



ธนาคารแห่งประเทศไทย
Bank of Thailand



ทางรอดของระบบประกันสังคมไทย : แนวทางการปฏิรูปสู่ความยั่งยืน

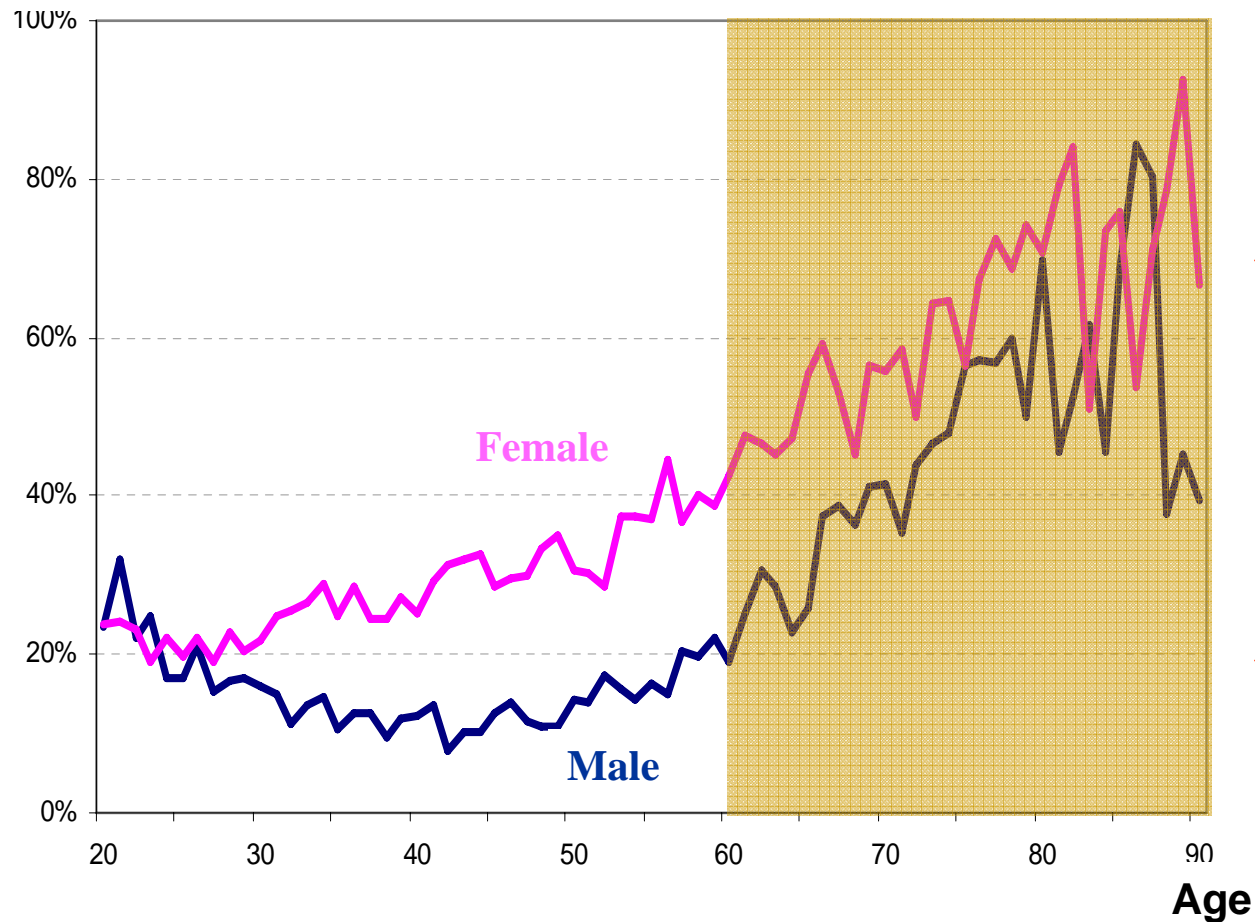
***Safeguarding our Nation's Nest Egg:
Necessary Reforms to our Social Security System***

กอบศักดิ์ ภูตระกูล และ อนรรฆ เสรีเชษฐพงษ์

The Problem of Aging Population

Thailand will be facing with the problem of aging population in the coming decades, rising from 5.7 millions in 2000 to more than 9.5 million elderly people in 2020.

Baht/Month



Main questions

- What will be the implications on our pension system?
- What can we do to prevent the problem of elderly poverty from happening in the future?

**Vibrant and Sustainable
Social Security System**

Outline of the Presentation



I. Our current social security system and its sustainability

II. Problems of our aging population from micro-data :

what are the important aspects of the elderly population
that the proposed reforms should pay close attention to?

III. Necessary reforms to our social security system

Main Objectives Of Social Security

I. Fight elderly poverty

- allow workers to retire and live adequately
- help children to support their parents

II. More flexible labor markets

- open up more position for younger workers

III. Increase national savings and improve market efficiency

Social Security System of Thailand

Social Security System (1990)

Illness/Maternity/
Disability/Death (1990)

Old Age/ Child Allowance (1998)

Unemployment (2004)

Workmen's
compensation Fund

We have quite a
young system
compare to
other countries

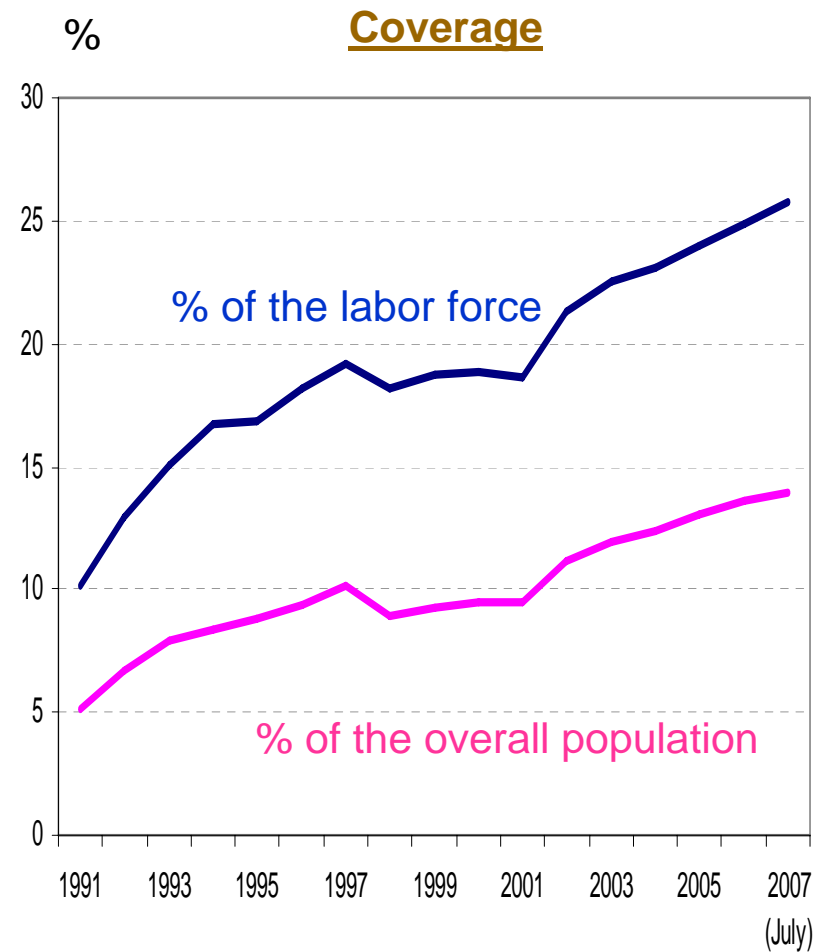
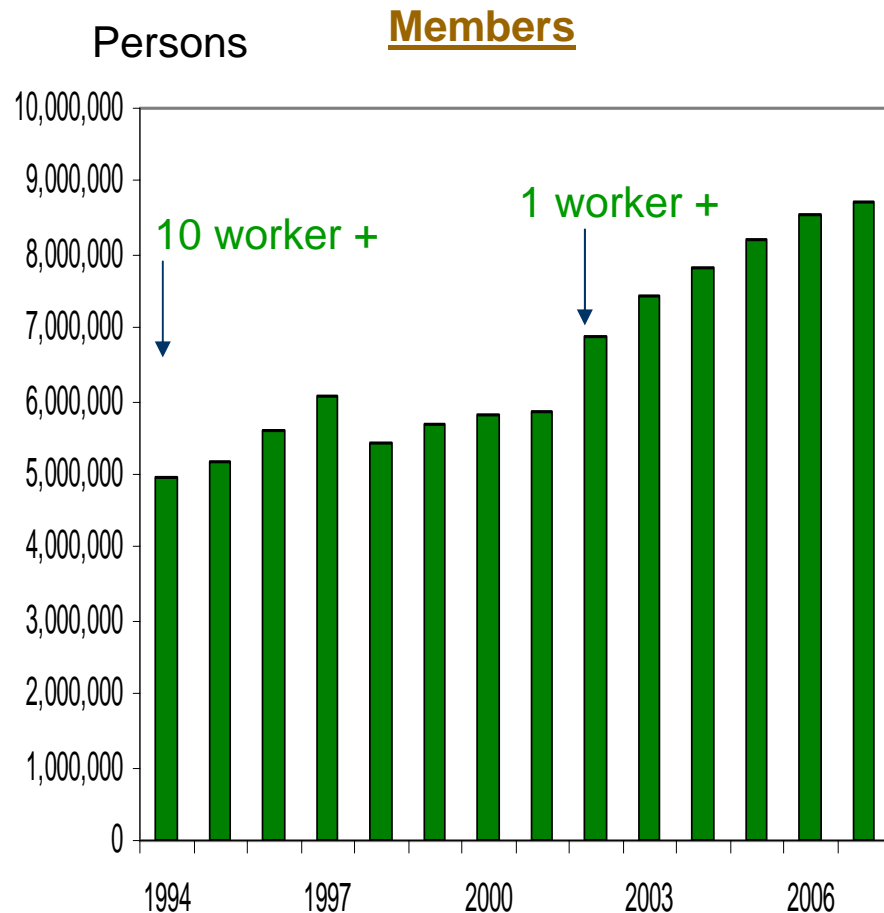
US (1935)
Sweden (1912)

The Existing Old-Age Pension Scheme

Main Element	Details
1. Contribution	Worker 3 % Employer 3 %
2. Wage Ranges	Floor 1,650 baht per month Cap 15,000 baht per month
3. Wage Indexation	-
4. Benefits	Lump sum or lifetime monthly payment
5. Eligibility criteria	At least 180 months to be eligible for pension
6. Retirement age	55 years old
7. Incentives - delayed retirement	-
8. Benefit formula	Average of the last 5 years of contributory wage multiply by the replacement rate
9. Replacement rate	15% for the first 180 months 1% for every additional 1 months
10. Benefit indexation	-
11. Taxation of Benefit	-

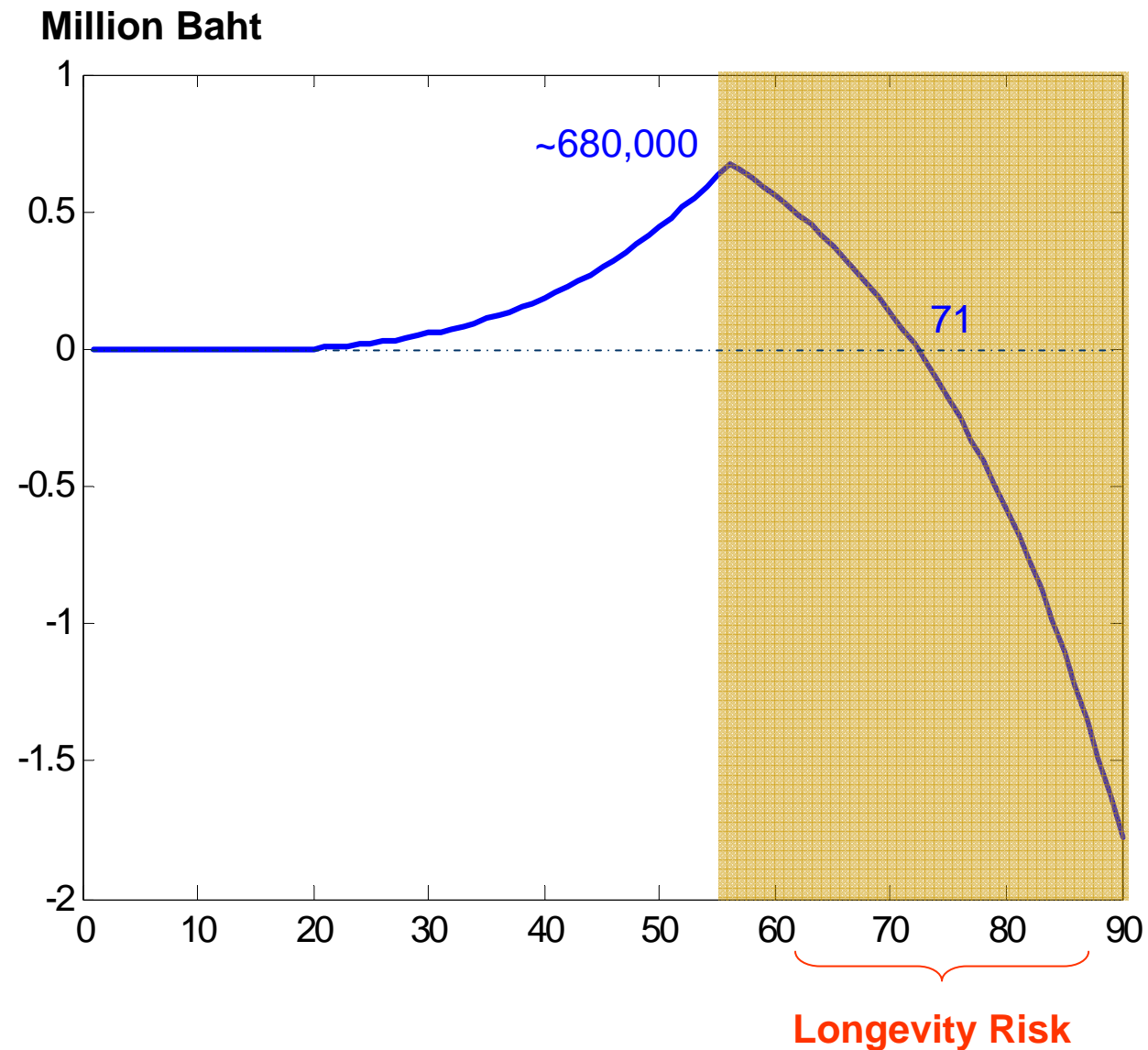
To be decided later

Coverage of the Social Security System



Currently, the Social Security has accumulated more than 430 billions baht of which roughly 300 billions baht is for the old-age pension.

Asset Accumulation Path for a Representative Individual



Life Expectancy at 60

Male - 19
Female - 22

Contribution	110,000
<u>Benefit</u>	
Male	195,000
Female	300,000

Too generous
Sustainability?

