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Health Capacity to Work at Older Ages: Evidence from the Republic of Korea (ROK) and the People's Republic of China (PRC)

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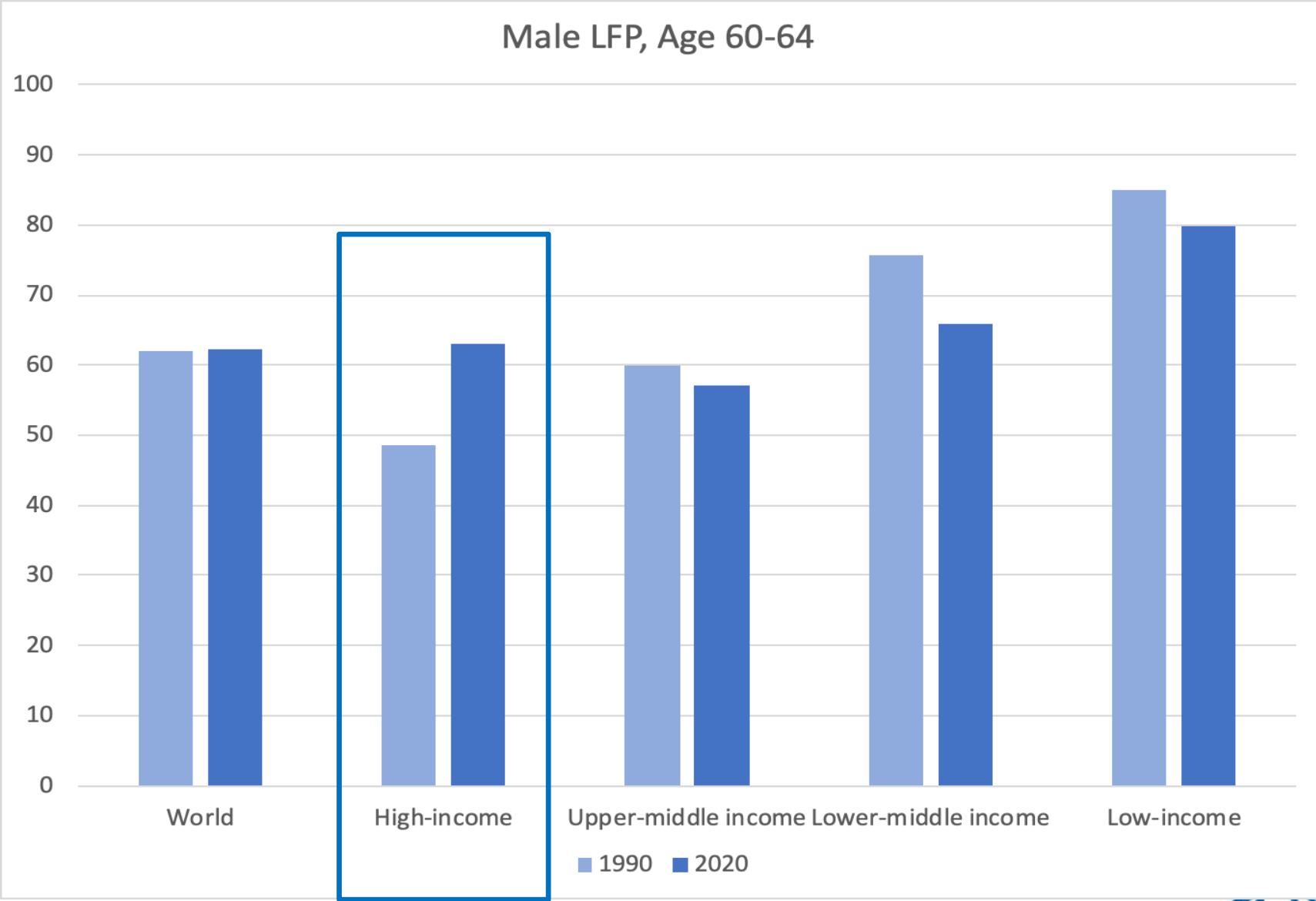
Conference on the Health and Socioeconomic Well-Being of
Older Persons in Developing Asia
7 September, 2021, ADB



