Session 1:
Insurance regulatory reforms -latest developments in IAIS standard-setting and regional implementation

High-level meeting on global insurance standards and supervisory priorities in the Americas (IAIS-FSI-ASSAL)

Manuel Aguilera-Verduzco
MAPFRE Economic Research, General Manager

Santo Domingo, Dominican Republic, 12 April 2018.

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Factors that underpin the **trend of regulatory progress** in insurance markets

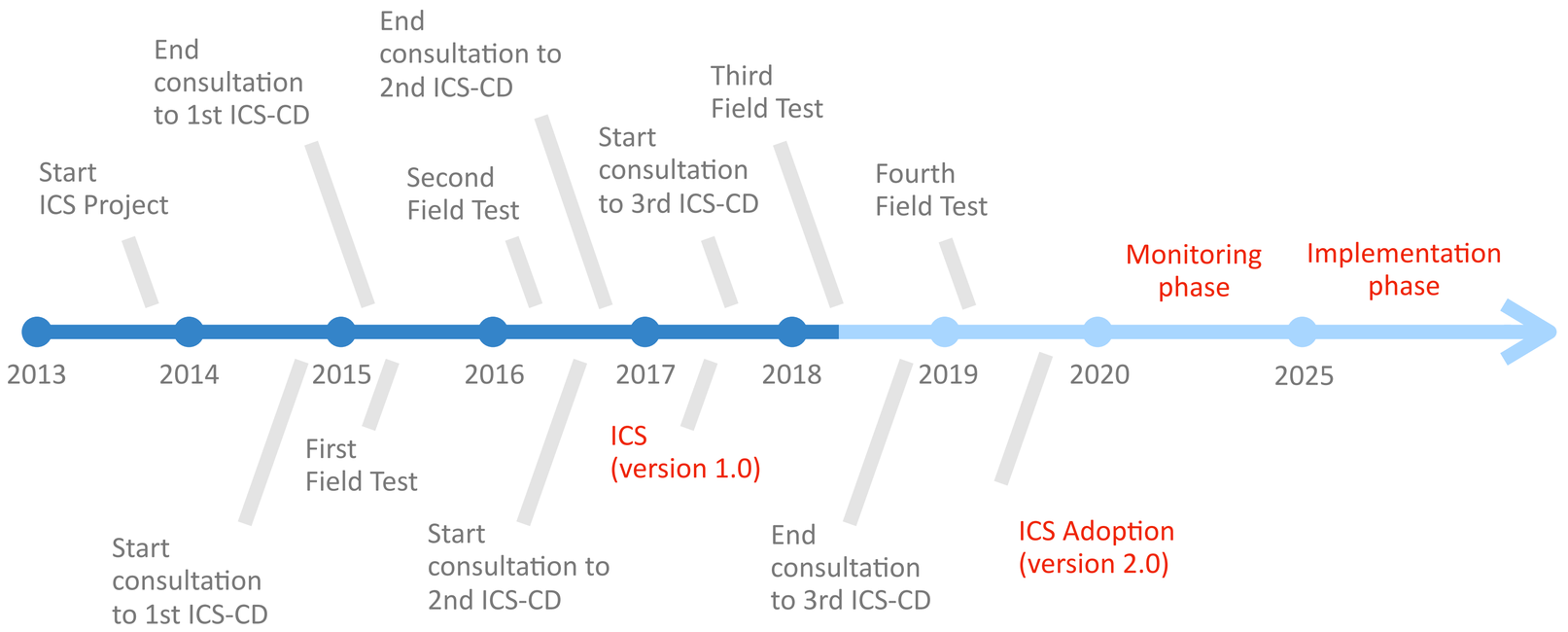
1 

Local pressure to **modernize and improve regulatory frameworks** in the face of advances in the financial system

2 

Progress of **regional** (Solvency II, SST, SMI) and **global** (ICS-IAIS) regulatory systems

ICS-IAIS → IAIGs - G-SIIs

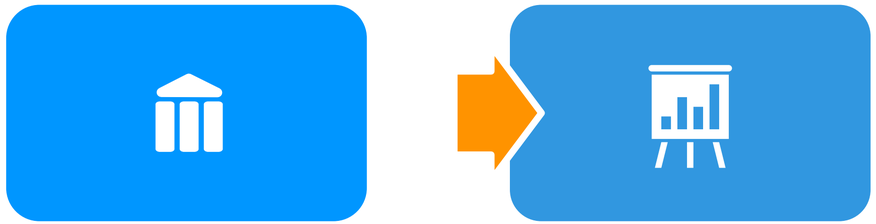


Source: MAPFRE Economic Research (based on IAIS information)

Solvency II, SST, SMI

Solvency II, SST, SMI

IAIS - ICS



Source: MAPFRE Economic Research

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Risk-based regulation proximity index

The **Risk-based regulation proximity index (I-RBR)** seeks to identify the degree of progress of different regulatory frameworks in terms of their transit:

- **from** a basic-risk based regulation (Solvency I-type),
- **to** a regulation focused on a more precise risk management, the strengthening of corporate governance, and a higher transparency and information disclosure towards the market (Solvency II-type).

ELEMENTS CONSIDERED TO ASSES LOCAL REGULATIONS

Elements that are typically closer to regulation less sensitive to the particular risk profile of each insurer

Transition elements that introduce a higher complexity and closeness towards risk-based capital models

Risk-based regulation elements aimed measuring individual risk profiles

Source: MAPFRE Economic Research

GROUP A

Elements that are typically closer to regulation less sensitive to the particular risk profile of each insurer

Basic-risk based regulation (Solvency I-type)

Transition elements that introduce a higher complexity and closeness towards risk-based capital models

Risk-based regulation elements aimed measuring individual risk profiles

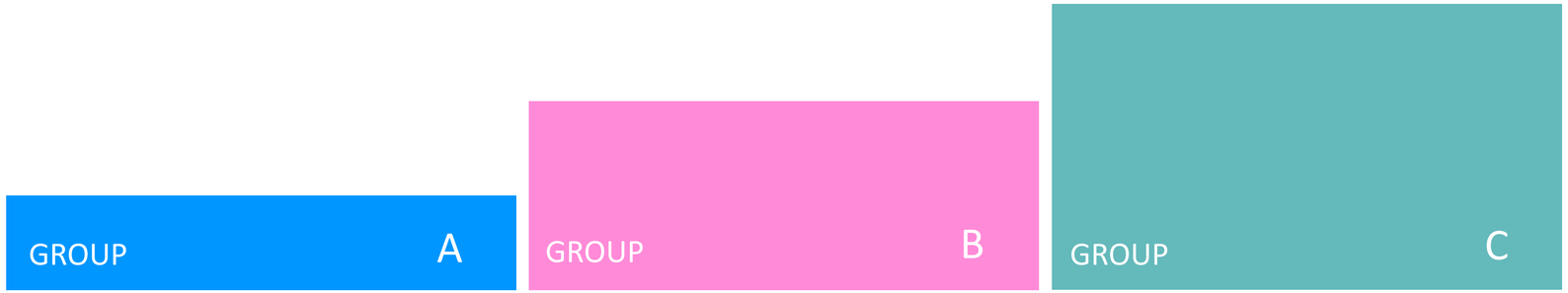
Elements that are typically closer to regulation less sensitive to the particular risk profile of each insurer

Basic-risk based regulation (Solvency I-type)

Transition elements that introduce a higher complexity and closeness towards risk-based capital models

Transition regulation

Risk-based regulation elements aimed measuring individual risk profiles



Elements that are typically closer to regulation less sensitive to the particular risk profile of each insurer

Basic-risk based regulation (Solvency I-type)

Transition elements that introduce a higher complexity and closeness towards risk-based capital models

Transition regulation

Risk-based regulation elements aimed measuring individual risk profiles

Pure-risk based regulation (Solvency II-type)

GROUP (5 ELEMENTS) A

Elements that are typically closer to regulation less sensitive to the particular risk profile of each insurer

Basic-risk based regulation (Solvency I-type)

- ✓ Limits on investments: list of admisible assets
- ✓ Limits on investments: percentages of diversification
- ✓ Life and Non-Life underwriting risks: not disaggregated
- ✓ Prudential interest rate in mathematical provisions
- ✓ Authorization / prior filing of insurance policies and/ or technical bases

GROUP (10 ELEMENTS) B

Transition elements that introduce a higher complexity and closeness towards risk-based capital models

Transition regulation

- ✓ Market valuation of assets
- ✓ Valuation of technical provisions: best estimate and risk margin
- ✓ Reinsurance regulation - counterparty risk
- ✓ Underwriting risk by homogenous groups
- ✓ Financial risks
- ✓ Asset-liability mismatch risk
- ✓ Operational risk
- ✓ Market transparency - risk profile
- ✓ Governance requirements: key functions/risks
- ✓ Risk analysis of specific operations at group level (without capital requirements)

GROUP (8 ELEMENTS) C

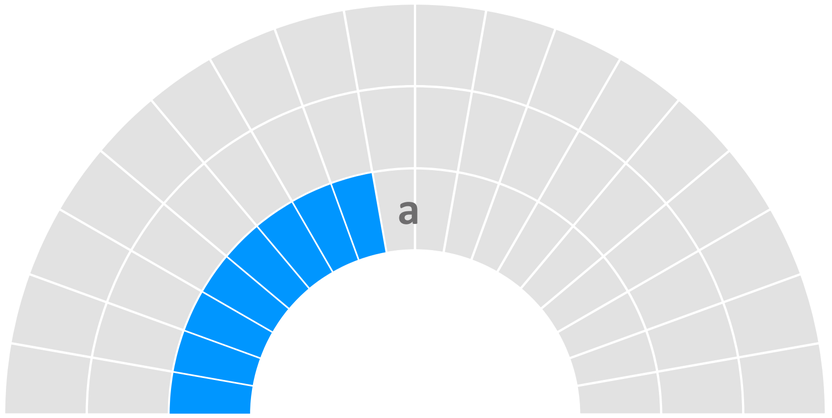
Risk-based regulation elements aimed measuring individual risk profiles

