EthiFinance Ratings

Sub-Sovereign Rating Methodology

1. Scope

This document describes the methodology developed by EthiFinance Ratings for the rating of sub-sovereign governments (including regions, provinces, local governments and any other sub-level of sovereign government), as well as long and/or short-term debt instruments issued by them.

We consider regional and local governments (RLGs) as sublevels of the sovereign government that have been entrusted with the provision of some level of public services (education, health, transport and waste management, among others), with resources that are also recognized by law (mainly taxes, fees and transfers received from sovereign government).

The rating assigned by EthiFinance Ratings measures the ability and willingness of the RLG to meet financial obligations in full and on time.

Therefore, we consider that an RLG is in default if one of the following assumptions occurs:

If upon maturity date of any financial instrument (direct or issued by a decentralized body but guaranteed by the RLG), it does not pay the principal and/or accrued interest/coupon payment.

If the refinancing/restructuring of any financial instrument occurred under worse conditions than the ones maintained up to that moment.

The scope of this methodology excludes decentralized bodies, instrumental agencies and government related entities of the RLGs (GREs). However, we consider the relation between them as part of the rating process.

2. Methodology Summary

In summary, the methodology consists of two pillars:

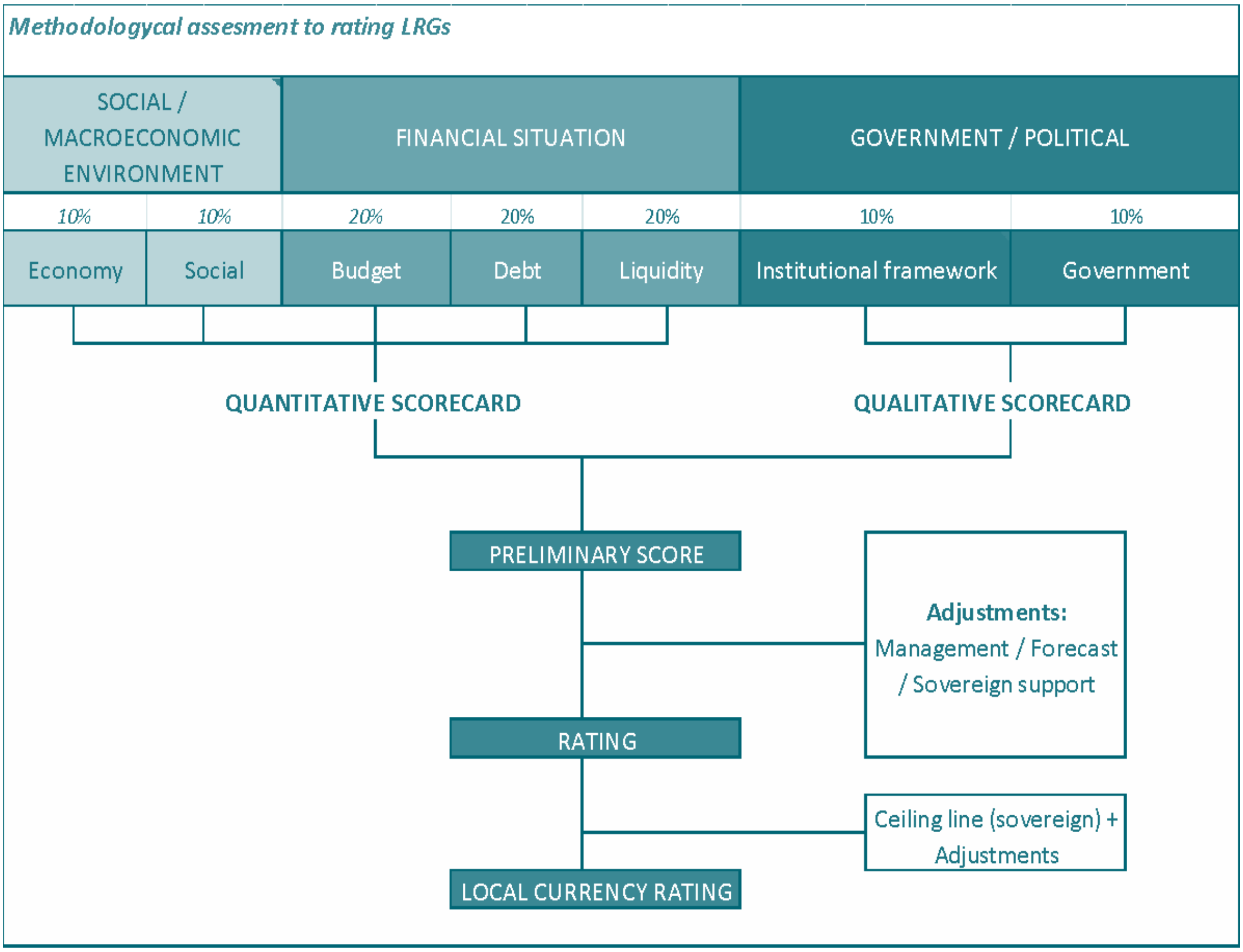
- **Quantitative Scorecard:** evaluates the socio-economic conditions that impact its creditworthiness, and also the intrinsic financial situation of RLGs.
- **Qualitative Scorecard:** evaluates the institutional framework, the government situation, the supervision mechanisms and the relationship with the sovereign government.

