CREDIT RISK ASSESSMENT FRAMEWORK FOR STATE-OWNED ENTERPRISES

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1. INTRODUCTION

The Government of Pakistan has been providing various forms of fiscal support to State-owned Enterprises (SOEs), with explicit loan guarantees for SOE borrowings being among the most significant. These guarantees enable SOEs to secure financing on favorable terms while maintaining operational viability. However, they also contribute to the accumulation of contingent liabilities, exposing the Government to credit risk. If these risks materialize, they could strain the national budget and increase public debt.

A robust credit risk assessment methodology and an effective risk management mechanism are essential to mitigate these challenges. The following framework aligns with the Government's broader objective of fiscal and public debt sustainability by providing a structured approach to assessing and managing credit risk associated with SOE loan guarantees.

1.2 Legal Framework

Section 13 of the Fiscal Responsibility & Debt Limitation Act, (Amended 2022) directs the Debt Management Office (DMO) to prepare and implement guidelines for the issuance, management, valuation, budgeting, funding, allocation, monitoring of government guarantees including the guarantees related to public private partnerships. Section 3 of the amended Act also defines an overall stock limit of 10 percent of estimated GDP for loan guarantees. For this purpose, each guarantee is to be valued at its risk-weighted value in accordance with a valuation methodology.

1.3 Definition of Loan Guarantee

A loan guarantee means contingent financial liability undertaken by the Government to pay the financial liability of a third party in the event when the third-party defaults on that financial liability, as defined in the Fiscal Responsibility and Debt Limitation Act, 2005 (amended June 2022). In line with the activities/roles described above:

- the Guarantor is the Federal Government;
- the Guaranteed Entity is the borrower (e.g., a public entity) whose financial obligations are covered by the Guarantor;
- the Guarantee Beneficiary is the creditor/lending institution (e.g., commercial bank or an international financial institution).