Questions and motivation

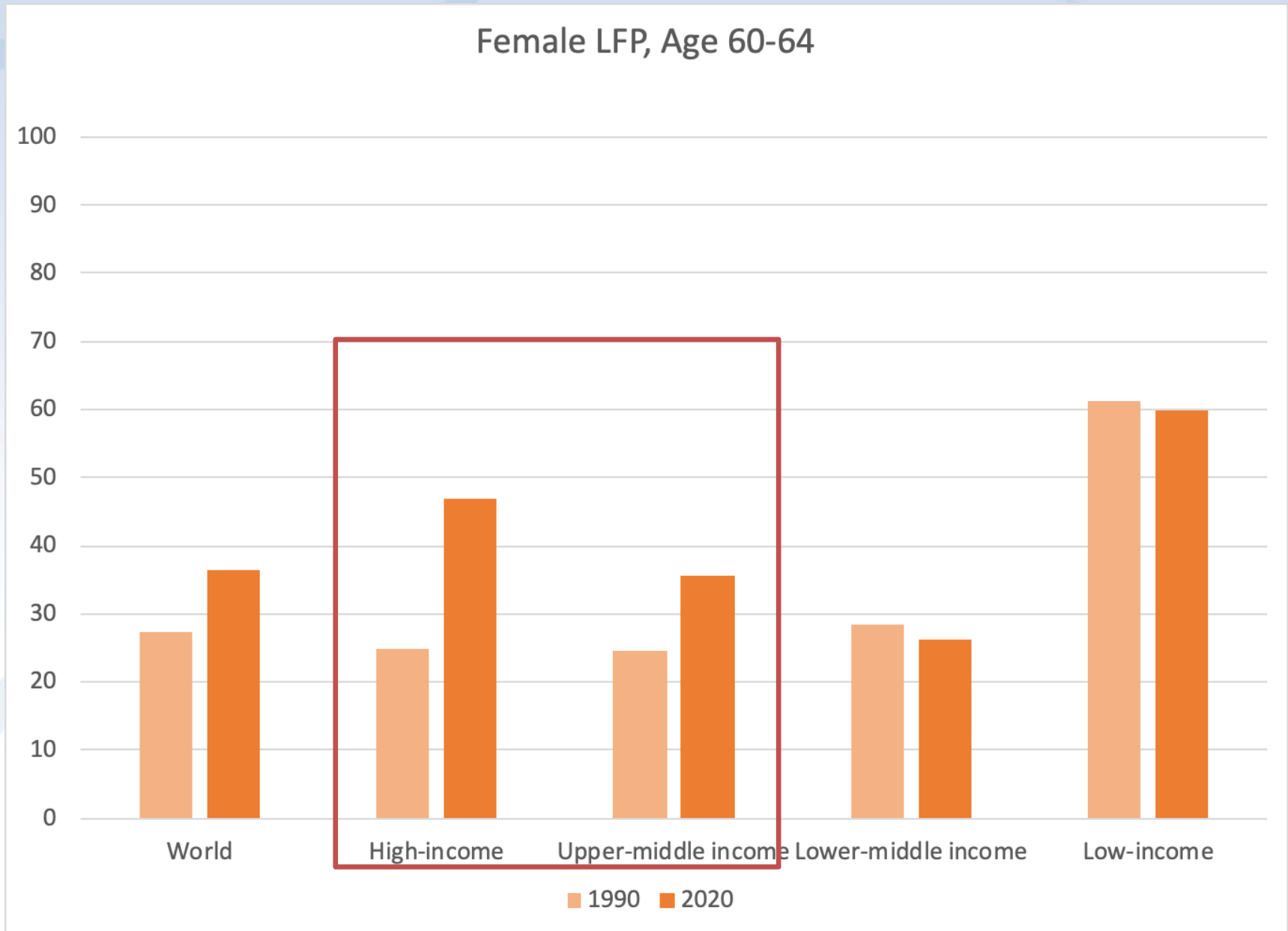
- Questions
 - How much more can older people work given their health status? (Health capacity to work)
 - How does that contribute to the economy?
(*Silver dividend*—Ogawa, Mansor et al. 2021, Matsukura et al. 2018)
- Motivation/Contribution (closely related with keynote day 1)
 - Growing literature for western countries (ISS), but very limited evidence for Asia and developing countries
 - Why labor force participation of the elderly in low income countries are not rising? (living longer but not working longer)—could be related with no room for pension reform and with poor health for poorer people.

