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# Restructuring Modeling Program

## *Restructuring and Bankruptcy Primer*

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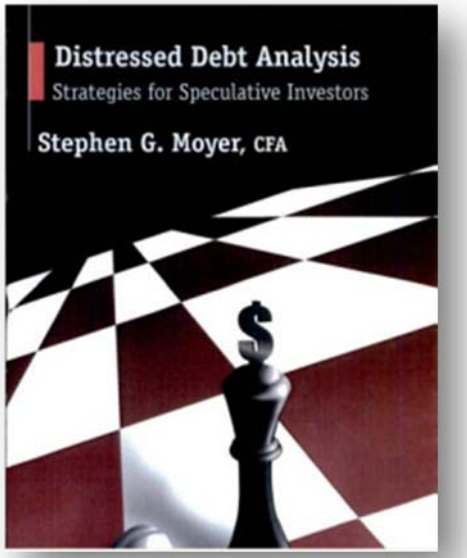
# Conceptual overview of restructuring

**Introduction**

- The purpose of this program is to provide finance professionals an introduction to the restructuring and bankruptcy process
- Regardless of whether bankruptcy is the final outcome, investment bankers and consultants engaged in a restructuring must understand how accounting, legal, valuation, and capital markets issues all work together to determine outcomes
- Bankruptcy jargon and accounting is unique
- This primer lays down the conceptual foundations required to understand all of these moving parts
- This primer will be followed by a step-by-step course in modeling a bankruptcy

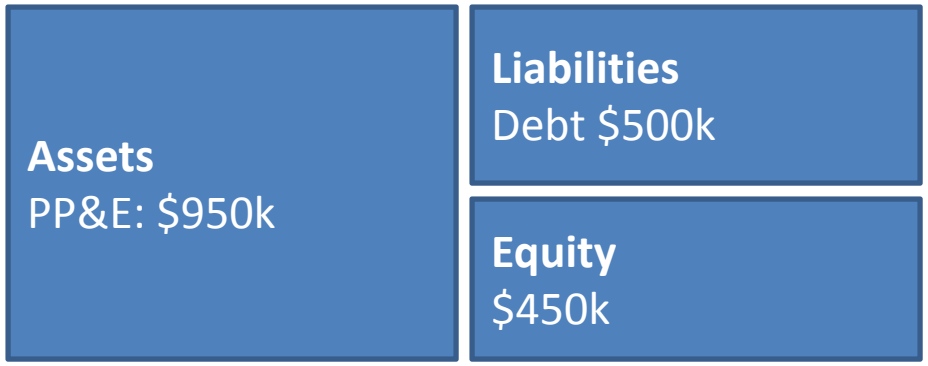
## Citations and references

- Several examples in this primer draw on material from Stephen Moyer's fantastic text *Distressed Debt Analysis: Strategies for Speculative Investors*
- When using examples derived from this text it will be connoted with an icon of the book



# Conceptual overview of restructuring

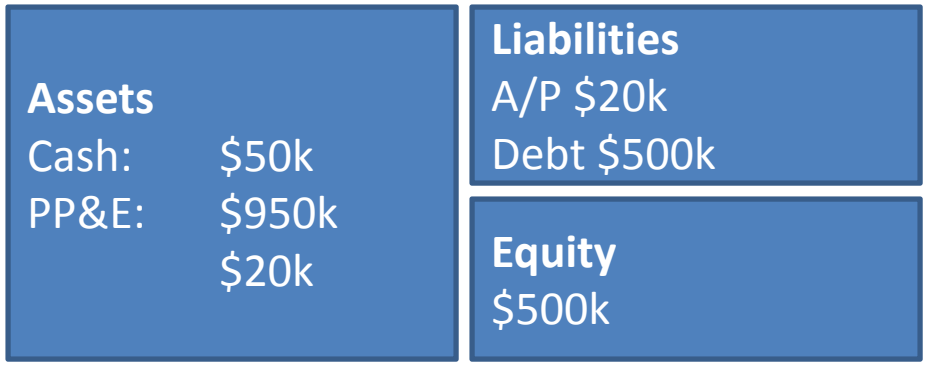
- I buy a house as investment property for $950k, financing $500k of it with debt (unsecured) and the remainder with equity
- Initial balance sheet under US GAAP:




I incorporated my company and arbitrarily issued myself 90k shares. Since my equity value is $450k, GAAP has me record the value of each share as $5.

# Conceptual overview of restructuring

- I immediately find a tenant and realize that I should probably have some cash on hand for every-day maintenance. I put in another $50k of equity, which "buys" me 10k shares.
- I also purchased hardwood from a vendor that created a payable of $20k.




At $5/share, the extra $50k leads me to issue an additional 10k shares, bringing me to 100k shares.

# Conceptual overview of restructuring

- Moving away from the house example to a balance sheet of a company, let's get some basic terminology under our belt.
- Enterprise value = value of operating assets minus operating liabilities. An item of note:
  - Cash is often treated as a non-operating asset in the valuation context, and is netted against debt. Essentially this treatment is akin to saying "I can always use my cash to pay down debt", so thinking of a net debt figure is more appropriate than disaggregating debt and cash.
- Based on this definition, what is the enterprise value in our example?
- Value of operating assets = $970k, operating liabilities = $20k, so enterprise value = $950k

| **Assets** | | **Liabilities** |
|---|---|---|
| Cash: | $50k | A/P $20k |
| PP&E: | $950k | Debt $500k |
| | $20k | **Equity** |
| | | $500k |

## Conceptual overview of restructuring

- Notice that the equation **Assets = Liabilities + Equity** can now be re-expressed using the enterprise value definition as follows: Enterprise value – net debt (gross debt – cash) = Equity.
- This is a common way to discuss value so make sure you are comfortable with the basic intuition:

**Enterprise value – Net Debt = Equity**

# Conceptual overview of restructuring

**Book vs. Market values**

- Suppose some time has passed and my balance sheet looks as follows:

| **Assets** | |
|---|---|
| Cash: | $50k |
| PP&E: | $950k |

| **Liabilities** |
|---|
| Debt $500k |

| **Equity** |
|---|
| $500k |

- I now seek to do a large renovation and estimate that I need $150k. In addition to taking on more debt or putting in my own money to raise capital for this project I could issue equity to others.
- How many shares should I issue? Recall that initially I valued each one of my 100k shares at $5.
- Suppose I retain an investment bank and they advise me that in this environment my business has a post money equity value of $900k because the value of my property increased.
- Since $150k is roughly 16.6% of the total equity value, new shareholders will demand at least 16.6% of the equity in order to compel them to provide me with capital. Since I own 100k shares, I will thus need to issue an additional 20k shares, implying each share is expected to generate $7.50 in proceeds.

# Book vs. Market values

- Upon stock offering:

**GAAP**

| Assets | | Liabilities |
|---|---|---|
| Cash: | $200k | Debt $500k |
| PP&E: | $950k | |
| | | **Equity** |
| | | $650k |

From a GAAP perspective, your equity value was $500k and you raised another $150k in cash, increasing equity to $650k, and cash to $200k.

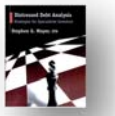
**Market**

| Assets | | Liabilities |
|---|---|---|
| Cash: | $200k | Debt $500k |
| Other: | $1.2m | |
| | | **Equity** |
| | | $900k |

From a market perspective, your equity is worth $900k and liabilities are worth $500k, so your assets must be worth $1.4m. Notice that in this example enterprise value is $1.2m.

## Book vs. Market values

- Post stock offering – renovation goes well and company enjoys even higher rents than expected.
- The market now believes that based on DCF and comparable company analysis the equity is worth even more than $900k – that each of the 120k shares are actually worth $10 per share, driving the market equity value to $1.2m.



# Book vs. Market values

- Notice that GAAP remains unchanged:

**GAAP**

| Assets | | Liabilities |
|---|---|---|
| Cash: | $200k | Debt $500k |
| PP&E: | $950k | |
| | | **Equity** |
| | | $650k |

**Market**

| Assets | | Liabilities |
|---|---|---|
| Cash: | $200k | Debt $500k |
| Other: | $1.5m | |
| | | **Equity** |
| | | $1.2m |

Notice how the value of operating assets is simply imputed in the market framework based on the market's perception of the equity value.

