



Rating Methodology for Regional and Municipal Governments (RMGs)

June 2023



Table of Contents

<u>1</u>	<u>Introduction</u>	3
<u>2</u>	<u>The RMG Rating Framework</u>	3
<u>2.1</u>	<u>Credit Profile of Issuers</u>	4
<u>2.2</u>	<u>Initial Assessment</u>	5
<u>2.3</u>	<u>Pillar 1: Economic Pillar</u>	6
<u>2.4</u>	<u>Pillar 2: Financial Pillar</u>	7
<u>2.5</u>	<u>Pillar 3: Institutional Systems</u>	8
<u>2.6</u>	<u>Pillar 4: Environmental, Social, and Governance (ESG)</u>	12
<u>2.7</u>	<u>Pillar 5: Natural Endowments</u>	15
<u>3</u>	<u>Final Assessment</u>	16
<u>3.1</u>	<u>Qualitative Judgements</u>	16
<u>3.2</u>	<u>Attribute Notching</u>	16
<u>3.3</u>	<u>Integrity of the Rating Process</u>	17
<u>4</u>	<u>Issuer Credit Rating: Converting Scores into Ratings</u>	17
<u>5</u>	<u>Analysts</u>	19
<u>6</u>	<u>Appendix 1: Defined Terms and Abbreviations</u>	20



Introduction

This methodology presents a comprehensive overview of our rating approach for rating Regional and Municipal Governments (RMGs). The methodology provides market participants with valuable insights into the factors that determine the creditworthiness of RMGs, enabling them to make well-informed decisions.

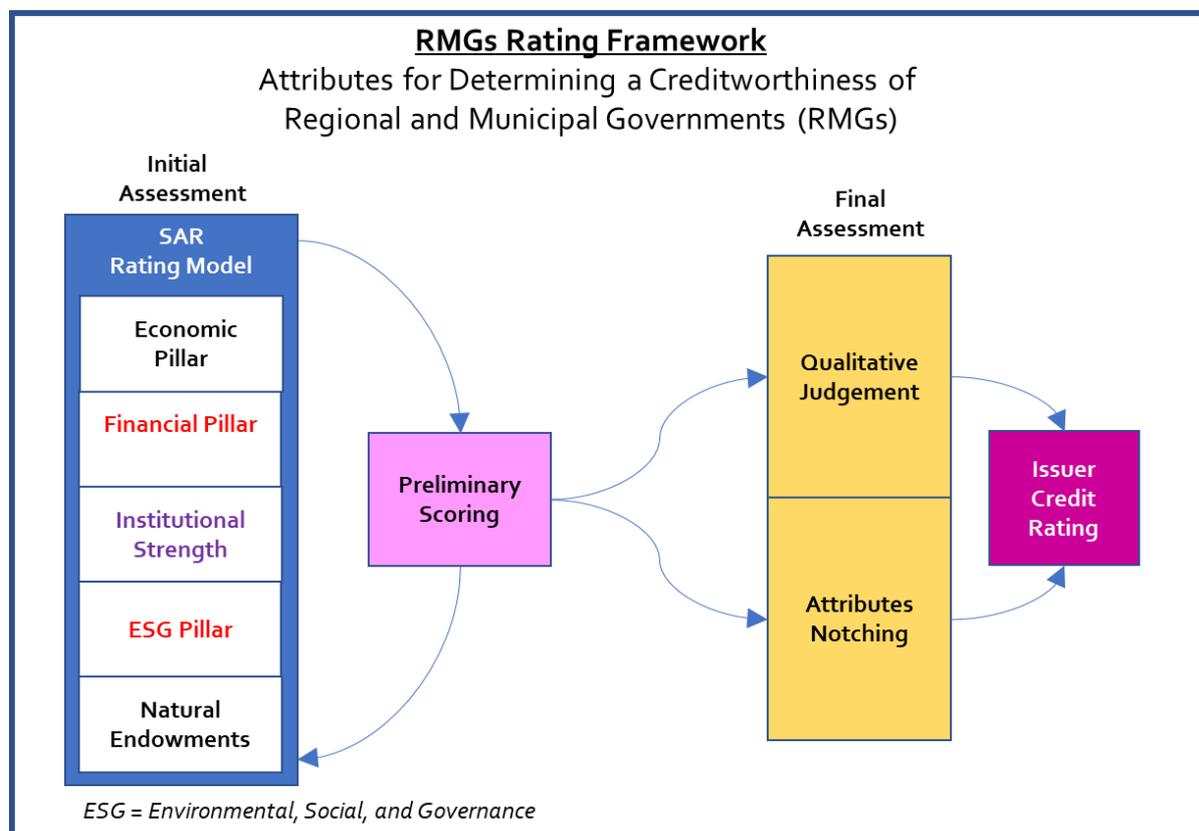
RMGs are vital governing bodies responsible for managing public services and facilities in specific geographic regions, states, provinces, and municipalities. Regional governments typically oversee the administration of public services and facilities such as transportation, public health, education, utilities and social services within a particular geographic area or province. These governments are headed by an elected governor or premier, who is responsible for the daily operations of the government and implementing policies that benefit the region.

