Nomura Institute of
Capital Markets Research

Trends in Pension System Reforms in East Asia
- Cases of Japan, Korea and China -

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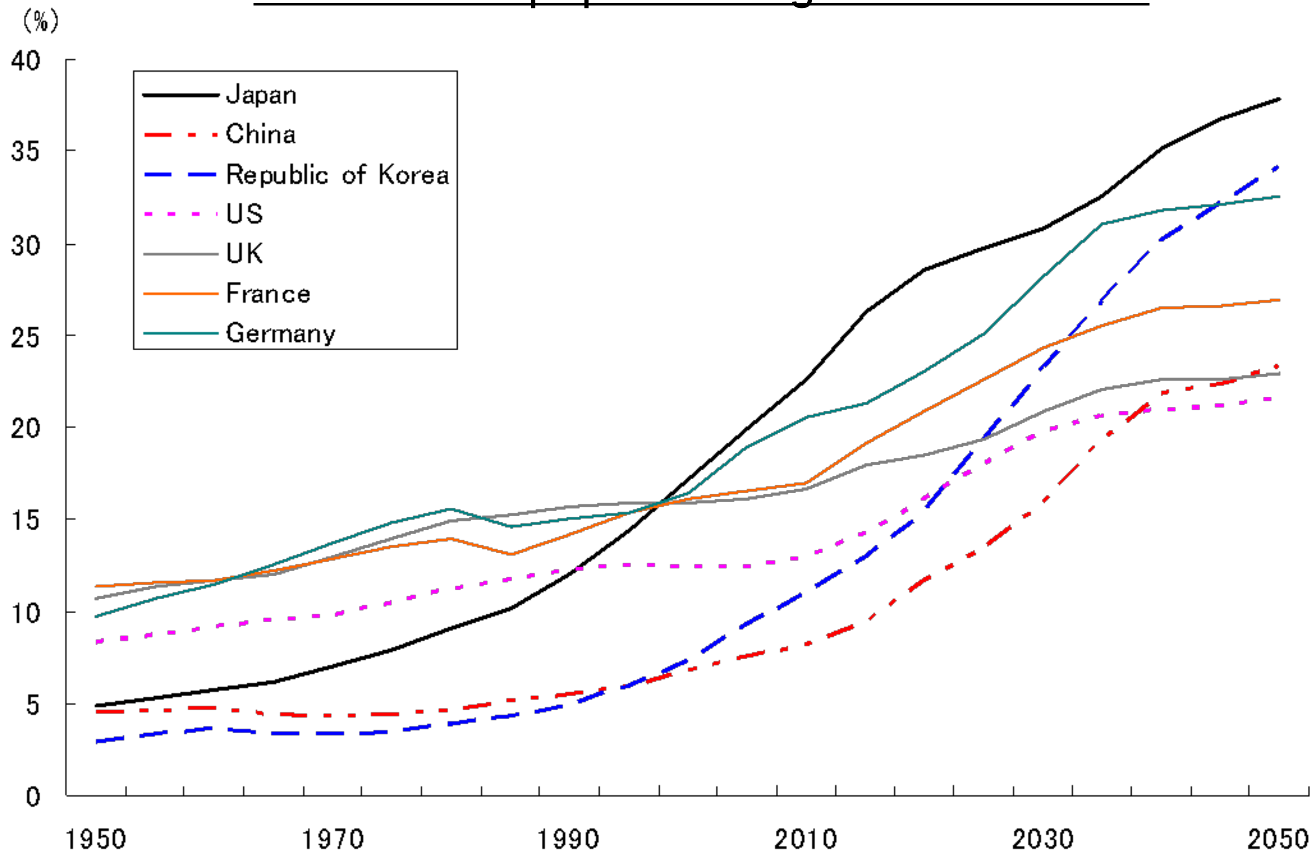
World is Aging

- Developed countries are aging. Asia, the world's major growth center, is no exception in the long run.
- Japan aside, population aging in Korea and China is speeding up.

<u>Share of the population aged 65 and older</u>



Source: United Nations Population Prospect

Overall Trends in Pension Reforms

- To enhance adequacy and sustainability of pension systems vis-a-vis the aging of population, trends in reforms are (1)public to private, (2)more pre-funding, and (3)defined benefit to defined contribution.