Rising LFP For Men in High-Income Countries Only



Source: <https://ilostat.ilo.org/data/>

Rising LFP For Women in Higher Country Income Groups



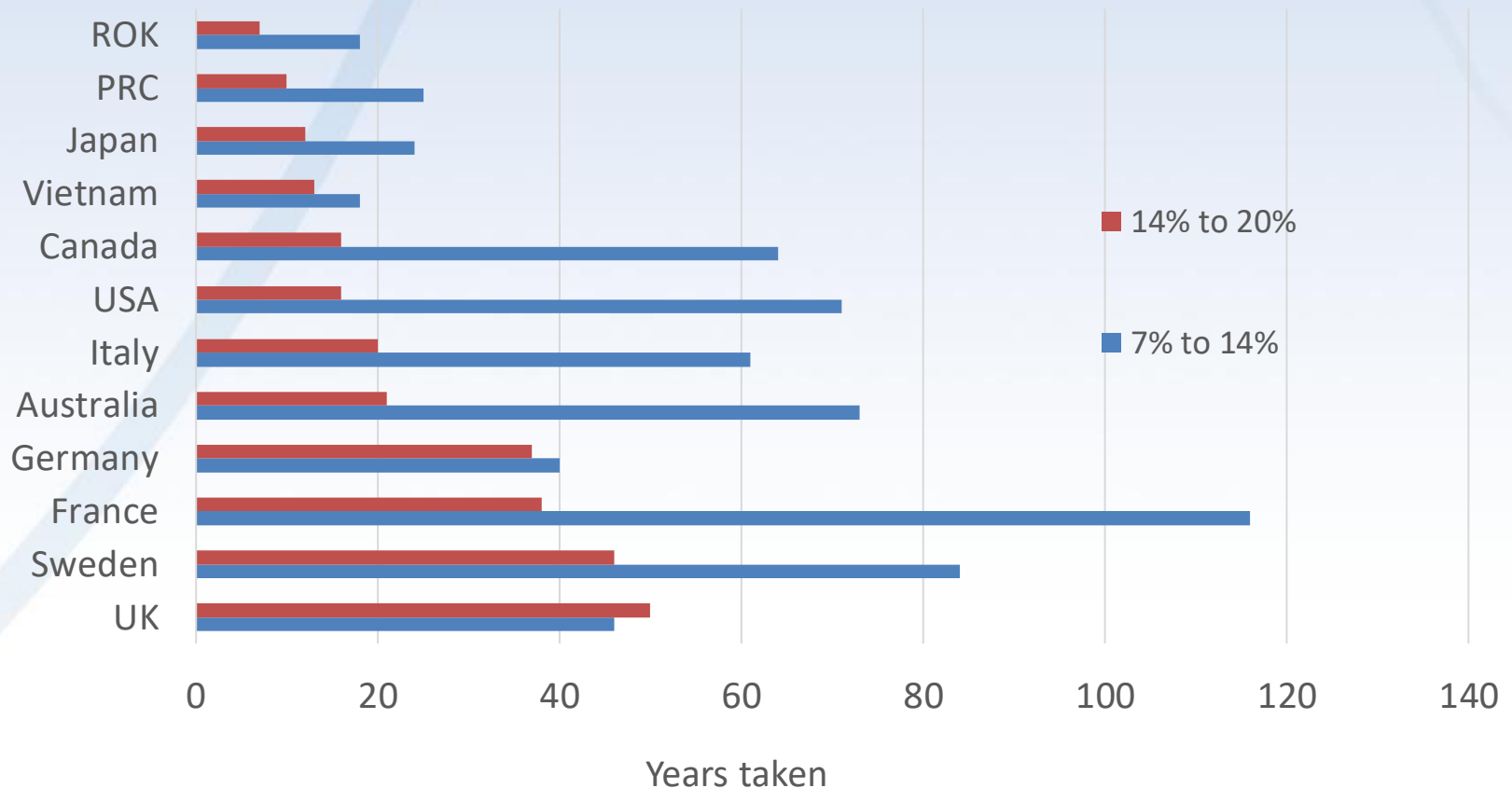
The paper

- Extend Coile, Milligan, and Wise (2017) global project to ROK and PRC (India—work in progress).
- Use KLoSA, CHARLS. Focusing on males.
- Use National Transfer Accounts (NTA) by age to measure the health capacity at the national level (Economic Support Ratio and silver dividend), compare the results with US and Japan.
- Estimate health capacity for sub-groups (pension eligible vs. ineligible groups, rural vs. urban—cannot be done for ISS project groups)

ROK and PRC are interesting cases

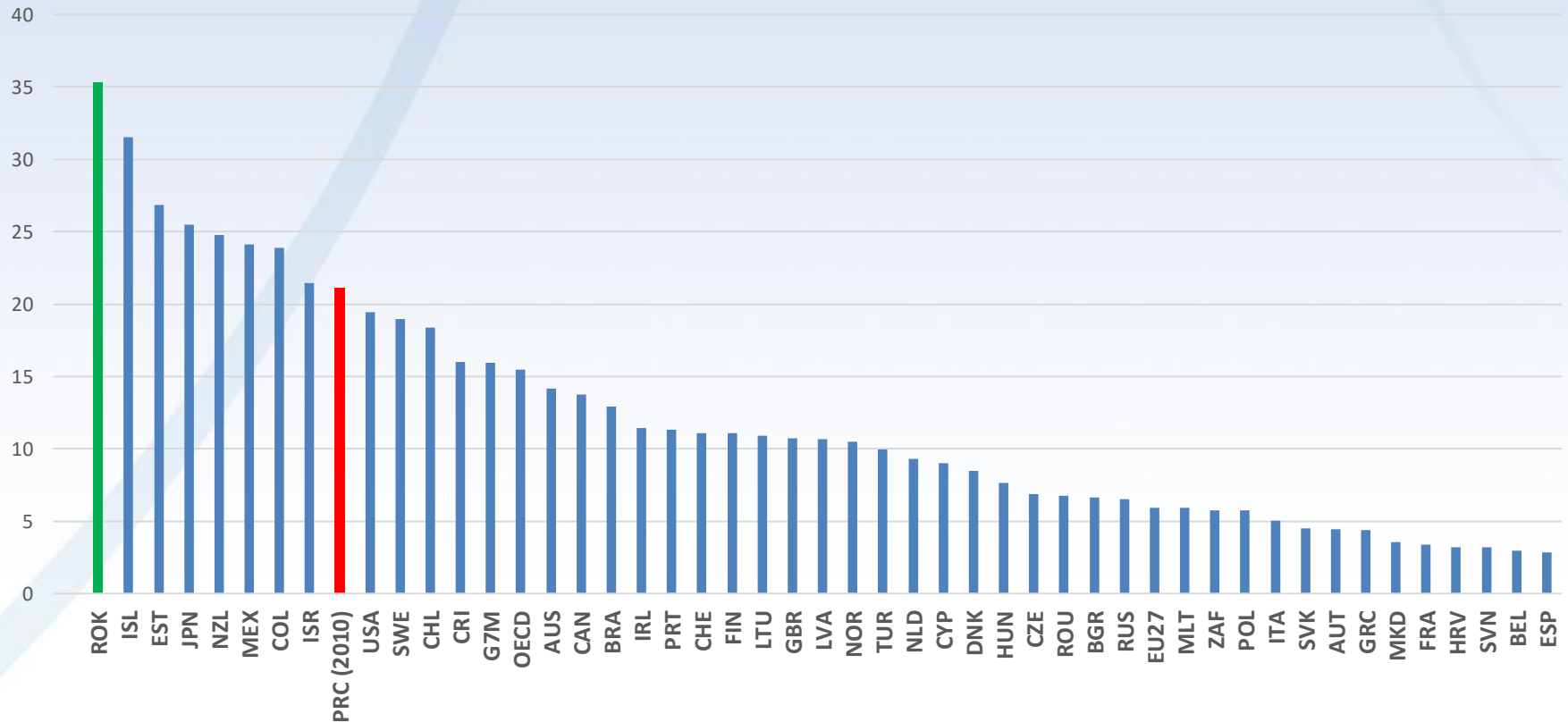
- Very rapid population aging in large part due to low fertility
- Cost of children is high
- Labor force participation of older people are high
- Very high (relative) poverty rate (of older people)
- Familial transfers for elderly is deteriorating
- Public transfers are rising but still very low compared with other countries

