Putting an economic framework into Thailand's pension reform

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Old-age income support : why government intervention?

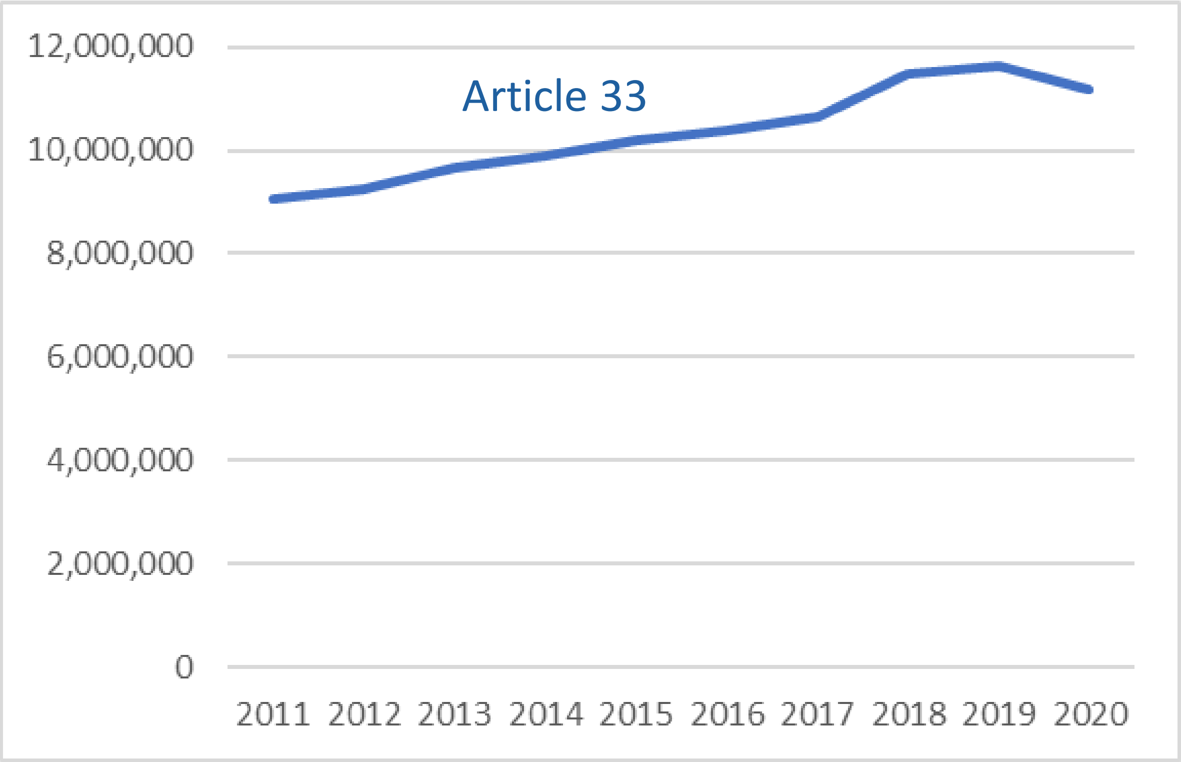
- Insure against longevity risk
- Redistribution of life-time earnings
- Help ensure that people save enough

