

Mr. Market and the Chocolate Cake:
How Self Interest Promotes Fair Dealing in Corporate Restructuring Cases

Matt Donnell, CFA, CTP

Barrier Advisors
Two Galleria Tower
13455 Noel Road, Suite 2200
Dallas, Texas 75240

www.barrieradvisors.com

Abstract

Valuation is often the most hotly contested and highly politicized topic among the parties-in-interest to a restructuring case. Each party, depending upon his or her ranking and priority, argues for a value which most favorably bolsters their economic interest. And, as is sometimes the case, the ability of one party to exert undue influence over the process can have the effect of arbitrarily impairing the interests of other parties. This paper reviews an options-based approach to resolving the valuation dilemma. This approach, which is premised upon self-interested behavior, tends to better align a particular claimant's influence over the restructuring process with his or her economic entitlement. Rather than require a consensual or imposed single definition of value, this approach allows each party to act based on their own unique expression of value. In so doing, each party is in essence defining their own outcome independent of what other parties-in-interest may choose or decide. And, perhaps most importantly, this new process serves to safeguard and enforce the concept of absolute priority.

The Chocolate Cake Explained

Everyone is familiar with the story of the two young brothers who've been instructed that they must share a chocolate cake. Given that they both like chocolate and both are very hungry, it won't be long before a fight ensues over how much each of them is to get. Now comes the formidable father who instructs one boy to slice the cake in half and the other to choose which half he wants. Voila! Each boy acting for his own self interest will now ensure an equitable outcome for both – without destroying the dining room table in the process.

The case of the two brothers highlights some important distinctions true to most corporate restructuring cases. Unlike the brothers, the parties-in-interest to a restructuring case often disagree from the outset over the actual size of the proverbial cake. Depending upon their priority, they often have differing valuation objectives. The valuation opinion they put forth is generally focused on grabbing a larger slice of the overall cake and can sometimes be in contrast to their opinion of the firm's true intrinsic value. For example, secured creditor recoveries are often better in the context of a low valuation whereas unsecured creditors sometimes benefit by making a case for a higher number. This often leads to contentious valuation fights, where one side attempts to gain at the other's expense. It's a zero sum contest where the role of the formidable father is usually played by the bankruptcy judge who must decide to choose one brother's value over the other. Often this process is long and tedious with both sides incurring significant costs in terms of time and resources. Meanwhile, management's attention is diverted from running the underlying business.

The questions asked by this article are the following: first, is there a way to avoid these contentious battles and thereby lessen the time and expense incurred in resolving such disputes? Second, can an approach be designed such that each party may stake its claim according to its own expression of value, independent of what other parties might think? Third, could such an approach be kept consistent with the concept of absolute priority, where each party always receives the value of their claim according to its priority¹?

I believe the answer to all of these questions is yes. In fact, there is an excellent body of academic thought that specifically addresses these very questions. Notably is an options-based approach put forth by Lucian Bebchuk of the John M. Olin Center for Law, Economics, and Business at Harvard University. In his paper, titled “A New Approach to Corporate Reorganizations”, upon which I base this article, Mr. Bebchuk lays out an economic framework for solving the inherent conflict between competing claimants of differing priority and opinion of value².

I’ll begin by describing the format for this options-based approach and then provide an illustration of the application of this concept to a hypothetical situation. I’ll then describe how this approach can best be employed within the context of a step-by-step restructuring framework. Lastly, I’ll close with some views as to the appropriateness of this approach within the context of today’s restructuring environment. I should state from the outset that, while the content of this article, and my related conclusions, are based in large measure on Mr. Bebchuk’s approach, all errors and misrepresentations are

¹ The Rule of Absolute Priority is a concept within section 1129(b)(2)(B) of the US Bankruptcy code that requires senior creditors to be paid in full before junior creditors and stockholders receive any payment or distribution of value.

