



PFMI Fulfillment as Part of KPEI Risk Mitigation



BROADENING SERVICES

Toward Agile Central Counterparty

ACG Cross Training Seminar - Yogyakarta 2019



Agenda

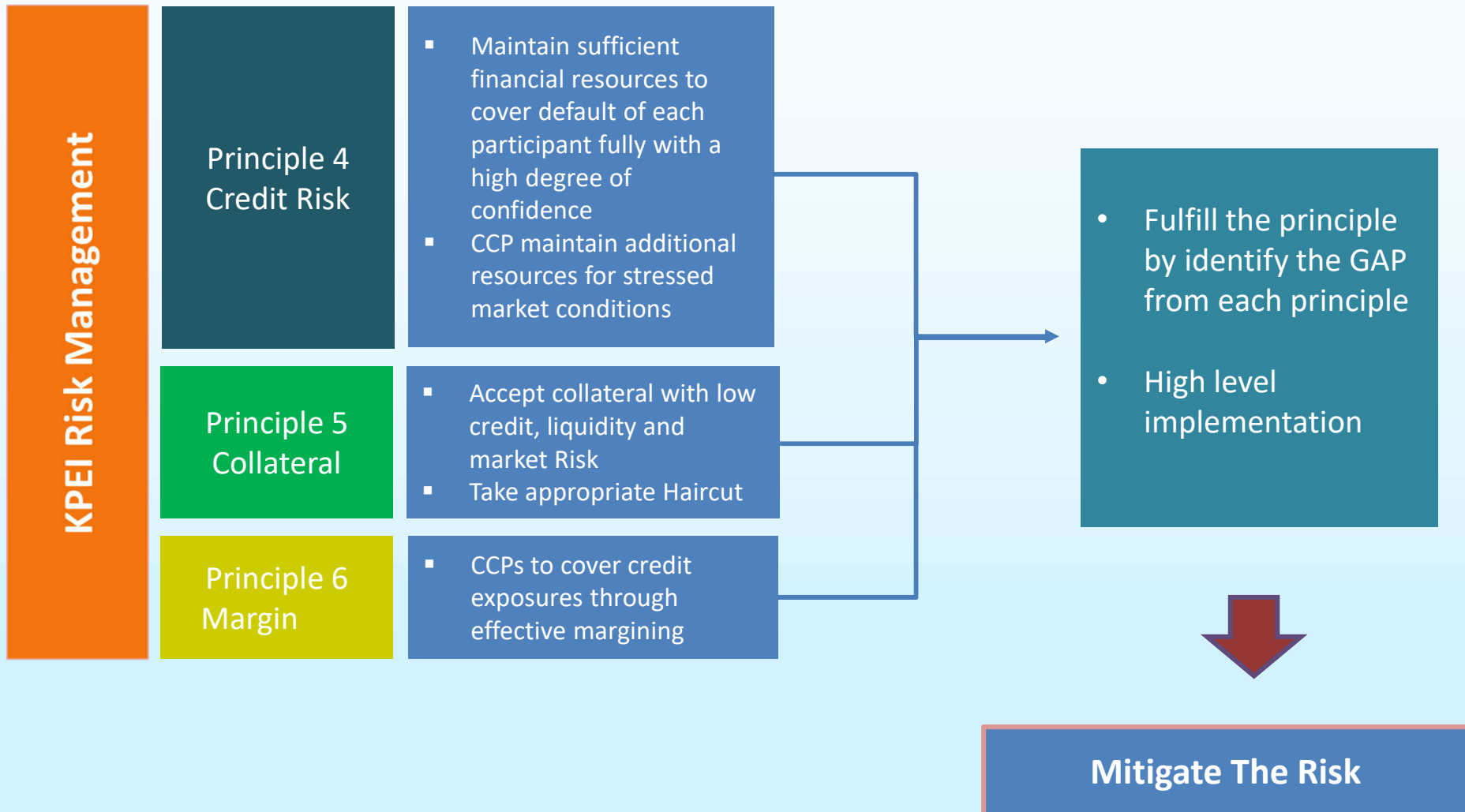
1. Background.
2. PFMI principle Coverage for KPEI Risk Management.
3. PFMI Fulfilment for Risk Management area (Principle 4, 5 and 6) and roadmap for implementation.
4. Risk Mitigation and PFMI Fulfilment.

