Rating Methodology

Banks and Building Societies

GBB-Rating Gesellschaft für Bonitätsbeurteilung mbH, Cologne

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Contents

1. Introduction

GBB-Rating Gesellschaft für Bonitätsbeurteilung mbH (hereinafter **GBB-Rating**) forms its opinion on the sustainability of the companies it assesses systematically and with due professional care.

A credit rating grades a company according to certain criteria. To some extent a rating is based on uncertain future events and forecasts, and therefore relies on estimates. It does not establish facts or constitute a recommendation, but expresses an opinion. In particular, ratings produced by GBB-Rating are not recommendations to purchase, sell or hold on to financial instruments.

The rating methodology applied by GBB-Rating essentially seeks to assess a company's future ability to meet its financial obligations fully and timely. The analyses performed by GBB-Rating focus on establishing this ability. It adopts a holistic approach giving consideration to all available information that is deemed relevant. GBB-Rating arrives at its conclusions on the basis of a rating methodology that brings together quantitative and qualitative criteria.

GBB-Rating is a rating agency with special expertise in the financial services sector. It was founded in Cologne, Germany, in 1996 for its present purpose, namely to assess the credit rating of companies – primarily those that engage in the financial services segment. Apart from rating financial institutions, building societies and leasing companies, GBB-Rating also undertakes ratings for small and medium-sized enterprises (SMEs) in other sectors.

When applying its rating methodology and conducting the rating process to produce solicited and unsolicited credit ratings, GBB-Rating pays due regard to the Code of Conduct Fundamentals for Credit Rating Agencies of the International Organization of Securities Commissions (IOSCO).

Pursuant to Regulation (EC) No. 1060/2009 of the European Parliament and of the Council, GBB-Rating was registered with the European Securities and Markets Authority (ESMA) in Paris on 28 July, 2011 and has since been subject to the European supervisory regime for rating agencies.

The rating methodology, the code of conduct and the policy on performing and issuing unsolicited credit ratings are available on the website of GBB-Rating (www.GBB-Rating.eu).

2. Rating process

The purpose of the rating process is to produce an appropriate and reliable credit assessment by applying consistent methodology. This entails an approach that seeks to ensure objectivity, quality, impartiality, independence and confidentiality.

The rating procedure focuses on analyzing and consolidating the success and risk factors relating to the business model in order to obtain a forward-looking and verifiable overall judgment. Ratings are performed on the basis of documents concerning the financial position and financial performance, as well as the business model and strategy, the relevant markets, risk management and profile, and the shareholder background and structure. The principal documents and information required when undertaking a rating are annual reports and similar, and the responses entered by the company in a questionnaire issued by GBB-Rating. Consideration is likewise given to information concerning investor relations, ad hoc disclosures, other publicly available material, and statements and documents presented during management meetings. All the documents and information that are relevant for rating purposes are examined during the rating procedure for currency, completeness and plausibility.

Ratings are continuously monitored by the lead analyst and a second analyst, and updated at least once a year. The lead analyst presents the rating result, including all analyses and evaluations, to an independent rating committee, which adopts final decisions on the following matters:

- determination of the rating
- suspension of a rating
- withdrawal of a rating

GBB-Rating undertakes, produces and publishes both solicited and unsolicited ratings. Solicited ratings are performed in consultation with the bank that is being assessed.
A solicited rating is based on both internal information furnished by the subject and publicly available data.
As a general rule, unsolicited ratings are performed without the bank's collaboration. Unsolicited ratings are primarily based on publicly available data and information (further details are described in the policy on performing and issuing unsolicited credit ratings).

In compliance with the regulatory requirements concerning disclosure, ratings are published on the website of GBB-Rating. Unsolicited ratings can also be performed purely for internal purposes (benchmarking). In such cases, the outcome is not published.

Ratings are the result of a process consisting of the stages described hereinafter. These procedures are applicable to solicited Ratings. Particularities concerning unsolicited ratings are described in the policy on performing and issuing unsolicited credit ratings.

2.1. Examination of assignment

Before accepting or resuming each assignment, GBB-Rating examines compliance with its rules governing independence, the existence of any potential conflicts of interest or other assignment-related risks, and the availability of sufficient resources to satisfy the particular requirements of the assignment appropriately. In case of doubt, the assignment is rejected or discontinued. Prior information required, for example, to assess the complexity of the company and the broad outline of its business model are collected in an initial internal pre-analysis.

In the absence of any grounds for rejecting the assignment, the rating process, methodology and conditions are explained to the prospective subject.

GBB-Rating does not give any indication of a rating result or produce a preliminary rating result.

2.2. Award of assignment and initiation of rating process

After awarding an assignment in writing, the company being assessed is presented with a questionnaire and a list indicating the information and documents required for the rating process. In the course of the rating process, additional information and documents can be requested.

All data and evaluations received by GBB-Rating are treated in confidence. In order to ensure compliance with its self-imposed confidentiality requirements, GBB-Rating has installed additional organizational safeguards (e.g. access restrictions, Chinese walls) and adopted appropriate regulations.

The rating is performed by the lead analyst, who also serves as the client's point of contact. The work undertaken during the rating process is overseen by an independent second analyst.

Potential conflicts of interest are avoided by rotation. The lead analyst and second analyst are assigned to a different client after no more than four and five years respectively. After managing a client's account for a full term, an analyst cannot resume working for the same client until at least two years have elapsed. In order to ensure consistent assessment practice, the lead and second analysts are generally not rotated at the same time.

Technical knowledge, availability and impartiality are the governing factors when rating assignments are being scheduled and allocated.

2.3. Performing the rating

The analysis is performed with the support of IT-based rating models on the basis of a comprehensive set of criteria. Extensive and detailed internal directives, stipulations and policies contained in a rating manual are observed when analyzing and evaluating the qualitative and quantitative criteria.

The lead analyst assesses and evaluates the indicators and criteria on the basis of the financial and business profiles in compliance with established internal rules and procedures.

A second analyst reviews, checks and verifies the lead analyst's credit assessment on the basis of internal stipulations and procedures of GBB-Rating.

The lead analyst presents the rating result, including all analyses and evaluations, to an independent rating committee, which adopts the final decision.

2.4. Publication of the rating result

The rating result consists of a rating grade (AAA to D) and a rating outlook ("stable", "positive", "negative", "indeterminate"), and is reported to the client in writing promptly once finally confirmed by the rating committee ("notification"). The modified procedures for publication of unsolicited ratings are described in the policy on performing and issuing unsolicited credit ratings.

A reasonable delay is to be observed between informing the institution and a possible publication or announcement to subscribers (hereinafter publication) – the institution is to be notified within business hours at least one full working day before publication, so that it has an opportunity to draw attention to factual errors or ambiguities.

In case of solicited ratings the client determines whether a rating result is to be published. Disclosures by the institution concerning rating results (e.g. press releases) are to be agreed with GBB-Rating.

Unless we receive a request confirming or revoking the publication of a follow-up rating for an already published rating, the rating result to be published will be marked with the addition "in communication" within a reasonable time. This indicates to indicate that a current rating action is in a communication process with the client. At the latest by the end of further ten working days the decision has to be made whether the rating result is to be published or revoked and removed from the Homepage. The rating list will be updated accordingly. If the client does not agree to any further publication, the revoked rating will remain valid as exclusively produced for and disclosed to investors for a fee.

Technical access restrictions are not imposed in connection with publication. Neither the client nor interested third parties are charged in connection with publication (no fee, publication or access charge or similar).

2.5. Monitoring and follow-up rating

Once announced, a rating remains valid for twelve months as a general rule. During this period the development of both the company and the industry in which it operates are continuously monitored by the analysts. The aim is to ensure that the opinion expressed by the rating remains current. For this purpose the lead analyst maintains contact with the company and evaluates, among other things, information and publications that become available during the year. If events or developments take place in this observation period that could have a material positive or negative impact on the company's economic position, the rating is reviewed and, if necessary, revised.

3. Development, approval and review of rating methods

The quantitative methods section of GBB-Rating, which is independent of the rating section, is responsible for developing and reviewing the rating methods. The methods committee is the approval and final decision-making body as regards the implementation and introduction of adjustments and changes to existing methods.

As necessary, but at least once a year, the rating methodologies are subject to a backtesting/validation procedure.

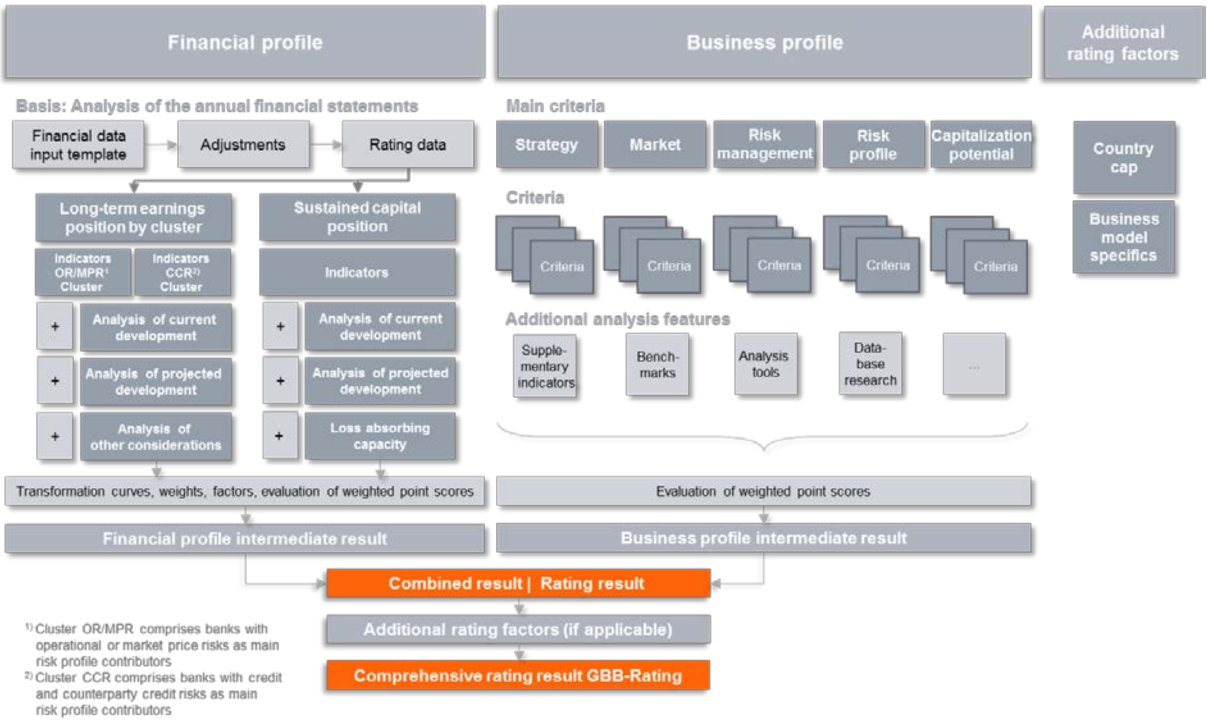
In case of changes to the rating methodology, the affected clients are notified of the proposed changes and their possible effects during a four-week consultation period. The affected ratings are reviewed within six months.

