

Population Aging and Social Policies

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KIHASA (virtual)



Content

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2. South Korea overview: a rare case
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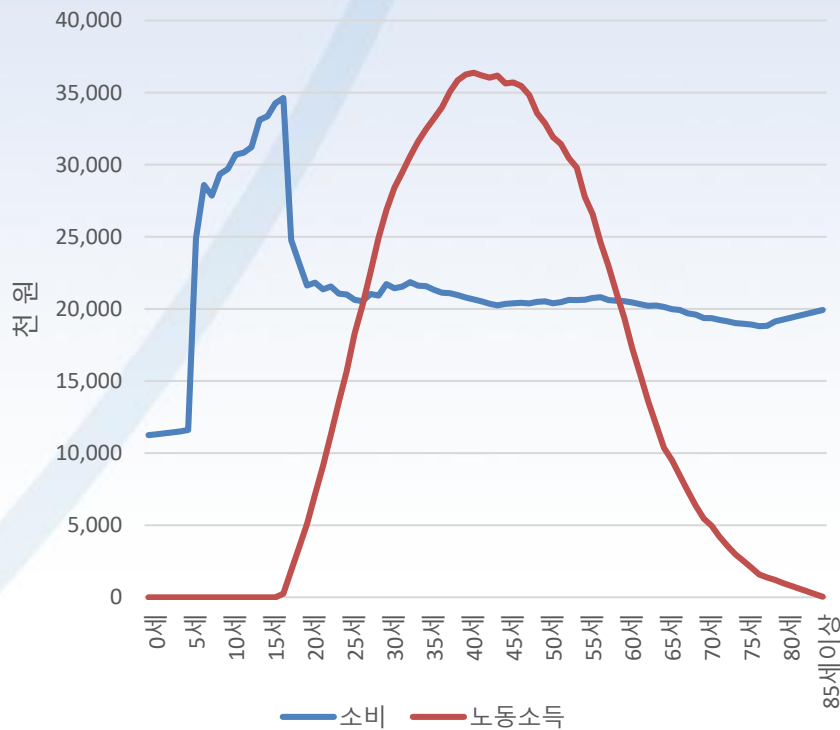
1. Why population aging matters

Elevator Pitch

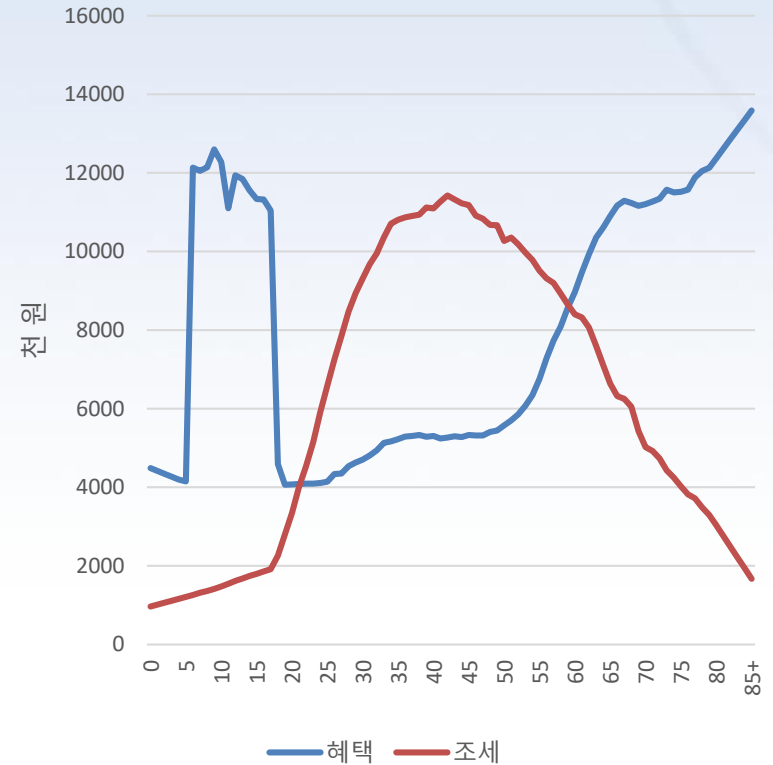
- How population aging influence (Korean) society and economy (current and future).
- What public policies can be pursued to influence the outcome—evidence-based research provides policy tools.
- Let's begin with Economic Lifecycle.

한국인의 경제적 생애주기: 1인당 노동소득, 소비, 조세부담, 혜택 (2019년)

1인당 소비 및 노동소득



1인당 조세 및 정부 이전지출



자료: www.kosis.kr. 2022년 3월 20일 접속 (국민이전계정).

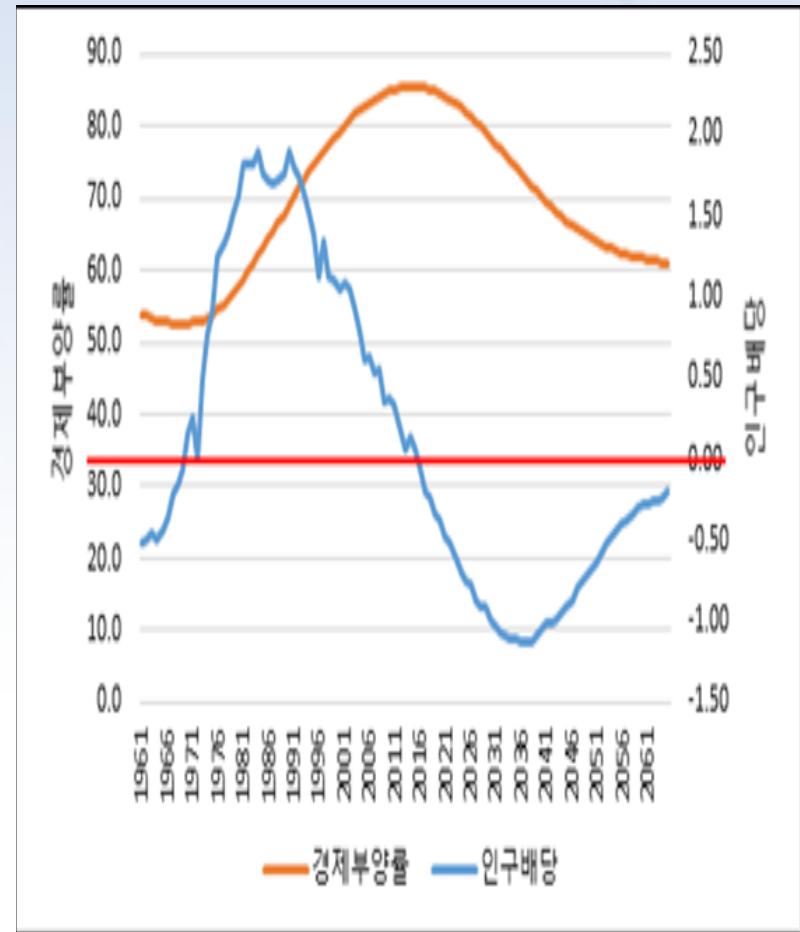
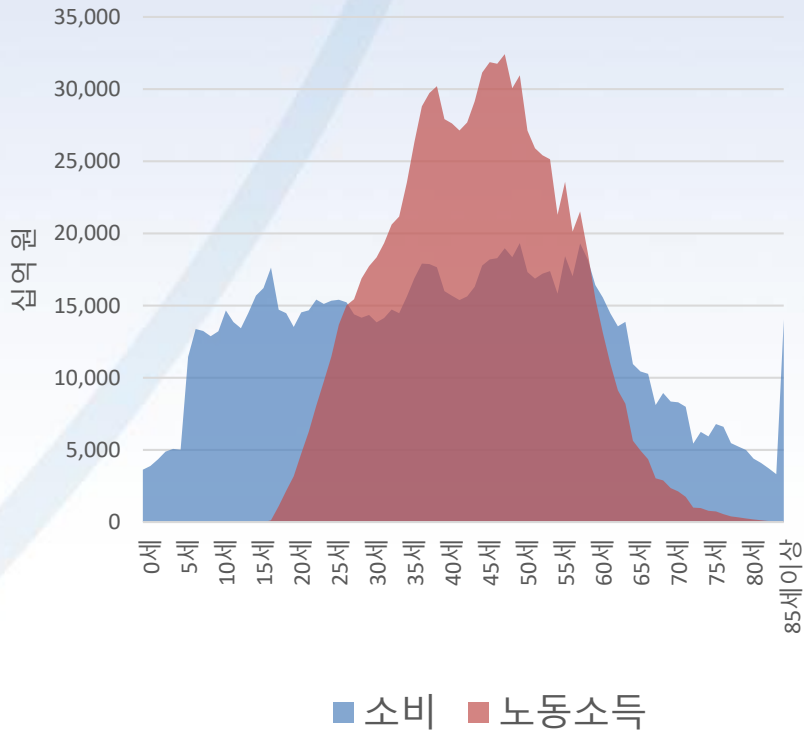
참조: 국민이전계정 (National Transfer Accounts) = 연령별 국민계정



NTA integrates information from many different sources to provide a snapshot of the generational economy (90+ countries)

경제부양률 (소득/소비)과 인구배당 (demographic dividend)

한국 인구 전체 소비 및 노동소득
(2019년)



자료: Kim and Lee (2022).

Population Aging and Policies

1. Growth: Demographic bonus or onus
2. Labor productivity
3. Income security for the elderly
4. Fiscal sustainability
5. Intergenerational equity
6. Labor, labor market, and retirement
7. Health
8. Gender equity (gender role, time use)
9. Inequality
10. Population policy (fertility, immigration)

2. South Korea overview: a rare case

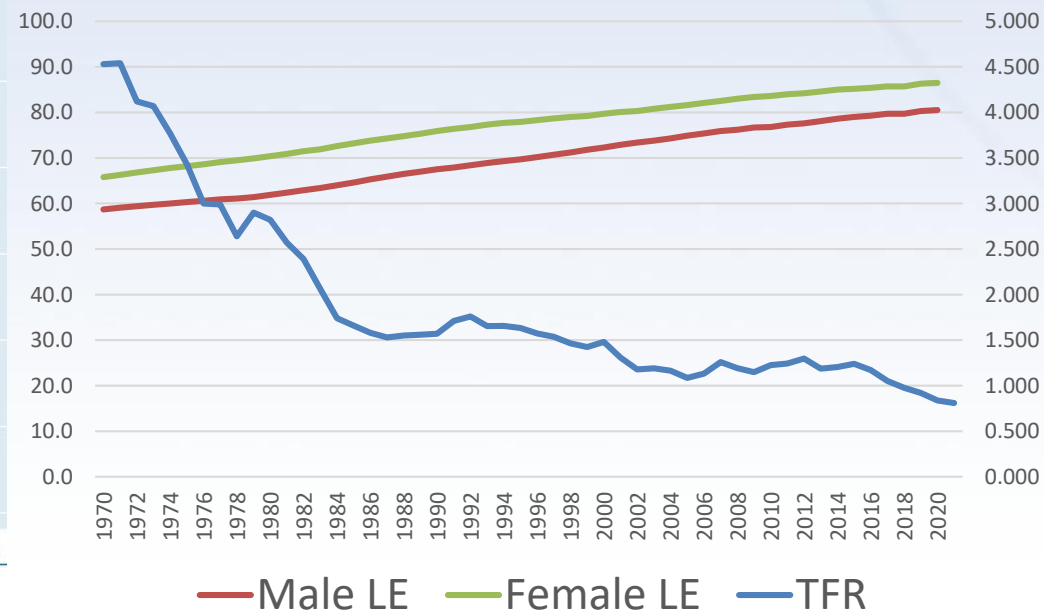
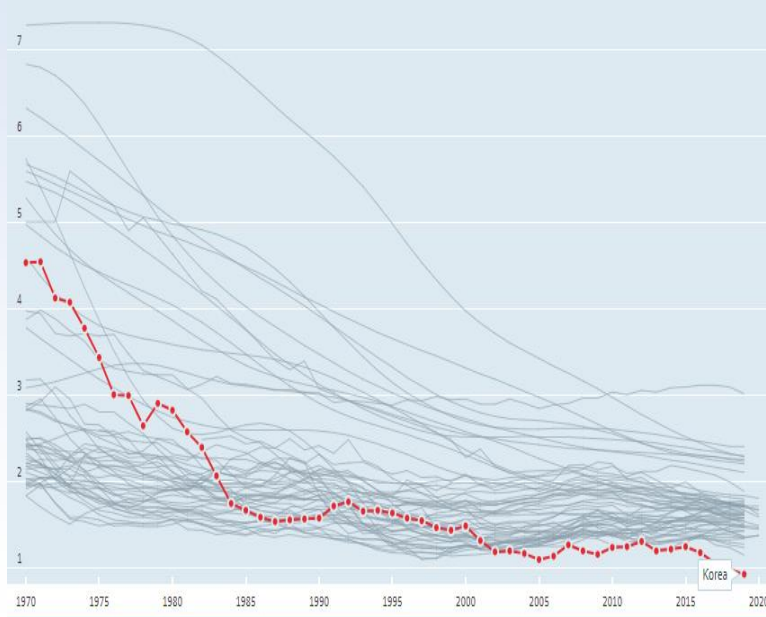
ROK—A Success Story with Several Issues

- #1 in the world or among OECD countries
 - Lowest fertility in the world (0.98 in 2019, 0.84 in 2020, 0.81 in 2021), Sub-One-Shock (SOS)
 - Most rapid population aging in the world
 - Highest labor force participation of people ages 65+ (OECD)
 - Highest poverty rate among people ages 65+ (OECD)
 - Highest % of temporary workers ages 65+ (OECD)
 - Highest suicide rates, total and especially for 65+ (OECD)
 - Highest growth rate in social spending (% of GDP) but yet low level of social spending.

