

# Some Weaknesses of A Benefit Level Indicator

Junichi Sakamoto

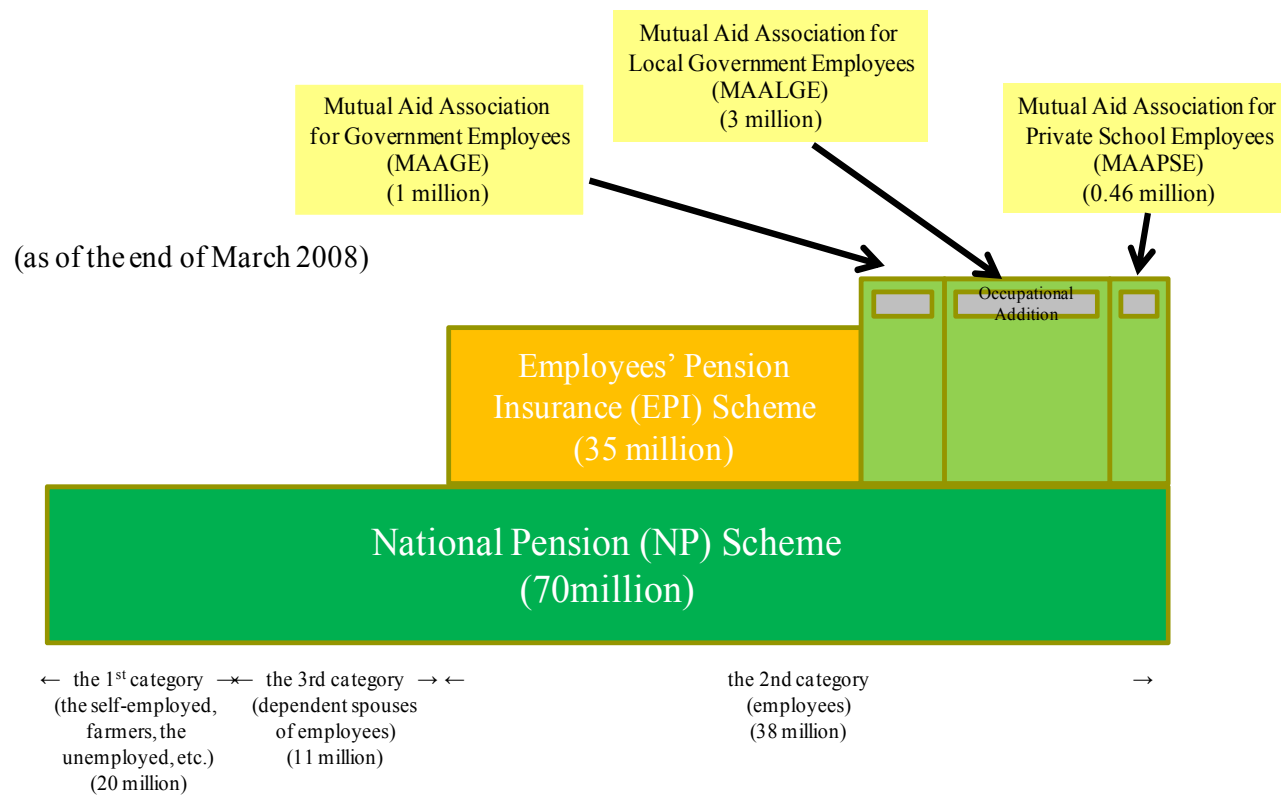
Nomura Research Institute



# Introduction

- Minimum benefit provision under the automatic balancing mechanism through modified indexation
- Necessary to define the measurement of the benefit level (benefit level indicator)
- The 2009 actuarial valuation has revealed some weaknesses of the indicator

