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# Consideration of benefit adjustment system in Japan's Risk-Sharing Corporate Pension

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# About the speaker



- **Satoshi Fukumoto**
- Manager, Group Annuities Dept.
- Member of  JSCPA (The Japanese Society of Certified Pension Actuaries)
- Fellow of the Institute of Actuaries of Japan



- **Nippon Life Insurance Company**
- The biggest Life Insurance Company in Japan
- The asset is over \$500 billion dollar
- More than 100 actuaries



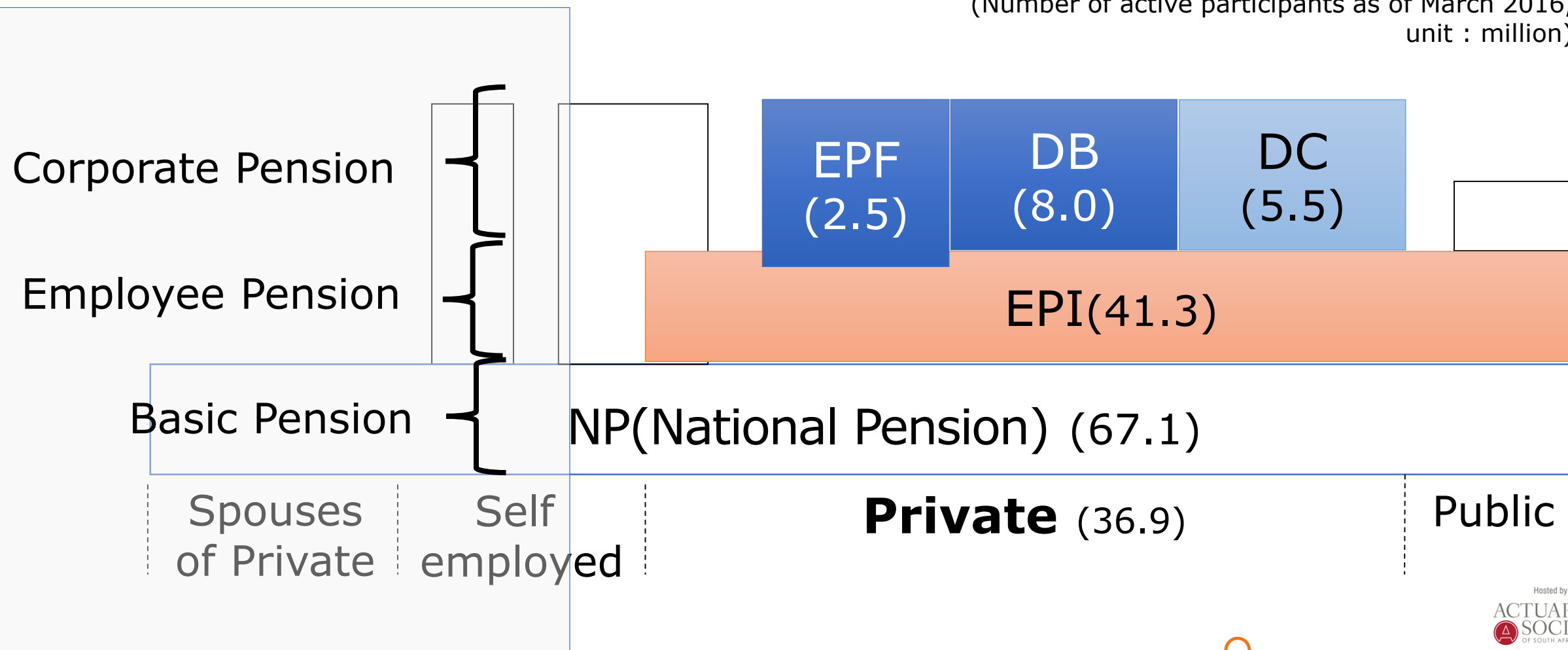
# Agenda

1. Overview of the Pension system in Japan
2. Introduction of Japanese new Pension
3. Mechanism of benefit adjustment
4. Benefit adjustment issue



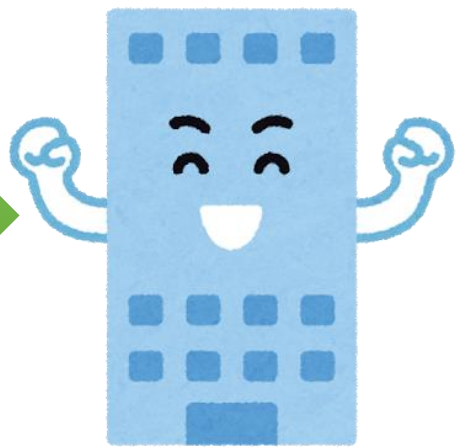
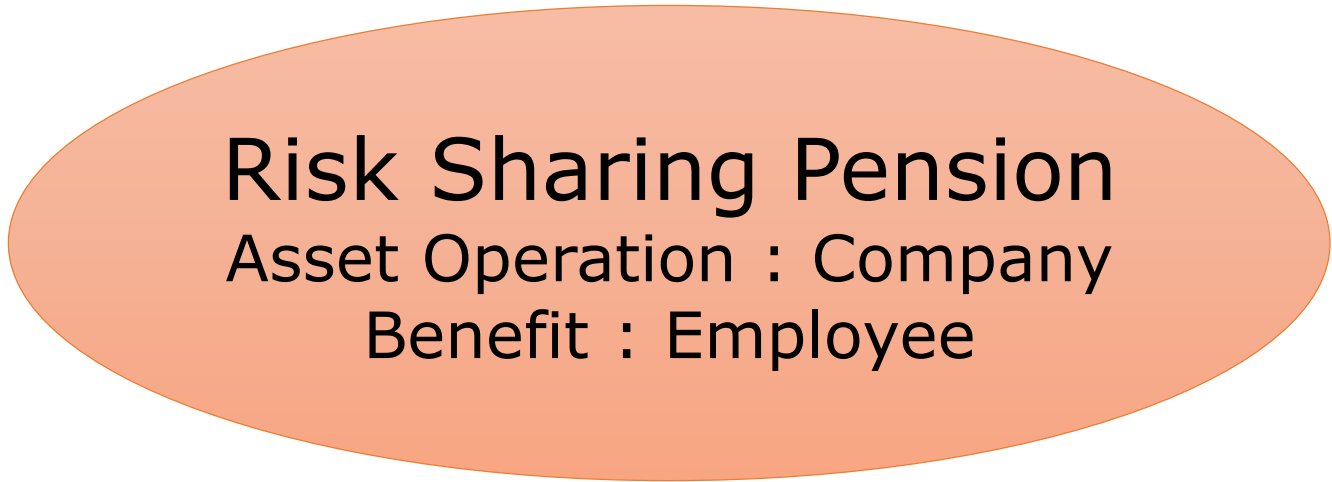
# Overview of the Pension system in Japan

