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POINTA

National Transfer Accounts and
National Time Transfer Accounts in Poland

Population ageing and labour income in Poland: can extended working lives help preventing the decline of the aggregate labour income in Poland?

2017 Jobs Conference

Technology, Demography and the Global Division of Labour

Warsaw, December 8th, 2017



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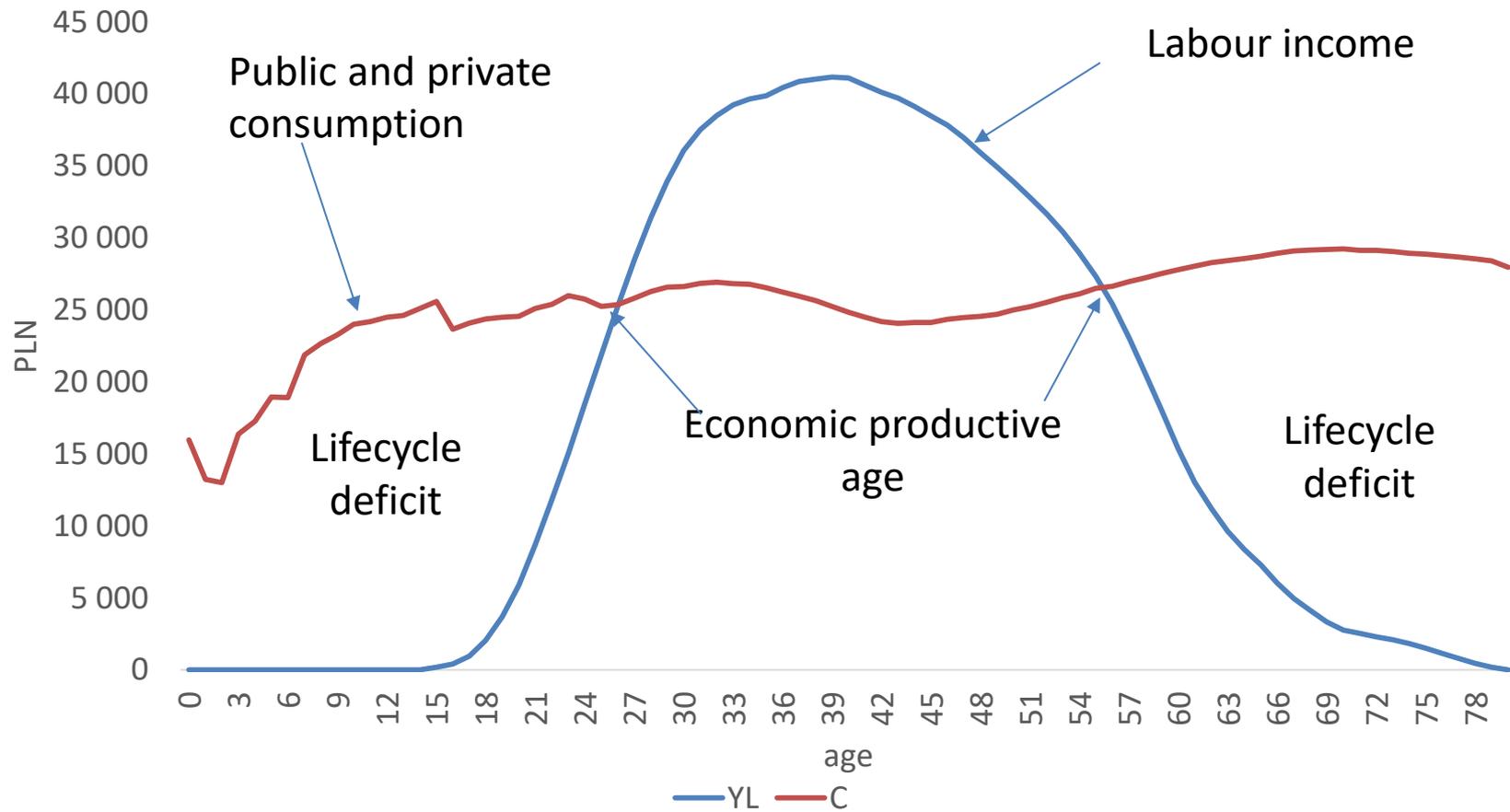
Aim of the paper and research questions