ROK—A Success Story with Several Issues

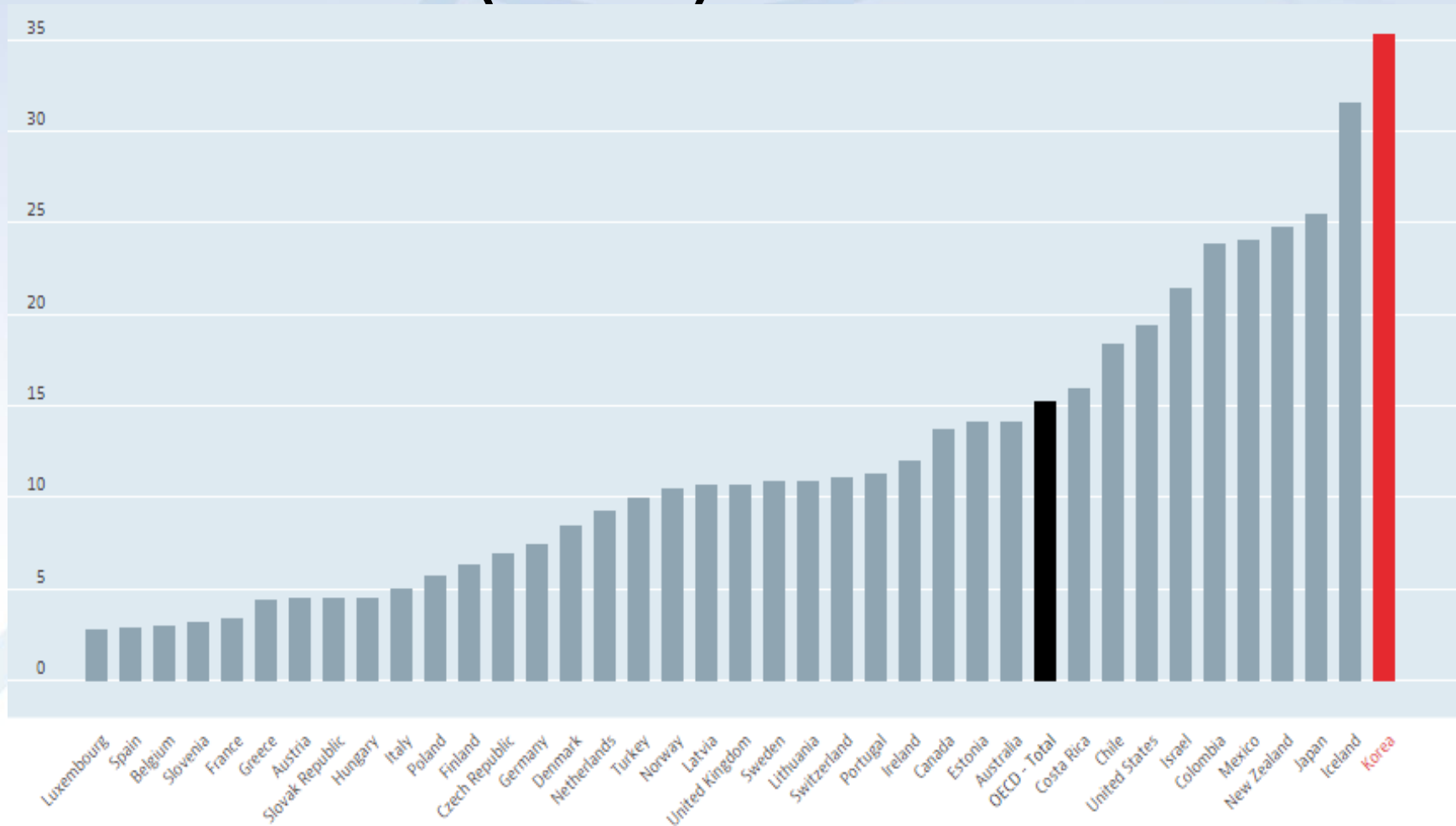
- Importance of education
 - Competition for university entrance and jobs
 - Huge signaling cost, paid off by *Squid Game*
 - Transfer of wealth/poverty
 - Not getting married, or low fertility
- Segmented labor and labor market
 - Bridge jobs or self-employed
 - For firms, no reason to keep workers until getting old (no labor market flexibility, no retraining)
- Inequality is several folds
 - Generation (hope, opportunities, and intergenerational transfer)
 - Regional development (Seoul/Gyeong-gi vs. others, *Han River*)
- Importance of asset (semi-basement, apartment/penthouse=status)
 - Labor vs. Family vs. Government vs. Asset
- Gender issues

Lowest TFR in the world. Life expectancy increased rapidly



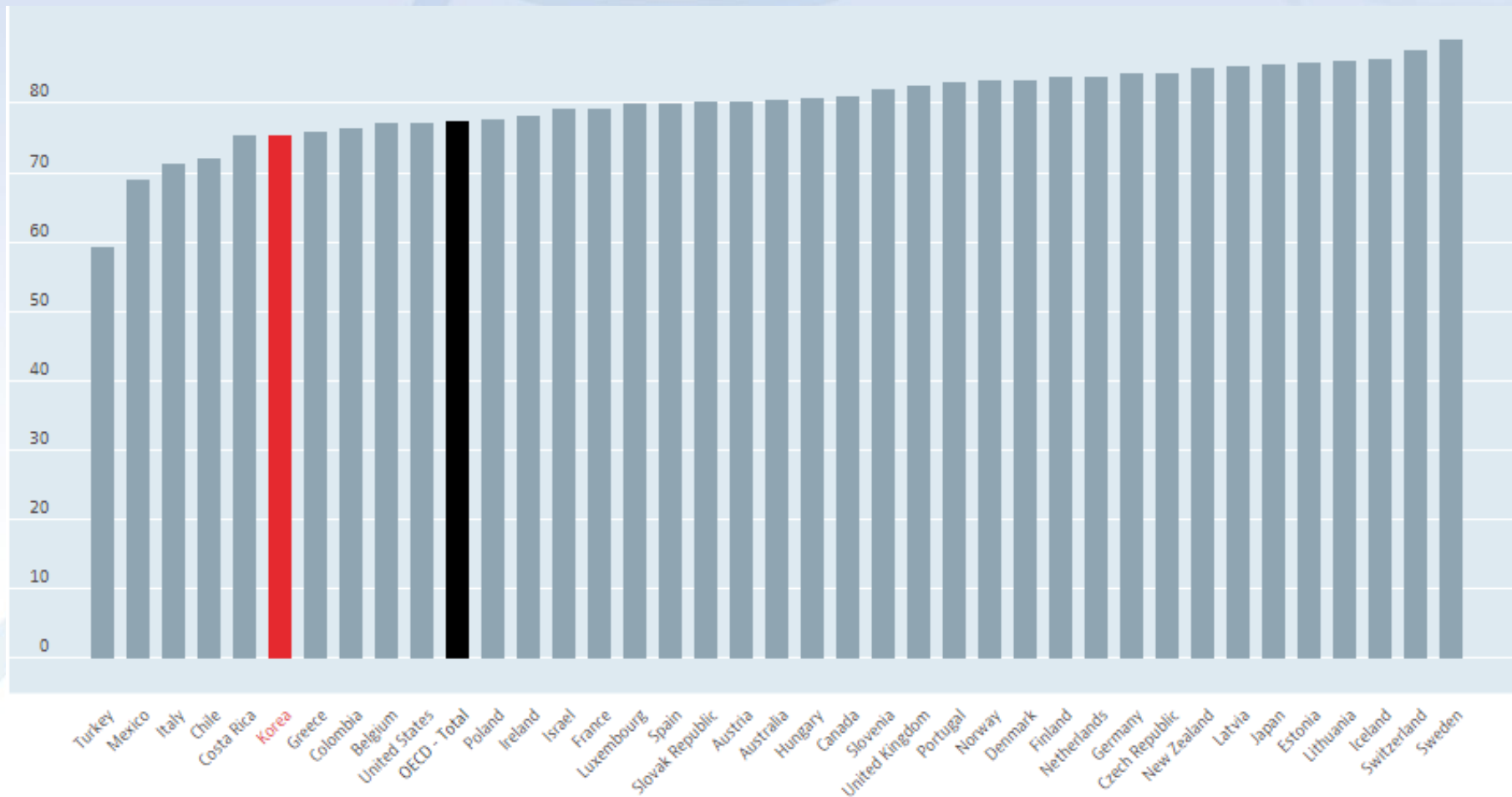
Source: OECD data portal. www.data.oecd.org, & KOSIS data base, accessed March 21, 2022.

High labor force participation rate (LFPR) of 65+



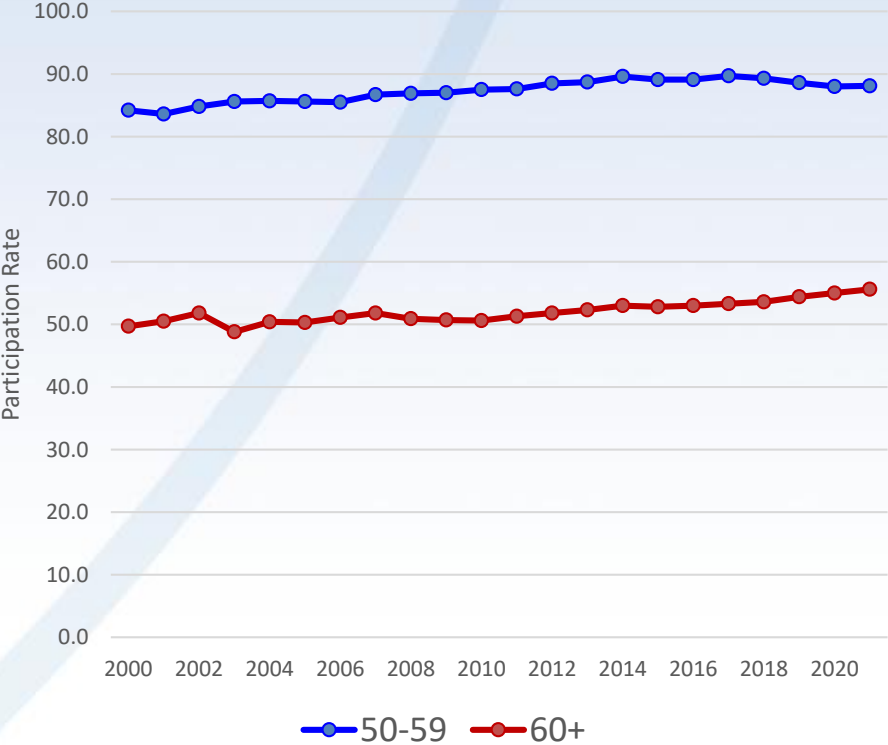
Source: OECD data portal. www.data.oecd.org, accessed March 21, 2022.

