15th Finance Commission

Contingent Liability Management Framework

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Abbreviations

Acronym	Definition
AAU	Agenda Advice Unit
ACS- ARR	Average Cost of supply - Average Realisable Revenue
ALM	Cost of supply - Average Realisable Revenue
AP	Andhra Pradesh
APCO	Andhra Pradesh State Handloom Weavers Cooperative Society
APR	Annual Performance Review
APTIDCO	AP Town and Infrastructure Development Corporation
ATC	Aggregate Technical & Commercial
BDA	Bangalore Development Authority
BENFED	West Bengal State Cooperative Marketing Federation Ltd
BESCOM	Bangalore Electric Company Limited
BIACL	Bhogapuram International Airport Company Limited
BMA	Bangalore Metropolitan Area
BRADCL	Dr. BR Ambedkar Dev. Corporation Limited
BRL	Brazilian Real
BWSSB	Bangalore Water Supply & Sanitation Board
CAG	Comptroller and Auditor General
CAGR	Compounded Annual Growth Rate
CBI	Central Bank of Iceland
CESCOM	Chamundeshwari Electric Company Limited
CNNL	Cauvery Neeravari Nigama Limited
CNR	Current Net Revenue
CPPM	Core Policy and Procedures Manual

Acronym	Definition
CRIS	CRISIL Risk and Infrastructure Solutions Limited
DISCOMS	Distribution Companies
DMD	Debt Management Department
EAD	Exposure At Default
FAA	Financial Administration Act
FLC	Fiscal Liabilities Committee
FRBM	Fiscal Responsibility and Budget Management
FRL	Fiscal Responsibility Law
GDM	Government Debt Management
GDP	Gross Domestic Product
GESCOM	Gulbarga Electric Company Limited
GOVT	Government
GSDP	Gross State Domestic Product
HESCOM	Hubli Electric Supply Company Limited
HFF	Housing Financing Fund
IIFCL	India Infrastructure Finance Corporation Limited
IMFL	Indian-Made Foreign Liquor
JLG	Joint Liability Group
JNNURM	Jawaharlal Nehru National Urban Renewal Mission
KBJNL	Krishna Bhagya Jala Nigama Limited
KCGCA	Karnataka Guarantee of Ceiling Act
KFDC	Karnataka Fisheries Development Corporation
KHDC	Karnataka Handloom Development Corporation
KMA	Kolkata Metropolitan Area

Acronym	Definition
KMDA	Kolkata Metropolitan Development Authority
KMDC	Karnataka Minorities Development Corporation
KMPC	to Kolkata Metropolitan Planning Committee
KNNL	Karnataka Neeravari Nigama Limited
KPCL	Karnataka Power Corporation Limited
KPTCL	Karnataka Power Transmission Company Limited
KRDCL	Karnataka Road Development Corporation Limited
KREIS	Karnataka Residential Educational Institutions. Society
KRIDCL	Karnataka Rural Infrastructure Deelopemnt. Corporation
KSCARD	Karnataka State Cooperative Agri & Rural Development Bank
KSDB	Karnataka Slum Development Board
KSFC	Karnataka State Financial Corporation
KSHDC	Karnataka State Handicrafts Development Corporation
KSPHCL	Karnataka State Police Housing Corporation Limited
KUWSDB	Karnataka Urban Water Supply & Drainage Board
KVIB	Karnataka Khadi & Village Industries Board
KWDC	Karnataka State Women Development Corporation
LGD	Loss Given Default
LTD	Limited
MARKFED	Karnataka State Coop Marketing Federation Limited
MESCOM	Mangalore Electric Company Limited
MPM	Mysore Paper Mills Limited
MRO	Maintenance, Repair and Overhaul
MSME	Ministry of Micro, Small & Medium Enterprises

Acronym	Definition
MTRFP	Medium Term Fiscal Reform Plan
MVCA	Monthly Variable Cost Adjustment
MYSUGAR	Mysore Sugar Company Limited
NCR	National Capital Region
NCRPB	National Capital Region Planning Board
NEEPCO	North Eastern Electric Power Corporation Limited
NPC	National Power Company
NSC	National Security Committee of Cabinet
NSFDC	National Schedule Caste Finance & Development Corporation,
NSKFDC	National Safai Karmacharis Financial. & Development Corporation
NSTFDC	National Schedule Tribes Finance & Dev. Corporation
OECD	Organisation for Economic Co-operation and Development
PD	Probability of Default
PDS	Public Distribution System
PFMA	Public Finance Management Act
PGPA	Public Finance Management Act
PMAY	Pradhan Mantri Awas Yojana
PPP	Public Private Partnership
PSUS	Public Sector Units
RBI	Reserve Bank of India
RGRHCL	Rajeev Gandhi Rural Housing Development Corporation
RMB	Risk Management Branch
SEK	Swedish Krona
SGF	State Guarantee Fund

Acronym	Definition
SHG	Self Help Group
SMD	State and Municipalities Department
SMPF	States and Municipalities Participation Fund
SNDO	Swedish National Debt Office
SOE	State-Owned Enterprises
SPV	Special Purpose Vehicle
STUS	State Transport Units
TANGEDCO	Tamil Nadu Generation and Distribution Corporation Limited
TASMAC	Tamil Nadu State Marketing Corporation Limited
TMO	Treasury and Market Operations
TNSC bank Limited	Tamil Nadu State Apex Co-operative Bank Limited
TRICOR	Andhra Pradesh Scheduled Tribes Co-operative Finance Corporation Limited
TRR	Total Revenue Receipts
TTDFC	Tamil Nadu Transport Development Finance Corporation Limited
TWAD	Tamil Nadu Water Supply and Drainage Board
UDAY	Ujwal DISCOM Assurance Yojana
USAID	United States Agency for International Development
WB	West Bengal
WBCS	West Bengal Co-operative Societies Act
WBECSCL	West Bengal Essential Commodities Supply Corporation Limited
WBSCARDB	West Bengal State Co-operative Agriculture & Rural Development Bank Limited
WGA	Whole Government Accounts
WSPF	Water and Sanitation Pooled Fund

1. Background of the Study

Contingent Liabilities are possible obligations that may arise in the future on the occurrence/non-occurrence of some events. Contracting such liabilities can expose the issuing party to unforeseen fiscal risks, if adequate evaluation has not been carried out at the time of issuance.

The reasons for increased assumption of such liabilities are many. As the fiscal space for capital outlay in infrastructure decreased through budgetary channels, States have increasingly accessed debt finance through the balance sheet of state public sector entities, by issuing guarantees. In the aforesaid example, the state governments have issued legal binding undertaking to assume the responsibility of servicing the debt of guarantee beneficiary (the state public sector entity) under conditions of delay or default in payment of debt service obligation. This helps the public sector entity access debt from the capital markets or the banking sector, often at a cheaper cost than usual.

On other occasions, as a measure to attract private sector participation, states have offered availability based payments or revenue guarantees, contingent on the infrastructure asset being maintained at specified level of performance. This helps improve the viability of projects with significant social and economic benefits.

As a result of such issuances, the size of contingent liabilities may have become sizeable. In the absence of adequate and granular reporting, it becomes difficult to estimate the quantum of these off budgetary liabilities. States have increasingly accessed debt finance through public sector entities, with at least a part being through such off budget support mechanisms. CRISIL estimates the central and state governments accounted for an estimated 75% of infrastructure investment of ~ Rs 36 lakh crore over fiscals FY 13- FY 17. The step-up in government spending, especially by the States, since fiscal 2013 helped infrastructure investments clock 15% CAGR over fiscals FY 13- FY 17, despite the waning participation of the private sector. The states took up the lion's share of infrastructure investments, contributing towards ~ 44% of the Infrastructure spend during FY13-17, of which ~ 22% was through budgetary allocation and the balance was through PSUs including State DISCOMS. Some of the investments by State PSUs would have been backed by instruments of state support like guarantees.

The challenge is that Contingent Liabilities (CLs) unless prudently issued and managed, can devolve onto the issuer's budget, causing significant fiscal burden, large unanticipated cash outflows and higher debt levels. Given the risks associated with CLs, it is essential to manage them properly. Techniques of management may range from setting prudential limits, undertake necessary evaluation before issuance on necessity and adequacy of CL as a tool, undertake mitigating measures to minimize risk of devolution and make upfront budgetary provision for meeting future obligations from guarantees.

The scope of this current assignment is to arrive at an inventory of existent Contingent Liabilities for select states including Karnataka, Tamil Nadu, West Bengal and Andhra Pradesh based on information in the public domain. The liabilities will then be slotted into different risk buckets and based on this, the annual budgetary provisioning, adjustments to debt reporting and build-up of contingency reserves will be prescribed. Next, a prudential framework to evaluate and regulate the issuance of new guarantees will be proposed. To incentivize compliance, guarantees should be priced correctly. Hence a methodology to price the guarantees to state owned entities in a manner so as to reduce adverse selection and enforce greater discipline in usage is also prescribed. Finally, a Frame-work for Recording, Monitoring, Budgeting and Reporting for guarantees.

2. Summary of the Scope of Study

Table 1 Summary Scope of Study

S.No.	Assignment Description
1.	**Frame-work for arriving at inventory of outstanding contingent liabilities:** This framework is aimed at assisting the state government first taking a stock of its overall contingent liabilities. It would cover both explicit (CLs) such as loan/bond guarantees and guarantees related to PPP projects, insurance schemes as well as implicit CLs such as letters of comfort.
2.	**Proposed Frame-work for regulating the issuance of New Guarantees:** This would suggest a frame-work for evaluation of guarantee proposal from different line ministries or state owned enterprises. In addition to the factors for risk assessment of factors as given above, the frame-work would prescribe a set of factors to help evaluate appropriateness of issuing a fresh guarantee, for proposal and alternatives if any. Specifically, it would design a frame-work for analysis that can be used as a tool by state government, to guide whether a guarantee is superior or inferior to outright budgetary allocations.
3.	**Frame-work for risk bucketing of liabilities and prescription on CL reserve funds in the budget:** The frame-work would require that the guarantee be evaluated for nature, purpose, duration and exposure risk. An evaluation questionnaire for assessing triggers for crystallization of the contingent liability, likelihood for manifestation, distribution of likely pay-outs and periodicity for dynamic evaluation of these risks will be presented as a part of the frame-work. Based on this, a bucketing of contingent liability risk into very high, high, medium, low and very low categories and creating appropriate reserve funds in the budget may be done by the states.
4.	**Framework to price guarantees:** The frame-work would prescribe a methodology to price the guarantees to state owned entities in a manner so as to reduce adverse selection and enforce greater discipline in usage. A periodicity for revaluation of guarantees and consequent re-pricing if necessary, will also be prescribed. Further risk mitigation measures, which could have an ameliorating impact on pricing would also be presented.
5.	**Approach for Development of Recording, Monitoring, Budgeting and Reporting Frame-work for guarantees with implications for state's budget:** The method for monitoring of beneficiary status with respect to its guaranteed debt and interest burden and its overall financial position will be prescribed, with appropriate incentive-disincentive structure. A disclosure frame-work for reporting of guarantees will be prescribed with progressively enhanced standards, as state capacity to assess improves. The normative reporting documents and periodicity will also be prescribed.

3. Approach to Contingent Liability Management – Select States

3.1. Need for Regulating Contingent Liabilities

Contingent Liabilities unless managed well can devolve onto the state budget in an unanticipated manner resulting in cash-outflows and debt build-up. In most cases, as the overview and regulation of the issuance of these liabilities is minimal, there may be a tendency to perceive it as being free-of-cost. These instruments may be used to subsidize or mask fiscal support, in a non-transparent manner, to beneficiaries and projects. Further, as they involve no upfront cash-outgo, they may be used to circumvent budgetary constraints, in lieu of direct expenditure. In this case, it is unlikely there is a thorough systematic assessment of risks involved and an upfront recognition of the devolution impact on the state budget. Being off-budget, these liabilities escape the scrutiny, which applies to normal expenditure decisions. Hence, there could be a mis-use in using these instruments to support less deserving projects or beneficiaries.

The canons of fiscal propriety guiding ordinary state expenditure should also apply equally to this category of liabilities .To manage these liabilities effectively, governments should have a complete understanding of their portfolio of contingent liabilities and associated risks, have a proper methodology regulating the issuance of such instruments, institute risk mitigation measures to reduce likelihood of devolution, provide for adequate budgeting, accounting and reporting practices.

Currently the stated liabilities of state government do not include contingent liabilities that are in the form of guarantees and future outflows/ annuities that the government is committed to pay. Some state government do state their guarantees, however only outside of their budget as part of a supplementary statement. Other categories of contingent are not reported. This is despite the fact that here is a distinct probability the high-risk guarantees will get transformed into actual liabilities. Further, annuity payments of government which also are in the nature of confirmed liabilities are excluded from accounting of actual liabilities. Hence, due to lack of reliable data, it is difficult to assess the extent of contribution of these contingent liabilities to the existing levels of debt and liabilities.

In the interest of prudent financial management, it is imperative that there should be a realistic assessment of the liabilities taking into consideration the extended debt[1] i.e. including the contingent liabilities and liabilities into account.

The first step in regulation, is to first take stock of what actually constitutes contingent liabilities. At present, only explicit debt guarantees are recognized, reported and somewhat regulated. For instance, some states in India have taken initial steps towards imposition of cap on guarantees that the state governments can provide. However a more holistic, detailed account of all contingent liabilities is required to be presented. A suggested framework accounting for a wide range of contingent liability instruments is presented in the next section.

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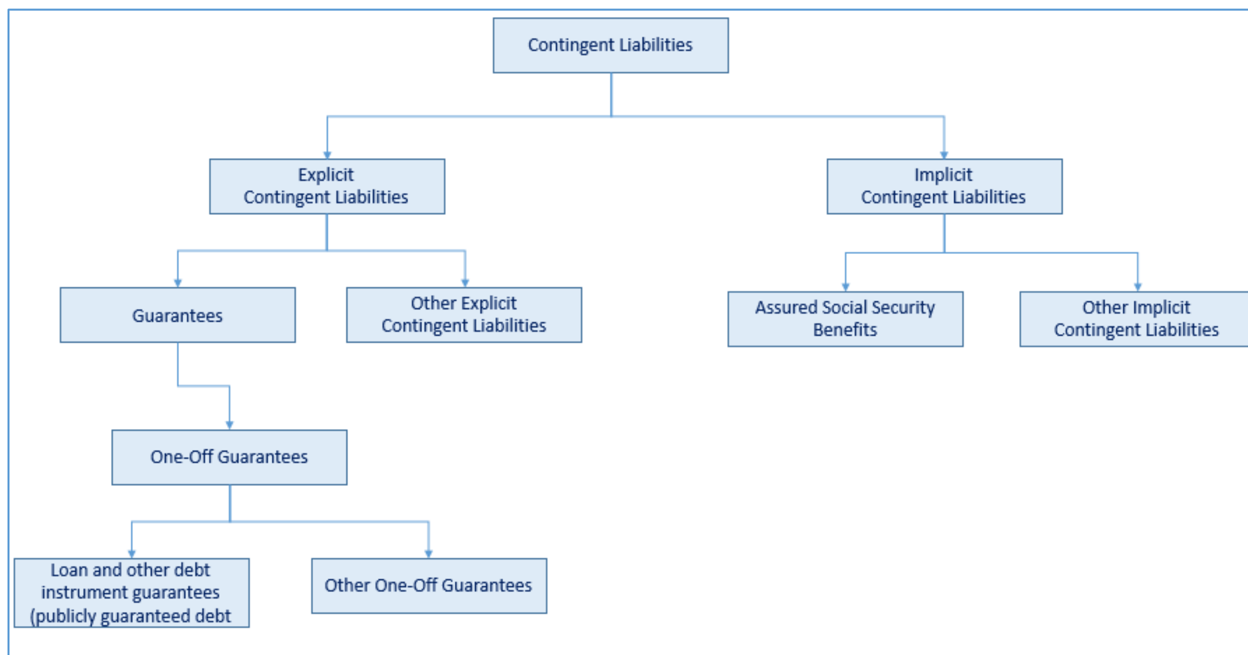
[1] *Extended Debt: Sum of total public debt and a weighted sum of the guarantees of high risk public sector companies and other PSEs.*

3.2. What Constitutes Contingent Liabilities- Fiscal Risk Matrix

Figure 1: Overview of Contingent Liabilities in Government Statistics



Source: IMF GFSM (Government Financial Statistics Manual, 2014)

A wide range of potential state government obligations could constitute contingent liabilities. An indicative list of what should be considered by the state government as potential obligations, budgeted and provided for, reported and monitored on an ongoing basis is presented below:

Liabilities	Direct (obligation in any event)	Contingent (obligation if a particular event occurs)
Government liability as recognized by a law of contract	✓ External and domestic sovereign borrowing (loans contracted and securities issued by central government) ✓ Budgetary expenditures ✓ Budgetary expenditures legally binding in the long term (government employment-related salaries and pensions)	**Guarantees** ✓ Government guarantees for non-sub-sovereign borrowing and obligations issued to municipalities and public and private sector entities (for say multilateral borrowing) ✓ Government guarantees on private investments eg: Guarantees to PPPs for infrastructure provisioning (this could be for making availability based payment, for debt servicing, for minimum revenue guarantees etc) ✓ Deposit Guarantees in Financial System eg:

Liabilities	Direct (obligation in any event)	Contingent (obligation if a particular event occurs)
		National Small Savings Scheme ✓ Government insurance schemes not included under standardized guarantee schemes ✓ Potential legal claims, which are claims stemming from pending court cases ✓ Indemnities (commitments to accept the risk of loss or damage another party might suffer) ✓ Uncalled capital (obligation to provide additional capital on demand to an entity of which it is a shareholder, e.g. official international financial institutions) ✓ Umbrella Government guarantees for various types of loans (mortgage loans, agriculture loans, small business loans) ✓ Trade and exchange rate guarantees issued by the government ✓ Other explicit contingent liabilities
Obligations that may be recognized when the cost of not assuming them could be unacceptably high	Net obligations for future public pensions (excluding government employment-related pensions)	✓ Net obligations for future social security benefits other than net obligations for future public pensions (excluding government employment-related pensions) ✓ Other implicit contingent liabilities ✓ Bailouts of public enterprises, financial institutions, municipalities, and private firms that are either strategically important or “too big to fail” ✓ Liability cleanup in entities under privatization ✓ Investment failure of a nonguaranteed pension fund ✓ Bailouts following a reversal in private capital flows ✓ Environmental recovery, disaster relief, etc.

3.3. State wise Approach to recording Contingent Liabilities and Prudential Limits

As stated previously, State Governments typically only report explicit debt guarantees as contingent liabilities. The other categories are not assessed, reported or regulated. This could make the true extent of these liabilities and their effect on the state budget, hard to assess.

In terms of treatment, The 14th Finance Commission considered the impact of guarantees provided to the power sector utilities and other public sector units by states. As liabilities on account of guarantees given to power sector utilities is significant in number and are of high-risk nature, a weight of 90% was assigned to the guarantees given to the power sector while a weight of 10% is given to other guarantees given by the state government. Using the above method, the extended debt of states in India was around 23.3% of GDP in 2011-12.

The 12th Finance Commission required that the state government through their Medium Term Fiscal Reform Plan (MTRFP) should aim to have the ratio of stock of consolidated debt (including guarantees) to total revenue receipts (TRR) not more than 300%. The guarantees given by state government were Rs 166,116 crore at the end of March 2002 (7.2% of GDP of major states in India).

Many states in India have their own guidelines or acts that provide guidance that specify a limit or provide a cap on the total guarantees the state government can provide. To study the historical approach followed by states in India to cap the guarantees that the state government can give, we have considered 8 states mainly, Karnataka, Tamil Nadu, Andhra Pradesh, Telangana, Gujarat, Kerala, West Bengal and Punjab. The state-wise criteria to limit the exposure to guarantees and the corresponding act/ guidance for the states considered is provided below.

Karnataka

The limit on the guarantees that the Karnataka government can issue on behalf of government departments, PSUs, Local Authorities, Statutory Boards and Corporations and Cooperative Institutions is governed by the Karnataka Guarantee of Ceiling Act, 1999 (KCGCA) as mentioned in the Karnataka Fiscal Responsibility Act, 2002. The act prohibits the government to issue guarantees on behalf of any private individual, institution or a company. It also prohibits the government to issue guarantees on behalf of Co-operation sector unless the share capital contribution from the non-government sources is not less than 10% of the total equity proposed.

As per the above mentioned act, the total outstanding guarantees as on first day of April of any year should not exceed 80% of the Karnataka state government's revenue receipts of the second preceding year as in the books of Accountant General of Karnataka. It also mandates the state government to charge a minimum of 1% as guarantee commission which cannot waived off under any circumstance.

The state government has to submit a report within 6 months of its failure to meet any contractual obligation as stated under performance guarantees[2].

Andhra Pradesh

[2] *Performance guarantees include letter of comfort, power purchase agreements, state support agreements, concession agreements for infrastructure projects and other agreements guaranteed in certain performance on behalf of government, PSUs, local authorities, statutory boards and Corporations and Co-operative institutions*

The limit on the guarantees that the Andhra Pradesh government can issue on behalf of government departments, PSUs, Local Authorities, Statutory Boards and Corporations and Cooperative Institutions is governed by the Andhra Pradesh Fiscal Responsibility and Budget Management Act, 2005.

