

Rethinking Macroeconomics

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Issues

1. Employment Protection Legislation: A lecture note for high school students
2. On the $r < g$ Debate: Are larger budget deficits sustainable?

TOPIC 1 : EMPLOYMENT PROTECTION LEGISLATION

What is employment protection legislation

- There is a law to explicitly prevent firing employees.
 - Employment Contract Law Article 16: *If a dismissal lacks objectively reasonable grounds and is not considered to be appropriate in general societal terms, it is treated as an abuse of rights and is invalid.*
- There are two types of dismissal.
 - Normal Dismissal: based on reasons specific to the individual employee, such as loss of skills, laziness
 - Dismissal for Reorganization: based on managerial purpose to reallocate resources

Employment Protection by Case Laws

- Appropriateness of dismissal for reorganization is judged by the case law, known as the “four conditions”.
- Before firing employees, employees must meet the *four conditions* as follows:
 1. Possible bankruptcy makes redundancies (jin-in seiri) unavoidable.
 2. Employers have made efforts to avoid redundancies (cutting overtime, hiring freezes, transfers, seeking voluntary retirements).
 3. They have consulted with the labor unions and employees.
 4. They have a rational procedure to select those who are to be fired.

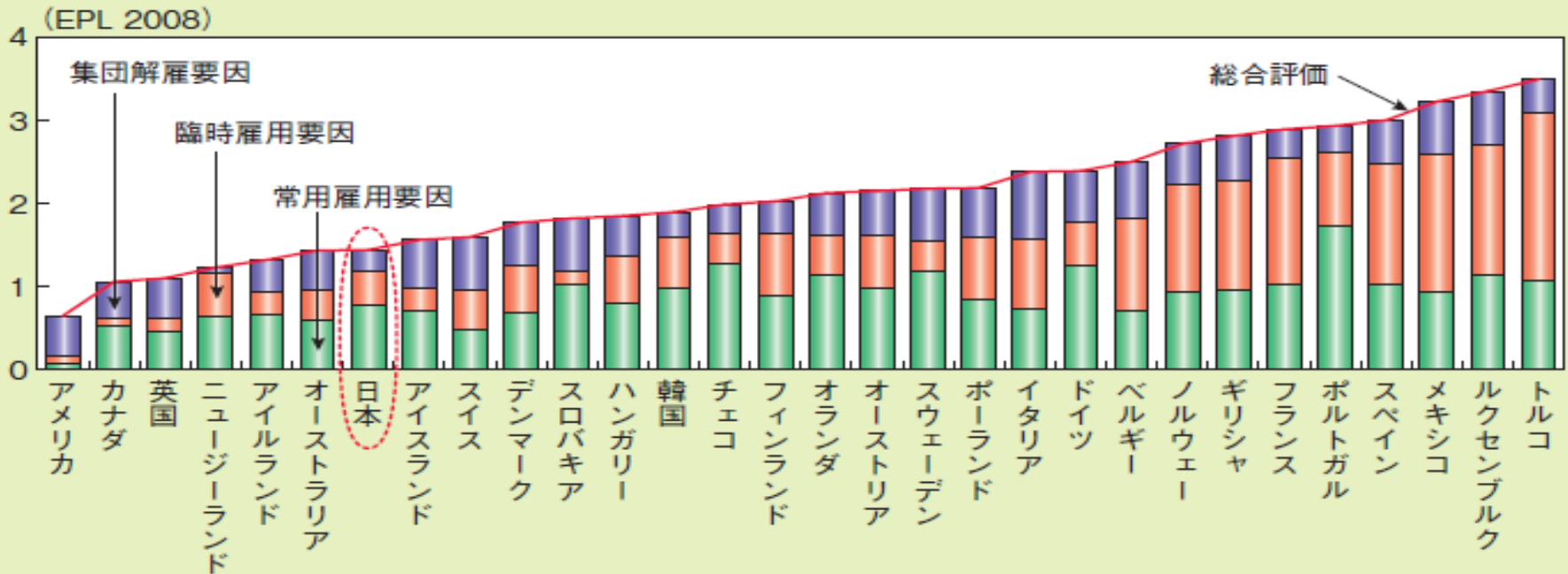
International Comparison of Employment Protection Legislation (EPL)

