

Risk matrix guide

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0. Introduction¹

The Risk-Based Supervisory Approach (SABER) methodology provides a uniform and structured framework for classifying financial institutions, as explained in the “Supervisory Model” on the Banco de España website. The various elements analysed are depicted in the risk matrix. By way of example, the following is the risk matrix of a mortgage institution:

INSTITUTION:		RISK MATRIX					
Risk	Inherent risk	Internal governance	Management and control of risk	Residual risk	Trend	Weighting	
Credit	Medium low	Good	Acceptable	Low	Stable	55%	
Market	Low		Inadequate	Medium low	Stable	5%	
Counterparty	High		Acceptable	Medium high	Decreasing	0%	
Equity securities	Medium high		Room for improvement	High	Growing	0%	
Operational	Medium low		Good	Low	Stable	5%	
Structural interest rate	Low		Acceptable	Medium low	Decreasing	5%	
Structural exchange rate	Low		Inadequate	Medium high	Growing	0%	
Liquidity	High		Acceptable	High	Stable	10%	
Reputational	Medium high		Room for improvement	Low	Decreasing	5%	
Business	Medium low		Good	Medium high	Stable	15%	
Other risks	-		-	-	-	-	
Weighted aggregate of risks and controls	Medium low		Acceptable		Medium low	Stable	100%
External governance			Acceptable			Stable	
Institution's risk profile		Medium low			Stable		
Equity assessment		Acceptable			Decreasing		
Supervisory risk profile		Medium low			Growing		
Systemic institution		Yes					
Priority for inspection		2					

The aim of the guide is twofold: to compile the most significant risk factors, that is, those which are generally essential to correctly evaluate each cell of the risk matrix; and to establish practical criteria to assess these factors.

The risk matrix sums up the various facets of each risk in three cells: inherent risk, management and control of risk, and residual risk. Inherent risk is that which is inseparable per se from banking activity, that is, the risk intrinsic to an institution's various activities and business areas, without considering the management and control systems. In turn, management and control mitigate inherent risk, leaving the residual or remaining risk². The management and control scores will also be used to determine the risk trend; for example, an institution's present lending policy not only determines the current credit risk level but also indicates how it will evolve in the future.

Once the inherent risk and the management and control of each risk have been assessed, the table contained in section 4.4 of the “Banco de España Supervisory Model” will be used to determine the residual risk.

In identifying the factors that determine each risk, the aim is to ensure: a) that no significant risk factor goes unidentified; and b) that, insofar as possible, no risk factor is used to assess more than one risk. For that reason, where one risk factor may be used to assess various risks, it has been included in the most significant risk or, in case of doubt, in the original risk.

The risk factors described below include the main points contained in the European Banking Authority (EBA) and Basel Committee guides on the supervisory risk review process; accordingly, if these points are assessed, the guidelines will be considered to be met.

On-site inspections provide essential data to ensure that risk factor assessments are up-to-date. If on-site inspections are not made it will become increasingly difficult to evaluate these risks.

¹ The proposals contained in this guide represent changes to be made to the risk-based supervisory approach methodology (SABER, by its Spanish name), the Internal Capital Adequacy Assessment Process Guide and the interest rate risk regulations. The Off-site Analysis Division (GAD) will develop the analytical tools needed to permit enhanced assessment of the various risk factors.

² For the Spanish version, this guide proposes renaming “residual risk” (*riesgo residual*) as “remaining risk” (*riesgo remanente*) which is more correct in Spanish.

In order to assess each risk factor, all necessary data breakdowns will be made (by product, customer, business line, subsidiary, etc.). Moreover, if a significant risk factor not envisaged in this guide is detected, it will be included in the analysis.

The resources used to assess each risk factor will be commensurate with the significance both of the risk factor and the risk concerned and with the complexity of the institution's activities and products.

Once the various risk factors for each risk have been analysed, they will be aggregated, bearing in mind the relative significance of each factor in the view of the bank examiner or evaluation team. Although this document sets out guidelines for how each risk factor should be assessed, a high degree of expert judgment is considered essential and, for this reason, it includes no automatic algorithms to be used to classify or aggregate each risk factor. Numerical guidelines are given in some cases, but they are only guidelines, as certain circumstances may advise a different assessment.

To determine the weight to be assigned to each risk in the weighted aggregate, account will be taken of the relative significance of each risk, as described in section 13 below.

The supervisory risk profile of each institution will be established by comparing its risk profile with its equity, and will, in turn, be used to determine the priority for inspection, in light of the systemic importance of the institution.

1. Governance

1.1 Definition

The risk matrix approaches governance from two different angles: internal and external.

Internal governance refers to how the Board of Directors, board committees and senior management determine the institution's business strategy, structural organisation, modus operandi, allocation of responsibilities and management and control of risk.

External governance refers to the relationships between the institution's governing bodies and interested third parties (supervisors, shareholders, investors, deposit-holders, customers, etc.).

Accordingly, these two facets of governance, both of which are essential to determine the risk profile, are analysed in two different parts of the risk matrix:

- Internal governance, in conjunction with the management and control of each risk, to determine the inherent risk and, in consequence, the residual risk.
- External governance, to determine the institution's risk profile, as it can either enhance or damage the weighted aggregate of all the risks.

Although there are certain facets of governance at institutions that relate both to internal and external governance (for example, determination of the risk culture, the risk appetite, regulatory compliance, the link between the remuneration structure and the risk profile, the level of transparency at the organisation, etc.), in order to prevent duplication, each risk factor has been included in only one category.

1.2 Internal governance

To be analysed:

1. Board of directors.
2. Risk, audit, and appointment and remuneration committees.
3. Senior management.

1.2.1 Board of Directors³

To be analysed:

- Board composition and operation:
 - Number of directors and appropriate combination of nominee, independent and executive directors⁴.
 - Level of dedication.
 - Professional qualifications, experience, good repute and, where appropriate, degree of independence.
 - Director remuneration.
- Board's senior management function:
 - How the Board determines the corporate risk culture and risk appetite and how it conveys these to the organisation.
 - How the Board instils the importance of regulatory compliance into the organisation and assumes responsibility for compliance.
- Board's supervisory function over:
 - Risk profile.
 - Risk management and control policies.
 - Internal audit.
 - Organisational structure.
 - Senior executive appointment and remuneration policy.
 - Extent to which the institution follows the recommendations of the Banco de España.

Points in favour:

- Mechanisms for prevention, control and settlement of conflicts of interest.
- The information received from senior management is relevant, precise, timely and sufficient.
- The minutes reflect the Board's deliberations.
- Annual internal assessment of the individual and collective operation of the Board.
- Board involvement in the procedures for management and control of significant risks and in the internal control procedures (for example, membership of functional committees).
- The Board receives periodic reports, with the appropriate level of detail, on how the main factors relating to the institution's significant risks are evolving, specifically including information on the level and growth of credit concentration.

Points against:

- Directors who do not meet the necessary requirements in terms of professional qualifications, experience, personal qualities or level of dedication.
- The institution's CEO is the Board chairman.
- Inconsistency between the composition of the Board and its executive committee, or shortcomings in the exchange of information between the two.
- The Board approves loan transactions against, or without consulting, the view of the risk function (risk analysts).
- The institution's organisation chart has not been approved by the Board.
- The Director remuneration policy is disproportionate to the size or situation of the institution.
- The Board does not understand the risks facing the institution.

1.2.2 Risk, audit, and appointment and remuneration committees.

At least three Board committees – risk, audit, and appointment and remuneration – are considered essential.

Points in favour:

- The corresponding functions are effectively allocated to these committees.
- The composition of each committee permits and facilitates its functions.
- The information conveyed to these committees by senior management is relevant, precise, timely and sufficient.
- The minutes reflect the committees' deliberations.
- Annual internal assessment of the individual and collective operation of each committee.

³ If the Board has delegated part of its activity to an executive committee, the following will be analysed: a) if the composition of the executive committee reflects that of the Board and if it follows a similar line; b) if the delegation of functions is appropriate; and c) if the executive committee informs the Board of its resolutions and activities in an appropriate manner.

⁴ In accordance with the Good Governance Code of the National Securities Market Commission (CNMV).

Points against:

- Committee members who do not meet the necessary requirements in terms of professional qualifications, experience, personal qualities or level of dedication.
- The committees delegate key functions to lower ranking bodies in the institution.
- The remuneration committee establishes a salary policy that takes no account of the risks assumed, the maturity period of investments or the size or situation of the institution.

1.2.3 Senior management

For the purposes of this guide, senior management refers to the CEO, the executive directors and all executives who report directly to the Board of Directors or the CEO.

To be analysed:

1. Senior management capacity and leadership.
2. Organisation.
3. Overall management and control of risk.

1.2.3.1 Senior management capacity and leadership

Points in favour:

- Clear guidelines are conveyed to the organisation.
- The executive committee meeting minutes reflect not only the resolutions taken but also the committee's deliberations.

Points against:

- Senior managers who do not meet the necessary requirements in terms of professional qualifications, experience, personal qualities or level of dedication.
- Senior management does not follow the guidelines set by the Board.