4. Rating methodology

The (long-term credit) rating is based on an analysis and evaluation of material quantitative and qualitative aspects of the financial and business profiles (cf. 4.1 and 4.2), performed using a system of indicators and criteria.

The rating result is assigned to one of 22 grades (AAA to D) and supplemented by a rating outlook (cf. 5).

The focal point of the rating procedure is the calculation of an overall score or combined result (point scores), which serves as a creditworthiness indicator and determines the assigned grade. The combined result is calculated on the basis of weighted points from the aggregated parameters "financial profile" and "business profile".

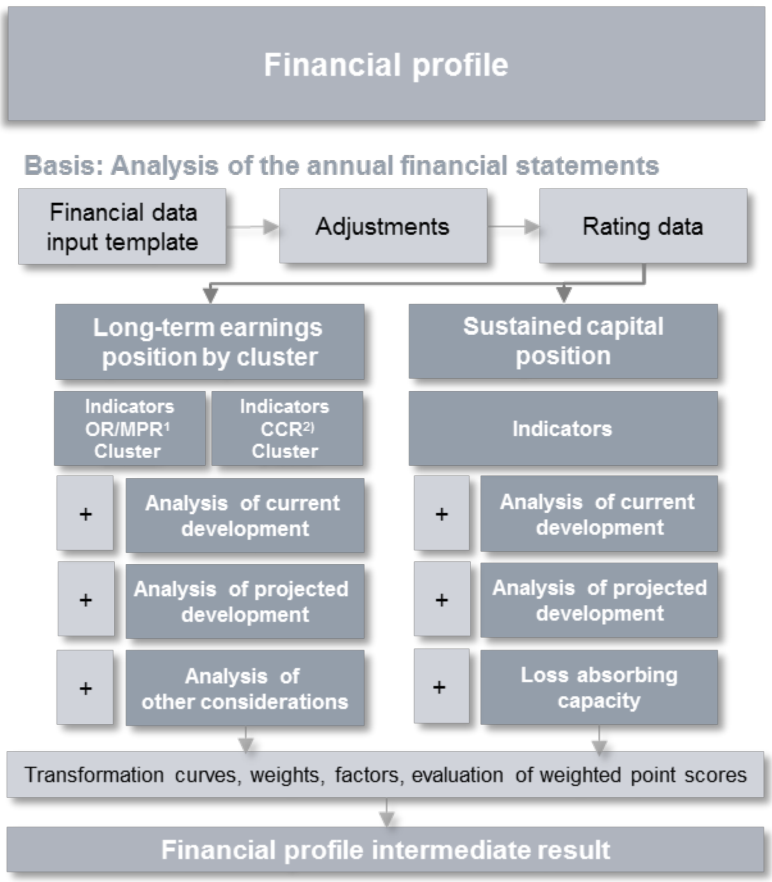


In principle, the procedure is designed for the purpose of assessing legally independent institutions that are active in the markets – operating as going concerns. Special factors exerting an influence on the rating, such as particularities relating to the (group's) home country, or institutions undergoing orderly resolution, are mapped and evaluated by way of supplemental attributes (additional rating factors, cf. 4.3).

The indicators and criteria are analyzed, assessed and evaluated on the basis of the financial and business profiles in compliance with established internal rules and procedures.

4.1. Financial profile

The financial profile is evaluated by analyzing financial strength, as expressed by long-term earning capacity and the capital available to cover risks. Indicators and qualitative criteria are applied to assess the relevant financial position and financial performance, and developments and changes are analyzed from a past, current and future perspective. Key sources of information are, in particular, annual and quarterly reports, planning information and disclosures (e.g. medium-term plan, scenario analyses, CRD IV reports).



1) Cluster OR/MPR comprises banks with operational or market price risks as main risk profile contributors
2) Cluster CCR comprises banks with credit and counterparty credit risks as main risk profile contributors

4.1.1. Long-term earnings position

When examining the "long-term earnings position", the key question concerns the entity's ability to generate earnings long-term in order to shield against risk and implement the strategy or requirements arising from the business model.

The long-term earnings position is analyzed and evaluated in a multi-stage procedure:

- Analysis of annual financial statements
- Assignment to cluster function OR/MPR or cluster function CCR
- Development in recent years (multi-year analysis)
- Trend analysis – long-term earnings position from a short-term or current perspective
- Analysis of projected long-term earnings position ("trend")
- Analysis of other considerations

The long-term earnings position is evaluated by aggregating the individual intermediate results, which are complementary to some extent.

4.1.1.1. Analysis of annual financial statements

The first stage entails an analysis of the annual financial statements, performed by recording and interpreting the financial data. Applying the principle of materiality and an economic perspective, the client's annual financial statements are adjusted, if appropriate, for identified special factors and non-recurring effects, such as restructuring expenses, integration expenses, close-out income or similar, to obtain the "rating data". Consideration is given to the underlying accounting standards.

The purpose of this exercise is to focus the subsequent analysis stages on the relevant economic circumstances – the client's relevant financial position and financial performance.

4.1.1.2. Assignment to clusters

The next stage consists of analyzing the long-term financial position and financial performance (adjusted for special factors) as depicted in the rating data. Sets of indicators are used to form ratios between various earnings variables and income statement, balance sheet, capital and risk items.

Using polynomial value functions (transformation curves) for the individual indicators determined on the basis of statistical methods, as well as weighting, the quotients are transformed into point scores (value ranges 0 to 100) and aggregated to obtain a one-year overall score for the long-term earnings position.

The approach adopted thus far has been extended by the introduction to the rating methodology of clusters, which allow a clearer distinction to be made between business model-specific characteristics. All banks are unequivocally assigned to a cluster according to their balance sheet, income statement and risk structures. Institutions exposed to the potential of predominantly operational or market price risks (chiefly investment, asset management and transaction banks, and investment service providers) are assigned to the OR/MPR cluster. Institutions exposed to the potential of predominantly credit and counterparty credit risks (CCR, chiefly universal banks, building societies, and retail lending, mortgage credit and foreign trade banks) are assigned to the CCR cluster. The two clusters have different indicator systems and definitions, and different cluster functions and determined on the basis of statistical methods.

4.1.1.3. Cluster function operational risks/market price risks (OR/MPR)

In the OR/MPR cluster, the earnings position is modeled by way of seven indicators. Alongside gross and net profitability, these also encompass return on equity and cost-income ratios. The indicators are translated into points by way of individual transformation curves (polynomials) determined and optimized on the basis of statistical methods. The transformed points are subject to specific weighting and therefore influence the assessment of the long-term earnings position to a different extent.

Definition and description of the indicators:

Indicator	Abbrev.	Numerator	Denominator
gross profitability 1	**GP 1**	Adjusted gross profit	Average total risk exposure amount
net profitability 1	**NP 1**	Operating result after provisions for credit risks and valuation adjustments	Average total risk exposure amount
net profitability 2	**NP 2**	Operating result after provisions for credit risks and valuation adjustments	Average total assets
cost income ratio 1	**CIR 1**	Administration costs and provisions for credit risks	Gross profit
cost income ratio 2	**CIR 2**	Administration costs	Adjusted gross profit
Return on equity 1	**ROE 1**	Operating result after provisions for credit risks and valuation adjustments	Average adjusted equity
Return on equity 2	**ROE 2**	Gross annual profit	Average adjusted equity

Gross profitability 1 measures the "adjusted gross profit" (numerator) against the "average total risk exposure amount" (denominator).
The adjusted gross profit (numerator) consists of the long-term operating income components adjusted for extraordinary or irregular items (net interest income, net commission income, trading profit or loss, other operating result, valuation adjustments) before taxes and before changes in taxed contingency reserves. The average total risk exposure amount (denominator) is determined by the average total risk exposure amount calculated in compliance with the regulatory reports pursuant to Regulation (EU) No. 575/2013 on the basis of CRR/CRD IV. Gross profitability 1 shows the return on the adjusted operating income sources of the bank in relation to the risk exposure arising from implementation of the business strategy or business model. The indicator has an individual value range and its own statistically determined polynomial value function (transformation curve), which translates the quotients into points; the greater the quotient, the higher the achieved point score.

Net profitability 1 measures the "operating result after provisions for credit risks and valuation adjustments" (numerator) against the "average total risk exposure amount" (denominator).
The operating result after provisions for credit risks and valuation adjustments (numerator) is the long-term operating result, adjusted for extraordinary or irregular items, before taxes on income and before changes in taxed reserves.
Net profitability 1 shows the return on the adjusted operating income sources (adjusted gross profit) of the institution giving consideration to the material operating expense items (personnel and administrative expenses, depreciation/amortization, and net credit risk provisions) in

relation to the risk exposure arising from implementation of the business strategy or business model. The indicator has an individual value range and its own statistically determined polynomial value function (transformation curve), which translates the quotients into points; the greater the quotient, the higher the achieved point score.

Net profitability 2 measures the "operating result after provisions for credit risks and valuation adjustments" (numerator) against the "average total assets" (denominator).
Net profitability 2 shows the return on the adjusted operating income variables of the institution in relation to the total assets underlying the implementation of the business strategy or the business model. The indicator has an individual value range and its own statistically determined polynomial value function (transformation curve), which translates the quotients into points; the greater the quotient, the higher the achieved point score.

