



THE SREP PROCESS

HOW TO DEAL WITH THE CHALLENGES

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Agenda 5 April

1.	Introduction Michiel Hopman
2.	Relevant and recent SREP documents
3.	SREP and SSM priorities 2018
4.	Overall SREP process and challenging keynotes
5.	SREP and score levels
6.	Business Model Analysis
7.	Governance & Institutions-wide controls

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11.	ILAAP framework
12.	Seven Principles ILAAP/ICAAP
13.	Stress testing
14.	Recovery plan
15.	Assistance Hopman Data & Risk Solutions



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Minor RISK (Bachelor course)



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2. Relevant and recent SREP documents

Not exhausted

1.	SREP GL 2014
2.	Stress Testing GL 2010 (GL32)
3.	CP on Guidelines SREP (Oct 2017)
4.	CP on Guidelines Stress Testing (Oct 2017)
5.	CP on Guidelines IRRBB non trading (Oct 2017)
6.	Supervisory SREP priorities 2018 (dec 2017)

7.	EBA Pillar 2 Roadmap (April 2017)
8.	SSM Supervisory priorities 2018
9.	GL ICAAP/ILAAP on information for SREP (feb 2017)
10.	ECB Guide to ICAAP (March 2018)
11.	ECB Guide to ILAAP (March 2018)
12.	FAQ Guide to ICAAP/ILAAP (March 2018)

3. SREP and SSM priorities 2018

Stress testing becomes an important tool

Business model analysis

- Profitability Analysis of the business model
- IRRBB stress testing
- Assessment of the business environment – key vulnerabilities
- Analysis of the forward looking strategy and financial plans:
 - Viability (within one year)
 - Sustainability (within three years)
 - Sustainability over the cycle (more than three years)

Risk Management

- Improvement ICAAP (refined GL)
- Improvement ILAAP (refined GL)
- Other regulatory changes:
 - Pillar 2 Guidance (stress testing)
 - IFRS 9
 - Liquidity/funding measures like Survival period, NSFR and MREL

Credit Risk

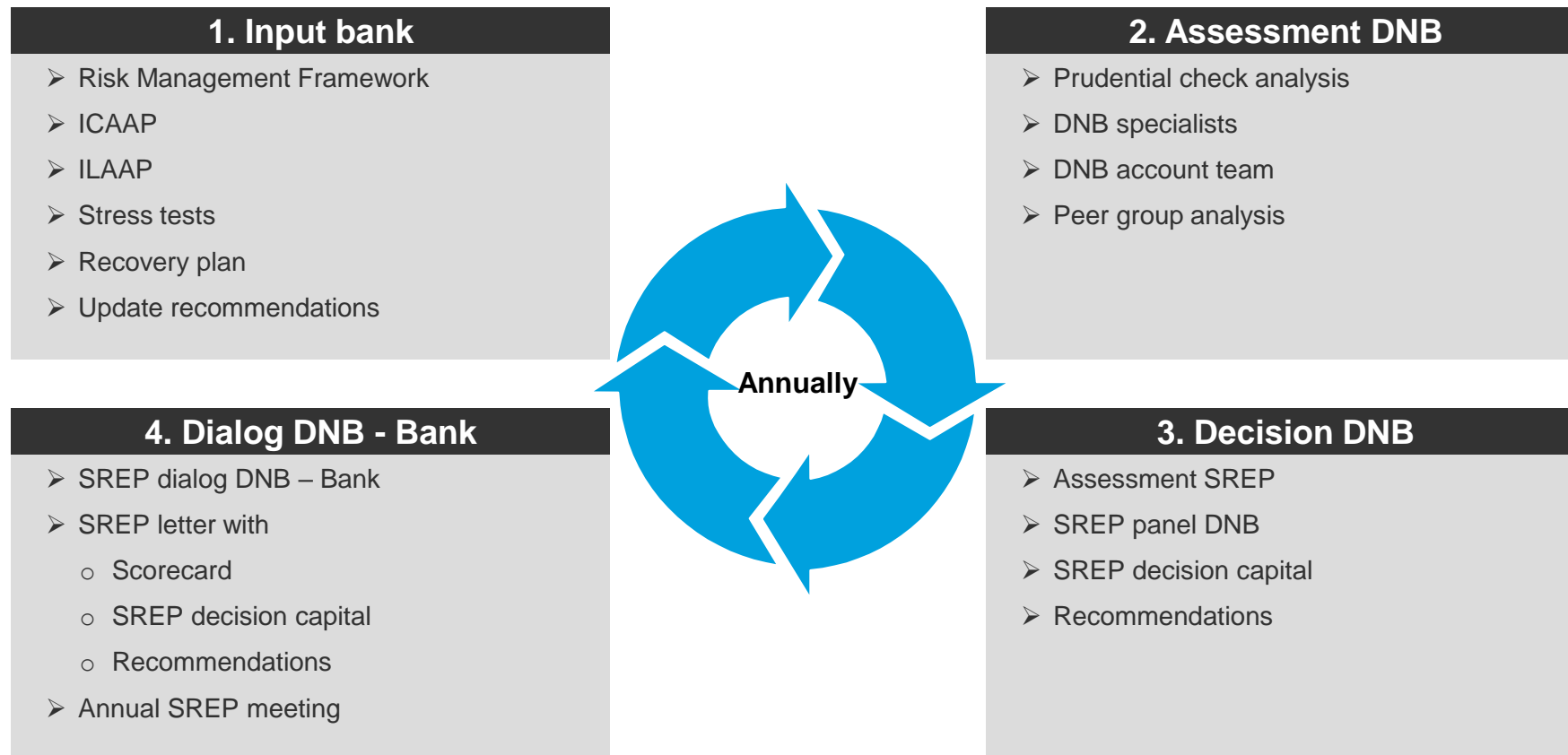
- Non Performing Loans ; consistent approach and improving timelines of provisioning and write-offs
- Concentrations exposures
- Collateral management and valuation (e.g. Real Estate)