1.2.3.2 Organisation of the institution

Points in favour:

- A clear and transparent structure, approved by the Board of Directors, which ensures that there is appropriate separation of functions and that the organisation acts in accordance with the strategy, the risk appetite and the policies issued both by the Board and senior management.
- An employee incentive programme in accordance with the guidelines laid down by the remuneration committee.
- A quality, independent internal audit that has access to information, sufficient and appropriate resources and access to the Board of Directors.
- A regulatory compliance function that evaluates the impact of regulatory and legal changes, periodically analyses procedures and products and has access to the Board.
- A reliable and efficient management data system that permits quick decision-making.

Points against:

- The compliance function does not ensure effective observance of legal rules or the internal employee code of conduct.
- The internal audit function does not ensure effective compliance with internal procedures.

1.2.3.3 Overall management and control of risk

Points in favour:

- An overall risk management function (Chief Risk Officer: CRO), separate from the business area, with sufficient resources and access to the Board of Directors, that proposes the institution's risk profile strategy and takes part in material decisions on risk management and control.
- The Board of Directors holds periodic meetings with the CRO.
- The CRO is appointed, and replaced, by the Board of Directors.
- Maintenance of a risk perspective that prevents excessive trust being placed in any one risk measurement methodology and that takes into account the necessary equilibrium between the macroeconomic setting and the financial system.
- The overall risk management function foments correct identification, measurement, evaluation and monitoring of the various risks.

- The overall risk management function regularly evaluates any breaches of risk limits and strategies and proposes corrective measures.

Points against:

- No effective separation of functions between the business areas and the overall risk control unit.
- New products are launched without the involvement of the overall risk management and control area.
- The overall risk control function is not involved in the evaluation of material transactions, such as mergers, formation or acquisition of subsidiaries, etc.
- No effective control over employees in key positions or who generate high earnings, for fear of losing these employees or earnings.

1.3 External governance

To be analysed:

1. The ownership structure of the institution.
2. The legal structure of the group.
3. Transparency with third parties.

1.3.1 Ownership structure of the institution

Points in favour:

- Stable ownership, understood as sufficient capacity and a long-term strategy on the part of major shareholders.

1.3.2. Legal structure of the group

A complex and opaque structure makes it more difficult to identify, manage and control risk.

Points in favour:

- A simple group structure, with no unnecessary complexities.
- Internal audit periodically reviews the group structure from a risk identification, management and control perspective.

Points against:

- The Board of Directors or senior management does not know, or does not understand, the objectives of the various institutions that make up the group, the relations between such institutions or the specific features of the individual and consolidated risks.
- Operations are conducted through companies or in jurisdictions that are not transparent, that fail to comply with international money-laundering standards or that attempt to avoid effective supervision.
- No supporting documentation on the reason for the group structure.

1.3.3 Transparency with third parties

Transparency in relations with supervisors, shareholders, deposit-holders and other parties interested in the institution's progress encourage discipline at the organisation.

Points in favour:

- The information contained in the financial statements, annual report, prudential significance report and corporate governance report gives an accurate and detailed picture of the reality of the institution.

Points against:

- A lack of transparency, celerity or accuracy in the periodic and other confidential data reported to the Banco de España.
- A lack of quality or inaccuracies in the annual internal capital adequacy assessment report.

2. Credit risk

2.1 Definition

The possibility of incurring losses as a result of noncompliance by debtors with their contractual obligations. It does not include counterparty risk.

2.2 Inherent risk

Risk factors to be considered:

- Credit composition and performance.
 1. Credit concentration.
 2. Credit portfolio growth.
- Credit quality.
 3. Non-performing loans.
 4. Portfolio characteristics.
- Capacity to absorb losses.
 5. Provisioning levels.
 6. Lending spread.

2.2.1 Credit concentration

Credit concentration is a determinant of inherent risk, that is, all other risk factors being equal, the higher the credit concentration at an institution the higher the inherent risk.

Credit concentration will be assessed at an individual (by economic group) and sectoral level, in accordance with the analysis of the corresponding concentration indices established in the ICAAP guide⁵ and with the percentage weight and performance of the main borrowers (the 20 to 30 borrowers with most exposure or those that represent more than [10%] of eligible capital).

In addition, the question of whether the institution is “dependent” in any way that is not reflected in the individual and sectoral concentration analysis will also be examined. In recent years certain Spanish financial institutions have become reliant on the property market, as a result of land loans + loans to property developers + mortgage loans; with the collapse of the property market, their business has deteriorated considerably. Other possible forms of “dependence” to be analysed may be linked to tourism or agriculture. Institutions specialising in highly specific products, such as credit cards or consumer credit, may also have some degree of “dependence” on these business areas.

Practical valuation criteria:

- Individual concentration: ICI > 0.6 signifies high risk; ICI > 0.4 signifies medium-high risk; ICI > 0.2 signifies medium-low risk; ICI > 0.1 signifies low or medium-low risk.

2.2.2 Credit growth (macroeconomic risk factor)

Disproportionate credit growth is one of the main causes of financial crises. During economic growth periods, lending policies ease, loan volumes soar in proportion to the rate of economic growth and economic and social agents gradually increase their leverage. This continues until a point is reached where the overall level of indebtedness becomes unsustainable and large-scale credit default ensues.

Disproportionate credit growth can affect institutions in two ways:

- Systemic risk arises when the system-wide rate of growth of private sector credit is much higher than the rate of growth of GDP⁶.
- Idiosyncratic or institution-specific risk arises when an institution’s rate of growth is much higher than that of the system overall (in this case the institution’s growth will likely be based on subprime loans).

⁵ The sectoral concentration indices in the Internal Capital Adequacy Assessment Process (ICAAP) guide do not discriminate correctly between institutions and are under review, so they should not be used as evaluation criteria until this review is complete.

⁶ The Off-site Analysis Division (GAD) or Financial Stability Department will draw up guideline ratios.

Practical valuation criteria:

- Long-term performance of the private sector credit to GDP ratio.
 - o If the system-wide private sector credit to GDP ratio exceeds the long-term trend line by more than [20%], general lending policies are easing and there is increased systemic risk.
 - o If in the last [two] years the rate of growth of private sector credit at an institution is more than [20%] higher than that of the system overall, there is increased institution-specific risk.

2.2.3 Non-performing loans

Non-performing loans (NPLs) are a reflection of the quality of past risk exposure. However, low non-performing debt levels are not always a sign of low inherent risk. In other words, a low NPL ratio does not necessarily signify that overall loan portfolio quality is good, especially if there has been a sharp increase in recent years in loans, as it is too soon to know how they will perform.

The following ratios, which will be analysed individually and versus the comparison group, will be used to assess non-performing debt levels:

- NPL ratio.
- % of subprime loans.
- % of foreclosed assets.
- % of refinancings.

Foreclosed assets will be included in the calculation of the NPL ratio. Where appropriate, account will be taken of the impact on the NPL ratio of securitisations, sales of impaired loan portfolios and charge-offs.

In the case of IRB institutions, analysis of the ex-ante LGD indicators provided by the IRB systems will be included when evaluating non-performing debt levels.

2.2.4 Characteristics of loan transactions and borrowers

The specific characteristics of an institution's credit portfolio are a good indication of its inherent risk. For the purposes of the analysis, files will be examined and other steps taken to monitor credit portfolios, in order to evaluate the borrowers' ability to pay and the guarantees provided and to verify that the transactions have been correctly instrumented.

Points in favour:

- Correct leverage (both of individual and corporate debtors).
- Appropriate borrower rating system.

Points against:

- A large number of transactions poorly arranged or with inappropriate payment structures.
- LTV > [80%] in mortgage loans.
- Foreign currency lending that takes no account (via lower LTV ratios, wider interest spreads...) of the higher risks that such transactions entail due to exchange rate fluctuations.

In the case of IRB institutions, the assessment obtained in the process of supervisory validation of the IRB systems (for example, the criteria used by the institution to divide borrowers into uniform groups) and the subsequent follow-up (rating system patterns, back-testing tests, peer comparisons...) will be added to the assessment made.

2.2.5 Provisioning levels

A prudent provisioning system ensures that the credit portfolio is healthy and thus reduces its inherent risk. General provisions, which cover potential losses on performing loan portfolios, should increase in times of economic boom, when bad loans are concealed, and should decrease in times of crisis when bad loans emerge.

The following factors will be analysed individually and versus the comparison group:

- Balance and performance of provisions (specific and general).
- Specific provisions for non-performing loans + doubtful loans.
- Specific provisions for non-performing loans + doubtful loans + foreclosed assets.
- Specific provisions for subprime loans.

- % General provision/expected portfolio loss in normal circumstances.
- % General provision/portfolio volume in normal circumstances.

In the case of IRB institutions, the risk parameters – PD, LGD – provided by the IRB system will also be considered for the institution's various portfolios.

Practical valuation criteria:

- Specific provisions for non-performing/doubtful loans + subprime loans + foreclosed assets at the institution < [70%] at the comparison group: signs of high risk.
- % General provision/expected loss < [100%]: signs of high risk (in an economic boom).
- % General provision/expected loss > [200%]: signs of low risk, unless there has been a recent large rise in leverage in the economy.

