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METHODOLOGY FOR ASSIGNING CREDIT RATINGS TO MUNICIPALITIES

INTRODUCTION

The Credit Rating of a Municipality presents an impartial assessment of its creditworthiness. It presents an external, objective, and independent opinion on the ability of the Municipality to service its debt-related contractual obligations in full and on time.

BCRA's approach to assigning credit ratings to municipalities is based on an analysis of a number of qualitative and quantitative rating factors organized in a few categories: country risk, regulatory framework and general trends for the municipalities in the country, demographic features of the rated municipality, economic conditions and structure of the rated municipality, financial analysis, operational practices, comparative analysis, financial forecast. With the exception of the first section (government risk) the rest of the rating factors are used for assignment of "base rating" of the municipality that positions it compared to itself over time and compared to other municipalities in the country.

BCRA's rating model for municipalities consists of a careful selection of those factors along with their usual weights (*see* **Appendix A** at the end of this document). By necessity, the factors in the model are presented in general terms to allow for the model to be applied in various countries and various municipalities. The model is used solely as a means of improving the transparency and comparability of ratings over time and across municipalities. The final credit rating assigned, however, may differ considerably from the one implied by the model due to the specifics of the country or municipality in question, whenever those specifics necessitate consideration of a number of important new factors, elimination of standard factors, a change in the weight on the factors, or expert adjustment of the risk assessment of the factors.

CREDIT RATING AND NATIONAL-SCALE RATING

BCRA uses rating factors specific to the municipality – i.e., those having to do with its demographic and economic conditions and structure, financial analysis, operational practices, comparative analysis against other municipalities, financial forecast, and management and administrative structure – in the beginning of the rating process to determine the condition of the municipality when contrasted with itself over time and with other municipalities in the country. Having so far viewed the municipality in isolation for comparative purposes, BCRA then places it within the regulatory environment and the institutional conditions facilitating or limiting to some extent the activities of all municipalities in the country. The rating factors considered at this stage are grouped within the section "regulatory framework." In this way, BCRA determines a so called "base rating" of the municipality, which is to be compared with the maximum allowable municipal rating, which BCRA finds realistic within the particular home country in the particular time frame – pending material changes in situation of the municipality or its environment[1]. This maximum allowable municipal rating for the country plays the part of a ceiling to be surpassed only in very limited circumstances. When determining the ceiling, it is

[1] Municipal ratings are review at least every six months, but are being monitored continuously.

crucial to assess the overall home-country risk and the extent to which domestic municipalities as a whole are exposed to such risk, except in the sense already covered under "regulatory framework". The base rating of a municipality would be identical to its final credit rating as long as the ceiling is not binding, i.e., the ceiling is higher than the base rating. In the remaining cases, the credit rating is limited to the ceiling level. Exceptions are possible in as much as a particular municipality has features making it uniquely autonomous and immunized from country risk, and in such cases, it is possible that its credit rating exceeds even the ceiling by one or more notches.

$$\text{Credit rating} = \begin{cases} \text{ceiling}, & \text{if ceiling} < \text{base rating} \\ \text{base rating}, & \text{if ceiling} \geq \text{base rating} \end{cases}$$

Credit rating of a municipality is assigned according to the published BCRA's Global Rating Scale (https://www.bcra-bg.com/en/rating-scales).

BCRA could also issue a national-scale rating to entities or issues (see: https://www.bcra-bg.com/en/rating-scales). This type of rating is relative, in comparison to other rated entities in the country, taking into consideration only the specific risk factors of the entities and not the effect of the local environment on them. That is, the national-scale rating does not represent an absolute evaluation of creditworthiness, but only a relative evaluation within the bounds of given country. For this reason, it is impossible to draw any comparison between national-scale ratings of entities or issues from different countries and the national-scale rating must never be used as any indication of the *absolute* probability of default (see **Appendix B** for a precise definition of municipal default). BCRA issues national-scale ratings when a sufficiently large sample size of rated entities is available for the given country, which would allow one to draw comparisons between those entities.

RATING FACTORS FOR ASSIGNING MUNICIPAL CREDIT RATINGS

BCRA's rating process involves an analysis of a large number of qualitative and quantitative rating factors for the rated municipality, discussed in some detail below and are organized in the following categories:

- country risk
- regulatory framework,
- demographic features of the rated municipality,
- economic conditions and structure of the rated municipality,
- financial analysis,
- expenditures policy,
- comparative analysis,
- financial forecast.