第3-1-12図 雇用保護指標の国際比較

アングロサクソン諸国は低く大陸欧州諸国は高めであるが、日本はその中間に位置

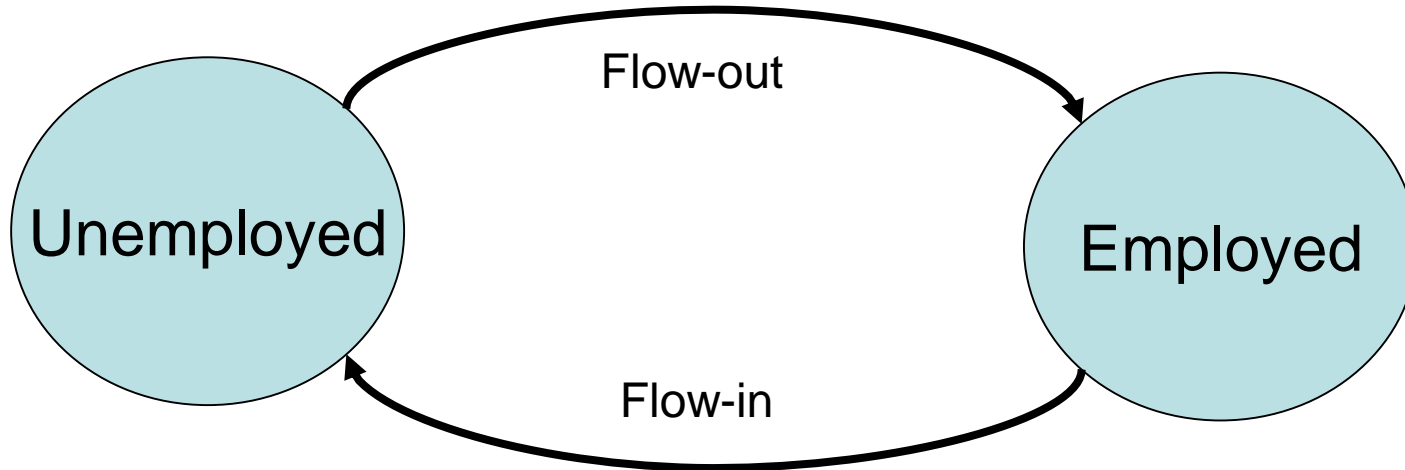
(1) OECD 諸国による雇用保護指標の比較

アングロサクソン系は低く欧州系は高めであるが日本は中位以下



Japan is in the group with weak employment protection legislation.

