POWER

Party to end, but who will foot the bill?

January 31, 2011

Discoms at negative EBITDA; losses have doubled since FY09

While Discoms reporting net losses is common, a select few have reported EBITDA losses leading to higher borrowing for repaying even interest and loan installments. Till FY09, of the ~INR 2 tn commercial loans (banks/FIs/bonds) extended to the power sector, share of Discoms was ~INR 1 tn, which, in our estimate, has doubled over the past 18 months. However, adjusting for capex-related loans over the past two years, we estimate loss funding by banks/FIs to be ~INR 500 bn. Our interactions with SEBs indicate that annual losses of three SEBs alone which have been funded via loans are estimated at ~INR 300 bn.

Government guarantees to incremental SEB loans: A myth

Contrary to perception, most loans to SEBs are not backed by state government guarantees; hence, for most unsecured loans, banks do not have recourse. Also, based on the budget statements of states, we believe SEB losses are also not part of a state's fiscal deficit. State governments have been increasingly reluctant to issue fresh guarantees for fear of denting their fiscal targets.

SEBs resorting to ever-greening of loans; to stay afloat

SEBs are staying afloat and have managed to avoid bankruptcy so far by resorting to knee jerk measures like short-term loans/marginal tariff hikes, receiving nominal guarantees from state governments and additional borrowings to service existing loans. However, a few banks have already started refuting incremental loans to SEBs, to curtail their exposure to unsecured debt.

Defaults imminent, but no immediate threat

With elections around the corner in Tamil Nadu, West Bengal and Kerala in 2011 and in Uttar Pradesh and Punjab in 2012, we expect state support to continue to tide over immediate crisis. Simultaneously, high cost power purchases and limited load shedding may continue unabated to impress the vote bank. However, post elections as government support recedes, SEBs with negative net worth, rising losses and no guarantor, will find it increasingly challenging to fund their losses. Any "spoke in the wheel event" may stop this ever-greening process; ergo, banks will stop additional lending to SEBs, cascading into further defaults by Discoms on existing loans and on payments to the power value chain.

Outlook: More pain before gain

The silver lining is that only a few states have severe losses while solutions are varied and simple, but require strong political will. In addition, if tariff hikes, privatisation and loan restructuring are undertaken, most NPA issues will be addressed. Until reform/restructuring measures are announced, we believe investors are likely to factor in certain earnings/valuation impact by anticipating fall in sustainable RoEs caused by likely bad debts/payment defaults. In addition, with Discoms apprehensive of buying long-term electricity above INR 3.5-3.8/kWh, further increase in bid tariffs will delay the PPA signing process. This, in turn, will impact capex spending in the sector, or developers would earn lower IRR if they accept current tariffs. These, we believe, will lead to de-rating on the P/BV multiple. However, the speed and quantum of action will determine the eventual pain the financial system will have to undergo in the interim.

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SEBs in the red at EBITDA level

While it was common for SEBs to report net losses and negative net worth even before FY09, escalating power purchase costs and lack of proportionate tariff hikes led to a few Discoms reporting losses at the EBITDA level in FY09. This cascaded into Discoms finding it difficult to meet the interest and principal component repayment. Ergo, SEBs resorted to further loans to fund capital servicing needs.

Table 1: Major Discoms with negative EBITDA as of FY09

State (Discom)	FY07 EBITDA (INR mn)	FY08 EBITDA (INR mn)	FY09 EBITDA (INR mn)	FY09 EBITDA-Interest (INR mn)	FY09 Cash profit on revenue and subsidy recd basis
Rajasthan	5,290	(11,390)	(46,340)	(62,080)	(64,860)
Uttar Pradesh	(27,940)	(28,700)	(30,830)	(36,670)	(54,830)
Madhya Pradesh	(5,270)	(13,070)	(22,320)	(25,120)	(45,380)
Andhra Pradesh	11,390	8,000	(17,440)	(25,070)	(25,290)
Tamil Nadu	4,560	(14,370)	930	(19,140)	(66,400)
Karnataka	7,600	7,280	(9,530)	(14,790)	(17,690)
Haryana	(1,080)	(3,360)	(7,830)	(13,050)	(13,940)
Jammu & Kashmir	(11,910)	(13,050)	(12,340)	(12,480)	(14,490)
Jharkhand	2,280	(3,450)	(3,820)	(9,300)	(1,690)
Bihar	140	2,970	(370)	(9,250)	(8,220)
Maharashtra	9,440	12,350	840	(7,040)	(34,600)
Uttarakhand	(1,450)	(2,400)	(3,030)	(3,800)	(3,460)
Punjab	(1,340)	1,420	40,370	29,510	(6,400)
Total	**(8,290)**	**(57,770)**	**(111,710)**	**(208,280)**	**(357,250)**
All India Total	**(2,760)**	**(15,560)**	**(45,880)**	**(162,840)**	**(348,690)**