This act states that the amount of annual incremental risk weighted guarantees to 90% of Total Revenue Receipts (TRR) in the year preceding the current year. The guarantee are classified into 5 categories and are assigned weights depending on the risk associated with the guarantees. A guarantee fee in the range of 0.5% to 2% is charged. The details the different types of guarantees and the weights associated with it are shown in *Table 1*.

Table 2 Guarantees as per AP Fiscal Responsibility and Budget Management (FRBM) Act, 2005

Guarantee	Risk weight (%)
Direct Liabilities	100
High risk	75
Medium risk	50
Low risk	25
Very low risk	5

Source: Statement of Fiscal Policy to be laid on the table of AP State Legislature, 2018

Telangana

The limit on the guarantees that the Telangana government can issue on behalf of government departments, PSUs, Local Authorities, Statutory Boards and Corporations and Cooperative Institutions is governed by the Fiscal Responsibility and Budget Management Act, 2005.

This act states that the amount of annual incremental risk weighted guarantees to 90% of Total Revenue Receipts (TRR) in the year preceding the current year. The guarantee are classified into 5 categories and are assigned weights depending on the risk associated with the guarantees.

Tamil Nadu

The limit on the guarantees that the Tamil Nadu government can issue on behalf of government departments, PSUs, Local Authorities, Statutory Boards and Corporations and Cooperative Institutions is governed by the Tamil Nadu Fiscal Responsibility and Budget Management Act, 2003.

This act limits the total outstanding guarantees to 100% of the total revenue receipts in the preceding year or at 10% of GSDP whichever is lower. It limits the risk weighted guarantees to 75% of the total revenue receipts in the preceding year or 7.5% of GSDP.

Gujarat

The limit on the guarantees that the Gujarat government can issue on behalf of government departments, PSUs, Local Authorities, Statutory Boards and Corporations and Cooperative Institutions is governed by the Gujarat Fiscal Responsibility Act, 2005 and Gujarat Guarantees Act, 1963 which provides the cap on the total guarantees the Gujarat government ca provide. The Gujarat Guarantees Act, 1963 limits the exposure of Gujarat government to total outstanding guarantees of Rs 20,000 cr. Guarantee fee of 1% is mandated, but some state PSEs are exempt from paying guarantee fees.

West Bengal

The limit on the guarantees that the West Bengal government can issue on behalf of government departments, PSUs, Local Authorities, Statutory Boards and Corporations and Cooperative Institutions is governed by the West Bengal Fiscal Responsibility and Budget Management Act, 2010 and West Bengal Ceiling on Government Guarantees Act, 2001.

As per the West Bengal Ceiling on Government Guarantees Act, 2001, the total outstanding government guarantees on first day of April of any year should not exceed 90% of the state revenue receipts of the second preceding year. A guarantee fee of 1% is mandated which rises with greater default perception of the project.

Kerala

The limit on the guarantees that the Kerala government can issue on behalf of government departments, PSUs, Local Authorities, Statutory Boards and Corporations and Cooperative Institutions is governed by the Kerala Fiscal Responsibility Act, 2003 and Kerala Ceiling on Government Guarantees Act, 2003.

As per the Kerala Ceiling on Government Guarantees Act, 2003, the total outstanding government guarantees on first day of April of any year should not exceed Rs 14,000 crores. This act prohibits the government to issue guarantees in respect of a loan of any private individual, institution or a company. A fee of minimum 0.75% per annum is mandated as guarantee commission and which cannot be waived under any circumstance.

Punjab

The limit on the guarantees that the Punjab government can issue on behalf of government departments, PSUs, Local Authorities, Statutory Boards and Corporations and Cooperative Institutions is governed by the Punjab Fiscal Responsibility and Budget Management Act, 2003.

The Punjab Fiscal Responsibility and Guarantees Act, 2003 caps the total outstanding government guarantees on long term debt to 80% of the revenue receipts of the previous year. Guarantees on short term debt were to be given only for working capital or food credit in either case it must be backed by physical stocks. A fee of 2% for term loans and 1/8% for procurement agencies is collected as guarantee commission.

Table 3 summarizes the approach to limit or cap the total government guarantees for major states in India.

Table 3 Summary of approach to limit government guarantees for major states in India

State	Governing Act	Criteria for limiting government guarantees	Guarantee Commission
Karnataka	Karnataka Guarantee of Ceiling Act, 1999, Karnataka Fiscal Responsibility Act, 2002	Total outstanding guarantees as on first day of April of any year should not exceed 80% of the Karnataka state government's revenue receipts of the second preceding year	Minimum of 1%
Andhra Pradesh	AP Fiscal Responsibility and Budget Management Act, 2005.	Amount of annual incremental risk weighted guarantees to 90% of Total Revenue Receipts (TRR) in the year preceding the current year	0.5 – 2%
Telangana	Fiscal Responsibility and Budget Management Act, 2005.	Amount of annual incremental risk weighted guarantees to 90% of Total Revenue Receipts (TRR) in the year preceding the current year	0.5 – 2%
Tamil Nadu	Tamil Nadu Fiscal Responsibility and Budget Management Act, 2003	Total outstanding guarantees to 100% of the total revenue receipts in the preceding year or at 10% of GSDP whichever is lower and also, limits the risk weighted guarantees to 75% of the	-

		total revenue receipts in the preceding year or 7.5% of GSDP	
Gujarat	Gujarat Fiscal Responsibility Act, 2005, Gujarat Guarantees Act, 1963	Total outstanding government guarantees should not exceed Rs 20,000 crore	Minimum of 1%
West Bengal	West Bengal Fiscal Responsibility and Budget Management Act, 2010, West Bengal Ceiling on Government Guarantees Act, 2001.	Total outstanding government guarantees on first day of April of any year should not exceed 90% of the state revenue receipts of the second preceding year	Minimum of 1%
Kerala	Kerala Ceiling on Government Guarantees Act, 2003, Kerala Fiscal Responsibility Act, 2003	Total outstanding government guarantees on first day of April of any year should not exceed Rs 14,000 crore	Minimum 0.75% per annum
Punjab	Punjab Fiscal Responsibility and Budget Management Act, 2003	Total outstanding government guarantees on long term debt to 80% of the revenue receipts of the previous year	2% for term loans

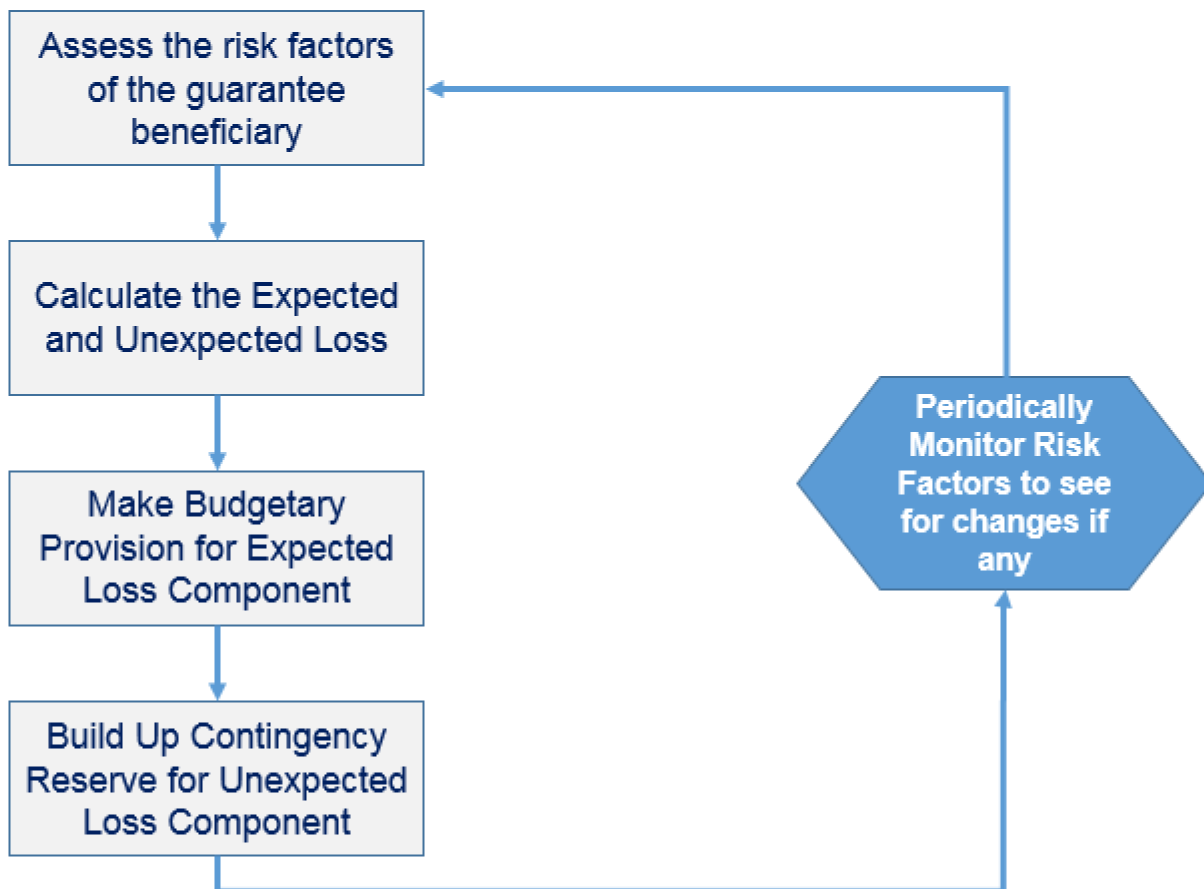
Source: CRIS Analysis

4. Risk Bucketing of Liabilities for Select States and Reserve Funds

The risk factors that govern a contingent liability devolution can be assessed using standard credit risk techniques that estimate the probability of default (PD) and Loss given default (LGD). There are three principal approaches[3] - Credit Rating, Statistical Models and Scenario Analysis. A fourth approach – Option Valuation Technique also exists, but is highly technical in its scope and application.

4.1. Risk Assessment Flow Chart

Figure 2: Methodology for Risk Assessment Framework Application to allocate for Budgetary Provision and Reserve Fund Build-Up



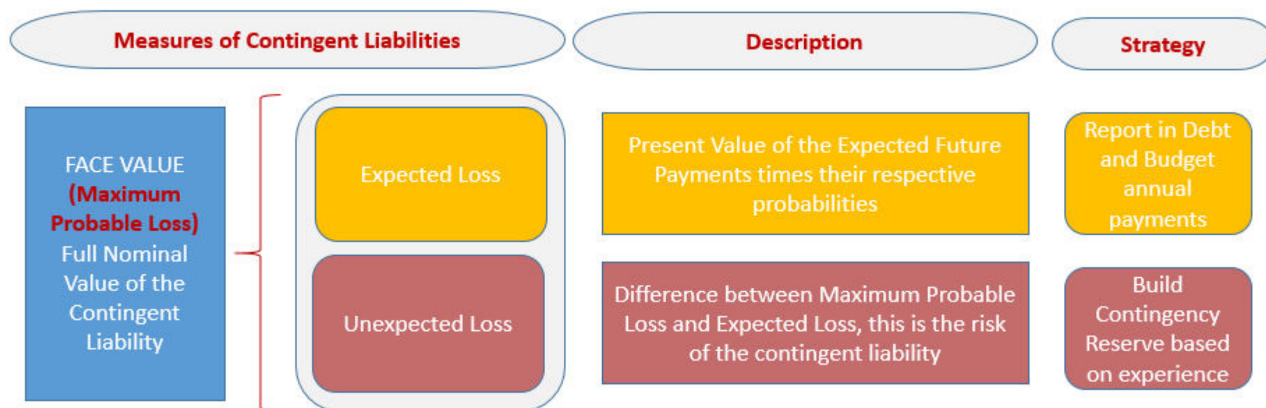
The methodology describes the approach to evaluate the likelihood of a contingent liability devolving onto the state budget. The first step involves a detailed assessment of the risks associated with the contingent

[3] *World Bank, 2016*

liability. This may be done using standard techniques like Credit Risk Rating, or as the state capacity for risk assessment improves through statistical models, scenario analysis etc. Once this is done, a reasonable assessment on the likelihood of devolution may be formed-using this the contingent liability may be cast into probability buckets of Very High, High, Medium, Low and Very Low Buckets. Each probability bucket is assigned a risk weight. Here for the risk bucket of Very High Risk is assigned a risk weight of 100%, the risk bucket of High Risk is assigned a risk weight of 80%, the risk bucket of Medium Risk is assigned a risk weight of 60%, the risk bucket of Low Risk is assigned a risk weight of 20% and the risk bucket of Very Low Risk is assigned a risk weight of 0%. Multiplying the Contingent Liability by this risk weight and summing this up across all contingent liabilities, CRISIL has arrived at the Expected Loss Assessment of the Contingent Liabilities for Select States. This value ought to be added to the debt outstanding of the state government and annual budgetary provisions should be made in favor of the beneficiary entity to enable it to meet these liabilities as they arise.

4.2. Reserve funds assessment – planning for contingency reserve

Figure 3 Planning from contingency reserve



Next, from the maximum face value of the guarantee, the Expected Loss should be subtracted to arrive at the Unexpected Loss. A Contingency Reserve Amount equivalent to this may be built up, to provide for any unexpected devolution onto the state budget.

This framework for risk assessment, bucketing, and appointment of reserve fund was illustratively applied to Select States including Karnataka, Tamil Nadu, West Bengal and Andhra Pradesh. The findings are presented below:

4.3. Case study – Karnataka: Risk Bucketing of Liabilities and Reserve Assessment

4.3.1. Case study Karnataka: Outstanding Stock of Guarantees

Table 4 Case study Karnataka- Outstanding Stock of guarantees

Sl. No.	Name of the Public or Other Body on whose behalf the Guarantee is given	Amount outstanding as on 31st March 2016 (in Rs. Lakhs)
A	Statutory Corporations /Boards	316,076
B	Government Companies	1,066,981
C	Joint Stock Companies	-
D	Co-Operative Societies & Banks	139,668
E	Other Institutions	21
	TOTAL	**1,522,746**
A	STATUTORY CORPORATIONS	
1	Karnataka State Financial Corporation (KSFC)	148,870
2	Karnataka Power Transmission Company Limited (KPTCL)	-
3	Hublic Electric Company Limited (HESCOM)	15,000
4	Gulbarga Electric Company Limited (GESCOM)	4,097
5	Mangalore Electric Company Limited (MESCOM)	509
6	Bangalore Electric Company Limited (BESCOM)	19,019
7	Chamundeshwari Electric Company Limited (CESCOM)	4,358
8	Bangalore Development Authority (BDA)	-
9	Karnataka Khadi & Village Industries Board (KVIB)	3,720
10	Karnataka Urban Water Supply & Drainage Board (KUWSDB)	118,071
11	Bangalore Water Supply & Sanitation Board (BWSSB)	2,273
12	Karnataka Slum Development Board (KSDB)	160
	Total-A	**316,076**
B	GOVERNMENT COMPANIES	
1	Karnataka State Handicrafts Development Corporation (KSHDC)	22
2	The Mysore Sugar Company Limited (MYSUGAR)	7
3	Mysore Paper Mills Limited (MPM)	14,000

Sl. No.	Name of the Public or Other Body on whose behalf the Guarantee is given	Amount outstanding as on 31st March 2016 (in Rs. Lakhs)
4	Karnataka Power Corporation Limited (KPCL)	11,000
5	Karnataka Handloom Development Corporation (KHDC)	2,700
6	Karnataka Fisheries Development Corporation (KFDC)	58
7	Dr. BR Ambedkar Development Corporation Ltd, (BRADCL)	20,893
8	Karnataka Rural Infrastructure Development Corpn (KRIDCL)	-
9	Dr. BR Ambedkar Development Corporation Ltd, (BRADCL)	11,200
10	Karnataka Minorities Development Corporation (KMDC)	5,033
11	Karnataka State Women Development Corporation (KWDC)	272
12	Karnataka Vishwakarma Communities Development Corporations Limited	1,000
13	Karnataka Neeravari Nigama Limited (KNNL)	217,412
14	Karnataka Road Development Corporation Limited (KRDCL)	14,717
15	Krishna Bhagya Jala Nigama Limited (KBJNL)	511,321
16	Cauvery Neeravari Nigama Limited (CNNL)	123,500
17	Rajeev Gandhi Rural Housing Development Corporation (RGRHCL)	125,561
18	Karnataka Maharshi Valmiki Scheduled Tribes Development Corporation	5,978
19	Karnataka State Police Housing Corporation Limited (KSPHCL)	2,306
20	Karnataka State Silk Marketing Board	-
21	Karnataka State Seeds Corporation	-
22	Mysore Sales International Limited	-
	Total-B	**1,066,981**
C	JOINT STOCK COMPANIES	-
D	CO-OPERATIVE SOCIETIES AND BANKS	
1	Karnataka State Cooperative Agri & Rural Development Bank (KSCARD)	136,656
2	Coorg Orrange Growers Coop. Society Limited	13
3	Bidar Sahakari Sakkare Karkhane	-
4	Doodhganga Sahakari Sakkare Karkhane	-
5	Naranja Sahakari Sakkare Karkhane	-
6	Someshwara Sahakari Sakkare Karkhane	-
7	Bhagyalakshmi Sahakari Sakkare Karkhane	521
8	Raithara Sahakari Sakkare Karkhane	554

Sl. No.	Name of the Public or Other Body on whose behalf the Guarantee is given	Amount outstanding as on 31st March 2016 (in Rs. Lakhs)
9	Sri Rama Sahakari Sakkare Karkhane	137
10	Pandavapura Sahakari Sakkare Karkhane	-
11	Vani Vilasa Sahakari Sakkare Karkhane	-
12	Karnataka Sahakari Sakkare Karkhane	-
13	Malaprabha Sahakari Sakkare Karkhane	-
14	Markandeya Sahakari Sakkare Karkhane	1,314
15	Karnataka State Coop Marketing Federation Limited (MARKFED)	474
	Total-D	**139,668**
E	OTHERS	
1	Karnataka Residential Educational Institutions. Society (KREIS)	-
2	Karnataka Backward Classes Dept. Building Construction Society	-
3	Directorate of Empowerment of Differently abled and Senior Citizen	21
	Total-E	**21**

Source: CRIS analysis

4.3.2. Risk bucketing of existing stock of guarantees

Table 5 Case study Karnataka- Risk bucketing of existing stock of guarantees

Name of Entity	Risk Factors and Triggers	Likelihood of CL Devolution (Risk Category)	Risk Weight
STATUTORY CORPORATIONS			
Karnataka State Financial Corporation (KSFC)	✓ Credit Stress in lending portfolio due to macro-economic factors ✓ Spike in interest rates of lenders to KSFC leading to rise in funding costs ✓ Timely and adequate capitalization by primary shareholder Govt. of Karnataka ✓ ALM and related refinancing risk ✓ Liquidity risk in absence of designated debt servicing reserve accounts	Low	20%
Karnataka Power Transmission Company Limited (KPTCL)	✓ Stable transmission tariffs and regulated nature of business assures revenue visibility ✓ Low complexity of operations and maintenance activities	Very Low	0%
Hublic Electric Company Limited	✓ Timely revision in tariffs and issuance of tariff orders with adequate % hike in tariff rates	Medium	60%

Name of Entity	Risk Factors and Triggers	Likelihood of CL Devolution (Risk Category)	Risk Weight
(HESCOM)	✓ Customer Profile in license area – higher share of agricultural consumer lowers credit profile, whereas higher share of industrial consumer improves credit profile ✓ Timely infusion of subsidy and equity grants from Govt. of Karnataka, its primary shareholder		
Gulbarga Electric Company Limited (GESCOM)		High	80%
Mangalore Electric Company Limited (MESCOM)		High	80%
Bangalore Electric Company Limited (BESCOM)		Medium	60%
Chamundeshwari Electric Company Limited (CESCOM)		High	80%
Bangalore Development Authority (BDA)	✓ BDA's strategic importance to the Government of Karnataka (GoK) as the planning and development authority for the Bangalore Metropolitan Area (BMA); its strong operational, legal and financial linkages with GoK, which has an adequate credit profile; ✓ BDA's role as the sole developer of sites in BMA, which is a profitable activity depends on level of economic activity in Bangalore ✓ Healthy own sources of funds including rent from its commercial properties and property tax from the buildings and layouts that are managed by it prior, capital receipts contributed by income from sale of sites in the layouts developed by BDA and cash-flows from the Government of India (GoI) and GoK as subsidies, for execution of projects approved under Jawaharlal Nehru National Urban Renewal Mission (JNNURM),	Medium	60%
Karnataka Khadi & Village Industries Board (KVIB)	✓ Critically Important nodal agency for Government of Karnataka and Government of India for supporting artisan base ✓ Agency does not generate significant fund, debt servicing to be met from government funding, timely support essential	High	80%
Karnataka Urban Water Supply & Drainage Board (KUWSDB)	✓ Institution of strategic importance to Govt. of Karnataka as involved in essential service provision as the implementing body for Drinking Water Supply and Under Ground Drainage schemes in 270 Urban areas of the Karnataka State except Bangalore city. ✓ Inadequate user charges to cover receiver of project cost and operations and maintenance ✓ Continued dependence of Govt. of Karnataka for funding and management	High	80%