Sustainability of the Social Security System

Sustainability refers to the ability to pay benefits into the indefinite future

- **Short-term (10 years) v.s. Long-term (75 years)**

Condition 1 – can the system pay out benefits over the next 75 years

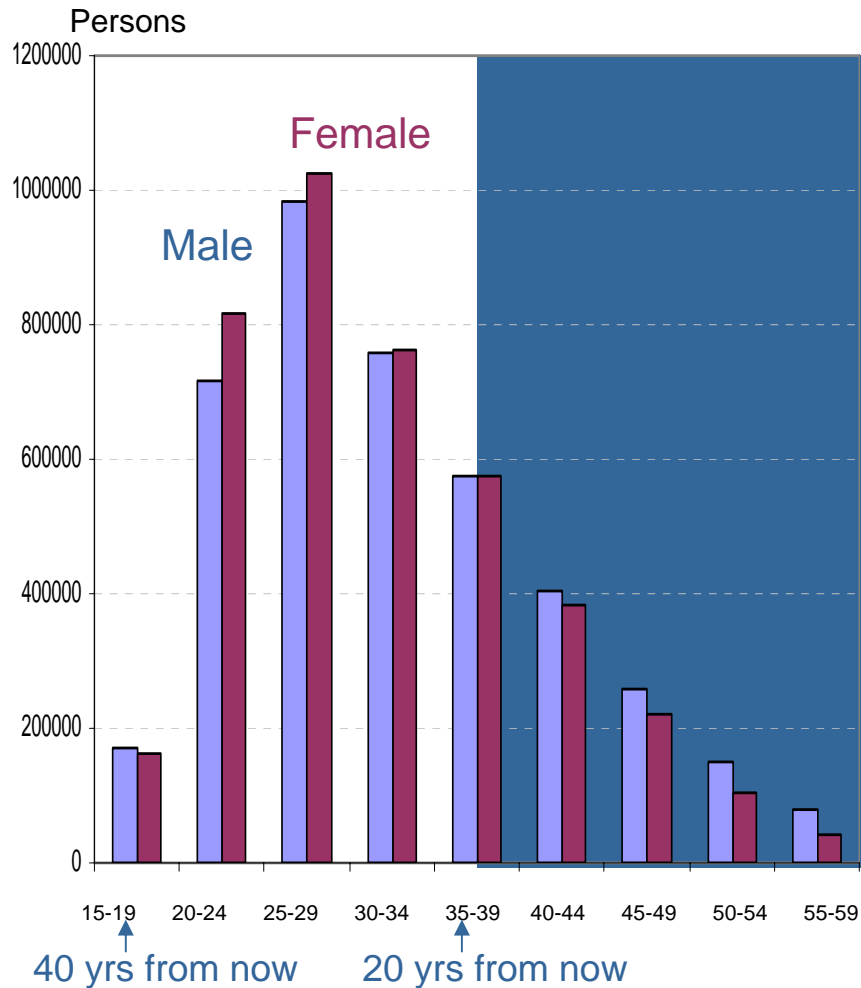
Condition 2 – will the trust fund size be increasing at the end of 75 years

- **Closed-group v.s. Opened-group unfunded obligation**

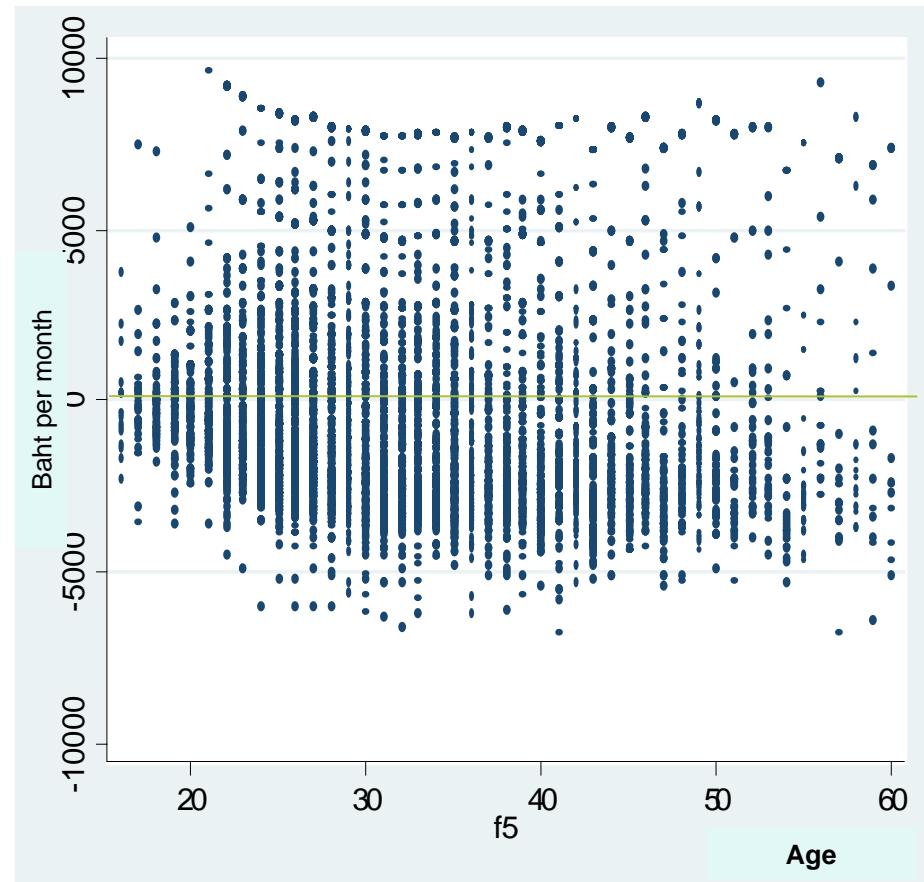
- Sustainability
- Inter-generational transfer

Measuring Sustainability of the Pension Fund

Composition of Social Security Members in 2005



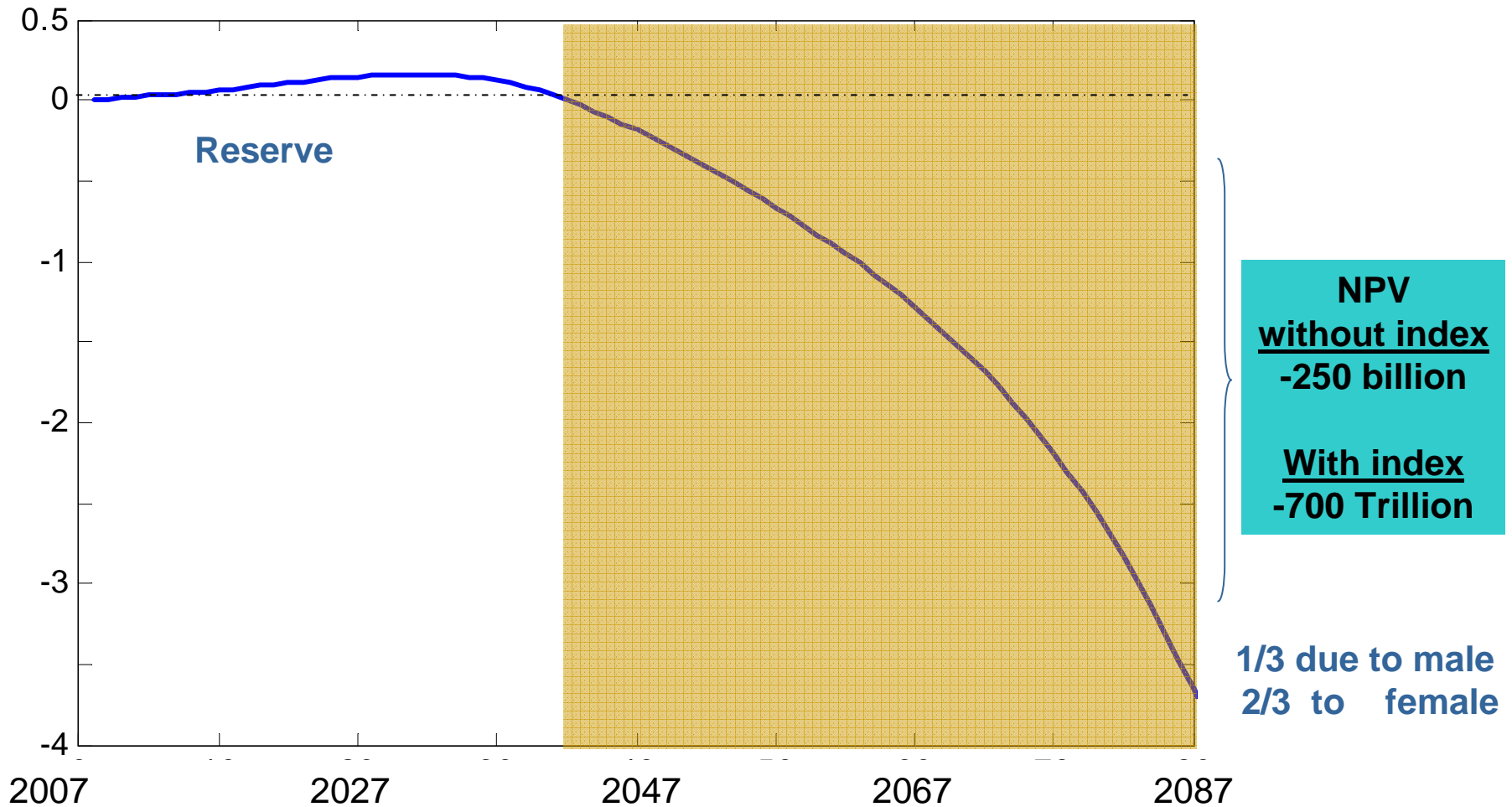
Approximate the detail of the data using LFS 2006(Q2) – Female Wages



Most members are still young and will have some time to put in contribution before taking out benefits 20 years later (2027)

Closed-group Unfunded Obligation

Ten Trillions Baht

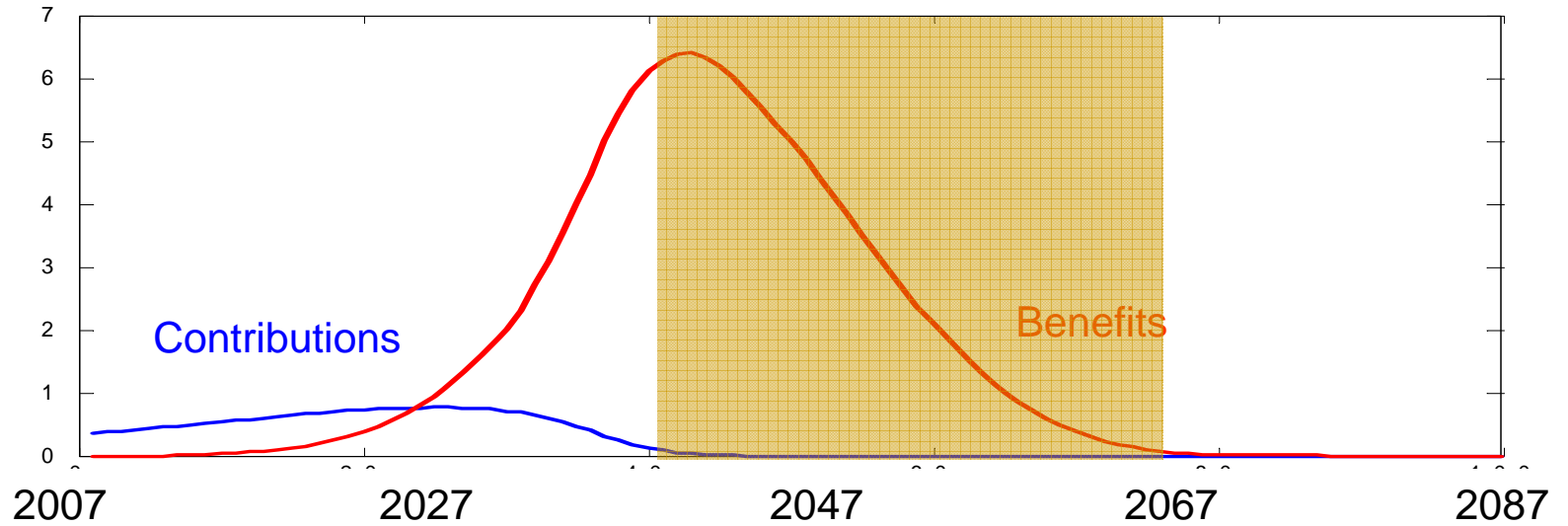


Accumulated assets will peak in 24 years and will run out in 35 years.