Municipal governments are responsible for managing the affairs within a specific municipality or area within a region or state. Municipalities provide public services such as garbage collection, water supply, and wastewater treatment, and manage local infrastructure such as roads, parks, and public buildings. Municipalities are headed by elected mayors or municipal councillors who make decisions on behalf of their constituents and ensure the effective management of local services and facilities.

The RMG Rating Framework

The rating system for RMGs begins by evaluating the issuer's credit profile and credit rating assessment. This is done through a comprehensive framework that considers various pillars, including economic, financial, institutional systems, ESG, and natural endowment. The primary objective of the framework is to assess the creditworthiness of RMGs by examining their ability and willingness to meet their financial obligations. The framework considers both quantitative and qualitative factors, such as governance, regulatory performance, political stability, policy stability, social welfare stability, and economic performance to ensure a comprehensive evaluation of creditworthiness.

Figure 1: RMGs Rating Framework



Credit Profile of Issuers

The credit profile of a regional government refers to a comprehensive evaluation of its financial health and credit history, which includes assessing the government's ability and willingness to fulfil its financial obligations such as debt repayment, interest payment, and other financial commitments. A regional government's creditworthiness is determined by its capacity to generate revenue, manage expenses, and maintain a sustainable level of debt.

A strong credit profile for a regional government indicates a lower risk of loss and may result in a higher credit rating and lower borrowing costs for the government. Conversely, a weak credit profile may lead to higher borrowing costs and a lower credit rating, which could adversely affect the government's ability to fund its operations and invest in its communities.

The creditworthiness of a municipal government is evaluated based on its financial health and credit history, including its ability and willingness to meet financial obligations such as debt repayment, interest payments, and other financial commitments. The assessment considers factors such as revenue generation, expenditure management, and sustainable debt levels.

A robust credit profile indicates lower loss risk and may result in a higher credit rating and reduced borrowing costs, enabling the government to finance operations and invest in



community development. Conversely, a weak credit profile can lead to higher borrowing costs and a lower credit rating, negatively impacting a government's ability to fund operations and invest in communities. As such, maintaining a strong credit profile is critical for municipal governments to ensure their financial sustainability and capacity to serve their constituents effectively.

Initial Assessment

Sovereign Africa Ratings (SAR) applies its rating model for RMGs after conducting an evaluation of the issuer's credit profile. This evaluation serves as the primary step in initiating a credit rating assessment for regional and municipal government issuers. The credit profile assessment involves a comprehensive evaluation of the issuer's financial health and credit history.

The SAR Rating Model for RMGs provides an assessment of an issuer's creditworthiness, which refers to its ability and willingness to meet its financial obligations. The model utilises historical, current, and projected data¹ for key variables, which are rolled up into attributes and used to generate evaluation scores for the five credit rating pillars:

1. Economic Pillar
2. Financial Pillar
3. Institutional Systems Pillar
4. Environmental, Social, and Governance (ESG) Pillar
5. Natural Endowments Pillar

¹ Subject to data availability, SAR may generate its own data projections for forecasting purposes.



The table below illustrates the weight for each pillar as attributable to creditworthiness considerations, with financial and structural features typically carrying relatively higher weight in rating decisions.

Table 1: Pillar Weights

Pillars	Weights	Attributes
1. Economic	20%	Economic performance
2. Financial	30%	Financial performance
		Fiscal flexibility
3. Institutional Systems	30%	Institutional strength (regional / municipal government)
4. Environmental, Social, and Governance (ESG)	10%	Environmental, Social, and Governance (ESG) risks
5. Natural Endowments	10%	Mineral contribution to economic development

Pillar 1: Economic Pillar

Importance of the Economic Pillar

The Economic Pillar is an essential component of the SAR Rating Model for Regional and Municipal Governments (RMGs) as it evaluates the economic environment in which the RMG operates. The pillar considers various economic factors such as GDP growth, employment rates, and inflation rates, among others. A strong economic environment can positively impact on the RMG's credit profile by indicating a higher ability to generate revenue, manage expenditures, and maintain a sustainable level of debt. On the other hand, a weak economic environment can negatively impact on the RMG's credit profile by indicating a higher risk of loss, leading to a lower credit rating and higher borrowing costs.

