AMERICAN BANKRUPTCY INSTITUTE
JOURNAL
The Essential Resource for Today's Busy Insolvency Professional

Value & Cents

By Boris J. Steffen

How Much Is Enough? The Unreasonably Small Capital Test

Coordinating Editor
Boris J. Steffen
Province, LLC
Miramar, Fla.

Boris Steffen is a managing director in the Corporate Restructuring practice of Province, LLC in Miramar, Fla. He has served as a financial advisor and expert witness to holders of interests and claims in mergers, acquisitions and restructurings.

The objective of a solvency analysis is to provide assurance that the transfer of an asset, or incurrence of a financial obligation, is not likely to harm nonparticipating creditors and shareholders.[1] For example, case law is replete with examples of borrowers who have engaged in behavior to strip assets. A taxonomy of the methods used would include the distribution of gifts, dividends, exorbitant salaries and benefits, orchestrating a leveraged buyout at a value exceeding that of the borrower's equity, providing nonrecourse financing to a third party to fund an overvalued purchase of assets from the borrower's insiders, making concessionary personal loans to the borrower's insiders, making loans to shell corporations owned by the borrower's insiders or third parties who share the proceeds with the insiders, and exchanging assets at exaggerated prices benefiting the borrower's insiders.[2]

Given this *mise-en-scène*, solvency analyses are necessarily broad and examine whether the subject firm was left with positive equity, able to repay its debts on maturity, and left with sufficient capital to operate its business. Notwithstanding, one would be hard-pressed to identify unambiguous principles and rules anywhere in the Bankruptcy Code or related case law providing clear-cut guidance.[3] In fact, it has been noted that "those involved in high stakes financial litigation spend as much time litigating how to determine insolvency as they do litigating whether a given firm is insolvent."[4] Being the least well defined of the solvency tests, this is particularly true of the unreasonably small capital test, also known in practice as the "adequate capital" or "capital adequacy" test.

The Unreasonably Small Capital Test

The analysis used to determine whether a firm has unreasonably small capital to operate its business pursuant to 11 U.S.C. § 548(a)(ii) is also referred to as the capital-adequacy test.[5] It recognizes that while a condition of unreasonably small capital is short of insolvency in the balance-sheet or equitable sense, a firm that is undercapitalized might become insolvent in the future.[6] A firm's capitalization is adequate if its capital resources and cash flows are sufficient for it to continue to operate under reasonably foreseeable difficulties and downturns,[7] but this does not mean that the firm must have resources sufficient to withstand any and all difficulties.[8]

Examining whether a debtor has unreasonably small capital in part requires analysis of its capital structure. Included in this analysis are ratios that reflect the firm's debt-to-equity financing structure, historical capital cushion and working-capital needs.[9] As with the balance-sheet and ability-to-pay tests, it is necessary to assess whether the relevant cash-flow projections were reasonable when pre-

1 David Light, Bryce May, Richard May, John Miscione & John O'Brien, "Solvency Opinions," Robert F. Riley & Robert P. Schweihs (Ed.) *Handbook of Advanced Business Valuation* (McGraw-Hill), pp. 267-84.
2 J.B. Heaton, "Solvency Tests" (2007), *Business Lawyer*, Vol. 62, No. 3, p. 991 (2007).
3 Edward S. Weisfelner, *Advanced Fraudulent Transfers: A Litigation Guide* (ABI), p. 76, store.abi.org/ebook/advanced-fraudulent-transfers-litigation-guide (unless otherwise specified, all links in this article were last visited on Nov. 3, 2025).
4 *Id.* at p. 984.
5 *See* Heaton, *supra* n.2 at 988 (2007).
6 *ASARCO LLC v. Ams. Mining Corp.*, 396 B.R. 297, 396 (S.D. Tex. 2008); *Vadnais Lumber Supply v. Byrne (In re Vadnais Lumber Supply Inc.)*, 100 B.R. 127, 137 (Bankr. D. Mass. 1989); *Brandt v. Hicks, Muse & Co. Inc. (In re Healthco Intern. Inc.)*, 208 B.R. 288, 302 (Bankr. D. Mass. 1997) (citing *Moody v. Sec. Pac. Bus. Credit Inc.*, 971 F.2d at 1070).
7 *Moody v. Sec. Pac. Bus. Credit Inc.*, 971 F.2d 1073 (3d Cir. 1992).
8 *Id.*
9 *WRT Energy*, 282 B.R. at 411; *MFS/Sun Life Trust-High Yield Series v. Van Dusen Airport Servs. Co.*, 910 F. Supp. 913, 944 (S.D.N.Y. 1995); Garrick A. Hollander, "'Unreasonable Small Capital' in Fraudulent Conveyance Cases: Ratio Analysis May Provide an Answer," (1994) *Business Lawyer*, Vol. 49, No. 3, pp. 1208-10.

