Controversial Issues in Valuation

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I. Context of Valuation and
Overview of Standard Methodologies

II. Issues with Standard Methodologies

III. Other Methodologies

IV. Cyclical Industries

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1

Context of Valuation and Overview of Standard Methodologies

- Valuation impacts all aspects of a restructuring, including
  - Plan Design and Negotiation
  - Plan Confirmation
  - Avoidance Actions
  - Adequate Protection
- The purpose of the valuation will influence the most appropriate valuation methodology
  - The Bankruptcy Code provides that " . . . value shall be determined in light of the purpose of the valuation and of the proposed disposition or use of such property . . .". 11 U.S.C. § 506(a)(1).
  - The American Bankruptcy Institute Commission's Final Report and Recommendations (ABI Report) suggests that the Bankruptcy Code should not dictate the valuation methodology. "The Commissioners found continued utility in the judicial valuation approach, including the flexibility it gives the parties in selecting the best valuation methodology." ABI Report, pg. 182.
- The adversary system brings to light the assumptions and methods employed by valuation experts.

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Context of Valuation and Overview of Standard Methodologies

"Intrinsic" Valuation

Discounted Cash Flow Analysis (DCF)

Relative Valuation

Comparable Companies Analysis (CCA)

Comparable Transactions Analysis (CTA)

Standard Valuation Methodologies

Other Methodologies

Option pricing

Market value of current securities
- Trading prices of pre-petition / post-petition debt

Liquidation Value
- Best interests of creditors test

Sale Price or New Investment Valuation

All three are generally relied on as approved methods of determining enterprise value. *In re Chemtura Corp.*, 439 B.R. 561, 573 (Bankr. S.D.N.Y. 2010) (referring to the three methodologies as "the three standard valuation methodologies").

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Context of Valuation and Overview of Standard Methodologies

DCF – "Intrinsic" Valuation

- DCF attempts to ascertain the "intrinsic" value of the debtor by determining the present value of the expected future cash flows that will be generated by the debtor.
  - V = PV projected cash flows + PV terminal value
  - PV = present value determined by the discount rate, which is the weighted average cost of capital (WACC) for the debtor

Context of Valuation and Overview of Standard Methodologies

DCF

- The WACC is based on the cost of debt and equity capital for comparable firms. The discount rate is largely a function of systemic risk (*i.e.*, broader market risk) with potential adjustment for debtor-specific risk premium.
- The terminal value reflects the value of the debtor beyond the forecast period assuming the debtor has reached a steady, normalized state. The terminal value typically accounts for a significant portion of the value calculated in a DCF.

Context of Valuation and Overview of Standard Methodologies

There are two "standard" methodologies for calculating the terminal value in a DCF: perpetual growth rate and terminal value multiple

- The perpetual growth rate approach applies an appropriate growth rate to the debtor's normalized unlevered free cash flow.
- The terminal value multiple approach applies a multiple based on comparable companies' implied trading valuation multiples to the debtor's appropriate value indicator (*e.g.*, EBITDA).

	Perpetual Growth Rate	Terminal Value Multiple
Pros	■ Represents intrinsic estimation of the terminal value ■ Avoids pitfall of mixing intrinsic and relative valuation methodologies	■ Easier to implement, as market multiples are easier to observe ■ Relatively objective
Cons	■ Requires judgment about long-term sustainable growth rate and the excess returns the firm will earn beyond the forecast period ■ Greater sensitivity to growth rate in lower interest rate / cost of capital environment $(1 / (r - g))$	■ If, as is common, the terminal multiple is estimated by looking at how comparable firms are trading today, the DCF becomes a relative valuation

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Context of Valuation and Overview of Standard Methodologies

CCA and CTA- Relative Valuation

- The goal of a CCA or CTA is to produce a relative, or market-based, valuation. Each values the debtor by using public market information regarding companies deemed comparable to the debtor.
- A CCA or CTA requires the expert to identify a set of appropriate comparable companies. This necessitates an evaluation of operating and financial characteristics, along with a level of judgment.
  - ➢ Typical factors considered in selecting comparable companies include the products offered, size, industry, growth rate, depth of management, nature of competition, markets and location, earnings, margins, maturity of business and risks.
  - ➢ The expert must select an appropriate value indicator, such as revenue or earnings before interest, taxes, depreciation and amortization (EBITDA).