(Number of active participants as of March 2016,  
unit : million)





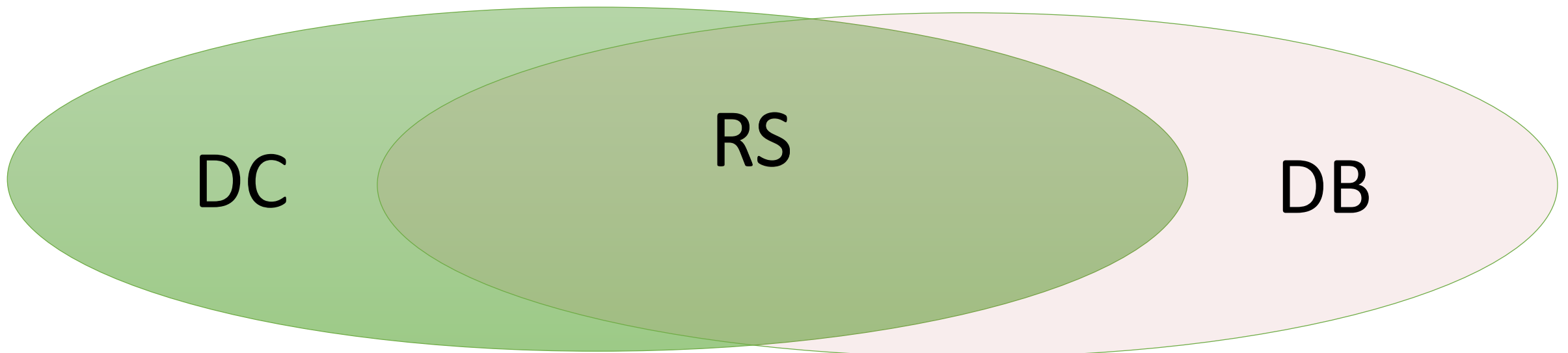
# Introduction of Japan's new Pension





# Features of Risk Sharing Pension

- No need to recognize PBO/DBO
- Flexible design





# Features of Risk Sharing Pension

- Contribution is fixed
- Contribution for Risk is required at introduction
- Adjustment of benefits at the time of funding imbalance

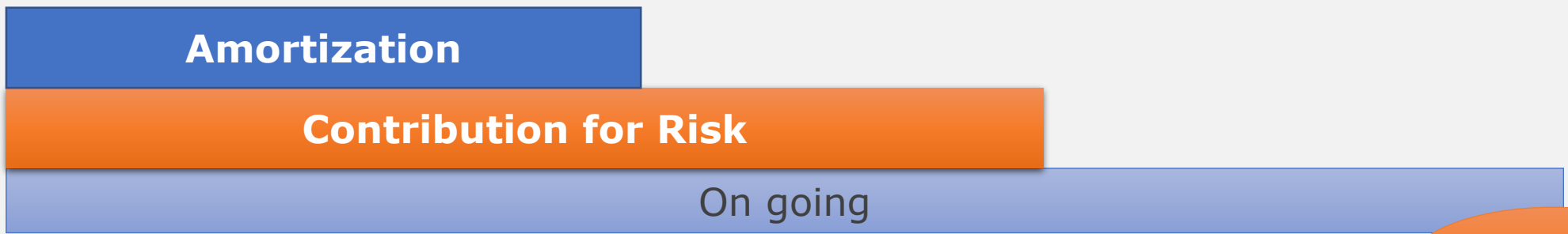


# The contribution is fixed

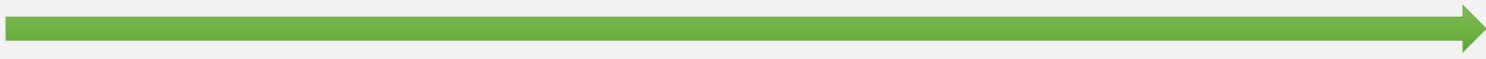
DB



RS



Introduction



Fixed



# How to estimate The Risk

- Asset fluctuation risk
  - ⇒ Asset \* risk coefficient
- Risk of reduction in expected return
  - ⇒ Increase in liabilities in case the expected return declines by 1%



# How to estimate The Risk

## Asset fluctuation Risk

Asset \* Risk coefficient

Ex) Domestic Bonds : ¥500    Foreign Stock    : ¥300  
 $\text{¥}500 * 5\% + \text{¥}300 * 50\% = \text{¥}175$

《Risk coefficient\*》

Domestic Bonds	Domestic Stock	Foreign Bonds	Foreign Stock	General account	Short-term asset
5%	50%	25%	50%	0%	0%