Both pillars provide a preliminary score (PS) that can be adjusted (up or down) considering forecasts, management and sovereign support.

The sovereign rating acts as a ceiling on the sub-sovereign's rating due to the interdependence between the sovereign government and the sub-sovereign, with exceptions detailed in section 5.

In brief, those exceptions refer to RLGs that have a broad transfer of fiscal competence, excellent levels of liquidity and/or autonomy to access alternative sources of financing, among others.

The procedure established for the qualification of an RLG is summarized in the following graph:



Given the differences between RLGs, this methodology should be understood as a guide which covers the main aspects to be considered when rating RLGs. Therefore, the analyst and/or the rating committee will be responsible for giving greater importance to any of the factors that comprise the quantitative or qualitative block, or even consider any other factor not specified in this methodology because sometimes there could be circumstances that none of the factors measure accurately.

3. Source of Data

We use macroeconomic, social, financial, political and any other information that we consider necessary for the issuance of the rating.

For unsolicited ratings we use public information from national statistical offices and from other national and international organisms of recognized prestige, as well as any information published by RLGs.

We consider this information is accurate, therefore EthiFinance Ratings does not perform a prior audit of the data used.

With exceptions, most of the information used is on an annual basis . We consider historical data and own and third-party forecasts (from national and international agencies). Those forecasts are based on macroeconomic projections that, if not met, could negatively affect the real situation of the rated RLG.

For solicited ratings, we use the same information used for unsolicited ratings as well as confidential information provided by the rated sub-sovereign that allows us a more exhaustive evaluation of any of the factors included in the scorecards.

In any case, if we did not have enough information, the RLG would not be rated.

4. Environmental, Social and Governance (ESG)

This methodology has been developed considering the environmental, social and governance (ESG) criteria and its effects on the ability and willingness of the RLGs to meet their financial obligations.

We consider ESG criteria has a strong influence on economic development, not only because of the direct effects of environmental, social and governance aspects, but also since governments could enact new regulations which could affect the compliance with ESG criteria by the rest of the economic agents.

In this sense, the absence of regulation on the environmental aspect could favour the depletion of a region's natural resources, with the consequent negative effects on future generations.

In addition, the existence of subsidies or any other type of support for certain activities not considered environmentally sustainable is a negative factor to be considered.

We are also concerned about natural disasters (earthquakes, floods, etc), due to the government's ability to foresee and manage them, as well as the negative effects on the population and the economy (namely industry, crop and infrastructure losses, to name a few).

Regarding the social criteria, we evaluate the presence of social stability, due to its effects on econo mic development resulting from an adequate management of unemployment and wage policy. Likewise, the absence of social stability could lead to social conflicts that, in the worst-case scenario, could materialize in armed conflicts that would significantly damage the economy of a given country.

The governmental situation constitutes the third criterion considered, since we understand that an adequate political situation that enhances stability will positively influence economic development, in contrast to the existence of political struggles that cause instability in decision-making, increasing uncertainty and reducing the predictability of macroeconomic scenarios.

In addition to this, we study the existing levels of corruption since it could be considered a symptom of the fragility of the legal system.

We have integrated all these aspects within the modules that constitute the Quantitative and Qualitative scorecard, and in the final adjustments that are described in chapter 5 of this methodology.

5. Description of the Methodology

For rating a RLG, we calculate a Preliminary Score (PS) which is adjusted according to a series of factors described in this chapter, using the following :

$$Rating = PS \mp Adjustments$$

Where,

- **PS**= $QS + QLS$

  QS= Quantitative scorecard. The score is obtained from the evaluation of macroeconomic, social and financial aspects of the RLG.

  QLS= Qualitative scorecard. The score is obtained from the evaluation of the institutional framework and political context of the RLG.

- **Adjustments:** we consider forecasts, the assessment of management and the possibility of sovereign support in case of stress.

5.1. Quantitative Scorecard

The Quantitative Scorecard is the result of the weighted sum of the evaluation of the macroeconomic, social and financial situation of the RLG.

The score assigned to each factor ranges between 1 point (better rating) and 10 points (worse rating), with the following formula:

$$QS = \beta(Macroeconomic) + \mu(Social\ ) + \rho(Financial)$$

Where,

β, μ, ρ : are defined as the relative weights of each factor.