EPL and Unemployment

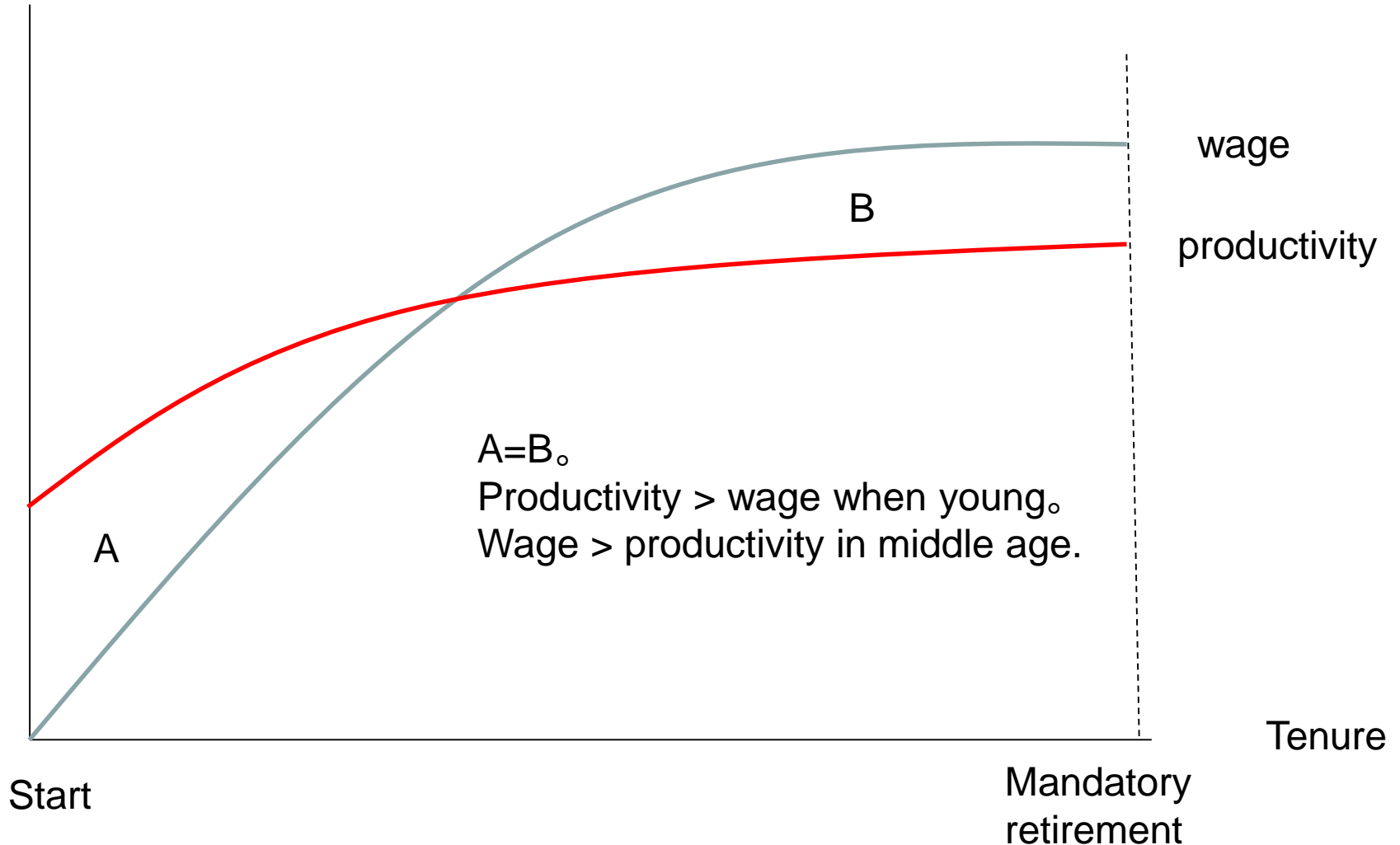


- EPL reduces the flow-in to unemployment.
- But it makes the labor market less attractive to employers, which reduces the flow-out as well.
- Therefore, the whole effect is ambiguous.

The Coase Theorem

- Under strong employment protection legislation, employers need to fund dismissal compensation by reducing wages.
- Without employment protection, a firm is allowed to fire its employees without paying high compensation, and then willing to pay higher wages.
- Firms are risk-neutral and then EPL does not significantly affect employment. (The U Chicago economist Ed. Lazear 1990)

Lifetime Employment (Lazear)



Why the tenure-based wage system is needed?

- If wage equals productivity, employees do not worry about lifetime income loss when they quit their current jobs.
- Firms are not willing to let their employees quit, since hiring new employees is very costly.
- By adopting a tenure-based wage schedule, the firm can prevent their employees from quit.
- Firms have a strong incentive to fire middle-age employees, since their wages are higher than their productivity.
- Firing employees before mandatory retirement violates the implicit contract of lifetime employment.

For reducing gap between generations?

- Does less strict EPL create more jobs for youth?
- Young people will eventually get old. Weak EPL raises the probability for you to lose jobs in your middle age.
- Which do you prefer?
 - Work earlier and retire earlier.
 - Work later and retire later.
- In advanced countries, people tend to work later and retire later along with education terms extended.

How to create a society where people work earlier and retire earlier

- If you receive pension benefits earlier, then you can retire early.
 - But it is difficult to adequately prepare for retirement since age of retirement is uncertain.
 - Taxation on pension income discourages people to work.
- Old and middle aged workers might crowd out young workers from the labor market.
- Fiscal deficits delay retirement in most advanced countries.
- The European countries once encouraged middle aged employees to retire earlier by advancing the age for retirees to start receiving pension benefits.
- The policy only created larger budget deficits and no extra youth employment.

EPL gap between Regular and Non-regular Employees

- Regular employees are more strongly protected by law than non-regular employees.
- Which options to be chosen?
 - Extend EPL to cover all non-regular employees.
 - Shrink protection of regular employees

TOPIC 2: $R < G$ DEBATE

Is growth rate larger than interest rate?

- Deficit Gamble : In 1998 a Harvard economist, Greg Mankiw, published a paper and argued that the US government could roll over a higher government debt, because the interest rates of the US treasury bonds have been lower than the US economy nominal growth rate for most of the time in the past.
- In Japan, there was a debate between Takenaka, the economy minister of the Koizumi cabinet, and Professor Yoshikawa, a Todai economist in the early 2000s.

The $r < g$ debate returns

- In the best-selling book of 2013, *Capital in the 21st Century*, Thomas Piketty argued that $r > g$ would be the driving force of the increasing inequality in the contemporary capitalist economy.
- In 2019 Olivier Blanchard, the president of the American Economic Association, proposed a model to explore the consequence of $r < g$.
- The MMT (Modern Monetary Theory) argues that the US federal government should spend more to achieve full employment, and has influenced some leaders of the US Democratic Party.

