

Old-Age Income Support Schemes: Aging, Adequacy & Fiscal Sustainability

NADA WASI

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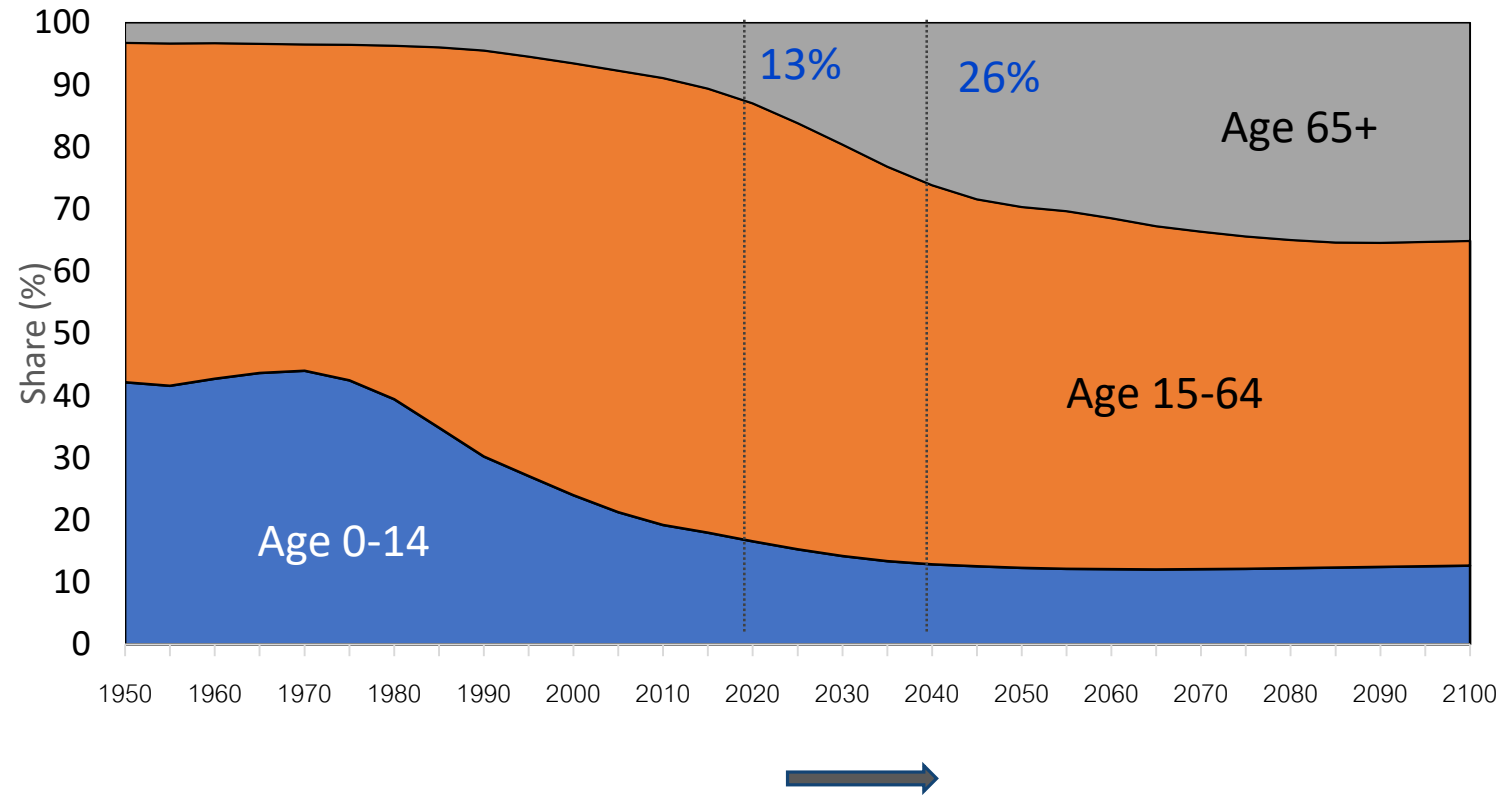
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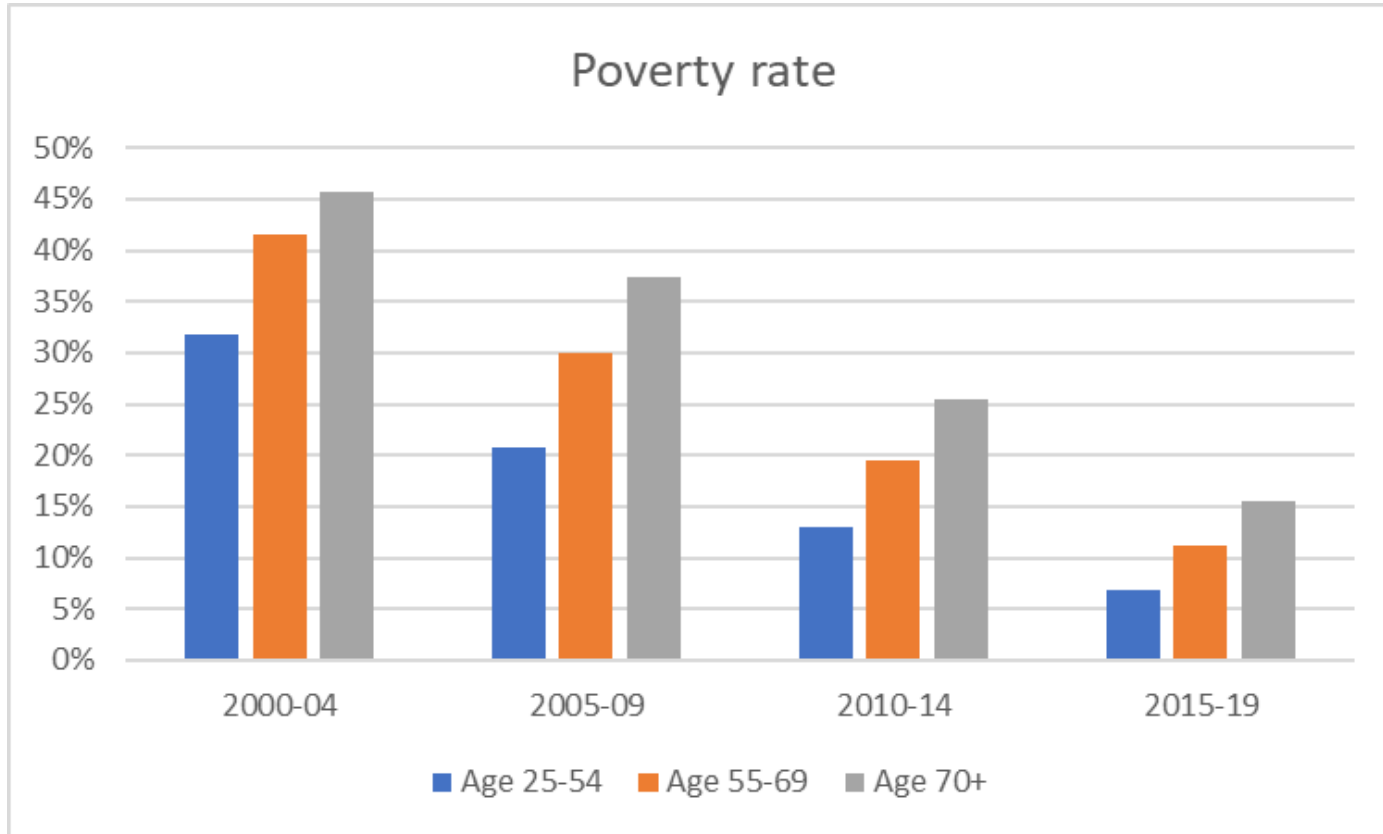
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Thailand is aging extremely fast

Share of population within each age groups

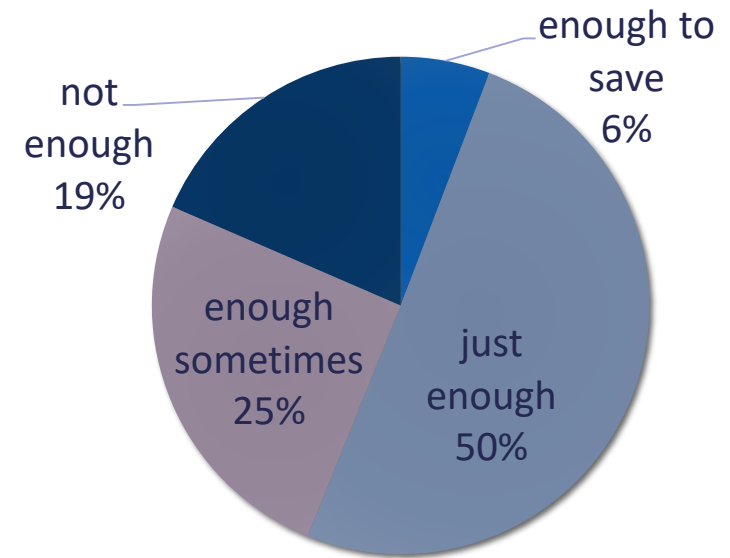


Poverty rate increased with age



Source : SES 2000-2019 based on NESDC's poverty definition

Do you think your income is adequate? (age 60+)



Source : NSO (2017)

Public old-age income support schemes must play a bigger role

Rationale for government intervention. What the market mechanism cannot do?

- Redistribution of life-time earnings across individuals
- Insure against longevity risk.
- For those who can save, ensure that they save for retirement

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**Adequate
for all elderly**

At the same time, the system must be **fair** and **fiscal sustainable**.

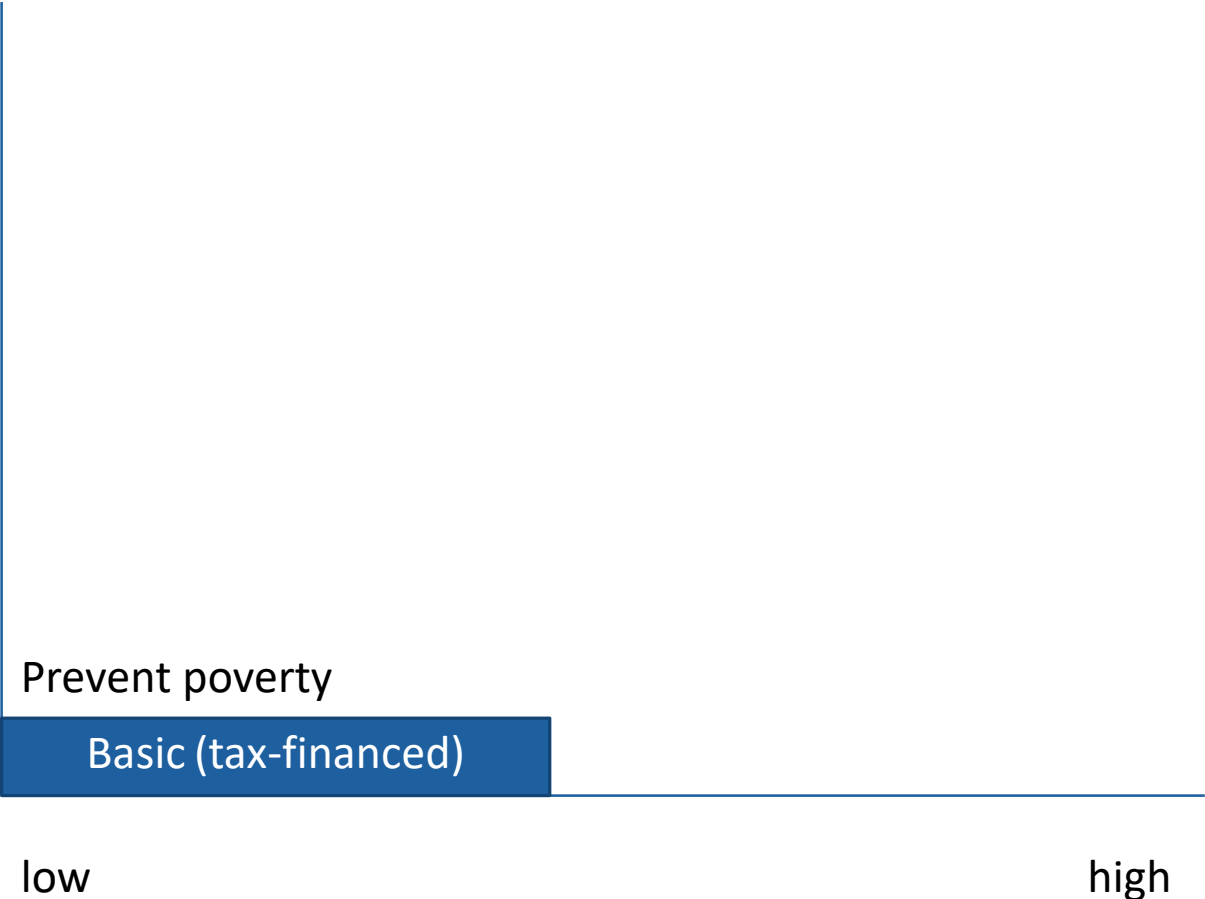
How other countries achieve those goals ?