5.2. Economic Environment

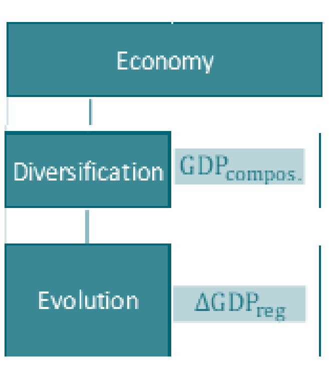
The capacity of the RLGs to generate the necessary resources to finance the programs and services entrusted, as well as to fulfil the financial obligations, is conditioned, among other aspects, to the evolution of the regional and/or local economy.

We evaluate the historical and current situation as well as the future perspectives of the regional/local economy, analysing its productive structure and determining the opportunities and risks it faces in comparison with its main counterparts.

In this sense, we consider that a dynamic and productive economy is a driver of employment and wealth allowing the RLG to have a greater margin of fiscal action to resolve stress situations.

For the analysis we use the Gross Domestic Product (when available), an aggregate indicator that measures private consumption, investment, public spending and net exports.

The analysis is carried out considering the national context, with special interest in its situation, evolution and diversification. We examine the existence of excessive concentration in any productive sector that could threaten economic development.



In the case of the inexistence of information, we could use information from the superior government unit, or replace it with another of similar nature, or even decide to proceed with the rating without said information.

For example, for a local government for which there is no information on local GDP, we will use the adjusted provincial GDP, among other aspects, considering the importance and representativeness of the local economy within the province.

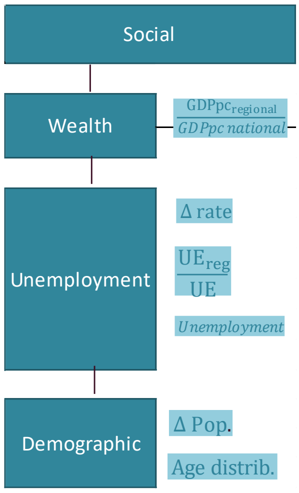
We have developed the following matrix score to assign the score of this module:

Economic Environment				SCORE									
Subfactor	%	Level	Ratio	1	2	3	4	5	6	7	8	9	10
Diversification	15 %	Local/ Region	$\frac{Sector}{GDP_{regional}}$	≤10%	≤15%	≤20%	≤25%	≤30 %	≤35%	≤40 %	≤45%	≤50 %	>50 %
Evolution	70 %	Local/ Region	$\Delta\, GDP_{reg/loc}$	≥5%	≥4%	≥3%	≥2,5%	≥2%	≥1,5 %	≥1%	≥0,5 %	≥0%	<0%
	15 %		$\frac{\Delta GDP_{reg/loc}}{\Delta GDP_{average}}$	≥115 %	≥110 %	≥105 %	≥100 %	≥95 %	≥90%	≥85 %	≥80%	≥75 %	<75 %

5.3. Social Environment

We evaluate the distribution of wealth, the demographic situation and the labour market, because we consider that these factors determine the strength, tax collection capacity and spending needs that the RLGs must face to guarantee the provision of public services entrusted to them.

We analyse the following aspects:



First, we analyse the regional/local wealth through GDP per capita (GDPpc) which is measured as the regional/local GDP (defined in the previous section) over the number of inhabitants.

We believe GDPpc is a good indicator of the regional/local wealth because it allows us to measure the tax collection capacity as well as the level of social benefits that could be demanded by citizens.

We think that a high GDPpc guarantees a greater tax collection margin than a reduced GDPpc. In fact, we understand that the wealthier a territory is, the lower the demand for social assistance.

We evaluate the GDPpc from a historical perspective. We compare it with national and international peers to determine the degree of inequality between the different economies, because we consider that inequality negatively affects the economic growth of a territory.

Secondly, we watch over demographic evolution because we understand that rapid demographic growth may require larger infrastructures to ensure access to public services, what could increase investments and, in the end, consume financial resources.

In addition, we consider the population pyramid because aging populations are more likely to require higher social endowments than more balanced population pyramids. Similarly, the evolution of the child population itself is relevant since its rapid growth may lead to an increase in the spending needs for education and health care.

The labour market constitutes the third subfactor within the evaluation of the social environment. We consider that economies with high unemployment rates could see their tax collection capacity limited due to lower disposable income of citizens, who will also need greater social assistance.

For the analysis we use the unemployment rate (when available), calculated as the proportion of the unemployed population over the total population of a given territory (active population figures are usually not available), which is then compared to its historical performance.

