Spillover effects from ageing and structural reforms

Thomas Davoine

Institute for Advanced Studies (IHS), Vienna (Austria)

January 2018

Research funded by the Horizon 2020 Framework Programme of the European Union

Setting the scene

Setting the scene

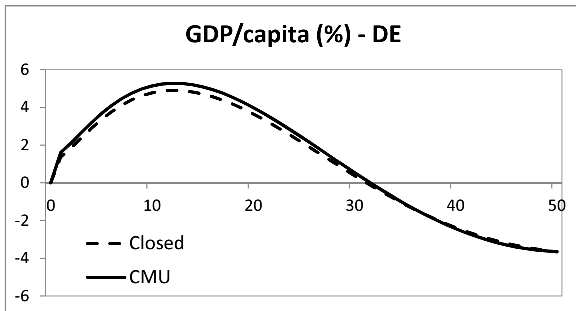
- Thanks to globalization, markets are becoming increasingly integrated
- The Euro sped up the integration of capital markets, ahead of product markets, way ahead of labour markets (Lane, 2006)
- Creating the Capital Market Union (CMU) is one of two concrete EMU reform proposals of the EC (May 2017)
- Integration processes take time
- The project thus considers long run impacts of capital markets integration
- In particular, population ageing is taken into account
- Questions: spillovers due to the CMU? role of tax and pension reforms?

First result (the mechanism)

First scenario

- Reform: Germany gradually increases retirement age 2.5 years
- Balance: public debts are kept constant with increases in labour income taxes, to finance social security expenditures with an ageing population (in all countries)

Simulation outcomes for Germany



Outcome: on average, GDP per capita is 0.18 %-points* higher each of the next 50 years, under perfectly integrated capital markets (CMU)

*All GDP figures: deviations from growth trend

The mechanism

- In relative terms, a higher retirement age increases labour supply per capita ...
- ... which drops the capital-labour ratio ...
- ... thus increases returns to investment.
- When capital markets are integrated (CMU), investors outside Germany notice ...
- ... and shift their investments towards Germany ...
- ... increasing the capital stock and production in Germany.
- Note: results differ if other countries also increase their retirement age.

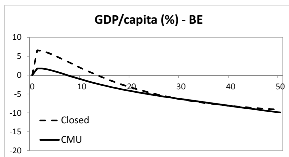
Second result (application)

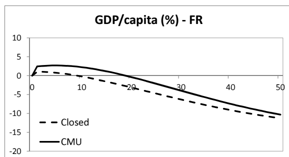
Second scenario

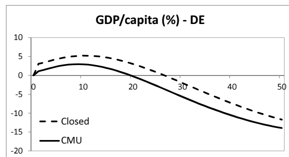
- Reform: all countries in the first case make no pension reforms ...
- ... and gradually increases retirement age 2.5 years in the second case
- Assumption: demographic projections (including intra-EU immigration) are not affected by economic developments
- Balance: public debts are kept constant with increases in labour income taxes, to finance social security expenditures with an ageing population (in all countries)

Simulation outcomes for Belgium, France and Germany

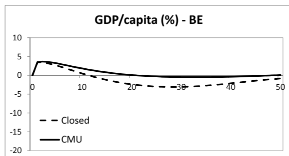
Ageing and Labour taxes

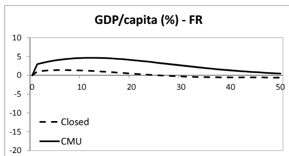


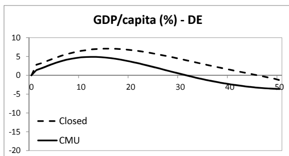




Ageing, Retirement age and Labour taxes







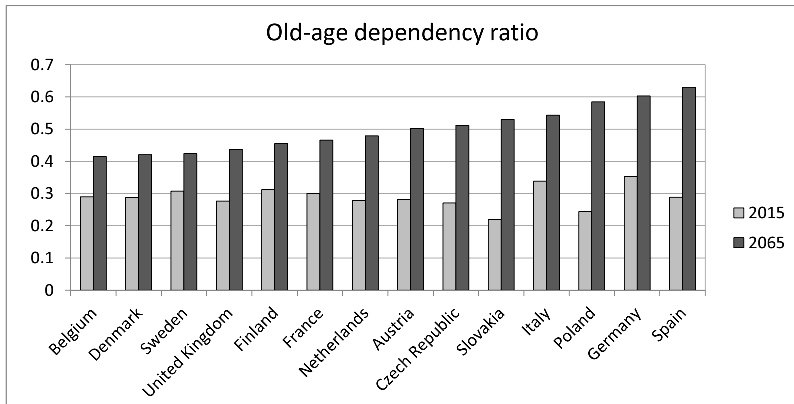
Outcome 1: some countries lose from CMU (Germany: average yearly -2.9 %-points GDP/capita), others gain (France: +2.1 %-points or more)

Outcome 2: some countries lose from CMU without pension reforms, gain from CMU with pension reforms (Belgium: -1.3 %-points versus +1.8 %-points)

The mechanism for outcome 1 (Germany and France)

- Populations are not expected to age at the same speed in every countries (see next slide)
- Germany is projected to age faster ...
- ... which, relative to other countries, reduces labour supply per capita faster...
- ... which increases the capital-labour ratio faster ...
- ... thus depresses returns to investment more ...
- ... triggering an outflow of investments under CMU ...
- ... reducing the capital stock and production.
- The opposite would take place in France, which is projected to age slower.

Population ageing, and differences across countries

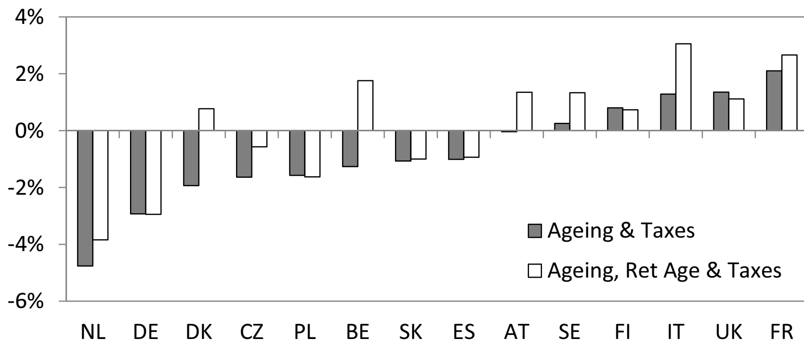


Source: projections from Eurostat (2015)

The mechanism for outcome 2 (Belgium)

- Belgium is expected to age slower than other countries ...
- ... yet only benefits from the CMU when the retirement age is increased.
- Why?
- High tax and social security burden leads to stronger labour supply disincentive effects (Laffer curve)
- Without retirement age increases, labour taxes are increased much so the Laffer curve effect dominates (the slow ageing effect)
- With retirement age increases, the Laffer curve effect is smaller, so the slow ageing effect dominates and capital flows towards Belgium

Results overview for countries in the sample



Policy implications

Key policy implications

- CMU multiplies the macroeconomic penalty for countries late in reforming social security to address the population ageing financial challenge
- CMU makes retirement age increases a more interesting reform option (compared to pension cuts and social security contributions increases)
- To mitigate (negative) redistribution effects of the CMU, support immigration

Thank you for your attention