Common practices :

- National old-age income support strategy
- Designs several schemes which complement each other and contribute to the goals set by the national strategy

Common practices

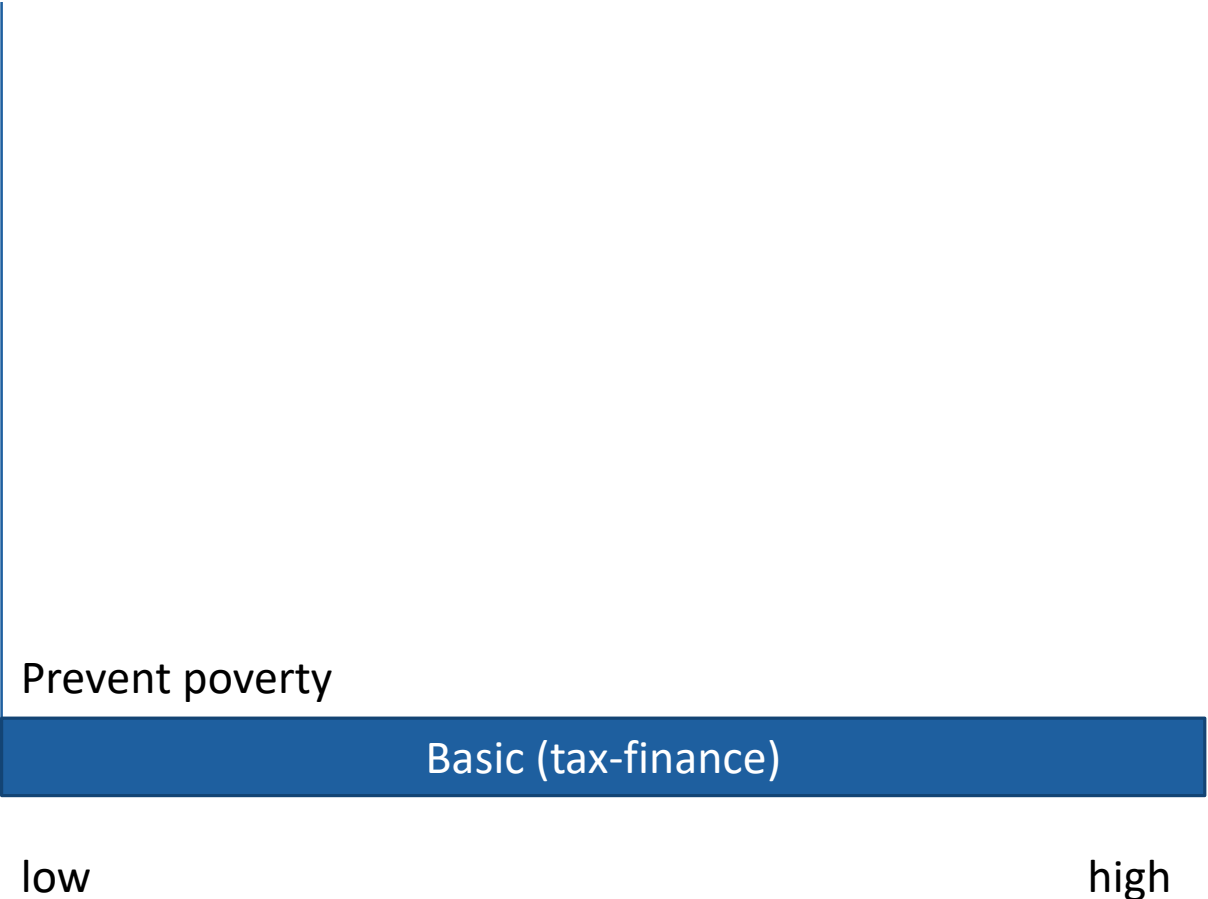
Pension benefits



Income during work years
(asset at old-age)

Common practices

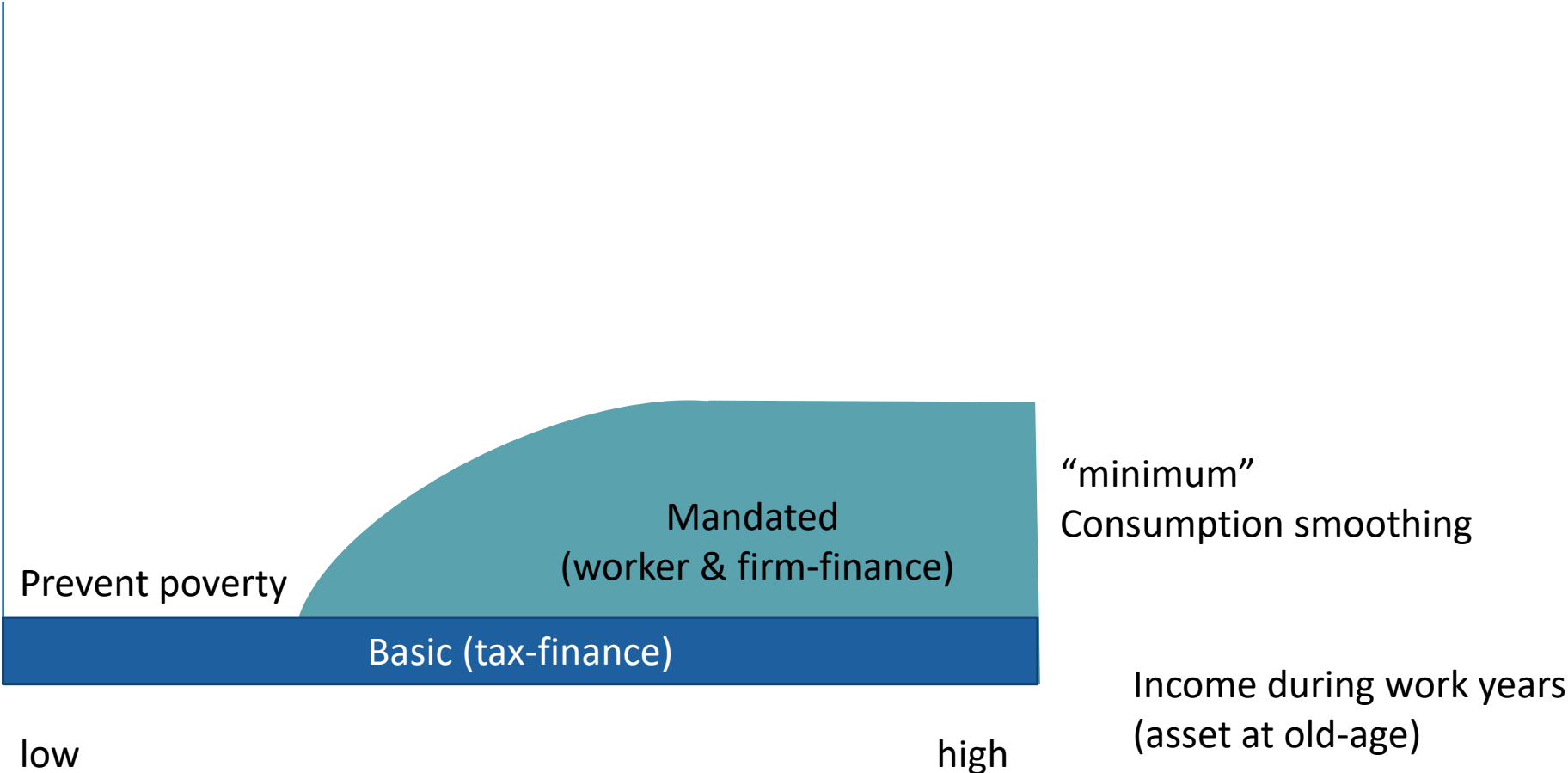
Pension benefits



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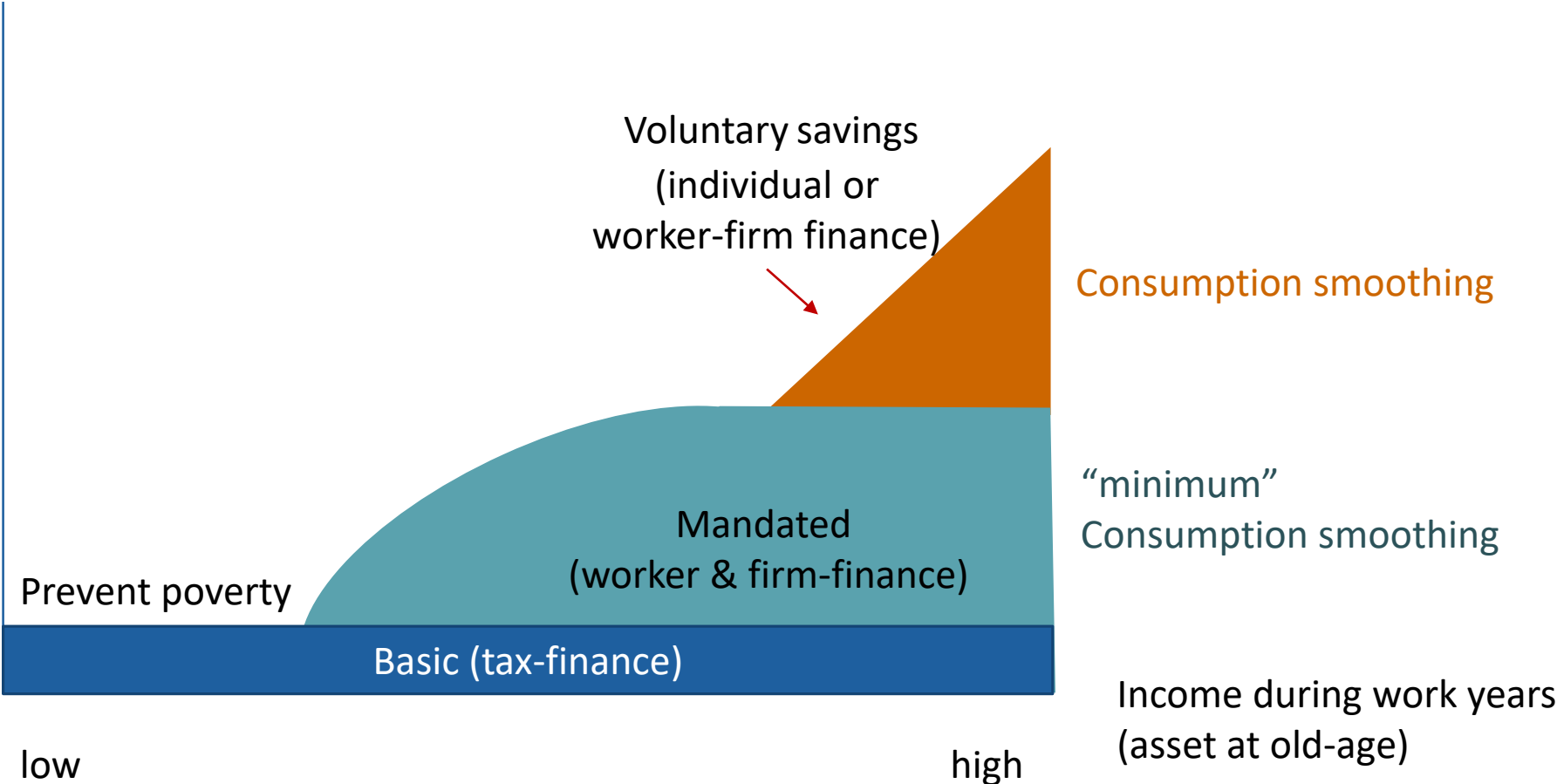
Common practices