Objectives of the reforms

"adequacy"

- ✓ *High coverage*
- ✓ *Reasonable level of benefit*

+

"sustainability"

- ✓ *Affordable for individuals, employers and national treasury*
- ✓ *Robust to future demographic changes*

Trends in reforms

Public to Private

- Introduction / enhancement of private schemes to complement lowering replacement rate of public schemes

More Pre-funding

- Establishment and enhancement of public pension reserve fund management

DB to DC

- Changing economic and social environment, stricter DB funding and disclosure rules and many other factors causing the shift

Why Japan, Korea and China?

- Based on population and economic size, aging of population, pension system features and existence of public pension reserve fund, Japan, Korea and China will make interesting cases.

Japan:	One of the early adopters of public and private pension schemes in Asia Has 120 million population Faces rapid aging of population
Korea:	Public pension is younger than Japan but has 22 year history. Corporate pension plan started only in 2005 Has 48 million population Faces rapid aging of population
China:	Rapid economic growth Pension schemes are in infancy Has 1.3 billion population Expected to grow older than US in the future

Shift from Public Pension to Private Pension: Lowering of Replacement Rate Takes Place

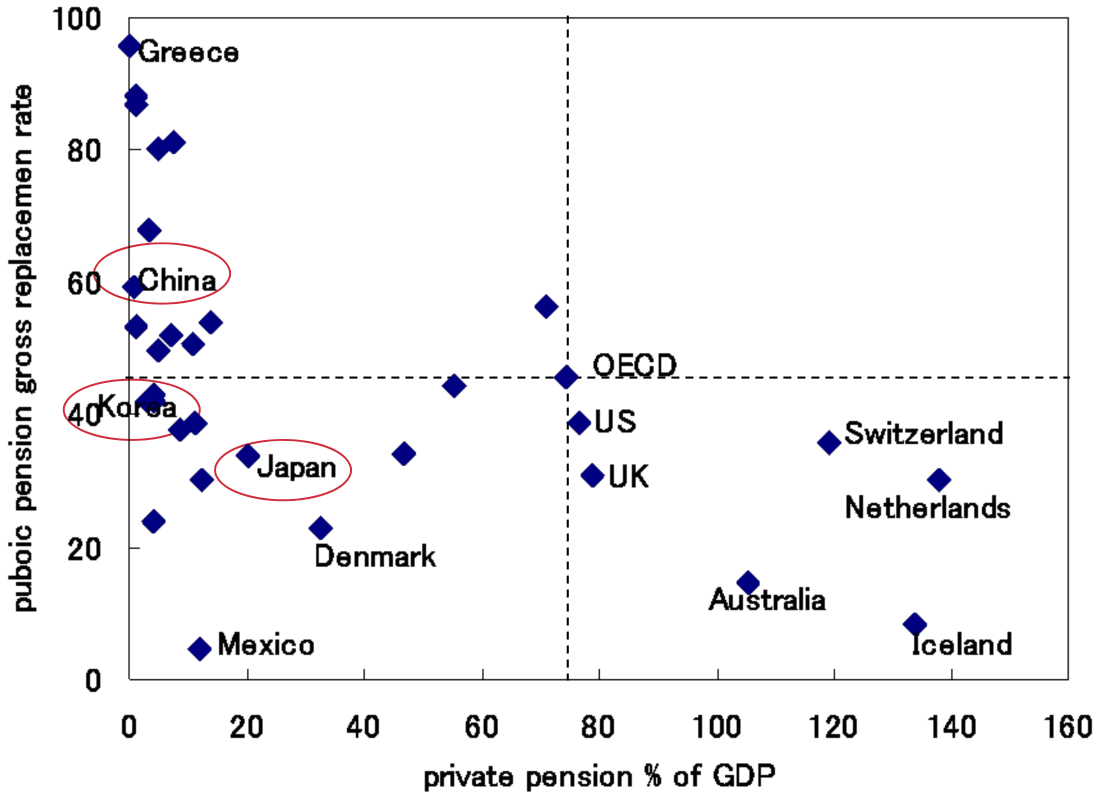
- In Japan and Korea, shift away from public pension is already under way.