Name of Entity	Risk Factors and Triggers	Likelihood of CL Devolution (Risk Category)	Risk Weight
Bangalore Water Supply & Sanitation Board (BWSSB)	✓ Institution of strategic importance to Govt. of Karnataka as involved in essential service provision as the implementing body for Drinking Water Supply and Under Ground Drainage schemes in Bangalore city. ✓ Inadequate user charges to cover receiver of project cost and operations and maintenance ✓ Continued dependence of Govt. of Karnataka for funding and management	High	80%
Karnataka Slum Development Board (KSDB)	✓ Critically Important nodal agency for Government of Karnataka to provide basic amenities and houses and income generation activities of the urban poor. ✓ Receives funds through government schemes like Integrated Housing & Slum Development Program, Rajiv Awas Yojana etc; timely receipt of funds is critical for execution ✓ Agency does not generate significant fund, debt servicing to be met from government funding, timely support essential	Very High	100%
GOVERNMENT COMPANIES			
Kar. State Handicrafts Development Corpn (KSHDC)	✓ Critically Important nodal agency for Government of Karnataka for supporting artisan base engaged in locally significant handicrafts ✓ Agency does not generate significant fund, debt servicing to be met from government funding, timely support essential	High	80%
The Mysore Sugar Company Ltd. (MYSUGAR)	✓ Susceptibility to volatility in sugar prices and regulatory changes ✓ Notified as a sick company by Board for Industrial and Financial Reconstruction and continues to remain financially distressed ✓ Agency does not generate significant fund, debt servicing to be met from government funding, timely support essential	Very High	100%
Mysore Paper Mills Limited (MPM)	✓ While MPM has been engaged in manufacturing paper and newsprint since past 40 years, has only a modest Market Position. ✓ Being a part of a cyclical Industry is exposed to Price Fluctuations ✓ Despite Softening Hardwood Prices , improving Realizations and Margins, MPM has been notified as a sick company by Board for Industrial and Financial Reconstruction since April 2012 and continues to remain financially distressed ✓ Agency does not generate significant fund, debt servicing to be met from government funding, timely support essential	Very High	100%
Karnataka Power Corporation Limted (KPCL)	✓ Demand and tariff risks, party mitigated by the presence of long standing PPAs. Achievement of normative operating parameters is essential under the regulated two part tariff structure	Low	20%

Name of Entity	Risk Factors and Triggers	Likelihood of CL Devolution (Risk Category)	Risk Weight
	✓ Timely issuance of tariff orders by regulator ✓ Timely clearing of past receivables under scheme by the State Govt ✓ Assurance of fuel supply – partly mitigated through longstanding Fuel Supply Agreements		
Karnataka Handloom Development Corporation (KHDC)	✓ Institution for social welfare objective of support to weavers, of importance to Govt. of Karnataka ✓ Modest business risk profile with subsidized procurement and rebates and bulk supplies to state departments ✓ Weakened financial risk profile due to procedural delays in procurement and realizing payments from various state departments result in high working capital requirement.	Medium	60%
Karnataka Fisheries Development Corporation (KFDC)	✓ Institution for social welfare objective of support of importance to Govt. of Karnataka ✓ Agency does not generate significant fund, debt servicing to be met from government funding, timely support essential	High	80%
Dr. BR Ambedkar Dev. Corporation Limited (BRADCL)	✓ Institution for social welfare objective of support of importance to Govt. of Karnataka of bringing the SCs & STs population above the poverty-line ✓ Agency does not generate significant fund, debt servicing to be met from government funding, timely support essential	High	80%
Karnataka Rural Infrastructure Development Corporation (KRIDCL)	✓ Institution for social welfare objective of support of importance to Govt. of Karnataka ✓ Started as a Directorate of Land army in the year 1971 under the Rural Development Department of Government of Karnataka. ✓ Agency does not generate significant fund, debt servicing to be met from government funding, timely support essential	High	80%
Karnataka Minorities Development Corporation (KMDC)	✓ Institution for social welfare objective of support of importance to Govt. of Karnataka with minorities as focus ✓ Agency does not generate significant fund, debt servicing to be met from government funding, timely support essential	High	80%
Karnataka State Women Development Corporation (KWDC)	✓ Institution for social welfare objective of support of importance to Govt. of Karnataka with women as focus ✓ Agency does not generate significant fund, debt servicing to be met from government funding, timely support essential	High	80%
Karnataka Vishwakarma Communities Development Corporations Ltd.	✓ Institution for social welfare objective of support of importance to Govt. of Karnataka ✓ Agency does not generate significant fund, debt servicing to be met from government funding, timely support essential	High	80%

Name of Entity	Risk Factors and Triggers	Likelihood of CL Devolution (Risk Category)	Risk Weight
Karnataka Neeravari Nigama Limited (KNNL)	✓ Institution for implementation of large and medium scale irrigation projects in Karnataka ✓ Agency does not generate significant fund, debt servicing to be met from government funding, timely support essential	High	80%
Karnataka Road Development Corporation Ltd. (KRDCL)	✓ Chief business is to promote surface infrastructure by taking up Road Works, Bridges etc., and to improve road network. Funding through Budgetary Provision, Toll collections, Commercial exploitation of land, grants in aid which are the chief revenue sources of the entity	Medium	60%
Krishna Bhagya Jala Nigama Limited (KBJNL)	✓ Institution for implementation of large and medium scale irrigation projects in Karnataka ✓ Agency does not generate significant fund, debt servicing to be met from government funding, timely support essential	High	80%
Cauvery Neeravari Nigama Limited (CNNL)	✓ Institution for implementation of large and medium scale irrigation projects in Karnataka ✓ Agency does not generate significant fund, debt servicing to be met from government funding, timely support essential	High	80%
Rajeev Gandhi Rural Housing Dev.Corporation (RGRHCL)	✓ Institution for implementation of housing for socially and economically weaker sections of the society through effective implementation of Central and State housing schemes ✓ Agency does not generate significant fund, debt servicing to be met from government funding, timely support essential	High	80%
Karnataka Maharshi Valmiki Scheduled Tribes Development Corporation	✓ Institution for social welfare objective of support of importance to Govt. of Karnataka ✓ Agency does not generate significant fund, debt servicing to be met from government funding, timely support essential	High	80%
Karnataka State Police Housing Corporation Limited (KSPHCL)	✓ Institution for social welfare objective of support of importance to Govt. of Karnataka ✓ Agency does not generate significant fund, debt servicing to be met from government funding, timely support essential	High	80%
Karnataka State Silk Marketing Board	✓ Institution for social welfare objective of support of importance to Govt. of Karnataka for sericulture ✓ Agency does not generate significant fund, debt servicing to be met from government funding, timely support essential	High	80%
Karnataka State Seeds Corporation	✓ Institution for social welfare objective of support of importance to Govt. of Karnataka for farmers ✓ Agency does not generate significant fund, debt servicing to be met from government funding, timely support essential	High	80%
Mysore Sales International Limited	✓ The core business is Liquor Retail outlets, Chit Funds & Paper Division, amongst other diversified products	Medium	60%

Name of Entity	Risk Factors and Triggers	Likelihood of CL Devolution (Risk Category)	Risk Weight
CO-OPERATIVE BANKS & SOCIETIES			
Kar.State Coop. Agri & Rural Dev. Bank (KSCARD)	✓ Institution for agricultural credit, needs state support for making subsidized loan to farmers	High	80%
Coorg Orrange Growers Coop. Society Limited	✓ Institution for social welfare objective of support of importance to Govt. of Karnataka ✓ Agency does not generate significant fund, debt servicing to be met from government funding, timely support essential	High	80%
Bidar Sahakari Sakkare Karkhane	✓ Institutions for agricultural credit, needs state support for making subsidized loan to farmers	High	80%
Doodhganga Sahakari Sakkare Karkhane		High	80%
Naranja Sahakari Sakkare Karkhane		High	80%
Someshwara Sahakari Sakkare Karkhane		High	80%
Bhagyalakshmi Sahakari Sakkare Karkhane		High	80%
Raithara Sahakari Sakkare Karkhane		High	80%
Sri Rama Sahakari Sakkare Karkhane		High	80%
Pandavapura Sahakari Sakkare Karkhane		High	80%
Vani Vilasa Sahakari Sakkare Karkhane		High	80%
Karnataka Sahakari Sakkare Karkhane		High	80%
Malaprabha Sahakari Sakkare Karkhane		High	80%
Markandeya Sahakari Sakkare Karkhane		High	80%

Name of Entity	Risk Factors and Triggers	Likelihood of CL Devolution (Risk Category)	Risk Weight
Kar. State Coop Marketing Federation Ltd (MARKFED)	✓ Institutions for agricultural credit, needs state support for making timely payments	High	80%
Directorate of Empowerment of Differently abled and Senior Citizen	✓ Institution for social welfare objective of support of importance to Govt. of Karnataka with senior citizens as focus ✓ Agency does not generate significant fund, debt servicing to be met from government funding, timely support essential	High	80%

Source: CRIS analysis

4.3.3. Guarantee linked loss assessment for all institutions

Maximum probable loss assessment

The maximum probable loss assessment should be calculated as follows:

Annual Maximum Probable Loss = (Annual Repayment + Interest)

Where Face Value of the Guarantee= Sum of all annual Repayment

Table 6 Case study Karnataka- Maximum probable loss assessment

Regular Amortization Profile		Maximum Probable Loss Assessment										
In Rs. Crore		FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27
Statutory Corporations /Boards		316	316	316	316	316	316	316	316	316	316	316
Government Companies		1,067	1,067	1,067	1,067	1,067	1,067	1,067	1,067	1,067	1,067	1,067
Co-Operative Societies & Banks		140	140	140	140	140	140	140	140	140	140	140
Interest Component		152	152	152	152	152	152	152	152	152	152	76
TOTAL		**1,675**	**1,675**	**1,675**	**1,675**	**1,675**	**1,675**	**1,675**	**1,675**	**1,675**	**1,675**	**1,599**

Source: CRIS analysis

Expected loss assessment

The expected loss assessment should be calculated as follows:

Expected Loss = (Annual Repayment + Interest)* Risk Weight (depending on Risk Category)

Where Face Value of the Guarantee= Sum of all annual Repayment

Table 7 Case study Karnataka- Expected loss assessment

Risk Weighted Amortization Profile		Expected Loss Assessment										
In Rs. Crore		FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27

Risk Weighted Amortization Profile		Expected Loss Assessment										
Statutory Corporations /Boards		157	157	157	157	157	157	157	157	157	157	157
Government Companies		849	849	849	849	849	849	849	849	849	849	849
Co-Operative Societies & Banks		112	112	112	112	112	112	112	112	112	112	112
Interest Component		112	112	112	112	112	112	112	112	112	112	56
TOTAL		**1,230**	**1,230**	**1,230**	**1,230**	**1,230**	**1,230**	**1,230**	**1,230**	**1,230**	**1,230**	**1,174**

Source: CRIS analysis

Grand Total of Expected Loss is Rs. 13,469 crores

Unexpected loss assessment

The expected loss assessment should be calculated as follows:

Unexpected Expected Loss = (Annual Repayment+ Interest) - {(Annual Repayment + Interest)* Risk Weight (depending on Risk Category)}

Where Face Value of the Guarantee= Sum of all annual Repayment

Table 8 Case study Karnataka- Unexpected loss assessment

		Unexpected Loss Assessment										
In Rs. Crore		**FY17**	**FY18**	**FY19**	**FY20**	**FY21**	**FY22**	**FY23**	**FY24**	**FY25**	**FY26**	**FY27**
Statutory Corporations /Boards		159	159	159	159	159	159	159	159	159	159	159
Government Companies		218	218	218	218	218	218	218	218	218	218	218
Co-Operative Societies & Banks		28	28	28	28	28	28	28	28	28	28	28
Interest Component		40	40	40	40	40	40	40	40	40	40	20
TOTAL		**445**	**445**	**445**	**445**	**445**	**445**	**445**	**445**	**445**	**445**	**425**

Source: CRIS analysis

Grand Total of Unexpected Loss is Rs. 4,880 crores

4.3.4. Recommendation

- ✓ **Karnataka should add the Grand Total of Expected Loss on account of its guarantees to its total Debt – of Rs. 13,469 crores**
- ✓ **It should factor an outgo of ~ Rs. 1230 crore annually in its budget to meet its expected loss payouts**
- ✓ **It should build up a contingency reserve of Rs. 445 crores, to be replenished whenever dipped into as the maximum unexpected loss in a given year should be no greater than Rs. 445 crores**

4.4. Case study – Tamil Nadu: Risk Bucketing of Liabilities and Reserve Assessment

4.4.1. Outstanding Stock of Guarantees

Table 9 Case study Tamil Nadu- Outstanding stock of guarantees

Sl. No.	Name of the Public or Other Body on whose behalf the Guarantee is given	Amount outstanding as on 31st March 2018 (in Rs. Lakhs)
A	Public Sector Undertakings	66,101
B	Board and Corporations	4,138,254
C	Co-Operative Institutions	56,034
D	Other Government Companies	101,232
	TOTAL	4,361,621
A	**Public Sector Undertakings**	**66,101**
1	Tamil Nadu Adi Dravidar Housing and Development Corporation Limited	-
2	Tamil Nadu Backward Classes Economic Development Corporation Limited	29,935
3	Tamil Nadu Minorities Economic Development Corporation Limited	10,900
4	Tamil Nadu Civil Supplies Corporation	-
5	Tamil Nadu Handloom Development	301
6	Tamil Nadu Industrial Investment	15,000
7	Tamil Nadu State Marketing	7,000
8	Tamil Nadu Sugar Corporation Limited	2,541
9	State Transport Undertakings	425
B	**Boards and Corporations**	**4,138,254**
10	Tamil Nadu Transmission Corporation	269,358
11	Tamil Nadu Generation and	3,550,770
12	Water and Sanitation Pooled Fund	33,849
13	Tamil Nadu Power Finance and	196,420
14	Tamil Nadu Khadi and Village	3,045
15	Tamil Nadu Water Supply and	1,199
16	Chennai Metropolitan Water Supply	8,280
17	Tamil Nadu Rural Housing &	61,745
18	Tamil Nadu Slum Clearance Board	13,588
C	**Co-operative Institutions**	**56,034**
19	Tamil Nadu Co-operative Housing	26,319
20	Co-operative Spinning Mills	1,062

Sl. No.	Name of the Public or Other Body on whose behalf the Guarantee is given	Amount outstanding as on 31st March 2018 (in Rs. Lakhs)
21	Co-operative Sugar Mills	27,853
22	Tamil Nadu State Apex Co-operative	800
D	**Other Government companies**	**101,232**
23	Arignar Anna Sugar mills	666
24	Public Sector Sugar Mills	4,633
25	Tamilnadu Cement Corporations ltd	20,748
26	Kallakurichi - 1 Co-operative Sugar Mills	185
27	Tamilnadu Transport Development Finance Corporation ltd	75,000
	TOTAL OUTSTANDING GUARANTEES	4,361,621

Source: CRIS analysis

4.4.2. Risk bucketing of existing stock of guarantees

Table 10 Case study Tamil Nadu: Risk bucketing of existing stck of guarantees

Name of Entity	Risk Factors and Triggers	Likelihood of CL Devolution (Risk Category)	Risk Weight
PUBLIC SECTOR UNDERTAKING			
Tamil Nadu Adi Dravidar Housing and Development Corporation Limited	✓ Institution for social welfare objective of support of importance to Govt. of Tamil Nadu for Scheduled Castes. Engaged in provision of Economic Development Schemes, skill development training for youth and undertake construction activities for its focused social group ✓ Agency does not generate significant fund, debt servicing to be met from government funding, timely support essential; however the entity has negligible debt presently as per Comptroller and Auditor General (CAG) report	Very High	100%
Tamil Nadu Backward Classes Economic Development Corporation Limited	✓ Institution for social welfare objective of support of importance to Govt. of Tamil Nadu for Backward classes. Engaged in provision of loans at subsidized rates for its focused social group ✓ The Agency charges subsidized cost of loans to underserved categories. Hence it may not generate adequate funds for debt servicing, may need to be met from government funding, timely support essential	High	80%

Name of Entity	Risk Factors and Triggers	Likelihood of CL Devolution (Risk Category)	Risk Weight
Tamil Nadu Minorities Economic Development Corporation Limited	✓ Institution for social welfare objective of support of importance to Govt. of Tamil Nadu for Minorities. Engaged in provision of loans at subsidized rates for its focused social group ✓ The Agency charges subsidized cost of loans to underserved categories. Hence it may not generate adequate funds for debt servicing, may need to be met from government funding, timely support essential	High	80%
Tamil Nadu Civil Supplies Corporation Limited	✓ Institutions procures, stock and distribute essential commodities for Public Distribution System (PDS), Spl.PDS and Noon Meal Programme. The Corporation operates departmental stores as a market intervention measure to control prices of essential commodities like rice, dal, vegetables like onion, tomato etc, in the open market. The Corporation has been the nodal agency for procurement of Fan, Mixie and Grinder, a flagship programme of the Government. ✓ Agency does not generate significant funds, is a vehicle for market intervention, hence as such debt servicing is to be met from government funding, timely support essential;	Very High	100%
Tamil Nadu Handloom Development Corporation Limited	✓ Institution to provide financial Assistance to the weavers outside the cooperative fold. Loans to be sanctioned for production, marketing and processing of Handloom, Powerloom and Hosiery cloth and for working capital purposes. ✓ The Agency provides subsidized financing products to underserved categories. Hence it may not generate adequate funds for debt servicing, may need to be met from government funding, timely support essential	Very High	100%
Tamil Nadu Industrial Investment Corporation Limited	✓ Institution is engaged in provision of loans to a range of enterprises. It is profitable and able to service its own debt. ✓ The total risk factors include Credit Stress in lending portfolio due to macro-economic factors ✓ Spike in interest rates leading to rise in funding costs ✓ Timely and adequate capitalization by primary shareholder Govt. of TN ✓ ALM and related refinancing risk ✓ Liquidity risk in absence of designated debt servicing reserve accounts	Low	20%
Tamil Nadu State Marketing Corporation Limited (TASMAC)	✓ Institution (TASMAC) is vested with the exclusive privilege of wholesale supply of Indian-Made Foreign Liquor (IMFL) for the whole State of Tamil Nadu. ✓ Risk Factors include regulatory and policy risk pertaining to change in policy regulating monopoly of supply, prohibition and judicial orders leading to closure of shops with proximity to highways	Medium	60%

Name of Entity	Risk Factors and Triggers	Likelihood of CL Devolution (Risk Category)	Risk Weight
Tamil Nadu Sugar Corporation Limited (Public Sector Sugar Mills)	✓ Institution is engaged in promoting the economic development and employment opportunities in rural and backward areas by encouraging cultivation of cane and promoting and setting up of sugar mills. It is a part of the procurement machinery of the government ✓ Agency may often be required to provide state support is a vehicle for market intervention, liquidity and timely release of funds from the government may be an issue. Debt servicing is likely to be met from government funding, timely support essential;	Very High	100%
State Transport Undertakings	✓ Institution is engaged operating long distance express services connecting all the district Headquarters in the State (Tamil Nadu) with Chennai as Headquarters. ✓ Typically the services are provided with a social objective to provide connectivity even on routes lacking commercial viability and at relatively subsidized rates so to ensure affordability to a majority of economic segments. Hence it may not generate adequate funds for debt servicing, which may need to be met from government funding, timely support essential	Very High	100%
BOARDS & CORPORATION			
Tamil Nadu Transmission Corporation Limited **Tamil Nadu Generation and Distribution Corporation Limited**	✓ Institution is engaged operating the State (Tamil Nadu) Transmission Assets – these are relatively stable operating assets, with adequate visibility of Stable Cash-flows ✓ TANGEDCO continues to make operating losses, even after Ujwal DISCOM Assurance Yojana (UDAY). Required periodic tariff revisions is required to bridge the Cost of supply - Average Realisable Revenue (ACS-ARR) gap of Rs. 0.5/unit. ✓ It remains vulnerable to the political economy risk factors as state can influence the periodic pricing revision frequency and quantum ✓ Other operational improvement factors like feeder segregation will also be required, both for UDAY and for own debt sustainability; Aggregate Technical & Commercial (ATC) losses stood under 15% and the state has met its RPO Targets ✓ Liquidity position remains constrained on account of continued losses, delays have been observed in non-State Guaranteed loans ✓ Continued State support essential for timely debt servicing	High	80%
Water and Sanitation Pooled Fund	✓ Water and Sanitation Pooled Fund (WSPF) was set up in August 2002 as a Trust under the provisions of Indian Trust Act 1882. The Government of Tamil Nadu is the Settlor of the Trust. The objective of the Trust is to mobilize resources from the capital market by issue of pooled municipal bonds and to finance viable urban infrastructure projects. ✓ Helps direct access to capital market for small and medium size ULBs are facilitated by pooled fund mechanism. Under this, project and financial	Low	20%