2.2.6 Lending spread

An appropriate spread (together with a sufficient level of countercyclical general provisions) means that recurring profit can cover credit risk losses, with no need for recourse to be had to capital. Conversely, if the lending spread does not include a risk premium (or the countercyclical general provisions are insufficient), losses will arise at times of crisis and recourse will have to be had to capital to absorb them.

2.3 Management and control of credit risk

Risk factors to be considered:

1. Lending policy.
2. Organisation of the credit risk management and control function.
3. Stress tests and contingency plans.

2.3.1 Lending policy

Institutions must clearly establish their credit risk tolerance, that is, their policy on limits, diversification and pricing.

To be analysed:

- If the lending policy takes account of the recent and foreseeable near future performance of the economic environment in which the institution operates.
- If there are reasonable credit limits (leverage, guarantees, LTV ratios).
- If there is sufficient credit diversification (individual and sectoral).

Points in favour:

- An appropriate policy to limit, diversify and mitigate credit risk.
- Appropriate documentation on lending policies.
- A high level of prudence at times when recent credit growth has been abnormally high in the sectors in which the institution's business is concentrated or in the economy overall.

Points against:

- Present decisions take no account of recent or foreseeable economic performance.
- The lending spread does not provide sufficient risk cover.
- No clearly defined lending policy.

2.3.2 Organisation of the credit risk management and control function

The lending policy established by the Board of Directors must be operated in practice in a structured manner, with sufficient human and material resources.

To be analysed:

- Separation of responsibilities between the areas of admission, monitoring and control of credit risk.
- Allocation of powers over lending.
- Quality of tools used to measure, manage and control credit risk.
- Quality of analysts' reports.

- Quality of files on borrowers (if they contain all the relevant information, including any points against credit being granted).
- Periodic monitoring of performing loans.
- Process of recovery of non-performing loans.

Points in favour:

- Files on borrowers are periodically updated and contain all the relevant information.
- The organisation is able to identify and manage problem loans in advance.
- Internal audit establishes and implements an annual credit risk review plan.
- Any issues raised by internal audit are analysed.

Points against:

- Lack of independence of the credit risk management and control function from the business area.
- No effective system for continuous monitoring of performing loans.
- Loans are refinanced with no new guarantees provided and no reduction in debt.

2.3.3 Stress tests

To assess their capacity to manage credit risk in future adverse scenarios, institutions must conduct stress tests, to identify possible sources of credit risk and analyse the consequences, and prepare contingency plans to combat these risks.

Points in favour:

- Periodic realistic stress tests are conducted, taking into account the real causes of credit risk that may affect the institution.
- Stress tests are used to adjust lending policies.

3. Market risk

3.1 Definition

The possibility of incurring losses on trading book positions (on and off balance sheet) due to adverse market price fluctuations.

A decrease in value of the held-to-maturity fixed-income portfolio due to adverse interest rate fluctuations will not be considered market risk.

3.2 Inherent risk

Risk factors to be considered:

1. Trading book risk measured in terms of Value at Risk (VaR) and sensitivity to the various risk parameters (delta, gamma, vega...) of options.
2. Concentration in complex or illiquid products.
3. Products valued using mark-to-model techniques or outside the institution's own systems.

3.2.1 VaR

The value at risk of the various trading book products provides an objective measure of market risk.

Points in favour:

- VaR is stable.
- VaR is low relative to the institution's level of trading activity.
- Historical trading book income is in line with VaR, measured using trading revenue to VaR.

Points against:

- Excesses (breaches) of the VaR used for regulatory purposes.
- The overall VaR limits pre-established by senior management are exceeded.
- The various VaR limits (by business unit, risk factor, product) are exceeded.

3.2.2 Concentration in complex or illiquid products

Concentration in complex products makes it difficult to measure and control market risk. The market value of illiquid products may be artificial and may distort the measurement of market risk.

Points in favour:

- No complex products in the trading book, or at least none that are not covered back-to-back in the market.
- No illiquid products in the trading book.

Points against:

- Complex or illiquid products represent a high percentage of trading book volume.
- No valuation adjustments are made to cover the shortcomings of VaR in valuing complex or illiquid products.

3.2.3 Products valued using mark-to-model techniques

The need to use models to value products, because there is no real market in these products or because the market is fictitious, increases market risk.

Points against:

- Products valued using ad hoc models, outside the institution's general systems, represent a high percentage of trading book volume.
- No documentation on the valuation models used.
- Lack of understanding at the organisation of the models used to value these products.

3.3 Management and control of market risk.

Risk factors to be considered:

1. Market risk policy.
2. Organisation of the market risk management and control function.
3. Stress tests and contingency plans.

3.3.1 Market risk policy

Institutions must establish their market risk tolerance, that is, their policy on limits, diversification and market operations.

Points in favour:

- The Board of Directors periodically reviews and approves the strategies, policies and practices related to the management and control of market risk.
- Effective senior management involvement in the management and control of market risk.
- The foreseeable future economic context is considered when the market risk policy is established.

Points against:

- No clear definition of market risk tolerance.
- Insufficient breakdown of internal VaR limits by department, unit and product.
- No limits on investment in complex or illiquid products or products valued using models.
- No written policy guidelines approved by the Board of Directors on market risk management and control (including collateral use and management policies).
- The market risk information provided periodically to senior management is poor quality, or is not provided sufficiently regularly.

3.3.2 Organisation of the market risk management and control function

The market risk tolerance established by the Board of Directors must be implemented in practice in a structured manner, with sufficient human and material resources.

Points in favour:

- Committees directly related to market risk, in which the various departments involved in the management and control of market risk play a part.

- Effective separation, in the business area, between the front-office (where market traders operate) and the back-office (responsible for allocating, recording and settling transactions).
- Human resources with the appropriate training and experience commensurate with the institution's operations in all areas: front-office, back-office and risk control.
- Annual review of market risk by internal audit.

Points against:

- Lack of the necessary tools for appropriate management and control of market risk commensurate with the institution's operations.
- Failure to comply with the various limits set.
- No appropriate response if the limits are not met (for example, no written policy guidelines on how to deal with VaR excesses, no pre-determined steps to be taken if thresholds are crossed or warning signals sound).
- The market risk management and control area is not functionally or hierarchically independent of the business area.
- Development of risk measurement methodologies and risk control and reporting depends on the business area.
- The person ultimately responsible for compiling the daily treasury business income statement, based on the capture (and official certification) of closing market prices for each day, does not belong to the market risk management and control area.
- Traders' bonuses do not take into account the maturity period of their operations and the risks to date.
- No procedure manuals (VaR, methodology, usability test, market inputs...)

3.3.3 Stress tests and contingency plans

To assess their capacity to manage market risk in future adverse scenarios, institutions must conduct stress tests, to identify possible sources of market risk and analyse the consequences, and prepare contingency plans to combat these risks.

Points in favour:

- Realistic stress tests are conducted, taking into account the real causes of market risk that may affect the institution.
- Stress test results are conveyed to senior management and are used to adjust market risk policies and limits.
- Existence of realistic contingency plans, including the situations that trigger these plans, the bodies that will implement them and the steps to be taken.

4. Counterparty risk

4.1 Definition

The risk that any gains (positive fair value) made on the trading book will not be obtained due to counterparty default.

It is different from credit risk in that while the latter relates to possible losses on cash previously delivered or committed to the debtor, counterparty risk relates to possible losses on a collection right that is not easily quantifiable (potential gains on favourable market moves which in turn may impair the debtor's ability to pay).

This risk is particularly important in the case of credit derivatives (CDSs) and options, in light of the extent of the potential losses at the counterparty.

4.2 Inherent risk

Risk factors to be considered:

1. Counterparty credit quality.
2. Counterparty risk exposure.
3. Recognition of expected loss.

4.2.1 Counterparty credit quality

Points in favour:

- A high percentage of derivatives transactions are channelled through central counterparties (organised venues).
- Transactions are arranged with counterparties with high credit ratings.

Points against:

- A significant proportion of transactions are made on OTC markets, especially if there is no risk mitigation via netting agreements and collateral.
- Derivatives – especially the more complex kind – are arranged with retail customers.

4.2.2 Counterparty risk exposure

Conversely to the case of loans, in many derivatives the level of exposure in the event of default is unknown in advance. This means that it must be estimated, which is not always easy.

Points against:

- In the case of OTC markets, the valuation formula inputs used are not directly observable on the market.
- These products are valued using nonstandard programmes.

4.2.3 Recognition of expected loss

Given that the models usually employed value derivatives using risk-free interest rate curves, the counterparty credit risk must be included.

Points in favour:

- Credit value adjustment is made, taking account of the counterparty credit risk.
- Credit value adjustment is calculated using market credit spreads.

Points against:

- Credit value adjustment is calculated using the IRB systems' PD.

4.3 Management and control of counterparty risk

The following factors determine the quality of counterparty risk management and control:

1. Counterparty risk policy.
2. Organisation of the counterparty risk management and control function.
3. Stress tests and contingency plans.

4.3.1 Counterparty risk policy

Institutions must clearly establish their counterparty risk tolerance.