² See bibliography

completely my own. Therefore, in addition to reading this article, I refer the reader to the bibliography at the end of this article for the authoritative voice on the theory, its implications and its application³.

How Should the Cake be Sliced?

Let's consider a distressed firm, which we'll call Brody Auto Parts. Brody has a pre-reorganized capital structure comprised of three classes of debt, A, B, and C, and equity. Let's further suppose that Class A debt is senior in priority to B, and B is senior to C. Likewise, equity is entitled to receive nothing until all three classes of debt have been repaid in full. Brody Auto Parts is undergoing a restructuring and there is significant disagreement among the claimants over the value of the enterprise. For the moment, we'll ignore the issue of the post-emergence capital structure and focus solely on how to divide the enterprise value among the claimants.

Table 1 below shows the pre-petition value of each class of claim and their related opinion of the value of the reorganized firm (of course, we'll assume that each claimant's opinion of value is hidden from the others):

Class	Value of Claim	Enterprise Value Opinion
Class A	\$100	\$200
Class B	\$200	\$175
Class C	\$150	\$295
Equity	\$0	\$400

It is worthwhile to begin by examining what each class is entitled to receive in a restructuring that observes absolute priority. We can describe the payoff to each claim in

³ See bibliography

terms of maximum and minimum statements. For example, we know that Class A, being the most senior, is entitled to receive no more than the value of its claim, in this case \$100 (we'll also assume that if Class A is secured, its claim is fully supported by the value of its collateral). However, in the event that there is insufficient value to fully compensate Class A for the entire value of its claim, the concept of absolute priority would dictate that Class A should receive the entire value of the firm, which we'll denote as V . Therefore, the payoff to Class A can be written in terms of the following:

$$\text{Min}(\$100, V)$$

Therefore, it follows that Class A claimants would never receive more than the full value of their claim, but would receive the value of the entire firm in the event there was a shortfall in their recovery. Keep in mind that we've said nothing about what the actual value of V is, only how it would be distributed in the event it was below the value of Class A's claim.

Now consider the perspective of Class B claimants, who are only entitled to receive any value if V is greater than the value of Class A's claim. Therefore, we could write Class B's payoff profile as:

$$\text{Min}(\$200, \text{Max}(\$0, V - \$100))$$

to reflect the fact that Class B only gets value to the extent V exceeds Class A's claim, and then only to the extent of Class B's claim (which is assumed to be at least equal to the value of its collateral). To the extent Class A is not fully repaid, Class B obviously

gets nothing. Note that Class B's payoff profile resembles a call option spread, which could be replicated by buying a call with a strike price of \$100 and writing a call with a strike price of \$200. Again, for emphasis, we are only describing how absolute priority would allocate V, saying nothing about what the actual value of V is.

Therefore, it is relatively easy to write the payoff profile for Class C claimants as:

$$\text{Min} (\$150, \text{Max} (\$0, V - \$300))$$

Equity, for its part, has its own unique payoff profile given that it is the residual claimant and the most junior class in the group. In order to understand equity's position, it is constructive to consider equity as a call option on the entire value of the firm with an exercise price equal to the value of the firm's total debt. Therefore, equity's payoff profile can be stated as:

$$\text{Max} (\$0, V - \$450)$$

The Chocolate Cake Revisited

So now that we've defined the potential payoffs to the various classes, let's move on to a discussion of how this framework can be used within the context of reorganization. In order to do so, we must provide a structure within which the parties-in-interest will be required to operate. The first construct will be that of absolute priority, meaning junior creditors only receive value if all creditors of a senior status have been repaid in full. The second element is that each class of claimant will have the opportunity to purchase, for cash, the entire firm at a predetermined exercise price. This exercise

price is essentially equal to the value of all claims that are senior to a particular class. For example, Class C's exercise price is \$300 (the value of Class A and B claims combined). By paying \$300, Class C claimants will receive the full value of V. Note that Class A's exercise price is zero, given that they are the most senior claimant.

