EUROPEAN CENTRAL BANK

BANKING SUPERVISION

Challenges in the Supervision of Internal Models in the SSM

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Outline

1	The starting point
2	Regulatory framework
3	Consistency and comparability
4	Conclusions

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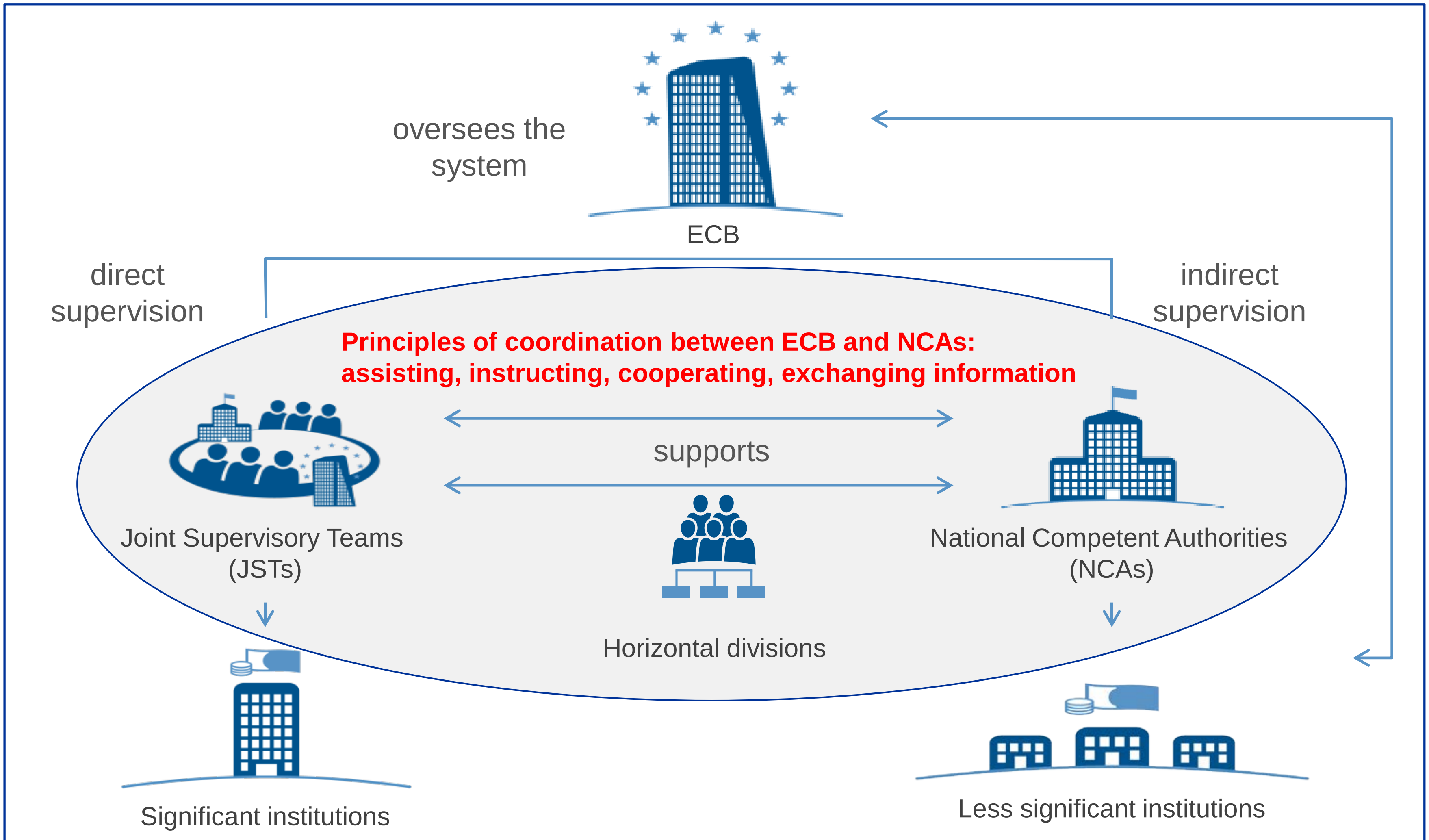
4 Conclusions

