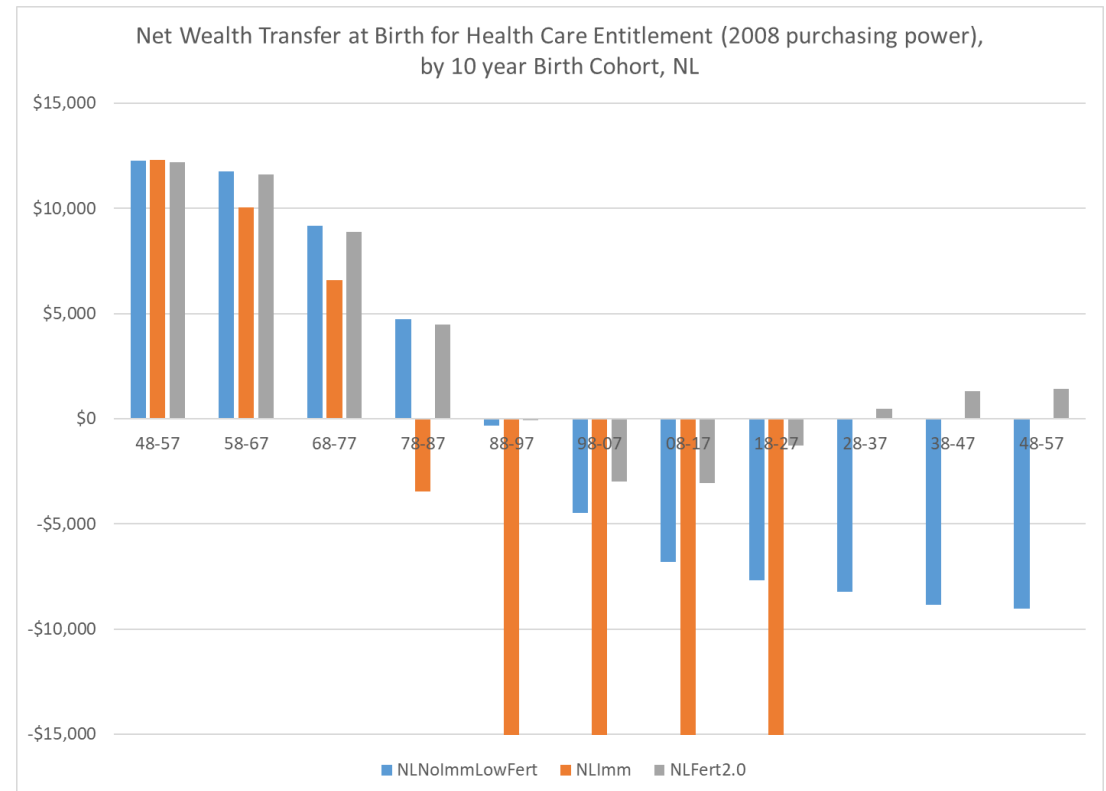
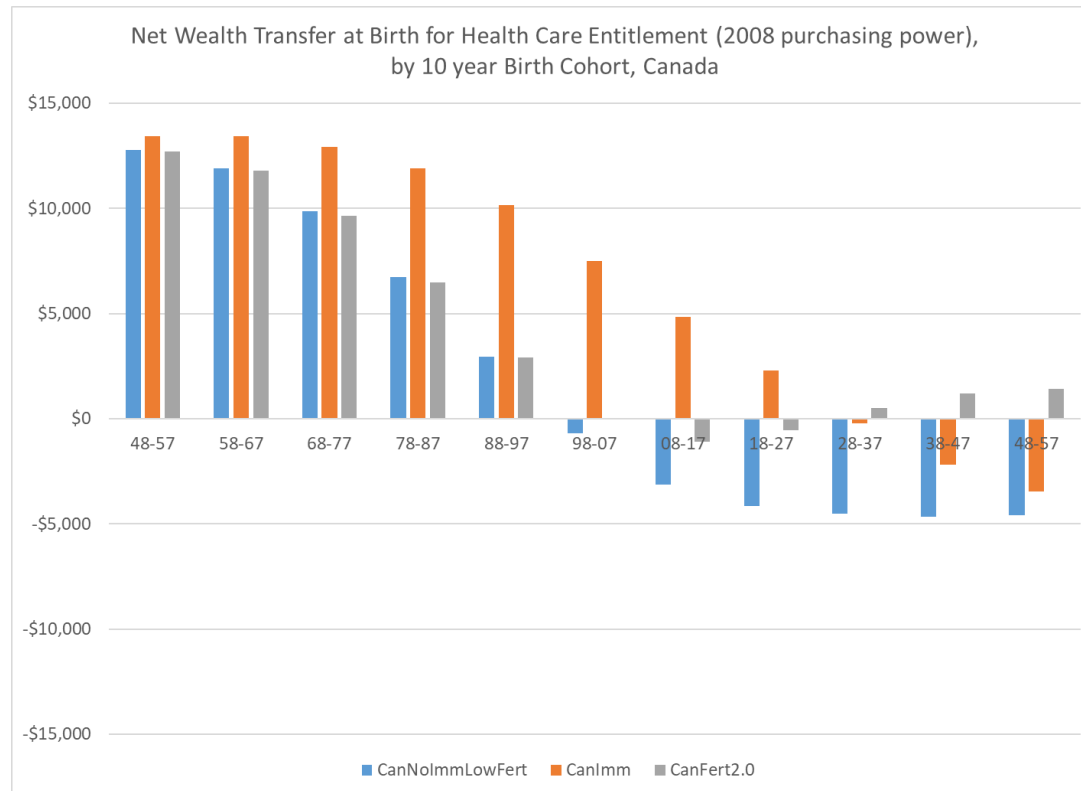


