

Pensions, Benefits and Social Security
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Financial management and protection of pension eligibility in corporate pensions in Japan

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◆ Outline of presentation

1. Introduction
2. The minimum funding reserve
 - Is the minimum funding reserve the best ?
3. Necessary condition to improve the standard
4. One of the solutions : buy-out
5. Property of the buy-out cost
 - How much ? How is sensitivity ?
6. Conclusion

◆ Introduction

1. Two types of DB in Japan
2. Both are required to annually report of funding status
3. Each report should have two verifications
 - “ongoing” valuation
 - “discontinuance” valuation
4. This presentation will explore what kind of “discontinuance” valuation is better for the protection of pension eligibility

◆ The minimum funding reserve

1. Liability verified in “discontinuance” valuation
2. Giving a substantial definition of pension eligibility
3. Benchmark of dividing plan assets when the plan is terminated
4. Valuated as a virtual market price of the liability
5. There are two choices of calculation methods

◆ Is the minimum funding reserve the best?

1. Valuation methods is difficult for participants to understand because of its complexity
(Why are there two different methods of valuation?)
2. Not valuated in a real financial market
3. Uncertain whether keeping value of annuity

◆ Necessary condition to improve the standard

1. Easy to understand for all stakeholders
2. Fair from a viewpoint of a third party such as market value
3. Solvent for all participants to receive full annuity in the future

◆ One of the solutions : buy-out

1. Easy to understand for all stakeholders
⇒ based on sum of annuity
2. Fair from a viewpoint of a third party such as market value
⇒ nearly equal to the pricing by life insurance company
3. Solvent for all participants to receive full annuity in the future
⇒ guaranteed full annuity of the effective data

◆ Property of the buy-out cost

1. How much the buy-out cost ?

- How different form the minimum funding reserve ?

2. How is the sensitivity of the buy-out cost ?

- How influenced by changing assumptions ?

- How different form the sensitivity of the minimum funding reserve ?

◆ How much the buy-out cost ?

Object group of estimation

Number of members	1,800 (only active member)
Annuity type	lifetime annuity with 15 years guaranteed
Benefit basis	average salary of whole period
Deferred rate	2.5%
Type of valuating the minimum preserved benefits	using the standard retirement age
Standard retirement age	62 years old
Average age	42 years old
Average salary	¥330,000

◆ How much the buy-out cost ?

Assumptions

	Buy-out cost	Minimum funding reserve
Assumed interest rate	1.2%	2.2%
Assumed mortality table	standard mortality table of 2007	specified table by the law
Expected expense	included	—

◆ How much the buy-out cost ?

Result 1

Buy-out cost	Minimum funding reserve	Difference	Difference (%)
¥2,138 M	¥1,055M	+¥1,083 M	+103%

◆ How much the buy-out cost ?

Result 2

Minimum funding reserve	¥1,055M
Changing interest rate	+¥258M
Changing mortality table	+¥136M
Changing fund rate	+¥187M
Changing from minimum preserved benefits to annuity amount	+¥502M
Buy-out cost	¥2,138M