Points in favour:

- The Board of Directors periodically approves and reviews the strategies, policies and practices related to the management and control of counterparty risk.
- In the case of OTC derivatives, the extensive use of netting clauses and collateral with daily replenishment periods and narrow replenishment margins.
- The foreseeable future economic context is considered when the counterparty risk policy is established.
- Counterparty risk is included in the premiums demanded of new products.

Points against:

- No clear definition of counterparty risk tolerance.
- No clear definition and insufficient breakdown of limits.
- No limits on operations with certain counterparties owing to their high credit rating (for example, with AAA-rated counterparties).

4.3.2 Organisation of the management and control function.

The counterparty risk tolerance established by the Board of Directors must be implemented in practice in a structured manner, with sufficient human and material resources.

Points in favour:

- Clear delimitation of responsibilities between the business area and the counterparty risk management and control area.
- Human resources with the appropriate training and experience commensurate with the institution's operations.
- Limits set by department and unit and predetermination of steps to be taken if thresholds are crossed or warning signals sound.
- Annual review of counterparty risk by internal audit.

Points against:

- Lack of the necessary tools for appropriate management and control of counterparty risk commensurate with the institution's operations.
- Failure to comply with the counterparty risk limits set, or no appropriate response if the limits are not met.
- The counterparty risk management and control area is not functionally or hierarchically independent of the business area.
- Counterparty risk measurement methodologies and management and control of counterparty risk depend on the business area.
- Bonuses in treasury business areas take no account of counterparty risk.

4.3.3 Stress tests and contingency plans

To assess their capacity to manage counterparty risk in future adverse scenarios, institutions must conduct stress tests, to identify possible sources of risk and analyse the consequences, and prepare contingency plans to combat these risks.

Points in favour:

- Realistic stress tests are conducted, taking into account the real causes of counterparty risk that may affect the institution.
- Stress test results are used to adjust counterparty risk policies.
- Existence of realistic contingency plans, including the situations that trigger these plans, the bodies that will implement them and the steps to be taken.

5. Equity securities risk

5.1 Definition

The risk that financial holdings (shares) in other companies may decrease in value. It does not include the equity trading book risk, or impairment at companies in the consolidation group (fully consolidated or consolidated by the proportional method) or in the scope of consolidation by the equity method. That is, for these purposes, equity securities are listed or unlisted held-for-sale securities and equity-accounted non-financial holdings (that is, excluding banking and insurance).

5.2 Inherent risk

Risk factors to be considered:

1. Exposure to equity securities risk.
2. VaR.
3. Portfolio quality and diversification by company, sector and geographical area.
4. Financial autonomy and market discipline of the investee companies.

5.2.1 Exposure to equity securities risk

Exposure to equity securities risk will be assessed on the basis of the market value of the holdings, irrespective of their book value.

5.2.2 VaR

The VaR of an equity securities portfolio is the best measure of capital needed. A 3-month VaR will be used with a 99% level of confidence. In the case of holdings in unlisted companies, simulations will be made using the volatility of similar same-sector listed companies.

Practical valuation criteria:

- VaR ≤ [20%] signifies low risk.
- [20%] < VaR ≤ [30%] signifies medium-low risk.
- [30%] < VaR ≤ [40%] signifies medium-high risk.
- VaR > [40%] signifies high risk.

5.2.3 Portfolio quality and diversification by company, sector and geographical area

A diversified securities portfolio in well-managed quality companies offers less risk than a portfolio focused on troubled or badly managed companies.

Points in favour:

- Quality securities (high credit ratings).
- Well diversified portfolio by company, sector of economic activity and geographical area.
- Investee companies that pay recurrent dividends.

Points against:

- Poorly diversified equity securities portfolio [concentrated on fewer than 20 companies].
- Any single holding represents more than [5%] of the institution's equity.
- Total equity securities portfolio represents more than [40%] of the institution's equity.
- High sectoral concentration, especially where the institution has high credit concentration in the same sectors.

5.2.4 Financial autonomy and market discipline of investee companies

Financial autonomy and market discipline promote good corporate management.

Points in favour:

- A high proportion of holdings in listed companies.

Points against:

- The institution grants substantial funding to its investee companies, especially if it does so at below-market rates.
- High leverage at the investee companies.

5.3 Management and control of equity securities risk

Risk factors to be considered:

1. Equity securities risk policy.
2. Organisation of the equity securities risk management and control function.
3. Stress tests and contingency plans.

5.3.1 Equity securities risk policy

Institutions must clearly establish their equity securities risk tolerance, that is, their strategy and policy on investment in other companies.

Points in favour:

- The Board of Directors periodically reviews and approves the equity investment strategy and policy.
- Effective senior management involvement in the management and control of equity securities risk.
- The foreseeable future economic context is considered when the equity investment policy is established.

Points against:

- No clear definition of equity securities risk tolerance (no admissible VaR limits set).
- Insufficient or inappropriate representation of the institution at the investee companies, where the percentage holding justifies such representation.
- No written policy guidelines approved by the Board of Directors on the management and control of equity securities risk.
- The equity securities portfolio risk information provided periodically to the Board of Directors is poor quality, or is not provided sufficiently regularly.

5.3.2 Organisation of the equity securities risk management and control function

The equity securities risk policy established by the Board of Directors must be implemented in practice in a structured manner, with sufficient human and material resources.

Points in favour:

- Committees directly related to equity securities risk (investment committees), in which the various departments involved play a part.
- Human resources with appropriate training and experience to manage these investments.
- Limits on exposure by company, sector of economic activity and geographical area.

Points against:

- Lack of the necessary tools for appropriate management and control of equity securities risk commensurate with the institution's operations.
- Failure to comply with the limits established.
- No appropriate response if the limits are not met.
- Development of equity securities risk measurement methodologies and control and reporting of equity securities risk does not depend on the risk area.
- No procedure manuals (VaR, market inputs...).

5.3.3 Stress tests and contingency plans

To assess their capacity to manage equity securities risk in future adverse scenarios, institutions must conduct stress tests, to identify possible sources of risk and analyse the consequences, and prepare contingency plans to combat these risks

Points in favour:

- Stress tests take into account all equity positions and use historical or hypothetical worst-case scenarios.
- Preparation of a divestment plan for the case in which the risk assumed comes to be considered excessive.
- Stress tests are used to manage equity securities risk.

6 Operational risk

6.1 Definition

Operational risk is the risk of loss resulting from inadequate or failed internal processes, people and systems, or from external events, including legal risk.

When deemed necessary, the operational risk assessment will be broken down into the following risk categories (grouping together those of lesser significance for the institution, where appropriate): a) Internal fraud; b) External fraud; c) Industrial relations; d) Customers, products and business practices; e) Damage to physical assets; f) Business disruption and systems failures; g) Process execution, delivery and process management.

6.2 Inherent risk

Risk factors to be considered:

1. The institution's technology systems.
2. Compliance with the legal regulations and internal standards.

3. Other factors that might potentially lead to operational losses.
4. The volume and volatility of historical operational losses.

6.2.1 The institution's technology systems

The security of the institution's technology systems (information access security, processes, business continuity systems, etc.) is a key factor in operational risk.

Points in favour:

- An assessment by IT auditors yielding a low technology risk.
- Technology systems with good logical security.
- A high level of service from the IT systems (low % system downtime).

Points against:

- Out-of-date technology systems which are vulnerable or prone to failures and errors.
- Technology systems with insufficient installed capacity.

6.2.2 Compliance with the legal regulations and internal standards

The organisation's compliance with the legal regulations and internal standards limits possible operational risk losses.

Points in favour:

- Full compliance with the code of conduct by employees.

Points against:

- Systematic breach of legal or internal standards.

6.2.3 Other that might potentially lead to operational losses

Certain circumstances may increase potential operational risk losses, either permanently or in specific instances.

Points against:

- Major structural changes in the organisation (such as those arising from acquisitions, mergers, demergers, etc.)
- Outsourcing of key activities or processes.

6.2.4 Volume and volatility of historical operational losses

Operational losses must be matched to the institution's volume of business. Moreover, the possibility of future losses increases if the institution tends to suffer large losses periodically. That is, if historical losses for operational risk are very large or highly volatile, the risk is higher.

Points in favour:

- A track record of operational risk losses that is stable and consistent with the institution's business. To assess historical losses:
 - o The average losses over the last five [5] years will be compared with the institution's ordinary revenue.
 - o The volatility of loss events over the last five [5] years will be calculated.

Points against:

- Isolated significant operational risk loss events in the recent past [3 years].

6.3 Management and control of operational risk

Risk factors to be considered:

1. Operational risk policy.
2. Organisation of the operational-risk management and control function.
3. Business continuity plans.

6.3.1 Operational risk policy

Institutions must clearly establish their operational risk tolerance, that is, the level and volatility of operational risk losses they accept and their strategy to mitigate them.

Points in favour:

- Periodic review and approval by the Board of Directors of the strategies, policies and practices related to the management of operational risk.

Points against:

- Lack of a clear definition of operational-risk tolerance.