\*Coefficients are defined by Japanese simplified standards

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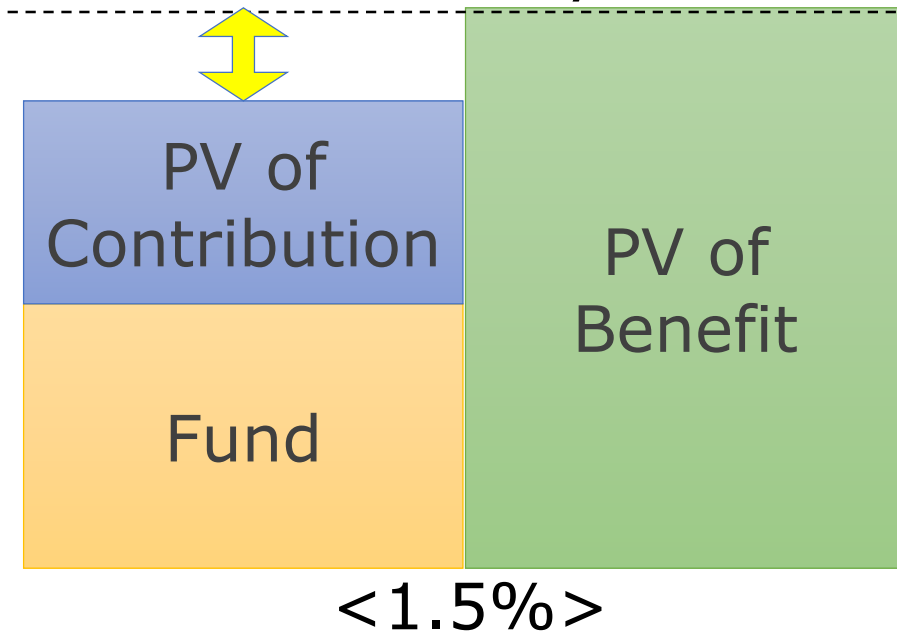
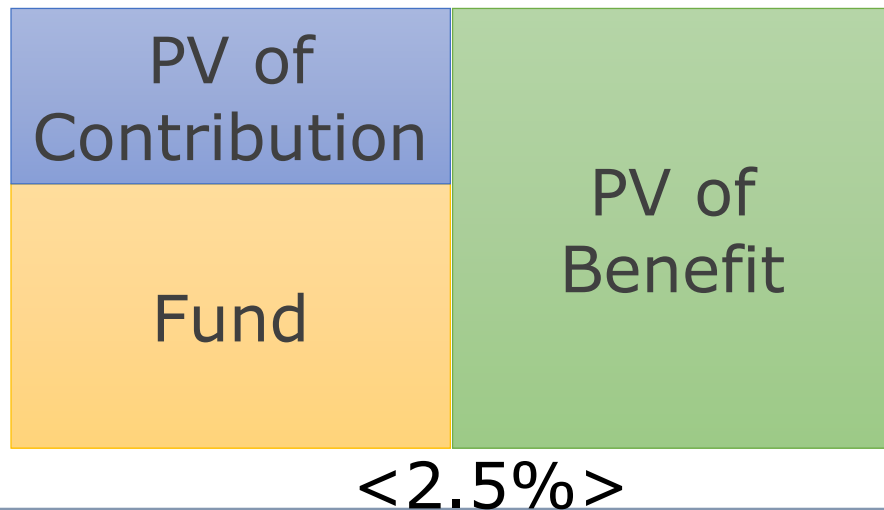




# How to estimate The Risk

## Expected return reduction risk

Increase in liabilities in case the expected return declines by 1%



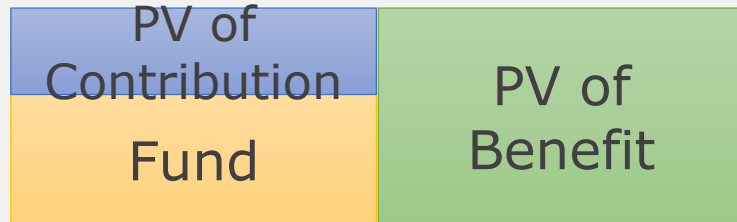
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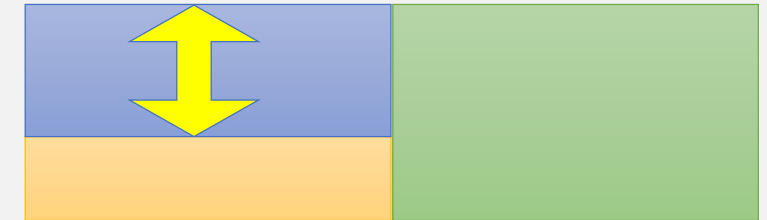


