Outsourcing public pension investment to private sector managers – the case of Japan

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Outline　(topics to be discussed)

1. Japan’s public pension and method of finance
2. Scheme of investment management
3. GPIF and investment management
4. Organizational reform in 2006

1. Japan's public pension and method of finance

- Two-tiered benefits

  -- National Pension Insurance

  (fixed-amount benefit)

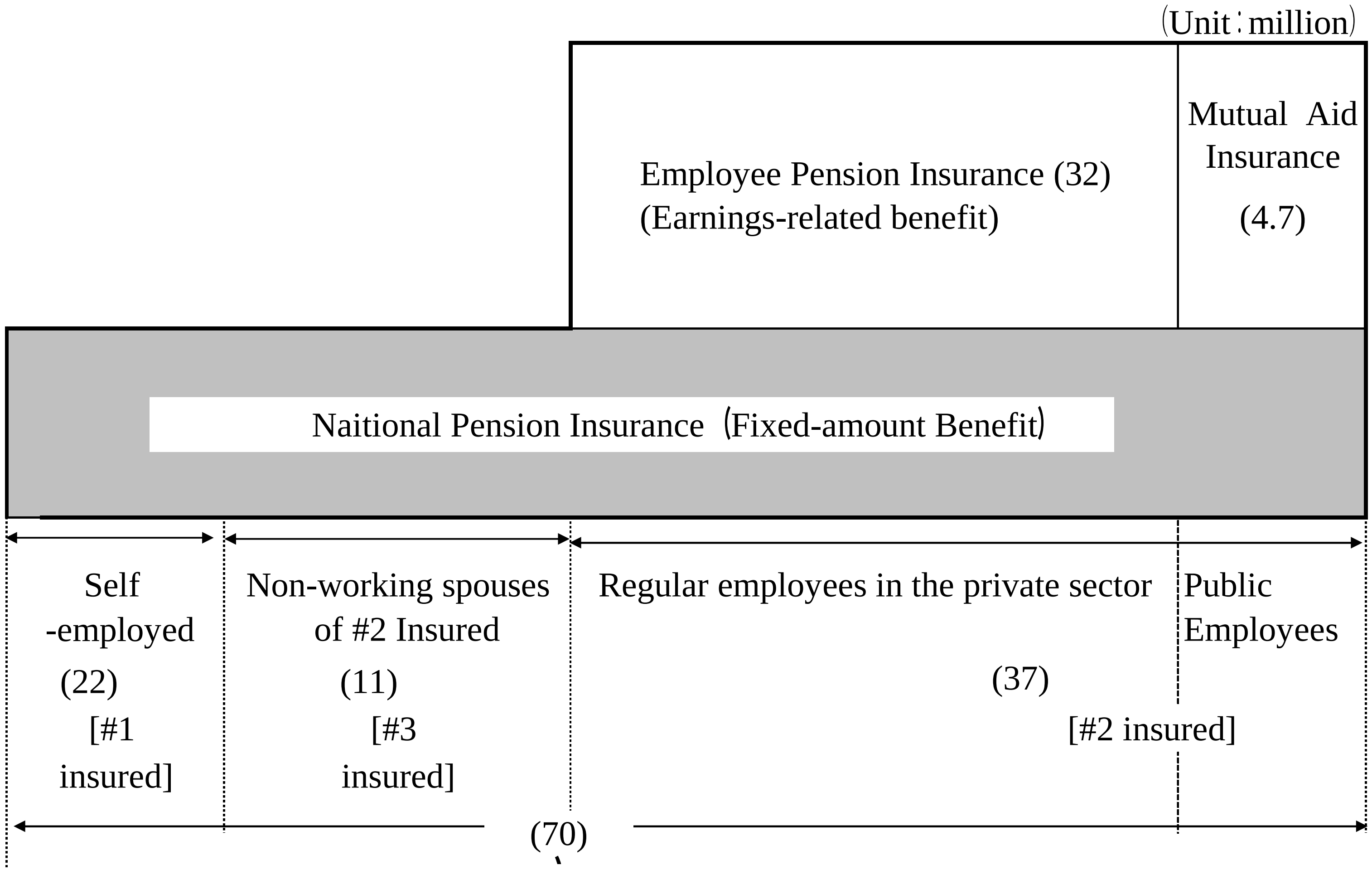
  -- Employees' Pension Insurance

  (earnings-related benefit for employees)

