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TUTORIAL

MODELLING MEZZANINE DEBT

In project finance transactions, mezzanine structures can often fill a critical shortfall between senior debt capacity / availability and equity funding. This tutorial discusses this form of financing in project financings.

Mezzanine debt is a form of subordinated debt, often with an equity aspect, which ranks below senior debt in terms of security or any claim on project's cashflow/asset, and usually above equity.

It generally gives the lender the legal rights to convert to an ownership or equity interest in the company if the mezzanine debt is not paid back in time and in full and often has more flexible repayment terms than senior debt, albeit for a price.

This instrument could be used to finance the expansion of existing assets or often fills the funding gap between the senior debt financing and equity. The subordinated mezzanine lender might provide funds which the senior lender is unwilling to lend due to capacity, country or asset allocations or just appetite.

Equity holders/sponsors might also prefer mezzanine debt to equity contributions for tax and corporate finance purposes, i.e. to optimize funding package. Optimization of a project's funding package will invariably reduce funding cost as well as enhance project viability and potential return to the sponsors.

Forms of mezzanine debt

Mezzanine debt may involve extending credit to equity holders and taking a charge over such parties' equity interests.

Alternatively in project financing structure, it may be made at the project company level which entitles the mezzanine debt's lender to distributions in the form of excess cashflow after senior debt service ahead of the equity holders.

This form of financing may include:

- Subordinated/Junior debt
- Preference shares
- Convertible notes

Typical structure of mezzanine debt:

- Fixed rate
- Aggressively priced/higher interest rate (in consideration for making a loan which is not first ranked in security)
- Long-term
- Deeply subordinated (with constrained enforcement rights when senior debt is unpaid)
- Secured (on second rank basis) or unsecured
- Typically provided with lesser due diligence compared to senior debt

There has been growing existence of mature institutional markets providing mezzanine debt as part of project financing structures.

Modelling mezzanine debt

Let's work on an illustrative example of mezzanine structure in a project finance model. Screenshot 1 depicts an assumption for Senior and Mezzanine debt in this example.

- It is a Greenfield project.
- Construction capital expenditure is firstly funded by Senior Debt up to the limit, followed by a Mezzanine Debt and then Equity.
- Mezzanine Debt is provided in a form of subordinated debt
- Senior Debt Service Reserve Account (DSRA/c) is established and funded in full on the last day of construction.
- Credit foncier repayment method is adopted for Senior Debt and Mezzanine Debt.
- Debt service for the Mezzanine ranks after the Senior debt service and funding satisfaction of the DSRA/c up to the target balance

Senior Debt

Repayment Start	Date	01-Jan-09						
Repayment Term	Years	6.00 Yr(s)						
Final Maturity Date	Date	31-Dec-14						
Facility Limit	AUD M	90.00						
			Constr	Op Y 1	Op Y 2	Op Y 3	Op Y 4	Op Y 5
Interest Margin	% p.a.		1.75%	1.75%	1.75%	2.00%	2.00%	2.00%
		Applied	Calculated	Delta				
Establishment of DSRA/c	AUD M	4.56	4.56	-				

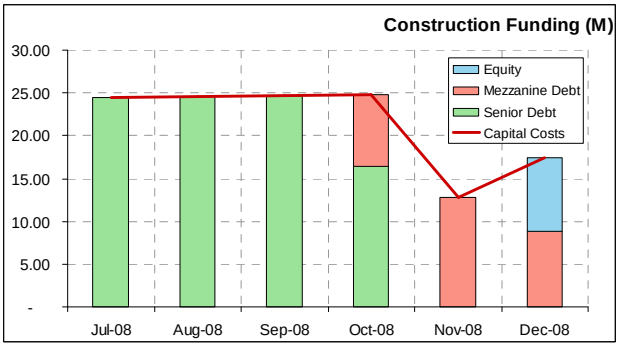
Mezzanine Debt

Repayment Start	Date	01-Jan-09
Repayment Term	Years	7.00 Yr(s)
Final Maturity Date	Date	31-Dec-15
Facility Limit	AUD M	30.00
Fixed Interest Rates	% p.a.	10.00%

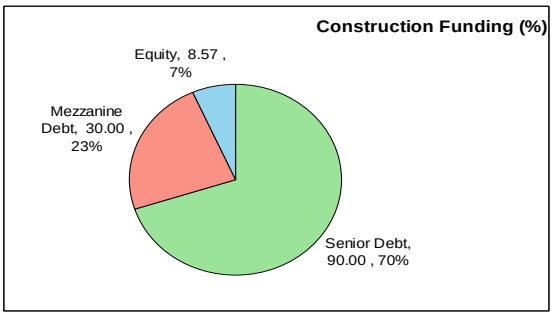
Screenshot 1: Assumptions for Senior and Mezzanine debt

Construction funding

Construction cost is funded in an order of Senior Debt (limit $90M), followed by the Mezzanine Debt (limit $30M) and then Equity, as illustrated in the charts below. This example illustrates that the Senior Debt provides 70% of the funding allocation. Mezzanine Debt and Equity make up the remaining 30%



Screenshot 2: Funding during construction



Screenshot 3: Construction funding allocation

Interests for Mezzanine debt

Mezzanine debt is typically provided under a fixed-rate term and is more aggressively priced in consideration for making a subordinated loan. Screenshot 4 shows an example of interest calculation in Mezzanine Debt at fixed-rate of 10.0% p.a.