# Conceptual overview of restructuring

## Book vs. Market values

- You now realize that, in addition to renovating your existing assets and buying new properties to improve the rental income cash flows, you can also embark on an acquisition strategy and buy businesses with a portfolio of investment properties in geographic areas where you don't have expertise.
- You find a company that has an attractive portfolio of investment properties that will sell for $200k, but similar to what you have seen on your own balance sheet, the GAAP-based value of assets is $20k – far lower than the $200k market value.
- To finance the acquisition, you decide to issue $200k debt subordinated to the senior debt ("sub debt").
- Since you only receive acquired assets that GAAP values at $20k, you need to record the $180k difference between the purchase price and the asset value as an intangible asset called goodwill.
- The market loves the strategy and share price shoots up to $15 per share.

# Book vs. Market values

- Post-acquisition

**GAAP**

| **Assets** | |
|---|---|
| Cash: | $200k |
| Goodwill: | $180k |
| PP&E: | $970k |
| Total: | $1.35m |

**Liabilities**
Senior debt $500k
Sub debt $200k

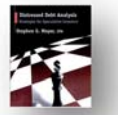
**Equity**
$650k

**Market**

| **Assets** | |
|---|---|
| Cash: | $200k |
| Other: | $2.3m |

**Liabilities**
Senior debt $500k
Sub debt $200k

**Equity**
$1.8m



# Conceptual overview of restructuring

## The party's over – financial distress

- In the same way that markets can get excited about a company's prospects they can get unexcited
- Variety of reasons include company-specific issues, industry-specific issues and macroeconomic issues
- The 90's tech bubble and the 2008 credit crisis resulted in markets changing their opinions about prospects of many businesses
- Let's suppose that due to a combination of worsening macroeconomic climate and company-specific problems, the market is now valuing your business at:
  - Equity – $0.10 per share
  - $500 face value senior debt trading at 50% of face
  - $200 face value sub debt trading at 20% of face
  - Implies investors believe that there is a large probability of only partial recovery to the senior debt and even lower probability of recovery to the subordinated lenders
  - Equity value in this scenario is close to zero

# The party's over – financial distress

**GAAP**

| Assets | |
|---|---|
| Cash: | $200 |
| Goodwill: | $180 |
| PP&E: | $970 |
| Total: | $1,350 |

**Liabilities**
Senior debt $500
Sub debt $200

**Equity**
$650

GAAP – barring some exceptions – does not reflect market fluctuations so in distress the balance sheet looks familiar….

**Market**

| Assets | |
|---|---|
| Cash: | $200 |
| Other: | $90 |
| Total: | $290 |

**Liabilities**
Senior debt $250
Sub debt $40

The market balance sheet now reflects the market values of debt and negligible equity value and a new asset value can thus be imputed.

**Blend**

**Assets:** $290

**Neg. Equity:** $410

**Liabilities**
Senior debt $500
Sub debt $200

But since debt – unlike equity – is a contractual obligation that must be paid, a blend of the market and GAAP approach can show to what extent equity is "negative"

## The party's over – financial distress

- This is the context within which companies in distress find themselves
- What options does our company have now?
- Note that declines in market valuations in and of themselves are not the trigger of distress, but reflect the market's perception – or anticipation of – distress
- Theoretically, as long as our company continues to pay interest using the large cash balances it has, there is no possibility of bankruptcy
- Of course, if the business isn't generating money, cash will run out at some point

# Conceptual overview of restructuring

**The party's over – financial distress**

- Some firms have no hope of turning around and are simply liquidated, but many companies are overleveraged or facing temporary problems and a restructuring is optimal.
- One obvious way to restructure is to improve the operations of a business. To the extent that a business is a function of its future cash flows – improved working capital management, research & development, profitability, etc. – will compel the market to value the assets more favorably.
- Companies in distress have likely been trying this approach for a period of time. At a certain point, management will retain restructuring advisors to help them navigate through the operational issues.

**Improve operations**

| **Assets** | |
|---|---|
| Cash: | $200 |
| Other: | $500 |

| **Liabilities** |
|---|
| Senior debt $500 |
| Sub debt $200 |

Even this valuation, it should be noted, implies an overleveraged business (100% debt / 0% equity). This leads companies to the next option…

# Conceptual overview of restructuring

**The party's over – financial distress**

- Another option is to convince (read out-of-court restructuring) or compel (read in-court chapter 11 bankruptcy process) the lenders to exchange their debt claims for equity as follows:

**Exchange – Resize capital structure**

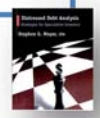
| **Assets** | |
|---|---|
| Cash: | $200 |
| Other: | $90 |
| Total | $290 |

| **Liabilities** |
|---|
| Senior debt $100 |

| **Equity** $190 |
|---|

Under this scenario, if lenders, seeing the writing on the wall, can be convinced to exchange their existing claims of new debt and equity securities that put the company on a more sustainable footing, the balance sheet will be restructured. The negotiations and strategy surrounding these discussions can be contentious, to say the least.

Should the subordinated lenders, who appear wiped out, receive any fraction of the equity?



# Conceptual overview of restructuring

## Out-of-court restructuring

- Voluntary – terms are negotiated without a judge
- When feasible, this approach is less costly that in-court chapter 11 because of the avoidance of legal and other fees, which can be large in bankruptcy
- Let's assume management proposes that the senior lender accept $100 in new debt and 7,000 shares of common stock – equaling 98.3% of new equity (the outstanding 120 shares or 1.7% of total equity would be retained by the out-of-the-money equity owners) while the subordinated lenders get nothing.
- Suppose management determined that if they were further diluted, they could simply refuse to play ball.
- Would senior lender agree?
- Would subordinated lender agree?

# Conceptual overview of restructuring

## Out-of-court restructuring

### Exchange – Resize capital structure

| Assets | |
|---|---|
| Cash: | $200 |
| Other: | $90 |
| Total | $290 |

**Liabilities**
Debt (MV) $290
Debt (FV) $700

### Exchange – Resize capital structure

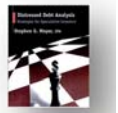
| Assets | |
|---|---|
| Cash: | $200 |
| Other: | $90 |
| Total | $290 |

**Liabilities**
Debt $100

**Equity**
Debt $190

Lenders – 186.8
Old equity – 3.2

Total value recovered by senior lender: $100 + $186.8 = $286.8
% recovery by senior lenders: $286.3 / $500 = 57%
% recovery by subordinated lenders: 0%
New debt/equity ratio = $100/$190 = 53%



# Conceptual overview of restructuring

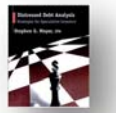
## Out-of-court restructuring

- As in most restructurings, there are other alternatives
- Note that in this example a new debt / equity ratio of 53% was considered acceptable
- Depending on the company, industry, and lending environment, this ratio could have been considered too high. In fact, some restructurings are 100% equity for firms with unstable or uncertain cash flows
- In addition, the company does have $200 in cash which could have been fully or partially used to buy out a fraction of the lenders' claims at discount

# Conceptual overview of restructuring

## Out-of-court restructuring

- Despite simplicity and benefits of lower costs, there are disadvantages
  - Nonfinancial liabilities like pensions, unfavorable leases and contracts are often the cause of distress and can be better managed (rejected) in bankruptcy
  - Voluntary cooperation in out-of-court restructuring is difficult when there are many parties



# Conceptual overview of restructuring

## In-court restructuring

- Bankruptcy typically begins when petition is filed by the debtor called “voluntary petition”
- More rarely, could begin if creditors file “non-voluntary petition” but since being the filer provides certain advantages like selecting jurisdiction, the debtor almost always ends up filing preemptively when confronted with this possibility
- The petition will seek protection under chapter 7 or 11
  - Chapter 7 is when a liquidation is contemplated
  - Chapter 11 is when company wants to emerge from bankruptcy as a viable entity
- In most circumstances, recoveries in aggregate are higher under chapter 11 that chapter 7 because of fire-sale discounts and is preferred by debtor and most creditors (when there are secured creditors expecting 100% recovery they may prefer liquidation because it is faster to everyone else’s detriment)

# Conceptual overview of restructuring

## In-court restructuring

- Timing of petition is important because it creates a clear line - "pre-petition" phase vs. "post-petition" phase
  - Liabilities incurred pre-petition are **subject to compromise** while post-petition liabilities receive priority treatment over pre-petition liabilities.
  - **Automatic stay** prevents creditors from collecting pre-petition claims without approval of court
  - Financing may now become available to debtor (**DIP financing**) despite pre-petition limitations
    - DIP lenders often get **super-priority** status via **priming lien** status to incent them to lend
    - Judges will approve this despite its potential detriment to pre-petition lenders as long as they feel there is adequate collateral to provide **adequate protection** to pre-petition lenders
    - Adequate protection is an art not science, leading many pre-petition lenders to vie to become DIP lenders to mitigate the deterioration of their claim priority