Japan	• The 2004 reforms lowered the income replacement rate from about 59% to just over 50%, based on the model household (single-earner couple household with two children, forty years enrollment). • According to the OECD, the gross income replacement rate following the reforms will be 33.9%.
Korea	• The 2007 reforms lowered the income replacement rate from 60% in 2008 to 50%, and then lowered it in further 0.5 percentage point increments until 40% by 2028. • According to the OECD, the gross income replacement rate following the reforms will be 42.1%.
China	• The Chinese government has not made clear the targeted income replacement rate of basic endowment insurance. The OECD estimates it to be 35% for the socially pooled account and 24.2% for the individual accounts for a total of 59.2%.
OECD Average	• The average for OECD countries in 2009 for public pensions and mandatory private pensions combined was 59.0%; public pension only was 45.7%.

Shift from Public Pension to Private Pension: Size of the Private Pension Plans Still Small

- However, shift to private pensions is yet to reach a substantial stage.

Public Pension GRR and Size of Private Pension



(Note) 1. Gross replacement rate=gross pension entitlement divided by gross pre-retirement earnings. Public pensions=pension plan operated by the government, and do not include mandatory private pensions.
2. Private pension % data are based on 2007 numbers.

(Source) Nomura Institute of Capital Markets Research (NICMR), based on OECD, Pensions at a Glance 2009.

Pre-funding of Public Pension: Asset Size Large and Growing

- Japan, Korea and China are among the front runners in prefunding of public pension schemes.

World's Largest Pension Funds (2009)

($ million)

2009 rank	2008 rank	Fund	Country	Fund Type	Total assets
1	1	Government Pension Investment	Japan	National	$1,315,071
2	2	Government Pension Fund-Global	Norway	National	$475,859
3	3	ABP	Netherlands	Gov. employees	$299,873
4	6	National Pension	Korea	National	$234,946
5	5	Federal Retirement Thrift[1]	U.S.	Gov. employees	$234,404
6	4	California Public Employees[1]	U.S.	Gov. employees	$198,765
7	7	Local Government Officials[2]	Japan	Gov. employees	$164,510
8	9	California State Teachers[1]	U.S.	Gov. employees	$130,461
9	10	New York State Common[1]	U.S.	Gov. employees	$125,692
10	17	PFZW	Netherlands	Private	$123,390
11	16	Central Provident Fund[3]	Singapore	National	$122,497
12	23	Canada Pension[3]	Canada	National	$122,067
13	12	Florida State Board	U.S.	Gov. employees	$114,663
14	24	National Social Security	China	National	$113,716
15	11	Pension Fund Association[2]	Japan	Private	$113,364
16	14	ATP	Denmark	National	$111,887
17	15	New York City Retirement[1]	U.S.	Gov. employees	$111,669
18	29	GEPF[3]	South Africa	Gov. employees	$110,976
19	18	Employees Provident Fund	Malaysia	National	$109,002
20	13	General Motors	U.S.	Private	$99,200

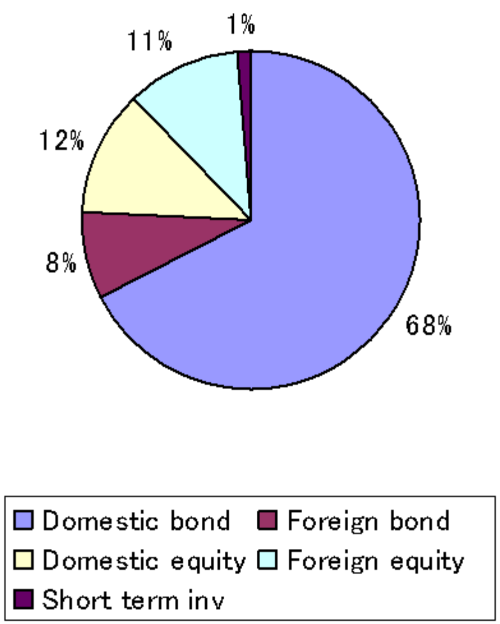
(Note) 1. Sep. 2009
2. Estimate
3. March 2010