Multiple Risk dimensions

- Integrated Stress testing
- Brexit preparations
- IT and Cybercrime

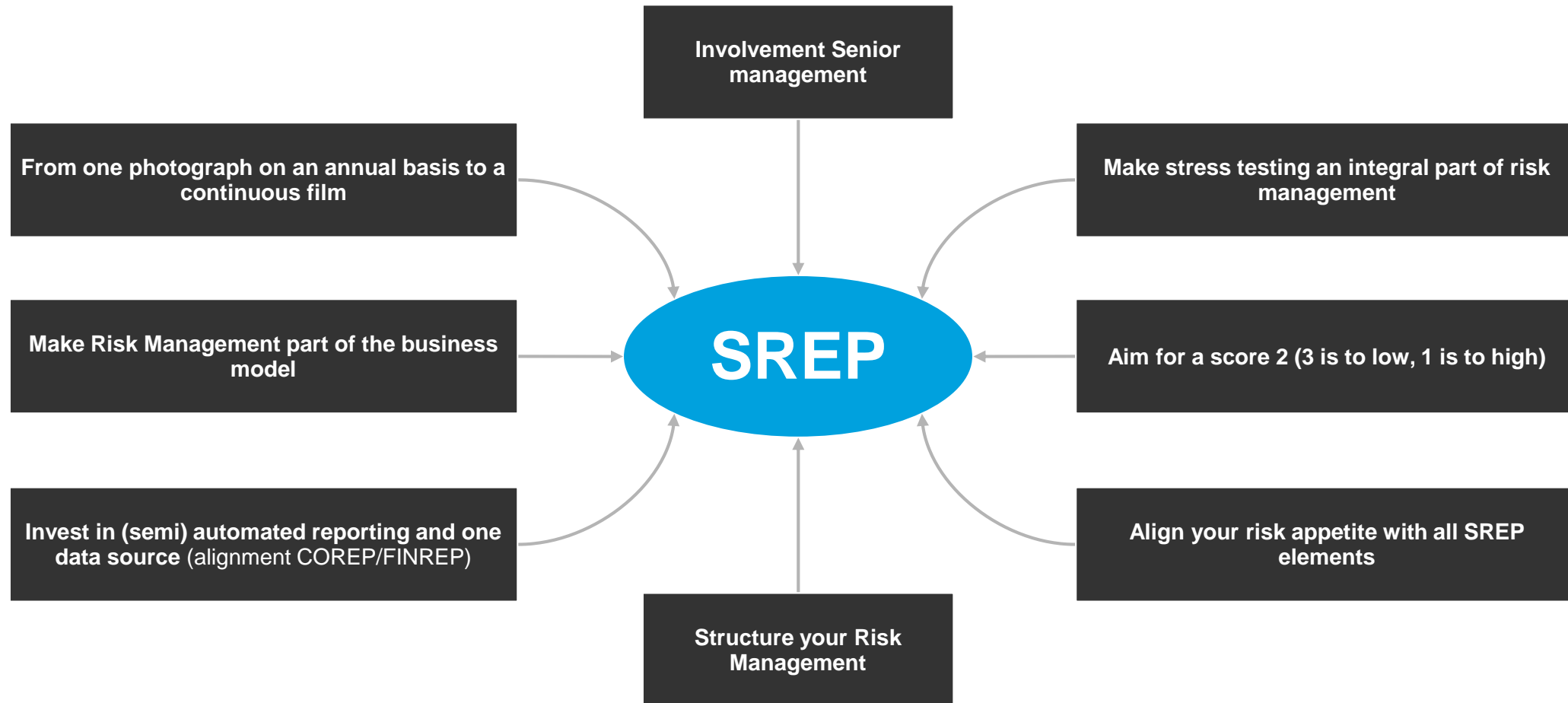
4.1 Overall SREP Process

On an annual basis (April or September)