Cost-income ratio 1 measures the "administration costs" (numerator) plus the "provisions for credit risks" against the "gross profit" (denominator).
The administration costs encompass personnel and administrative expenses, depreciation of tangible assets and amortization of intangible assets. As a measure of profitability or efficiency, cost-income ratio 1 indicates the cost required to generate a unit of gross profit. The indicator has an individual value range and its own statistically determined polynomial value function (transformation curve), which translates the quotients into points; the smaller the quotient and the more efficient the institution, the higher the achieved point score.

Cost-income ratio 2 measures the "administration costs" (numerator) against the "adjusted gross profit" (denominator).
As a measure of profitability or efficiency, cost-income ratio 2 indicates the cost required to generate a unit of adjusted gross profit. The indicator has an individual value range and its own statistically determined polynomial value function (transformation curve), which translates the quotients into points; the smaller the quotient and the more efficient the institution, the higher the achieved point score.

Return on equity 1 measures the "operating result after provisions for credit risks and valuation adjustments" (numerator) against the "average adjusted equity" (denominator).
The average adjusted equity (denominator) primarily consists of the average shareholders' equity and elements of average own funds.
Return on equity 1 shows the return on the adjusted operating income variables of the institution in relation to the total equity required for implementation of the business strategy or business model. The indicator has an individual value range and its own statistically

determined polynomial value function (transformation curve), which translates the quotients into points; the greater the quotient, the higher the achieved point score.

Return on equity 2 measures the "gross annual profit" (numerator) against the "average adjusted equity" (denominator).
The gross annual profit (numerator) corresponds to the net profit before income taxes and before changes in taxed reserves. Extraordinary or irregular items (income and expenses) are included in this indicator; no adjustment is made for these items.
Return on equity 2 shows the return on the unadjusted operating income variables of the institution in relation to the total equity required for implementation of the business strategy or business model. The indicator has an individual value range and its own statistically determined polynomial value function (transformation curve), which translates the quotients into points; the greater the quotient, the higher the achieved point score.

4.1.1.4. Cluster function credit and counterparty credit risk (CCR)

In the CCR cluster, the earnings position is modeled by way of eight indicators. Alongside gross and net profitability, these also encompass return on equity and cost-income ratios. The indicators are translated into points by way of individual transformation curves (polynomials) determined and optimized on the basis of statistical methods. The transformed points are subject to specific weighting and therefore influence the assessment of the long-term earnings position to a different extent.

Definition and description of the indicators:

Indicator	Abbrev.	Numerator	Denominator
gross profitability 1	**GP 1**	Adjusted gross profit	AverageTotal assets
gross profitability 2	**GP 2**	Net interest income and net credit risk provisions	Average risk-weighted exposure amounts [1]
net profitability 1	**NP 1**	Operating result after provisions for credit risks and valuation adjustments	Average total risk exposure amount
net profitability 2	**NP 2**	Gross annual profit	Average Adjusted total assets [2]
cost income ratio 1	**CIR 1**	Administration costs and provisions for credit risks	Gross profit
cost income ratio 2	**CIR 2**	Administration costs	Adjusted gross profit
Return on equity 1	**ROE 1**	Operating result after provisions for credit risks and valuation adjustments	Average total capital
Return on equity 2	**ROE 2**	Gross annual profit	Average total capital

[1] Risk weighted exposure amount for credit, counterparty credit and dilution risks and free deliveries

[2] Comprises on-balance sheet total assets, contingent liabilities and loan-loss allowances

Gross profitability 1 measures the "adjusted gross profit" (numerator) against the "average total assets" (denominator).

The adjusted gross profit (numerator) consists of the long-term operating income components adjusted for extraordinary or irregular items (net interest income, net commission income, trading profit or loss, other operating result, valuation adjustments) before taxes and before changes in taxed reserves. The administration costs and the net credit risk provisions do not form part of the adjusted gross profit.

Gross profitability 1 shows the return on the adjusted operating income sources of the institution in relation to the total assets underlying the implementation of the business strategy or the business model. The indicator has an individual value range and its own statistically determined polynomial value function (transformation curve), which translates the quotients into points; the greater the quotient, the higher the achieved point score.

Gross profitability 2 measures the "net interest income including net credit risk provisions" (numerator) against the "average risk-weighted exposure amounts" (denominator).

The average risk-weighted exposure amount for credit, counterparty credit and dilution risks and free deliveries (denominator) is determined by the average risk-weighted exposure amounts calculated in compliance with the regulatory reports pursuant to Regulation (EU) No. 575/2013 on the basis of CRR/CRD IV.

Gross profitability 2 shows the return on the adjusted original net interest income and net credit risk provisions in relation to the risk exposure arising from implementation of the business strategy or business model. The indicator has an individual value range and its own statistically determined polynomial value function (transformation curve), which translates the quotients into points; the greater the quotient, the higher the achieved point score.

Net profitability 1 measures the "operating result after provisions for credit risks and valuation adjustments" (numerator) against the "average total risk exposure amount" (denominator).
The operating result after provisions for credit risks and valuation adjustments (numerator) is the long-term operating result adjusted for extraordinary or irregular items before taxes on income and before changes in taxed reserves. The average total risk exposure amount (denominator) is determined by the average total exposure calculated in compliance with the regulatory reports pursuant to Regulation (EU) No. 575/2013 on the basis of CRR/CRD IV.
Net profitability 1 shows the return on the adjusted operating income sources of the institution giving consideration to the material operating expense items (personnel and administrative expenses, depreciation/amortization, and net provisions for credit risks) in relation to the risk exposure arising from implementation of the business strategy or business model. The indicator has an individual value range and its own statistically determined polynomial value function (transformation curve), which translates the quotients into points; the greater the quotient, the higher the achieved point score.

Net profitability 2 measures the "gross annual profit" (numerator) against the "average adjusted total assets" (denominator).
The gross annual profit (numerator) corresponds to the net profit before income taxes and before changes in taxed reserves. Extraordinary or irregular items (income and expenses) are included in this indicator; no adjustment is made for these items. The average adjusted total assets (denominator) consist of the on-balance sheet total assets, contingent liabilities and loan-loss allowances.
Net profitability 2 shows the return on the unadjusted income variables of the institution in relation to the adjusted total assets underlying the implementation of the business strategy or the business model. The indicator has an individual value range and its own statistically determined polynomial value function (transformation curve), which translates the quotients into points; the greater the quotient, the higher the achieved point score.

Cost-income ratio 1 (adjusted cost-income ratio) measures the "administration costs" (numerator) plus the "provisions for credit risks" against the "gross profit" (denominator).
The administration costs encompass personnel and administrative expenses, depreciation of tangible assets and amortization of intangible assets. As a measure of profitability or efficiency, cost-income ratio 1 indicates the cost required to generate a unit of gross profit. The indicator has an individual value range and its own statistically determined polynomial value function (transformation curve), which translates the quotients into points; the smaller the quotient and the more efficient the institution, the higher the achieved point score.

Cost-income ratio 2 measures the "administration costs" (numerator) against the "adjusted gross profit" (denominator).
As a measure of profitability or efficiency, cost-income ratio 2 indicates the cost required to generate a unit of adjusted gross profit. The indicator has an individual value range and its own statistically determined polynomial value function (transformation curve), which translates the quotients into points; the smaller the quotient and the more efficient the institution, the higher the achieved point score.

Return on equity 1 measures the "operating result after provisions for credit risks and valuation adjustments" (numerator) against the "average total capital" (denominator).
The "average total capital" (denominator) corresponds to the average shareholders' equity. Return on equity 1 shows the return on the adjusted operating income variables of the institution in relation to the total capital employed for implementation of the business strategy or business model. The indicator has an individual value range and its own statistically determined polynomial value function (transformation curve), which translates the quotients into points; the greater the quotient, the higher the achieved point score.

Return on equity 2 measures the "gross annual profit" (numerator) against the "average total capital" (denominator).
Return on equity 2 shows the return on the unadjusted operating income variables of the institution in relation to the total capital employed for implementation of the business strategy or business model. The indicator has an individual value range and its own statistically determined polynomial value function (transformation curve), which translates the quotients into points; the greater the quotient, the higher the achieved point score.

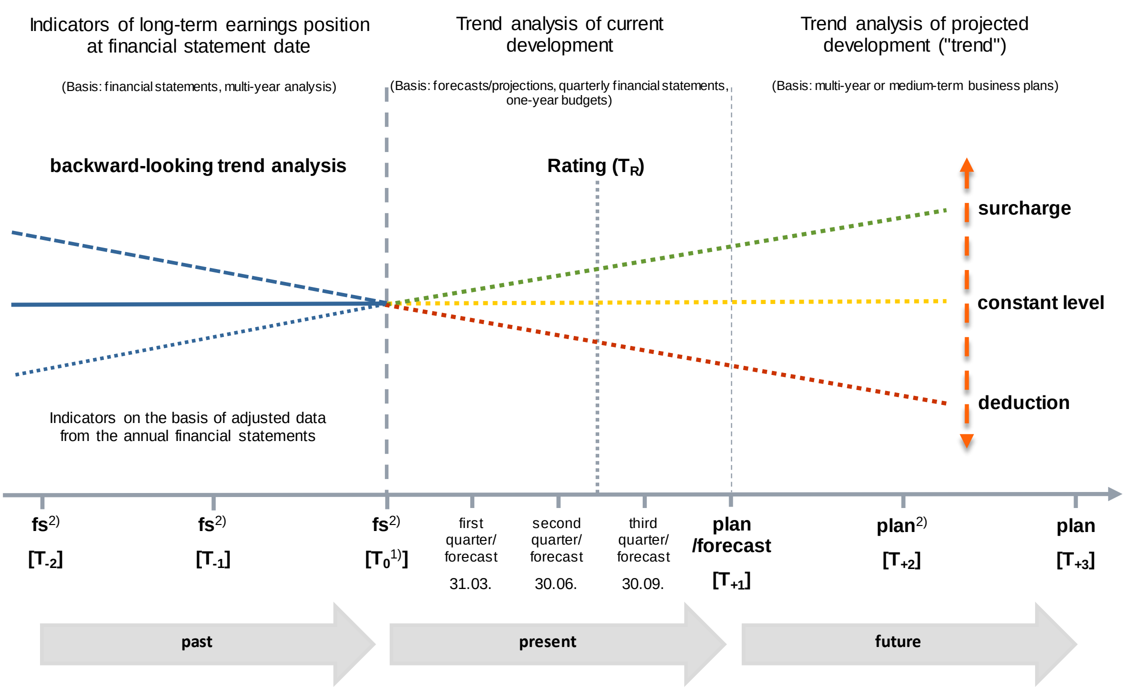
4.1.1.5. Multi-year analysis

In principle, the analysis of the long-term earnings position using cluster-specific indicators adopts a multi-year perspective to investigate the development in recent years. In other words, it is a backward-looking trend analysis. As a general rule, a three-year perspective is adopted in order to smooth the earnings position; greater weight is attached to the more recent and current financial statements (current financial statements: 75%, previous year: 20%, year before previous: 5%). In justified cases (e.g. adoption of a new business model, restructuring, other special factors exerting a material influence on the long-term earnings position), a two or one-year perspective can be adopted.