# Social Security Pension Schemes in Japan

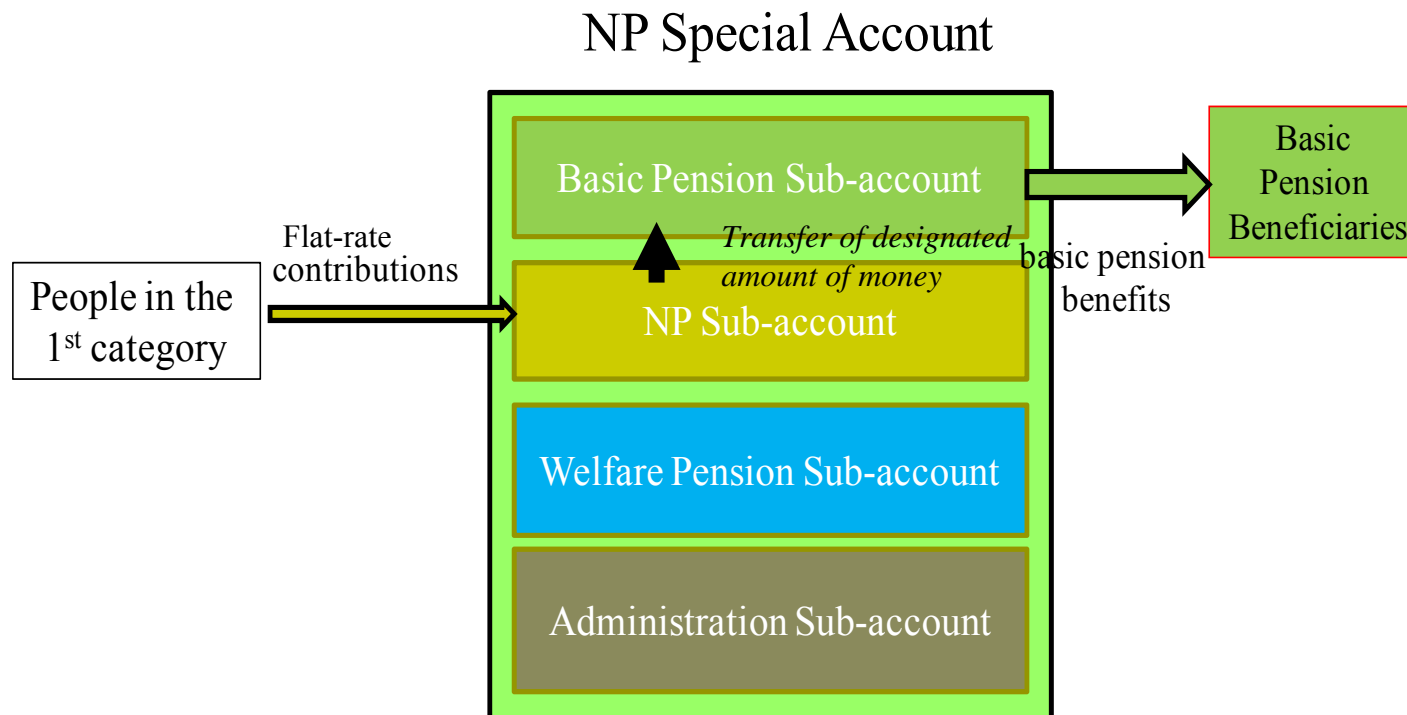


# Indexation

- Principal indexation
  - until the age 65: indexed to the increase of per-capita disposable income
  - after the age 65: indexed to the CPI increase

