MACROECONOMIC EFFECTS OF PENSION REFORMS IN INDONESIA

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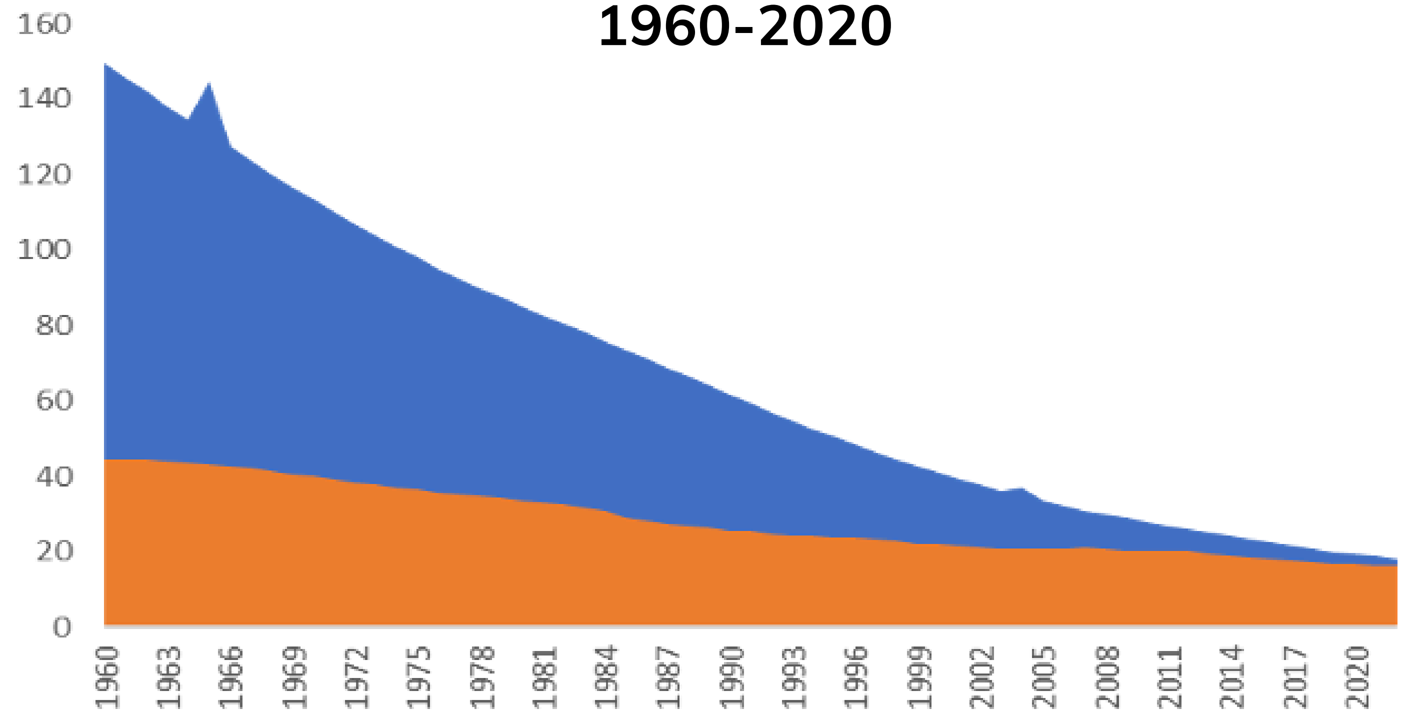
OUR DISCUSSION TODAY

TOPICS AND HIGHLIGHTS

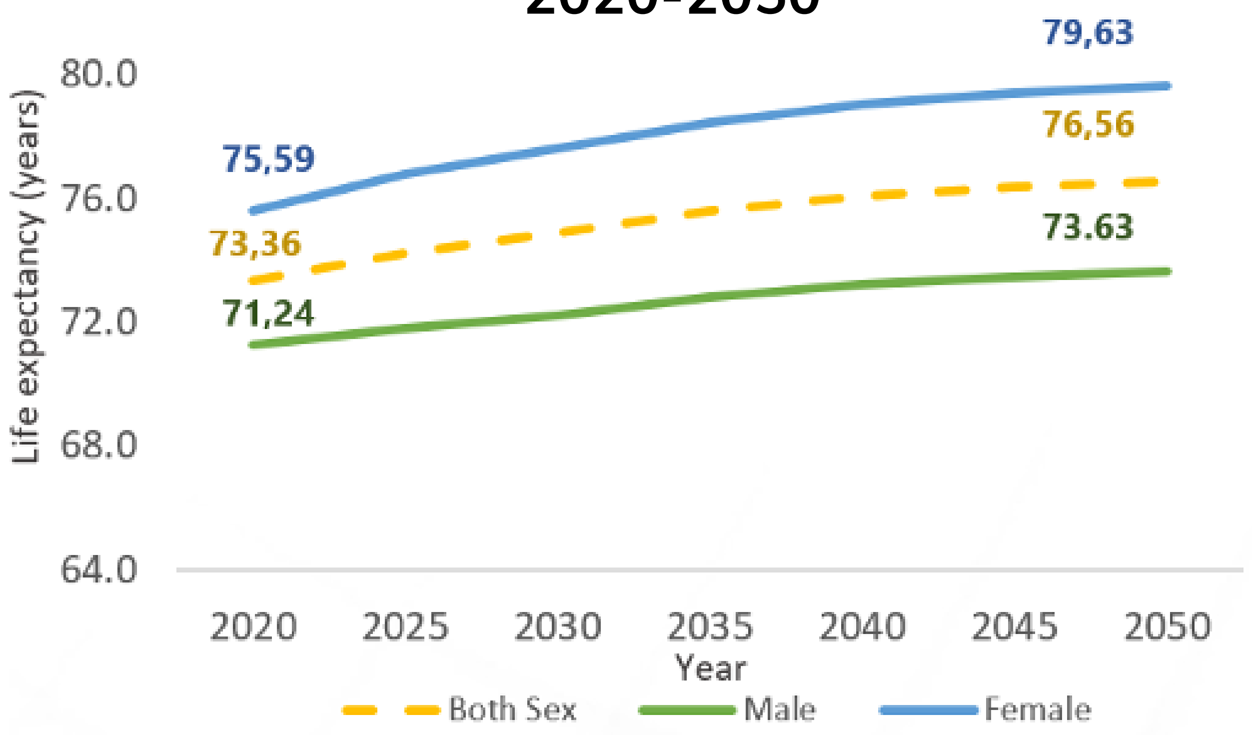
Background
Research Questions
Study Literature
Model
Results
Conclusion