Pension benefits

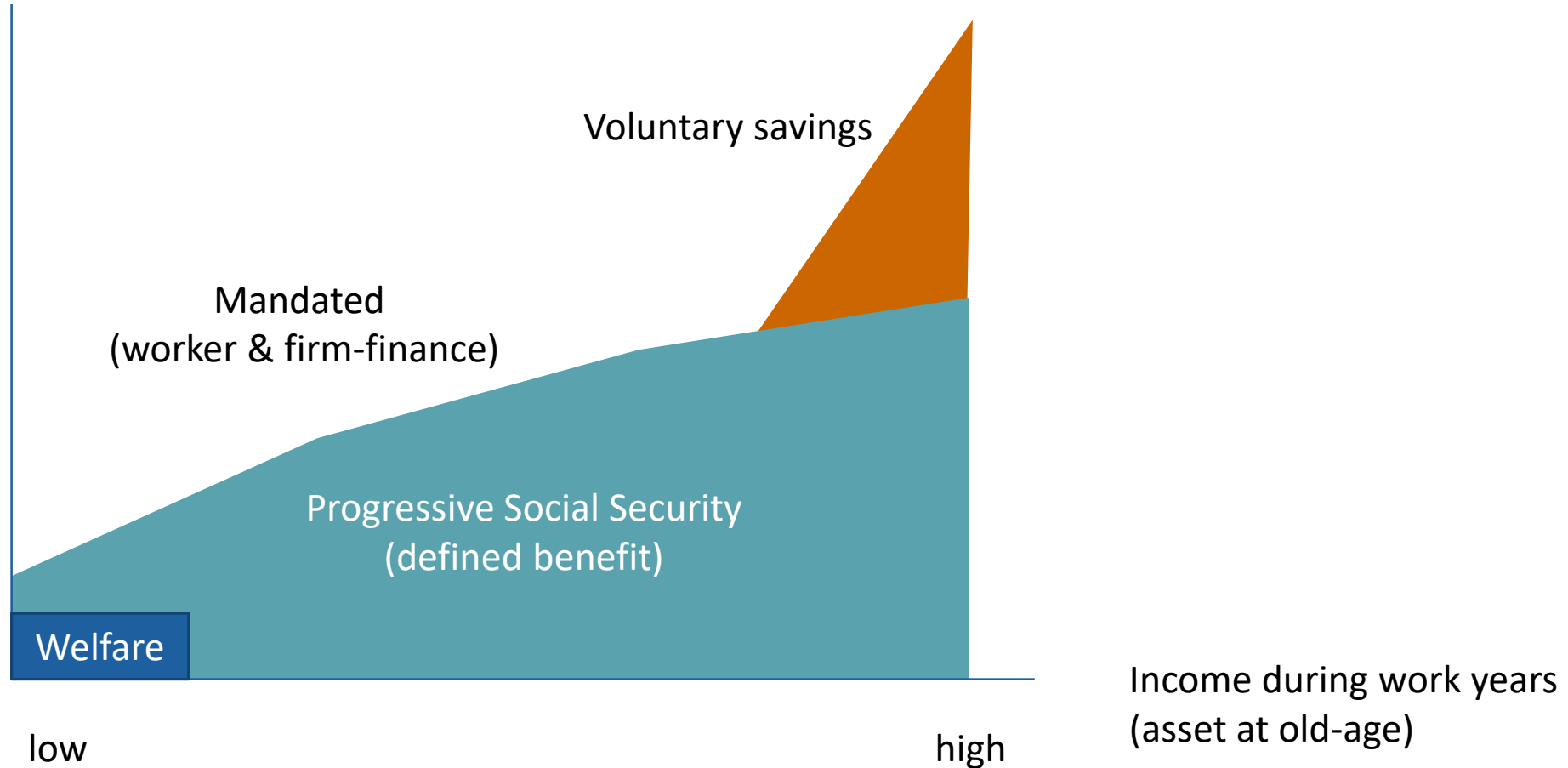


Common practices

Pension benefits

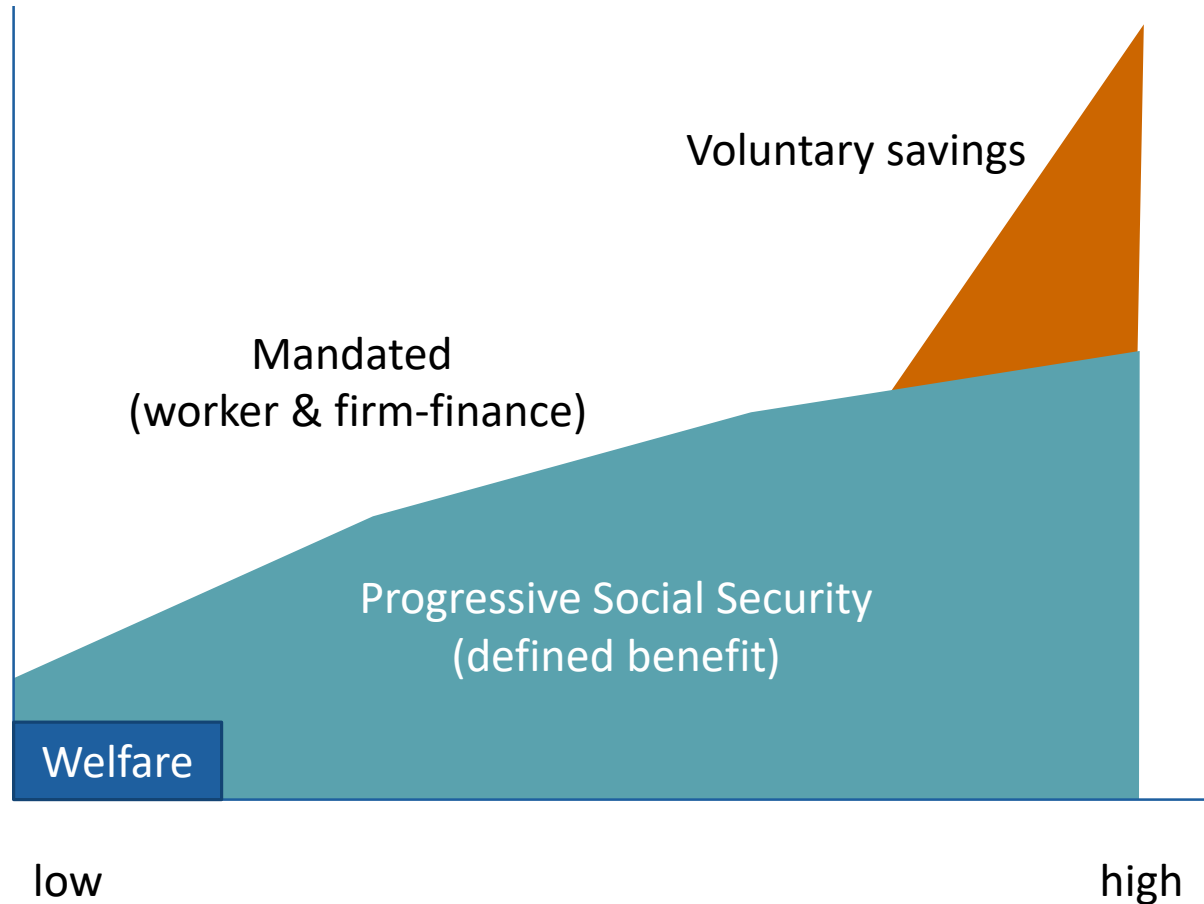


Pension benefits



USA

Pension benefits

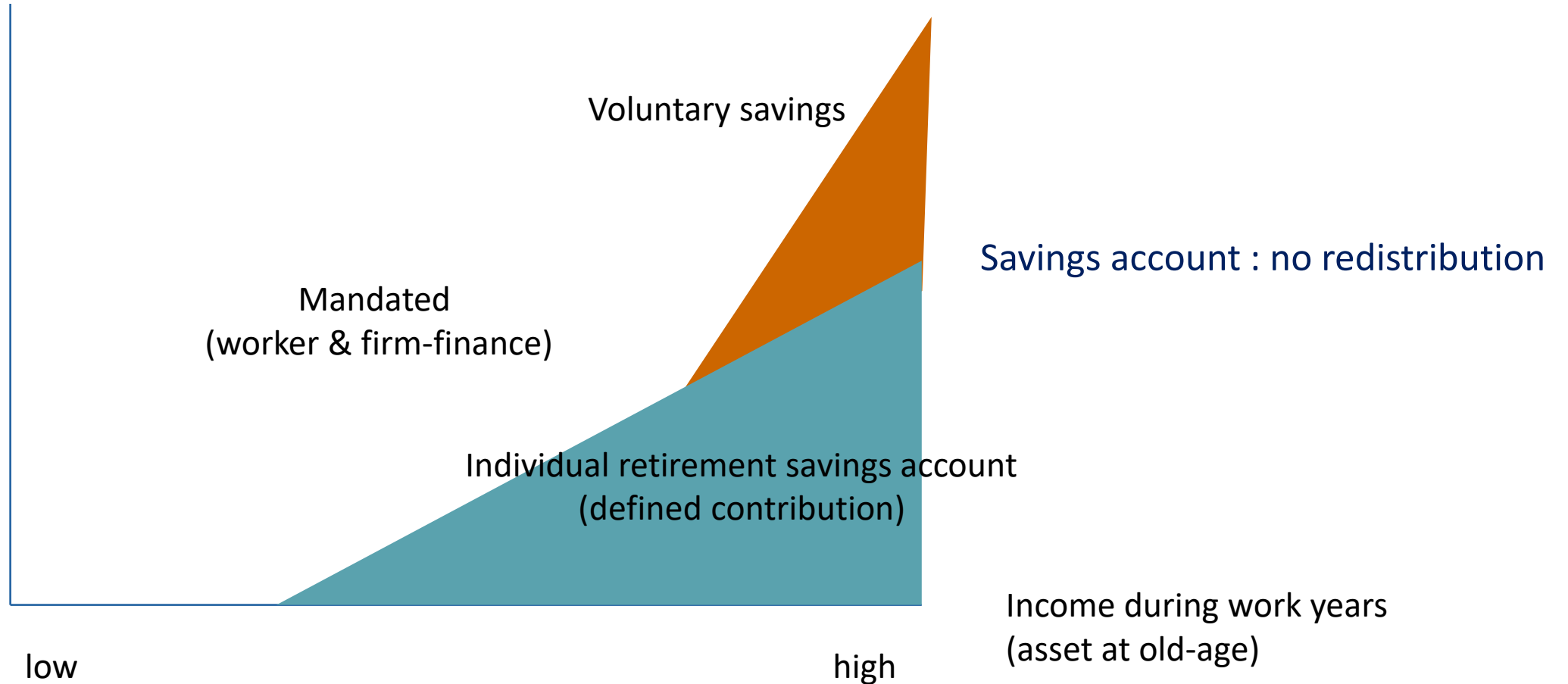


Average income	Pension	Replacement rate
\$900	\$810	90%
\$3,000	\$1,517	51%
\$7,000	\$2,590	37%

Income during work years
(asset at old-age)

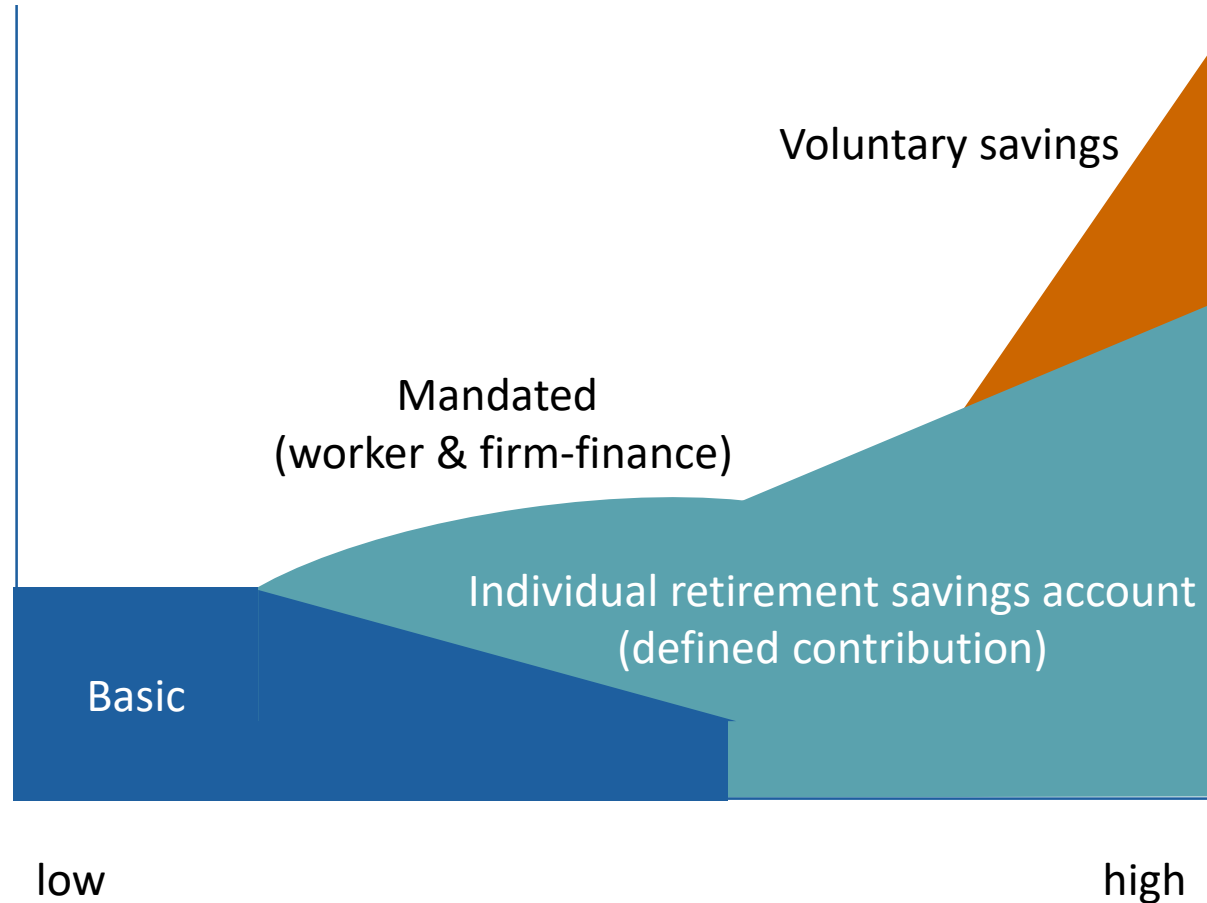
Australia

Pension benefits



Australia

Pension benefits



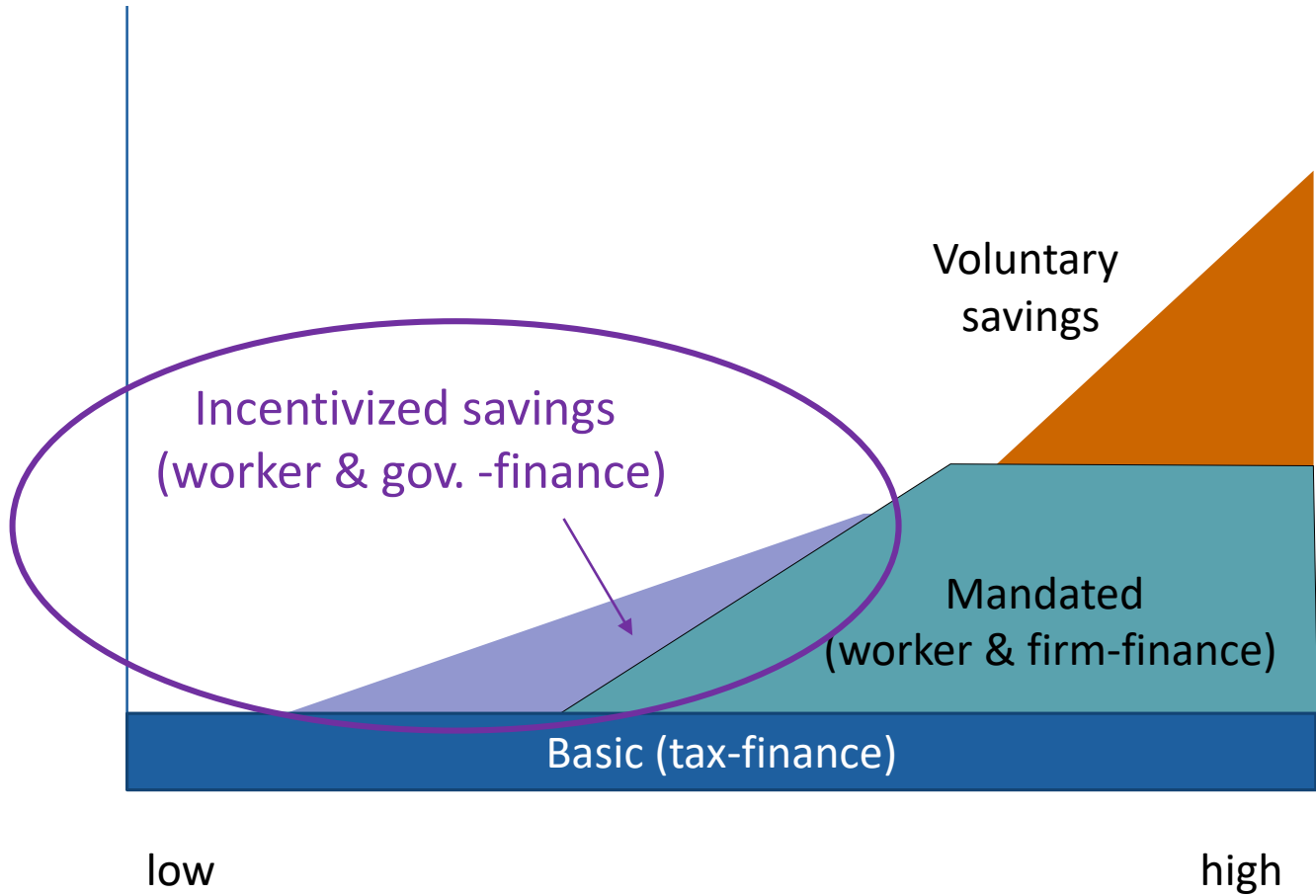
Savings account : no redistribution

Indirect redistribution via means-tested basic pension

Income during work years (asset at old-age)

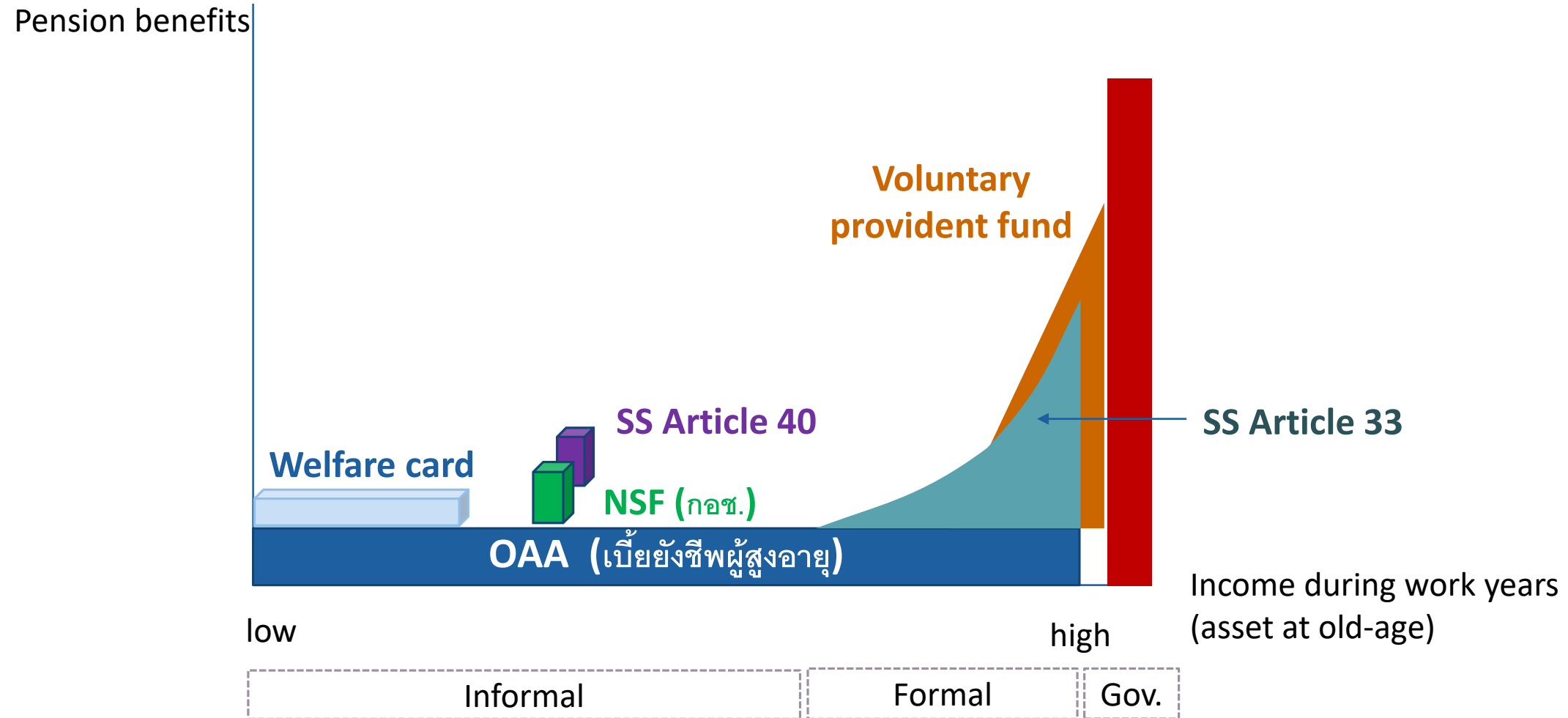
Informal sector : government does not observe income savings cannot be mandated

