MOODY'S
INVESTORS SERVICE

RATING METHODOLOGY

Regional and Local Governments

Table of Contents:

Analyst Contacts:

LONDON +44.20.7772.5454

David Rubinoff +44.20.7772.1398
Managing Director - Sub Sovereigns
david.rubinoff@moodys.com

Jennifer A. Wong +44.20.7772.5333
Vice President – Senior Analyst
jennifera.wong@moodys.com

MADRID +34.91.768.8200

Sebastien Hay +34.91.768.8222
Senior Vice President/Manager
sebastien.hay@moodys.com

MILAN +39.02.9148.1100

Mauro Crisafulli +39.02.9148.1105
Associate Managing Director
mauro.crisafulli@moodys.com

Massimo Visconti +39.02.9148.1124
Vice President - Senior Credit Office/Manager
massimo.visconti@moodys.com

>>contacts continued on the last page

This rating methodology replaces "Regional and Local Governments" last revised on January 18, 2013. We have updated some outdated links and removed certain issuer-specific information.

Overview

This report presents our rating methodology for regional and local governments (RLGs) outside of the US, providing market participants with insights into the factors that we consider to be most important in our ratings.[1]

The methodology considers RLG ratings to be a function of two key factors: the government's Baseline Credit Assessment (BCA) and the likelihood of extraordinary support from another entity in the event of acute liquidity stress. This report describes the BCA scorecard and matrix as well as the support scorecard, which are analytical tools that we use to assess regional and local government credit quality and to enhance global consistency.

The BCA scorecard and matrix are intended to provide a reference tool that can be used to evaluate the credit profiles of regional and local governments outside the US. It should help issuers, investors, and other interested market participants understand how key qualitative and quantitative risk characteristics are likely to affect rating outcomes. However, there are many factors that go into producing a credit rating and they cannot all be captured by the scorecard and matrix.

The scorecard and matrix are not meant to be a substitute for rating committee judgments on individual BCAs, nor are they intended to be a method for automatically assigning or changing these assessments. Scorecard results have limitations in that they generally use historical data, while BCAs are forward-looking opinions of credit strength. The limited number of variables included in the scorecard cannot fully capture all idiosyncratic risks nor the breadth and depth of the analysis considered by rating committees. Furthermore, certain RLGs may exhibit special characteristics – for example, those on the verge of default or bail-out – that cannot be adequately captured in the scorecard. Nevertheless, the performance metrics captured in the scorecard and matrix are important and, in general, higher ratings can be expected among issuers with the highest assessments from the scorecard and matrix.

[1] This methodology applies to regional and local governments outside the US. Methodologies applicable to US states and municipalities along with other sector and cross-sector credit rating methodologies can be accessed via a link in the Related Research section of this report.

Once the standalone credit profile (the BCA) of an RLG is assessed, we then incorporate an estimate of the likelihood of extraordinary support from a higher-tier government. The support scorecard uses a set of primarily qualitative metrics that rating committees use as a tool to help evaluate the likelihood and degree of extraordinary support.

The rating methodology does not provide an exhaustive treatment of every rating factor that we consider. Because this methodology applies globally (outside the US), it is necessarily general in some respects and is not intended to cover all aspects of an RLG that rating committees consider in every rating. The scorecards represent a compromise between (i) greater complexity, which might result in scorecard-estimated ratings that map more closely to actual ratings; and (ii) simplicity, which enhances a transparent presentation of the factors that are most important for ratings in this sector most of the time.

1. Rated Universe

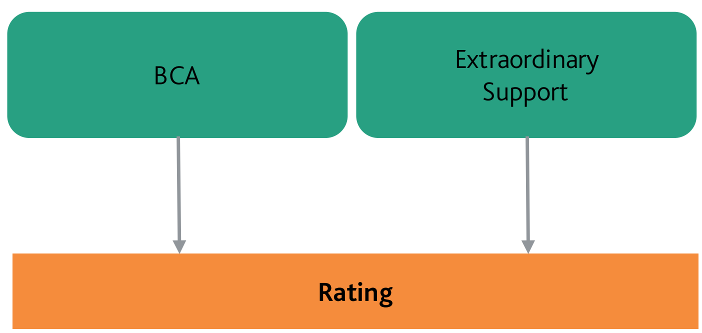
Although RLGs can be very diverse in terms of the scope of their responsibilities, they are generally responsible for delivering public services and developing infrastructure supported through taxation, fees and/or transfers from other governments or entities.

The expansion of ratings in emerging-market countries has tended to raise the proportion of non-investment-grade ratings. As a result, it is increasingly important for the methodology to incorporate explicit linkages to the domestic credit environment.

2. Rating Approach: BCA and Extraordinary Support

Our non-US RLG ratings are a function of two explicit factors: the government's standalone credit strength and the likelihood of extraordinary support from another entity in the case of acute liquidity stress. The following sections will look at, in turn, the BCA, the likelihood of extraordinary support, and how we combine these two factors to determine a final rating.

EXHIBIT 1
Rating Approach



3. Baseline Credit Assessment

Determining the BCA is the first step in assigning a rating to an RLG. BCAs are opinions of issuers' standalone intrinsic strength, absent any extraordinary support from a government.[2] We incorporate ongoing annual subsidies from a government to the RLG into the BCAs, as these are considered ongoing support rather than extraordinary support and, therefore, are considered intrinsic to an issuer's standalone financial strength.

BCAs are expressed on a lower-case alpha-numeric scale that corresponds to the alpha-numeric ratings of Moody's global long-term rating scale, i.e. aaa represents the risk equivalent to Aaa, aa1 is equivalent to Aa1, etc.

Our BCAs reflect our judgment of long-term risk. They are forward-looking in nature, because they apply to obligations that may be repaid over long time periods. Because experience shows that an issuer's financial condition as measured by historical data alone offers too little information to give an accurate prediction of its future financial performance and stability, we include qualitative as well as quantitative factors in its baseline assessment as well as forward-looking considerations. The baseline assessments, and the ratings they help generate, incorporate the opinions and judgment of experienced analysts.

RLG credit risk can be viewed as a combination of individual idiosyncratic risk and general systemic risk arising from the operating environment. To determine the BCA for an RLG, we first begin by assessing the individual RLG-specific credit risk to determine the idiosyncratic risk. We then combine this idiosyncratic risk with an assessment of systemic risk based on the corresponding sovereign bond rating:

Step 1: Assess idiosyncratic risk score from scorecard

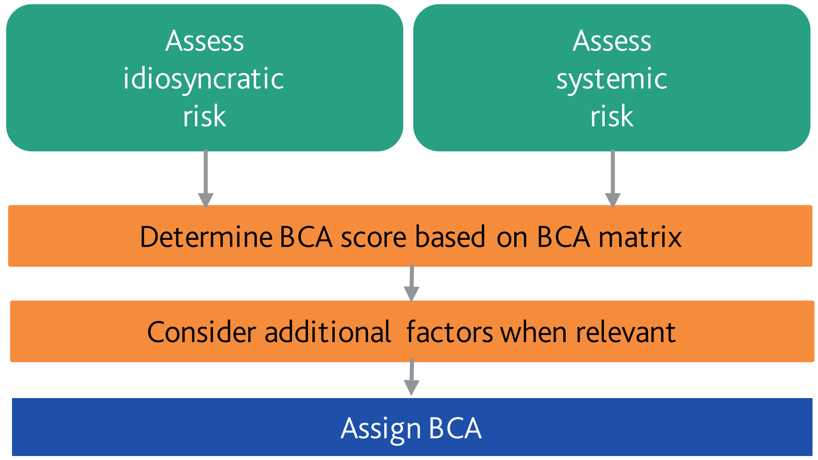
Step 2: Assess systemic risk based on sovereign bond rating

Step 3: Determine BCA score based on matrix combining idiosyncratic risk with systemic risk

Step 4: Consider additional factors when relevant and assign BCA

2 Government includes local, regional and national governments.

EXHIBIT 2
Determining the BCA



Idiosyncratic risk: We developed the scorecard to help determine the idiosyncratic risk score. The scorecard reflects and supports our BCA analysis by assembling and comparing select data points and qualitative variables. We assess the idiosyncratic risk score using metrics arranged into four categories: economic fundamentals; institutional framework; financial performance & debt profile; and governance & management. We then arrange the categories into tiers of performance on the scorecard and generate an estimated idiosyncratic risk score by weighting each of the factors.

Systemic risk: We believe that an RLG's BCA is best assessed in the context of not only its individual characteristics, but also its operating environment, which is represented by the systemic risk embodied in the corresponding sovereign rating. The environment in which an RLG operates has a significant influence on the credit risk of an RLG given the significant macroeconomic and financial linkages within a country and between the sovereign government and lower-tier governments. Our ratings of RLGs are therefore to some extent linked to their respective sovereign.

The BCA matrix combining idiosyncratic risk and systemic risk: The BCA matrix combines the two risk scores (idiosyncratic and systemic) to suggest a BCA score. The idiosyncratic risk score on its own is not comparable across countries; instead it should be viewed in conjunction with the systemic risk score. It is the BCA score which provides comparability of RLGs across countries. Use of the scorecard and matrix helps make our BCAs more consistent across our rated universe.

Additional factors: There are times when events or particular circumstances factor more heavily in rating decisions than weightings in the scorecard would imply, or when there may be other additional factors that are important in rating considerations but are not fully captured in the above factors. When they are relevant, we consider additional factors in determining the BCA score and in assigning the BCA.

In the following sections, we review the key factors used in determining the BCA, discuss why each is important, identify the financial and other measures we use – including those we incorporate in our idiosyncratic risk scorecard – and review how we interpret these measures.

Step 1: Idiosyncratic Risk Score

Idiosyncratic risk measures the credit strength of the entity itself and the idiosyncratic risk score determined by the scorecard generates a value between 1 and 9, where 1 represents the strongest relative credit quality and 9 the weakest. The scorecard looks at four broad categories: economic fundamentals, institutional framework, financial performance & debt profile and governance & management. These four categories are assessed through 12 variables scored for each entity.

