

---

**Overview**

A State Owned Enterprise (SOE) is a distinct business entity, which can come in many legal forms that has some sort of relationship with government. Most SOEs are created by and governed under special statutes, and not under general business incorporation laws. Thus, SOEs may have powers, governance regimes or bankruptcy provisions that differ from most other corporations. SOEs cover a wide range of businesses, from airline firm such as Biman Bangladesh, to agricultural enterprises such as BADC, to financial institutions, utilities, telecommunications firms, and all manner of enterprises.

This Rating Methodology will examine the analytical areas CRAB reviews in its ratings of SOEs in different sectors. Because of SOEs profound diversity, this Rating Methodology will focus on analytical issues common to most SOEs. The reader is also referred to CRAB Rating Methodologies that are specific to the SOEs particular business, as well as to our Joint Default Rating Methodologies. SOEs CRAB rates are followed by analysts in the relevant business field, such as property, utilities or banking.

### SECTOR OVERVIEW

---

CRAB has been assigning few ratings to the government-owned and -related entities. The diversity of SOEs' business activities, the roles governments play in their SOEs' activities, and SOEs' ratings relative to the ratings of respective governments, signifies the complexity and diversity of SOE credit analysis. Furthermore, governments' ties to SOEs often do not include explicit support for SOEs' debt, deposits, commercial paper, preferred stock and other obligations, and thus one analytical challenge is to gauge the character and value of direct and implied credit support.

Because SOEs are among the world's most prominent securities issuers, SOE credit analysis is an important sector of the credit marketplace. A SOE's relationship to a government can and does vary over time. It can include explicit credit support (such as a guarantee of the SOE's debt); comfort letters or other forms of "soft", yet explicit, support; complete or partial ownership by the government; a governmental role in the executive governance of the enterprise; and/or a special, defined role for the SOE in implementing governmental policy. There is much mixing and matching of "support" elements and government-SOE relationships.

Because of the diversity of SOEs' business activities, legal statuses, policy roles and relationships to government, there is no definitive list of SOE characteristics, beyond market convention, which can be fluid. A SOE is often a SOE because the market deems it to be so. Appropriate financial ratios for credit analysis, informational resources and the meanings of terms also vary widely among SOEs, and are generally reflective of national policies and laws, and the specific industry in which the SOE operates.

As a practical matter for credit purposes, SOE status usually means that the financial markets deem the enterprise to have some special relationship to its relevant government, and that this relationship is an important factor in determining that SOE's creditworthiness - that relationship almost always being a plus. It can be akin to the relationship a subsidiary that funds itself independently has with a major owner of its stock.

### ANALYTICAL FRAMEWORK

---

#### STAND-ALONE BUSINESS FUNDAMENTALS

CRAB SOE rating approach begins with an analysis of the stand-alone strategic and financial fundamentals of the SOE as a business enterprise, taking each SOE on its own merits as compared to similar institutions -- both other SOEs as well as non-SOEs. A first step is to assign a stand-alone rating for the SOE. We do this because we need to know the core creditworthiness of the SOE, which in most cases serves as a floor for the rating - with government support "notching up" the rating.

The point here is that SOEs must be examined first as business enterprises. For example, for SOEs that operate as banking and finance entities, a CAMEL-type (capital, asset quality, management, earnings and liquidity) approach is used as a basis, layering in the operating environment, unique characteristics of the enterprise and other relevant credit matters - including those related to its public purpose - as appropriate. SOEs can be monopolies or quasi-monopolies, and such a business position can be a powerful creditworthiness factor. CRAB analytical approach is based not only on the business fundamentals of the SOE which are key credit factors in and of themselves, but also on the fact that the business fundamentals of the SOE affect the likelihood that the SOE may need to call on the support of its government in the first place. Furthermore, the SOE's success in meeting its policy goals (which tends to be associated with business success) can affect the incentive the relevant government has to support the SOE, or to let the SOE retain



## RATING METHODOLOGY : STATE OWNED ENTERPRISES (SOEs)

---

SOE status; SOEs that are doing their policy-implementation jobs well are more likely to be supported.