# Financing of the Schemes(1)

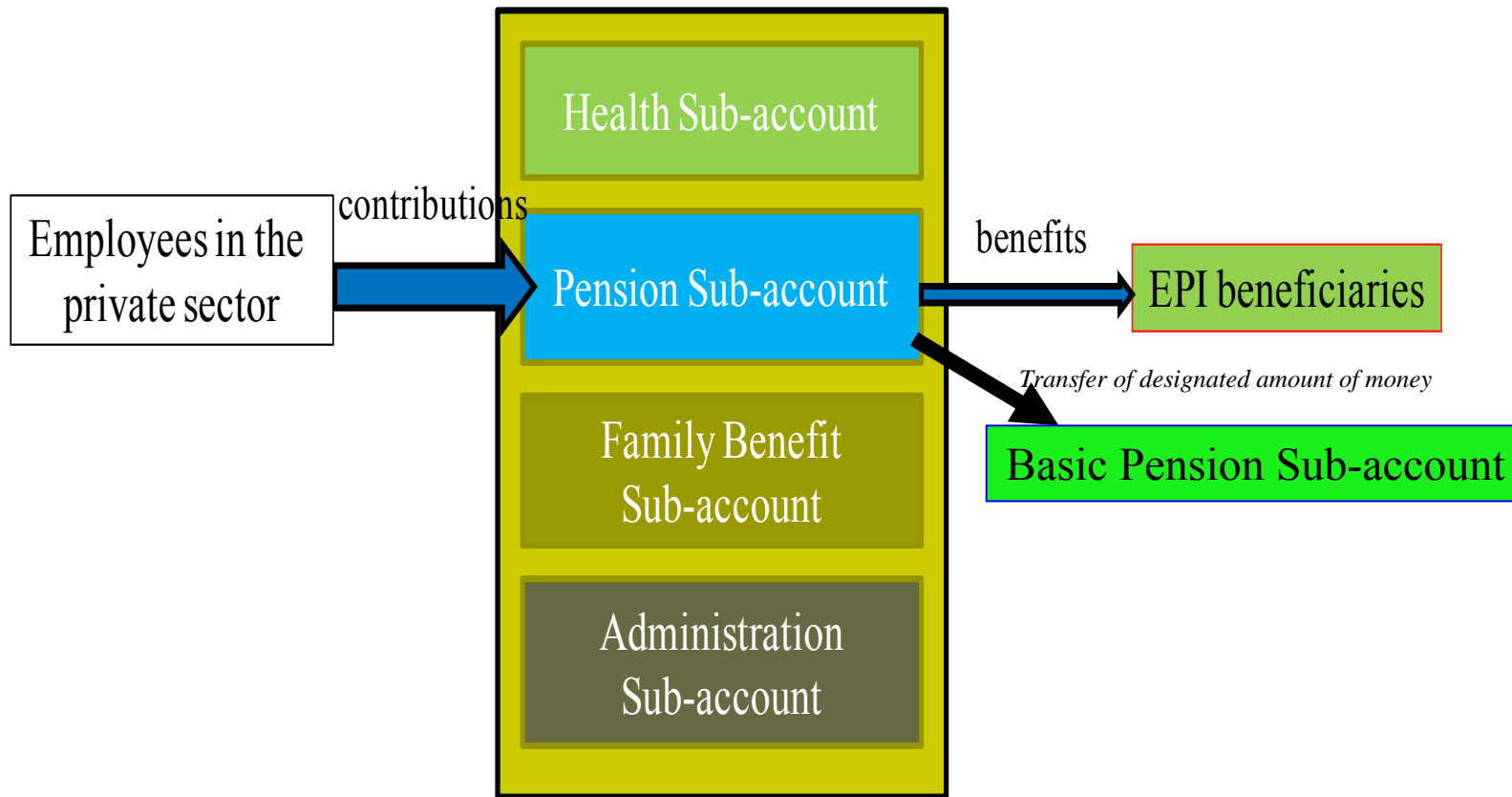
## People in the 1<sup>st</sup> Category