We have developed the following matrix score to assign the score of this module:

Social Environment				SCORE									
Subfactor	%	Level	Ratio	1	2	3	4	5	6	7	8	9	10
Wealth*	30%	Local/ Regional	$\frac{GDP_{pc\,reg/loc}}{GDP_{pc\,national}}$	≥120%	≥110%	≥100%	≥95%	≥90%	≥85%	≥80%	≥75%	≥70%	<70%
Unemployment	30%	Local/ Regional	$Unemploymen$	≤10%	≤15%	≤20%	≤25%	≤30%	≤35%	≤40%	≤45%	≤50%	>50%
	20%		$\Delta\ Unemployme$	≤-10%	≤-7%	≤-5%	≤-3%	≤-2%	≤0%	≤3%	≤5%	≤7%	>7%
	10%		$\frac{Unemploymer}{Unemploymen}$	≤60%	≤70%	≤75%	≤80%	≤85%	≤90%	≤100%	≤110%	≤120%	>120%
Demographic	5%	Local/ Regional	$Age_{distribution}$	≤30%	≤32%	≤33%	≤34%	≤35%	≤36%	≤37%	≤38%	≤40%	>40%
	5%		$\Delta\ Population$	≥4%	≥3%	≥2%	≥1%	≥0%	≥-1%	≥-1.5%	≥-2%	≥-2.5%	<-2.5 (or and increase over 4%).

(*) If the information about GDP is not available, we will use gross income per capita.

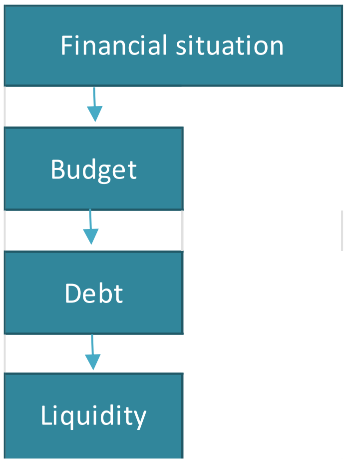
(**) The indicated weights are illustrative and may be adjusted considering the economic and social reality of the sub-sovereign government.

5.4. Financial Situation

The evaluation of the intrinsic financial situation, its flexibility to face budgetary imbalances and its financial autonomy, constitute the main components of the third pillar within the quantitative analysis.

We consider that a government that has demonstrated excellent sustainability and adequacy of public finances, controlling budget imbalances and having access to sufficient sources of liquidity, will obtain a higher rating in this factor.

To carry out this analysis we have established the following evaluation structure:



5.4.1. Budget

We evaluate budget sustainability, i.e. the adequacy of current revenues and expenses, because we consider that the existence of gross saving is essential to finance investments and meet their financial obligations.

In the case of a fiscal deficit, we analyse its nature (cyclical or structural), the mechanism to resolve it and the legal consequences of such failure.

Regarding the sources of income, tax revenues are preferred instead of transfers received from the sovereign government due to the greater autonomy that it confers.

However, it is necessary to know the fiscal pressure per inhabitant, because if it is very high, the room for manoeuvre to address budget imbalances would be reduced. In fact, future tax collection could be threatened by taxpayers (mainly companies) that move their tax residence to territories where the pressure is lower.

RLGs are responsible for a variety of social competences, mainly those related to health care, education and transport, as well as the management of urban solid waste. For this reason, we are interested in knowing the structure of expenses and their evolution in recent years, with special interest in its adequacy with the income structure.

The investment policy is another aspect that we take into account to evaluate the financial situation because this type of action requires financial resources that, if not available, would imply new indebtedness.

We are not only interested in knowing the historical evolution of investments, but also in which part of the electoral cycle is the RLG in because the proximity to elections is usually accompanied by greater amounts of investments.

Finally, we evaluate the flexibility of public finances to face imbalances that may arise from economic cycles, especially the RLG's ability to increase tax revenues and/or transfers received, as well as their ability to reduce spending.

In this sense, we understand that an RLG that shows a high capacity to adjust its income and expenses will be able to afford budget imbalances better than a RLG that maintains greater rigidity and a reduced level of tax collection competences transferred.

To assess the budgetary sustainability of an RLG, we use, among others, the following indicators:

- **Gross Operating Balance** (Operating Revenues minus Operating Expenditures) **to Operating Revenue**: measures the capacity of the RLG to generate sufficient resources to finance investments and meet financial commitments. We analyse the current situation as the historical evolution considering the macroeconomic and social conjuncture in which the RLG finds itself.
- **Net adjusted Operating Balance** (Operating Revenues minus Operating Expenditures and short-term debt to Operating Revenue): this indicator allows us to know the capacity of the RLG to meet new financial commitments (in addition to investments). It is also a legal restriction.
- **Operating expenses** (current year) **to Operating expenses** (previous year): We determine the evolution of current operating expenses and their compliance with legal limits (spending rule).
- **Fiscal income per inhabitant**: it allows us to know the fiscal pressure, understanding that the lower it is, the greater the room for manoeuvre for the RLG to address future budgetary imbalances.
- **Capital expenditures to total expenditures**: measures the proportion of expenses that are originated by capital investments. We are interested in knowing the current situation as well as the historical evolution.
- **Operating transfers plus subsidies to Operating expenditures**: most of the current expenses of the RLGs are set for education and health competences, with high rigidity. We value positively the independence from higher levels of government in order to finance their budgetary expenses.