The process begins with the most junior claimant, in this case equity, being offered the first opportunity to exercise their option or simply let it expire worthless. If equity allows their option to expire, the process continues to Class C, then Class B, and Class A, in reverse order of the priority of claims. If a particular class does not exercise their option they will be entitled to no distribution of value, meaning their recovery would be zero. In the case where a class does exercise its option, the cash consideration paid would be distributed to each class of claimant above it in order of priority, i.e. Class A first, until fully repaid, then Class B and so on. In this way, absolute priority is strictly observed.

The value each class receives is solely dependent on how the members of a particular class choose to exercise their respective options. Their fate is entirely in their own hands. For purposes of the discussion thus far, it is assumed that all members of a class have the same opinion of value and would act in the same way, although that is not necessary for this framework to function. As I'll later explain, this construct would function equally well if particular members of a class each chose to act independently of one another.

Table 2 illustrates how each class would view its economics in light of the foregoing discussion. Given the assumption that each class acts rationally, it also indicates the likely outcome to this restructuring event.

Table 2:

Class	Value of Claim	Strike Price	V	Max Payoff
Class A	\$100	\$0	\$200	\$100
Class B	\$200	\$100	\$175	\$75
Class C	\$150	\$300	\$295	\$0
Equity	\$0	\$450	\$400	\$0

Given that equity views the value of the firm as \$400, it would not exercise its right to buy the firm for \$450. As the next most junior claimant, Class C would likewise forgo any recovery because its own opinion of value (i.e. \$295) is lower than the \$300 strike price (notice how the situation would be different if Class C shared equity's opinion of value. Beauty, as they say, really is in the eye of the beholder!). Therefore, in the case of equity and Class C, each believes they would be better off to allow their option to expire worthless. I will illustrate later how the process could be expanded to include a third party market participant which might provide alternatives to accepting a zero recovery.

Class B calculates the value of V to be \$175. Given that its exercise price is \$100, Class B believes there is \$75 of value inherent in exercising its option to purchase the firm. Their option to purchase the firm allows the claimant, in essence, to put their money where their mouth is. Mechanically, this would happen as follows: Class B would pay the exercise price of \$100 to the firm. The firm, in turn, would redeem 100% of Class A's claim for \$100, providing its members with a full recovery. Likewise, the firm would then issue certificates, or Reorganization Rights, to the members of Class B. Each Reorganization Right represents a pro rata interest in the post emergence capital

structure⁴. Since Class B determines that this package has a total value of \$175, its recovery on its Class B certificates would equal 37.5%, the exact amount absolute priority would have deemed appropriate given Class B's opinion of value.

The forgoing process is relatively simple; however, it is important to point out several significant observations:

1. No single participant received more than entitled under absolute priority. As options were evaluated and exercised, in reverse order of priority, value actually transferred in the opposite direction to the most senior claims first then to the most junior, exactly as required by absolute priority;
2. A particular class's opinion of value did not alter recoveries to any other class, but rather reaffirmed their entitlement (this holds up under any scenario you may wish to try); and
3. The recovery to any particular class was solely dependent on what the claimant chose to do with his option.

The Chocolate Cake Meets Mr. Market

However, as I mentioned earlier, claimants under this construct could have other options to maximize recovery beyond mere exercise of their options. The process could be expanded to include an open auction among willing third party participants. In theory, these market participants would have their own opinion of the value of V , for which, if the price is right, they would be willing to step into the shoes of any particular claimant. This provides at least two useful purposes. First, it allows any claimant who is unable, for liquidity reasons, to take advantage of the value inherent in their position to monetize their recovery. Second, it makes the process more competitive and provides value enhancement opportunities for existing claimants. For example, assume that a third

⁴ For purposes of this example, it can be assumed that the post-reorganization capital structure is comprised entirely of equity. However, as I will point out later in the step-by-step approach, determination of the post-reorganization capital structure could be made by the new owners of the firm after the reorganization event.

party made a bid for the various classes of claims based on the view that the value of V is \$325. Table 3 shows the resulting point of view for the various classes.