# Conceptual overview of restructuring

## In-court restructuring

- Since debtor will typically know that it will eventually have to file, it will "manage" the timing so that cash can be conserved before the filing to give debtor maximum flexibility
- Often this takes the form of:
  - Delayed payments to vendors
  - Drawing the maximum available revolving credit lines
  - Filing right before a large required payment to a creditor
- Barring fraud or gross mismanagement, management will typically stay in place post-petition and manage operations day to day alongside a turnaround consultant that will be brought in to support management
- Management's fiduciary responsibility postpetition (and pre-petition to the extent a filing is imminent) shifts to creditors
- Technically this responsibility shifts when company enters "zone of insolvency" which is difficult to pinpoint

# Conceptual overview of restructuring

## In-court restructuring

**Official Committee of Unsecured Creditors (OCUC)**

- The OCUC is created in accordance with bankruptcy code and is designed to represent the interests of all unsecured creditors (their diversity and conflicting interests can create problems to be discussed shortly)
- Legal and administrative costs are charged to the debtor
- It is comprised of the seven largest willing creditors but US Trustee has discretion to create multiple committees and change the size of the group when it believes the conflicts warrant it, despite the higher administrative costs borne by the estate as a result

**Secured creditors**

- Grouped by classes according to collateral by which claim is secured
- In syndicated offering, agent bank represents the entire bank group

**Shareholders**

- Typically will get nothing, unless there is sufficient asset value for all creditors to get paid, in which case an equity committee will be formed to represent their interests

# Conceptual overview of restructuring

## In-court restructuring

- Once a debtor files for bankruptcy the goal is emergence from bankruptcy via the adoption of a plan of reorganization (POR)
- POR is a document identifying what will happen to debtor's assets, liabilities and equity upon exit from bankruptcy
    - Exchanges, recoveries, form of consideration to claims classes are identified in the plan of reorganization
- Many pre-petition and post-petition events can be viewed as strategic jockeying by competing interests to maximize outcomes upon adoption of the POR
- The proponent of the plan (often the debtor which is granted the exclusive right to present a plan within 120 days of filing) prepares a disclosure statement to solicit creditor acceptance of the plan containing information about the debt and the effect of the plan. Opponents can also solicit rejections

# Conceptual overview of restructuring

## In-court restructuring

- The exclusivity period is often extended by judge beyond 120 days, but after this period, creditors may also propose plans
- Sometimes, the debtor and creditor negotiate a plan prior to bankruptcy filing and vote on the plan immediately upon filing as a way to accelerate the process when there is substantial cooperation between parties. This is called a pre-packaged bankruptcy (or "pre-pack") and dramatically reduces the duration of the bankruptcy process – often to less than 45 days
- If the plan is accepted (acceptance is a function of complicated voting rules) and meets criteria and tests of fairness set by the court, the plan will be confirmed by the court, and the company emergence from bankruptcy with new contracts, fewer liabilities, and a new capital structure

# Conceptual overview of restructuring

## In-court restructuring

**Trend toward faster workouts**

- 30 pre-packaged bankruptcies in 2009
- Represents $124 billion in assets
- Only 10 in 2008
- Represent 18% of the total filed in 2009.
- Examples of pre-packs include CIT Group Inc bankruptcy, Six Flags Inc, Charter Communications Inc, Panolam Industries International Inc and Lear Corp

Source: Reuters and http://www.totalbankruptcy.com/blog/the-year-of-the-prepackaged-bankruptcy/

# Conceptual overview of restructuring

## Structure of plan

- 2 substantive parts of POR
  - **Part 1: Classification of claimants**
    - Classified based on commonality of interest
    - Classes comprised of claims that are similar in terms of priority
    - Unsecured bank debt, bonds and tort claims are all unsecured and of similar priority so can be grouped in same class
    - Secured classes are grouped based on collateral interest and lien priority
      - If collateral value is less than claim is considered unsecured
      - If creditor has second lien on collateral that is valued at less than the first lien creditor claim, 2nd lien will be treated as unsecured claim
  - **Part 2: What each class will receive**
    - Debt, equity, cash, etc.

# Conceptual overview of restructuring

## Structure of plan

- In our example, we have determined that lenders will exchange their $700 in claims for $100 in new debt and 100% of equity in the new firm. The value of the assets are estimated at $290.
- Factoring in legal accounting, advisory fees, and DIP financing, a hypothetical POR could look like this:

| Claims class | Claims | Description | Payout |
|---|---|---|---|
| Administrative Claims[1] | $1 | Post-petition costs of lawyers, accountants, bankers. | Outstanding claim of $1 will be fully paid in cash upon plan confirmation. |
| Super priority secured claims | $2 | Company secured $3 DIP (debtor-in-possession) financing post petition of which $2 is outstanding at confirmation. | DIP lender will be fully paid the outstanding $2 in cash upon confirmation. |
| Secured claims | $500 | Senior lenders with $500 in face value claims. Given priority and admin claims of $3, only $287 is still considered secured. | Prepetition secured lenders receive $100 in new notes and 100% of equity of new firm. Since assets = $287 after payouts, the value of equity = $287 – $100 note = $187. |
| Unsecured Claims | $200 | Prepetition subordinated lenders with $200 face value claims. | Receive nothing. |
| Equity | | | Receive nothing. |

[1]Technically, secured claims are ahead of administrative claims but carve outs by lenders allow for certain administrative claims to be paid out before the secured claims

# Conceptual overview of restructuring

## Determining the assets and liabilities

**Determining the size of assets**

- Estimating recoveries depends on the players' assessments of the size of the asset "pie"
- GAAP does not accurately measures the value of assets and liabilities but the estimation and valuation of assets and liabilities is a critical and contentious part of the process
- **Valuation methodologies:** DCF, multiples, and liquidation analysis all provide estimates for the value of the companies assets
- **Other considerations:**
  - Voidable preferences: If the debtor made payments to certain creditors but not others because for whatever reason it prefers those vendors, the court can "look-back" up to 90 days prepetition at such payments, called *voidable preferences* and force the creditors to pay it back and join the other credtiors seeking postpetition recovery. If the creditor is deemed an insider, the "look-back" period is 2 years. This will increase the asset size of the balance sheet
  - Fraudulent conveyance**:** The estate can claim that a prior outlay (often an acquisition) was made when debtor was insolvent and that the price was too high, this represents a *fraudulent conveyance* and the transaction must be reversed. Successful litigation is rare because of time effort and difficulty of proof, but threat of litigation is used by creditors that may be able to extort concessions for dropping the threat. Legal claims against other parties (such as auditors) may also enhance the value of the estate

# Conceptual overview of restructuring

## Determining the assets and liabilities

**Determining the size of liabilities**

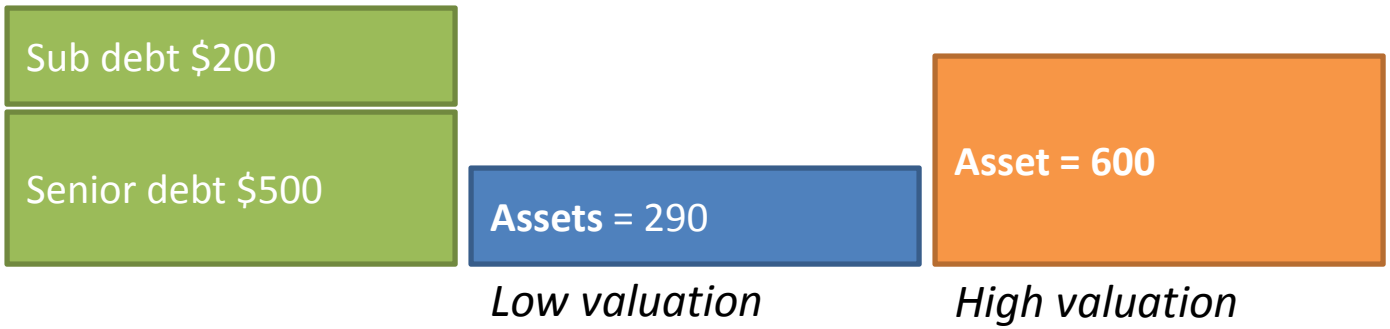
- Administrative claims
- DIP lenders
- Secured creditors
- Unsecured creditors
- Other considerations: The bankruptcy code enables debtors to eliminate or reduce certain liabilities
    - Executory contracts are contracts such as unexpired leases. In the context of bankruptcy these can be rejected and damages for certain contract rejections such as real estate leases are limited
    - Other contracts such as retiree benefits and collective bargaining agreements can also be rejected but there is a higher standard for these types of contracts than leases
    - Liabilities related to legal claims against the debtor can also be valued and capped in the context of bankruptcy, preventing future uncertainty

# Conceptual overview of restructuring

## Valuation

**Valuation clearly plays an important role in this process**

- Revisiting the example below, and once again assuming two creditor classes, valuation methodologies employed by financial advisors and valuation experts can and do yield dramatically different results, with significant implications to the various creditor classes
- Recall that the valuation for the company's assets (which is a function of cash flow expectations, comparable company analysis, etc.) was $290.
- What if another valuation opinion suggested a value of $600
- Which valuation does the senior prefer? How about the sub lenders?