EXHIBIT 3

BCA Idiosyncratic Risk

Key Factors	Scorecard (Weights)	Sub-Factors
Economic fundamentals	20%	Economic strength
		Economic volatility
Institutional Framework	20%	Legislative background
		Financial Flexibility
Financial Performance and Debt Profile	30%	Operating margin
		Interest burden
		Liquidity
		Debt burden
		Debt structure
4. Governance and Management	30%	Risk controls and financial management
		Investment and debt management
		Transparency and disclosure

Factor 1: Economic Fundamentals

Why it matters

An RLG's ability to service its debt depends on, among other factors, the sufficiency and reliability of its future revenues. These are tied, at least in part, to the local economy's ability to generate necessary revenues for the programs and services it provides. Furthermore, within a country, relative wealth levels may be unevenly distributed, reflecting regional concentrations of economic activity. These differences may influence the fiscal capacities of sub-sovereign governments. Economic performance relative to national peers will likely impact an RLG's ability to generate own-source revenues and its dependence on fiscal transfers. In general, a relatively wealthier region would have a more productive tax base and could therefore generate necessary own-source revenues more readily.

Even for RLGs whose revenues are derived mainly from fiscal transfers, the local economy and population mix are key determinants of spending needs. For example, a region with an ageing population may face increased pressure on healthcare-related spending, while a region undergoing economic expansion with growing job opportunities may experience rapid population growth, generating increased service demands and requiring costly infrastructure upgrades.

In considering the impact of economic fundamentals on debt-servicing capacity, we analyze the RLG's economic profile, compare it with other regions on measures of output, economic diversity and labor market performance and determine expectations for future performance. All else equal, we expect a large, diverse economy to better withstand economic shocks, over the long run, than one that is small and highly concentrated.

Many of the economic performance measures we use are not universally available or are not universally comparable. Unemployment rates, for example, are often calculated in different ways by different countries. When faced with this sort of data problem, we make use of locally or regionally comparable data sources. While the comparisons that result are not universal, they are still useful.

How it is measured in the scorecard

To measure the impact of economic fundamentals on the baseline assessment, we select two metrics for the scorecard:

» Regional GDP per capita as a percentage of national GDP per capita: We look at the relative wealth of the RLG compared to the national average.[3] For those RLGs without a reported GDP, we may extrapolate from the amount reported for the next higher level of government.

» Economic volatility is assessed by evaluating an RLG's economic diversity. We evaluate whether the economy is highly diversified with very limited concentration in a particular sector, whether there is some level of concentration or whether the economy is narrowly based with a high level of concentration. The lower the RLG's economic volatility score, the more positive the contribution to the measure of credit strength.

EXHIBIT 4

Economic Fundamentals

Score	1	3	5	7	9
1.1 Economic strength					
Regional GDP per capita as % of national GDP per capita	>= 120%	< 120% & >= 105%	< 105% & >= 95%	< 95% & >= 80%	< 80%
1.2 Economic volatility*					
Industrial concentration	Highly diversified; limited concentration		Moderately diversified; some concentration		Not diversified; high level of concentration

*The economic volatility sub-factor score is assigned in three buckets: 1,5 and 9.

Factor 2: Institutional Framework

Why it matters

The institutional framework encompasses the arrangements that determine intergovernmental relations and shape RLG powers and responsibilities. This factor addresses the RLG's public-policy responsibilities and the adequacy of its fiscal powers to meet them. It also addresses the way in which these responsibilities and powers may be altered, whether by a higher tier entity or by the RLG itself.

We examine the laws, regulations and practices that shape RLG service responsibilities and revenue-raising powers. These influence the predictability and stability of fiscal responsibilities and the extent to which the RLG is constrained by external forces over which it may exercise only limited control. They likewise affect

3 The absolute wealth of a country will already be reflected in the systemic risk score and, as such, scoring absolute wealth of an RLG could be viewed as a form of double-counting. The idiosyncratic risk score considers instead the dispersion of wealth and looks at the relative wealth of the RLG compared to other RLGs within the same jurisdiction. To calculate this metric, a three-year weighted average is used, with the highest weight given to the most recent year, i.e. $\frac{4}{7}y_0 + \frac{2}{7}y_{-1} + \frac{1}{7}y_{-2}$.

the degree to which the government may determine the nature and level of taxes and fees to be imposed and whether it may rely on a stable and predictable flow of fiscal transfers.

The structure of and flexibility afforded by the existing framework, the ability to alter the framework in response to changing needs and the way in which changes are carried out – at a measured pace or in a hurried, unpredictable fashion – are all relevant. Higher assessments result from clearly defined and predictable revenue and spending responsibilities, greater fiscal flexibility, greater responsiveness to changing needs and a change process that affords RLGs the opportunity to arrange an orderly transition to new circumstances.

We also consider the scope and effectiveness of the oversight exercised by many higher-tier governments over RLGs' fiscal performances. Oversight may take many different forms: service standards, budget approval authority, borrowing restrictions, reporting requirements and the authority to conduct audits are among the possibilities. It may even involve the higher-tier government's assigning an administrator to take over an RLG's financial affairs, under certain circumstances. More effective oversight typically produces higher, more closely aligned assessments in a country.

Our assessment of baseline credit risk also incorporates ongoing fiscal transfers from the higher-tier government. In some instances, the system of transfers is highly flexible and timely and, where this flexibility exists, we consider the responsiveness of transfers to changing circumstances as part of the idiosyncratic risk score, and not as examples of extraordinary support.

How it is measured in the scorecard

As the institutional framework represents risk applying to all governments of the same tier within a country, we evaluate RLGs on a sector-wide basis, for example, all states within a country or all municipalities within a state.

The measures we use in the idiosyncratic risk scorecard to gauge the impact of the institutional framework on credit risk are qualitative in nature. They include our assessments of the framework's predictability, stability and responsiveness to RLG needs, as well as its contribution to fiscal flexibility.

» We gauge predictability, stability and responsiveness by assessing whether and how RLG powers and responsibilities may be altered in response to changing circumstances. We consider the stability and predictability of revenues and expenditures as well as the relative ease and process by which changes may be made when necessary.

» We gauge financial flexibility by evaluating own-source revenue flexibility and the RLG sector's spending flexibility.

EXHIBIT 5

Institutional Framework

Score	1	3	5	7	9
2.1 Legislative background*					
Predictability, stability, responsiveness	There is a mature and robust framework for the RLG sector with stable responsibilities, clearly defined (in law/legislation). Any changes are made at a deliberate and predictable pace. Revenues are predictable with clear visibility of future revenues. There are minimal changes year-on-year or changes made at a deliberate and predictable pace. Spending responsibilities are highly stable and predictable over time.		There is an overall solid framework for the RLG sector with responsibilities mostly stable, defined (in law/legislation) and somewhat predictable. Revenues are mostly predictable with good visibility of future revenues. Changes year-on-year can be significant or changes can be made quickly. Spending responsibilities are somewhat stable and predictable.		The framework of the RLG sector is new or developing with responsibilities not clearly defined and difficult to predict. Revenues are not predictable and there is no clear visibility of future revenues. There are year-on-year negotiations/changes or changes are made unpredictably. Spending responsibilities are unstable and unpredictable.
2.2 Financial flexibility**					
Fiscal flexibility	Strong revenue and expenditure flexibility. Law allows RLGs broad discretion over a significant portion of revenues and expenditures. The RLG has the flexibility to change taxes/fees on a significant share of operating revenues and increases are politically acceptable at the local level. The RLG also has the flexibility to change the level and nature of spending, such as by cutting public services or changing service standards, on a significant share of operating expenditures. These cuts are politically acceptable at the local level.	Strong revenue flexibility and moderate expenditure flexibility or strong expenditure flexibility and moderate revenue flexibility.	Moderate revenue and expenditure flexibility. RLG has moderate discretion over changes to revenues and expenditures. The RLG has the flexibility to change taxes/fees on a moderate share of operating revenues that is politically acceptable at the local level. The RLG also has the flexibility to change the level and nature of spending, such as by cutting public services or changing service standards on a moderate share of operating expenditure that is politically acceptable at the local level.	Moderate revenue flexibility and weak expenditure flexibility or moderate expenditure flexibility and weak revenue flexibility.	Weak revenue and expenditure flexibility. Law allows RLGs little or no discretion over rates and objects of revenues and/or expenditures. The RLG has very limited flexibility to change rates and objects of operating revenues and expenditures that are politically acceptable at the local level.

* The legislative background sub-factor score is assigned in three buckets: 1, 5 or 9.

** The final score for sub-factor 2.2 Financial flexibility results from calculating the average of the scores of the following two elements: Revenue flexibility and Expenditure flexibility, which can each score 9 for Weak, 5 for Moderate, and 1 for Strong.

Factor 3: Financial Performance and Debt Profile

Why it matters

Financial performance is the product of accumulated decisions of policy makers regarding an RLG's revenue structure and expenditure base, as well as the economic environment in which the government operates. To maintain fiscal balance, an RLG must collect sufficient revenues to cover its operating and capital expenditures, as well as interest expenses and debt principal payments. The ability of an RLG to implement policy decisions that generate balanced or positive fiscal outcomes, which enhance long-term financial strength, is viewed as a key credit positive.

We evaluate how effective the government is at generating the revenues needed to cover its spending, including debt service. We do so by examining recent fiscal performances and projecting its performance over the medium term. Our aim is to determine if recurring revenues will cover ongoing spending commitments, given existing policies and expected demographic trends and economic outlook. We look at each side of the budget, revenues and expenditures, in turn. We also review the record to see if the government is afforded sufficient flexibility – and exercises that flexibility – to adjust taxes and spending when needed to restore fiscal balance. To the extent that a government can demonstrate balanced financial operations on a consistent basis, this helps move up the baseline assessment.

When considering revenues, we assess the scope of the government's taxing powers and its effectiveness in exercising those powers, including the range of revenue sources as well as the sensitivity to economic growth and the collection capabilities of the government. Looking at expenditures, we consider not only the total and its rate of growth, but also the drivers of that growth. Service responsibilities can vary substantially among jurisdictions. We consider the functions the RLG carries out and how these are affected by demographic patterns and trends.

We also assess a government's financial position by evaluating its liquidity and cash management. This includes evaluating the operating cushion afforded by its cash balances and, in most cases, its access to internal and external sources of liquidity to meet cash flow needs. We would look at, for example, free cash flow and unrestricted liquid assets available to cover short- and long-term obligations. We also consider the amount of any overdue payables or the use of increasing commercial liabilities o meet liquidity needs.