Pure-risk based regulation (Solvency II-type)

- ✓ Explicit risk measures and dependencies between risks
- ✓ Internal risk models
- ✓ Stress tests - Dynamic solvency - ORSA
- ✓ Asset market valuation (without exceptions)
- ✓ Discount of technical provisions with risk-free rates (without adjustments)
- ✓ Governance requirements: full integration of risk functions
- ✓ Market transparency - complete breakdown of risk components
- ✓ Risk-based regulatory capital at group level (with group capital requirement)

I-RBR

- Pure-risk based regulation (Solvency II-type)
- Transition regulation
- Basic-risk based regulation (Solvency I-type)

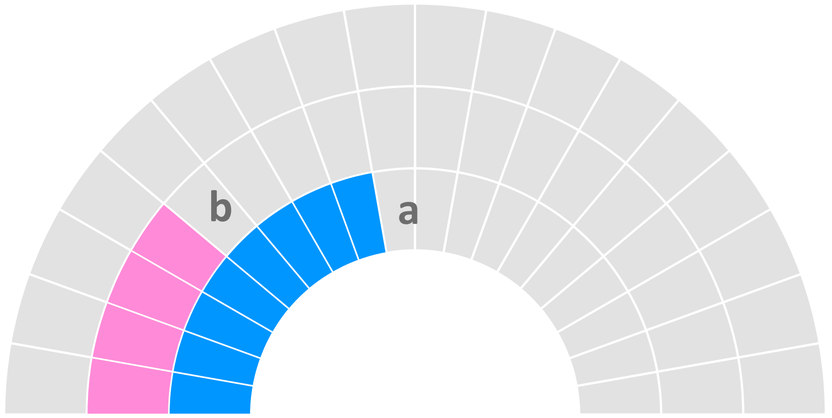


I-RBR

Pure-risk based regulation (Solvency II-type)

Transition regulation

Basic-risk based regulation (Solvency I-type)

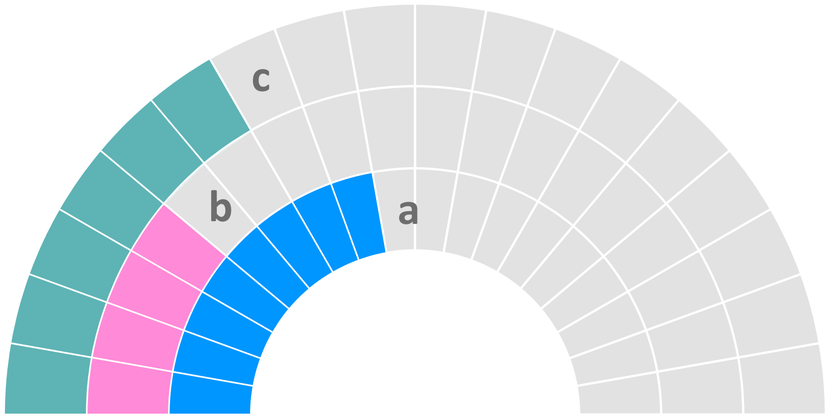


I-RBR

Pure-risk based regulation (Solvency II-type)

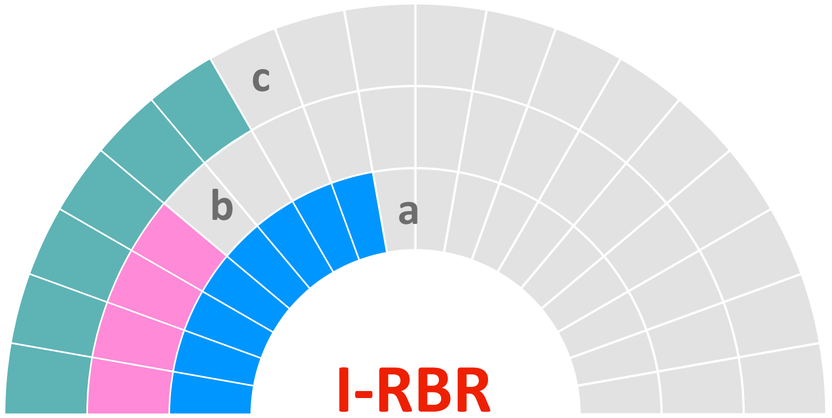
Transition regulation

Basic-risk based regulation (Solvency I-type)



I-RBR

- Pure-risk based regulation (Solvency II-type)
- Transition regulation
- Basic-risk based regulation (Solvency I-type)



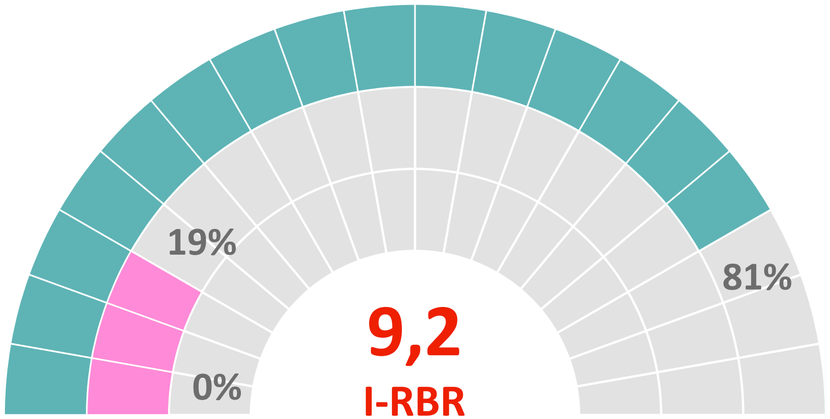
$$\text{I-RBR} = a(p_a) + b(p_b) + c(p_c)$$

where: $p_a = 0{,}3$

$p_b = 0{,}6$

$p_c = 1{,}0$

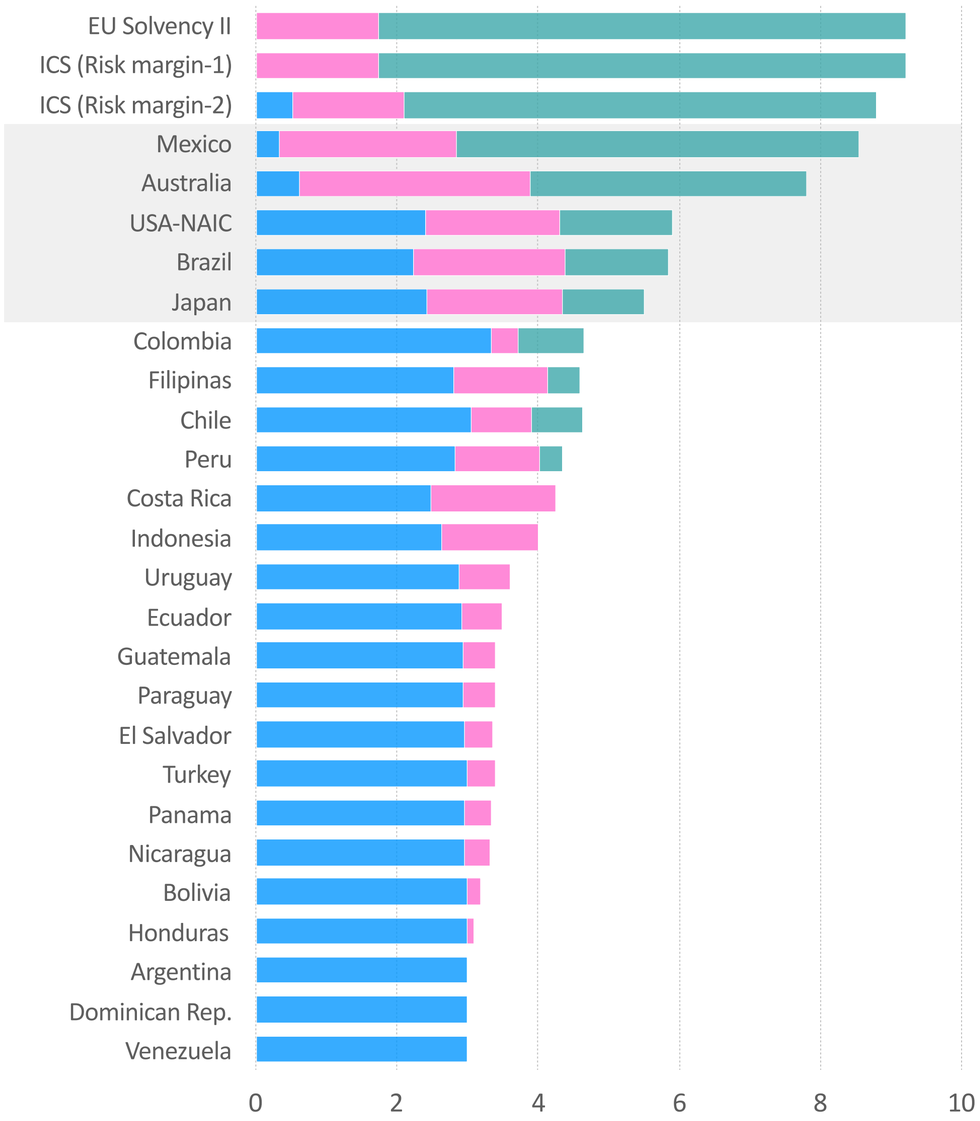
- Pure-risk based regulation (Solvency II-type)
- Transition regulation
- Basic-risk based regulation (Solvency I-type)