Duration from aging (7%) to aged (14%), and to super aged (20%) society



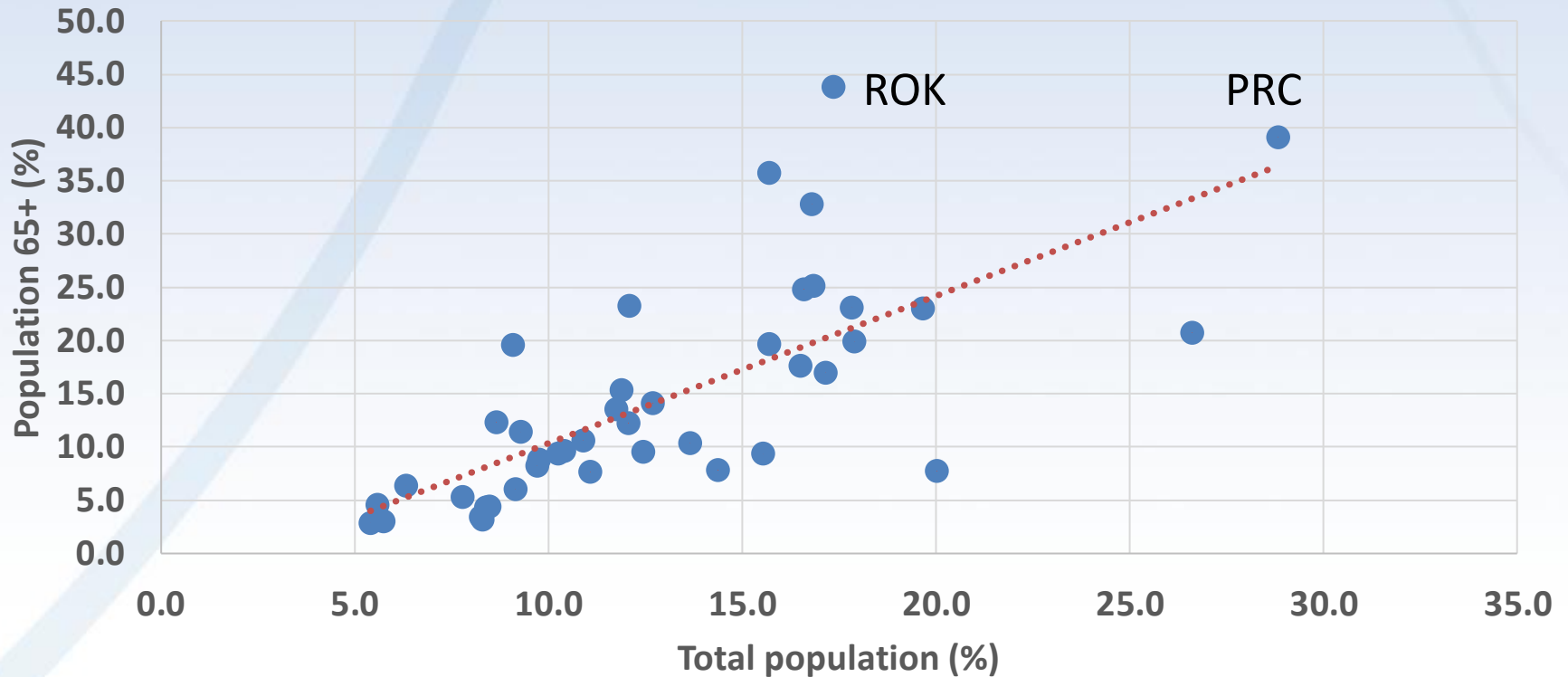
Source: UN, 2019, WPP. Accessed March 1, 2021.

Labor force participation of people 65+ of OECD and BRICS (around 2020)



Source: OECD data portal. www.data.oecd.org. Accessed August 1, 2021.

Poverty rate of total population vs elderly population



Note: Data are for 2016/17, or the latest available year.

Source: OECD data portal. www.data.oecd.org. Accessed March 1, 2021.