The government's debt profile includes the amount of debt, the burden it poses, its structure and composition, as well as past trends and future borrowing needs – all important determinants of credit quality. Our assessment of government debt requires an analysis of the legal framework for debt issuance and payment, as well as any limits set on the amount or structure of the debt.

We relate the government's debt level to measures of ability to pay, primarily the government's revenue flow, but in some instances relative to the jurisdiction's economic output as measured by GDP.

Debt structure is another aspect of the profile. When principal payments are amortized over time, our analysis focuses on the issuer's ability to cover debt payments (both principal and interest) from operating revenue. When all or a major part of debt principal comes due at maturity, we also consider the maturity schedule, the government's refinancing needs over time and its likely market access.

Another aspect of debt structure involves relative reliance on short-term and variable-rate debt. While such reliance requires, as for bullet maturities, consideration of refinancing and market access risks, it also entails questions about the issuer's exposure to interest-rate risk and its ability to accommodate adverse interest-rate movements. As the share of short-term and variable-rate debt rises, the corresponding loss of predictability about future costs forces the analyst to consider more serious stress scenarios when judging the revenue stream's adequacy to cover debt payments.

In evaluating credit quality, we also consider the laws that govern the purposes for which debt may be issued, the amount that may legally be borrowed, and the debt structure. We recognize that legal restrictions may pose a serious or only a modest impediment to borrowing. Even where such limits may impede borrowing, governments can be quite resourceful at finding ways around them.

For many jurisdictions (for example, state and municipal governments in Mexico), RLG borrowing may legally be used solely for capital investment, and not to cover operating deficits. Yet many governments in need find ways to borrow, regardless of this restriction. In fact, governments may circumvent a debt limit imposed upon them by engaging in debt-like or off-balance sheet transactions. Whether the restriction exists or not, a borrowing undertaken to finance an operating deficit or a capital-purpose borrowing whose repayment extends beyond the expected life of the project financed is viewed as a credit negative.

In recent years, we have witnessed an increased reliance on off-balance sheet transactions. To fully appreciate the associated risks, we take into account items that may not be consolidated in RLG financial statements. Our measurement of an RLG's total debt profile includes debt guaranteed by the RLG, debt obligations issued by majority-owned enterprises that may or may not be guaranteed by the RLG and debt-like instruments or commitments such as capital leases, public-private partnerships (PPP) and securitization transactions for which the RLG is or may become responsible. However, debts of government-owned entities that are deemed self-supporting, generating sufficient funds to support their operations including interest payments, can be deducted from the RLG's measure of net direct and indirect debt.

Contingent liabilities can impinge on credit quality and may arise from debt issued by other entities, whether through guarantees, ownership, or some other means, even in the absence of debt, if the RLG considers the entity's operations important enough to support.

We also consider in our analysis the RLG's pension obligations and the extent of the consequent budgetary pressures and liability burden. Our analysis evaluates both the balance sheet burden generated by the unfunded portion of the pension liabilities, relative to the RLG's budget size and existing debt burden, as well as the annual budgetary pressures stemming from payment of normal costs and amortization of any unfunded liability. While our scorecard debt metrics focus primarily on direct and indirect debt, we also consider total long-term liabilities, including unfunded pension liabilities. When evaluating the RLG's credit profile, we carefully consider entities that show large unfunded liabilities and their progress towards addressing long-term funding problems.

How it is measured in the scorecard

To measure financial performance and debt profile in the idiosyncratic risk scorecard, we select five indicators:[4]

» The ratio of gross operating balance (operating revenue minus operating expenditure including interest payments) to operating revenue: This ratio measures the government's ability to contain operating

[4] As a reflection of cross-country differences in accounting standards, budgetary practices and organizational structure, data sources are not, in many cases, directly comparable on an international basis. In order to manage these methodological discrepancies, our analysts rely on a collaborative process of cross-country information sharing to ensure consistency in coverage, definitions and measurement. Furthermore, calculation methods may differ across RLGs, such as the calculation and consolidation of revenues; rating committees will consider different alternatives and evaluate the most appropriate measure on a case by case basis.

expenditures below operating revenues and generate surpluses needed for capital spending and debt amortizations. The higher the ratio, the lower the risk.[5]

» The ratio of interest payments to operating revenue: Since increases in interest payments call for either corresponding decreases in program spending or increases in revenue flows, the relative share of operating revenue consumed by interest payments is an important consideration for our analysts; the lower the ratio, the lower the risk. In some jurisdictions, due to reporting limitations, only aggregate debt service (principal and interest combined) is available, and we use the corresponding ratio (with an appropriate adjustment) when necessary.[7]

» Cash and liquidity management: We assess the cash management and liquidity practices of the RLG; whether there is a need for borrowing for cash flow purposes or a reliance on credit lines or payment delays to ensure adequate access to liquidity. Useful indicators for liquidity levels are the average and minimum cash balances available during the fiscal year. A history of weak average liquidity likely signifies little cash cushion available if revenues dip unexpectedly in the year. For example, an RLG with adequate cash balances and committed credit facilities and/or unquestioned market access to cover cash flow and debt servicing over the next year, which also conducts regular detailed cash flow planning and monitoring, would score in the highest bucket, i.e. the lowest risk.

» The debt burden: we use the ratio of net direct and indirect debt to operating revenue of the most recent year. This measure of debt burden uses the government's operating revenue as a proxy for debt-servicing capacity and explains debt burden in relation to recurrent resources available to cover debt service; the lower the ratio, the lower the risk.

» The debt structure: we use the ratio of short-term direct debt to direct debt of the most recent year. Since it includes debt instruments with a maturity of less than one year and the current portion of long-term borrowings, this ratio helps in assessing both refinancing risks and interest-rate risks over a one-year time horizon; the lower the ratio, the lower the risk.

[5] To calculate this metric, a three-year weighted average is used, with the highest weight given to the most recent year, i.e. $\frac{4}{7}y_0 + \frac{2}{7}y_{-1} + \frac{1}{7}y_{-2}$.

EXHIBIT 6

Financial Performance and Debt Profile

Score	1	3	5	7	9
3.1 Operating margin					
Gross operating balance/operating revenues (%)	>= 10%	< 10% & >= 5%	< 5% & >= 0%	< 0% & >= -5%	< -5%
3.2 Interest burden					
Interest payments/operating revenues (%)	<= 1%	> 1% & <= 3%	> 3% & <= 5%	> 5% & <= 7%	> 7%
3.3 Liquidity*					
Cash and liquidity management	No need for external cash flow borrowing and/or unquestioned market access.		RLG uses short-term borrowing regularly to smooth out cash flow needs and/or relies on its credit lines with banks to ensure adequate access to liquidity.		High reliance on credit lines that are fully utilized and/or use of payment delays to suppliers.
3.4 Debt burden					
Net direct and indirect debt/ operating revenues (%)	<= 35%	> 35% & <= 65%	> 65% & <= 100%	> 100% & <= 200%	> 200%
3.5 Debt structure					
Short-term direct debt / total direct debt (%)	<= 10%	> 10% & <= 20%	> 20% & <= 30%	> 30% & <= 40%	> 40%

* The liquidity sub-factor is assigned in three buckets: 1, 5 and 9.

Factor 4: Governance and Management

Why it matters

Our assessment of an RLG's credit standing includes an assessment of the quality of financial decision-making and execution with a review of the government structure, financial management practices and the transparency of financial disclosures. Some features may be found in local law, others in institutional practices and political traditions that have developed over time. In some cases, the law may appear to strengthen credit standing, yet actual practice may have the opposite effect.

We consider the RLG's quality of internal controls and financial planning. This includes whether the government possesses the tools for successful financial planning, whether it is accustomed to enacting a realistically balanced budget at the start of the fiscal year, its monitoring of budget execution and its practice of making prompt adjustments when necessary. Among the features of interest here is the government's record of revenue forecast accuracy or conservatism, particularly for volatile revenue streams. The attainment of budgetary balance on a regular basis is clearly a positive factor.

We assess the extent to which the government clearly articulates a capital plan appropriate to its needs, makes effective use of multi-year planning for operating and capital spending, and has experience in accessing the debt capital markets.

We consider whether the executive and legislative branches have regular access to objective information and analysis concerning the costs and benefits of service programs and the revenue implications of tax changes, which can be aided by the availability of professional fiscal staff. We also take note of the depth of management experience at the senior administrative level.

We assess the executive's ability to move its fiscal program through the legislature in a timely fashion and then carry it out effectively, both in governments where the two branches are separately elected and in parliamentary systems.

Our analysts consider whether the electoral cycle allows the government to remain in office long enough to formulate and carry out multi-year fiscal and capital plans, and to obtain the potential benefits that such plans offer. We believe, for example, that the three-year electoral cycle for most mayors in Mexico, which prohibits their immediate re-election, along with the custom of conducting wholesale changes at the senior administrative level when the government changes, reduces the government's ability to apply a long-term perspective to its plans.

We evaluate the government's cash management, debt management and investment management policies, extending to the use of derivatives, considering how clearly articulated they are and whether actual practice conforms to the stated policies. The ability to avoid pitfalls in these areas of fiscal management is associated with credit strength.

Some governments are required by law, or follow the practice, to allocate revenues that exceed forecast amounts to reserves intended for use in future years when revenues may fall short. Some governments are prohibited from accumulating such reserves. In our analysis, we look at the record to determine how the law or stated practice is actually carried out, and how it affects financial performance.

Furthermore, we make an assessment on the quality and transparency of information disclosure. This includes whether the government prepares timely annual and interim financial reports, as well as actuarial pension reports. We consider whether the information is accurate and detailed and whether it is independently audited. Strong transparency and disclosure practices, including timely and accurate reporting, are viewed as a positive credit rating factor.

How it is measured in the scorecard

The measures selected to gauge the effects of governance and management practices in the idiosyncratic risk score include:

» We evaluate each RLG's risk controls and financial management practices. This includes an assessment as to whether they possess the expertise and quality of planning tools appropriate for strong financial management as well as the degree to which they apply prudent economic assumptions in estimating revenues, exercise caution in their spending forecasts, and are thus able to meet or exceed their bottom-line fiscal targets.