But, LFPR of 25-64 is low

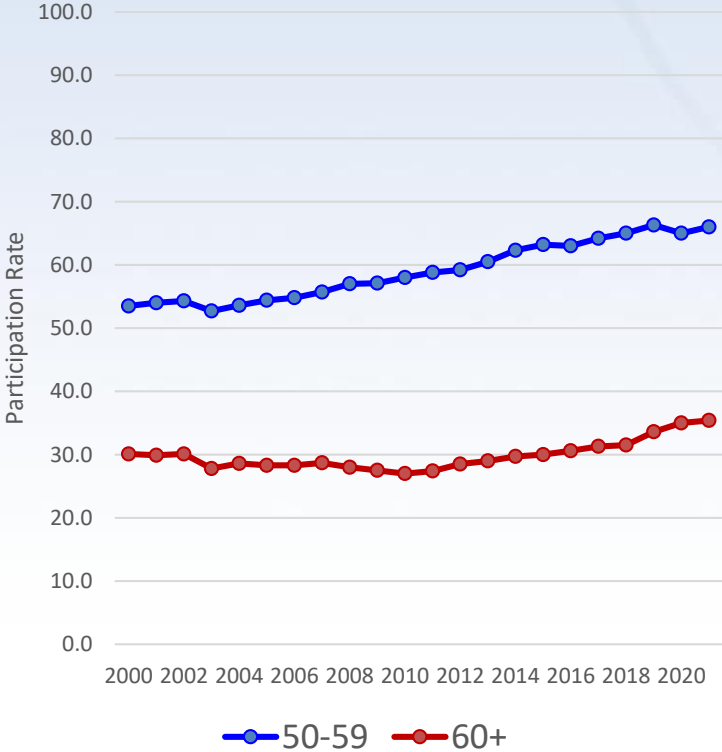


LFPR of both older males and females have been increasing

Male, Ages 50-59 and 60+, 2000-2021



Female, Ages 50-59 and 60+, 2000-2021

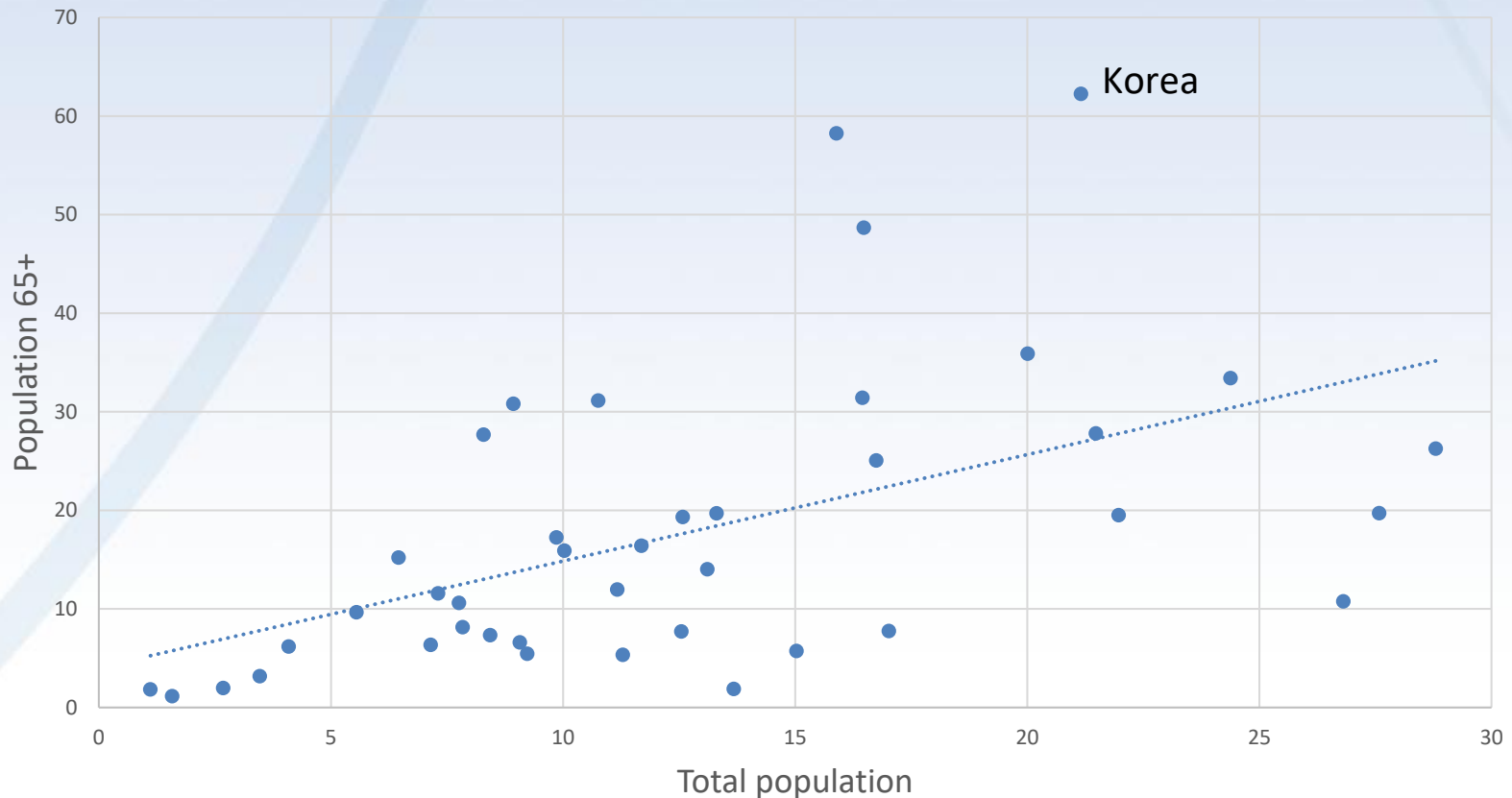


Poverty rate of (65+ vs. Total)



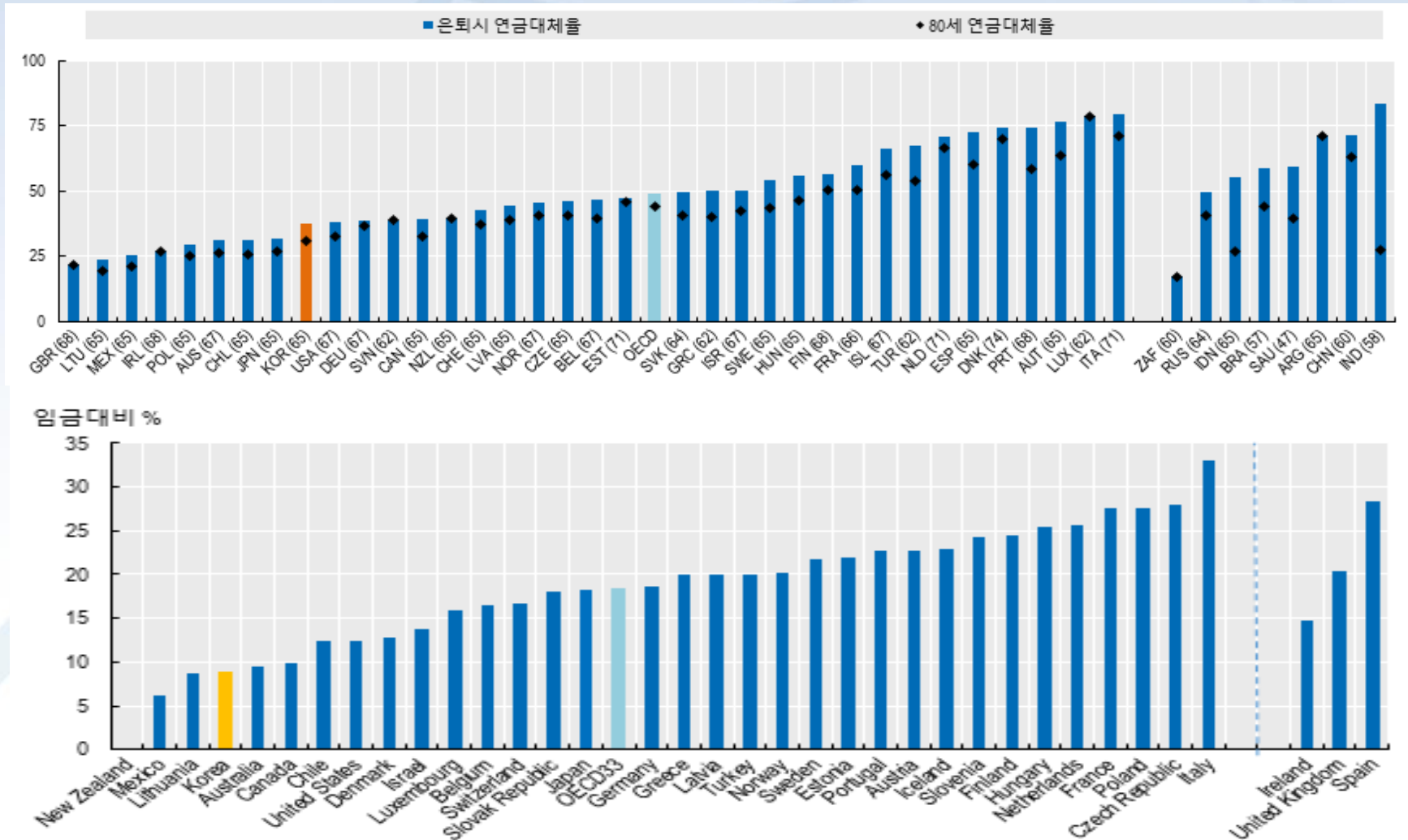
Source: OECD data portal. www.data.oecd.org, accessed March 21, 2022.

Share of temporary workers (65+ vs total)



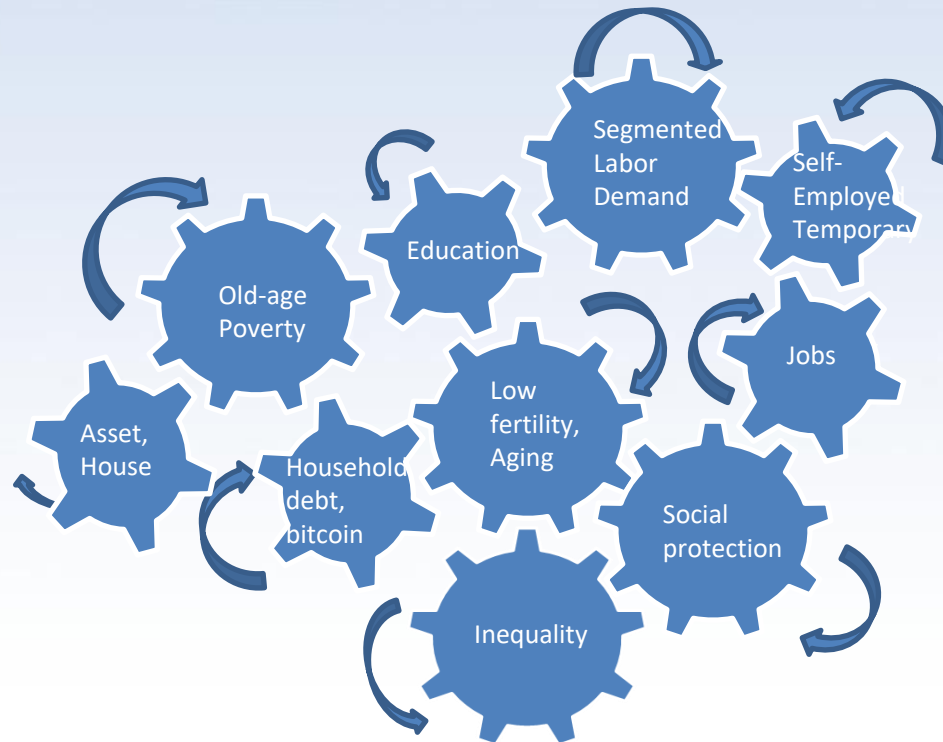
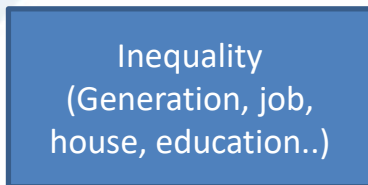
Source: OECD data portal. www.data.oecd.org, accessed March 21, 2022.

Low replacement rate (above) and contribution rate (below) of pension



Source: calculated from OECD pension data portal. accessed March 21, 2022.

One natural question: Is Korea unique? Inequality, Opportunities, and Generations



There are many countries who face similar problems. Korea might be a rare case that these gears are so closely linked to each other. It has also happened in a very short periods of time in history.
Negative linkage vs. Positive linkage