Name of Entity	Risk Factors and Triggers	Likelihood of CL Devolution (Risk Category)	Risk Weight
	requirements of several ULBs are pooled together, in order to make sizable lot to approach capital market with appropriate alternative and innovate financial instruments. Escrow of cash-flows, over collateralization and United States Agency for International Development (USAID) back-stop act as credit risk mitigants		
Tamil Nadu Power Finance and Infrastructure Development Corporation Limited	✓ Wholly owned by Government of Tamil Nadu, the institution is registered with Reserve Bank of India (RBI) as a deposit taking Non-Banking Finance Company. It provides Financial Assistance to Power and Infrastructure Projects and provides funds to Tamil Nadu Generation and Distribution Corporation ltd. ✓ Mobilises capital market funds through Structured Payment Mechanism. ✓ Profit making entity, however remains vulnerable to key counterparty risk, given TANGEDCO which remains in poor financial health	Medium	60%
Tamil Nadu Khadi and Village Industries Board	✓ Institution is engaged in developing the Khadi and Village Industries in rural areas as part of rural development work. ✓ Agency does not generate significant fund, debt servicing to be met from government funding, timely support essential	Very High	100%
Tamil Nadu Water Supply and Drainage Board (TWAD)	✓ Statutory body corporate constituted under TWAD Board Act, 1970. Engaged in the development of Water Supply and Sewerage facilities in the State of Tamil Nadu, except Chennai Metropolitan Development Areas. ✓ Agency may not generate sufficient funds for timely debt servicing to be met from government funding, timely support essential	High	80%
Chennai Metropolitan Water Supply and Sewerage Board	✓ Statutory body corporate constituted under TWAD Board Act, 1970. Engaged in the development of Water Supply and Sewerage facilities in the State of Tamil Nadu in the Chennai Metropolitan Development Areas. ✓ Agency may not generate sufficient funds for timely debt servicing to be met from government funding, timely support essential	High	80%
Tamil Nadu Rural Housing & Infrastructure Development Corporation	✓ Entity engaged in the provision of housing and infra development in rural areas to economically weaker segments ✓ Agency may not generate sufficient funds for timely debt servicing to be met from government funding, timely support essential	Very High	100%
Tamil Nadu Slum Clearance Board	✓ Entity engaged in the provision of housing and infra development in urban areas to economically weaker segments ✓ Agency may not generate sufficient funds for timely debt servicing to be met from government funding, timely support essential	Very High	100%

Name of Entity	Risk Factors and Triggers	Likelihood of CL Devolution (Risk Category)	Risk Weight
Tamil Nadu Co-operative Housing Federation Limited	✓ Entity engaged in the provision of housing and infra development in rural areas to economically weaker segments ✓ Agency may not generate sufficient funds for timely debt servicing to be met from government funding, timely support essential	Very High	100%
Co-operative Spinning Mills	✓ Institution is engaged in provision of weaving and spinning products ✓ Agency does not generate significant fund, debt servicing to be met from government funding, timely support essential; however the entity has negligible debt presently as per CAG report	Very High	100%
Co-operative Sugar Mills	✓ Institution is engaged in promoting the economic development and employment opportunities in rural and backward areas by encouraging cultivation of cane and promoting and setting up of sugar mills. It is a part of the procurement machinery of the government ✓ Agency may often be required to provide state support is a vehicle for market intervention, liquidity and timely release of funds from the government may be an issue. Debt servicing is likely to be met from government funding, timely support essential;	Very High	100%
Tamil Nadu State Apex Co-operative Bank Limited	✓ Tamil Nadu State Apex Co-operative Bank Limited (TNSC) Bank is one of the main providers of agricultural credit in Tamil Nadu, heads the Co-operative Credit Movement in Tamil Nadu and is engaged in integrated rural development. ✓ Agency does not generate significant fund, debt servicing to be met from government funding, timely support essential; however the entity has negligible debt presently as per CAG report	Very High	100%
✓			
Arignar Anna Sugar mills	✓ Institution is engaged in promoting the economic development and employment opportunities in rural and backward areas by encouraging cultivation of cane and promoting and setting up of sugar mills. It is a part of the procurement machinery of the government ✓ Agency may often be required to provide state support is a vehicle for market intervention, liquidity and timely release of funds from the government may be an issue. Debt servicing is likely to be met from government funding, timely support essential;	Very High	100%
Public Sector Sugar Mills	✓ Institution is engaged in promoting the economic development and employment opportunities in rural and backward areas by encouraging cultivation of cane and promoting and setting up of sugar mills. It is a part of the procurement machinery of the government ✓ Agency may often be required to provide state support is a vehicle for market intervention, liquidity and timely release of funds from the government may be an issue. Debt servicing is likely to be met from government funding, timely support essential;	Very High	100%

Name of Entity	Risk Factors and Triggers	Likelihood of CL Devolution (Risk Category)	Risk Weight
Tamilnadu Cement Corporations ltd	✓ Institution is a wholly owned Government of Tamil Nadu undertaking, is engaged in production of cement and cement based products and primarily cater to the building needs of Government departments. ✓ Risk Factors include the following: Entity is undergoing capex as well as major maintenance, and remains vulnerable to time and cost overruns ✓ It is highly leveraged and has govt. departments as counterparties, which may lead to higher receivable time. ✓ Debt servicing is likely to be met from government funding, timely support essential;	Very High	100%
Kallakurichi - 1 Co-operative Sugar Mills	✓ Institution is engaged in promoting the economic development and employment opportunities in rural and backward areas by encouraging cultivation of cane and promoting and setting up of sugar mills. It is a part of the procurement machinery of the government ✓ Agency may often be required to provide state support is a vehicle for market intervention, liquidity and timely release of funds from the government may be an issue. Debt servicing is likely to be met from government funding, timely support essential;	Very High	100%
Tamil Nadu Transport Development Finance Corporation Limited (TTDFC)	✓ Institutions extends loans for working capital and capital expenditure (including purchase of buses) requirements of the STUs. It receives various subsidies and grants from GoTN, on behalf of the STUs and, transfers the same to the STUs. The company also accepts deposits from institutions and public ✓ Typically STUS provide services with a social objective to provide connectivity even on routes lacking commercial viability and at relatively subsidized rates so to ensure affordability to a majority of economic segments. Hence they may not generate adequate funds to make payments to TTDFC on a timely basis for debt servicing ✓ Hence TTDFC may have delays in revenue generations and may rely on govt. support. Debt servicing may need to be met from government funding, timely support essential	Very High	100%

Source: CRIS analysis

4.4.3. Guarantee linked loss assessment for all institutions

Maximum probable loss assessment

The maximum probable loss assessment should be calculated as follows:

Annual Maximum Probable Loss = (Annual Repayment + Interest)

Where Face Value of the Guarantee= Sum of all annual Repayment

Table 11 Case study Tamil Nadu- Maximum probable loss assessment

Regular Amortization Profile		Maximum Probable Loss Assessment										
In Rs Crore		FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30
PSUs		66	66	66	66	66	66	66	66	66	66	66
Statutory Corporations /Boards		4,138	4,138	4,138	4,138	4,138	4,138	4,138	4,138	4,138	4,138	4,138
Co-Operative Institutions		56	56	56	56	56	56	56	56	56	56	56
Government Companies		101	101	101	101	101	101	101	101	101	101	101
Interest Component		426	426	426	426	426	426	426	426	426	426	426
TOTAL		4,788	4,788	4,788	4,788	4,788	4,788	4,788	4,788	4,788	4,788	4,788

Source: CRIS analysis

Grand Total Maximum Probable Loss is Rs. 52,664 crores

Expected loss assessment

The expected loss assessment should be calculated as follows:

Expected Loss = (Annual Repayment + Interest)* Risk Weight (depending on Risk Category)

Where Face Value of the Guarantee= Sum of all annual Repayment

Table 12 Case study Tamil Nadu-Expected loss assessment

Risk Weighted Amortization Profile		Expected Loss Assessment										
In Rs Crore		FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30
PSUs		43	43	43	43	43	43	43	43	43	43	43
Statutory Corporations /Boards		3,213	3,213	3,213	3,213	3,213	3,213	3,213	3,213	3,213	3,213	3,213
Co-Operative Institutions		56	56	56	56	56	56	56	56	56	56	56
Government Companies		101	101	101	101	101	101	101	101	101	101	101
Interest Component		331	331	331	331	331	331	331	331	331	331	331
TOTAL		3,744	3,744	3,744	3,744	3,744	3,744	3,744	3,744	3,744	3,744	3,744

Grand Total of Expected Loss is Rs. 41,188 crores

Unexpected loss assessment

The expected loss assessment should be calculated as follows:

Unexpected Expected Loss = (Annual Repayment+ Interest) - {(Annual Repayment + Interest)* Risk Weight (depending on Risk Category)}

Where Face Value of the Guarantee= Sum of all annual Repayment

Table 13 Case study Tamil Nadu- Unexpected loss assessment

		Unexpected Loss Assessment										
In Rs Crore		FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30
PSUs		23	23	23	23	23	23	23	23	23	23	23
Statutory Corporations /Boards		925	925	925	925	925	925	925	925	925	925	925
Co-Operative Institutions		-	-	-	-	-	-	-	-	-	-	-
Government Companies		-	-	-	-	-	-	-	-	-	-	-
Interest Component		95	95	95	95	95	95	95	95	95	95	95
TOTAL		1,043	1,043	1,043	1,043	1,043	1,043	1,043	1,043	1,043	1,043	1,043

Grand Total of Unexpected Loss is Rs. 11,475 crores

4.4.4. Recommendation

- ✓ **Tamil Nadu should add the Grand Total of Expected Loss on account of its guarantees to its total Debt – of Rs. 41,188 crores**
- ✓ **It should factor an outgo of ~ Rs. 3744 crore annually in its budget to meet its expected loss payouts**
- ✓ **It should build up a contingency reserve of Rs. 1043 crores, to be replenished whenever dipped into as the maximum unexpected loss in a given year should be no greater than Rs. 1043 crores**

4.5. Case study – West Bengal: Risk Bucketing of Liabilities and Reserve Assessment

4.5.1. Outstanding Stock of Guarantees

Table 14 Case study West Bengal- Outstanding Stock of Guarantee

Sl. No.	Name of the Public or Other Body on whose behalf the Guarantee is given	Amount outstanding as on 31st March 2017 (in Rs. Lakh)
A	PSUS	343,373
B	BOARDS/CORPORATIONS	437,497
C	COOPERATIVE INSTITUTIONS	153
D	OTHER GOVT. COMPANIES	597
	TOTAL	781,620
A	**PSUS**	
1	West Bengal Essential Commodities Supply Corporation Limited (WBECSCL)	40,365
2	THE DURGAPUR PROJECTS LIMITED.	148,127
3	West Bengal State Electricity Distribution Co. Ltd.	154,882
	Total-A	**343,373**
B	**GOVERNMENT COMPANIES**	437,497
4	National Safai Karmacharis Fin. & Dev. Corpn. (NSKFDC) Delhi	1,272
5	National Schedule Caste Finance & Dev. Corpn, (NSFDC)Delhi	10,263
6	National Schedule Tribes Finance & Dev. Corpn., (NSTFDC)Delhi	3,116
7	WB Backward Classes Dev. & Finance Corpn.	902
8	BENFED	-
9	WBSCARDB	86,400
10	West Bengal Industrial Development Corporation	-
11	West Bengal Financial Corporation	60,834
12	West Bengal Infrastructure Development Finance Corporation	200,000
13	WB Minorities Development & Finance Corporation.	73,668
14	W.B. Tribal Development Cooperative Corporation Limited.	1,042
	Total B	**437,497**
C	**CO-OPERATIVE SOCIETIES AND BANKS**	153
15	Goghat-II Livestock & Poultry Development Cooperative Society Ltd.	3
16	Kangsabati Coop. Spg.Mills Ltd.	150
	Total C	**153**
D	**OTHER GOVERNMENT COMPANIES**	597

Sl. No.	Name of the Public or Other Body on whose behalf the Guarantee is given	Amount outstanding as on 31st March 2017 (in Rs. Lakh)
17	Burdwan Fish farmer's Development Agency	2
18	The Urban Local Bodies	588
19	Refugee Rehab Institution	1
20	KMDA	7
	Total D	**597**

Source: CRIS analysis

4.5.2. Risk bucketing of existing stock of guarantees

Table 15 Case study West Bengal- Risk bucketing of existing stock of guarantees

Name of Entity	Risk Factors and Triggers	Likelihood of CL Devolution (Risk Category)	Risk Weight
PUBLIC SECTOR UNDERTAKING			
WBECSCL	✓ Institution is engaged in procurement, stocking and distribution of essential commodities for PDS and other govt. Programmes. It provides services including capital, credit, means, resources and technical and management services, advice and assistance; ✓ It also constructs, erects, acquires, leases warehouse, godowns and sheds for storing and keeping food grains, foodstuffs, and essential commodities; ✓ Agency does not generate significant funds, is a vehicle for market intervention, hence as such debt servicing is to be met from government funding, timely support essential;	Very High	100%
THE DURGAPUR PROJECTS LIMITED.	✓ The Institution engages in the generation, transmission, and distribution of power for industrial and domestic consumption in and around Durgapur. It also produces coke; and maintains captive water storage facility to supply industrial and drinking water to residents.	High	80%
West Bengal State Electricity Distribution Co. Ltd.	✓ The Institution engages in distribution of power, it is a wholly owned undertaking of GoWB which receives support in the form of grant ✓ The credit health benefits from the large distribution network across the State of West Bengal, favourable consumption mix, satisfactory collection efficiency, and regulated nature of operations with cost-plus based tariff supported by operational Monthly Variable Cost Adjustment (MVCA) for pass-through of increase in power purchase cost. ✓ The constraining factors include regulatory risk, operational inefficiency on account of higher distribution loss as compared with the normative levels, moderate financial performance, significant build-up of regulatory assets due to delay in revision of tariff, delay in release of Annual Performance Review (APR) orders post FY13, risk	High	80%

Name of Entity	Risk Factors and Triggers	Likelihood of CL Devolution (Risk Category)	Risk Weight
	associated with execution and implementation of on-going projects and pending reconciliations and accounting adjustments arising out of unbundling exercise. ✓ The ability of the company to improve operational efficiency through reduction of distribution loss, liquidation of regulatory asset and timely revision of the tariff with adequate hike shall remain the key credit sensitivities. ✓ Continued State support essential for timely debt servicing		
BOARDS/CORPORATIONS			
National Safai Karmacharis Financial. & Development Corporation. (NSKFDC) Delhi	✓ NSKFDC is an apex institution for all round Socio--economic development and upliftment of the Scavengers Safai Karamcharis.It was incorporated under Section 25 of the Companies Act, and implements various schemes of national safai karamcharis finance & development corporation. ✓ Agency does not generate significant fund, debt servicing to be met from government funding, timely support essential;	Very High	100%
National Schedule Caste Finance & Development Corporation, (NSFDC)Delhi	✓ NSFDC is an apex institution for all round Socio-economic development and upliftment of SCs throughout India by supporting livelihood programmes, training, financial assistance etc, ✓ Agency does not generate significant fund, debt servicing to be met from government funding, timely support essential;	Very High	100%
National Schedule Tribes Finance & Development Corporation, (NSTFDC)Delhi	✓ NSTFDC is to act as an apex institution for all round Socio-economic development and upliftment of SCs throughout India by supporting livelihood programmes, training, financial assistance etc, ✓ Agency does not generate significant fund, debt servicing to be met from government funding, timely support essential;	Very High	100%
WB Backward Classes Dev. & Finance Corpn.	✓ Institution for social welfare objective of support of importance to Govt. of WB for Backward classes. Engaged in provision of loans at subsidized rates for its focused social group ✓ The Agency charges subsidized cost of loans to underserved categories. Hence it may not generate adequate funds for debt servicing, may need to be met from government funding, timely support essential	Very High	100%
BENFED	✓ Institution (West Bengal State Cooperative Marketing Federation Ltd. popularly known as BENFED) constituted under West Bengal Co-operative Societies Act (WBCS) Act for marketing of agricultural produce from the farmers through its affiliated cooperative society, Supply of different agricultural inputs to the farmers and provision of technical consultancy to its member cooperatives for construction of Rice Mills, Cold Storages, and agri-processing units. ✓ Agricultural produce and value chain development often requires external support as beneficiaries may not be compensated at rates covering all costs. Hence, the institution may not generate adequate funds for debt servicing, may need to be met from government funding, timely support essential	Very High	100%

Name of Entity	Risk Factors and Triggers	Likelihood of CL Devolution (Risk Category)	Risk Weight
West Bengal State Co-operative Agriculture & Rural Development Bank Limited (WBSCARDB)	✓ Institution is the Apex Long Term Cooperative Credit Institution of the state with the objective of development of rural economy throughr Primary Cooperative Agricultural & Rural Development Banks. It also is constituting Farmers' Clubs (FC), Self Help Groups (SHG), Joint Liability Group (JLG), Empowering Women and weaker section. ✓ The Agency charges subsidized cost of loans to underserved categories. Hence it may not generate adequate funds for debt servicing, may need to be met from government funding, timely support essential	Very High	100%
West Bengal Industrial Development Corporation	✓ Institution is engaged in industrial promotion, incentives, facilitation, and development of industrial parks ✓ It may not generate adequate funds for debt servicing, may need to be met from government funding, timely support essential	High	80%
West Bengal Financial Corporation	✓ Institution is engaged in provision of LT loans to a range of Ministry of Micro, Small and Medium Enterprises (MSME) enterprises. For capacity expansion and modernisation ✓ The total risk factors include Credit Stress in lending portfolio due to macro-economic factors, Spike in interest rates leading to rise in funding costs, Timely and adequate capitalization by primary shareholder Govt. of WB, Asset Liability Mismatch (ALM) and related refinancing risk ✓ The Agency charges subsidized cost of loans to underserved categories. Hence it may not generate adequate funds for debt servicing, may need to be met from government funding, timely support essential	Very High	100%
West Bengal Infrastructure Development Finance Corporation	✓ Institution has been lending to both public and private infrastructure projects, and is as one of the major lenders to GoWB for funding developmental activities ✓ It has a structured payment mechanism with a sinking fund – timely build-up of this fund is essential for timely debt servicing ✓ Agency has been lending	Medium	60%
WB Minorities Development & Finance Corporation	✓ Institution for social welfare objective of support of importance to Govt. of WB for Minorities. Engaged in provision of loans at subsidized rates for its focused social group ✓ The Agency charges subsidized cost of loans to underserved categories. Hence it may not generate adequate funds for debt servicing, may need to be met from government funding, timely support essential	Very High	100%
W.B. TRIBAL DEVELOPMENT COOPERATIVE CORPORATION LTD.	✓ Institution for social welfare objective of support of importance to Govt. of WB for Tribals. Engaged in provision of loans at subsidized rates for its focused social group ✓ The Agency charges subsidized cost of loans to underserved categories. Hence it may not generate adequate funds for debt servicing, may need to be met from government funding, timely support essential	Very High	100%
COOPERATIVE INSTITUTIONS			

Name of Entity	Risk Factors and Triggers	Likelihood of CL Devolution (Risk Category)	Risk Weight
Goghat-II Livestock & Poultry Development Cooperative Society Ltd., Kamarpukur,	✓ The institution was constituted is engaged in promoting the economic development and employment opportunities in Goghat II by livelihood measures by animal husbandry. Goghat II is a community development block that forms an administrative division Hooghly district. ✓ Agency is required to provide state support is a vehicle for market intervention. Debt servicing is likely to be met from government funding, timely support essential;	Very High	100%
Kangsabati Coop. Spg.Mills Ltd.	✓ Institution is engaged in provision of weaving and spinning products ✓ Agency does not generate significant fund, debt servicing to be met from government funding, timely support essential; however the entity has negligible debt presently as per CAG report	Very High	100%
Burdwan Fish farmer's Dev. Agency.	✓ The institution was constituted is engaged in promoting the economic development and employment opportunities in Burdwan by livelihood measures through Fisheries. ✓ Agency is required to provide state support is a vehicle for market intervention. Debt servicing is likely to be met from government funding, timely support essential;	Very High	100%
The Urban Local Bodies (Asansol, Basirghat, Bongaigaon, Habra, Jiaganj, Kalna, Tamralipta, Ashokenagar, Ghatal Gobardanga)	✓ The institutions are engaged in the provision of urban services including water supply, sanitation, sewerage, waste management, urban mobility and energy etc. These bodies receive funding from the central and the state government for their functions. User charges are insufficient to meet cost of service provision and undertaking modernization works ✓ Debt servicing is likely to be met from government funding, timely support essential;	Very High	100%
Refugee Rehab (Kali-temple Rd.Kalighat)	✓ The institution was constituted is engaged in refugee rehab, support and economic development and employment opportunities ✓ Debt servicing is likely to be met from government funding, timely support essential	Very High	100%
Kolkata Metropolitan Development Authority (KMDA)	✓ The institution is the statutory planning and development authority for the Kolkata Metropolitan Area (KMA).It is the agency of city planning especially new areas and townships, it develops physical infrastructure as well as provide basic services like water, drainage, waste management. It is also the Technical Secretariat to Kolkata Metropolitan Planning Committee (KMPC).Besides these major functional areas, KMDA is also engaged in providing consultancy services and implementing projects on behalf of other public sector departments and agencies. ✓ Being a purely developmental agency, Debt servicing is likely to be met from government funding, timely support essential;	High	80%

Source: CRIS analysis

4.5.3. Guarantee linked loss assessment for all institutions

Maximum probable loss assessment

The maximum probable loss assessment should be calculated as follows:

Annual Maximum Probable Loss = (Annual Repayment + Interest)

Where Face Value of the Guarantee= Sum of all annual Repayment

Table 16 Case study West Bengal- Maximum Probable Loss Assessment

Regular Amortization Profile		Maximum Probable Loss Assessment										
In Rs Crore		FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30
PSUs		343	343	343	343	343	343	343	343	343	343	343
Statutory Corporations /Boards		437	437	437	437	437	437	437	437	437	437	437
Government Companies		0	0	0	0	0	0	0	0	0	0	0
Co-Operative Societies & Banks		1	1	1	1	1	1	1	1	1	1	1
Interest Component		78	78	78	78	78	78	78	78	78	78	78
TOTAL		860	860	860	860	860	860	860	860	860	860	860