Goals of public-provided old-age income policies

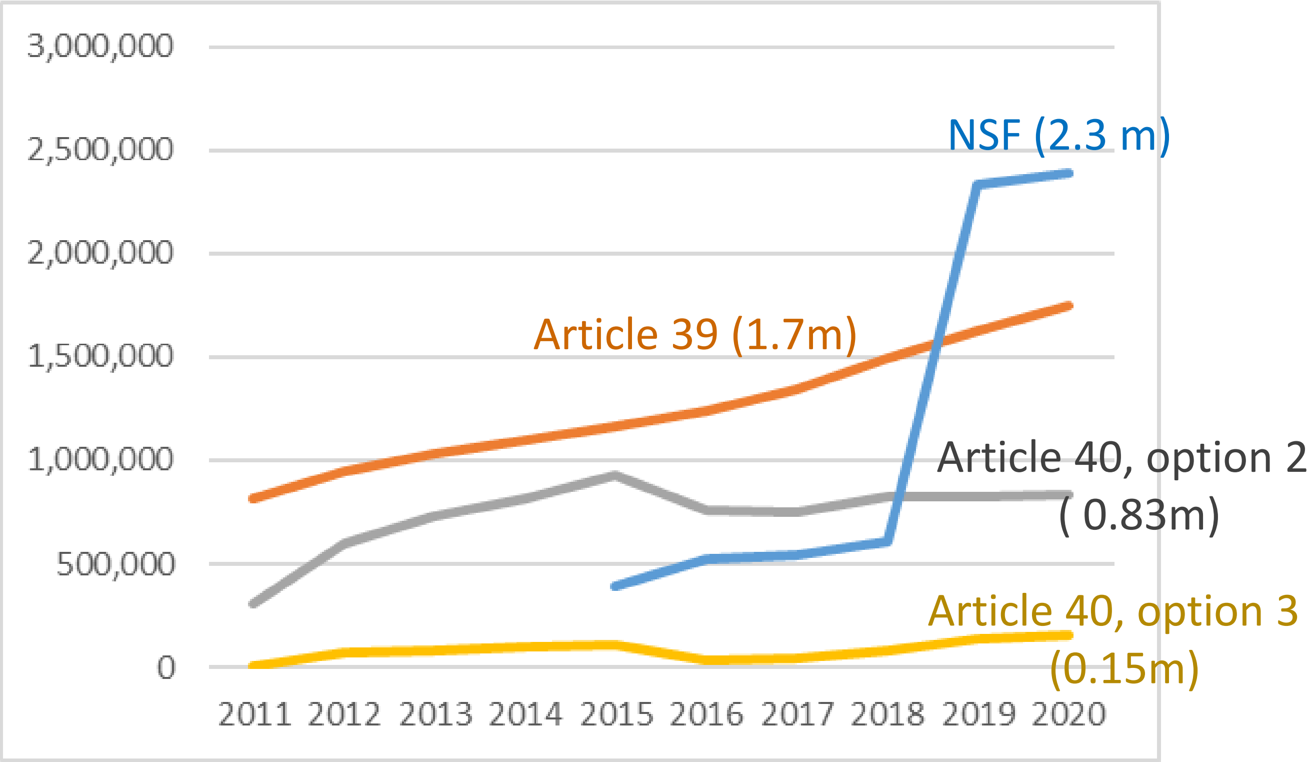
- Adequacy
- Integrity : fair within and across generations
- Fiscal sustainability

Focus on the Thai Social Security System (Article 33,39,40) and National Savings Fund (NSF)

Number of beneficiaries



Mandatory



Voluntary

Issues and proposals

- Adequacy
- Fairness
- Fiscal sustainability
- Other issues

Issues and proposals

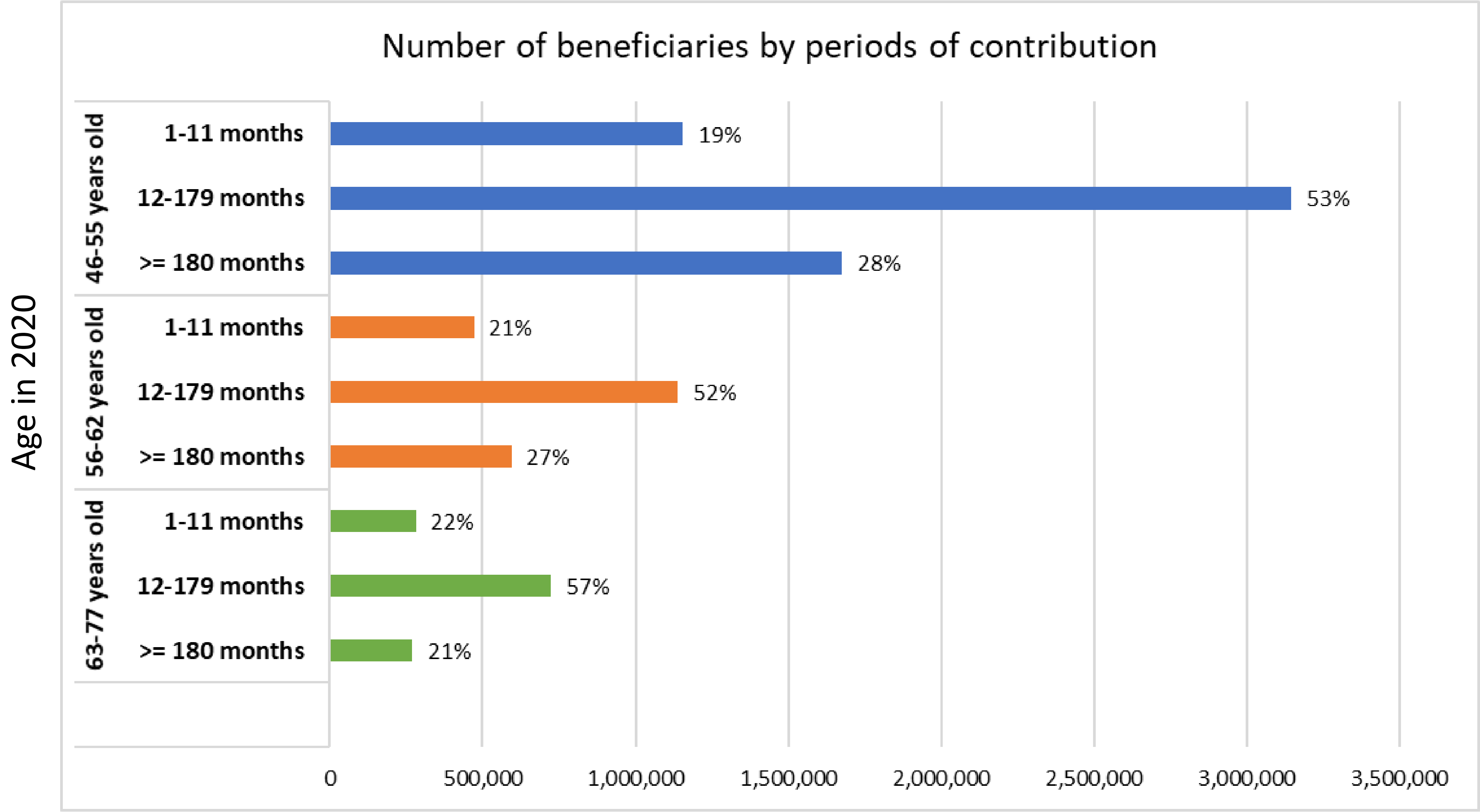
- Adequacy :
  - Are the current beneficiaries insured against longevity risk?
  - Among those insured, are the benefits adequate?
- Fairness
- Fiscal sustainability
- Other issues

