

FINANCIAL ADVISER PROCEDURES RELATED TO BANKRUPTCY-RELATED SOLVENCY OPINIONS

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Bankruptcy-related solvency opinion issues can be rather complicated. Debtor corporation transactions that may require solvency opinions include leveraged buyouts, leveraged recapitalizations, and leveraged dividend distribution transactions. For purposes of a leveraged corporate transaction, the debtor corporation should demonstrate that it is solvent at the time of the transaction. In order for the debtor corporation to be solvent, it should “pass” all three solvency tests: (1) the balance sheet test, (2) the cash flow test, and (3) the capital adequacy test. A solvency opinion is an important tool to mitigate the legal and financial risks for all of the debtor corporation transaction participants. This discussion presents a checklist of the due diligence and analytical procedures that the valuation analyst should consider when performing a bankruptcy-related solvency opinion.

INTRODUCTION

Valuation analysts are often called on to perform solvency analyses and to issue solvency opinions for various bankruptcy-related purposes.

These bankruptcy-related solvency opinion purposes may include the following: the issuance of debtor-in-possession (DIP) secured debt financing, issues related to the leveraged purchase or sale of debtor corporation assets, issues regarding fraudulent conveyance and preference payments, income taxation issues related to cancellation of debt (COD) income recognition, and litigation claims against the debtor corporation and/or the secured creditors.

In a solvency opinion, the valuation analyst opines on the solvency of a debtor corporation at the time of a specific corporate transaction.

Generally, the solvency opinion is intended to demonstrate that the subject debtor corporation is solvent at the time that: (1) a debt is incurred, (2) a dividend is disbursed, (3) a distribution is made, (4) an expense is paid, (5) a capital asset is purchased, (6) a security claim is issued, (7) a class of equity security is redeemed, (8) one class of security is exchanged for another class, or (9) another relevant event takes place.

Typically, the valuation analyst will perform the following three generally accepted tests in the debtor corporation solvency analysis:

1. the balance sheet test
2. the cash flow test
3. the capital adequacy test

This discussion presents a checklist of the due diligence and analytical procedures that the valuation analyst should consider when performing a debtor corporation solvency (or an insolvency) analysis.

This procedural checklist may also be used by the debtor corporation DIP management, the debtor corporation shareholders, the secured lender financial institutions, secured and unsecured creditors committees, and other parties to the bankruptcy. These parties in interest to the bankruptcy proceeding may use this checklist in their good-faith assessment of the solvency opinion.

SOLVENCY OPINION OVERVIEW

The three conditions that are typically considered in the solvency analysis are defined in the United States Bankruptcy Code, the Uniform Fraudulent Transfer Act, and the Uniform Fraudulent Conveyance Act.

A solvency opinion typically analyzes whether any of these three conditions exist at the time of the specific corporate transaction (after giving effect to the transaction financing):

1. The balance sheet test: Does the recorded amount of the debtor corporation liabilities (specifically including the proposed financing) exceed the fair value of the debtor corporation assets?
2. The cash flow test: Does the debtor corporation have adequate cash flow to service all of its liabilities (specifically including the proposed financing) as those liabilities come due?
3. The capital adequacy test: Does the debtor corporation have an unreasonably small amount of capital to run its business operations (after the proposed corporate transaction)?

In order to be considered solvent for purposes of a leveraged corporate transaction, the debtor corporation must pass all three tests. It is noteworthy that a solvency opinion is typically based on the information that is available to—or reasonably foreseeable by—the valuation analyst as of the proposed corporate transaction date.

The Balance Sheet Test

The balance sheet test determines whether, at the time of the proposed transaction, the total fair value of the debtor corporation assets (both tangible and intangible assets) is greater than the total recorded amount of the debtor corporation liabilities.

First, the valuation analyst typically considers the highest and best use of the debtor corporation assets. The highest and best use analysis indicates the appropriate premise of value for the valuation aspects of the solvency analysis. The typical solvency analysis premise is value in continued use, as part of a going concern business enterprise.

Second, the valuation analyst estimates the fair value of the debtor corporation assets, including (1) financial assets, (2) real estate and tangible personal property, and (3) intangible assets.

Third, the valuation analyst considers the recorded balance of the debtor corporation liabilities, including (1) all current liabilities and (2) all long-term liabilities.

Fourth, the valuation analyst subtracts the recorded balance of the total liabilities from the fair value of the total assets. The amount of the liabilities specifically includes the debt related to the proposed corporate transaction.