3. Social Security and Fiscal Sustainability

Evolution of old-age support system

Assets / Saving

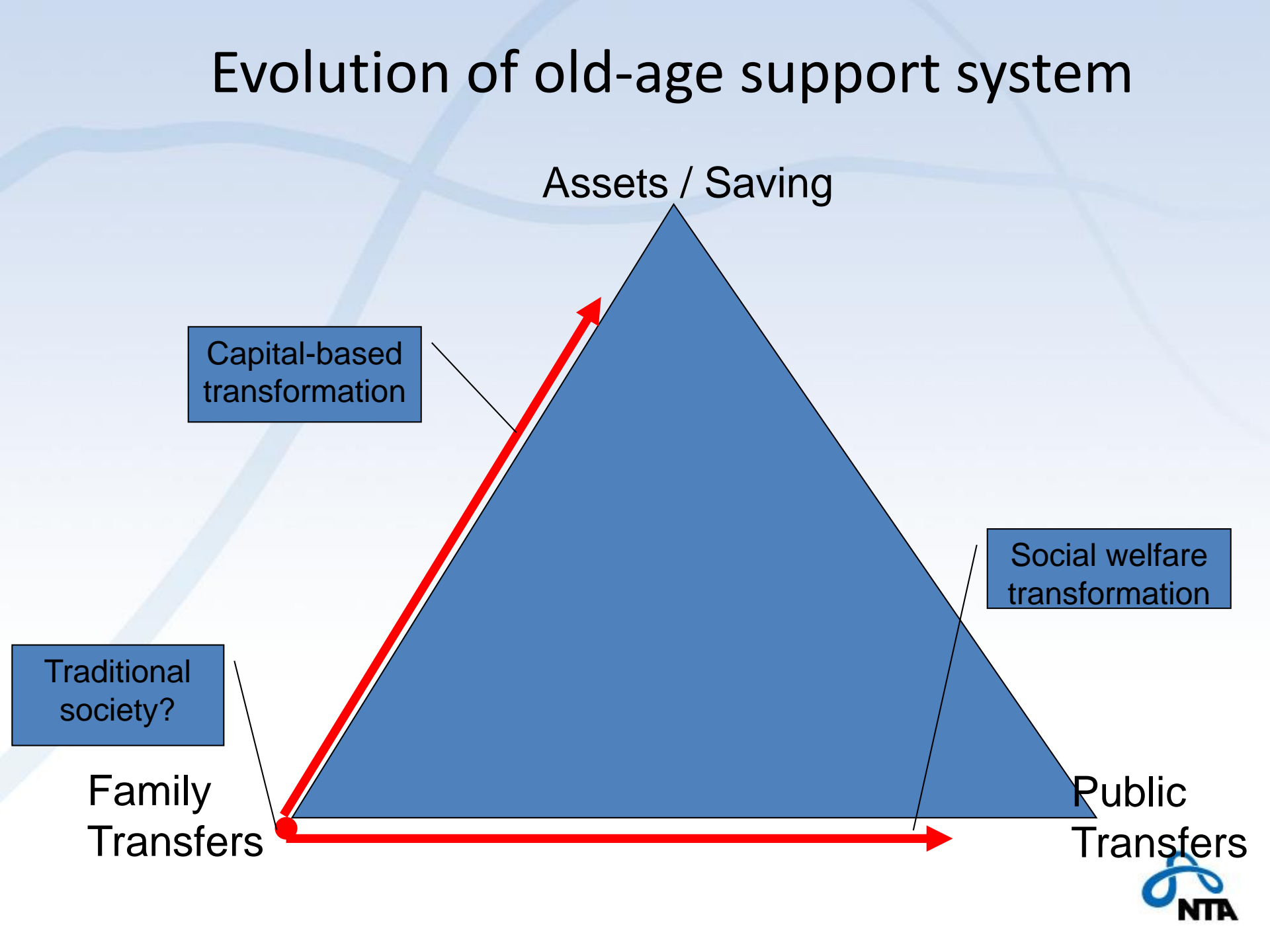
Capital-based transformation

Social welfare transformation

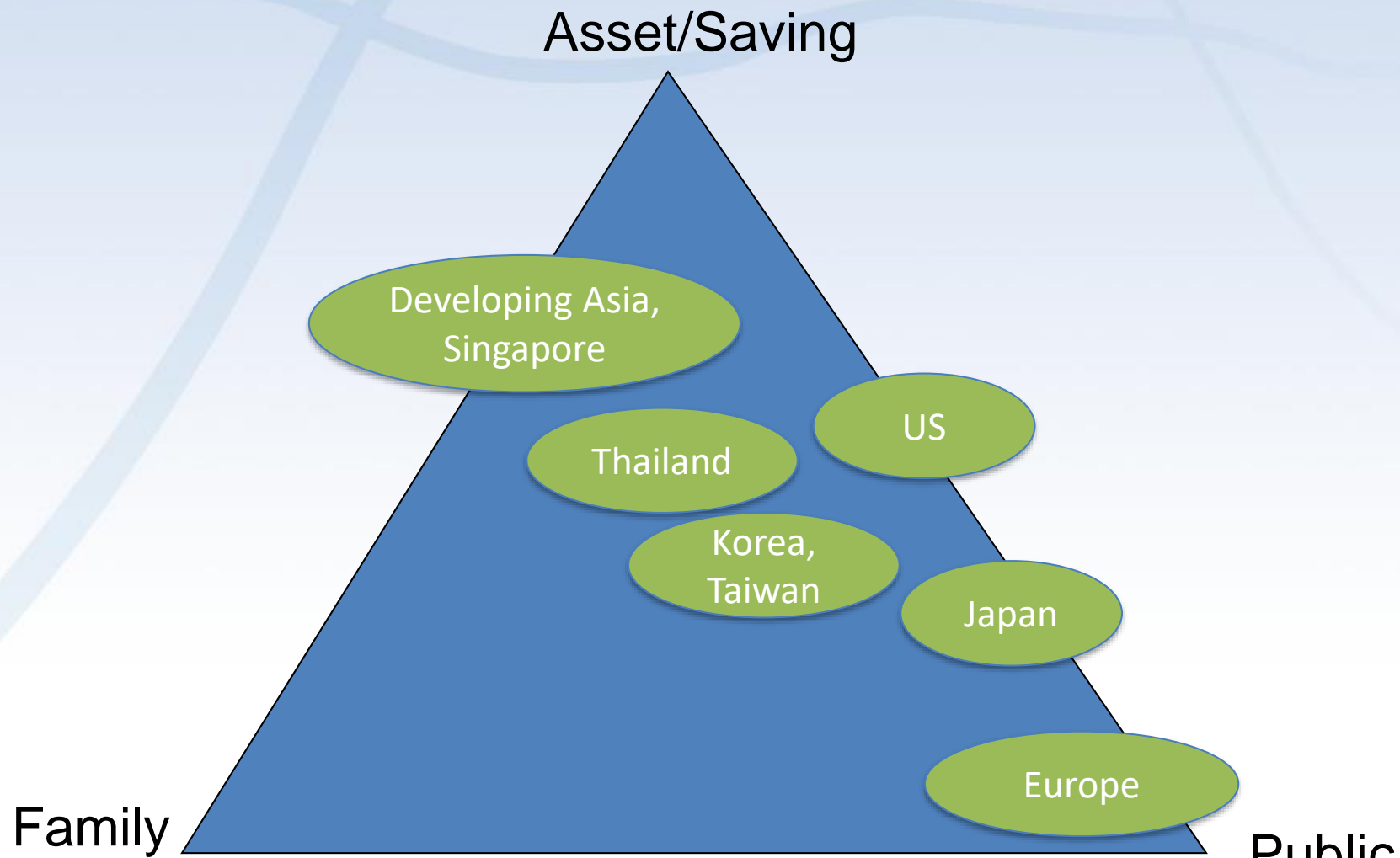
Traditional society?

Family Transfers

Public Transfers

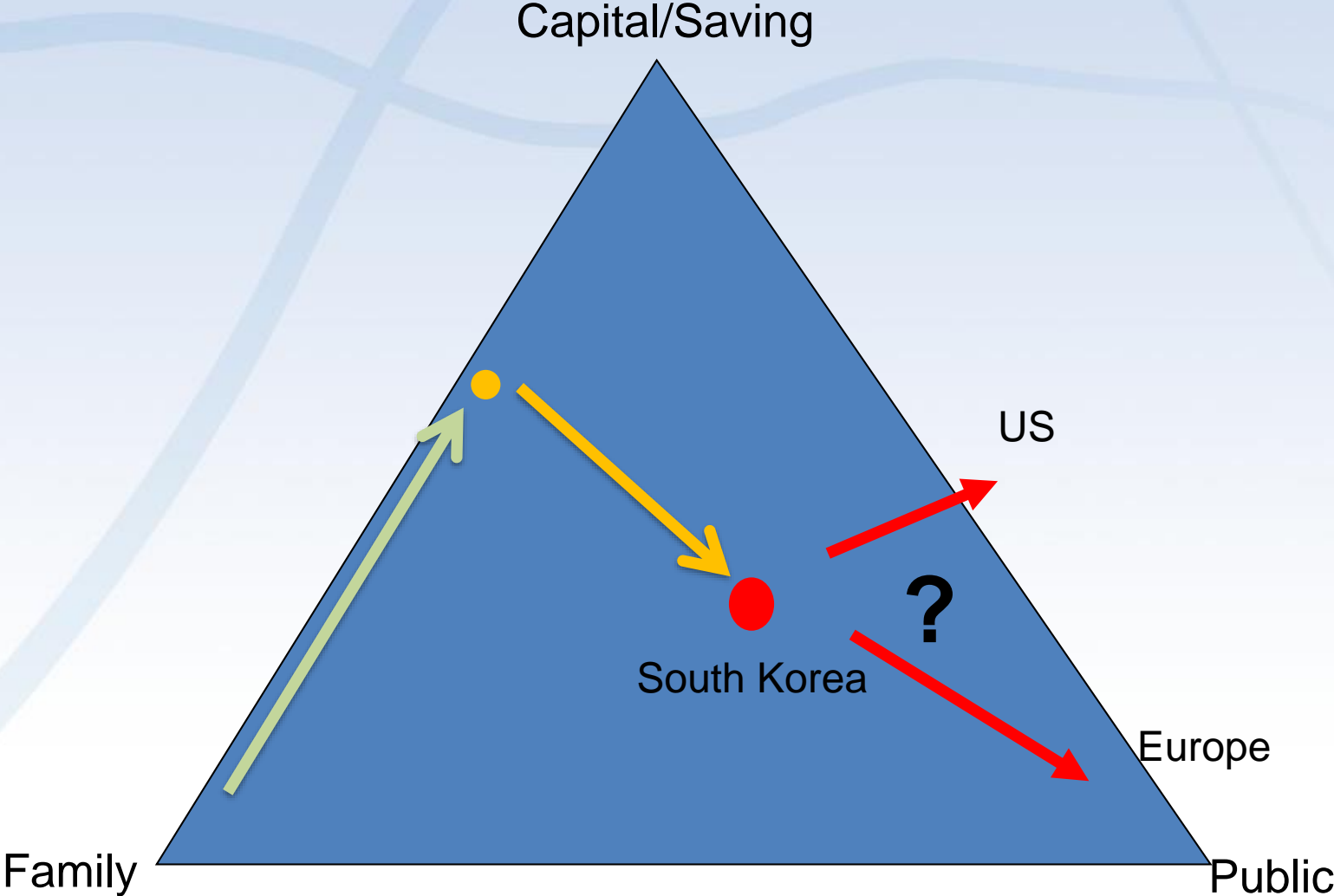


Evolution of old-age support system

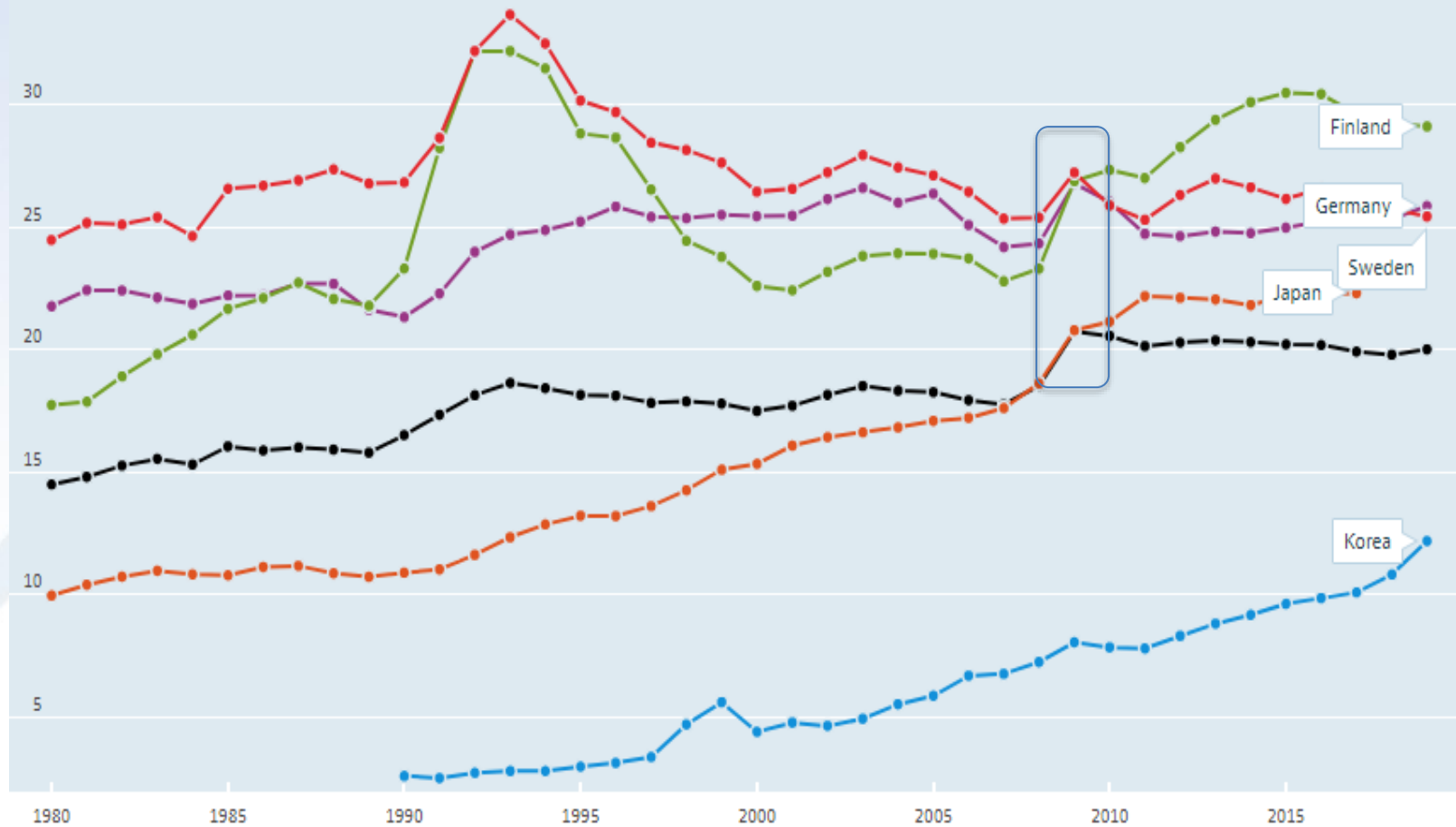


Source: ntaccounts.org database.

