Spotlight

Understanding Coverage Ratios in Project Finance

What is Loan Life Coverage Ratio?

The **Loan Life Cover Ratio (LLCR)** is a financial metric computed to evaluate the the ability of a borrowing company to repay an outstanding loan. Typically, the level debt that can be raised for a project is based primarily on its projected ability to pay interest and principal as they fall due, with a comfortable margin of safety. Lenders often require a minimum LLCR as part of loan covenants. The target LLCR helps set a baseline for acceptable debt service coverage, ensuring that the project has enough cash flow to meet its debt obligations. .

What is the purpose of the LLCR?

This is a useful measure for the initial assessment of a project's ability to service the loan over its loan tenor. It measures how many times the projected cash flow can cover the outstanding debt balance throughout the life of the loan. Unlike period-by-period metrics like the **Debt Service Coverage Ratio (DSCR)**, LLCR considers the time value of money by evaluating the project's ability to meet all debt obligations based on discounted cash flows, giving a more comprehensive view of the project's long-term risk profile.

How to calculate the LLCR?

The LLCR is computed by taking the **Present Value (PV)** of future cash flow over the life of the loan and dividing it by the outstanding debt balance at the period evaluated. By using the future **Cash Flows Available for Debt Service (CFADS)**, it makes the LLCR to be fundamentally a forward-looking ratio.

$$\text{LLCR} = \frac{\text{PV of future CFADS (loan life)}}{\text{Outstanding Debt}}$$

The ratio ignores the value of the tail but evaluates the safety buffer of cash flow to debt service over the entire period of the loan.

What are the variations of calculating LLCR?

If there is a **Debt Service Reserve Account (DSRA)** this should be subtracted from debt using the principal of net debt in corporate finance (cash is like negative debt). Other Reserve Accounts such as **Maintenance Reserve Account (MRA)** should not be included in the calculation of LLCR since they are intended for specific purposes and not liquid for debt repayment.

$$\text{LLCR} = \frac{\text{PV of future CFADS (loan life)}}{\text{Outstanding Debt - DSRA}}$$

It can be argued that free cash balances (i.e. not in any Reserve Accounts), should either be deducted from the debt in the LLCR calculation or added to the **Net Present Value (NPV)** of cash flow. The former approach is better for the Project Company and the latter for the lenders. But if these cash balances are intended to be for distributions (i.e., for paying out dividends to equity holders), they should not be included in the calculation of LLCR. This clause must be carefully checked in the definition of LLCR in the Term Sheet.

How to interpret the LLCR?

When the LLCR is above 1.0x, it indicates that the project's cash flow is sufficient to repay the debt by the end of the loan term, even if the **Debt Service Coverage Ratio (DSCR)** is below 1.0x in individual periods. A higher LLCR is a positive sign, reflecting strong cash flow relative to debt, and can help the project secure lower financing costs. If the LLCR is less than 1.0x, it suggests insufficient cash flow to meet debt obligations. Typically, lenders require an LLCR of 1.25x or higher. When debt is well-structured, the LLCR should stay above 1.0x or above the target LLCR for the entire loan term.

Practical Application of LLCR.

In loan structuring, LLCR helps in determining appropriate loan terms and conditions by providing insights into the project's long-term sustainability. It also plays a vital role in risk assessment by assisting lenders in evaluating the project's overall risk profile and creditworthiness. Furthermore, LLCR is used for financial monitoring, enabling lenders to track the ongoing financial health of the project throughout its life, ensuring that the project can continue to meet its debt obligations.

What is Project Life Coverage Ratio?

The **Project Life Coverage Ratio (PLCR)** evaluates the ability of the project to service its debt obligations based on the cash flow generated over the entire project life. The cash flow beyond the loan life is important as they provide a buffer in case of cash flow decline or operational interruptions affecting revenue generation. This extra debt service capacity is known as the debt tail or residual cushion (the difference between the end of the debt tenor and the project life).

From the above, it can be observed that the PLCR is very similar in concept to LLCR. The PLCR would always be higher than the LLCR, as:

NPV of CFADS over the entire Project Life > NPV of CFADS over the entire Loan Life.

What is the purpose of the PLCR?

PLCR serves as an important risk mitigation tool for lenders, as it demonstrates the capacity of the project to generate sufficient cash flows well after the debt is scheduled to be fully repaid. The ability to meet debt obligations during this "tail period" is crucial, as it provides lenders with additional coverage available to repay the debt, even in the event of delays or difficulties in meeting repayment schedules. This means that the project will still have enough cash flow to service its debt.

How to calculate the PLCR?

The computation of PLCR is very similar to the computation of LLCR. The key difference is that the ratio takes the present value of CFADS over the life of the project, rather than over the life of the debt. A discount rate is still required, but we no longer have a benchmark for it. The discount rate for the last debt service period is usually used to discount the cash flow beyond the loan life. However, this is something that should be looked at on a project-by-project basis and with specific reference to the Term Sheet.

$$\text{PLCR} = \frac{\text{PV of future CFADS (project life)}}{\text{Outstanding Debt}}$$

If there is a DSRA, it should be treated the same way as the LLCR was calculated.

What are the common pitfalls in Modelling LLCR/PLCR?

One of the most common issues in modelling LLCR and PLCR is the misalignment between the definitions used in the financial model and those outlined in the debt Term Sheet, which can lead to discrepancies and errors in the calculations. The treatment of DSRA, other reserve accounts, and free cash balances must be clearly defined in the Term Sheet. Another issue is inconsistent timing between the numerator and denominator, where cash flow is based on the start of the period while the debt balance is taken at the end. This inconsistency can distort results. For PLCR, an incorrect discount factor is often used, especially when applying the discount rate beyond the loan's life. The discount factor beyond the life of the loan needs to be purposefully defined.

DSCR vs LLCR vs PLCR

The DSCR, LLCR, and PLCR are key coverage ratios used to assess a project's ability to meet its debt obligations. These ratios offer a comprehensive view of a project's financial health, with DSCR focusing on short-term liquidity, and LLCR and PLCR offering insights into longer-term viability.
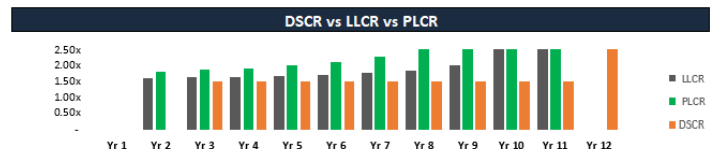
1. If the debt has been well sculpted, the LLCR should remain above 1, or at least above the target LLCR
2. Generally, the PLCR will be higher than the LLCR due to additional cash flows during the debt tail period
3. Assuming a target DSCR of 1.5x, the computed DSCR should remain at or above 1.5x. Any ratio falling below 1.5x would be considered a breach, triggering lock-up covenants

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