pared.[10] While the analysis "should include ... all reasonably anticipated sources of operating funds, which may include new equity infusions, cash from operations, or cash from secured or unsecured loans over the relevant time period,"[11] "only those cash flows that were reasonable for a company to have expected to receive ... are considered."[12]

Approaches to the Test

The Equity Cushion

One factor used by the courts to determine whether a secured lender is adequately protected is the equity cushion,[13] which is the value in the property, in excess of the amount that is owed to a secured creditor, that will protect that claim from loss given a decrease in the value of the property during the time the automatic stay is in effect. Equity is then the value in excess of all secured claims against the property that can be recovered by the secured creditors from the sale of the property. The related case law is nearly uniform in finding that an equity cushion of 20 percent or more is adequate protection, and less than 11 percent is inadequate. Between 12-20 percent, the courts are divided.

Scenario Analysis[14]

In *Moody*, the appellate court provided guidance in the form of what amounted to a two-part principles-based test.[15] First, the court opined in pertinent part that "we hold [that] the test for unreasonably small capital is *reasonable foreseeability*.... The critical question is *whether the parties' projections were reasonable*." The court subsequently opined in addition that "[t]o a degree, *parties must also account for difficulties that are likely to arise*, including interest rate fluctuations and general economic downturns, and *otherwise incorporate some margin for error*."

When testing the reasonableness of projections, it is important to recognize that while budgets, forecasts, projections and *pro forma* financial statements each offer perspectives on the future, each have a different purpose and meaning, and should not be used interchangeably. Further, the reasonableness of the projections should be assessed given the facts and circumstances known, knowable or discoverable as of the transaction date,[16] and "must be tested by an objective standard anchored in the company's actual performance."[17]

Analyses that might be considered include[18] comparative analysis of historical and projected (1) financial statement ratios and trends in growth rates, profit margins, cash flows, liquidity, solvency and debt covenants together with industry benchmarks and comparable companies; (2) non-recurring revenue and expenses; (3) significant accounting adjustments; (4) capital expenditures and incremental working-capital investment given projected growth rates; and (5) debt and equity financing. To assess how a firm might reasonably be expected to perform when confronted with interest rate fluctuations, general economic downturns or other difficulties, sensitivity analysis might be used.[19] Three scenarios are typically tested.

While there is no prescribed framework, the first scenario might be management's best-case projections. The second might be a no-change case, with no change in sales growth, profit margins and working-capital turnover. The third case might then be to adjust the sales growth rate, gross profit margin, selling, general and administrative expenses, depreciation and capital expenditures, both individually and in tandem.

Scenarios might also be constructed based on what might happen given a particular event or for a specific purpose,[20] focusing on those that have a realistic chance of happening and illustrating meaningful differences while not becoming too dependent on the extrapolation of historical results. One such scenario might be to analyze how much deleveraging would have to take place for a rating upgrade and over what time. Another could be to test how much earnings before interest, taxes, depreciation and amortization must decrease for free cash flow to be negative. It might also be particularly relevant to construct a scenario for when the subject firm is facing a debt maturity.[21]

Working-Capital Analysis

From the asset side of the balance sheet, the total capital of a firm is equal to the sum of fixed capital (capital invested in fixed assets such as property, plant and equipment) and working capital (capital invested in current assets).[22] The operation of a firm's fixed assets requires coordinated interaction with its working capital. For example, cash is required to fund day-to-day operations, accounts receivable to provide customer credit, inventory for the production and sale of goods to customers, and marketable securities for additional liquidity.

Working capital is of two types.[23] "Gross" refers to all current assets, while "net" refers to the excess of current assets over current liabilities such as accounts payable. Gross working capital is relevant given that the profitability of fixed assets depends on the use of all current assets. Net working capital is of import, as it is an indication of the financial soundness of the company "and is of special interest to sundry creditors and suppliers of short-term loans and advances. It creates confidence among the creditors about the security of their credits."

Gross working capital is also of two types: permanent and variable.[24] Permanent working capital is that portion of total current assets that is necessary to support the minimum