Are the beneficiaries insured against longevity risk ?

Article 33/39 :	annuity	if contribute >= 180 months
	lump sum (own + employer contribution)	if contribute 12-179 months
	lump sum (own contribution)	if contribute 1-11 months
Article 40	lump sum 50 (or 150) x months x own savings + interest	
NSF	annuity	if balance >= 144,000
	600 baht/m until balance is zero	if balance < 144,000

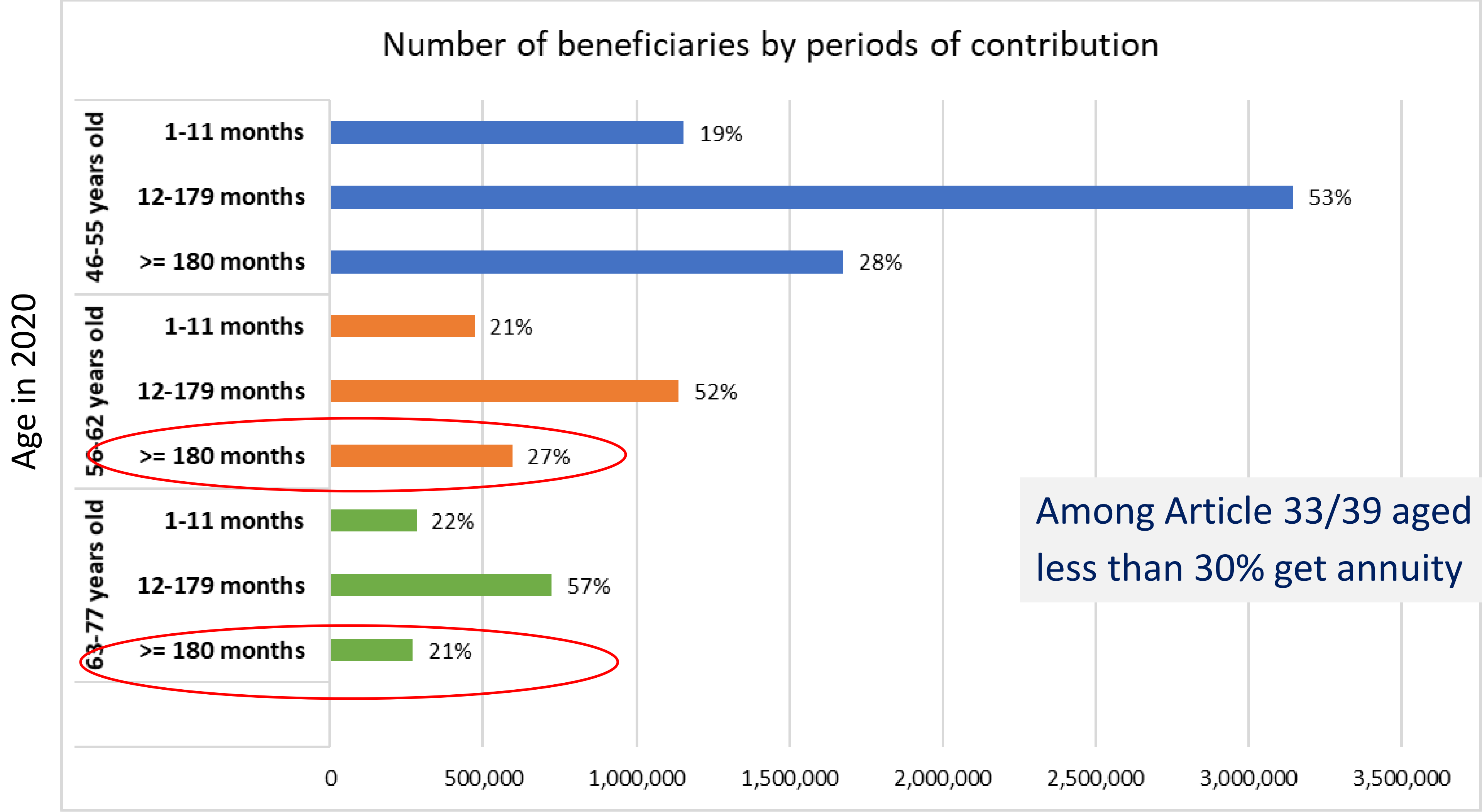
Are the Article 33/39 beneficiaries insured against longevity risk ?