EUROPEAN UNION
(Solvency II)

- Pure-risk based regulation (Solvency II-type)
- Transition regulation
- Basic-risk based regulation (Solvency I-type)

RISK-BASED REGULATION PROXIMITY INDEX (I-RBR)



Regulatory regimes with Solvency II equivalence

Pure-risk based regulation (Solvency II-type)

Transition regulation

Basic-risk based regulation (Solvency I-type)

Source: MAPFRE Economic Research

Risk-based regulations (Solvency II-type)

Quantitative requirements

- Technical provisions
- Capital requirements
- Investments
- Reinsurance

1

Governance requirements

- Corporate governance requirements
- Supervisory review

2

Products and competition

- Regulation of insurance products
- Drive toward innovation

3

Market review

- Transparency and information disclosure
- Market review mechanisms
- Market discipline

4

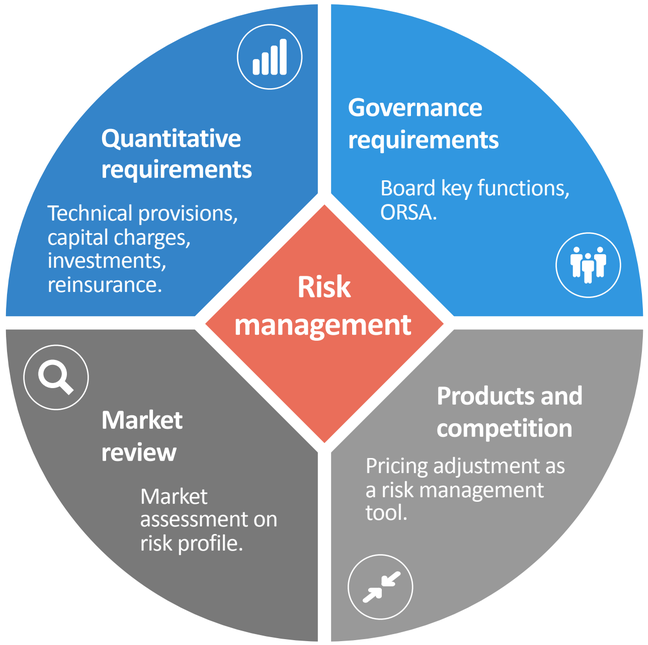
Risk management

Source: MAPFRE Economic Research

RISK-BASED REGULATORY MODELS AND THE CORRESPONDING PRECONDITIONS

Quantitative requirements

Governance requirements



Market review

Products and competition

Source: MAPFRE Economic Research

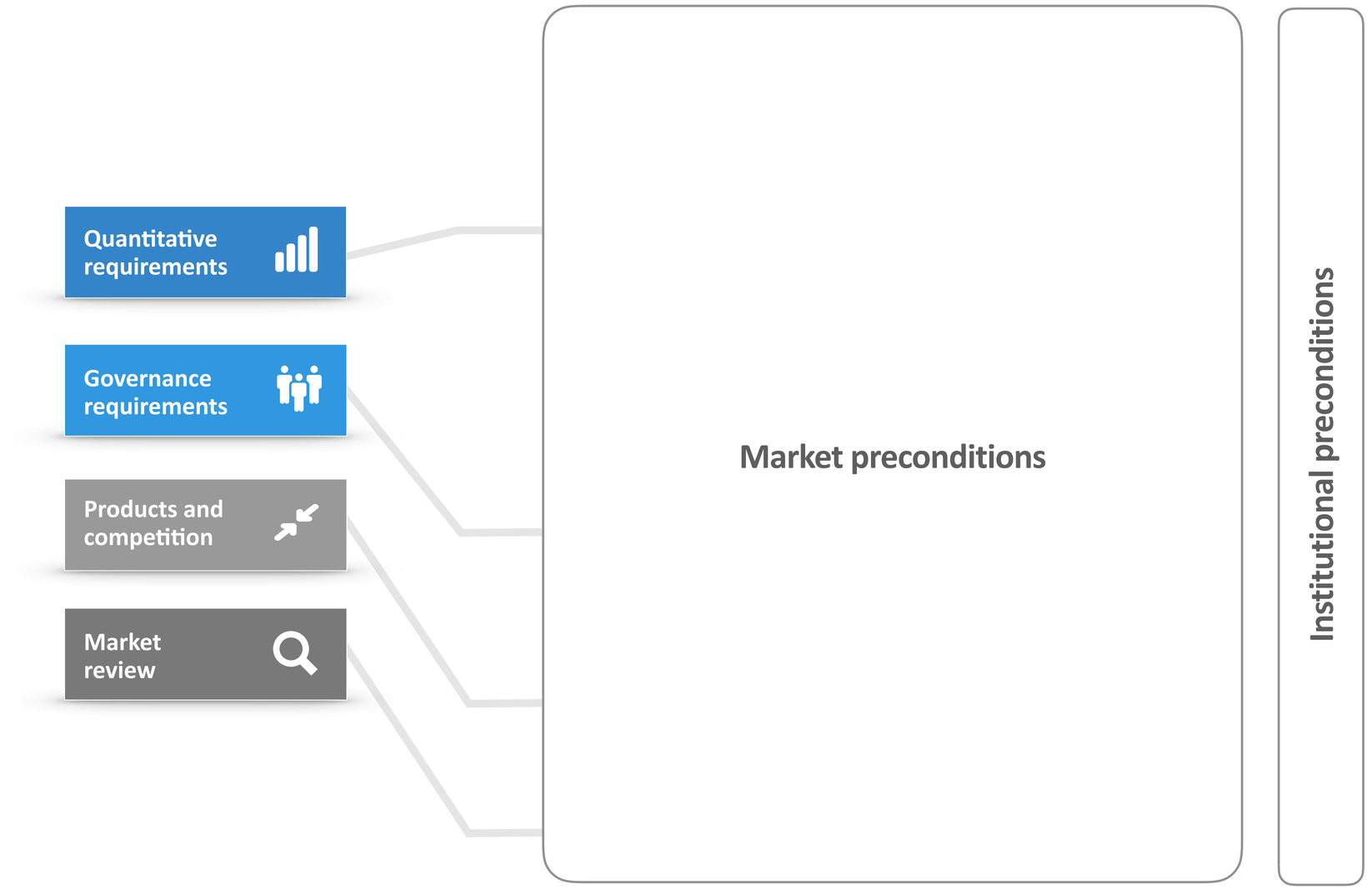
RISK-BASED REGULATORY MODELS AND THE CORRESPONDING PRECONDITIONS

Source: MAPFRE Economic Research

RISK-BASED REGULATORY MODELS AND THE CORRESPONDING PRECONDITIONS

Source: MAPFRE Economic Research

SUMMARY OF INSTITUTIONAL AND MARKET PRECONDITIONS ASSOCIATED TO RBR FRAMEWORKS



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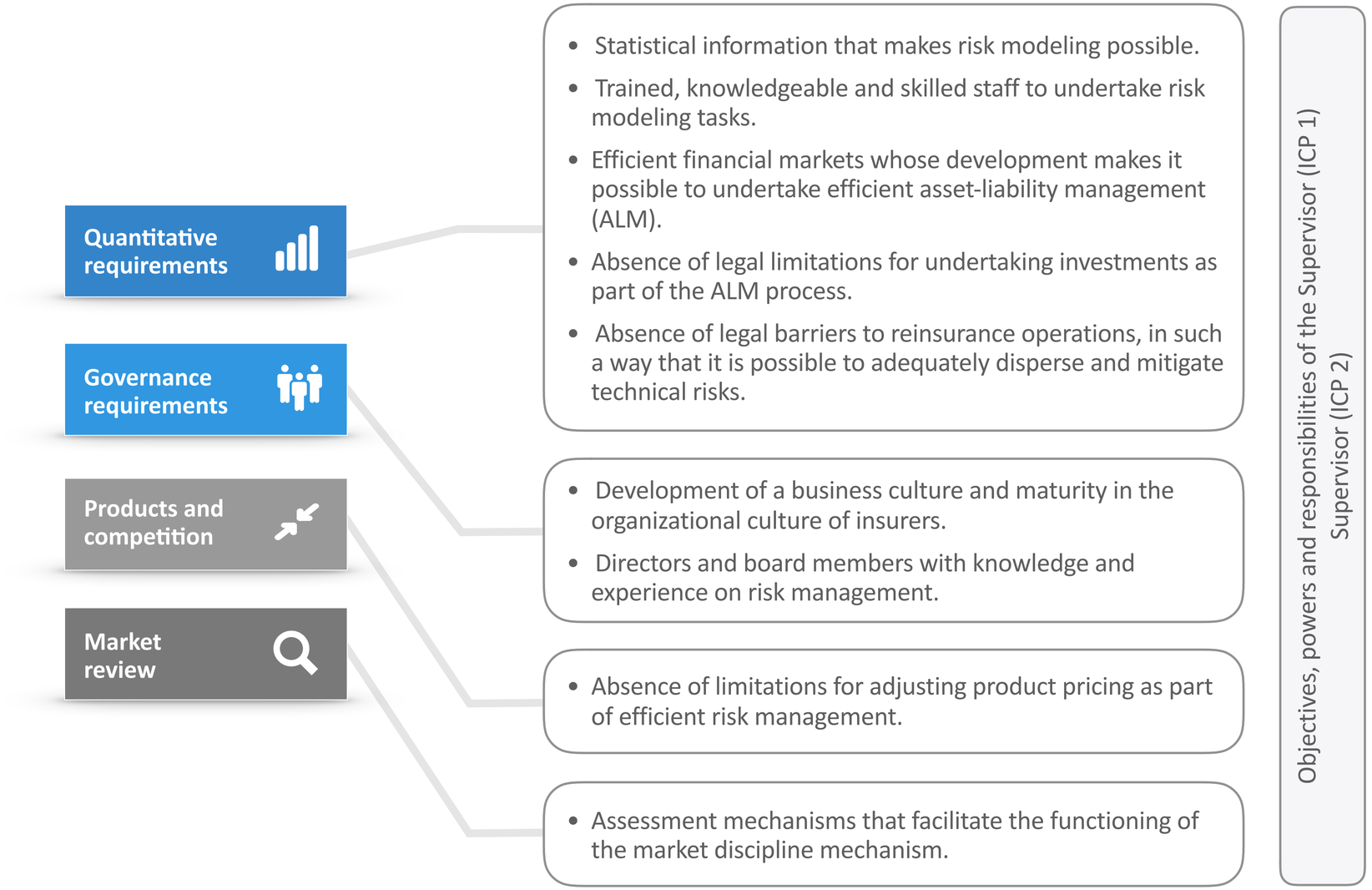