Pension benefits

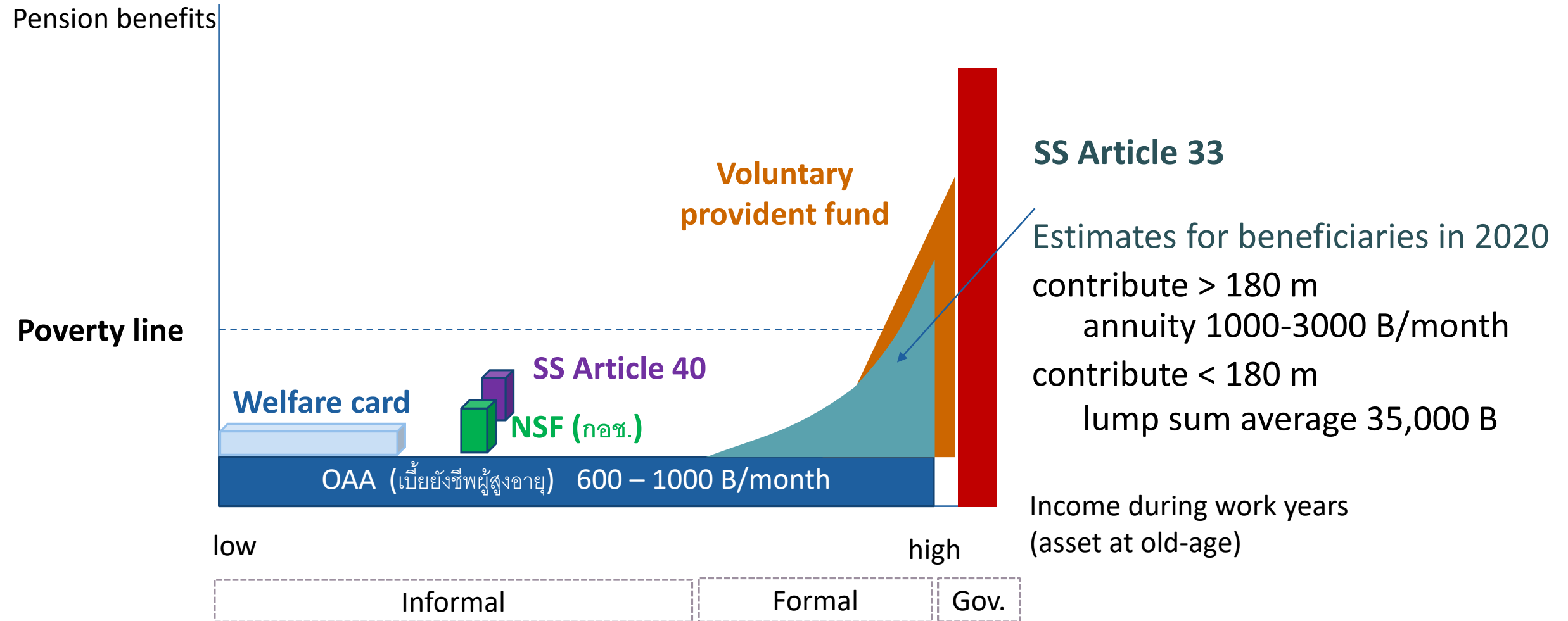


Income during work years (asset at old-age)

Thailand : all types of schemes exist.



Thailand : all types of schemes exist but benefits are still inadequate for most people.



Source of Inadequacy

- Benefits are not indexed to inflation (SS ประกันสังคม, NSF กอช., OAA เบี้ยยังชีพ)
- No ceiling adjustment

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- No ceiling adjustment

Most countries: (auto) adjust with wage growth/inflation

Source of Inadequacy

- Benefits are not indexed to inflation
- No ceiling adjustment
- Immature (SS full coverage started 2002 , NSF started 2015)

Source of Inadequacy

- Benefits are not indexed to inflation
- No ceiling adjustment
- Immature
- Limited redistribution

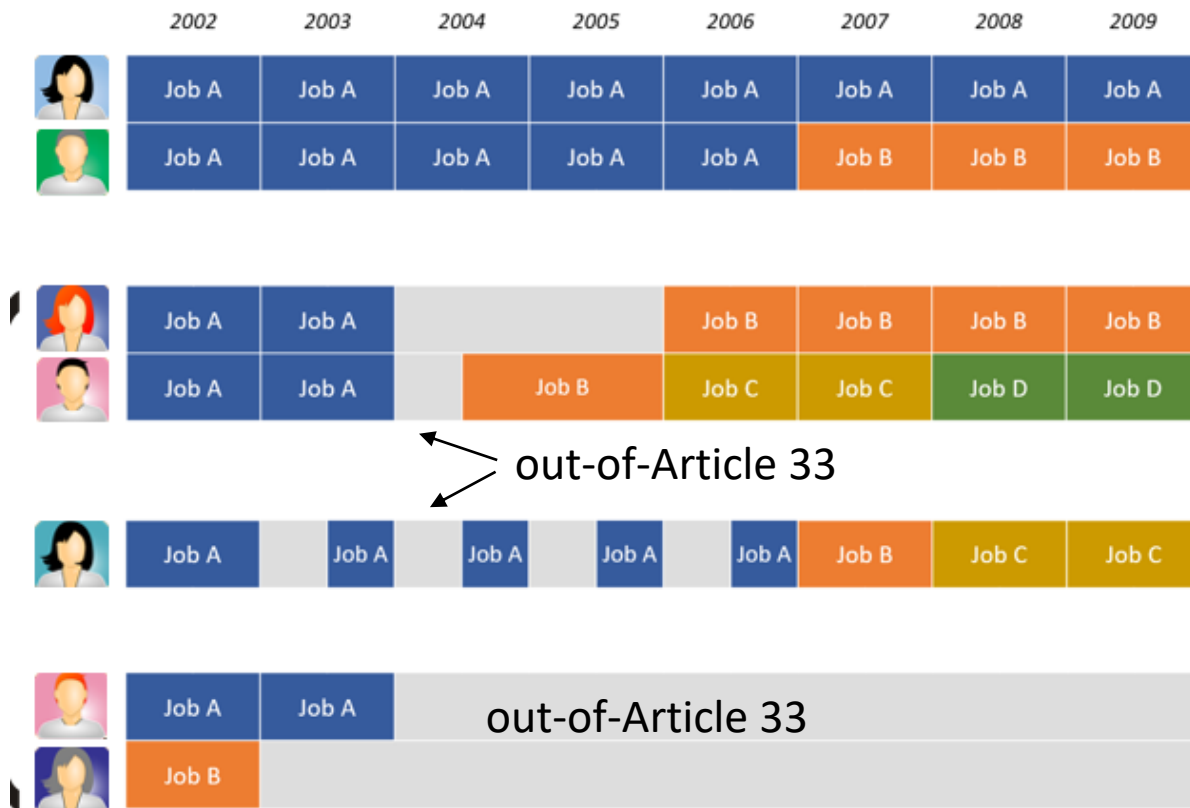
Source of Inadequacy

- Benefits are not indexed to inflation
- No ceiling adjustment
- Immature
- Limited redistribution
- Existing schemes do not reflect the nature of the Thai labor market

A non-trivial fraction of semi-formal workers --> unlikely eligible for SS/NSF annuity

Samples : 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

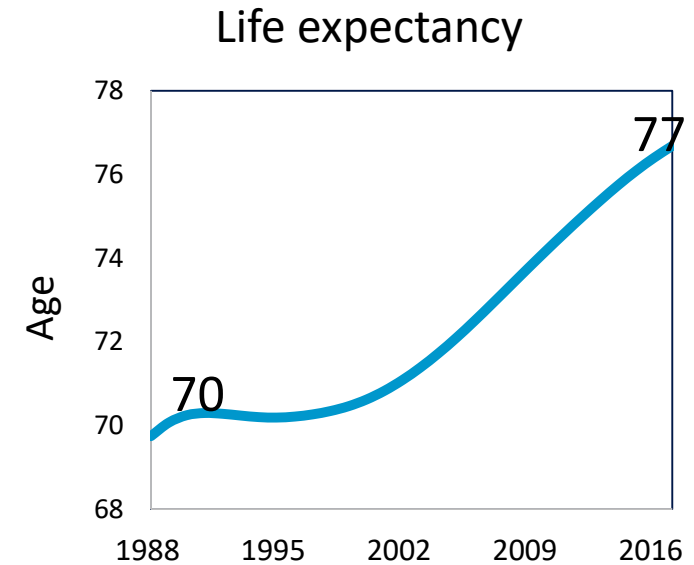


Cohort	2002-2010	2010-2018
Pattern 1	38%	42%
Pattern 2	33%	30%
Pattern 3	14%	13%
Pattern 4	15%	15%

Source of fiscal unsustainability

➤ Aging : more expenditure (more elderly, each living longer)

less revenue (less taxpayers)



Source of fiscal unsustainability

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- As Social Security (SS) matures, pensioners  contributors 

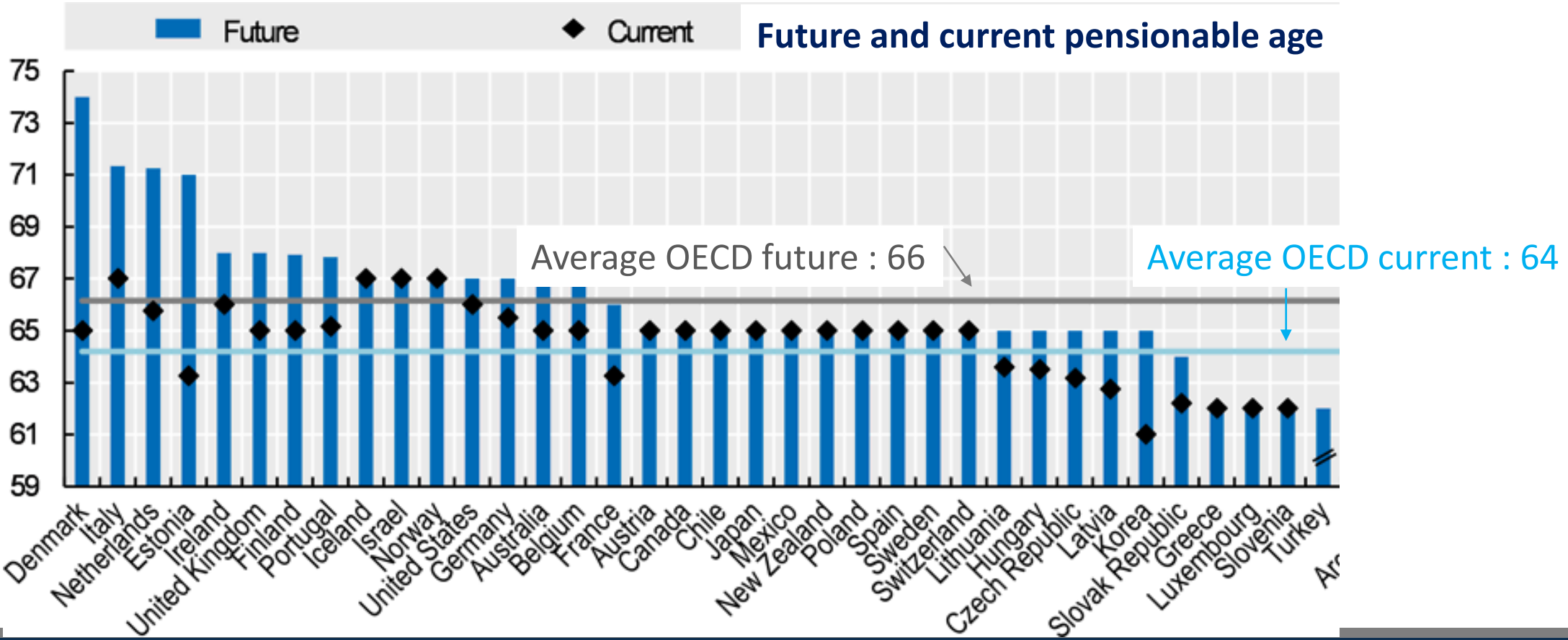
This is expected but SS could not scale up the premium over time as planned.

Without reform, SS is unlikely sustainable (ILO 2016).