The balance sheet test is “passed” if the fair value of the debtor corporation total assets is greater than the recorded balance of the debtor corporation total liabilities.

The valuation analyst will consider the income approach, the market approach, and the asset-based approach in the valuation of the debtor corporation total operating assets.

A detailed description of each generally accepted valuation approach and method is beyond the scope of this discussion.

However, the checklist presented later in this discussion includes the procedures that the valuation analyst should typically consider in each of the three generally accepted business valuation approaches and methods.

Each of the generally accepted business valuation approaches can be used to perform the balance sheet test. However, the income approach will also be applicable to both (1) the cash flow test and (2) the capital adequacy test. Therefore, the income approach is typically used in every solvency analysis in order to:

1. perform each of the three solvency tests and
2. ensure the consistency within the three solvency tests.

The Cash Flow Test

The cash flow test analyzes the debtor corporation ability to meet its debt obligations as they become due.

First, the valuation analyst typically projects the debtor corporation expected cash flow for the repayment period for any proposed financing. The cash flow test analysis will consider the repayment of all of the debtor corporation debt (both principal and interest) obligations.

Second, the valuation analyst analyzes the cash flow available to meet debt obligations by estimating (1) any excess cash available on the solvency test date, (2) the available cash flow during the projection period, and (3) the availability of any unused credit commitments.

The cash flow test is “passed” if the debtor corporation can pay its projected debt obligations from any one of the three aforementioned sources of cash.

The valuation analyst typically performs sensitivity analyses to “sensitize” or “stress test” the various cash flow projection variables. The objective of the sensitivity analysis is to determine whether the debtor corporation can meet its debt obligations under a variety of alternative conditions.

The Capital Adequacy Test

The capital adequacy test (also referred to as the reasonable capital test) determines whether the debtor corporation is engaged in a business or a transaction for which it has an unreasonably small amount of capital. The capital adequacy test determines whether the debtor corporation will have adequate of capital to meet its (1) operating expenses, (2) capital expenditure requirements, and (3) debt repayment obligations.

The capital adequacy test involves a short-term sources and uses of funds analysis, typically for the four fiscal quarters after the solvency date. The valuation analyst will typically assess and analyze various debtor corporation prospective operating scenarios, including the following:

1. debtor corporation management's best estimate scenario of future financial and operational performance
2. no change scenario from the recent debtor historical financial performance
3. reasonable variation scenarios in the debtor revenue growth rate and profit margin

The capital adequacy test is "passed" if the debtor corporation is expected to have sufficient cash on hand to pay its (1) operating expenses, (2) capital expenditures, and (3) current liabilities/current portion of long-term debt.

CAVEATS REGARDING ANY FINANCIAL ADVISER PROCEDURAL CHECKLIST

The valuation analyst (and the various parties to the bankruptcy) should consider several caveats regarding the use of any due diligence procedures checklist.

First, no checklist should ever substitute for the valuation analyst's independent professional judgment.

Second, the checklist is not intended to be a comprehensive and all-inclusive list.

Third, the terminology used in the checklist may have several interpretations.

Fourth, the facts and circumstances regarding a specific leveraged transaction and a specific debtor corporation should always be included when considering the appropriateness of any item on any checklist. Finally, the checklist should not be used to derive a "quantitative score" to evaluate the quality of a solvency analysis or a solvency opinion.

FINANCIAL ADVISER ANALYTICAL PROCEDURES TYPICALLY CONSIDERED IN A SOLVENCY OPINION

A. Engagement Purpose and Objective

1. Identify the purpose of the solvency opinion.
2. Identify the objective of the solvency opinion.
3. Define the solvency analysis assignment.

- a. Identify the parties who will use the solvency opinion.
 - b. Identify the effective date of the solvency opinion.
 - c. Identify the solvency tests that apply to the subject assignment.
4. Define the engagement in a written client engagement letter.