The aim is objectively to depict the relevant economic circumstances of the institution on the basis of information contained in the annual financial statements while giving consideration to the multi-year trend. This approach ultimately produces a multi-year overall score.

In combination with the current and projected development described below, the multi-year analysis adopts a through-the-cycle approach to mitigate inherent cyclical effects, but without masking material changes.

Analysis of current and projected long-term earnings position



1) "T_0" = financial statement date, e. g. 31.12.2014

2) "fs" = financial statement; "plan" = financial plan

4.1.1.6. Trend analysis – long-term earnings position from a short-term or current perspective

In the interests of assessing the long-term earnings position, the analysis is supplemented by examining **current developments** relating to the success factors. With a view to accurately reflecting the earnings position at the time of the rating and to include deviations from the long-term business trend in the rating result, the analysis also gives consideration to current interim figures and projections. A trend analysis is performed to examine the long-term earnings position from a short-term or current perspective. The key question that is addressed is whether the circumstances prevailing as of the most recent reporting date (T_0), assessed on the basis of adjusted data from the annual financial statements, multi-year analyses performed with clusters and indicators, remain current in view of recent short-term developments to the time of rating (T_R).

Key sources of information are, in particular, projections, quarterly financial statements and one-year budgets.

A relevant change reflected in current developments gives rise to a move up or down a nine-point scale.

Scale	Analysis of current development
-4	insufficient level/development
-3	problematic level/development
-2	deficient level/development
-1	weak level/development
0	constant level/development
+1	slightly improving level/development
+2	notably improving level/development
+3	strongly improving level/development
+4	excellent level/development

4.1.1.7. Analysis of projected long-term earnings position ("trend")

To assess the sustainability of the earnings position, the analysis is supplemented by examining **projected developments** relating to the success factors. With a view to accurately reflecting the earnings position at the time of the rating and to include deviations from the long-term business trend in the rating result, the analysis also gives consideration to budgeted figures. A trend analysis ("trend") is performed to assess the anticipated development of the earnings position. It is a 12 to 24-month trend analysis of the prospective change in the financial position and financial performance beyond the time of rating (T_R).

The key question that is addressed is whether the circumstances prevailing as of the most recent reporting date (T_0), assessed on the basis of adjusted data from the annual financial statements, multi-year analyses performed with clusters and indicators, and the short-term trend to the time of rating (T_R), will change to a relevant extent. Key sources of information are, in particular, validated multi-year or medium-term business plans.

A relevant change reflected in the validated future assessment or development measured against the original business plan or other suitable information gives rise to a move up or down a nine-point scale.

Scale	Analysis of projected development
-4	insufficient level/development
-3	problematic level/development
-2	deficient level/development
-1	weak level/development
0	constant level/development
+1	slightly improving level/development
+2	notably improving level/development
+3	strongly improving level/development
+4	excellent level/development

4.1.1.8. Analysis of other considerations

In the final stage of examining the financial position and financial performance, the long term earnings position is analyzed in respect of the necessity of a revision or level adjustment because of situational or business model-specific particularities.

The key question addressed by this analysis of the long-term earnings position is whether the provisional assessment or evaluation, produced on the basis of the indicators, cluster functions, multi-year weighting, nowcast and trend, reflects the actual long-term earnings position/earning capacity of the bank, or whether, if applicable, consideration should also be given to other special factors, aspects, results of supplementary indicators or benchmarks.

Relevant situational or business model-specific particularities give rise to a level adjustment by way of a move up or down a nine-point scale.

Scale	Analysis of other considerations
-4	insufficient level/development
-3	problematic level/development
-2	deficient level/development
-1	weak level/development
0	constant level/development
+1	slightly improving level/development
+2	notably improving level/development
+3	strongly improving level/development
+4	excellent level/development

The following are some of the situational or business model-specific particularities and their consequences relating to the analysis of the long-term earnings position:

- **Level adjustment** (+/-) because of particular and material (possibly not exactly or conclusively quantifiable) **special factors capable of influencing indicators**, e.g.
    - distorted or volatile reference base of numerator or denominator variables because of material proceeds from profit and loss pooling, strong influences arising from asset/liability management, major differences between annual average variables and reporting date variables, etc.
    - giving consideration to possible business model-restricting effects of the floor transitional provision pursuant to Art. 500 CRR (Basel I floor or standardised approach floor/Basel II floor) in case of the application of IRBA for the calculation of loss amounts pursuant to CRR/CRD IV
    - other material special factors capable of influencing indicators
- **Level adjustment** (+/-) because of particular and material (possibly not exactly or conclusively quantifiable) **special situations**, e.g.
    - changes to the business model
    - possible influences arising from the segment analysis or core business model
    - significant expansion or fluctuation of business volume
    - restructuring
    - mergers
    - other material special factors

- **Level adjustment** (+/-) because of particular and material **business model-specific characteristics**, e.g.
  - significant earnings volatility or fluctuations in the business cycle (> 3 years)
  - significant earnings volatility or fluctuations in key business segments
- **Level adjustment** (+/-) in response to outcomes of **supplementary indicators, benchmarking or peer group comparisons**

Alongside those already included in the system of indicators and cluster functions, supplementary indicators, some of which are business model-specific, are applied; their outcomes or results are to be interpreted individually. For this reason, no transformation curves or weights are assigned to these indicators.

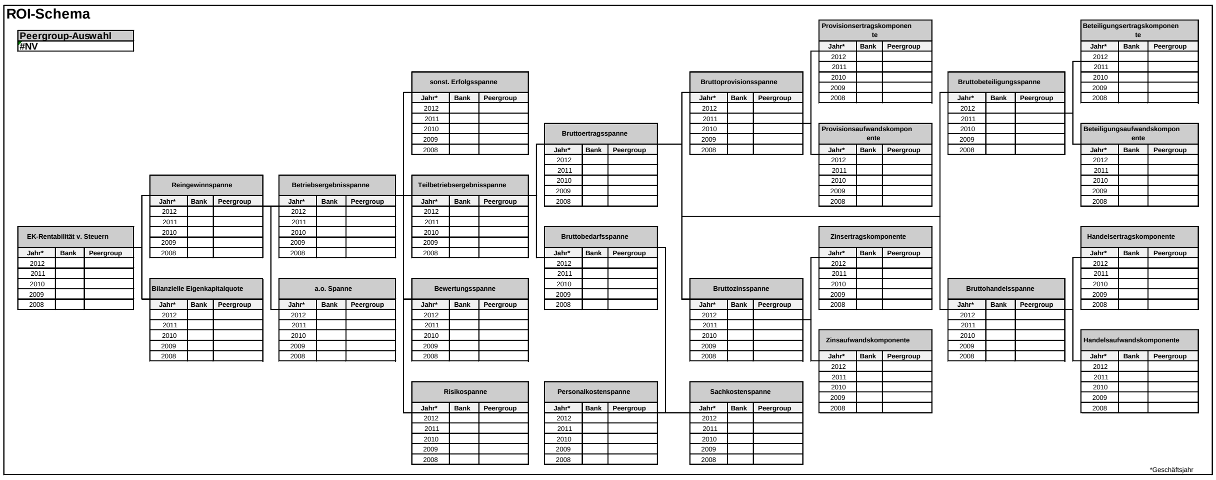
Among such indicators are:

- Income-balance sheet ratios
- Income-business volume ratios
- Income ratios, measuring income against interest-bearing assets
- Income ratios, measuring income against profit-generating assets
- Income ratios, measuring income against credit risk exposures
- Income ratios, measuring income against total risk exposure amount
- Return on equity ratios, measuring equity against gross profit, or the operating result before and after provisions for credit risks
- Return on equity ratios, measuring equity against capital requirements
- Further equity and income ratios
- Gross profit structural ratios
- Ratios measuring the relative amounts of personnel and other operating expenses, and number of employees
- Ratios measuring provisions for risks against income

Alongside an ROI formula including peer group selection, the benchmarking and peer group comparisons encompass:

- ROE ratios before taxes
- Gross income margins
- Commission income components
- Interest income components
- Trading income components
- Gross operating margins
- Personnel and administrative cost margins

- OR/MPR cluster – cost-income ratios
- CCR cluster – cost-income ratios
- OR/MPR cluster – ROE ratios