### **EXPLICIT SUPPORT**

Explicit support can vary widely, ranging, e.g., from a guarantee, to a keepwell, to a commitment to lend money to the SOE, to debt forgiveness; to special access the SOE has to public capital markets. The number and value of these explicit supports vary widely, and need to be individually examined on a SOE by SOE basis. Sometimes the support is for the SOE, and sometimes for its securities; the two are not exactly the same. Some SOE liabilities (such as liabilities of entities that are Agents of Government, which means that such liabilities are also direct liabilities of the Bangladeshi Government) are explicitly supported by a government. In such cases, the obligations so supported would reflect the credit standing of the guarantor. It is important to analyze the particularities of a guarantee in order to gauge its value, such as timeliness of payment and withdrawability (perhaps related to sale of the government's interest in the SOE). This is no different from the analysis CRAB performs on, e.g., parent company guarantees or support of subsidiaries' debts.

### **IMPLICIT SUPPORT**

Forms of implicit support range widely, and are usually deemed to be important credit support features for a SOE. This is because the implicit supports, in combination with explicit supports (which can vary in strength), are seen as forming a complex web of relationships and market signals that, in toto, result in what may be deemed to be a de facto guarantee of the SOE's obligations.

### **PAST SOE ASSISTANCE:**

The past provision of government assistance to a SOE can not only boost a SOE's current financial health, but more important it can indicate that further assistance could be forthcoming if required. It can be a "test case" for implied support.

### **STRENGTH OF GOVERNMENT CONTROL OR SUPERVISION**

To the extent the government exercises greater governance or regulatory control over a SOE, the greater may be the potential that it will have a stronger implied or "moral" obligation to provide assistance, if needed. Control or supervision include some level of ownership of the SOE, to approval power over key business initiatives, to being able to cause the SOE to take certain business actions, to the ability to appoint some members of the SOE's board of directors, to explicit regulatory oversight, to little (if any) direct control. Control and supervision are thus finely nuanced, and there is a diversity of practices worldwide. The credit implications of those practices vary from nation to nation, and even among SOEs within a nation, as well as over time. As a general proposition, the greater the control, the greater the likelihood of governmental support.

### **IMPORTANCE OF THE SOE'S POLICY ROLE**

To the extent the SOE's business is deemed vital to the fulfillment of key government policy, it is more likely that the government could decide to support the SOE. However, SOEs' policy roles, and the relative importance of individual policies, can and do shift.

### **ECONOMIC, SOCIAL AND POLITICAL DISLOCATIONS OF SOE FAILURE**

The more severe these dislocations, the greater the potential likelihood of government support: the cost of supporting the SOE may be cheaper than letting it fail and then having to incur the "clean-up" costs, which may be widespread given SOEs' often-key roles in national economies. A nation's pension funds and banks, for example, may be major SOE debtholders, and may even be encouraged to hold such obligations. Furthermore, some governments impose lower capital charges on banks and other financial institutions for holdings of SOE obligations than for non-SOE corporate obligations -- again implying a special, "protected" status for a SOE. These dislocations could also include foreign affairs to the extent foreign central banks or other key overseas investors hold securities of the SOE,



## RATING METHODOLOGY : STATE OWNED ENTERPRISES (SOEs)

---

or to the extent a SOE's failure could adversely affect foreigners' willingness to hold direct government, or government-related, debt.

### POWERFUL POLITICAL CONSTITUENCIES

The potential for governmental support can be enhanced by the presence of powerful political constituencies that are interested in the SOE's survival -- whether or not the SOE's policy role is deemed to be "vital" to the overall national interest.

### OTHER FACTORS

Any number of other factors can create ties between a SOE and its respective government, with such ties potentially having credit implications. Such factors can include the tax status of the SOE or of its obligations, whether the SOE's obligations are exempt from normal securities registration provisions, or whether the SOE's activities are included in the government's budget.

CRAB also analyses the likelihood that the government will provide the timely support necessary for the prompt payment of the entity's obligations, if required, to prevent a default. The emphasis on "timely" is important: to obtain CRAB's highest rating, the debt must, of course, be repaid punctually. Thus, CRAB considers whether support will be prompt, or whether it may come (assuming it does come) only after a payment is missed and perhaps much political finger pointing and conflict.