Attribute Measurement: Economic Performance

The Economic Performance Attribute is one of the key attributes measured under the Economic Pillar. This attribute assesses the regional and municipal government's ability to repay its debt and creditworthiness based on certain variables. The following two variables are used to measure the Economic Performance Attribute:

- **Gross Value Added (GVA):** GVA is the measure of the value of goods and services produced by a regional or municipal government within a particular period. It reflects the level of economic activity in the region or municipality and, thus, the ability to generate revenue to repay debts and manage other financial commitments.
- **Real GDP Growth:** The percentage change in real GDP reflects the growth rate of the economy, indicating the region's or municipality's economic strength. A higher growth rate indicates stronger economic activity and, therefore, a higher ability to generate revenue, manage expenditures, and repay debt.
- **Unemployment Rate:** The unemployment rate measures the share of workers in the labor force who do not currently have a job but are actively looking for work. Unemployment trends are strongly correlated with the confidence of businesses in the region or municipality.

Pillar 2: Financial Pillar

Importance of the Financial Pillar

The Financial Pillar is a crucial component in measuring the credit rating of an RMG. This pillar evaluates the financial position of the RMG by assessing its ability to generate revenue, manage expenses, and maintain adequate levels of liquidity and reserves. A strong financial position can indicate a lower risk of loss and may result in a higher credit rating.

Attribute Measurement: Financial Performance

The Financial Performance Attribute measures the ability of the RMG to meet its short- and long-term financial obligations. This attribute is measured by using the following variables:

- The Current Assets/Current Liabilities Ratio assesses the RMG's ability to pay its short-term obligations. A higher ratio indicates a greater ability to meet short-term liabilities.
- The Cash Financing Surplus (Requirements)/Total Revenue measures the RMG's ability to finance its operations through its own resources. A higher percentage indicates a better ability to finance its operations without relying on external sources.

Attribute Measurement: Fiscal Flexibility

The Fiscal Flexibility Attribute measures the RMG's ability to adjust its fiscal policies in response to changes in the economic environment. This attribute is measured by using the following variables:

- The Net Direct and Indirect Debt/Operating Revenue Ratio measures the level of the RMG's debt burden relative to its operating revenue. A lower ratio indicates a lower debt burden and a lower risk of loss.

- The Gross Operating Balance/Operating Revenue Ratio measures the RMG's ability to generate revenue and manage its expenses. A higher ratio indicates a stronger financial position.
- The Interest Payment/Operating Revenue Ratio measures the RMG's ability to pay its interest expenses relative to its operating revenue. A lower ratio indicates a better affordability and ability to meet interest obligations.
- The Short-Term Gross Debt/Gross Debt Ratio measures the RMG's level of short term debt relative to its total debt. A lower ratio indicates a lower risk of loss.

Pillar 3: Institutional Systems

Importance of the Institutional Systems Pillar

The Institutional Systems Pillar is an essential component in measuring the credit rating of an RMG. It evaluates the governance structures, management quality, and ability of the RMG to make informed decisions. The institutional systems pillar considers the effectiveness of policies and procedures, as well as the transparency and accountability of the RMG. Strong institutional strength can contribute positively to an RMG's credit profile, while a weak institutional framework can lead to a lower credit rating.

Attribute Measurement: Institutional Strength

The Institutional Strength Attribute is measured by various variables that assess the ability of an RMG to repay its debt and maintain its creditworthiness. The variables used to measure the Institutional Strength Attribute of a regional/municipal government include:

- **Legislative Effectiveness:** This variable measures the RMG's ability to develop and implement effective policies and regulations, as well as its capacity to address emerging issues.
- **Transparency:** This variable assesses the level of openness and disclosure in the RMG's decision-making processes, including the budget and financial reporting.
- **Financial Policies and Management:** This variable measures the effectiveness of the RMG's financial management practices and the quality of its financial reporting.
- **Debt Management and Asset Allocation:** This variable evaluates the RMG's ability to manage its debt and allocate assets in a manner that supports its overall financial goals.
- **Access to Capital Markets:** This variable measures the RMG's ability to access funding from capital markets, which can be an indicator of its financial strength and creditworthiness.