Source of fiscal unsustainability

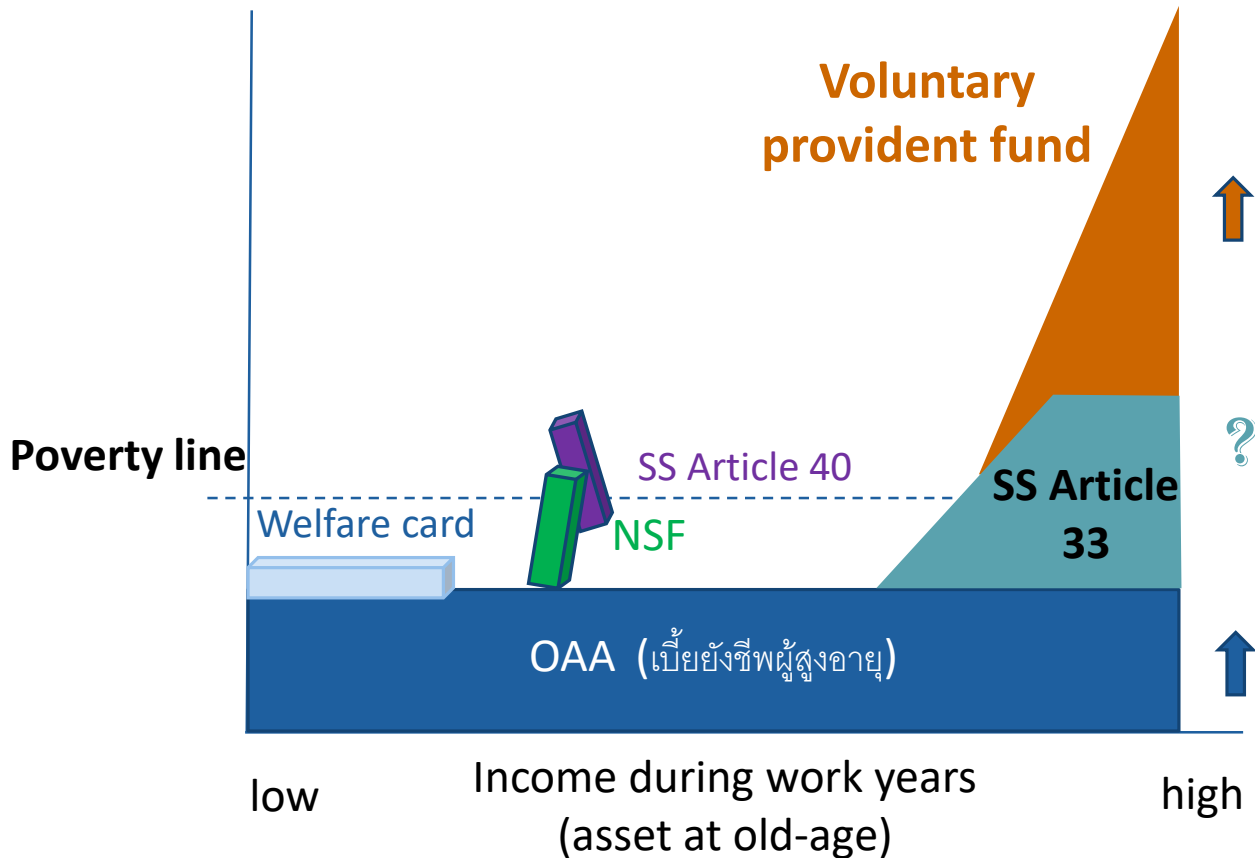
➤ SS pension eligible age remained at 55 since started.

Other countries have adjusted their eligible or full pensionable age.



We seem to lack of an integrated vision. Each scheme focuses on its own reform.

Pension benefits



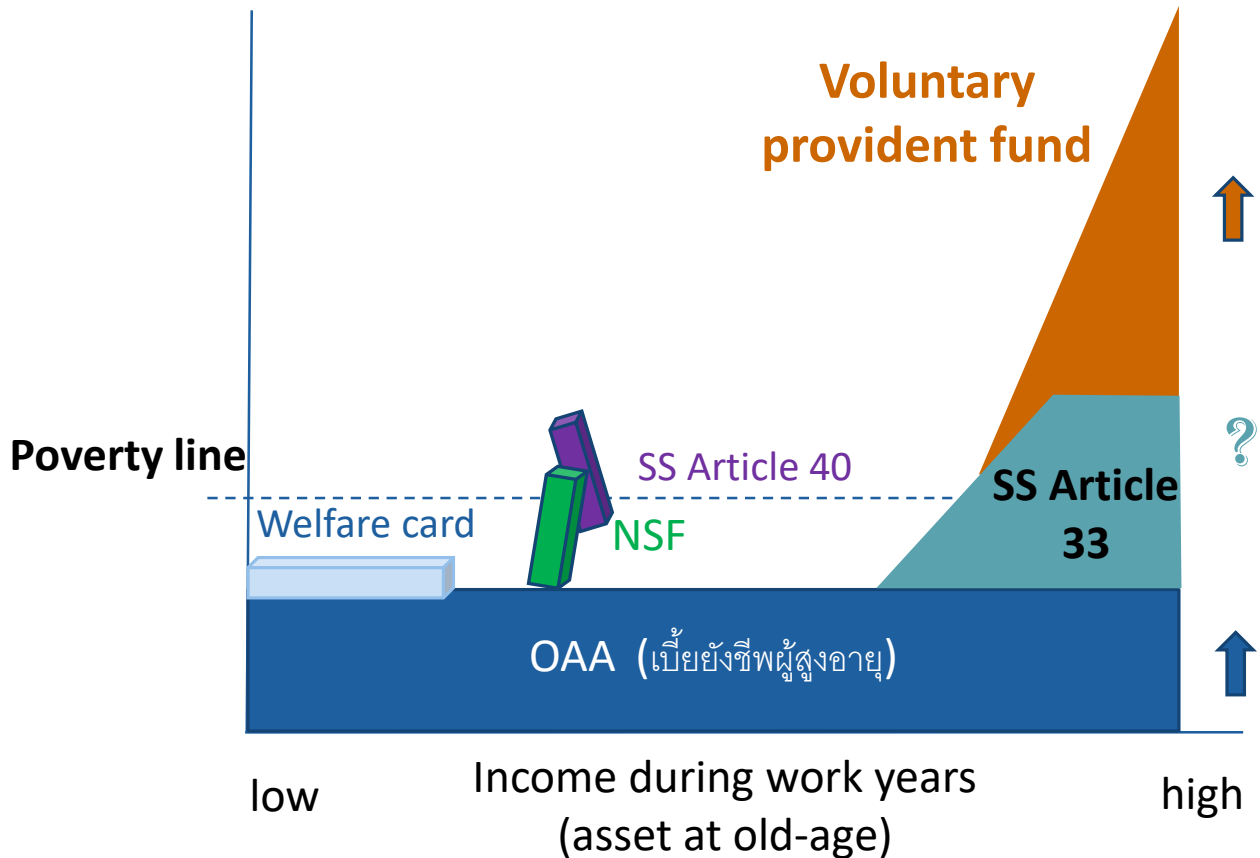
Adjusting one scheme can affect another schemes

SS article 40 vs. NSF

SS article 33 vs. Provident fund

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Pension benefits



Adjusting one scheme can affect another schemes

SS article 40 vs. NSF

SS article 33 vs. Provident fund

How to ensure that the public money is allocated efficiently?

OAA : direct tax-finance

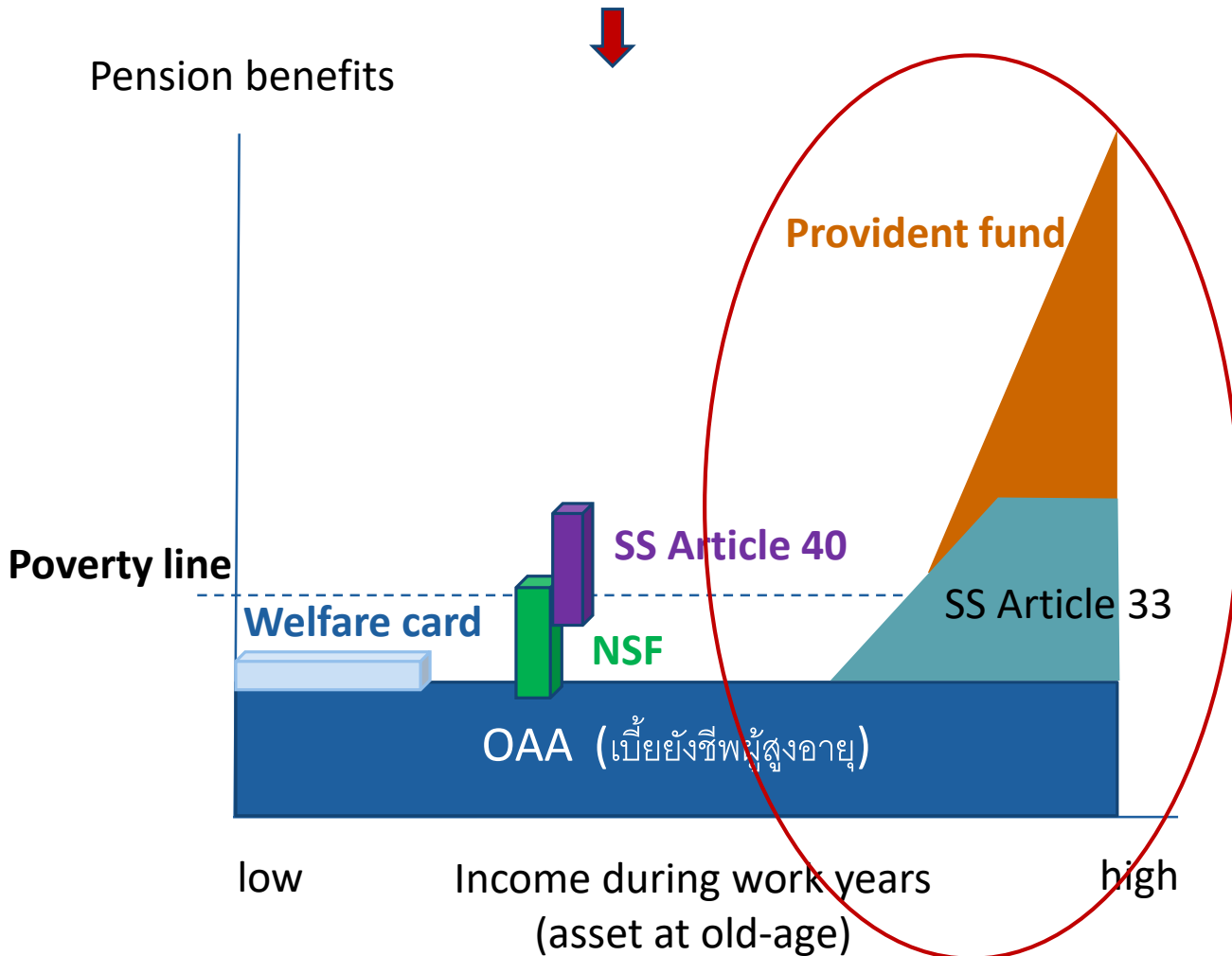
SS Article 33 } tax-exemption
 Provident fund }

Administration costs

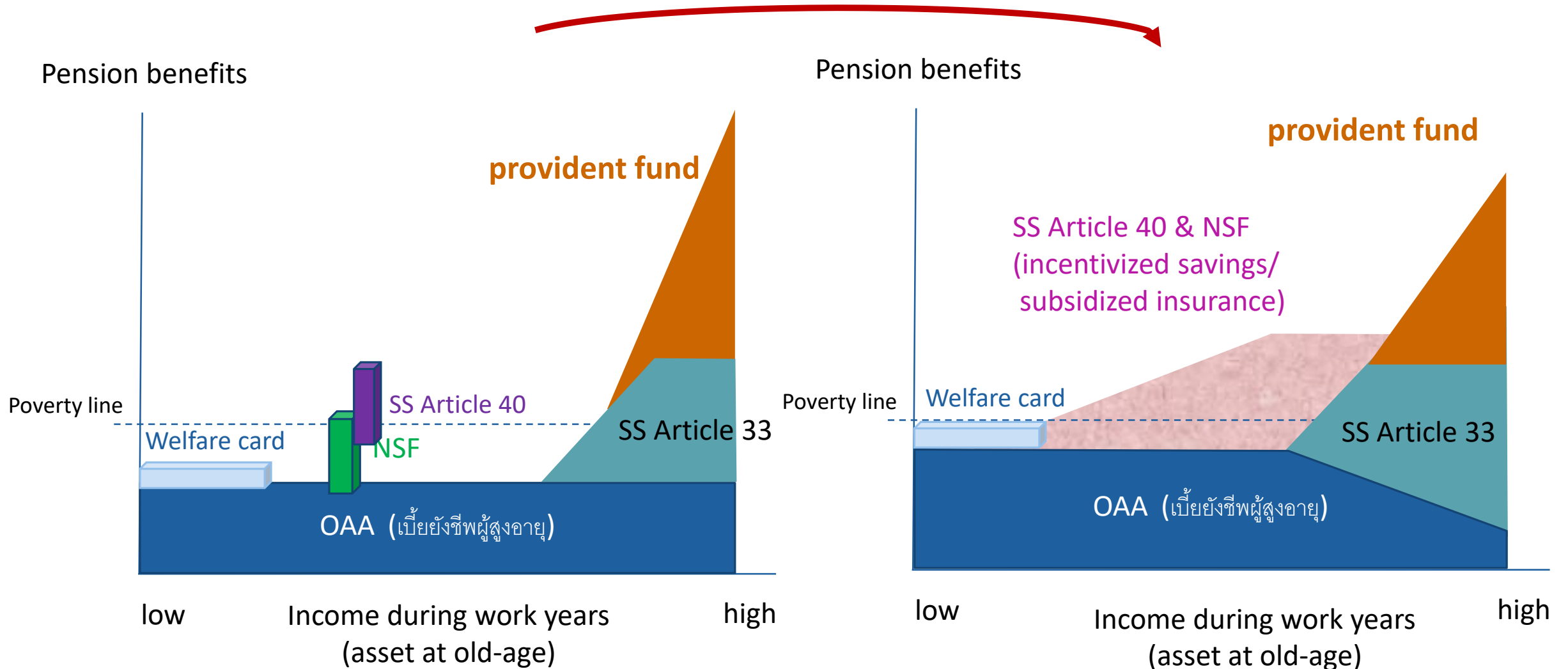
Instead of **focus on schemes**, shall we focus on **all Thai elderly** and **harmonize**?

Instead of focus on schemes, shall we focus on all Thai elderly and harmonize?