# Financing of the Schemes(2)

## People in the 2<sup>nd</sup> Category

Social Insurance Special Account



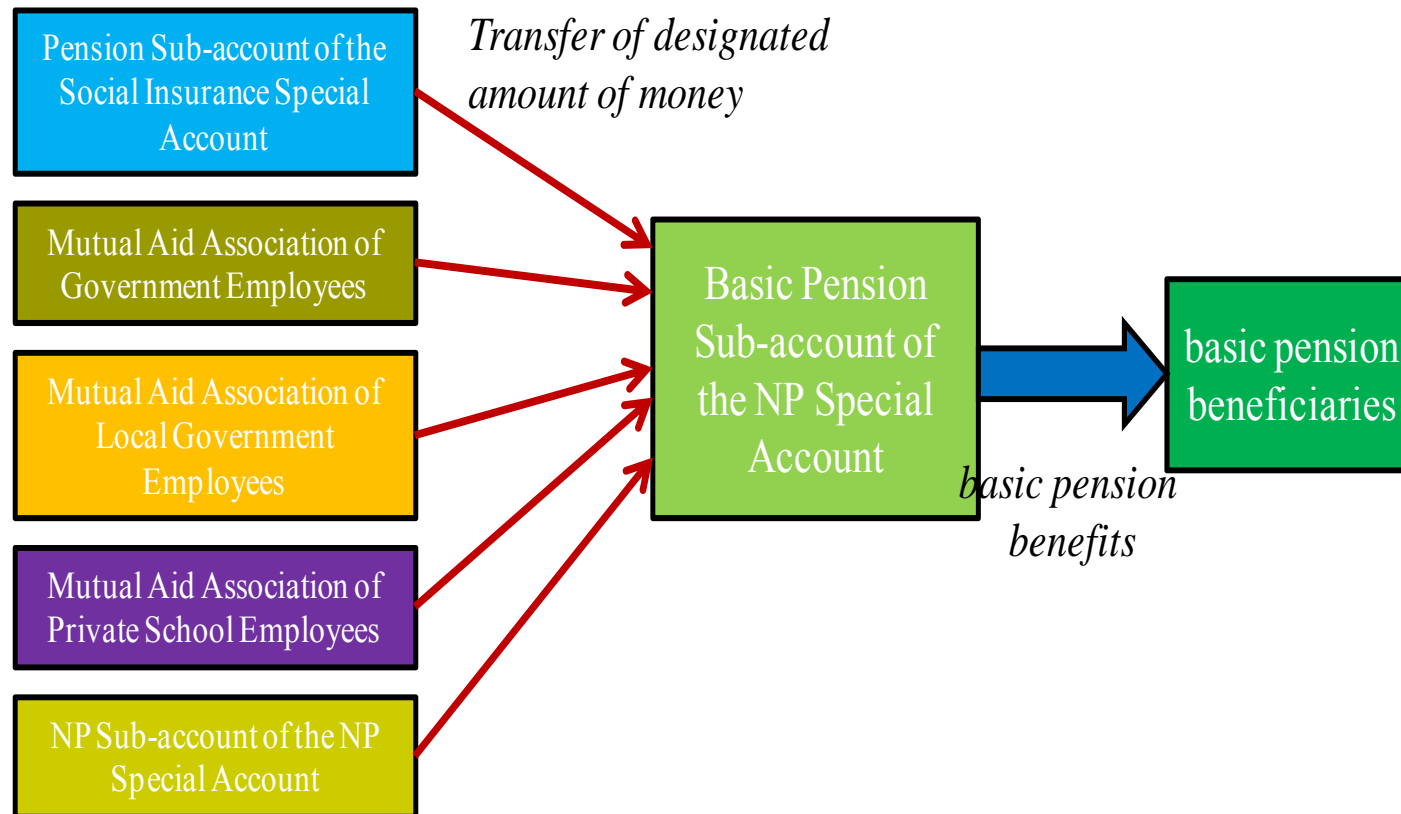
## Financing of the Schemes(3)

# People in the 3<sup>rd</sup> Category

- Dependent spouses
- No contributions
- Schemes for employees transfer money for them to the Basic Pension Sub-account
- Receive basic pension benefits
- Rooted in the idea that the schemes for employees provide benefits not for individuals but for households

# Financing of the Schemes(4)

## Financing the Basic Pension Benefits





# Financial Management Framework for the NP and the EPI Schemes

- Actuarial valuations every five years
- Future contribution programmes are fixed
- Period of financial equilibrium: about 100 years, not in perpetuity
- Indexation modified unless the financial equilibrium is attained
- Minimum benefit level provision

# Fixed Contribution Programmes

the EPI scheme		the NP scheme (the 1st category)	
period	rate (%)	period	monthly rate (JPY)
Oct. 2004 -	13.934	- Mar. 2005	13,300
Sept. 2005 -	14.288	April 2005 -	13,580
Sept. 2006 -	14.642	April 2006 -	13,860
Sept.2007 -	14.996	April 2007 -	14,140
Sept.2008 -	15.35	April 2008 -	14,420
Sept. 2009 -	15.704	April 2009 -	14,700
Sept. 2010 -	16.058	April 2010 -	14,980
Sept. 2011 -	16.412	April 2011 -	15,260
Sept. 2012 -	16.766	April 2012 -	15,540
Sept. 2013 -	17.12	April 2013 -	15,820
Sept.2014 -	17.474	April 2014 -	16,100
Sept. 2015 -	17.828	April 2015 -	16,380
Sept. 2016 -	18.182	April 2016 -	16,660
Sept. 2017 -	18.3	April 2017 -	16,900

(Note) The contribution rate of the people covered in the first category of the NP scheme is expressed in terms of FY 2004 value. The actual amount is determined in accordance with the increase rate of the gross salary after FY 2004.