Overall, a strong institutional framework is essential for maintaining the financial stability and creditworthiness of an RMG. The Institutional Strength Attribute is a critical component

in evaluating an RMG's credit rating, and the variables used to measure it are essential in assessing its ability to manage debt and maintain financial stability.

Variable: Legislative Effectiveness

Legislative effectiveness is a key variable used to measure the institutional strength of RMGs. A strong legislative effectiveness would have a positive impact on a government's ability to repay its debt and its creditworthiness. This would mean that the government has a well-functioning legislative body that is able to pass effective policies and regulations that promote economic growth and stability, which would in turn increase revenue and improve the government's financial position.

The variables used to measure legislative effectiveness include the ability of the government to pass policies and regulations, the responsiveness of the government to economic changes, and the effectiveness of the government's policies in promoting economic growth and development. The effectiveness of the government's policies and regulations is evaluated based on the impact they have on the region's or municipality's economic performance and stability.

A moderate legislative effectiveness would have a neutral impact on the government's creditworthiness. This would mean that the government's legislative body is functional but may not be as effective in passing policies that promote economic growth and stability. The government would still be able to manage its debt and maintain its creditworthiness but may not be able to do so as effectively as a government with a strong legislative effectiveness.

On the other hand, a weak legislative effectiveness would have a negative impact on the government's creditworthiness. This would mean that the government's legislative body is ineffective in passing policies and regulations that promote economic growth and stability. This would lead to decreased revenue and financial instability, which would make it more difficult for the government to manage its debt and maintain its creditworthiness. Therefore, legislative effectiveness is an important attribute that is taken into consideration when evaluating the institutional strength of regional and municipal governments.

Variable: Transparency

Transparency is an important attribute that reflects how open and honest a regional or municipal government is about its financial position and decision-making processes. Transparency is measured through various variables, such as audit opinions, which provide information about the reliability and accuracy of financial statements.

There are four types of audit opinions: adverse, disclaimer of opinion, qualified, and unqualified opinion. An adverse opinion is given when the auditor concludes that the financial statements are materially misstated or include irregularities. This type of opinion can raise

significant red flags that may lead to a loss of investor confidence and difficulty accessing capital markets.

A disclaimer of opinion is issued when the auditor is unable to provide any opinion at all related to the financial statements due to a scope limitation, such as the absence of financial records or lack of cooperation from management. This type of opinion has a negative impact on a rated entity's creditworthiness, as it creates uncertainty and can lead to suspicion or doubt among investors, but it is not necessarily an indication of poor financial management.

A qualified opinion is issued when the auditor is not confident about the process or transactions, preventing them from issuing an unqualified or clean report. This type of opinion has a moderately negative impact, as it indicates some level of misrepresentation or weakness in financial management that could lead to increased scrutiny and higher borrowing costs.

Finally, an unqualified opinion (clean audit) is issued when the auditor determines that each of the financial records provided is free of misrepresentations. This type of opinion has a positive impact, indicating a high level of transparency and strong financial management, which can lead to lower borrowing costs and greater access to capital markets.

In summary, transparency is an important attribute that provides investors and lenders with insight into the financial position of a regional or municipal government.

Variable: Financial Policies and Management

Financial policies and management play a crucial role in a government's ability to repay its debt and maintain its creditworthiness. This attribute is measured based on the strength of the policies and management practices implemented. A weak financial policy and management system may prioritise short-term gains over long-term stability, lack balance between borrowing and cash management, have poor controls on spending and budgeting, and ineffective working capital management. Such policies can lead to high levels of debt, low liquidity, and poor credit ratings, negatively impacting the government's ability to repay its debt and maintain its creditworthiness.

In contrast, a moderate financial policy and management system aims for stability and sustainability, with moderate borrowing and effective cash management, reasonable controls on spending and projections, and adequate working capital management. Such policies can lead to manageable debt levels, good liquidity, and stable credit ratings, thereby maintaining the government's creditworthiness.

A strong financial policy and management system prioritises long-term stability over short-term gains, with a careful balance between borrowing and cash management, strong controls on spending and budgeting, and efficient working capital management. These



policies can lead to low levels of debt, high liquidity, and excellent credit ratings, thereby enhancing the government's ability to repay its debt and maintain its creditworthiness.