Pension disparity

- ROK
 - The future gross replacement rates for “full-career workers” is 37%. In reality, much lower.
- PRC
 - Huge disparity in terms of coverage, compliance, and amount between urban vs. rural and within.
- Estimate health capacity to work by no, low, and high pensioners--“low pensioners” in data can indicate the poorest

Methodology

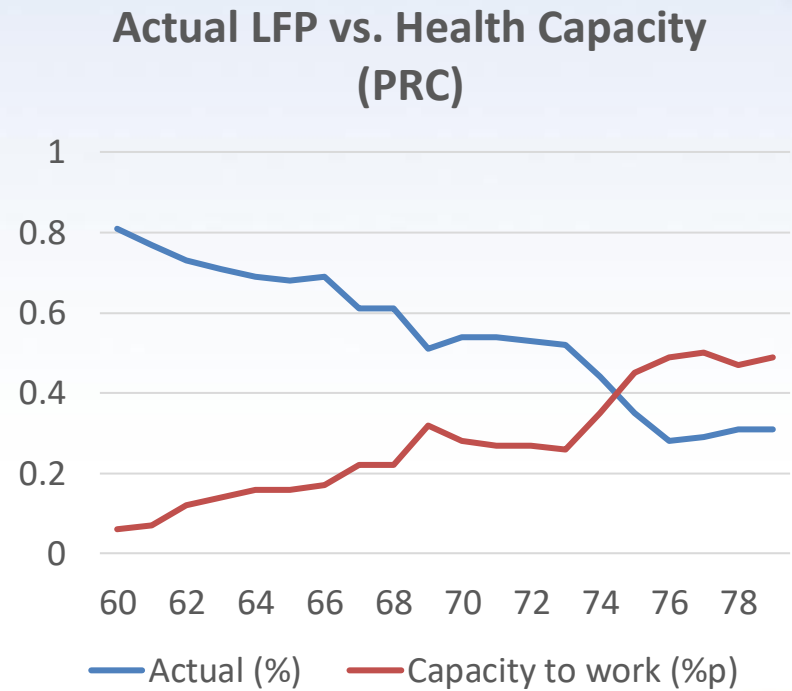
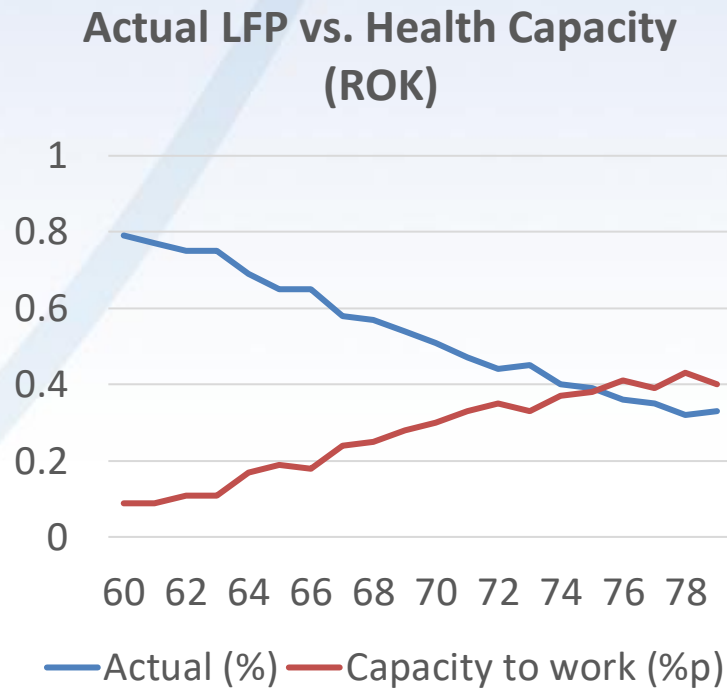
- Cutler, Meara, and Richard-Shubik (2013)/Coile, Milligan, and Wise(2016)
 - Estimate the relationship between health and propensity of work for, say, aged 57-61
 - Simulate the baseline results to slightly older group and predict work capacity of older people
- Health capacity: difference between actual and predicted employment
- Use NTA age profiles to convert it to aggregate level at each age → calculate silver dividend