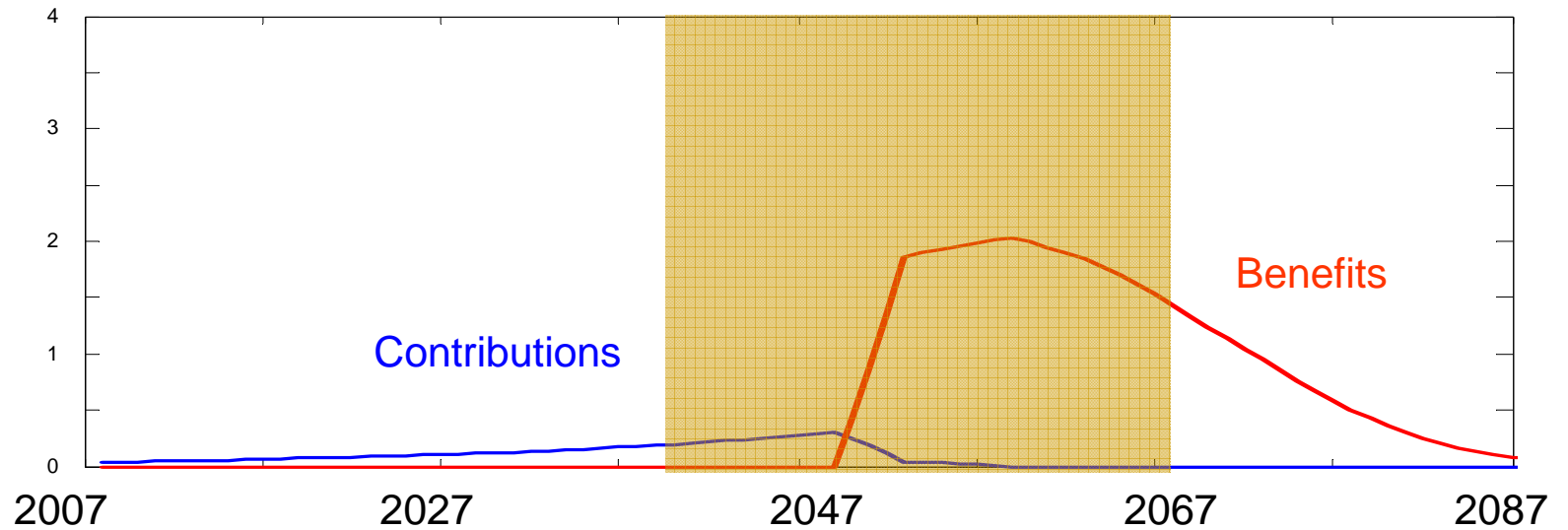
Open-group Unfunded Obligation

Hundred Billion Baht

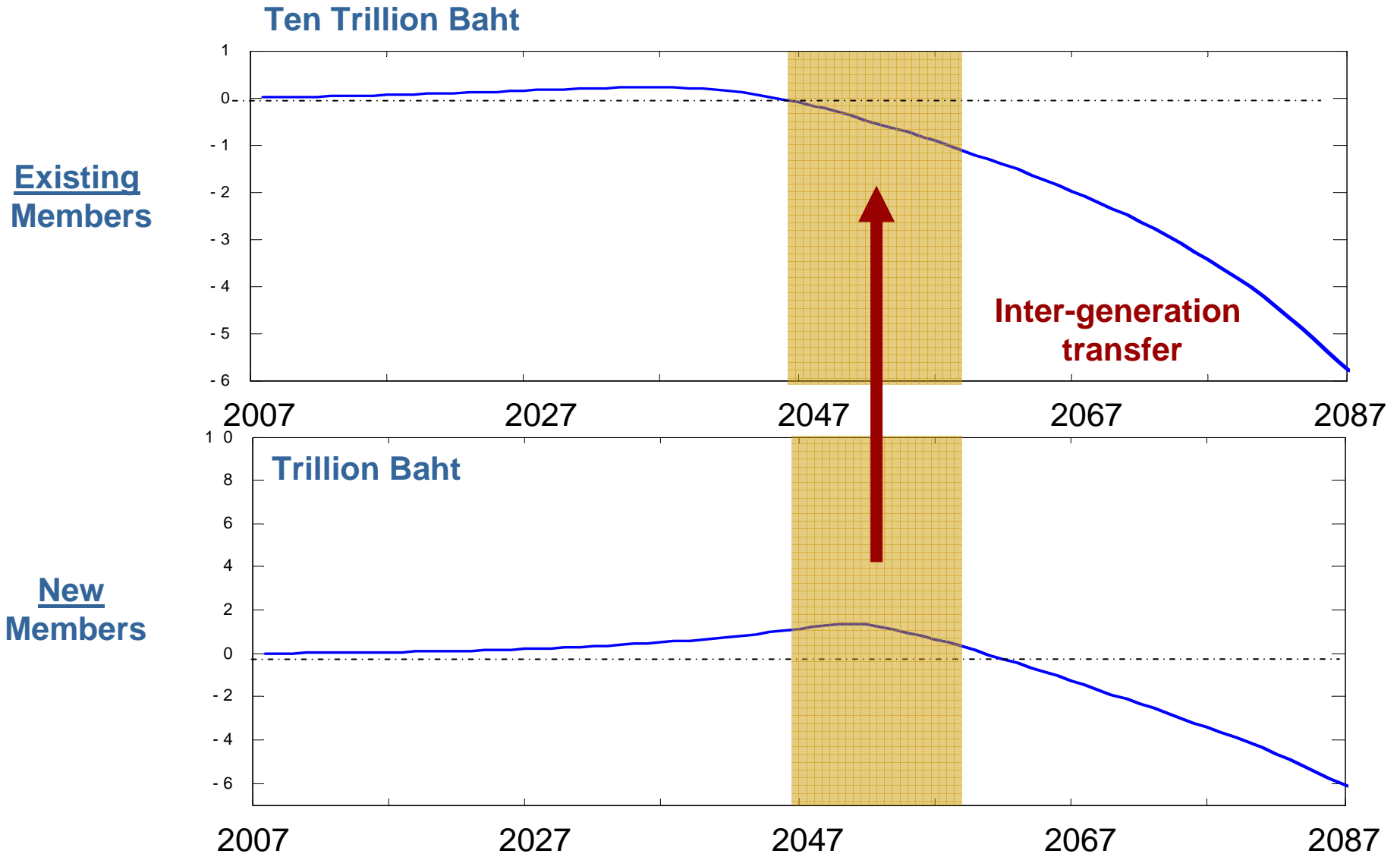
Existing
Members



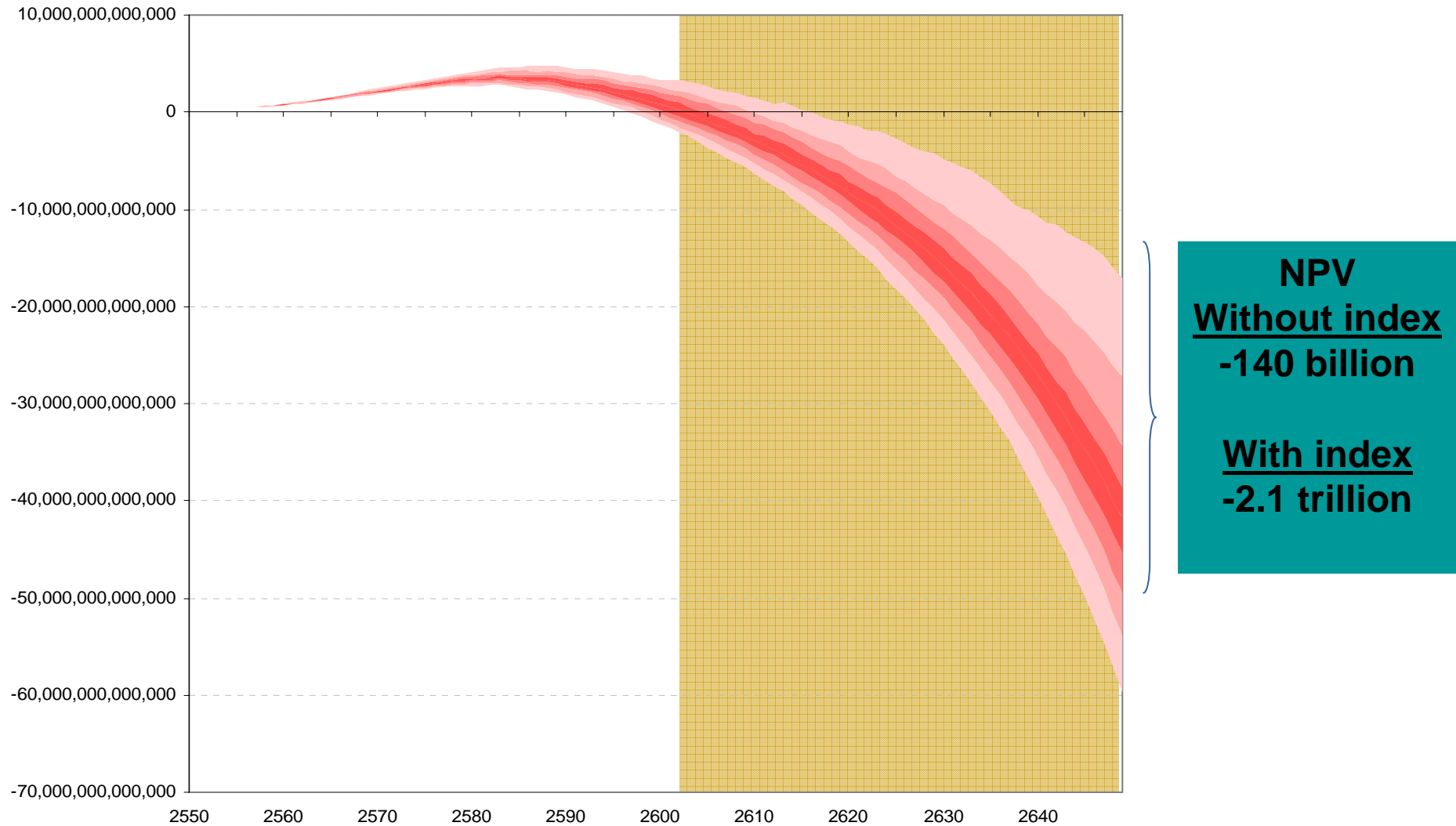
New
Members



Inter-generational transfer



Simulation of Accumulated Reserve (Open-group)



Will peak in 42 years and will last 45-55 years, then turn negative at faster rate.



II. Problems of our aging population from micro-data:

what are the important aspects of the elderly population that the proposed reforms should pay close attention to?

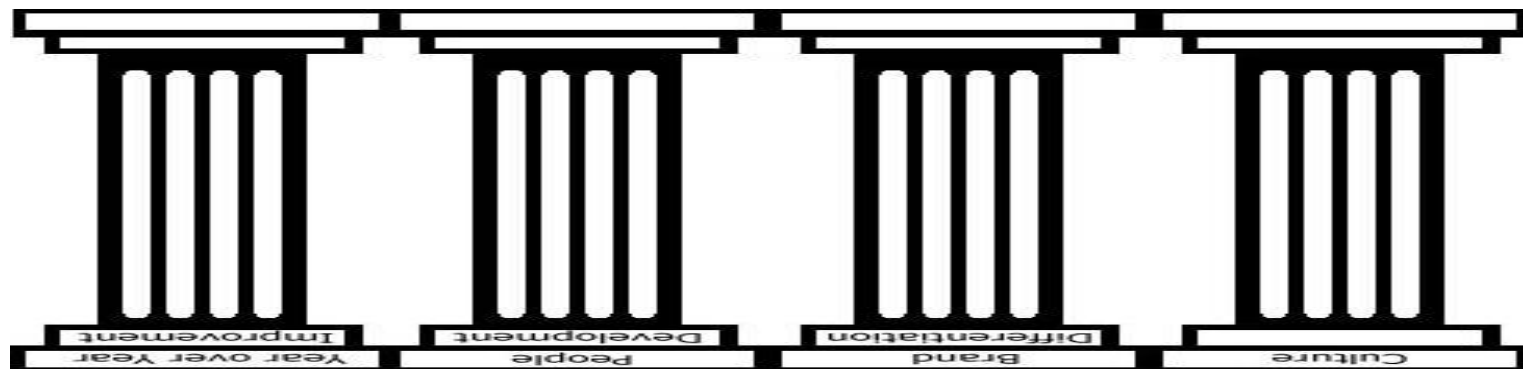
Four Main Sources of Support for Elderly People

I. Own Income

II. Savings

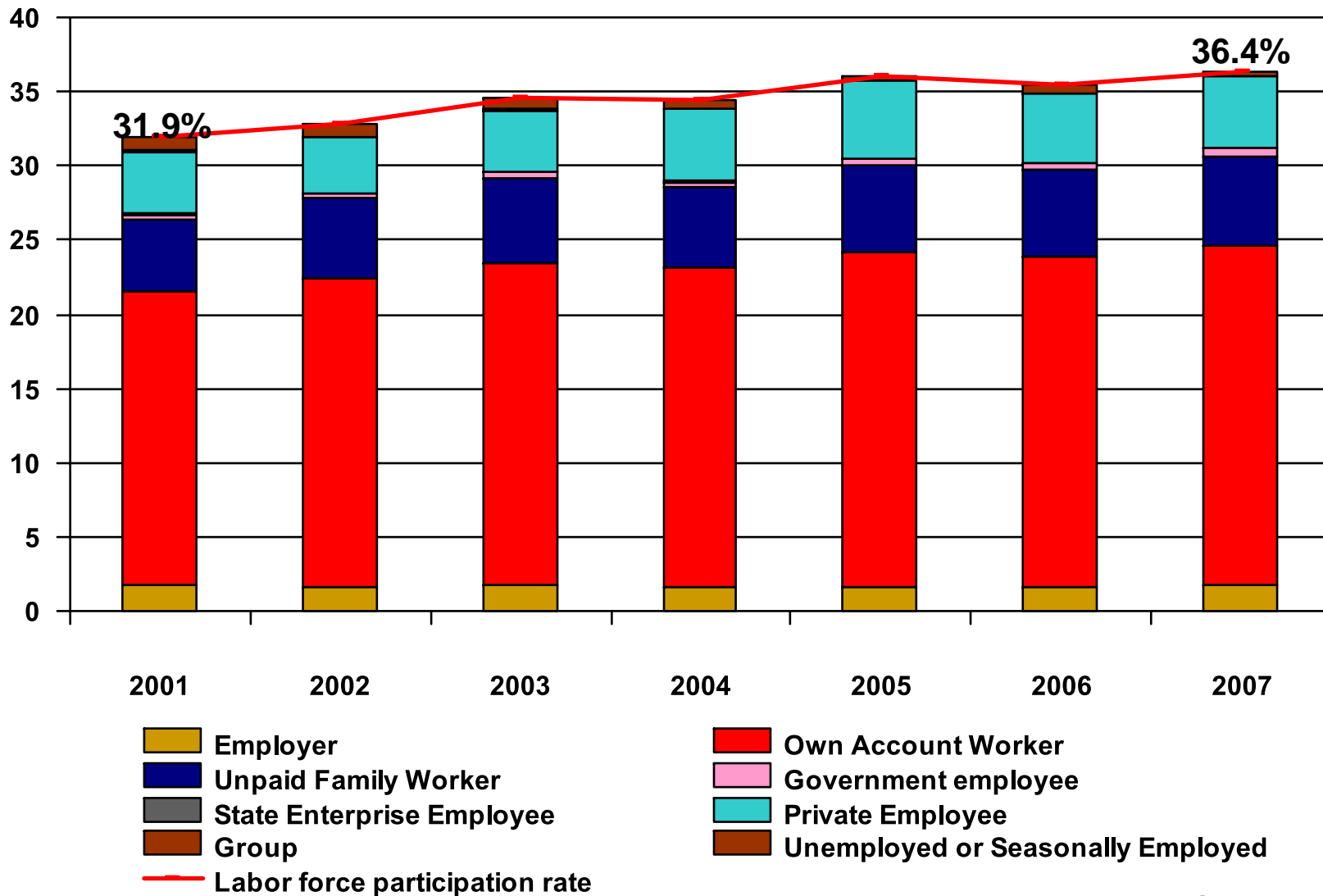
III. Immediate Family

IV. Government Programs



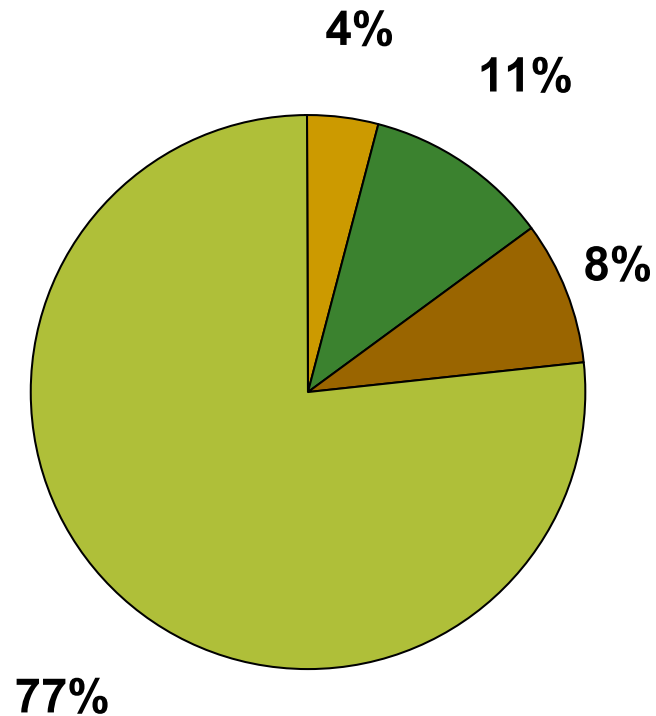
The labor force participation rate of elderly to rise gradually with mostly own account workers remaining in the labor force

Contributions of Elderly Labor Force Participation Rate



In the future, there will be more working elderly, as indicated by the high percentage of households that will work without retiring

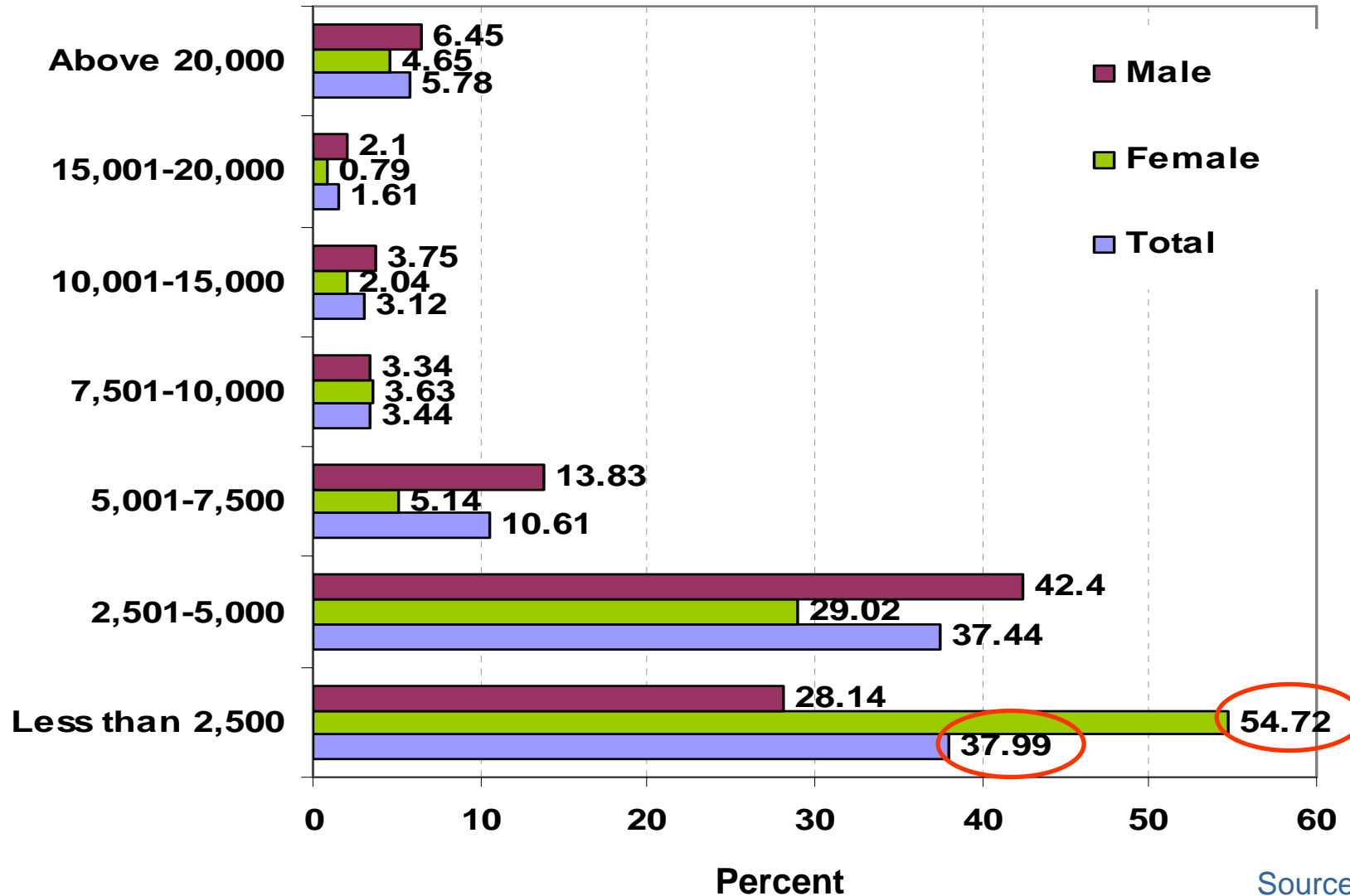
When will you retire?



