July 2018, Frankfurt am Main.

METHODOLOGY FOR ASSIGNING CREDIT RATINGS TO REGIONS – FULL PUBLIC VERSION

TABLE OF CONTENTS:

1. General definitions

1.1 Scope of methodology

Rating-Agentur Expert RA GmbH (hereinafter referred to the Agency) assigns credit ratings to regions and municipalities (regional and local governments) in accordance with this methodology.

Credit rating of a region represents the opinion of the Agency on the ability of the region to fulfill its financial liabilities fully and in timely manner.

The Agency assigns credit rating in accordance with the international scale in local currency and credit rating in accordance with the international scale in foreign currency.

The general definition mentioned above, is specified as following:

Credit rating in accordance with the international scale in local currency represents an opinion of the Agency on the ability of the region to fulfill its financial liabilities nominated in local currency fully and in a timely manner;

Credit rating in accordance with the international scale in foreign currency represents an opinion of the Agency on the ability of the region to fulfill its financial liabilities nominated in foreign currency fully and in a timely manner;

In addition, the Agency can assign the short-term credit rating in accordance with the international scale in local currency and short-term credit rating in accordance with the international scale in foreign currency.

The general definition of the short-term rating mentioned in the document "Definitions and rules of the assignment of short-term credit ratings"[1], is specified as following:

Short-term credit rating in accordance with the international scale in local currency represents an opinion of the Agency on the ability of the region to fulfill its short-term financial liabilities nominated in local currency fully and in a timely manner;

Short-term credit rating in accordance with the international scale in foreign currency represents an opinion of the Agency on the ability of the region to fulfill its short-term financial liabilities nominated in foreign currency fully and in a timely manner.

1.2 Default definition

Any of the following cases shall be considered as default by the Agency:

- Non-fulfilment of financial liabilities on bonds after the end of the period of technical default (more than 10 business days or shorter period if such period is defined by the covenants of bonds issuance), including: failure to pay interest (coupon) on bonds; non-redemption of a nominal value of bond; non-fulfilment of liability to purchase bond (if such liability included to the issuing covenants (offer to purchase));
- Non-fulfilment of other financial liabilities bearing interest and which shall be repaid (for more than 30 business days);
- Non-fulfilment of other financial liabilities formally not bearing interest, after 10 business days from the day when the court decision entered into force;
- If the rated entity's debt liabilities were restructured within the last two months, and

[1] See the document Definitions and rules of the assignment of short-term credit ratings" published on the web-site of the Agency:
https://raexpert.eu/files/Short-term_credit_ratings_definitions.pdf

after this creditors have worse conditions comparing with the initially mentioned in the agreements.

According to the Agency's definition, the date of default is the date of the end of corresponding period after the first case of non-fulfillment of liabilities listed by the Agency.

1.3 Key rating assumptions

There are following rating assumptions:

1. There is a stable cause-effect relationship between the level of the creditworthiness (hereinafter referred to "creditworthiness" or rating level) of the rated entity and the qualitative and quantitative factors, listed in this methodology;
2. Qualitative and quantitative factors can have a linear and non-linear effect on the creditworthiness of the rated entity, the effect can be direct and reverse. Non-linear effect of factors is shown by using stress- and support-factors, that have a strong effect on the credit rating (detailed description of the qualitative and quantitative factors, influencing the ability of the rated entity to fulfill accepted financial liabilities, as well as description of their influence on the rating and the rating outlook are provided in the section "System of indicators");
3. The weight of each factor is determined according to the degree of its influence on the creditworthiness;
4. Indicators can have "limited intervals" for their influence on the rating score; if the value of an indicator goes beyond the "limited interval", it does not affect the rating score. If the value of the indicator is higher than the benchmark of the maximum score (for the indicators having positive correlation with the creditworthiness), it does not have an additional positive effect on the rating score. If the value of the indicator is below the benchmark of minimum score (for the indicators having negative correlation with the creditworthiness), it does not have an additional positive effect on the rating score. If the value of the indicator is below the benchmark of minimum score (for the indicators having positive correlation with the creditworthiness), it does not have an additional negative effect on the rating score (with the exception for the indicators having stress-factors). If the value of indicator is higher than the benchmark of minimum score (for the indicators having negative correlation with the creditworthiness), it does not have an additional negative effect on the rating score (with exception for the indicators having stress-factors).

1.4 General provisions and regulations

In accordance with the Regulation (EC) No 1060/2009 of the European Parliament and of the Council of 16 September 2009 on credit rating agencies and further amending or supplementing regulation (hereinafter – the CRA regulation) Rating-Agentur Expert RA GmbH strictly follows the requirements regarding the maintenance of its methodologies:

- The Agency uses the methodologies that are rigorous, systematic and continuous;
- The Agency discloses on its website information on the methodologies, models and key rating assumptions accompanied with the explanation of assumptions, parameters, limits and uncertainties surrounding the models and rating methodologies.
- Methodologies, models and key rating assumptions such as mathematical or correlation assumptions used for determining credit ratings are properly maintained,

up-to-date and subject to a comprehensive review on a periodic basis.