# Mechanism of benefit adjustment

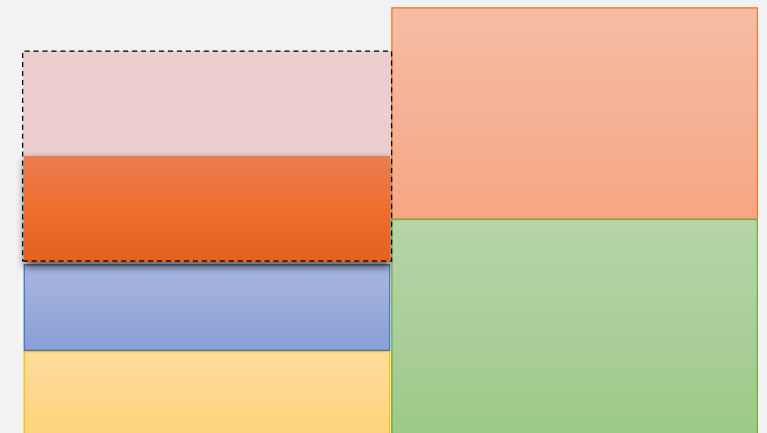
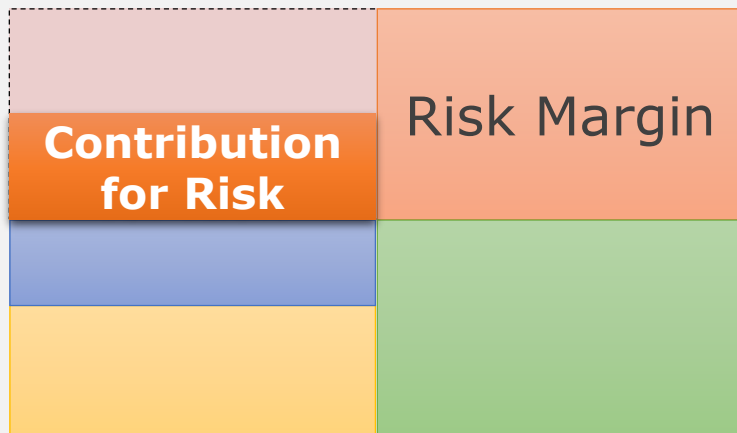
DB



Financial deterioration



RS



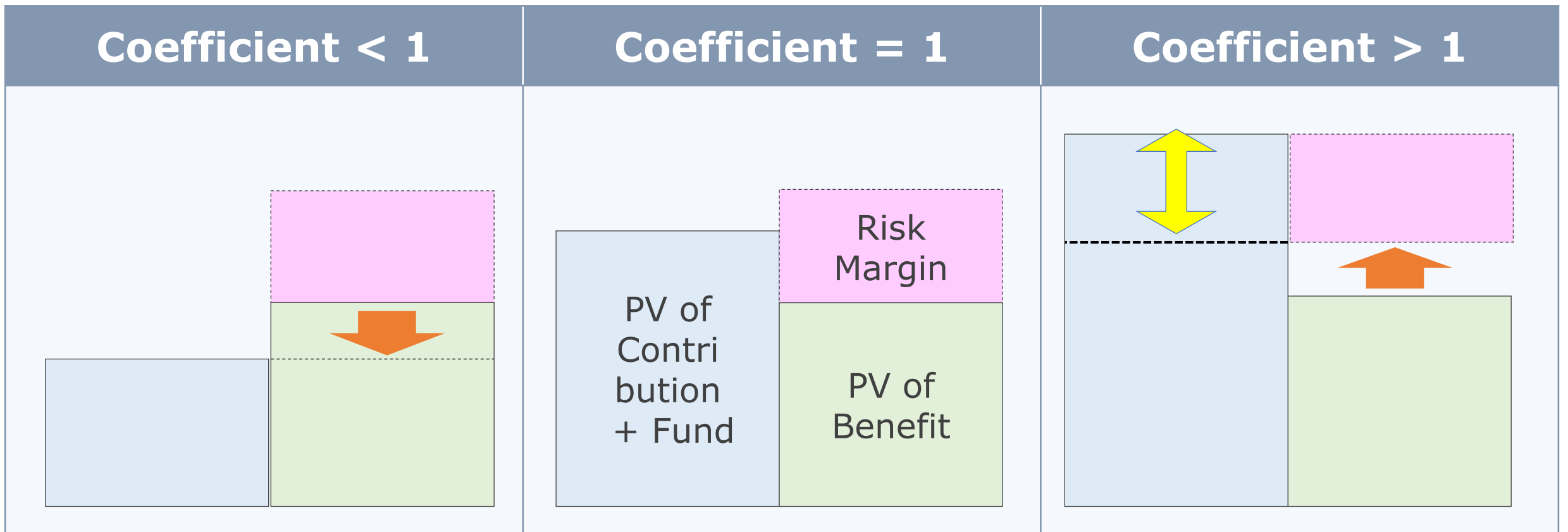
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# Mechanism of benefit adjustment