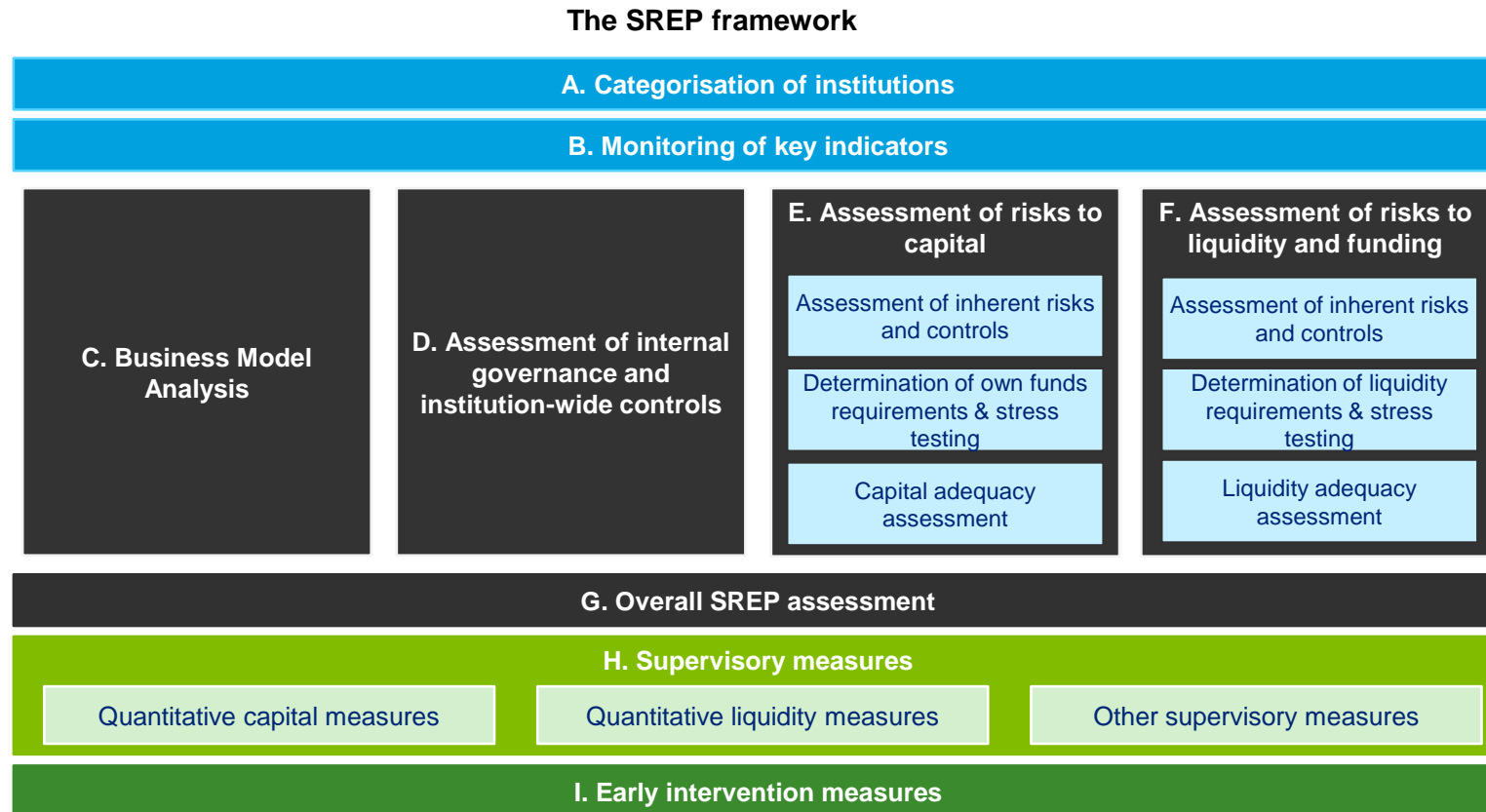
4.2 Challenging Key-notes

Requirements for small banks are broadly the same as large banks



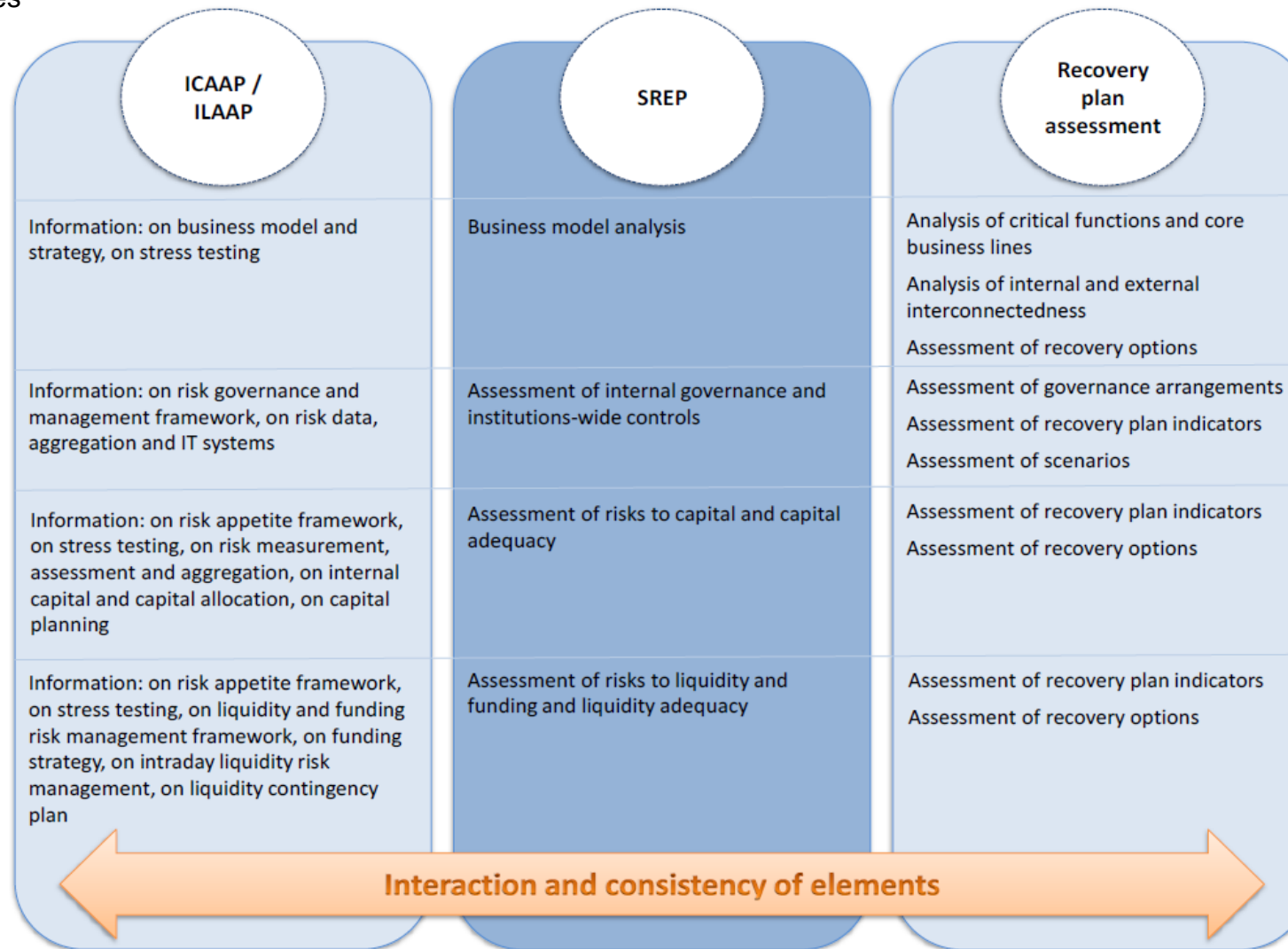
4.3 SREP Framework

Source: guidelines SREP
(2014)



4.4 Alignment SREP Process

Source: CP guidelines
SREP (2017)

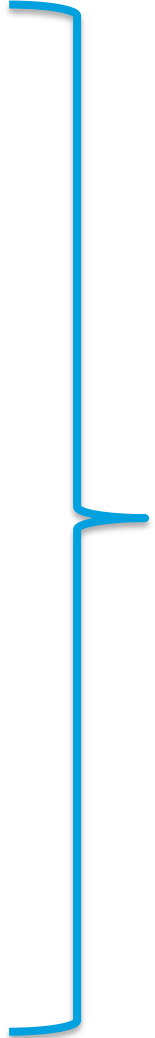


5.1 SREP score areas levels

Source: guidelines SREP
(2014)



5.2 SREP score areas

1. Business Model and Strategy
 2. Internal governance and institution-wide controls
 3. ICAAP
 - a) Credit Risk and Counterparty Risk
 - b) Market Risk
 - c) Operational Risk
 - d) IRRBB
 - e) Capital Adequacy
 4. ILAAP
 - a) Liquidity Risk
 - b) Funding Risk
 - c) Liquidity quantification
 - d) Liquidity adequacy
 5. Overall SREP
- 

Additional area is stress testing:

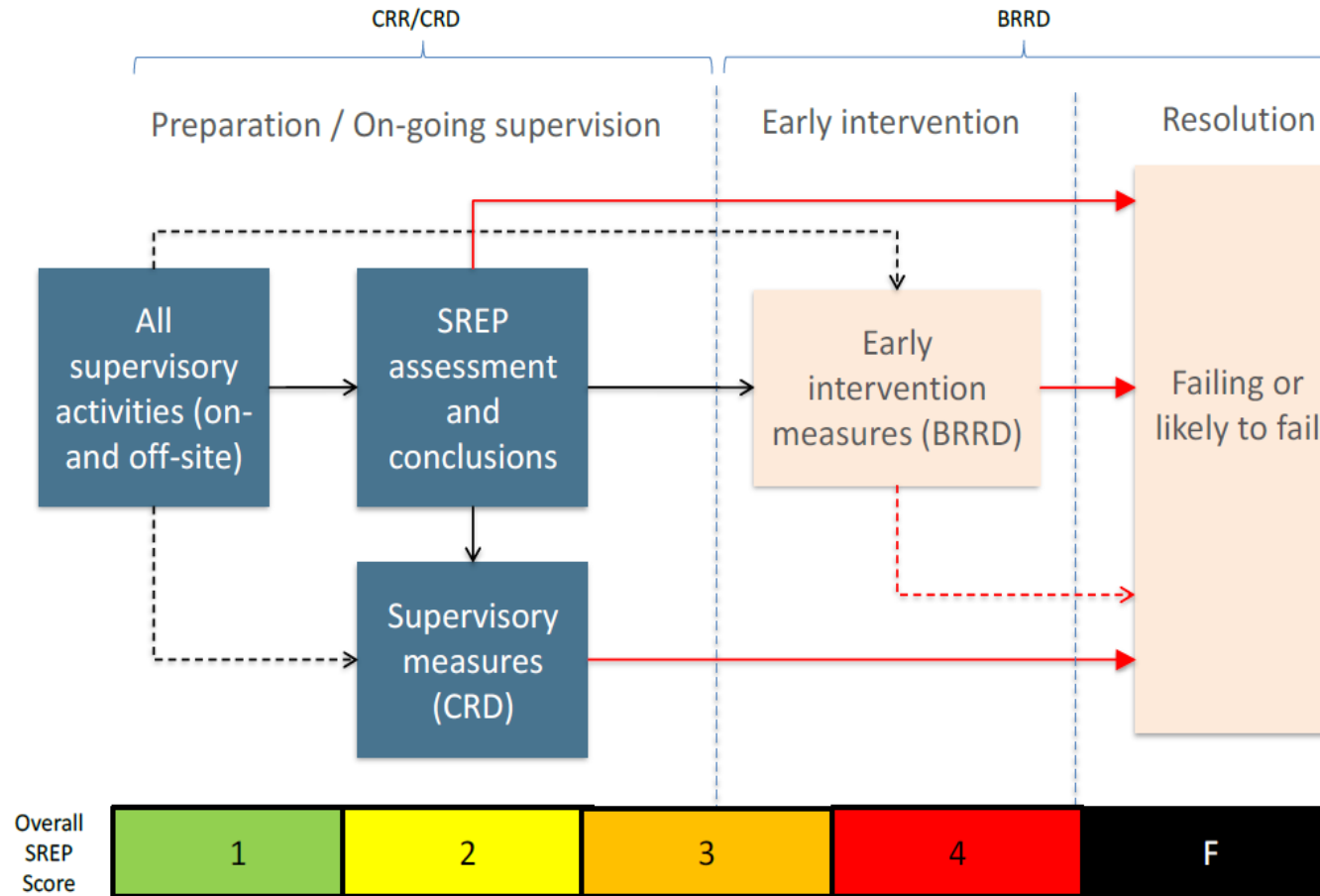
- Individual risk types stress testing
- Integrated stress testing

=> Input for Pillar 2 Guidance (P2G)