Evolution of Korea's Support System



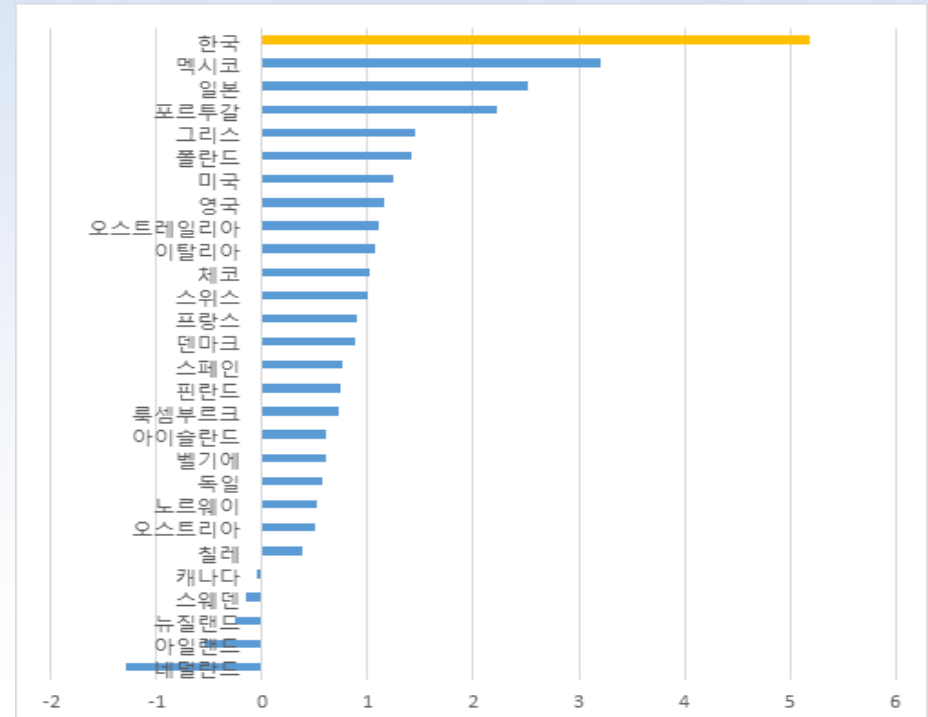
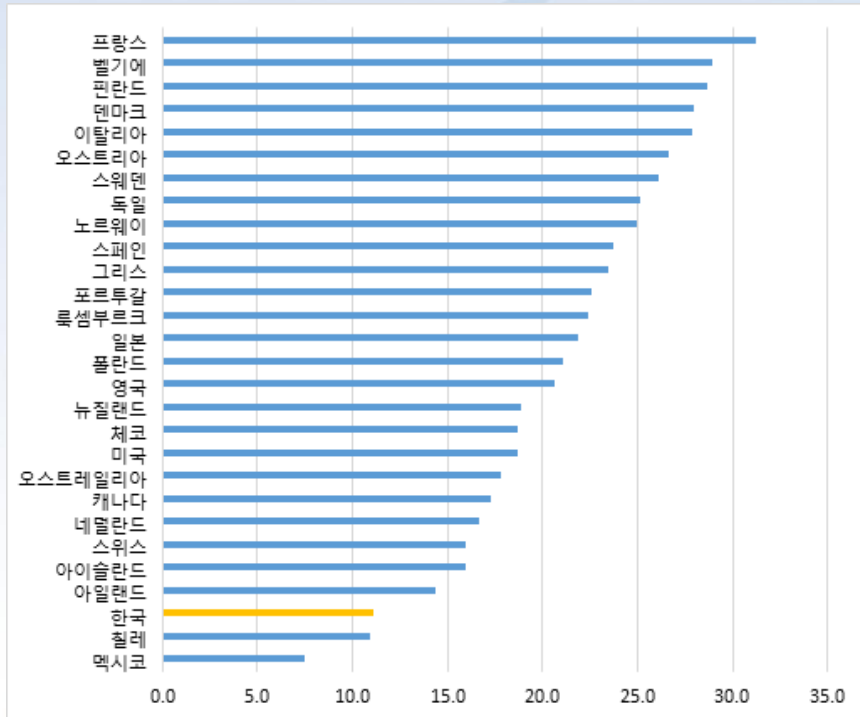
Social welfare spending as % of GDP (1980-2019): Sustainable?



Source: OECD data portal. www.data.oecd.org

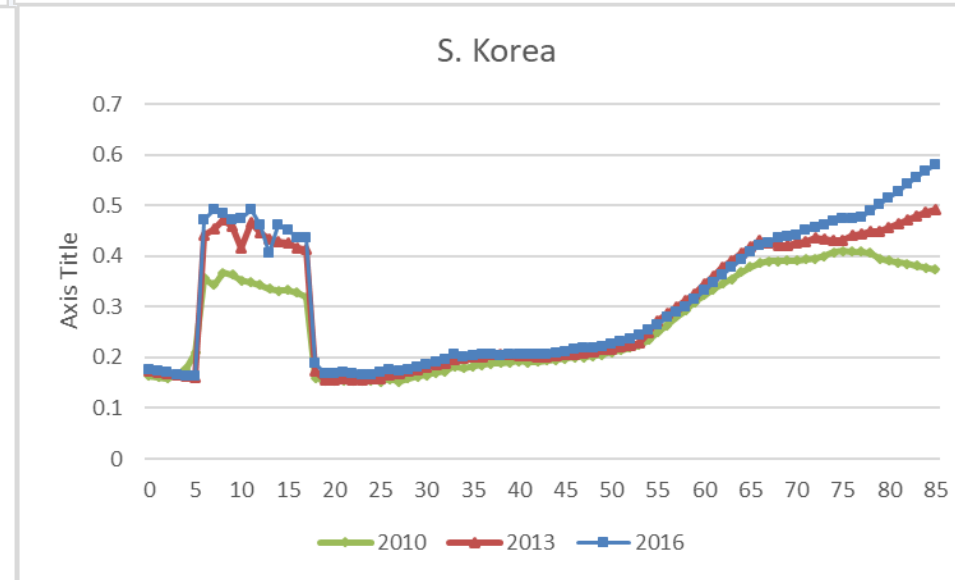
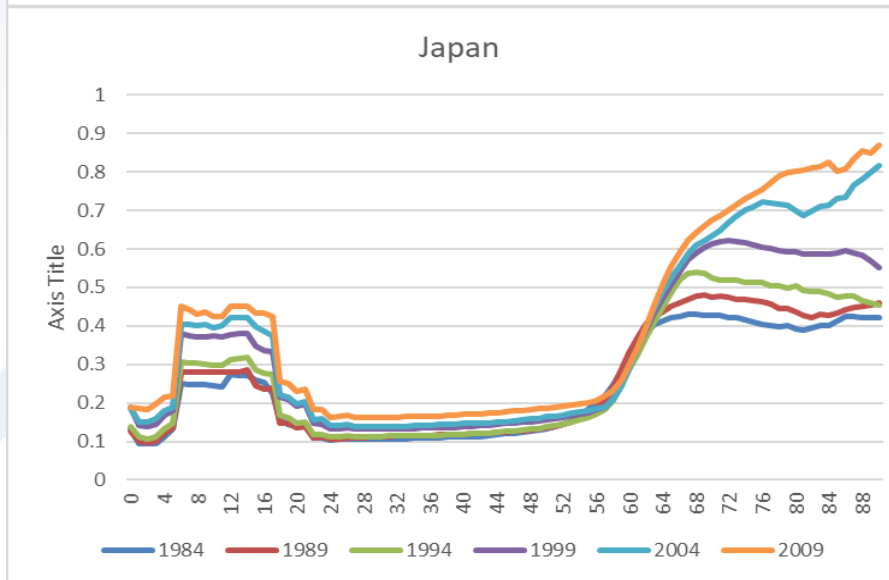
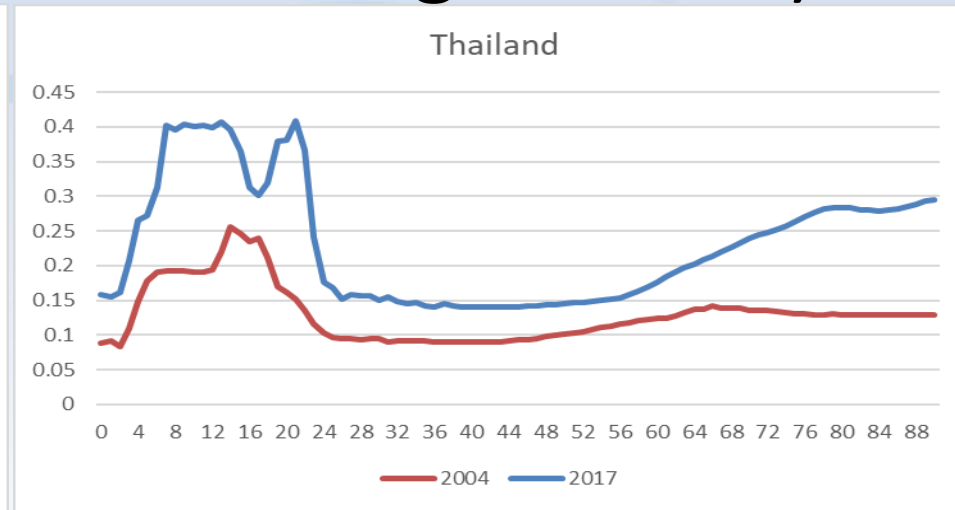
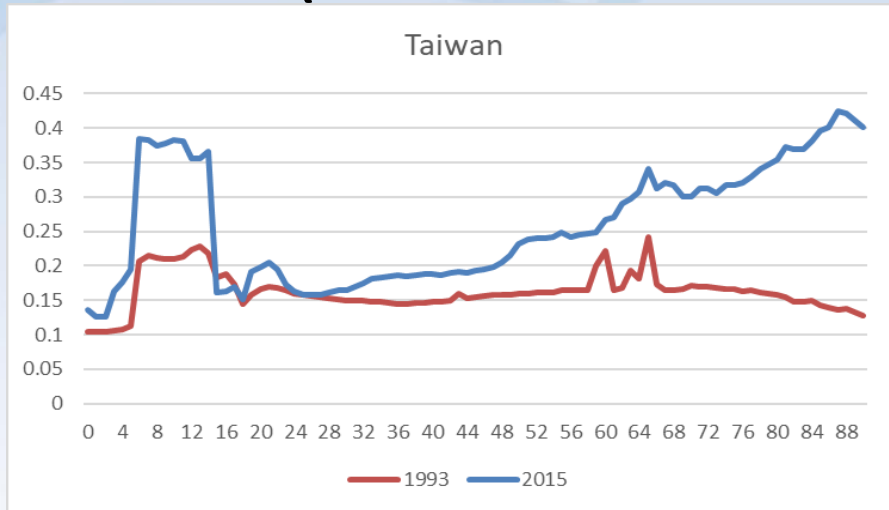
Level (Left, 2018) vs. Growth (Right, 1990-2018)

Social spending as % of GDP



Source: OECD data portal. www.data.oecd.org

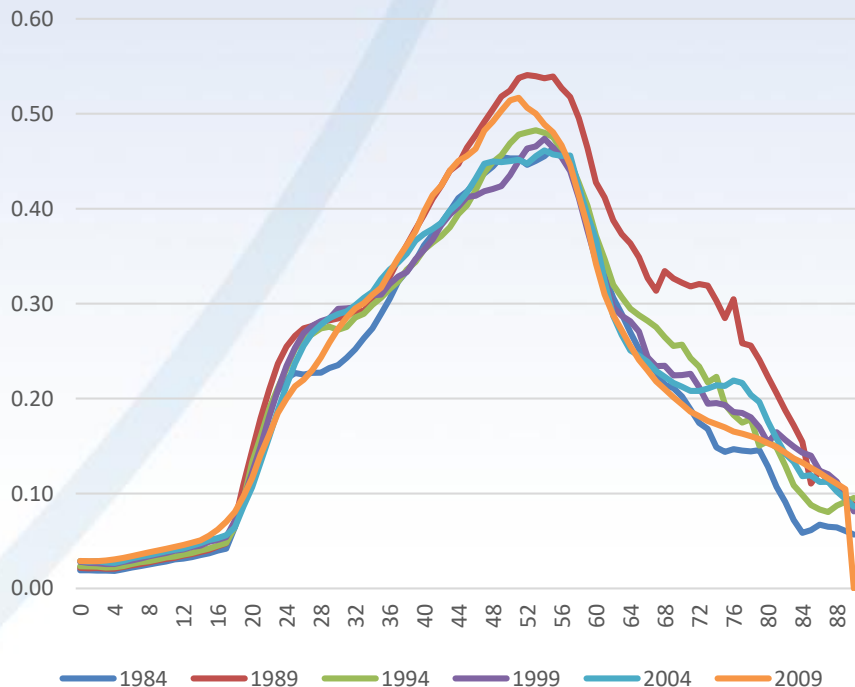
Per capita government transfers has increased too (as ratio of labor income ages 30-49)!



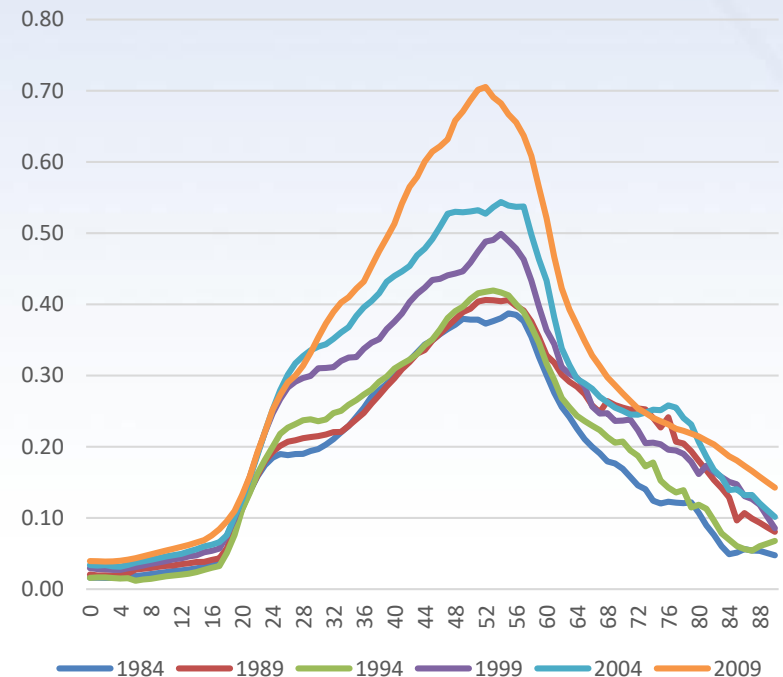
Source: ntaccounts.org database.