# Conceptual overview of restructuring

## Valuation

- At the low valuation of assets, the senior lender is not made whole
- Under the **absolute priority rule**, priority claims must be paid in full before lower claims can be considered
- Assuming the post-petition capital structure is $100 new debt / $190 new equity, the senior lender would receive 100% of the new equity – and it still would only recover $290/$500 = 58% of its claim

# Conceptual overview of restructuring

## Valuation

- Alternatively, if the valuation was $600, and assuming a capital structure of $100 debt / $500 equity, the recovery would look as follows:
  - Senior debt would receive $100 debt and $400 of the new equity, while the sub would receive the remaining $100 in equity
  - Clearly the sub prefers the higher valuation in this example while the senior would get all the equity under the lower valuation because they "hoard" a higher share of the recovery
- Remember, the valuation is a function of expectations of the future, which is subjective. For example, if the lower valuation prevailed but the company is sold immediately postpetition for $600, the sub debt has no recourse
- Since the implication to recoveries, however, is anything but theoretical, the valuation becomes an extremely important part of the bankruptcy story

# Conceptual overview of restructuring

## Voting on POR

- Court must approve disclosure statement before it can be sent to creditors except in pre-packs
- Approval can be easy process if parties generally agree or highly contentious
  - Imagine the $290 valuation was proposed; sub lenders would argue it is misleading because it is materially inaccurate
  - Court's scope of review is limited at this point to whether the disclosure is sufficient to enable creditors to make an informed vote
- Once package is approved by court, it is sent to the claims holders
  - Unimpaired holders are assumed to accept and are not solicited
  - Claims holders receiving no recovery are assumed to reject
  - Impaired classes that are receiving some recovery are the ones that actually vote. For a class to accept the plan, more than 50% in number of claims representing more than 66.6% in amount must vote in favor

# Conceptual overview of restructuring

## Voting on POR

- Once votes are tallied, confirmation hearing is set. In addition to procedural requirements, there are 4 tests that represent minimum standards of fairness that must be met
  - **Best interests of creditor test:** The recoveries under plan are greater than recoveries under Chapter 7 liquidation
  - **Good faith test:** Requires that POR be proposed in good faith. This is vague and rarely is a successful way for opponents to block POR
  - **Feasibility test:** The POR should ensure that company will not likely result in further restructuring or subsequent liquidation. Any creditor can raise objections to POR under these grounds and it is in fact a contentious part of the claims hearing. For example, opponents in a high valuation scenario may argue that the postpetition company is overlevered
  - **Consent or cram-down:** Even if an impaired class votes to reject the plan, the proponent may ask the court to adopt the plan despite the objection (cram-down). A cram down can occur as long as the POR be approved by at least one impaired class, the plan if it finds that the plan is "fair and equitable" and does not unfairly discriminate against objecting class

# Valuation overview

## DCF and Comps

- Valuation in context of bankruptcy draws heavily on standard valuation methodologies with some important differences
- Discounted cash flow (DCF) analysis is a prevailing methodology
  - The value of a business is a function of future cash flows, discounted at a rate that appropriately reflects the riskiness of those cash flows
- Comparable company analysis (also called multiples analysis) is another common approach
  - The value of a business can be imputed by observing market valuations of comparable firms relative to a relevant operating metric such as EBITDA and using this multiple to frame a value range for the company under analysis
  - A variation of this approach is called comparable transaction analysis, and values a company based on the multiples (typically of EBITDA) paid to acquiring comparable businesses

# Valuation overview

## DCF and Comps

**Discounted cash flow (DCF) analysis**

- There is no consensus on implementation – controversies predominantly over the estimation of the cost of equity.
- Extremely sensitive to changes in operating, exit and discount rate assumptions.

**DCF in practice**

| **Step #1:** Projecting free cash flows** typically 5-10 years | **Step #2:** Calculating the terminal value |
|---|---|

Discount at the cost of capital (WACC)

=

**Enterprise value**
(value of net operating assets)

| **Free cash flow calculation |
|---|
| EBIT (Operating income) |
| EBIT (1 – tax rate)<br>(Tax-effected EBIT, EBIAT or NOPAT) |
| Plus: Depreciation and amortization<br>Less: Increases in working capital assets[2]<br>Plus: Increases in working capital liabilities<br>Less: Increases in deferred tax assets<br>Plus: Increases in deferred tax liabilities<br>Less: Capital expenditures<br>Less: Other required investments |
| Equals: Free cash flows (unlevered) |

# Valuation overview

## DCF and Comps

**Cost of capital**

- An in-depth discussion of the cost of capital is treated thoroughly in other texts and is beyond the scope of this session
- However certain restructuring specific guidelines do apply:
  - Most investors in distressed debt require a return in the range of 15%-25%

**Terminal value**

- Intuitively should reflect the present value of all cash flows beyond the explicit forecast period
- TV can be derived using the growth in perpetuity formula

  $TV_t = FCF_{t+1}/(wacc - g)$

  Requires analysts explicitly assume:

  1. $FCF_{t+1}$
  2. A sustainable constant long term growth rate of those cash flow (g), and an acceptable range in context of distress is 0-4%
  3. A constant discount rate (wacc)
- An alternative approach, the EBITDA "exit" multiple approach, is used to calculate the terminal value by estimating the terminal value by assuming an EV at some multiple of EBITDA in the terminal year

# Valuation overview

## DCF and Comps

- Using our prior example, suppose we projected free cash flows related to the investment properties using the growth in perpetuity approach

| | | | | | |
|---|---|---|---|---|---|
| WACC | 20.0% | | | | |
| Long term growth (g) | 4.0% | | | | |
| | **2010** | **2011** | **2012** | **2013** | **2014** |
| Free cash flows | 39.5 | 43.5 | 47.8 | 52.6 | 57.8 |
| **PV of free cash flows** | **139.3** | | | | |
| FCF in 2015 | 60.1 | | | | |
| *Calculate by growing prior year FCF by 1 + g* | | | | | |
| Terminal value in 2015 | 375.9 | | | | |
| *FCF in t+1 / (wacc - g)* | | | | | |
| **PV in 2010 of terminal value** | **151.1** | | | | |
| *Discount TV back to 2010* | | | | | |
| **Enterprise value** | **290.4** | | | | |
| *PV of FCF + PV of TV* | | | | | |

# Valuation overview

## DCF and Comps

- Using an EBITDA multiple assumption we arrive at a similar value
- Obviously the long term growth rate and discount rate assumptions are implicit in the EBITDA multiple assumption
- The multiple approach is the prevalent approach in DCF analysis in the context of restructuring

| | |
|---|---|
| WACC | 20.0% |
| LTM EBITDA multiple | 4.7x |

| | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|
| EBITDA | 55.0 | 60.5 | 66.6 | 73.2 | 80.5 |
| Free cash flows | 39.5 | 43.5 | 47.8 | 52.6 | 57.8 |
| **PV of free cash flows** | **139.3** | | | | |
| | | | | | |
| TV in 2015 | 374.4 | | | | |
| *LTM EBITDA multiple x EBITDA in 2014* | | | | | |
| **PV in 2010 of terminal value** | **150.5** | | | | |
| *Discount TV back to 2010* | | | | | |
| **Enterprise value** | **289.8** | | | | |
| *PV of FCF + PV of TV* | | | | | |
| **2010 Implied EBITDA multiple** | **7.4x** | | | | |
| *Derived EV / 2010 EBITDA* | | | | | |

# Valuation overview

## DCF and Comps

- Of course the question is what is an appropriate terminal EBITDA multiple
- Given the return requirements for distress investors is 15-25% and a commonly accepted sustainable growth rate range is in the 0-4% range, an “acceptable” EBITDA multiple range for the terminal value calculation can be imputed as a range between 4.0x and 8.0x
- Analysts should recognize that deviations away from this multiple range imply a deviation from these benchmark discount rate and growth rate assumptions