We have developed the following matrix score to assign the score of this module:

Financial situation				SCORE									
Subfactor	**%**	**Level**	**Ratio**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Budget	30%	Local/ Regional	$\frac{Gross\ Operating\ Balan}{Operating\ revenue}$	≥10%	≥8%	≥6%	≥5%	≥4%	≥2%	≥0%	≥-3%	≥-5%	<-5%
	12%		$\frac{Net\ adjusted\ Oper.Bal}{Operating\ revenue}$	≥8%	≥7%	≥5%	≥4%	≥3%	≥2%	≥0%	≥-3%	≥-5%	<-5%
	10%		$\frac{Operating\ expenses_t}{Operating\ expenses_{t-1}}$	≤2%	≤2.5%	≤3%	≤3.5%	≤4%	≤4.5%	≤5%	≤5.5%	≤6%	>6%
	21%		$\frac{Fiscal\ income}{Inhabitant}$	≤0.1	≤0.75	≤1	≤1.5	≤2	≤2.25	≤2.5	≤2.75	≤3	>3
	17%		$\frac{Capital\ expenditure}{Total\ expenses}$	≤2%	≤3%	≤4%	≤5%	≤6%	≤7%	≤8%	≤9%	≤10%	>10%
	10%		$\frac{Oper.transfers + subsi}{Operating\ expend}$	≤20%	≤25%	≤27%	≤30%	≤33%	≤35%	≤40%	≤50%	≤60%	>60%

(*) The indicated weights are illustrative and may be adjusted considering the economic and social reality of the sub-sovereign government.

5.4.2. Debt & Liquidity

For the assessment of indebtedness, we take into consideration both sustainability (fundamentally volume, evolution and structure) and its capacity to assume new debt.

We evaluate the capacity of the RLG to service debt based on historical data. To do this, we consider the proportion of current revenues destined to cover the service of the debt, as well as the foreseeable behaviour that it would present in a scenario of interest rate increases.

Likewise, we are concerned about the structure of the debt, basically if there is a concentration of short-term maturities, we understand that those RLGs with high concentration levels could require new finance lines whose viability will depend on the ability of the RLG to access the capital markets (market risk) or banks.

Another factor is the identification of contingent liabilities that do not form part of the consolidated financial situation of the RLG because they could deteriorate RLG's financial situation as well as strain liquidity.

For this purpose, we consider the debt of dependent entities, independent entities that have been guaranteed by the RLG and also those companies whose ownership reflects a majority participation of the RLG (whether or not they have been guaranteed).

We take into account the accounts payables (measured through the average payment period), because we consider it as a source for financing the budget that could require extraordinary liquidity for its amortization; as well as any other obligation that may exist, such as pension obligations, since they would also consume financial resources.

Regarding the assessment of liquidity, we focused on identifying available cash flow for the payment of debt service, as well as the existing liquidity lines to address imbalances.

In this sense, we consider the historical and future perspectives, identifying those stress scenarios that could strain the liquidity of the RLG.

Likewise, we are interested in knowing both the liquid assets and the assets available for sale in order to determine the liquidity in a stress scenario.

To assess debt and liquidity we use, among others, the following ratios (when its calculation is possible). The weight of each ratio within the rating of this subfactor is set by the analyst according to the context in which the RLG operates:

- **Direct debt to Gross Operating Revenue (or GDP)**: measures the sustainability of the debt in relation to operating revenues. We believe that an RLG with a reduced ratio maintains a more sustainable debt. We also consider this ratio in relation to the GDP to assess whether the current situation is within the legally established limits (if any), since otherwise there would be a breach that could involve intervention by the sovereign government.
- **Direct and indirect debt to Gross Operating Balance**: it measures the sustainability of the debt in relation to the available resources but considering not only the direct debt of the RLG, but also the contingent liabilities of the dependent bodies. In this regard, this includes debt not

guaranteed by the RLG but corresponding to GREs in which the RLG exercises control, since we understand that in case of stress it should be the RLG itself who ultimately will have to face the debt. We believe that the lower the ratio, the greater the sustainability of the total debt of the RLG.