Countries do not increase taxes as much as an increase in expenditure

Japan's actual tax profiles as ratio of average labor income of 30-49



Should have been this to make fiscal balance



Source: ntaccounts.org database.

Aging can lead to unsustainable levels of public debt for some countries

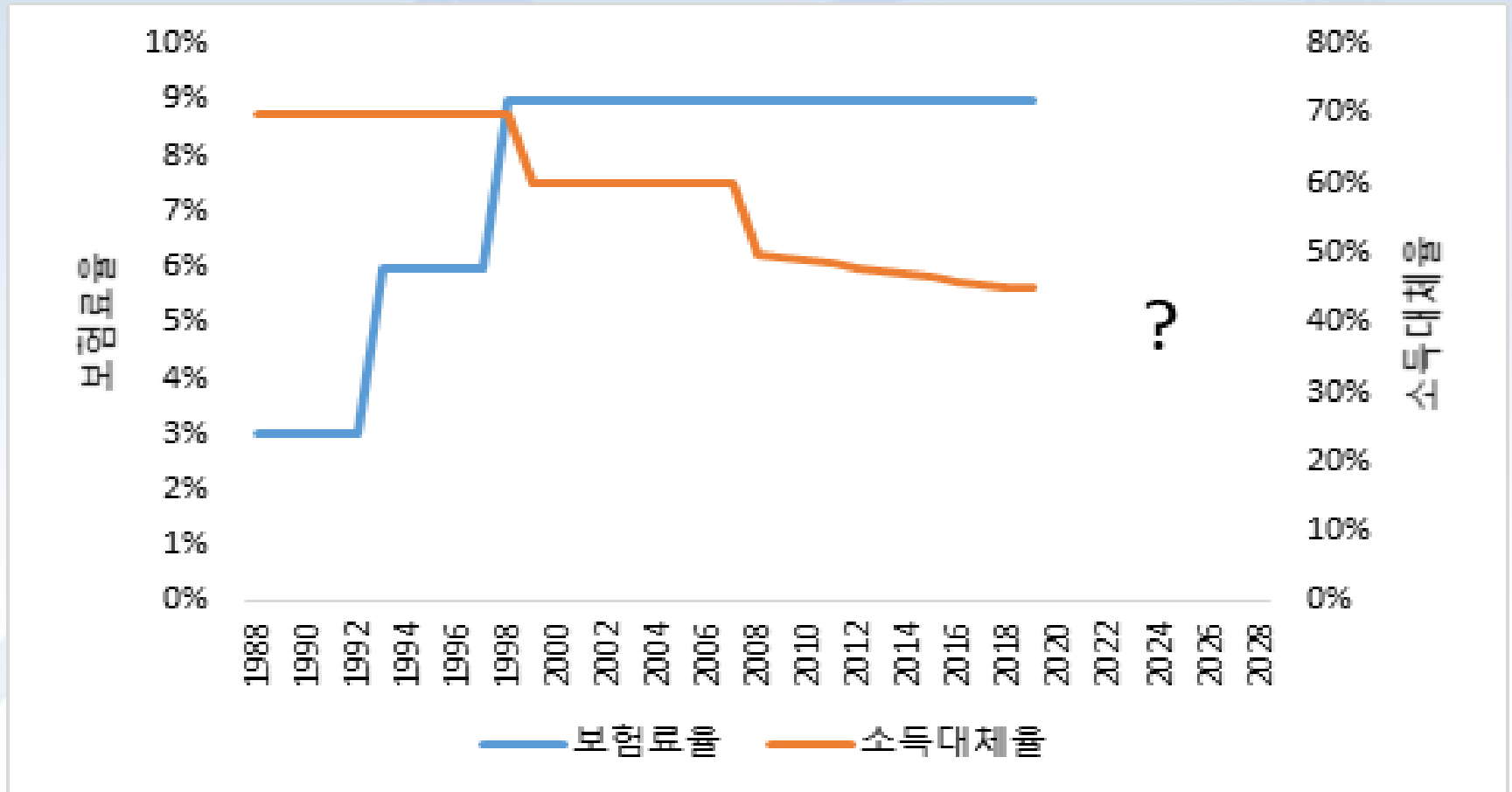
- Effects of aging on new public debt in East Asia will be very substantial over the next 20 years.
- Effects will be impossibly large after 2040.
- In Southeast Asia, aging will have little or no effect until after 2040.
- In the Philippines, the results signal the need to strengthen social programs.

Increase in public debt solely due to aging (base year = 2015)

Percent of GDP	2020	2040	2060
China	2.2	105.5	476.9
South Korea	2.2	150.6	826.6
Taiwan	0.7	58.3	341.2
Japan	4.8	144.8	708.9
Indonesia	0.6	25.6	124.9
Philippines	-2.8	-89.4	-424.4
Singapore	-1.4	-9.4	41.2
Thailand	-0.8	-1.7	57.0

Source: Lee, Mason, and Park , 2022. "Aging and Debt"

Pension reform?

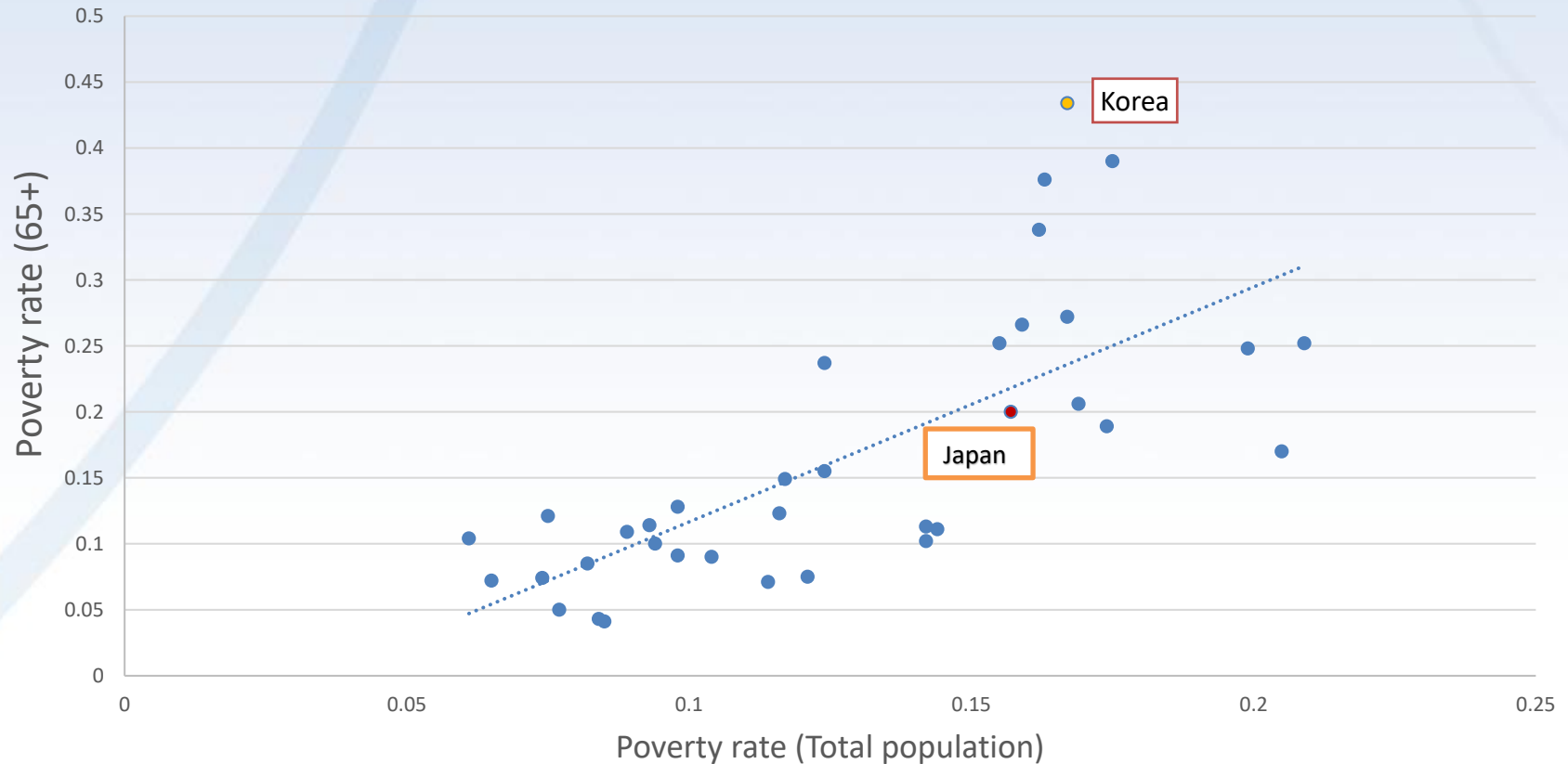


0 vs. 1st Pillar?



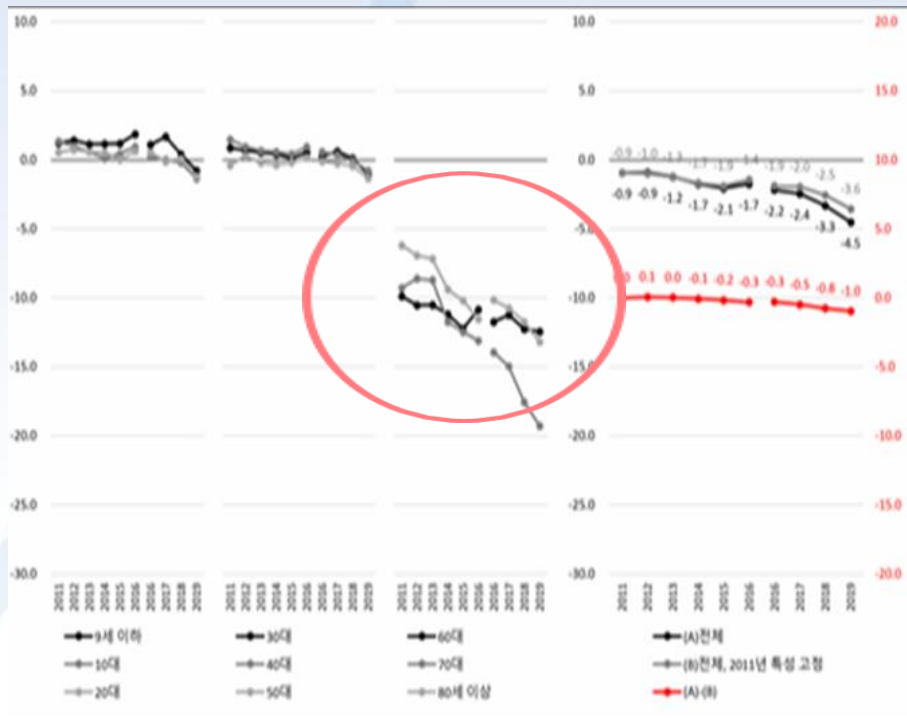
Effectiveness?

Poverty rate of (65+ vs. Total)



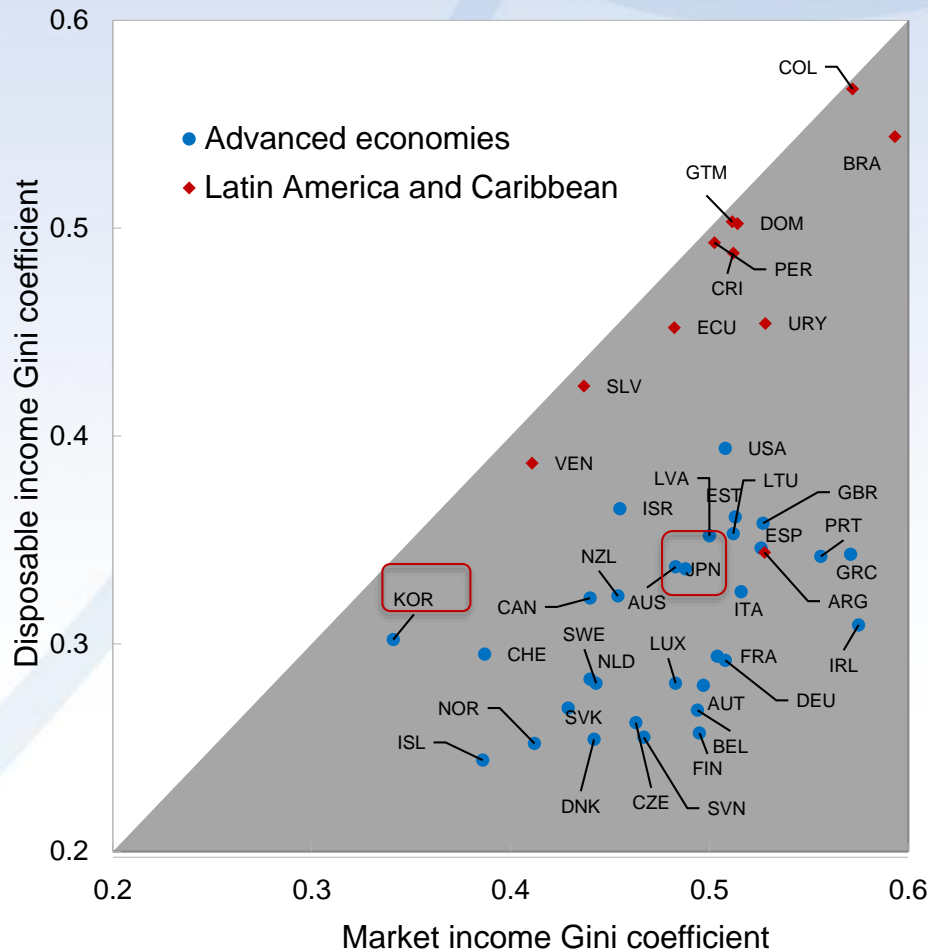
Source: OECD data portal. www.data.oecd.org

Effectiveness of Fiscal Policy on Reducing Poverty **by Age**: South Korea



Measure the poverty rate by age using market income vs. disposable income → effective tool for poverty reduction for older people in S. Korea

Effectiveness of reducing inequality?