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4

Context of Valuation and Overview of Standard Methodologies

CCA and CTA

- In a CCA, the value of a comparable company is based on public market values of its equity.
- In a CTA, the value of a comparable company is based on publicly reported acquisition values in M&A transactions.
  - The value of a comparable company is divided by its EBITDA (or other value indicator) to produce a market multiple. An average market multiple can be determined based on several selected comparable companies.
  - The market multiple is then applied to the debtor's expected EBITDA (or other value indicator) to determine a market-based valuation for the debtor.

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Context of Valuation and Overview of Standard Methodologies

Weighting

- In order to derive an overall valuation, judgment is needed to determine the appropriate weighting of each methodology. This is a frequent area of dispute.
  - Common Error: Double-counting the effects of issues dealt with prior to weighting (*e.g.*, lowering the CTA multiples because of the relative strength of comparables vis-à-vis the debtor, and then weighting the CTA methodology lower due to the same concerns).

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Issues with Standard Methodologies

DCF

Lauded for being an "intrinsic" valuation of the debtor.

- "In most instances, greater reliability will attach to a discounted cash flow method of valuation, as opposed to any type of comparable companies analysis . . . [i]n making comparisons to other companies, an appraiser must always assume similarity among comparable but unique entities. The lack of total identity will necessarily leave an element of uncertainty about the accuracy of the guideline public company approach." *In re CNB Int'l, Inc.*, 393 B.R. 306, 323 (Bankr. W.D.N.Y. 2008) (citations omitted).

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Issues with Standard Methodologies

DCF

- A DCF is built on projections which are most often prepared by senior management.
  - ✓ *Question: Is management (i.e., preparer of projections) inclined to have a conservative or liberal view with respect to the reorganized company's future performance?*
    - "When there is substantial evidence presented to show that the business plan was prepared in a reasonable manner, using supportable assumptions and logically consistent computations, a business plan constitutes a fair, reasonable projection of future operations and alternative projections of future operations should be rejected." *In re Iridium Operating LLC*, 373 B.R. 283, 348 (Bankr. S.D.N.Y. 2007) (internal quotations and citations omitted).
    - "Expected cash-flow forecasts should already reflect the probabilities of all possible outcomes, good and bad. If the cash-flow forecasts are prepared properly, the discount rate should reflect only the market risk of the project. It should not have to be fudged to offset errors or biases in the cash-flow forecast." Richard A. Brealey, Stewart C. Myers & Alan J. Marcus, *Fundamentals of Corporate Finance* 425 (3rd ed. 2001).

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Issues with Standard Methodologies

DCF

- DCF valuations are heavily influenced by the discount rate, which is largely a function of systemic risk.
  - Standard approaches to determining discount rate versus alternative/subjective methods (*e.g.*, venture capital discount rate).
- ✓ *Question: Should there be a further risk adjustment for the debtor or a general adjustment for reorganization risk? Is this justifiable?*
  - "To judges, the company specific risk premium often seems like the device experts employ to bring their final results into line with their clients' objectives, when other valuation inputs fail to do the trick." *Del. Open MRI Radiology Assocs., P.A. v. Kessler*, 898 A.2d 290, 339 (Del. Ch. 2006).
- ✓ *Question: In the fraudulent conveyance context, does DCF suffer from hindsight bias?*
  - "A significant benefit of the market comparables approach is that it is based on data from the time in question and, assuming appropriate comparables are selected, is therefore less susceptible than a DCF analysis to the distorting effect of hindsight." *VFB LLC v. Campbell Soup Co.*, 2005 WL 2234606 at *27 (D. Del. Sept. 13, 2005).