- We convert these profiles to Net Present Value at Birth
- Wealth Transfer via Medicare
 - = Health care asset value at birth – NPV lifetime tax payment at birth

Immigration helps by delaying pain.

High fertility eliminates the problem for younger cohorts.

We can also reduce health spending at higher ages by rationing or HC reform

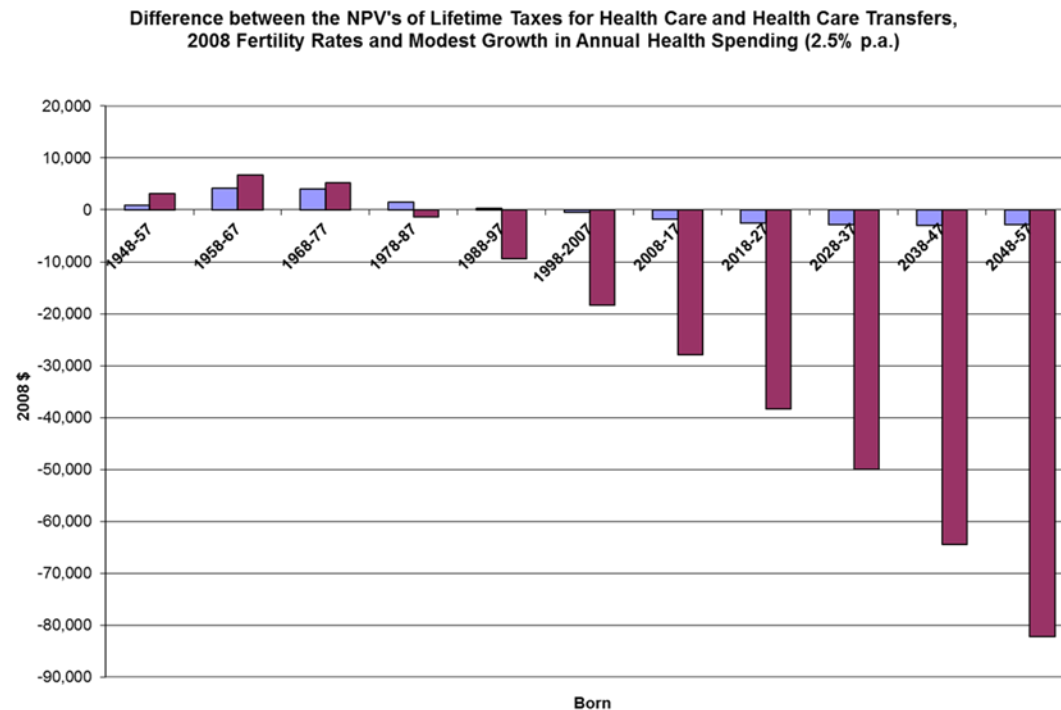


Scenario 1: no immigration current fertility forever

Scenario 2: last 30 years immigration for another 30 years, current fertility

Scenario 3: no immigration, fertility rate of 2.0 starting 2013

But solving population aging won't do anything if we don't solve other health care cost drivers...

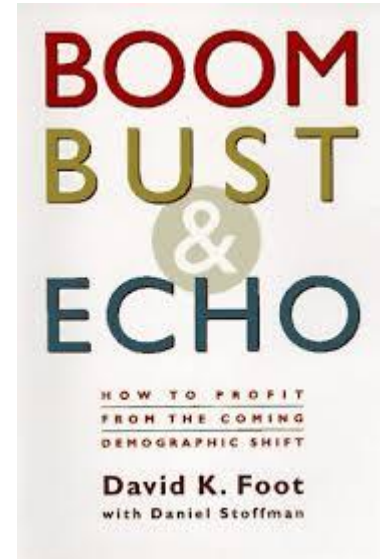


- Even with successful restraint of cost inflation to 2.5% p.a., the intergenerational wealth transfer to meet promises to boomers is ridiculous
 - Do you believe our kids and grandkids will agree to pay the required taxes?

We should be embarrassed ... We're getting run over by a glacier

- We've known it was coming for some time
 - Gambled economic growth would bail us out
 - We created much our own problems around population aging
 - We didn't follow through on health care reform, tax reform or any of the reforms we started in the 1990s
- The same solutions are available but they will hurt more than they would have 20 years ago
 - We can fix these problems by taking on the hard choices of costs and entitlements in health, LTC, pensions, public sector compensation...

Published 1996



Why do NB AND NS have such high emigration and low immigration? Low private sector investment