Source: CRIS analysis

Grand Total of Maximum Probable Loss is Rs. 9,457 crores

Expected loss assessment

The expected loss assessment should be calculated as follows:

Expected Loss = (Annual Repayment + Interest)* Risk Weight (depending on Risk Category)

Where Face Value of the Guarantee= Sum of all annual Repayment

Table 17 Case study West Bengal- Expected loss assessment

Risk Weighted Amortization Profile		Expected Loss Assessment										
In Rs Crore		FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30
PSUs		283	283	283	283	283	283	283	283	283	283	283
Statutory Corporations /Boards		344	344	344	344	344	344	344	344	344	344	344
Government Companies		0	0	0	0	0	0	0	0	0	0	0
Co-Operative Societies & Banks		1	1	1	1	1	1	1	1	1	1	1
Interest Component		63	63	63	63	63	63	63	63	63	63	63

Risk Weighted Amortization Profile		Expected Loss Assessment										
TOTAL		690	690	690	690	690	690	690	690	690	690	690

Source: CRIS analysis

Grand Total of Expected Loss is Rs. 7,953 crores

Unexpected loss assessment

The expected loss assessment should be calculated as follows:

Unexpected Expected Loss = (Annual Repayment+ Interest) - {(Annual Repayment + Interest)* Risk Weight (depending on Risk Category)}

Where Face Value of the Guarantee= Sum of all annual Repayment

Table 18 Case study West Bengal- Unexpected loss assessment

		Unexpected Loss Assessment										
In Rs Crore		FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30
PSUs		61	61	61	61	61	61	61	61	61	61	61
Statutory Corporations /Boards		93	93	93	93	93	93	93	93	93	93	93
Government Companies		-	-	-	-	-	-	-	-	-	-	-
Co-Operative Societies & Banks		0	0	0	0	0	0	0	0	0	0	0
Interest Component		15	15	15	15	15	15	15	15	15	15	15
TOTAL		169	169	169	169	169	169	169	169	169	169	169

Source: CRIS analysis

Grand Total of Unexpected Loss is Rs. 1,863 crores

4.5.4. Recommendation

- ✓ **West Bengal should add the Grand Total of Expected Loss on account of its guarantees to its total Debt – of Rs. 7,593 crores**
- ✓ **It should factor an outgo of ~ Rs. 690 crore annually in its budget to meet its expected loss payouts**
- ✓ **It should build up a contingency reserve of Rs. 169 crores, to be replenished whenever dipped into as the maximum unexpected loss in a given year should be no greater than Rs. 169 crores**

4.6. Case study – Andhra Pradesh: Risk Bucketing of Liabilities and Reserve Assessment

4.6.1. Outstanding Stock of Guarantees

Table 19 Case study Andhra Pradesh- Outstanding stock of guarantees

Sl. No.	Name of the Public or Other Body on whose behalf the Guarantee is given	Amount outstanding as on 31st March 2017 (in Rs. Lakhs)
A	Public Sector Undertakings	977,871
B	Board and Corporations	893,675
C	Co-Operative Institutions	12,937
D	Other Government Companies/ Departments	1,714,085
	TOTAL	**3,598,568**
A	**Public Sector Undertakings**	
1	Andhra Pradesh State Road Transport Corporation	94,570
2	Transmission Corporation of AP	131,792
3	Andhra Pradesh Power Generation Corporation	172,639
4	AP State Finance Corporation	15,000
	Total- A	**977,871**
B	**Boards and Corporations and SPVs**	
10	Bhogapuram International Airport	55,000
11	Orvakallu - Dagadarthi Airport	12,500
12	A.P State Fiber Net Ltd.	7,800
13	Andhra Pradesh State Housing Corporation Ltd.	65,848
14	AP Khadi and Village Industries Board	2,295
15	Andhra Pradesh Industrial Infrastructure Corporation Ltd	200,000
16	Andhra Pradesh Scheduled Castes co-operative Finance Corporation	23,682
17	AP Town and Infrastructure Development Corporation (APTIDCO)	91,942
18	Andhra Pradesh Scheduled Tribes Co-operative Finance Corporation Limited (TRICOR)	3,808
19	Andhra Pradesh Water Resources Development Corporation	400,000
20	AP State Warehousing Corporation	30,800
	Total- B	**893,675**
C	**Co-operative Institutions**	
21	Co.-operative Spinning Mills	-
22	Director of Sugar and Cane Commissioner	4,585
23	APCO (Andhra Pradesh State Handloom Weavers Cooperative Society)	5,832

Sl. No.	Name of the Public or Other Body on whose behalf the Guarantee is given	Amount outstanding as on 31st March 2017 (in Rs. Lakhs)
24	AP Backward Classes Cooperative Finance Corporation	2,520
	Total - C	**12,937**
D	**Other Government companies/ departments**	
25	Nellore Water Sewerage & Under Ground Drainage	58,085
26	Municipal Corpn., Tirupati	6,000
27	Rythu Sadhikara Samstha	100,000
28	Food & Civil Supplies	1,250,000
29	AP Residential Degree College	300,000
	Total - D	**1,714,085**

Source: CRIS analysis

4.6.2. Risk bucketing of existing stock of guarantees

Table 20 Case study Andhra Pradesh- Risk bucketing of existing stock of guarantees

Name of Entity	Risk Factors and Triggers	Likelihood of CL Devolution (Risk Category)	Risk Weight
PUBLIC SECTOR UNDERTAKING			
Andhra Pradesh State Road Transport Corporation	✓ Institution is engaged operating long distance express services connecting all the district Headquarters in the State with the capital as Headquarters. ✓ Typically the services are provided with a social objective to provide connectivity even on routes lacking commercial viability and at relatively subsidized rates so to ensure affordability to a majority of economic segments. Hence it may not generate adequate funds for debt servicing, which may need to be met from government funding, timely support essential	Very High	100%
Transmission Corporation of AP	✓ Institution is engaged operating the State Transmission Assets – these are relatively stable operating assets, with adequate visibility of generating Stable Cash-flows ✓ Despite a healthy operational profile, it is exposed to the risk of weak counterparties – the discoms, which may lead to delayed payments ✓ Further post AP bifurcation, there has been dispute in liability division between the AP and Telangana entities, as a result of which the entity is defaulting on its bond payments ✓ Entity may require support for timely debt servicing vide government funding, hence timely support essential	Very High	100%

Name of Entity	Risk Factors and Triggers	Likelihood of CL Devolution (Risk Category)	Risk Weight
Andhra Pradesh Power Generation Corporation	✓ Institution is engaged in power production through its operational thermal assets. It has an installed capacity of ~ 5.6 GW. It is wholly owned by GoAP and has shown moderate improvement in operating financial performance ✓ The entity is highly leverages, with its gearing deteriorating from 3.04x to 3.82x in the past fiscal on account of ongoing capex ✓ The receivable >6 months has expanded, primarily on account of non-regular payments from TS discoms. Entity has weak liquidity position and may require support for timely debt servicing vide government funding, hence timely support essential	High	80%
AP State Finance Corporation	✓ The entity is a state level Development Financial Institution established in 1956 for promoting Small and Medium Scale(SMEs)industries ✓ Engaged in provision of loans to underserved MSME group ✓ The total risk factors include Credit Stress in lending portfolio due to macro-economic factors ✓ Spike in interest rates leading to rise in funding costs ✓ Timely and adequate capitalization by primary shareholder Govt. of TN ✓ ALM and related refinancing risk ✓ Liquidity risk in absence of designated debt servicing reserve accounts	High	80%
BOARDS & CORPORATION			
Bhogapuram International Airport Company Limited (BIACL)	✓ The institution is a Special Purpose Vehicle (SPV) owned by the government. The airport will be built as part of an aerotropolis, which will also have a Maintenance, Repair and Overhaul (MRO) Facility along with an Aviation Academy. It is being executed in the (PPP) mode with the state holding stake in the form of land holdings ✓ GMR is the private player executing the project, has a strong track record in project execution which is expected to minimize risks of time and cost overruns ✓ The process of land acquisition has not concluded, exposing the project to possible time overruns. Given the green-field status, offtake / demand risks contingent on the development of Vijaywada as an economic hub are also present. ✓ Funding Risk till the equity infusion is made by the sponsor, debt tie-up and draw down remain the other concerns	High	80%
Orvakallu - Dagadarthi Airport	✓ The institution is a Special Purpose Vehicle (SPV) owned by the government. The airport will be built as a green field low cost and no frills airport. It is being executed in the (PPP) mode with the state holding stake in the form of land holdings. ✓ The project is yet to be bid out, the process of land acquisition has not concluded, exposing the project to possible time overruns. Given the green-field status, offtake / demand risks contingent on the development of	Very High	100%

Name of Entity	Risk Factors and Triggers	Likelihood of CL Devolution (Risk Category)	Risk Weight
	Nellore as an economic hub are also present. ✓ Funding Risk till the equity infusion is made by the sponsor, debt tie-up and draw down remain the other concerns		
A.P State Fiber Net Ltd.	✓ The institutions has been set up to provide highly scalable network infrastructure to provide on demand, affordable and end-to-end broadband connectivity in partnership with the Government of India and the private sector ✓ The entity is exposed to project execution risks and time and cost overruns ✓	Very High	100%
Andhra Pradesh State Housing Corporation Ltd.	✓ Institution is engaged in housing for the economically weaker segments. ✓ Agency does not generate significant fund, debt servicing to be met from government funding, timely support essential	Very High	100%
AP Khadi and Village Industries Board	✓ Institution is engaged in developing the Khadi and Village Industries in rural areas as part of rural development work. ✓ Agency does not generate significant fund, debt servicing to be met from government funding, timely support essential	Very High	100%
Andhra Pradesh Industrial Infrastructure Corporation Ltd	✓ Institution is engaged in the development of industrial parks, industrial clusters, SEZs, allocation of land.It is the nodal agency for infrastructure development across the state, with responsibility of allocation of appropriate incentives ✓ Agency does not generate significant fund, debt servicing to be met from government funding, timely support essential	High	80%
Andhra Pradesh Scheduled Castes co-operative Finance Corporation	✓ Entity is engaged in programmes for the Economic Development of Scheduled Caste families in the State, skill development, economic support and provision of loans at subsidized rates for its focused social group ✓ The Agency charges subsidized cost of loans to underserved categories. Hence it may not generate adequate funds for debt servicing, may need to be met from government funding, timely support essential	Very High	100%
AP Town and Infrastructure Development Corporation (APTIDCO)	✓ The entity is engaged in the task of integrated township and Infrastructure development across the state of Andhra Pradesh. It is the state level nodal agency for Pradhan Mantri Awas Yojana (PMAY) and responsible for planning, development, financing and implementation of affordable housing in the state, under Municipal Administration and Urban Development Department so as to ensure effective coordination of functioning among the key institutional stakeholders – viz., ULBs & Development Authorities, ✓ Agency does not generate significant fund, debt servicing to be met from government funding, timely support essential	Very High	100%

Name of Entity	Risk Factors and Triggers	Likelihood of CL Devolution (Risk Category)	Risk Weight
Andhra Pradesh Scheduled Tribes Co-operative Finance Corporation Limited (TRICOR)	✓ Entity is engaged in programmes for the Economic Development of Scheduled Tribe families in the State, skill development, economic support and provision of loans at subsidized rates for its focused social group ✓ The Agency charges subsidized cost of loans to underserved categories. Hence it may not generate adequate funds for debt servicing, may need to be met from government funding, timely support essential		
Andhra Pradesh Water Resources Development Corporation	✓ The institution is engaged in the execution of irrigation projects,river interlinking projects, drought proofing, drinking water projects, which are critical objectives of the state government ✓ Does not generate adequate user charges to cover project costs and costs of service provisioning ✓ Agency does not generate significant fund, debt servicing to be met from government funding, timely support essential	Very High	100%
AP State Warehousing Corporation	✓ The institution is engaged in the provision of storage facilities for food grains and other agriculture commodities, seeds, manures and fertilizers to minimize losses and deterioration in storage. It also provides farmers with cheap credit facilities from Banks against pledge of the Warehouse Receipt to improve the holding capacity of the producer to avoid distress sales in harvesting seasons. ✓ Agency does not generate significant funds, debt servicing to be met from government funding, timely support essential	Very High	100%
CO-OPERATIVE INSTITUTIONS			
Co.-operative Spinning Mills	✓ Institution is engaged in provision of weaving and spinning products ✓ Agency does not generate significant fund, debt servicing to be met from government funding, timely support essential;	Very High	100%
Director of Sugar and Cane Commissioner	✓ Institution is engaged in promoting the economic development and employment opportunities in rural and backward areas by encouraging cultivation of cane and promoting and setting up of sugar mills. It is a part of the procurement machinery of the government ✓ Agency may often be required to provide state support is a vehicle for market intervention, liquidity and timely release of funds from the government may be an issue. Debt servicing is likely to be met from government funding, timely support essential;	Very High	100%
APCO (Andhra Pradesh State Handloom Weavers Cooperative Society)	✓ Institution is engaged in provision of weaving and spinning products ✓ Agency does not generate significant fund, debt servicing to be met from government funding, timely support essential; however the entity has negligible debt presently as per CAG report	Very High	100%

Name of Entity	Risk Factors and Triggers	Likelihood of CL Devolution (Risk Category)	Risk Weight
AP Backward Classes Cooperative Finance Corporation	✓ Institution for social welfare objective of support of importance to Govt. of Tamil Nadu for Backward classes. Engaged in provision of loans at subsidized rates for its focused social group ✓ The Agency charges subsidized cost of loans to underserved categories. Hence it may not generate adequate funds for debt servicing, may need to be met from government funding, timely support essential	Very High	100%
GOVERNMENT COMPANIES/ DEPARTMENTS			
Nellore Water Sewerage & Under Ground Drainage	✓ The institution is engaged in the provision of urban services including water supply, sanitation and sewerage. It receives funding from the central and the state government for their functions. User charges are insufficient to meet cost of service provision and undertaking modernization works ✓ Debt servicing is likely to be met from government funding, timely support essential;	High	80%
Municipal Corporation Tirupati	✓ The institution is engaged in the provision of urban services including water supply, sanitation, sewerage, waste management, urban mobility and energy etc. These bodies receive funding from the central and the state government for their functions. User charges are insufficient to meet cost of service provision and undertaking modernization works ✓ Debt servicing is likely to be met from government funding, timely support essential;	High	80%
Rythu Sadhikara Samstha	✓ The institution is an integrated mechanism for all programmes, schemes and activities intended for farmer's empowerment, encompassing welfare, development, capacity enhancement, credit flow, financial support and allied empowerment activities (all-encompassing product suite of rural development) ✓ Debt servicing is likely to be met from government funding, timely support essential;	Very High	100%
Food & Civil Supplies	✓ Institutions procures, stock and distribute essential commodities for PDS, etc. The Corporation operates departmental stores as a market intervention measure to control prices of essential commodities like rice, dal, vegetables like onion, tomato etc, in the open market. ✓ Agency does not generate significant funds, is a vehicle for market intervention, hence as such debt servicing is to be met from government funding, timely support essential;	Very High	100%

Source: CRIS analysis

4.6.3. Guarantee linked loss assessment for all institutions

Maximum probable loss assessment

The maximum probable loss assessment should be calculated as follows:

Annual Maximum Probable Loss = (Annual Repayment + Interest)

Where Face Value of the Guarantee= Sum of all annual Repayment

Table 21 Case study Andhra Pradesh- Maximum Probable Loss Assessment

Regular Amortization Profile		**Maximum Probable Loss Assessment**										
In Rs Crore		**FY20**	**FY21**	**FY22**	**FY23**	**FY24**	**FY25**	**FY26**	**FY27**	**FY28**	**FY29**	**FY30**
PSUs		978	978	978	978	978	978	978	978	978	978	978
Statutory Corporations /Boards		894	894	894	894	894	894	894	894	894	894	894
Co-Operative Institutions		13	13	13	13	13	13	13	13	13	13	13
Government Companies		1,714	1,714	1,714	1,714	1,714	1,714	1,714	1,714	1,714	1,714	1,714
Interest Component		188	188	188	188	188	188	188	188	188	188	188
TOTAL		3,787	3,787	3,787	3,787	3,787	3,787	3,787	3,787	3,787	3,787	3,787

Source: CRIS analysis

Grand Total Maximum Probable Loss is Rs. 41,657 crore

Expected loss assessment

The expected loss assessment should be calculated as follows:

Expected Loss = (Annual Repayment + Interest)* Risk Weight (depending on Risk Category)

Where Face Value of the Guarantee= Sum of all annual Repayment

Table 22 Case study Andhra Pradesh- Expected Loss Assessment

Risk Weighted Amortization Profile		**Expected Loss Assessment**										
In Rs Crore		**FY20**	**FY21**	**FY22**	**FY23**	**FY24**	**FY25**	**FY26**	**FY27**	**FY28**	**FY29**	**FY30**
PSUs		940	940	940	940	940	940	940	940	940	940	940
Statutory Corporations /Boards		843	843	843	843	843	843	843	843	843	843	843
Co-Operative Institutions		13	13	13	13	13	13	13	13	13	13	13
Government Companies		1,714	1,714	1,714	1,714	1,714	1,714	1,714	1,714	1,714	1,714	1,714

Risk Weighted Amortization Profile		**Expected Loss Assessment**										
Interest Component		180	180	180	180	180	180	180	180	180	180	180
TOTAL		3,690	3,690	3,690	3,690	3,690	3,690	3,690	3,690	3,690	3,690	3,690

Source: CRIS analysis

Grand Total of Expected Loss is Rs. 40,585 crores

Unexpected loss assessment

The expected loss assessment should be calculated as follows:

Unexpected Expected Loss = (Annual Repayment+ Interest) - {(Annual Repayment + Interest)* Risk Weight (depending on Risk Category)}

Where Face Value of the Guarantee= Sum of all annual Repayment

Table 23 Case study Andhra Pradesh- Unexpected Loss Assessment

		Unexpected Loss Assessment										
In Rs Crore		**FY20**	**FY21**	**FY22**	**FY23**	**FY24**	**FY25**	**FY26**	**FY27**	**FY28**	**FY29**	**FY30**
PSUs		38	38	38	38	38	38	38	38	38	38	38
Statutory Corporations /Boards		51	51	51	51	51	51	51	51	51	51	51
Co-Operative Institutions		-	-	-	-	-	-	-	-	-	-	-
Government Companies		-	-	-	-	-	-	-	-	-	-	-
Interest Component		9	9	9	9	9	9	9	9	9	9	9
TOTAL		97	97	97	97	97	97	97	97	97	97	97

Source: CRIS analysis

Grand Total of Unexpected Loss is Rs. 1043 crore

4.6.4. Recommendation

- ✓ **Andhra Pradesh should add the Grand Total of Expected Loss on account of its guarantees to its total Debt – of Rs. 40,585 crores**
- ✓ **It should factor an outgo of ~ Rs. 3,689 crore annually in its budget to meet its expected loss payouts**
- ✓ **It should build up a contingency reserve of Rs. 97 crores, to be replenished whenever dipped into as the maximum unexpected loss in a given year should be no greater than Rs. 97 crores**

5. Pricing of guarantees

5.1. Prevailing guarantee fee of States

The guarantee fees charged by the different states are on a flat basis as presented below. The objective of differentiated risk based pricing for different contingent liabilities is to correctly reflect cost of provision, recognize extent of subsidy if any, and disincentives mis-use of contingent liabilities in a bid to escape budgetary oversight and scrutiny and mask the extent of true liabilities of a government.

Table 24 Prevailing guarantee fee rates in Select Indian States

State	Governing Act	Criteria for limiting government guarantees	Guarantee Commission
Karnataka	Karnataka Guarantee of Ceiling Act, 1999, Karnataka Fiscal Responsibility Act, 2002	Total outstanding guarantees as on first day of April of any year should not exceed 80% of the Karnataka state government's revenue receipts of the second preceding year	Minimum of 1%
Andhra Pradesh	AP Fiscal Responsibility and Budget Management Act, 2005.	Amount of annual incremental risk weighted guarantees to 90% of Total Revenue Receipts (TRR) in the year preceding the current year	0.5 – 2%
Telangana	Fiscal Responsibility and Budget Management Act, 2005.	Amount of annual incremental risk weighted guarantees to 90% of Total Revenue Receipts (TRR) in the year preceding the current year	0.5 – 2%
Tamil Nadu	Tamil Nadu Fiscal Responsibility and Budget Management Act, 2003	Total outstanding guarantees to 100% of the total revenue receipts in the preceding year or at 10% of GSDP whichever is lower and also, limits the risk weighted guarantees to 75% of the total revenue receipts in the preceding year or 7.5% of GSDP	-
Gujarat	Gujarat Fiscal Responsibility Act, 2005, Gujarat Guarantees Act, 1963	Total outstanding government guarantees should not exceed Rs 20,000 cr	Minimum of 1%
West Bengal	West Bengal Fiscal Responsibility and Budget Management Act, 2010, West Bengal Ceiling on Government Guarantees Act, 2001.	Total outstanding government guarantees on first day of April of any year should not exceed 90% of the state revenue receipts of the second preceding year	Minimum of 1%
Kerala	Kerala Ceiling on Government Guarantees Act, 2003, Kerala Fiscal Responsibility Act, 2003	Total outstanding government guarantees on first day of April of any year should not exceed Rs 14,000 crores	Minimum 0.75% per annum
Punjab	Punjab Fiscal Responsibility and Budget Management Act, 2003	Total outstanding government guarantees on long term debt to 80% of the revenue receipts of the previous year	2% for term loans

Fixed rate for guarantee fees across all borrowers is incorrect as guarantees lead to an increase in contingent liabilities of the government when triggered and thus, should be examined in the same manner as a proposal for a loan, taking into consideration, factors such as credit-worthiness of the borrower, amount and other terms of borrowings, risks covered by the guarantee, justification and public purpose to be served, probability of occurrence of such liabilities, etc. Thus, a guarantee fee should be charged taking into consideration the aforementioned factors. A low-risk and credit-worthy borrower should be charged a lower fee as compared to a weaker borrower, this will incentivize borrowers to improve their credibility. An entity-specific guarantee fee can take the underlying risks and social and economic benefits

into consideration and will ensure that guarantee fees do not become a cost burden for the borrowing entity.