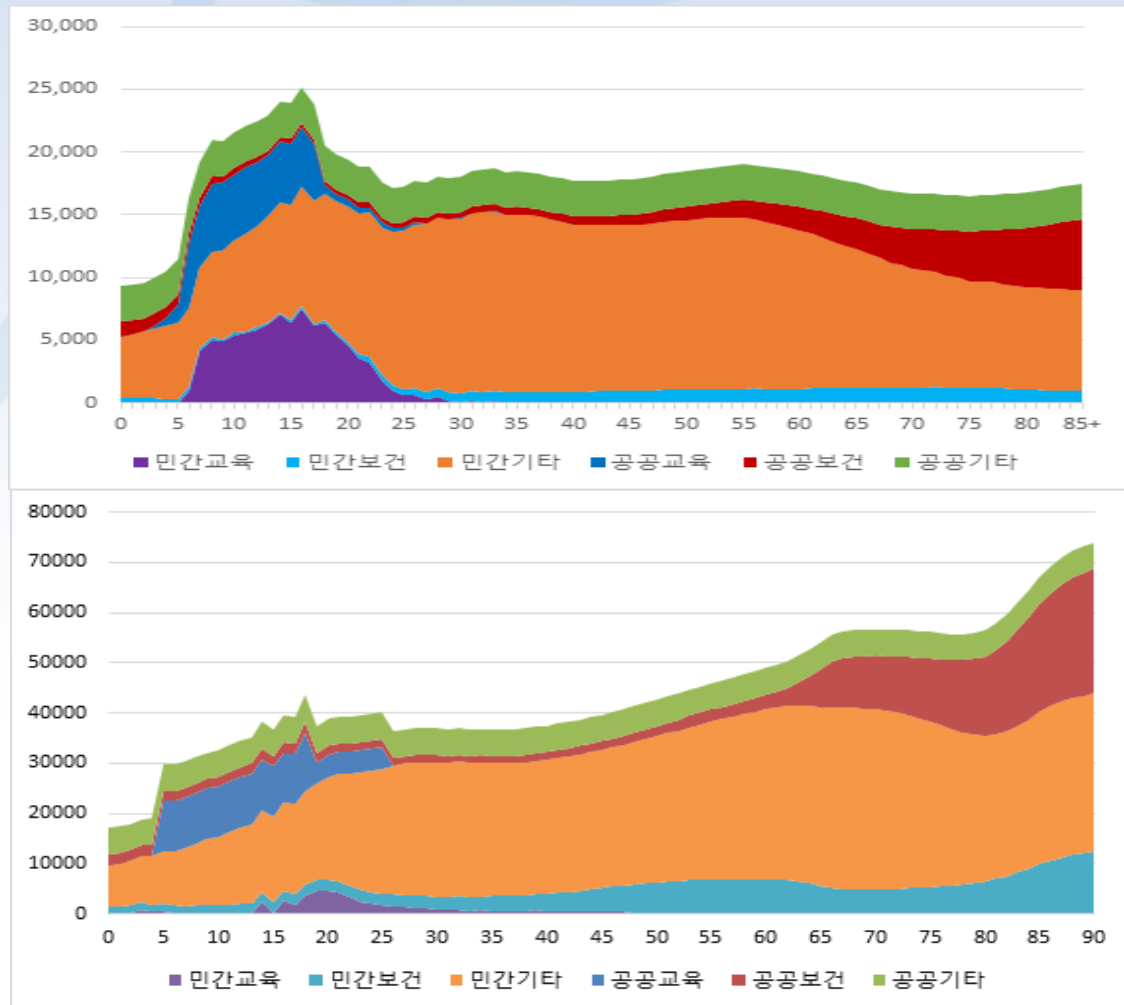


Korea is still behind in terms of its impact?

Source: IMF, 2017. IMF Fiscal Monitor: Tracking Inequality www.imf.org

Importance of public health care

한국(상, 2016년)과 미국(하, 2011년)의 1인당 소비 패턴 비교



자료: www.ntaccounts.org(미국), www.kosis.kr(한국). 2021년 12월 9일 접속.

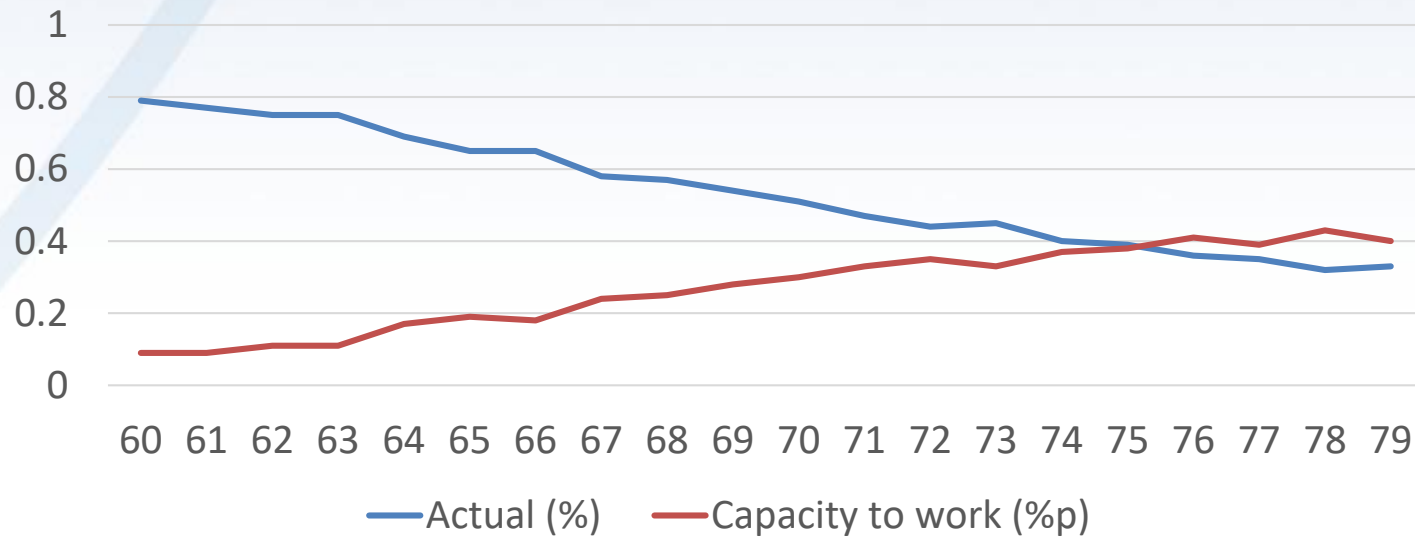
Health and productivity

- Is delaying pension eligible age option?
- Is working more policy option?
 - Appropriate and inevitable. Health implication.
(Health Capacity to Work)
 - But not sufficient to meet the challenges.
 - Job availability and labor market flexibility
 - Quality (decent jobs) vs. quantity (labor force participation)

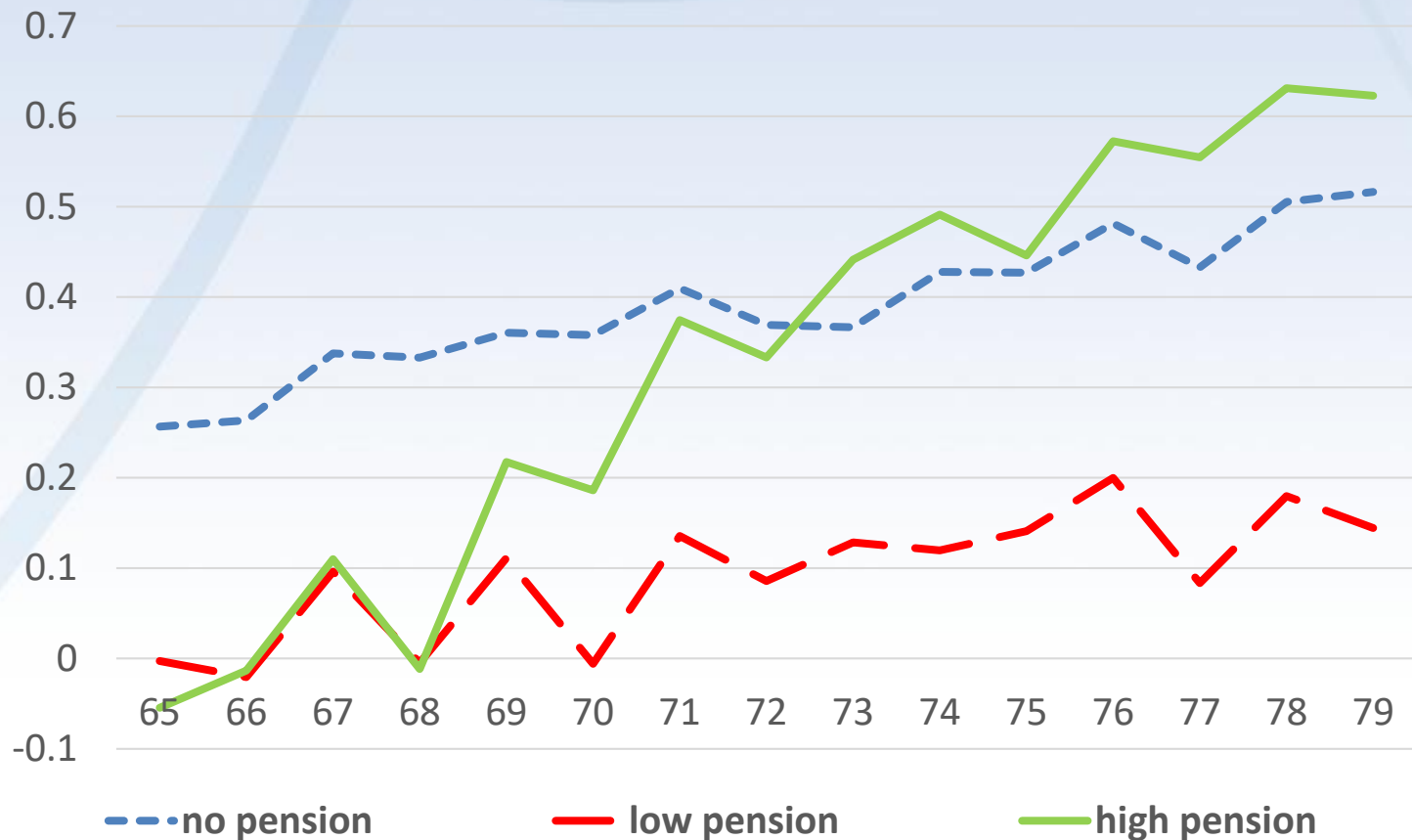
Health implication

- Extend Coile, Milligan, and Wise (2017)
- How much more can older people work given their health status? (Health capacity to work)
- Park and Lee (Korea much smaller than Japan/USA)

Actual LFP vs. Health Capacity (ROK)



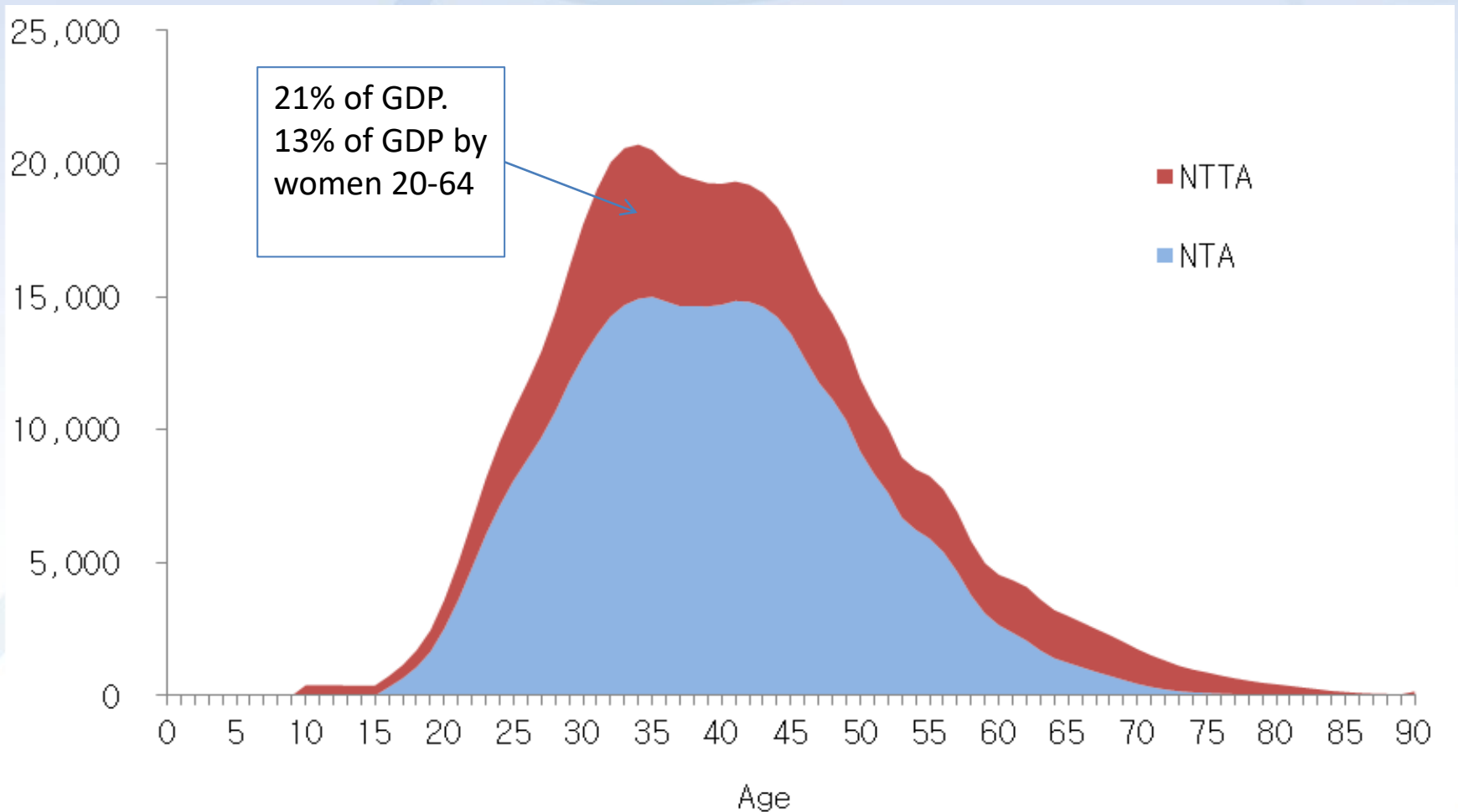
Sub-group (by pension level)