» We evaluate each RLG's investment and debt management policies and practices, and the extent to which these avoid exposure to a variety of risks.

» We evaluate each RLG's transparency and disclosure practices, that is, the timeliness, completeness and reliability of the financial statements they make available.

EXHIBIT 7

Governance and Management*

Score	1	5	9
4.1 Risk controls and financial management			
Quality of internal controls and planning	Strong internal controls and fiscal planning. Assumptions for projections are prudent, including conservative projections for volatile revenue streams; long-term planning and in-year monitoring is used; quality of planning tools and expertise of management is strong; typically meets or exceeds fiscal targets.	Moderate internal controls and fiscal planning. Assumptions for projections are somewhat prudent, but subject to volatility; projections for volatile revenue streams not conservative; there is limited use of long-term planning and in-year monitoring; quality of planning tools and expertise of management is moderate; meets fiscal targets in most years.	Weak internal controls and fiscal planning. Assumptions for projections imprudent; overoptimistic projections, particularly for volatile revenue streams; there is no long-term planning or monitoring; quality of planning tools and expertise of management is weak; fiscal targets generally not met.
4.2 Investment and debt management**			
Management policies and practices	There are clear policies and guidelines on debt and investment management that are followed. Management adheres to a conservative approach regarding debt and investment management, avoiding exposure to investments and debt structures that pose more than nominal risk. For example, avoiding exposure to high or rapidly changing debt costs or substantial foreign currency, interest rate or counterparty risk.	There are policies and guidelines on debt and investment management that are mostly followed. Management adheres to an approach that is neither notably conservative nor lax regarding debt and investment management. There is acceptance of exposure to investments and debt structures that pose risks. For example, some exposure to high or rapidly changing debt costs or foreign currency, interest rate or counterparty risk.	There are no policies and guidelines on debt and investment management or policies are not followed. Management adheres to a lax or aggressive approach regarding debt and investment management. There is acceptance of exposure to investments and debt structures that pose significant risks. For example, significant exposure to high or rapidly changing debt costs or substantial foreign currency, interest rate or counterparty risk.
4.3 Transparency and disclosure			
Quality of information	Consistently delivers documents in a timely manner; accuracy and detail of information are complete; financial statements are independently audited with an auditor's opinion that contains no serious qualifications.	Delivers documents in a somewhat timely manner; accuracy and detail of information are largely complete with some manageable shortfalls; financial statements are independently audited with an auditor's opinion that contains no serious qualifications.	Documents delivered with severe delays; accuracy and detail of information are incomplete; financial statements are not independently audited or are audited but qualified.

* Given the importance of governance and management in credit risk, we take the highest score in any sub-factor and apply it to the entire factor.

** The sub-factor 4.2 Investment and Debt Management has two components, Interest rate volatility and counterparty risk, and Management policies and practices, which can each score 9 for Weak, 5 for Moderate, and 1 for Strong. The score assigned to the sub-factor 4.2 is the highest score assigned to either of these two components.

Idiosyncratic Risk Scorecard

Using the factors and sub-factors described above along with associated scores and weights (shown in the exhibit below), we generate an estimated idiosyncratic risk score.

EXHIBIT 8

BCA Idiosyncratic Risk Scorecard Factors and Weightings

Scorecard	Sub-factor weighting	Factor weighting
1. Economic fundamentals		**20%**
1.1 Economic strength	70%	
Regional GDP per capita as % of national GDP per capita		
1.2 Economic volatility	30%	
Industrial concentration		
2. Institutional framework		**20%**
2.1 Legislative background	50%	
Predictability, stability, responsiveness		
2.2 Financial flexibility	50%	
Fiscal flexibility		
3. Financial performance and debt profile		**30%**
3.1 Operating margin	12.5%	
Gross operating balance/operating revenues (%)		
3.2 Interest burden	12.5%	
Interest payments/operating revenues (%)		
3.3 Liquidity	25%	
Cash and liquidity management		
3.4 Debt burden	25%	
Net direct and indirect debt/ operating revenues (%)		
3.5. Debt structure	25%	
Short-term direct debt / total direct debt (%)		
4. Governance and management		**30%**
4.1 Risk controls and financial management		
Quality of internal controls and planning		
4.2 Investment and debt management		
Management policies and practices		
4.3 Transparency and disclosure		
Quality of information		

EXHIBIT 9

Idiosyncratic Risk Scorecard

		1	3	5	7	9
Economic Fundamentals: 20%						
Economic Strength	**RLG economy against national average**	>= 120%	<120% & >= 105%	< 105% & >= 95%	< 95% & >= 80%	< 80%
Economic Volatility	**Concentration**	Highly diversified		Some concentration		High level of concentration
Institutional Framework: 20%						
Legislative Background	**Predictability, stability, responsiveness**	Mature and robust framework with stable responsibilities, clearly defined (in law/legislation). Any changes are made at a deliberate and predictable pace.		Overall solid framework with responsibilities mostly stable, defined (in law/legislation) and somewhat predictable.		New or developing framework with responsibilities not clearly defined and difficult to predict.
Financial Flexibility	**Fiscal flexibility**	Strong revenue and expenditure flexibility	Strong revenue flexibility and moderate expenditure flexibility, or strong expenditure flexibility and moderate revenue flexibility.	Moderate revenue and expenditure flexibility	Moderate revenue flexibility and weak expenditure flexibility, or moderate expenditure flexibility and weak revenue flexibility.	Weak revenue and expenditure flexibility
Financial Performance and Debt Profile: 30%						
Operating Margin	**GOB / Operating revenues**	>= 10%	< 10% & >= 5%	< 5% & >= 0%	< 0% & >= -5%	< -5%
Interest Burden	**Interest / Operating revenues**	<= 1%	> 1% & <= 3%	> 3% & <= 5%	> 5% & <= 7%	> 7%
Liquidity	**Cash and liquidity management**	No need for external cash flow borrowing and/or cases of unquestioned market access.		RLG uses short-term borrowing regularly to smooth out cash flow needs and/or relies on its credit lines.		High reliance on fully utilized credit lines and/or use of payment delays to suppliers.
Debt Burden	**Net direct and indirect debt / Operating revenues**	<= 35%	> 35% & <= 65%	> 65% & <= 100%	> 100% & <= 200%	> 200%
Debt Structure	**Short-term direct debt / Total direct debt**	<= 10%	> 10% & <= 20%	> 20% & <= 30%	> 30% & <= 40%	> 40%

		1	3	5	7	9
Governance and Management: 30%						
Risk Controls & Financial Management	**Quality of internal control and planning**	Strong		Moderate		Weak
Investment & Debt Management	**Management policies and practices**	Clear policies and guidelines that are followed. Management adheres to a conservative approach to investment and debt management policies, avoiding exposure to investments and debt structures that pose more than nominal risk.		Policies and guidelines that are mostly followed. Management adheres to an approach that is neither notably conservative nor lax. Acceptance of exposure to investments and debt structures that pose risks.		No policies and guidelines or guidelines not followed. Management adheres to a lax or aggressive approach to investment and debt management. Acceptance of exposure to investments and debt structures that pose significant risks.
Transparency and Disclosure	**Quality of information**	Strong Timely delivery of documents, high accuracy of information and audit performed by external body with no serious qualifications.		Moderate Somewhat timely delivery of documents, largely complete information, but with some manageable shortfalls. Externally audited; no serious qualifications.		Weak Severe delays in delivery of documents, incomplete information, lack of external auditing or audited but qualified.

Step 2: Systemic Risk Score

The second input in determining an RLG's BCA is the systemic risk score. This measures the general risks that apply to all RLGs in a country and is related to its operating environment. While our BCAs for RLGs have long reflected an assessment of both idiosyncratic and systemic risks, this methodology seeks to enhance transparency by explicitly presenting both the idiosyncratic and systemic risk components.

Why it matters

We believe that an RLG's BCA must also be assessed in the context of its operating environment, which provides a systemic risk score from which an RLG's BCA can be determined. This systemic risk score is typically the corresponding sovereign bond rating. We normally consider RLGs to be "enduringly linked" to their respective sovereign given their macroeconomic and financial linkages. Because of their correlation with sovereign credit risk, RLG ratings are typically positioned at or below the sovereign rating and rarely exceed the rating of their respective sovereign.

Macroeconomic conditions in a country affect the credit profiles of other domestic issuers. National fiscal and monetary policies will impact national and regional economic growth, with consequent impacts on government finances. Moreover, a strong macroeconomic environment that strengthens the sovereign's fiscal position through faster revenue growth would typically have the same direct effect on the finances of RLGs, just as conversely, a weaker macroeconomic environment would dampen revenue growth.

Financial linkages also impact the credit risk of both sovereigns and RLGs. For instance, declining sovereign credit quality is often accompanied by a contraction in domestic credit and, *in extremis*, a banking crisis. Only those sub-sovereigns with limited refinancing needs and not running deficits requiring external financing would be to some extent insulated from financial market pressures.

The importance of these credit linkages is supported by empirical evidence that when sovereigns default, the default rates of RLGs also spike upward. Accordingly, the credit linkages between the sovereign and other domestic issuers will likely be greater as the sovereign's rating declines, to a degree that will depend on the magnitude of the issuer's exposure to the macro-economy, federal taxation, the revision of government services, the domestic banking system and variations in foreign exchange rates.

How it is measured

In determining the systemic risk score, we use the country's sovereign bond rating. Generally, an RLG is unlikely to be rated above the sovereign's rating, which means that the sovereign bond rating represents an effective cap on the RLG's rating. There may be certain instances, however, when an RLG has the potential to have a rating exceeding the sovereign and the systemic risk score will deviate from the sovereign rating. In these cases, the systemic risk score could be set one or two notches above the sovereign rating. Given the significant macroeconomic and financial linkages between the sovereign government and lower-tier governments, however, it is unusual for an RLG to be rated more than two notches above the sovereign's rating.[6] We would consider setting the systemic risk score higher than the sovereign bond rating if the following two conditions are met:

6 See Moody's Rating Implementation Guidance, "How Sovereign Credit Quality May Affect Other Ratings". A link to this and other sector and cross-sector credit rating methodologies can be found in the Related Research section of this report.