Table 3:

Class	Value of Claim	Strike Price	V	Max Payoff	Market's Value
Class A	\$100	\$0	\$200	\$100	\$100
Class B	\$200	\$100	\$175	\$75	\$200
Class C	\$150	\$300	\$295	\$0	\$25
Equity	\$0	\$450	\$400	\$0	\$0

In this scenario, equity would still be out of the money; however, Class C claimants, which were previously unwilling to exercise their option, suddenly have an outlet to create recovery for their position. The market, based on a value for V of \$325, would conclude that Class C's claim is worth \$25. Therefore, this third party might be willing to pay up to this amount for Class C's option, which it would presumably then exercise. Note too that Class B claimants would be made better off through addition of a third party. The third party may choose to buy both claims, if it could make a deal with both classes at a level that provided it a reasonable profit opportunity.

What Happens When Members of a Class Cannot Agree?

The discussion thus far has focused on illustrating how this framework is useful for resolving disagreement among various classes of different priority. However, as is often the case, there can be actual disagreement among members of the same class. In these instances, plan confirmation within a class of creditors requires only that a class have at least two-thirds in dollar amount and more than fifty percent in number vote in

favor of the plan. Further, if no such thresholds are met within a particular class, the bankruptcy code allows for Plan approval under a nonconsensual cram down⁵.

The approach described in this paper avoids any such conflicts and allows each party to achieve an equitable result of their own defining. In such cases, it could be argued that the need to file competing plans of reorganization could also be avoided as each party is individually guaranteed a result commensurate with absolute priority. An example will serve to enforce this point.

Table 4 illustrates what might happen if certain members of Class B disagree over the value of their position.

Table 4:

Class	Value of Claim	Max Payoff / Unit	# of Units Issued	Cash Paid	Cash Received	Value of Units Issued	% Recovery
Class A	\$100	\$1.00	80	0	\$20	\$160	180.0%
Class B-1	\$160	\$0.00	0	0	0	0	0.0%
Class B-2	\$40	\$0.75	20	(\$20)	0	\$35	37.5%
Class C	\$150	\$0.00	0	0	0	0	0.0%
Equity	\$0	\$0.00	0	0	0	0	0.0%

For purposes of this example, 100 Reorganization Rights are issued by the Company and made available to the first class, or claimants on a pro rata basis, who decide to exercise their option to purchase the firm (remember, we start with equity first and then proceed up the capital structure in reverse order of priority). In the above example, it is assumed that all members of equity and Class C allow their option to expire worthless. However, the holders of Class B interests are in disagreement as to the value of V. Holders of \$40 million of face amount of Class B Claims (identified in Table 4 as

⁵ Section 1129(b) states that a Plan, accepted by less than every class, can be confirmed only if: (a) at least one impaired class of claims as accepted the plan, (b) the plan does not discriminate unfairly, and (b) the plan is fair and equitable.

B-2) or those representing 20 Reorganization Rights, believe their option to exercise has a net value of \$0.75 for each Reorganization Right⁶. For purposes of this example, let's assume the remaining Class B holders (identified in Table 4 as B-1) believe their option has no exercise value. For purposes of this example, we'll assume B-1 holders believe the value of V is \$90. How would the construct described within this paper allow these claimants to resolve their position?

First, remember that each holder's recovery is a function of his or her own expression of value. Therefore, if holders of Class B-1 claims believe V was not of sufficient value to warrant exercise of their option, they would be foregoing negative value in favor of a zero recovery (again, this is purely their point of view). However, if the \$40 million of face value in Class B-2 believe there was value inherent in the option they would, under this construct, still be able to exercise their pro rata portion of the rights available to the entire class. Table 4 shows that their recovery would be 37.5% under their expression of value. Is this result in keeping with absolute priority?