- There are internal procedures established for regular review of methodologies in order to be able to properly reflect the changing conditions in the underlying asset markets.
- The Agency monitors and reviews its methodologies on an ongoing basis and at least annually, in particular where material changes occur that could have an impact on a rating. The Agency monitors the impact of changes in macroeconomic or financial market conditions on ratings.
- There is a review function responsible for periodically reviewing the Agency's methodologies and any significant changes or modifications thereto as well as the appropriateness of those methodologies, where they are used or intended to be used for the assessment of new financial instruments.
- The Agency publishes the proposed material changes or proposed new rating methodologies on its website, together with a detailed explanation of the reasons for and the implications of the proposed material changes or proposed new rating methodologies, inviting stakeholders to submit comments within a period of one month.
- The Agency notifies ESMA of the intended material changes to the rating methodologies or the proposed new rating methodologies when the proposed changes or proposed new rating methodologies are published on its website. After the expiry of the consultation period, the Agency notifies ESMA of any changes due to the consultation.
- When the rating methodologies are changed, the Agency immediately discloses the likely scope of ratings to be affected, informs ESMA and publishes on its website the results of the consultation and the new rating methodologies together with a detailed explanation thereof and their date of application. The affected ratings are reviewed as soon as possible and no later than six months after the change, in the meantime placing those ratings under observation. The Agency re-rates all ratings that have been based on those methodologies if, following the review, the overall combined effect of the changes affects those ratings.
- Changes in ratings are issued in accordance with the Agency's published methodologies. The Agency ensures that the ratings and the outlooks it issues are based on a thorough analysis of all the information that is available to it and that is relevant to its analysis according to the applicable rating methodologies. The information the Agency uses in assigning ratings and outlooks is of sufficient quality and from reliable sources. The Agency issues ratings and rating outlooks stipulating that the rating is the Agency's opinion and should not be regarded as a recommendation to buy, hold or sell any securities or assets, or to make investment decisions.
- Changes in the quality of information available for monitoring an existing rating are disclosed with the rating review and, if appropriate, a revision of the rating is made.
- If the Agency becomes aware of errors in its methodologies it shall immediately notify ESMA about those errors and all affected rated entities, explaining the impact the on ratings and indicating the need to review issued ratings. If errors have an impact on ratings, the Agency shall publish them on its website and correct the errors in the methodologies.

2. Sources of information

While assigning the rating score, the following sources of information are used:

- Annual reports on the region's consolidated budget execution and the execution of budgets of state territorial off-budgetary fund for three years preceding the rating assignment;
- Extracts from the book of regional government debt as of the last reporting date, as of the end of the last completed year and for two previous years;
- Standard questionnaire;
- Prospectuses for scheduled or circulated bond emissions;
- Information from the mass media and other public sources, including official web-sites of local statistical office and authorities of a country.

If the information provided by the rated entity is not enough for the analysis, the Agency has to refuse from assignment / maintaining current credit rating. If the rated entity has existing rating in this situation, this rating shall be withdrawn without confirmation.

Adequacy of the information for the assignment of the credit rating shall be determined on the basis of ability / or disability to make an assessment in accordance with this methodology.

The main criteria used to determine the adequacy of the information are following:

- Ability to make an analysis of the rated entity on the basis of factors, listed in this methodology (see Section 5. "System of indicators");

If the mentioned criteria are satisfied, but the Agency was not provided with the full set of information requested, the Agency has a right to assign rating taking into account adjustments for the score of some factors, which shall be approved by the rating committee. As a general rule, such adjustments shall be conservative (have negative influence). Absence of information shall be considered as negative information by the Agency.

The Agency checks the reliability of the information provided by the entity in accordance with the internal procedure of the Agency. If the Agency detects signs of significant non-reliability of the financial statements and other information provided by the entity, the Agency refuses from the assignment / maintaining of current rating. If the entity has current rating in this situation, this rating shall be withdrawn without confirmation.

If the Agency detects signs of minor manipulation with the financial statements and other information provided by the entity, the Agency can reduce the score for some factors, or assign "other" stress-factor.

If two or more sources of information contradict each other and the entity does not provide proper explanation of these contradictions, the responsible expert uses the source of information that better and more conservatively reflects the risks of the rated object.

3. Rating classes

During the process of assigning the rating, the Agency uses international scale. **All public documents contain only the ratings according to the international scale.**

International scale

The region can be classified into one of the following rating classes:

Class AAA: **The highest level of creditworthiness.**

In the short-run the region will ensure timely fulfillment of all its financial liabilities, both current and contingent, with exceptionally high probability. In the mid-run there is a significant probability that the liabilities will be fulfilled even in case of significant unfavorable changes in the macroeconomic and market indicators.

Class AA: Very high level of creditworthiness.

In the short-run the region will ensure timely fulfillment of all its financial liabilities, both current and contingent, with very high probability. In the mid-run there is a significant probability that the liabilities will be fulfilled if the macroeconomic and market indicators remain stable.

Class A: High level of creditworthiness.

In the short-run the region will ensure timely fulfillment of all its financial liabilities, both current and contingent, with high probability. In the mid-run the probability of fulfilling the liabilities requiring significant payments depends greatly on the stability of the macroeconomic and market indicators.

Class BBB: Moderately high level of creditworthiness.

In the short-run the region will ensure timely fulfillment of all its current financial liabilities, as well as small- and medium-sized contingent liabilities with high probability. Probability of financial difficulties in case of incurred contingent liabilities requiring significant lump-sum payments is considered as moderately low. In the mid-run the probability of fulfilling the liabilities depends on the stability of the macroeconomic and market indicators.

Class BB: Sufficient level of creditworthiness.