ANALYSIS OF THE COUNTRY RISK

The analysis of country risk and its effect on municipal credit ratings is analogous when assessing municipalities in a single country, but may differ across countries. In its nature, the assessment of country risk has a lot in common with the analysis used when assigning sovereign ratings (see BCRA's Sovereign Rating Methodology available at http://www.bcra-bg.com/). The rating factors considered in both cases may be grouped in the following sections: 1) Political Stability, 2) Macroeconomic Stability, 3) Fiscal Flexibility, and 4) Effectiveness of the Monetary Policy. On the other hand, what weights would be assigned to those factors and how precisely country risk would affect the credit ratings of municipalities depends on the circumstances of the particular country in the particular time frame, and, on special occasions, even on the circumstances of the particular municipality.

In some countries, municipalities are politically more independent, including from the point of view of their fiscal policy, while in others, municipalities are simply the limbs of the central government, and they are completely dependent on the general trends in the country, be those political, macroeconomic, fiscal, or monetary trends. The dependency is most palpable when the municipalities are reliant on central-government funding to a large extent, or when the regulatory framework limits the flexibility of the municipal management when it comes to budgetary receipts or expenditures. When it comes to the regulatory framework affecting all municipalities in the country, the analysis benefits from a lot of the observations already made when assessing the second section of the rating factors – "regulatory framework and general trends for the municipalities in the country."

In a more indirect but no less important way, municipalities are also dependent on general macroeconomic developments via the interaction of the local markets for goods, services, labour, and capital with the national markets. The processes affecting unemployment, inflation, productivity and other macroeconomic indicators in a single municipality are more or less correlated with some more general processes taking place on a country-wide scale. But even when municipalities are rather independent politically and economically, their sources of outside funding may well be vulnerable to the local financial markets and banking system, which in turn, affect and are affected by the fiscal and monetary policy of the central government. The most independent municipalities are those which are autonomous politically and autarkic economically and either have access to international sources of capital or can finances themselves fully through their receipts. Such municipalities would have minimal exposures to country risk and, when other indicators also excel, would receive relatively high credit ratings.

In as much as the presence of country risk and the extent to which municipalities are vulnerable or immune to such risk is a systemic phenomenon, BCRA includes those considerations in the calculation of the maximum allowable municipal rating within the country at a period in time. Notwithstanding, in particular cases when a municipality has a base rating above this ceiling, and when its circumstances isolate uniquely the municipality from country risk to an extent, it is possible that its credit rating would surpass the ceiling with one or more notches.

ANALYSIS OF THE REGULATORY FRAMEWORK

The goal of this part of the analysis is to provide a general view of the environment and the conditions in which domestic municipalities operate and to track the trends in the major quantitative indicators. From the rating perspective, it is necessary to evaluate the common systemic risk involved in municipal activities. This risk is a consequence only of the environment and is not due to factors specific to the rated municipality or processes internal to the municipal organization. This systemic risk is affected by:

- Regulatory risk – the threats associated with a possible change in the financial relationship between the municipality and the central government;
- Political risk – the threat of a change in government.

The municipality is the basic administrative and territorial unit of local government. The local management functions are focused at the municipal council, and the executive functions are performed by the mayor, who in turn nominates his deputies. The activities of municipalities are tightly delimited, both by nation-wide and local regulations.
The analysis takes into consideration both the structure and the dynamics of the municipal budgets:

1. Income:

   - Local revenues (tax and non-tax, including property revenues from rent and sales)
   - Transfers for local activities
   - Revenues (transfers) for activities delegated by the central government;

2. Expenditures:

   - Expenditures by economic elements for local activities
   - Expenditures by functions for local activities
   - Capital expenditures.

ANALYSIS OF THE DEMOGRAPHIC FEATURES OF THE RATED MUNICIPALITY

BCRA assesses the demographic profile of the Municipality, because it determines certain risks, or certain favorable prerequisites for economic development.

ANALYSIS OF THE ECONOMIC STRUCTURE OF THE RATED MUNICIPALITY

BCRA analyses the economic state of the Region, because it relates to the finances of the Municipality. The economic prosperity of a given Municipality depends on its population, build road infrastructure development of local business, and potential growth.