Background

- In 2015 KPEI and KSEI conduct CPMI-IOSCO self-assessment of the Principles for Financial Market Infrastructures (PFMIs).
- The assessment assisted by independent consultant (Thomas Murray).
- As the result from 24 principle, overall principle get broadly observed with details 3 principle observed, 12 principle broadly observed, 5 principle partly observed and the rest are not applicable.
- Beside observed and not applicable, the other principle need to be follow up to mitigate the risk that could be occur.
- From KPEI Risk Management point of view, the principle need to follow up are :
 - Principle 4 (Credit Risk),
 - Principle 5 (Collateral),
 - Principle 6 (Margin).



PFMI principle Coverage for KPEI Risk Management





PFMI Fulfillment for Risk Management area and roadmap for implementation.

Principle 4; Credit Risk

1 GAP PFMI Assessment vs KPEI current condition

- Lack of ad hoc examination of testing model (Key Consideration 5).
- Documentation (Key Consideration 5).
- KPEI is not able to call for immediate contribution to fill in the shortfalls identified by stress testing (Key Consideration 5).
- Lack of hypothetical stress scenarios (Key Consideration 6).
- KPEI might consider introducing other historical scenarios. (Key Consideration 6).

2 KPEI Roadmap to implementation

- In 2017 KPEI Assisted by independent consultant (KPMG) follow up the gap of PFMI principle 4 credit risk.
- KPEI simulate and change the parameter to calculate stress testing, including make a longer period of set data (to cover KC 7) ; add hypothetical stress scenarios / forward looking (to cover KC 6); update the documentation with the new methodology (to cover KC 5); and conducting ad hoc analysis (to cover KC 5).
- KPEI also change the methodology to evaluate the clearing member, based on risk rating framework

3 Timeline Implementation

- New Stress Testing method was implemented in September 2018.
- New Risk rating framework will be implemented by the end of 2019. In this time, we are in the middle of developing the system

PFMI Fulfillment for Risk Management area and roadmap for implementation.

Principle 5; Collateral

1 GAP PFMI Assessment vs KPEI current condition

- wrong-way risk are not established (Key Consideration 1)
- Accept Bank Guarantee (Key Consideration 1)
- Haircut Methodology to reduce procycality (Key Consideration 2 and 3)
- No Concentration Limit for Government Bonds and Bank Guarantee (Key Consideration 4)
- Collateral scattered over three system (valuation, deposit, eligibility, etc.) and need to be centralizes (Key Consideration 6)

2 KPEI Roadmap to implementation

- In 2016 KPEI Assisted by independent consultant (Thomas Murray) follow up the gap of PFMI principle 5 collateral.
- In 2018 KPEI Issue Circular Letter to all clearing member to addressed GAP PFMI principle 5 :
 1. Limit the value of Bank Guarantee and Government Bond as collateral accepted (to cover KC 4) ;
 2. Not Accepted Bank Guarantee affiliated with Clearing Member (to cover KC 1) ;
 3. Change the concentration limit valuation for stock as collateral accepted.
- Change Haircut methodology, using VaR with conservative parameters (to cover KC 2 and 3)
- KPEI plan to develop integrated collateral management system (to cover KC 6)

3 Timeline Implementation

- New Haircut methodology was implemented 2016
- Implementation of KPEI Circular letter in January 2019
- Integrated Collateral Management System 2020

PFMI Fulfillment for Risk Management area and roadmap for implementation.

Principle 6; Margin

1 GAP PFMI Assessment vs KPEI current condition

- KPEI not established a single-tailed confidence level of 99% for new product with no historical data (Key consideration 3)
- Conservative look-back period (Key consideration 3)

2 KPEI Roadmap to implementation

- In 2019 KPEI plan change margin methodology for new product with no historical data, using proxy VaR (Similar sector, industry, or using constituents of main index)
- In 2019 KPEI plan to implement stressed VaR by adding a fixed historical data series during a stress period (e.g. 2008 financial crisis) to reduce procyclicality.

3 Timeline Implementation

- New Margin methodology will be implemented by the end of 2019

Risk Mitigation and PFMI Fulfillment.

Risk Mitigation Vs PFMI Fulfillment

Principle 4 Credit Risk

New stress test methodology result :

1. More accurate value that needed to cover losses in stressed market condition. (KPEI prefunded as source of Fund in the event of default)
2. New methodology to evaluate the clearing member is better represent reflecting Credit Riskiness from Clearing Member

Principle 5 Collateral

1. Based on historical data in the event of CM Default in 2014 and 2016, KPEI facing difficulties liquidate illiquid stock and also Bank Guarantee.
2. The implementation of new parameter for collateral accepted, will be mitigate the risk when KPEI have to liquidate CM Collateral in the event of default.

Principle 6 Margin

1. More accurate margin calculation, especially to cover market volatility during stressed period.
2. Effective margining → less collateral will be required in a bullish, vice versa more collateral will be required when the market bearish.



Thank You

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