In the short-run the region will ensure timely fulfillment of all its current financial liabilities, as well as small- and medium-sized contingent liabilities with high probability. Probability of financial difficulties in case of incurred contingent liabilities requiring significant lump-sum payments is considered as moderate. In the mid-run the probability of fulfilling the liabilities depends on the stability of the macroeconomic and market indicators.

Class B: Moderately low level of creditworthiness.

In the short-run the region will ensure timely fulfillment of almost all of its current financial liabilities with high probability. Probability of not fulfilling incurred contingent liabilities requiring large payments is moderately high. In the mid-run the probability of fulfilling the liabilities depends on the stability of the macroeconomic and market indicators.

Class CCC: Low level of creditworthiness.

In the short-run the probability of not fulfilling financial liabilities of the region is high.

Class CC: Very low level of creditworthiness (close to default).

In the short-run the probability of not fulfilling financial liabilities of the region is very high.

Class C: The lowest level of creditworthiness (partial default).

The region is not ensuring timely fulfillment of some financial liabilities.

Class D: Default

The region is not ensuring the fulfillment of all its financial liabilities.

The bonds of the region can be classified into one of the following rating classes:

Class AAA: **The highest level of reliability.**

In the short-run the region will ensure timely fulfillment of all its financial liabilities within the framework of the bond issue with exceptionally high probability. In the mid-run there is a significant probability that the liabilities will be fulfilled even in case of significant unfavorable changes in the macroeconomic and market indicators.

Class AA: Very high level of reliability.

In the short-run the region will ensure timely fulfillment of all its financial liabilities, within the framework of the bond issue with very high probability. In the mid-run there is a significant probability that the liabilities will be fulfilled if the macroeconomic and market indicators remain stable.

Class A: High level of reliability.

In the short-run the region will ensure timely fulfillment of all its financial liabilities within the framework of the bond issue with high probability. In the mid-run the probability of fulfilling the liabilities requiring significant payments depends greatly on the stability of the macroeconomic and market indicators.

Class BBB: Moderately high level of reliability.

In the short-run the region will ensure timely fulfillment of all its current financial liabilities within the framework of the bond issue, as well as small- and medium-sized contingent liabilities, with high probability. The probability of financial difficulties in case of other liabilities requiring significant lump-sum payments is considered as moderately low. In the mid-run the probability of fulfilling the liabilities depends on the stability of the macroeconomic and market indicators.

Class BB: Sufficient level of reliability.

In the short-run the region will ensure timely fulfillment of all its current financial liabilities within the framework of the bond issue, as well as small- and medium-sized contingent liabilities, with high probability. The probability of financial difficulties is considered as moderate in case of other liabilities requiring significant payments. In the mid-run the probability of fulfilling the liabilities depends on the stability of the macroeconomic and market indicators.

Class B: Moderately low level of reliability.

In the short-run the region will ensure timely fulfillment of almost all of its current financial liabilities within the framework of the bond issue with high probability. The probability of not fulfilling contingent liabilities is moderately high. In the mid-run the probability of fulfilling the liabilities depends on the stability of the macroeconomic and market indicators.

Class CCC: Low level of reliability.

In the short-run the probability of not fulfilling financial liabilities of region within the framework of the bond issue is high.

Class CC: Very low level of reliability (close to default).

In the short-run the probability of not fulfilling occurring financial liabilities of the region within the framework of the bond issue is very high.

Class C: The lowest level of reliability (partial default).

The region is not ensuring timely fulfillment of some financial liabilities within the framework of the bond issue.

Class D: Default.