The guarantee fee should incorporate an assessment of risks associated with the probability of future playouts that are covered by the guarantee in the form risk premium. This risk premium will provide an actual picture of the financial condition of the entity to be guaranteed along with the risks associated with the implementation of the project/ scheme, etc. The following section proposes a framework for determining Guarantee fees by taking into consideration risks associated with the borrowing entity and the project/ scheme.

5.2. Risk based framework for determination of guarantee fee

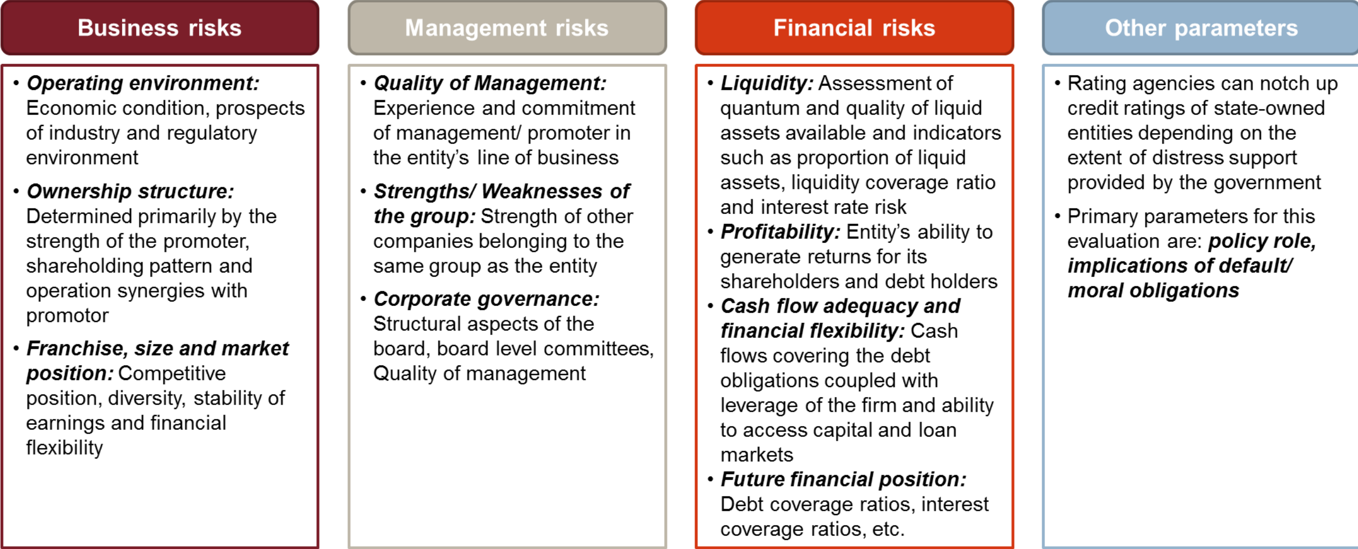
5.2.1. Probability of default (PD)

For developing a risk-based framework for determining the guarantee fees to be charged by the States, it is critical to examine the Probability of Default (PD) of the borrowing entities. PD is an estimate of the likelihood that the borrower will be unable to meet its debt obligation over a certain time horizon. The default can occur due to various reasons such as inadequate cash flows to service debt, declining revenues or operating margins, high leverage, declining or marginal liquidity, and the inability to successfully implement their business plan. Hence, by linking the guarantee fee to the probability of default of the borrowing entity, a dynamic risk-based framework can be developed in which the guarantee fees actually reflect the risk of default associated with the borrowing entity.

5.2.2. Relevance of Credit Ratings

Credit ratings of a corporate typically indicate certain probability of default. The higher the credit rating of a corporate, low is the probability for default. In the process of assigning credit ratings to entities, the rating agencies evaluate the company’s business, management and financial risks, and use this evaluation to forecast the level and stability of its future financial performance through various likely scenarios. The broad parameters for assessing the business, management and financial risks of an entity are shown in *Figure 3.*

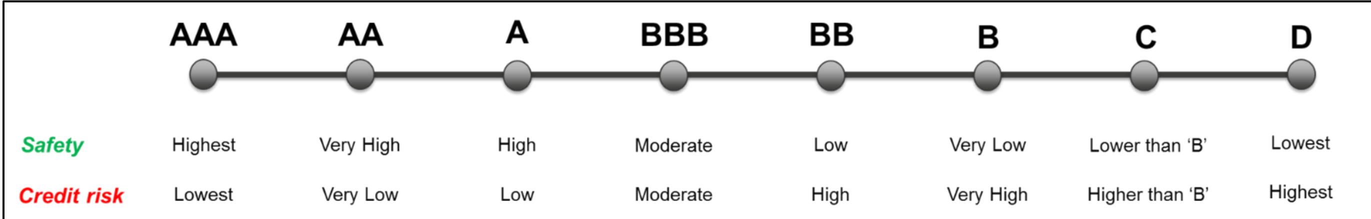
Figure 4 Broad parameters for assessing the business, management and financial risks of an entity



Source: CRIS Analysis

A detailed evaluation of the above parameters of an entity is performed to arrive at a credit rating. This evaluation is extremely critical in case of a guarantee provided to the entity and is an ideal parameter to calculate the risk-based guarantee fee for the entity. For most of the national credit rating agencies, the long term debt and the corporate rating scale broadly provides and opinion on the credit-worthiness of the borrowing entity. The *Figure 4* demonstrates the different credit ratings and the credit risk involved.

Figure 5 Credit ratings and the credit risk involved



Source: CRIS Analysis

Also, credit ratings are critical in pricing of debt instruments and determining capital allocation for credit exposures of the banking system. Base II mandates banks to provide capital on the credit exposure as per credit ratings assigned to the entities. Hence, credit ratings are important and an ideal input for determining Guarantee fees for various types of borrower entities.

5.2.3. Mapping of credit ratings to Guarantee Fee

As seen in the above sections, credit rating of an entity indicates the probability of default for the rated entity and hence, should be an input to calculate the guarantee fess to be paid by the entity. For illustration, an entity with a 'AAA' rating must be subjected to a lower guarantee fee as compared to an entity with a 'AA' or 'BBB' rating, because of the its inherent lower risk of default. In sovereign guarantee mechanisms over the world, governments typically charge guarantees based on the expected costs. Under such mechanisms, the pricing is based on recovering the operating and financial costs of the guarantor along with the cost of risks associated.

5.2.4. Defining the framework to compute guarantee fees

The guarantee fee for sub sovereign guarantees has been estimated considering the Expected Loss estimated for each credit rating over the life of the instrument. The Expected Loss (EL) metric combines two pillars of credit risk, the probability of default (PD) and the prospects of recovery (recovery rate) and thereby, provides a more holistic measure of creditworthiness of an instrument.

The following formula can be used to elaborate EL:

$$EL = PD*LGD*EAD$$

Where, PD = Probability of Default, LGD = Loss Given Default, EAD = Exposure At Default

Probability of default (PD)

PD, as detailed in the section above, is the likelihood that a loan will not be repaid in full or on time, and will default. For the purpose of this framework, S&P Global's Global Corporate Average Cumulative Default Rates[4] for 15 years have been used, mapped to the ratings scale in India.

Loss Given Default (LGD)

LGD represents the fractional loss that the investor will incur in case of default and is mainly based on the recovery rate for the instrument, defined as the proportion of a bad debt that can be recovered. The LGD is a function of various factors that influence the recovery of an instrument post default, including asset class, project characteristics, possibility of refinancing/restructuring, availability of enforceable security to borrowers, etc.

LGD = 1 – Recovery Rate

For illustration, projects in the manufacturing sector have a low recovery rate of around 20%, as revenues are dependent on defaults. If a manufacturing company defaults, its working capital limits will be frozen, directly impacting its operations, thus hampering recovery. While in case of an annuity-based road project having limited uncertainty regarding revenue inflows mainly because of presence of a concessioning authority, the recovery rates can be in the range of 60 – 70. As PSUs across states have a diversified portfolio across sectors, a median recovery rate of 40% is assumed for the purpose of illustration of guarantee fees for entities/ projects with different credit ratings as shown in *Table 25*.

Exposure at Defaults (EAD)

EAD represents the total exposure to credit risk that the borrower owes to the lending institution at the time of default.

Using expected loss to compute guarantee fee

Using the above method, the expected loss for each year is the present value of the nominal amount guaranteed multiplied by the probability of default, less recoveries. The summation of the estimated loss for each year was then divided by the duration of the debt obligation, to arrive at an annual expected loss. The annual expected loss divided by the principal amount is the annual guarantee fee for that rating level. Thus, the EL method ensures that the guarantee fee is able to adequately compensate the guarantor for losses that may occur due to defaults during the life of the instrument.

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[4] *Cumulative default rate for a specified period is the number of defaults among rated entities expressed as percentage of the total number of rated entities whose ratings were outstanding throughout the period. The average cumulative default rates are published by S&P Global for the whole universe of rated instruments and also for each specific rating category. The average cumulative default rate for a period is the simple mean of the default rates calculated over a period of time, and overrides any aberrations due to economic conditions.*

On the basis of the above analysis, following rates for guarantee fee (as a %age of guaranteed amount payable per annum) are proposed for the guarantee by the State Governments. It is evident that the guarantee fees are also a function of the loan tenor – longer loan tenor means a larger range of possible default scenarios, higher expected loss and thus, higher guarantee fees. *Table 25* demonstrates the proposed guarantee fees range for a tenor of 15 – 25 years.

Table 25 Rating-wise guarantee fee recommended

Credit Rating	**AAA**	**AA**	**A**	**BBB**
Guarantee Fee (Tenor range: 15 – 25 years)	0.15 – 0.25%	0.20 – 0.30%	0.40 – 0.60%	1.15 – 1.50%

Source: CRIS Analysis

5.2.5. Incorporating socio-economic parameters

The sole purpose of guarantees is to catalyze funding for designated sectors and/ or populations that are deemed government priorities, the guarantee fee should incentivize achievement of social/ economic benefits. Hence, an overall socioeconomic discount of 5 basis points (0.05%) can be provided on the guarantee fee if the project being funded belongs to the following sectors:

Table 26 Project categories for social discount on Guarantee Fees

Priority sectors eligible for social discount on guarantee fees	
MSMEs	Water supply and sanitation (Urban infra excluding transport)
Agriculture	Healthcare
Education and Training	Renewable energy
Affordable Housing	Rural Development
Rural electrification	

5.2.6. Overall risk-based guarantee framework

Based on the framework suggested using the above approach, it is envisaged that the Guarantee fee charged can be determined by the credit rating (reflective of the borrowing cost) and the overall socioeconomic impact of the project or corporation being lent to.

A risk-based framework will increase the competitiveness of concessional, long-term funding available to state-owned enterprises while, it will also ensure that guarantee costs of the government are covered adequately.

5.3. Illustration of risk based framework to determine guarantee fee

This section illustrates determination of guarantee fees for select projects by the state-owned enterprises in India. The examples specified below may or may not be reflective of actual projects and are to be treated merely as examples of potential projects by these entities.

5.3.1. Illustration 1: Expressway in NCR by National Capital Region Planning Board (NCRPB)

STEP 1:	***Determine credit rating (either corporate or long-term debt rating) of NCRPB - ICRA AAA***
STEP 2:	***Determine guarantee fee based on Table 7 above - 0.15%***
STEP 3:	***Determine if social discount is possible - No Infrastructure (transport) is not categorized under sectors eligible for socioeconomic discounts***

Source: CRIS Analysis

The overall guarantee fee will amount to ***0.15%*** of the total guaranteed amount per annum.

5.3.2. Illustration 2: Solar PV Project in Assam by North Eastern Electric Power Corporation Limited (NEEPCO)

STEP 1:	***Determine credit rating (either corporate or long-term debt rating) of NEEPCO - ICRA AA***
STEP 2:	***Determine guarantee fee based on Table 7 above - 0.20%***
STEP 3:	***Determine if social discount is possible - Yes, Renewable energy is included under sectors eligible for socioeconomic discounts. Hence, a discount of 0.05% is applicable.***

Source: CRIS Analysis

Since, the project involves development of renewable energy infrastructure, a social discount of 0.05% is applicable and the overall guarantee fee will amount to (0.20% - 0.05%) ***0.15%*** of total guaranteed amount per annum.

5.3.3. Illustration 3: Lending to India Infrastructure Finance Corporation Limited (IIFCL) to invest in Municipal Bonds raised by SMART City SPVs

STEP 1:	***Determine credit rating (either corporate or long-term debt rating) of IIFCL - CRISIL AAA***
STEP 2:	***Determine guarantee fee based on Table 7 above - 0.15%***
STEP 3:	***Determine if social discount is possible - Yes, Urban infrastructure is included under sectors eligible for socioeconomic discounts. Hence, a discount of 0.05% is applicable.***

Source: CRIS Analysis

Since, the project is in development of urban infrastructure, and will impact diverse regions and a large population covered by the urban local bodies, a social discount of 0.05% is applicable and the overall guarantee fee will amount to ***0.10%*** of total guaranteed amount per annum.

6. Regulating Issuance of New Contingent Liabilities

Any decision on issuing new contingent liabilities (CL) should be made under clearly defined policies, adequate assessment and analysis justifying the use of a CL in preference to other available tool, a view on the risks, costs, and benefits and pricing. Each CL must be evaluated for its compliance with the state government's stated policies on guarantees and reason for preferring over a normal expenditure instrument. The tenor of the guarantee, its underlying risks and measures to mitigate them. A presentation of the financial position and credit worthiness of the guarantee seeker, its ability and self-sufficiency to service its obligations, likelihood of devolution onto state government, most likely and maximum exposures, fiscal costs of devolution, impact on the state government debt levels must be presented.

This section contains suggested methodology regulating the issuance of the guarantees for State Governments in India. Before this, a brief overview of the institutional framework, legal and policy architecture and process mapping of the issuance of guarantees is presented.

6.1. Global case study examples

6.1.1. Sweden

Institutional framework

The Guarantee and Loan department of the Swedish National Debt Office (SNDO) is responsible for managing the credit risk arising from non-standardized[5] guarantees and on-lending. The beneficiaries of these guarantees mainly include state owned enterprises and no sub-national entities. Other than the SNDO, there are four major central government authorities that operate independently from one another and manage government contingent liabilities, mainly, The Swedish Exports Credit Guarantee Board (guarantees), The Swedish National Board of Housing, Building and Planning (guarantees), The Swedish International Development Cooperation Agency (guarantees and loans) and the Swedish Board for Study Support (loans).

The main sources of government contingent liabilities are deposit insurance, capital guarantees to multilateral development banks, miscellaneous guarantees and loans managed by the SNDO, export credit guarantees managed by the Swedish Exports Credit Guarantee Board, development aid guarantees and loans managed by the Swedish International Development Cooperation Agency, housing credit guarantees managed by the Swedish National Board of Housing, Building and Planning and student loans managed by the Swedish Board for Study Support.

State guarantees and loans are mandatorily subjected to approval by the parliament and government. After approval and commissioning of the guarantee, the respective authority is responsible for issuing, monitoring, reporting and closing the guarantees.

Legal and Policy Framework

The risk management for guarantees and on-lending in Sweden consists of a strong legal framework and governance mechanisms. The Budget Act and the Guarantee and the On-lending Ordinance are the

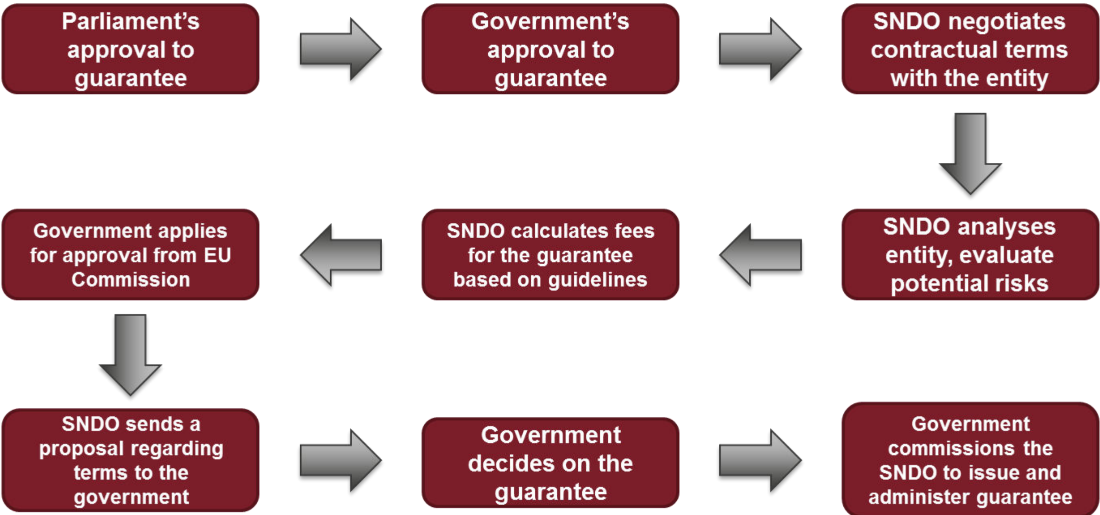
[5] Standardized guarantees are export credit guarantees and house credit guarantees while non-standardized guarantees are credit guarantees with individually negotiated and structured guarantee agreement to specific entities

building blocks for framework for guarantees. The Budget Act empowers the parliament to decide on the purpose and the amount of state guarantees and on-lending. It also empowers the government to charge a fee to compensate the administrative and funding costs regarding guarantees. The Guarantee and the on-lending ordinance consists of detailed rules that govern the functions of the authorities managing state guarantees and loans. This ordinance covers the aspects such as fees, contractual terms, monitoring, reporting, etc.

Guarantee issuance process mapping for SNDO

The Parliament decides on guarantees with respect to the purpose, amount and type of instrument and provides its approval. Post the approval from Parliament, the SNDO seeks approval from the Government. After government's approval, SNDO negotiates contractual terms with the entity and evaluate the credit worthiness of the entity using an analytical approach consisting of credit rating methodology. Using the above methodology, SNDO analyses the entity and evaluates any potential and collateral risks involved. SNDO calculates the guarantee fee or charge to be collected from the entity using the guidelines provided by the government. The SNDO sends a proposal regarding the accepted contractual terms to the government, post which the government decides on the guarantee and commissions the SNDO to issue and administer the guarantee. The above issuance procedure is described in *Figure 5.*

Figure 6 SNDO guarantee issuance procedure



Source: Swedish National Debt Office, Contingent Liability Risk Management, World Bank

SNDO is responsible for monitoring the guarantees within their portfolio and changes in the credit worthiness of the borrowing entity is closely monitored and analyzed. SNDO reports the outstanding guarantees within its portfolio in semi-annual and annual reports and is responsible for closing guarantees as they mature or default.

6.1.2. United Kingdom

Institutional Framework

UK Debt Management Office, an executive agency, sponsored by the HM Treasury is responsible to carry out the government's debt management policy of minimizing financing costs over long term, taking into account of risk. The Treasury is the final approval for issuance of guarantees in UK while individual departmental official and ministers are responsible for assessing, approving, managing and reporting government guarantees.

Guarantee issuance process mapping

In United Kingdom, there are 4 key stages in guarantee issuance process, mainly, policy development, Treasury approval, parliamentary notification and approval and reporting.

Policy development

In this stage, a policy is development which gives rise to a contingent liability. The lead policy officials along with the departmental finance teams are responsible in determining whether a policy gives rise to a contingent liability or not and classifying the contingent liability. If the policy officials along with the departmental finance teams determine that a particular policy will result into a contingent liability and the contingent liability is within the scope of the checklist, the policy official will complete the checklist which basically consists of details to be provided on rationale for guarantee, exposure to the guarantee, risk and return, risk management and mitigation and affordability. The completed checklist is submitted to the Treasury officials for their approval. After approval on the checklist from the Treasury is obtained, a final approval is sought from the relevant department minister and the accounting officer. The contingent liability will be provided to the department minister and accounting officer for their approval even if the Treasury does not approve the checklist submitted.

Treasury Approval

After an approval is obtained on the contingent liabilities from the relevant department minister and accounting official, then it must be submitted to the Treasury for its formal approval on the contingent liability. If the contingent liability did not pass the Treasury checklist approval stage, getting the Treasury formal approval on the contingent liability will be challenging. The Treasury approval on the contingent liabilities means that the department is ready to accept the risk of paying out if the liability is triggered.

Parliamentary notification

Once approval from Treasury is received on the contingent liability, a departmental minute/ note will be drafted in order to inform the Parliament that the department is issuing a contingent liability. These minutes must be approved by the Treasury and should be submitted along with a written ministerial statement.