1. Market insulation:

   (i) The RLG has limited borrowing/refinancing requirements; or

   (ii) Large cash reserves are readily available to compensate for any loss of market access for an extended period of time.

2. Fiscal autonomy:

   (i) The RLG is sheltered from any sovereign decision that could affect its financials, either through constitutional protection or some type of arrangement under which such change would require the RLG's prior consent; or

   (ii) Any sovereign decision detrimental to the RLG's financials could easily be offset thanks to the RLG's outstanding revenue and/or expenditure flexibility. In addition, there is no expectation of any significant change in the existing institutional framework for the considered jurisdiction in the foreseeable future.

The systemic risk score, determined by the sovereign rating with or without an adjustment, is the second input into the BCA score.

Step 3: BCA Matrix

Combining the idiosyncratic risk score with the systemic risk score, we then determine the BCA score using the matrix presented below:

EXHIBIT 10

BCA Matrix

		Idiosyncratic Risk								
		1	2	3	4	5	6	7	8	9
Systemic Risk	Aaa	aaa	aa1	aa2	aa3	a1	a2	a3	baa1	baa2
	Aa1	aa1	aa2	aa3	a1	a2	a3	baa1	baa2	baa3
	Aa2	aa2	aa3	a1	a2	a3	baa1	baa2	baa3	ba1
	Aa3	aa3	a1	a2	a3	baa1	baa2	baa3	ba1	ba2
	A1	a1	a2	a3	baa1	baa2	baa3	ba1	ba2	ba3
	A2	a2	a3	baa1	baa2	baa3	ba1	ba2	ba2	ba3
	A3	a3	baa1	baa2	baa3	baa3	ba1	ba2	ba3	b1
	Baa1	baa1	baa2	baa3	baa3	ba1	ba2	ba3	b1	b1
	Baa2	baa2	baa3	baa3	ba1	ba2	ba2	ba3	b1	b2
	Baa3	baa3	ba1	ba1	ba2	ba2	ba3	ba3	b1	b2
	Ba1	ba1	ba1	ba2	ba2	ba3	ba3	b1	b2	b3
	Ba2	ba2	ba2	ba3	ba3	ba3	b1	b1	b2	b3
	Ba3	ba3	ba3	ba3	b1	b1	b2	b2	b3	b3
	B1	b1	b1	b1	b1	b2	b2	b2	b3	b3
	B2	b2	b2	b2	b2	b2	b2	b3	b3	b3
	B3	b3	b3	b3	b3	b3	b3	caa1	caa1	caa1
	Caa1	caa1	caa1	caa1	caa1	caa1	caa1	caa1	caa1	caa1
	Caa2	caa2	caa2	caa2	caa2	caa2	caa2	caa2	caa2	caa2
	Caa3	caa3	caa3	caa3	caa3	caa3	caa3	caa3	caa3	caa3
	Ca	ca	ca	ca	ca	ca	ca	ca	ca	ca
	C	c	c	c	c	c	c	c	c	c

Thus, for example, an RLG with an idiosyncratic risk score of 3 residing in a country with a Aaa bond rating would generate an overall score of aa2. However, as shown in the matrix, an RLG with an idiosyncratic risk score of 3 and a systemic risk score of Baa3 would generate a BCA score of ba1.

As discussed previously, we consider RLGs to be "enduringly linked" to their respective sovereign. As a result, the sovereign's credit quality will to some extent anchor the credit quality of the RLG. Indeed, sovereign rating downgrades often coincide with an increase in long-term credit risk for other domestic issuers, even in the absence of direct credit linkages. As we move down the rating scale, we observe that credit risks for RLGs tend to align closer to sovereign credit risk and ratings for RLGs tend to compress closer to the sovereign bond rating. That is to say, there may be a wider distribution of ratings for RLGs in an environment in which the sovereign is rated at Aaa than in an environment in which the sovereign is rated at B1, for example.

We also consider that the differences in expected loss increase as we move further down the rating scale, i.e., the absolute difference in expected loss moving from Aaa to Aa1 is much smaller than the difference in expected loss moving from Ba3 to B1, for example.[7] Furthermore, sovereign and sub-sovereign entities are more likely to be affected by similar external factors, or "event risk", at lower rating levels, arguing for smaller differences in rating levels between the sovereign and sub-sovereign entities and a greater importance of systemic risk. Indeed, as noted in a study of RLG defaults outside the US, episodes of large-scale sub-sovereign defaults generally coincide with episodes of sovereign crises.

Reflecting this correspondence, we have constructed the BCA scorecard so that the BCA generated aligns more closely with the systemic risk score as the systemic risk score moves down the rating scale. When the systemic risk score is Caa1 or below, the RLG's BCA will wholly reflect the systemic risk score.

Using the scorecard-estimated idiosyncratic risk score and the systemic risk score, the BCA matrix produces a suggested BCA. This score should approximate, in most cases, within one notch above or below the BCA of the RLG considered.

Step 4: Additional Factors

Using the idiosyncratic risk scorecard and systemic risk score with the BCA matrix described above, we arrive at a starting point for an RLG's BCA. There are times, however, when events or particular circumstances factor more heavily in rating decisions than weightings in the scorecard would imply, or when there may be other additional factors that are important in rating considerations but are not fully captured in the above factors.

Because this methodology applies globally (outside the US), it is necessarily general in some respects and is not intended to be an exhaustive discussion of all factors that rating committees consider in every rating. The scorecard and matrix represent a compromise between greater complexity, which might result in estimated ratings that map more closely to actual ratings, and simplicity, which enhances a transparent presentation of the factors that are most important for ratings in this sector most of the time. Furthermore, certain RLGs may exhibit special characteristics – for example, those on the verge of default or bail out - that are not captured in the scorecard.

We may consider factors in addition to those described above, or weigh particular factors more heavily in the BCA than the scorecard prescribes. In general, additional factors would apply in only a limited number of cases.

Certain additional factors might bring a BCA up or down relative to that estimated by the factors and sub-factors listed above. Generally, additional factors may change the suggested BCA by half or one-notch, but in certain circumstances they may change a score by multiple notches. These additional factors include (but are not limited to) the following:

» A very narrow economy, with little expectation of growth and/or diversification, and/or shrinking population due to emigration (could bring BCA down)

» Strained/lack of market access and need for refinancing of short- or long-term borrowing (could bring BCA down)

» Cash flow notes, commercial liabilities or other cash-management tools used due to severe liquidity strain (could bring BCA down)

[7] Moody's Global Scale for long-term ratings are based on expected loss, reflecting both the probability of default and any financial loss suffered in the event of default. See "Moody's Rating Symbols and Definitions," a link to which can be found in the Related Research section of this report.

- Significant cash and investments that allows RLG to negate need for market access for extended periods (could bring BCA up)
- Extremely high debt ratios relative to peers, including material contingent liabilities (could bring BCA down)
- Significant budgetary pressures or large unfunded liabilities stemming from pension obligations (could bring BCA down)
- History of default (could bring BCA down)
- Political risk/interference that puts risk on willingness to fulfill obligations (could bring BCA down)
- Long history of conservative financial management, and/or frequent revenue estimating (could bring BCA up)
- Significant weaknesses in fiscal best practices, e.g., consistently over-estimating revenues (could bring BCA down)
- Use of aggressive debt management, e.g., risky debt structure including high interest rate resetting exposure (could bring BCA down)

There may be other miscellaneous factors particular to a certain credit that affect the BCA but are so specific that we have not included them in the scorecard. Some examples are given below.

- Impact of an event, e.g., an earthquake, that materially damages the RLG's ability to pay debt service, either through reduced revenues or need for significant spending (could bring BCA down)
- There may be instances where weak metrics in several areas would lead a rating committee to adjust the BCA implied by the scorecard. For example, if the RLG has a very high debt burden in combination with high liquidity risk, the rating committee may adjust the BCA by one or several notches to encompass this heightened credit risk.

4. Support Scorecard

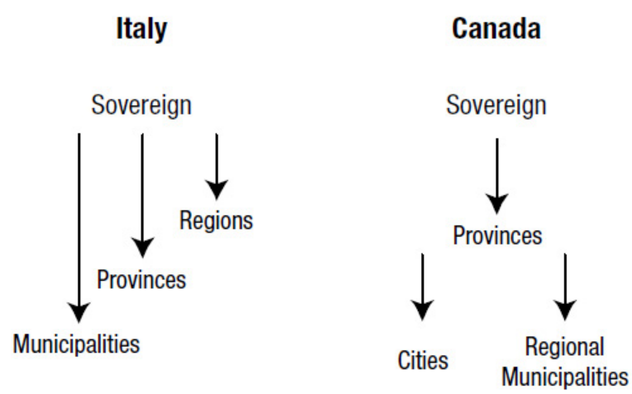
After having determined an RLG's baseline credit risk, the second step in determining the RLG's rating involves the assessment of the probability of extraordinary support from a higher-tier government. Extraordinary support is defined as the likelihood that a higher-tier government would aid an RLG in the event that it faced acute liquidity stress or act in such as way as to help avoid a default of its debt obligations. Support could take different forms, such as a one-time cash infusion or any action facilitating negotiations with lenders that enhances access to interim financing for the RLG. Concomitantly, our BCA can be viewed as the likelihood that an RLG would require such support. The BCA incorporates the intrinsic financial strength of an RLG and accounts for all aspects of ongoing, normal subsidies and transfers from the higher-tier government.

In practice, the most straightforward example of extraordinary support occurs when a higher-tier government, such as a sovereign or state government, unconditionally guarantees the debt obligations of a lower-tier government, such as a city or municipality. In this case, if we viewed the conditions of the guarantee as timely and credible, we would calibrate the likelihood of extraordinary government support at 100%. We reserve 100% support for those situations where we expect the government will in all cases act to avoid a default by the RLG. In other words, 100% support tends to reflect either an irrevocable and unconditional guarantee from the government or the fact that the RLG and the supporting government itself are indistinguishable from an operating and financing perspective.[8]

On the other hand, a zero likelihood of extraordinary support implies that the higher-tier government would never attempt, in any form, to provide a bail-out to an RLG on the verge of default. In most instances, the estimated likelihood of extraordinary support falls somewhere between zero and 100%.