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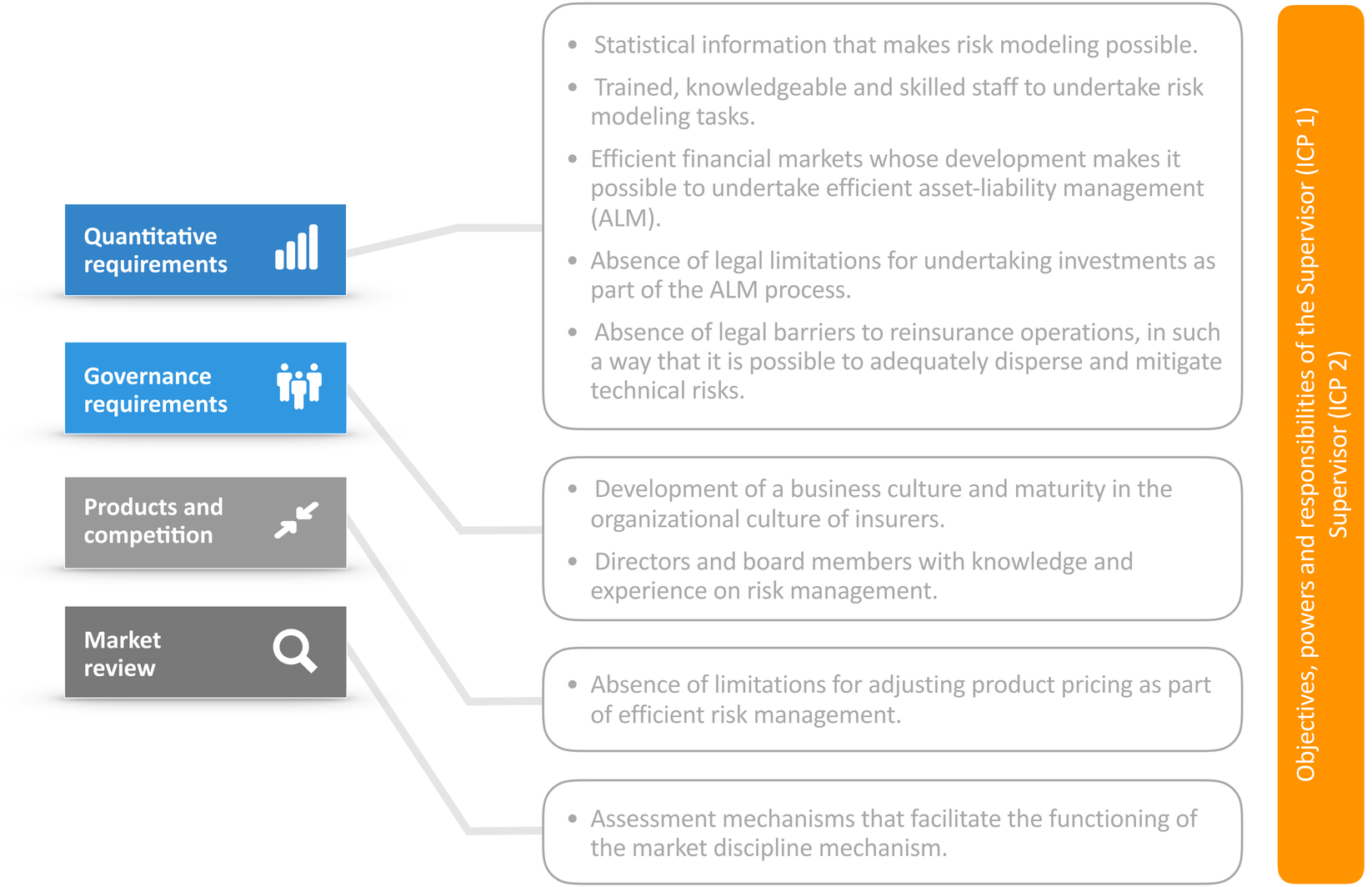

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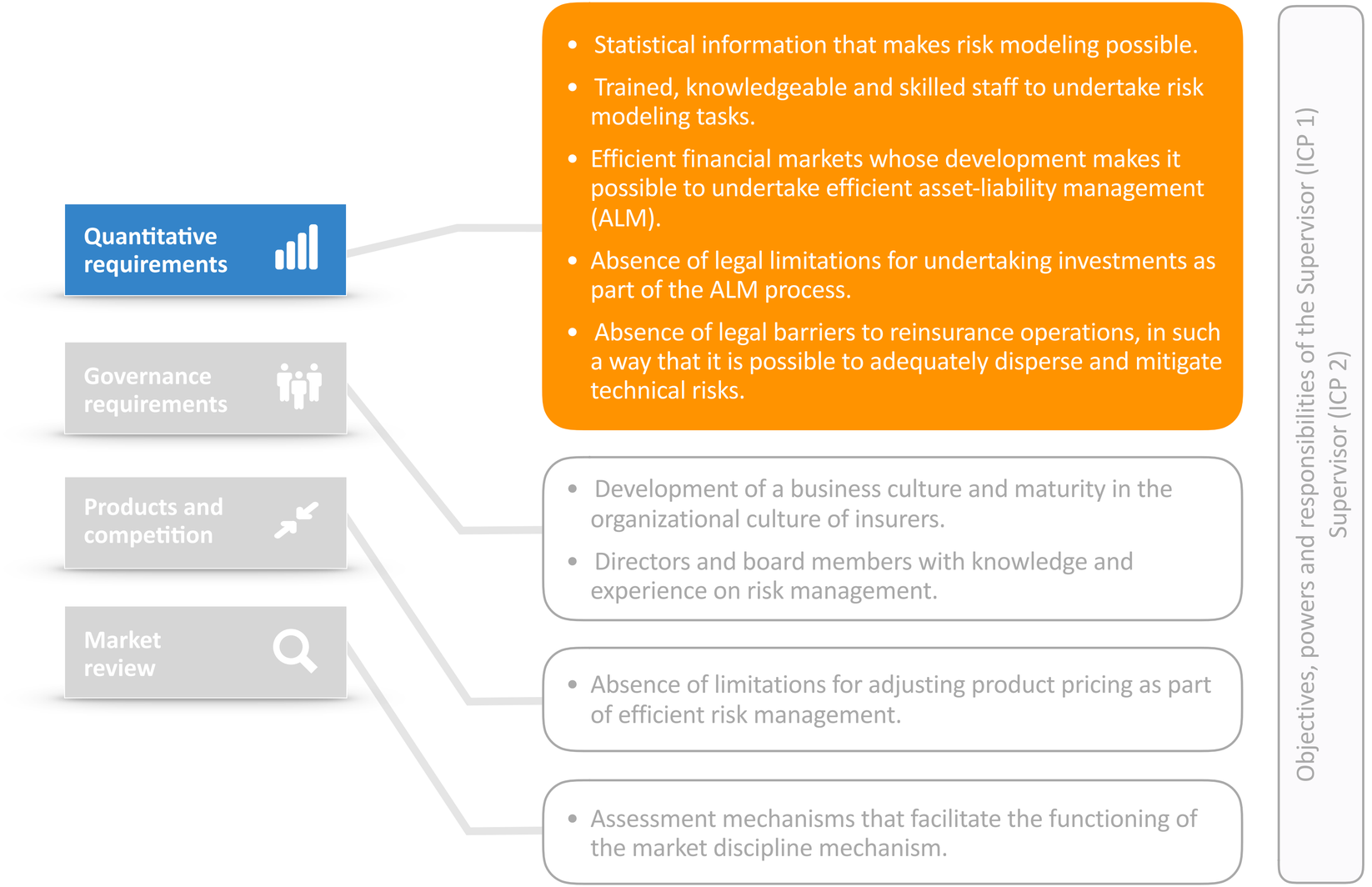