The answer is yes. Notice what happens when Class B exercises only 20 of its available rights. First, the cash proceeds from the exercise of these rights (\$20), is distributed to the Class A in redemption of 20 of their rights. Next, the remaining 80 Reorganization Rights are issued to Class A in redemption of their remaining claims. Absolute priority is maintained. No party got more than they were entitled to.

Now, you are undoubtedly asking, "Yes, but how can this be fair if Class A received more than 100% of their claim, while certain Class B holders received nothing?"

The answer again comes back to each individual holder's perception of value. Notice,

⁶ The number of rights each holder is entitled to is determined by multiplying the number of dollars each claimant owns within the class by the fraction of (i) the number of rights issued pursuant to the Plan (in this case 100), divided by (ii) the total claims within the class .

that Class A's recovery in Table 4 is 180%, which is based on Class A's opinion that V is worth \$200. Remember, this is entirely their opinion. The B-1 holders, based on a value of V of \$90, would place Class A's recovery at 90%. Fundamentally, the important thing is that each claimant had the opportunity to act and measure their recovery based upon their own expression of value.

A Framework for Applying the Methodology

Using the forgoing analysis as background, it is easy to see how a formal restructuring process could be structured to include all of these elements. For example, I envision the following restructuring process for Brody Auto Parts, which could presumably be conducted in an in or out of court process:

- Step 1: Appoint a disinterested and unimpeachable third party to organize the various claimants into classes based on their priority and seniority
- Step 2: Create 100 units of Reorganization Rights ("RR") for ultimate issue, on a pro rata basis to those claimants exercising their options. By implication, one RR would be worth $V/100$.
- Step 3: Create a public forum for dissemination of information to all parties-in-interest as well as third party market participants. The restructuring process will actually be made more effective for all parties if everyone, including the market, has access to the same information. Access to information is analogous to the boy who slices the cake and allows his brother to choose which half he wants. When all parties have access to the same information, they will act to ensure their own best interest and thereby, according to the construct described herein, assure that other parties' interests are fully served as well.
- Step 4: Set a timeline for allowing parties-in-interest (i.e. claimants) to trade their claims with third party market participants.
- Step 5: After a predetermined period, require the trading of claims to

cease and begin the process of having each claim holder, in reverse order of their priority, choose to either exercise their option or simply allow it to expire as worthless.

- Step 6: Distribute the RRs to those holders who choose to exercise their options.
- Step 7: Redeem any remaining claims according to their priority with the proceeds raised from the claimants who chose to exercise their option to purchase the firm. Use these proceeds to pay claimants in the most senior class first and then proceed to pay claimants in each junior class. In the case where a class receives less than full value for its claim, each claimant within the class would receive only the pro rata portion of its claim.
- Step 8: Reorganization process is complete.
- Step 9: The new owners decide all post-reorganization governance issues, including the post-reorganization capital structure, board of directors, and other related issues.

In Conclusion

This article began by asking three questions:

1. Can a reorganization process be designed to avoid contentious valuation fights and thereby lessen the time and expense incurred in resolving cases?
2. Second, can an approach be designed such that each party may stake its claim according to its own expression of value, independent of what other parties might think?
3. Third, could such an approach be kept consistent with the concept of absolute priority, where each party always receives the value of their claim according to its priority?

I argue that the answer to all these questions is yes. However, I believe this process has merits that go beyond the mere answering of these questions. First, the process, as I've described, is an option-based approach, which compels parties to make accurate assessments of value. The inherent beauty of this approach is that each party, acting for its own self interest, ensures the equitable outcome of all parties. This is true as much for members of different classes as it is for members within the same class.