- Before 60 years old
- At 60 years old
- After 60 years old
- Until unable to work

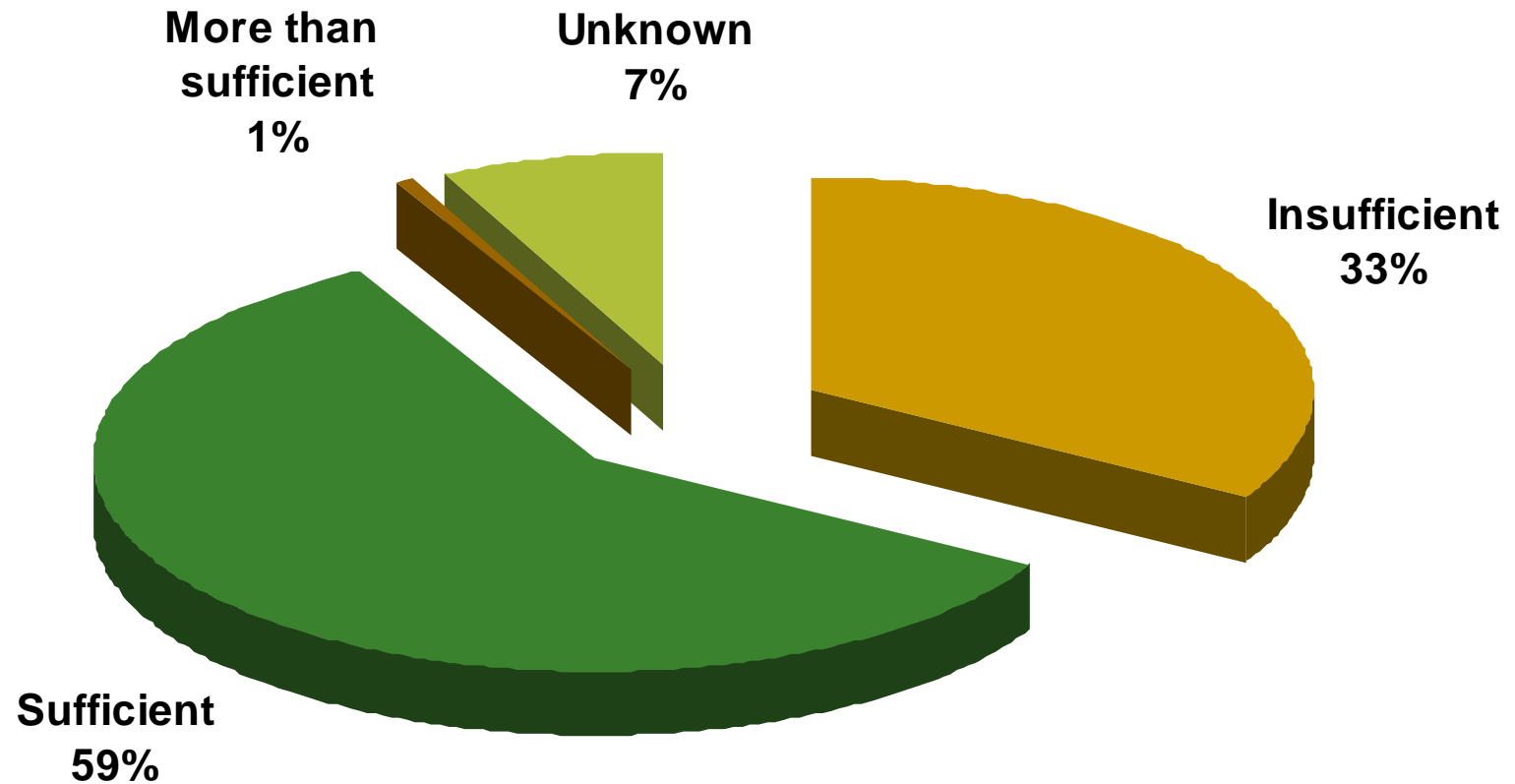
More than one-third of elderly in the labor force earn less than 2,500, and most elderly women earn less than elderly men

Income Levels of Elderly in the Labor Force

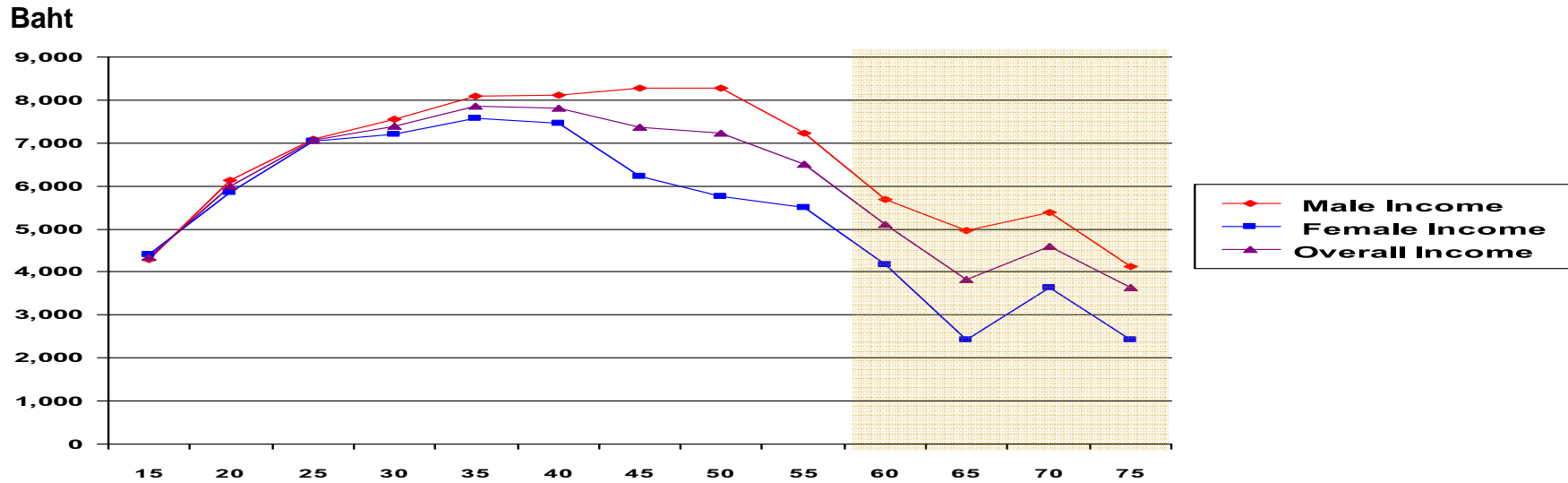


Approximately one-third of elderly have insufficient income

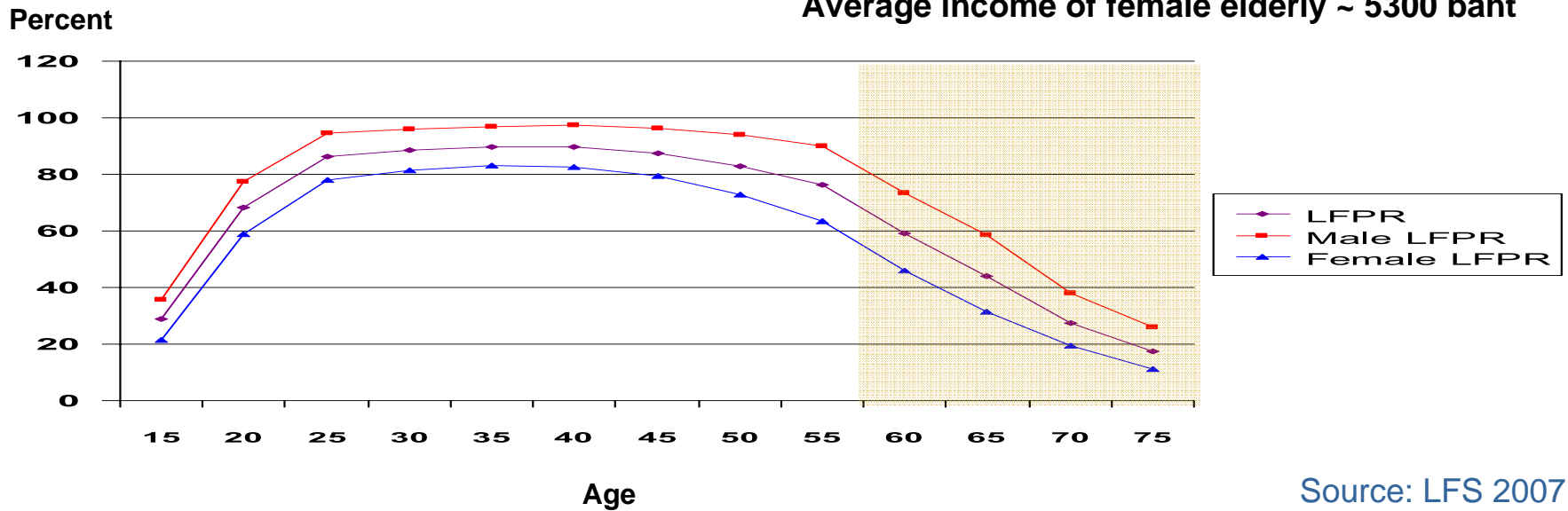
The Sufficiency of Yearly Income for Elderly



The Average Wage by Age and Labor Force Participation of Private Employees



Average income of male elderly ~ 6880 baht
 Average income of female elderly ~ 5300 baht



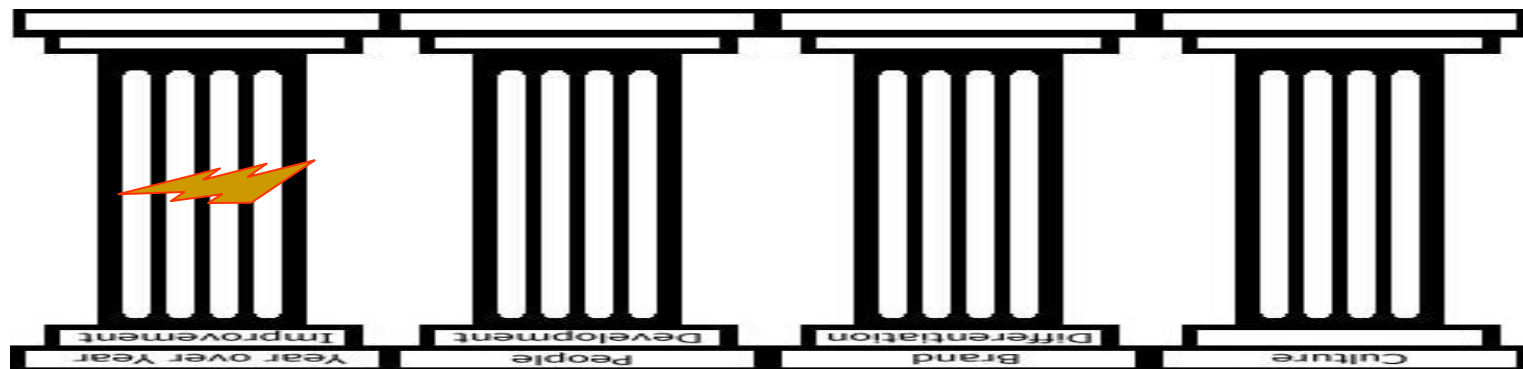
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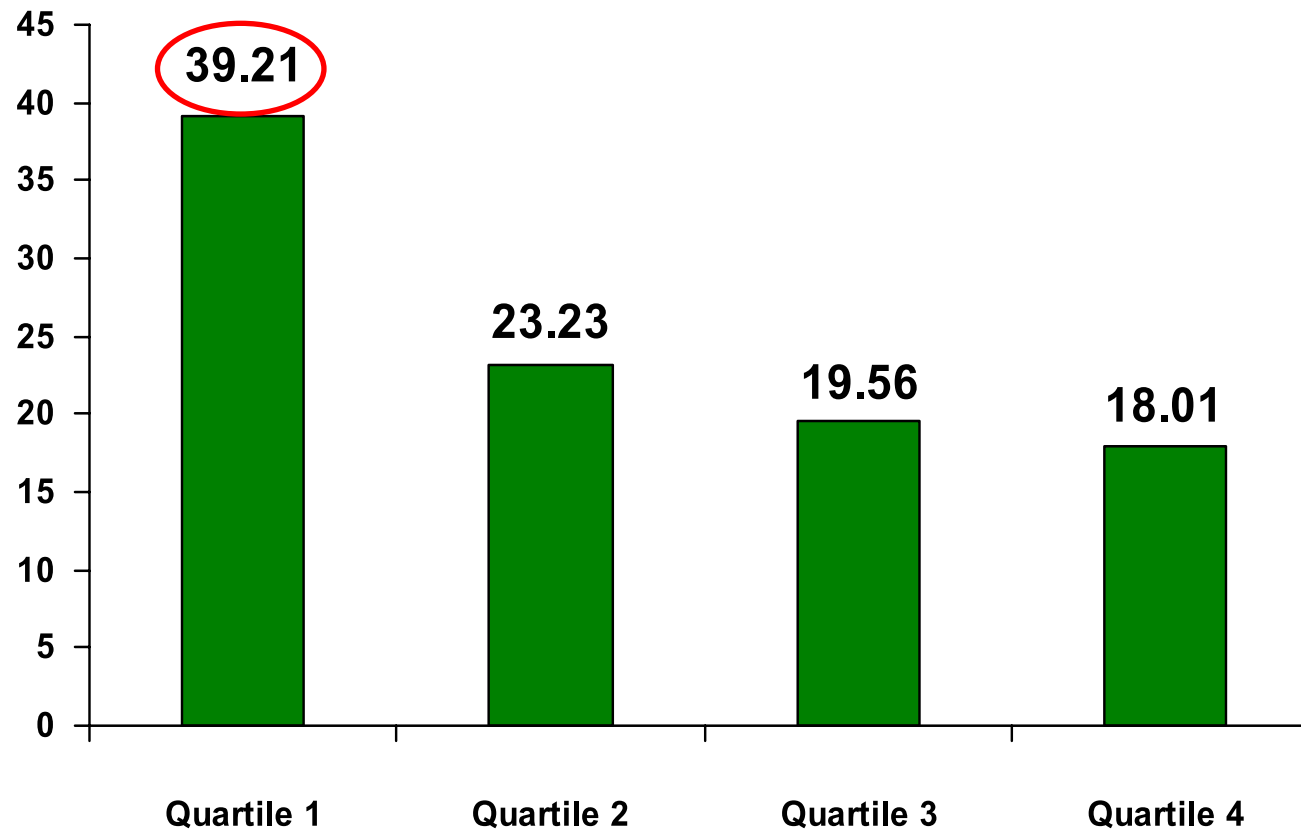
The wealth of elderly households is 25% higher than that of overall households