Article 33/39 beneficiaries (aged 46-77 in 2020) : 9.45 millions



Are the Article 33/39 beneficiaries insured against longevity risk ?

Article 33/39 beneficiaries (aged 46-77 in 2020) : 9.45 millions

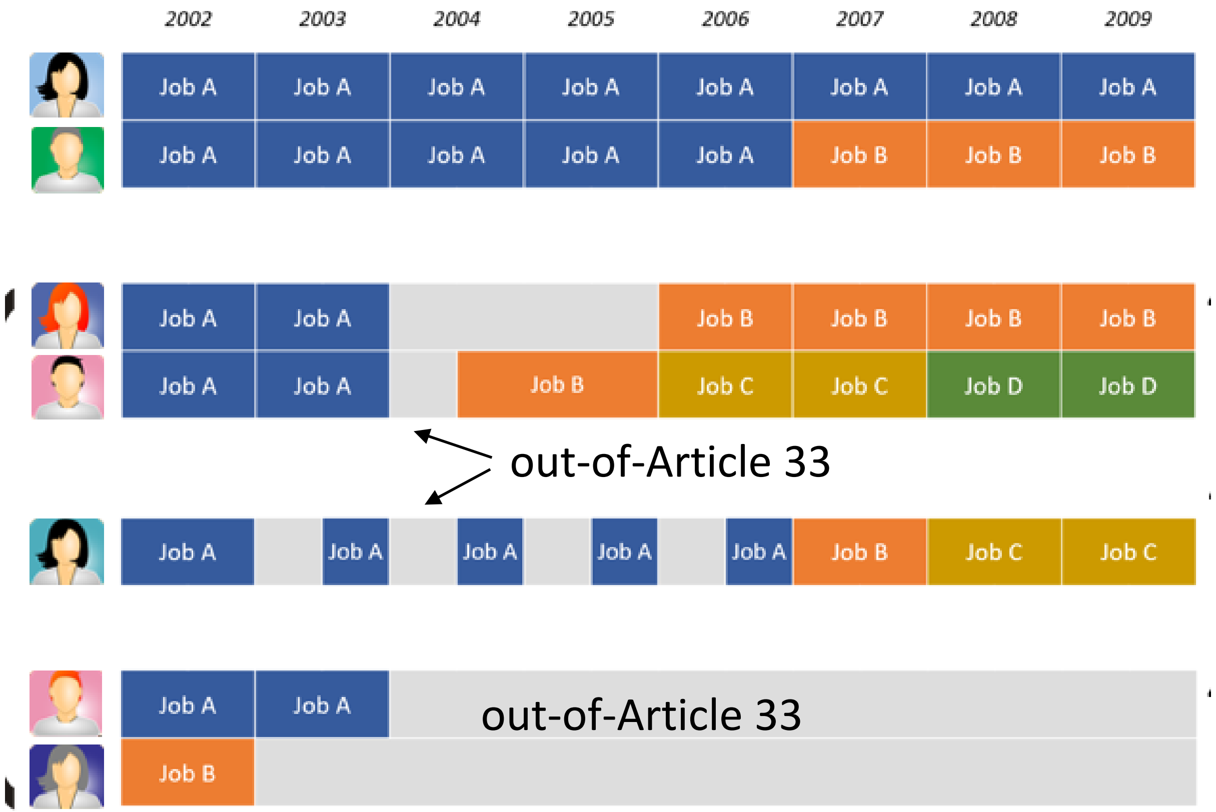


Among Article 33/39 aged 56 by 2020, less than 30% get annuity

Many young workers (Article 33) exit the formal sector early --> unlikely eligible