BACKGROUND

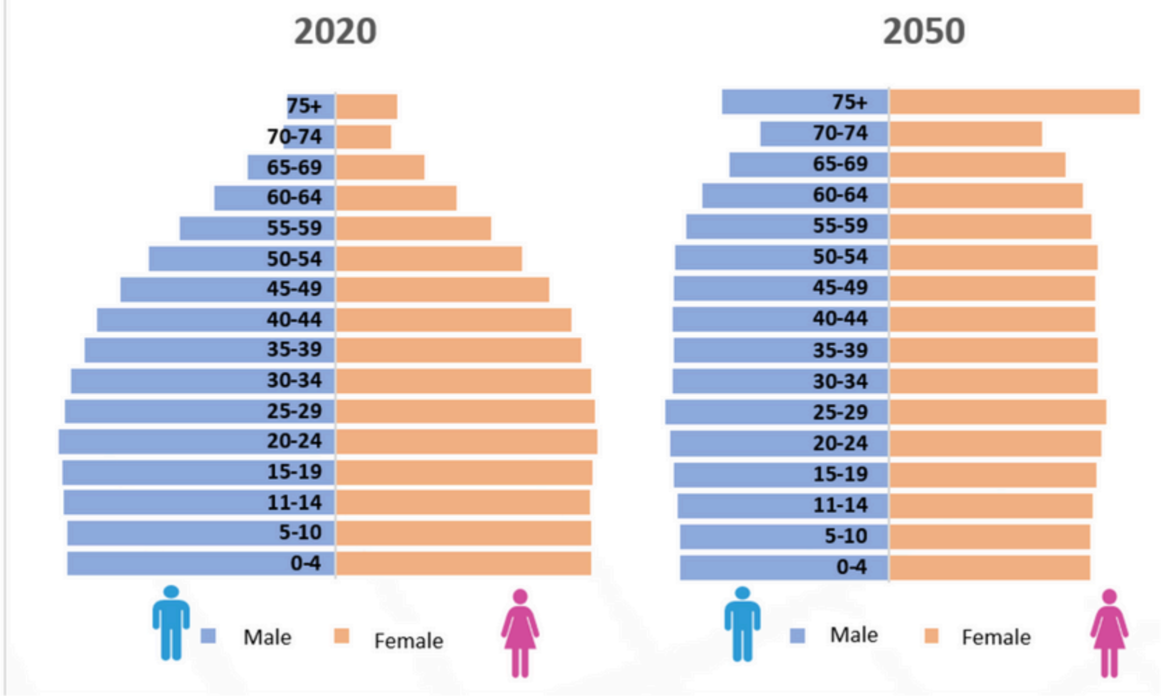
Birth rate and mortality rate Indonesia 1960-2020



Projections of Life Expectancy Indonesia 2020-2050



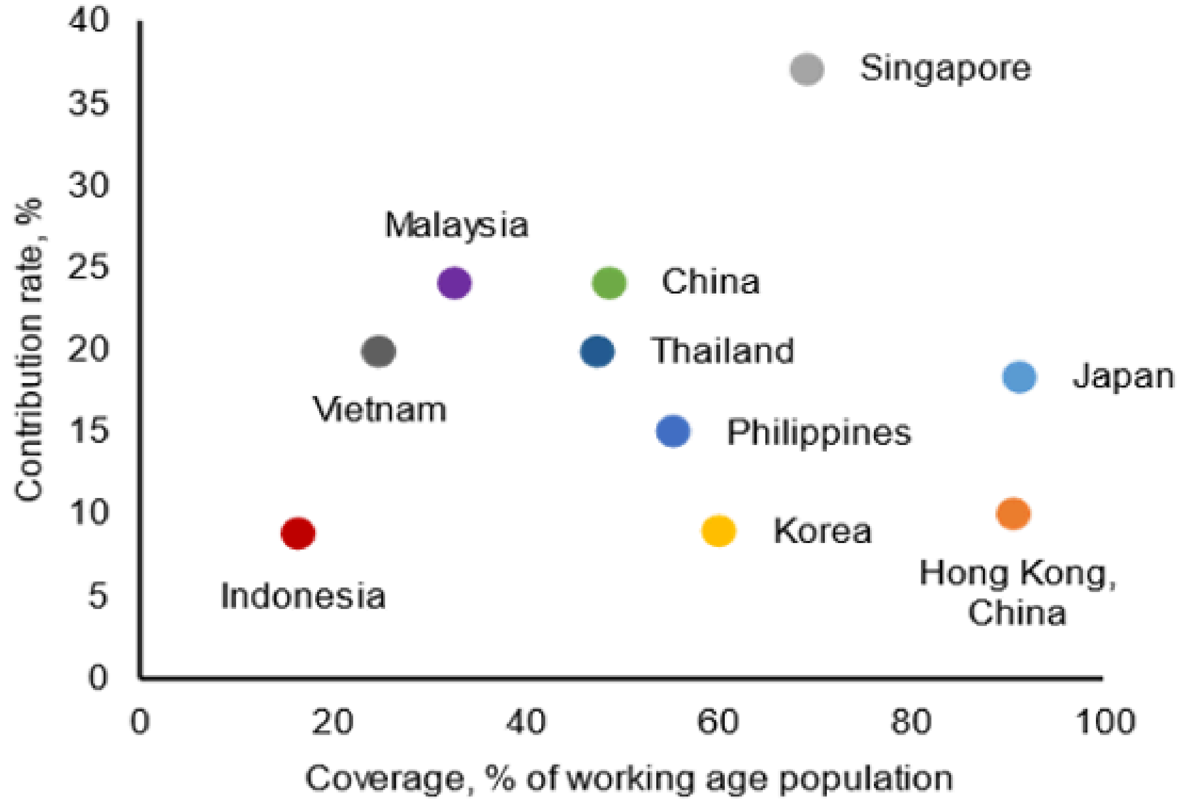
Indonesian Population Structure 2020 and 2050