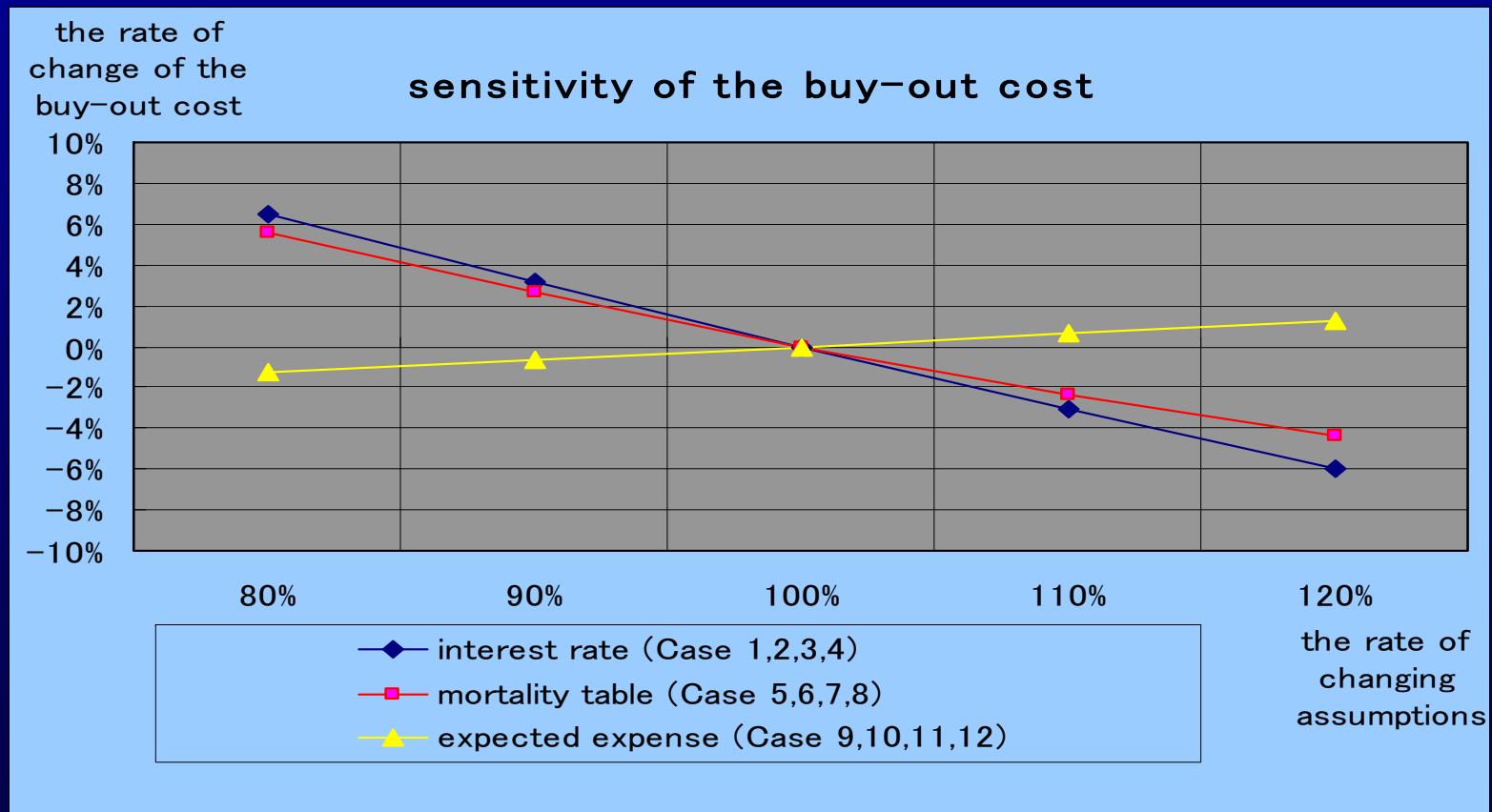
◆ How is the sensitivity of the buy-out cost ?

Changing assumptions of buy-out cost

Case	Assumed interest rate	Assumed mortality table	Expected expense
1	120%	100%	100%
2	110%	100%	100%
3	90%	100%	100%
4	80%	100%	100%
5	100%	120%	100%
6	100%	110%	100%
7	100%	90%	100%
8	100%	80%	100%
9	100%	100%	120%
10	100%	100%	110%
11	100%	100%	90%
12	100%	100%	80%

◆ How is the sensitivity of the buy-out cost ?