An integrated system of national supervisors and ECB



Goals for the DG-IV

Foster harmonization of supervisory approaches	• Establish and share **common methodologies** building on SSM's best practices • Keep the **Supervisory Manual** to the highest standards
Promote a tough approach to banking supervision	• Promote **on-site** missions and internal model investigations • Be ready to leverage on Sanctions and Enforcement
Development of infrastructure	• Development of **common IT systems** and tools to support supervisory activities in all participating countries

Close cooperation and communication with NCAs via networks of experts

Close cooperation between on-going SI supervision and horizontal functions

Horizontal support / Specialized expertise

Day-to-day Supervision through the JSTs

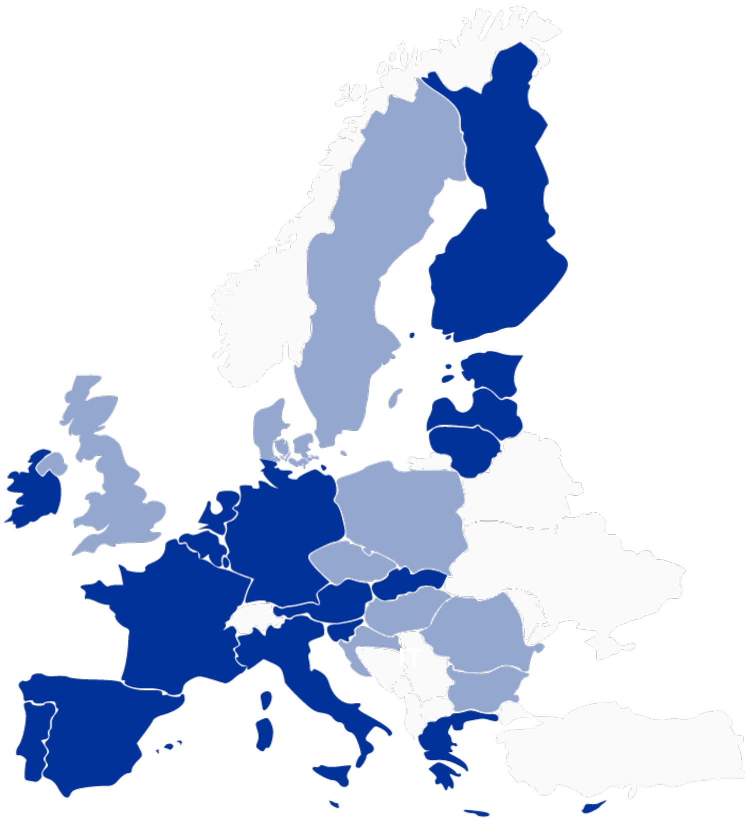
DG IV

- Quality Assurance
- Methodology & Standards
- Risk Analysis
- Enforcement & Sanctions
- Crisis Management
- Planning and SEP
- Internal Models
- On-site
- Supervisory policies

- Direct knowledge & contact with banks
- Direct contact with NCAs procedures
- Practical methodology implementation
- SEP drafting and execution
- On-going assessment of internal models
- Participation on on-site inspections

DG I-II

A challenging coordination process



Size:

- 19 NCAs, 17 out of them with internal models
- Different institutions profiles: IRB, market risk, CCR and AMA banks
- Large number of models. What do we mean by model?

Implementation:

- Solo vs. consolidated
- Joint decisions
- Validation (pre-application, on-site/off-site…)
- Coverage ratios
- Roll-outs

Practical approaches:

- Margin of conservatism, Pillar II capital add-ons…
- Recommendations, terms & conditions, …

How to coordinate the process while the system continues working?

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Good progress in harmonizing regulation in the EU

Level 1:

CRR/CRD IV

Level 2:

Implementing acts

SINGLE RULE BOOK
Principle: "maximum harmonisation"