Second, the process, by definition, ensures that no claimant receives more than entitled under absolute priority. For this reason, it is necessary for all parties to have equal access to relevant and timely information in order to make informed valuation judgments. Equal access to information within this context has several benefits, among which are:

1. Promotes market based estimates of value which are less subjective in nature;
2. Places all parties on an equal footing from which to judge the value of their position;
3. Encourages increased liquidity for claims trading;
4. Creates a more transparent, cost effective process; and
5. Ensures an equitable distribution of value where no claimant receives more, or less, than the fair value of its claim.

Third, the process tends to better align a particular claimant's influence over the restructuring process with his or her economic entitlement.

Lastly, the step-by-step approach as I've described relies on the input of disinterested third parties to decide other controversial issues such as the classification of claims. The approach also leaves the determination of the post-reorganization capital structure and composition of the board entirely in the hands of the new owners. In this way, capital structure would not be a factor of plan negotiation but rather a matter to be decided once the firm has already been reorganized under new ownership. These issues are often hotly contested items separate and apart from valuation. Resolving these issues in advance of a reorganization event allows a restructuring case to move expeditiously toward finality with a minimum of time and expense.

I am mindful that this framework, while intellectually appealing, will not be readily accepted by everyone. For example, the requirement for a claimant to exercise its

option with cash or sell to a third party could impose unfair discounts to claimants unable to access the necessary capital resources. Additionally, in the absence of a robust and competitive third party market, there would likely be no viable alternative to letting one's option expire worthless. I also recognize that there is a vested interest among many market participants to keep the current system in place and unchanged, particularly absent some enforced change or amendment to existing insolvency law. Lastly, it may prove impossible to completely ignore the issue of valuation in a restructuring case, particularly because it is often required to determine the amount of a secured creditor's claim. However, in spite of the foregoing, I do believe this approach lends itself particularly well to cases with the following characteristics:

1. Debtors who, despite being undercapitalized, are otherwise operationally sound and profitable with strong management teams;
2. Large cases, where the time and expense of reorganization can become unduly burdensome to creditors;
3. Cases where the value of a secured lender's claim is not in dispute; and
4. Cases where the likelihood of substantial or protracted bankruptcy litigation is low.

This framework may also function well in an out-of-court context. For instance, in cases where parties, despite their differences, were in agreement over the need to restructure and as well as their desire to do so outside of bankruptcy, this framework could serve as the basis for resolving disputes over valuation and terms. Much like a highly competitive M&A marketing process, fiduciaries and creditors to the estate would enjoy the additional benefit of being able to point to this process as an indicator of the overall fairness of the transaction.

The merits of this process are instructive and worth noting. While it is unlikely that bankruptcy law would ever be amended to specifically require a process like this, it

is intriguing to think about the ways in which this approach could be incorporated into plans of reorganization under existing law. And, as discussed, this framework also has intuitive appeal within the context of out-of-court cases as well.

Much like the two brothers, who learned it was in each of their best interest to divide the cake fairly, I believe the concepts described in this paper are equally useful for enhancing existing reorganization methods and practices.

Bibliography and Reference to Sources of Pertinent Interest

- Aghion, Philippe., Hart, Oliver., Moore, John. “The Economics of Bankruptcy Reform.” Working Paper No. 4097. National Bureau of Economic Research (June 1992)
- Bebchuck, Lucian Ayre. “A New Approach to Corporate Reorganizations.” Discussion Paper No. 37. As subsequently revised and published in Harvard Law Review, Vol. 101 pp. 775-804 (1988)
- Bebchuk, Lucian Ayre. “Using Options to Divide Value in Corporate Bankruptcy.” Discussion Paper No. 271 (12/99) Harvard Law School
- Hart, Oliver., Drago, Rafael La Porta., Lopez-de-Silanes, Florencio., Moore, John. “A New Bankruptcy Procedure That Uses Multiple Auctions.” Working Paper 6278 National Bureau of Economic Research (November 1997)
- Hausch, Donald B., Seward, James K. “Mitigating the Corporate Valuation Problem in the Reorganization of Financially Distressed Firms: Transferable Put Rights and Contingent Value Rights.” (Revised February 1999)