

2017 BIS-BdM High Level Conference

# Trends and Issues in Reserve Management at the Bank of Korea

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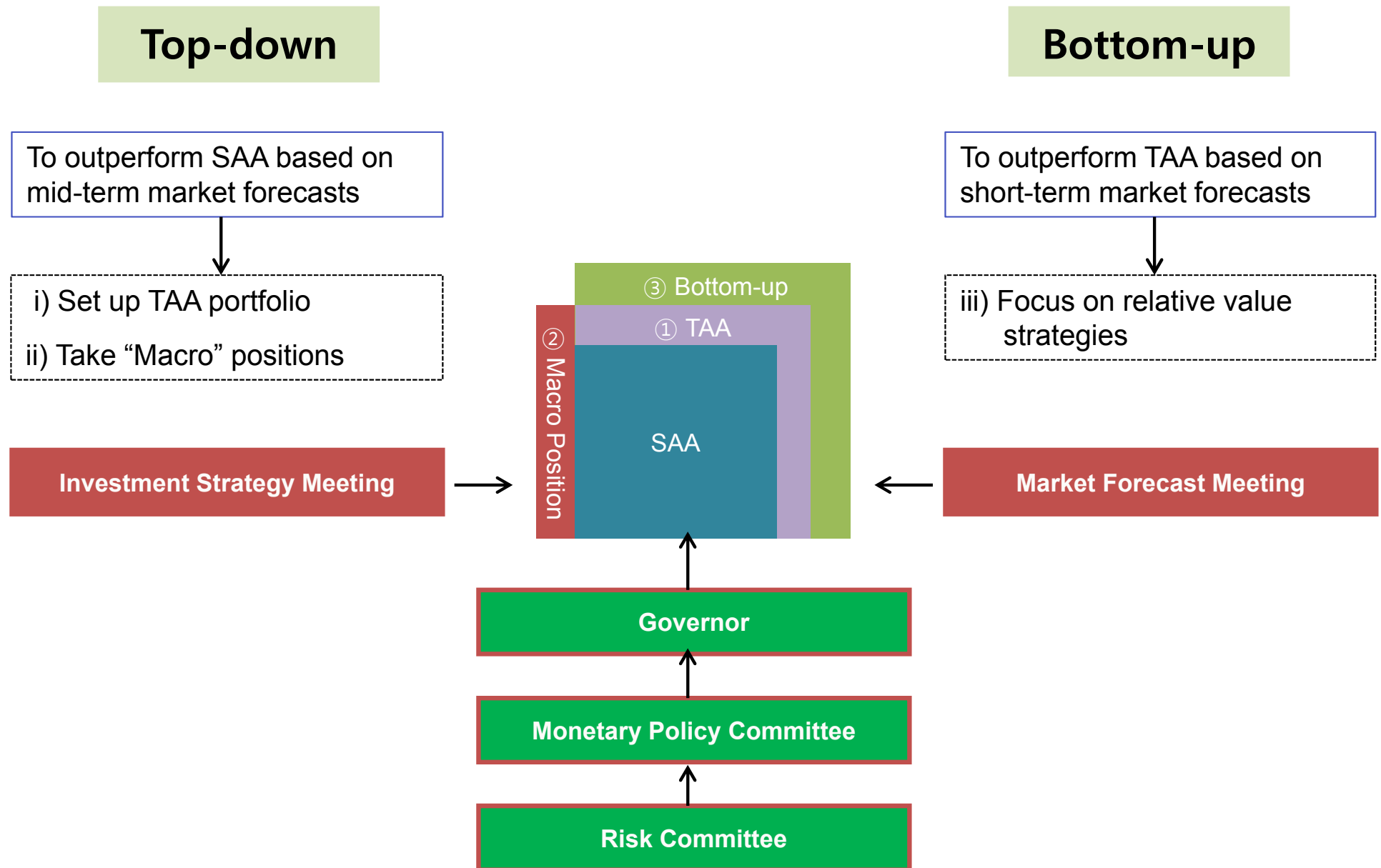
# Composition of Reserves

(End of, %)

