

Testimony Before the ABI Chapter 11 Reform Commission

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My name is David Smith. I am a finance professor at the University of Virginia's McIntire School of Commerce. During my 20-year career as an academic, I have published in the finance profession's top peer-reviewed journals in the areas of valuation, investment performance, corporate finance, credit agreements, and corporate restructuring. I teach corporate valuation and restructuring to both undergraduate- and graduate-level finance students, and also work as an instructor for *Training the Street*, where I conduct one-day boot camps on credit and distressed restructurings for analyst and associate classes at investment banks. I have been retained in legal cases as a valuation expert and an expert on distressed debt markets, and have testified in New York state and U.S. courts. I am honored to be here today before the ABI Reform Commission and the leadership of the Advisory Committee on Valuation to talk about issues related to valuation in Chapter 11 bankruptcies.

I will concentrate my remarks on the areas I feel most comfortable talking about, namely on what academic studies tell us (or don't tell us) about: (1) the accuracy of valuations conducted as part of a Chapter 11 case, (2) whether appropriate adjustments are made for the risks faced by distressed companies, and (3) whether more empirical studies are warranted, and if so, how these studies could be conducted to learn more about what works and doesn't work in bankruptcy valuations. I think the last point is particularly important because, frankly, I view the area of empirical research in bankruptcy, particularly with respect to valuation, to be relatively nascent; a lot more could be done.

The seminal study in the finance literature on the accuracy of bankruptcy valuations was conducted by my colleague Edith Hotchkiss (who is here at the conference), together with Stuart Gilson

and Richard Ruback from Harvard Business School.¹ In their study, published in the *Review of Financial Studies* in 2000, Edie and her coauthors examined 63 firms that filed for Chapter 11 between 1979 and 1993 that also traded in public equity markets upon exiting Chapter 11. Because the firms emerged with public equity, the researchers could compare market valuations of enterprise value following emergence to valuations based on debtor cash flow forecasts disclosed with their plan of reorganization. The authors report a number of interesting patterns. First, the average and median estimates of enterprise value appear “unbiased,” in the sense that they are close to the market value of the firms following emergence from bankruptcy (the average estimate was actually 5 to 10% below the post-confirmation market value). Second, while close to unbiased on average, the estimates showed a wide dispersion around the market values. For instance, estimates of enterprise value varied between 173% below the market enterprise value to 95% above the market value. This dispersion in valuations is quite large compared with similar valuations completed in the context of market-oriented transactions such as merger deals and leveraged buyouts. Third, deviations in estimated values are strongly related to the bargaining positions of senior versus junior claimants. When senior claimholders have a strong bargaining position, valuations at confirmation are below the market value of the company; when the junior claimants have the dominant bargaining power, valuations overstate the market value.

Since 2000, no scholarly updates to the Gilson, Hotchkiss, and Ruback study have been published.² This is unfortunate because Chapter 11 restructurings have evolved considerably in the 20 years since the Gilson, Hotchkiss and Ruback data sample ended. The paucity of studies cannot be explained by a lack of data. Indeed, a quick perusal of the UCLA-Lopucki Bankruptcy Research Database shows that over 200 firms that filed for bankruptcy during the years 1994 to 2011 exited Chapter 11 with a “cik” code identifier, suggesting that the company was registered as a public firm with the SEC

¹ Gilson, S., E. Hotchkiss, and R. Ruback, “Valuation of Bankrupt Firms,” *Review of Financial Studies* 13-1, pp. 43-74 (Spring 2000).

² However, a number of practitioner-oriented articles have continued to note the dispersion in bankruptcy valuations relative to market valuations. For example, see Maxwell, A., “Markets, Uncertainty, and the Role of Judgment in Bankruptcy Valuation,” in *Contested Valuation in Corporate Bankruptcy*, R. J. Stark, H. L. Siegel, and E.S. Weisfelner, Eds., Collier Monograph, Ch. 12, pp. 1-12 (2011).

following its emergence, and could be tracked for valuation assessments. I will have more to say at the end of my talk about where I think research efforts on valuation can be advanced using more up-to-date data.

But now I would like to turn my attention to the second area of discussion -- whether or not bankruptcy valuations make appropriate adjustments for the risks faced by distressed companies. Here, I will focus my discussion of “adjustments for risks” specifically on how cash flow uncertainty should be compensated for in calculations of the cost of capital. That is, the risks I will consider are those that should be accounted for in the weighted-average cost of capital (WACC) of a discounted cash flow analysis of enterprise value.³ I want to raise two points where I think recent scholarly evidence can provide sound guidance.

The first point relates to the use of newer asset pricing models that do a better job of describing required rates of return than the traditional, single-beta CAPM. Namely, published academic studies over the last 20 years, using data on thousands of companies across many countries, demonstrate a consistent pattern that required returns can be explained best by three or four systematic risk factors together, rather than one market factor. The factors include how exposed a company is to: (1) market risk (as in the CAPM), (2) size risk, (3) book-to-market risk, and (4) momentum risk. The first three factors comprise what is now commonly known as the “Fama-French” factors, named after the works of Eugene Fama and Kenneth French in the early 1990s.⁴ The fourth factor, momentum, is usually attributed to Mark Carhart for analysis he conducted in the mid-1990s, and controls for the fact that stocks with higher prior returns are riskier than stocks with low prior returns.⁵ The Fama-French factors are particularly relevant to distressed companies because these companies tend to be smaller and have higher book-to-market ratios

³ Thus, I am sidestepping adjustments that might be made to the analysis to account for model or forecast risk.