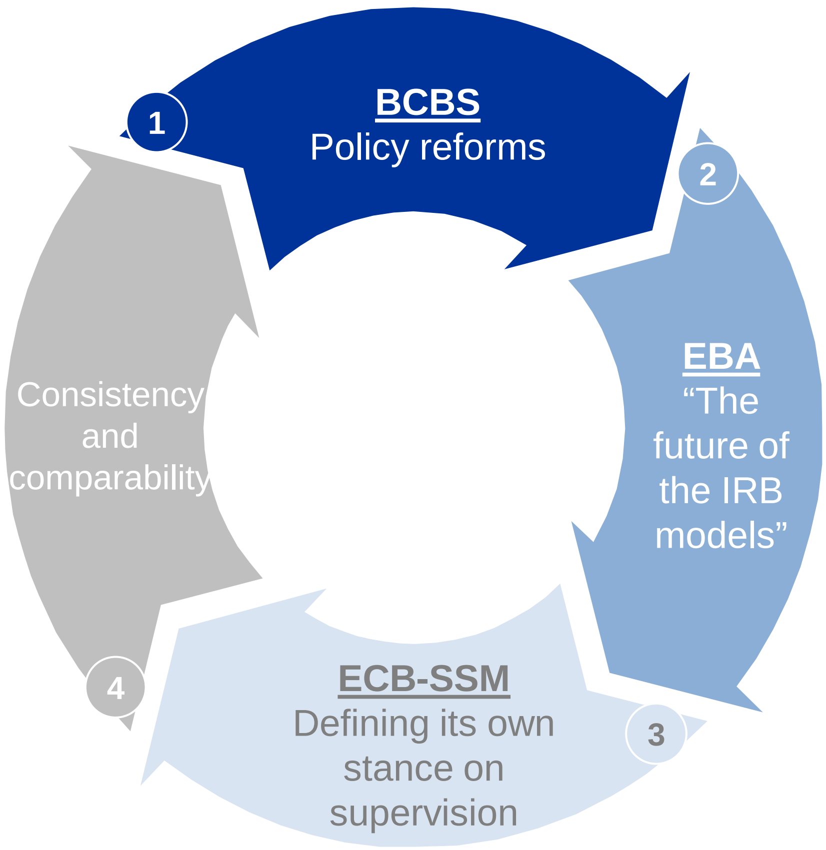
… with remaining sources of discrepancies:

National laws implementing CRD IV

Options and discretions provided by CRR / CRD IV

Supervisory interpretation of CRR/CRD IV requirements

A coordinated framework



ECB-SSM relying on regulatory standards and high level principles to promote consistency and achieve comparability

BCBS work

Focused on **post-crisis policy reforms**, most notably Basel III, but currently shifting more towards implementation of the developed standards. But this **does not mean that the policy work is done**.

Three broad themes in the Committee's policy agenda:

1. Need to finalize the post-crisis **regulatory reforms**
2. Continue to work on revising the risk-based capital framework. The aim is to strike an appropriate balance between **simplicity, comparability and risk sensitivity**; and to **reduce the excessive variability** in risk-weighted assets (RWAs) under internal models
3. Monitor the **impact of the agreed reforms**. The goal here is to assess that the standards we have agreed are **implemented consistently**, and to strengthen supervision.

Key elements

Multiple metrics	Pre-crisis, the global regulatory framework was based on a single metric: the risk-weighted capital ratio. **Today's global framework is based on multiple metrics** rather than a single one.
Strengthening and complementing	The risk-weighted capital ratio has been strengthened by **raising the quality and quantity** of capital and by improving risk capture. Furthermore, the risk-based framework has been enhanced by **adding a strong macro-prudential focus**.
Limiting arbitrage	This system of multiple metrics recognizes that **no individual metric is perfect**. New framework needs to be seen as a package of constraints that mutually reinforce prudent behavior. **Regulatory arbitrage** of a system with multiple constraints will also be inherently **more difficult** than the arbitrage of a single risk metric.

EBA work: new regulatory products

A regulatory response is proposed to address the main identified drivers of variability in the implementation of IRB models. The implementation date is still under discussion but linked with the Basel work

Topic	Priority	Current status	Implementation timeline
Assessment methodology	**1st phase (by end-2015) –** high priority, comprehensive technical standard for competent authorities	RTS on assessment methodology – analysis of consultation responses	For CAs application at entry into force of the RTS
Default definition	**2nd phase (by mid-2016) –** high priority, significant changes highly influencing all internal models	RTS on materiality thresholds – analysis of consultation responses GL on definition of default – under consultation	2.5 years (by end-2018)
Downturn LGD and CCF	**3rd phase (by end-2016) –** medium priority, less significant changes easier to implement	RTS on downturn – under preparation GL – not started	2 years (by end-2018)
PD estimation		GL – not started	
Treatment of defaulted assets		GL – not started	
CRM	**4th phase (by end-2017) –** low priority, only minor changes	RTS on conditional guarantees – not started RTS on liquid assets – temporarily suspended RTS on Internal Models Approach – not started	1 year (by end-2018)

