

A Short Guide for Attorneys To Debt Sustainability

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In many bankruptcies the choice of how to proceed with a case turns critically on the level of debt the firm has and the sustainability of that debt. Effective negotiations with creditors or arguments in court require marshalling a cogent line of reasoning regarding the ability of a firm to handle the debt that it is carrying. This guide is intended to help attorneys understand the basic financial metrics that objectively determine whether a business can sustain its proposed debt load upon exiting bankruptcy.

There are two key issues in many business bankruptcies regarding debt levels.

- 1.) Is the debt load of the firm sustainable given reasonable assumptions about future operating performance?
- 2.) If the debt load is not sustainable, is the recovery rate for creditors likely to be higher in a liquidation or through continued operation of the business to pay down a reduced debt load?

Answering question one requires making a forecast about the future revenues and profits of the firm as well as the efficacy of management. The efficacy of the management team is also an important part of the question regarding debt sustainability. While the current management team may have encountered problems in operating the business, thus leading the bankruptcy,

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management's experience and local knowledge can often be a substantial asset to the business in the future.

To evaluate the debt sustainability of a firm four primary metrics should be used:

1. Debt Ratio of the firm
2. Times Interest Earned ratio of the firm
3. Debt Service Coverage Ratio of the firm
4. Maximum Sustainable Debt of the firm

Each ratio gives different information and a thorough analysis of debt sustainability should look at all four.

Debt Ratio

The debt ratio measures the ratio between a firm's total liabilities to total assets. A widely used alternative name for this ratio in banking circles is the loan-to-value (LTV) of a property. While there are several different figures that could be used to value the assets of a business, one common method to use when valuing an on-going concern is the value of the business based on its profitability over a period of time. Firm valuation is a financial issue rather an accounting one, and thus **the value of an asset is subject to greater debate than verifiable and well-defined accounting figures such as net income**. The formula used in calculating a debt ratio is:

$$\text{Debt ratio} = \frac{\text{Total Liabilities}}{\text{Total Assets}}$$

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A simple way to value assets based on cash flows is with a multiplier approach. If a firm has a mean (average) net ordinary income of roughly \$615,000 annually, and a typical multiplier for a stable company based on publicly traded company data is about 16X net ordinary income, then this gives the firm a total valuation of \$9.840 million.^{1, 2} The multiplier approach is mathematically equivalent to using a capitalization rate method of valuing the property. Capitalization rates are the primary tool used by appraisers examining commercial properties so they often appear in court cases.

Using the example valuation of \$9.840 million, and the outstanding mortgage amount yields the debt ratio. If a firm has debt of \$7.254 million, then it has a debt ratio of 0.7372 (73.72%).³ This loan-to-value ratio would be within a reasonable range; banks typically look for an LTV of 60-75% across much of the real estate industry. If an LTV ratio for a firm comes in above this range, it is often useful to look back at the financial results from the last few years for the firm to see if any of the expenses or income items are one-time items or recurring. Items that are not recurring and part of the ordinary course of business for the firm should not generally be considered when evaluating the value of a firm.

Times Interest Earned Ratio

Calculating a Times Interest Earned ratio for a firm in bankruptcy can often be impractical given the lack of a clear interest rate. However, it is still useful to calculate such a ratio using a range of reasonable interest rates. The basic formula for TIE is:

¹ Valuation analysis done using forecasted cash flows yields quantitatively similar results. Historical measures are used here to be conservative in a manner consistent with typical valuation analysis practices.

² $\$615,000 \times 16 = \$9,840,000$

³ $\$7.254\text{M}/\$9.840\text{M} = 0.737$.

$$\text{Times-Interest-Earned} = \frac{\text{EBIT or EBITDA}}{\text{Interest Charges}}$$

For instance, with a rate of 5.0%, and an outstanding mortgage balance of \$7,254,000, simple interest on this amount comes to \$362,700 annually. If the firm's mean net ordinary income before property improvements (expansion capex), for the base financial plan over the next five years is roughly \$790,000, then these figures yield a TIE ratio of 2.18X.

Firms with a TIE ratio of about 2.0-2.5X or greater are typically viewed as financially sound. Since the hypothetical firm above has a ratio falls in this range, the firm appears to have a sustainable level of debt relative to its historical net ordinary income. Assuming a successful exit from bankruptcy and competent management of the complex, the Times Interest Earned ratio of the firm should rise in future years if the bankruptcy exit plan is successful as operations and cash flows improve.

Debt Service Coverage Ratio

The debt service coverage ratio (DSCR) measures the ability of the firm to cover its debt obligations going forward. The ratio is defined as:

$$\text{DSCR} = \text{Net Operating Income/Debt Services}$$

The typical debt portion of the ratio is the current liabilities of the firm (due within one year). Sometime it is useful to look at average levels of Net Operating Income or Debt Service costs over a period of three or more years to avoid issues with one-time expenses or gains for the firm. If a firm has a mean net ordinary income of \$615,000 annually and mortgage obligations averaging \$432,000, the this gives the firm an average DSCR of 1.42X.⁴ **A typical DSCR**

⁴ \$615,000/\$432,000 = 1.42361

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requirement by a lender to a firm is often a figure of 1.2X or more. In this context, the firm's DSCR appears to be sound.

Maximum Debt Analysis:

Typically commercial loans are based on either a debt ratio (Loan-to-value) or a Debt Service Coverage Ratio analysis (DSCR). If a firm can meet these criteria, it should be able to find willing lenders to supply refinancing for the company after a period of post-bankruptcy performance stabilization. The chart below illustrates these maximums under reasonable conventions that might be applied by a commercial lender. These figures suggest that a refinancing of for a hypothetical debt load at a company in the amount of roughly \$7,254,000 should be viable.

Maximum Loan Analysis for Hypothetical Firm:

	Inputs	
Required DSCR		1.20
Required LTV		75%
Net Operating Income		\$615,000
Cap Rate		6.00%
Interest Rate		5.00%
Amortization Period (months)		360
Maximum Loan Calculation		
Available for Debt Service (NOI/DSCR)		\$512,500
Max Loan Based on DSCR		\$7,955,777
Value Based on Cap Rate		\$10,250,000
Max Loan Using LTV		\$7,687,500
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Max Loan (Lesser of DSCR and LTV approaches)		\$7,687,500