Sample : 5.5 million employees (aged 15-44 in 2002) x 96 months
6.1 million employees (aged 15-44 in 2010) x 96 months

Using k-means clustering of employment history reveals 4 work patterns



Cohort	2002-2010	2010-2018
Pattern 1	38%	42%
Pattern 2	33%	30%
Pattern 3	14%	13%
Pattern 4	15%	15%

Issues and proposals

- Adequacy : for everyone and for all ages
  - Are the current beneficiaries insured against longevity risk?
    - Many are not. Reduce the number of required contribution years to 10 ?

    A crucial question: why do many Thai workers exit the formal sector early?

Issues and proposals

- Adequacy : for everyone and for all ages
    - Are the current beneficiaries insured against longevity risk?
    - For those insured, are the benefits adequate?
- Fairness : is the current pension formula fair?
- Fiscal sustainability
- Other issues

For those who receive annuity (contributed >=180 months), is it adequate ?

Article 33’s pension benefit

Contributed for 180 months (15 years)

pension = 0.2 x average salary

Contributed for over 180 months (15 years)

pension = (0.2 + 0.015 x (years contributed -15)) x average salary

Average salary = last working 60 months; capped at 15,000 baht per month

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Average salary = last working 60 months; capped at 15,000 baht per month

The formula implies

- Low benefits for those with short contribution years (old cohorts ; semi-formal workers)
- Absence of redistributive feature
- Unfair to those who experience salary drop in the final 60 months

Current benefits and replacement rates (initial benefit/ average (capped) income)

Article 33/39 beneficiaries (age 63-77 in 2020) contributing >=180 months

Income quartile	Average income	Pension	Replacement rate
Q1	4,368	1,308	24%
Q2	6,874	1,755	25%
Q3	10,814	2,371	25%
Q4	17,048	3,143	25%

*avg. income is calculated based on the average (capped) income over the best 180 months.

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US Social Security

Average income	Pension	Replacement rate
$900	$810	90%
$3,000	$1,517	51%
$7,000	$2,590	37%

✓

Redistribution : replacement rate ⬆ when average earnings ⬇

No redistribution : no guarantee that low earners would have adequate pension

Source: US Social Security ; Benefit refers to Primary Insurance Amount before credit/deduction

Current formula is unfair for some beneficiaries. Consider anomaly example of Article 39

			Average monthly earnings	
	Calendar Yr	Age	Person 1	Person 2
1	2541	35	15,000	15,000
2	2542	36	15,000	15,000
3	2543	37	15,000	15,000
4	2544	38	15,000	15,000
5	2545	39	15,000	15,000
6	2546	40	15,000	15,000
7	2547	41	15,000	15,000
8	2548	42	15,000	15,000
9	2549	43	15,000	15,000
10	2550	44	15,000	15,000
11	2551	45	15,000	15,000
12	2552	46	15,000	15,000
13	2553	47	15,000	15,000
14	2554	48	15,000	15,000
15	2555	49	15,000	15,000
16	2556	50	0	4,800
17	2557	51	0	4,800
18	2558	52	0	4,800
19	2559	53	0	4,800
20	2560	54	0	4,800

Article 39

By joining Article 39, Person 2 gets health insurance & other benefits in the last 5 years.

but receive lower pension for the rest of his/her life

Base level of contributions	Person 1	Person 2
Contribution (3%)	81,000	83,160
Current rule		
Avg. earnings over the last 60 months	15,000	4,800
Pension at age 55 years old	3,000	1,320

The number of beneficiaries who exited Article 33 and joined Article 39 is not trivial.

Age in 2020	Types	No. of beneficiaries	Share
63-77 years old	Always in article 33	123,832	46%
	Article 33 → 39	136,914	51%
	Article 33 →39 → 33	9,300	3%
56-62 years old	Always in article 33	389,693	65%
	Article 33 → 39	153,073	26%
	Article 33 → 39 → 33	50,935	9%