4.1.2. Sustained capital position

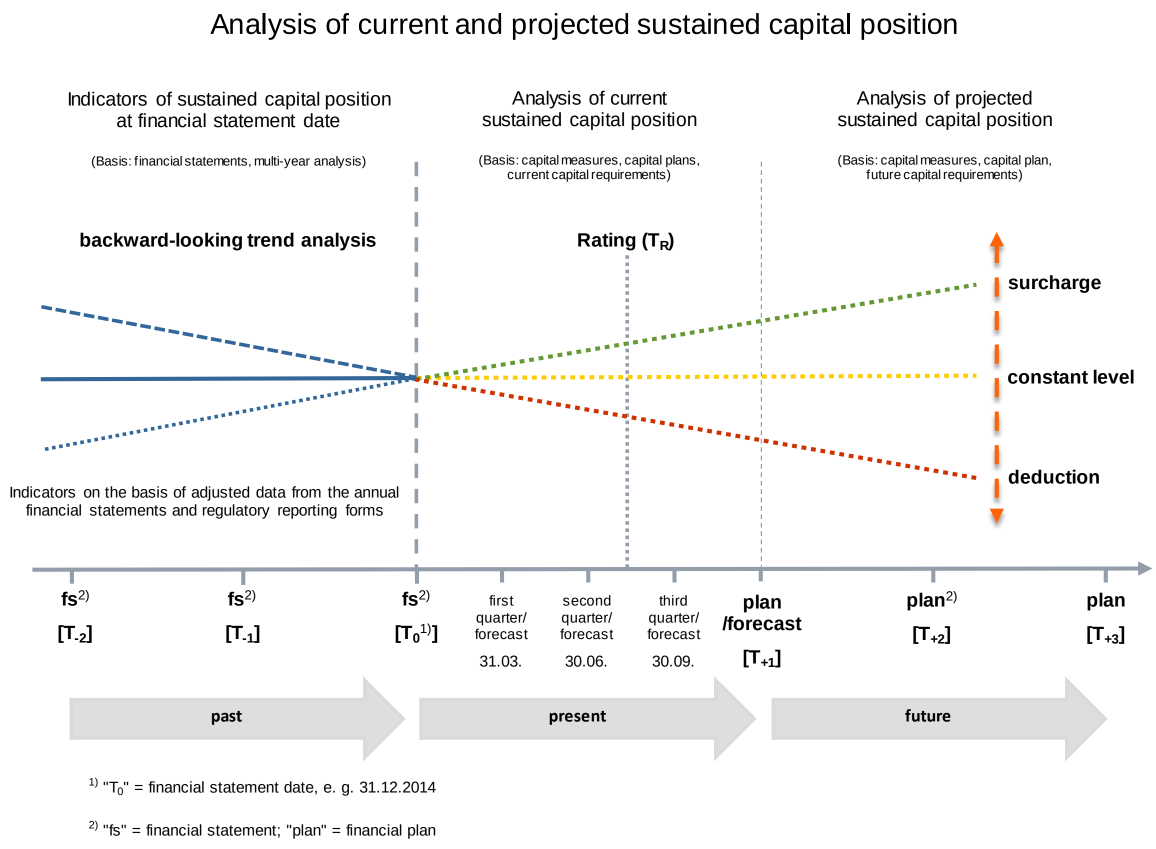
The key question addressed when examining the "sustained capital position" is the adequacy of the existing and future funding or capital availability and structure in view of current and future, possibly increasing, requirements arising from the business profile (in particular strategy and risk profile), regulatory requirements and rules (in particular CRR, CRD IV, BRRD).

The sustained capital position is analyzed in a multi-stage procedure:

- Capital position indicators
- Analysis of current sustained capital position
- Analysis of projected sustained capital position
- Analysis of capacity to absorb economic risk

The first stage entails mapping the current capital position by way of three regulatory indicators. In view of the limited information furnished by this purely quantitative analysis of the magnitude of regulatory capital indicators, it is followed by a qualitative analysis of the current sustained capital position (primarily regulatory minimum requirements, systemic status and capital buffers, capital and risk-weighted asset (RWA) structures). The analysis of the sustained capital position is completed by examining the adequacy of the future sustained capital position (in particular validated capital planning). The final stage of the assessment examines the capacity to absorb economic risk, serving as an overall indication of an institution's ability to bear expected and unexpected risks while continuing to operate as a going concern.

The sustained capital position is evaluated by aggregating the individual intermediate results, which are complementary to some extent.



4.1.2.1. Capital position indicators

The first stage entails the analysis of the capital position by way of (regulatory) capital indicators. The current capital position is mapped with three regulatory indicators consisting of ratios measuring capital items against the total risk exposure amount pursuant to CRR/CRD IV.

The indicators are translated into points (value ranges 0 to 100) by way of individual transformation curves (polynomials) determined and optimized on the basis of statistical methods. The transformed points are subject to specific weighting and therefore influence the assessment of the capital position to a different extent.

Key sources of information are, in particular, annual reports, regulatory reporting forms and reports pursuant to Regulation (EU) No. 575/2013 (CRD IV reports), and capital plans.

Definition and description of the indicators:

Indicator	Abbrev.	Numerator	Denominator
Total capital ratio	**K I**	Own funds	Total risk exposure amount
Tier 1 capital ratio	**K II**	Tier 1 capital	Total risk exposure amount
Common equity Tier 1 ratio	**K III**	Common equity tier 1 capital	Total risk exposure amount

The **(total capital ratio)** measures the regulatory "own funds" (numerator) against the "total risk exposure amount" (denominator).
The own funds (numerator) and total risk exposure amount (denominator) are stated in the reporting forms (regulatory reports pursuant to Regulation (EU) No. 575/2013) on the basis of CRR/CRD IV.
The total capital ratio indicates the extent of protection against risk afforded, or the extent to which the regulatory requirements are satisfied, by existing own funds. The indicator has an individual value range and its own statistically determined polynomial value function (transformation curve), which translates the quotients into points; the greater the quotient, the higher the achieved point score.

The **(T1 capital ratio)** measures the regulatory "Tier 1 capital" (numerator) against the "total risk exposure amount" (denominator).
The T1 capital (numerator) and total risk exposure amount (denominator) are stated in the reporting forms (regulatory reports pursuant to Regulation (EU) No. 575/2013) on the basis of CRR/CRD IV.
The T1 capital ratio indicates the extent of protection against risk afforded, or the extent to which the regulatory requirements are satisfied, by existing T1 capital. The indicator has an individual value range and its own statistically determined polynomial value function (transformation curve), which translates the quotients into points; the greater the quotient, the higher the achieved point score.

The **(common equity T1 capital ratio)** measures the regulatory "common equity Tier 1 capital" (numerator) against the "total risk exposure amount" (denominator).
The CET1 capital (numerator) and total risk exposure amount (denominator) are stated in the reporting forms (regulatory reports pursuant to Regulation (EU) No. 575/2013) on the basis of CRR/CRD IV.
The CET1 capital ratio indicates the extent of protection against risk afforded, or the extent to which the regulatory requirements are satisfied, by existing CET1 capital. The indicator has an individual value range and its own statistically determined polynomial value function

(transformation curve), which translates the quotients into points; the greater the quotient, the higher the achieved point score.

The indicator values, as transformed into point scores, give an initial indication of the current capital position for assessment purposes. In view of the limited information furnished by this purely quantitative analysis of the magnitude of regulatory capital indicators, it is followed by a qualitative analysis of the current sustained capital position.

4.1.2.2. Analysis of current sustained capital position

In view of the multi-layered business model-specific and regulatory requirements for banks of various size, structure and significance, and in order to facilitate clearer distinctions, the approach adopted thus far has been extended by the introduction to the rating methodology of a second assessment stage consisting of an additional qualitative examination of the current and future sustained capital position.

The analyses performed to assess the current and future sustained capital position are not examined in isolation. The assessment seeks to establish the extent to which the current and future capitalization satisfies the requirements of the current and future business model, the strategic orientation, and the risk profile associated with same. It is performed subject to the strict constraint of current and future compulsory regulatory requirements, giving consideration to the amount and structure of capitalization – paying due regard to the applied methods of calculating RWA, and giving consideration to both other capital generating opportunities and the shareholder structure.

Depending on the institution's systemic status (e.g. (global) systemically important bank "G-SIB" or "SIB" etc.), the current and future compulsory regulatory minimum requirements are examined and analyzed (in particular CRR, CRD IV, BRRD) paying due regard to existing transitional provisions:

- minimum capital volume (in particular restriction of risk shielding)
- various capital buffers pursuant to CRD IV (in particular countercyclical capital buffer and capital conservation buffer, systemic risk buffer, buffers for global systemically important institutions and/or other systemically important institutions)
- MREL (minimum requirements for eligible liabilities) pursuant to Art. 45 BRRD, RWA-independent indicators that measure own funds and liabilities subject to the bail-in power against the total liabilities and own funds in order to facilitate orderly resolution

- if applicable, additional capital buffers serving the purpose of loss absorption (resolution buffers) for global systemically important banks, GLAC (gone concern loss absorbing capacity) and TLAC (total loss absorbing capacity) including elevated requirements for the leverage ratio
- if applicable, results of EBA or other stress tests

In addition, an extended analysis and assessment is performed to examine existing and planned capital and RWA volumes and structures (in particular absolute volume, ratios, distributions, applied risk measurement procedures and approaches, floor provision pursuant to Art. 500 CRR with possibly business-restricting characteristics). Likewise examined and evaluated are the capital requirements of the business model giving consideration to the business strategy; the institution's development phase; the risk appetite and strategy; the expectations of the capital market, clients and other stakeholders; the legal form; and the shareholder background or structure (e.g. allocation of capital in the group, waiver rule).

The various aspects of the current and future sustained capital position are evaluated on an eleven-point scale.

Scale	Analysis of current sustained capital situation
0	going concern threat/insufficient
1	severe threat/insufficient
2	moderate threat/insufficient
3	material constraints/problematic
4	potential constraints/deficient
5	sufficient level/acceptable
6	satisfactory level/adequate
7	comfortable level/manageable
8	strong level/solid
9	very strong level/solid
10	excellent level/solid

Alongside benchmarking and peer group comparisons, the analysis and evaluation are supported by numerous supplementary indicators, some of which are business model-specific. The outcomes or results of these supplementary indicators are to be interpreted individually. For this reason, no transformation curves or weights are assigned to these indicators.

Among such indicators are:

- Capital structure ratios
- RWA structure ratios
- Capital ratios with and without floor
- Density ratios
- Asset quality ratios
- Leverage ratios
- Total loss coverage (TLC)
- Total loss-absorbing capacity (TLAC)
- Minimum requirements for eligible liabilities (MREL)

The qualitative analysis of the sustained capital position is completed by examining the adequacy of the future sustained capital position (in particular validated capital planning).

4.1.2.3. Analysis of projected sustained capital position

Based on the qualitative evaluation of the current sustained capital position, a mark up/down analysis is performed to establish whether the current assessment of the capital position adequately reflects the circumstances that are expected to prevail in the medium term, or whether a change in the capital position after the rating date is foreseeable with sufficient certainty.