5.3 : Link between different levels

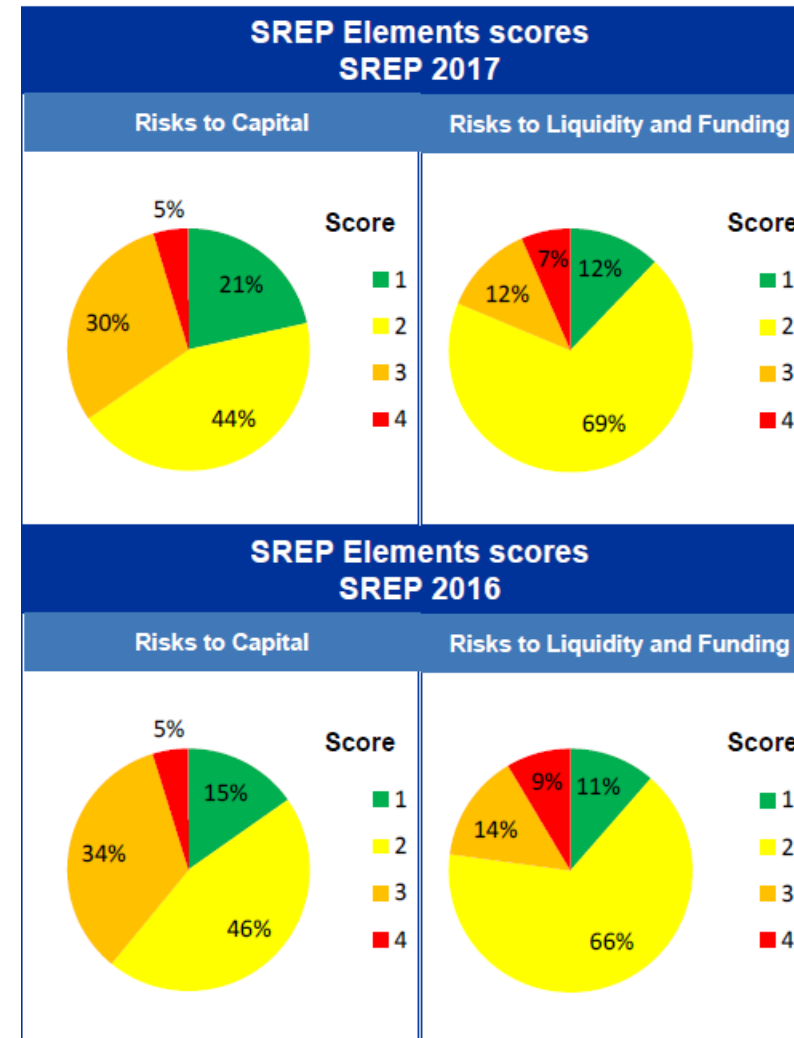
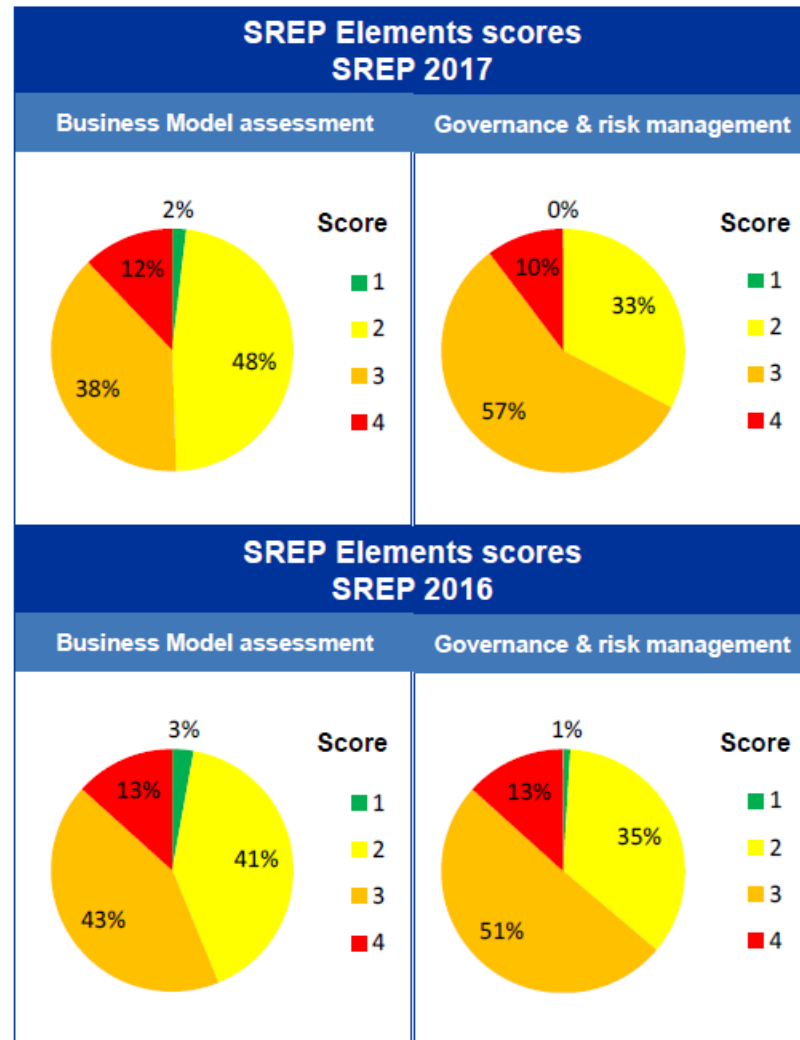
Score level 3 is tipping point between CRR/CRD and BRRD

P.10 of CP guidelines SREP



5.4 : Overview of scores European banks

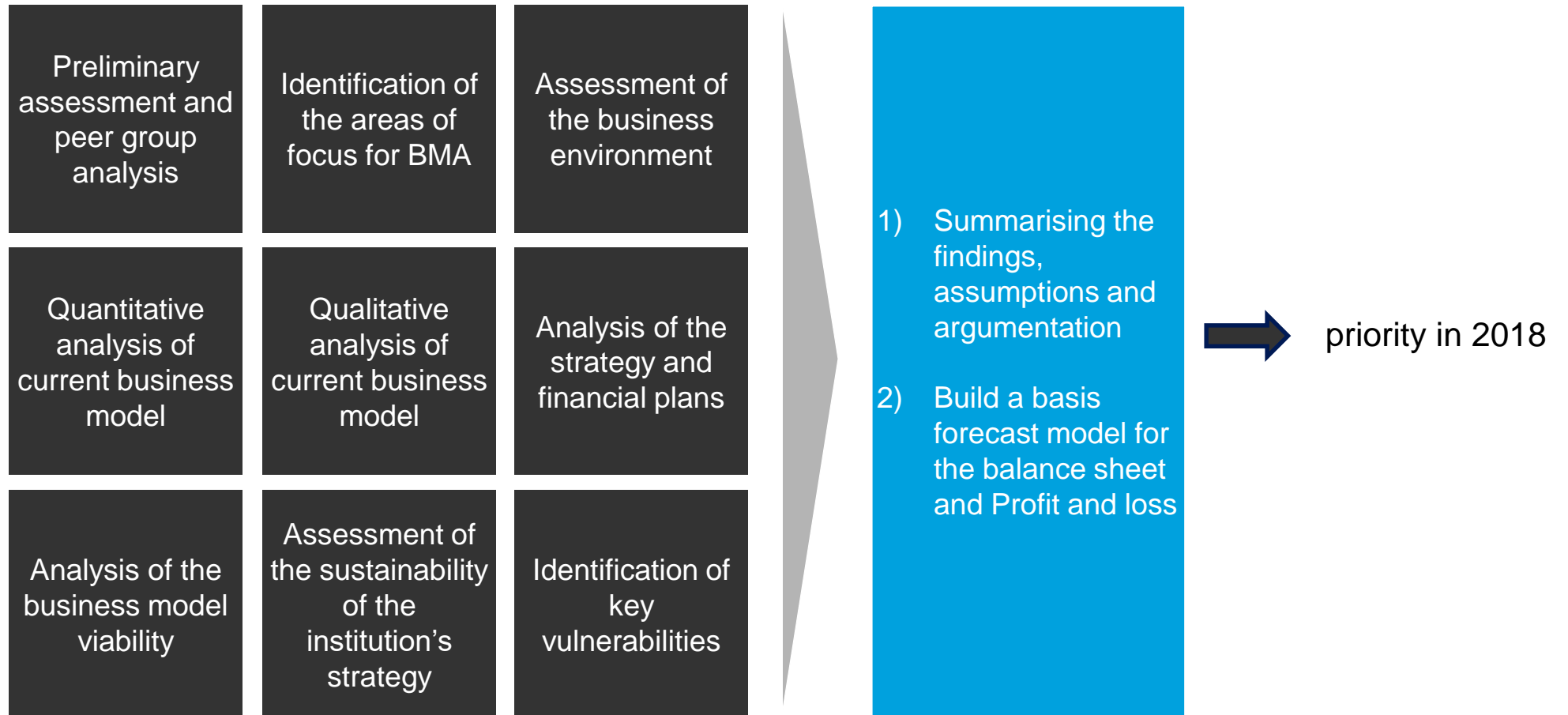
Challenges for Business model assessment and Governance & risk management



Source SSM SREP methodology booklet (2017)