Variable: Debt Management and Asset Allocation

Debt management and asset allocation are critical components of an RMG's financial health. Prudent debt management and asset allocation lowers the risk of loss on debt payments and supports higher credit ratings due to confidence in the government's ability to manage its debt and invest in its communities.

The level of debt management and asset allocation is classified into three categories: weak, moderate, and strong. A weak level of debt management and asset allocation is associated with high risks of loss on debt payments due to poor debt management practices such as excessive borrowing or failure to develop and follow a prudent debt management strategy. Consequently, a low variable score is given due to concerns about the government's ability to manage its debt and invest in its communities.

A moderate level of debt management and asset allocation is associated with a moderate risk of loss on debt payments due to suboptimal debt management practices such as not balancing borrowing with cash, or not having proper controls on spending and projections. Consequently, a median variable score is given due to some concerns about the government's ability to manage its debt and invest in its communities.

A strong level of debt management and asset allocation is associated with a low risk of loss on debt payments due to sound debt management practices such as balancing borrowing with cash, maintaining a debt management strategy, and effective working capital management. Consequently, a higher variable score is given due to confidence in the government's ability to manage its debt and invest in its communities.

Variable: Access to Capital Markets

Access to capital markets is an important aspect to consider when evaluating a regional or municipal government's creditworthiness. To measure this attribute, analysts assess the government's level of access to capital markets and the impact it has on its financing options.

When access to capital markets is weak, it means the government has limited options for securing financing for its operations and projects. This can lead to higher borrowing costs and difficulties in managing its debt. Weak access to capital markets may be due to factors such as poor creditworthiness, unfavorable economic conditions, or limited financial infrastructure in the region.

In contrast, when access to capital markets is strong, it means the government has the ability to secure financing on favorable terms and effectively manage its debt. This may be due to factors such as a strong credit rating, stable economic conditions, or a track record of



successful debt management. With a strong access to capital markets, the government may also have a range of financing options available to it, such as issuing bonds or obtaining credit facilities and loans from financial institutions.

When access to capital markets is moderate, the government may have some access to capital markets, but it may face challenges in securing favorable financing terms due to factors such as creditworthiness, economic conditions, or market volatility. In such cases, the government may need to implement strategies to mitigate these risks, such as diversifying its sources of financing or improving its credit profile.

Overall, a strong access to capital markets is generally viewed as a positive indicator of a government's creditworthiness and ability to manage its debt, while weak access may signal potential risks and limitations.

Pillar 4: Environmental, Social, and Governance (ESG)

Importance of the Environmental, Social, and Governance (ESG) Pillar

The ESG Pillar is an important factor in measuring the credit rating of an RMG. This pillar assesses the RMG's performance in managing its impact on the environment, social responsibility, and governance practices. A strong ESG performance can indicate good management practices that can positively impact the RMG's credit profile. This is because investors are increasingly considering ESG factors when making investment decisions, and a strong ESG performance can attract more favourable investment, leading to lower borrowing costs and increased access to capital.

Attribute Measurement: Environmental

The Environmental Attribute is one of the three attributes used to measure the ability of the RMG to meet its financial obligations. The variables used to measure the Environmental Attribute include Environmental Management Systems and Climate Change Practices.

Environmental Management Systems variables include the presence of effective policies and procedures, integration of environmental considerations into decision-making, and environmental reporting and transparency. These variables are rated on a scale of 1 to 5, where a rating of 1 indicates a very weak performance and a rating of 5 indicates a very strong performance. A comprehensive and effective set of policies and procedures that are integrated into decision-making and transparently reported can lead to a higher score of this attribute.

Climate Change Practices variables include climate change mitigation and adaptation efforts. These variables are also rated on a scale of 1 to 5, with a rating of 1 indicating no or very limited efforts and a rating of 5 indicating comprehensive and effective efforts. A

regional and municipal government with effective climate change mitigation and adaptation efforts can better manage climate-related risks and demonstrate its commitment to environmental sustainability, which can lead to a higher score of the Environmental Attribute.

Attribute Measurement: Social

The Social Attribute, which encompasses several variables that measure the social and economic conditions of a region or municipality, is measured using five-point scales that range from "very weak" to "very strong," indicating the strength of each variable.