- **Overdue payables**: we evaluate the ability to deal with contingent liabilities for outstanding debts with suppliers for purchases of goods and services, understanding as outstanding debt those balances with suppliers that do not have a recognized budget line and/or with average payment terms that exceed the established limits (if any) or the average terms presented by their counterparts. We are interested in knowing the average payment period because not only could it imply a breach of the legal provisions that would force the RLG to look for an alternative source of resources to solve the overdue, but also because it could imply the intervention of the sovereign government.
- **Interest to Operating Revenues**: with this ratio we measure the amount of current income that the RLG allocates to serve the cost of its debt, understanding that the lower the ratio, the lower the resources allocated and therefore, the greater flexibility to face increases in interest rates.
- **Debt service to Gross Operating Balance plus interest**: this ratio allows us to measure the capacity of the RLG to service its debt with its current income, understanding that the lower the ratio, the greater the servicing capacity.
- **Debt maturity profile**: we are interested in knowing the distribution of debt maturities in order to determine its degree of concentration, since we understand that a RLG that maintains a structure of highly concentrated maturities will present a higher probability of refinancing than an RLG with a more homogeneous distribution of maturities.
- **Cash balance to operating revenues (when available)**: this ratio allows us to measure cash flow after net investment.
- **Liquid assets to debt service (when available)**: measured as the sum of liquid assets and net investments in proportion to debt service.
- **Debt issues**: measures a sub-sovereign's ability to borrow in the capital markets. To measure it, we calculate the volume of outstanding debt issues as a proportion of total debt.
- **Sovereign dependence:** with this ratio we measure sub-sovereign access to sovereign credit lines in case of necessity. We measure it in proportion to total debt.

We have developed the following matrix score to assign the score of this module:

Financial situation				SCORE									
Subfactor	%	Level	Ratio	1	2	3	4	5	6	7	8	9	10
Debt	20 %	Local/ Regional	$\frac{Debt}{Gross\ Operating\ Revenue}$	≤30	≤35	≤40	≤50	≤60	≤70	≤80	≤90	≤100	>100 (negative)
	20 %		$\frac{Debt}{GDP}$	≤10 %	≤15 %	≤20 %	≤22 %	≤25 %	≤27 %	≤30 %	≤32 %	≤35 %	>35%

	3%		$\frac{Direct + Indirect\ Debt}{Gross\ Operating\ Balance}$	≤40	≤45	≤50	≤60	≤70	≤80	≤90	≤100	≤110	>110 (negative)
	14%		$Average\ Payment\ Period\ ($ in days	≤0	≤10	≤30	≤45	≤60	≤75	≤90	≤100	≤120	>120
	15%		$\frac{Interest}{Operating\ revenue}$	≤2%	≤3%	≤4%	≤5%	≤5.5%	≤6%	≤6.5%	≤7%	≤8%	>8%
	14%		$\frac{Debt\ Service}{Gross\ Operating\ balance + i}$	≤1	≤1.5	≤2	≤2.5	≤3	≤3.5	≤4	≤4.5	≤5	>5
	14%		$Maturity\ profile = \frac{Current\ debt}{Total\ debt}$	≤2%	≤3%	≤5%	≤7%	≤10%	≤12%	≤15%	≤17%	≤20%	>20%
Liquidity	20%	Local/Regional	$\frac{Cash\ Balance}{Operating\ revenue}$	≥2.5%	≥2%	≥1.5%	≥1.2%	≥1%	≥0.7%	≥0.5%	≥0.2%	≥0%	<0%
	20%		$\frac{Liquid + Available\ for\ sale}{Debt\ service}$	≥15%	≥12%	≥10%	≥8%	≥5%	≥3%	≥2%	≥1%	≥0%	<0%
	30%		$\frac{Debt\ issues}{Direct\ debt}$	≥50%	≥40%	≥30%	≥20%	≥10%	≥7%	≥5%	≥3%	≥1%	<1%
	30%		$\frac{Credit\ lines\ with\ Sovereign}{Direct\ debt}$	0%	≤5%	≤10%	≤20%	≤30%	≤35%	≤40%	≤45%	≤50%	>50%

(*) The indicated weights are illustrative and may be adjusted considering the economic and social reality of the sub-sovereign government.

5.5. Qualitative Scorecard

The second part of the calculation process of the Preliminary Score is the Qualitative Scorecard (QLS), a qualitative module that evaluates the institutional framework and the governmental situation of the RLGs.

The score that we assign for each factor ranges between 1 point (better rating) and 10 points (worse rating), with the following procedure:

$$QLS = \beta(Institutional\ framework) + \mu(Government\ )$$

Where,

β, μ : defined as the relative weights of each factor.

5.5.1. Institutional Framework

We evaluate the institutional framework that configures the performance of the RLGs, not only the relations with the rest of the government levels, but also the structure of the RLGs.

We analyse the laws and regulations to know the configuration of the competences and the financial resources, with special interest in the frequency of the reforms because we understand that a RLG with a solid institutional framework has a stable income generation and predictable spending needs.

Moreover, a solid framework enables the support from higher government levels and permits intergovernmental equality, either in the relations between sovereign and sub-sovereigns, or between regions with different levels of wealth (wealth distribution).