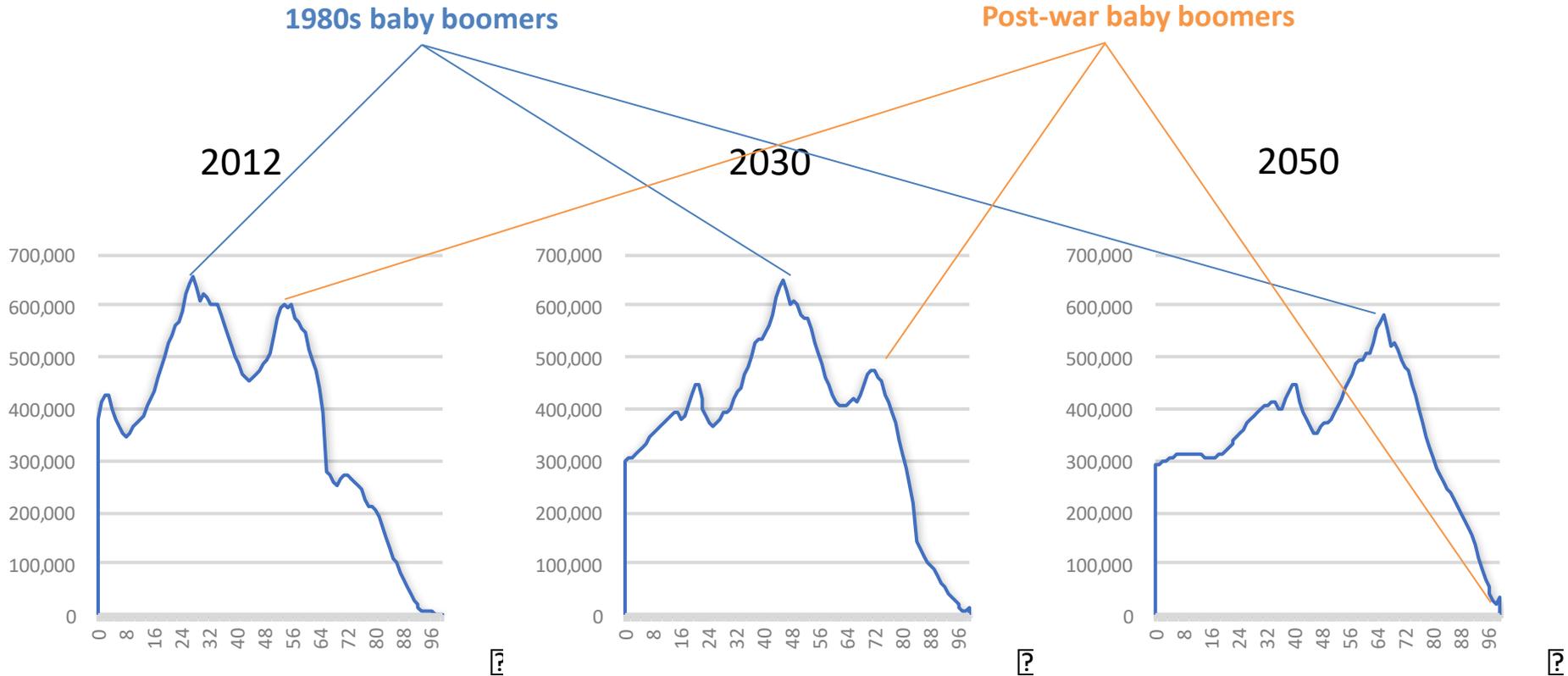
- Aim of the paper
 - to quantify the impact of population ageing on the level of aggregate labour income in Poland
- The main research questions covered in the paper are as follows:
 - To what extent changes in the size and the age structure of the Polish population can affect the size of the labour income, assuming current per-capita age profile of labour income relative to wages?
 - How changing age profile by extending working lives and increasing intensity of employment can improve the aggregate labour income level?