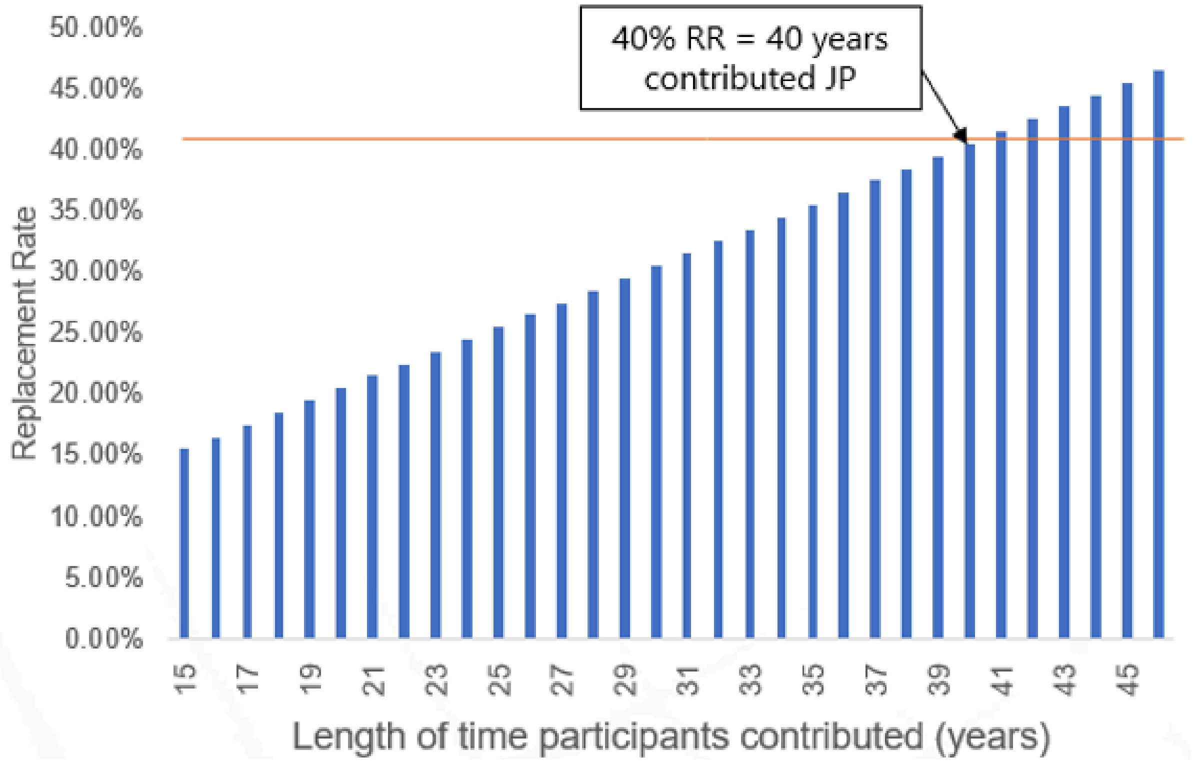


Source: Statistics Indonesia

Indonesia is expected to age at a faster pace due to declining fertility rate and rising life expectancy. Indonesia is moving towards an era of an aging population structure, where the proportion of elderly people is increasing from 9.93% (26.78 million) in 2020 to 21.90% (72.03 million) in 2050. Life expectancy in Indonesia is projected to increase from 74.24 years (2025) to 76.56 years (2050). **The increase in the older population is expected to increase the dependency burden and decrease GDP.**