6. Business Model Analysis (BMA)

Building a forward looking forecast/scenario model



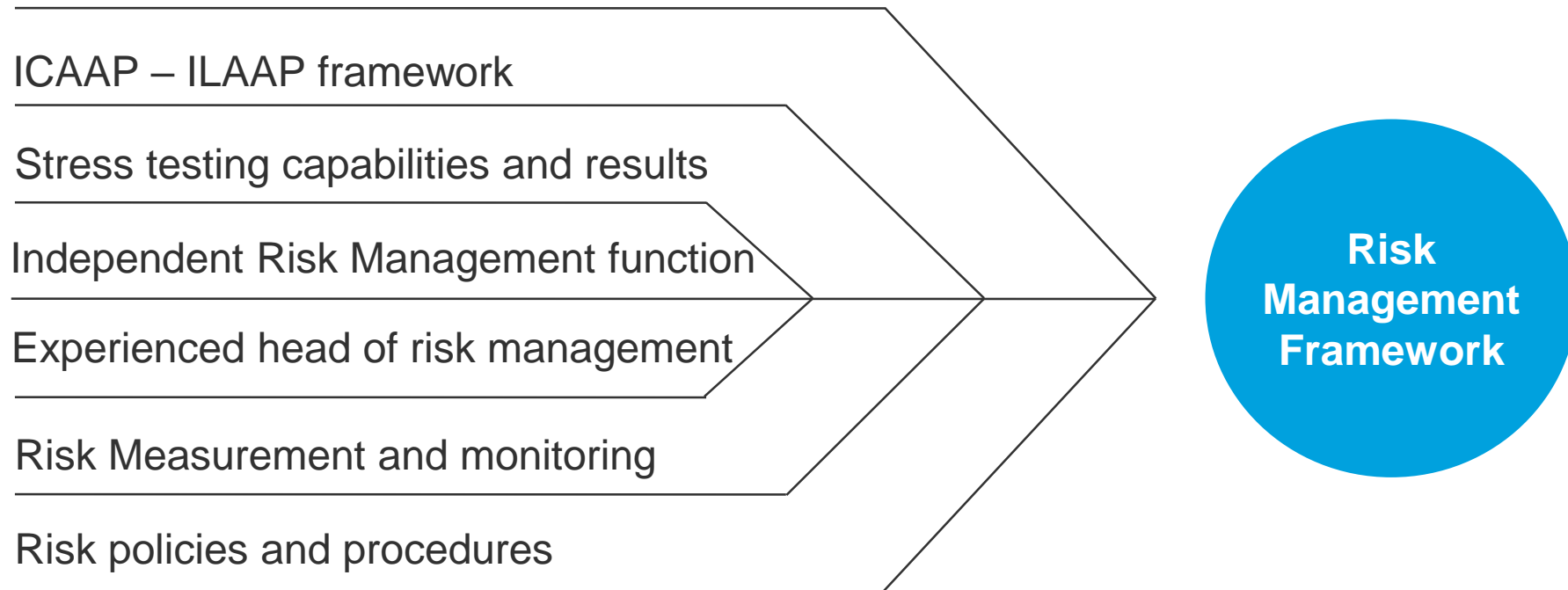
7.1 Governance & Institutions-wide controls