Depending on the assessment of the foreseeable or planned future changes in the sustained capital position, consideration is given in particular to a capital plan – provided that plausible and sufficiently cautious planning assumptions are adopted. While the quality of the capital planning process is examined within the strategy/control attributes of the business profile, the forecast implications of the capital planning that is required under the regulatory regime (time frame two to three years, but no more than five years) are given consideration here. Adverse scenarios indicate the ability of the capital position to withstand stress in case developments do not follow the expected path.

Relevant changes in the future sustained capital position give rise to a level adjustment by way of a move up or down a nine-point scale.

Scale	Analysis of projected development
-4	insufficient level/development
-3	problematic level/development
-2	deficient level/development
-1	weak level/development
0	constant level/development
+1	slightly improving level/development
+2	notably improving level/development
+3	strongly improving level/development
+4	excellent level/development

In this connection, anticipated changes in particular in the evaluation drivers used to assess the future sustained capital position are analyzed; these are primarily:

- changes in capitalization (e.g. profit appropriation, capital measures, maturity of capital facilities)
- changes in prudential requirements for own funds (e.g. gradual increase in minimum capital ratios, establishing and defining capital buffers, leverage ratio requirements, re-categorization of the institution's systemic relevance)
- changes in requirements of the business model (e.g. restrictions on the foreseeable/planned business development because of floor provisions, foreseeable change in the risk profile or capital market expectations)
- changes in capital/RWA structure (e.g. change in standardised approach/IRBA procedures for measuring credit risk, revised RWA structure prompted by change in business strategy)

4.1.2.4. Analysis of capacity to absorb economic risk

The third and final stage of assessing the sustained capital position entails analyzing the capacity to absorb economic risk. This analysis serves as a qualitative indicator.

The analysis of the capacity to absorb economic risk focuses on the ratios of risk limits and economic capital or risk coverage potential, assuming that the institution's survival as a going concern is not in jeopardy. The assumption that the institution will continue to operate as a going concern implies that the regulatory minimum capital requirements will be met even if the

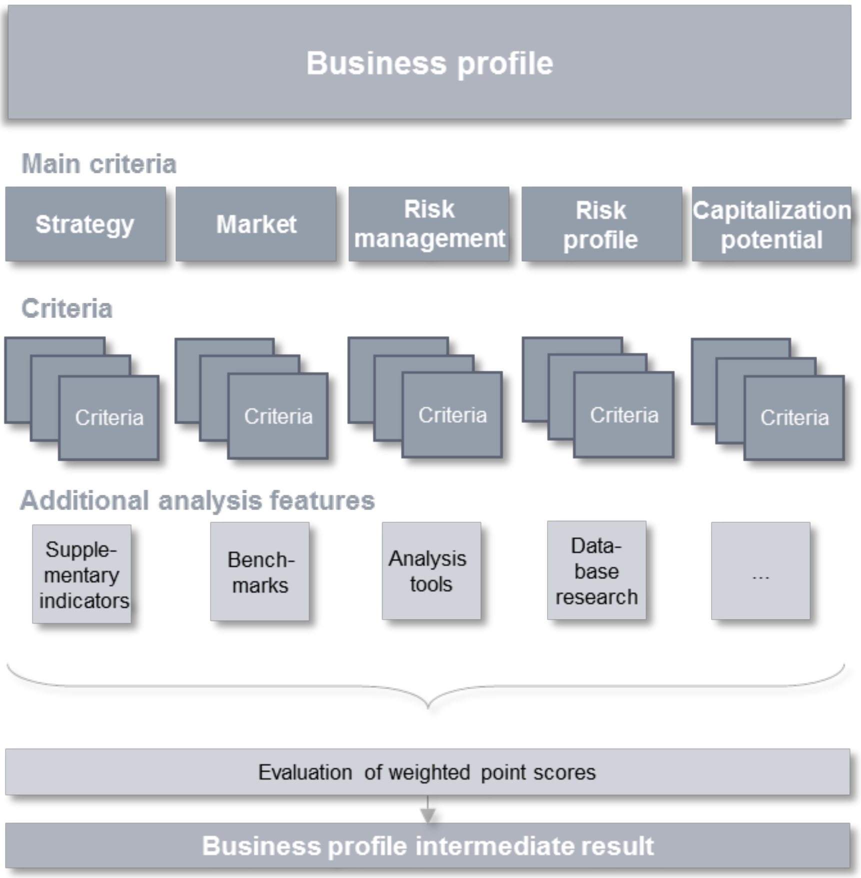
risk limits are exhausted. In principle, this examination is based on the analysis of the risk tolerance concept (capital adequacy assessment).
The subject of the evaluation is the extent to which the aggregate risk cover or risk coverage potential, giving consideration to various additional requirements, is able adequately to absorb the expected and unexpected risks arising from regular business activities or the business model, while assuming the institution's survival as a going concern. The principal additional requirements concern the composition of the aggregate risk cover (e.g. restrictions on subordinated capital); consideration, recognition and quantification of the relevant material risks; consistent risk limitation; confidence levels; stress scenarios and/or prudential stress tests; and other CRR and CRD IV requirements (e.g. floor analysis).

The various aspects of the capacity to absorb economic risk are evaluated on an eleven-point scale.

Scale	Loss absorbing capacity
0	going concern threat/insufficient
1	severe threat/insufficient
2	moderate threat/insufficient
3	material constraints/problematic
4	potential constraints/deficient
5	sufficient level/acceptable
6	satisfactory level/adequate
7	comfortable level/manageable
8	strong level/solid
9	very strong level/solid
10	excellent level/solid

4.2. Business profile

Examining the business profile focuses on analyzing relevant success and risk factors, while giving consideration to the institution's development (from a past, current and future perspective). The assessment analyzes chiefly qualitative and forward-looking external and internal influencing factors. Criteria concerning the issues of strategy, the market, risk management, risk profile and capitalization potential are evaluated.

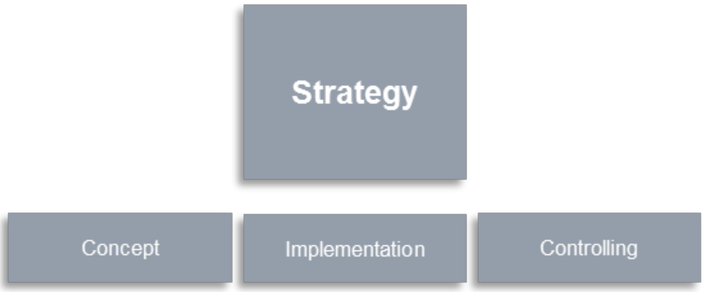


Supporting indicators are used to perform plausibility checks on the analyses and evaluations.

Alongside relevant particularities, especially those relating to the company and business model, the success and risk factors governing various bank types, including universal and retail lending banks, building societies, mortgage credit, asset management and investment banks, foreign trade, private and transaction banks, as well as investment service providers, are analyzed and consolidated to obtain a forward-looking and verifiable overall judgment.

The business profile is assessed according to the rating methodology for banks and building societies by making a distinction between five main criteria, namely strategy, market, risk management, risk profile, and capitalization potential. Each of these five main criteria is divided into sub-criteria, which in turn are subdivided into attributes. The criteria are measured against fixed assessment scales. The individual assessments against an eleven-point scale are transformed into point scores. Once a lead analyst and a second analyst have examined, assessed and verified all the criteria, the weighted scores are applied to obtain an overall "business profile" score for use in decision-making. A detailed manual contains descriptions, methods and outline requirements concerning the evaluation procedure for all criteria.

4.2.1. Strategy



The central purpose when addressing the issue of strategy is to analyze the targeted and actually implemented business strategy, or the business model, of the bank. The overall evaluation of the strategy is based on an analysis of the strategic concept, the implementation and feasibility of the strategic targets, and the quality and functionality of the planning and control instruments. At the heart of the assessment, therefore, is an assessment of the capacity of the business model pursued by the institution to withstand stress.

In particular, the yardstick applied when evaluating the strategic "concept" is the plausibility and consistency of the fundamentally long-term business strategy (consistency of the target system), alongside the measures envisaged for reaching the strategic targets – in each case giving consideration to exogenous outline conditions (e.g. market structure, intensity of competition, barriers to market entry, regulatory environment), available resources (e.g. capital, organizational and personnel structure, IT, liquidity), and the bank's capacity to absorb risk.

The assessment of "implementation", the focus of which is the medium term, considers the extent to which the strategic targets are met. This is ultimately reflected in the position occupied by the institution on the market it is addressing or seeking to capture. Evaluation takes place by examining aspects of the market position, the structure and scope of the product, tariff and service range, and other particularities (specifics) of the business model. A further subject of the assessment is the sales policy and the channels used in this connection.

The "controlling" criterion is assessed to determine both the extent to which implementation of the strategic targets is controlled and monitored, and the quality of the action taken. In this connection, the quality and information content of the planning statements (in particular the income and capital plans), the qualitative/quantitative targets, and the forecasting quality and functional capability of the controlling instruments and management information systems are examined; the purpose of these elements is to facilitate a prompt response to changing outline conditions and deviations from targets during the year.

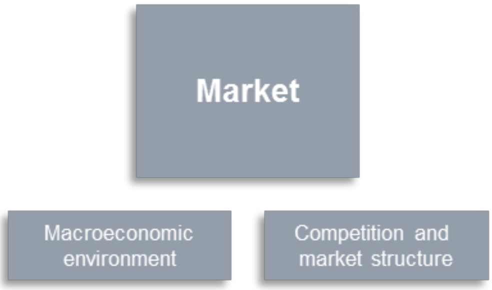
Key sources of information are, in particular, strategy papers; SWOT analyses; company, environmental and market analyses; market studies; information concerning the development of business volumes, market shares and sales channels; information obtained by benchmarking; information furnished by GBB and other market research; and other publicly available information.

The various aspects concerning strategy are evaluated on an eleven-point scale.