Period Start			Jan-09	Apr-09	Jul-09	Oct-09
Period End	Start	End	Mar-09	Jun-09	Sep-09	Dec-09
Construction	1-Jul-08	31-Dec-08				
Operations	1-Jan-09	31-Dec-16				
Mezzanine Debt: Operations						
Account						
Balance B/f	AUD M		30.00	29.23	28.45	27.65
Refinance @ Completion	AUD M		-	-	-	-
Principal Repayment	AUD M		(0.77)	(0.78)	(0.80)	(0.82)
Balance C/f	AUD M		29.23	28.45	27.65	26.84
Interest						
All-in Rate	% p.a.	10.00%	10.00%	10.00%	10.00%	10.00%
All-in Rate	% p.p.		2.38%	2.40%	2.43%	2.43%
Interest	AUD M		0.71	0.70	0.69	0.67

Screenshot 4: Interest rate calculation

Position in cashflow waterfall

Screenshot 5 shows the position of mezzanine debt in a typical cashflow waterfall of project finance transaction. Cashflow available for Mezzanine Debt service ranks after Senior Debt service and funding of the DSRA/c, but it takes precedent over the distributions to Equity.

Advantages of mezzanine structure

Mezzanine debt could be a financing alternative for a project that has reached the limit on borrowing capacity and prefer not to issue new equity. It offers several advantages.

- Increased leverage and debt capacity
- Might offer lower cost of capital (cheaper than equity) with less equity dilution, and hence higher returns
- It can be raised more quickly than senior debt
- Long-term financing, fixed-rate structure with little concern for collateral
- Interest paid on Mezzanine debt will usually be tax deductible, dividends are not
- The senior creditors benefit from the cushion of the junior debt
- Debts under mezzanine arrangements are often payable after certain years, delaying the obligation for the borrower to repay the debt.

Period Start	Dec-08	Jan-09	Apr-09	Jul-09	Oct-09
Period End	Dec-08	Mar-09	Jun-09	Sep-09	Dec-09
Construction					
Operations					
Cashflow Statement					
EBITDA	-	8.00	7.45	7.99	7.99
Interest Income	-	-	-	-	-
Working Capital Movement					
Operational Cashflow	-	8.00	7.45	7.99	7.99
CapEx					
Construction CapEx	(12.20)	-	-	-	-
Senior Debt: Interest during Cons	(0.50)	-	-	-	-
Mezzanine Debt: Interest during Cons	(0.17)	-	-	-	-
Establishment of DSRA/c	(4.56)	-	-	-	-
Tax					
Total	(17.43)	-	-	-	-
Cashflow Before Funding	(17.43)	8.00	7.45	7.99	7.99
Funding					
Senior Debt	-	-	-	-	-
Mezzanine Debt	8.86	-	-	-	-
Equity	8.57	-	-	-	-
Total	17.43	-	-	-	-
CFADS	-	8.00	7.45	7.99	7.99
Senior Debt Service					
Interest	-	(1.46)	(1.43)	(1.39)	(1.34)
Principal	-	(3.10)	(3.14)	(3.19)	(3.24)
Total	-	(4.56)	(4.57)	(4.58)	(4.58)
Cash Available to Fund Senior DSRA/c	-	3.44	2.88	3.41	3.42
Senior DSRA/c: Addition	-	(0.01)	(0.01)	-	-
Senior DSRA/c: Release	-	-	-	0.00	0.02
Cash Available for Mezzanine Debt Service	-	3.43	2.87	3.41	3.43
Mezzanine Debt Service					
Interest	-	(0.71)	(0.70)	(0.69)	(0.67)
Principal	-	(0.77)	(0.78)	(0.80)	(0.82)
Total	-	(1.48)	(1.48)	(1.49)	(1.49)
Cash Available to Equity	-	1.95	1.38	1.92	1.94
Distributions to Equity	-	(1.95)	(1.38)	(1.92)	(1.94)
Net Cashflow	-	-	-	-	-

Screenshot 5: Mezzanine Debt in a cashflow waterfall

Conclusion

Mezzanine financing offers an important form of finance for some transactions. Mezzanine debt arrangement can fill the gap between the available senior debt and equity, and it has potential to provide higher equity returns to the sponsors.

However, there is a lot of scope for conflicts of interests between senior debt and mezzanine debt lenders. An inter-creditor agreement is an important way to give clarity as to the relative rights and obligations of the different classes of lenders arrangements. To learn more see our Mezzanine Debt Workshop.