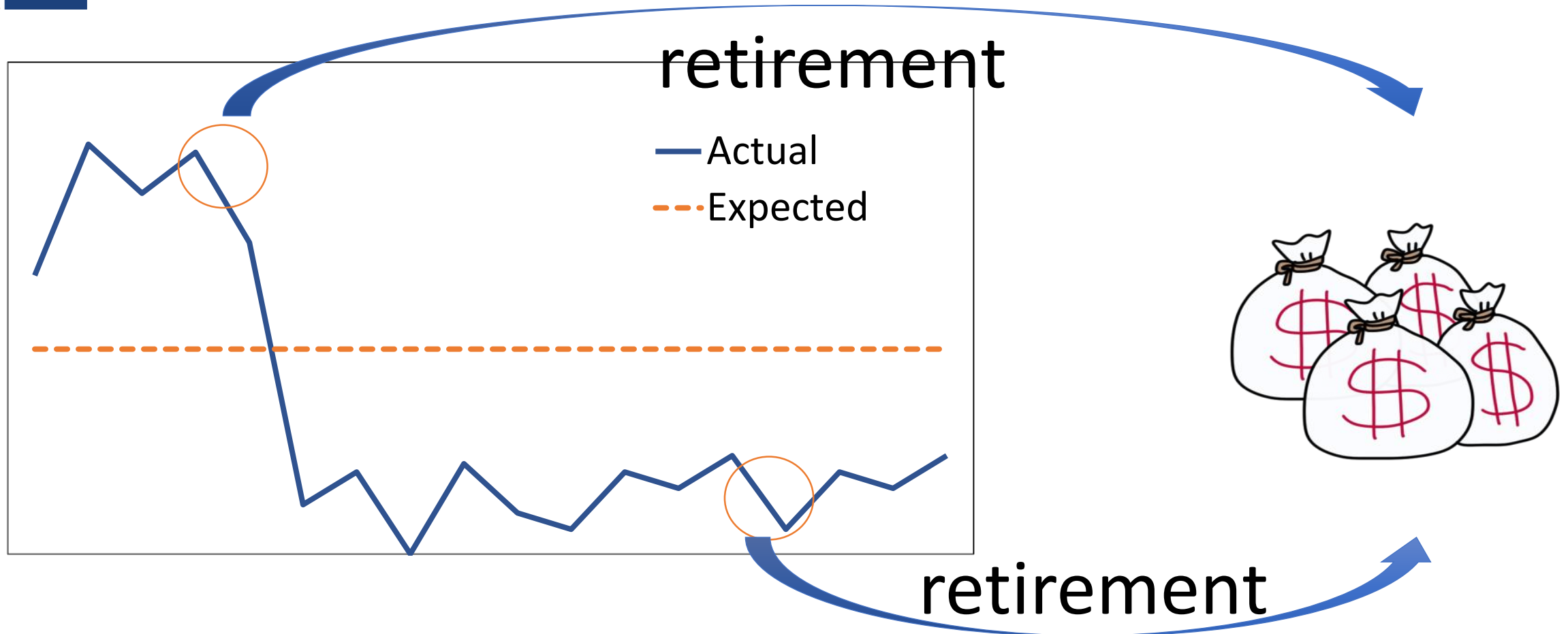


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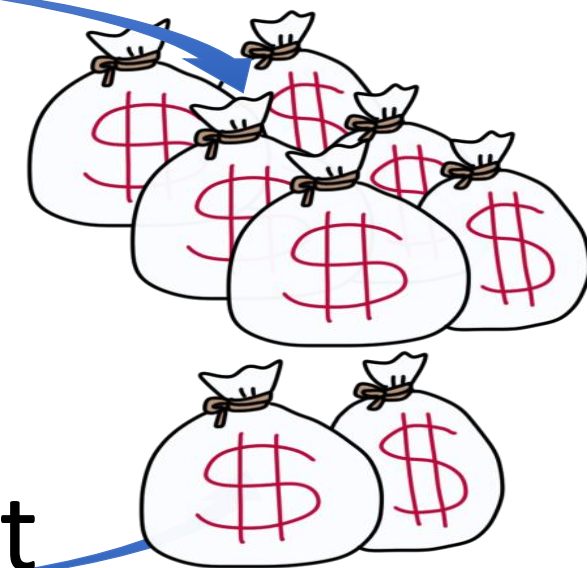
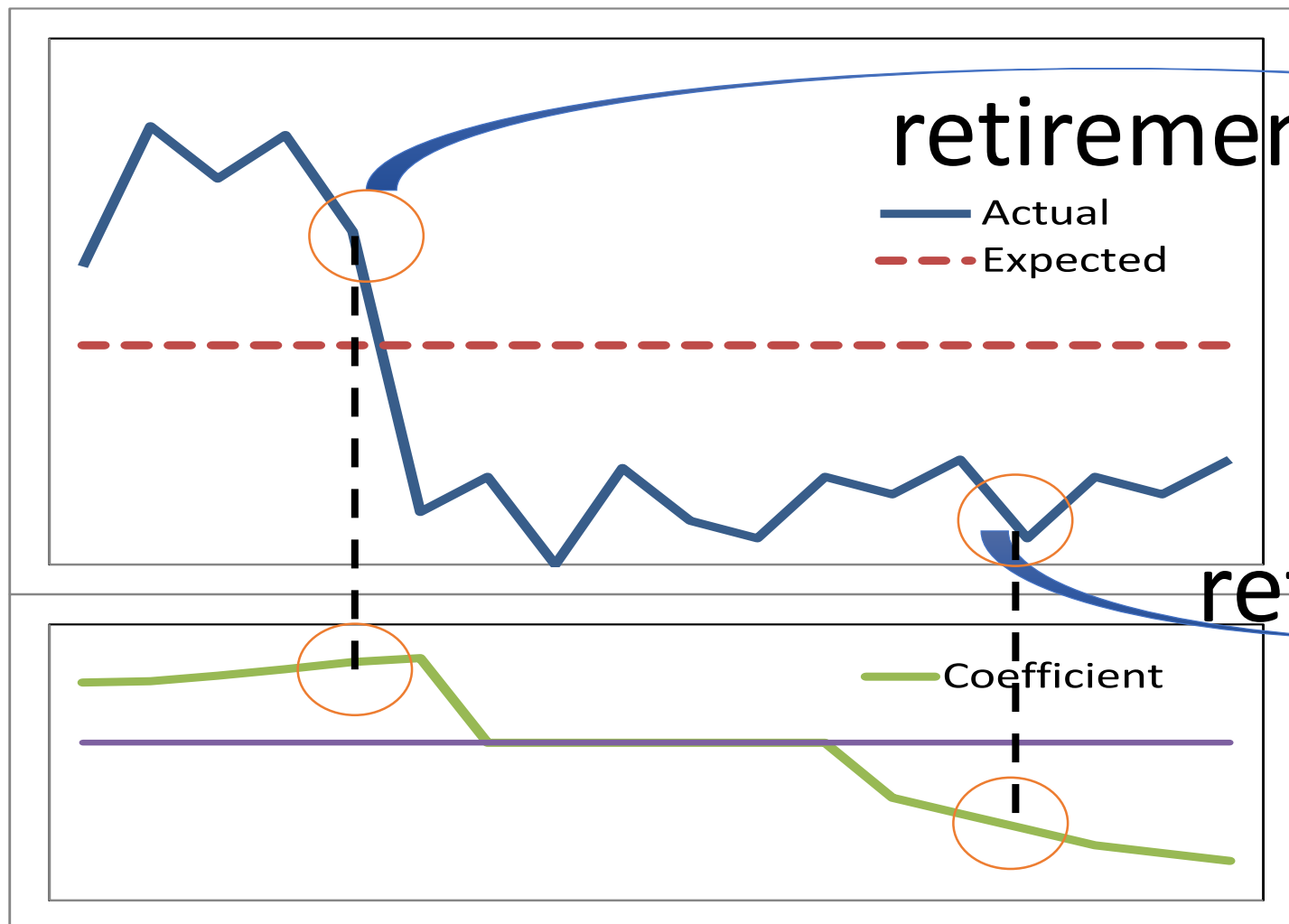