Dynamical Inefficiency

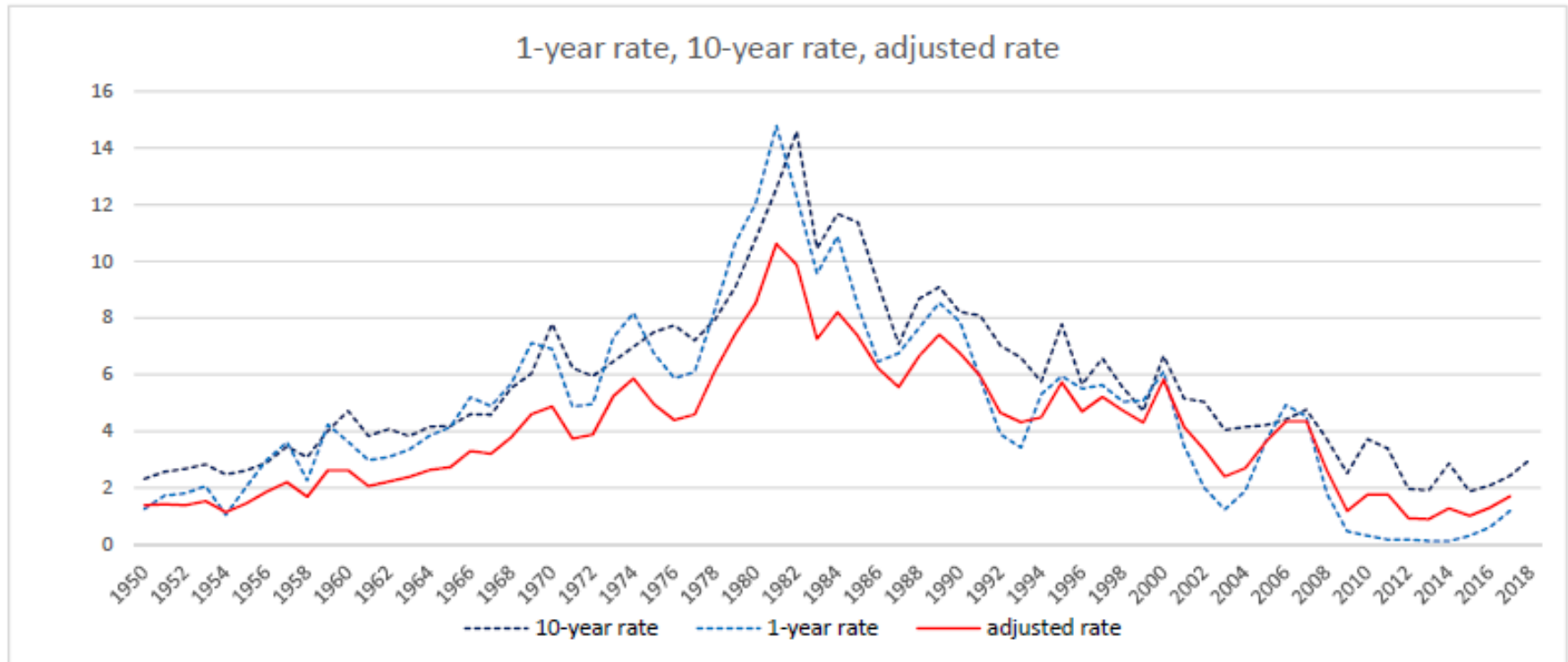
- An economy with the risk-free rate lower than the output growth rate is *dynamically inefficient*.
- In the dynamically inefficient economy, capital is accumulated too much and the interest rate is too low to maximize the welfare of all the generations.
- A slight reduction in investment associated with a slight rise in consumption will improve the welfare of all the generations.
- Then income transfer from young to old generations such as the pay-as-you-go pension system will raise the welfare of all the generations.

What is the risk-free rate?

- The market rate is not the interest rate that the bond holders receive from the federal government.
- Three adjustments needed
 - different maturities to be averaged and aggregated.
 - Interest rates are taxed.
 - Foreigners and public institutions are exempted from taxation on government bonds.