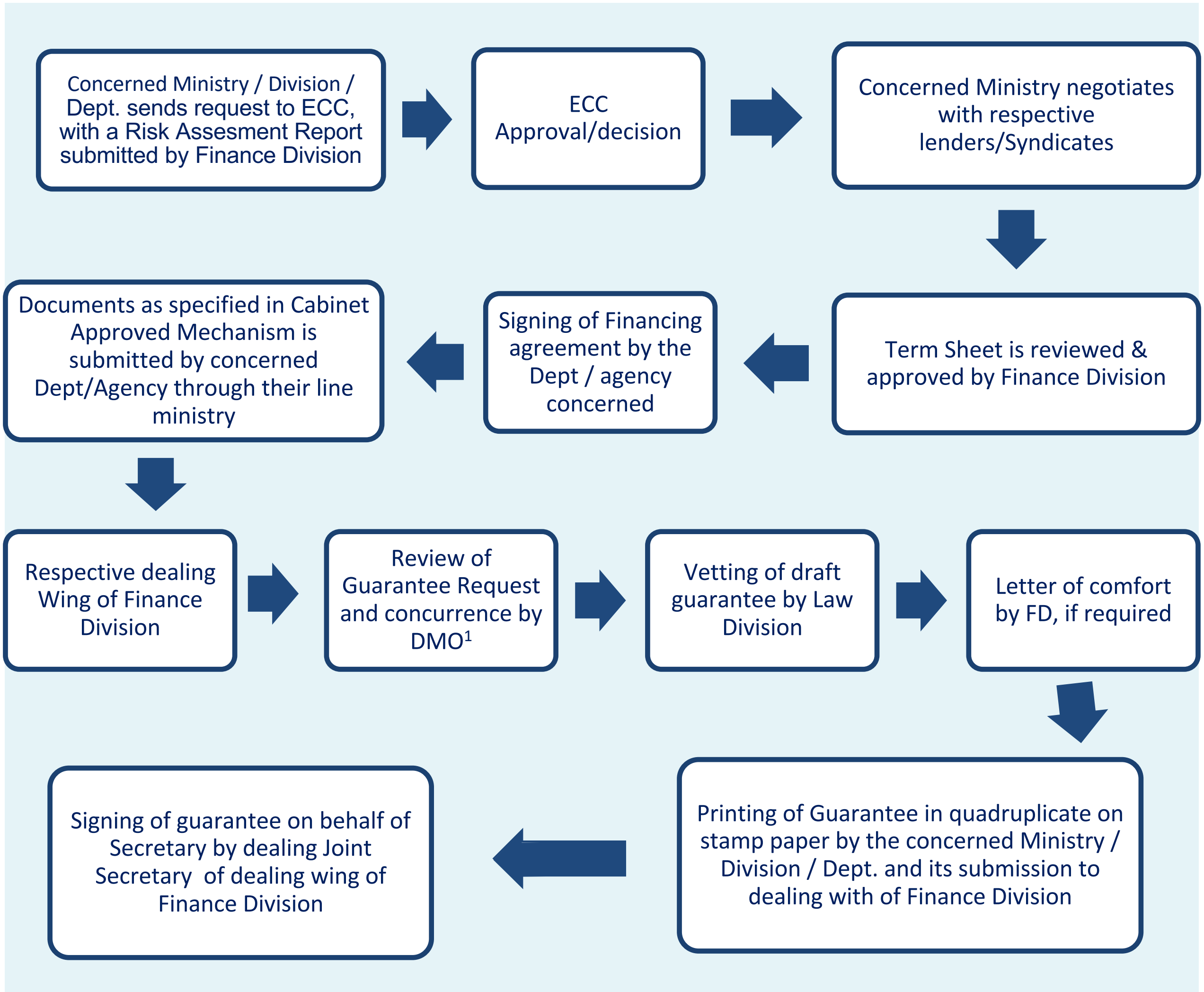
1.4 Scope of the Framework

This framework provides a methodology and mechanism for assessing the credit risk arising from loan guarantees, issued to both domestic or external financial lenders or other entities for the benefit of a SOE. Guarantees extended in the context of Public-Private Partnerships (PPPs), Credit Guarantee Schemes, or other projects undertaken for strategic or development needs are not covered under this framework. The credit risk assessment methodology seeks to analytically establish the creditworthiness of potential borrowers, and thus, is not based on the specific projects for which the borrowed funds will be used. The DMO will periodically review the adequacy of the methodology and may amend it in the future based on its experience and requirements.

2.0 PROCESS FOR THE ISSUANCE OF GUARANTEES

The current cabinet-approved mechanism for the processing of government guarantees is defined in Office Memorandum (OM) No. F. I (14) CF-I-2019-20/117, from February 3, 2020. After the approval of this framework, the documents mentioned in the respective OM will be submitted by the concerned ministries/divisions/departments to DMO via the respective dealing wing of Finance Division. Based on these documents, DMO in consultation with the Central Monitoring Unit (CMU), will conduct a Credit Risk assessment based on the approved methodology. The results of the assessment will be made part of the summary to be sent to Economic Coordination Committee (ECC) of the Cabinet for their approval / decision.

The procedure for the issuance of loan guarantees is as follows:



[1] For each loan guarantee request, the DMO will coordinate with the Central Monitoring Unit (CMU) to produce the final risk scoring as per the approved format.

3.0 CREDIT RISK ASSESSMENT METHODOLOGY

Credit risk will be assessed using a credit rating methodology that incorporates both quantitative and qualitative factors. This approach is widely used, including by credit rating agencies and many governments. It assigns scores to financial indicators and qualitative factors, which are then weighted and aggregated into a final numerical risk score. This score is subsequently translated into a final risk rating. Such ratings are straightforward to interpret and communicate, providing a clear assessment of credit risk.

3.1 Financial Indicators

Profitability: These ratios measure the ability of an SOE to generate profits from its sales or operations, balance sheet assets, or shareholders' equity. This provides an insight into the financial and business health of an SOE. The most common types of profitability ratios include margin ratios and return ratios. Higher ratios are generally considered favorable. The following ratios will be included in the methodology:

- EBIDTA (Earnings Before Interest, Taxes, Depreciation, and Amortization): The EBITDA margin measures a company's operating profitability before considering non-operating items like interest and taxes, and non-cash items like depreciation and amortization. It indicates how efficiently a company generates profit from its core operations. A higher EBITDA margin suggests strong cost control and operational efficiency, while a lower margin may indicate higher costs or lower profitability.

- Return on Assets (ROA): ROA indicates how well a company is performing in utilizing its assets to generate profits by comparing the profit to the capital it has invested in assets. It is calculated by dividing net income by total assets, expressing the return as a percentage. A higher ROA reflects the company is more productive and efficient in utilizing its assets while a lower ROA may suggest inefficiencies or excessive asset investment. Some asset-intensive industries will have lower ROAs.

Liquidity: These ratios measure a company's ability to pay its short-term debt obligations, and helps determine if a company has the ability to quickly convert its assets into cash to meet its immediate and short-term debt obligations**.**

- Current Ratio: This ratio measures a company's ability to cover its short-term liabilities with its short-term assets. It is calculated by dividing current assets by current liabilities, and is also described as the working capital ratio.

- Quick Ratio: This ratio considers the company's most liquid assets (excluding inventory), to measure the company's ability to pay its short-term obligations. It is calculated by dividing current assets by current liabilities. A higher quick ratio suggests strong liquidity.

Solvency: These ratios measure the company's ability to meet its long-term financial obligations. The most common types of solvency ratios are:

- Debt to Equity measures the proportion of an entity's total debt to equity that is used to finance its total assets. An entity that is heavily financed by debt may pose a greater risk to investors.

- Debt Service Coverage Ratio measures the ability of the entity's projected cash flow to meet its debt obligations. It is used in assessing an entity's ability to generate enough cash to cover its debt payments

In addition to the above, two more financial indicators related to debt profile of the borrowing entity will be qualitatively assessed. These indicators are useful for assessing the SOEs given their unique features which differentiate them from other private sector entities.

Debt Structure: Measures the exposure of the SOE's debt portfolio to market risk, i.e., refinancing risk, interest rate risk, and exchange rate risk.

Performance in Meeting Financial Obligations to the Government: Measures an SOE's willingness and ability to meet its financial obligations to the government.