Financial Conditions	Overall Households	Elderly Households
1. Average Monthly Flows (Baht/month)		
-Income	17,400	16,100
-Expenditure	13,830	12,500
-Savings	6,400	5,800
-Savings Rate	15.1%	11.2%
2. Average Balance Sheet (Baht)		
-Total Assets	975,000	1,159,000
-Total Liability	117,000	89,000
-Wealth	858,000	1,070,000

→ 25% Higher

About 40% of elderly households are in the lowest income quartile (in poor families)

Elderly households by Income Quartile



Elderly households in the lowest income quartile have insufficient monthly flows and half as much wealth as overall households

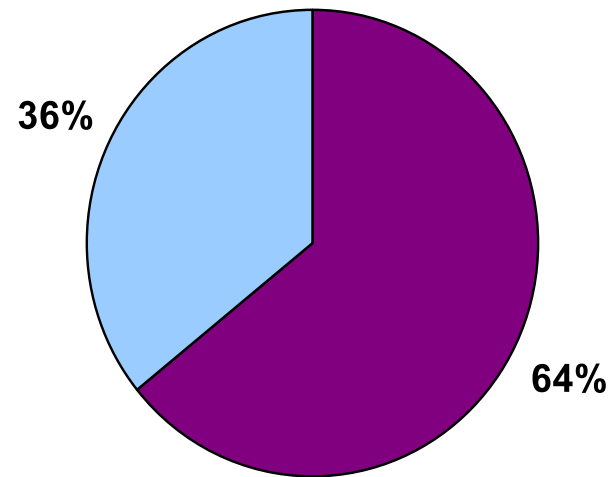
Financial Conditions	Overall Households	Elderly Households in the Lowest Quartile (39.21%)
1. Average Monthly Flows (Baht/month)		
-Income	17,400	4,165
-Expenditure	13,830	5,124
-Savings	6,400	-475
-Savings Rate	15.1%	-14.4%
2. Average Balance Sheet (Baht)		
-Total Assets	975,000	429,000
-Total Liability	117,000	25,000
-Wealth	858,000	404,000

→ 53% Lower

4 Measures of Wealth Adequacy

1. **Opinion about household's savings adequacy for retirement**
2. **Household wealth over yearly household income**
3. **Household wealth over yearly household expenditure**
4. **Household wealth over yearly subsistent income**

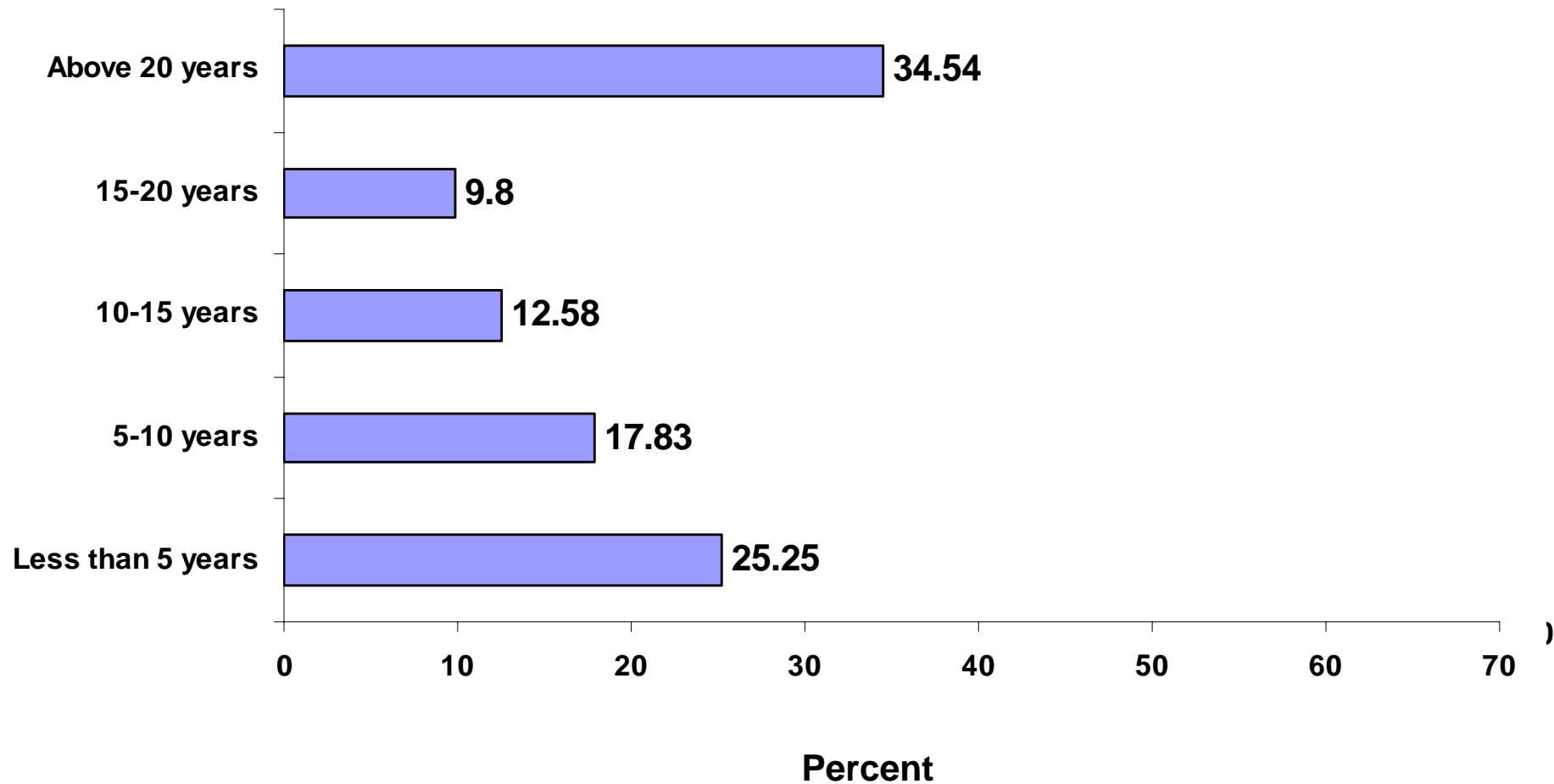
Will you save enough for retirement?



■ No or do not know □ Yes

Most households with elderly do not save enough

Years of Wealth Adequacy for Subsistent Income Replacement



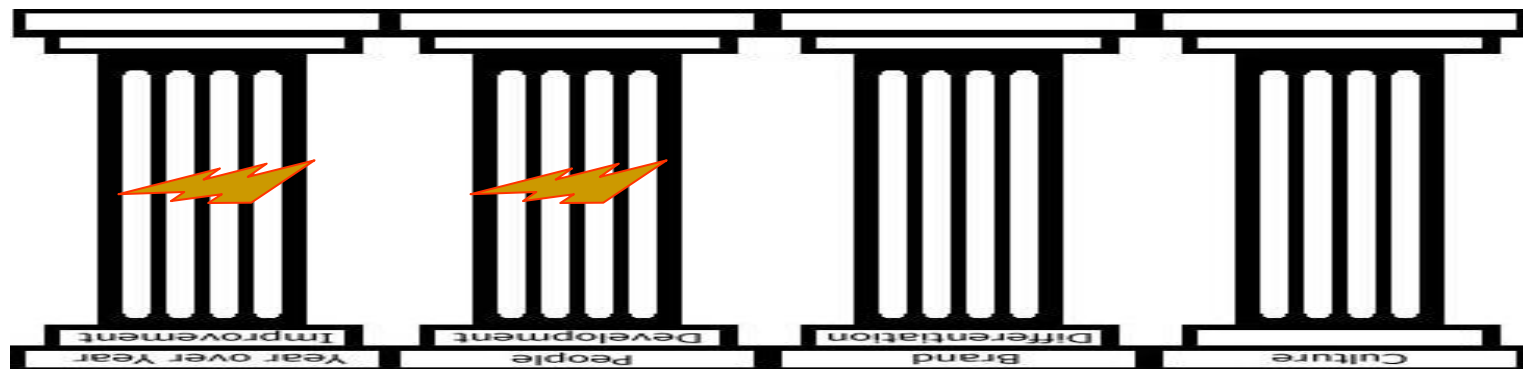
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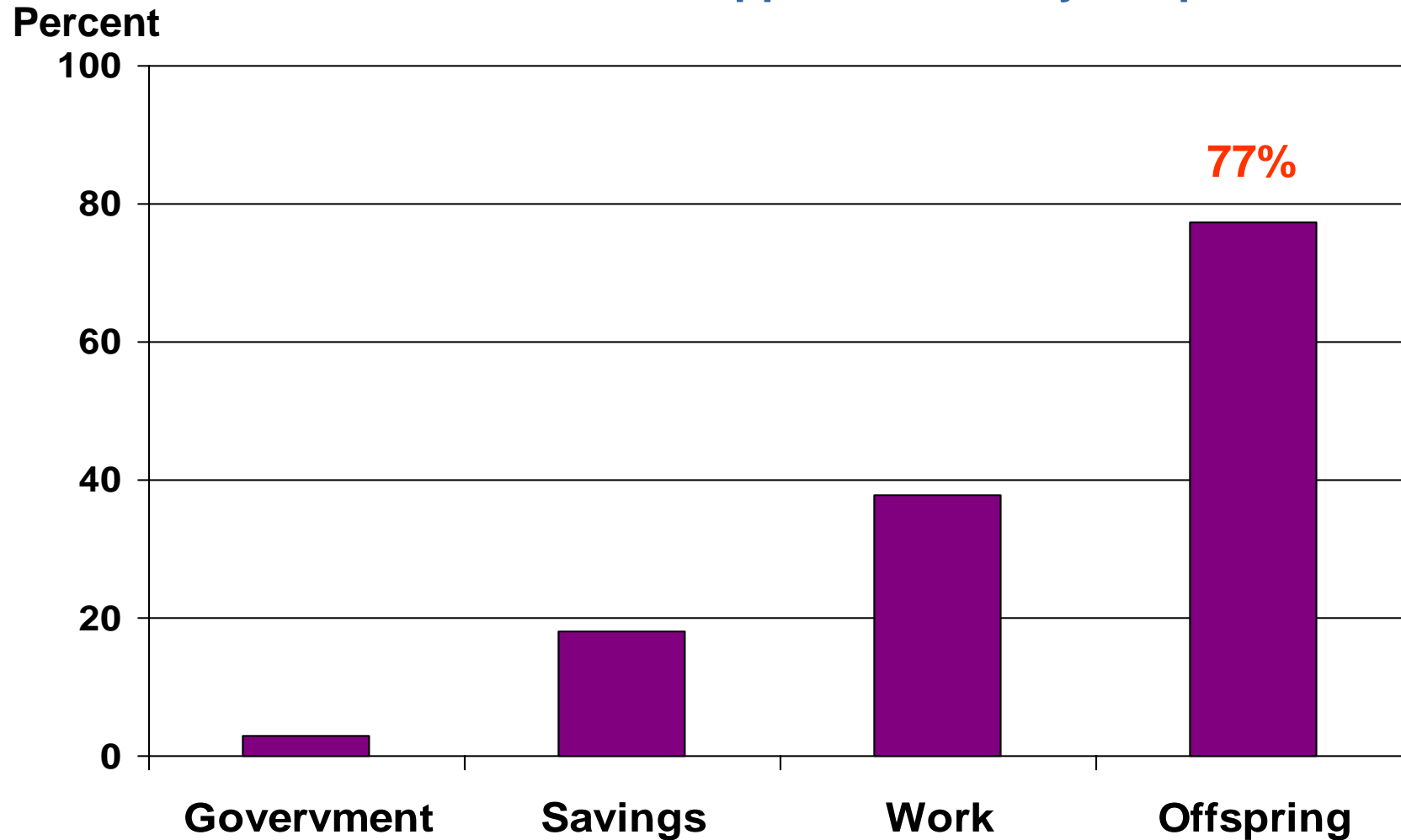
III. Immediate Family

IV. Government Programs



Elderly people rely mostly on their offspring

Sources of Income/Support for Elderly People



Offspring is the major supporter for financial needs,
food, and clothes for elderly people

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Type of Support and Main Providers

Type of Support	Main Providers			
	Independent	Spouses	Offspring	Others
Financial Needs	17.7	7.1	71.2	4.0
Food	23.2	19.3	52.2	5.3
Clothes	41.8	6.2	48.7	3.3
Material Items	44.4	8.8	44.1	3.1

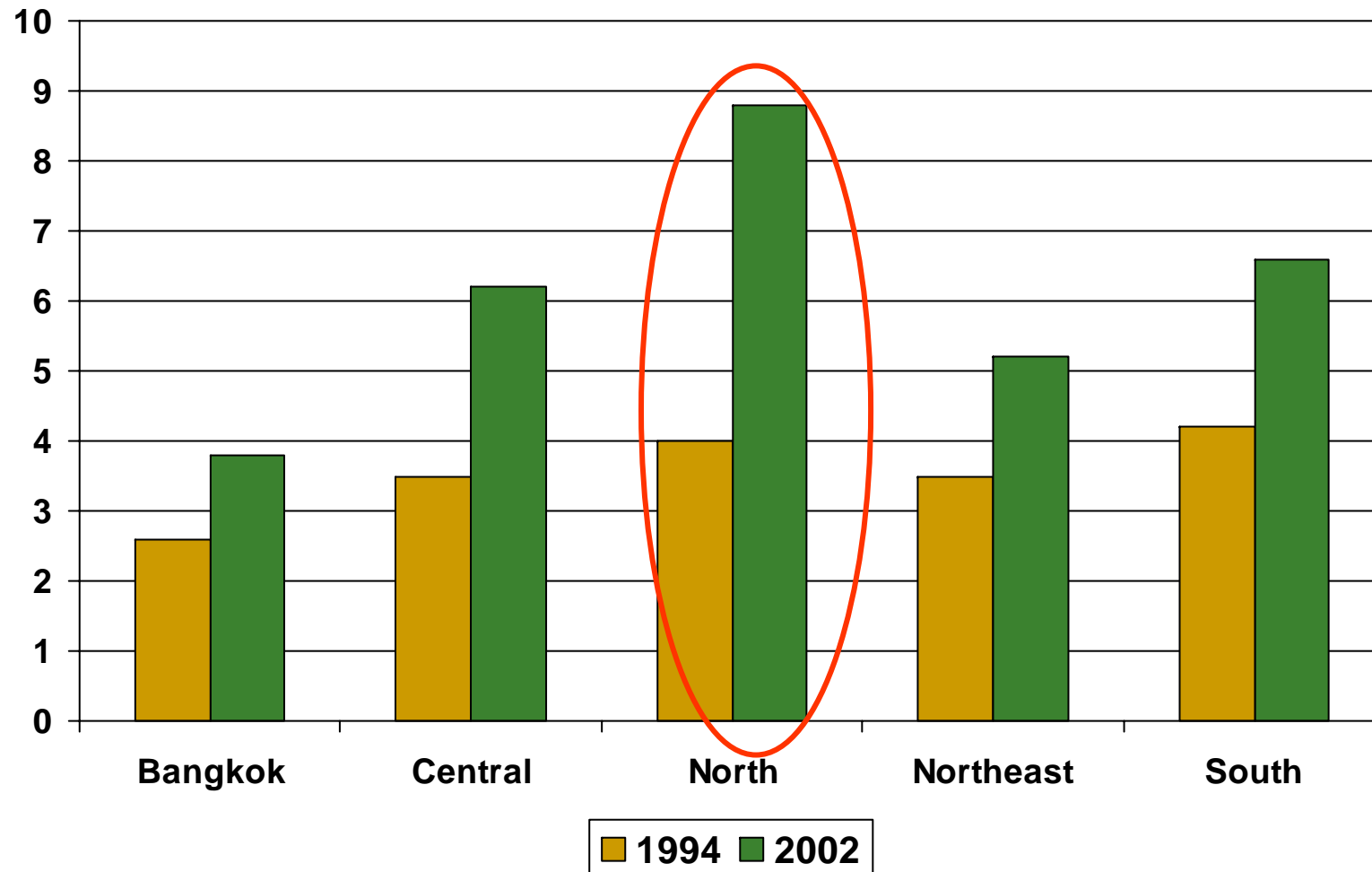
The decrease in the proportion of elderly living with offspring indicates the weaker family connection