# Benefit in DB





# Benefit in Risk Sharing DB



retirement

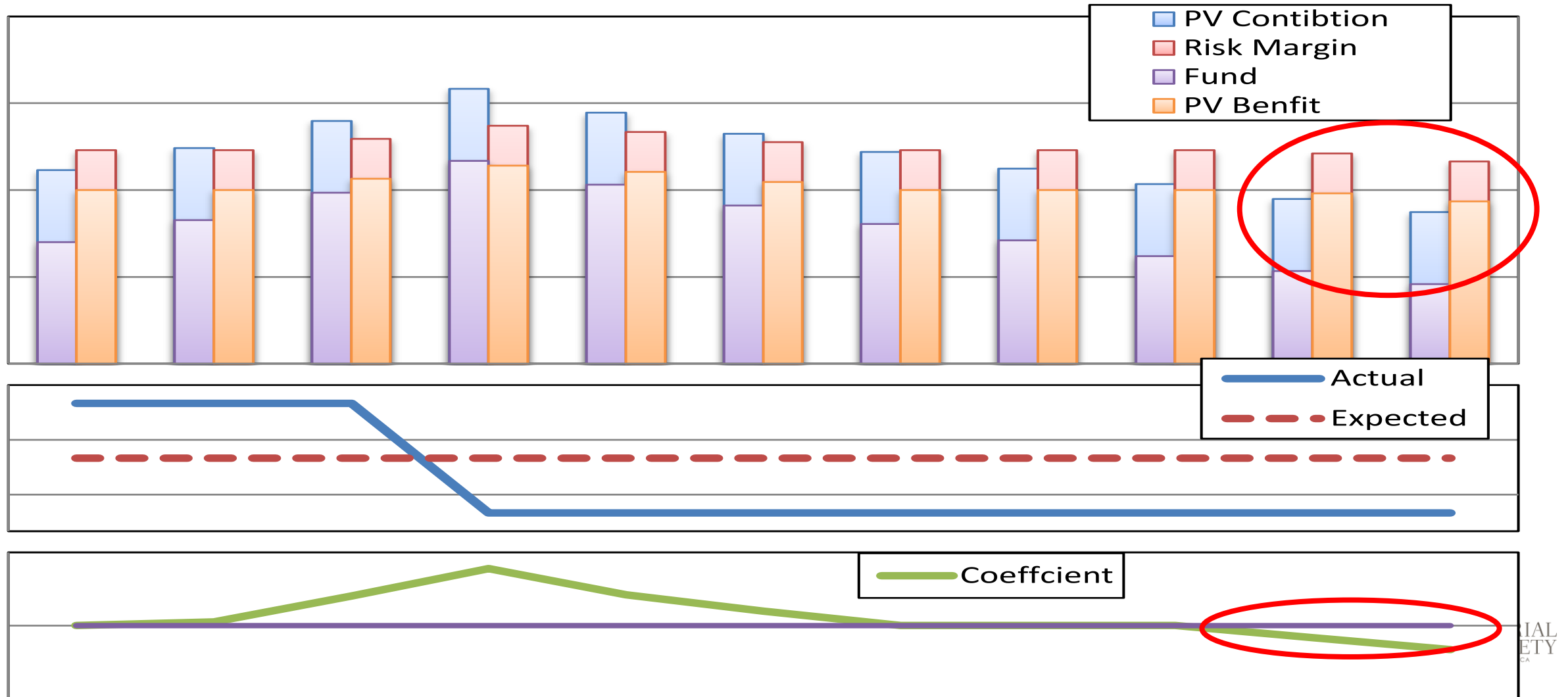


## Mechanism of benefit adjustment issue

- Benefit amount differs at the time of receiving
  - Payment amount depends on the funding situation as at payment, not the funding situation during employment (participation?)
- The upper limit of the reserve is fixed, and the excess is consumed by the increase in benefits
  - Unlike the DB, despite the fact that there is no additional contribution even when actuarial losses are generated.