BACKGROUND

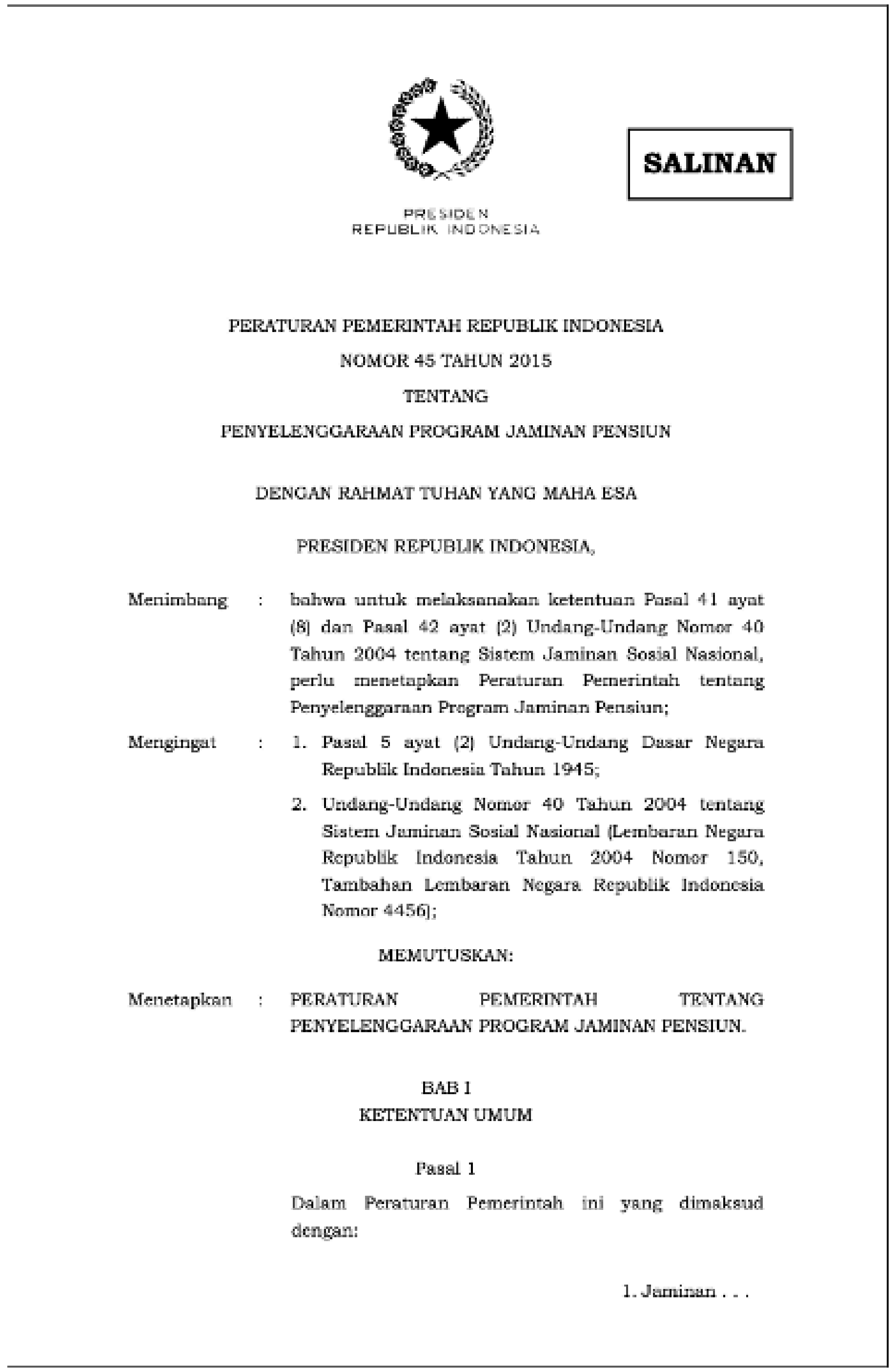




A low contribution rate has also led to Indonesia's small pension fund size. BPJS participants only contribute 5.7% percent of their monthly income to its old-age savings and 3% to pension funds, which is **among the lowest in ASEAN+3.**

With an accrual rate of 1% of the average wage and the length of contribution, a minimum replacement rate (40% of the wage) will be obtained within 40 years. **Meanwhile, ILO Convention No. 102 requires a minimum replacement rate of 40% with a contribution period of 30 years.**

BACKGROUND



SALINAN

PRESIDEN
REPUBLIK INDONESIA

PERATURAN PEMERINTAH REPUBLIK INDONESIA
NOMOR 45 TAHUN 2015
TENTANG
PENYELENGGARAAN PROGRAM JAMINAN PENSIUN

DENGAN RAHMAT TUHAN YANG MAHA ESA

PRESIDEN REPUBLIK INDONESIA,

Menimbang : bahwa untuk melaksanakan ketentuan Pasal 41 ayat (8) dan Pasal 42 ayat (2) Undang-Undang Nomor 40 Tahun 2004 tentang Sistem Jaminan Sosial Nasional, perlu menetapkan Peraturan Pemerintah tentang Penyelenggaraan Program Jaminan Pensiun;

Mengingat : 1. Pasal 5 ayat (2) Undang-Undang Dasar Negara Republik Indonesia Tahun 1945;
2. Undang-Undang Nomor 40 Tahun 2004 tentang Sistem Jaminan Sosial Nasional (Lembaran Negara Republik Indonesia Tahun 2004 Nomor 150, Tambahan Lembaran Negara Republik Indonesia Nomor 4456);

MEMUTUSKAN:

Menetapkan : PERATURAN PEMERINTAH TENTANG PENYELENGGARAAN PROGRAM JAMINAN PENSIUN.