- Partially funded pay-as-you-go finance with 170 trillion yen in assets

  (30 trillion yen is contracted-out)

Overview of public pension



Note）Parentheses show the number of active insured at the end of March 2003

Public pension finance

- Pay-as-you-go but reserve assets play an important role -- liquidity reserve, and to alleviate the burden on future generations
- 170 trillion yen -- more than 20% of past service liabilities, 5 times annual benefit payment
- To peak at 2050 and after that to gradually decline to 1.0 times annual benefit in future

Reserve asset forecast

Expected assets in the two public pension accounts

(nominal value in trillion yen)

	NPI			EPI			Total of two accounts		
End of FY	Annual benefits	Surplus	Assets	Annual benefits	Surplus	Assets	Annual benefits	Assets	Asset / benefit ratio
2005	4.2	-0.2	10.8	31.9	-3.6	163.9	36.1	174.7	4.8
2010	5.1	0.5	11.0	37.5	0.0	156.0	42.6	167.0	3.9
2020	6.4	0.9	17.9	43.3	5.9	186.3	49.7	204.2	4.1
2030	8.0	1.2	29.2	49.5	8.7	266.6	57.5	295.8	5.1
2040	10.6	0.6	38.7	62.9	3.3	330.1	73.5	368.8	5.0
2050	13.0	0.1	42.0	74.8	-1.3	335.0	87.8	377.0	4.3
2100	22.4	-0.8	21.6	121.5	-6.4	115.1	143.9	136.7	0.9

Note: Nominal value. MHLW's forecast assumes 1.0% CPI growth and 2.1% wage growth.
Source: MHLW

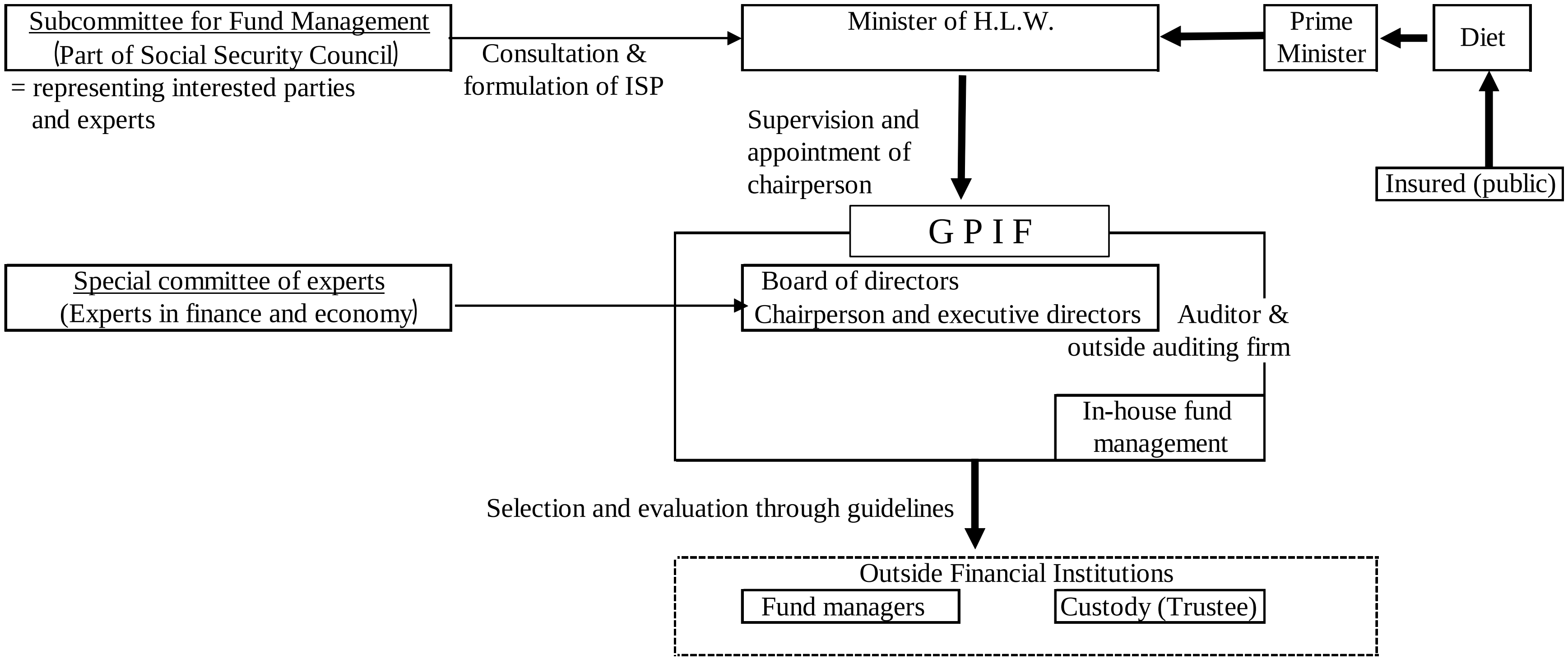
2. Investment management scheme – the transformation in 2001