# Mechanism of benefit adjustment (Salary linked)



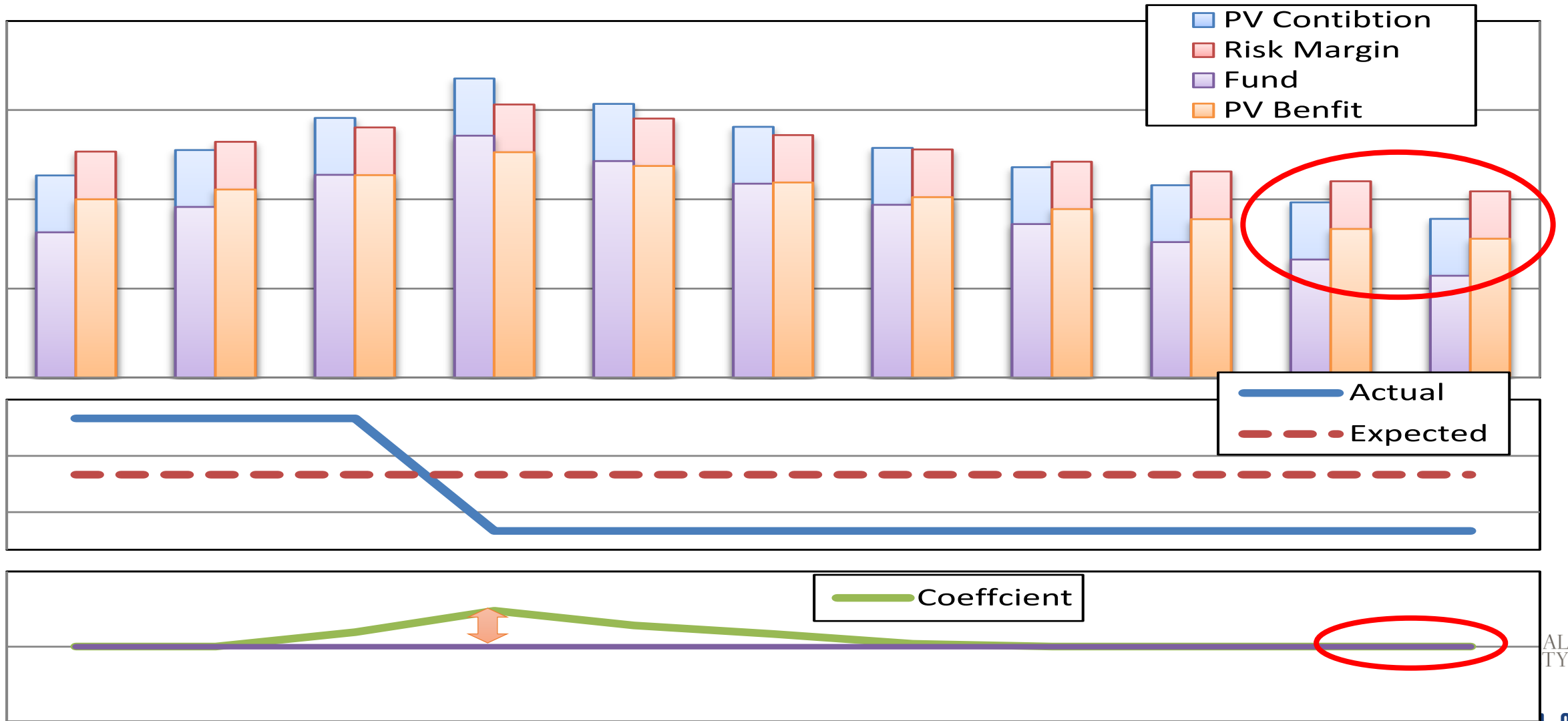


# Suggestion.1

- Cash balance with interest of actual return is better than salary linked !?
- Reason: The actual performance during participation is taken into consideration !!



# Mechanism of benefit adjustment (Cash Balance)





# Mechanism of benefit adjustment issue

- Benefit amount differs at the time of receiving
  - Payment amount depends on the funding situation as at payment, not the funding situation during employment (participation?)
- The upper limit of the reserve is fixed, and the excess is consumed by the increase in benefits
  - Unlike the DB, despite the fact that there is no additional contribution even when actuarial losses are generated.