Reporting

The contingent liability is reported through estimates in the departments or its bodies' annual report and accounts. Post this, the contingent liabilities for the public sector will be published on a consolidated basis by the Treasury in the Whole of Government Accounts (WGA).

Figure 7 Guarantee issuance process in UK

Source: Contingent liability approval framework, HM Treasury

6.1.3. British Columbia province, Canada

Institutional Framework

The Minister of Finance is authorized to grant the final approval to federal government loan guarantees in Canada. Apart from the Minister of Finance, the Deputy Minister of Finance and the Executive Director of the Risk Management Branch of the Ministry of Finance have the authority[6] to approve guarantees.

Executive Director of Risk Management Branch (RMB) reviews guarantees and indemnities and has the authority to provide approval on behalf of the government. The RMB maintains record of all guarantees and indemnities that Chief Financial Officers monitors and manages the portfolio of guarantees and indemnities given by their minster on behalf of the government.

The government guarantees include:

- Guarantee of the borrowings and certain loans of agent enterprise Crown corporations and other government business enterprise
- Guarantees, wither collective or specific, of the loans of certain individuals and companies obtained from the private sector
- Insurance programs of the government
- Other explicit guarantees

Legal and Policy Framework

Section 60.2 (2) of the Financial Administration Act states that the Minister, with the Governor in Council's authorization, can enter into a contract on behalf of Her Majesty, any contract that is necessary to promote the stability or maintain the efficiency of the financial system in Canada, it can include a contract to guarantee any debt, obligation or financial asset of an entity.

Section 29 of the Financial Administration Act (FAA) states that a guarantee can be given under the authority of Parliament by or on behalf of Her Majesty for the payment of any debt or obligation, any amount required to be paid by the terms of the guarantee can be paid out of the Consolidated Revenue Fund.

In British Columbia, the Core Policy and Procedures Manual (CPPM) policy applies to guarantees and indemnities given by or on behalf of the government. The objectives of the policy are to ensure that the government manages and controls the contingent liabilities created by issuing guarantees through consistent approval, recordkeeping, monitoring and payment processes, public reporting of guarantees and indemnities given by or on behalf of government is timely and accurate and underlying risks associated with guarantees and indemnities are assessed, understood and mitigated to the extent possible.

Guarantee issuance process mapping

The ministry involved seeks the advice of legal counsel in order for proposed wording of indemnities and guarantees. Post which, it seeks the advice of Risk Management Branch (RMB) for assessment of risks involved in issuing the proposed guarantee or indemnity. After this, the request is submitted to the RMB for purpose of review and prior written approval of the proposed guarantee and indemnity. All the proposed guarantees and indemnities (except for cases where power to approve a guarantee or indemnity is conferred in an enactment other than the FAA and a different approval process is set out in the related enactment) that require a prior written approval are submitted to the Executive Director of the

[6] *Authority to approve guarantees and indemnity - http://www.bclaws.ca/civix/document/id/complete/statreg/153_2018*

RMB for review. The Executive Director of the RMB has the authority to approve the proposed guarantees and indemnities where: (i) the underlying risk has been assessed (ii) guarantee or indemnity wording, and the terms of instruments in which the guarantee or indemnity is included, are satisfactory to the ED (iii) the guarantee or indemnity is necessary for successful completion of an approved government activity or program and (iv) in the opinion of the ED of RMB whether the liability is not greater than the liability that would be imposed on government in the absence of guarantee or indemnity or any incremental contingent liability is reasonable for the activity or program, or results in a greater benefit to the taxpayers. Post the review, if the ED of RMB does not have the authority to approve the proposed guarantee or indemnity, then it is approved by the Minister of Finance or his Deputy.

6.1.4. Brazil

Institutional Framework

National Treasury of Brazil within the Ministry of Finance is tasked with execution and reporting of fiscal policy, public debt management, government asset management, supervision of the account of subnational entities and structuring and monitoring of infrastructure projects. Depending on the activities of the National Treasury, there can be different sources of contingent liabilities. The source of explicit contingent liabilities is mainly through government guarantees while implicit contingent liabilities may occur due to a variety of trigger events.

Government guarantees in Brazil are considered as a financial tool to reduce cost of borrowing/ funding for eligible borrowers and to enhance lending. The Debt Management Department (DMD) within the National Treasury is responsible for monitoring and reporting of government guarantees. The assessment and recommendation on government guarantee is provided by the DMD or by the State and Municipalities Department (SMD) of the National Treasury depending on the type of borrower. If the borrower is a state-owned company, the DMD is responsible for the approval and if it is a sub-national entity then the SMD is responsible for the approval. In Brazil, only two categories of borrowers are legally eligible to apply for a government guarantee: State-owned companies (SOEs) and sub-national entities (SEs) – states and municipalities.

Legal and Policy Framework

The legal framework for providing government guarantees in Brazil is based on Fiscal Responsibility Law (FRL) and Senate Resolutions No 43/2001 and 48/2007. The Senate Resolution No 48/2007 limits the outstanding guarantee issued by the Federal government (FG) to maximum of 60% of its current net revenues on an annual basis. For states, guarantees are limited to 22% of the net current revenue.

The Federal government can provide guarantees to the subnational entities (SEs) if the SE has a credit rating of B- or higher according to the National Treasury methodology and its resources from the States and Municipalities Participation Fund (SMPF) is equal to or higher that the total amount of the loan, in order to be used as a counter-guarantee. The SMPF consists of tax revenues directly collected and resulting from Brazilian Constitutional transfers. The guarantor will be authorized to retain this and use the respective amount to repay the overdue debt.

As per the ordinance, the Swedish government has instituted a guarantee scheme that will guarantee up to Swedish Krona (SEK) 1500 bn of debt instruments issued by eligible institutions. Swedish government guarantees are only available to Swedish banks and mortgage institutions. There are certain restrictions on the institutions that can apply for guarantees such as capital adequacy requirements of at least 6% Tier I capital and at least 9% Tier I and II combined capital, limit on guarantees for each institution, remuneration to senior management, etc.

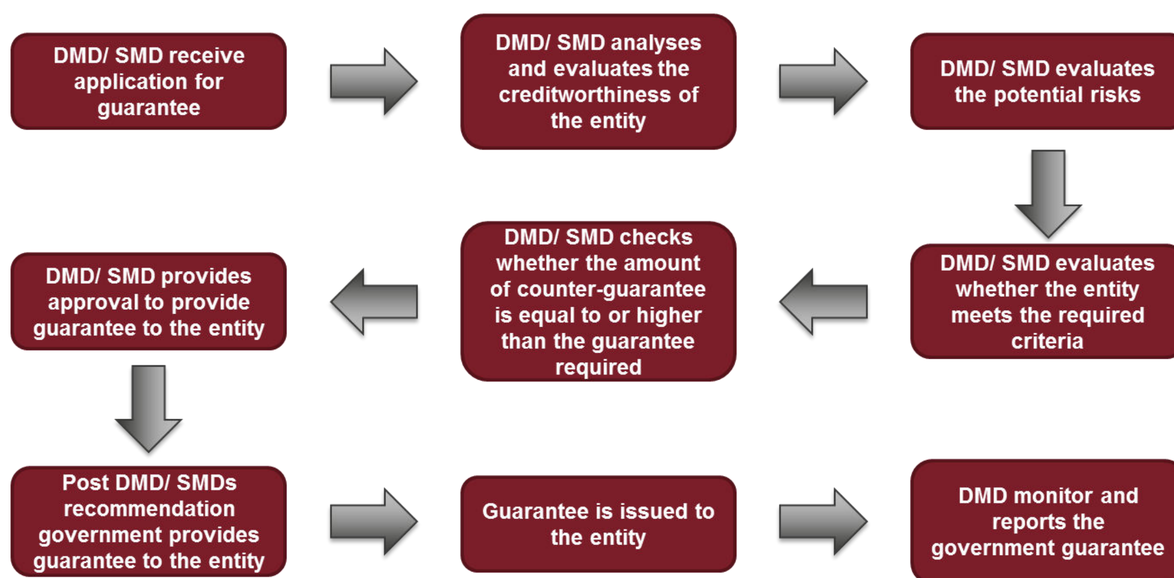
Guarantee issuance process mapping

The counter-guarantee mechanism ensures that at the end the borrower itself bears the credit risk, instead of the guarantor. This is important from the point of view that the government provides a full guarantee but does not charge any sort of fee/ commission. From the FG perspective, the counter guarantee mechanism minimizes the need to allocate resources for monitoring and controlling the guaranteed entity. When the borrower is a state owned company, there can be a variety of assets and receivables that can be accepted as counter-guarantee. In case of default from the borrower, the guarantor repays the debt using the funds from the SMPF in case of SE's default or in case of an SOE's

default, the guarantor repays the debt using assets or receivable that were accepted as a counter-guarantee from the borrower.

After receiving the application for guarantee, DMD/ SMD analyses the credit worthiness of the borrower entity and evaluates the potential risks. DMD/ SMD evaluates whether the necessary requirements/ criteria for provision of guarantee are satisfied and the counter-guarantee provided is at least equal to or more than the guaranteed amount. After the required criteria is satisfied, DMD/ SMD provides its approval for issuing of guarantee. The process for monitoring and reporting of guarantee issued is exclusively done by DMD.

Figure 8 Brazil guarantee issuance procedure



Source: CRIS Analysis, Role of Public Debt Managers in Contingent Liability Management, Organisation for Economic Co-operation and Development (OECD)

The outstanding guarantees granted by the National Treasury amounted to BRL 233.4 bn in 2017. As of December 31, 2017, the balance of guarantees including funds was BRL 301.0 bn representing 41.4% of Current Net Revenue (CNR) which is well below the prescribed limits of 60% of CNR. The federal government paid guarantees amounting to BRL 4.06 bn in 2017.

6.1.5. Australia

Institutional Framework

On the basis of the Public Governance, Performance and Accountability Act, 2013 (PGPA), the Finance Minister has the authority to issue guarantees. Also, officials within the non-corporate Commonwealth entities (NCEs) have been sub-delegated the power of issuing guarantees by their accountable authorities (secretary of a department of state or parliament or a body established by the law of parliament) on behalf of the Commonwealth.

Legal and Policy Framework

As per Section 60 of the Public Governance, Performance and Accountability Act, 2013 (PGPA), The Finance Minister is authorized to grant an indemnity, guarantee or a warranty on behalf of the Commonwealth. This authority can be further delegated by the Finance Minister to accountable authorities of non-corporate Commonwealth entities (NCEs). A guarantee, as defined in the PFPA Act, is a promise in which the Commonwealth assumed responsibility for the debt, or performance obligation of, another party on default of its obligation.

As per the act, NCEs can enter into arrangements that provide guarantees on behalf of the Commonwealth to other parties. An official can grant a guarantee only when the delegate is satisfied that the probability of the event occurring is very small (< 5% chance of occurring) and the exposure if the event occurs is less than $30 million. If a guarantee is beyond the scope of delegation then it can only be granted by the Commonwealth if an approval is received from the cabinet or the National Security Committee of Cabinet (NSC) or through a written determination of the Finance Minister. The NCEs cannot enter into a guarantee agreement with other NCEs as they are a part of same legal entity, but they can enter into such agreement with other corporate Commonwealth entities due to their separate legal personality from the Commonwealth.

Guarantee issuance process mapping

Before a guarantee is issue, the officials of accountable authorities should ensure that the risk management arrangements are as per the complexity and the potential costs of the guarantee are in place and the legislative requirements under the PGPA Act are satisfied. The officials need to perform the necessary due diligence regarding the creditworthiness of the borrower requesting for guarantee, determining the probability and the amount of contingent liability.

If the NCE cannot issue a guarantee if the contingent liability falls outside the scope of the directions of the Finance Minister’s delegation to accountable authorities. Once a request is received from the NCEs responsible minister or official regarding grant of guarantee, the official should write a formal request to the Finance minister to issue the guarantee. The request letter should mention the reason why the accountable authority cannot issue the guarantee, reason why guarantee is required and a grant request form.

Entities that require Finance Minister’s approval should contact their Agenda Advice Unit (AAU) and shall provide the necessary documents on legal advices received, risk assessments performed and draft agreements, contracts or other relevant documents. The Finance Minister provides its approval to issuance of guarantee via a letter to the responsible official from the NCE.

6.1.6. New Zealand

Institutional Framework

The New Zealand Debt Management is responsible for issuing guarantee and indemnities. The task is delegated by the Minister of Finance to the Secretary to the Treasury and then it is further sub-delegated to the New Zealand Debt Management. Also, a Crown entity can issue a guarantee only through proper regulations, joint Ministerial approval, its own Act or an exemption in Schedule I & II of the Crown Entities Act. Regulation 14 of the Crown Entities Act, authorizes a crown entity to give guarantees and indemnities that rise in the ordinary course of its operations.

Legal and Policy Framework

The Public Finance Act, 1989 establishes a legal framework for the use of public financial resources and details the authorities and controls related to giving of guarantees and indemnities. The statutory powers contained in the Public Finance Act are vested in the Minister of Finance, who in-turn can delegate these tasks to the Secretary to the Treasury, with further sub-delegation to specified personnel (Head) within the New Zealand Debt Management. Pursuant to the State Sector Act, 1988, the Minister of Finance can delegate his functions or powers under any act, except the power to raise a loan under the Public Finance Act, to the Secretary to the Treasury.

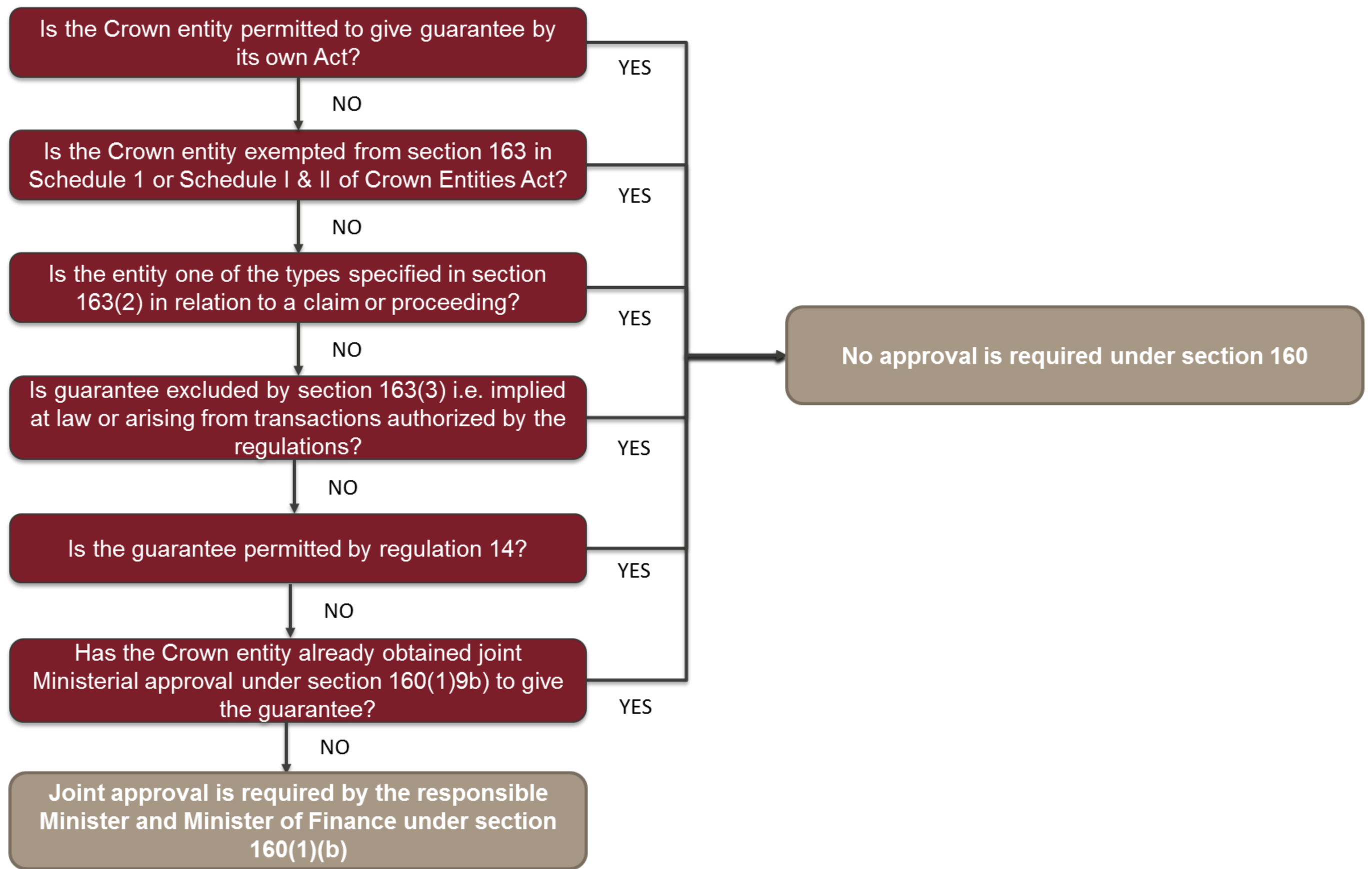
Apart from the Public Finance Act, the Crown Entities Act, 2004 (Section 163) regulates the guarantees and indemnities given by the Crown entities and that potentially present a direct financial risk to the Crown.

Guarantee issuance process mapping

The guarantees can be given by the Crown only when it is authorized by any Act. A Minister or a Department can give a guarantee, on behalf of the Crown, in writing, to a person, organization or government if it necessary or expedient in the public interest to do so. The terms and condition on the guarantees is given can be provided by the Minister or the Department. If the contingent liability of the Crown under a guarantee exceeds $10mn, the responsible minister publish in the Gazette, a statement stating that the guarantee has been issued and present the statement to the House of Representatives. This statement may contains the details regarding the guarantee that the responsible minister considers appropriate. Money paid by the Crown under a guarantee given constitutes a debt due to the Crown from the person, organization or the government for which the guarantee was given.

The following flow chart assists in determining whether a Crown entity requires approval to give a guarantee or indemnity.

Figure 9 Sequence of criteria to determine whether a Crown entity requires approval to give guarantee



Source: Crown Entities Act, 2004, New Zealand Treasury

A Crown entity that requires joint Ministerial approval under section 160(1)(b) to give a guarantee that is not permitted by regulation 14 should initially submit a request to its monitoring department with details on business need and how risks associated with the guarantee will be managed.

6.1.7. South Africa

Institutional Framework

South Africa's contingent liabilities are both explicit and implicit and are mainly from the government guarantees, obligations from PPP contracts and state insurance schemes. The Asset Liability Management (ALM) Division of the National Treasury under the Ministry of Finance is responsible for management of contingent liabilities. The Strategy and Risk Management sub-department within the ALM Division is tasked with the aforementioned activities.

The ALM division determines the amount of government's contingent liability exposure and is involved in activities such as identification and evaluation of risks and provides recommendations on mitigating these risks. It also evaluates the application for guarantees as well as monitoring of the existing government guarantees exposure. It provides advice and recommendation to the Fiscal Liabilities Committee (FLC) and the Minister of Finance on whether to approve or reject the issuance of guarantee.

Fiscal Liabilities Committee (FLC)

FLC was established by the National Treasury with a primary mandate of making recommendation to the Minister of Finance on approval/ concurrence with the issuance of guarantees or not. FLC consists of heads of the Economic Policy, Public Finance, Intergovernmental Relations and the ALM division along with representatives from the legal department. The Director Corporate Governance in the ALM departments acts as the secretariat.

Legal and Policy Framework

The management of contingent liabilities in South Africa is governed by the Public Finance Management Act, 1999 (PFMA). Chapter 8 within the PFMA deals with the issuance of loans, guarantees and other commitments.

Section 66 of the PFMA empowers Government and the public entities to borrow money, issue guarantees, indemnities and securities that bind the National Revenue Fund, provides restrictions on borrowings, guarantees and other commitments and states that the guarantees can be issued with the concurrence of the Minister of Finance subject to conditions imposed by the Minister of Finance.

Section 70 of the PFMA stipulates that a cabinet member with a written concurrence of the Minister of Finance (approval) may issue a guarantee, indemnity or security that binds the National Revenue Fund or a National Public entity. The Cabinet member must provide the Minister of Finance required relevant information regarding issuance of guarantee and the required financial commitment.