- The first social variable used to measure the Social Attribute is the state of infrastructure. It reflects the quality and reliability of the region's or municipality's infrastructure and its impact on economic growth and resilience to natural disasters. A region with poor or non-existent infrastructure that poses significant barriers to economic growth and high vulnerability to natural disasters would receive a "very weak" score, while excellent infrastructure with no major deficiencies and high resilience to natural disasters would receive a "very strong" score.
- The second variable is labour and income risks, which reflects the unemployment rates and income inequality of the region or municipality. A region with very high unemployment rates and extreme income inequality would receive a "very weak" score, while low unemployment rates and a diverse range of industries that support stable and equitable income distribution would receive a "very strong" score.
- The third variable is health and safety risks, which measures the health and safety standards of the region or municipality. A region with very high health and safety risks and frequent major accidents or incidents would receive a "very weak" score, while high health and safety standards and low incidence of accidents or health risks would receive a "very strong" score.
- The fourth variable is access to basic services, which measures the accessibility and reliability of basic services such as water, electricity, and telecommunications. A region with severely limited access to basic services leading to major quality of life concerns would receive a "very weak" score, while all basic services being widely accessible and reliable would receive a "very strong" score.
- The final variable is housing, which measures the availability and affordability of housing in the region or municipality. A region with extreme housing shortages or affordability challenges leading to severe homelessness issues would receive a "very weak" score, while no housing shortages or homelessness issues would receive a "very strong" score.

Besides the above five variables, there may be other social considerations that may affect the Social Attribute of a region or municipality. These considerations may include demographics

or public safety concerns that may impact the social and economic well-being of the community.

Attribute Measurement: Governance

The Governance Attribute is an important factor that measures the ability of regional and municipal governments to repay their debt and their overall creditworthiness. This attribute is measured through variables that consider various factors related to governance. The variables used to measure the Governance Attribute are Quality of Institutions, Fiscal Management, Public Services, Political Stability, and Legal and Regulatory Framework:

- The Quality of Institutions variable measures the transparency, accountability, rule of law, democratic accountability, and regulatory environment of the government. A very weak quality of institutions implies a lack of transparency, corruption, weak rule of law, lack of democratic accountability, and weak regulatory environment. A very strong quality of institutions, on the other hand, implies best-in-class levels of transparency, accountability, rule of law, and excellent regulatory environment.
- The Fiscal Management variable considers the debt burden, debt affordability, budgetary performance, liquidity and solvency risks, and revenue base of the government. A high debt burden, weak budgetary performance, significant liquidity and solvency risks, and inadequate revenue base signify very weak fiscal management. Low debt burden, strong budgetary performance, no liquidity and solvency risks, and exceptional revenue-raising capacity signify a very strong fiscal management.
- The Public Services variable measures the government's ability to deliver public services and provide access to basic services such as infrastructure, healthcare, education, safety, and housing. Very weak public service delivery, limited access to basic services, inadequate infrastructure, and high social risks signifies extremely weak public services. Excellent public service delivery, universal access to basic services, excellent infrastructure, and limited social risks signifies best-in-class public services.
- The Political Stability variable considers the stability of the government, social unrest, incidence of violent conflict, and frequency of changes in government. Frequent unexpected changes in government officials, significant social unrest, and high incidence of violent conflict signify a very weak political stability. Limited and controlled social protests, no violent conflict, and stable government signify best-in-class political stability.
- The Capital Expenditure or Capex variable shows long-term plans and spending on fixed assets. High spending may show high support for the welfare of the community and improvement of public services.
- Finally, the Legal and Regulatory Framework variable measures the legal and regulatory environment, rule of law, and protection of property rights. A very weak

legal and regulatory environment, significant deficiencies in the rule of law, pervasive corruption, and inadequate protection of property rights signify a very weak legal and regulatory framework. A very strong legal and regulatory environment, adequate rule of law, zero to low corruption levels, and exceptional protection of property rights signify a good legal and regulatory framework.

- Overall, the Governance Attribute is an important factor that reflects the overall governance structure and performance of regional and municipal governments.

Pillar 5: Natural Endowments

Importance of the Natural Endowments Pillar

The Natural Endowments Pillar is an important consideration in measuring the credit rating of an RMG. This pillar evaluates the natural resources available in the area managed by the RMG, especially mineral resources, and their impact on the level of economic development and beneficiation. It also considers the sustainability of the related industries and the potential environmental risks involved.

Attribute Measurement: Natural Resource Contribution to Economic Development

One attribute used to measure the Natural Endowments Pillar is the "Natural Resource Contribution to Economic Development". This attribute assesses the ability of the RMG to repay its debt and its overall creditworthiness based on the mining and/or mineral beneficiation activities, agriculture, processing/manufacturing, tourism and other business activities related to natural resource beneficiation in the area. The attribute is measured using variables that are scored in a five-point range from "Very Weak" to "Very Strong."