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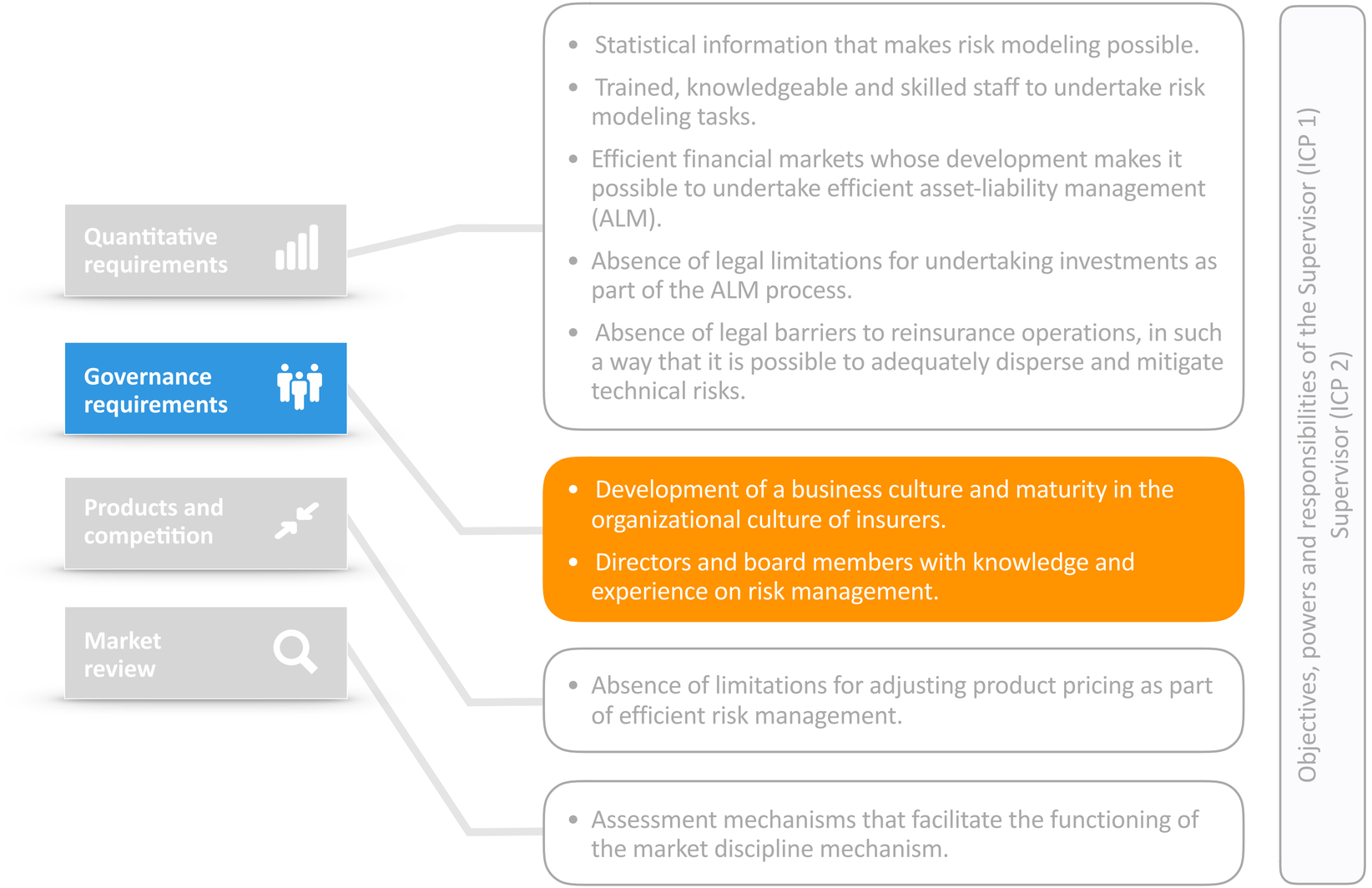

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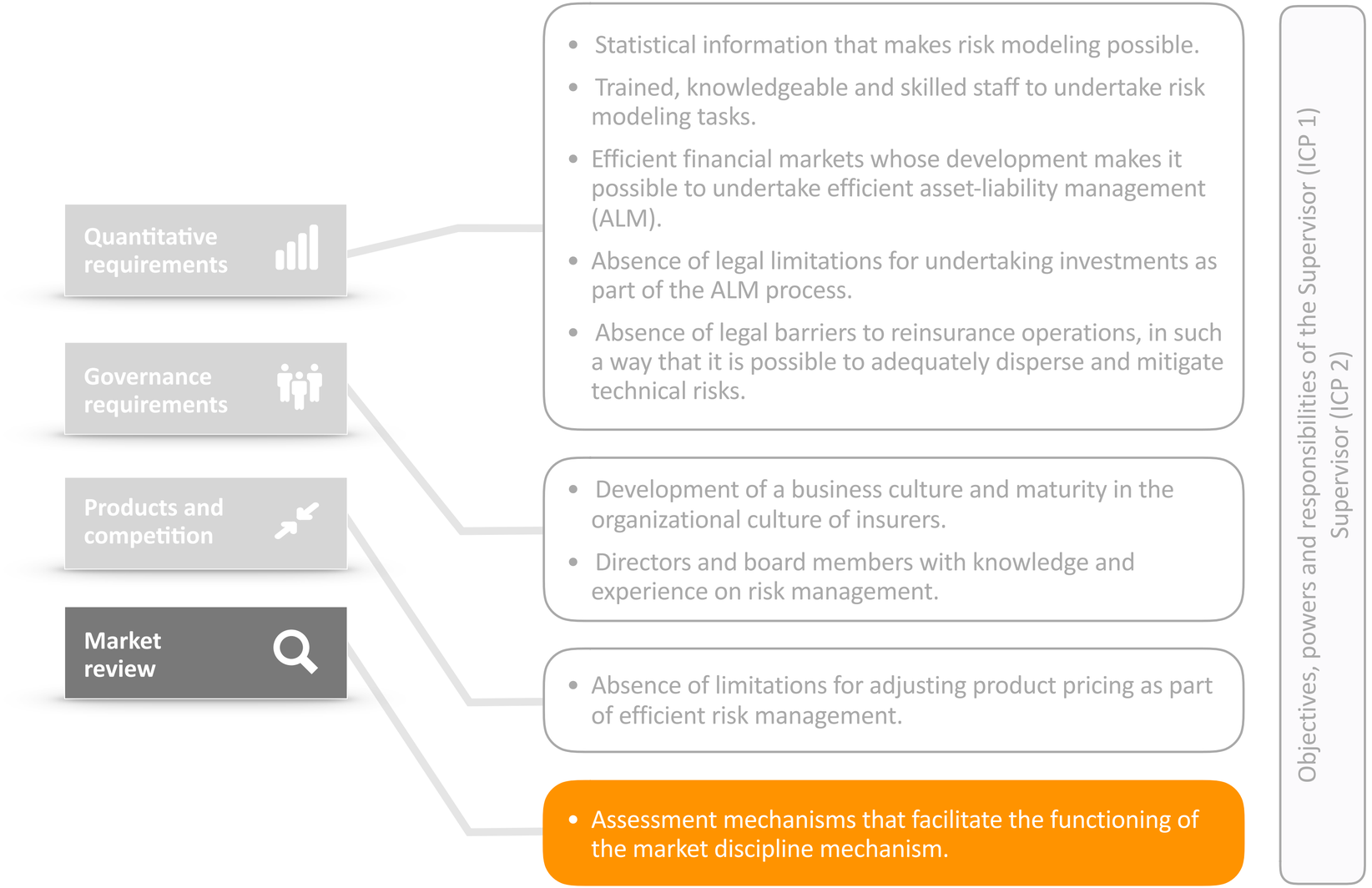

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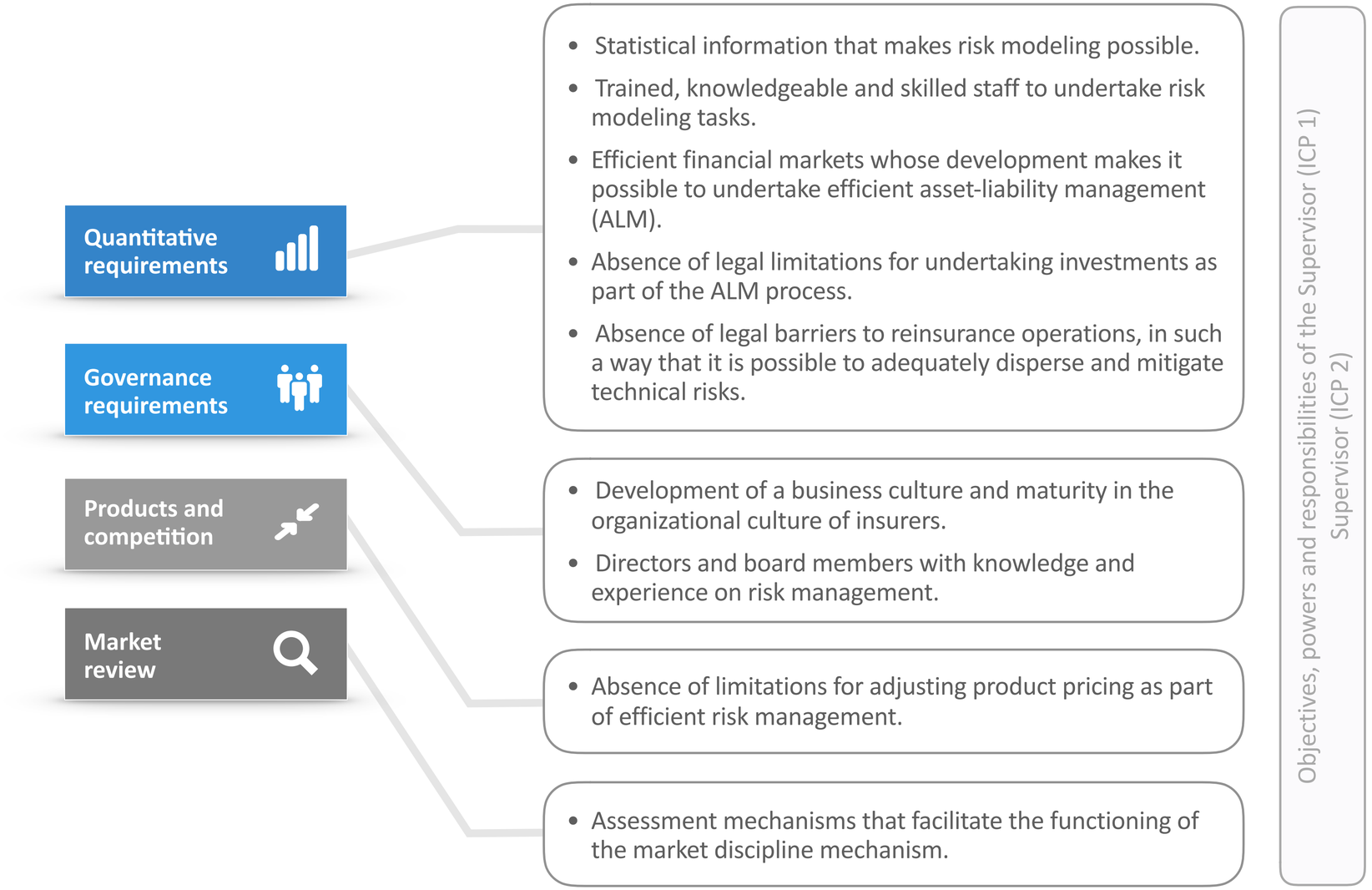