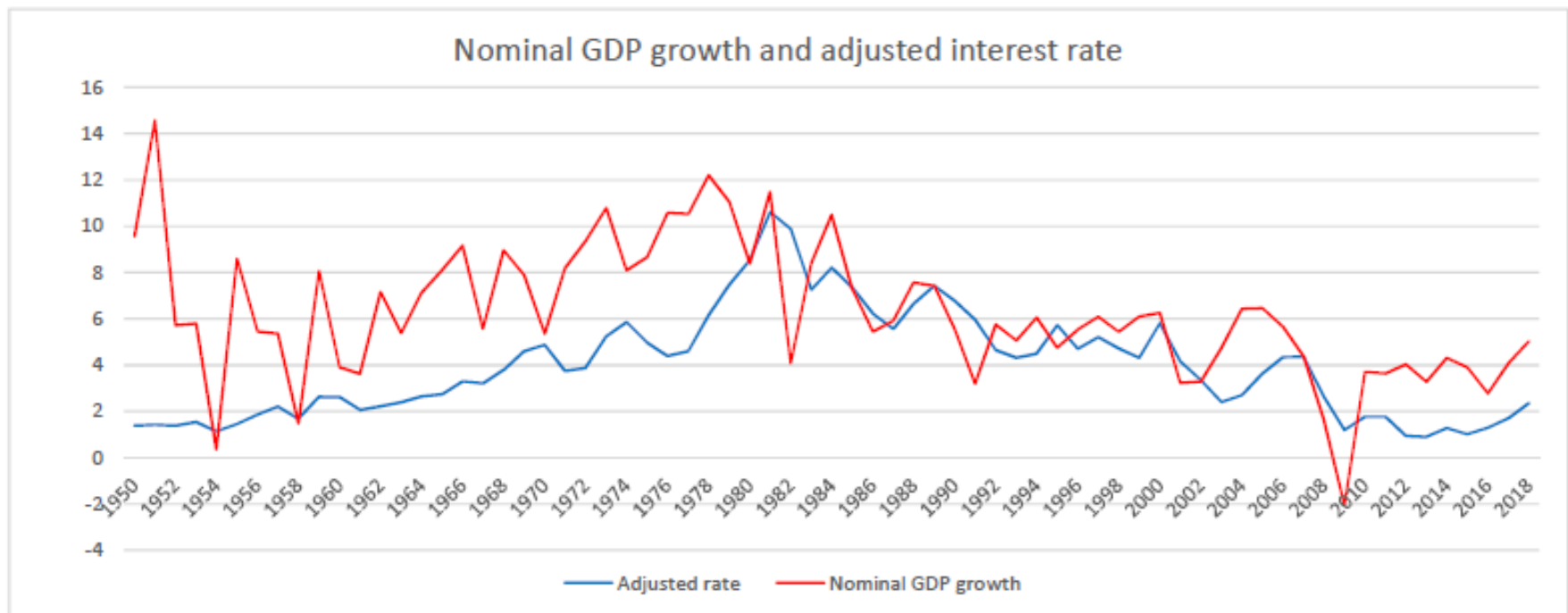
Adjusted rates differ from market rates

Figure 3. : 1-year rate, 10-year rate, and adjusted rate



Growth rates have been higher than the adjusted interest rates except for 1980 through 2008

Figure 4. : Nominal growth rate and adjusted rate



The Blanchard Model

- An overlapping generation model with capital accumulation (Diamond 1965)
- In the economy with no uncertainty, income transfer from young to old generations improves the welfare of all generations, if the economy is dynamically inefficient ($r < g$).

Under Uncertainty

- The return to hold government bonds differ from the average return to invest in private capital.
- Income transfer from young to old generations have the direct income effect and the non-direct growth effect through changes in factor price (rents and wages) and capital accumulation.
- If the average return to invest in private capital is greater than the economy growth rate, income transfer from young to old generations under $r < g$ has positive income effect and negative growth effect.

Income transfer

- Income transfer or rolling over government debts reduces capital accumulation and the economy growth rate.
- If $r < g$, income transfer from young to old generations as well as rolling over government debts are sustainable, while their welfare implications depend on the substitution elasticity between labor and capital.