Guarantee issuance process mapping

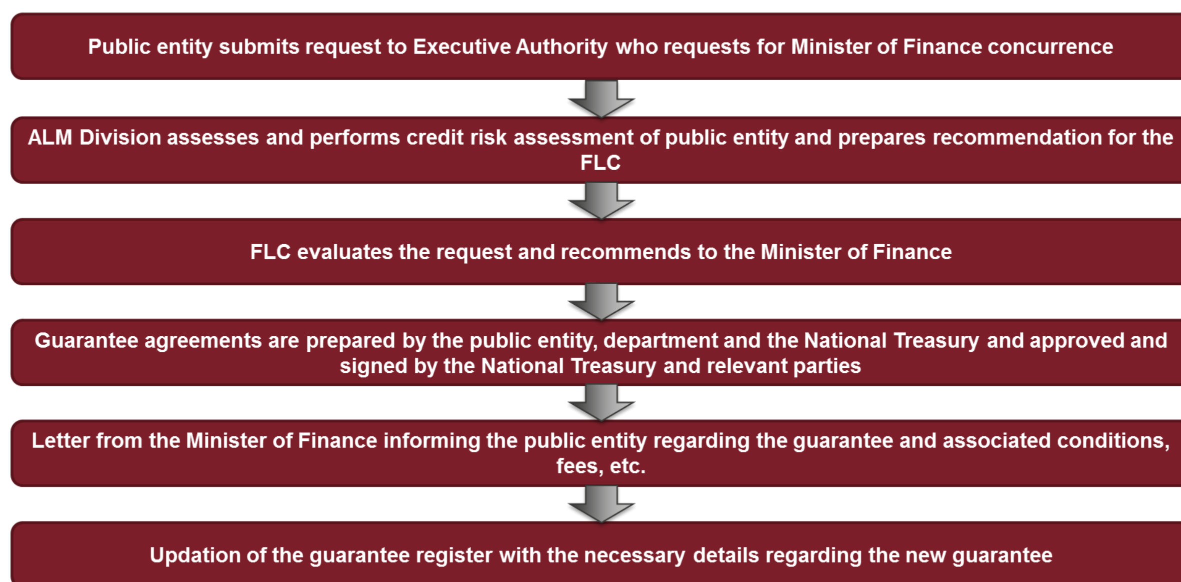
- Public entity submits a request for a guarantee to the responsible minister. Post the approval from the responsible minister, the request is forwarded to the Minister of Finance to concur with the issuance of guarantee
- The request submitted should include business profile of the applicant, proposal, rationale, financial analysis, impact of the activity to be supported by guarantee, industry analysis, legal implications, etc.
- ALM Division assesses the application along with performing an evaluation of creditworthiness of the public entity. ALM Division prepares a recommendation and submits it to the FLC along with the supporting documents. The request will be presented in a FLC meeting.
- FLC will evaluate and deliberate all requests. The status of the portfolio will also be presented detailing the level and the quality of exposure. After discussion and deliberations, the FLC will take a

decision on whether to support or reject the application. Post this a memorandum is prepared and sent to the Minister of Finance along with their recommendation

- If the FLC approves the request, the public entity and the relevant department in consultation with the National Treasury prepares legal documentation. After finalization, these documents will be approved and signed by the Executive Authority. After approval from Executive Authority, the documentation is submitted to Minister of Finance for concurrence to issuance of guarantee
- After approval from the Minister of Finance, a letter is submitted to the public entity mentioning/ detailing the conditions attached to the guarantee and the applicable one-time administrative fee and the annual guarantee fees to be paid
- Post this, the guarantee is recorded in the guarantee register with the necessary details.

The issuance process followed in South Africa is demonstrated in *Figure 9*

Figure 10 Guarantee issuance process South Africa



Source: National Treasury, South Africa, Role of debt manager in contingent liability management, OECD

6.1.8. Iceland

Institutional Framework

Ministry of Finance and Economic Affairs (MoFEA) is tasked with the responsibility of management of domestic and foreign central government debt. On behalf of MoFEA, as per an agreement signed in October 2007, the Central Bank of Iceland (CBI) will undertake the tasks of managing government debt. CBI will also, as per the agreement, manage the government guarantees and on-lending of government funds. Government Debt Management (GDM) department within the Treasury and Market Operations (TMO) of CBI manages the government guarantees. Within the GDM the government guarantees are managed by the State Guarantee Fund (SGF).

Legal and Policy Framework

As per Law on State Guarantees No 121 enacted in 1997, SGF was established as a separate entity. The government contingent liabilities originate from laws passed by the Icelandic parliament, state-owned enterprises (SOEs) and contractual obligations (commitments under the PPPs, government pension obligations, etc.). As per the act, the Treasury cannot provide guarantees higher than 75% of the financing need and can charge a risk premium in the range of 0.25-4% of the principal amount of guarantee annually throughout the credit period. Apart from the risk premium, the guarantee recipient also has to pay a service charge in accordance with a schedule of charges set by the Ministry of Finance.

MoFEA issues government guarantees on the basis of a special legislation that must go through the Icelandic Parliament at each instant. But, before a bill is resented to the parliament for approval, the SGF should complete its due diligence which includes creditworthiness of the borrower, assessment of collateral offered, impact of competition in the respected field, etc. Government guarantees also originate from the obligations of Treasury's institutions and companies such as National Power Company (NPC) and Housing Financing Fund (HFF) and contractual obligations of government and contingent liabilities in PPP projects that involve government support. In Iceland, government guarantees originate mainly from SOEs and are mainly credit guarantees.

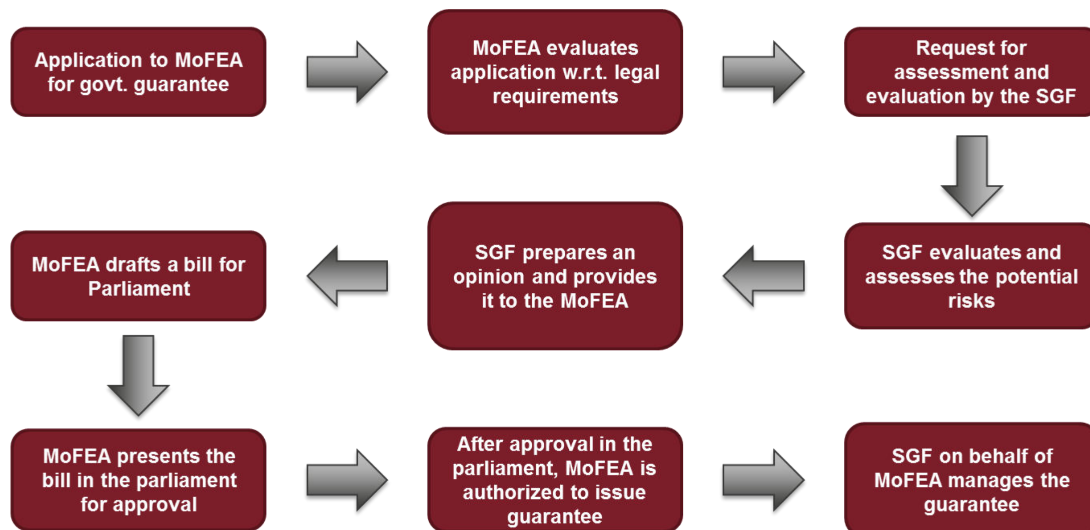
Guarantee issuance process mapping

- A potential government guarantee can be from an application for a government guarantee to the MoFEA by a non-governmental party, a bill presented to the parliament by a parliamentarian or government minister and a bond issuance or borrowing by an SOE, previously authorized by the National Budget
- For a non-SOE party applying for government guarantee should submit a detailed report on how the borrowed funds will be utilized with a transparent operational plan, certificate of encumbrances concerning the assets to be pledged, financial statements, request for assessment and examination, etc.
- Before submitting a bill before the parliament, SGF should submit an opinion on assessment of creditworthiness of the borrower, assessment of need for credit provisioning for guarantees issued, assessment of collateral offered for guarantee, impact of guarantee on competition, market value of applicant's assets that are pledged as collateral, value of guarantee for this project, risk taken by the Treasury, etc.
- Cost related to management of guarantee by SGF is recovered through fees charged for the guarantee

- Depending on the SGF opinion and risk assessment, a decision will be taken on whether to issue the guarantee or not. Here, the role SGF is to assess the risk involved, while the MoFEA explains that risk to the parliament when the bill of legislation is presented in the parliament

The process for issuance of guarantees in Iceland is as explained in the figure below:

Figure 11 Issuance of guarantees in Iceland

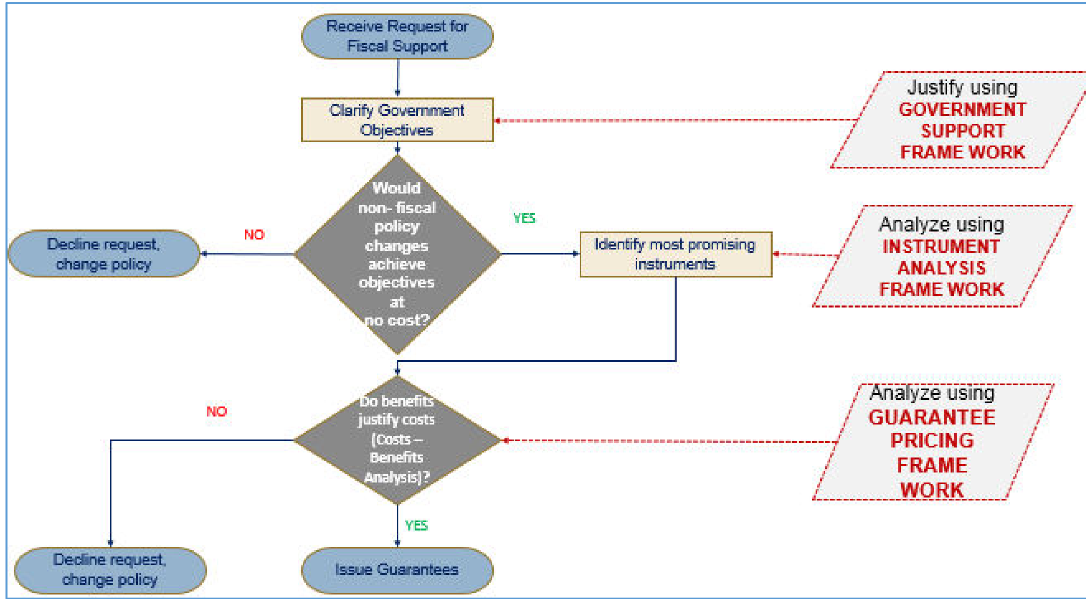


Source: State Guarantee Fund (SGF), Role of debt managers in contingent liability management, OECD

6.2. Framework to Evaluate Issuance of New Guarantees by State Governments

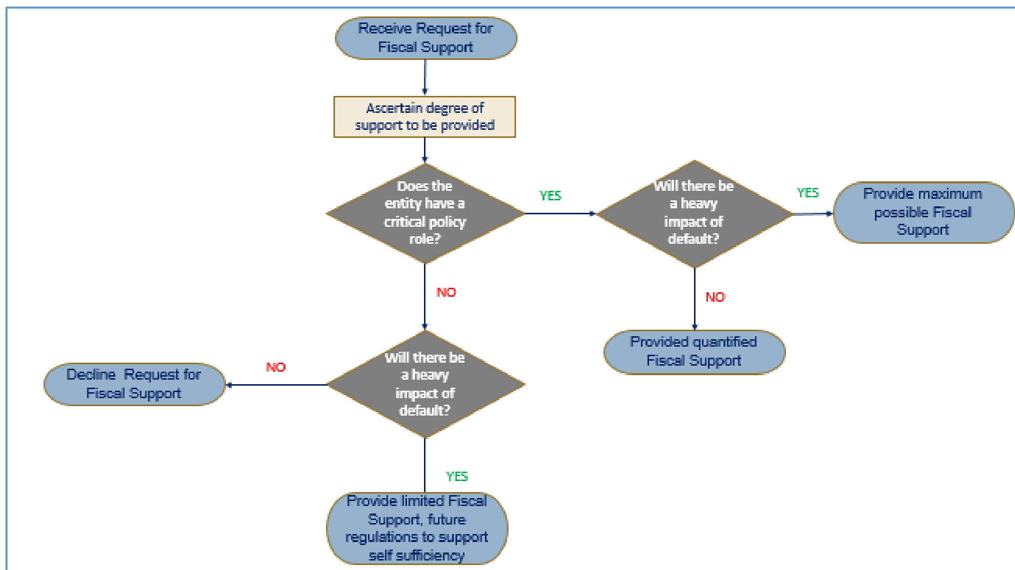
All contingent liabilities if appropriately targeted and managed can provide a useful role in lowering the credit costs of otherwise capable state institutions, crowd in private sector investments by showcasing confidence in the underlying demand drivers of revenue in PPP projects and achievement of socio-economic objectives of a state. They could be used in case of market failure (for say infrastructure development in relatively poorer parts of state) or to achieve income redistribution or access to markets. This is governed by government's stated position on guarantees to meet policy priorities. Decisions on guarantees should be evaluated to see if the government objective cannot be met without it and if they are the most cost efficient method of providing state government support (refer Figure 11 Evaluation Framework for Issuance of Guarantees)

Figure 12 Evaluation Framework for Issuance of Guarantees



Source: CRIS Analysis

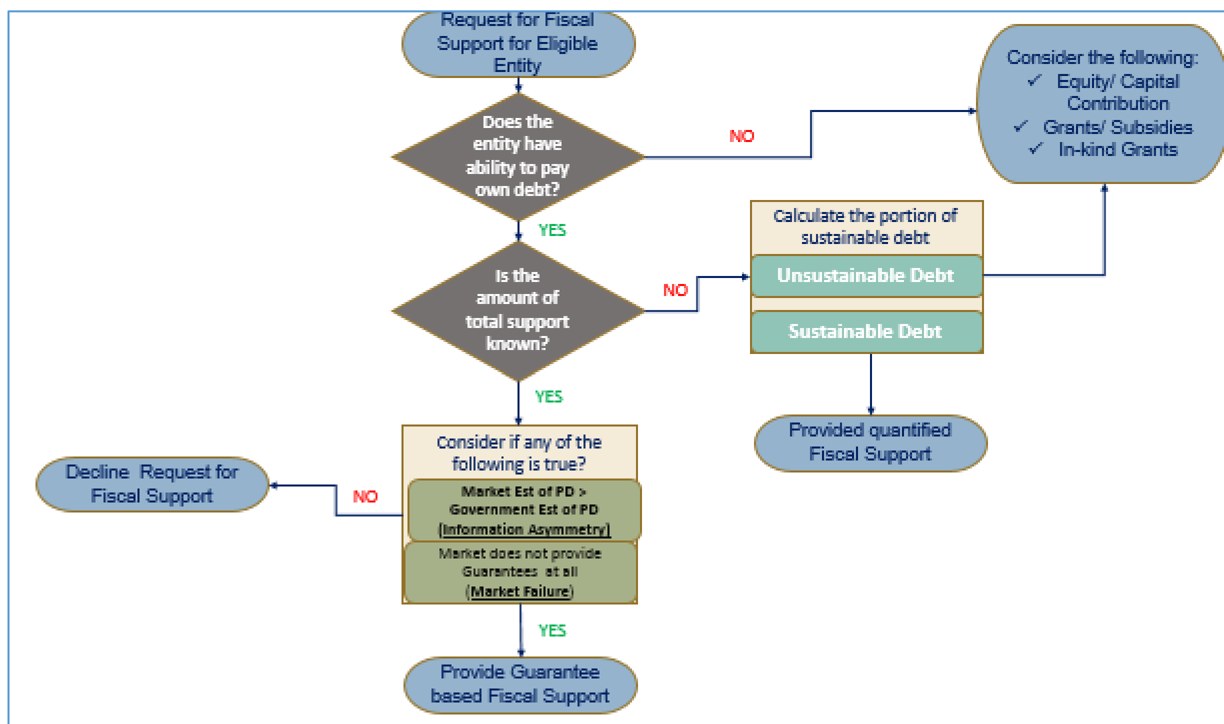
Figure 13: Government Support Framework



Source: CRIS Analysis

In the first instance, an evaluation may be carried out on whether the entity merits government fiscal support. It should be assessed whether the entity has an important policy role- given its strategic importance and criticality of the sector or is it an ordinary commercial entity. Here it also is important to assess the moral obligation of the state government given the public perception of its backing to the entity and the stated posture of the state government. In addition, the implications of the entities default, along with any domino/ripple effect through the state's ecosystem may be considered. In this manner, an assessment of whether the entity is worthy of receiving fiscal support may be assessed (refer Figure 12)

Figure 14: Instrument Analysis Framework



Source: CRIS Analysis

Once the entity is deemed appropriate to receive fiscal support, the next step is to evaluate the appropriate expenditure instrument. Guarantee as an instrument is appropriate, only if the entity is other-wise able to service its own obligation and only in certain circumstances will require external support from the government. In the event that it has no revenue sources of its own, it may be considered that alternative instruments like equity or capital contribution or grants/ outright subsidies may be more appropriate rather than guarantees. Only then should a guarantee be issued, as the most cost-effective mechanism (Refer Figure 13).

All off budget borrowing entities could consider the prescriptive questionnaire below in order to arrive at the correct instrument, quantum of fiscal support, tenor and fiscal cost of instrument provisioning. Refer Table 27 .

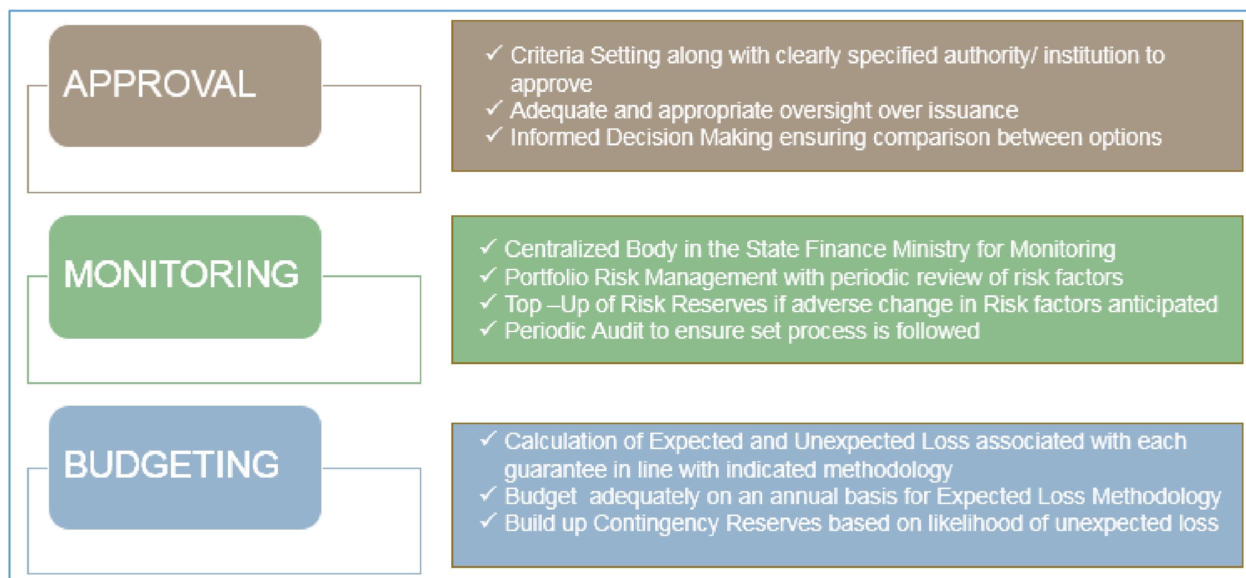
Table 27: Prescriptive Questionnaire for Guarantee Approval

Rationale	
Query 1:	What is the Problem being solved? Why is government intervention necessary?
Query 2:	What are the alternatives for government intervention?
Query 3:	Why is contingent liability the best measure to be employed?
Exposure	
Query 1:	What is the maximum size of the contingent liability if any?
Query 2:	Why is this size necessary? If there is no explicit maximum, please explain why?
Query 3:	What is the maturity of the contingent liability if any? Specifically when does it cease to exist?

Query 4:	Why is this maturity necessary? If there is no explicit maturity, explain why?
Query 5:	If prior to maturity, if the contingent liability is no longer value for money, what is the exit option?
Risk Return Analysis	
Query 1:	What are the triggers for potential crystallization?
Query 2:	What are the likelihood of complete crystallization? And over what time frame?
Query 3:	What is the distribution of possible losses over the life of the contingent liability? Loss of A with
Query 4:	What is the expected loss associated with the contingent liability
Query 5:	How do the risks compare to the returns on the contingent liability?
Risk Management and Mitigation	
Query 1:	Who will manage the risks associated with the contingent liability? What is the governance process
Query 2:	Is the exchequer being adequately compensated for bearing the risk? For example guarantee fees,
Query 3:	How should the exchequer guard against residual risk? For example, contingent fund, hedging etc.?
Affordability	
Query 1:	If the contingent liability is crystallized, to what extent is would it be possible to meet the required
Query 2:	What is the ratio of the contingent liability's expected loss to the department's available resources?
Query 3:	If the contingent liability is crystallized, how would it affect department's borrowing and debt

7. Reporting and monitoring framework for guarantees

Figure 15 Reporting and monioring framework for guarantees



Thus Contingent Liability Management should be an ongoing rigorous process. There should be a clearly defined policy and implementable criteria governing the issuance of guarantees. This issuing body should be housed within the State Finance Ministry which should periodically place the status of its approved issuances both to the Administrative and Legislative authorities. This will ensure the oversight of the assessment of risks in a systematic manner and incentivize timely recognition of potential losses if any. It will also ensure scrutiny that applies to normal expenditure or borrowing decisions that apply to the state government.

This body should be responsible for periodic review of the risk factors underlying the contingent liabilities. This will ensure an up-to date risk bucketing of the labilities, adequate and timely budgetary provisioning to avoid unexpected fiscal shocks to the budget crowding out other essential or productive expenditures. The topping up of reserves should allow for a buffer, should any unexpected contingencies arise. An audit mechanism should be in place to ensure that these set process are followed in letter and spirit.

The budgeting process should include a periodic evaluation of the guarantees. The reported debt should include the aggregate of expected losses on the contingent liabilities. This should prevent arbitrage opportunities to state government and incentive full and complete disclosures of the borrowings made. In addition, the annual outgo will be anticipated and budgeted upfront, rather than the government requiring unplanned approvals for additional budgetary resources.