6.3.2 Organisation of the operational-risk management and control function

The operational risk tolerance established by the Board of Directors will be implemented in a structured way and assigned sufficient human and material resources.

Points in favour:

- Assignment of responsibility for management and control of this risk to a specific unit.
- That the new products committee assess their impact on the institution's operational risk.
- Annual internal audit review of compliance with internal standards on operational risk.
- The existence of effective systems and tools to prevent, localise and minimise the impacts of operational risk.
- The institution's rapid response to new operational risk loss events to mitigate their effects.

Points against:

- Lack of sufficiently detailed individualised records of significant operational risk loss events.
- The lack of annual quantification of total operational risk losses, with sufficient disaggregation by categories and amounts, in order to allow this risk to be analysed.
- Breach by staff of internal standards concerning operational risk.

6.3.3 Business continuity plans

In order to evaluate the institution's capacity to manage an important operational risk problem in the future, it is necessary to assess its business continuity plans.

Points in favour:

- The existence of regularly updated business continuity plans.
- That the plans are tested.
- That the situations in which they are triggered and the people who are to act are correctly defined.

7. Structural interest rate risk

7.1 Definition

Structural interest-rate risk refers to potential losses due to the impact of variations in interest rates on an institution's net interest income and/or total net asset value. Interest rate risk on the trading portfolio is excluded.

If the institution operates in different currencies, a weighted valuation will be used, based on the interest rate risk in each currency in which it has a significant position. This will take historical correlations between interest-rate movements into account.

7.2 Inherent risk

Risk factors to be considered:

1. The level and variability of economic value (EV) in the standard measurement (RP 51 statement).
2. The volatility of the net interest income (NII) in the standard measurement (RP 51 statement).
3. The effect of optionality of sensitive assets and liabilities in the EV and NII.

4. The measurements provided by the internal models.

7.2.1 The level and variability of economic value (EV) in the standard measurement (RP 51 statement)

If an institution's EV is large relative to its net book equity and its variation due to adverse movements in interest rates is small, its interest rate risk will consequently be small. However, the absolute value of EV must be treated with caution as the estimate depends on the criteria used to calculate it. In particular, the criteria followed to prepare the RP 51 statement over-estimate EV to the point that in some institutions the figure obtained may be completely distorted⁷.

Valuation criteria:

- The loss of EV will be calculated based on the adverse impact divided by the eligible capital ($\Delta EV/EC$), and the inherent risk will be determined as per the table below:

Loss of EV: / Eligible capital			
Less than 4%	Between 4% and 8%	Between 8% and 16%	Over 16%
Low	Medium-low	Medium-high	High

- Alternatively, if it is considered that the economic value is calculated according to the currently established criteria for the preparation of the RP 51 statement, and the resulting figure is credible (i.e. not abnormally high or low):
 - o The following will be considered together: a) The ratio of the EV after the adverse impact to the minimum equity required by Pillar 1 (FEV/RP1); b) The loss of EV deriving from the adverse impact divided by the eligible capital ($\Delta EV/EC$). The inherent risk will be determined from the two ratios, as per the following table:

EV after impact / Equity required by Pillar 1	Loss of EV: / Eligible capital			
	Less than 4%	Between 4% and 8%	Between 8% and 16%	Over 16%
Over [300 %]	Low	Low	Low	Medium-low Medium-high
Between [200%] and [300%]	Low	Low	Medium-low	Medium-high
Between [150%] and [200%]	Low	Medium-low	Medium-high	High
Less than [150%]	Medium-low Medium-high	Medium-high	High	High

- o Nevertheless, the risk will be considered medium-high or high:
 - If $\Delta EV/EC \leq 4\%$, but $FEV/RP1 \leq 115\%$.
 - If $FEV/RP1 > 300\%$, but $\Delta EV/EC > 20\%$.
- And, in any case where $\Delta EV/EC$ (pre-impact) $> 16\%$.

⁷ An important issue is whether or not the risk premium on operations is considered, as the EV may differ radically depending on whether the risk premium is taken into account or not.

7.2.2 The volatility of the net interest income (NII) in the standard measurement (RP 51 statement).

The greater the variation in an institution's NII as a result of adverse movements in interest rates, the higher its interest rate risk.

Valuation criteria:

- Except for institutions whose business is such that their net interest income has a minor impact on pre-tax profits:
 - A drop in NII of more than [30%] implies medium-high or high inherent risk.
 - A drop in NII of more than [20%] implies a medium-low inherent risk (or higher).

7.2.3 The effect on EV and NII of the optionality of sensitive assets and liabilities.

Many loans and deposits include an implicit option that may increase or decrease the volatility of EV and NII. If these options are significant their effect must be assessed.

To be analysed:

- The importance of implicit options such as caps and floors in variable interest rate transactions or the possibility of early amortisation in the case of fixed-rate transactions.
- The importance of explicit options to manage this implicit optionality.

Points against:

- Any significant implicit optionality that increases the volatility of the EV or the NII.
- The complexity of the implicit or explicit options.

7.2.4 The measurements provided by the internal models

The valuation mentioned in the paragraphs above is based on the standard impact established by the BE for preparation of the RP 51 statement. However, this evaluation may be insufficient, as its conclusions are based on the assumption of parallel interest rate curve movement, which has limitations. Consequently, a more precise analysis of the structural interest risk requires an evaluation of the institution's internal model, if it has one⁸.

Points in favour:

- The availability of versatile (envisaging basis, yield-curve and optionality risk, etc.) and high quality internal models (allowing alternative measures, such as gaps, durations, etc.)

Points against:

- The non-existence of internal measurement models, if the interest-rate risk is significant.
- The fact that variations in the balance-sheet aggregates and interest rates established in the institution's budget are not used as inputs to the model.
- That the model's results reveal potentially significant impacts on EV or NII.

7.3 Management and control of structural interest rate risk

Risk factors to be considered:

1. Interest-rate risk policy.
2. Organisation of the interest-rate risk management and control function
3. Stress tests and contingency plans.

7.3.1 Interest-rate risk policy

Institutions must clearly establish their structural interest-rate risk tolerance.

Points in favour:

- Periodic review and approval by the Board of Directors of the strategies, policies and practices involved in the management and control of interest-rate risk.

⁸ The principle of proportionality (size and complexity of each organisation) takes on particular significance on this point.

- Effective senior management involvement in the management and control of interest-rate risk.
- That the foreseeable future economic context is taken into account when establishing the interest-rate risk policy.

Points against:

- Lack of a clear definition of interest-rate risk tolerance.
- Lack of an interest-rate risk management and control policies in writing and approved by the Board of Directors.
- The information on interest-rate risk periodically forwarded to senior management is of poor quality or supplied with insufficient regularity.

7.3.2 Organisation of the interest-rate risk management and control function

The interest-rate risk tolerance established by the Board of Directors must be implemented in a structured way and assigned sufficient human and material resources.

Points in favour:

- The existence of committees directly concerned with interest-rate risk, in which the various departments involved in the management and control of this risk (ALCO) are involved.
- Annual internal audit review of interest rate risk.

Points against:

- Lack of the necessary tools for proper management and control of interest-rate risk.
- That the interest-rate risk management and control area is not functionally and hierarchically independent from the business area.
- That the development of interest-rate risk measurement, control and management techniques depends on the business area.

7.3.3 Stress tests and contingency plans

To assess the capacity to manage interest-rate risk in future adverse environments it is necessary that institutions conduct stress tests that identify possible sources of risk and analyse their consequences. They must also draw up contingency plans to address these consequences.

Points in favour:

- The realistic stress tests which consider the causes of interest-rate risk that will actually affect the institution are conducted periodically.
- Use of the stress test results to adjust interest-rate risk policy.
- The existence of realistic contingency plans, which include situations in which they are triggered, the bodies that are to act and the actions to be taken.

8. Structural exchange rate risk

8.1 Definition

Structural exchange-rate risk is the possibility of suffering losses from net structural positions in foreign currencies. In other words, it is the risk arising due to foreign currency positions in the form of long-term financial holdings. Where necessary, this risk will be disaggregated by currencies for evaluation.

8.2 Inherent risk

Risk factors to be considered:

1. The structural position in foreign currencies.
2. The impact of changes in the exchange rate on the group's economic value and capital ratio.
3. The economic and regulatory capital requirements.

8.2.1 Structural position in foreign currencies

The permanent structural position in each currency is the underlying book value (UBV) of the subsidiaries operating in this currency, net of effective exchange rate hedges and long term lending from the parent in the foreign currency.

Points in favour:

- That the value of the structural position in each currency is stable.
- That the structural position is diversified across relatively uncorrelated currencies.
- That the currencies in which there is an open position are not excessively volatile and allow the risk to be managed.

Points against:

- Very large structural positions or positions in relatively unstable currencies.

8.2.2 Impact of changes in the exchange rate on the group's economic value and capital ratio

Swings in the exchange rate of currencies in which subsidiaries operate have an impact on the group's reserves (which are reflected on the exchange-rate differences account) and affect its economic value. For example, if there is a devaluation of a given currency with respect to the euro, the value of a banking group with a subsidiary operating in this currency will drop.