Improvement ICAAP/ILAAP one of the priorities in 2018



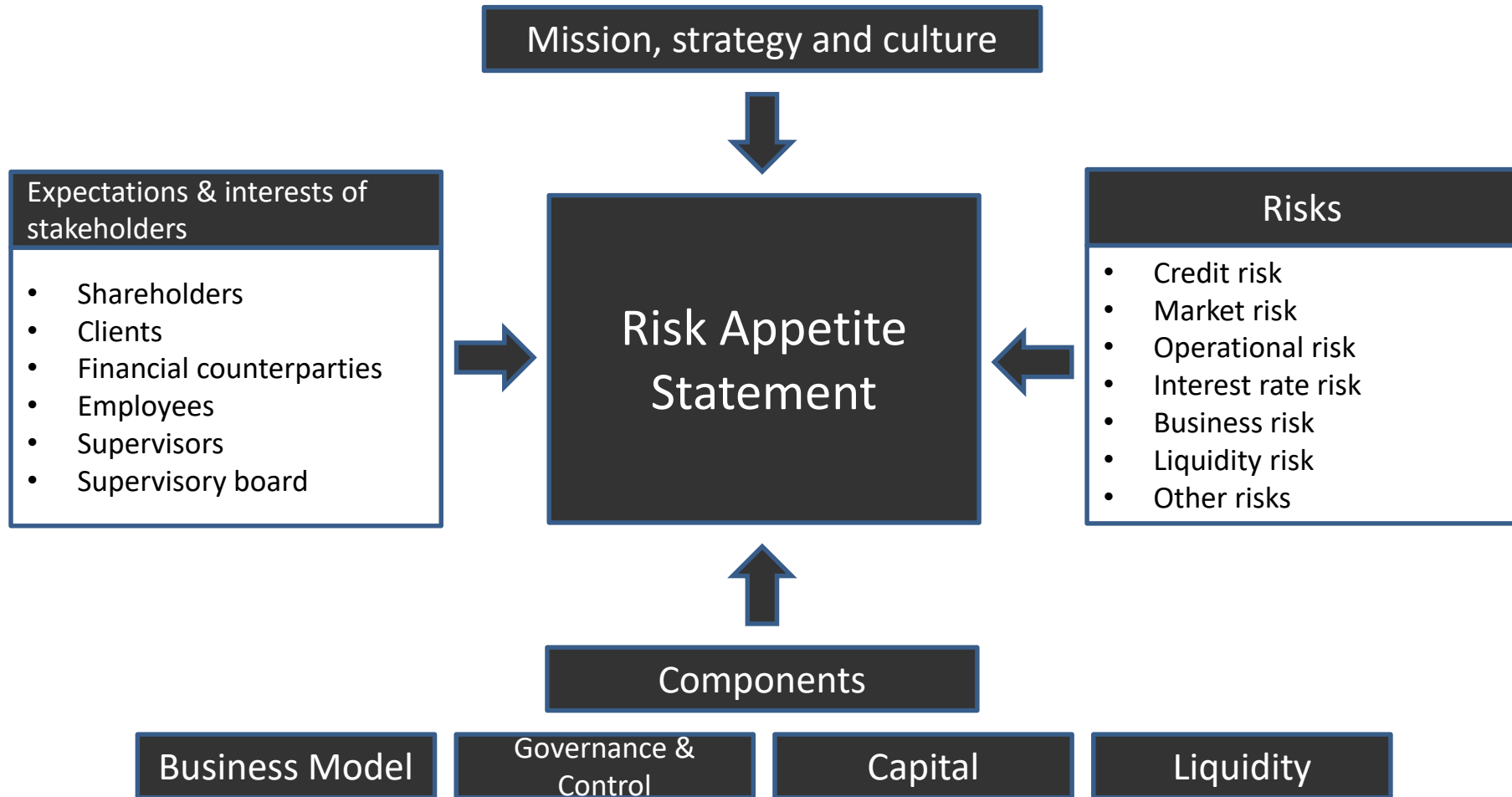
7.2 Risk Management Framework

Structured framework and aligned risk appetite is key



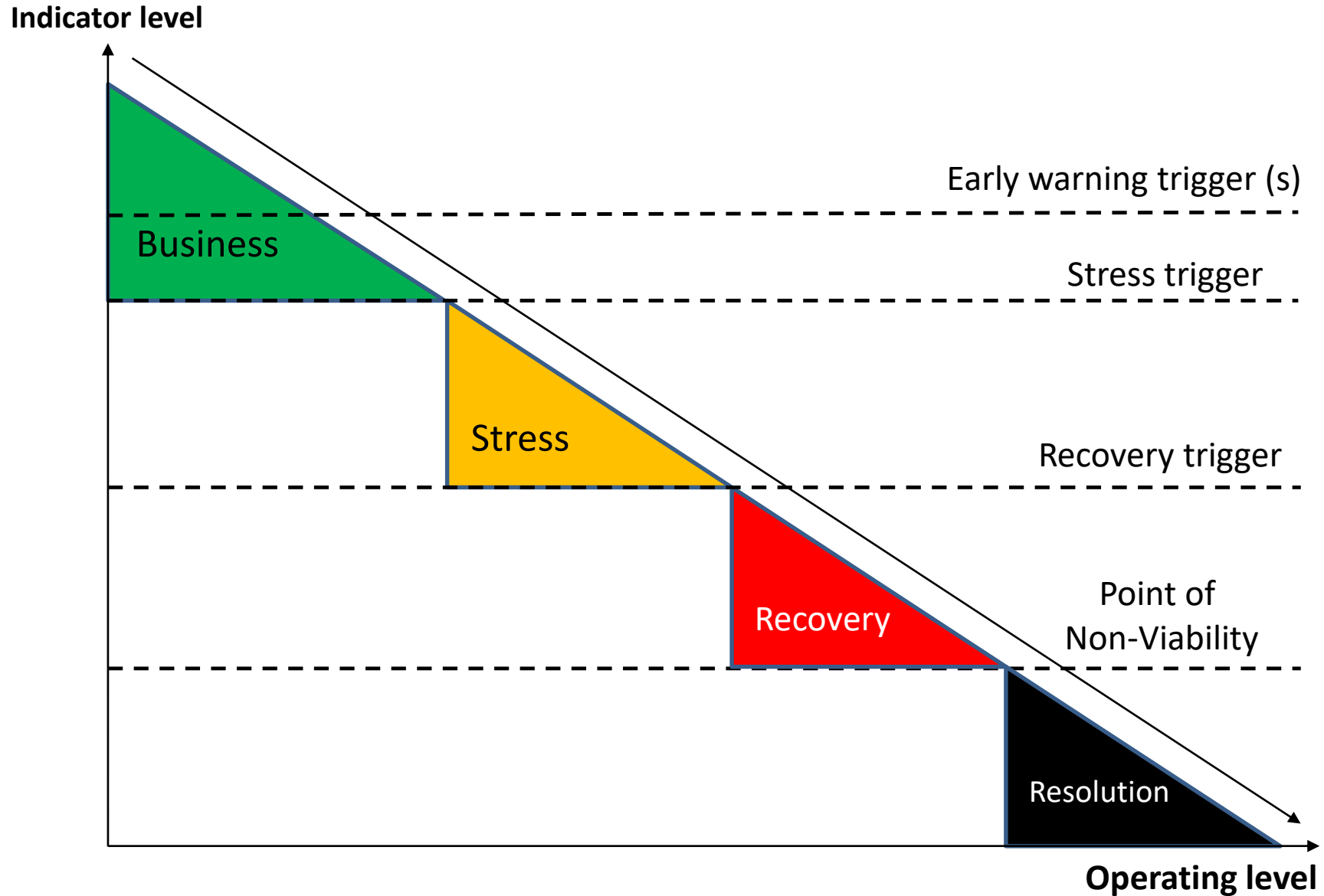
7.3 Risk Appetite Statement

Alignment with the SREP components



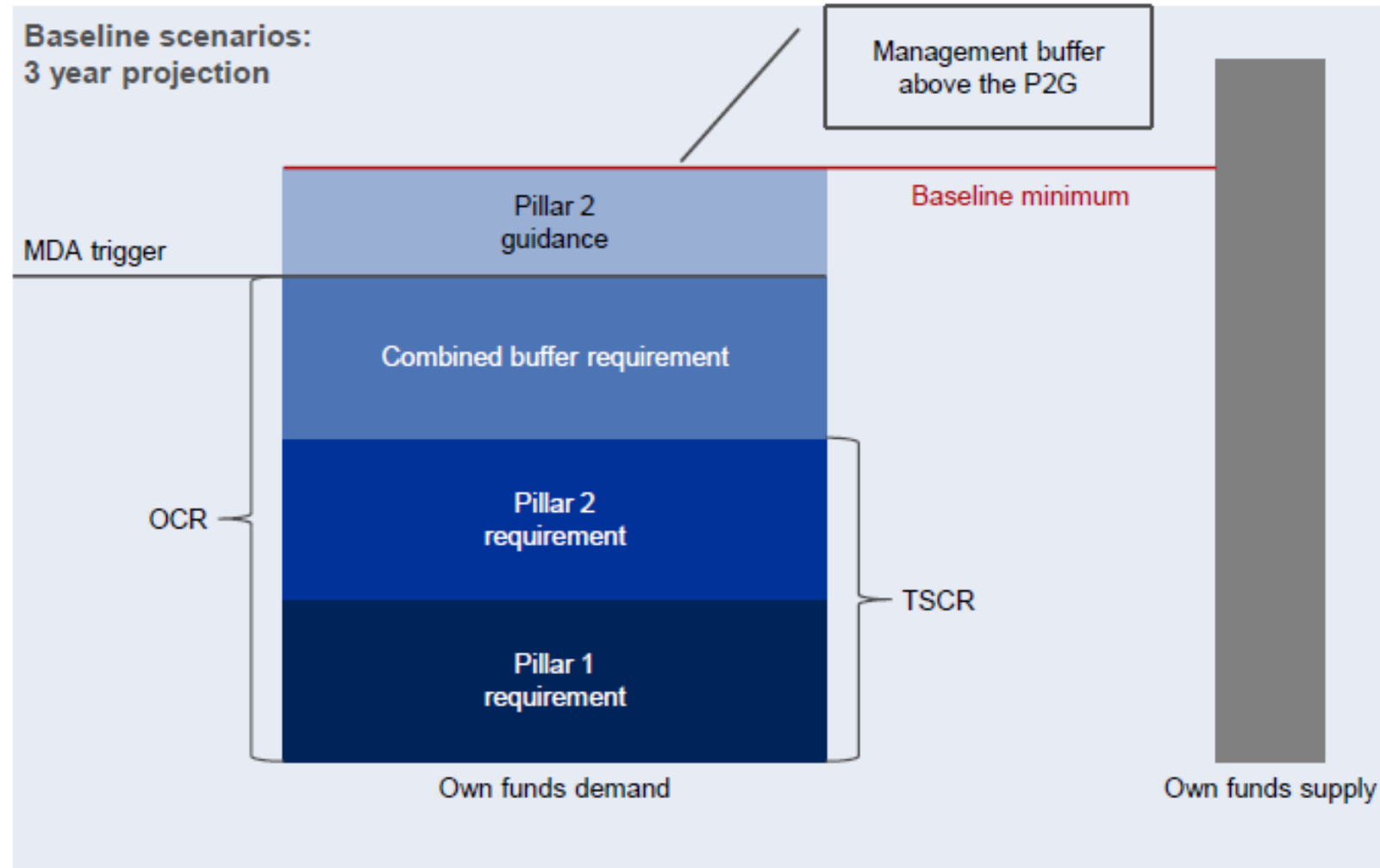
7.4 Risk Appetite Statement

Slippery slope for different indicators in Indicator framework



8.1 Capital Requirements

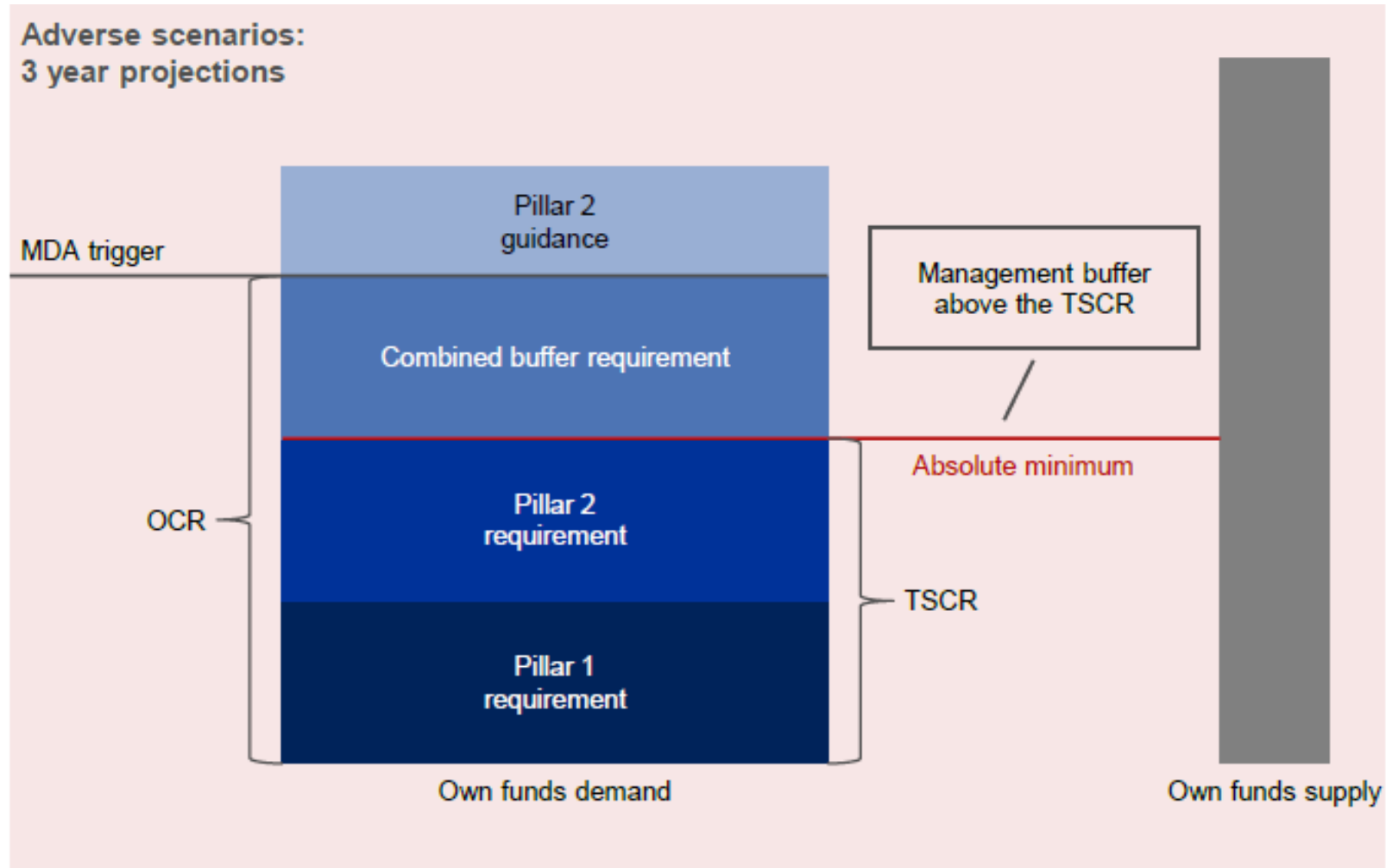
Requirements Baseline scenario



Source: ECB Guidelines ICAAP (March 2018)

8.2 Capital Requirements

Requirements Adverse scenario



Source: ECB Guidelines ICAAP (March 2018)

8.3 Pillar 2 Guidance (P2G)

Based on stress testing results

- Based on outcomes of (supervisory) stress test under assumed adverse scenarios
- Covering at least the expected maximum stress impact
- Floor of 1% (announced by DNB Dec 2016)
- Adjustments for credible management action and ICAAP process
- Offset against Capital Conservation Buffer and Counter Cyclical Capital Buffer
- P2G capital has to meet CET1 own funds
- P2G is not a legal requirement and will not determine MDA
- Breaching P2G will intensify supervisory dialogue with recommendations

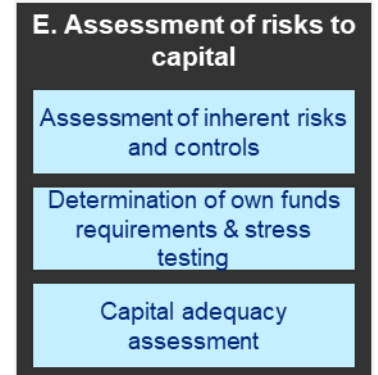


Source: EBA Pillar 2 roadmap (April 2017)

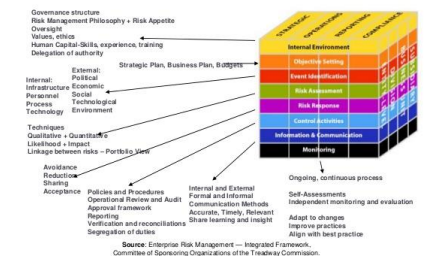
9.1 ICAAP framework

Assessment of individual risk types, own funds and forward looking

- Credit risk
 - Market risk
 - Operational risk