- Formerly, reserve fund was managed by Ministry of Finance under the Fiscal Investment and Loan Program (FILP), and allocated to various public uses
- In April 2001, Government Pension Investment Fund (GPIF) began replacing FILP as the investment management agency
- In the 7-year transition period to 2008, the 160 trillion yen fund is being handed over from FILP to GPIF (and its successor)

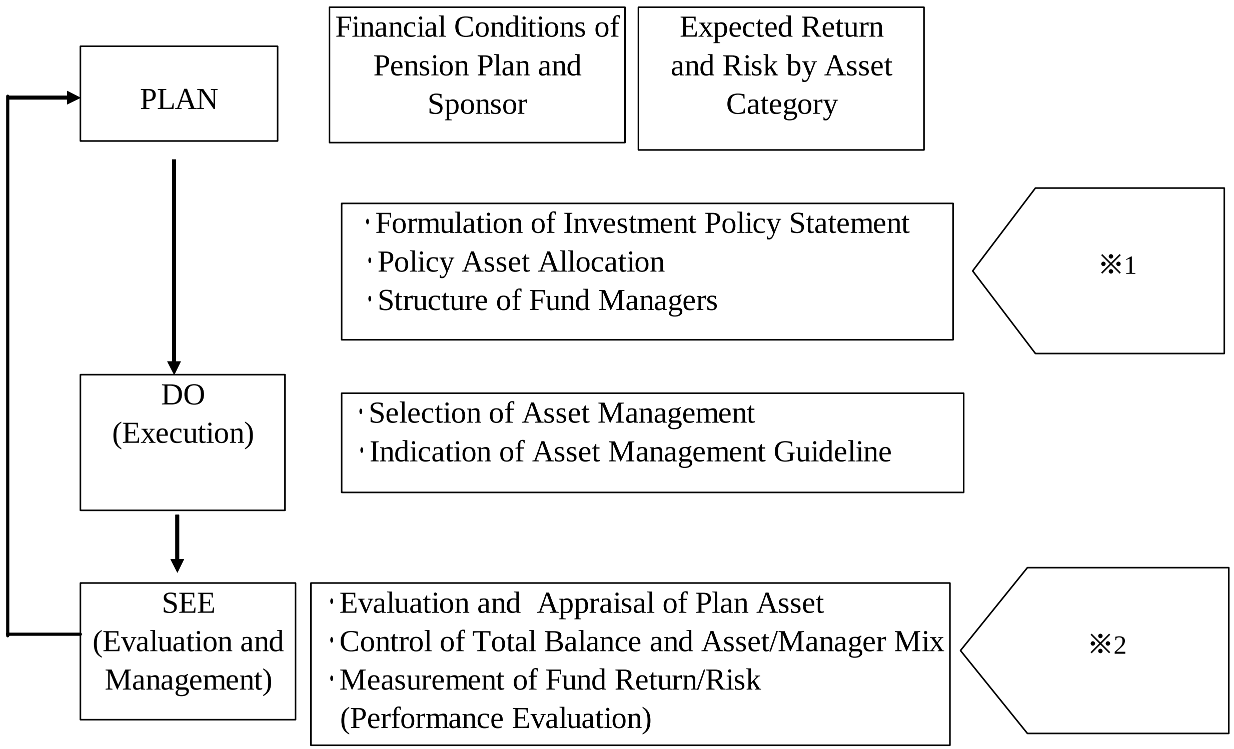
Investment management scheme since 2001

- Reserve fund is managed and invested in the market by the Minister of Health, Labor and Welfare (MHLW) and GPIF
- Asset allocation is decided by MHLW after consultation with outside experts
- GPIF is assigned with the investment management and administration

Overview of investment management scheme



Plan-do-see cycle in investment management



※1 ・Risk Tolerance of Pension Fund
・Risk / Return Profile of Each Manager
・Specialized Asset Category of Each Manager

※2 ・Comparison of Policy Asset Allocation and Real Asset Mix
・Risk / Return Achievement of Each Manager

Strategic asset allocation in Investment Policy Statement

<Strategic Portfolio>

	Domestic Bonds	Domestic Stocks	Foreign bonds	Foreign stocks	Short-term
Asset class allocation Permissible range of deviation	67% ±8%	11% ±6%	8% ±5%	9% ±5%	5% -

Targeted return	Standard deviation (risk)
3.37%	5.55%

Note: This strategic portfolio was drawn up on the basis of the actuarial recalculation in 2004.

Assumptions & investment constraints

- Expected return – building block method
- Historical data (from 1974) are used for risk and correlation
- Three investment constraints:
  - domestic bonds > foreign bonds