Thus, we understand that those RLGs with a solid framework will present a higher rating than those RLGs with a lower recurrence of income and/or a behaviour of unpredictable expenses.

We are interested in its flexibility to adapt income resources to stress situations, such as increases of tax rates or tax bases, or whether these decisions are reserved exclusively for higher levels of government, because we understand that the greater the flexibility is, the greater the capacity of the RLG to maintain a cash flow generation to meet its financial obligations.

In the case of countries with a high degree of centralization, we look at the capacity of the sovereign to transfer sufficient resources to the RLG to finance the transferred services.

To finalize the analysis of the institutional framework, we focused on supervisory mechanisms, since we understand that the existence of strong control instruments by independent agents (whether they are higher levels of government or external agents) will lead to better ratings than those RLG in which there are no control mechanisms, or the existing ones are not effective.

We assess the existence of early warning systems that allow a continuous monitoring of the RLGs, since we understand that those procedures will not only anticipate situations of future instability, but also favour the early resolution of them.

We look at the operation and scope of the supervision systems, especially in relation to the compliance with the objectives of budgetary stability (if any), limits of indebtedness (if any) such as the obligation to allocate the debt to finance capital investments, compliance with assigned targets, and applicable mechanisms for situations of non-compliance.

5.5.2. Government

We evaluate the government situation, essentially the capacity and adequacy of the RLG to prepare and execute its budget program, the transparency in the publication of information, investment policy and debt management.

In this sense we understand that those RLGs with a conservative government team in terms of budget planning, which enjoy a majority in their parliaments or with sufficient agreements with the rest of parliamentary groups for the approval of budgets, with an investment policy according to the needs of the region/municipality, and transparent in the publication of information, will obtain higher scores than those RLGs in which there is political instability, a reduced budget management capacity and lack of transparency in the publication of information.

To measure this aspect, we use the Herfindahl Index[1] calculated as the number of representatives who belong to the ruling party among the total number of representatives.

Likewise, we analyse its effectiveness in complying with the budget plans, observing any deviation between the liquidated budget and the initial budget, understanding that the more adjusted it is, the

[1] Lara-Rubio et al (2017). Analyzing credit risk in large local governments: an empirical study in Spain. Local Government Studies 43, nº2, 194-217

greater the capacity of the government to execute the budget and, therefore, the higher the rating of the RLG in this section.

Finally, we reviewed the degree of transparency as a sign of good practices, not only in relation to the publication of financial information from the RLG, but also from the group of entities that are dependent on the RLG that could require some type of financial support from the RLG.

For the assessment of the institutional framework and the governmental situation, we take into account, among others, the following aspects:

Qualitative scorecard			SCORE		
Subfactor	Level	Ratio	1-4	5-6	7-10
Institutional framework	Local / Regional	Recurrence	The assigned competences are clearly defined, which allows maintaining predictable spending needs. For the financing of the competences, the RLG has a series of legally recognized resources that are managed exclusively, allowing the maintenance of recurring cash flows.	The transferred powers are defined, although with certain restrictions, so that spending needs are not totally predictable. To finance the competences, the RLG has a series of resources that are mostly managed exclusively, so that their income is not entirely recurrent.	The assigned competences are not clearly defined, so spending needs are not predictable. Although the RLG has a series of legally recognized resources to finance its powers, the RLG does not manage them exclusively, being dependent on a higher government unit that determines the recurrence of its revenues.
Institutional framework	Local /Regional	Flexibility	The legal framework allows the RLG to modify the conditions of the recognized sources of income and/or issue a new one. The RLG shows very high/high flexibility to adapt the conditions of its resources in	Although the legal framework allows autonomy to modify the conditions of the sources of income and/or establish new ones, in certain occasions it requires the approval of a superior government.	The legal framework does not allow autonomy to modify the conditions and/or to establish new ones, being a higher government who establishes the same.

			situations of stress.	The RLG shows moderate flexibility to adapt the conditions of its resources in situations of stress.	The RLG shows low/very low flexibility to adapt the conditions of its resources in situations of stress.
Institutional framework	Local / Regional	Supervision	There are clearly defined supervisory mechanisms and they are exercised by a superior government and/or an independent entity. The controls are effective and allow to know the degree of compliance with the assigned powers and the perceived resources. There are limits to budget imbalances and the debt capacity of the RLG. If an RLG is in a situation of default, the institutional framework allows the intervention by the sovereign government.	There are defined supervisory mechanisms, although they are not fully exercised by a superior government and/or an independent entity. The controls show some effectiveness, although there are aspects that are not evaluated by them. The limits to the budgetary imbalances and the debt capacity of the RLG are not legally defined or their definition is not precise and/or changes over time. If an RLG is in a situation of default, the institutional framework allows the intervention by the sovereign, although the RLG retains autonomy in its financial decisions.	There are no supervisory mechanisms, or if they exist, they are not clearly defined and/or exercised by a superior government and/or an independent entity of the RLG. The controls are not effective and therefore are not enough to know the degree of compliance with the powers transferred and the resources received. There are no limits to the budgetary imbalances and the debt capacity of the RLG, or if they exist, they are only recommendatio ns. In the event of default, the institutional framework does not allow the intervention by the sovereign