- } Pillar 1 capital requirements
-
- Interest Rate Risk in the Banking Book (IRRBB)
 - Concentration risk
 - Strategic risk
 - Other risk (legal, compliance etc)
- } Pillar 2 capital requirements
-
- Stress testing on capital individual risk types and total capital
 - Capital Funding plan (forward looking)



A Framework for Risk Management



Source: EBA Pillar 2 roadmap (April 2017)

9.2 ICAAP focus on IRRBB (1)

One of the priorities of SSM/SREP in 2018

- IRRBB framework and Governance (including model review and audit)
- Include Credit spread risk (CSRBB => no definition specified)
- Stricter guidance on option risk (automatic and behavioural)
- Lower bound interest rate from -150 bp (short term) to 0 (30 years +)
- Material currencies to be considered with risk free curve
- Non maturity deposits (sight deposits and savings): maximum average maturity 5 years
- IRRBB Stress testing framework for institution specific stress test and scenarios



9.3 ICAAP focus on IRRBB (2)

Stricter supervisory outlier test

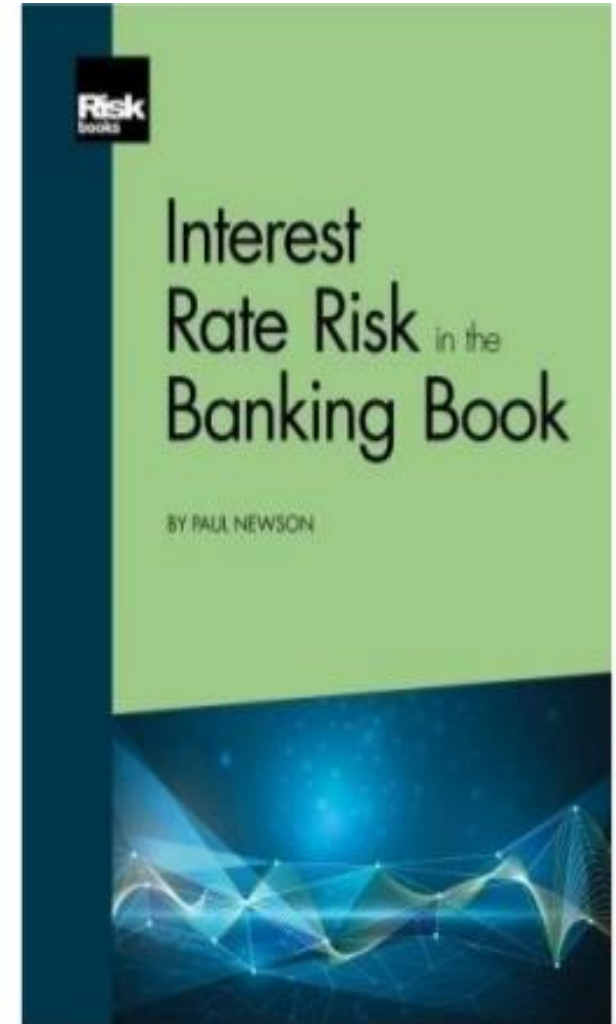
Measurement IRRBB remains the same methods:

1. Equity at Risk
2. Earnings at Risk

Application and governance becomes stricter:

- Regulatory outlier test: ± 200 bp parallel shift:
Delta own funds (CET) $> 20\%$ \Rightarrow *Obligation to inform supervisor*
- Calculation of 6 shock scenarios:
Delta Tier 1 capital $> 15\%$ \Rightarrow *Obligation to inform supervisor*
 - ❖ Parallel 200bp; short 250bp; long 100bp