⁴ See Fama, E.F. and K. French, “The Cross Section of Expected Stock Returns,” *Journal of Finance*, 47, 427-465 (1992) and “Common Risk Factors in the Returns on Stocks and Bonds.” *Journal of Financial Economics* 33, 3-56 (1993).

⁵ See Carhart, M., “On Persistence in Mutual Fund Performance,” *Journal of Finance*, 52-1, pp. 57-82 (1997).

than their non-distressed peers, suggesting that the required rates of return on distressed companies can be higher than the CAPM beta alone would suggest.

Surprisingly, while much of the finance industry – including portfolio managers and other investment professionals – has switched to using three and four factor models, bankruptcy valuations still often rely on the CAPM as a basis for measuring systematic risk. I would advocate that bankruptcy professionals consider switching to the Fama-French or Fama-French plus momentum models for estimating the required rates of return for bankrupt companies.

My second point on evaluating risk relates to *inappropriate* adjustments to discount rates that are sometimes made *ad hoc* to bankruptcy valuation models. For instance, I have heard practitioners suggest that a special premium should be added to the discount rate of a bankrupt firm simply because the firm is distressed. The academic evidence is pretty strong in this dimension: Looking beyond compensation for risks associated when a distressed firm is small and has a high book-to-market ratio, investors in distressed companies are not compensated with returns that are any higher than investors in similar, non-distressed companies. Indeed, in recent work with two of his PhD students, Harvard economist John Campbell has shown that distressed companies actually earn returns that are *lower* than would be expected given their size and book-to-market ratios.⁶ Campbell terms these low returns a “puzzle.”

Likewise, efforts to add a company-specific risk component to a discount rate are, in my opinion, misguided. Numerous academic studies have been conducted to analyze whether or not investors are compensated for company-specific risks – that is, risks that are not system-wide or “systematic”, dating back 45 years and spanning both public and private markets. By far, the weight of the evidence from the scholarly literature indicates that investors exposed to company-specific risk receive no extra reward for

⁶ See Campbell, J.Y., J.Hilscher, and J.Szilagyi, “In Search of Distress Risk,” *Journal of Finance* 63, 2899–2939 (2008).

bearing that risk.⁷ I would also characterize efforts to hike the cost of capital by adding marketability, liquidity, or control premiums to be, at the very least, in need of further study.

Based on my remarks thus far, you can probably guess that I am going to advocate for more research in the area of bankruptcy valuations; I do believe that more empirical studies are warranted. Let me take my remaining time to list a few areas that could bear fruit going forward.

First, I do believe that we are due for an update of the study by Hotchkiss, Gilson, and Ruback. The bankruptcy environment has changed extensively over the last 20 years with, among other things, the creative use of various forms of DIP and exit financing, the professionalization of distressed debt investing, and the explosion in Section 363 sales. How these changes have impacted the accuracy of bankruptcy valuations is a pertinent question to be answered.

Second, I think we should work to understand better how observed market prices for distressed assets, and traded claims against those assets, can aid assessments of confirmation value. To that end, it would also be valuable to measure how well prices for distressed claims predict ultimate recovery rates on those claims and, in aggregate, whether claims prices can be used to predict post-confirmation market values. That is, are pre- and post-petition claims prices efficient predictors of future value? If distressed debt markets are efficient and participants in restructurings are relatively passive in affecting value, then the answer to the efficiency question should be “yes.” However, distressed debt markets are probably not all that efficient and restructuring professionals probably do impact value as they work to turn around a company in trouble (at least that’s what I teach in my restructuring classes!), so the answer cannot be that straightforward. But I think such an analysis is worthwhile, particularly now that the transparency of secondary market trading has improved to the point that researchers can observe transaction prices and quotes.

⁷ Brian Calvert, of Development Specialists, Inc., and I provide a comprehensive review of the theoretical and empirical studies of company-specific risk in a working paper entitled, “Company Specific-Risk Premiums: Update on the Scholarly Evidence” available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1791213.

Another important area of research relates to the strategic consequences of conditioning confirmation valuations on market prices. How would distressed investors react if they believed that the prices at which they transact affected the proposed valuation under the plan of reorganization? Clearly, some feedback would occur whereby traders could try to “move” the estimated confirmation value by how they trade in the claims that are believed to be informative of future value, which in turn, would make the claims prices a distorted predictor of underlying value.⁸

In sum, I believe there is a lot to be done in terms of research on the financial mechanisms and methodologies behind bankruptcy valuations, and today, we have large amounts of data from bankruptcy filings, public securities markets, secondary over-the-counter markets, and growing access, in general, to information on the financial players in bankrupt markets. This makes for a lot of exciting potential research opportunities.

This concludes my prepared remarks. Thank you.

⁸ I thank Mark Jenkins, at the Wharton School at the University of Pennsylvania, for this insight.