					government, being the RLG itself the responsible to resolve this situation.
Government	Local / Regional	Political	The RLG maintains a stable government situation, with a majority government or with sufficient agreements with the rest of the political forces that guarantee the approval and execution of its budget plans. The government has experience, having demonstrated sustained budgetary compliance. It has a credible investment plan and adjusted to the economic and social reality of the region/municipalit y	The RLG maintains a stable government situation, although it does not govern in a majority. Although it has agreements with the rest of the political forces, these are specific agreements that affect certain measures, so there is a risk of budget extensions or non-compliance. The government team has experience, although there is volatility in budget compliance and instability. It presents an investment plan that does not fit the reality of the region/city.	The RLG maintains an unstable government situation. There are no government agreements with the rest of the political forces, so there is a risk that there will be a motion of censure that paralyzes compliance with the budget. The government team has little experience, and/or there is budgetary instability sustained over the last few years. The investment plan is not adjusted to the economic and social reality.

5.5.3. Adjustments

The Preliminary Score (PS), calculated as the sum of the Quantitative and Qualitative Scorecard (defined in the previous sections), can be adjusted up or down one or two notches depending on forecasts, management and sovereign support.

5.5.3.1. Forecast

Although for the determination of the Preliminary Score we use historical information, the assigned rating reflects our opinion on the ability and willingness of the RLG to meet its future financial obligations, hence we consider it necessary to adjust the PS based on the future forecasts.

In this sense, we consider that an RLG that has demonstrated a solid financial profile, with a positive economic and social environment, a stable institutional and political framework and favourable future forecasts, will obtain a higher rating than those RLGs in which, despite presenting a similar historical situation, future forecasts are unfavourable due to the existence of events that cannot be directly reflected in the Quantitative or Qualitative Scorecards, such as an earthquake event that forces the RLG to allocate most of its resources to new investments or a change in the government, for example.

The analyst will take into account both our own forecasts, prepared from public information or obtained from meetings with the RLGs in the case of solicited ratings, as well as the forecasts prepared by national and/or international organizations of recognized prestige.

5.5.3.2. Sovereign Support

Another aspect to take into account is the probability of sovereign support in the case of a stress situation that threatens compliance with financial obligations by the RLG.

This sovereign support can be carried out in different ways, including extraordinary liquidity injections, guarantees or any other mechanism that in the opinion of the analyst can be considered as sufficient.

In order to assess sovereign support, we consider the agreements on which such support is based and the sovereign's ability to meet the obligations of the RLG (measured through the sovereign rating).

5.5.3.3. Management

We evaluate the composition of the government, basically its professional trajectory, its academic training, and any other aspect that we consider relevant for the correct execution of its political function.

In this sense, we understand that a government composed of professionals with experience in the execution of the functions entrusted to them and with sufficient academic training to do so, should be more efficient in complying with their obligations than a government made up of people who are not specialists in the different topics managed.

In addition, we are concerned about the degree of corruption and the judicial situation, understanding that the lower the degree of corruption, the better credit standing of the RLG.

To assess these issues, we resort to meetings with the RLG (in the case of a solicited rating) or public information (unsolicited rating) that may exist in this regard.

5.5.3.4. Past default situations

We take into consideration the default situations that the sub-sovereign government underwent in the past. A sub-sovereign government with a bad trajectory could be adjusted to a lower score.

5.6. Final Score

Once the Preliminary Score and the applicable adjustments have been determined, we propose a preliminary rating that will be reviewed by the corresponding Rating Committee. If approved, the preliminary rating becomes final.

This final issuer rating could be amended considering the particular conditions of a certain debt issuance (if any).

In most cases, the sovereign rating acts as a ceiling on the corresponding RG L's rating given the interdependence between both levels of government.

There are exceptional cases in which a RGL can be rated above the sovereign, basically those RLG which enjoy a better economic situation (for example because it represents a large part of the national wealth), with high autonomy and independence in relation to its sources of income, or with an excellent liquidity position. In those cases, the final rating could be up to one notch above the sovereign level.

6. Rating

Once the quantitative and qualitative pillars and the relevant adjustments have been determined, the numeric score resulting from the analytical procedure is then mapped on to EthiFinance long-term rating scale. For information on our long-term scale and the definitions of each rating class, please refer to our Scale & Definitions doc.

This document updates the previous version while preserving its original methodological criteria; therefore, all existing ratings remain unchanged. In this version, the format has been updated and includes a higher level of detail.