Data

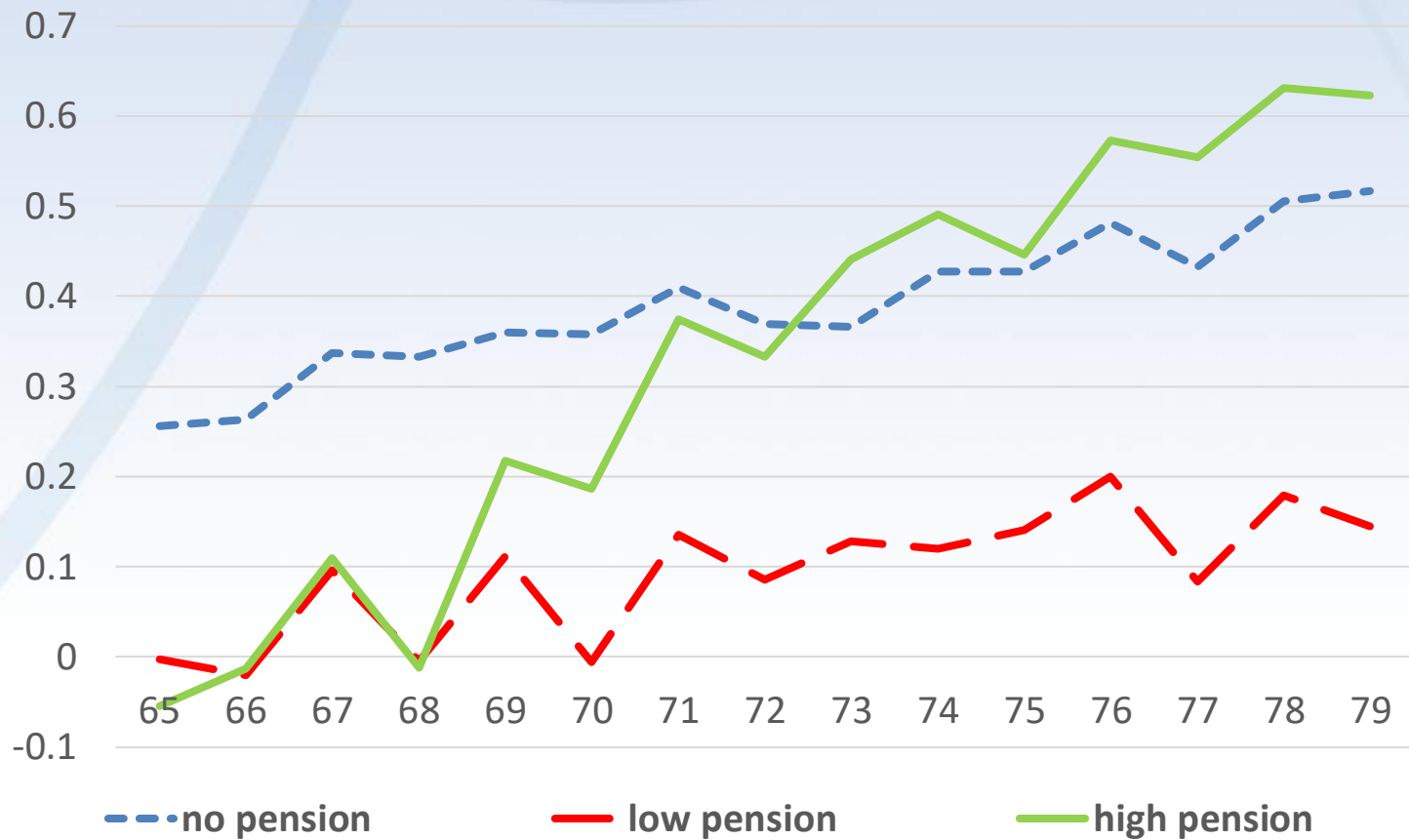
- Korean Longitudinal Study of Aging (KLoSA) 2006-2016
- China Health and Retirement Longitudinal Study (CHARLS) 2011-2015
- NTA data on labor income profiles on ROK (2016) and PRC (2014), (and recent US and Japan NTA to compare)
- Labor force participation rate by age (ILO), WPP (UN, 2019)

Results

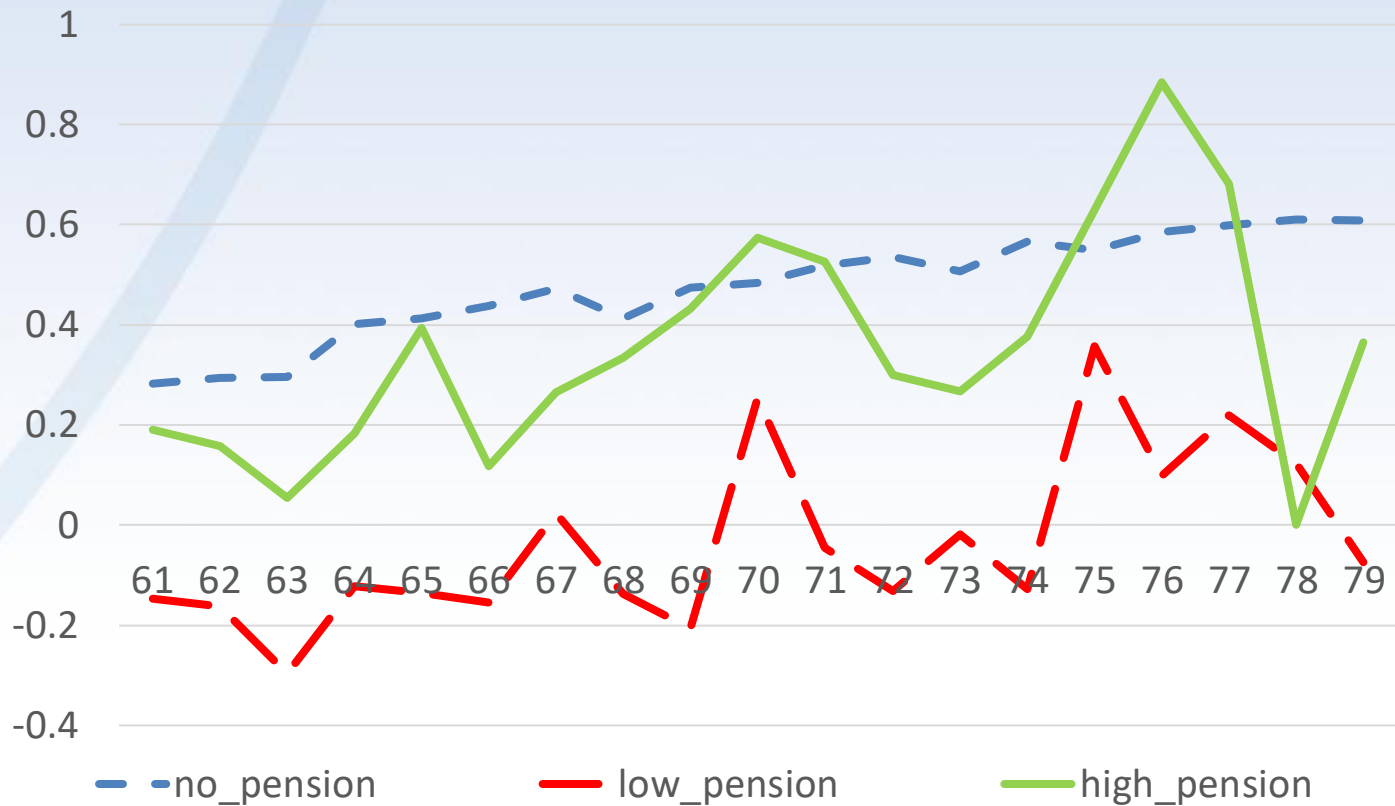
- Health gradients (CESD, ADL, IADL) are critical determinants for LFP (%).