|                                     |                         | 2007         | 2008         | 2009         | 2010         | 2011         | 2012         | 2013         | 2014         | 2015         |
|-------------------------------------|-------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| By Tranche                          | Liquidity               | 3.9          | 5.8          | 1.9          | 3.2          | 4.5          | 3.9          | 3.1          | 4.3          | 4.5          |
|                                     | Investment              | 84.5         | 76.1         | 84.0         | 82.5         | 79.7         | 79.4         | 81.6         | 80.5         | 80.0         |
|                                     | External Management     | 11.6         | 18.1         | 14.1         | 14.3         | 15.8         | 16.7         | 15.3         | 15.2         | 15.5         |
| By Currency                         | USD                     | 64.6         | 64.5         | 63.1         | 63.7         | 60.5         | 57.3         | 58.3         | 62.5         | 66.6         |
|                                     | Non-USD                 | 35.4         | 35.5         | 36.9         | 36.3         | 39.5         | 42.7         | 41.7         | 37.5         | 33.4         |
| By Asset Class                      | Deposits                | 7.4          | 8.4          | 4.0          | 6.0          | 6.6          | 4.8          | 4.4          | 3.8          | 5.9          |
|                                     | Government bonds        | 35.5         | 31.8         | 38.1         | 35.8         | 36.8         | 38.0         | 36.8         | 37.1         | 35.7         |
|                                     | Agencies, Supras, Sov.  | 28.8         | 22.4         | 22.3         | 21.8         | 20.1         | 21.5         | 22.0         | 22.5         | 22.7         |
|                                     | Corporate bonds         | 15.4         | 16.9         | 15.1         | 16.5         | 14.1         | 12.9         | 15.9         | 17.5         | 16.4         |
|                                     | Asset-backed securities | 11.6         | 17.0         | 17.4         | 16.1         | 17.0         | 17.1         | 14.8         | 13.0         | 13.1         |
|                                     | Equities                | 1.3          | 3.5          | 3.1          | 3.8          | 5.4          | 5.7          | 6.1          | 6.2          | 6.3          |
| <b>Total Reserves (billion USD)</b> |                         | <b>262.2</b> | <b>201.2</b> | <b>269.9</b> | <b>291.5</b> | <b>306.4</b> | <b>326.9</b> | <b>346.5</b> | <b>363.6</b> | <b>368.0</b> |

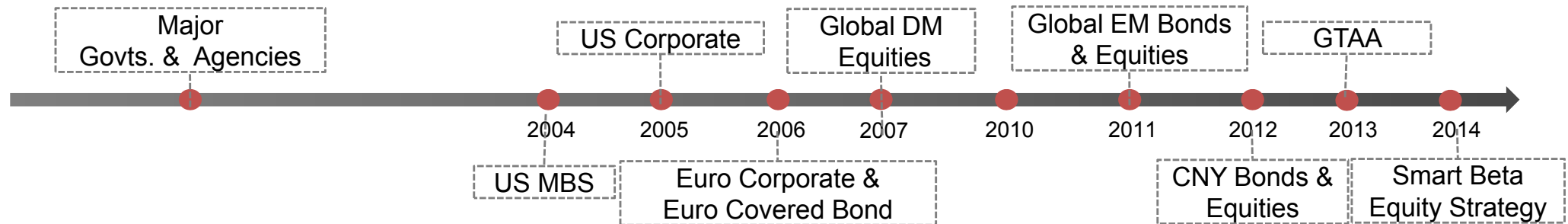
Source: Bank of Korea Annual Report

# Reserve Management Framework



# Issues (1) Diversification and EFM

- ▷ In line with the reserves accumulation since the early 2000s, **investment universe** has been diversified and **externally managed assets** have increased  
 ⇒ How farther (e.g. how much more into equities)?



- ▷ **The size of externally managed assets** is a function of SAA, cost/benefit of using external managers, and degree of internal capacity  
 ⇒ i) How should the size determined? ii) How much is optimal?  
 iii) Pros and cons of internalizing equities investment

## Allocation to EFM

## Cost of EFM

### Direct allocation

- As a separate individual asset class in the optimization process

### Redistribution

- Divide between internal/external in an asset class after the asset allocation

### Independently

- Exogenous or policy-driven decision making

- Direct fee costs higher than internally managed portfolios
- Need for expertise in managing external managers
- Difficulty in risk profile control
- Slow implementation of portfolio changes and withdrawals
- Difficulty in integration of internal and external portfolios

# Issues (2) SAA

- ▷ CBs need to follow the best practice of asset allocation process, but **there are some limitations** due to the special characteristics of reserve management

## Limitations of CBs' SAA

- Usually, specific mandate is not given (such as bonds vs. equities)
- Liquidity and capital preservation are top-priority objectives
- It is difficult to quantify investment objectives
- Asset class universe and internal capacity are limited
- Investment horizon is relatively short
- Flexible, big change in investment is not easy, due to large size or reputation risk

⇒ Difficult to adopt a more general approach of asset allocation

- Therefore, **risk-factor approach** could work only as an auxiliary tool; constraints in SAA, qualitative assessment, investment strategy purposes, or risk measurement

- ▷ It will be helpful for a CB to **introduce Long-Term SAA** as the neutral benchmark without consideration of market forecasts
- To achieve investment objectives over the longer-term horizon
  - To express asset class and currency compositions with simplicity and clarity in order for efficient communication with top management or stakeholders
  - To function as a yardstick for the shorter-term (yearly) SAA deviations

# Issues (3) Usual Challenges

- ▷ Optimal (ample) level of reserves
- ▷ Negative carry cost of holding reserves
  - Possibility of net losses of a CB's B/S
  - More focus on returns with higher risks
- ▷ Transparency vs. Confidentiality
  - More demand of information disclosure
- ▷ Accounting of large reserve assets
  - Large fluctuations of profits and losses
  - Asymmetric profit distribution to Government
- ▷ Active vs. Passive management
- ▷ Reputation risk

**THANK YOU!**

# <Appendix> Organization of Reserve Management Group