BAB I
KETENTUAN UMUM

Pasal 1

Dalam Peraturan Pemerintah ini yang dimaksud dengan:

1. Jaminan . . .

Government Regulation No 45 of 2015

- Increase retirement age from 59 to 65 years old (Gradually increase)
- Increase pension contribution rate from 3% to 8% (Gradually increase)

RESEARCH QUESTION

- How much the impact of pension reform through increasing retirement age, pension contribution rate, and pension benefits to GDP?

STUDY LITERATURE

- **Increasing Retirement Age**
  - **A higher retirement age** tends to increase the working time of older individuals and **hence the labour supply** (Cribb J, Emmerson C, O’Brien L, 2022)
  - **Raising the pension age** can improve public finances by **reducing state pension payouts** and **increasing tax revenues from continued employment** (Cribb J, O’Brien L, 2022)
- **Increasing pension contribution rate**
  - **Higher contribution rates** are expected to **improve the adequacy of pension funds** (Oxford Economics, 2024).
- **Increasing pension benefits**
  - **Increasing in pension benefits** will increase **disposable income** for retirees, leading to **higher consumption** of goods and services (Tran A, Kidd S, 2017).

MODEL

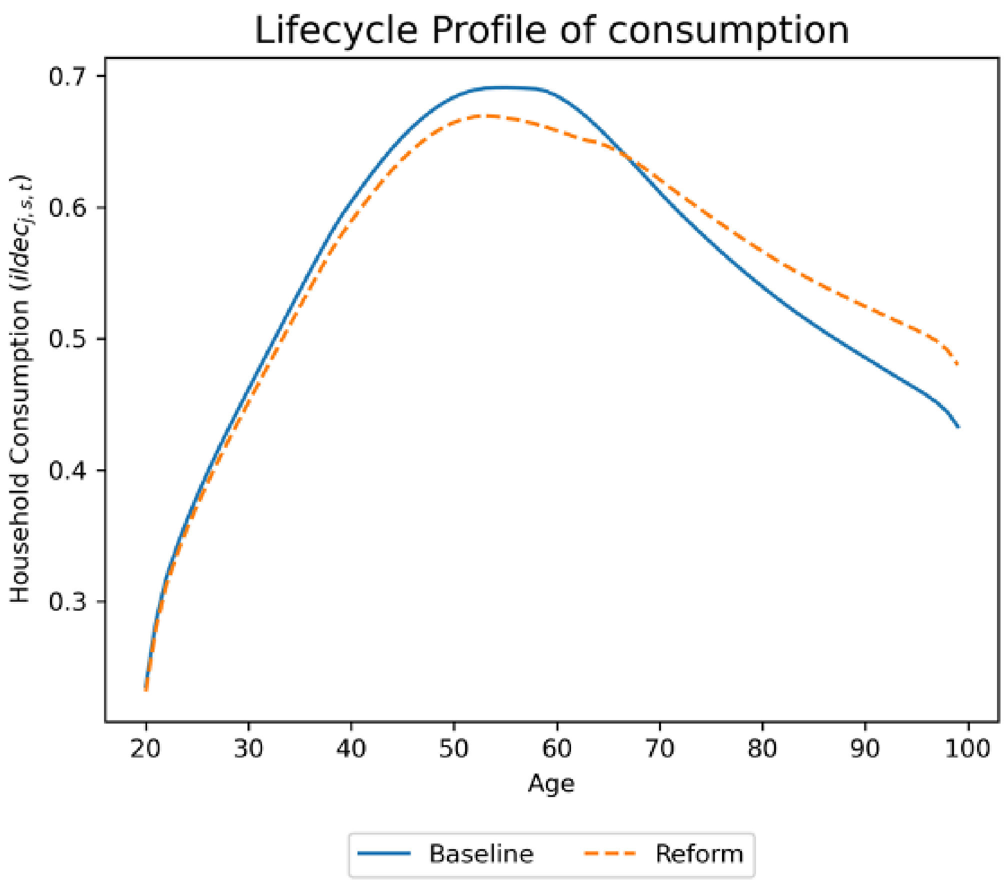
- Assumption
  - Only formal workers are registered as pension participants
  - Formal workers in Indonesia is around 40 – 50% to total workers
- Model