Which higher level of government acts as the potential support provider varies from jurisdiction to jurisdiction, depending on the constitutionally defined divisions of power. For example, in the case of Canada, the support provider for a province is the federal government, while the support provider for a city or regional municipality is the associated province. In the case of Italy, however, the central government is the support provider for lower-tier governments, including regions, provinces and municipalities.

EXHIBIT 11
Hierarchy of Support Providers in Italy and Canada



Source: Moody's

In determining extraordinary support, we account for;[9]

» The supporting government's rating;

» An estimate of the default correlation between the two entities (dependence);

» An estimate of the likelihood of extraordinary government support (support).

How it is measured in the scorecard

To ensure analytical consistency across RLGs in many jurisdictions, we apply a support scorecard used by rating committees as a tool to help evaluate the likelihood of extraordinary support. We also consider a measure of default dependence between the RLG and the supporting government, reflecting the tendency that the RLG and its supporting government could be jointly susceptible to adverse circumstances that simultaneously move them closer to default. In general, default dependence is very high given the strong linkages between governments within a country, as discussed previously.[10]

8 Please see: "Rating Transactions Based on the Credit Substitution Approach: Letter of Credit-backed, Insured and Guaranteed Debts." A link to this and other sector and cross-sector credit rating methodologies can be found in the Related Research section of this report.

9 This follows the Joint-Default Analysis (JDA) framework. A technical overview of JDA can be found in Appendix 1 in "Government Related Issuers". A link to this and other sector and cross-sector credit rating methodologies can be found in the Related Research section of this report.

10 In practice, default dependence amongst RLGs tends to be very high reflecting the strong linkages between RLGs and their supporting governments. Consequently, default dependence is assigned at very high for the portfolio of rated RLGs reflecting these strong linkages.

Within the rating framework for RLGs, we have refined our approach to categorizing support in our published research. Consistent with the support ranges for government-related issuers, we have refined our support classifications into five ranges: low (0% - 30%), moderate (31% - 50%), strong (51% - 70%), high (71% - 90%) and very high (91% - 100%).[11] The use of ranges, rather than specific percentage points, recognizes the inherent uncertainty surrounding assessments of potential support before they occur. By definition, support is provided in a stressed environment, thus making it difficult to pinpoint the circumstances impacting an eventual support decision. The modification of ranges for support will not alter the presently assessed levels of support.

To arrive at a decision concerning the degree of support, we consider factors within three main areas: institutional framework, historical behavior and individual characteristics. Accordingly, there is no one factor – with the exception of the existence of credible legal statutes requiring, or forbidding, the provision of extraordinary support – that determines, in isolation, our assessment of the probability of support.

The following provides an update on the factors that we assess to determine the likelihood of extraordinary support.

Institutional Framework

The "institutional framework" in which an RLG operates refers to the constitutional and legal arrangement by which a jurisdiction is governed. It also includes well-established governing customs, intergovernmental relations, including how conflict between levels of government is addressed, and public expectations in respect to the role of government. Our analysts consider a number of factors in evaluating the level of extraordinary support inherent in the institutional framework. These include:

» Legal requirements or barriers: We review the legal/constitutional framework to determine if there are any requirements for, or barriers to, a higher-tier government providing extraordinary support. Our assessment hinges on the existence of requirements/barriers within credible institutional frameworks (i.e., mature, stable and transparent, such that the legal/constitutional requirement would be respected); any institutional framework that is nascent or in a state of flux would likely not be considered credible.

» Government policy stance: We consider current policies to formulate a view of whether extraordinary support would be forthcoming or not. Policies could include letters of comfort, clear public policy commitments or public statements indicating that the higher-tier government would or would not come to the aid of an RLG on the verge of default.

» Degree of oversight: The degree of oversight exercised by the higher level of government is viewed as a measure of its interest in maintaining a lower-tier government's financial stability and also speaks about the capacity and willingness of the higher level of government, as a regulator, to intervene in the financial affairs of the lower-tier government. Oversight in and of itself is not sufficient to justify high support unless it is accompanied by a track record of successful and timely resolution where problems are identified.

» Reputation risk: In assessing reputation risk, we take into account incentives to minimize the risk of potential damage or disruptions to capital markets if the RLG were to default and the potential political embarrassment that could be suffered by the supporting government on the domestic and/or international stage. Our qualitative assessment of reputation risk is based on an integral knowledge of

[11] These ranges align with the support ranges used for government related issuers (GRIs). See "Government Related Issuers" for more detail.

local, regional, and national issues and how these issues might influence the potential supporting government's decision whether to act to prevent a default by an RLG.

» Moral hazard: Like the previous factor respecting reputation risk, an assessment of a government's perception of the risk of moral hazard (i.e., fostering imprudent budgetary practices among RLGs if one is bailed-out) requires the same understanding of local, regional and national issues.

Historical Behavior

As past behavior may inform us of future actions, we consider, for each jurisdiction, cases in which defaults or near-defaults have occurred with particular emphasis on recent action. Greater emphasis is placed on more recent events as institutional frameworks evolve over time thereby limiting what we can infer about future actions from past behavior. Where there is evidence of a clear track record of behavior by a higher-tier government, this information is of key import to our overall assessment.

While there are a number of examples of higher levels of government showing a propensity to provide assistance after a default, this is not considered extraordinary support as it does not prevent the default from occurring.

Individual Characteristics

Our methodology considers the potential impact of individual characteristics, defined as specific attributes that may be relevant for a higher-tier government when deciding whether or not to provide support to a particular RLG.[12]

» Strategic Role: In some cases, a higher-tier government might consider providing support if the RLG in question has a high profile to avoid embarrassment for the higher level of government and/ or financial market disruptions for the country. Factors in determining strategic role could include: international name recognition or lack thereof, economic importance to the jurisdiction, capital city status or relative population size and associated electoral importance for the higher-tier government.

» Debt Structure: A default on a high profile obligation, e.g., a cross border bond, as opposed to a domestic currency bank loan, could encourage a higher likelihood of support due to the potential for capital market disruptions leading to higher costs of borrowing or a loss of access for other RLGs.

[12] In some cases, as a reflection of a jurisdiction's institutional framework and the nature of intergovernmental relations, a rating committee may conclude that a higher-tier government would likely not differentiate amongst RLGs within a given jurisdiction.

EXHIBIT 12

Support Scorecard

		Criteria	Factors	Suggested Settings	Score
Institutional Framework	1.	Legal Requirements / Barriers	Are there unambiguous legal/constitutional requirements for, or barriers to, a higher-tier government providing extraordinary support?	Requirements: Credible and direct legal requirement	50
				Neutral: Legal statutes silent on issue of support	0
				Barriers: Credible legal barriers	-50
	2.	Government Policy Stance	Do current policies indicate, convincingly, that extraordinary support would be either forthcoming or not forthcoming?	Strong Positive: Letters of comfort; clear policy commitments; responsive intergovernmental fiscal arrangements	25
				Moderate Positive: Above conditions hold, but with mitigating factors (e.g. nascent institutional framework)	10
				Neutral	0
				Moderate Negative: Evolving policy commitments or public statements	-10
				Strong Negative: Clear policy commitments	-25
	3.	Degree of Oversight	What degree of oversight does the higher-tier government exercise?	High: Frequent reporting requirements, approval of operating and capital budgets; authorization required to issue debt; debt/debt service limits; capacity to appoint financial administrator	10
				Moderate: Moderate reporting requirements; non-binding review of budgets; limited capacity to influence RLG policy decisions	5
				Low: Low or minimal oversight exercised	0
	4.	Reputation Risk	Does the higher-tier government's attitude toward the risk to its own reputation and/or risk of potential disruptions or damage to capital markets suggest a higher likelihood of support?	High: Strong concern; concern about reputation or the risks to potential disruptions in capital markets; perception of implicit guarantee	25
				Neutral	0
	5.	Moral Hazard	Does the higher-tier government's attitude toward the risk of moral hazard (i.e. fostering imprudent practices) suggest a lower likelihood of support?	High: Recent initiatives to decentralize authority and actions to control moral hazard	-25
				Neutral	0
Historical Behaviour	6.	Bailout History	Has the higher-tier government responded in a consistent fashion to near-default events by either providing bail-outs or allowing defaults?	Strong Positive: Clear and recent action (in the last 5 years)	25
				Moderate Positive: Clear action (since 1990)	10
				Neutral	0
				Moderate Negative: Clear non-action (since 1990)	-10
				Strong Negative: Clear and recent non-action (in the last 5 years)	-25
Individual Characteristics	7.	Strategic Role	Does the RLG play a strategic role that suggest a higher likelihood of support?	Yes: Economic importance; population size; capital city status; international name recognition	25
				No	0
	8.	Debt Structure	Would the structure of this RLG's debt imply a higher likelihood of support?	Yes: High profile borrower; cross border bonds or foreign currency obligations; debt represents large share of national debt markets	15
				No	0

Support Score (Total of Individual Scores)	Guideline for Support Range
< -15	Low (0% - 30%)
-15 to 15	Moderate (31% - 50%)
20 to 30	Strong (51% - 70%)
35 to 45	High (71% - 90%)
> 45	Very High (91% - 100%)

5. Rating

Based on the guidance for support, alongside the RLG's underlying BCA and the supporting government's rating, the scorecard provides a range of rating outcomes that are discussed by Moody's rating committees.[13]

Similar to the discussion on Step 4: Additional Factors, there are times when particular circumstances factor more heavily in rating decisions than what would be suggested by compiling the BCA scorecard output with the support scorecard output. For example, in very specific circumstances, the rating committee may conclude that the overwhelming factor in the rating for a particular RLG is the support factor, due to very strong linkages between the RLG and its support provider. In such circumstances, the rating committee may conclude that the individual characteristics of the RLG are irrelevant to the evaluation of its creditworthiness. In these circumstances, the rating committee may not assign a BCA and instead assign a final rating at or very near to the support provider's rating. This is a similar approach to that described in Appendix III of the rating methodology for government related issuers, analytical approach for GRIs without a BCA, rated solely on support.[14]

Scorecard Outcome: Rating Range

The scorecard's output of a rating range, rather than a specific rating, ensures that analyst judgments regarding elements outside the scorecard are captured, including evolving market dynamics and shifts in credit culture. Moreover, even though the scorecards and matrix act as tools to ensure that a consistent list of analytical factors are considered for every RLG, and provide flexibility to ensure that the principal elements that may impact intrinsic strength and support are fully accounted for, rating committees are ultimately responsible for assigning ratings.