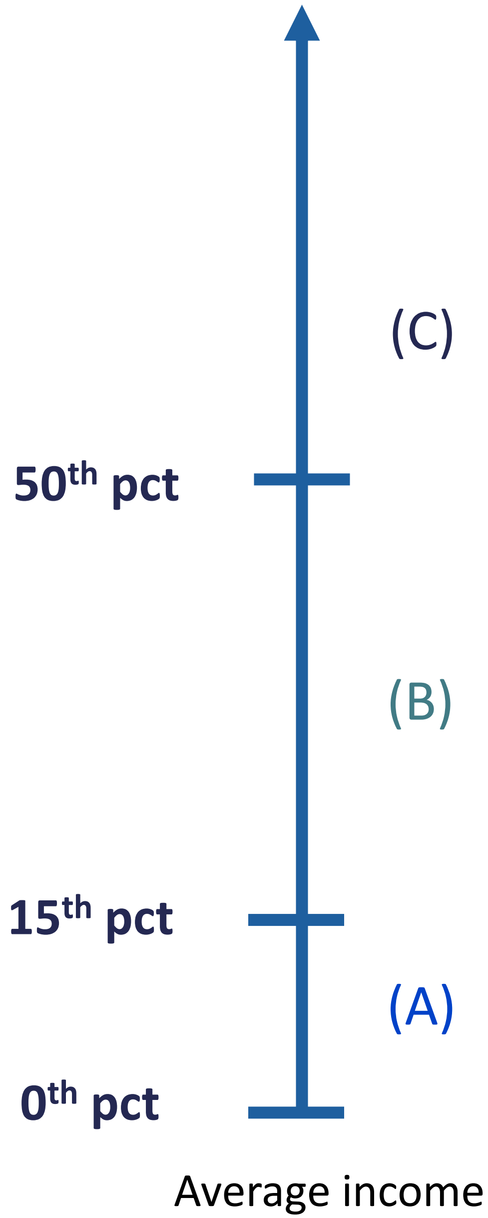
Note: Beneficiaries only include those contributed for at least 180 months.

Proposed change in the Article 33 pension formula

- use career-average as base salary rather than the last 60 months
- change the formula to have a redistributive feature
- wages are adjusted to real value at pensionable age
- flexible features (e.g., cap) to reflect the changing economy over time
- remove 1.5% increment for contributing over 15 years,

  but give credit when delaying claim
- benefits post-retirement are adjusted based on inflation

Proposed changes in formula :
Pension benefit increases with income, but in a non-linear fashion



(C) 0.8 (15th pct) + 0.5 (50th pct – 15th pct) + 0.1 (avg inc-50th pct)

(B) 0.8 (15th pct) + 0.5 (avg income- 15th pct)

(A) 0.8 (avg income)

Three-interval benefit formula

*avg. income is calculated from the average over the best 180 months.

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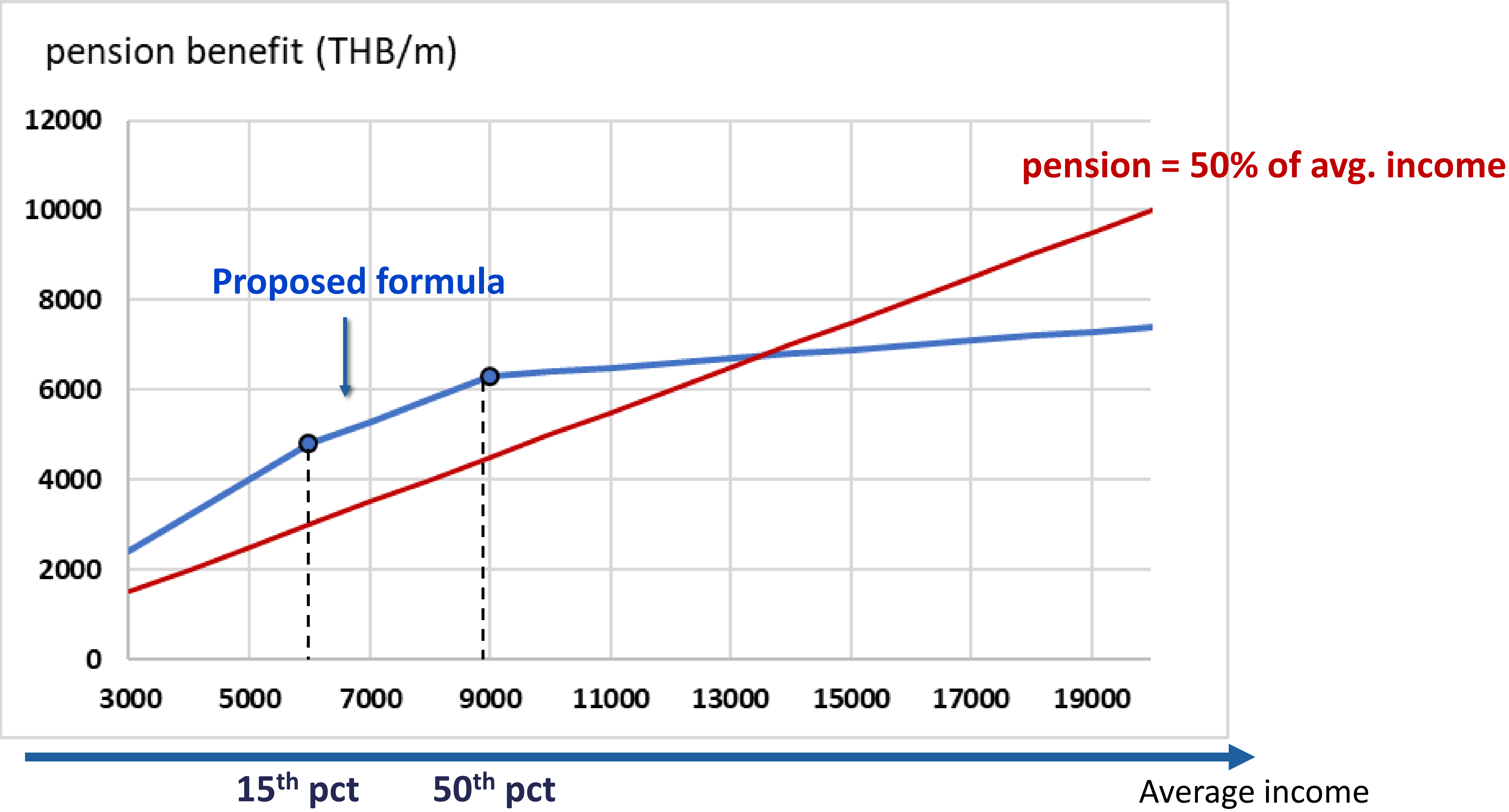