Result 3



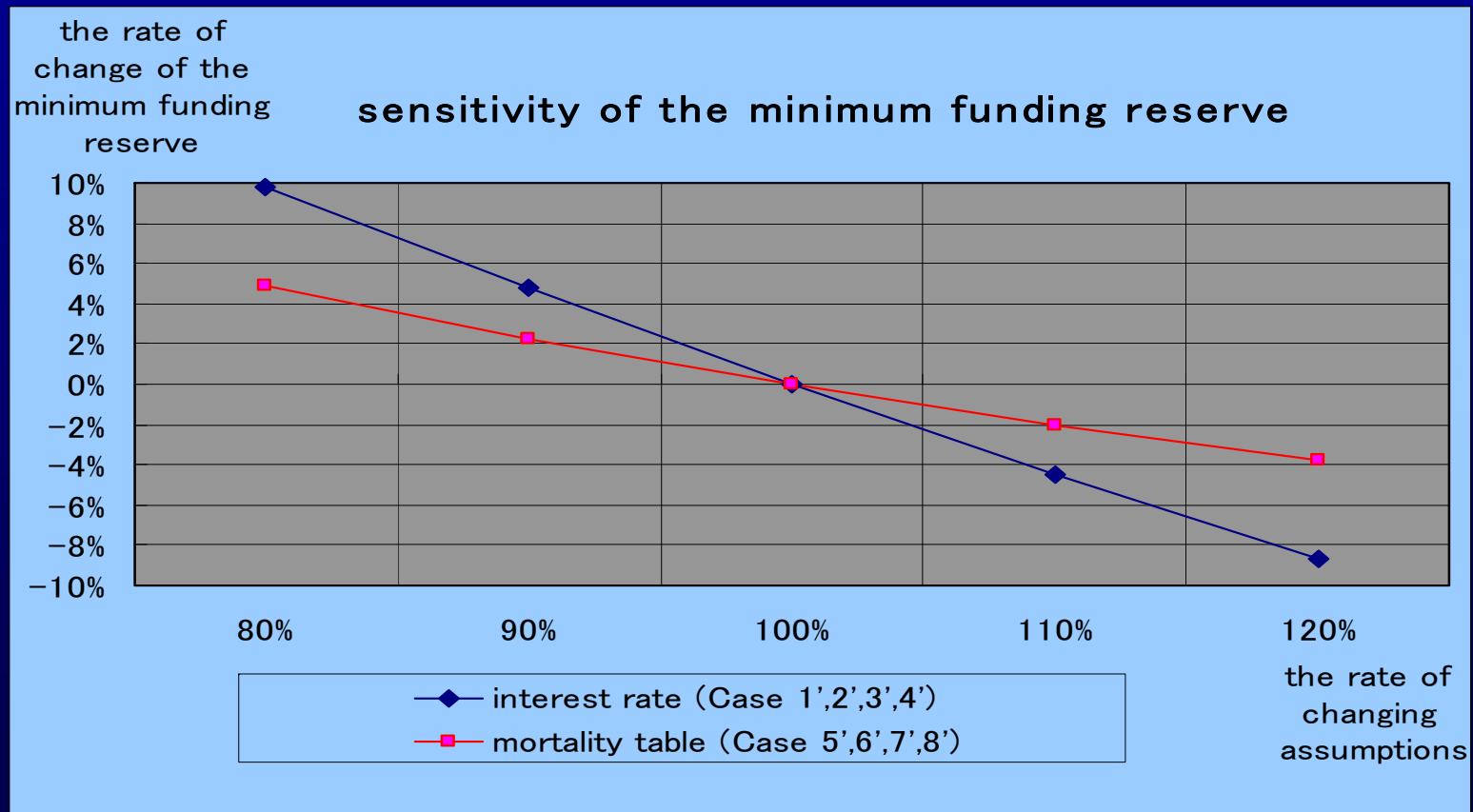
◆ How is the sensitivity of the buy-out cost ?

Changing assumptions of minimum funding reserve

Case	Assumed interest rate	Assumed mortality table
1	120%	100%
2	110%	100%
3	90%	100%
4	80%	100%
5	100%	120%
6	100%	110%
7	100%	90%
8	100%	80%

◆ How is the sensitivity of the buy-out cost ?

Result 4



◆ Conclusion

1. Receivable the sensitivity of the buy-out cost
2. Difficult to receive directly the amount of the buy-out cost
⇒ there need some interim measures of financial management such as more than 20 years amortizing
3. On the condition of the attention to the financial management, the buy-out cost is one of good options to improve the protection of pension eligibility

Thank you very much !

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