On-going improvement of **transparency** including disclosure review and supervisory **reporting**

On-going increase of supervisory **convergence**, including **benchmarking**

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SSM key priorities: consistency and comparability

Main goal

Harmonization of the supervision and implementation of internal risk models in order to foster **stability and trust** in the banking sector

Scepticism after the economic crisis

Internal models for regulatory purposes were introduced to encourage financial institutions to **improve their understanding of the risks** to which they are exposed to

Internal models subject to **increasing scepticism** after the economic crisis. The observed **variability** of capital requirements resulting from internal models further contributed to this scepticism

Benchmarking studies reveal inconsistencies between banks' capital requirements calculated by internal models on the same hypothetical portfolios

General concerns

Need to **regain trust** in internal models and to establish a level playing-field that the SSM is obliged to foster

Push internal model investigations and use advanced benchmarking as a means to identify and **counter "RWA Optimization"**

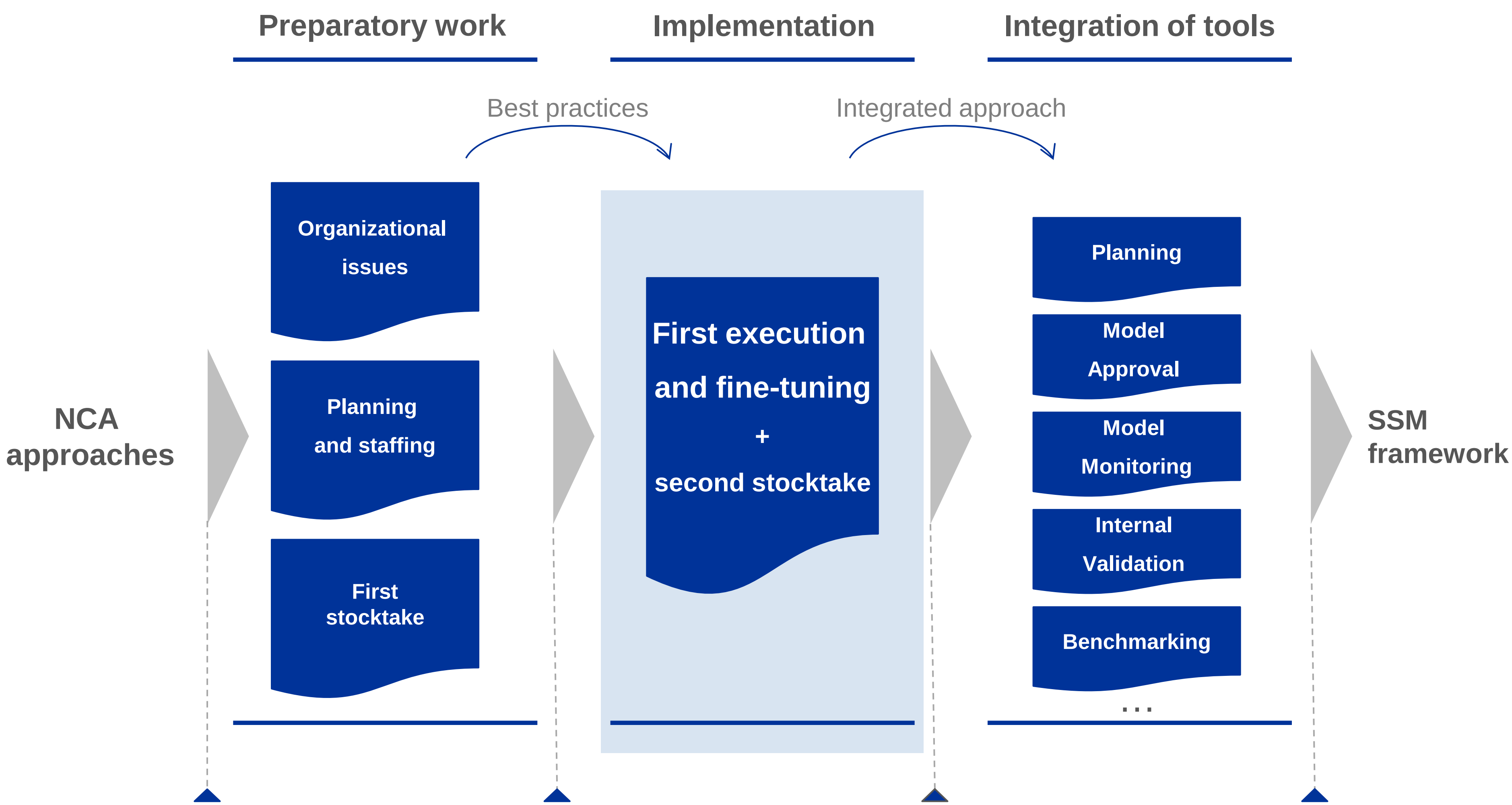
Important role for internal models

Internal models can play a useful role in determining regulatory capital according to each institution's risk exposure, provided that:

Risks can be actually **modelled correctly** and hence capital needs calculated adequately

Internal models give **consistent results** across institutions

Operationalization of the framework



Implementation challenges

Inputs

Stock of internal models

- New models approvals
- Material Changes
- Extensions

Analysis

Better understanding:

- Organizational structure
- Traceability
- Methodological approaches
- Best practices

Consistency and comparability: benchmarking analysis, thematic reviews,…

Accommodating the requests:

- Optimal use of resources
- Timely replies

Outputs

New approvals reviewed in a consistent way

- Global view to allocate the resources
- Key role for consistency checking
- Benchmarking: special attention to unwarranted variability

Adequate speed?

Stock of internal models?

- Special complexity for credit risk models. Need to have a general view on the way the different models are interrelated
- Useful information for any kind of planning activity
- Data collected on the most granular level with the credit institutions themselves actively involved in the way the interrelations are defined

EXAMPLE

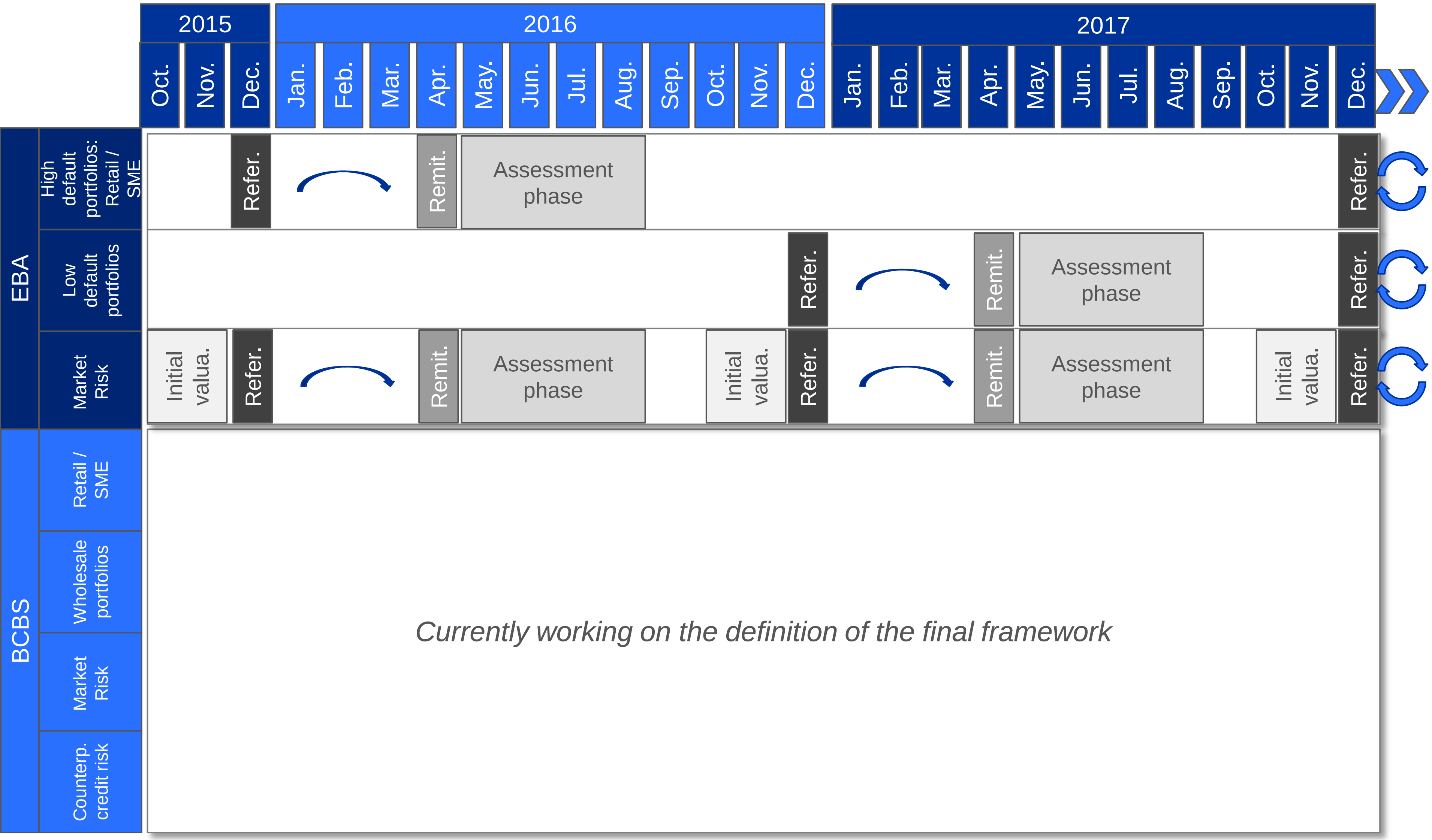
Legal	Institution 1			Institution 2
Portfolio	SME			Corporates
Approval	Rating System SME1	Rating System SME2		Rating System CORP
Model Grouping	PD SME			PD Corporate
	CCF €	CCF €	CCF FX	CCF
	LGD 1		LGD 2	