Source: MAPFRE Economic Research

Factors for a **stability-typology of regulatory models** in insurance

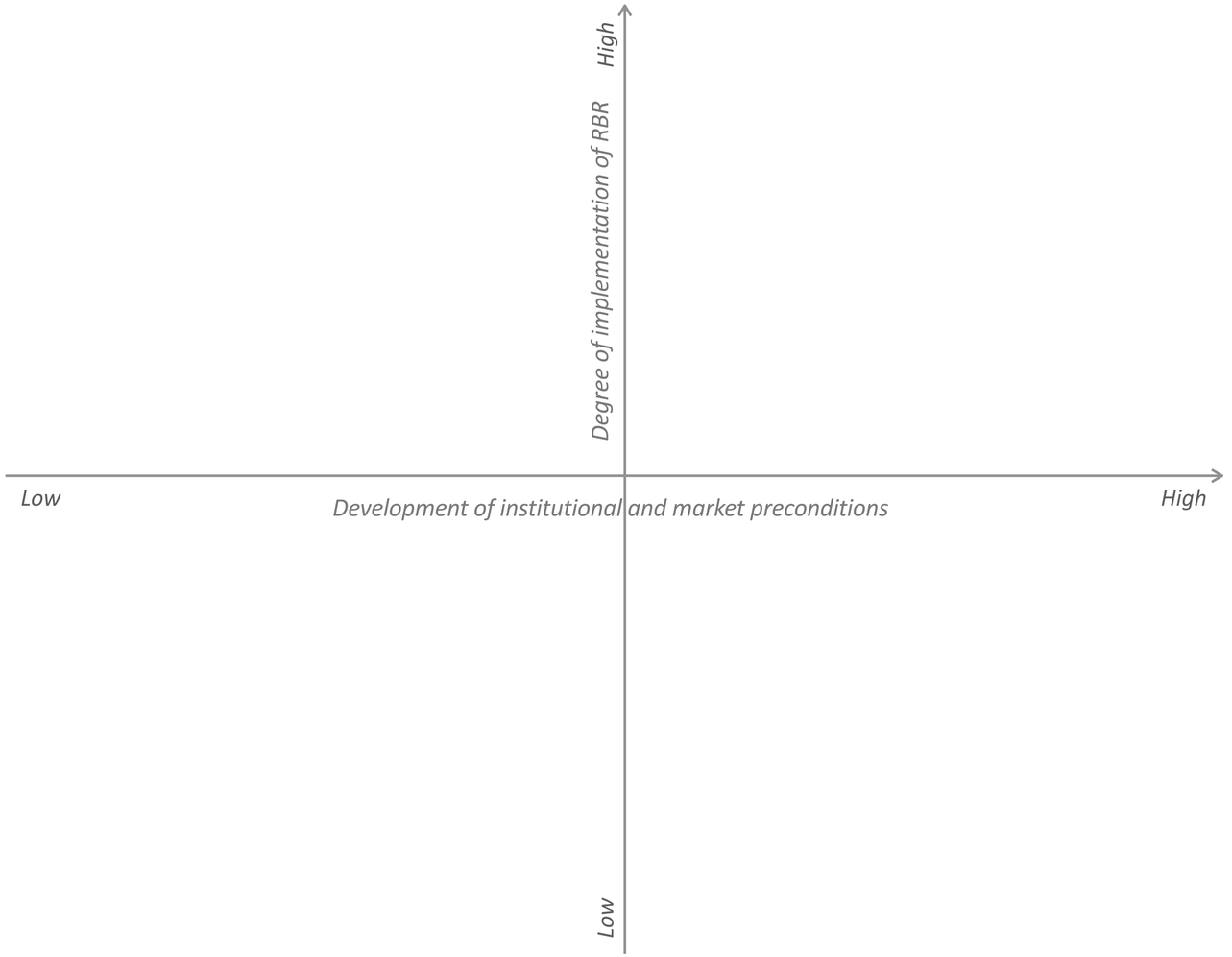
1 

Degree of **implementation of RBR**

2 

Development of **institutional and market preconditions**

REGULATORY MODELS STABILITY-TYPOLOGY BASED ON THE DEVELOPMENT OF PRECONDITIONS



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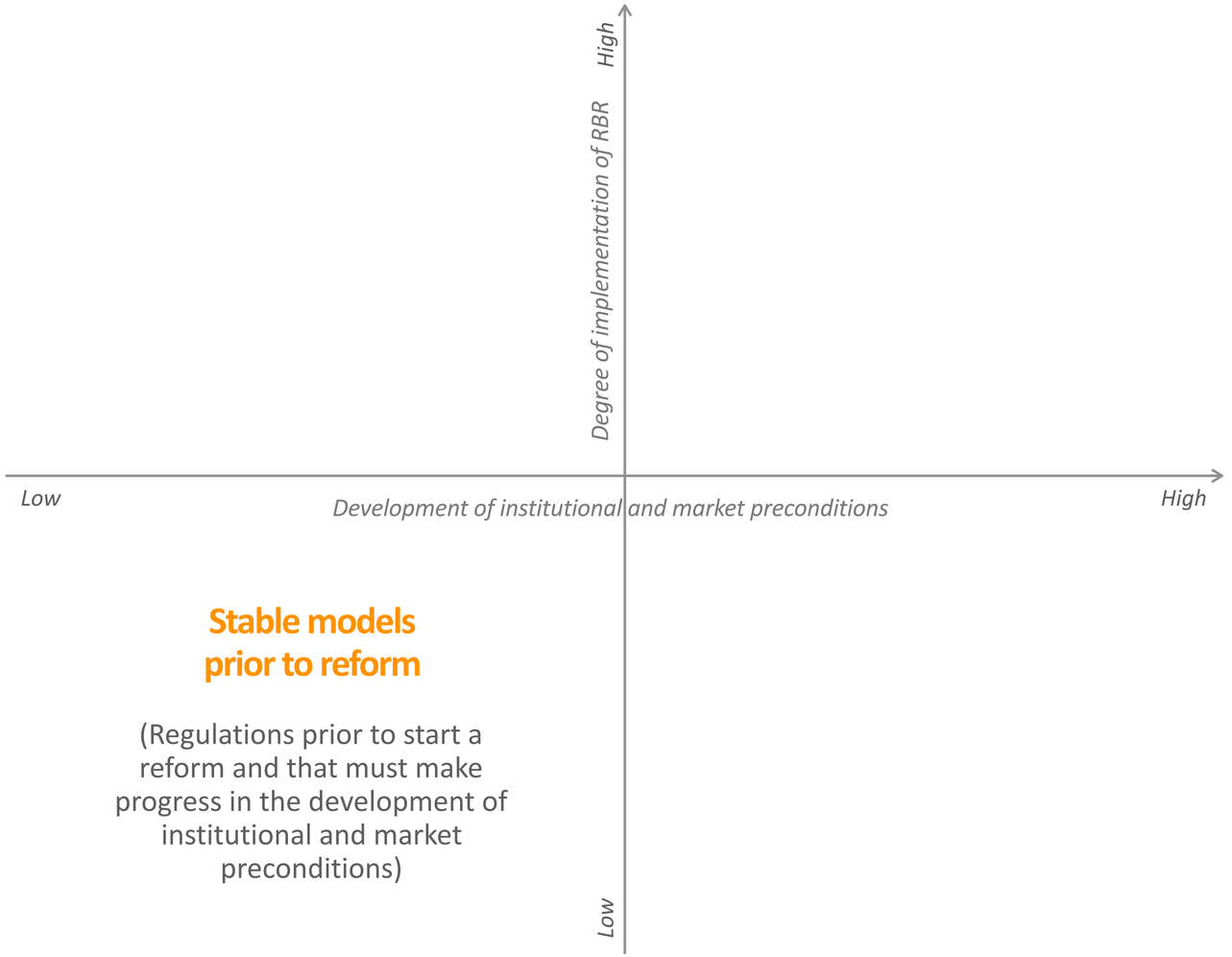
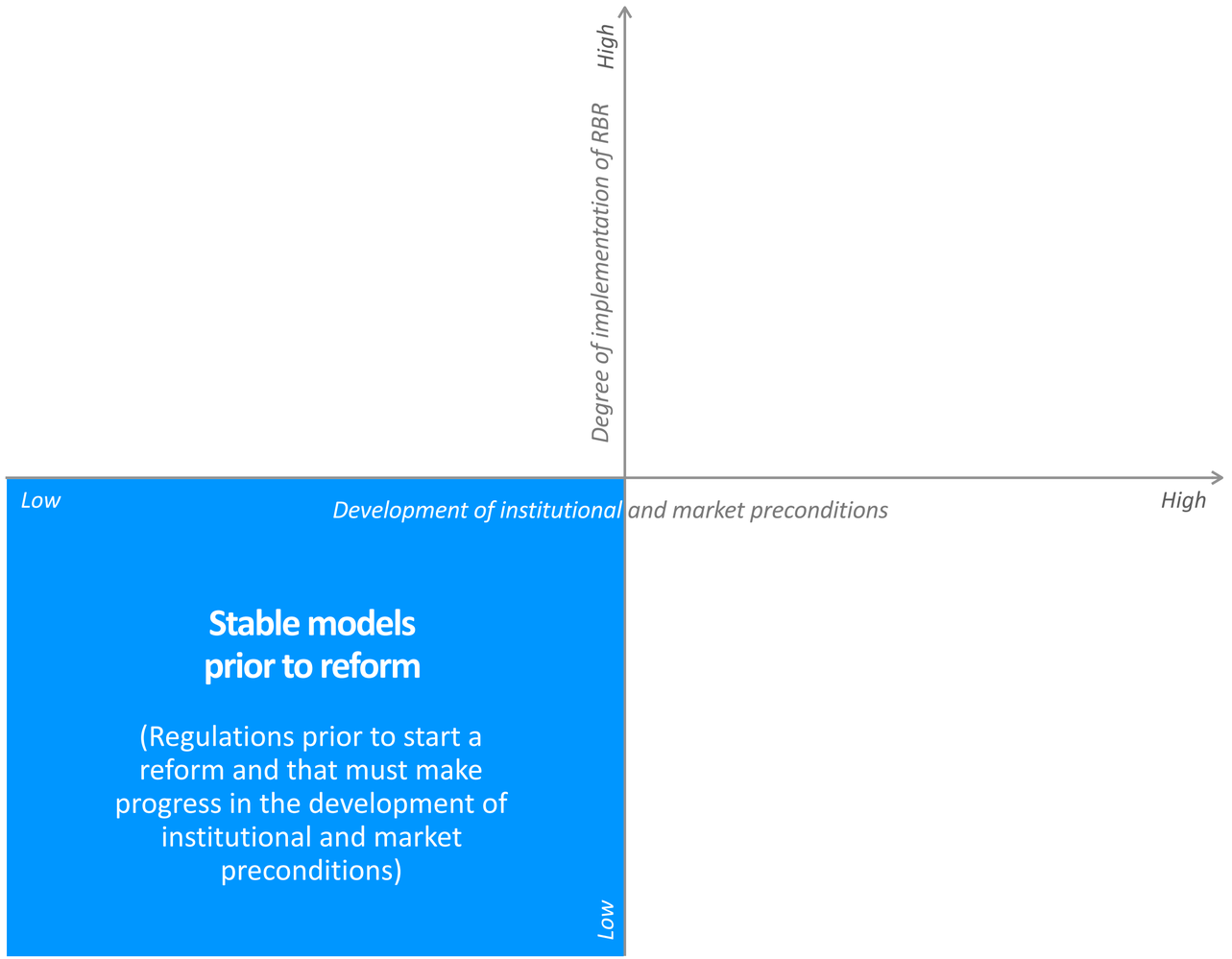