  - 2/3 of domestic stocks > foreign stocks
  - foreign stocks > foreign bonds
- After Monte Carlo simulation, the portfolio with highest Sharpe Ratio has been chosen

Expected return and risk of each asset class

	Expected return	Standard deviation
Money	2	3.63
Domestic bond	3	5.42
Domestic stock	4.8	22.27
Foreign bond	3.5	14.05
Foreign Stock	5	20.45

Transitional period

- It takes 7 years for GPIF to complete take-over process for all funds from TFB (FILP)
- During transitional period, assets are allocated in accordance with the policy on transitional portfolio
- Minister of Health Labor and Welfare is required to secure sufficient liquidity of FILP bonds

○**Transitional portfolio for all investment assets in 2005**

	Domestic bonds	Domestic stocks	Foreign bonds	Foreign stocks	Short-term assets
Asset class allocation	75%	8%	5%	6%	6%
Permissible range of	±2%	-2%	-2%	-2%	-

3. GPIF and investment management -- The GPIF

- Currently manages fund of 74-trillion yen
  -- the largest pension fund in the world

Portfolio in June 2004

Assets managed in market (trillion yen)

Domestic bonds	Domestic stocks	Foreign bonds	Foreign stocks	Short-tem	Total
26.8 (53.6%)	12.3 (24.5%)	4.4 (8.8%)	6.5 (13.0%)	0.04 (0.01%)	50.1 (100.0%)

Assets invested in FILP bonds

23.6

Organizational setup of GPIF

- Planning and execution of fund management activities

-- Setting guidelines for investment management

-- Delegation to outside investment managers

-- In-house management of domestic bond investment

- Three board members–chairperson is appointed by the Minister
- Organize and utilize a committee of three investment experts