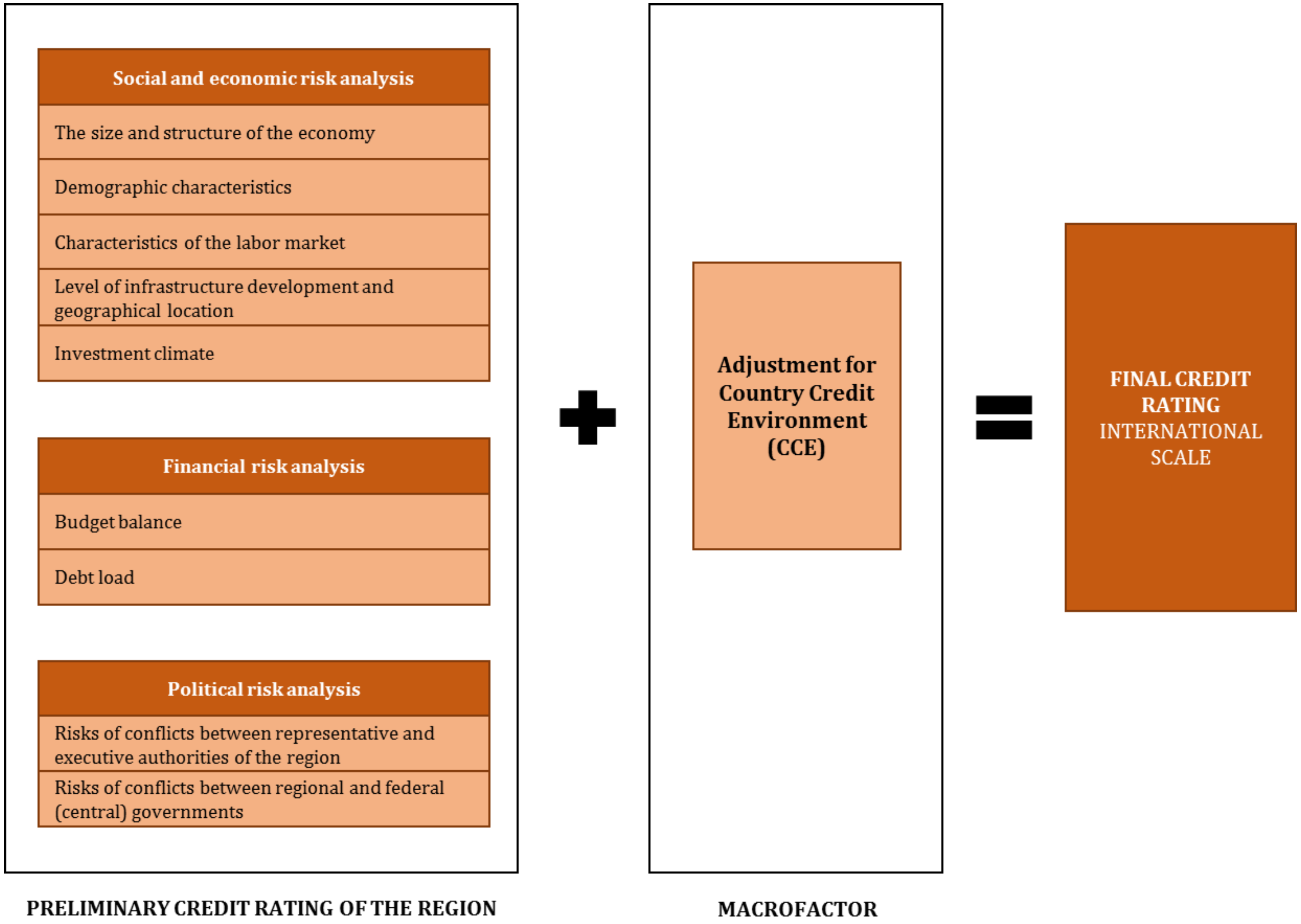
The region is not ensuring the fulfillment of almost all its financial liabilities within the framework of the bond issue.

One of the above rating levels that can be assigned to the region or regional bonds (excluding AAA and ratings below CCC) may be supplemented with (+) or (-) sign depending on the value of the rating score.

4. Rating assignment process

The scheme of the region's creditworthiness analysis has several levels. The region's creditworthiness analysis is based on the assessment of three main groups of factors: ***1. Social and economic risks analysis; 2. Financial risks analysis; 3. Political risks analysis***. Each group is divided into several large integral factors (see the logic scheme on the page 9).

Logic scheme:



Several indicators are analyzed within the framework of analysis of each integral factor. Scores for the indicators within each integral factor can be equal to one of the following values:

1	Factor (indicator) has positive influence on the creditworthiness level
0,5	Factor (indicator) has moderately positive influence on the creditworthiness level
0	Factor (indicator) has neutral influence on the creditworthiness level
-0,5	Factor (indicator) has moderately negative influence on the creditworthiness level
-1	Factor (indicator) has negative influence on the creditworthiness level

The score for each integral factor is determined as a sum of scores for separate indicators within a group being weighted in a certain manner. Weights of indicators are provided in the Annex 1. "List of indicators and corresponding weights" (page 24).

Benchmarks for each indicator are based on the data for all regions of a particular country, and then the score is assigned on the basis thereof. If the indicator for the region cannot be assessed directly according to the algorithm provided in this Methodology, the expert shall use the similar indicator for local statistical or fiscal standards or assess this indicator based on his/ her reasoned opinion[2].

The preliminary **rating score** is determined as a weighted sum of scores for all integral factors.

Triggers for automatic rating assignment for rating classes CCC, CC, C or D (according to the international scale):

Level	Condition
CCC	• Rating score according to the methodology from -70 to -50; OR • The share of short-term liabilities (which the region must fulfill within 12 months) in the structure of the region 's debt exceeds 50%; + absence of sufficient volume of liquid assets, or agreement on debt rescheduling or refinancing;
CC	• Technical default within the framework of the bond issue; OR • The share of short-term liabilities (which the region must fulfill within 12 months) in the structure of the region's debt exceeds 75%; + absence of sufficient volume of liquid assets, or documented agreement on debt rescheduling or refinancing;
C	• Default on coupon within the framework of the bond issue; + absence of documented agreement on debt rescheduling or refinancing
D	• Default on claim for early bond redemption or on repayment within the framework of the bond issue + absence of documented agreement on debt rescheduling or refinancing OR • Region is in the process of default

[2] In this case justification shall be provided.

The preliminary ratings are then transferred to the international scale through the adjustment for the Country Credit Environment rating (CCE) in foreign currency. The obtained rating is credit rating in accordance with the international scale in local currency. The credit rating in accordance with the international scale in foreign currency is the lowest of credit rating in accordance with the international scale in local currency and sovereign government credit rating in foreign currency of the country where this region is located. Both credit ratings of a region in local and foreign currency refer to one rating scale.

The rating of a region according to the international scale in local currency is usually capped by the Sovereign government credit rating in local currency of the country where this region is located, as well as rating of a region according to the international scale in foreign currency is usually capped by the Sovereign government credit rating in foreign currency of the country where this region is located. The Agency publishes only final ratings in accordance with the international scale in local and foreign currency.