(Source) NICMR based on data from Pensions & Investments website

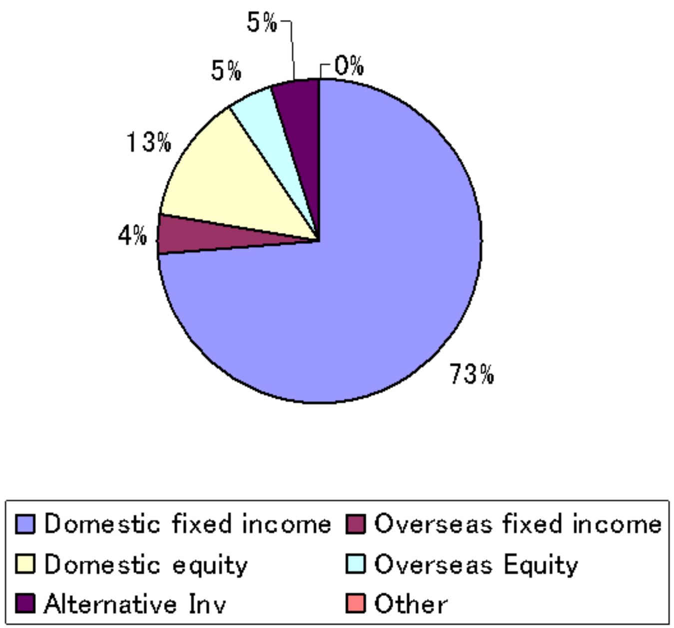
Pre-funding of Public Pension Scheme: Korea Takes the Lead in Alternative Investments

- Investments of Japan GPIF and Korea NPF are mainly in domestic bonds. However, Korea has taken somewhat aggressive stance in making foreign real estate and infrastructure investments.

Japan GPIF（2010.3）



Korea NPF（2009）



China NSSF (2009)

Direct investment by NSSF:
- Bank deposits
- Government bonds
- State-owned enterprise stocks

53%

External Managers:
- Domestic and foreign stocks
- Domestic and foreign bonds

47%

(Source) NICMR, based on disclosures from each organization

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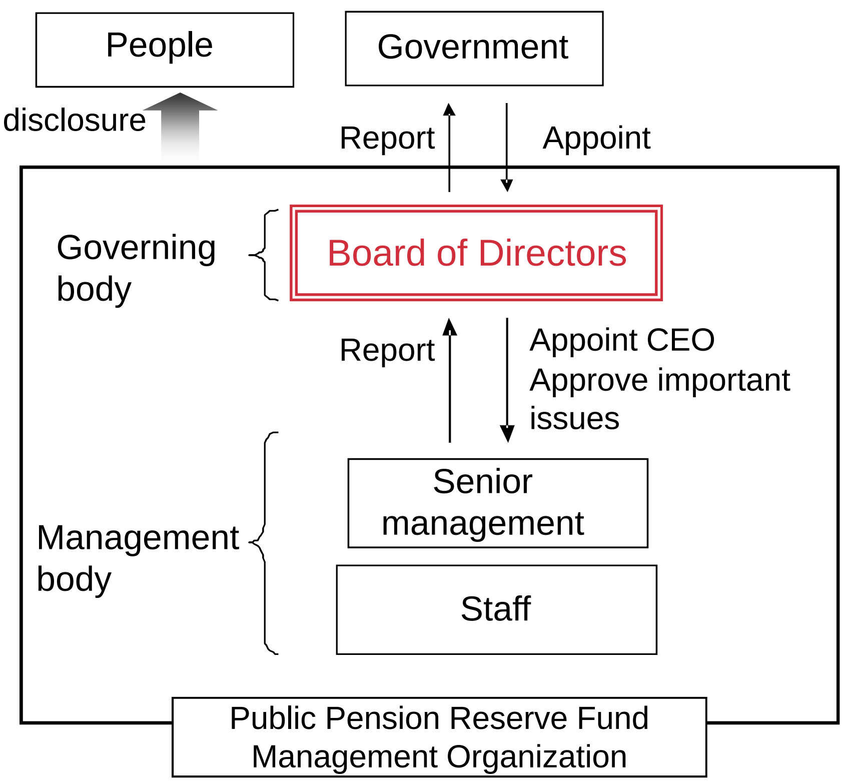
Prefunding of Public Pension Scheme: Governance Structure Remains an Issue

- Governance structure of public pension reserve fund management organization can be enhanced in all three cases.