Source: PFC Report, Edelweiss research

Current situation much worse

The trend of additional borrowing to fund losses is expected to have worsened financials of SEBs further, with FY11 annual losses estimated at INR 600 bn (based on our interactions with SEB officials) to have doubled FY09 levels of ~INR 340 bn. Now, with incremental losses rising at a faster clip and inadequate support from respective states, **servicing of interest and principal repayment of loans has reached a tipping point**.

Table 2: Status of losses & loans FY09 & FY11E

Financials (INR mn) State	Annual losses on subsidy basis FY09	Annual loss estimates FY11E	% change	Debt FY09	Debt estimates FY11E	% change
Tamil Nadu	(73,820)	(100,000)	35.5	215,020	400,000	86.0
Rajasthan	(78,310)	(115,000)	46.9	214,340	495,270	131.1
UP	(65,400)	(80,000)	22.3	46,940	186,940	298.3
MP	(31,240)	(20,000)	(36.0)	53,370	120,000	124.8
Karnataka	(13,830)	(20,000)	44.6	35,350	75,350	113.2
All India Total	(342,330)	(600,000)	75.3			

Source: PFC Report, Edelweiss research

Government guarantees to incremental SEB loans a myth

Contrary to perception, most fresh loans (excluding capex ones) extended to SEBs are without state government guarantees and largely unsecured. Barring Madhya Pradesh, few other large states we met had incremental loans either without or with marginal state guarantee. State governments are increasingly reluctant to issue fresh guarantees, since it dents their fiscal deficit targets. Consequently, a few banks have already started declining incremental loans to limit their exposure to such unsecured debt to SEBs.

Table 3: Snapshot of state's power finances as on FY09 **(INR mn)**

	Revenue A/c* Expenses	Fiscal deficit	Subsidy recd	Cash loss on subsidy recd basis
Rajasthan	13,820	65,490	10,520	64,860
Haryana	30,080	37,080	26,380	13,940
MP	15,480	53,720	9,440	45,380
TN	12,920	92,480	15,820	66,400
UP	15,950	205,570	15,820	54,830

**Subsidy is normally part of the revenue expenses of a government budget*

Source: RBI, Edelweiss research

Our interactions with a few state government officials indicated that **losses reported by SEBs do not form part of respective state's fiscal deficit**. Hence, the **aggregate state's fiscal deficit, which has already risen from INR 750 bn in FY07 to INR 2 tn in FY10, will be even higher**. Historically, most state governments provided guarantees for SEB loans. While the states are mandated to provide for these guarantees in their budgets, we believe there is limited clarity on the same.

Table 4: Fiscal deficit of states versus SEB losses as on FY09

State	GDP (INR bn)	Fiscal deficit (INR bn)	Fiscal deficit (%)	SEB losses (INR bn)	% of GDP
Rajasthan	2,017	65	3.2	(78.3)	(3.9)
Tamil Nadu	3,392	92	2.7	(73.8)	(2.2)
Madhya Pradesh	1,539	54	3.5	(31.2)	(2.0)
Uttar Pradesh	3,987	206	5.2	(65.4)	(1.6)
Andhra Pradesh	3,773	104	2.8	(30.1)	(0.8)
Haryana	1,826	37	2.0	(14.2)	(0.8)
Karnataka	2,719	94	3.4	(13.8)	(0.5)
Punjab	1,658	69	4.1	(6.4)	(0.4)
Maharashtra	6,383	162	2.5	(6.8)	(0.1)
Gujarat	3,314	104	3.1	1.3	0.0
West Bengal	3,540	127	3.6	3.5	0.1
Total	**34,148**	**1,113**			
All India	**49,332**	**1,517**			