Percent Distribution of Thai Elderly by Living Arrangements

Living Arrangements	1994	2002
Alone	3.6	6.5
With spouse only	11.6	14.0
With offspring	73.6	65.7
Other arrangements	11.2	13.8

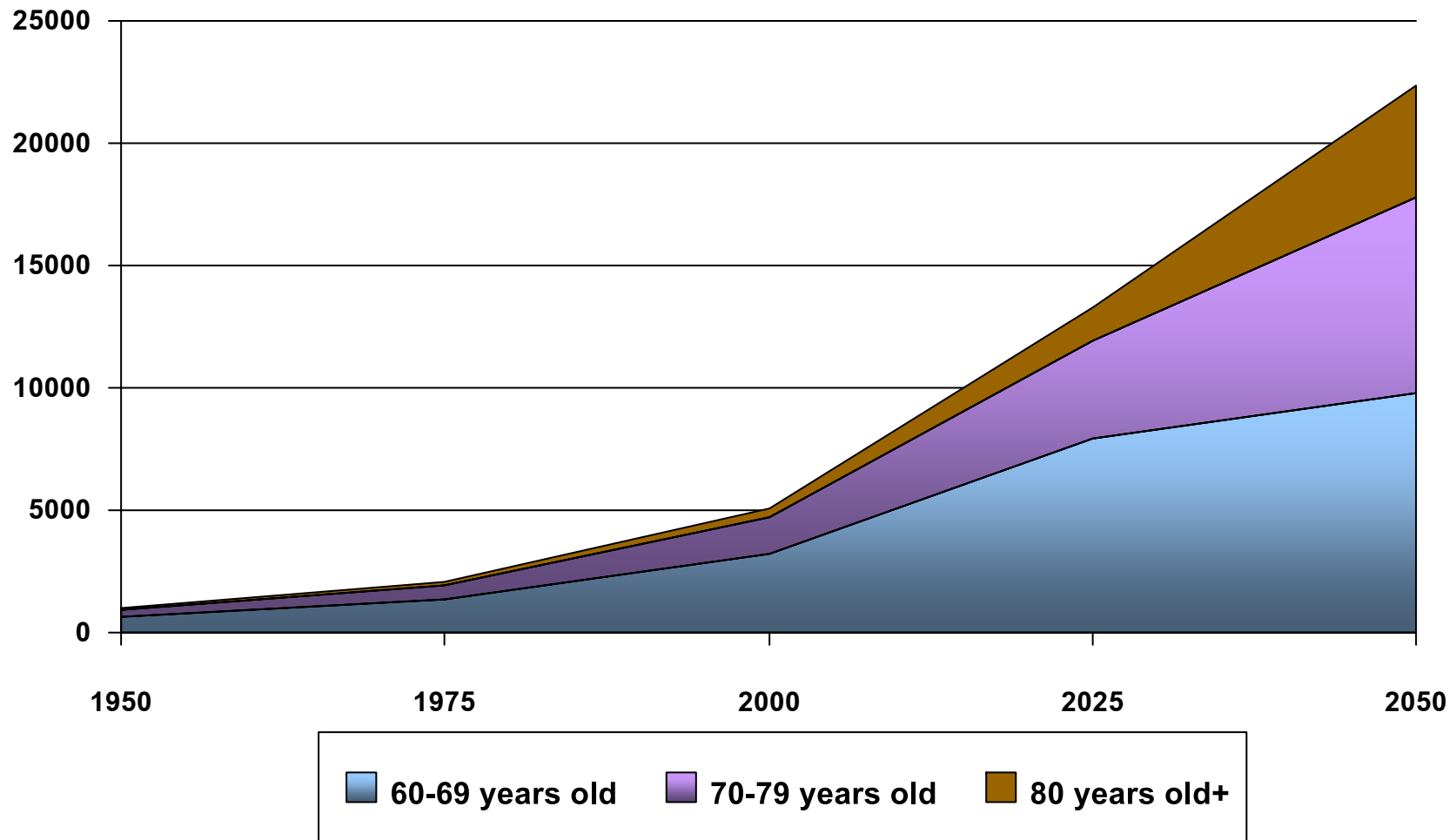
The Percentage of Elderly Living Alone by Region

From 1994 to 2002, the percentage of elderly living alone increased in all regions



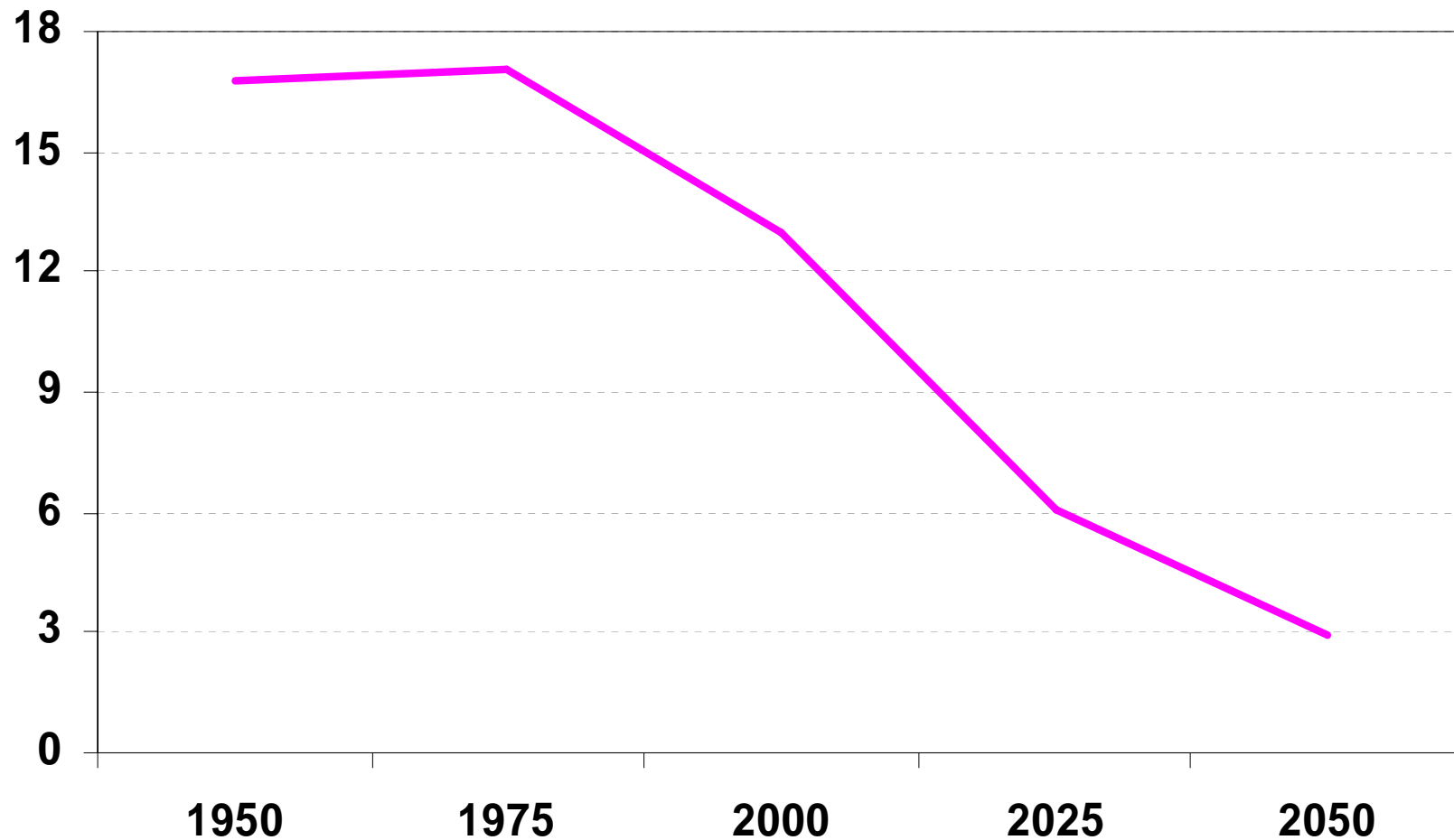
Distribution of Population Aged 60 or Over By Age Groups

Thailand's elderly population themselves are also aging



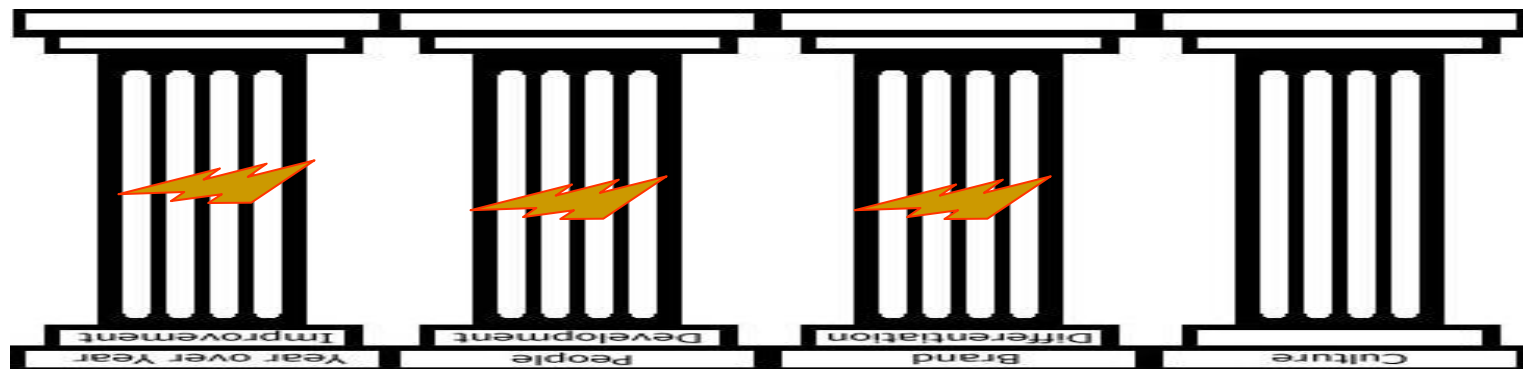
Working Age/Dependent Population Ratio

The number of working-age per dependent population will drop from 13 in 2000 to 3 in 2050



Four Main Sources of Support for Elderly People

- I. Own Income
- II. Savings
- III. Immediate Family
- IV. Government Programs



Percentage of Elderly Under Poverty and At Risk of Poverty

Measures of Poverty	Overall Elderly
Under Poverty	19.68
At Risk of Poverty (Under twice the poverty line)	31.36

Logistic Regression Results

1. Individual Characteristics

Variables	Marginal Effect
Ages	0.004***
Female	0.022**
Living Alone	0.011***
Years of Education	-0.013***

2. Living Locations

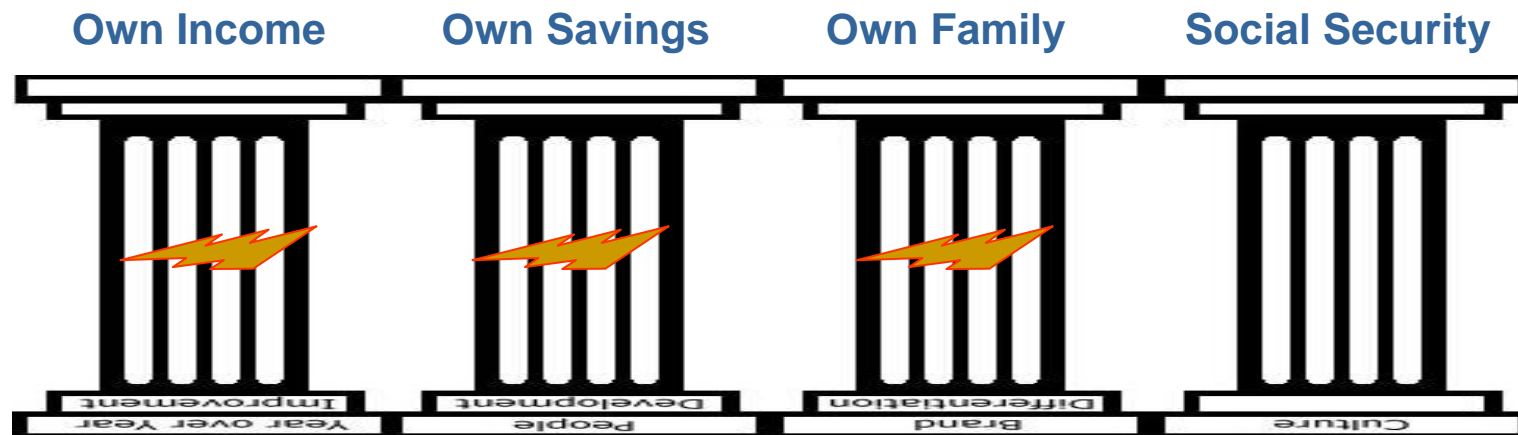
Variables	Marginal Effect
North	0.260****
Northeast	0.255***
South	0.165***
Central	0.149***

3. Household's Occupation

Variables	Marginal Effect
Laborer	0.213***
Other employee	0.117***
Inactive	0.079***
Farm (rent)	0.057**
Farm (own)	0.044***
Entrepreneur	- 0.011

Summary of Findings from Micro Data

Analysis of the micro data points to the conclusion that the first three pillars of supports for the elderly people will not be adequate for the future groups of elderly people. In particular, the support from family which is the most important sources of incomes for the elderly people will weaken considerably from the changing demographic and social conditions. **So, we have to urgently fix the social security system. And find a way to strengthen other sources of income for the elderly people.**





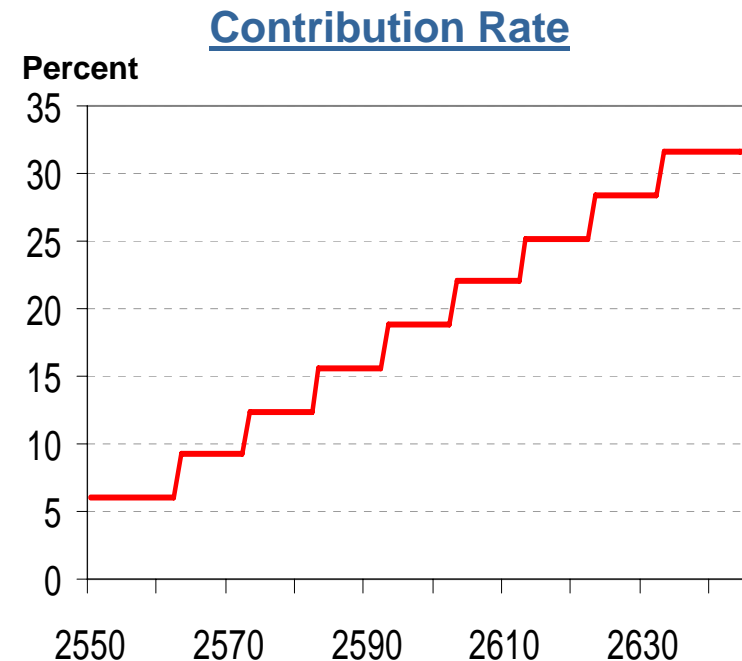
Key Policy Choices

- Increase Contribution
- Reduction of Benefits
- Delaying the Retirement Age
- Increase the Return on Investment
- Establishment of Private Accounts/
Privatization of the Social Security