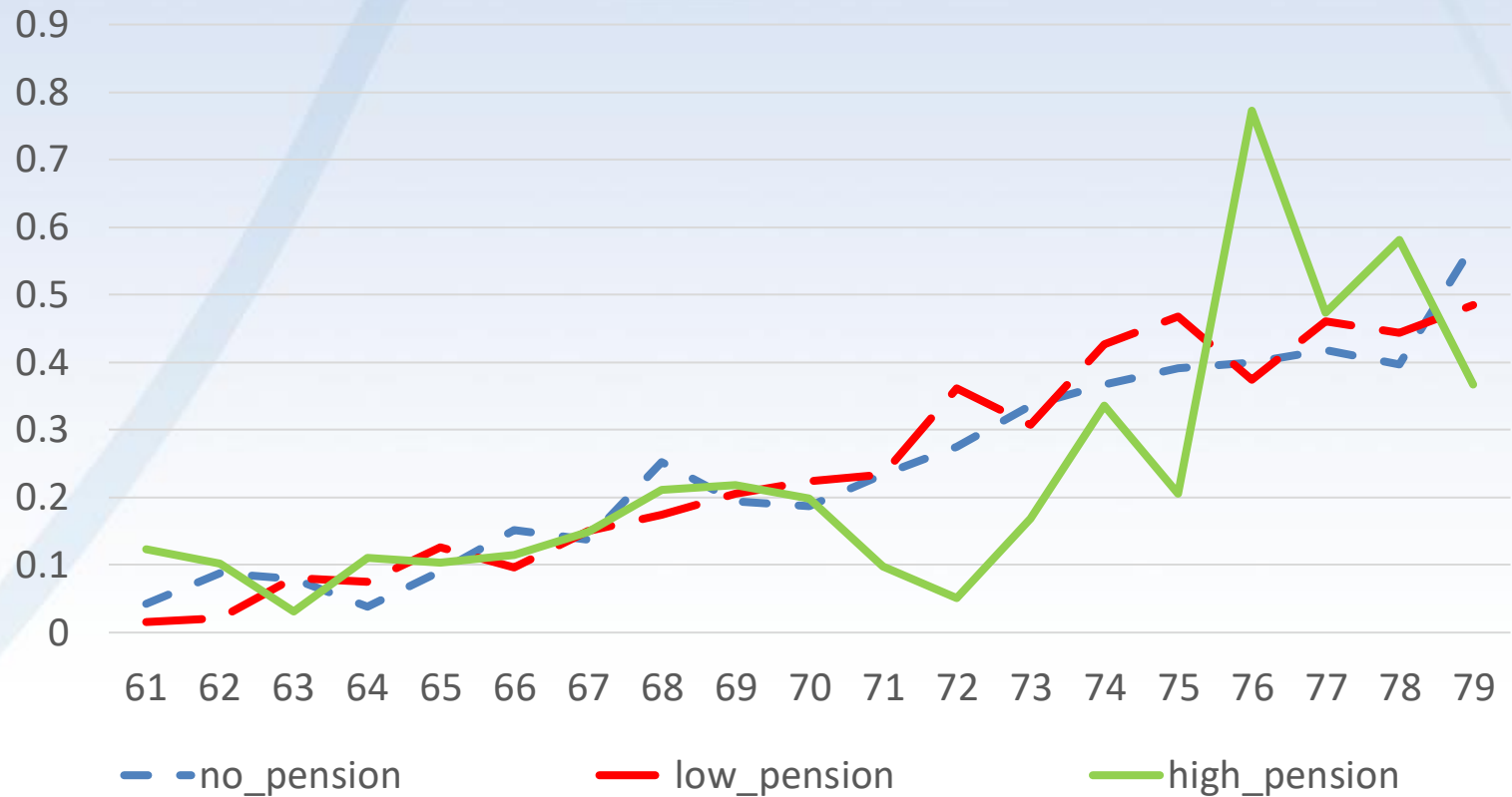
Health capacity by pension level (ROK)