# Valuation overview

## DCF and Comps

- **DCF advantages**
  - Discounting future cash flows is an intuitive way to value a going concern
  - Provides context (sanity-check) to market-based valuations
  - Can be adjusted to reflect bankruptcy-specific adjustments
- **DCF disadvantages**
  - Highly sensitive to various assumptions about distant future
    - operating assumptions
    - discount rate assumptions
    - terminal value calculations
  - Requires access to detailed historical financials

# Valuation overview

## DCF and Comps

**Comparable company analysis**

- Given limitations of DCF, professionals often also determine the enterprise value of a business based on values of comparable companies
    - Enterprise Value / Revenues
    - Enterprise Value / EBITDA <-- Most common
    - Enterprise value / EBIT
    - Although equity based multiples (P/E, P/B, etc) are useful in traditional valuation settings, in restructuring, equity valuations are less relevant and the predominant approach is enterprise multiples
- Multiples facilitate comparisons for companies of different size and valuation of private companies or companies with limited availability of financial information
- Provides market-based sanity-check to intrinsic valuation. The intuition: market is efficient on average, but may be off when pricing individual companies

# Valuation overview

## DCF and Comps

- **Comps advantages**
  - Easier, quicker, shorthand way to arrive at valuation
  - Captures actual market valuations
- **Comps disadvantages**
  - Bankruptcies are always unique, which makes comparisons to other companies less meaningful
  - Always comparing apples to oranges
  - Sensitive to selection of comps and metrics

**In application, the primary challenges are:**

- Selecting truly comparable companies
- "Scrubbing" the multiple (EBITDA should exclude nonrecurring items and should be calculated consistently across all companies)

## DCF and Comps

**Scrubbing EBITDA in context of restructuring – nonrecurring items**

Some income and expenses that a company generates are not expected to recur in future periods. This is especially true in a restructuring

- Severance costs
- Professional fees
- Inventory write-downs
- Goodwill impairment
- Uncollectible accounts
- Other restructuring costs
- Gains and losses on sales, facility closure, severance costs, and other restructuring expenses
- One-time legal settlements.
- If these are not excluded and left to skew the future cash flow potential of the company, the multiples derived valuation will understate value

# Evolution of bankruptcy laws and BAPCPA

- The Bankruptcy Reform Act of 1978 provided modern foundation of bankruptcy laws
  - Made it easier for companies and individual to file for bankruptcy
  - A strong business reorganization Chapter was created: Chapter 11
- Bankruptcy Amendment Act of 1984 curtailed the power of bankruptcy judges
- Record bankruptcies in the 1980s and early 1990's (Eastern Airlines, Texaco, Continental, Federated, Allied, Greyhound, Maxwell, Pan Am, etc) stressed the system and resulted in new innovations, such as the "prepackaged" bankruptcy

## Evolution of bankruptcy laws and BAPCPA

- Bankruptcy Reform Act of 1994 attempted to increase efficiency of bankruptcy code
  - Provisions for expedited bankruptcy proceedings
  - Created a National Bankruptcy Commission to recommend further improvements in bankruptcy law
- Bankruptcy Abuse Prevention and Consumer Protection Act (BAPCPA) of 2005 was a major piece of bankruptcy legislation

# Evolution of bankruptcy laws and BAPCPA

While **BAPCPA** predominantly affects (and curtails relief for) individual debtors, we highlight several important changes that directly affect many companies filing for bankruptcy

**Exclusivity**

- Debtor's exclusive right to file POR cannot be extended beyond 18 months
- Prior to BAPCPA the period was 120 days but routinely extended far longer
- Debtor's exclusive right to solicit acceptances for a POR may not be extended beyond 20 months
- Prior to BAPCPA the period was 180 days but routinely extended far longer

# Evolution of bankruptcy laws and BAPCPA

**Executory contracts and unexpired leases**

- Assumption of executory contract or unexpired lease requires:
  1. Cure of defaults
  2. Compensation for actual monetary losses
  3. Assurance of future performance
- Assumption or rejection of an executory contract or unexpired lease is treated as a prepetition breach and generates damages that are treated as an unsecured claim, subject to exceptions and limitations, notably around commercial leases:
  - Deadline for assumption of commercial lease is 210 days
  - Prior to BAPCA, deadline for assumption or rejection was 60 days but was extended indefinitely in practice, keeping lessors in limbo
  - Under BAPCPA, if a lease is rejected, the lessor can claim 2 years rent as an administrative (priority) claim, and the remaining claims (the greater of 1 year rent or 15% of the remainder of the lease, not to exceed 3 years rent) are treated as unsecured claims

# Evolution of bankruptcy laws and BAPCPA

**Prepacks**

- Solicitations can continue after filing; Prior to BAPCPA, Section 1125 prohibited solicitations postpetition and prior to the approval of a disclosure statement.

**Reclamation claims**

- Vendor rights have been expanded. Specifically, sellers can now force the debtor to return goods sold up to 45 days prior to and potentially 20 days after the Ch 11 filing.
- Even if the reclamation demand was not submitted, vendors have a priority administrative claim for the value of any goods received within 20 days prior to bankruptcy.
- Certain limitations apply (such as claims secured by the goods a vendor may attempt to reclaim, as well as the usage of those goods)

**Employment contracts**

- Employee claims limited to 1 year's salary

# Evolution of bankruptcy laws and BAPCPA

**Fraudulent transfers**

- Look back period is 2 years instead of 1.

**Other BAPCPA changes**

- Limitations on KERP "Key employee retention plans" (circumvented by using incentive plans instead).
- Tax claims can be paid out over installments no longer than 5 years (6 years previously)
- Creditor committees must more proactively share information with nonmembers in the class
- Prepetition investment bankers can stay on postpetition. This was not allowed prior to BAPCPA.

# Current trends

BankruptcyData.com
A Division of New Generation Research

**20 Largest Public Company Bankruptcy Filings 1980 - Present**

| Company | Bankruptcy Date | Description | Assets |
|---|---|---|---|
| Lehman Brothers Holdings Inc. | 09/15/08 | Investment Bank | $691,063 |
| Washington Mutual, Inc. | 09/26/08 | Savings & Loan Holding Co. | 327,913 |
| WorldCom, Inc. | 07/21/02 | Telecommunications | 103,914 |
| General Motors Corporation | 06/01/09 | Manufactures & Sells Cars | 91,047 |
| CIT Group Inc. | 11/01/09 | Banking Holding Company | 80,448 |
| Enron Corp. | 12/02/01 | Energy Trading, Natural Gas | 65,503 |
| Conseco, Inc. | 12/17/02 | Financial Services Holding Co. | 61,392 |
| Chrysler LLC | 04/30/09 | Manufactures & Sells Cars | 39,300 |
| Thornburg Mortgage, Inc. | 05/01/09 | Residential Mortgage Lending Company | 36,521 |
| Pacific Gas and Electric Company | 04/06/01 | Electricity & Natural Gas | 36,152 |
| Texaco, Inc. | 04/12/87 | Petroleum & Petrochemicals | 34,940 |
| Financial Corp. of America | 09/09/88 | Financial Services & Savings and Loans | 33,864 |
| Refco Inc. | 10/17/05 | Brokerage Services | 33,333 |
| IndyMac Bancorp, Inc. | 07/31/08 | Bank Holding Company | 32,734 |
| Global Crossing, Ltd. | 01/28/02 | Global Telecommunications Carrier | 30,185 |
| Bank of New England Corp. | 01/07/91 | Interstate Bank Holding Company | 29,773 |
| General Growth Properties, Inc. | 04/16/09 | Real Estate Investment Company | 29,557 |
| Lyondell Chemical Company | 01/06/09 | Global Manufacturer of Chemicals | 27,392 |
| Calpine Corporation | 12/20/05 | Integrated Power Company | 27,216 |
| New Century Financial Corporation | 04/02/07 | Real Estate Investment Trust | 26,147 |

* Listed in descending order by Pre-Petition Assets (Assets in $mil)

Source: BankruptcyData.com
New Generation Research, Inc. Boston, MA
(617) 573-9550