B. Due Diligence and Collection of Debtor Corporation Data

1. Collect and review the proposed corporate transaction documents.
2. Collect and review the proposed transaction credit facility documents.
3. Collect and review debtor corporation documents including the following:
 - a. historical financial information including:
 - i. income statements
 - ii. balance sheets
 - iii. statements of cash flow
 - iv. statements of changes in stockholders' equity
 - b. pre-transaction and post-transaction debt structure
 - c. current financial plans, budgets, projections, and forecasts
 - d. description of the debtor corporation business
 - e. debtor corporation ownership structure (pre- and post-transaction)
 - f. legal documents relevant to the proposed corporate transaction
 - g. other relevant debtor corporation operational information:
 - i. product or service information/brochures
 - ii. list of major customers
 - iii. list of major competitors
 - iv. list of senior personnel
 - v. list of locations
 - vi. descriptions of any off balance sheet intangible assets and contingent liabilities
4. Conduct debtor corporation management interviews.
 - a. Speak with debtor corporation management regarding:
 - i. historical operations and results
 - ii. current operations and results
 - iii. prospective operations and results
 - iv. competitive environment

- v. industry outlook
 - vi. technological changes/developments
 - vii. pending litigation and/or contingent liabilities
5. Conduct debtor corporation plant/site inspections.
- a. Inspect representative plants/sites and consider:
 - i. capacity limits and physical condition and
 - ii. functional and technological adequacy.
 - b. Discuss plant/site with debtor representatives and consider:
 - i. current/future facilities expansion and capital investment plans,
 - ii. competitive effects of any planned plant/facility changes, and
 - iii. expected operating cost effects of any planned plant and facility changes.
- C. Economic Environment
- 1. Consider the historical economic environment.
 - 2. Research and analyze the current economic environment and the expected economic outlook.
 - 3. Consider the relationship of the economic environment to the debtor corporation results of operations.
- D. Industry Environment
- 1. Research and analyze the history and nature of the subject debtor industry.
 - 2. Research the current outlook for the subject debtor industry.
- E. Fundamental Position of the Debtor Corporation
- 1. Consider the debtor corporation capitalization and ownership (both pre-transaction and post-transaction).
 - 2. Review the debtor corporation history.
 - 3. Review and analyze current debtor corporation business operations and financial position.
 - 4. Consider the debtor corporation financial and strategic outlook.
 - 5. Perform a historical financial statement analysis.
 - a. Consider a financial ratio analysis.
 - b. Consider a trendline analysis.
 - c. Consider a common size account analysis.
 - d. Consider a benchmark comparative analysis.
 - 6. Perform historical financial statement normalization adjustments, as necessary.
 - a. Consider nonrecurring revenue/expense adjustments
 - b. Consider extraordinary revenue/expense adjustments
 - c. Consider the effects of changes in accounting method adjustments.
7. Perform a prospective financial statement analysis.
- a. Identify the key financial variables that drive the debtor corporation results of operations.
 - b. Analyze the debtor corporation management projections/budgets/forecasts.
 - c. Assess the reasonableness of the debtor corporation projections.
 - d. Assess the reasonableness of debtor corporation projections/budgets/forecasts relative to subject debtor industry.
- F. Solvency Analysis
- 1. Consider all of the appropriate solvency tests.
 - 2. Perform the cash flow test.
 - 3. Review the terms of the post-transaction proposed debt obligations.
 - 4. Prepare the debtor corporation detailed cash flow projections through the term of the secured credit facilities.
 - 5. Prepare monthly or quarterly debtor corporation projections for several periods and annual projections thereafter.
 - 6. Develop the appropriate economic income fundamentals for the analysis of cash flow, including the following:
 - a. sales
 - b. cost of goods sold
 - c. operating expenses
 - d. capital expenditures
 - e. working capital requirements
 - f. depreciation and amortization
 - g. interest income and interest expense
 - h. income taxes
 - i. debt principal payments
 - j. dividend payments
 - k. annual cash balances
 - 7. Determine the debtor corporation quarterly/annual ability to meet its:
 - a. operating expenses,
 - b. capital expenditures,
 - c. working capital requirements,
 - d. interest expense, and
 - e. debt principal payments.
 - 8. Perform sensitivity analyses of the cash flow projections to test the sensitivity of the debtor corporation future financial performance.