Source: PFC Report, RBI, Edelweiss research

As of FY09, SEBs had borrowed INR 2 tn from banks/FIs/bonds comprising ~50% towards distribution companies and the balance to generation and transmission companies (Genco). As per RBI's recent bank credit data, the entire exposure of banks to the power sector catapulted from INR 1.2 tn in March 2009 to INR 2.4 tn in November 2010. Based on the estimated loans disbursed to Genco, Transco (based on capacity additions) and probable distribution capex (based on past three years' capex track record) we estimate banks/FIs/bonds to have funded at least ~INR 500 bn of Discom losses. We believe there is an upside risk to these numbers since incremental losses (for

FY10 & FY11) of only three SEBs (Tamil Nadu, Uttar Pradesh and Rajasthan) amount to INR 500-600 bn, based on our interactions with SEBs.

Table 5: Incremental unsecured commercial loans to Discoms

	March'2009	Nov'2010	Increase in loans
Loan by Banks to Power Sector All India	1,244	2,403	1,159
Less: All India generation asset backed loans disbursed over FY10 & FY11, from banks (excluding PFC & REC)			(457)
Net exposure to Discoms			702
Less: Asset backed incremental loans to Discoms (excluding PFC & REC)			(228)
Unsecured loans to Discoms in FY10			475

Source: RBI, PFC, REC, CEA, Edelweiss research

- **Recent RBI directive could act further woes to Discoms**

The outstanding loan book towards the power sector, at INR 2.4 tn, translates into a robust ~62% annualised growth rate. The corresponding overall non-food credit figures were INR 26 tn (as on FY09) and INR 33 tn (as on November 2010), up ~18%. Power, which accounted for ~4% of overall credit, currently accounts for ~7% of the credit. Because of this high growth in lending, the power sector accounted for 16% of incremental non-food credit since FY09. While select banks have already started denying loans to SEBs, we believe others could follow if they take a cue from the credit policy. The Reserve Bank of India (RBI), in its recent credit policy, has directed banks to go slow on loan disbursals as they were growing at a faster clip (24%) than deposits (~16%). While we understand RBI did not issue/raise any sector specific directives/concerns and the caution was largely considering the high inflation regime, but some of the reluctant banks could use this policy as a reason to refuse loans to fund losses.

Table 6: Banks' exposure to power sector **(INR bn)**

Particulars	Nov'2008	Mar'2009	Nov'2009	March'2010	Nov'2010
Power sector credit	1,082	1,244	1,623	1,878	2,403
Non-food credit	24,605	26,018	27,162	30,400	33,153
Power credit as % of total non food credit	4.4	4.8	6.0	6.2	7.2
Annualised growth rate since FY09					62.1
Change in power loans / Overall non-food loans					16.2

Source: RBI, Edelweiss research

- **SEBs managing to stay afloat by ever-greening of loans**

The incremental losses of three states (TN, Rajasthan and UP) alone over the past 18 months are expected to be in the INR 600 bn, which we believe were entirely funded through loans (banks, FIs and bonds). In other words, the entire operations of SEBs including working capital and costs are funded by drawing on further debt. As the debt has piled up, it is being serviced by resorting to additional borrowing. Thus, an ever-greening process has evolved, whereby older debt and interest obligations are met by borrowing from another lender. SEBs have been able to stay afloat and avoid bankruptcy so far due to knee jerk measures like short-term loans / marginal tariff hikes / nominal guarantees from state governments.