*avg. income is calculated from the average over the best 180 months.

Quartile of average salary	Current	Career average, wages are indexed to real value at age 55				
		No redistribution	.8*Bottom + .2*Middle + .1*Top	.8*Bottom + .5*Middle + .1*TopInc	8*Bottom + .2*Middle + .1*Top	.8*Bottom + .5*Middle + .1*TopInc
		Base salary capped at 15,000			Increased cap	
	[1]	[2]				
Benefits (baht/month)						
Q1	1,308	1,061				
Q2	1,755	1,702				
Q3	2,371	2,741				
Q4	3,143	4,317				
Replacement rate (benefit / avg. income)*						
Q1	0.24	0.24				
Q2	0.25	0.25				
Q3	0.25	0.25				
Q4	0.25	0.25				

Note : sample = cohort aged 63-77 in 2020; benefit is approximate from earnings history; avg. income is capped.

Quartile of average salary	Current	Career average, wages are indexed to real value at age 55				
		No redistribution	.8*Bottom + .2*Middle + .1*Top	.8*Bottom + .5*Middle + .1*TopInc	8*Bottom + .2*Middle + .1*Top	.8*Bottom + .5*Middle + .1*TopInc
		Base salary capped at 15,000			Increased cap to 90th percentile	
	[1]	[2]	[3]	[4]	[5]	[6]
Benefits (baht/month)						
Q1	1,308	1,061	3,159	3,322	3,161	3,324
Q2	1,755	1,702	4,046	4,564	4,065	4,588
Q3	2,371	2,741	4,344	4,989	4,465	5,117
Q4	3,143	4,317	5,340	6,087	5,620	6,358
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Q4	0.25	0.25				

Note : sample = cohort age 63-77 in 2020; avg. income is capped in columns 2-4.

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Q4	3,143	4,317	5,340	6,087	5,620	6,358
Replacement rate (benefit / avg. income)*						
Q1	0.24	0.24	0.73	0.76	0.73	0.76
Q2	0.25	0.25	0.59	0.67	0.59	0.67
Q3	0.25	0.25	0.41	0.47	0.39	0.45
Q4	0.25	0.25	0.31	0.36	0.28	0.32

Note : sample = cohort age 63-77 in 2020; avg. income is capped in columns 2-4.

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current retirement income of SS beneficiaries = SS pension + universal elderly allowance

vs.