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Issues with Standard Methodologies

CCA

" . . . I consider Comparable Companies analysis to be somewhat more meaningful here than either DCF or Comparable Transactions analysis, because it's less susceptible to uncertainties in projections (in the case of DCF) or extraneous factors such as control premiums, synergies, or bidding wars (in the case of Precedent Transactions) . . . I give Comparable Companies analysis relatively greater weight." *In re Chemtura Corp.*, 439 B.R. 561, 583 (Bankr. S.D.N.Y. 2010) (discussing valuation with respect to plan confirmation).

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Issues with Standard Methodologies

CCA

- Assessing similarity and benchmarking the comparables.
- Impact of market conditions (*e.g.*, liquidity of market).
- ✓ *Question: How many comparables are needed? Is the data set too limiting?*
- ✓ *Question: Should control premiums ever be applied?*
- ✓ *Question: Should the weight assigned to a CCA be relatively higher in the fraudulent conveyance context and relatively lower in the plan context?*

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Issues with Standard Methodologies

CTA

"Under the Comparable Transactions analysis, value is determined by examining the consideration paid to acquire an entity through a publicly reported merger or acquisition . . . Like the Comparable Companies analysis, the more similar the target company is to [debtor], the more confidence one can place in the valuation indication." *In re Nellson Nutraceutical, Inc.*, 2007 WL 201134 at *21 (Bankr. D. Del. Jan. 18, 2007).

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Issues with Standard Methodologies

CTA

Data limitations on comparable transactions.

- ✓ *Question: How many comparable transactions are needed? How far back should we look for comparable transactions?*
- ✓ *Question: Do market conditions at the time of a transaction (e.g., business cycle, competitive environment) have an impact?*
- ✓ *Question: Doesn't every transaction have its own unique issues and therefore is a CTA of limited utility?*
- ✓ *Question: Is a CTA less useful in the plan context for a standalone reorganization? What about a plan that is centered around a M&A transaction?*
- ✓ *Question: Is CTA the best method for valuation in the adequate protection context?*

Other Methodologies

Option Pricing and ABI Report

- The premise underlying the use of option pricing models is that a DCF undervalues assets that provide payoffs that are contingent on the occurrence of events.
- The ABI Report discusses option pricing in respect of junior creditors that would receive no material distributions.
    - "The valuation date set by the effective date of a plan or the date of a section 363x sale order should not foreclose . . . a distribution . . . on account of the possibility of future appreciation in the firm's value . . . an immediately junior class that might otherwise be permanently cut off . . . should be entitled to an allocation of value referred to as the 'redemption option value' [*i.e.*, the value of a hypothetical option to purchase the entire firm] attributable to such class . . . to reflect the possibility that, between the plan effective date or sale order date and the third anniversary of the petition date . . . the value of the firm might have been sufficient to pay the senior class in full . . . and provide incremental value to such immediately junior class." ABI Report, pg. 207- 08.
    - The redemption option value may be determined through generally accepted market-based valuation models, including the Black-Scholes option pricing model, using reasonable assumptions based on the facts of the particular case.

Other Methodologies

Trading Prices

Debt and/or equity trading prices as indicia of value.

- ✓ *Question: Can markets be imperfect due to illiquidity, trading imbalances, lack of market makers, lack of comprehensive and/or accurate dissemination of information, real or perceived asymmetric information, strategic behavior or other factors?*
- ✓ *Question: To the extent there is some form of "bankruptcy discount" for a debtor's securities, does this necessarily mean market pricing should be adjusted upward? Is there some unfairness in giving effect to a "bankruptcy discount"?*
- ✓ *Question: Should practitioners be hesitant to employ alternative valuation methodologies? Are there certain circumstances in which turning to an alternative methodology would raise less suspicions than others?*
    - "While use of an 'alternative' valuation may be appropriate, one should be reluctant to depart from the familiar. The judge will be inherently suspicious of the use of such an alternative valuation . . . In addition, when using an 'alternative' valuation one risks confusing the judge . . . If the judge is confused or does not understand the methodology he or she will likely give the valuation little or no weight." Hon. Christopher S. Sontchi, Valuation Methodologies: A Judge's View, 20 Am. Bankr. Inst. L. Rev. 1, 16 (2012).