# Modified Indexation

- Modifier: the sum of the following rates
  - the decrease rate of the active participants of the social security pension schemes
  - the increase rate of life expectancy at age 65 (fixed at 0.3%)
- Modified indexation: Unless financial equilibrium is attained, the benefits are indexed to the principal index minus the modifier
- Return to the principal indexation if financial equilibrium is attained

# Minimum Benefit Level Provision

- New anxiety: the benefits might lose adequacy if the modified indexation applied endlessly
- Necessary to quantify the benefit level: benefit level indicator by the specified replacement ratio
- Minimum benefit level provision: modified indexation is stopped if the indicator threatens to go below 50% within the next five years and the government should take measures to keep the benefit level above 50%

# Benefit Level Indicator

- Specified household
  - husband and wife of the same age
  - The husband works as a private employee covered by the EPI scheme from age 20 to 59 with the salary always equivalent to the average of male active workers
  - The wife is always a non-working dependent housewife
- The benefit level indicator of a fiscal year:
  - the ratio (a)/(b)
    - (a) the sum of the benefit amount the specified household receives in the year assuming that they reach age 65 in the year (two basic pensions and the earning-related EPI benefit)
    - (b) the per-capita disposable income of male active workers in the year
  - a sort of replacement ratio
- The benefit level indicator for FY 2009 is estimated to be 62.3%

## 2009 Actuarial Valuation (1)

# Present Benefit Level

- The benefit level indicator increased:  
59.3% (FY 2004) >>> 62.3% (FY 2009)  
- salary dropped while benefits remained almost the same

## 2009 Actuarial Valuation (2)

# Annual Increase Rate of Salary and CPI

year	salary	smoothed disposable income	CPI
2000	1.0	-	-0.7
2001	-0.7	-	-0.7
2002	-1.9	-	-0.9
2003	-0.4	-	-0.3
2004	-0.7	0.3	0.0
2005	1.0	-0.4	-0.3
2006	-0.1	0.0	0.3
2007	-1.1	-0.4	0.0
2008	-1.8	0.9	1.4

(Source) Salary is based on the Monthly Labour Survey by the Ministry of Health, Labour and Welfare.

Smoothed disposable income is announced every year by the Ministry of Health, Labour and Welfare.

CPI is based on the Consumer Price Index by the Ministry of Internal Affairs and Communications.

2009 Actuarial Valuation (3)  
Longer Period of Modified Indexation  
for Basic Pensions

- Period of modified indexation:
  - Basic Pensions: until FY 2038
  - earnings-related EPI pensions: until 2019
- More reduction of basic pensions
- Basic pension benefits as % of total benefits:

	FY 2009	FY 2025	FY 2038 onwards
basic pension benefits as percentage of the total benefits the specified household receive	59%	58%	53%

(Source) The author's calculation based on "The current financial conditions and the prospect of the NP and EPI schemes: the results of the 2009 actuarial valuation" that was submitted to the Pension Subcommittee of the Social Security Council by the Ministry of Health, Labour and Welfare



# Some Weaknesses of the Indicator

- Is 50% adequate when the salary level is lower than the FY 2004 level?
  - The price of essential items for daily life does not change so much whatever the salary level is
  - The lower the salary level is the higher is the adequate level as % of disposable income
- It does not tell anything about the basic pension benefit level
  - There are many beneficiaries who live solely on basic pension benefits

# Directions for Corrections

- The government should monitor:
  - the salary level
  - the expenditures of households
- Survey of Household Economy by the Ministry of Internal Affairs and Communications every five years
- The government should work out the benefit level for both total benefit and basic pension benefit that is threshold for adequacy

# Concluding Remarks

- The lower the salary level is the higher is the adequate benefit level as percentage of the per-capita disposable income of male active workers
- Heavy dependence on one indicator is almost always misleading in some respects as long as the social security pension schemes are concerned

*Thank you very much  
for your attention!*