Stable models prior to reform

(Regulations prior to start a reform and that must make progress in the development of institutional and market preconditions)

Source: MAPFRE Economic Research



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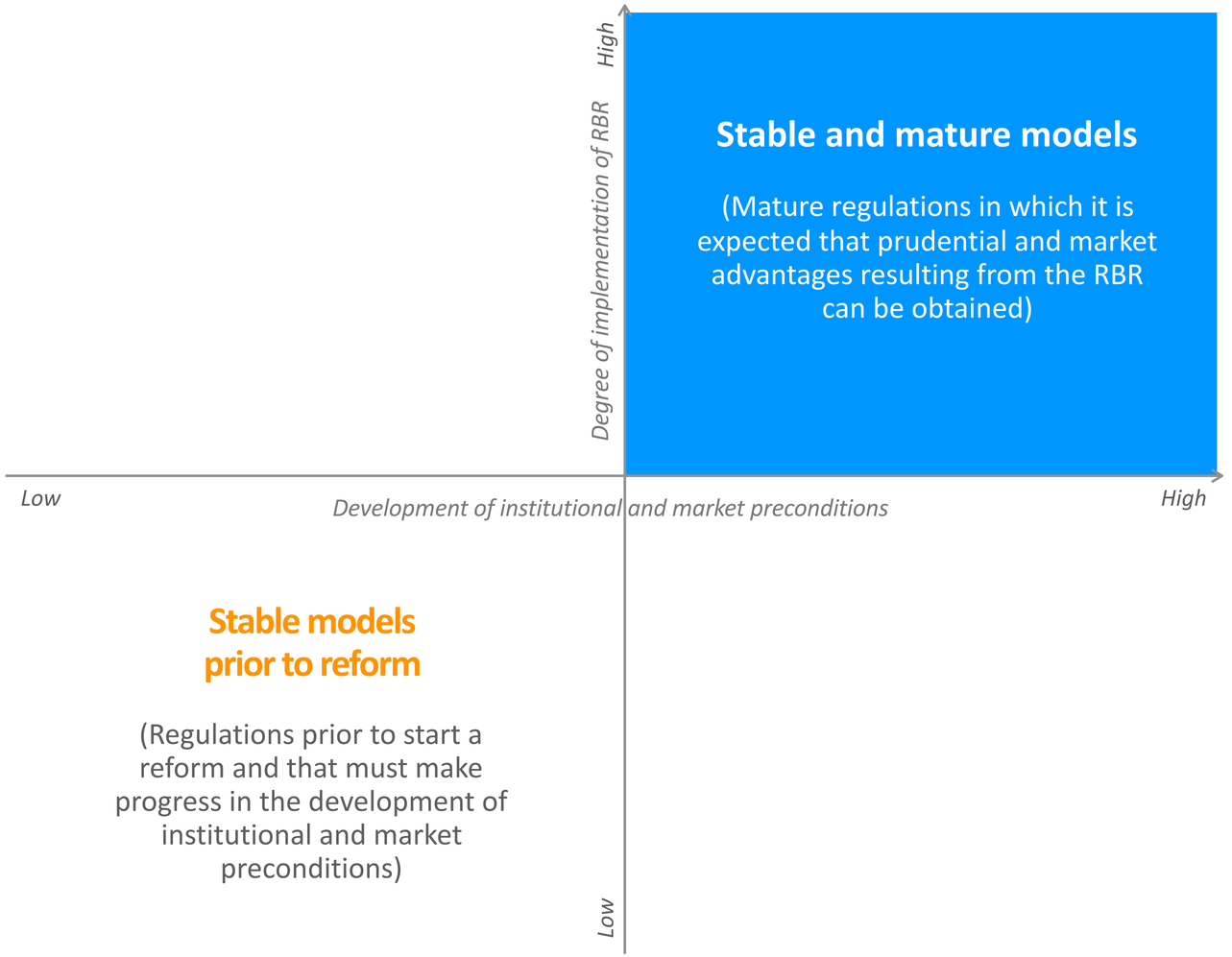

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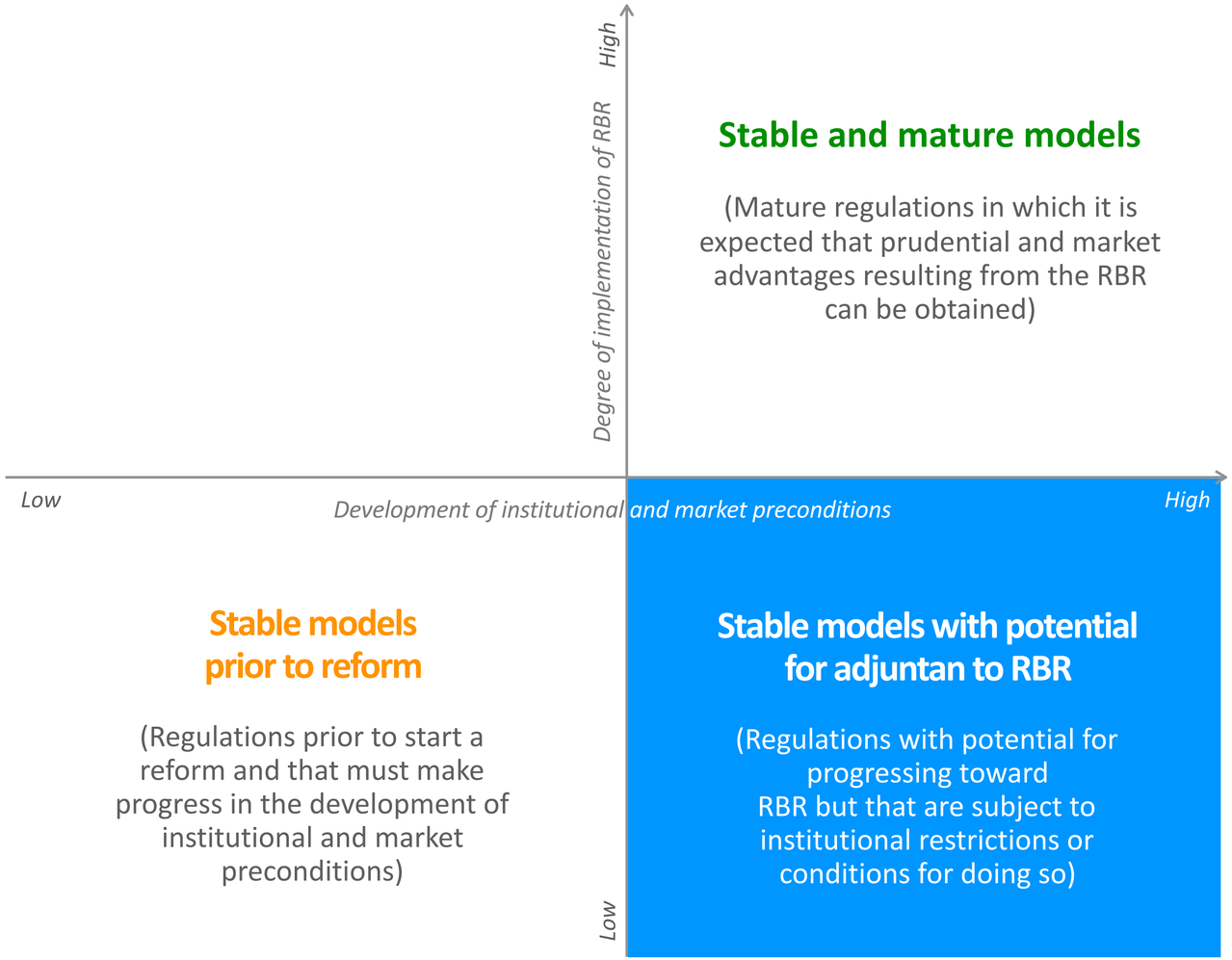