Source: CP GL IRRBB 31-10-2017



10 Liquidity requirements DNB (for LSI's)

Replacement of 8028 liquidity reporting:

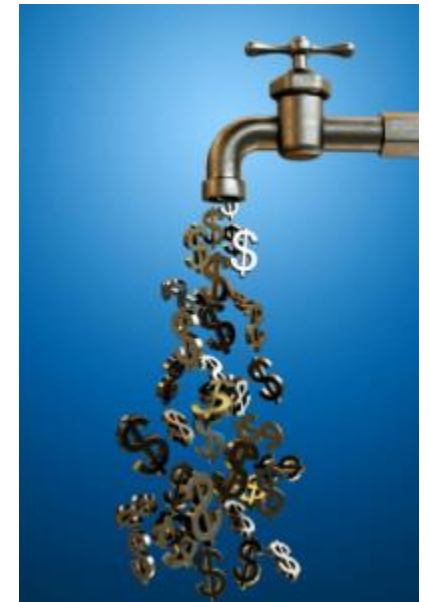
1. *Survival period:*

- Minimum of 6 month operating requirement under stress
- Internal stress test with all institution specific vulnerabilities and “dynamic balance sheet”
- Compliant with EBA GL on Liquidity Stress testing
(e.g. 3 types: Idiosyncratic; Market-wide and combined)
- Obligation to inform DNB if Survival period will breach 7 months

2. *Net Stable Funding*

- Net Stable Funding Ratio > 100%
- DNB applies EBA GL and review of CRR/CRD
- Obligation to inform DNB if NSFR will breach 100%

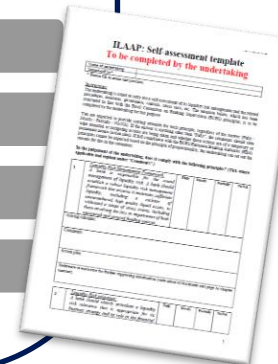
Source: site DNB factsheet juni



11 ILAAP framework

ECB ILAAP self assessment

- 1 Liquidity Risk Management Framework
- 2 Liquidity Risk Tolerance
- 3 Liquidity Risk Strategy
- 4 Liquidity Buffers & Collateral management
- 5 Liquidity Monitoring
- 6 Liquidity Stress Test
- 7 Liquidity & Fund Transfer Pricing
- 8 Intra-group liquidity management
- 9 Market access
- 10 Intraday liquidity management
- 11 Contingency funding plan
- 12 Disclosure



F. Assessment of risks to liquidity and funding

Assessment of inherent risks and controls

Determination of liquidity requirements & stress testing

Liquidity adequacy assessment



12.1 Seven Principles ILAAP/ICAAP

ECB Guidelines for ICAAP/ILAAP (March 2018)

Principle 1 – The management body is responsible for the sound governance of the ICAAP/ILAAP

Principle 2 – The ICAAP/ILAAP is an integral part of the overall management framework

Principle 3 – The ICAAP/ILAAP contributes fundamentally to the continuity of the institution by ensuring its capital/liquidity adequacy from different perspectives

Principle 4 – All material risks are identified and taken into account in the ICAAP/ILAAP



12.2 Seven Principles ILAAP/ICAAP

Principle 5 – The internal capital/liquidity buffers are of high quality and clearly defined; the internal stable sources of funding are clearly defined

Principle 6 – ICAAP/ILAAP risk quantification methodologies are adequate, consistent and independently validated

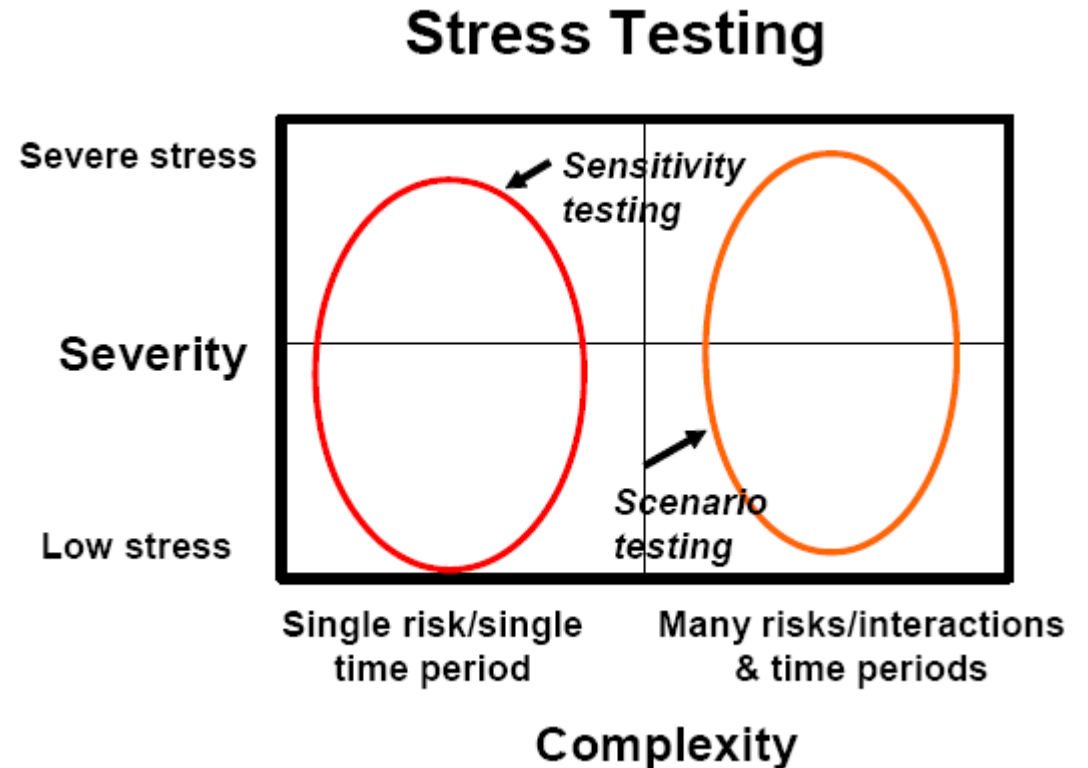
Principle 7 – Regular stress testing is aimed at ensuring capital/liquidity adequacy in adverse circumstances



13.1 Stress testing

Stress testing becomes more and more relevant in risk management

- Stress testing Framework
- Stress tests for individual risk types
- Scenario thinking
- Sensitivity analysis (ceteris paribus)
- Integrated Stress testing
- Reverse Stress testing



13.2 Stress testing

Key take-aways stress testing

- Ensure an adequate governance and involvement of key roles in the bank (including management body)
- Good project management, approval process and documentation
- Quality of data and IT-systems, knowledge of modelling (forecast model 3-5 years):
 - *Balance sheet*
 - *Profit&Loss*
 - *Capital/Liquidity*
 - *etc*
- Organise brainstorm sessions for scenario thinking
Severe but realistic and conduct narrative:
 - *Basis/Anchor scenario*
 - *Idiosyncratic*
 - *Market-wide*
 - *combined*
- Ensure alignment between the stress tests (individual, sensitivity and integrated)

14.1 Recovery plan

Overall good, some improvements need to be made (DNB 2017)

Good development

- Availability to switch from business as usual to crisis management
- Variety of indicators for signalling a crisis situation

Improvements:

- Setting indicators on the right level indicating breach of recovery trigger
- Recovery options are not sufficient substantiated with quantitative models
- Compliant with EBA guidelines



14.2 Recovery plan

Core elements required

- Crisis governance, crisis management and clear escalation process
- Variety of recovery options => credible, feasible and possibility to execute in a reasonable timeframe
- Scenario-analysis for different situations and scenarios for results of recovery options



Support of Hopman Data & Risk Solutions

- Flexible support in expertise and execution
- Support on all SREP activities
- Support on regular risk activities and reporting
- Support on modelling and developing reports
- Support on automation-Robotization reports
- Part time involvement on management level
- Combination of Experts and Business Analysts ensure a cost-efficient way of working

Michiel Hopman
Expert banking



Rutger Lit
Expert modelling



Ectrie/finance
students for
support as
Business analysts



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Questions?