Chile
USA
Sweden

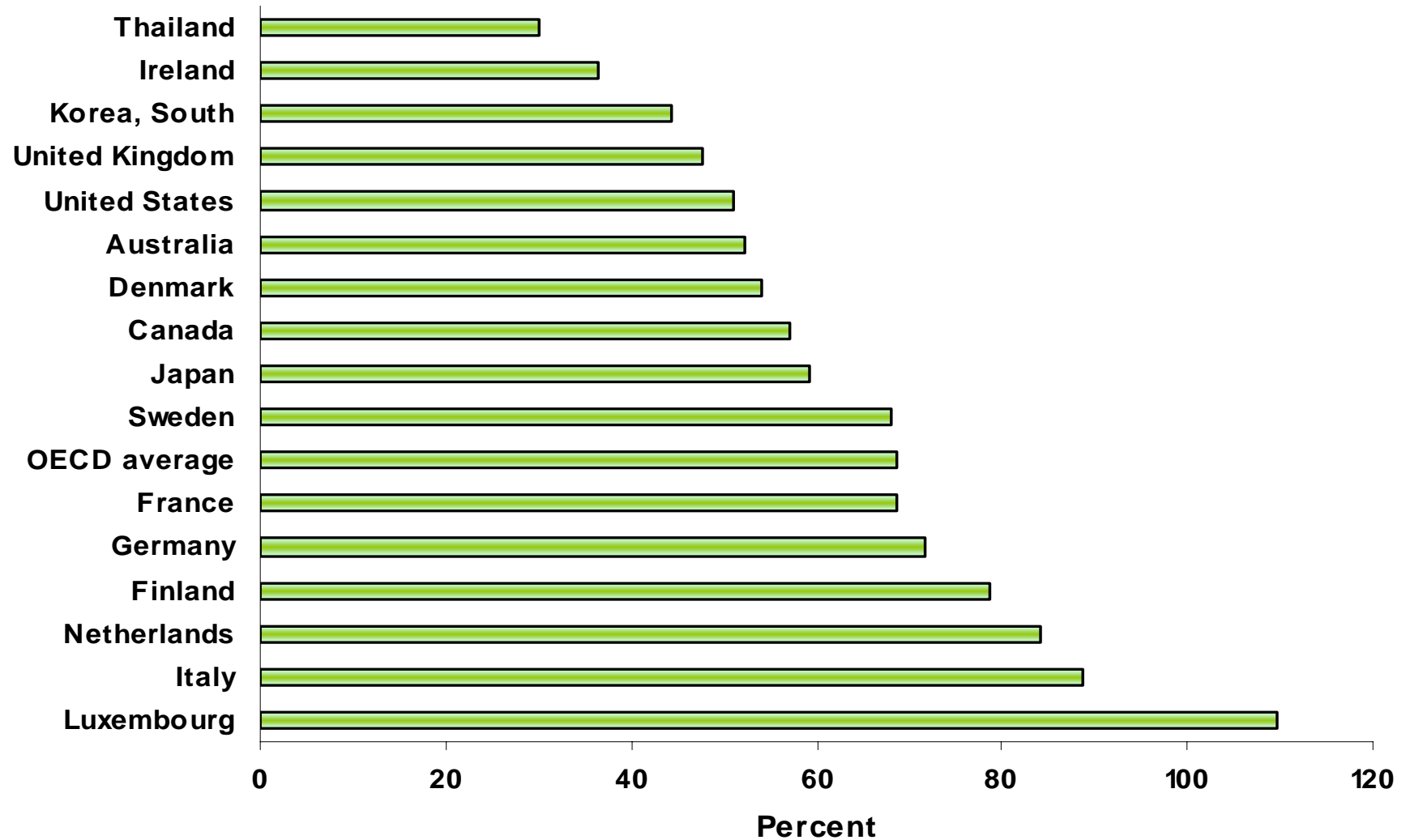
Reform Proposed by the Social Security Office

- Increase benefits to 20% for the first 15 years and 1.5% for every 12 additional months
- Raise contribution 1.6% each every 10 years until contribution reach the level 32 percents



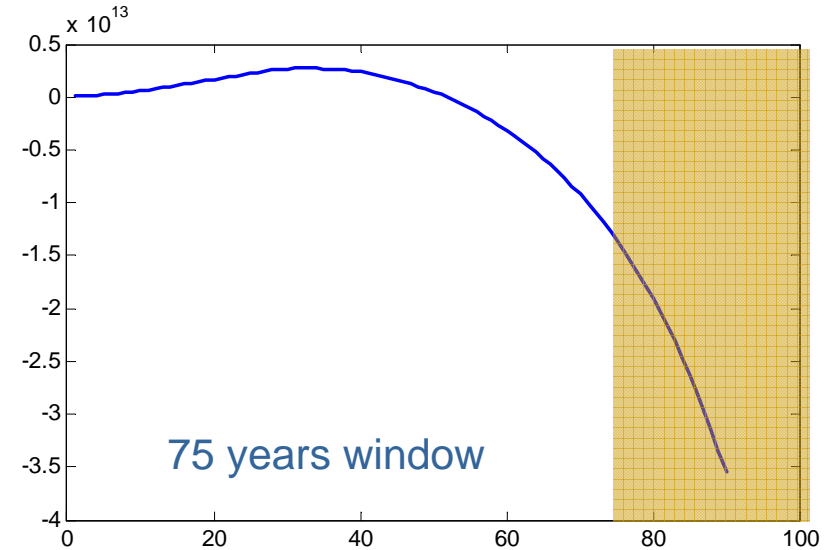
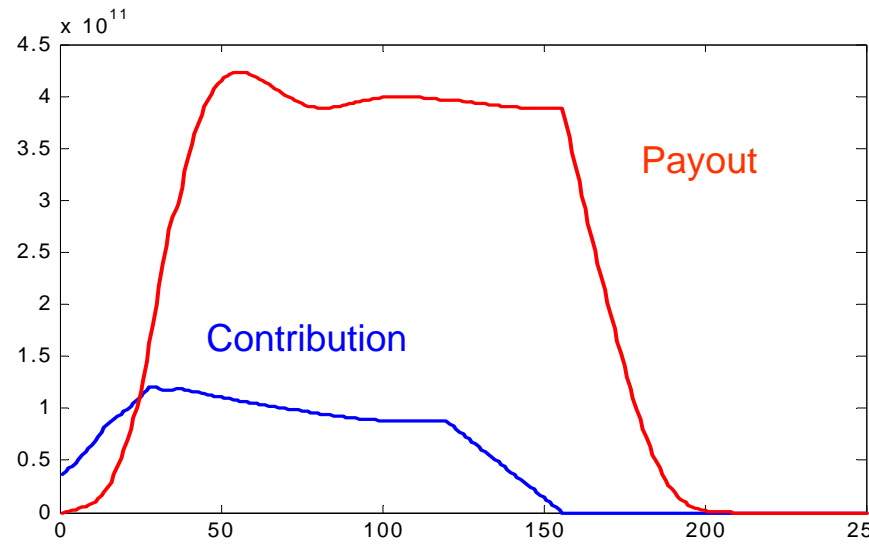
This is a response to the projection that there will not be enough reserve for the payouts in 40 years from now. Also partly as a response to the standard set by ILO

Net Replacement Rate: Average Earner

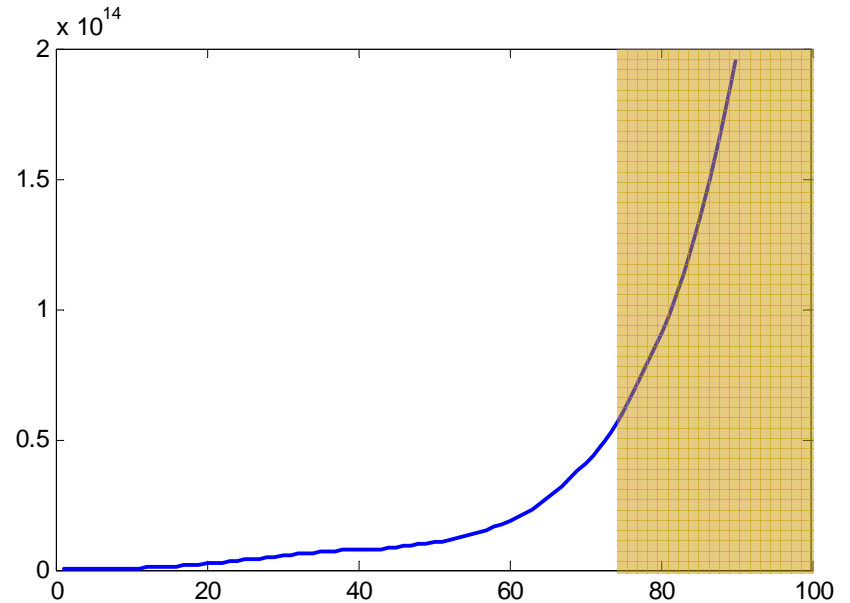
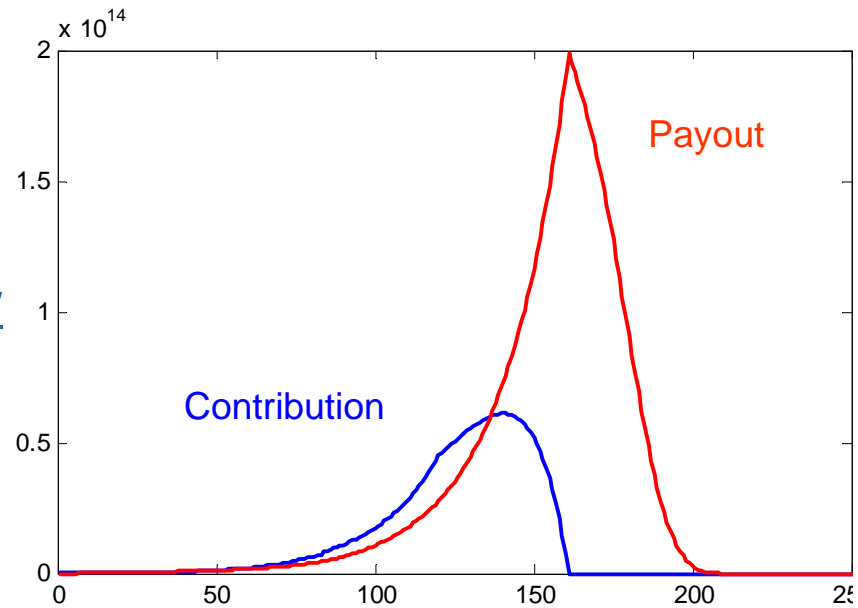


Saving the Pension Fund: Reserve 2007-2207

Old

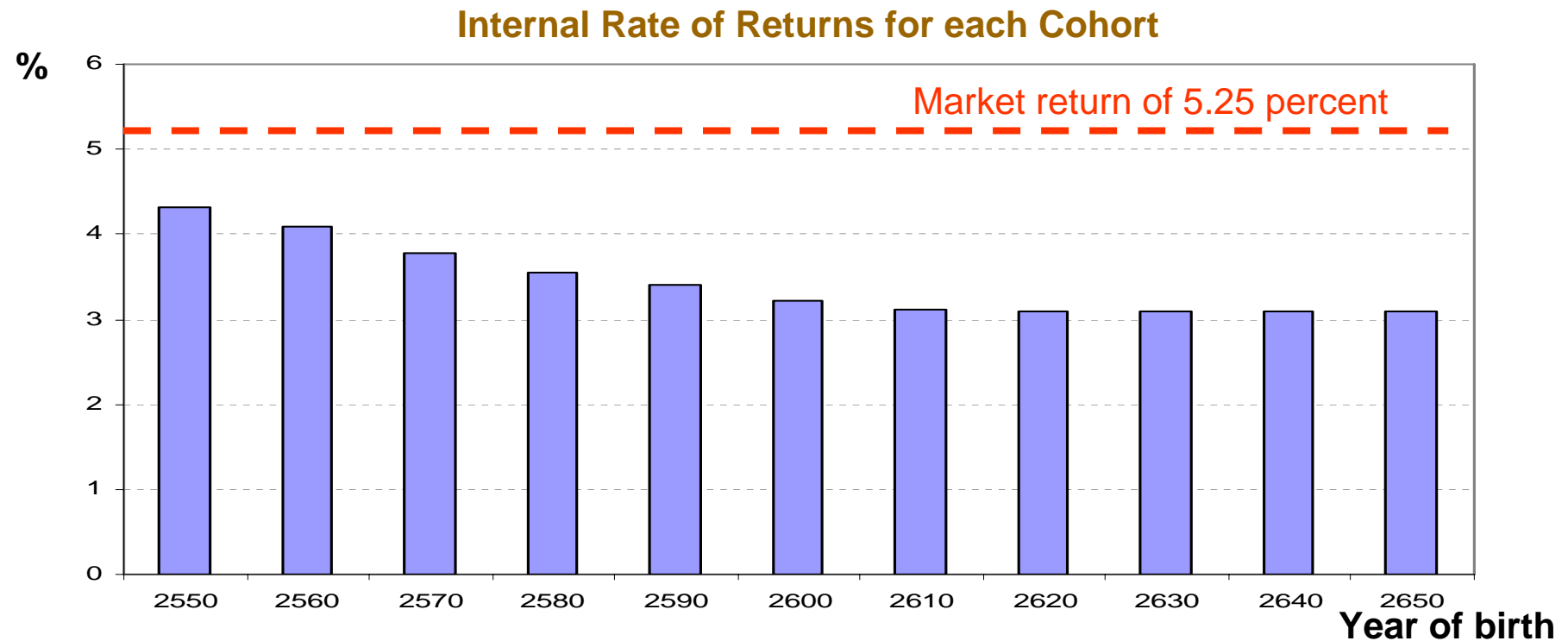


New



Comments

- Fairness to next generation
- Will save the pension fund but will not save the people
- Tax distortions