Governance Structure with a Governing Body



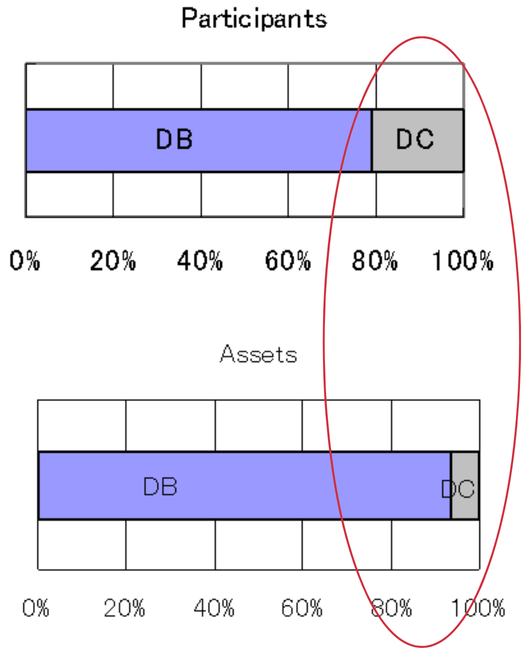
Governance of GPIF, NPF and NSSF

	Have a governing body?	Independence from political pressure?	Board type
Japan	No	N.A.	N.A.
Korea	Yes	Limited, the chairman being Minister of Health, Welfare, and Family Affairs	stake-holder
China	Yes	Limited, as high ranking government officials being board members. Also, top management are board members.	stake-holder

Shift from DB to DC

- Shift from DB to DC has been noted as a trend both in US and Europe.
- China chose to allow only DC for new corporate pension plans. Korea chose to introduce both DB and DC. Japan has had DB since 1960s and introduced DC in 2001; shift has started but much more to go.

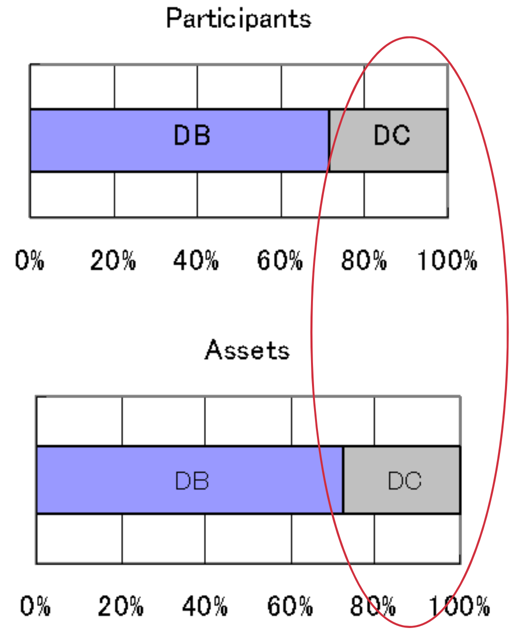
Japan



✓ *DB-DC distribution still lacking balance*

✓ *Need for policy measures to enhance DC*

Korea



✓ *Smaller DC share, possibly because larger corporations introduced DB*

Shift from DB to DC: Contribution and Investment Issues to be Addressed

- Adequate contribution and investment are important for the success of DC plans.
- Here, Japan, Korea and China face different types of issues.

	Contribution	Investment
Japan	• Only employer contributes; employees are not allowed to contribute • Low contribution limit	• Requirement to provide at least one "principal secured product" • 60% of assets invested in such products
Korea	• Both employer and employees contribute	• Investment restriction on both DB and DC causing conservative asset allocation
China	• Employee contribution lacking tax incentives	• Employees cannot direct investment

Change of thoughts after the global financial crisis?

How are They Doing?

- Basic reform direction in three countries aligns with the global trends.
- However, each country has specific issues to be addressed.

Trends in reforms

Public to Private

- Introduction / enhancement of private schemes to complement lowering replacement rate of public schemes

✓ Japan and Korea lowering replacement rate
✓ Korea newly introduced corporate pension plans; it is too early to tell whether shift to those plans is successful
✓ Japan in a more serious situation as it faces lowering coverage of corporate pension
✓ Enhancing public pension coverage being a priority issue for China

More Pre-funding

- Establishment and enhancement of public pension reserve fund management

✓ Pre-funding already at high level or building rapidly
✓ Room for improvement in the management organization’s independence from the government

DB to DC

- Changing economic and social environment, stricter DB funding and disclosure rules and many other factors causing the shift

✓ China allows only DC for new corporate pensions while Japan and Korea have both
✓ Need for strengthening DC more urgent in Japan in order to enhance sustainability of corporate pension