FINANCIAL ANALYSIS OF THE RATED MUNICIPALITY

<u>Income</u>
The analysis of the municipal finances includes tracking the dynamics and the structure of the tax and non-tax revenues and revenues from transfers for local activities. We rate the capability of the

municipality to attract additional revenues if necessary and the size of its reserves such as positive net operating balance, investment property, etc.

Expenditures

We analyze the structure and the dynamics of the ongoing expenditures as well as the factors affecting them. We look at capital expenditures and their share in total expenditures. An in-depth analysis of the expenditures is performed in the next category of rating factors – Expenditures Policy.

It is important to pay special heed to the ratio of the net income and the total receipts for local activities, which is an important indicator for the profitability of the operating activities of the municipality. BCRA analyses the net cash flows level as a realised surplus/deficit from local activities. BCRA take note of their structure, that is, the relative importance of cash flows from operating and investing activities.

BCRA analyse the indebtedness of municipality including the payments in arrears (past due), contingencies according to a level of significance.

Debt financing

The debt profile of the municipality is assessed and evaluated, including: structure and maturity of the debt, trend of residual debt exposure, analysis by individual creditors, etc. Basic debt ratios are calculated, such as annual debt payments to own revenues, amount of debt to own revenues, etc.

ANALYSIS OF THE EXPENDITURES POLICY

In this section of the credit rating process, we analyze the functional grouping of the expenditures with two goals in mind: informative (in order to better understand the expenditure strategy of the municipality and to become better acquainted with the projects being realized) and analytical (in order to study closely the structure and the time-series dynamics of the expenditures and to evaluate the local government's short-term plans thereby).

We split the analysis of the structure and the dynamics of the expenditures along functional lines, with particular attention paid to investment expenditures and the resulting projects brought to fruition historically. We also look at the projects planned for the near future and those included in the municipality's strategy. It is crucial to take into consideration the condition and the main features of the municipal water-supply network, wastewater-treatment system, road network, and waste management.

We would be remiss to not consider also the sources of financing of the municipal investment program, where we rate favourably a high share of resources from operational programmes or from local income, where the latter would suggest a higher level of financial stability.

COMPARATIVE ANALYSIS OF THE RATED MUNICIPALITY

In order to gauge better the municipality and its competitiveness, BCRA compares it to a selection of other municipalities with similar demographics or economics. The comparison is performed on a number of indicators. BCRA also analyses the structure of own revenues for the comparison group; it is considered a positive factor when the more reliable and periodic own revenue sources -- taxes, fees, lease of municipal property, etc.

ANALYSIS OF THE MANAGEMENT AND THE ADMINISTRATIVE STRUCTURE

The quality of the administration and management may have a direct impact on the ability of the Municipality to generate income and on its financial stability. This fact underscores the importance of analyzing both the administrative procedures applied in the management of the Municipality, as well as the utilization of information technologies and other innovations in the municipal administration.

The analysis of Management aims to encompass and analyze a number of qualitative factors related to the management and structure of the municipality. BCRA analyzes the following factors:

- Existence of well-documented strategic documents and plans and their implementation accordingly; Наличие на добре разписани стратегически документи и планове и съответно тяхното изпълнение;
- Functional assessment of Department „Local taxes and Fees“;
- The quality of service offered to the denizens;
- Activity regarding implemented projects;
- The quality of the forecasting and planning.

These are subjective factors, and most of them cannot be quantified. However, they are highly significant for the creditworthiness of the municipality.

FINANCIAL FORECAST

The financial forecast aims to present the projected cash flows of the municipality. Accordingly to the good practices it usually encompasses a three-year period; in case of annual review of the credit rating the financial forecast is extended by one year.

The assumptions of the projection are made based on the following documents: the financial forecast prepared by the municipality itself, the budget of the municipality for the next year to come, the latest financial reports (as of the six-month period of current year), signed credit agreements, repayment schedules, etc. In addition to the above documents, the assumptions also take into consideration any changes in the regulatory framework which may impact the municipal receipts or expenditures. It is also necessary to consider the effect of factors such as the general economic environment (downturn or upturn), investment activity and expectations, and the unique features of the particular municipality (such as a tourism-oriented economy or the presence of a specific type of industry). BCRA estimate the projected cash flows of the municipality by taking into consideration the municipal income available to pay off its liabilities – Own Income and General Subsidy (“GS”), while the expenditure side is inclusive of current expenditures. Whenever possible, we forecast separately the different sources of income, e.g., taxes, fees, and lease of property, because of their varying features. Such an approach would bring more precision in the execution of the forecast.