The scores for the financial ratios above will be determined based on the average of the past three years' financial data, at minimum.

3.2 Business Profile

The overall performance of an entity is influenced by the business environment it is operating in and how the entity manages them based on certain internal factors. For the purpose of assessing the business profile of any entity, the following rating factors are included in the tool:

Regulatory Environment: Assesses how conducive the regulations (tariffs, taxation, other operational matters) are to the entities' operating performance and financial strength.

- Effectiveness of regulation: Evaluates the established legal regulations that govern an entity and the adequacy of these regulations to have a positive impact on its operations.
- Rate setting flexibility and timeliness: Examines the ease with which the entity can set its own tariffs or the regulator enables it to adjust tariffs in line with its financial and operating requirements.
- Independence of the regulator: Evaluates the ability of the regulator to always act independently, without significant political influence while keeping in mind the best interests of the entity, and consumers in the industry at large.

Sector- Risk and Competitive Position: Assesses the structural risks of the industry sector in which the entity is operating in (such as competitiveness, growth prospects, cyclicality, barriers to entry, etc.) and their competitive position within this sector.

- Sector risk assesses the cyclicality of industry profits and revenue, competitive pressures, and growth trends and risks.
- The competitive position assesses how a public corporation's prospects within an industry are influenced by its competitive positioning. This includes an assessment of the entity's competitive advantage, operating efficiency, and scale and diversification. Competitive advantage includes companies' brand reputation, product quality and uniqueness, and technological advantage and flexibility. Operating efficiency includes companies' cost structure, and production processes. Scale and diversification include companies' size and diversity of products and services, geographic areas served, inputs and suppliers, and customers.

Governance and Management: Assesses the government's corporate governance framework for public corporations, the board's qualities, the quality and timeliness of financial reporting, the autonomy and effectiveness of management, and the dividend policy.

3.3 Final Rating Score

Each financial and business profile indicator is scored from 1 – 4, with 1 being low risk and 4 being high risk. Subsequently, each indicator is assigned a weight, and the individual weighted scores are aggregated in a final, weighted numerical credit score for the respective SOE. The final weighted score ranges again from 1 – 4 and is translated correspondingly into a final risk rating of low risk, moderate risk, elevated risk, or high risk.

A score of 5 may be assigned to the SOEs performance in meeting its financial obligations. This score would automatically result in the SOE being classified as in debt distress. Such cases would arise if a SOE is not servicing its debts and is in arrears to the Government or other creditors.

Indicators	Scores	Weight	Weighted Score
Financial Profile		**55%**	
Profitability		10%	
EBITDA Margin	1-4		0.1-04
Return on Assets (ROA)	1-4		0.1-04
Liquidity		10%	
Current Ratio	1-4		0.1-0.4
Quick Ratio	1-4		0.1-0.4
Solvency		15%	
Debt to Equity	1-4		0.15-0.6
Debt Coverage Ratio	1-4		0.15-0.6
Debt Structure	1-4	10%	0.1-0.4
Performance in Meeting Financial Obligations	1-5	10%	0.1-0.5
Business Profile		**45%**	
Regulatory Environment	1-4	15%	0.1-0.4
Strength of Regulatory Framework			
Independence of Regulator			
Rate Setting & Cost Recovery factors			
Sector and Business Risks	1-4	15%	0.1-0.4

How Cyclical is the industry			
Competitive Position & Growth prospects			
The firms cost structure, diversification			
Exposure to environmental and climate change factors			
Governance and Management	1-4	15%	0.1-0.4
Implementation of Corporate Governance Regulations			
Board members performance, qualifications and independence			
Management Performance related to operations, financials & market position			
Quality of Financial Reporting & level of quasi-fiscal activities			

Rating/Scores	Score Range	Risk Level
1	1.0 – 1.4	Low Risk
2	1.5 – 2.4	Moderate Risk
3	2.5 – 3.4	Elevated Risk
4	3.5 – 4.0	High Risk
5	5.0	In Distress

Based on the assessment using the aforementioned indicators, a final risk score will be reported as per the format attached in **Annex-A**.

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Annex-A

Rating Factors				
Business Profile and Risks	Credit Rating	Numerical Score	Rating Factor Weight	Rating Rationale
Regulatory Environment	Low, moderate, elevated, high	1-4	15%	
Sector Risk and Competitive Position	Low, moderate, elevated, high	1-4	15%	
Governance and Management	Low, moderate, elevated, high	1-4	15%	
Financial Profile and Risks	Credit Rating	Numerical Score	Rating Factor Weight	
Profitability	Low, moderate, elevated, high	1-4	10%	
Liquidity	Low, moderate, elevated, high	1-4	10%	
Solvency	Low, moderate, elevated, high	1-4	15%	
Debt Structure	Low, moderate, elevated, high	1-4	10%	
Performance in Meeting Financial Obligations to Government	Low, moderate, elevated, high	1-4	10%	
Weighted average numerical score	1-4	100.0%		
Stand-Alone Credit Rating for Public Corporation	Low, moderate, elevated, high	1-4		