The impact of variations in the exchange rate on the group's capital adequacy ratio has two components:

- In the numerator —if there are variations of the type described in reserves.
- In the denominator —the RWAs move in the same direction, which mitigates the impact on the capital ratio.

Since 2005 goodwill has been recognised in the currency of the subsidiary. This means that variations in the exchange rate have an impact on the economic value but not on the capital ratio (goodwill is entirely deducted from equity).

Points in favour:

- That overall exchange rate differences in the UBV of subsidiaries operating in foreign currencies are matched by their hedges and by the variation in risk-weighted assets, limiting the negative impacts on the group's economic value and its capital adequacy ratio.

Points against:

- Wide variability in exchange rate differences results in uncontrolled movements in reserves or the capital ratio.

8.2.3 Economic and regulatory capital requirements

The economic capital needed as a result of exchange rate risk is calculated based on the structural position in each currency, using various methodologies.

The regulatory capital is obtained by applying Chapter 6 of C3/2008, which is shown on the RP 35 statement (which includes all FX positions, whether trading or structural, except trading positions that require capital on internal models).

Points in favour:

- Stability of the value of economic capital and the regulatory capital made necessary by structural exchange rate risk.

Points against:

- Drastic variations in economic or regulatory capital requirements.

8.3 Management and control of structural exchange rate risk

Risk factors to be considered:

1. The structural exchange-rate policy.
2. Organisation of the structural exchange-rate risk management and control function
3. Analysis of the sensitivity of the group's reserves and capital ratio to impacts.

8.3.1 Exchange-rate policy

Institutions must clearly establish their tolerance to structural exchange-rate risk, specifying the coverage of economic value, stability of the capital adequacy ratio vis-à-vis fluctuations in the exchange rate and the acceptable levels of tolerance of both these magnitudes.

Points in favour:

- Periodic review and approval by the Board of Directors of the strategies, policies, practices and limits concerning the management and control of interest-rate risk.

Points against:

- Lack of a clear and detailed definition of the exchange rate policy and its objectives, formally approved by the Board of Directors.
- Lack of periodic information to senior management about how this risk is evolving.

8.3.2 Organisation of the structural exchange-rate risk management and control function

The structural exchange-rate risk policy established by the Board of Directors must be implemented in a structured way and have sufficient human and material resources assigned to it.

Points in favour:

- That the risk area has appropriate staff and tools to allow regular monitoring of developments regarding foreign exchange positions and their hedges and to monitor compliance with the risk limits set.
- That the relevant corrective action is taken if the set limits are exceeded.
- That there is adequate monitoring of the structural position and that it is reflected on the accounts correctly.

Points against:

- That the exchange-rate risk management and control area is not functionally and hierarchically independent from the business/financial management area.
- That the development of exchange-rate risk measurement, control and management techniques depends on the business/financial management area.

8.3.3 Analysis of the sensitivity of the group's reserves and capital ratio to impacts

To evaluate the capacity to manage the exchange-rate risk in adverse environments, institutions must analyse the impact of exchange-rate variations on the group's reserves and capital ratio, using simple hypotheses (e.g. a 10% depreciation in the main currencies), models (e.g. VaR, historical simulations with replacement) and various stress scenarios (e.g. historical or hypothetical –stressed standard deviations, sudden shocks, or worst case).

Points in favour:

- That losses are calculated for various different historical and hypothetical scenarios.
- That the models used have an adequate historical basis and have been validated.
- That calculations are carried out at least monthly and the results are forwarded to the Board of Directors.
- That the results of these tests are used to adjust exchange-rate risk policy.
- The existence of realistic contingency plans that distinguish between different types of crisis and include situations in which they are triggered, the bodies that are to act, the actions to be taken, and the communication plan.

Points against:

- Marked instabilities in the output from the models, unless explained by large changes in volatility captured during the observation period or abrupt changes in the permanent position.
- That the stressed losses are not subject to limits, such that they are mere theoretical exercises with no impact on risk management.

9. Liquidity risk

9.1 Definition

Liquidity risk is the possibility of incurring losses due to a lack of cash or liquid assets with which to meet payment obligations on time and in the appropriate manner, at reasonable cost, and without harming the institution's reputation.

When an institution has significant positions (exceeding 5% of the balance-sheet) in currencies other than the euro, the liquidity risk of each will be assessed. The final valuation will weight the importance of each currency, paying particular attention to the dollar⁹.

9.2 Inherent risk

Risk factors to be considered:

1. Structural liquidity
2. Operational liquidity
3. Liquidity alerts
4. Liquidity coverage ratio (LCR) and net stable funding ratio (NSFR)

9.2.1 Structural liquidity

An appropriate financing structure in relation to the composition of the institution's assets will ensure its good future liquidity.

To be analysed:

- The ratio between lending and funding obtained from customers (LTD ratio)¹⁰, which measures the structural dependence on wholesale markets.
- The net stable funding ratio (as per the Banco de España's definition)¹¹, which measures whether long-term assets are sufficiently covered by stable funding.
- Diversification of wholesale funding sources by maturities (reasonable distribution of maturities over the medium and long term), instruments (share of funding with and without collateral), markets and counterparties. Greater concentration implies greater long-term liquidity risk.

Valuation criteria:

- Greater dependence on wholesale markets implies higher liquidity risk. The following risk levels should be used for guidance:
 - Low risk: [LTD ≤ 110%]
 - Medium-low risk: [110% < LTD ≤ 125%]
 - Medium-high risk: [125% < LTD ≤ 140%]
 - High risk: [LTD > 140%]
- The stable funding ratio is also indicative of the structural equilibrium of the balance sheet, to some extent offsetting a high LTV ratio:
 - Equilibrium exists if the ratio is between 95% and 105%.
 - A ratio of less than 95% is a sign of high long-term liquidity risk.
 - Ratios above 105%, even though they imply a lower long-term risk, may be indicative of inefficient liquidity management.

Points in favour:

- A high proportion of stable retail deposits, i.e. deposits covered by the Deposit Guarantee Fund (FGD) and also corresponding to linked customers or transactional accounts.

⁹ When assessing liquidity risk in foreign currencies the following factors in particular will be taken into account: 1) to evaluate the inherent risk, the net wholesale funding in the short-term bands, the LCR ratio and the use of currency swaps; 2) to evaluate management and control, that institutions have clearly established their level of liquidity-risk tolerance in each currency, and that contingency plans exist that consider the possibility of foreign-currency financial markets being closed.

¹⁰ Loans to deposits. The wholesale funding ratio established in RD 2/2011 is a similar way of looking at this ratio.

¹¹ Note that this ratio is not the same as the Basel NSFR.

Points against:

- That the commercial gap (excess of credit investment over customer deposits) is funded from short-term wholesale funding.

9.2.2. Operational liquidity

A comfortable liquidity situation over a time horizon of less than a year will ensure a reasonable cost of funding and is a sign of good financial management.

To be analysed:

- The extent to which liquid assets exceed net liquid outflows in the short term. This will be measured based on:
 - Liquidity surplus/deficit over various time horizons (a week, month, quarter), calculated as the difference between available liquid assets and net outflows of wholesale finance. The liquid assets to consider will vary depending on the time horizon. For the very short term, only immediately realisable assets will be considered, expanding the concept for longer horizons. The existence of a liquidity deficit for one or more of the three periods considered or the systematic reduction in excess liquidity will be an indicator of high level of risk.
 - Survival period, calculated as the number of days the institution can meet net outflows of wholesale funding with its available liquid assets.
- Diversification of liquid assets. A highly concentrated portfolio (in terms of instruments, issuers, etc.), may make it difficult for the institution to obtain liquidity in a crisis without incurring losses.
- Diversification of the sources of short-term wholesale funding, by instruments, markets and counterparties.
- The existence of assets on the balance sheet that can be used as collateral to obtain finance from the ECB.
- Other sources of liquidity:
 - Available balances with other credit institutions.
 - Ability to issue covered or regional bonds.
 - Strategic shareholdings.

9.2.3 Liquidity alerts

Certain events are signs that the institution is facing or is about to face short-term liquidity problems.

To be analysed:

- The difference between the institution's cost of new funding, whether wholesale or retail, and that of the system as a whole. The institution's paying higher interest rates than the system average will be considered an indicator of liquidity risk, as will any increase in this spread.
- The substitution of unsecured borrowing by secured borrowing. Increased dependence on financing from central banks¹².
- Changes in the institution's rating.
- CDS prices, if any.
- The price of the institution's bonds on the secondary market.
- Massive deposit withdrawals.
- Analysts reports and news in the press.

9.2.4 Regulatory ratios. Liquidity coverage ratio (LCR) and net stable funding ratio (NSFR)

The LCR analyses the short-term resistance (30 calendar days) in an environment of severe liquidity stress. The NSFR enables a view of the ability to resist for a year.

Failure to meet the required levels of either of these two ratios will be a point against.

¹² This dependency may be evaluated using the ECB/reserve requirements and ECB/total assets ratios.

9.3 Management and control of liquidity risk

Risk factors to be considered:

1. Liquidity policy.
2. Organisation of the liquidity risk management and control function.
3. Stress tests and contingency plans.