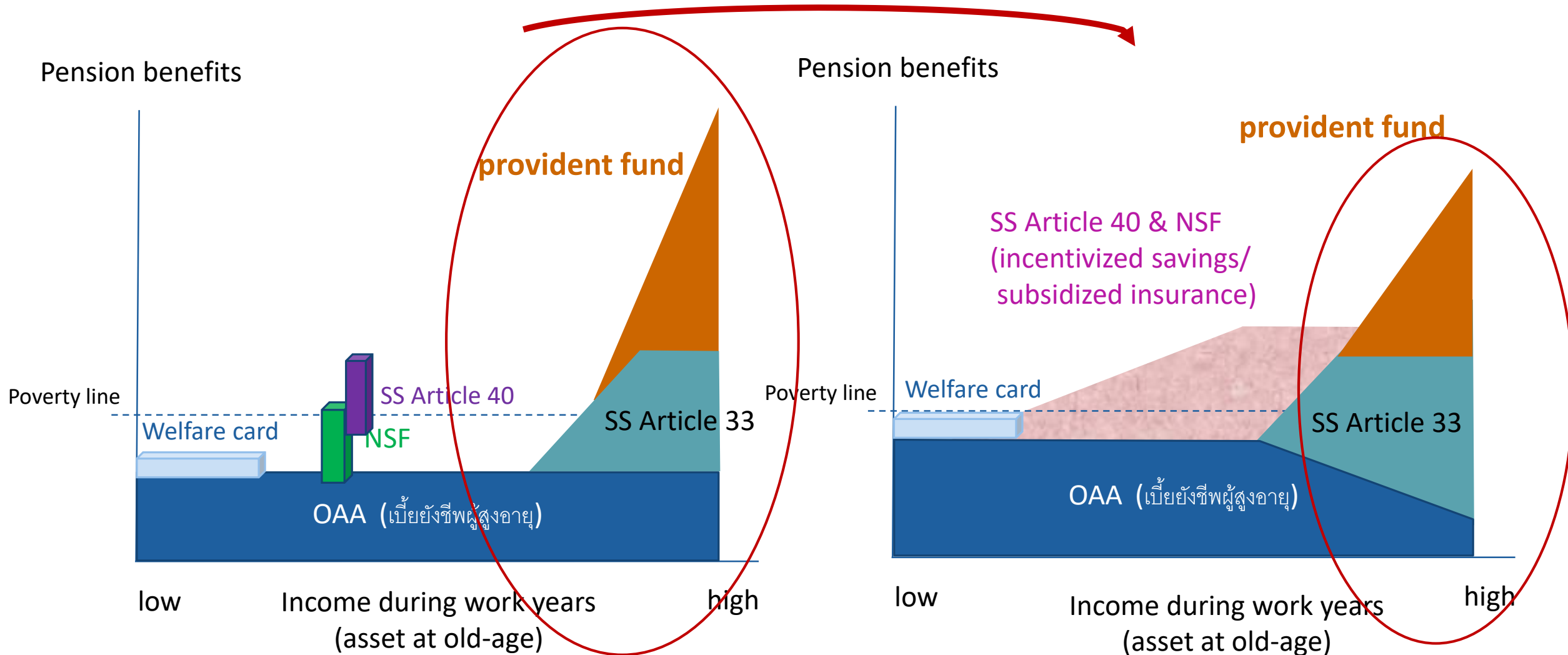
Adjusting without an integrated vision can make redistribution worse.



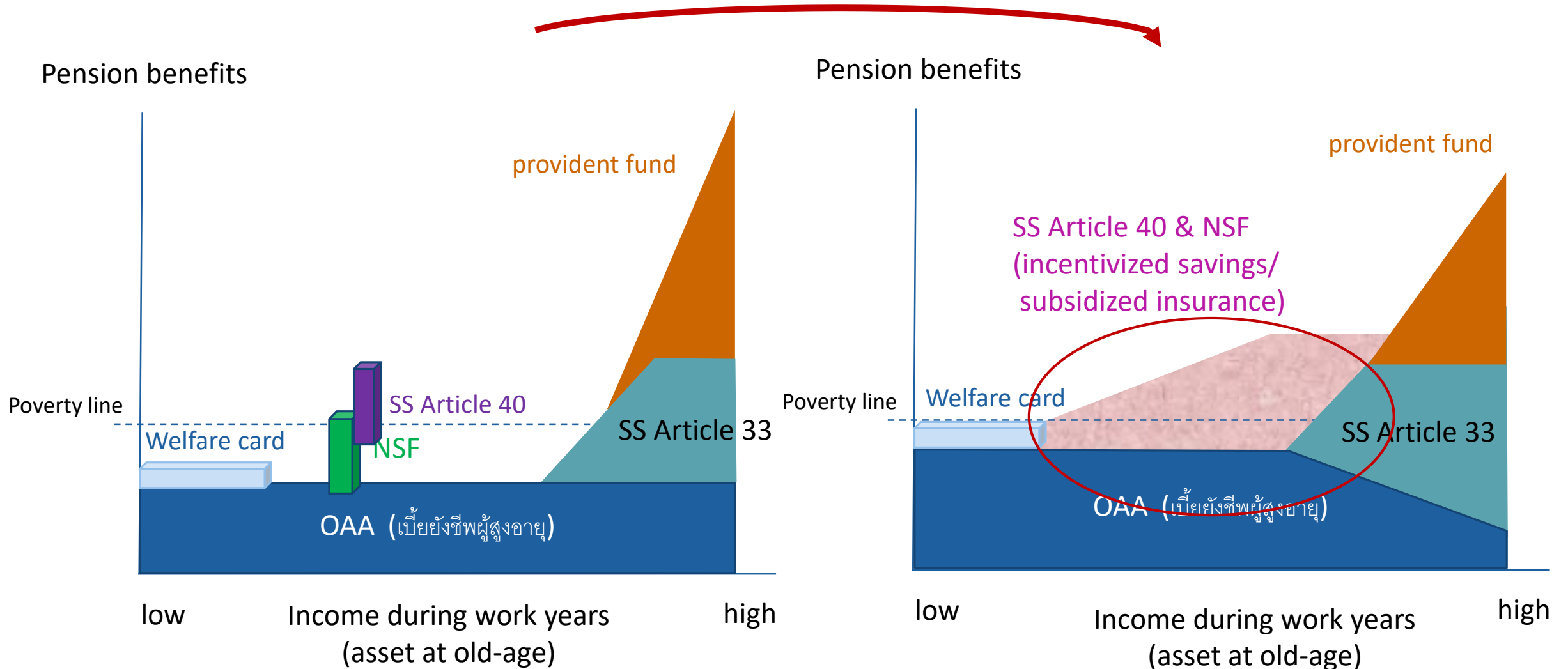
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If we agree on adequacy for all objectives, combinations of tools can be considered...

Examples

- Subsidized insurance for low-income
- Individual savings accounts
 - redistribute interest/ top-up for low-balance
 - pay annuity (Notional Defined Contribution)
- Nudge
 - default : high savings level but can opt-out

Quantitative exercises to show intended & unintended consequences of a reform

a simplified model to analyze example scenarios (not a proposal)

The model overview: The Overlapping Generations Model (OLG)

➤ **Overlapping generations**

- 15 age groups (25-29, 30-34,...,95-99) born in 1905 to 2200
- declining mortality rates, lower birth rates, higher education

➤ **Intragenerational differences**

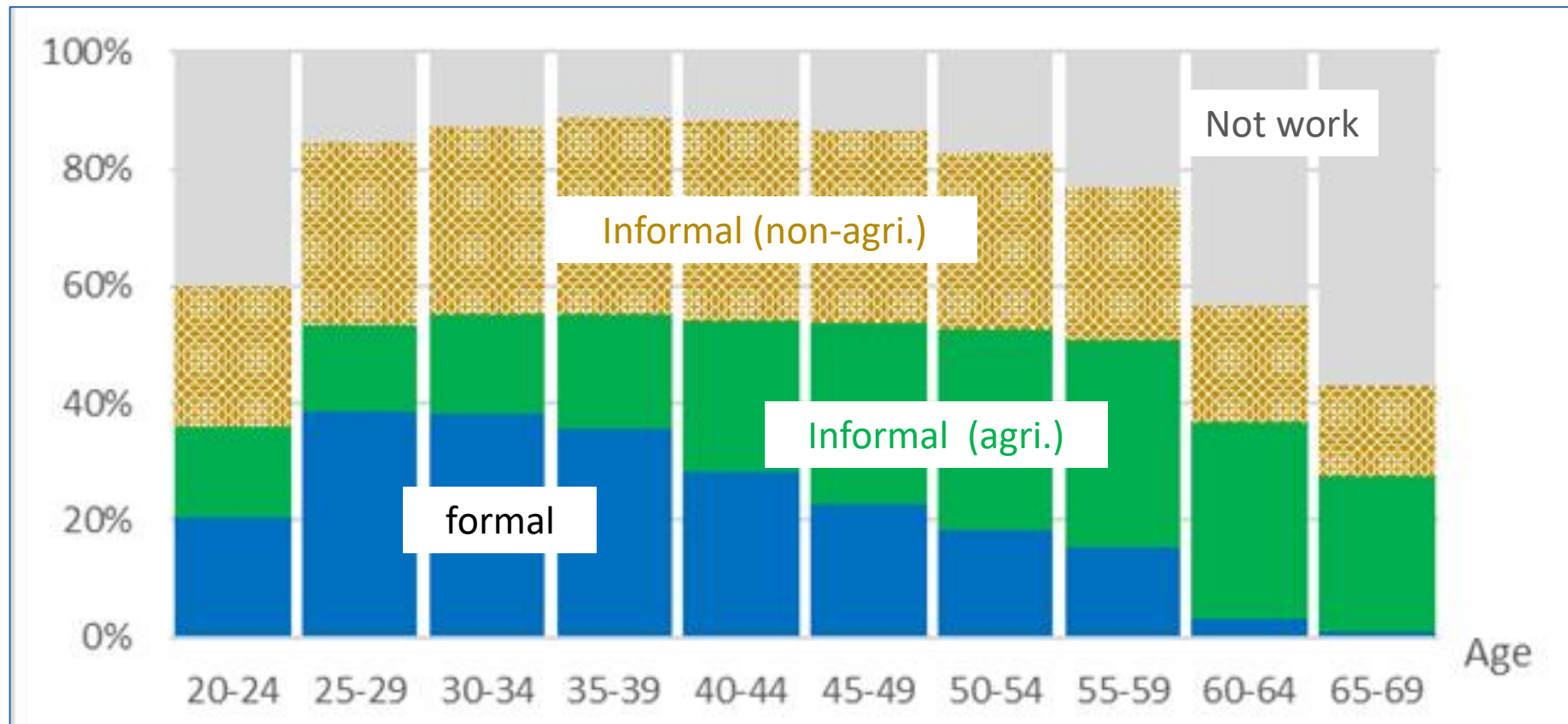
- Formal and informal
- Different education levels, wealth, SS status, contribution years
- Different life-cycle behavior

➤ **Government**

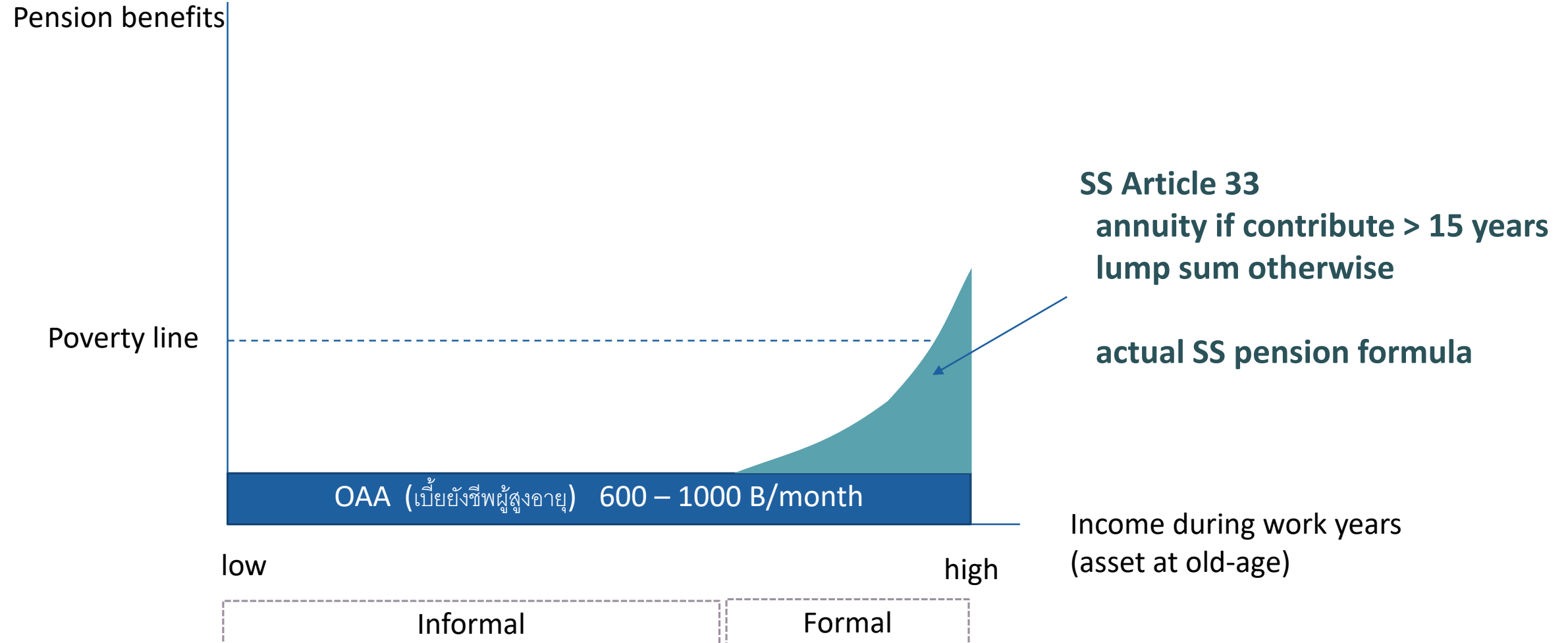
- Roughly represent government revenue and spending
- A small fraction pays income tax. Everyone pays VAT.

➤ Labor market:

- Large informal sector
- People move from formal to informal as they age
- Income shock, earning history



- Assume two old-age pension schemes : informal (mimic OAA)
formal (mimic Social Security)



I. What are the costs of current OAA and Social Security (SS) systems ?

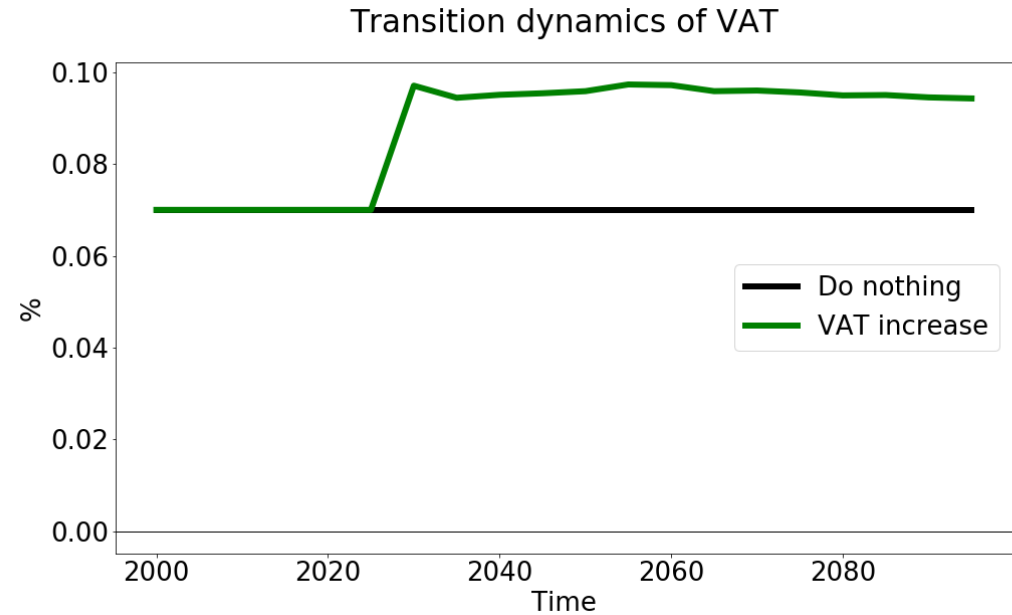
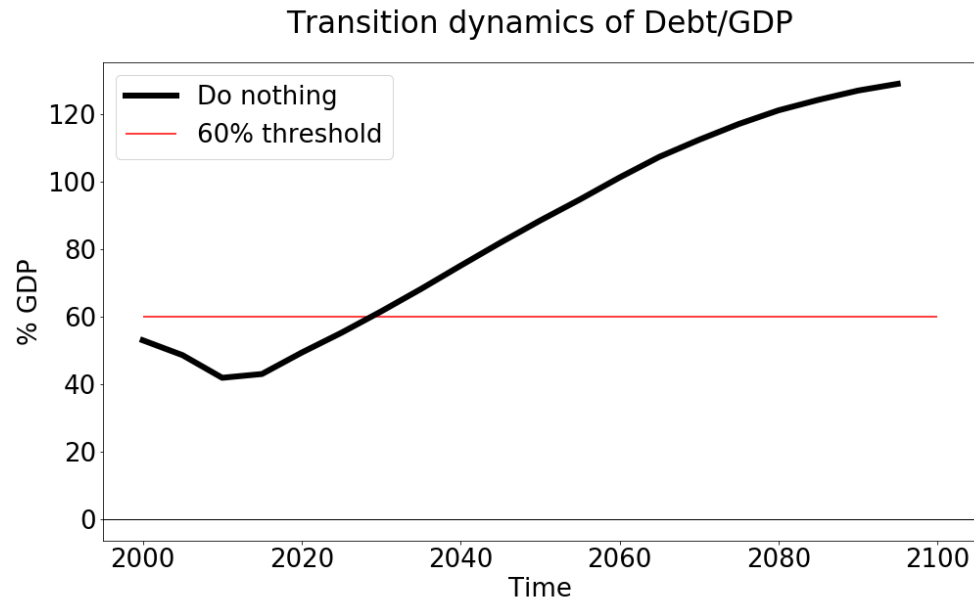
- Without indexation, OAA and SS will gradually disappear in the long-run
 - no system → no need to model nor discuss sustainability
 - poverty rate : likely worse than pre-OAA, pre-SS period

- Following analysis assume indexation
 - (benefits, ceiling, past earnings are adjusted to their real value)

Indexation helps (partially) with adequacy, but sustainability problems arise

- Old-age poverty rate ↓ from 10% to 7%
- Aging → indexed OAA very costly → debt/GDP ↑ → how to finance?