In addition to the abovementioned ratings, the Agency can assign short-term credit ratings in local and foreign currency. The assigning of these ratings is performed through the transferring the long-term credit ratings in local and foreign currency respectively to the short-term rating scale on the basis of "Rating correspondence table" described in the document "Definitions and rules of the assignment of short-term credit ratings"[3].

[3] See the document Definitions and rules of the assignment of short-term credit ratings" published on the web-site of the Agency:
https://raexpert.eu/files/Short-term_credit_ratings_definitions.pdf

5. System of indicators

1. Social and economic risks analysis

1.1 The size and the structure of the economy

Gross regional product (GRP)[4] per capita

Sources of information: The questionnaire; data from the official statistics service; data from the State authority which is in charge of the national financial policy.

The level of economic development, expressed by the GRP per capita, is the basic indicator describing the wealth levels and labor productivity in the regional economy, and therefore – regional tax base strength. A region with high levels of GRP per capita, as compared with the country average or regional peers, has usually more fiscal independence and, all else being equal, support the creditworthiness assessment of the regional government.

Gross regional product (GRP) per capita (compared with other regions)

	The assessment is done for the year preceding the last full year

Dynamics of the GRP per capita (compared with other regions)

	The assessment is done by aggregation of scores for two full years, preceding the last full year

Gross regional product (GRP) structure

Sources of information: The questionnaire; data from the official statistics service; data from the State authority which is in charge of the national financial policy.

The diversification of the regional economy and, therefore, its tax base diversification, also significantly influences the stability of the regional budget income. The fiscal stance of a region having a well-diversified economy with high share of defensive industries is less exposed to macroeconomic and market shocks. On the other hand, a region with a highly concentrated economy is prone to have very volatile revenues and it is more likely that it would need additional financial support from other budget tiers in periods of economic distress.

	The assessment is based on the results of the last full year (expert's assessment[5])

1.2 Demographic characteristics

Population

Sources of information: The questionnaire; data from the official statistics service.

Population and its dynamics are factors which affect the regional tax base, especially the collection of personal income tax (PIT). A large and increasing population correlates with a higher amount of potentially collected taxes, while a small and decreasing population reduces the region's revenues.

Average annual population

[4] Gross regional product - analogue of GDP for regions/ territories inside the country (the same as regional GDP).
[5] The assessment shall be done by the responsible expert.

	The assessment is based on the results of the last full year

Average annual population dynamics

	The assessment is done by aggregation of scores for the last three full years

Dependency ratio[6]

Sources of information: The questionnaire; data from the official statistics service.

The Agency assesses the age structure of the regional population. A high share of non-working age population resulting in higher dependency ratios, increase the potential level of social spending on the regional budget while at the same time decreasing the tax base for personal taxes, such as PIT.

Value of the dependency ratio

	The assessment is done for the year preceding the last full year

Dynamics of the dependency ratio

	Scoring is done by aggregation of scores for two full years, preceding the last full year

1.3 Characteristics of the labor market

Average salary

Sources of information: The questionnaire; data from the official statistics service.

Average salary is used as a more accurate measure for the assessment of the personal income tax base characteristics, as compared with the level of total personal income, which can be distorted by non-registered income. Higher levels of average salary result in higher fiscal income and, all else being equal, in a higher level of creditworthiness.

Average salary

	The assessment is based on the results of the last full year

Dynamics of the average salary

	The assessment is done by aggregation of scores for the last three full years (expert's assessment)

Unemployment rate[7]

Sources of information: The questionnaire; data from the official statistics service.

High unemployment rates negatively affect the fiscal performance of the region. Elevated unemployment potentially increases the level of social payments and other related costs for the regional budget. At the same time, even if unemployment related expenditures are partly or fully mitigated by the transfers from another budget tier, the high share of unemployed population reduces the regional tax base. Consequently, higher unemployment rates will usually increase the risks of deficit and debt increase.

---

[6] Dependency ratio is a measure which shows the number of dependents (which are younger and older that working age) to the total population in working age. Also referred as the "total dependency ratio".
[7] According to the methodology from the International Labor Organization

Unemployment rate

	The assessment is based on the results of the last full year

Unemployment rate dynamics

	The assessment is done by aggregation of scores for the last three full years (expert's assessment)

1.4 Level of infrastructure development and geographical location

Proximity of the region to the capital or to the most developed part of the country

Sources of information: The questionnaire; data from the official statistics service; open sources.

Proximity of the region to the capital or to the most developed part of the country (in some cases) in terms of infrastructure, is used to assess the risks related to the region's geographical location. Unit cost of transport and social infrastructure in regions with non-favorable nature characteristics (such as mountains, deserts or territories with extreme climate) as well as in regions located far from the most populated zones of a country, are higher as compared with regions located close to the main economic and financial centers. In addition, the formers have more barriers to increase its tax base. Hence, favorable geographical location positively affects the region's creditworthiness.

The assessment of this factor shall be based on the assessment of the distance between the regional capital and country capital (or the most developed part of the country), as well as transport accessibility of the region.

Score	Description
-1	The region is located in the less populated part of the country far away from the national capital or the most developed part of the country and the regional territory is characterized by non-favorable nature characteristics (such as mountains, deserts or territories with extreme climate)
-0,5	The region is located in the less populated part of the country far away from the national capital or the most developed part of the country
0	All other cases
0,5	The region is characterized by favorable geographical location as compared to its national peers
1	The region is bordered with the national capital or the most developed part of the country (or it is belong to such types of the territories)

Road density

Sources of information: The questionnaire; data from the official statistics service.