10 *Moody v. Security Pacific Bus. Credit*, 971 F. 2d 1056, 1073 (3d Cir. 1992).
11 *Id.* at 1072, n.24.
12 *In re Iridium Operating LLC*, 273 B.R. 283, 345 (Bank. S.D.N.Y. 2007).
13 Grant W. Newton, *Bankruptcy and Insolvency Accounting, Vol. 1, 7th Ed.* (John Wiley & Sons Inc.) pp. 162-63, 251.
14 *Moody v. Security Pacific Bus. Credit Inc.*, 971 F.2d 1056, 1070 (3d Cir. 1992).
15 Michael Vitti, "Grounding Retrospective Solvency Analyses in Contemporaneous Information (3 of 3)," *Business Valuation Review*, Vol. 33, No. 3, pp. 67-68.
16 David P. Bart & Eric Daucher, *Developing the Evidence: Using Prospective Financial Information in Bankruptcy and Other Litigation for Business Valuation, Damages, and Other Applications* (ABI), p. 93, store.abi.org/bundles/developing-evidence-using-prospective-financial-information-bankruptcy-and-other-litigation.
17 Quoting *Moody v. Security Pacific Bus. Credit Inc.*, 971 F.2d 1056, 1070 (3d Cir. 1992).
18 *Developing the Evidence*, *supra* n.16, pp. 93-94.
19 Light, May, May, Miscione & O'Brien, *supra* n.1, pp. 347-51.
20 Robert S. Kricheff, *A Pragmatist's Guide to Leveraged Finance, 2nd Ed.* (Harriman House) pp. 116-21.
21 *Id.* at pp. 233-45.
22 Hollander, *supra* n.9, p. 1200; *see also* Donald E. Kieso & Jerry J. Weygandt, *Intermediate Accounting, 5th Ed.* 13 (1986).
23 *Id.*

level of operations. Accordingly, permanent working capital is preferably financed from long-term financing from owners and shareholders.

By comparison, variable working capital fluctuates in volume along with a firm's growth or contraction in its production or sales.[25] Variable working capital might be financed from such short-term sources as bank financing. A shortage of either type often results in failure of the firm. Consequently, the issue of whether a company has unreasonably small capital can be analyzed through comparisons of the structure of the working capital of the firm with the averages of the liquidity and solvency ratios for its industry.[26]

Quick or Acid-Test Ratio

The quick ratio — equal to current assets minus the sum of inventories and prepaid expenses, divided by current liabilities — measures a firm's ability to cover its short-term obligations, albeit contemporaneously, with cash and other assets readily converted into cash.[27] Given its focus on a firm's most liquid assets, the quick ratio is considered to be particularly useful in distressed and highly volatile businesses. The general rule is that a minimum ratio of 1:1 is advisable.

Current Ratio

The current ratio, which is equal to current assets divided by current liabilities, indicates a firm's ability to meet its short-term obligations with its current assets on an ongoing basis. While the current ratio might vary across industries, a general rule is that a minimum ratio of 2:1 is preferable on the basis that resources that become available during the current operating cycle will be sufficient to cover current obligations coming due. From this perspective, the higher the ratio, the better.

Current Liabilities to Net Worth

The relationship between the riskiness of funds permanently invested by shareholders and those temporarily risked by creditors is reflected in the ratio of current liabilities to net worth. In particular, the larger a firm's current liabilities are relative to its net worth, the greater the risk for its creditors.

Total Liabilities to Net Worth

The ratio of total liabilities to net worth measures the use of leverage, meaning the extent to which debt and/or preferred stock with fixed interest and/or dividend payments are used to increase the return on common equity. Provided that a firm is meeting its fixed-interest charges, leverage is a positive for common shareholders. For creditors, however, highly leveraged firms represent greater risk than nonleveraged firms.

For example, a business downturn might cause a firm to be unable to meet its interest payments. The capital cushion between solvency and insolvency might also be reduced, and in the event of bankruptcy, a firm's assets might have to be divided over a larger number of claims. Consequently, the greater the ratio, the greater the risk to creditors.

Fixed Assets to Net Worth

The fixed-assets-to-net-worth ratio considers the extent to which shareholders have invested in property, plants and equipment. The higher the ratio, the lower the cushion for creditors in the case of liquidation.

Altman Z-Score

One of the leading and most widely accepted statistical predictors of business failure used by credit managers, analysts and auditors, Prof. Edward Altman's Z-Score iteration is tailored for private manufacturers[28] and measures a company's health by utilizing five weighted key financial ratios as a predictor of bankruptcy. These ratios measure the liquidity, profitability, leverage and solvency of the subject company. A Z-Score of < 1.23 indicates that bankruptcy is likely.

Conclusion

Even where a debtor is solvent, it may still be that a transfer represents a fraudulent conveyance if the debtor is left with unreasonably small capital. Even so, "unreasonably small capital" is not specifically defined in the Bankruptcy Code. As the court's inquiry under the unreasonably small capital test is subjective, with the law embracing a case-by-case approach, examination of the debtor's balance sheet and its need for capital over time through analysis of its equity cushion, scenario sensitivities, working capital and Z-Score might be instructive for purposes of answering the question, How much is enough? abi

Reprinted with permission from the ABI Journal, Vol. XLIV, No. 12, December 2025.

24 Hollander, *supra* n.9, p. 1200.
25 *Id.* at p. 1201.
26 *Id.* at pp. 1208-2010.
27 Newton, *supra* n.13, p. 49.

28 Edward I. Altman, Edith Hotchkiss & Wei Wang, *Corporate Financial Distress, Restructuring and Bankruptcy* (John Wiley & Sons, Inc.), pp. 204-06.