The expenditures for local activities are projected by types and for the purpose of the forecast BCRA take into consideration average annual rate of change, external factors, expected inflation, economic growth, etc. We forecast the debt servicing costs and future funding, when needed. BCRA apply conservative approach to the projected cost for payment of interest rates.

The operating result we arrive at represents the free funds of the municipality that can be used for payment of its liabilities, once accounting for the current expenditures for local activities and co-funding of central-government activities. The financial projection is exclusive of the result from investment activities if capital income is ear-marked and may be spent only for the implementation of the project it has been granted for. In connection with capital expenditures, one has to consider that, in case the municipality lacks sufficient income, most probably, it will not undertake some of its investment projects. The Net Cash flow is formed as the Net Operating Result less payments for debt service.

Effective as of December 14th 2018.

Appendix A: Key rating factors and their relative weights in the model

I. Country risk (for more detail, see Sovereign Rating methodology at http://www.bcra-bg.com/)

Rating Factor	Weight
Political Stability	High
Macroeconomic Stability	High
Fiscal Flexibility	High
Effectiveness of the Monetary Policy	High

II. Regulatory framework

Rating Factor	Weight
Regulatory framework	High

III. Demographics

Rating Factor	Weight
Analysis of the main features of the municipality: location, area, populated areas, natural resources	Low
Dynamics of the population	Moderate
Unemployment	Low

IV. Economic conditions and structure of the municipality

Rating Factor	Weight
Active enterprises in the municipality of national and regional significance	Low
Development of main sectors located within the municipality	Low

V. Financial analysis

Rating Factor	Weight
Result of the operating activity	Moderate
Share of own revenues in total revenues for local activities	Low
Share of revenues from sales of municipal property in own revenues	Low
Share of capital expenditures in total expenditures	Low
Analysis of the ratio of overdue payments over revenues for local activities	Moderate

VI. Expenditures Policy

Rating Factor	Weight
Investment activity	Moderate
Quality and condition of the water-supply and wastewater-treatment systems	Moderate
Waste management	Moderate
Structure of the sources of financing for capital expenditures	Moderate

VII. Comparative analysis

Rating Factor	Weight
Comparison of total revenues per capita	High
Comparison of the share of own revenues of total revenues	Moderate
Comparison of the coverage of expenditures for local activities to revenues	Moderate
Overdue liabilities as a percent of the planned revenues and equalizing subsidy	Moderate

VIII. Management and administrative structure

Rating Factor	Weight
Analysis of the e-services	Low
Analysis of the effectiveness of the department charged with collecting local taxes of various kinds for the past reporting period	Low
Analysis of the planning and forecasting activities	Low
Analysis of material misstatements in the municipal financial reports identified by government or independent auditors over the past few years	Moderate
Analysis of the proactive stance of the management regarding infrastructure projects	Low

Appendix B: Full definition of default of a municipality (category "D" of BCRA's global and national-rating scales)

Default on a debt-related contractual obligation is recorded when at least one of the following conditions applies:

- There is a failure to make payment on principal or interest due or a delay thereby outside the stipulated grace period and beyond the materiality threshold (see below). This includes the cases when the payment is partially made, but the municipality does not have the ability to (temporarily) use supplementary (additional) resources (e.g., extrabudgetary accounts, earmarked funds, and highly liquid assets). Exceptions are made in the following cases:
    1. If the obligation is contested by the municipality through legal means;
    2. When the municipal management has provided information for having renegotiated (postponed) the payment;
    3. If the obligation is in connection to a trade contract and not a debt-related one.

  <u>*Materiality threshold:*</u>
    1. *Amount – 10% of the payment due;*
    2. *Term – 90 days after the date the payment comes due*

- There is a troubled restructuring of the obligation due to a material delay in payments, longer than 90 days, and the municipality is unable to continue servicing the debt. The terms of the restructuring agreement lead to uncompensated losses to the creditor due to a delay in repayment, interest forgiveness in part or in full, principal forgiveness in part, etc.

- The municipality is unambiguously unable to finance the activities and the services it normally provides. Such inability is evident when the available own funds and any equalization subsidy are not sufficient to cover the *minimum required expenditures* for the municipal operations as follows:
    1. Salaries and benefits expense
    2. Water, fuel, and energy expenses
    3. Interest expense and current portions of long-term debt
    4. Expenses for outsourcing, materials and ongoing maintenance