Substitution elasticity matters

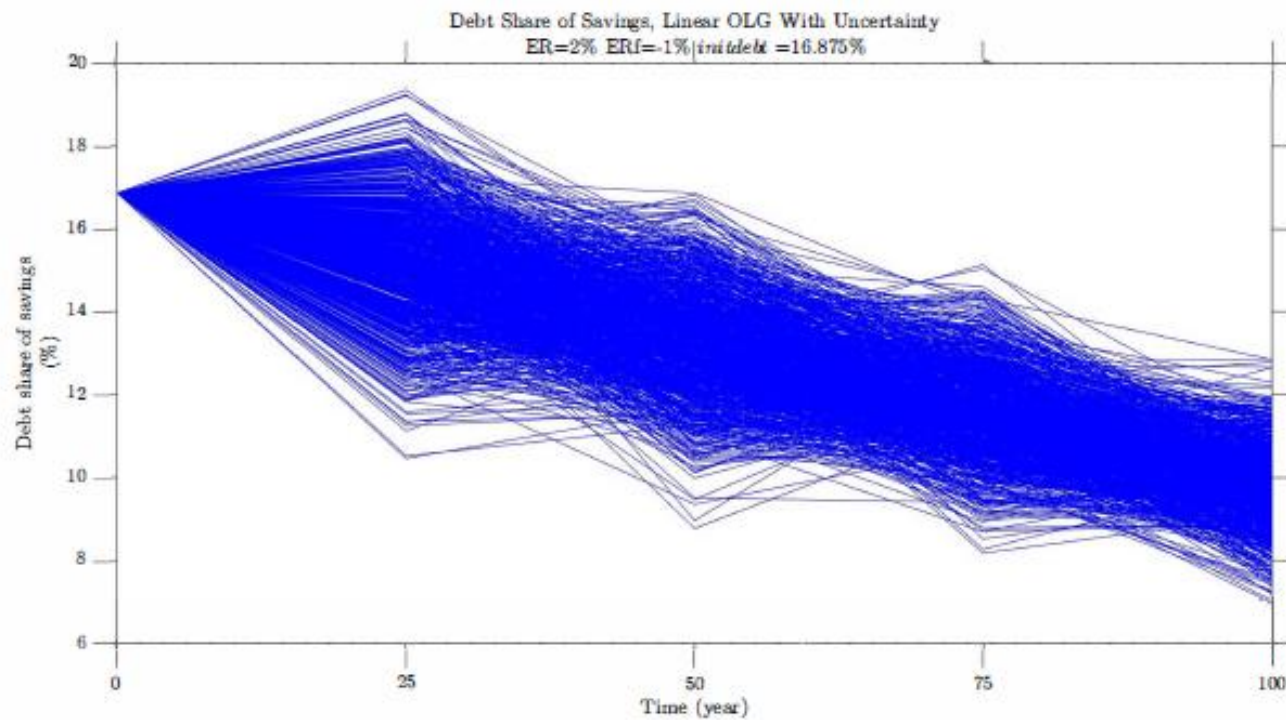
- If the substitution elasticity between labor and capital is sufficiently high, capital shortage is compensated for by more labor inputs, and the total welfare effect is positive.
- However, the substitution elasticity is not so high as to compensate for capital shortage, the total welfare effect is negative.

Issue more debts ?

- The Reflation advocates in Japan (or the MMTer in the US) argue that the government should spend more to achieve full employment.
- What if the government finances its spending by issuing more debts?
- If labor is sufficiently substitutable for capital, rolling over government debts is sustainable and improves the welfare of all the generations.
- If labor is not well substituted for capital, rolling over debts is unsustainable and improves the welfare of the present generations only, and hurts the future generations through lower capital accumulation and lower output.

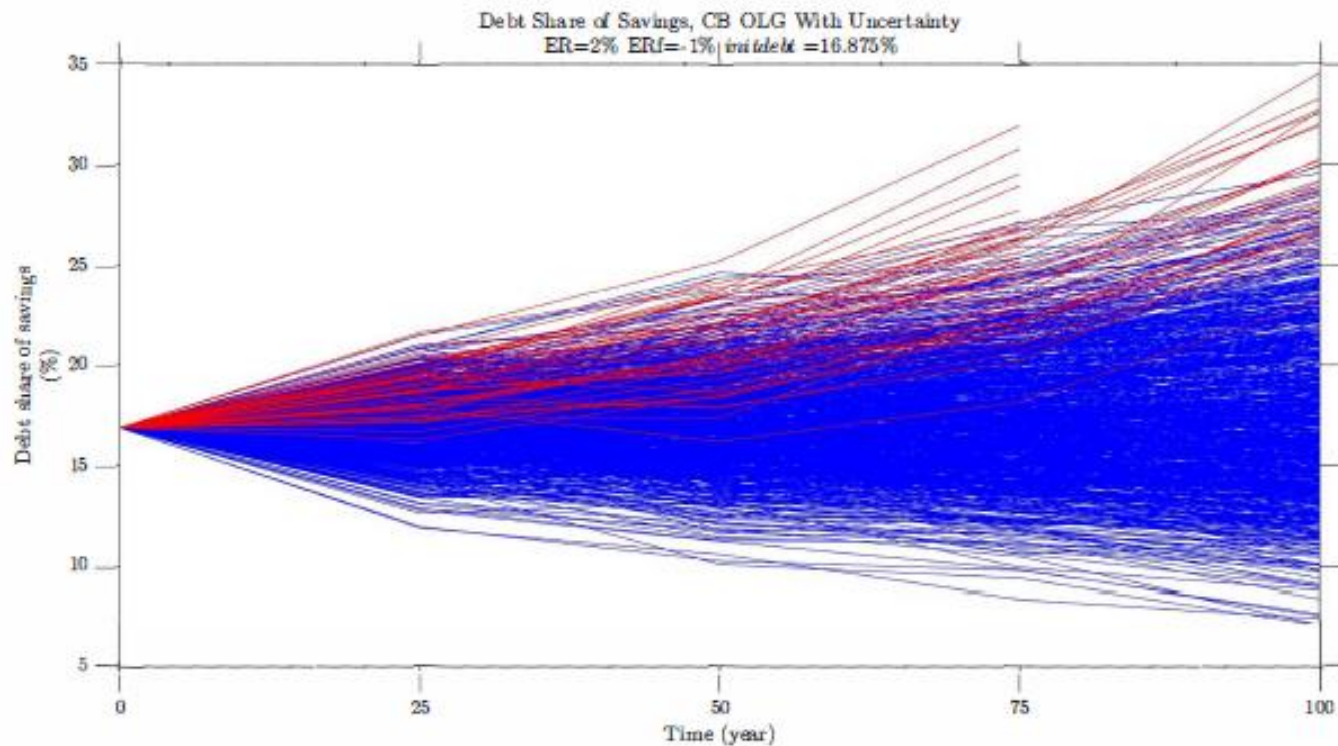
Debt Rollover with high elasticity between labor and capital