Scale	Evaluation
0	going concern threat/insufficient
1	severe threat/insufficient
2	moderate threat/insufficient
3	material constraints/problematic
4	potential constraints/deficient
5	sufficient level/acceptable
6	satisfactory level/adequate
7	comfortable level/manageable
8	strong level/solid
9	very strong level/solid
10	excellent level/solid

Whereas the assessment of strategy takes place from a company-related perspective, another main criterion, namely the market, is examined on the basis of a macroeconomic and microeconomic view.

4.2.2. Market



This aspect of the business profile, consisting of the two sub-criteria "macroeconomic environment" and "competition and market structure", focuses on the medium to long term. The core task encompasses identifying the factors that influence the relevant market or markets addressed by the institution concerned, and examining their impact and strength. The first stage of the analysis entails establishing the institution's relevant market(s).

Every institution is exposed to a specific statutory, political and socio-economic framework that significantly influences its business activities. When examining the criterion "macroeconomic environment", the focus is placed on a macroeconomic analysis of the relevant markets. The elements of this environment or climate – the factors that determine its character – can have national economic, general legal, prudential, political or social origins, and can vary substantially between institutions with different business interests. Among the aspects assessed in connection with this criterion are interest rates and prices, the labor market, consumer climate, money and capital market trends, the business cycle, changes in statutory and regulatory provisions, developments in the administration of justice on certain matters, and the effects of these factors on the relevant markets addressed by the individual institution.

The criterion "competition and market structure", on the other hand, is examined by reference to microeconomic aspects in particular. Here, the aim is to gain an insight into the market and competitive situation prevailing on the relevant market, the market structure, and the possible development of the market. To this end, the immediate economic environment is structured, and the relevant drivers within the investigated market are analyzed together with their effects.

The institution's own disclosures are supplemented by publicly available information and the findings of research conducted by GBB-Rating.

The various aspects concerning the market are evaluated on an eleven-point scale.

Scale	Evaluation
0	going concern threat/insufficient
1	severe threat/insufficient
2	moderate threat/insufficient
3	material constraints/problematic
4	potential constraints/deficient
5	sufficient level/acceptable
6	satisfactory level/adequate
7	comfortable level/manageable
8	strong level/solid
9	very strong level/solid
10	excellent level/solid

4.2.3. Risk management

The risk management criterion is examined by looking closely at the specific form, quality and effectiveness of the risk management and internal control systems. The main purpose is to establish whether the systems and measures adopted by the institution are suitable and appropriate for identifying, steering, monitoring and controlling the material risks arising from the business model.

Within the framework of the risk management analysis, therefore, the individual risk types to which banks are typically exposed, namely credit, market price, liquidity and operational risks, are examined. Particular business model-specific aspects of risk management, such as managing the risks associated with the collective saving scheme operated by building societies, or with the maintenance of cover by mortgage credit banks, are investigated separately.

Apart from evaluating other aspects of general risk management, the institution's internal monitoring systems, and the structure and functional capability of the internal auditing department, the suitability of the concept for assessing capital adequacy (measuring the capacity to absorb risk) is analyzed as well.

The organizational structure is also assessed, including outsourced activities, the accounting and reporting systems, and IT. In this connection, processes and resources (personnel, technical/organizational arrangements, and contingency plans) are examined as well. Consideration is given to the composition of the supervisory body, existing succession arrangements, and potential and actual personnel dependencies and shortages.

The various aspects concerning risk management are evaluated on an eleven-point scale.

Scale	Evaluation
0	going concern threat/insufficient
1	severe threat/insufficient
2	moderate threat/insufficient
3	material constraints/problematic
4	potential constraints/deficient
5	sufficient level/acceptable
6	satisfactory level/adequate
7	comfortable level/manageable
8	strong level/solid
9	very strong level/solid
10	excellent level/solid

4.2.4. Risk profile

The risk profile and its specific risk structures are assessed in principle from a short to medium-term perspective.

The analysis of the following topics:

- **credit risks,** in particular the structures of the loan portfolio, e.g. provisions for risks and loan diversification aspects (quality, granularity, countries, sector)
- **market price risks,** in particular interest rate risk and fx risk
- **operational risks,** in particular legal and reputational risks as well as business risks
- **liquidity risks,** in particular liquidity risks, funding risks and collective liquidity risks (building societies)
- **other structural factors,** in particular income and cost risks, earnings volatility and other risks arising from the business model and concerning the financial position and financial performance

A variety of procedures are used to quantify the individual risks. The risk can be measured, for example, by value-at-risk methods.

Once quantified, the risk is analyzed and evaluated. Here again, various tools are used. These include benchmarking and peer group comparisons with similar institutions, comparisons over time, and the calculation of business model-specific indicators and ratios.

The evaluation logic applied to the risk profile criteria is underpinned by an exponential scale. The influence on the rating increases as the significance of a criterion rises. This approach reflects in particular the interaction of several significant risk types.

Scale	Evaluation
0'	going concern threat
1'	severe threat
2'	substantial threat
3'	moderate threat
4'	potential threat
5'	substantial objection
6'	moderate objection
7'	minor objection
8'	marginal objection
9'	limited evidence of risk
10'	no evidence of risk

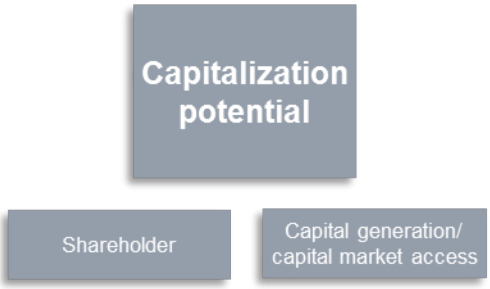
Alongside benchmarking and peer group comparisons, the analysis and evaluation are supported by supplementary indicators, some of which are business model-specific. The outcomes or results of these supplementary indicators are to be interpreted individually. For this reason, no transformation curves or weights are assigned to these indicators.

Among such indicators are:

- Ratios measuring risk provisioning, risk cost and risk provisioning shortfalls
- Ratios measuring asset quality, loan default
- Ratios measuring risk diversification, quality, granularity and countries
- Ratios measuring non-performing loans
- Ratios measuring installment credit operations
- Ratios measuring other market price risks
- Indicators measuring personnel and other operational expenses, staff productivity and cost intensities
- Ratios measuring legal and reputational risks
- Ratios measuring business risks
- Structural ratios concerning interest income
- Ratios measuring liquidity reserves
- Ratios measuring funding requirement
- Structural indicators concerning funding
- Structural ratios concerning matched-maturity funding

- Building society-specific ratios (including deposit investment ratios, saving and redemption intensities, savings-home loan ratios)
- Ratios measuring income and cost risks
- Structural indicators concerning assets and/or liabilities
- Earnings volatilities

4.2.5. Capitalization potential



Under the heading "capitalization potential", the potential support available from the shareholder(s) and the opportunities for eranings accumulation and capital market access are analyzed and evaluated.

When examining the "shareholder" criterion, the economic circumstances – the earnings, capital and financial strength – of the direct and/or indirect shareholder structure are assessed, giving special consideration to the ability and willingness to provide support against the background of fictitious economic distress and a substantial additional capital requirement on the part of the institution concerned.

When examining the ability to provide support, the focus is placed on the economic circumstances of the relevant shareholder(s) (in particular financial position and financial performance, access to the capital market, and funding opportunities). Among the factors to be considered are the relative volume, size and risk exposure of the shareholder(s) measured against the institution concerned (aggregated variables in case of several/numerous investments/subsidiaries), and any existing economic dependencies. The willingness of the shareholder(s) to provide support must be measured according to an assessment of economic or legal aspects or evidence. These include, in particular, the institution's strategic significance, the shareholder structure, existing legal relationships (e.g. profit and loss transfer agreements, letters of support) and legal forms (including limited liability company, partnership having personally liable partners, hybrid forms or natural persons with unlimited liability).

The aspects of "capital generation/capital market access" that are analyzed and evaluated are the possibilities (and limits) of internal and external liable capital formation and procurement, giving consideration in particular to earnings and capital accumulation options (including dividend policies), any existing profit and loss transfer agreement, own credit standing, and legal and/or prudential requirements and restrictions (e.g. going concern assessment). Capital can be procured, for example, through sole, majority or other "significant" minority shareholders, including in particular within the framework of capital allocation within the (multi-level) corporate group. In addition, liable capital can be procured through direct access to the capital market (stock and bond market) and, if appropriate, through private placements.

The various aspects concerning liable capital creation are evaluated on an eleven-point scale.

Scale	Evaluation
0	going concern threat/insufficient
1	severe threat/insufficient
2	moderate threat/insufficient
3	material constraints/problematic
4	potential constraints/deficient
5	sufficient level/acceptable
6	satisfactory level/adequate
7	comfortable level/manageable
8	strong level/solid
9	very strong level/solid
10	excellent level/solid

4.3. Additional rating factors

The rating can be affected by further factors, circumstances and events exerting an influence on the institution. These include, for example, the institution's integration in a parent corporate group, special situations or business models, or characteristics of the (group's) home country. Requirements and measures imposed by competent supervisory authorities, government agencies, or multi-national or supra-national authorities and organizations can likewise make a revision or adjustment of the rating necessary.

The incorporation of such factors in an individual rating would give rise to an imprecise representation of detail, for example criteria of the financial and business profiles. The effects of such factors, circumstances and events are therefore described at a higher level. In other words, the scope of the rating is supplemented by "additional rating factors". In such cases, the paramount rating is the comprehensive rating result.

In the case of institutions or branches with significant relations to a senior group of enterprises or other group (e.g. shareholders), for instance, possible influences can impose a ceiling on a rating (group ceiling or cap), based on the group's credit standing in combination with the degree of integration.

The key question in this context is whether (strategic) requirements, interventions or restrictions imposed by the senior group of enterprises or other group, for example, could influence the rating to a greater extent than indicated by the systemic analysis of the financial and business profiles. Based on the relevant group's credit standing, the difference between the rating of the institution or branch and the credit standing of the group is established. In a second step, the aggregated degree of integration is assessed within the framework of an enhanced analysis of various aspects, such as business model, risk management, and risk situation. The degree of integration determines the extent of potential restrictions or impairments arising from the integration.