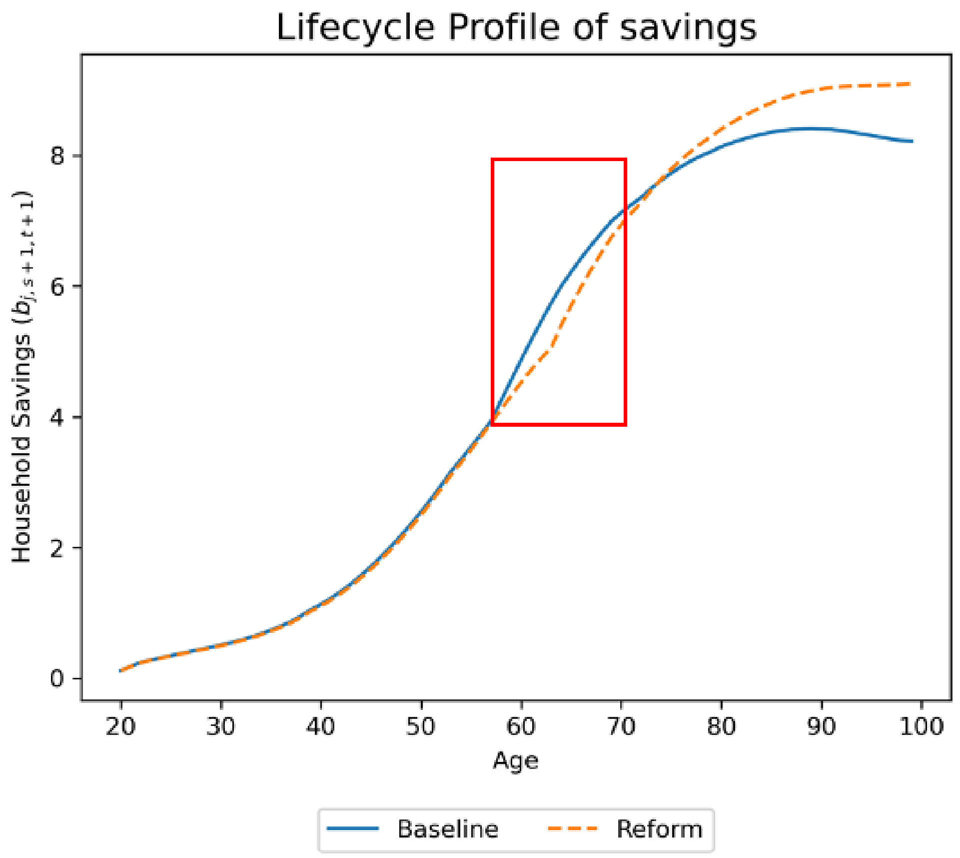
$$pension_{j,s,t} = \left[\frac{\sum_{s=R-ny}^{R-1} w_t e_{j,s,t} n_{j,s,t}}{\boxed{n}y} \right] \times \boxed{C}y \times \boxed{\alpha}_{DB} \quad \forall s > R$$

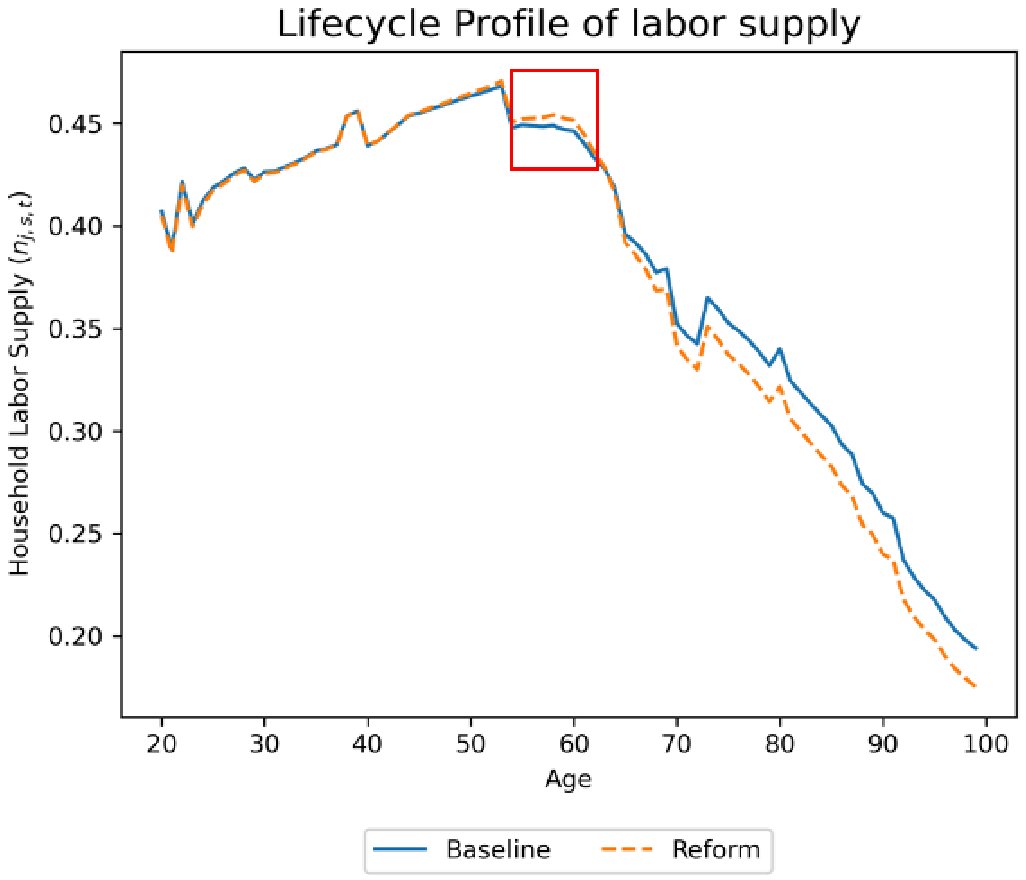
- Parameter changes:
  - Retirement age from 59 to 65 years old
  - Number of year contribution from 38 to 44 years
  - Pension contribution rate from 1.5% to 4.5%
  - Accrual rate of pension benefit from 0.5% to 0.75%

Notes: We adjust the benefit to a lower value, assuming that only 50% of workers contribute to and receive benefits from the pension fund.