Benchmarking: Art. 78 CRD work-flow

At least annual "Supervisory benchmarking of internal approaches for calculating own funds requirements"

1. EBA designs the supervisory benchmarking portfolios (ITS)
2. Banks calculate own funds requirements for the supervisory benchmarking portfolios (ITS)
3. Banks report the results to the competent authorities and EBA together with an explanation of the methodologies used (ITS)
4. EBA produces a report containing benchmarks in order to assist competent authorities (RTS)
5. Competent authorities assess the quality of the internal approaches making use of EBA report (RTS)
6. Competent authorities investigate the reasons for significant difference of the institutions from peers results and approaches (RTS)
7. Competent authorities take corrective actions if there is a clear underestimation of own funds
8. Competent authorities share the results of the assessment between CA and with the EBA (RTS)
9. EBA may issue guidelines and recommendations to improve supervisory and banks' practices

Benchmarking: timeframe



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The framework to develop

Main objectives

- Consistency
- Comparability:
  - Across jurisdictions
  - Across institutions

Demanding process for

- Regulators
- Supervisors
- Institutions

Challenges

Appropriate balance between **comparability** and **risk sensitivity**

Commonly agreed that the **high flexibility in modelling** has led to **too different implementations** across institutions and jurisdictions

Cost and **length** of the implementation of the new regulatory framework

Credibility depending heavily on the **ambition** of the implementation timeline (preventing temptations to go just for **simpler regulatory frameworks**)

Important facts

The regulatory review will **mitigate or remove** the shortcomings identified in the current implementation.

However, the goal of higher comparability of IRB models across institutions and jurisdictions **cannot be obtained solely** by a regulatory review.

A future framework must rely on **three areas:**

1. Review of the **regulatory framework**
2. **Supervisory consistency**, partially relying on **benchmarking** exercises, with national supervisory authorities playing an essential role in this process
3. Increased **transparency** (based on standardised comparable disclosure templates) to facilitate **comparison** across institutions and a **better understanding** by markets of the reasons behind legitimate differences observed

Important advantages coming from internal models where **risk sensitivity** is key: integration with bank risk **management practices** and generation of incentives to put efforts into **improving** risk management practices support the current regulatory use of internal models.

Internal models is a good way to determine capital requirements for those banks that are willing to commit substantial resources to adopt and maintain the approach

Thank you very much for your attention!

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