Figure 11. : Linear production function. Debt evolutions under a debt rollover $D_0 = 16.875\%$ of endowment



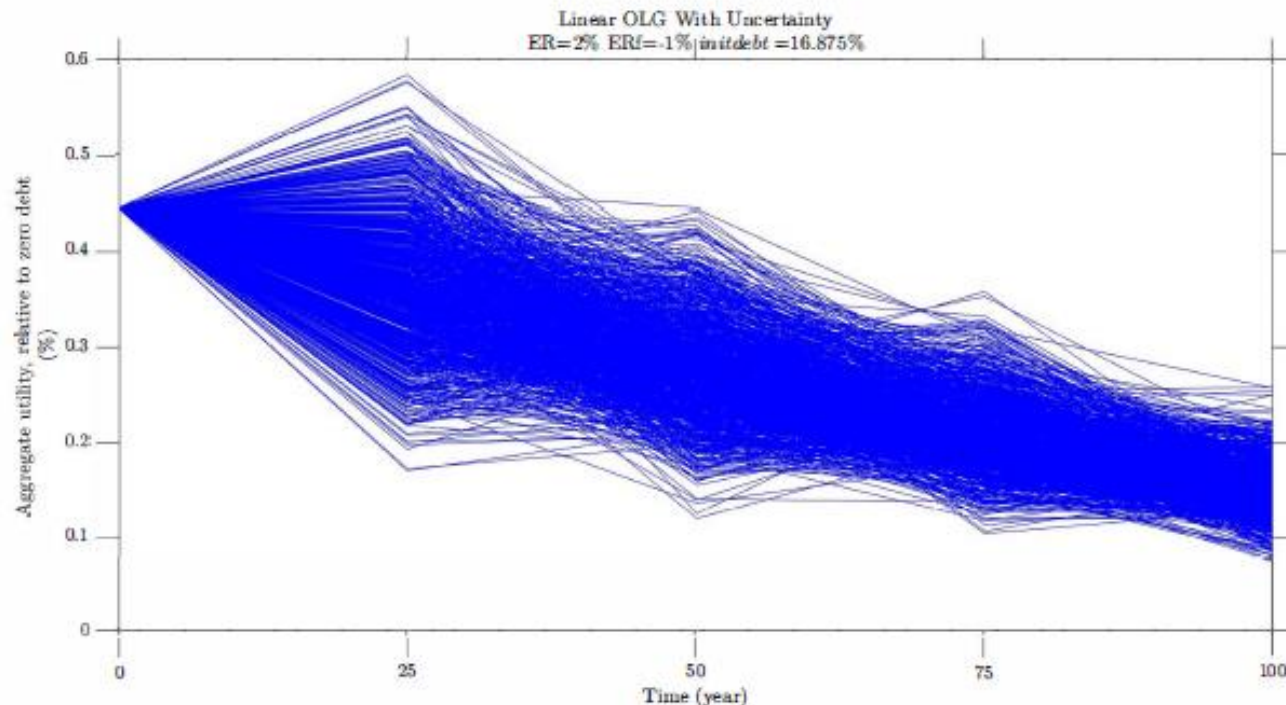
Debt Rollover with low elasticity between labor and capital