Table 7: SEB losses FY09 and FY11E

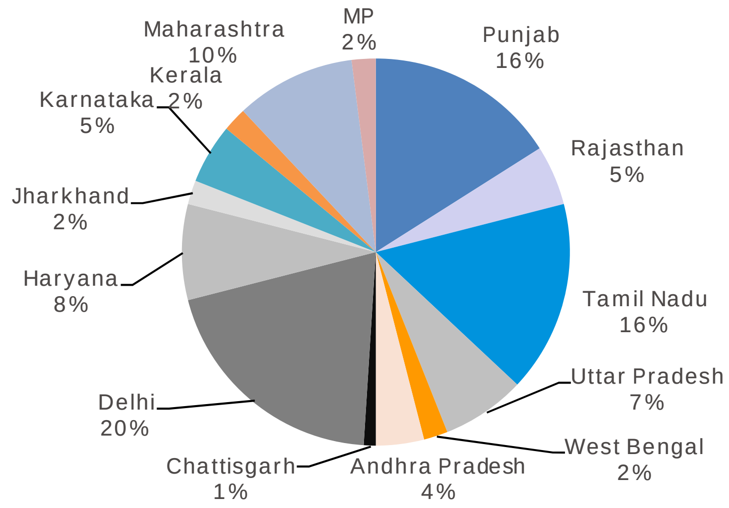
State	Financials FY08-09 (PFC Report)		Financials FY10-11 (estimates)	
	Losses annual (INR mn)	Debt (INR mn)	Losses annual (INR mn)	Debt (INR mn)
Tamil Nadu	(73,820)	215,020	(100,000)	400,000
Rajasthan	(78,310)	214,340	(115,000)	495,270
West Bengal	3,450	48,220	-	-
Andhra Pradesh	(30,130)	92,100	900	-
UP	(65,400)	46,940	(80,000)	186,940
MP	(31,240)	53,370	(20,000)	120,000
Karnataka	(13,830)	35,350	(20,000)	75,350

Source: PFC Report, Edelweiss research

- **Defaults imminent, but no immediate threat**

  With elections round the corner in Tamil Nadu, West Bengal, and Kerala (2011) and Uttar Pradesh and Punjab (2012) we expect support from states to continue for some more time. Simultaneously, high cost power purchases and limited load shedding may continue unabated due to political compulsions to impress the vote bank. Most of these solutions are temporary in nature with an aim to tide over immediate crisis as post elections, government support for this additional debt would recede and SEBs with negative net worth, rising losses, and no guarantor will find it increasingly challenging to find lenders to fund their losses. Any "spoke in the wheel event" may put a stop to this ever-greening process; ergo, banks will stop additional lending to SEBs, cascading into further defaults by Discoms on existing loans and on payments to the power value chain.

Chart 1: Major merchant buying States



Source: CERC, Edelweiss research

- **Players pinning hopes on government bail out**

  The 2003 experience of government bail out to avert a crisis seems to be the basis for the system running "smoothly" even under a deficit financing mechanism. Although the eventuality of a mass default and hence credit crisis situation is imminent, almost every SEB we met is pinning hopes on government intervention. The confidence stems from Government of India's action to help those in distress consistently in the past decade. Some historical bail-outs are as follows:

  - Farm loan waiver (~INR 650 bn).
  - One-time settlement scheme (~INR 400 bn) (refer Appendix II).
  - State government debt swap scheme (~INR 810 bn)

The key trend that we see in these government actions / interventions is the timing. We believe most of these decisions are taken around elections, either Lok Sabha or in an important state from a political perspective. Some of the other actions were simply to avert a huge catastrophe in the banking system.

In addition, there is also a belief that SEBs (being a quasi state government entity) will always be bailed out since if they are allowed to fail, the cascading impact will not augur well for the respective state government or the ruling government.

Considering the series of state elections in 2011 we do not expect any large scale politically difficult decisions within this short period. **We believe short-term / temporary measures like marginal tariff hikes, issuing nominal fresh guarantees, providing grants/soft loans will continue to avert the crisis in the short / medium term.**

However, we are certain the crisis will blow up as funding of losses cannot continue on a sustained basis without guarantees or concrete revenue enhancing measures. But, considering that funding of losses is a political decision, predicting the precise time of the crisis is difficult. But, we believe that involvement of banks (who are ultimately bound by a regulatory mechanism) will induce a systemic directive to stop credit which will result in a payment default (of either interest or principal) and trigger the crisis.

For e.g.: A possible chronology of events

1. A Discom defaults on a portion of a small bank's interest payment. The bank categorises the entire Discom's o/s loan as NPA, since the same gets highlighted at its head quarter, which then intimates RBI.

   RBI in turn seeks data of unsecured loans granted to SEBs across the banking system. Banks, perceiving a potential problem, stop issuing fresh loans and furnish data to RBI.