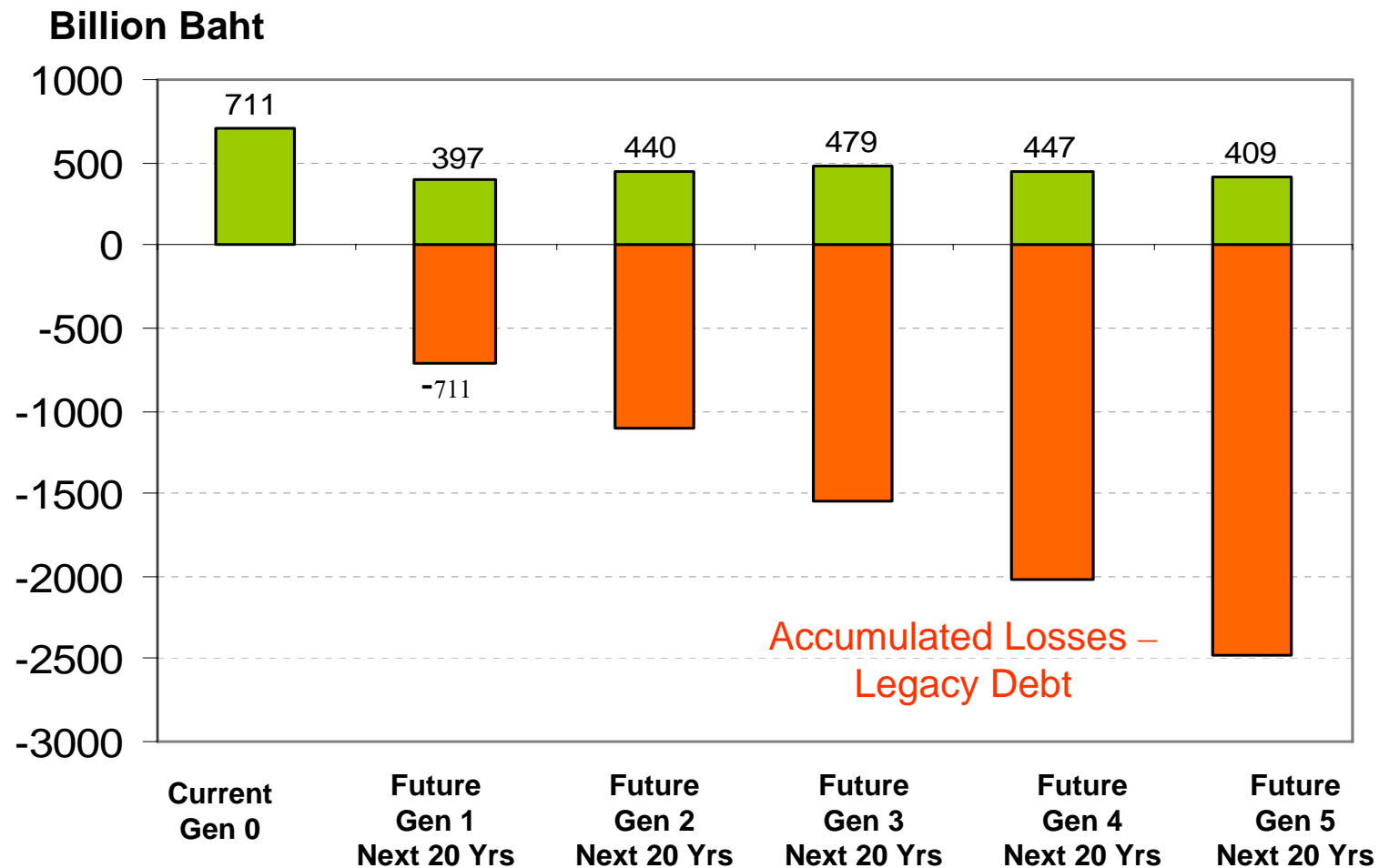


Contribution Rates for Countries around the World

Country	Old age, disability, and survivors		
	Insured Person	Employer	Total
Singapore	20	13	33
Netherlands	19.15	6.38	25.53
Malaysia	11.5	12.5	24
Sweden	7	11.91	18.91
Vietnam	5	10	15
Japan	7.32	7.32	14.64
The USA	6.2	6.2	12.4
Chile	10	0	10
Canada	4.95	4.95	9.9
Australia	0	9	9
Korea, south	4.5	4.5	9
Thailand	3.44	3.44	6.88

Inter-Generational Transfer Problem

If the system goes bankrupt, the future generation has to bear the cost. If it is yet to be bankrupted, the costs will accumulate further and pass along to the following generation



Principles for the Design of the Social Security

1. Must reduce the programs' generosity
2. Fight poverty in old age is the foremost important objective.
- 3 Fairness to future generation
Avoid postponing the reform
4. Focus more on the needy in our generational (female, widowed)
5. There maybe a role for the government to help

Reform Measures

Short-run

Medium run

Long run

Our Proposal

Short run

Solve the problem of too generous asap. before more expansion

Medium run

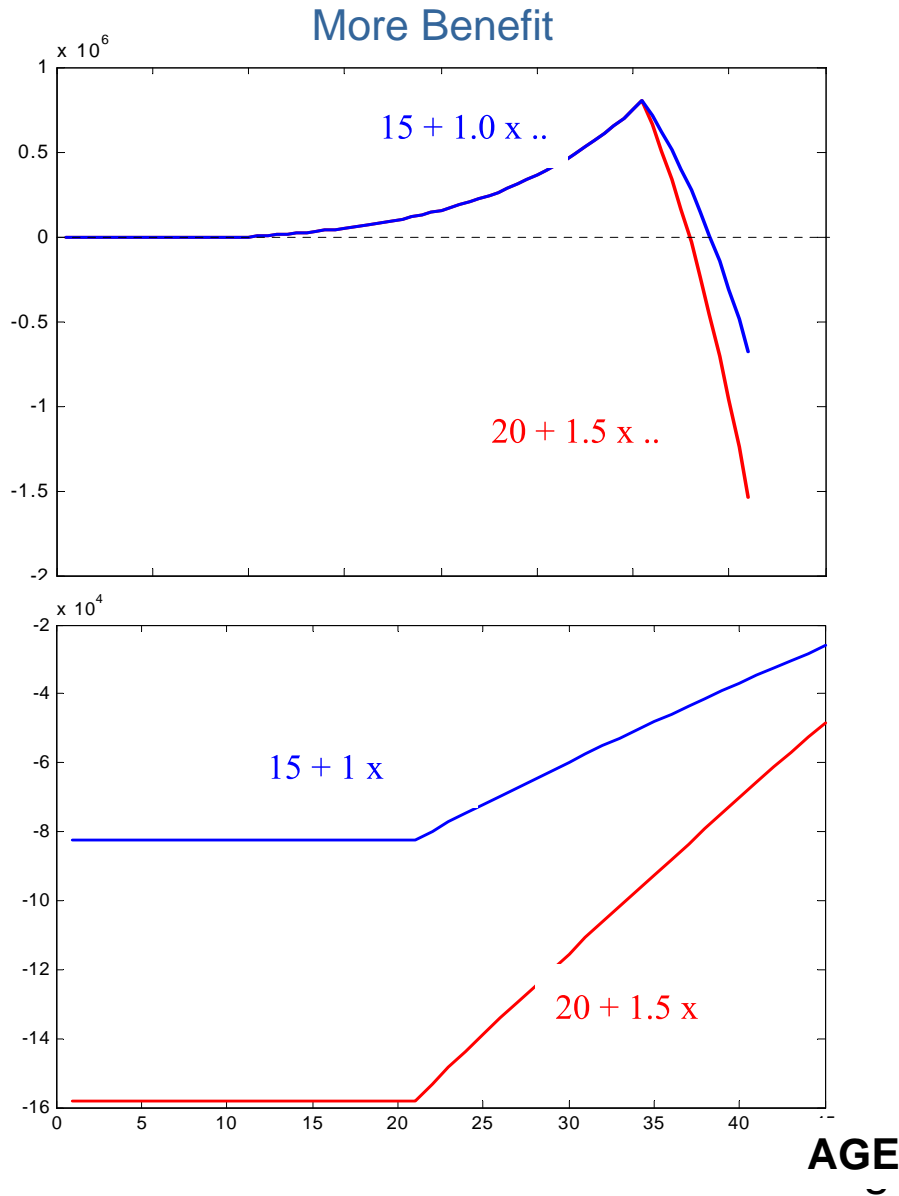
Fixed the details of the pension fund

- Wage Indexation
- Benefit Indexation
- Average wages calculation
- Incentive to delayed retirement
- Monitoring system

Long run

Move toward private accounts system to supplement the defined benefit system & actively implement structural policy on education/savings

Sensitivity Analysis of Each Policy Levers



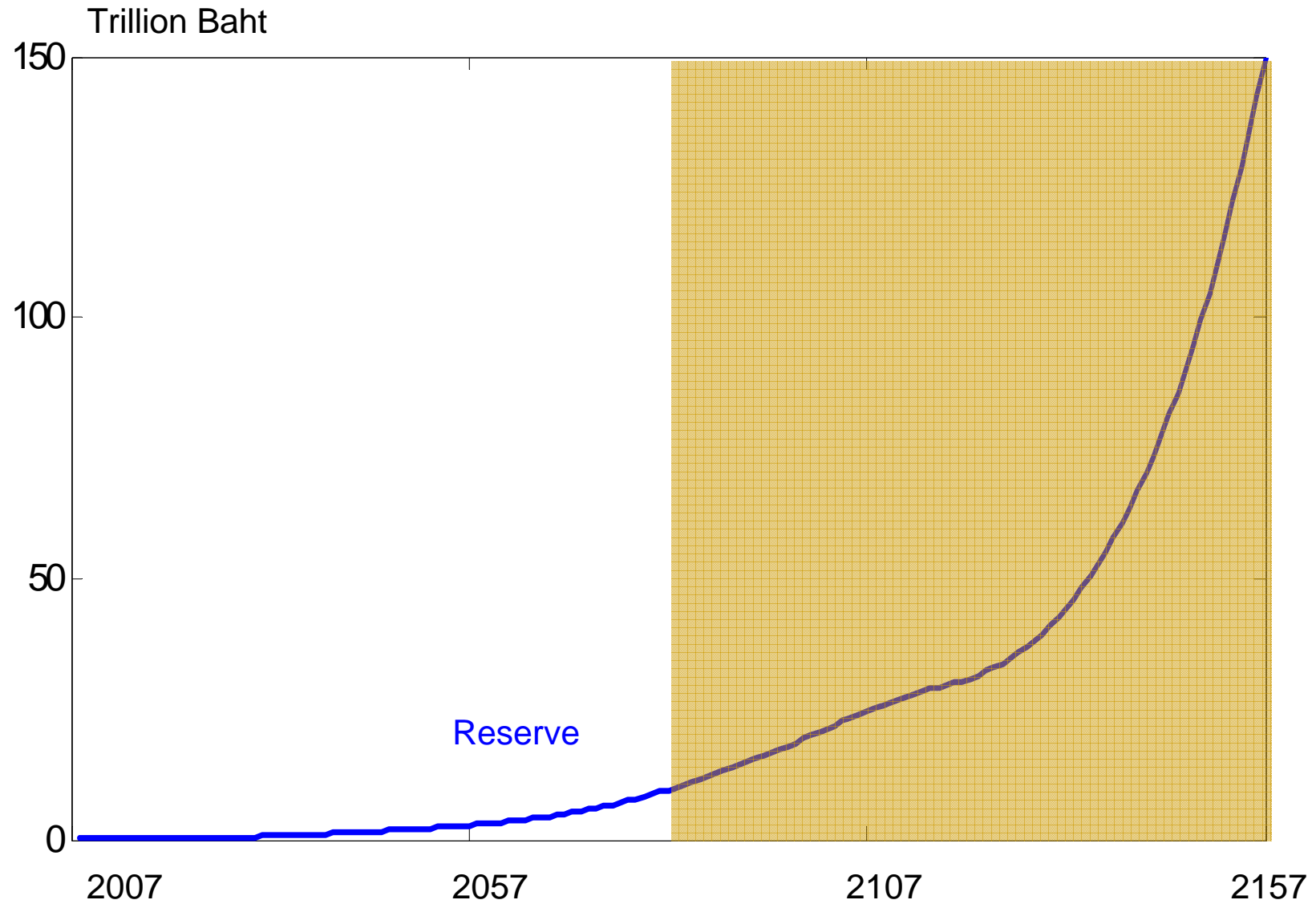
	NPV		
	Cohorts 20 yrs	Closed Group	Opened Group
Baseline NPV	-34,471	-711 b.	-2.1 t.
1 % More Benefits	-9%	-8%	-7%
1% more on investment	+75%	+28%	+34%
1% More Contribution	+42%	+22%	+21%
1 Yrs Later (Retirement)	+15%	+9%	+7%

Quick Back of the Enveloped Calculation

	Changes in NPV of the open system
<u>Present position</u>	100%
• 5% increase in the replacement rate	= 5 x (+7) = +35%
• 5 years increase in the official retirement age	= 5 x (-7) = - 35%
These two measures will leave the system roughly in balance.	~ 100%
• 5% increase in the contribution rate	= 5 x (-21) = -105%
This final measure will help erase the system overall deficits.	-5%

Additional 1% contribution should also be considered to use that money to support the needy such as female and widows etc.

Reserve Accumulation 2007-2157 (Our Proposal)



Our Proposal

Short run

Solve the problem of too generous asap. before more expansion

Medium run

Fixed the details of the pension fund

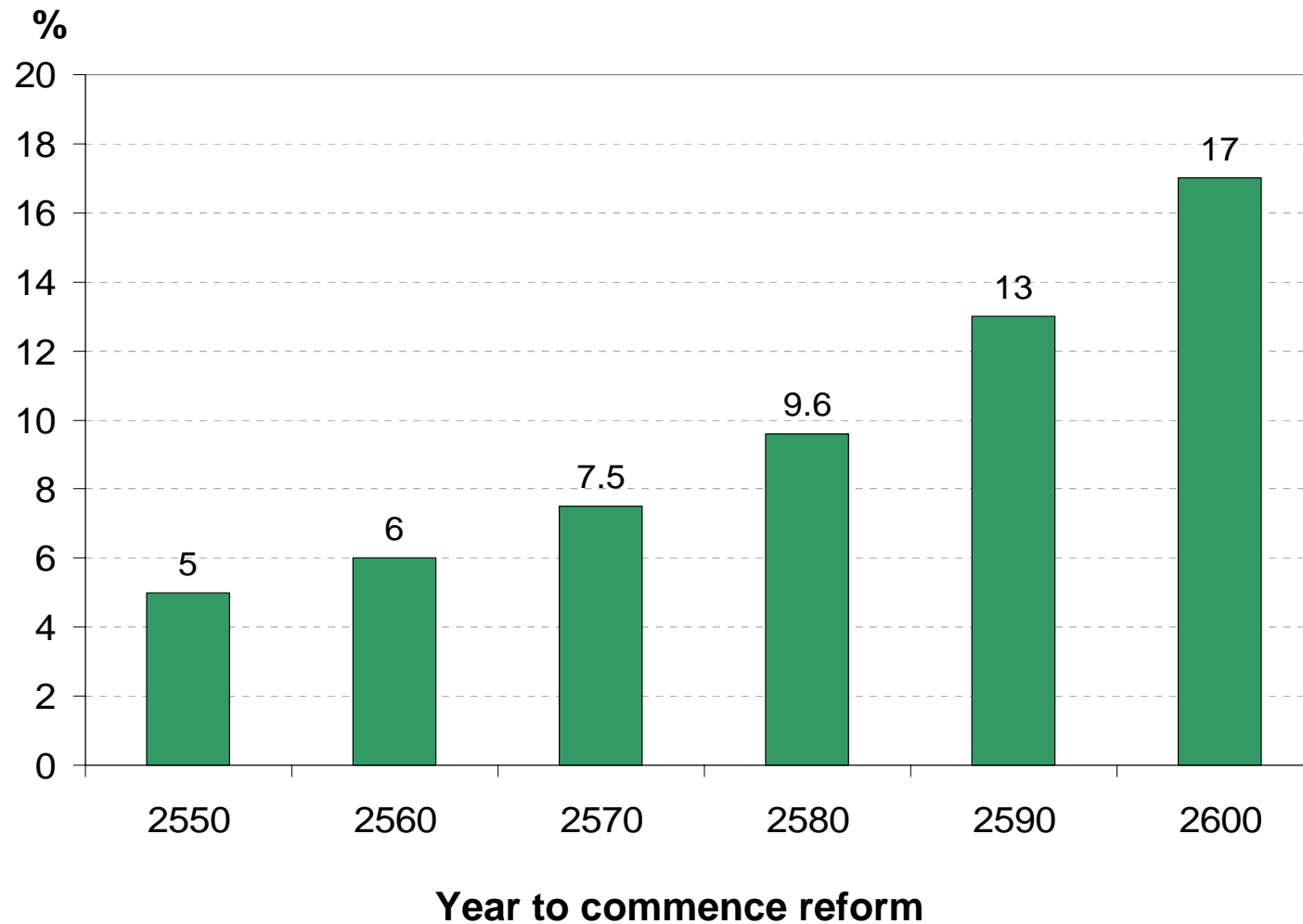
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Long run

Move toward private accounts system to supplement the defined benefit system & actively implement structural policy on education/savings

Delay is not an option

Required rate of additional contribution to keep the system solvent if the reforms is delayed and is implemented in that year.



Conclusion

- We have to prepare ourselves for the coming of aging society and the prospect of additional increase in the longevity.
- So we have to accept our responsibility and fix our social security (pension fund) as soon as possible to make sure that our most important tool to manage the longevity risk of the government will be well-designed and will help alleviate the adverse impacts of those trend.
- This is everyone's problem so we have to discuss this openly in the public and find optimal ways to manage these demographic challenge thereby saving our social security system, our future, and our next generations.