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Cyclical Industries

Examples: E&P, Mining, Coal and Shipping Industries

- Valuation often presents unique issues due to uncertainty regarding macro variables (*e.g.*, the commodity price and/or growth in the underlying economy) rather than debtor-specific issues.
- Dealing with volatility can be challenging.
- May require industry-specific knowledge and methods.

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10

Cyclical Industries

Illustrative Example: Engineer's report in E&P industry

- Valuation typically begins with a reserve report prepared by a petroleum engineer. The report describes estimates of the quantity and nature of the hydrocarbons in the ground, how quickly they can be recovered, the percentage that can be recovered and the cost of recovery.
  - The report is not a determination of value; rather, the report is a baseline from which an expert can determine value.
- In estimating reserves, the engineer places recoverable reserves within various classifications. Broadly speaking, these classifications are proved, probable and possible. Proved reserves are more valuable than probable or possible reserves.
- Engineers employ a variety of methods to determine the estimated quantity and recovery rate of the hydrocarbons, including looking to comparable reservoirs.
  - Characteristics that should be evaluated in selecting comparables include depth, pressure, temperature, original fluid content, gross thickness, size, permeability and porosity.
  - The engineer can estimate the amount of hydrocarbons based on the size and shape of the reservoir and fluid properties.
  - Historical production data can be employed to the extent available, but special attention must be paid to any changes over time in production rates and fluid ratios.

Cyclical Industries

Illustrative Example: Methodologies Applied to Dry Bulk Shipping Industry- *In re Genco Shipping & Trading Ltd.*, 513 B.R. 233 (Bankr. S.D.N.Y. 2014)

In addition to the standard methodologies, the net asset value methodology (NAV) was employed. NAV is commonly used in the dry bulk shipping industry.

- NAV is based on appraisals of the value of the debtor's assets, and adds the value of any unappraised assets (*e.g.*, cash, ownership interests in other companies) to such appraisal values.
- The Equity Committee argued that NAV was inappropriate for the purposes of valuing an ongoing business such as Genco, because it would not fully account for the value of Genco's corporate franchise, experienced management team and future cash flows.
- The court found that NAV was probative of value and noted that, while other industries may lend themselves to using only the three standard methodologies, the dry bulk shipping industry is competitive, highly fragmented and has low barriers to entry.

Cyclical Industries

Illustrative Example: Methodologies Applied to Dry Bulk Shipping Industry- *In re Genco Shipping & Trading Ltd.*, 513 B.R. 233 (Bankr. S.D.N.Y. 2014)

- The court determined the CTA was of limited utility due to the small sample size, but found the CTA values confirmed that NAV was a reliable indicator of value.
  - Only three comparable transactions were identified during the previous ten years.
  - Each of those comparable transactions took place at, or near to, NAV.
- The court determined the DCF was inappropriate.
  - DCF is less frequently used in the dry bulk shipping industry.
  - Although acknowledging that the DCF is a traditional methodology, the court found there were no accurate projections available, since dry bulk shipping rates are extremely volatile due the cyclical nature of the industry and therefore difficult to predict.
- In summary, the court determined that the NAV should be assigned substantial weight given the nature of the dry bulk shipping industry, the CCA was equally useful, the CTA was of limited utility and the DCF method was inappropriate.

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Cyclical Industries

Questions

- ✓ *Are standard methodologies less reliable for cyclical industries?*
- ✓ *Is the valuation more complicated or less reliable due to multiple experts that must work in tandem to produce results?*
- ✓ *Is a DCF better than a comparables-based approach in this context because it is more "intrinsic"? Is a DCF limited because of the lack of reliable projections?*
- ✓ *Use of valuation to account for an entire business cycle (as opposed to just a peak or valley)?*
- ✓ *Will practitioners look to option pricing models and/or other alternative methodologies as checks on traditional methodologies in this context?*

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