- We apply the National Transfer Account approach (Lee and Mason 2013). Basic assumptions:
 - People at each age consume public and private goods and services
 - During the period of economic activity they earn income that covers the consumption
 - At younger and older ages the labour income is not sufficient to finance the consumption, which generates the deficit at those stages of the life course
 - This deficit can be financed:
 - From private transfers (i.e. by parents) or public transfers (i.e. pensions)
 - From asset reallocation
 - The NTA method is used in over 60 countries in the world
 - In Europe, the age profiles for 25 EU countries were estimated in the AGENTA project
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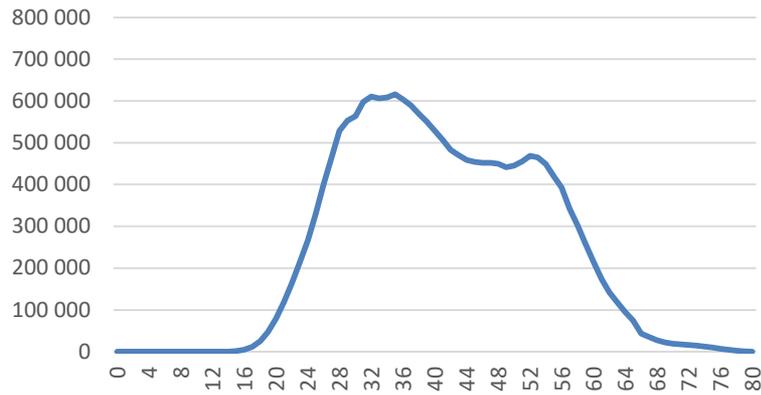
- We estimate the cross-sectional age profiles of consumption and labour income
- We use the following data
 - European Survey on Income and Living Conditions
 - Household Budget Survey
 - Demographic data from Eurostat
 - Administrative data on public health consumption and education
 - National Accounts
 - Education data from Eurostat