RESULTS

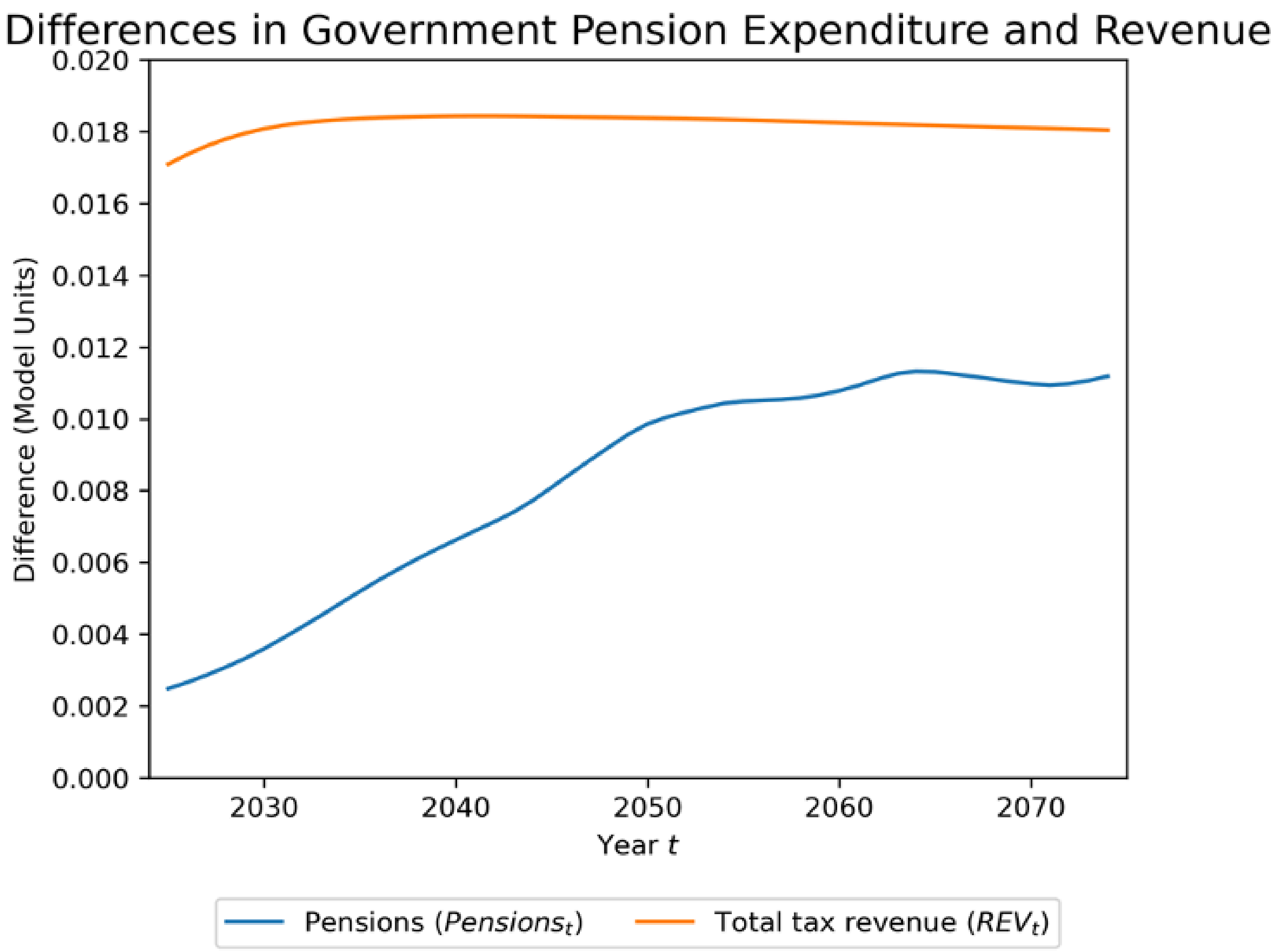


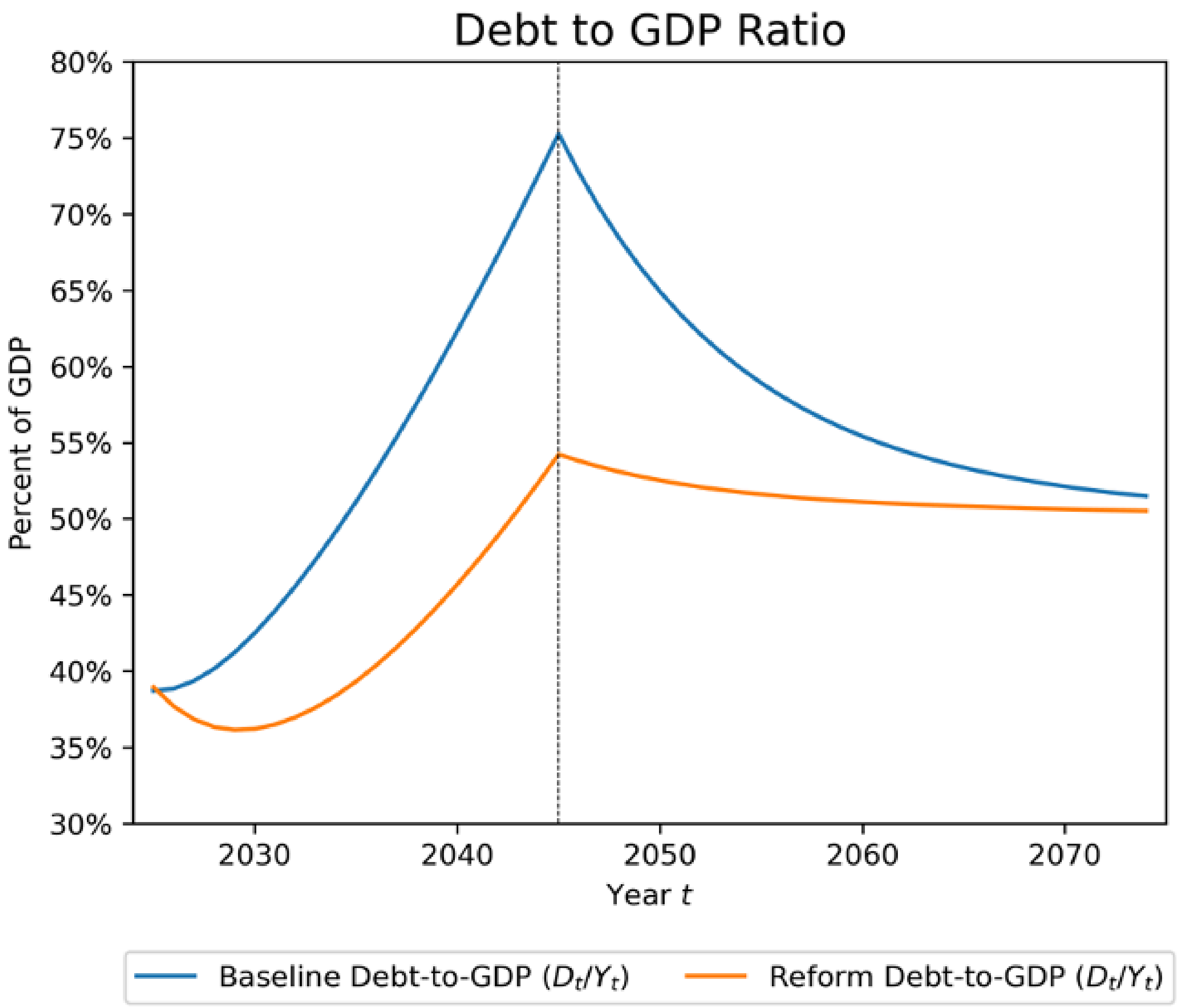




- The pension reform have the effect of **reducing consumption and savings among workers**, due to the increasing pension contribution rates. **But, encourage greater consumption and savings after retirement** due to the increasing in pension benefits.
- Furthermore, raising the retirement age is expected to **decrease saving among individuals aged 59-64** as they are required to continue contributing to the pension insurance program.
- The pension reform through increasing retirement age also have the effect in **increasing labor supply for individuals aged 59-64,** while tending to **decrease labor supply for those aged 65**