2. Based on the XIIIth Finance Commission report or the upcoming Shung Lu Committee report, the central bank sensing a systemic potential problem, tightens lending / interest norms for unsecured SEB loans.

Since either of these would result in a pause in fresh funds to SEBs, players will be forced to restructure and initiate measures to tide over the problem. **We believe at this stage respective state governments will resolve the crisis (with or without central government's help). However, the intervening period—the crisis becoming public and remedial measures/bailouts being arranged by the government—could become painful for generators, transcos, and banks in the form of payment defaults or extended working capital cycle, and postponement of capex program.**

Silver lining: Problem restricted to a few states and solutions aplenty

The good news is that the crisis has a silver lining. First, the problem is severe in only a few states and solutions are also simple, but implementation requires political will. Second, impact on the banks / FIs is unlikely to be on the entire ~INR 2.0 tn (INR 1 tn as of FY09 + new loans), as net of asset-backed loans, exposure to Discom's is estimated to be ~INR 500 bn (refer Table 6). In addition, if tariff hikes, privatization and loan restructuring are undertaken, most of the NPA issues will also be addressed. However, the speed and quantum of action will determine the eventual pain the financial system will have to undergo.

Solutions aplenty…..

While problems seem to be sizeable and reasonably widespread, solutions are relatively simple, straight forward, but exhaustive in terms of options. Some of which are detailed below:

1. Tariff hike.
2. Privatisation: PPP, JV, franchisee.
3. Increase in subsidy by state governments.
4. Issuing of bonds in lieu of loans – bullet repayment.
5. Financial restructuring package issued by government.
6. Loan to asset swap deal entered by the SEB with a generation / transmission entity or bank or asset reconstruction company.
7. A soft loan scheme / mechanism based on milestones.
8. Converting losses into regulatory assets as a one-time measure.
9. A bailout package similar to 2003 scheme.
10. State absorbing losses.
11. A combination of measures mentioned above.

Timing and extent of action will determine impact on sector

We believe, the impact will be negligible if various entities involved take preemptive / proactive measures. However, if they wait for the crisis to blow up and take a post facto decisions / measures, the impact on stocks / sectors will be sizeable. The extent and duration of impact will depend on how policy makers address the crisis and whether the measures undertaken will safeguard all players involved, especially banks, power developers, Discoms, and regulators.

But there will be more pain before the gain

However, till the reform / restructuring measures are announced we believe investors are likely to factor in certain earnings/valuation impact. If project developers start factoring in impact of bad debts then tariffs could rise. However, with Discoms apprehensive of buying long-term electricity above INR 3.5-3.8/kWh levels, any increase in bid tariffs will delay the PPA signing process, which in turn will impact capex spending in the sector. Thus, project developers will either delay their capacity expansion programmes or earn lower IRR if they accept current tariffs. These, we believe, will lead to de-rating on the P/BV multiple as investors will factor in lower sustainable RoEs or lower earnings due to provision for bad debts.

Risks to our call: Ever-greening continues; government takes over burden

Key risks to our call are that due to state elections politicians could force SEBs to continue with the current deficit financing / short-term measures. This could be further aided by states absorbing the loan burden (even in part) which could delay the reform implementation.

Appendix I: Summary of SEB/Discom interactions

Table 1: Demand supply scenario

State	FY11 Demand	FY11 Supply	FY11 Gap	FY11 Met through: Load shedding	FY11 Met through: Merchant purchase	FY12-13 Demand	FY12-13 Supply	FY12-13 Gap	FY12-13 Met through: Load shedding	FY12-13 Met through: Merchant purchase	FY12-13 New capacity
	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW
Tamil Nadu	11,000	8,000	3,000	1,000	2,000	12,830	11,200	1,630	1,000	630	4,000
Rajasthan	9,000	6,300	2,700	1,500	1,500	11,000	8,000	3,000	1,500	1,500	1,700
Andhra Pradesh	12,000	10,880	1,120	400	720	13,997	15,880	(1,883)	-	-	5,000
UP	10,000	7,600	2,400	1,700	700	11,664	10,600	1,064	364	700	3,000
MP	8,600	6,000	2,600	1,600	1,000	10,031	8,760	1,271	271	1,000	2,760
Karnataka	5,417	4,500	917	-	917	6,318	5,700	618	-	618	1,200