Assume gov. uses VAT

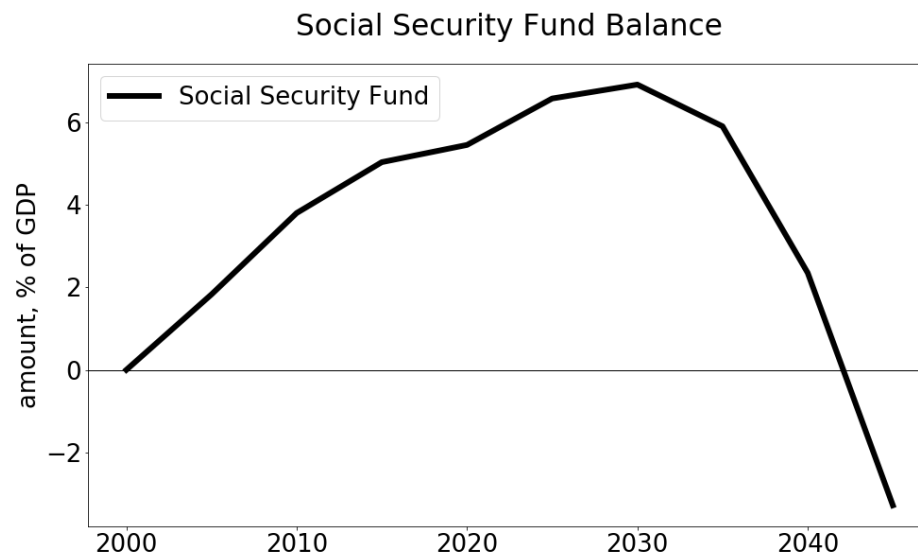


If use PIT, a small fraction of people needs to pay very high tax

Indexation helps (partially) with adequacy, but sustainability problems arise

- SS (indexed ceiling, past earnings, benefits) → contribution (revenue) ↑ benefits (expenditure) ↑

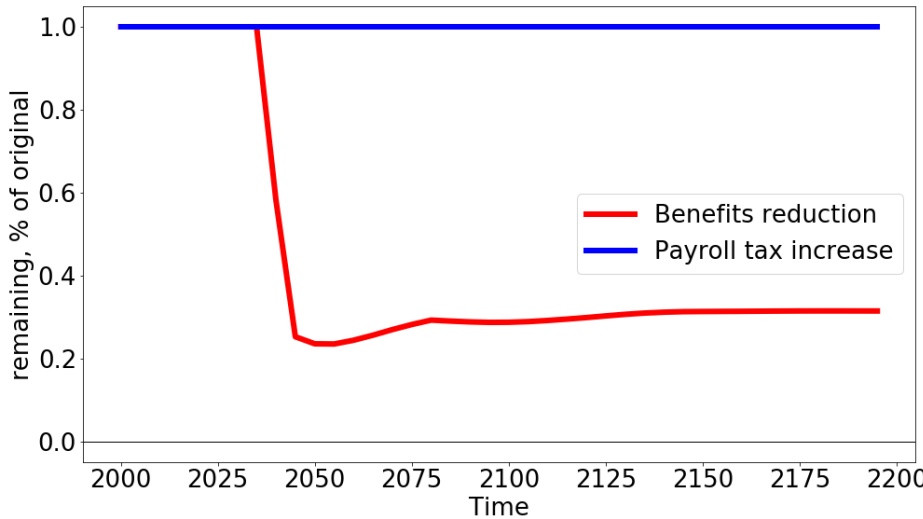
SS fund still eventually runs out



assuming no other reform

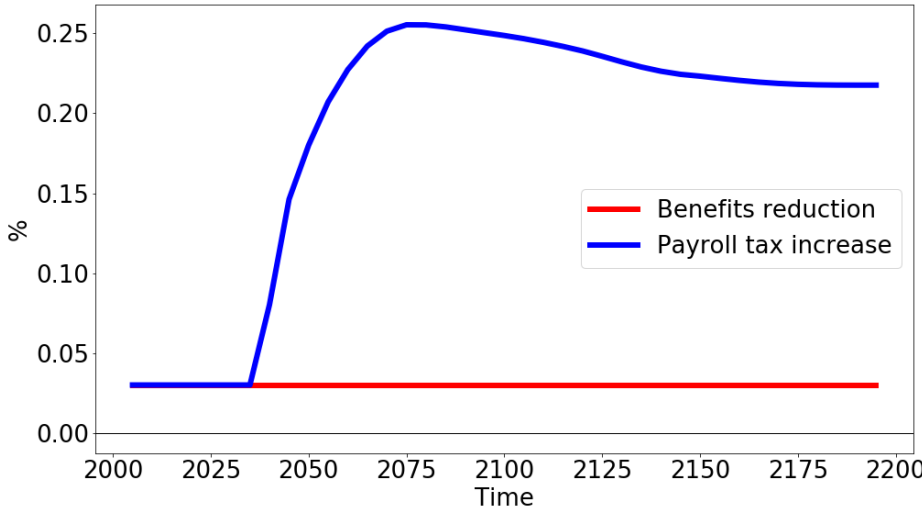
Maintaining Social Security without other reforms : two options

Benefits reduction



Impact soon-to-be retirees

Payroll tax increase



Impact current & future workers



baseline in following analysis

Even OAA is indexed & SS kept the promise, poverty increases in the long-term.

Present vs. long run (with indexation)

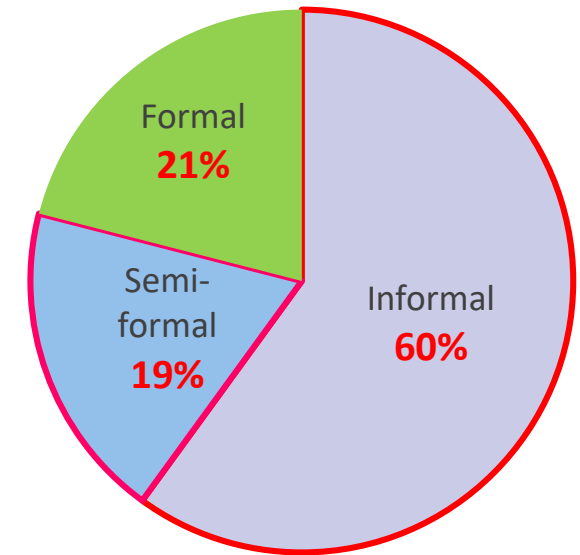
Case	VAT (%)	OAA (% GDP)	Fraction of poor adults aged >60 (% of total adults)
Present	7	0.7*	5.5
Long-term			
Literally do nothing (no indexation)	OAA & SS disappear		10
Baseline (index, gov. & SS balance budget)	9.3	1.9	7.7

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Share by people types (long-term)

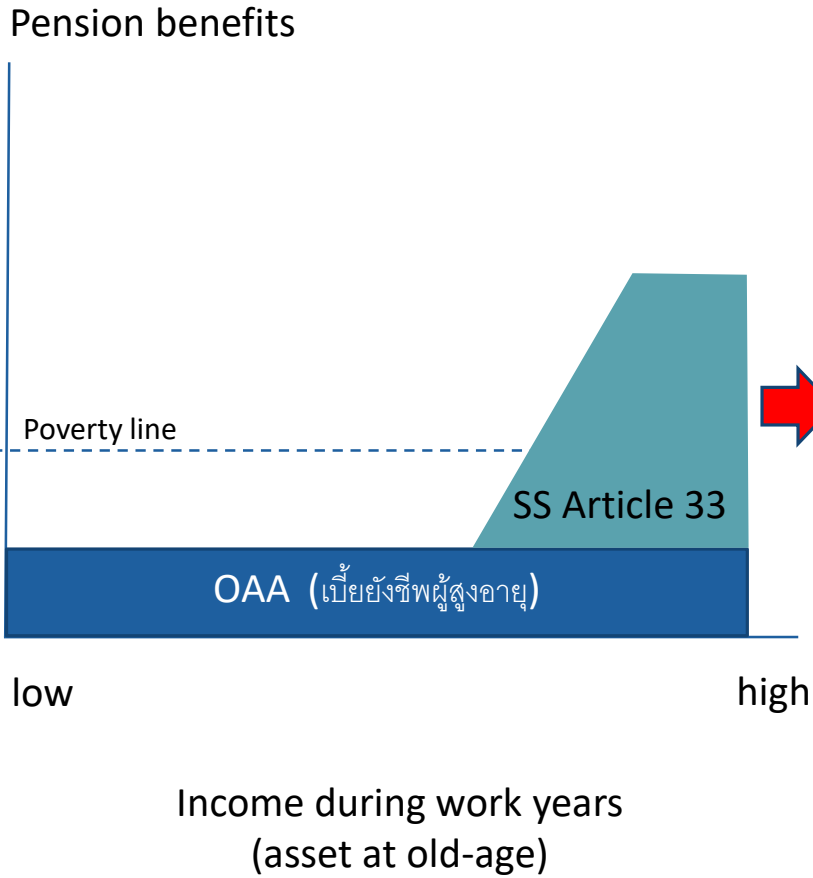


Poverty rate is higher because

- indexed OAA is still lower than poverty line
- large fraction of semi-formal or informal workers

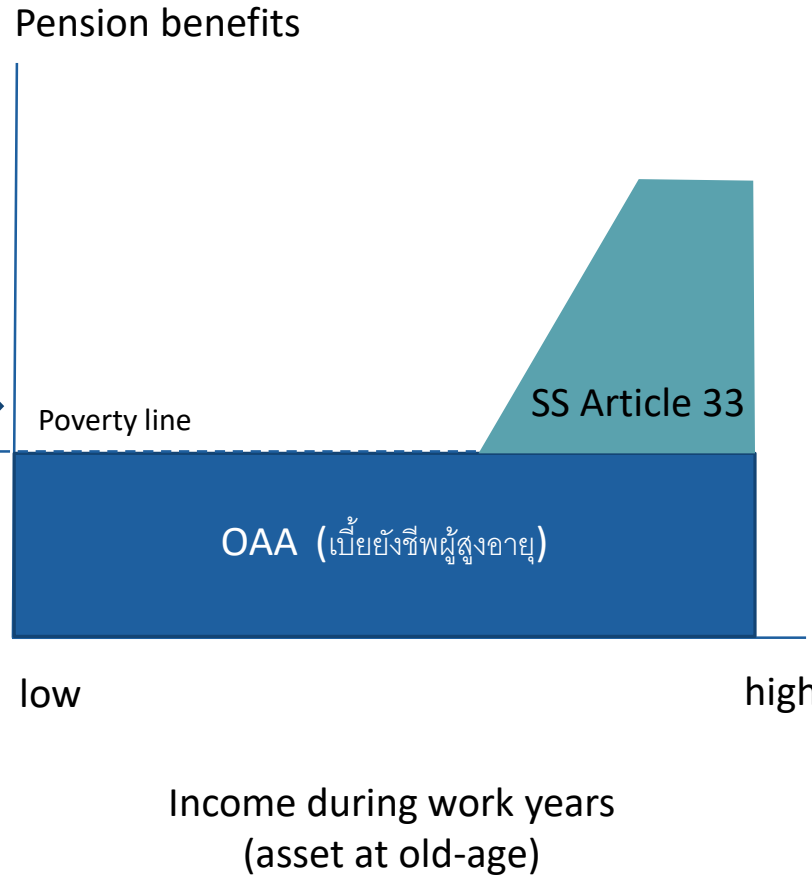
➤ **Assess two alternative scenarios (just examples, not proposals)**

Baseline



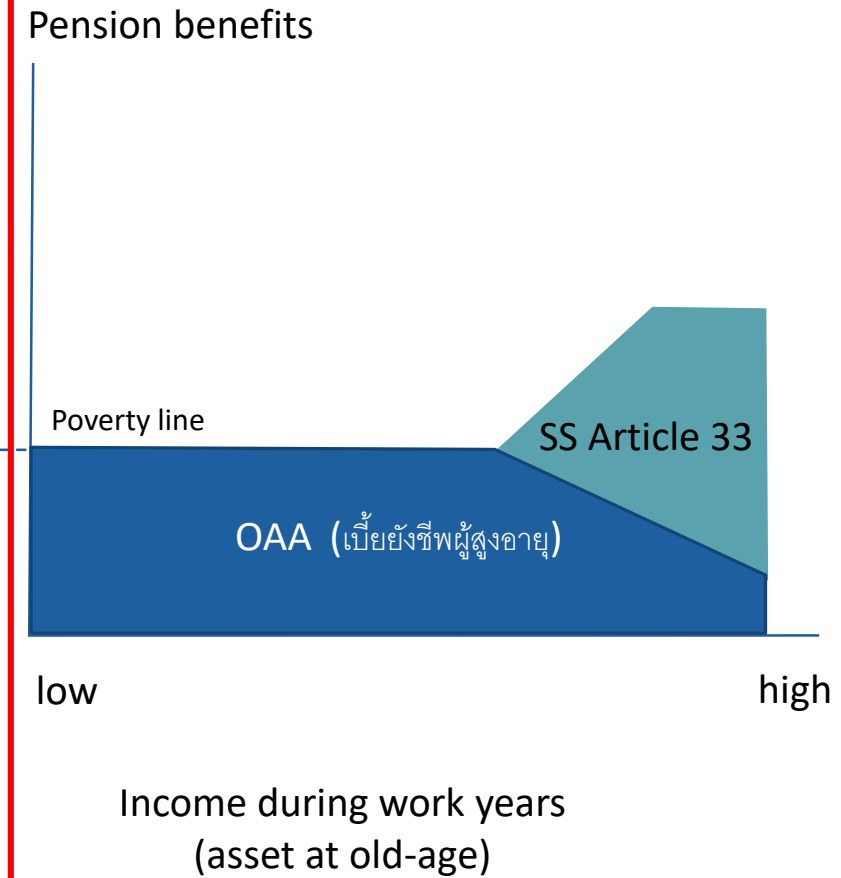
Scenario I.