# Current trends

BankruptcyData.com
A Division of New Generation Research

**Largest Public Company Bankruptcy Filings – 2011 to date**

| Company | Bankruptcy Date | Description | Assets |
|---|---|---|---|
| Integra Bank Corporation | 07/30/11 | Bank Holding Company | $2,420 |
| Borders Group, Inc. | 02/16/11 | Operator of Book, Movie & Music Stores | 1,425 |
| TerreStar Corporation (2011) | 02/16/11 | Parent Company of TerreStar Networks | 1,375 |
| Seahawk Drilling, Inc. | 02/11/11 | Provides Contract Drilling Services | 625 |
| Nebraska Book Company, Inc. | 06/27/11 | College Textbook Marketer | 615 |
| Omega Navigation Enterprises, Inc. | 07/08/11 | Marine Transportation Services | 527 |
| Indianapolis Downs, LLC | 04/07/11 | Family Entertainment Center | 500 |
| Sbarro, Inc. | 04/04/11 | Italian Quick Service Restaurant | 490 |
| Satelites Mexicanos, S.A. de C.V. (2011) | 04/06/11 | Provider of Fixed Satellite Services | 439 |
| Majestic Capital, Ltd. | 04/29/11 | Provider of Insurance Products | 436 |
| Constar International Inc. (2011) | 01/11/11 | Manufactures Plastic Containers | 406 |
| Jackson Hewitt Tax Service Inc. | 05/24/11 | Computerized Prep. of Individual Tax Returns | 346 |
| Perkins & Marie Callender's Inc. | 06/13/11 | Franchised Restaurants | 291 |
| Harry & David Holdings, Inc. | 03/28/11 | Multi-Channel Specialty Retailer | 243 |
| 155 East Tropicana, LLC | 08/01/11 | Owns & Operates A Casino & Hotel | 123 |

* Listed in descending order by Pre-Petition Assets (Assets in $mil)

Source: BankruptcyData.com
New Generation Research, Inc. Boston, MA (617) 573-9550

**Fraudulent conveyance - TOUSA**

- In July of 2007, Tousa, a homebuilder, borrowed $500M from Citi and granted it security in all their assets.
- Proceeds were used to pay previous lenders to settle litigation against Tousa and one of its subsidiaries (Transeastern) because of a default at the Transeastern JV.
- Tousa had other subsidiaries, that were not party to the litigation / lawsuit.
- Tousa, and subsidiaries filed for bankruptcy in January 2008.

# Current trends

**Fraudulent conveyance - TOUSA**

- Unsecured claims seeking to avoid the $500M debt/lien obligation and avoid liens on a tax refund issued in 2007 on fraudulent conveyance grounds, citing among other reasons, that the company was insolvent at the time of the transfer, thereby making the lien fraudulent.
- In November 2009, Judge sided with unsecured creditors
  - Transeastern lenders have to return the money to the estate
  - Citi loses liens on the assets and becomes unsecured creditor
- The controversial, potentially precedent-setting ruling requiring the original lenders to pay back the proceeds to the estate was appealed and reversed in February 2011
- The appeal by Citi is still pending
- Nonetheless, fraudulent conveyance claims are expected to continue

## DIP financing

- Bankruptcy code section 364 enables debtors to obtain financing (DIP financing) during the bankruptcy process with super-priority interest on assets that may have already been pledged to other creditors, as long as original creditor is adequately protected.
- This makes DIP lending relatively safe
- Despite this, unavailability of financing in 2007-2008 led to liquidation of Goodys, LLC and Strategic Resource Acquisition Corp
- As a result, when DIP financing began to return, it generated substantial returns (high fees and interest) to DIP lenders.

## Post Apocalypse - DIP Loan Trends

- Early 2009 saw the resurgence of DIP loan commitments: $13.6 billion in 2009 – most since 2007. Some caveats:
  - Going to fewer, larger borrowers
  - Larger bankruptcies capturing large portion of these commitments
  - Not new money, company's existing lenders are providing DIPs
  - New money appears to be available in smaller amounts
  - In 2010 and 2011, spreads have come down

# Effects of the Credit Crisis - DIP Loan 2009 Trends

| Q1 2009 DIP Commitments | |
|---|---|
| **Lender** | **#** |
| Bank of America | 17 |
| Wells Fargo | 17 |
| General Electric | 8 |
| Silver Point Capital | 5 |
| Citigroup | 4 |
| JP Morgan | 4 |
| PNC | 4 |
| CIT | 4 |
| Cerberus | 4 |

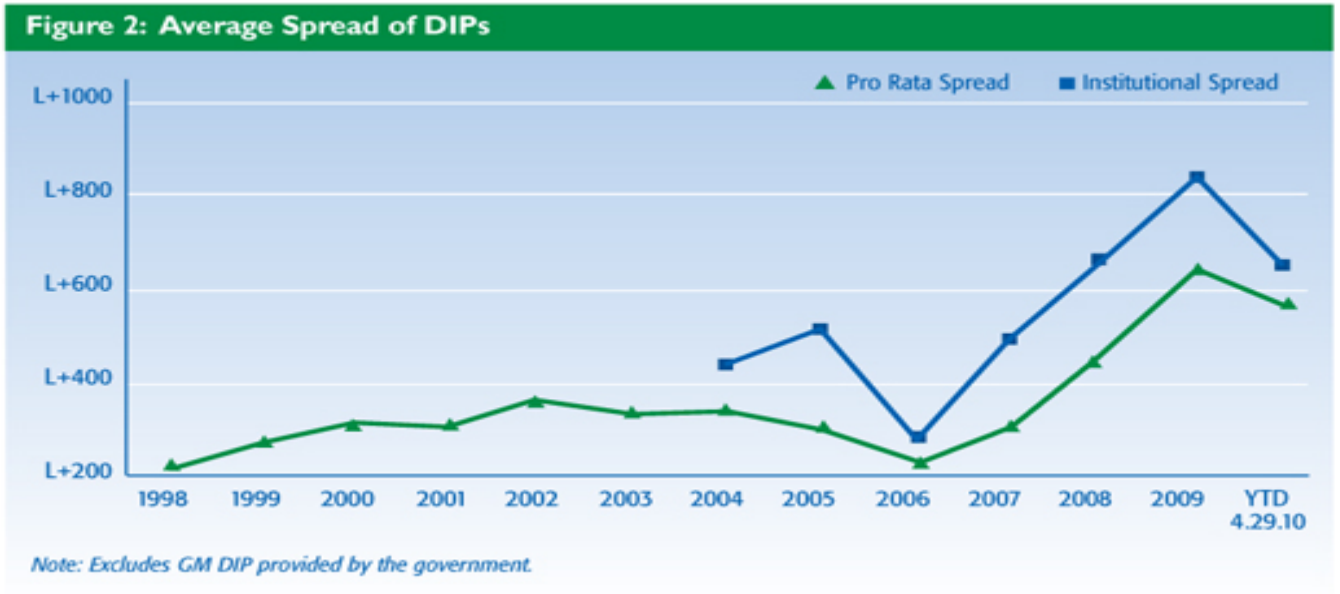
| Q1 2009 New Money DIP Financing | |
|---|---|
| **Debtor** | ($ in billions) |
| Lyondell Chemical | 3,250 |
| Smurfit-Stone Container | 750 |
| Aleris International Inc. | 440 |
| Chemtura Corp. | 314 |
| Gottschalks Inc. | 125 |
| Tronox Inc. | 125 |

Source: The Deal. http://www.thedeal.com/about_us/2009/04/the-deals-cover-story-rigors-of-rehab-shows-that-the-market-for-dip-loans-seems-alive-yet-prices-are.php

# DIP financing

- DIP loans in 2009 sometimes exceeded LIBOR plus 1,000 basis points, with a 3% LIBOR floor
- In addition, debtors have had to provide – and judges have approved – substantial additional inducements to DIP lenders, including roll up of prepetition claims into the new credit facility, high financing fees, short maturities, and restrictive borrowing base limits.

Spreads on revolvers (pro rata spread) and term loans (institutional spread) peaked in 2009, and began coming down in 2010



# DIP financing

**Lyondell**

- In January 2009, Lyondell bankruptcy included an $8.1 billion DIP
  - $3.25 billion "new money" term loan
  - $3.25 billion prepetition term loan rolled up
  - $1.57 billion revolver rolled up
  - Rolled up portions, however, unlike new money are not guaranteed cash at exit, but may be rolled over to new exit facility, at company's discretion
  - Junior creditors objected, accusing senior creditors of collusion to prevent them from participating; the judge overruled the objections

**Aleris**

- In February, Aleris bankruptcy included a $1.1 billion DIP, of which only $400 million was new money, the rest are prepetition loans by Apollo and Oaktree Capital that are being rolled up.