- a. Test the fundamental financial variables, such as:
 - i. sales growth,
 - ii. EBITDA profit margin,
 - iii. EBIT profit margin,
 - iv. capital expenditure requirements,
 - v. working capital requirements,
 - vi. weighted average cost of capital, and
 - vii. terminal year cash flow pricing multiple or capitalization rate.
 - b. Consider the debtor corporation past performance, current economic condition, and future financial performance in the sensitivity analyses.
 - c. Review debtor corporation ability to meet financial obligations under each sensitivity analysis scenario.
9. Analyze, for each projection period:
 - a. excess cash on hand,
 - b. available net cash flow, and
 - c. unused credit availability.
 10. Consider the debt covenants of secured lenders and determine whether the debtor corporation can meet the debt covenants.
 11. Conclude whether or not the debtor corporation “passed” the cash flow test.
 12. Perform the balance sheet test.
 13. Estimate the fair value of the debtor corporation total operating assets.
 - a. Identify the generally accepted business valuation approaches and methods.
 - b. Select the business valuation approaches and methods applicable to the debtor corporation.
 14. Perform an income approach valuation analysis—such as the discounted cash flow method.
 15. Review and analyze financial projections of prospective results of operations for a relevant (e.g., five-year) discrete projection period.
 37. Develop economic income fundamentals for the analysis of invested capital net cash flow:
 - a. earnings
 - b. noncash expenditures
 - c. capital expenditures
 - d. working capital requirements
 38. Develop a discounted net cash flow analytical model.
 39. Develop the appropriate yield capitalization discount rate, considering the following:
 - a. the risk-free rate of return
 - b. equity rates of return
 - c. the systematic risk premium
 - d. any company-specific risk premiums/required rates of return:
 - i. debtor corporation ability to achieve its financial projections
 - ii. degree of post-transaction debtor corporation financial/operating leverage
 - iii. degree of diversification in the debtor corporation business/product base
 - e. capital structure
 - i. mix of debt and equity components
 - ii. typical debtor corporation and/or industry capital structure
 19. Develop an estimate of debtor corporation terminal/residual value, considering the following:
 - a. terminal/residual year financial fundamentals
 - b. terminal/residual year direct capitalization rate
 - c. terminal/residual year market-derived pricing multiple
 20. Apply the derived yield capitalization discount rate to:
 - a. the discrete period estimated economic income projections and
 - b. the terminal/residual value estimate.
 21. Perform an income approach valuation analysis—such as the direct capitalization method.
 22. Analyze the appropriate measure of economic income.
 23. Estimate a normalized amount of future debtor corporation economic income.
 24. Estimate the appropriate market-derived direct capitalization rate as:
 - a. the yield capitalization rate minus
 - b. the expected long-term growth rate in the selected measure of economic income.
 25. Divide the debtor corporation normalized future period economic income by the selected direct capitalization rate, to conclude a value indication.
 26. Calculate an income approach estimate of the debtor corporation business enterprise value that includes:
 - a. all interest-bearing debt, plus
 - b. total stockholders’ equity.
 27. Perform a market approach valuation analysis—such as the guideline publicly traded company method.
 28. Identify and select guideline publicly traded companies, considering:
 - a. the same or similar line of business,
 - b. size,

- c. trading activity/pricing evidence, and
 - d. financial condition.
29. Adjust (i.e., normalize) the financial statements of the selected guideline publicly traded companies, if applicable.
 30. Identify the appropriate financial and operating fundamentals.
 31. Calculate market-derived valuation pricing multiples for the selected guideline publicly traded companies.
 32. Analyze the guideline company valuation pricing multiples.
 33. Compute and analyze financial ratios and operating ratios for the selected guideline publicly traded companies, including the following:
 - a. size ratios
 - b. growth ratios
 - c. liquidity ratios
 - d. profitability ratios
 - e. return on investment ratios
 - f. turnover/activity ratios
 - g. leverage ratios
 34. Compare the debtor corporation to the selected guideline publicly traded companies.
 35. Select the appropriate valuation pricing multiples for the debtor corporation.
 36. Apply the selected valuation pricing multiples to the debtor corporation financial and operational fundamentals.
 37. Perform a market approach valuation analysis—such as the guideline merged and acquired company method.
 38. Identify and select guideline merged and acquired company transactions.
 39. Identify the merged and acquired company financial and operational ratios.
 40. Calculate market-derived valuation pricing multiples for the selected merged and acquired companies.
 41. Analyze the range of guideline transaction market-derived pricing multiples.
 42. Calculate financial and operational ratios for the selected guideline transactions, including growth rates, profit margins, and return on investment ratios.
 43. Compare the debtor corporation to the selected guideline transactions.
 44. Select the appropriate valuation pricing multiples for the debtor corporation.
 45. Apply the selected valuation pricing multiples to the debtor corporation financial and operational fundamentals.
 46. Synthesize a market approach estimate of the debtor corporation business enterprise value that includes:
 - a. all interest-bearing debt, plus
 - b. total stockholders' equity.
 47. Ensure that all business enterprise or equity value indications are presented on the same level of value:
 - a. Typically, a marketable, controlling ownership interest level of value is appropriate for a solvency analysis.
 - b. Apply systematic valuation adjustments to each value indication in order to conclude a consistent level of value.
 48. Consider any nonsystematic (i.e., company-specific) valuation adjustments appropriate to the debtor corporation value indication.
 - a. Consider any key person dependence, key supplier dependence, key customer dependence, etc.
 - b. Apply any nonsystematic valuation adjustments either:
 - i. within each valuation method analysis or
 - ii. as an overall adjustment to a synthesized value indication.
 49. Prepare a synthesis of all value indications from all of the valuation approaches and methods that were used.
 - a. Determine the relevance of each valuation approach and method.
 - b. Conclude the fair value of the debtor corporation business enterprise.
 50. Estimate the fair value of the debtor corporation total operating assets, by:
 - a. adding the recorded value of the current liabilities to the fair value of the business enterprise in order to estimate the fair value of total liabilities and stockholders' equity and
 - b. calculating the "stepped up" asset value adjustment as:
 - i. fair value of total liabilities and total stockholders' equity minus
 - ii. accounting book value of the total operating assets plus/minus
 - iii. any other accounting adjustments (if applicable) equals
 - iv. aggregate fair value of the debtor corporation total operating assets.