Increase OAA to 3000 THB for everyone



Scenario II. Harmonization option

OAA is reduced when the SS pension increase



Scenario 1 : increase OAA to THB 3000 (in real term)

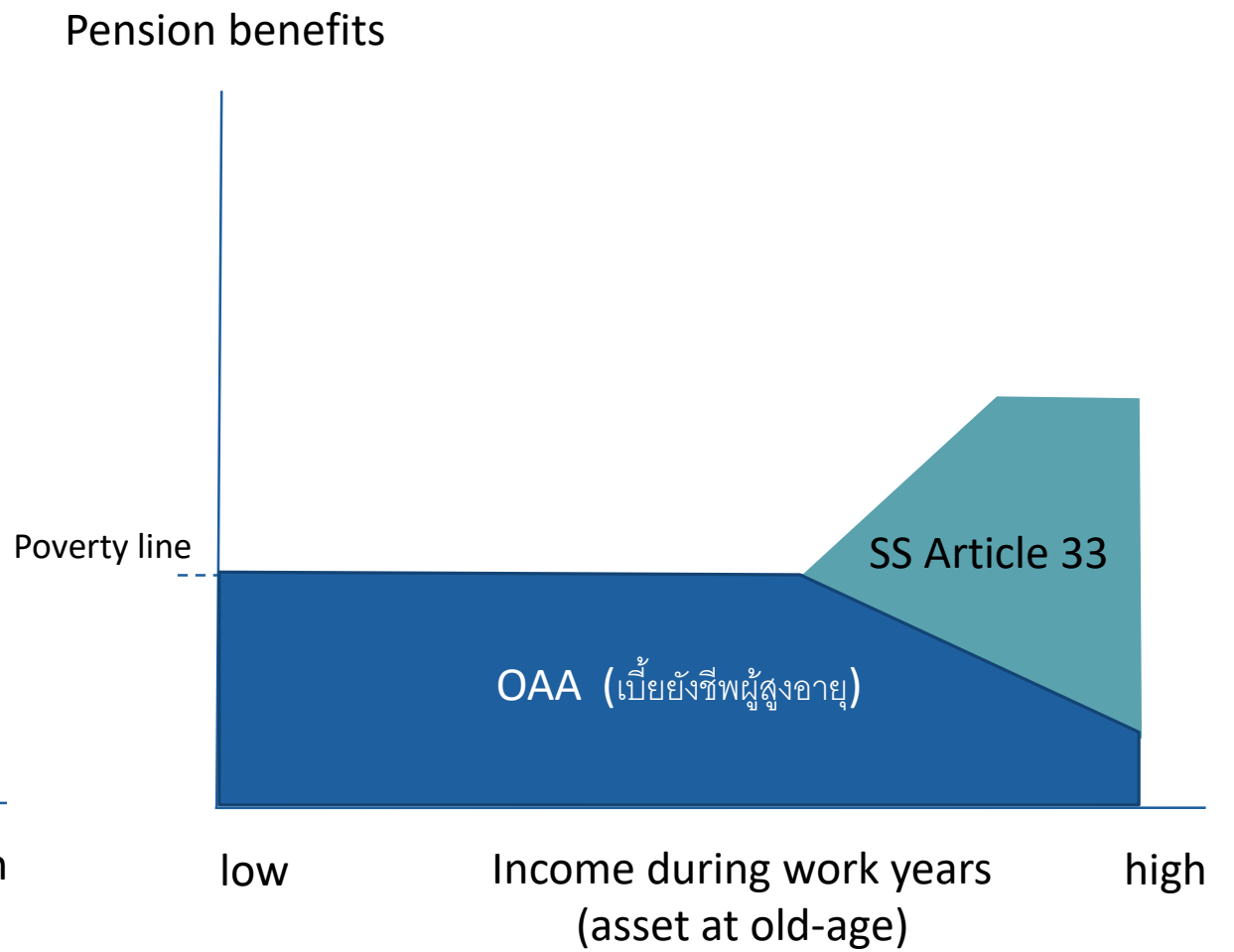
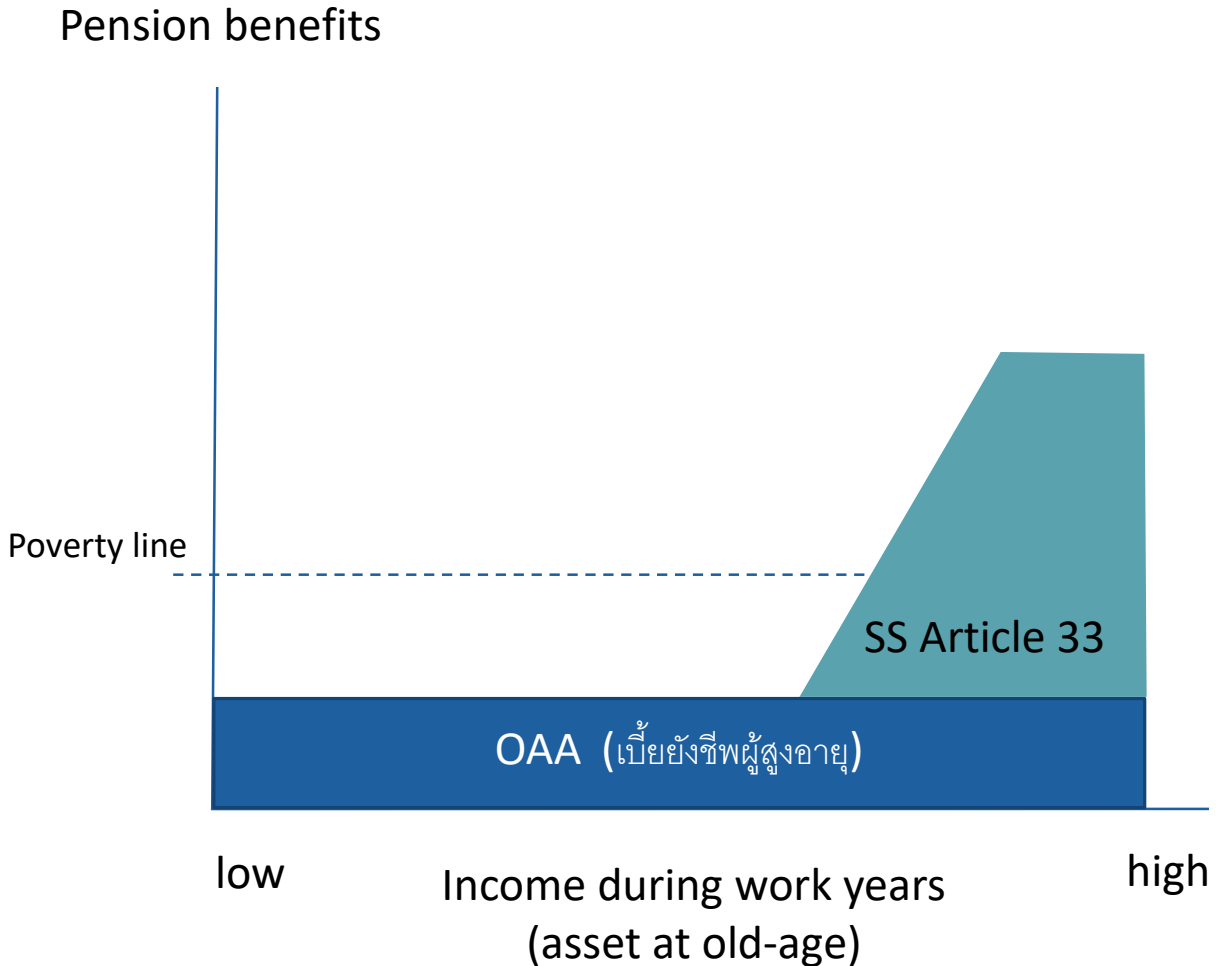
- Triple OAA → elderly can consume more, especially the semi-formal/ informal workers
- Financing via VAT only -> VAT increase from 9.3% to 16.9% in the long run
- With pension guarantee, informal workers also work and save less

	Working hours	Accumulated savings at 60
Informal	Decrease	Decrease
Formal	No change	Slightly decrease

Baseline
OAA 600-100 THB (in real term)



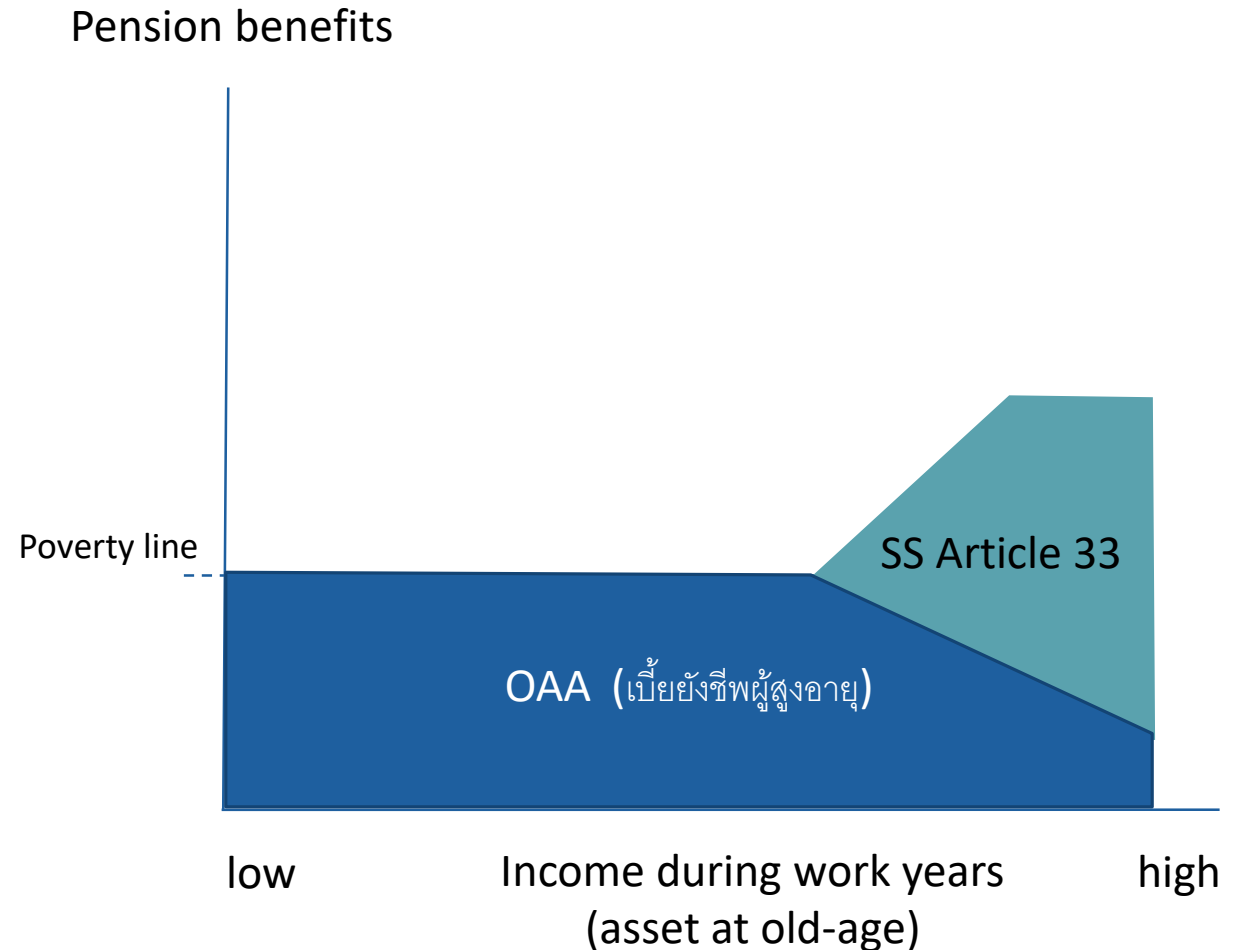
Scenario II. Harmonization option
OAA is reduced when the SSO pension increase



Scenario II. OAA is reduced when SS pension increases

Assume : for every 3 Baht of SS pension, OAA is reduced by 1 Baht

SS pension	OAA	Total
0	3000	3000
3000	2000	5000
:	:	:
6000	1000	7000
:	:	:
9000	0	9000





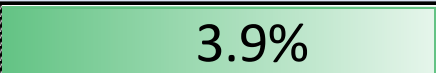
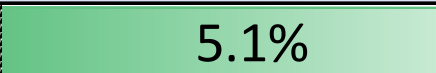




Harmonization can achieve poverty reduction at a lower cost

Scenario		Present 2020	Long term		
			Baseline	OAA	OAA Pensions-tested
VAT (%)		7	9.3	16.9	15.5
OAA (%GDP)		0.7	1.9	7.9	6.7
Old age poverty (% of total adults)	Primary	7.5	15.5	12.4	12.0
	High School	4.9	6.9	6.3	5.8
	College	3.5	4.1	3.4	3.3

Not a proposal of VAT increase
Just use VAT to quantify and compare the costs

Welfare impacts across 3 cases

- College pay more VAT due to their higher consumption
- Resources are redistributed from the rich to the poor

	Share (%)	Welfare change	
		OAA	OAA pensions-tested
Average	100	 1.6%	 1.9%
Primary	18	 3.9%	 5.1%
High School	58	 1.5%	 1.8%
College	24	 -0.2%	 -0.6%

Conclusion

Current situation :

- Benefits are inadequate for majority of elderly
- Public old-age income support schemes are fragmented
- Lack of an integrated national vision

Upcoming challenges :

- Aging raises more concerns about poverty and sustainability
- Making old-age income adequate for all requires large financing sources

Key takeaways

1) Doing nothing is just ignoring a ticking time bomb

2) All adjustments have trade-offs

- redistribution
- sources of financing
- incentives to work, save, participate in the formal sector

3) Harmonization can be more efficient

- efficient tapered system requires all types of old-age income to be observed
- schemes with same objectives should cooperate & complement each other

Before designing a reform...

**do we agree on what should be the objectives of
the public old-age income systems?**