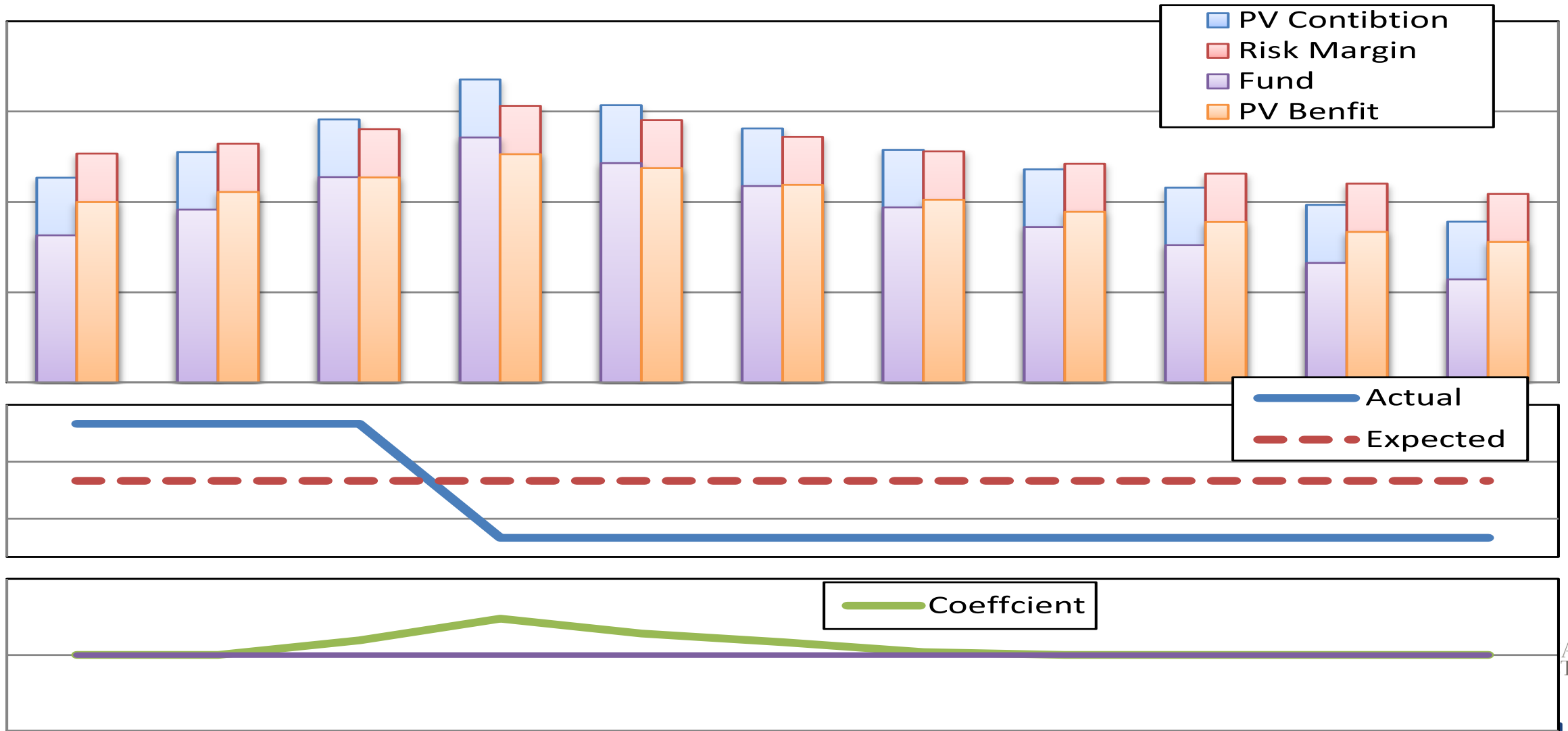


## Suggestion.2

- The upper limit of the reserve is determined by the magnitude of the risk. Then, how about increasing the risk !?
- in addition to shown in page 9-11, following factors are allowed.
  - Improvement of mortality rate
  - Decrement of withdrawal rate etc...

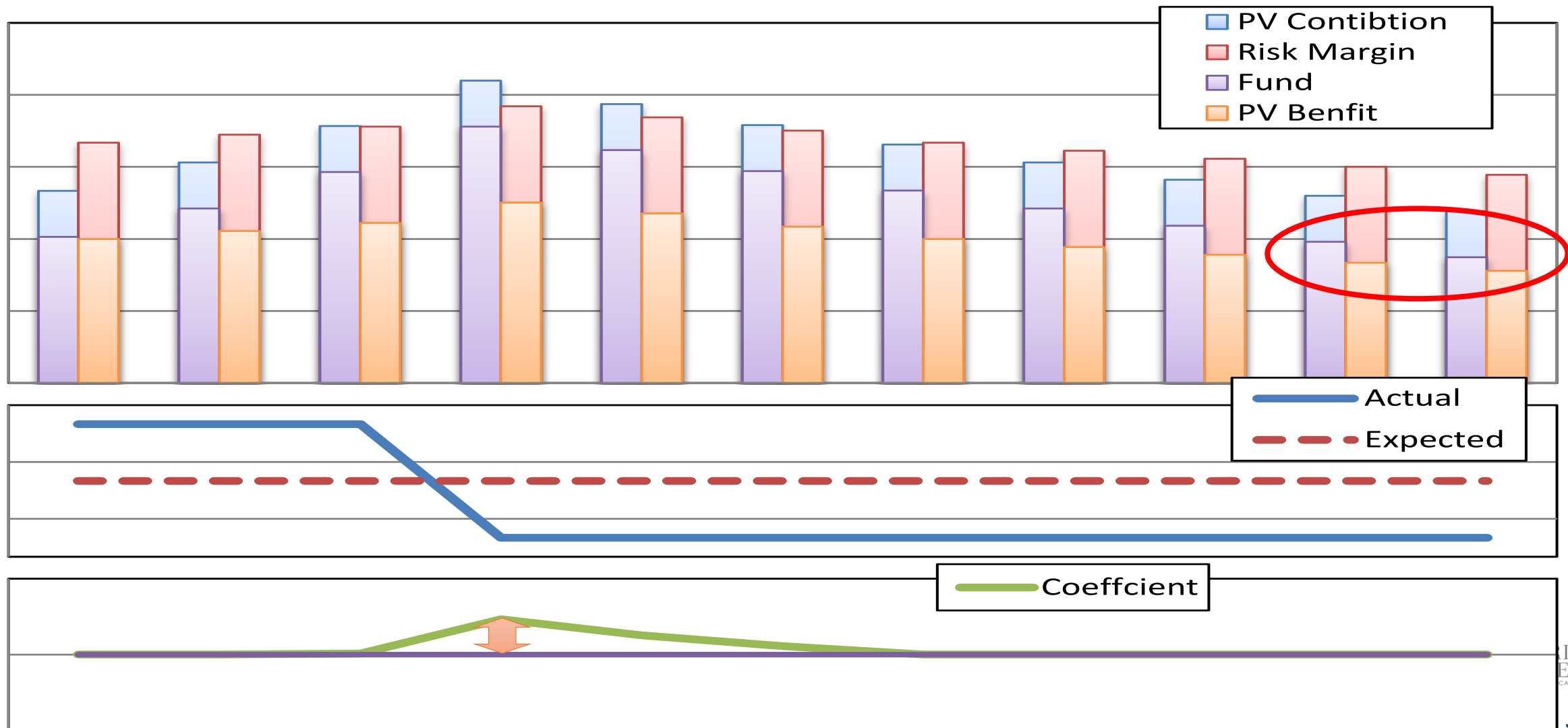


# <Recapped> Mechanism of benefit adjustment (Cash Balance)





# Mechanism of benefit adjustment (Large risk margin)





# Conclusion

- Risk-Sharing Pension was introduced in Japan.
- This Pension has the merits of both DB and DC.
- We will continue to consider this new pension for dissemination.



**Thank you very much for  
your attention!**

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