9.3.1 Liquidity policy

Institutions are to clearly establish their tolerance to liquidity risk, determining for this purpose their funding/lending structure and buffer of liquid assets.

Points in favour:

- Consideration of the foreseeable future economic context when the liquidity risk policy is established.
- Use of liquidity windows to achieve an advantageous funding/lending structure.
- Pricing of products according to the liquidity needs they entail.
- Periodic review and approval by the Board of Directors of the strategies, policies and practices related to liquidity management.

Points against:

- Absence of a liquidity policy formally approved by the Board of Directors.
- Lack of a definition of the target lending/funding structure.
- The absence of limits on funding obtained from specific counterparties, products or markets.

9.3.2 Organisation of the liquidity management and control function.

The liquidity policy established by the Board of Directors must be implemented in a structured way and have sufficient human and material resources assigned to it.

Points in favour:

- The existence of an Assets and Liabilities Committee (ALCO) present in all the areas concerned, which meets regularly and has sufficient powers vested in it.
- Separation of the planning function (liquidity policy) from that of liquidity management and control.
- Clear delimitation of responsibilities between the liquidity management and control area and other business areas.
- The availability of human resources with an appropriate level of training and experience.
- Advance definition of the actions to take when limits are exceeded or alert signals arise.
- Annual internal audit review of liquidity risk.

Points against:

- The lack of the necessary tools for appropriate liquidity management and control (liquidity ratio, maturity ladder, concentration analysis, limits, etc.)
- That the measurement of this risk does not take into account its possible sources, in particular, contingent liquidity risk.
- Non-compliance with limits or objectives set in the liquidity policy.
- Lack of adequate information given to senior management.

9.3.3 Stress tests and contingency plans

To assess the capacity to manage liquidity in future adverse environments institutions need to conduct stress tests that identify possible sources of liquidity constraints, analyse their consequences and draw up contingency plans to overcome them.

Points in favour:

- Use of realistic stress scenarios (idiosyncrasies, systemic stress and a combination of the two), which consider sources of stress that will actually affect the institution (e.g. non-renewal of wholesale funding, loss of retail deposits, drop in the value of liquid assets, deterioration of market financing conditions, contingent liquidity outflows, etc.)
- The use of the results of these scenarios to adjust liquidity policy.

- The existence of realistic contingency plans, distinguishing between different types of crisis and which include the situation that trigger them, the bodies that are to act, the actions to take, and the communication plan.

10. Reputational risk

10.1 Definition

Reputational risk is the risk deriving from events that may cause a loss of confidence in the institution by clients, investors, supervisors or the market in general, relating to their business practices and relationships, which may undermine trust in the institution's honesty and thereby affect its solvency¹³.

10.2 Inherent risk

Risk factors to be considered:

1. Commercialisation of complex financial products.
2. Activities relating to money laundering.
3. Customer transparency regarding banking operations.

10.2.1 Commercialisation of complex financial products

Institutions commercialise certain products that entail a high level of risk and most customers find difficult to understand (structured products, derivative instruments, high-risk investment funds, etc.).

Points in favour:

- That the products are correctly catalogued and sold to customers with an appropriate profile to understand them.
- The setting of maximum exposure limits per product and per customer.
- That the brochures and contracts give accurate and clear information about the characteristics of these products.

Points against:

- The lack of training plans on these products for the branch network.
- Noncompliance with MIFID rules.

10.2.2 Activities relating to money laundering

Institutions are obliged to inform SEBPLAC about potentially suspicious customer transactions.

Points in favour:

- A policy of admission and effective KYC (know your customer) procedures.
- Adequate detection and notification of suspicious transactions to SEBPLAC.

Points against:

- Existence of branches or subsidiaries in tax havens or jurisdictions vulnerable to money laundering.

10.2.3 Customer transparency concerning banking transactions

A lack of transparency with customers may be a significant cause of institutions' loss of reputation.

Points against:

- That the institution has a track record of large numbers of complaints lodged with the Banco de España's complaints service.
- That the institution has a track record of receiving large numbers of legal claims.

¹³ One feature that differentiates reputational risk from other risks is that to a large extent it represents a risk of loss of earnings.

10.3 Management and control of reputational risk

Risk factors to be considered:

1. Reputation policy.
2. Organisation of the reputational risk management and control function.
3. Contingency plans.

10.3.1 Reputation policy

Institutions should clearly define their tolerance to reputational risk.

Points in favour:

- Periodic review and approval by the Board of Directors of the strategies, policies and practices relating to the management and control of reputational risk.
- Effective senior management involvement in the management and control of reputational risk.

Points against:

- Lack of reputational risk management and control policies in writing and approved by the Board of Directors.
- Deficiencies in the information on reputational risk provided periodically to the Board of Directors.

10.3.2 Organisation of the reputational risk management and control function.

The reputational risk tolerance established by the Board of Directors must be implemented in a structured way and have sufficient human and material resources assigned to it.

Points in favour:

- The existence of committees directly related to reputational risk, in which the departments involved in its management and control participate.
- That the new products committee evaluates the potential reputational risk they imply.
- Annual internal audit reviews of reputational risk.

Points against:

- Lack of a systematic response by the institution to third-party claims.

10.3.3 Contingency plans

In order to evaluate the institution's capacity to manage a significant future reputational risk problem, it is necessary to assess its contingency plans.

Points in favour:

- The existence of realistic contingency plans, which include the situations in which they are triggered, the bodies that are to act, and the actions to be taken.

11. Business risk

11.1 Definition

Business risk is the risk of incurring losses as a result of strategic decisions (inefficient product design, inappropriate objectives), or the occurrence of external factors (pressure from the competitive or regulatory environment), which harm the normal development of the business and negatively affect the institution's capacity to achieve its objectives, and as a result, negatively affect its earnings (profit and loss account), and thus its solvency.

11.2 Inherent risk

Risk factors to be considered:

1. The business model.
2. Diversification of activities and income.
3. Quantitative indicators of business quality
 - a) Returns on capital and assets
 - b) Market share

- c) Recurrence and adequacy of margins.
- 4. The institution's position in comparison to its group of competitors.

11.2.1 Business model

Points in favour:

- The medium-term sustainability of the business model.
- The existence of competitive advantages.
- Diversification of income in independent, profitable and sustainable business segments.
- Strong historical customer loyalty based on the brand name.

Points against:

- A size that is not matched to the institution's business.
- Use of an obsolete technology platform that limits the institution's scope for future development.

11.2.2 Diversification of activities and income

Diversification will be evaluated by:

- Geographical areas.
- Business lines.
- Products.
- Customers.

Points in favour:

- An income statement made up of independent and relatively uncorrelated business lines.

Points against:

- Significant concentration in particular businesses, products or customers.

11.2.3 Indicators of business strength

The return on equity and on assets are indicators of the quality of the business. Banking operations must ensure sufficient recurrent margins for the business to be sustainable.

The value and progression of the following ratios will be assessed:

- Return on equity (RoE) and on assets (RoA).
- Market share and investment and deposit rankings.
- Interest income (brokerage margin + fees).
- Gross, net and operating income.
- Efficiency ratio (operating expenses divided by gross income).
- Attributable profit.

Points in favour:

- That interest income is stable and sustainable over time.
- That gross income covers operating costs, the risk premium on loans, and the cost of capital.
- The use of risk-adjusted return systems (e.g. RAROC systems) that assign profitability to customers, products and business lines efficiently.
- That the institution has an appropriate efficiency ratio. Over [70%] is a sign of high risk, between [70%] and [55%] indicates medium-high risk, between [55%] and [40%] indicates medium-low risk, and below [40%] it indicates low risk.
- Recurrence of attributable profit.

Points against:

- Insufficient return on equity (RoE) or on assets (RoA).
- Volatility of gross income, depending to a high degree on the results of financial operations (trading portfolio).
- That the net operating income is insufficient to cover asset impairment losses.
- An insufficient market share, in terms of loans and deposits, to carry on the institution's proposed business.

11.2.5 The institution's position in comparison to its group of competitors

A key part of assessing the quality of an institution's business is comparing it with that of its competitors. To do so, the ratios in the previous section will be assessed in relation to those of an appropriate comparison group.

Points in favour:

- A sounder or more diversified business model than that of its competitors.

Points against:

- Earnings on capital that are below those of the comparison group.
- Return on assets below that of its competitors.
- Income that is less stable than that of its competitors.

11.3 Management and control of business risk

The risk factors to be considered are

1. The strategic business plan.
2. The budget.
3. Stress tests and impact studies.

11.3.1 The strategic business plan

Points in favour:

- A realistic strategic plan that takes account of the present environment and its foreseeable development.

Points against:

- An unrealistic strategic plan or one that puts growth before income sustainability, liquidity or solvency.

11.3.2 The budget

The budget must implement the targets set by the strategic plan in a consistent way.

Points in favour:

- A medium-term budget (three years).
- Appropriate control and monitoring of compliance with the budget.
- High quality management information, covering all aspects of how the business is progressing.

Points against:

- A budget that is inconsistent with the strategic plan.
- Systematic non-compliance with the budget.