The variables used to measure the "Natural Resource Contribution to Economic Development Attribute" are based on the contribution of mining and/or mineral beneficiation, agriculture, processing/manufacturing, tourism and other business activities related to natural resource beneficiation in the area that contribute to economic development and employment in the area. A score of "Very Weak" indicates that these activities have a very limited contribution, while a score of "Very Strong" indicates that these activities have a significant contribution to economic growth and employment. This assessment can help identify the potential for sustainable economic development in such an area and provide insight into the RMG's ability to manage environmental risks associated with these activities. By considering this attribute in the overall credit rating assessment, lenders and investors can make informed decisions on the creditworthiness of the RMG.

Final Assessment

Qualitative Judgements

The Rating Model is a tool that generates a score calibrated on a scale presented in the *Issuer Credit Rating: Converting Scores into Ratings*. However, SAR understands that no model can capture all the relevant influences on the creditworthiness of regional and municipal governments. Therefore, SAR employs a qualitative assessment to adjust for scores that are not fully reflected in the output of the model or that the model does not capture.

The qualitative assessment considers factors that are not quantifiable or that cannot be captured by the model. This assessment is performed by experienced analysts who use their judgement to evaluate the overall creditworthiness of the regional or municipal government. The analysts also consider factors such as the government's financial management, institutional strength, sovereign government support, and political stability for the purpose of a country risk assessment.

The qualitative assessment is an essential part of the credit rating process as it ensures that the final credit rating is a comprehensive reflection of the government's creditworthiness. The combination of the quantitative model and the qualitative assessment provides a holistic view of the RMG's credit profile.

Attribute Notching

The analysts conduct attribute score notching in order to further refine the credit ratings generated by the Sovereign Africa Ratings (SAR) Rating Model. This process involves considering additional analytical assessments, such as peer and trend analysis and forecasting, which are not fully reflected in the model output. The notch-adjustment method is used to adjust the model output by up to 2 notches for all the attributes evaluated. This approach enhances the quality of the ratings by allowing analysts to adjust at the attribute level rather than directly adjusting the final ratings. The table below provides an overview of the possible notching range for each attribute evaluated in the model. By incorporating attribute notching, SAR can provide more accurate and reliable credit ratings for regional and municipal governments.

Very Strong (+2 notches)	Strong (+1 notch)	Average (0 notches)	Weak (-1 notch)	Very Weak (-2 notches)
-----------------------------	----------------------	------------------------	--------------------	---------------------------

Integrity of the Rating Process

Sovereign Africa Ratings (SAR) and its employees are committed to upholding the highest standards of ethical conduct in all their activities. SAR employees are expected to comply with all applicable laws and regulations in the jurisdictions where they operate, without exception. They are also expected to conduct themselves with integrity, transparency, and professionalism when dealing with issuers, rated entities, investors, other market participants, and the public.

In line with these expectations, SAR and its employees are dedicated to dealing fairly and honestly with all stakeholders. They will not engage in any unethical practices that may compromise the integrity of the rating process or SAR's reputation. To ensure this, SAR has implemented a code of conduct that outlines the ethical standards expected of its employees. SAR also holds its employees to high standards of integrity at all times and takes appropriate measures to enforce compliance with its code of conduct.

Through these measures, SAR ensures the integrity of the rating process, maintains trust with its stakeholders, and upholds its commitment to providing fair and reliable credit ratings.

It should be noted that SAR issues its credit ratings based on the merits of the rated entity. SAR therefore does not place sovereign rating ceilings on its issuers. SAR also does not employ mapping tables to convert international scale ratings to national scale ratings. Instead, for each credit rating, SAR conducts a peer analysis exercise which incorporates the rated entity's international peers for international scale ratings and local peers for national scale ratings.

Issuer Credit Rating: Converting Scores into Ratings

The Sovereign Africa Ratings (SAR) Rating Model for RMGs generates a score calibrated on a scale ranging from 0 to 1000, which is then used to assign national scale ratings ranging from D to AAA. The scale is designed to reflect the creditworthiness of the issuer, with a score of 800 or above indicating a very low credit risk and a score below 200 suggesting a high credit risk. Scores between 500 and 1000 are considered investment grade, indicating a relatively low credit risk, while scores of 499 or lower are considered speculative, indicating a higher credit risk.

The conversion of scores into ratings is a critical step in the rating process, as it enables investors and other market participants to understand the creditworthiness of an RMG quickly and easily. The conversion process is based on a set of predefined criteria that

consider factors such as the issuer's ability to repay debt, its financial strength, and its level of economic development.