Road density is used as the basic characteristic of the infrastructure development of the region. Authorities of the territories having low levels of this indicator have to maintain larger capital expenditures to compete with more developed regions and therefore have a higher risks of deficit and debt increase.

	The assessment is done for the last full year (expert's assessment)

Availability of big sea ports[8]

Sources of information: The questionnaire; data from the official statistics service; open sources.

The Agency considers the presence of big sea ports as an additional advantage for the regional economy and fiscal revenues, since this type of infrastructure provides benefits from foreign trade for the region.

Score	Description
-1	There are no big sea ports on the territory of the region
1	There are big sea ports on the territory of the region

1.5 Investment climate

Rating of investment attractiveness

Sources of information: Independent complex indexes of business climate, calculated by local or international think tanks or non-government organizations.

The Agency uses qualitative assessments of investment attractiveness, such as independent complex indexes of business climate, calculated by local or international think tanks or non-government organizations.

	The assessment is done for the last full year (expert's assessment)

Investments per capita

Sources of information: The questionnaire; data from the official statistics service; Data from the State authority which is in charge of the national financial policy.

The total investments per capita indicator shows the actual values of funds invested on the territory of the region. High levels of this indicator show the widening industrial base and increasing level of infrastructure development of the region, and therefore, are related to the broader future tax base as compared with the current stance.

Investments per capita

	The assessment is done for the last full year

Dynamics of investments per capita

	The assessment is done by aggregation of scores for the last three full years (expert's assessment)

Foreign investments per capita

Sources of information: The questionnaire; data from the official statistics service; Data from the State authority which is in charge of the national financial policy.

[8] Only for regions from countries which have access to the See. For land-locked countries availability of big transport nodes and river ports shall be assessed.

Foreign investments per capita focuses on the attractiveness of the region for foreign investors, which are not only the source of additional funds for the economy and taxes for the budget, but also usually source of new technologies and industry standards (especially for developing countries).

Foreign investments per capita

	The assessment is done for the last full year

Dynamics of foreign investments per capita

	The assessment is done by aggregation of scores for the last three full years (expert's assessment)

2. Financial risks analysis

The structure of financial risks analysis provided in the Methodology is intended for the regions from countries with fiscal federalism system. For regions of countries with another type of budget system, the algorithm of assessment of some indicators can be different.

2.1 Budget balance

Volume of revenues

Sources of information: The questionnaire; data from the State authority which is in charge of the national financial policy.

The volume of revenues and its dynamics are used as an indicator of the size and stability of the funding base.

Revenues of the consolidated regional budget[9]

	The assessment is done for the last full year

Dynamics of revenues of the consolidated regional budget

	The assessment is done by aggregation of scores for the last three full years

Revenues of the regional budget[10]

	The assessment is done for the last full year (expert's assessment)

Dynamics of revenues of the regional budget

	The assessment is done by aggregation of scores for the last three full years (expert's assessment)

Structure of the budget expenses

Sources of information: The questionnaire; data from the State authority which is in charge of the national financial policy.

The Agency focuses on the expenses flexibility in order to assess which share of fiscal expenditures can be easily reduced in case of financial stress. Current expenditures such as salaries or obligatory social payments are usually difficult to reduce on short notice without

[9] For this methodology **consolidated regional budget** refers to the own budget of the region plus budgets of lower levels of budget system (for territories included in the region), plus off-budget regional and local funds.
[10] For this methodology **regional budget** refers to the own budget of the region without budgets of lower levels of budget system (for territories included in the region) and off-budget regional and local funds.

negative economic and social consequences, while capital expenditures are considered as a more flexible part of the fiscal expenses.

The share of capital expenses in the structure of the regional budget expenditures

	The assessment is done for the last full year (expert's assessment)

Budgetary deficit/ surplus

Sources of information: The questionnaire; data from the State authority which is in charge of the national financial policy.

The level of fiscal balance is used by the Agency as a resulting measure for the assessment of the fiscal performance of the region. A fiscal surplus shows that the region has enough revenues not only to cover its current expenditures, but also to pay its financial liabilities, create financial reserves or invest funds in development projects. In contrast, a sustained budgetary deficit can lead to debt increase, and therefore negatively affect the creditworthiness assessment.

Amount of deficit/ surplus of the regional budget

	The assessment is done for the last full year

Dynamics of the deficit/ surplus of the regional budget

	The assessment is done by aggregation of scores for the last three full years (expert's assessment)

Share of transfers from the higher budget level in the revenues structure of the consolidated regional budget

Sources of information: The questionnaire; data from the State authority which is in charge of the national financial policy.

The main quantitative indicator for the assessment of the structure of revenues is the share of transfers from the highest budget level in total revenues of the consolidated regional budget. A high share of such type of revenues indicates that the regional government does not have enough own funds to finance its financial obligations and, thus, increases the exposure of the regional budget to risks related to another budgetary tier.

Share of transfers from the higher budget level in the revenues structure of the consolidated regional budget

	The assessment is done for the last full year

Dynamics of the share of transfers from the higher budget level in the revenues structure of the consolidated regional budget

	The assessment is done by aggregation of scores for the last three full years (expert's assessment)

Structure of transfers from the higher budget level

Sources of information: The questionnaire; data from the State authority which is in charge of the national financial policy.