Investment management principles

Management and administrative policies

- Objectives and constraints
- Methodology of investment management
- Supervision of fund managers, custodians and trustees
- Evaluation and selection criteria of fund managers and administrators
- Guideline of in-house investment management

Whether to manage in-house or use outside managers

- In-house -- easy to control and low-cost (no fee)
  -- has direct exposure to market information
  -- needs human resources and infrastructure

- Outside -- greater expertise
  -- access to diversified and broad market base

→ use in-house management only in domestic bond investment

Passive or active management

- Difficulties in achieving active alpha in the full-fledged "efficient " market
- Huge asset size and market impact is an impediment to active management—domestic stock investment equals 4% of Tokyo Stock Exchange total market capitalization
- Passive management fee is low

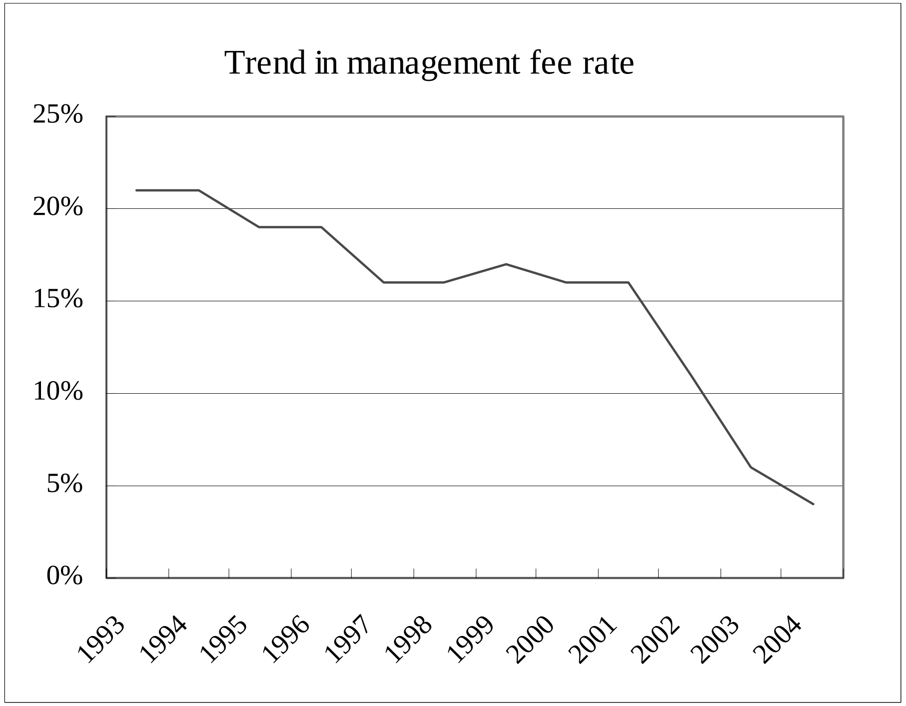
Proportion of total assets under passive management

	Domestic bonds	Domestic stocks	Foreign bonds	Foreign stocks	Average
Mar-03	61.40%	70.80%	76.90%	79.00%	65.50%
Mar-04	75.50%	77.00%	73.30%	81.60%	74.90%

Current manager structure and record of fee rate

Number of managers

	Active	Passive
Domestic bonds	13	7
Domestic stocks	19	8
Foreign bonds	7	4
Foreign stocks	13	7



Seeking α is no easy task

- Especially for large investment funds

—diseconomies of scale

Performance by asset class in 2003

		Time weighted	Bench mark	Excess return (α)
Domestic bonds	Total	-1.82	-1.74	-0.07
	Active	-1.76		-0.01
	Passive	-1.84		-0.10
Domestic stocks	Total	50.30	51.13	-0.83
	Active	48.22		-2.91
	Passive	51.15		0.02
Foreign bonds	Total	0.20	0.15	0.05
	Active	0.39		0.24
	Passive	0.14		-0.02
Foreign stocks	Total	23.76	24.70	-0.94
	Active	21.83		-2.87
	Passive	24.27		-0.42
Short-term		0.01	0.00	0.01
		0.01	0.00	0.01
		13.01	12.59	0.42