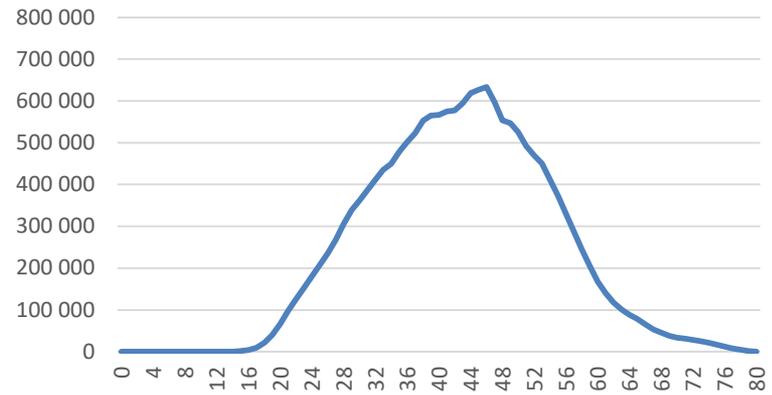


Source: Eurostat population data and projections

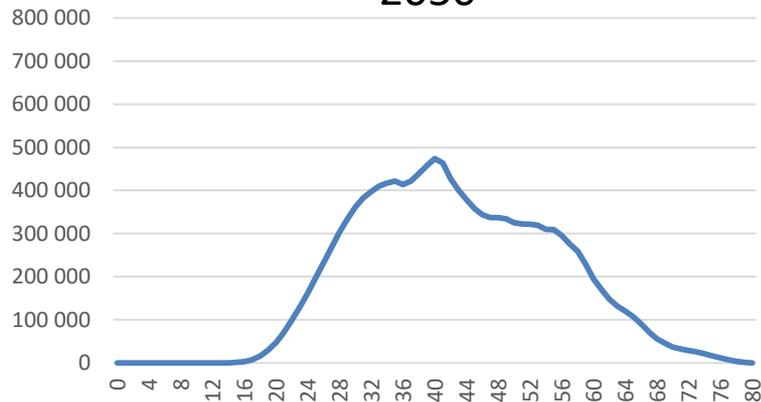
2012



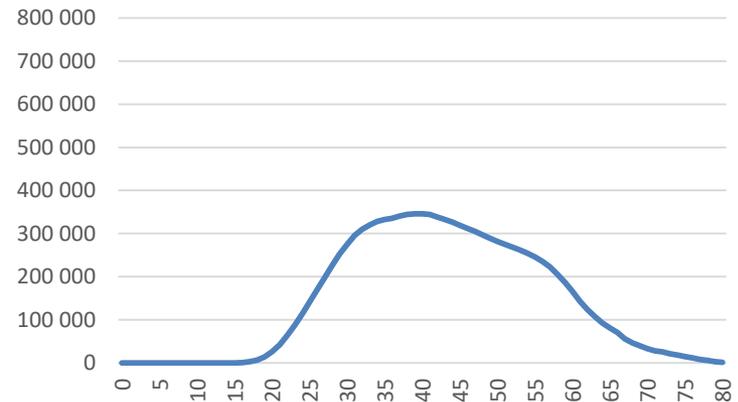
2030