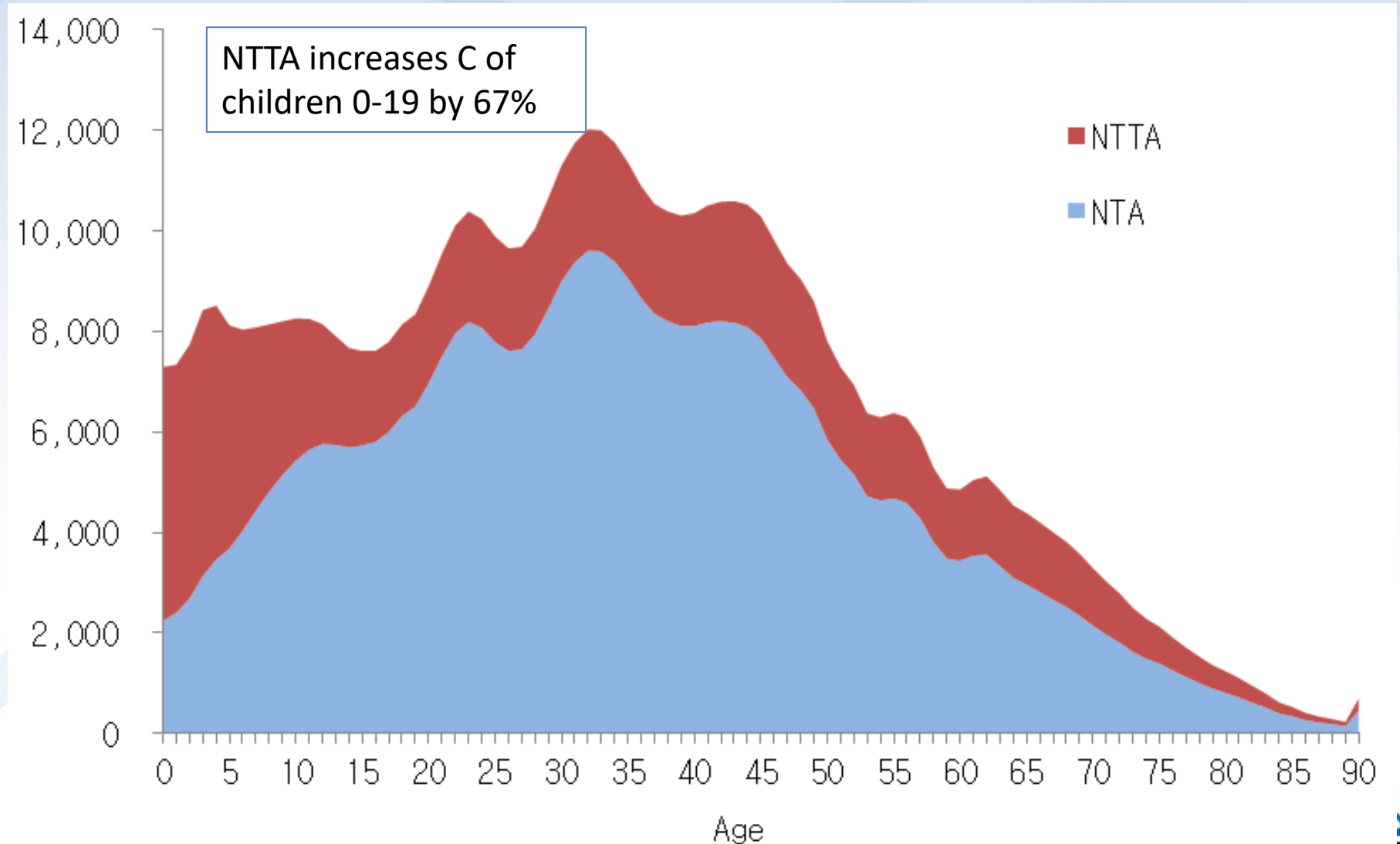
Health care policies

- Health insurance: Reorganization of health insurance premium (2017)-increased 3.5% annually.
- Increasing demand for primary and nursing care: strengthen elderly friendly care, medical facility home care, and primary health care
- Regional disparities: strengthening local medical care, local public healthcare service (2019)
- Promote healthy aging
- COVID-19 experience (The jury is still out), it hits self-employed hardest, who are mostly older people

Importance of women's time for household production: Aggregate Production (1 billion won)



Aggregate Consumption



4. Policy evaluation

(Rindfuss and Choe, 2016)

Many including KIHASA + EWC projects

- Most of them have focused on reasons of lower or lowest fertility
- Relatively less focus on aging issues
- Very specific policy evaluations are still limited
(Data issues)

E.g. “Real effect? Childbirth Grants on Population Migration” (Kim and Lee, on going)

- Data Collection : Amounts and payments period of childbirth grants
 - No all-inclusive information on paying the childbirth grants at the national level
 - Most of the standards for paying childbirth grants are established by the ordinances in each local government or decided by the head of each local government individually.
 - We contacted each local government individually to collect detailed information on childbirth grants from the start of payments.
 - We also reviewed each local government’s ordinance related to childbirth grants, and compared the responses of the people in charge of childbirth grants with local government’s ordinances.
 - We re-inquired the person in charge of childbirth grants if there were differences in the comparison.

Data Description

감사원이 13일 발표한 '저출산·고령사회 성과 대책'에 대한 감사 결과엔 이런 실상이 드러난다. 전남 해남군이 대표적이다. 이곳은 2005년부터 출산장려금 정책을 시행했다. 첫째를 낳으면 50만원, 둘째는 120만원을 줬다. 2012년엔 이 액수를 각각 300만원, 350만원으로 늘렸다. 이런 영향으로 2012년 해남군 출생자는 810명으로 2011년(509명)보다 301명 증가했고, 합계출산율은 2.47명으로 전국 지자체 중 1위였다.

해남군 신생아 양육비 등 모자보건 지원에 관한 조례

[시행 2011. 12. 1.] [조례 제2292호, 2011. 12. 1., 일부개정]



전라남도 해남군

제4조(양육비 등 지원기준) ① 양육비와 건강보험 재원은 지방비로 한다.<개정 2008.12.30>

② 양육비는 출산 순위에 따라 차등 지원하며, 쌍태아 이상일 경우에는 태아별 주민등록 등재순으로 각각 지원한다.<개정 2009.12.28>

③ 제2항에 따른 양육비는 다음 각 호와 같다

1. 첫째아 300만원(일시금 60만원, 매월 20만원씩 12회 지급)
2. 둘째아 350만원(일시금 110만원, 매월 20만원씩 12회 지급)
3. 셋째아 600만원(일시금 120만원, 매월 20만원씩 24회 지급)
4. 넷째아 이상 720만원(일시금 120만원, 매월 25만원씩 24회 지급)<신설 2009.12.28, 개정 2011.12.1>

부칙 <제2292호, 2011.12.1>

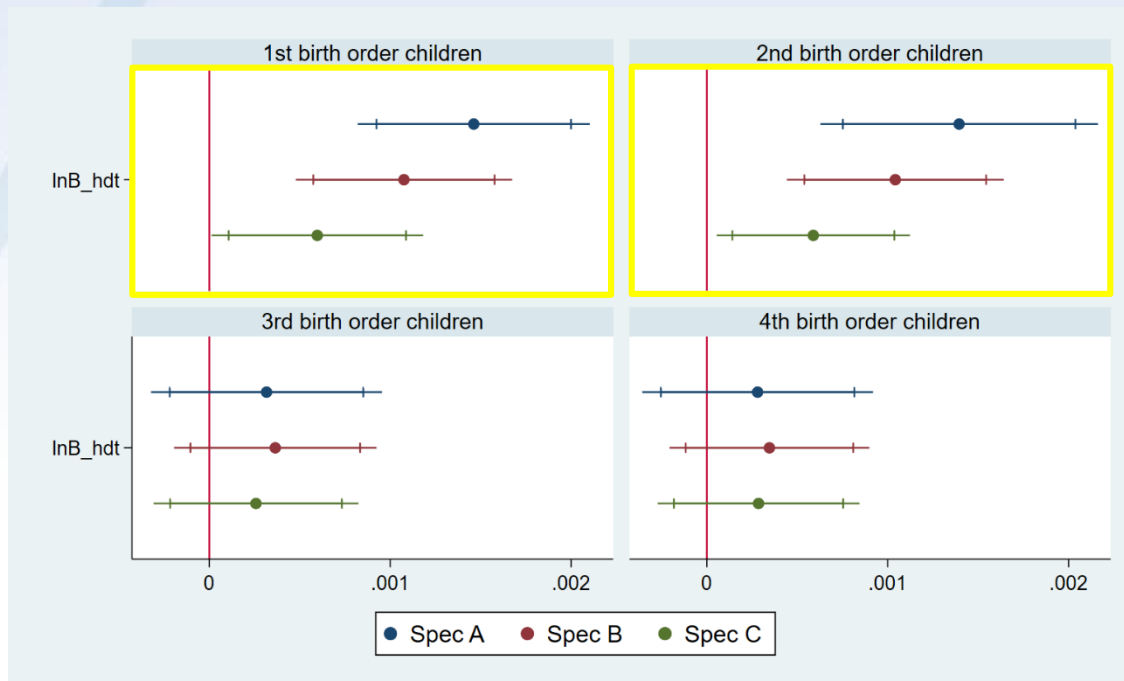
이 조례는 2012년 1월 1일부터 시행하되 제4조제3항의 개정규정은 2012년 1월 1일 이후 출생아부터 적용한다.

Real effect? Childbirth Grants on Population Migration (Kim and Lee, on going)

	Spec A	Spec B	Spec C
Lagged Output Variables	No	Yes	Yes
Control Variables	No	No	Yes
Regional Fixed Effects	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes

Note: Standard errors are clustered in *county* (si-gun-gu) units.

- Childbearing ages : females aged 15 to 49
 - Effects of childbirth grants on net movements of the females aged 15 to 49



Welfare Magnets? The Effects of Childbirth Grants on Population Migration in South Korea

5. Concluding remarks

Public policy can influence dividends, fiscal sustainability, and inequality through each channels (1)

- Labor patterns
 - Utilizing female, youth, and elderly labor force
 - Increasing productivity (via effective education, health investment and training)
 - Improving the work to retirement transition
 - Raise or eliminate mandatory retirement policies
 - Address low productivity of older workers through continuing education programs and employment practices
 - Encouraging saving and investment to create employment

Public policy can influence dividends, fiscal sustainability, and also inequality through each channels (2)

- Consumption patterns
 - Achieving efficiency of spending on health including long-term care
 - As health improves, spending on young elderly for health and retirement could be reduced
- Providing targeted transfers to support consumption
- The aforementioned policies, i.e., improving education and health, utilizing female, youth, and elderly labor force can also contribute to achieving equity.
- Fertility is still the biggest factor affecting the outcome.
 - Consider unintended consequences in advance.

Related Articles

Kim, H.K. and S-H Lee, 2022 working paper. The Effects of Childbirth Grants on Population Migration in South Korea.

Lee, S-H, A. Mason, and D. Park, 2022, “Aging and Debt”, in B. Ferrarini et al. (eds), *The Sustainability of Asia’s Debt*. Cheltenham, UK and Northampton, MA, USA, Edward Elgar.

Mason, A., Lee, R. et al. 2022 forthcoming. “Six Ways Population Change Will Affect the Global Economy” *Population and Development Review*.

Kim, H.K. and S-H. Lee, 2022 forthcoming, “The Effects of Population Aging on South Korea’s Economy: The National Transfer Accounts Approach”, *Journal of the Economics of Ageing*.

Lee, S-H, and A. Mason. 2020. “Better work opportunities for older adults would benefit South Korean economy”. *Eurasia Review*. 27 May.

Rindfuss, R. and M. Choe. 2016. *Low Fertility, Institutions, and their Policies: Variations Across Industrialized Countries*, Springer