Why diseconomy of scale

- Less informational advantage per asset
- Larger market impact costs

Information Ratio $IR = IC \cdot \sqrt{BR}$

Value Added by A Manager $= \dfrac{IR^2}{4\lambda_R} = \dfrac{IC \cdot BR}{4\lambda_R}$

BR:the strategy's breadth.The number of independent forecests of exceptional return per year

IC: information coefficient. The correlation of each forecast with the actual outcomes. Measurement of skill.

λ_R:Aversion of residual (active) risk

Measures to control outside managers

- Investment management contract

  --fee schedule
- Investment guideline
- Selection and evaluation
- Fiduciary responsibility—duty of care, duty of loyalty

Procedures to select and evaluate outside external managers

- Criteria --quantitative and qualitative
- Passive manager-- 5-year tracking error,
- Active manager

  50% quantitative -- 5-year excess return and information ratio (excess return/active risk)

  50% qualitative

Criteria for qualitative evaluation

- Investment policy—consistency and explicitness
- Investment process—rationality, effectiveness and repeatability
- Organization and human resources—consistency with investment policy, clear responsibility and governance (compensation and experience)
- Risk control and compliance—established and effective procedure to manage risks, internal control to abide by legal requirement
- Stockholders' voting rights—proper usage of voting rights

Partial or full cancellation of investment contract (1)

- Periodic reevaluation every 3 years
  --Passive—qualitative and quantitative
  --Active—if one manager’s evaluation is in the worst quartile of the manager’s universe, the evaluation is compared with new managers and may be terminated as a result
- Annual call-back
  --Active—if one manager’s evaluation is in the worst quartile of the manager’s universe, 10% of that manager's money is called back

Partial or full cancellation of investment contract (2)

- Change in key staff may lead to partial or full cancellation
- Violation of investment guideline leads to cancellation

--***Investment guideline*** imposes regulation on

- securities to be invested (credit rating, liquidity)
- investment concentration
- excessive transactions and transaction costs
- speculative usage of derivatives transactions
- execution costs
- soft-dollar and relationship with brokerage firms
- imprudent exercise of voting rights
- risk control and compliance
- lack of reporting and its content

- Other necessities for the management of reserve fund

Risk management

- Total portfolio – IPS and rebalancing, mainly when new money flow comes in
- Asset class level– tracking error to benchmark, duration, style analysis and style allocation
- Individual manager—tracking error to benchmark, restriction of concentration to specific securities, investable universe (ex. BBB or better rating bonds)
- Performance review meeting --at least twice a year
- Methodology of “Risk Budgeting” is in the process of adoption

Appraisal/Selection criteria for custodians and trustees

- Minimum requirement—scale (asset amount), no illegal activities and investment grade rating
- Qualitative criteria

-- organization and staff

-- operational accuracy, esp. in reporting and disclosure

-- good internal and external auditing

-- appropriate responses to corporate action

-- competence as a global custodian

-- efficient implementation of asset transition

In-house management

- Applicable only to domestic bonds
- Appraisal and selection criteria of brokers/dealers

--minimum requirement (e.g., investment grade credit rating etc.)

--execution capacity

--operational and clerical capacity

- Self evaluation of investment management

-- same B.M. with outside managers

4. Organizational reformation in 2006

- GPIF → Independent public agency concentrated in the investment management of pension reserve

  -- top executives from private sector (formerly from Ministry)

  -- committee with the new agency to prescribe medium term plan and Investment Policy Statement (Asset allocation)

  -- Minister's role is to monitor the agency's achievement with reference to its mid-term plan

  (formerly (s)he was primarily responsible for the investment)

- Adoption of style-benchmark, investment in alternative asset and fixed-income-holding to the maturity are under serious consideration