11.3.3 Stress tests and impact studies

In order to evaluate their ability to withstand future adverse business environments institutions need to perform a macro stress tests. These tests must be sufficiently demanding to enable possible causes of business deterioration to be correctly identified, their consequences analysed, and contingency plans to overcome them drawn up.

Points in favour:

- A robust macro stress test, formalised each year in the IAC and consistent with the strategic business plan.

Points against:

- A macro stress test that is insufficiently strict, particularly at times of strong economic growth.

12. Other risks

Other risks will be assessed, insofar as they are significant (pensions, insurance, etc.).

13. Weighted aggregate of risks and controls. Institution's risk profile

To make an aggregate assessment of the risks and controls, each will be weighted according to its relative importance. For example, it may be the case that a given institution has a high level of equity-security risk, which, however, has a limited impact on the weighted aggregate risk as the equity portfolio is small.

The last column of the risk matrix will show the weight assigned to each risk, as shown in the example in the table below.

Risks will be classed either numerically or in words (1: low; 2: medium-low; 3: medium-high; 4: high).

INSTITUTION:		RISK MATRIX				
Risk	Inherent risk	Internal governance	Management and control of risk	Residual risk	Trend	Weighting
Credit	Medium low	Good	Acceptable	Low	Stable	55%
Market	Low		Inadequate	Medium low	Stable	5%
Counterparty	High		Acceptable	Medium high	Decreasing	0%
Equity securities	Medium high		Room for improvement	High	Growing	0%
Operational	Medium low		Good	Low	Stable	5%
Structural interest rate	Low		Acceptable	Medium low	Decreasing	5%
Structural exchange rate	Low		Inadequate	Medium high	Growing	0%
Liquidity	High		Acceptable	High	Stable	10%
Reputation	Medium high		Room for improvement	Low	Decreasing	5%
Business	Medium low		Good	Medium high	Stable	15%
Other risks						
Weighted aggregate of risks and controls	Medium low		Acceptable		Medium low	Stable
External governance		Acceptable			Stable	
Institution's risk profile		Medium low			Stable	
Equity assessment		Acceptable			Decreasing	
Supervisory risk profile		Medium low			Growing	
Systemic institution					Yes	
Priority for inspection					2	

The following criteria will be applied when weighting the various risks and controls:

- Liquidity risk and business risk will each be weighted by at least 10%.
- Operating, reputational and structural interest rate risks will each be weighted by at least 5%.
- Weightings that are multiples of 5% will be used.
- Pillar 1 risks will be weighted against one another according to their capital requirements.
- When [25%] of the weighted risk exceeds a given threshold, the aggregate rating cannot be more favourable.
- Notwithstanding the foregoing, if the institution uses an economic capital model, the capital requirements of the model may be applied.

Once the weighted risk aggregate has been determined, the institution's risk profile will be rated in the same way as the residual risk, unless the external governance assessment makes a worse rating advisable.

14. Equity capital and supervisory risk profile

Institutions' equity capital will be rated on the following scale: sound, acceptable, tight, and weak.

The factors to consider are:

1. Capital level (excess over minimum requirements).
2. Capital quality.
3. Distribution of capital within the group.

4. Comparison with other institutions.
5. Capital management.

14.1 Capital level (excess over minimum requirements)

To assess the level of equity, the surplus of core capital —Basel III common equity Tier 1 (for a transitional period, core capital)¹⁴— over the legal minimum¹⁵ will be considered, pursuant to the regulations in Spain in force at the time. For reference the following table will be applied:

- A surplus of [20%] indicates sound equity.
- A surplus of between [20% and 10%] indicates acceptable equity.
- A surplus of between [10% and 5%] indicates tight equity.
- A surplus of less than [5%] indicates weak equity.

Compliance with the capital buffer established at the time by the EBA will be a point in favour. Adequate leeway in the fulfilment of the remainder of the regulatory ratios (Tier 1 and total equity ratio) will also be a point in favour.

14.2 Capital quality

Prudent accounting policies facilitate maintenance of capital in crisis situations. Moreover, certain core capital instruments (for example, credit unions' capital contributions) may have limited capacity to absorb losses when institutions face difficulties, due to the high reputational risk that suspending remuneration on them would entail.

Points in favour:

- The existence of latent capital gains that can be used at times of crisis.
- A prudent policy of provisions and asset write-downs, ensuring the sustainability of capital under adverse circumstances.

Points against:

- The existence of core capital instruments with limited capacity to absorb operational losses.

14.3 Distribution of capital within the group

In a banking group the capital must be distributed between the parent and the subsidiaries in a balanced way, depending on where the risks lie. This issue is particularly important in the case of international banking groups.

Points in favour:

- Proportionality between the level of risk in each component of the group (including the parent) and its level of equity.

Points against:

- The fact that surplus equity is held by branches, particularly if the possibility of transferring this equity to other parts of the group, if necessary, could be problematic.

14.4 Comparison with similar institutions

To assess their equity, institutions should compare themselves with their peers at national or international level, as appropriate.

Points in favour:

- A core capital ratio higher than that of the comparison group.
- A lower leverage ratio than institutions with a similar risk profile.

14.5 Capital management

Capital management refers to the capital policy and plan.

¹⁴ The valuation of the Basel III common equity Tier 1 ratio will be replaced by that of core capital until 31/12/2012.

¹⁵ For these purposes the regulatory ratios do not include capital requirements for pillar 2 risks.

Points in favour:

- The existence of a unit specifically responsible for managing capital.
- A realistic and prudent capital plan, which addresses the needs deriving from compliance with Basel III proactively.
- The institution's capacity to raise capital in a crisis.

Points against:

- That the strategic business plan, including corporate operations, does not consider the capital necessary realistically.
- That the subsequent reality systematically fails to match the annual capital budget.
- That subsidiaries' dividend policy is decapitalising the parent and does not ensure maintenance of individual solvency.
- A recurrent pay-out policy of over 50%.

14.6 Supervisory risk profile

To determine the supervisory risk profile, the risk profile of the institution and the assessment of its equity will be considered, applying the following table:

SUPERVISORY RISK PROFILE	SOUND EQUITY	ACCEPTABLE EQUITY	TIGHT EQUITY	WEAK EQUITY
LOW RISK PROFILE	LOW	LOW	MEDIUM-LOW	MEDIUM-HIGH
MEDIUM-LOW RISK PROFILE	LOW	MEDIUM-LOW	MEDIUM-HIGH	HIGH
MEDIUM-HIGH RISK PROFILE	MEDIUM-LOW	MEDIUM-HIGH	MEDIUM-HIGH	HIGH
HIGH RISK PROFILE	MEDIUM-HIGH	HIGH	HIGH	HIGH

In any event, the supervisory risk profile will be considered high when the institution's capital buffer does not exceed the minimum set by the Banco de España in accordance with its risk profile.

Also, the supervisory risk will increase as the time elapsed since the last inspection gets longer. Therefore, in the case of institutions not included in the on-going in-situ inspection system, when more than three months have elapsed since the last general in-situ inspection, the supervisory risk profile will remain at least medium-high. If this period reaches five years, the supervisory risk will be classed as high¹⁶.

15. Systemic nature and priority for inspection

15.1 Systemic nature

The systemic nature of an institution refers to the risk of interdependencies. That is, an institution will be considered more systemic if its collapse is more likely to cause a domino effect that destabilises the Spanish financial system as a whole.

Institutions will be classed in five categories: globally systemic, nationally systemic, regionally systemic, and non-systemic.

The factors to consider are:

1. Size
2. Interconnection
3. Non-substitutable activity
4. Complexity

¹⁶ However, these periods can be extended if the institution's size and operations do not justify dedicating these supervisory resources.

To measure each factor the ratio between the value for the institution and the set of Spanish deposit-taking institutions of the following parameters will be calculated:

- Size: total assets (business in Spain).
- Interconnection: assets plus liabilities with the rest of the Spanish financial system.
- Non-substitutable activity: assets held, participation in payment clearing systems, participation in bond and equity issuance underwriting agreements (weighted average, business in Spain).
- Complexity: trading portfolio valued by models (level 3), and notional value of OTC derivatives (weighted average, business in Spain).

Each of the four factors above will be weighted by 25%. Once the above ratio has been calculated, the following rules will be applied¹⁷:

- Institutions obtaining a weighted ratio higher than [10%] will be considered national SIFIs.
- Those national SIFIs in which international activity (measured by ATA) implies more than [30%] of total business will be considered global SIFIs.
- Institutions that are not national SIFIs but obtain a weighted ratio higher than [10%] in their region will be considered regional SIFIs.

15.2 Priority for inspection

The priority for inspection will be maximum, high, normal and low. The following rules will be applied in order to assess priority for inspection:

- Global SIFIs will have maximum priority.
- National SIFIs will have at least high priority.
- Regional SIFIs will have at least normal priority.
- Institutions with a high risk profile will have at least high priority.
- Institutions with a high supervisory risk profile will have maximum priority.
- Institutions with a medium-high supervisory risk profile will have high priority.

¹⁷ The Off-site Analysis Division will perform these calculations and determine the systemic category of each institution.