### SECURITIES SPECIFICS

---

Different obligations of a SOE may be more creditworthy than others. Such differentiation among obligations can reflect securities issued both before and after the privatization of a SOE, the nature of the creditor (e.g., domestic vs. foreign), the seniority or type of the obligation, differential explicit support statuses, and other factors. For example, some obligations of a SOE may enjoy a direct governmental guarantee, whereas others do not. The point here is that the credit analysis must also encompass the type of SOE obligation, as well as the potential for credit differences even among similar obligations for the same SOE. Furthermore, one needs to determine whether government support will be for the SOE or for its creditors. The government may decide to revive a bankrupt SOE, but while also zeroing out its former lenders.

In forming our opinions of the likelihood and character of government support for a SOE's creditors, CRAB draws on its diverse credit analysts. This credit network is particularly vital to appropriate SOE analysis. A CRAB's analytical team for a SOE could include analysts who follow the SOE's industry itself, as well as structured finance analysts.

### PRIVATIZATION

---

The topic of privatizing SOEs is a perennial one. Several SOEs have been privatized, and many more have had their relationships with their governments changed, such as through a sale of (at least some of) the SOE to the public. There is a global trend by governments to reduce their contingent liabilities and business activities. The potential for privatization varies depending on the business specifics of the SOE, and on the political culture and policy priorities of the nation in question. Thus, what can be privatized in one nation may not be in another, and the definition of "privatize" can vary, too. Privatization potential can also vary depending on the financial performance of the SOE. Most of all, should a SOE be privatized, one needs to consider whether the SOE's "old" obligations have a different credit status from "new" obligations.

### JOINT DEFAULT ANALYSIS TO GOVERNMENT RELATED ISSUERS (GRI)

---

We define a GRI as an entity with full or partial government ownership or control, a special charter, or a public policy mandate from the national or local government. An issuer fully or partially owned (or controlled) by a GRI may also be included in the approach.

The joint-default methodology explicitly accounts for a) the GRI's baseline, or stand-alone, risk assessment (detailed above); b) the supporting government's rating (for local currency government is rated AAA; and d) the degree of government support.

The methodology relies on conditional default analysis to characterize the credit dependence between two obligors. We propose a weighting parameter **W** to represent the degree of dependence between two obligors' baseline, or stand-alone, default risk. As applied to GRIs to rate SOEs, the dependence parameter **W** is a function of any intrinsic economic relationship between the GRI and its sponsoring government. It captures shared sources of business or credit risk, but it is independent of the two parties' vulnerability to default. That is, while the baseline credit profiles of the GRI and the sponsoring government may change over time, their default dependence need not change.

Extending the analysis to incorporate partial support is accomplished by considering two extremes: no support and full support. Where support is non-existent, the default risk faced by an investor is simply the baseline default risk of the SOE. On the other hand, full support reduces default risk to that of the joint-default (i.e., guarantee) situation, in turn a function of credit dependence, as described above. We therefore model support as a second weighting parameter **S** that places the final credit risk somewhere between these two outcomes.

### IMPLEMENTATION GUIDELINES FOR GRIS

---

#### Definition of GRI

In order to apply joint default analysis to a government related issuer, one must first estimate the baseline credit risk of the underlying obligor. To be considered a GRI, an issuer should meet the following criteria:

- The issuer should have full or partial (national or local) government ownership or have a charter from the (national or local) government.
- An issuer fully or partially owned or controlled by a GRI may be considered a GRI.
- The issuer does not have taxing authority.

Examples of GRIs are state-owned electric utilities, railroads, government-owned enterprises (SOEs), development banks and highway authorities.

#### Baseline Default Risk

In many instances, the continuing operation of a GRI depends on some form of subsidy, tariff or capital support scheme. Its charter may require the GRI to provide a public service which otherwise would not be met through private enterprise, or if offered privately, might entail unacceptable private costs or pose national security concerns. In many countries, natural monopolies are prime candidates for GRI status.