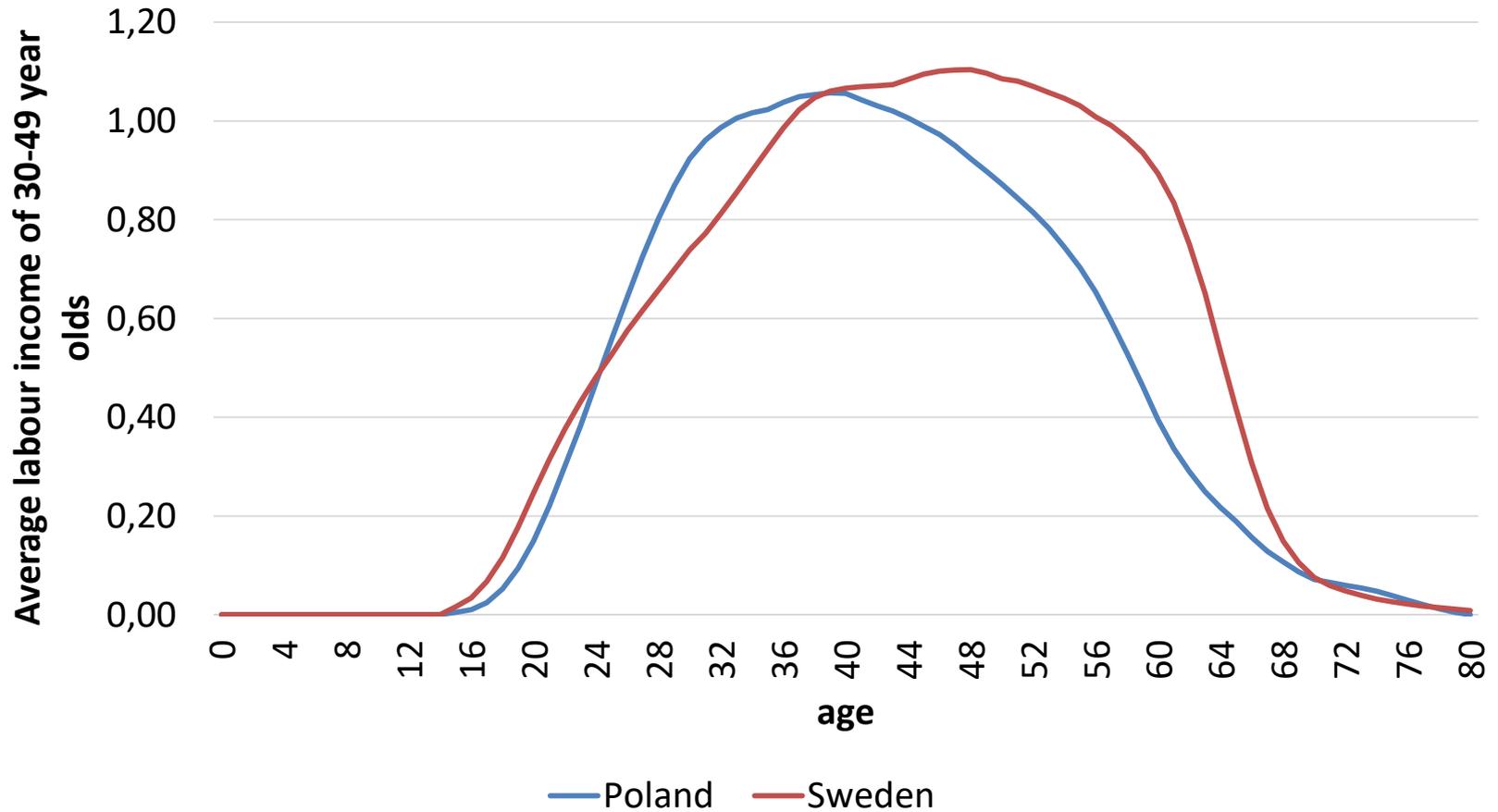


2050



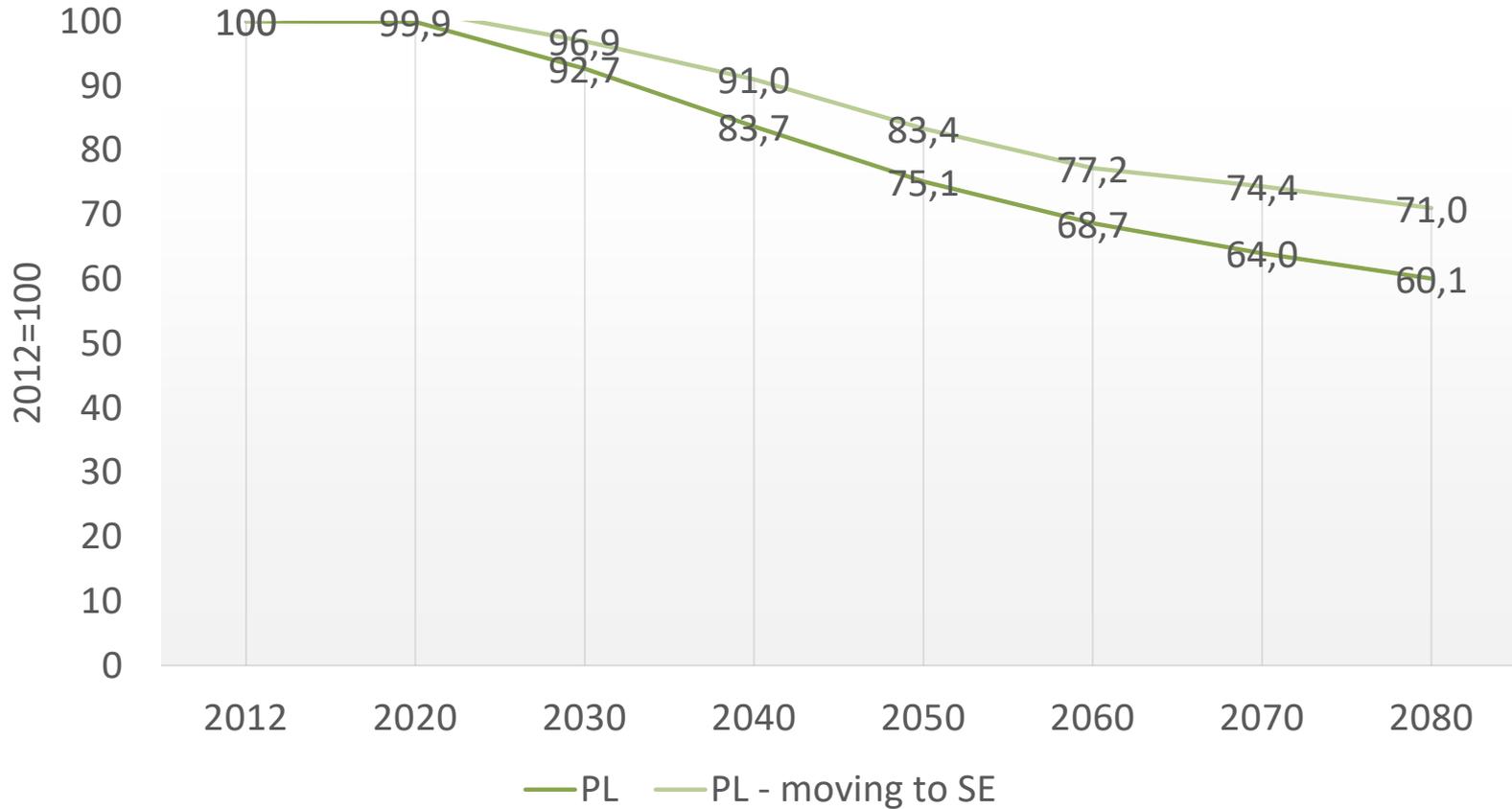
2080





Source: Poland: Authors estimates, POLNTA project, Sweden: AGENTA project (Istemic & Sambt, 2016)