The following group caps are applied, depending on the rating/credit standing difference in combination with the aggregated degree of integration:

Group Cap	**Slight integration**	**Intermediate integration**	**High integration**
Group-Rating: > BB+	No cap	No cap	No cap
Group-Rating: BB+	A	A-	BBB+
Group-Rating: BB	BBB+	BBB	BBB-
Group-Rating: BB-	BBB-	BB+	BB
Group-Rating: B+	BB	BB-	Corresponds to Group-Rating
Group-Rating: B	B+	Corresponds to Group-Rating	Corresponds to Group-Rating
Group-Rating: < B	Corresponds to Group-Rating	Corresponds to Group-Rating	Corresponds to Group-Rating

In the case of institutions or branches with significant foreign relations (e.g. own or parent group's registered office abroad), for instance, possible country-specific influences, on the basis of the OECD country risk classification in combination with the degree of integration, can impose a ceiling on a rating (country cap).

Institutions that are not active on the markets or have only limited market operations are likewise mapped and evaluated by way of additional rating factors on the basis of the direct or indirect shareholders' economic circumstances (their ability and willingness to provide support) and a resolution concept.

In banking systems subjected to resolution regimes due to bail-in external state support cannot be presumed. Given the possibility of a bail-in, a (government) supported rating is not issued (no notching-up).

4.3.1. Country cap

For institutions with significant foreign relations (e.g. own or parent group's registered office abroad, direct or indirect shareholders), an analysis is performed to assess whether any existing material country influences (vulnerabilities to its banking industry) in conjunction with the degree of integration can be appropriately reflected in the rating, or whether the rating is to be capped.

The examination is based generally on the senior home country (country where the registered seat is situated) of the direct or indirect ultimate shareholder or the group parent company. It analyzes whether existing constraints, restrictions or country risks could influence the bank and the rating to a greater extent than indicated by the systemic analysis of the financial and business profiles.

The starting point is the credit risk associated with the country (e.g. of the shareholder(s)) according to the OECD country risk classification. The country risk assessment model (CRAM) adopted by the OECD produces a quantitative assessment of the individual country's credit risk based on three groups of risk indicators (payment experience, financial situation and economic situation) and a qualitative assessment of the CRAM results by country risk experts from OECD members, giving consideration to political risk and/or other risk factors. Countries are thus assigned to a risk category. The eight-point (0 to 7) scale reflects increasing potential constraints or impairments based on the country concerned.

The OECD country risk categories are assigned to four groups with increasing potential constraints or impairments:

- Group I for OECD country risk categories 0 and 1
- Group II for OECD country risk categories 2 and 3
- Group III for OECD country risk categories 4 and 5
- Group IV for OECD country risk categories 6 and 7

In a second step, the aggregated degree of integration is assessed and expressed as a point score within the framework of an enhanced analysis of various aspects, such as business model, risk management, risk profile, and capital/shareholders.

The OECD country risk classification (category 0 to 7), after allocation to groups I to IV and in combination with the point score from the aggregated degree of integration, defines the country cap according to a rule-based assignment:

Country cap	OECD 0-1 I	OECD 2-3 II	OECD 4-5 III	OECD 6-7 IV
Slight integration	No cap	No cap	No cap	No cap
Intermediate integration	No cap	A+	A-	BB+
High integration	No cap	A	BBB+	BB

The rating of a bank with relevant potential country risks and/or degrees of integration in key areas is restricted by the country cap.

4.3.2. Institutions with a special business model

Institutions are regarded as having a special business model in the context of the rating methodology described here if they are no longer active in the markets or have only limited market operations (hereinafter: "institutions undergoing orderly resolution").

In particular, this description applies to institutions that are being restructured or rescued by a direct or indirect shareholder (e.g. group parent company or deposit protection fund) in an orderly procedure to avert losses. The key criterion in this context is the absence or limited scope of a profit-making purpose.

The assessment of institutions undergoing orderly resolution takes place primarily on the basis of the direct or indirect shareholder's economic circumstances or earnings, capital and financial strength (ability and willingness to provide support) and a resolution concept.

The evaluation and validation of the key data of the defined strategic resolution concept are performed by reference to the existing special legal and/or economic framework, the existence of a market or market access for the purpose of running down/selling assets or risk items, or of other factors capable of materially influencing the resolution process.

Since the orderly resolution process depends largely on a functioning organization that is focused on this purpose, the existence of adequate personnel, spatial and technical resources (in particular labor, IT and controlling resources) must be analyzed and evaluated as well. Finally, existing special risks capable of impairing the resolution process are examined, such as risks in loan and securities portfolios, liquidity and legal risks, elevated capital requirement etc.

When institutions undergoing orderly resolution are rated, the starting point is an assessment of the direct or indirect shareholder's economic circumstances or earnings, capital and financial strength. The shareholder provides the necessary capital and, if appropriate, liquidity, and thus facilitates and oversees the orderly resolution process (profile of requirements for ensuring orderly resolution).

Depending on the direct or indirect shareholder's economic circumstances (in particular financial position and financial performance, access to the capital market, and funding opportunities) as well as the shareholder's relative volume, size and risk exposure measured against the bank undergoing orderly resolution, the shareholder is assigned to one of the following initial levels:

- Level I: economic circumstances of the direct or indirect shareholder satisfy the requirements profile to a high degree
- Level II: economic circumstances of the direct or indirect shareholder satisfy the requirements profile to a good degree
- Level III: economic circumstances of the direct or indirect shareholder satisfy the requirements profile to a satisfactory degree

Depending on the initial group to which the shareholder is assigned, an initial rating is allocated to the bank undergoing orderly resolution. If favorable or prejudicial aspects or developments exist, the comprehensive rating result can be determined by upgrading or downgrading the initial rating by one notch.

Level	Initial rating for institutions undergoing orderly resolution	Deviations arising from positive or negative aspects or developments
Level I	BBB	BBB+/BBB-
Level II	BB	BB+/BB-
Level III	B	B+/B-

Depending on the extent to which the resolution concept has been implemented (e.g. almost completed) and in the event of significant positive or negative deviations from the concept or plan (possibly resulting even in impairment of the shareholder's economic circumstances), the shareholder can be assigned to a higher or lower initial group if appropriate.

In the case of a shareholder belonging to Level I, the BBB initial rating of the bank undergoing orderly resolution remains within the investment grade and thus reflects a good credit standing. The resolution concept, restructuring, or orderly resolution of the institution by way of a (partial) sale or merger is judged to have a good chance of succeeding. Depending on the characteristics of other aspects, the comprehensive rating result is in the range BBB+/BBB/BBB-.

In the case of a shareholder belonging to Level II, the BB initial rating of the bank undergoing orderly resolution is no longer within the investment grade and thus reflects a satisfactory credit standing. The resolution concept, restructuring, or orderly resolution by way of a (partial) sale or merger is still judged to have a reasonably good chance of succeeding. Depending on the characteristics of other aspects, the comprehensive rating result is in the range BB+/BB/BB-.

In the case of a shareholder belonging to Level III, the B initial rating of the bank undergoing orderly resolution reflects a barely adequate credit standing. In view of the weaker starting position based on the shareholder's economic circumstances, the resolution concept, restructuring, or orderly resolution by way of a (partial) sale or merger is judged to have only a limited chance of succeeding. Depending on the characteristics of other aspects, the comprehensive rating result is in the range B+/B/B-.

5. Presentation of rating result

The rating result consists of the rating, expressed as a combination of letters, a descriptive definition, and a rating outlook.

5.1. Rating scale and rating

The rating reflects the consolidated credit standing on the rating scale of GBB-Rating and covers a forecast period of 12 months as a general rule.

The analysts consolidate the findings from the assessment of the financial and business profiles in a rating proposal complying with the internationally recognized notation (22 ratings from AAA through D). The rating scale of GBB-Rating is illustrated below:

Rating	Rating Category *
AAA	highest financial standing
AA+ AA AA-	very high financial standing
A+ A A-	high financial standing
BBB+ BBB BBB-	good financial standing
BB+ BB BB-	satisfactory financial standing
B+ B B-	financial standing scarcely adequate
CCC+ CCC CCC-	financial standing no longer adequate
CC C	inadequate financial standing
D	moratorium, insolvency proceedings

* In addition to the forenamed categories, the following assessments are also possible:
WD (withdrawal) Rating withdrawn,
SP (suspension) Rating temporarily suspended pending communication and/or discussion with the rated entity

A moratorium or insolvency and suspension of payments on finance facilities, unless defined as an option in the terms and conditions, is classified as a default. A voluntary or contractual waiver of payments is not regarded as a default.

5.2. Rating outlook

The rating outlook – positive, stable, negative, indeterminate – serves as an early indicator of the direction in which a rating is likely to change within the next 12 to 24 months. Insofar as it projects the anticipated development over the forthcoming 24-month period on the basis of the available information, the rating outlook goes beyond the 12-month assessment furnished by the rating itself.

Forecast expressed by the rating outlook:

- Stable — No indications of a possible change in the rating – only a low probability that the rating will change.
- Positive — Indications exist that the rating may improve – the probability of the rating improving is higher than the probability of it remaining unchanged or deteriorating. The rating is placed on watch.
- Negative — Indications exist that the rating may deteriorate – the probability of the rating deteriorating is higher than the probability of it remaining unchanged or improving. The rating is placed on watch.
- Indeterminate — Indications exist that the rating may change, but the effect/magnitude and direction of such a change cannot be reliably estimated at present. The rating is placed on elevated watch.

5.3. Rating-sensitive factors

Among other things, the descriptive definition of the rating outlines key rating-sensitive factors and drivers that could positively or negatively influence the rating result in the medium term. For this purpose, the material issues and criteria governing the rating result, and therefore the result's sensitivity to same, are examined by analyzing and describing the drivers.

The material issues and criteria that are examined include:

- Earnings position and expectations [short-term (1-2 years), medium-term (2-4 years)]
- Shareholder structure and capital position [shareholders, capital, capacity to absorb risk]
- Strategy [business model, competitive framework]
- Market [macroeconomic environment, competition and market structure]
- Management and control systems [risk management, internal auditing]
- Credit risk [provisions for risks, diversification aspects]
- Market price risks [interest rate and currency risks, stock prices, commodities, spread risks]
- Income structure / liquidity [volatility, costs, liquidity, funding (refinancing)]
- Asset structure/operational risk [accounting risks, operational risk, legal risks]