# DIP financing

**Circuit City**

- Announced DIP financing in November 2008
  - $900 million roll up
  - $350 new money
  - Onerous terms on DIP led to liquidation on January 2009
- Since CDO funds and banks are often unable to commit new capital (due to charter limitations and regulatory constraints) and thus participate in the roll up, they are disadvantaged relative to more nimble hedge funds and private equity firms that can raise the capital
- Although events in 2008 and 2009 raised concerns that onerous terms by DIP lenders, there were few alternatives

# DIP financing

**A&P**

- Announced $800 million DIP in December 2010
  - Underwritten by JP Morgan
  - $350 million term loan
    - 18-month maturity
    - loan at LIBOR plus 750 bps with 1.75% LIBOR floor, issued at 98
    - Initial draw of $187
  - $450 million revolver
    - $200 million in initial availability
    - priced at LIBOR + 300 bps
    - with a 0.5% unused fee
  - $15 million carve out for fees
  - UCC objecting  on adequate protection ground, as they are now behind $950 million in debt, as opposed to $332 million prior to the DIP

# DIP financing

**Borders**

- Announced $505 million DIP financing in February 2011:
  - $55 million term loan
    - to replace $49 million loan
    - L+1250, 1% LIBOR floor, 12 month maturity
    - $3 financing fees
  - Revolver up to $400
    - To take out existing $200 million revolver
    - Priced at L+400, 0.5% unused fee
  - Two $20 million letters of credit
  - Arranged by GE Capital
- Small carve out for professional fees ($4m), short maturity (12 months), aggressive financing fees, high minimum availability reserves, borrowing base limits by lenders and high equity cushion led to objection by UCC

## Blockbuster

- Announced $125 million DIP in September 2010
  - From prepetition creditors
  - Revolver L+750, 2% LIBOR floor, priced at 98
  - Subsequently defaulted on DIP in February 2011
  - Lenders agreed to allow Blockbuster to use their cash collateral during a 363 sale process.

## The 13 week cash flow model

- While the valuation and going concern questions regarding a distressed business are best analyzed using mid/long term, quarterly or annual accrual-based models, in a restructuring, not focusing on the short term cash management can mean the difference between a successful emergence and a Chapter 7 liquidation
- As a result, cash inflows/outflows are projected carefully in a weekly and monthly cash flow budget called the 13 week cash flow model (TWCF)
- Unlike standard accrual based quarterly and annual models, the TWCF is a cash-basis analysis, which uses the direct method for cash flow accounting to track receipts less disbursements, any non-operating disbursements, debt related inflows/outflows, and identifies any cash surplus (or unmet funding need)

## The 13 week cash flow model

- The TWCF's short term approach is critical for imposing management discipline and providing transparency to creditors
- TWCF models are a rolling forecast, whose projections are often compared to actual results and variances are analyzed to add further transparency and discipline
- The TWCF forecast is important in determining the borrowing needs (DIP) during the reorganization period

# Thirteen week cash flow models

**Lyondell Basell - North America**
**13 Week Cash Flow Forecast**
Consolidated by Category Line Item

*$ in millions*

| Week Ending | 2-Jan | 9-Jan | 16-Jan | 23-Jan | 30-Jan | 6-Feb | 13-Feb | 20-Feb | 27-Feb | 6-Mar | 13-Mar | 20-Mar | 27-Mar | 13 Week Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Receipts** | | | | | | | | | | | | | | |
| Accounts Receivable Collections | $ 249.6 | $ 249.6 | $ 249.6 | $ 249.6 | $ 249.6 | $ 278.9 | $ 278.9 | $ 278.9 | $ 278.9 | $ 330.8 | $ 330.8 | $ 330.8 | $ 330.8 | $ 3,686.7 |
| Joint Venture Dividends | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Intercompany | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other | 180.0 | - | - | - | - | - | - | - | - | - | - | - | - | 180.0 |
| **Subtotal** | 429.6 | 249.6 | 249.6 | 249.6 | 249.6 | 278.9 | 278.9 | 278.9 | 278.9 | 330.8 | 330.8 | 330.8 | 330.8 | 3,866.7 |
| **Disbursements** | | | | | | | | | | | | | | |
| Accounts Payable - Feedstock | (244.8) | (431.0) | (261.1) | (235.5) | (242.1) | (147.5) | (195.6) | (190.8) | (202.8) | (164.1) | (233.2) | (218.5) | (218.5) | (2,985.5) |
| Accounts Payable | (48.0) | (52.0) | (65.0) | (52.0) | (56.0) | (55.0) | (55.0) | (41.0) | (61.0) | (48.0) | (51.0) | (48.0) | (49.0) | (681.0) |
| Payroll & Benefits | (32.5) | (1.7) | (32.5) | (1.7) | (32.5) | (2.6) | (32.5) | (1.7) | (32.5) | (2.6) | (32.5) | (44.7) | (32.5) | (283.0) |
| Taxes | - | - | - | - | - | (123.0) | - | - | - | - | - | (1.0) | - | (124.0) |
| Capital Expenditures | (6.0) | (6.0) | (6.0) | (6.0) | (6.0) | (7.5) | (7.5) | (7.5) | (7.5) | (7.8) | (7.8) | (7.8) | (7.8) | (91.0) |
| Turnaround Outlays | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Debt Service | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Utilities | (82.0) | (15.0) | (25.0) | (3.0) | (76.0) | (10.0) | (25.0) | (10.0) | (98.0) | (10.0) | (25.0) | (10.0) | (69.0) | (458.0) |
| Insurance | - | (1.3) | (19.0) | - | - | - | - | - | - | - | - | - | (1.0) | (21.3) |
| Intercompany | (162.0) | (600.0) | - | - | - | - | - | - | - | - | - | - | - | (762.0) |
| Other | (3.0) | (3.0) | (3.0) | (3.0) | (3.0) | (3.0) | (3.0) | (3.0) | (3.0) | (3.0) | (3.0) | (3.0) | (3.0) | (39.0) |
| **Subtotal** | (578.4) | (1,110.0) | (411.7) | (301.2) | (415.6) | (348.6) | (318.7) | (254.0) | (404.8) | (235.5) | (352.5) | (333.0) | (380.8) | (5,444.8) |
| **Restructuring Disbursements** | | | | | | | | | | | | | | |
| Professional Fees | (3.3) | - | (0.4) | - | - | (4.1) | - | (0.4) | - | (30.9) | - | (0.4) | - | (39.3) |
| US Trustee | - | - | - | - | - | - | - | - | - | (0.8) | - | - | - | (0.8) |
| Mailings | - | - | (0.8) | - | - | - | - | (0.5) | - | - | - | (0.5) | - | (1.8) |
| Other | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **Subtotal** | (3.3) | - | (1.1) | - | - | (4.1) | - | (0.9) | - | (31.6) | - | (0.9) | - | (41.8) |
| **Cash Inflow (Outflow) from Operations** | (152.0) | (860.5) | (163.2) | (51.6) | (166.1) | (73.8) | (39.7) | 24.1 | (125.9) | 63.7 | (21.7) | (3.1) | (50.0) | (1,619.9) |
| **Beginning Book Cash Balance** | 332.0 | 180.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 332.0 |
| Net Cash Flow | (152.0) | (860.5) | (163.2) | (51.6) | (166.1) | (73.8) | (39.7) | 24.1 | (125.9) | 63.7 | (21.7) | (3.1) | (50.0) | (1,619.9) |
| Unmet Funding Need (Surplus) | - | 880.5 | 163.2 | 51.6 | 166.1 | 73.8 | 39.7 | (24.1) | 125.9 | (63.7) | 21.7 | 3.1 | 50.0 | 1,487.9 |
| **Ending Book Cash Balance** | 180.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 |
| **Unmet Funding Need (Surplus)** | - | 880.5 | 163.2 | 51.6 | 166.1 | 73.8 | 39.7 | (24.1) | 125.9 | (63.7) | 21.7 | 3.1 | 50.0 | 1,487.9 |
| **Accumulated** | - | 880.5 | 1,043.7 | 1,095.3 | 1,261.4 | 1,335.2 | 1,374.9 | 1,350.8 | 1,476.7 | 1,413.1 | 1,434.8 | 1,437.9 | 1,487.9 | 1,487.9 |

In the first week, the net operating outflows are funded from existing cash

The second week's cash short generates an $880 unmet funding need….