In most other applications, an assessment of baseline default risk simply means that the analysis excludes parent, state or third party support. When applied to a government-related institution that requires a subsidy to survive, the concept of baseline default risk becomes more complex. Because such institutions would fail absent financial ties to a supporting government, we have chosen to refine our criteria for baseline risk. In particular:

*“The baseline risk assessment for a government-related institution measures the likelihood that the issuer will require an extraordinary bailout. It takes into account all aspects of the entity's existing (or anticipated) business model, including benefits (such as regular subsidies or credit extension) and/or drags associated with the government relationship.”*

In other words, the baseline risk assessment for a GRI can incorporate normal operating subsidies and therefore contemplates the risk that it would need an extraordinary bailout from the government. By including maintenance, a GRI's financial attributes may be compared to peers (fully private firms as well as other GRIs) in determining its baseline default risk.

### Dependence

To calculate the joint-default risk between a GRI and its sponsoring government, one needs an estimate of their default dependence. Maximum possible dependence holds if, given a default by the supporting government, the GRI will default with certainty. In other words, the baseline credit profiles of the government and the GRI are inextricably linked. In such a situation, the joint-default risk will equal the sovereign's default risk. Any ratings on such fully supported obligations would therefore be capped at the sovereign's rating (from local currency point of view government is rated AAA).

Minimum possible dependence holds if, given a default by the supporting government, the GRI's default risk (absent extraordinary support) remains consistent with its baseline default risk assessment. In other words, their default risks are independent of one another and the joint-default risk is therefore equal to the product of their respective default probabilities.

One can imagine situations in which the credit profile of a GRI could be independent of the supporting government. A commercially run commodity exporter located in a low-rated developing country would be one example. A rating committee might assign a dependence factor  $W$  of just 20% in such a case.

On the other hand, an electric utility operating in the same country would likely experience high default dependence with the sovereign. Here, a committee might assign a dependence factor  $W$  as high as 70% or higher. For situations where there is no compelling guidance in either direction, a dependence factor  $W$  of 50% - meaning that the joint-default risk between the GRI and the sovereign lies halfway between the product of their default risks and the default risk of the sovereign - is an acceptable choice.

### Degree of Support

The final input to the rating process is an assessment of the degree of government support for a GRI. This is the likelihood that the government will step in and bail out a GRI if it were to experience a catastrophic loss. An explicit guarantee would be an example of full support ( $S=100\%$ ). In this case, the default risk faced by a GRI's bondholders is simply the joint-default risk of the GRI and the supporting government - in turn, a function of their respective baseline ratings and the dependence factor.

At the other extreme, where support is non-existent, the default risk faced by an investor is simply the baseline default risk of the GRI. In most cases, however, support for a GRI cannot be characterized as a guarantee, in which case judgment is required to place support along a continuum. We rarely assume that government support for a GRI is non-existent ( $S=0\%$ ), but is instead a positive value that is itself a function of several factors. Among these are the percentage of state ownership, national importance of the GRI, privatization status and political tolerance towards government intervention. CRAB has adopted Moody's table which provides guidance as to how these and other factors might map to a support assessment.

### APPLICATION AND EXAMPLES

---

We now illustrate how the joint-default methodology would be applied to GRIs. The case studies below use hypothetical issuers and do not necessarily reflect real-world firms or countries.

#### State-Owned Electric Utility

Consider a 50% state-owned electric utility, which is located in Bangladesh. Local Currency rating of Bangladesh is **AAA**. The rating committee has determined that, based on its intrinsic financial profile, the baseline default risk for the utility is a **BBB2** risk. This rating incorporates a statutory tariff enjoyed by the firm, but it excludes the likelihood of an extraordinary bailout.

The default dependence between the utility and the state is estimated to be medium at **W=50%**, reflecting the fact that the linkage between electricity demand and the country's overall economic performance is thought to be moderate, as well as the moderate risk that the government would implement price controls coincident with a sovereign default on local currency instruments.

Finally, it is estimated that the probability that the government would bailout bondholders in the event of a failure by the utility is moderate, and the committee therefore votes on a value of **S=60%**. For this combination of inputs, the resulting, supported rating is **A3**.