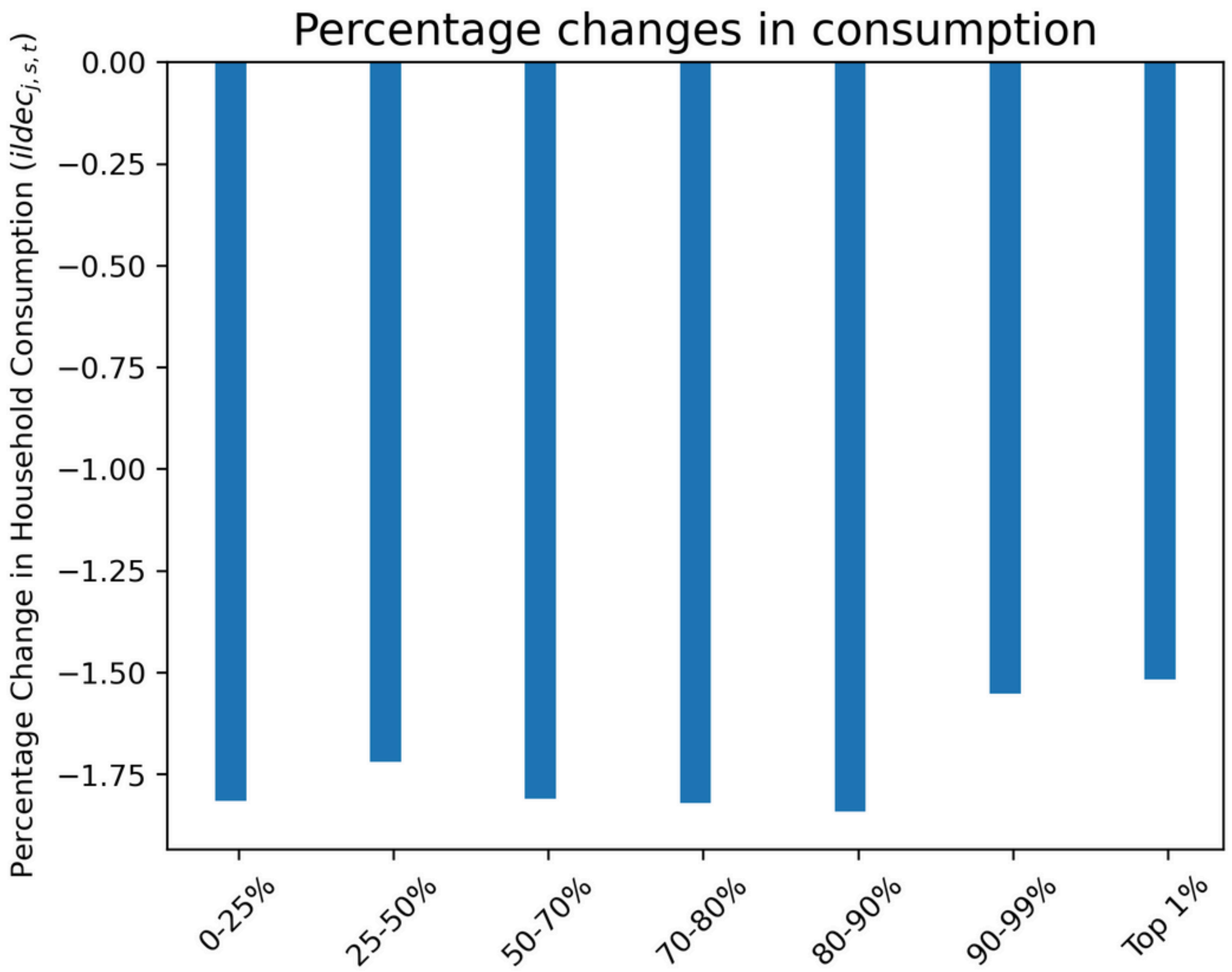
RESULTS

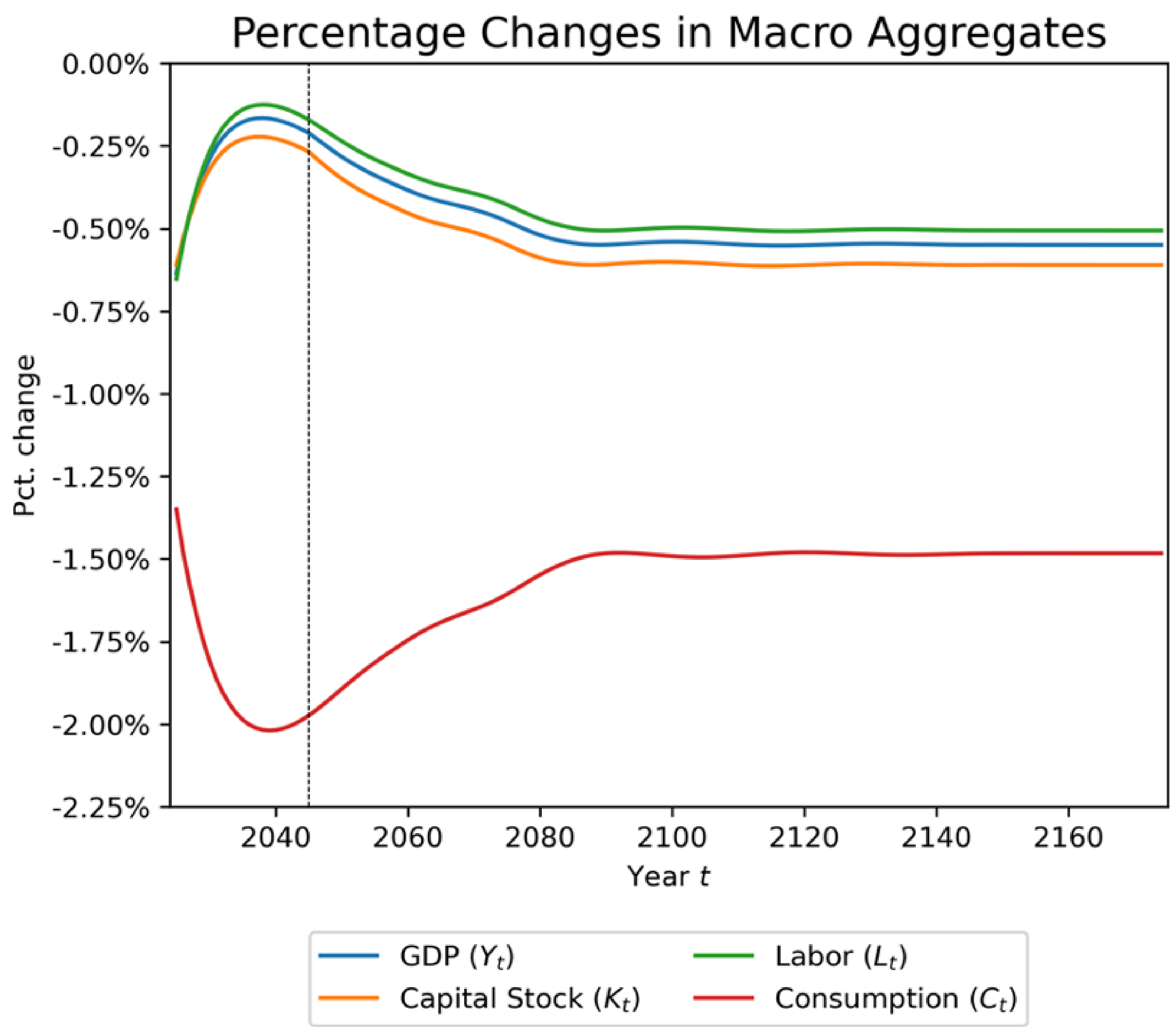




- Pension reforms can improve public finances by **increasing tax revenues higher than government pension expenditure.**
- Extending the retirement age and increasing the contribution rate will **increases the adequancy of the pension fund and reduces the financial burden on the government.**

RESULTS





- In aggregate, pension reform on increasing retirement age, pension contribution rate, and pension benefits **has an impact to GDP, but the impact is negative.**
- Raising the retirement age and contribution rate means giving workers more time (until age 65) ands to pay pension contributions, which could **have an impact on reducing household consumption.**

CONCLUSION : SUMMARIZE RESULTS

- Pension reform through increasing retirement age, pension contribution rate, and pension benefits have a different impact on consumption and savings in each working age.
- In national levels, pension reforms have an impact on labor supply, government spending, and tax revenue
- In aggregate, the pension reform has a negative impact to GDP, which around 0.20 – 0.60 percent, compared to the baseline.

CONCLUSION : WEAKNESSES

- **The model is still unable to separate formal and informal workers, meanwhile the coverage of pension scheme participation in Indonesia is still limited to formal workers.** Based on data Labor Force Survey, in August 2024 only 42,05 % (60,81 million) of working population in Indonesia (144.64 million) work in the formal sector.
- **The pension reform model that we use is modeled pension system through "US-style social security". In fact, Indonesia's pension system has its own characteristics.** Therefore, the results of our pension reform simulation may not fully reflect the conditions in Indonesia.

CONCLUSION : FUTURE DIRECTION

- The implementation of pension reform, especially raising the retirement age, **needs to be accompanied by an expansion of employment, as pension reform has the potential to reduce the absorption of younger workers into the labour force.**
- The policy of **increasing pension contributions needs to be carried out gradually.** If the increase in pension contributions is too drastic, it could r**educe disposable income and suppress household consumption,** which has been the main contributor to Indonesia's GDP (around 55-60% of total GDP).
- **Comparative studies with countries that have similar pension reforms and economic structures would provide valuable lessons for Indonesia** and should be the focus of future research.
- Future research n**eeds to analyze the impact of pension reform on income inequality and poverty** among older Indonesians, beyond just GDP indicators.