Source: Edelweiss research

Table 2: Status of finances

State	Financials FY08-09 (PFC Report) Losses annual (INR mn)	Financials FY08-09 (PFC Report) Debt (INR mn)	Financials FY10-11 (estimates) Losses annual (INR mn)	Financials FY10-11 (estimates) Debt (INR mn)
Tamil Nadu	(73,820)	215,020	(100,000)	400,000
Rajasthan	(78,310)	214,340	(115,000)	495,270
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UP	(65,400)	46,940	(80,000)	186,940
MP	(31,240)	53,370	(20,000)	120,000
Karnataka	(13,830)	35,350	(20,000)	75,350

Source: Edelweiss research, PFC report

Appendix II: Details of 2003 OTSS Scheme

In 2003, when government had intervened based on the Ahluwalia Committee report, nine odd CPSUs had combined accumulated outstanding debtors of ~INR 400 bn including ~INR 150 bn accumulated interest. The process of restructuring these debtors began in 2001 and measures were finalised in 2003. The reasons for the restructuring and subsequent reform programme **was under the principle that all SEBs henceforth should take commercially viable decisions and ensure that every state government accounts for its decisions by making it mandatory for budgetary provisions in case of less than stipulated tariff hikes.**

The primary features of the one-time settlement scheme (OTSS) under the Tripartite Agreement for old outstanding dues of SEBs payable to the Central Public Sector Utilities (CPSUs) are:

- Old arrears of SEBs of states amounting to INR 37,400 crore to 8 CPSUs and Railways as of September 30, 2001, would be settled as a one-time measure. This would be restated to exact financials post audit.
- CPSUs covered under the scheme are National Thermal Power Corporations (NTPC), National Hydro-electric Power Corporation (NHPC), Power Grid Corporation of India (PGCIL), North-Eastern Electric Power Corporation (NEEPCO), and Damodar Valley Corporation (DVC) under the Ministry of Power, Coal India (CIL) and its subsidiaries and Neyveli Lignite Corporation (NLC) under the Ministry of Coal, Nuclear Power Corporation of India (NPCIL) under the Department of Atomic Energy and Railways.
- **60% of the interest/surcharge amounting to INR 8,300 crore out of the above amount would be waived.**
- Thereafter, net outstanding dues of INR 29,100 crore would be converted into tax free Statutory Liquidity Ratio (SLR) bonds with interest rate of 8.5% per annum which will be repaid over a period of 15 years with a moratorium of five years.
- States will become eligible to receive incentive amounting to INR 6,100 crore over a period of four years on adhering to the terms and conditions of the agreement.
- State utilities will have to ensure payment of current bills through Letters of Credit and any default amount would be recovered through adjustment against releases due to the respective state governments on account of plan assistance, states' share of central taxes and any other grant or loan given to the state by way of debiting their accounts.

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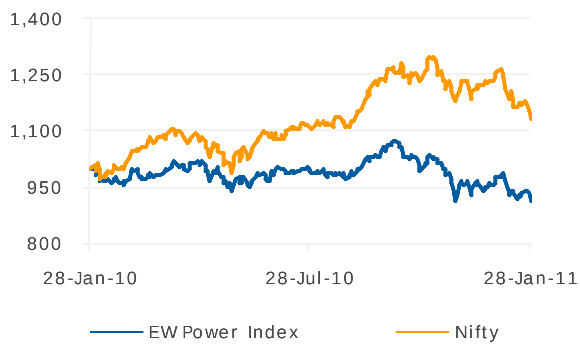

Recent Research

Date	Company	Title	Price (INR)	Recos
27-Nov-10	**Power**	Why merchant prices could stabilise at INR 4/kWh!. *Sector Update*		
25-Nov-10	**GMR Infra.**	Operating leverage to kick in; *Result Update*	47	Buy
16-Nov-10	**Marg**	Mixed bag; port PAT higher, EPC lower; *Result Update*	184	Buy
15-Nov-10	**Lanco Infratech**	Plant shutdown and lower EPC margins hit earnings; *Result Update*	63	Buy

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	Buy	Hold	Reduce	Total
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	> 50bn	Between 10bn and 50 bn	< 10bn
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Rating Interpretation

Rating	Expected to
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