The Agency assesses the flexibility of incoming transfers. Even if the share of total transfers in the budget revenues is high, the major part of such funds can be formed by transfers not bearing any covenants or conditions. Such structure of transfers will be assessed positively by the Agency, as the regional government has more space to use incoming funds according their needs.

	The assessment is done for the last full year (expert's assessment)

Structure of the tax revenues

Sources of information: The questionnaire; data from the State authority which is in charge of the national financial policy.

The Agency assesses the structure of tax revenues to evaluate the region's dependency on particular taxes, industries or particular taxpayers.

Share and structure of the top 10 taxpayers* making payments to all budget levels on the territory of the region.

Score	Description
1	The share of top-10 < 25%
0,5	The share of top-10 between 25-35%
0	The share of top-10 between 35-45%
-0,5	The share of top-10 between 45-55%
1	The share of top-10 >55%

*If the administration of the region didn't provide the information about top 10 taxpayers, the assessment of this factor shall be based on the following indicator:

The diversification of tax revenues by types

	The expert's assessment for the last full year

The volume of taxes collected on the territory of the region[11]

Sources of information: The questionnaire; data from the State authority which is in charge of the national financial policy.

The Agency takes into account the volume of the tax collected on the region's territory as an indicator showing the importance of the entity for the national fiscal system and, therefore, the probability to have additional preferences or extraordinary financial support from the highest budget tier.

Volume of taxes collected on the territory of the region

	The assessment is done for the last full year

Dynamics of the tax volume collected on the territory of the region

[11] The full name of this indicator: The volume of taxes collected on the territory of the region and transferred to all budget levels.

	The assessment is done by aggregation of scores for three full years (expert's assessment)

The level of tax collection[12] for taxes collected on the territory of the region[13]

Sources of information: The questionnaire; data from the State authority which is in charge of the national financial policy.

The level of tax collection shows the quality of fiscal planning of local tax authorities (or local representatives of the centralized tax collection service) and payment discipline of local taxpayers. Significant underperformance of the budget as compared to the initially planned targets reflect an overestimation of the tax base for a particular period or that local taxpayers somehow can avoid paying taxes.

Level of tax collection for taxes collected on the territory of the region

	The assessment is done for the last full year (expert's assessment)

Dynamics of the level of tax collection for taxes collected on the territory of the region

	The assessment is done by aggregation of scores for three full years (expert's assessment)

The quality of budget planning[14]

Sources of information: The questionnaire; data from the State authority which is in charge of the national financial policy.

The level of deviation of the actual budget figures from the planned ones (according to the budget execution) is used to assess the adequacy of budget forecasting in the region. In addition, the Agency can use additional qualitative parameters and take into account results of budget management supervision by federal authorities to assess the quality of budget management.

	The assessment is done for the last full year. The expert assessment is based on the deviation of the planned budget figures from the actual (according to the budget execution).

2.2 Debt load

The ratio of debt to own budget revenues[15]

Sources of information: The questionnaire; data from the State authority which is in charge of the national financial policy.

[12] The level of tax collection is assessed by the ratio of tax payments received in a certain period to the volume of tax liabilities that must be incurred in the same period according to the law.
[13] The full name of this indicator: The level of tax collection for taxes collected on the territory of the region and transferred to all budget levels.
[14] Expert assessment is based on the deviation of actual budget figures from planned budget figures (according to the budget execution).
[15] Total revenues minus transfers from the higher budget level.

The main variable used to assess this factor is the ratio of total debt to own budget revenues (total revenues minus transfers from the higher budget level), which shows the ability of the regional government to pay its debt without external financial support.

The ratio of debt to the own budget revenues (total revenues minus transfers from the higher budget level)

	The assessment is done for the last full year

Dynamics of the ratio of debt to the own budget revenues (total revenues minus transfers from the higher budget level)

	The assessment is done by aggregation of scores for the last three full years (expert's assessment)

Share of debt servicing expenses in the region's expenses

Sources of information: The questionnaire; data from the State authority which is in charge of the national financial policy.

The Agency takes into account the share of debt servicing expenses in the region's expenses in order to determine the ability of the region to service its debts without cutting-off other budget expenditures.

Share of debt servicing expenses in the region's expenses

	The assessment is done for the last full year

Dynamics of Share of debt servicing expenses in the region's expenses

	The assessment is done by aggregation of scores for the last three full years (expert's assessment)

The ratio of debt to the value of regional government's property

Sources of information: The questionnaire; data from the State authority which is in charge of the national financial policy.

The Agency takes into account the ratio of debt to the value of regional government's property in order to determine the ability of the region to meet its debt obligations in case of absence of the required volume of budget revenues.

The ratio of debt to the value of regional government's property

	The assessment is done for the last full year (expert's assessment)

Dynamics of the ratio of debt to the value of regional government's property

	The assessment is done by aggregation of scores for the last three full years (expert's assessment)

Debt structure by maturity

Sources of information: The questionnaire; data from the State authority which is in charge of the national financial policy.

The Agency evaluates debt structure by maturity in order to determine the region's ability to fulfill obligations with maturity less than one calendar year. A high share of short-term debt is negatively assessed, because such composition of the regional liabilities creates pressure on the fiscal stance of the government in case of abrupt changes in the level of expenditures and shows the low level of fiscal planning.