Figure 12. : Cobb-Douglas production function. Debt evolutions under a debt rollover $D_0 = 16.875\%$ of endowment



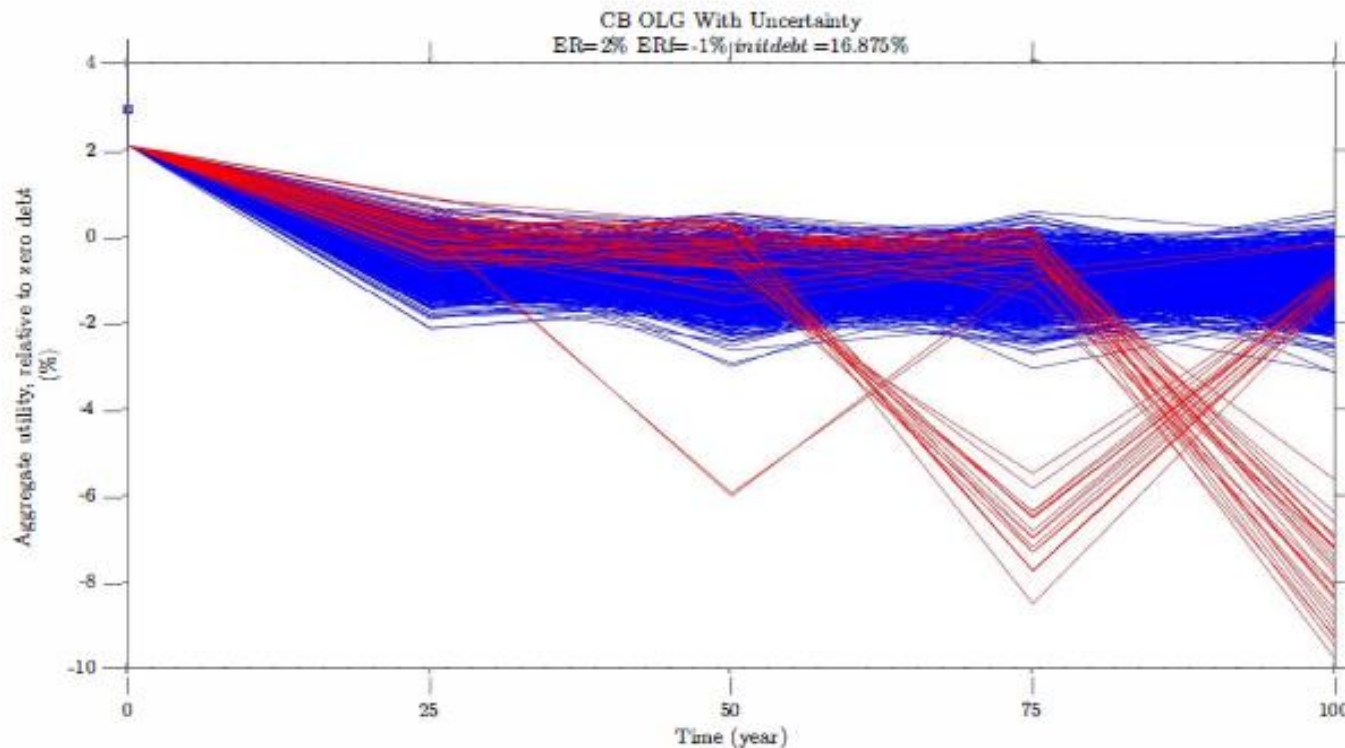
Debt rollover raises the welfare of all the generations if labor is highly substitutable to capital

Figure 13. : Linear production function. Welfare effects of a debt rollover $D_0 = 18\%$ of endowment



Debt rollover raises the welfare of the present generations only, and hurts the future generations if labor is not substitutable to capital

Figure 14. : Cobb-Douglas production function. Welfare effects of a debt rollover $D_0 = 18\%$ of endowment



Whom the governments care?

- With $r < g$, rolling over government debts and transferring income to the present generations might be unsustainable or hurt the welfare of the future generations through lower capital accumulation and lower output.
- The governments optimizes its policy to target a certain weighted average of the welfare of present and future generations.
- If the government puts more weight on the welfare of present than future generations, it might choose debt roll over.

The return to invest in private capital is sufficiently high as Piketty claims.



Figure 15. : Earnings over replacement cost, Earnings over market value since 1950

The true return to invest in private capital might be overestimated

1. The denominator might be undervalued: The Intangible asset is incorrectly measured.
2. The numerator might be overvalued: The return to invest might not be the true return from capital but the monopoly rents.

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