The table used to convert scores into ratings is an essential component of the SAR Rating Model, as it provides a clear and transparent framework for assigning ratings. The model has been carefully designed to ensure that ratings are assigned in a consistent and objective manner, considering all relevant factors that may influence an issuer's creditworthiness. By using a well-defined and transparent rating scale, the SAR Rating Model helps to promote confidence in the ratings assigned to RMGs, which is essential for the proper functioning of financial markets.

Converting Scores into Ratings

Sovereign Africa Ratings (SAR): Converting Scores into Ratings						
	SAR Tier Grade	Points Allocation			Long Term	Short Term
Investment Grade BBB- & Higher	1-Exceptional (Prime): $\geq 80\%$	Tier 1 – 800+	1	≥ 800	AAA	A+
	2-Very Good (High Grade): 70%-79%	Tier 2 – 700-799	2	767-799	AA+	A
			3	734-766	AA	
			4	700-733	AA-	
	3-Above Average (Upper Medium Grade): 60%-69%	Tier 3 – 600-699	5	667-699	A+	A-
			6	634-666	A	
			7	600-633	A-	
	4-Average (Low Medium Grade): 50%-59%	Tier 4 – 500-599	8	567-599	BBB+	B+
			9	534-566	BBB	
10			500-533	BBB-		
Speculative Grade BB+ and lower	5-Below Average: (Non-Investment Grade) 40%-49%	Tier 5 – 400-499	11	484-499	BB+	B
			12	467-483	BB	
			13	451-466	BB-	
			14	434-450	B+	B-
			15	418-433	B	
			16	400-417	B-	
	6-Poor (Substantial Risks): 31%-39%	Tier 6 – 300-399	17	367-399	CCC+	C
			18	334-366	CCC	
			19	300-333	CCC-	
	7-Very Poor (Extremely Speculative): $\leq 16\%$ -30%	Tier 7 – 200-299	20	267-299	CC+	
21			234-266	CC		
22			200-233	CC-		
8-Default: $\leq 15\%$	Tier 8 – 0-199	23	0-199	D	D	



Analysts

<p>David Mosaka david@saratings.com</p>	<p>Lomanja Malaba lomanja@saratings.com</p>	<p>Bekithemba Ndimande bekithemba@saratings.com</p>
--	--	---





Appendix 1: Defined Terms and Abbreviations

Agent	Any individual or organisation acting on behalf of a Rated Entity or a Rated Entity agent.
CRA	Credit Rating Agency
Credit Rating	A Credit Rating is an opinion from SAR regarding the creditworthiness of an entity, debt or financial obligation, debt security, preferred share, or other financial instrument, or of an issuer of such debt or financial obligation, debt security, preferred share, or other financial instrument, issued using an established and defined ranking system of rating categories.
Credit Rating Personnel	Credit Rating Personnel are SAR Analysts, Managers of SAR Analysts, and any other SAR Employees in credit rating analytical roles who are involved in the development or approval of procedures or methodologies used in providing Credit Rating Services, Ancillary Services, or Other Permissible Services. The definition of Credit Rating Personnel excludes any SAR Employee assigned to a rating team who: (1) is not involved in the Rating process or (2) supports the Rating process solely through administrative tasks, such as entering information into internal systems.
Outlook	An Outlook is an opinion regarding the likely direction of an issuer's rating over the medium term.
Prohibited Recommendations	It is prohibited for SAR analysts or persons who approve ratings to make proposals or recommendations or give advice, either formally or informally, regarding the design of structured finance instruments on which SAR is expected to issue a credit rating.
Rated Entity	A Rated Entity means any entity rated by SAR's credit rating agency.
Review	A Review is an indication that a rating is under consideration for a change in the near term. For further information see the applicable Ratings Symbols and Definitions document.
RMG	Regional and Municipal Government.
SAR	Sovereign Africa Ratings (Pty) Ltd is licensed to operate as a Credit Rating Services agency in terms of the Credit Ratings Services Act No 24 of 2012.
SAR Employees	The term SAR Employee means any full-time or part-time employee of SAR.

Contact: info@saratings.com

+27 10 203 9921

Thornhill Office Park, Block 13, Ground Floor, 94 Bekker Road,
Midrand, Johannesburg, South Africa

www.saratings.com

Reg No. 2019/155710/07 | FSCA Licence No. FSCA-CRA006