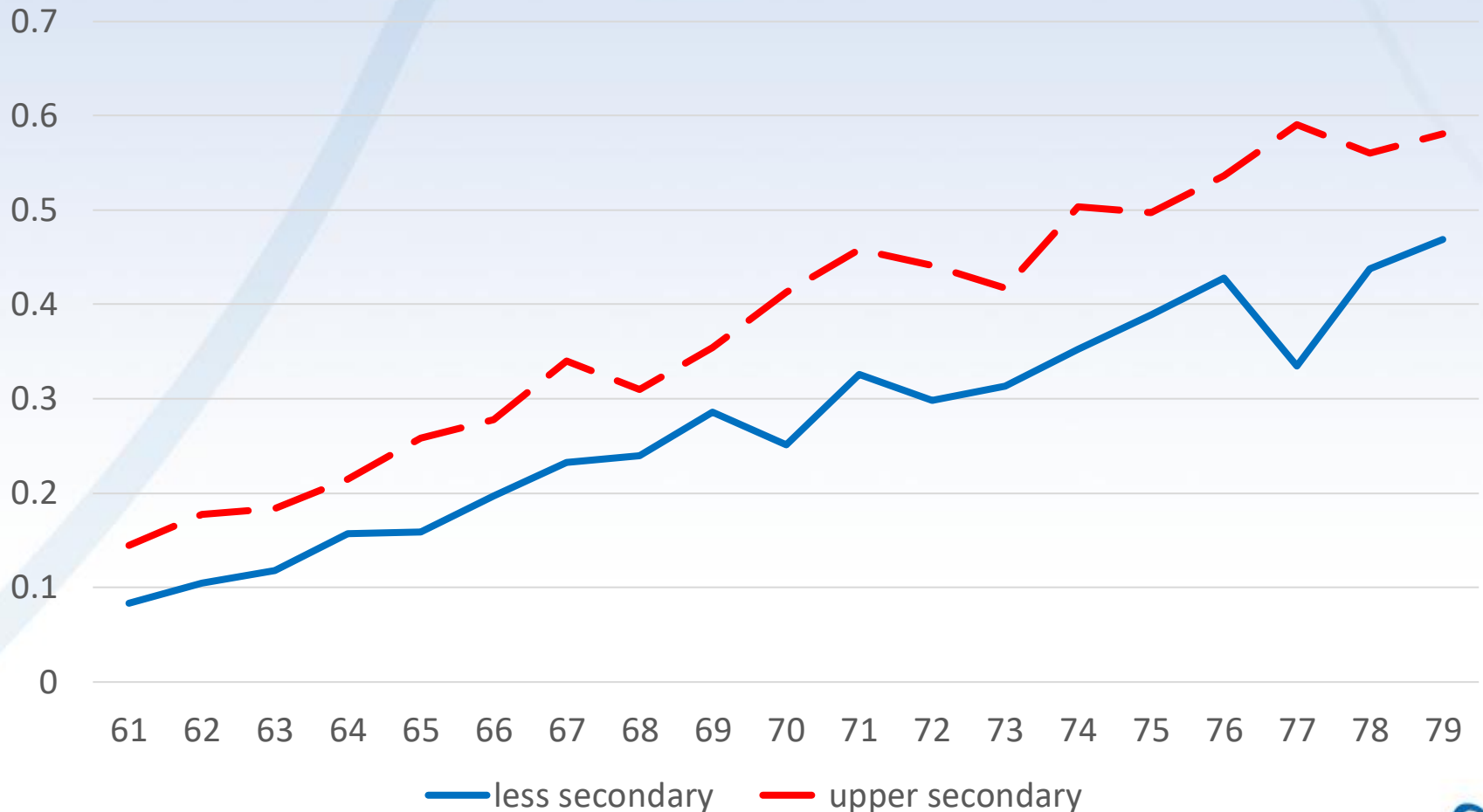
Health capacity by pension (Urban China)



Health capacity by pension (Rural China)



Other results (e.g. by education level, ROK)



Converting it to NTA measure

- $y'(x) = p(x)h'(x)$ (new income profile augmented by predicted LFP(h') for 2015-2100)
 - Holding consumption constant, aggregate labor income (silver dividend) increases by 1.3% (ROK), 1.1% (PRC), which is much smaller than 3.1% (US), 4.7% (Japan).
 - Per worker productivity, $p(x)$, of elderly is lower for ROK and PRC (esp. Rural China) than US or Japan
- ➔ Just working longer may have a limited effect in some sectors/countries to support elderly

Conclusion

- Older people with limited pension have much less room for health capacity to work compared with the wealthier counterparts (poor urban Chinese are worse than rural)
- Health capacity to work and silver dividend can vary due to many sources; pension benefits, productivity of old worker, savings and family transfers.
 - ROK and PRC have a much smaller untapped silver dividend than other countries due to low productivity of older workers.
- Provide answers for different trends of LFP of elderly of high income countries vs. others (ISS season 2?)

Policy Implications

- The results shed a light on policy implications for developing Asia (or sub-population).
 - Overall, policies should consider local labor market characteristics (ROK and PRC are quite different from other advanced economies, e.g. pension eligibility).
 - Raising pension eligibility age has limited effect on both LFP and elderly income. Other approach such as re-training of older workers would be also important.
 - For PRC, reducing the disparity of pension benefits between urban and rural areas is a priority.
 - Need to build more data for developing Asia.