As an example, in the case where the guidance for the support range is Moderate (31%-50%), the RLG's BCA assigned is ba1 (equivalent to Ba1) and the supporting government's credit rating is Baa2, the scorecard provides a range of rating outcomes, which is between Baa3 and Ba1, as shown below, and a rating committee would likely assign a rating within this range.

Certain additional factors, which might not be fully captured by the support scorecard, however, can represent serious limitations for extraordinary support to materialize for some RLGs. In general, these additional factors lead us to limit the number of notches of uplift generated by extraordinary support. This can be done by assigning the lowest possible rating within the rating range generated by the support scorecard.[15] In a limited number of cases, the rating committee may decide to assign a final rating that is lower than the lowest rating in the scorecard-generated range, generally by one notch. Additional factors justifying this decision include (but are not limited to) the following:

» The RLG is small in size. As a result, the government has little incentive to support the RLG given that its default is unlikely to affect the government's and/or other RLGs' reputation and, by extension, their access to financing. If a country is comprised of many small RLGs, government oversight is likely to be limited. Our assessment on the size of the RLG may vary according to the country.

13 For a technical overview of JDA, see Appendix 1 in "Government Related Issuers". A link to this and other sector and cross-sector credit rating methodologies can be found in the Related Research section of this report.

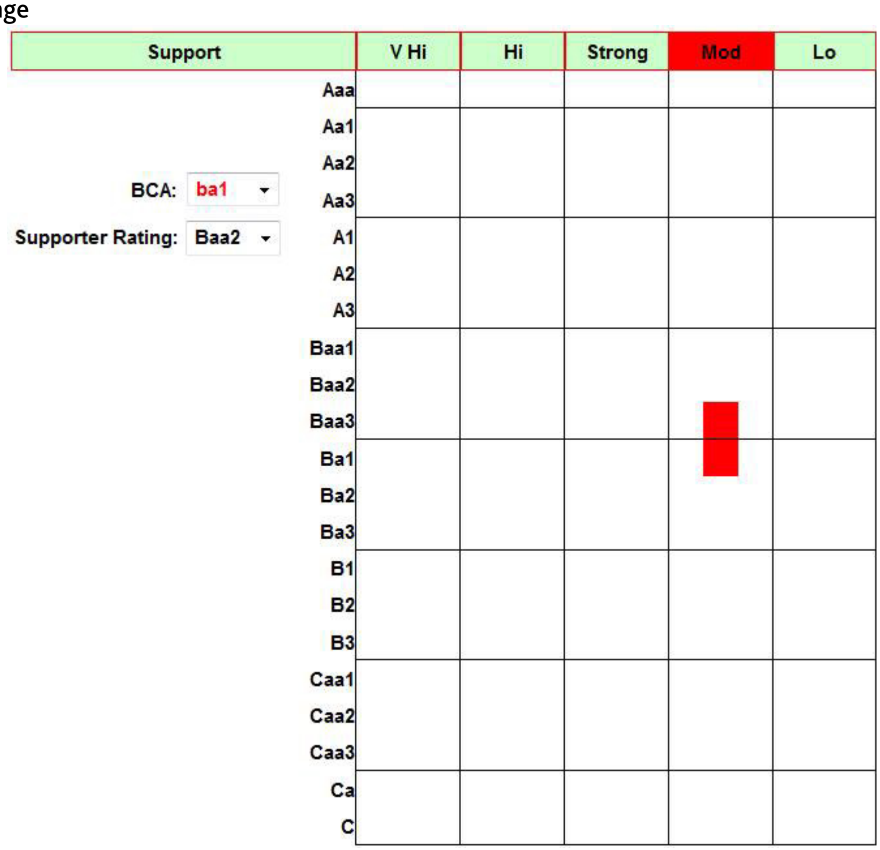
14 See "Government Related Issuers."

15 As explained above, the support scorecard suggests ranges of support (for example, moderate support corresponds to a 31%-50% probability of extraordinary support); in this case, the rating committee would assign the lowest possible rating resulting from a moderate support, i.e. the rating corresponding to a 31% probability of extraordinary support.

» The RLG's reported data are dated or incomplete. This may prevent the supporting government from anticipating a possible distress scenario. For example, the data available to the central government regarding the RLG's debt and liquidity positions are incomplete or the data are collected with a significant time lag or are unreliable or limited in scope.

» There is uncertainty surrounding the government's timely intervention due to (i) the slowness of the administrative machinery or in garnering sufficient political support; this might be the case if the government has to legislate before it can take any support action, or if we believe that the government is not sophisticated enough to organize support in a prompt manner; (ii) government support is only likely after the RLG's default. This can occur if a government fails to appreciate the importance of a default and the implications that a default could have; or if we believe that the government would allow RLGs to default (e.g. to make the RLGs more accountable) but organize a rescue operation at a subsequent stage to minimize creditor losses.

EXHIBIT 13
Rating Range



Appendix I: Example Rating

Sample BCA scorecard and matrix

We have refined the BCA Scorecard to work as an additional analytic tool – one that relies on a limited number of key measures – for conducting the baseline assessment. With this tool, market participants should be able to estimate the likely range into which an RLG's idiosyncratic risk score may fall.

A numerical value is established for each sub-factor in the scorecard, and weightings are applied to determine an overall numerical value for each factor. The one exception is the governance and management factor, where we take the highest score of the individual sub-factors (a weakest link approach) and apply this score to the main factor.[16] Once factor scores are determined, we then apply weightings to each factor to generate an aggregate numerical value. This can be described as:

Idiosyncratic risk score = ∑(factor score x factor weights)

The weightings are a subjective assessment of the relative importance of the main factors and sub-factors in our determination of idiosyncratic risk. The aggregate numerical value represents the idiosyncratic risk score.

The following provides an example of determining a BCA score. Looking at economic fundamentals, an RLG that is highly diversified with above average GDP per capita would score 1 on each of the economic fundamental sub-factors. The metrics for the economic fundamentals, financial performance and debt profile are primarily calculated based on public information; the exception is the liquidity measure. (See the factor summary exhibits above for the value ranges associated with BCA scores of the sub-factors used in our determination of baseline assessments.)

Under institutional framework, scores are assigned in accordance with the judgments of analysts familiar with the national – and, in some cases, regional – frameworks under which RLGs operate. A national framework which has a clearly defined, mature and highly predictable framework for revenue and spending responsibilities would likely score a 1 on the legislative background sub-factor. With regard to own-source revenue and spending flexibility, a framework that is deemed to offer roughly the mid-range between highly flexible systems (those that allow RLGs broad discretion over local taxation and spending, enabling them to generate substantial amounts of own-source revenue and to change the level and nature of spending) and systems that place limits on local revenue-raising and expenditure flexibility, would be assigned a score of 5 on this sub-factor.

The metrics for institutional framework and for governance and management factors are primarily calculated based on the judgments of analysts familiar with the full range of comparable arrangements around the world, as well as with the particular circumstances of the RLG being considered and the national context in which it operates.

Continuing the example offered above, for an RLG with a gross operating balance / operating revenue ratio of 3%, this would generate a sub-factor score of 5. If the same government reported an interest payments / operating revenue ratio of 1.7% (sub-factor score of 3), did not require external cash flow borrowing for liquidity purposes (sub-factor score of 1), had a net debt/ operating revenue of 40% (sub-factor score of 3) and short-term direct debt/ total direct debt of 15% (sub-factor score of 3), then – after weighting each of

[16] Given the importance of governance and management in credit risk, we take the highest numerical score in any sub-factor and apply it to the entire factor. For example, scores of 1, 5 and 1 on sub-factors 4.1, 4.2 and 4.3, respectively, will generate a score of 5 for factor 4. Indeed, historical evidence has shown that some sub-sovereign defaults have been triggered by endogenous conditions, often linked to mismanagement of financial resources.

these three sub-factors using the weights as indicated in the weightings exhibit above – the financial performance and debt profile factor would produce a score of 2.75.

Finally, we consider governance and management factors for the example RLG. In this example, the RLG generally exhibits strong internal controls and fiscal planning and possesses clear policy and guidelines on debt and investment management; however, there are often delays in delivering documents with some shortfalls in accuracy and detail of information. In this case, the governance and management sub-factor scores would be 1, 1 and 5 respectively, with the overall factor score of 5.

After calculating the scores for the main factors, the four factor scores are weighted as indicated in the weightings exhibit. The sum of the four weighted scores provides the suggested idiosyncratic risk score (on a scale of 1 to 9). In this example, the idiosyncratic risk scorecard produces an estimated score of 3 (see the exhibit below).

EXHIBIT 14
Sample BCA Idiosyncratic Risk Scorecard
BCA Scorecard

	Sub-factor score		Sub-factor weighting	Sub-factor total		Factor weighting		Total
1. Economic fundamentals								
1.1 Economic strength	1	x	70%					
Regional GDP per capita as % of national GDP per capita								
1.2 Economic volatility	1	x	30%					
Industrial concentration								
				1.0	x	20%	=	0.2
2. Institutional framework								
2.1 Legislative background	1	x	50%					
Predictability, stability, responsiveness								
2.2 Financial flexibility	5	x	50%					
Fiscal flexibility								
				3.0	x	20%	=	0.6
3. Financial performance and debt profile								
3.1 Operating margin	5	x	12.5%					
Gross operating balance/operating revenues (%)								
3.2 Interest burden	3	x	12.5%					
Interest payments/operating revenues (%)								
3.3 Liquidity	1	x	25%					
Cash and liquidity management								
3.4 Debt burden	3	x	25%					
Net direct and indirect debt/ operating revenues (%)								
3.5 Debt structure	3	x	25%					
Short-term direct debt / total direct debt (%)								
				2.75		30%		0.825
4. Governance and management			MAX					
4.1 Risk controls and financial management	1							
Quality of internal controls and planning								
4.2 Investment and debt management	1							
Management policies and practices								
4.3 Transparency and disclosure	5							
Quality of information								
				5.0		30%		1.5
								3.125
						Estimated Idiosyncratic Risk Score		3

Continuing this example, using the estimated idiosyncratic risk score along with the systemic risk score in the BCA matrix presented again below provides an estimated BCA score. In this example, the RLG is operating in an environment where the sovereign bond rating is Aaa. Using the idiosyncratic risk score (3) and systemic risk score (Aaa) in the BCA matrix produces an estimated BCA of aa2.