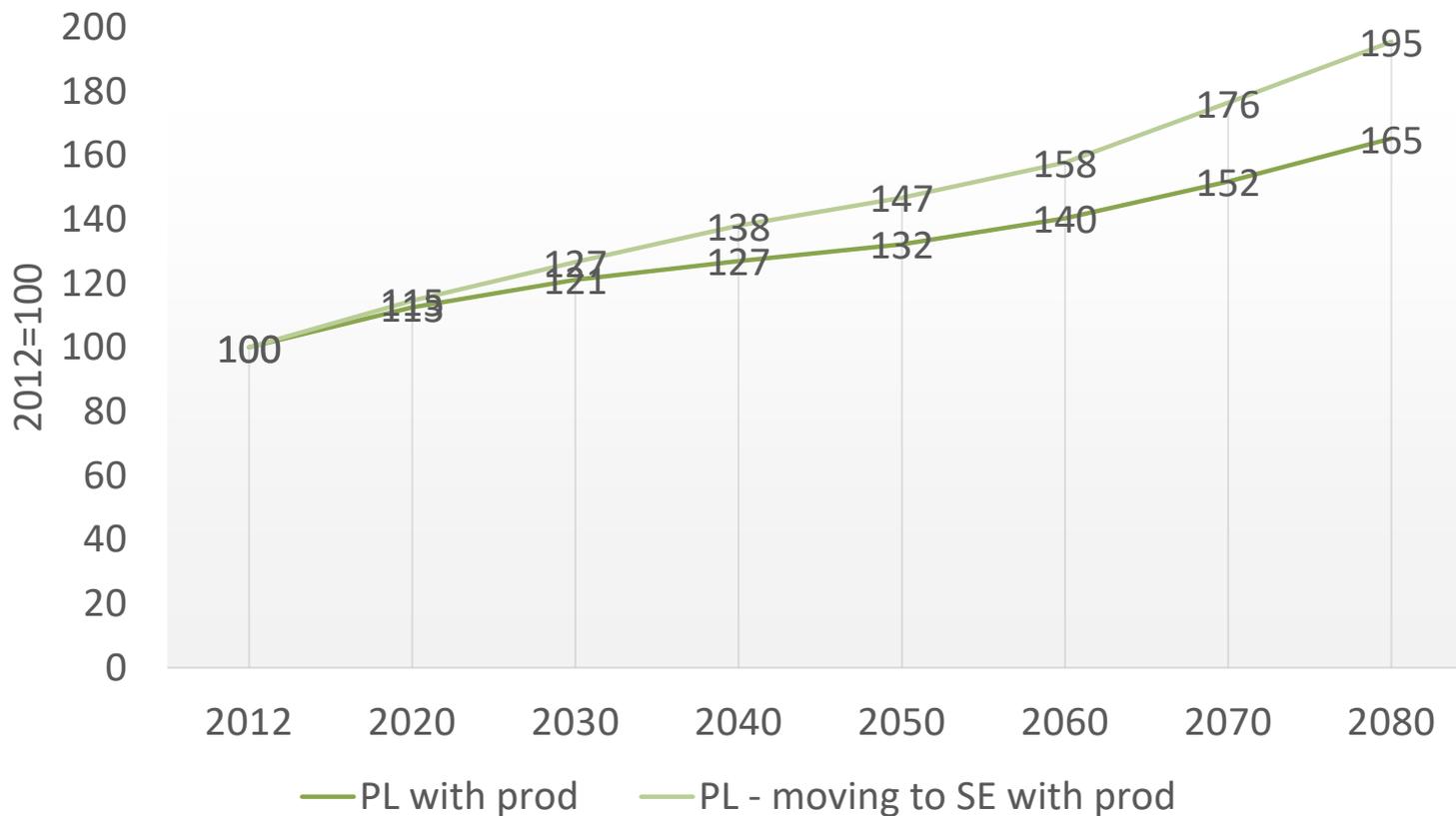
Projected level of aggregate labour income assuming constant and changing per-capita labour income profiles assuming constant wages





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Projected level of aggregate labour income assuming constant and changing per-capita labour income profiles assuming real wage growth at 1.5%





- Population ageing will have pronounced impact on the expected level of the aggregate labour income in Poland.
- Decline in the number of people in working will have a negative impact of the total income from work at constant wages.
- Prolonging working lives is one of the potential measures to reduce the scale of this decline, but it is not sufficient to compensate for the total change.
- Real productivity increase of 1.5% leads to an increasing aggregate income despite population ageing by 67% until 2080 compared to an increase of per-capita wage by 175%
- Productivity increase combined with prolonging working lives can lead to further improvement of the aggregate income by 95% until 2080



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Conclusions

- Increasing productivity combined with prolonging working lives are important to maintain the dynamics of the growth of the aggregate labour income in Poland



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