	The assessment is done for the last full year (expert's assessment)

Debt structure by lenders

Sources of information: The questionnaire; data from the State authority which is in charge of the national financial policy.

The Agency evaluates debt structure by lenders in order to determine the region's dependence on the largest lender. High concentration on one single or group of related creditors is also a negative factor because it increases the dependence of the region on one source of funding and makes the debt conditions less predictable. However, if the debt is mostly formed by loans from another budget tier or non-market loans from special financial institutions (such as IMF, local development funds, etc.), this can be assessed as a positive factor due to the high probability of prolongation or restructuring.

	The assessment is done for the last full year (expert's assessment)

Currency structure of the debt

Sources of information: The questionnaire; data from the State authority which is in charge of the national financial policy.

The Agency evaluates currency structure of debt in order to determine the region's dependence on exchange rate fluctuations and to determine potential volume of losses while discharging debt obligations. The Agency assesses high levels of FX-debt as a strong negative factor. Usually, all budget revenues of the region are nominated in local currency and, as a result, the presence of FX-debt negatively affects the volatility of the overall debt load.

	The assessment is done for the last full year (expert's assessment)

Credit history

Sources of information: The questionnaire; data from the State authority which is in charge of the national financial policy.

The Agency analyses the credit history in order to determine if there were episodes of overdue debts or defaults in the credit history of the region. The Agency analyses the credit history of the rated region on the basis of the recorded debt repayment, public debt instruments issuing, assigned credit ratings, as well as presence of defaults and overdue financial liabilities in the past.

	The assessment is done for 5 full years preceding to the rating assignment (expert's assessment)

3. Political risk analysis

3.1 Risks of conflicts between representative and executive authorities of the region

Sources of information: open sources.

Presence of such conflicts are assessed by the Agency as a negative factor as they substantially distort the quality of budget planning and budget execution (including debt repayments). In extreme scenarios, if the legislature has the right to block debt repayments from the regional budget and has a conflict with executive authorities, the latter increases the probability of default even if the financial ratios remain at acceptable levels.

3.2 Risks of conflicts between regional and federal (central) governments

Sources of information: open sources.

Conflicts between regional and federal (central) governments substantially increase the risks of regional defaults, especially in the countries with large scaled budget equalization. If a region which depends heavily on budget transfers has a conflict with the central government, it decreases the probability of financial support from the highest budget tier, especially if the fiscal rules are not transparent. Therefore, such regions are more exposed to default risks.

6. The rules for the determination of the outlook on the credit rating

Rating-Agentur Expert RA GmbH determines the rating outlook according to this methodology. Rating outlook means the opinion of the Agency on the probability of changes of the rating in one-year perspective (unless indicated otherwise). The credit rating of the rated entity can be assigned with one of the following outlooks:

- Positive outlook (high probability of rating upgrade within the following 12 months);
- Negative outlook (high probability of rating downgrade within the following 12 months);
- Stable (high probability of rating maintenance within the following 12 months);
- Developing outlook (the probability of the following rating actions is equal for the 3 months horizon: upgrade, downgrade and rating maintenance).

The outlook on the rating of the region is based on the Agency's expectations about the dynamics of the indicators, used in this methodology, i.e. the outlook is affected by the same factors as the assigned rating.

When assigning the outlook, the Agency takes into account the historical data of the rated entity, data from the entity's strategy, the Agency's own macroeconomic forecast.

When assessing the rated entity's perspectives the Agency uses the key rating assumptions for the possible scenarios of the entity's dynamics, as well as the probability of each scenario. Such scenarios are the subjective opinion of the members of the rating committee. These scenarios can be based on the official strategy of the rated entity and internal calculations of the Agency. The outlook is sensitive to the final decision of the rating committee in the most probable scenario of the entity's dynamics. The planned changes in the regulation are taken into account for the outlook determination if they can have a significant influence on the rating.

The rating committee can determine the criteria, satisfaction or non-satisfaction of which, can lead to the changes in the rating (rating sensitivity).

Annex 1. List of indicators and corresponding weights

	Weight
1. Social and economic risks	**40**
1.1. The size and structure of the economy	10
Gross regional product (GRP) per capita	
Gross regional product (GRP) structure	
1.2. Demographic characteristics	5
Population	
Dependency ratio	
1.3. Characteristics of the labor market	5
Average salary	
Unemployment rate	
1.4. Level of infrastructure development and geographical location	5
Proximity of the region to the capital	
Road density	
Availability of big sea ports	
1.5. Investment climate	15
Rating of investment attractiveness	
Investments per capita	
Foreign investments per capita	
2. Financial risks	**50**
2.1. Budget balance	20
Volume of revenues	
Structure of the budget expenses	
Budgetary deficit/ surplus	
Share of transfers from the higher budget level in the revenues structure of the consolidated regional budget	
Structure of transfers from the higher budget level	
Structure of the tax revenues	
The volume of taxes collected on the territory of the region	
The level of tax collection for taxes collected on the territory of the region	
The quality of budget planning	
2.2. Debt load	30
The ratio of debt to the own budget revenues	
Share of debt servicing expenses in the region's expenses	
The ratio of debt to the value of regional government's property	
Debt structure by maturity	
Debt structure by lenders	
Currency structure of the debt	
Credit history	
3. Political risks	**10**
3.1. Risks of conflicts between representative and executive authorities of the region	3
3.2. Risks of conflicts between regional and federal (central) governments	7