51. Compare the aggregate fair value of total operating assets to the recorded value of total liabilities in order to evaluate the positive or negative balance of the debtor corporation total net assets.
 52. Determine whether the aggregate fair value of the total operating assets exceeds the total recorded liabilities balance.
 53. Determine if the debtor corporation “passes” the balance sheet test.
 54. Perform the capital adequacy test.
 55. Review the cash flow/debt repayment analysis performed in the cash flow test to determine if the debtor corporation has adequate capital to meet its short-term:
 - a. operating expenses,
 - b. capital expenditures, and
 - c. debt service obligations.
 56. Review the sensitivity analysis of the cash flow/debt repayment analysis to determine if the debtor corporation has adequate capital to meet its short-term:
 - a. operating expense requirements,
 - b. capital expenditures, and
 - c. debt service obligations.
 57. Determine if the debtor corporation has adequate capital to run its business under a range of conditions.
 58. Review each valuation approach and method performed for the balance sheet test to determine if the debtor corporation has an unreasonably small amount of capital.
 59. Review and consider the level, nature, and sources of funds for expected capital reinvestment.
 60. Determine if, in the short-term, the debtor corporation can:
 - a. pay current liabilities and the current portion of long-term liabilities;
 - b. pay payroll, research and development, and other operating expenses; and
 - c. make required capital expenditures.
 61. Determine whether or not the debtor “passes” the capital adequacy test.
- G. Reporting the Solvency Analysis Results
1. Prepare a written solvency opinion, as requested by the client.
 2. State the purpose and objective of the solvency opinion
 3. State the effective date of the solvency opinion.
 4. Define the standard of value used and the premise of value used.
 5. Describe the proposed corporate transaction.
 6. Describe each of the solvency analysis methods that were employed.
 7. Describe the financial, operational, economic, and industry information considered.
 8. Define any limiting conditions that affect the solvency analysis and/or the solvency conclusion.
 9. Include a summary of the professional qualifications of the principal analyst(s).
 10. Opine on the solvency immediately after, and giving effect to, the proposed corporate transaction.
- H. Solvency Analysis Documentation
1. Prepare and maintain the solvency analysis engagement workpapers.
 2. Include a copy of the signed engagement letter/statement of work.
 3. Document the analyst due diligence procedures that were performed.
 4. Document all of the information considered.
 5. Document the analytical models created.
 6. Document the reasoning that supports the solvency conclusion.
 7. Include in the workpapers sufficient analytical detail so that the solvency analysis can be replicated.
 8. Include in the workpapers a copy of the signed solvency opinion

SUMMARY AND CONCLUSION

The legal and financial considerations related to preference payments, fraudulent conveyance, and/or other bankruptcy-related solvency analysis issues are complicated. A contemporaneously prepared solvency opinion is an important component in the debtor corporation’s defense against claims of fraudulent conveyance.

The checklist provided above indicates the valuation analyst due diligence procedures that are typically considered in the preparation of a solvency opinion.

This procedural checklist should serve as a useful tool to the valuation analyst, the DIP management, the secured lender, the secured and unsecured creditor committees, the legal counsel to all of these parties, and to any other parties involved in a bankruptcy.

However, this due diligence procedural checklist should not be a substitute for the experience and judgment of the professional valuation analyst.

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