SS pension + (SSpension-tested) elderly allowance

Issues and proposals

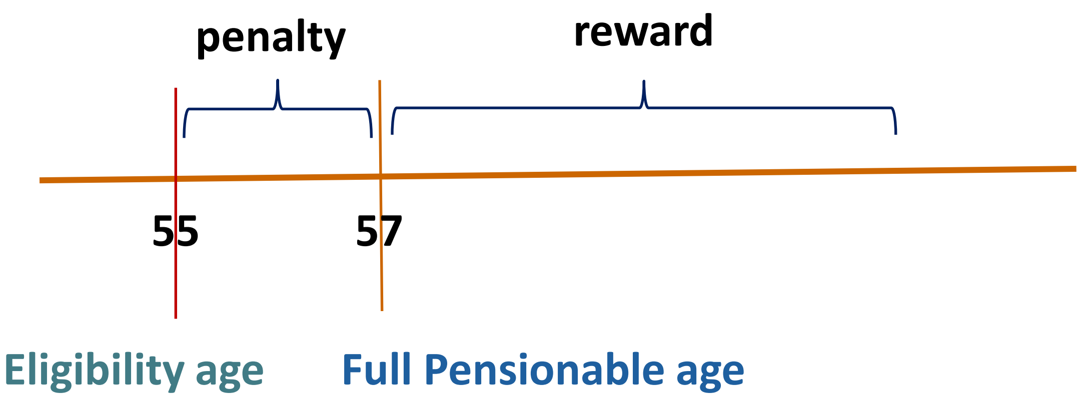
- Adequacy : for everyone and for all ages
    - are the current beneficiaries insured against longevity risk?
    - for those insured, are the benefits adequate?
- Fairness : is the current pension formula fair?
- Fiscal sustainability : unlikely, but how to delay claiming while minimizing negative impacts
- Other issues : voluntary programs

Fiscal sustainability : how to increase retirement age without hurting too many beneficiaries

Proposal : any new rule

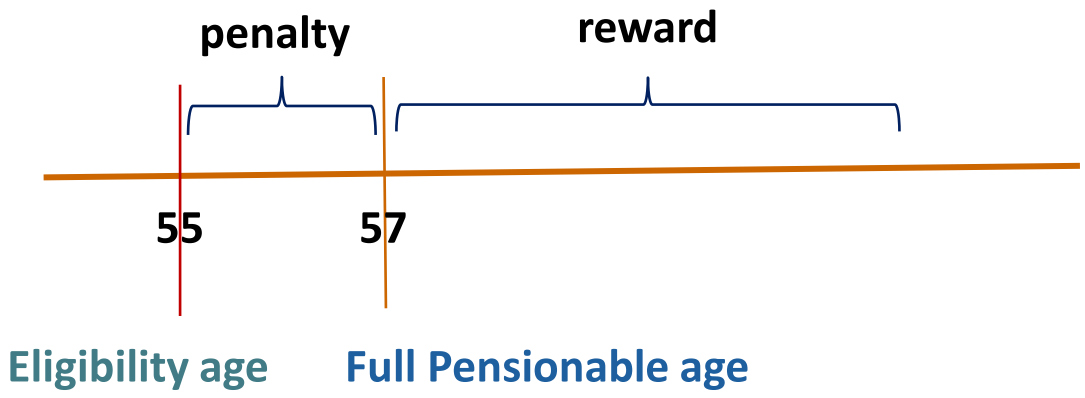
- should affect only people who have time to adjust (e.g., no effect on those born before 1971)
- Age 55 is still eligible, but create higher incentive to retire later

Separate **Eligibility Age (55)** from **Full Pensionable Age (FPA)**



Create incentive to retire later: separate Eligibility Age (55) from Full Pensionable Age (FPA)

- Need gradual changes. Abrupt change would affect many beneficiaries.



Full Pensionable Age (FPA) gradually increases

55 years	if born before 1971,
55 years 6 months	if born in 1971
56 years	if born in 1972 …
…	

- Gradual change takes long time & needs to start soon
- How far FPA can go also depends on the practice of mandatory retirement at 60

Issues and proposals

- Adequacy : for everyone and for all ages
  - are the current beneficiaries insured against longevity risk?
  - for those insured, are the benefits adequate?
- Fairness : is the current pension formula fair?
- Fiscal sustainability : unlikely, but how to delay claiming while minimizing negative impacts

- Other issues : voluntary programs

The voluntary savings program : why is participation so low?

- Informal workers have irregular and low income.

- Welfare policy is time inconsistent. Govt always help in the end.

- Incentive is not sufficiently strong.
  current : similar gov. matched contribution for mandatory & voluntary programs
  proposal : much higher rate for voluntary scheme

- The offered schemes are not attractive
  current: pension is bundled with short-term benefit (e.g., child allowance, illness)
  proposal : unbundle old-age pension from other benefits

Conclusion

Key proposals

- several changes on the mandatory Social Security scheme
- stronger incentives - work longer and claim benefits later
  - voluntary savings schemes

Important strategies for any adjustment : a flexible rule, not a one-time adjustment
gradual change, not an abrupt change

Big picture : without a unified authority, hard to untangle the old-age income problem.