EXHIBIT 15

BCA Matrix

Systemic Risk	Idiosyncratic Risk 1	2	3	4	5	6	7	8	9
Aaa	aaa	aa1	aa2	aa3	a1	a2	a3	baa1	baa2
Aa1	aa1	aa2	aa3	a1	a2	a3	baa1	baa2	baa3
Aa2	aa2	aa3	a1	a2	a3	baa1	baa2	baa3	ba1
Aa3	aa3	a1	a2	a3	baa1	baa2	baa3	ba1	ba2
A1	a1	a2	a3	baa1	baa2	baa3	ba1	ba2	ba3
A2	a2	a3	baa1	baa2	baa3	ba1	ba2	ba2	ba3
A3	a3	baa1	baa2	baa3	baa3	ba1	ba2	ba3	b1
Baa1	baa1	baa2	baa3	baa3	ba1	ba2	ba3	b1	b1
Baa2	baa2	baa3	baa3	ba1	ba2	ba2	ba3	b1	b2
Baa3	baa3	ba1	ba1	ba2	ba2	ba3	ba3	b1	b2
Ba1	ba1	ba1	ba2	ba2	ba3	ba3	b1	b2	b3
Ba2	ba2	ba2	ba3	ba3	ba3	b1	b1	b2	b3
Ba3	ba3	ba3	ba3	b1	b1	b2	b2	b3	b3
B1	b1	b1	b1	b1	b2	b2	b2	b3	b3
B2	b2	b2	b2	b2	b2	b2	b3	b3	b3
B3	b3	b3	b3	b3	b3	b3	caa1	caa1	caa1
Caa1	caa1	caa1	caa1	caa1	caa1	caa1	caa1	caa1	caa1
Caa2	caa2	caa2	caa2	caa2	caa2	caa2	caa2	caa2	caa2
Caa3	caa3	caa3	caa3	caa3	caa3	caa3	caa3	caa3	caa3
Ca	ca	ca	ca	ca	ca	ca	ca	ca	ca
C	c	c	c	c	c	c	c	c	c

Differences between the matrix estimate and the actual BCA assigned may arise from analysts' judgments regarding some of the qualitative factors, or other credit fundamentals of the RLG not appropriately captured or weighted by the scorecard. The scorecard and matrix are simply another input in the BCA process. It offers an alternative perspective to the analyst's recommendation, but is not intended to replace the analyst's or rating committee's judgment.

Sample Support Scorecard

Using the same example RLG above, this entity operates in a country in which the bond rating of the country (higher-tier government) is Aaa. Based on the idiosyncratic and systemic risks, a rating committee determines that the baseline creditworthiness of the region is aa2, which includes ongoing fiscal transfers from the sovereign, but excludes the likelihood of extraordinary support. While there is no history of defaults or near-defaults by regional governments, and the national law is silent on the issue of support, the national government has made public statements to the effect that extraordinary support would always be forthcoming. The national government also exercises a high degree of oversight over the financial affairs of the region and upholds a perception held by capital market participants that it implicitly stands behind the debt obligations of all regional governments. The national government's policy stance, as articulated in its public statements, suggests that it would not differentiate between regions when considering the provision of extraordinary support. Under these circumstances, the support scorecard would generate a score of 35 points, which maps to a high likelihood of extraordinary support (71% - 90%).

Sample Rating Range

Given the BCA of aa2, the supporting government rating of Aaa and the high likelihood of support (71%-90%), the scorecard suggests the range of rating outcomes would be Aa1 to Aaa.

Appendix II: Analytical Approach for RLGs without a BCA, rated solely on support

As noted above, our standard approach to assigning ratings to RLGs is to determine a BCA and then consider uplift for support. BCA analysis provides useful information on fundamental credit factors (e.g. economic fundamentals, institutional framework, financial performance and debt profile, governance and management) which influence the probability that support is needed.

This approach also allows us to more clearly express a view on the likelihood of support being made available and the risks for investors if support does not materialize. However, in certain circumstances, we will rate an RLG which is very closely integrated with its respective higher-tier government at or near the higher-tier government's rating without assigning a standalone BCA, even in the absence of a formal guarantee or similar undertaking. Where we see very strong linkages between a higher-tier government and its lower-tier governments, our analysis focuses more squarely on the strength of those linkages and the implications for very high support. Where material doubts exist over support and linkages with the higher-tier government, but it is not possible to derive a meaningful BCA, it is unlikely that we would be able to rate the issuer at all. This approach is very similar to how we assign ratings to some of the government related issuers (GRIs) in our rated universe[17].

Characteristics of such RLGs without a BCA, which would be rated solely on support include:

» A highly centralized system where the decision-making process at the RLG level is greatly influenced by the higher-tier government.

» A close and enduring alignment of interests and objectives at all levels of government, most often seen in single party systems, where government programs are delivered by different layers of what is seen as effectively the same government. In such circumstances, there is limited strategic or operational autonomy for the RLG, with the higher-tier government influencing all major decisions concerning service delivery and capital investment. The provision of financial or logistical resources by the higher-tier government under any circumstances would be taken for granted in the normal exercise of government activities.

» In the circumstances described above, standalone financial performance and metrics are essentially meaningless, irrelevant to the credit risk its bondholders face, and near impossible to assess independently. Changes in 'fundamental' factors – e.g. revenues and expenses, liquidity – are of little if any analytical interest to the rating. In other words, no matter how poor the issuer's intrinsic strength or how fast its deterioration, the sole analytical concern is the likelihood of the higher-tier government providing support.

» » Finally, the RLG's default would substantially damage the higher-tier government's own credit standing as the RLG is viewed as part of the higher-tier government, considered indistinguishable to market participants. Expectation of extraordinary support is therefore very close to 100%.

RLG's rating will be close to the supporter's, but not always the same

When rating an RLG without a BCA, we focus solely upon support, and start from the assumption that extraordinary support is near certain. However, absent a formal guarantee, certainty of support will never be

[17] See "Government Related Issuers". A link to this and other sector and cross-sector credit rating methodologies can be found in the Related Research section of this report.

100%, so we may reflect some degree of uncertainty by rating the RLG one, two or three notches below the higher-tier government's rating.

There are no formulaic rules, and each rating decision reflects rating committee judgment about the particular circumstances. Rating committees consider what would happen were both the higher-tier government and the RLG to face severe financial distress, the priority the higher-tier government would ascribe to supporting the RLG and whether providing support to the RLG would exacerbate or potentially lessen the stress on the higher-tier government.

Put simply, the key question for each rating committee is whether there is any material probability that the higher-tier government might choose to prioritize its own debt obligations – considering itself separate and distinct from the RLG - in circumstances in which it was itself facing serious difficulties meeting those obligations.

Even a small amount of uncertainty can justify notching

The expectation of extraordinary support does not need to fall far short of 100% for notching to be appropriate. For example if an RLG did have a BCA, with its intrinsic strength consistent with a Caa1 rating, to lift its rating to the same as its A1-rated higher-tier government would require 100% probability of support.

Any sense that support is less certain would quickly imply a lower rating for this issuer. The judgments involved are very fine and common sense is required, but the additional uncertainty required to justify a two or three notch gap is not great. Even if those sensitivities will reduce somewhat where the intrinsic strength of the RLG and the higher-tier government's rating are closer together, the key point is that an exceptionally high degree of certainty of support is required to lift an RLG to the same rating as the higher-tier government, and that only very small increments in uncertainty are needed to imply lower ratings for the RLG.

Overall, notching for such an RLG would only very rarely exceed two notches; either an issuer is sufficiently closely and enduringly linked to the higher-tier government to justify this approach – in which case linkage will by definition be close – or it is not. So once a rating committee has chosen an approach focusing solely upon support, the next step will be to determine whether to rate at par, or lower – usually by no more than one, two, or in exceptional circumstances, three notches.

Characteristics of RLGs without a BCA, which are rated solely on support and are equalized with or notched from their higher-tier government's rating

A RLG's rating would only be equalized with that of its higher-tier government where at least some of the following conditions are met; where they are not, the RLG's rating will likely be notched below the higher-tier government's rating.

» It is currently extremely unlikely that the higher-tier government would prioritize repayment of its own debt over and above that of the RLG: the higher-tier government should be expected to treat the RLG's debt pari passu with its own in all circumstances.

» The higher-tier government is a sovereign and its institutional strength and fiscal strength (i.e., factors 2 and 3 in our Sovereign Bond methodology) are both very high and the government has provided strong indications that an RLG's credit quality is almost indivisible from its own. Where the sovereign's credit quality is not very high (A-range and below) or subject to a combination of large off-balance-sheet liabilities and macroeconomic stress, the risk of prioritization is at least fractionally higher, so the RLG's rating is more likely to be notched.

» The higher-tier government would suffer extremely high reputational damage were the RLG to default, which would undermine market confidence in the government very severely. This will most likely be the case where the higher-tier government and the RLG are widely perceived as being part of the same entity and the RLG has a high international profile and strong name recognition. At higher rating levels, capacity to support will be undoubted and reputational damage would likely be disproportionate; so par ratings for RLGs would be more likely.

Moody's Related Research

The credit ratings assigned in this sector are primarily determined by this credit rating methodology. Certain broad methodological considerations (described in one or more credit rating methodologies) may also be relevant to the determination of credit ratings of issuers and instruments in this sector. Potentially related sector and cross-sector credit rating methodologies can be found here.

For data summarizing the historical robustness and predictive power of credit ratings assigned using this credit rating methodology, see link.

Please refer to Moody's Rating Symbols & Definitions, which is available here, for further information.

» contacts continued from page 1

Analyst Contacts:

NEW YORK +1.212.321.6549

Alejandro Olivo Villa +1.212.553.3837
Associate Managing Director
alejandro.olivo@moodys.com

Report Number: 1072625

Author
Jennifer A. Wong

Senior Production Associate
David Dombrovskis

MOODY'S
INVESTORS SERVICE