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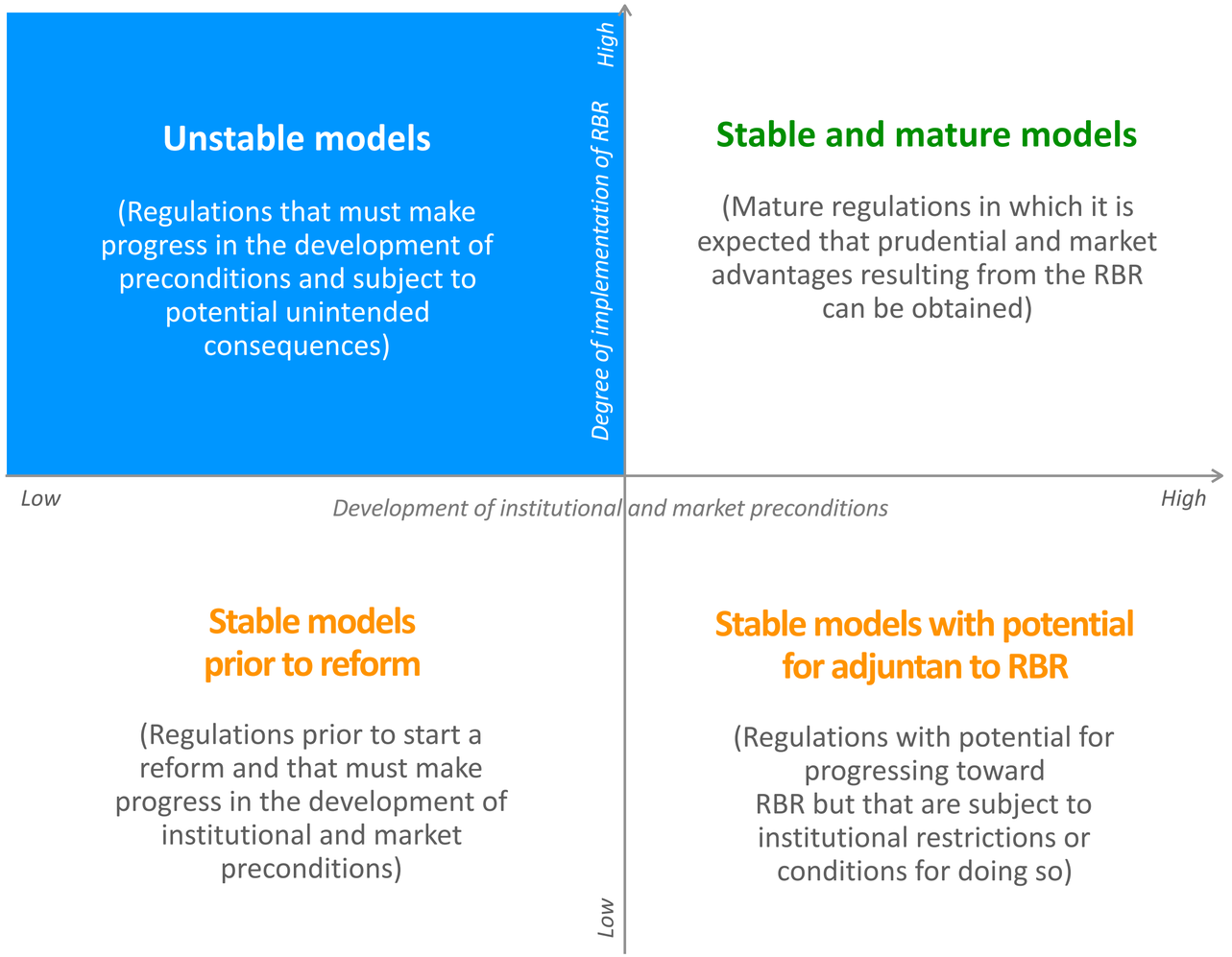
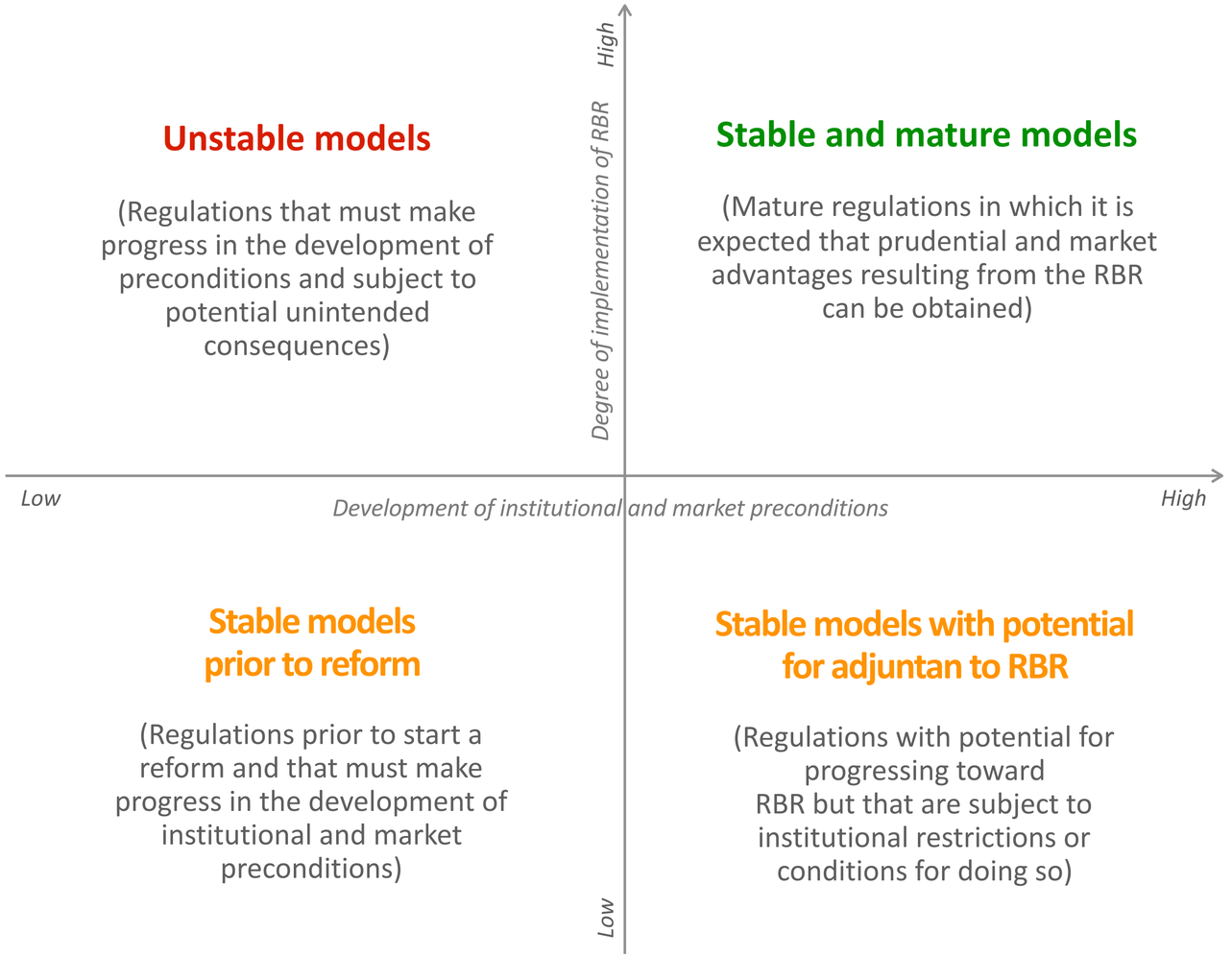

Unstable models
(Regulations that must make progress in the development of preconditions and subject to potential unintended consequences)
Stable and mature models
(Mature regulations in which it is expected that prudential and market advantages resulting from the RBR can be obtained)
Stable models prior to reform
(Regulations prior to start a reform and that must make progress in the development of institutional and market preconditions)
Stable models with potential for adjuntan to RBR
(Regulations with potential for progressing toward RBR but that are subject to institutional restrictions or conditions for doing so)
Degree of implementation of RBR
High
Low
Low
Development of institutional and market preconditions
High

REGULATORY MODELS STABILITY-TYPOLOGY BASED ON THE DEVELOPMENT OF PRECONDITIONS



Source: MAPFRE Economic Research

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