# Thirteen week cash flow models

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Other Potential Cash Outflows** | | | | | | | | | | | | | | |
| Utility Deposit | - | (50.0) | - | - | - | - | - | - | - | - | - | - | - | (50.0) |
| A/R Facility Payment | - | - | (200.0) | - | - | - | - | - | - | - | - | - | - | (200.0) |
| Inventory Facility Payment | - | (150.0) | (200.0) | - | - | - | - | - | - | - | - | - | - | (350.0) |
| Term Loan A & B Amortization | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| US Basell Securitization | - | - | (22.0) | - | - | - | - | - | - | - | - | - | - | (22.0) |
| Fees | - | - | - | - | - | - | - | - | - | - | - | - | (0.8) | (0.8) |
| Interest | - | (41.2) | - | - | (48.3) | - | - | (52.5) | (45.3) | - | - | (12.0) | (6.9) | (171.1) |
| Other - TBD | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **Total Other Potential Cash Outflows** | - | (241.2) | (422.0) | - | (48.3) | - | - | (52.5) | (45.3) | - | - | (12.0) | (7.6) | (828.9) |
| **Net Cash Inflow (Outflow)** | (152.0) | (1,101.7) | (585.2) | (51.6) | (214.3) | (73.8) | (39.7) | (28.4) | (171.2) | 63.7 | (21.7) | (15.1) | (57.6) | (2,448.7) |
| **Beginning Book Cash Balance** | 332.0 | 180.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 332.0 |
| Net Cash Flow | (152.0) | (1,101.7) | (585.2) | (51.6) | (214.3) | (73.8) | (39.7) | (28.4) | (171.2) | 63.7 | (21.7) | (15.1) | (57.6) | (2,448.7) |
| Unmet Funding Need (Surplus) | - | 1,121.7 | 585.2 | 51.6 | 214.3 | 73.8 | 39.7 | 28.4 | 171.2 | (63.7) | 21.7 | 15.1 | 57.6 | 2,316.7 |
| **Ending Book Cash Balance** | 180.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 |
| **DIP Credit Facility** | - | 1,269.7 | 1,854.9 | 1,906.5 | 2,137.3 | 2,211.0 | 2,250.8 | 2,279.2 | 2,471.4 | 2,407.8 | 2,429.5 | 2,444.6 | 2,524.6 | 2,524.6 |
| Beginning Balance | - | - | 1,269.7 | 1,854.9 | 1,906.5 | 2,137.3 | 2,211.0 | 2,250.8 | 2,279.2 | 2,471.4 | 2,407.8 | 2,429.5 | 2,444.6 | - |
| Interest | - | - | - | - | 16.4 | - | - | - | 21.1 | - | - | - | 22.4 | 59.9 |
| Fees and Expenses | - | 148.0 | - | - | - | - | - | - | - | - | - | - | - | 148.0 |
| Borrowings (Repayments) | - | 1,121.7 | 585.2 | 51.6 | 214.3 | 73.8 | 39.7 | 28.4 | 171.2 | (63.7) | 21.7 | 15.1 | 57.6 | 2,316.7 |
| Ending Balance | - | 1,269.7 | 1,854.9 | 1,906.5 | 2,137.3 | 2,211.0 | 2,250.8 | 2,279.2 | 2,471.4 | 2,407.8 | 2,429.5 | 2,444.6 | 2,524.6 | 2,524.6 |
| DIP Availability | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **Total Liquidity Surplus (Deficit)** | $ 180.0 | $ 200.0 | $ 200.0 | $ 200.0 | $ 200.0 | $ 200.0 | $ 200.0 | $ 200.0 | $ 200.0 | $ 200.0 | $ 200.0 | $ 200.0 | $ 200.0 | $ 200.0 |
| **Unmet Funding Need (Surplus)** | - | 1,269.7 | 585.2 | 51.6 | 214.3 | 73.8 | 39.7 | 28.4 | 171.2 | (63.7) | 21.7 | 15.1 | 57.6 | 2,464.7 |
| **Accumulated** | - | 1,269.7 | 1,854.9 | 1,906.5 | 2,120.9 | 2,194.6 | 2,234.4 | 2,262.8 | 2,434.0 | 2,370.3 | 2,392.0 | 2,407.1 | 2,464.7 | 2,464.7 |

This $880 shortfall is exacerbated by non-operating outflows. At a minimum cash balance of $200, the company expects to draw $1.3 billion from the DIP. The DIP balance is expected to peak at $2.5 billion.

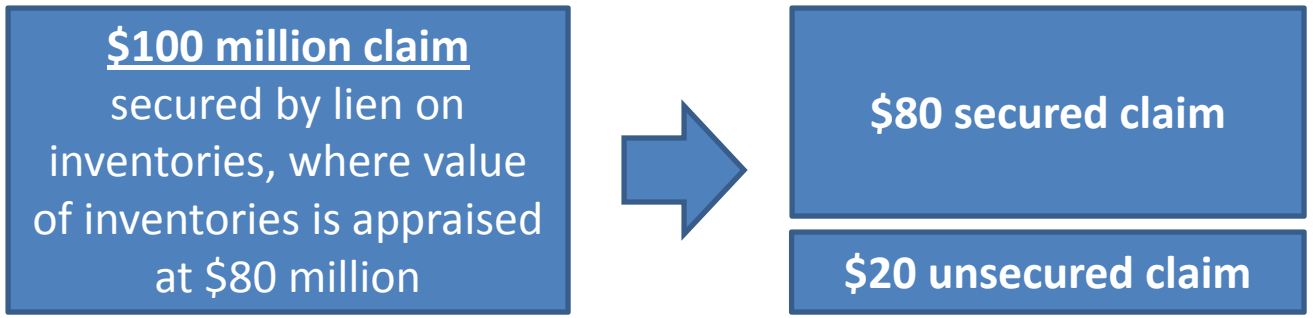
**Can the TWCF and accrual based models coexist?**

- One of the challenges of modeling companies in the context of bankruptcy is the reconciliation of TWCF data to accrual based models
- Reconciling working capital items is often most challenging
- Practical suggestions
  - Convert the accrual based model's indirect cash flow statement to a direct cash flow statement
  - Small differences between TWCF and accrual based models will always exist, but large differences are an indication that something may be wrong (i.e. working capital assumptions in the annual model are inconsistent with the TWCF)

# Priority and management of credit risk

**Priority and the claims waterfall**

- Broadly speaking, secured creditors should be paid first, followed by unsecured creditors, followed by equity.
- In reality, complicated capital structures, special rules, and ambiguity about many facets of the bankruptcy process make this determination challenging
- The bankruptcy code specifies priorities under section § 507:
- Determine if the claim is allowed in the first place
  - Allowed claims are then divided into secured and unsecured claims
  - Secured claims are secured by a lien on property of the debtor
  - If the secured claim exceeds the value of the lien, the excess becomes an unsecured claim



## Priority and the claims waterfall

- Unallowed claims include the following claims:
  1. Postpetition interest on unsecured debt
  2. "Unreasonable" legal fees and "insider" services
  3. Claim of a lessor for damages resulting for rejection of real estate leases is limited to the greater of 1 year's rent or 15% of the remaining lease agreement
  4. Section 502 of bankruptcy code also identifies limitations on employee termination claims
  5. Claims that were made after claims deadlines

## Priority and the claims waterfall

- Claims are then lumped into classes for the purposes of identifying priority of claims
- Classes are determined in accordance with commonality of interests
- Within a class, creditors share the available funds in proportion to the size of their claim ("pari passu")
- Classes are ranked based on priority and receive recoveries in accordance with the Absolute Priority Rule (APR), which states that creditors in a claims class shall receive full recovery before any value trickles down to a lower claims class.

# Priority and management of credit risk

## Priority and the claims waterfall


**Super priority secured claims**
Secured claims that have priority over other secured claims. DIP lenders often require a super-priority lien over existing secured creditors. Often the DIP lender will allow for "carve outs" for certain administrative payments (professional fees).

**Secured prepetition claims**
Creditors whose claims are secured by the assets of the debtor. Undersecured creditors, bifurcate their claim into a secured claims and general unsecured claim.

**Administrative claims**
Unsecured claims that have administrative status during bankruptcy receive priority over all other unsecured claims

**Priority unsecured claims**
Receive priority over general unsecured claims. Accrued employee salaries, and other groups receive certain priorities in the bankruptcy code.

**General unsecured claims**
GUCs are typically the trade creditors and unsecured lenders.

## Priority and the claims waterfall

- Actual recoveries often deviate from the absolute priority rule, as evidenced by the fact that often unsecured creditors or equity get some recovery even though higher priority creditors do not get 100% recovery.
- This occurs because underwater claims can often hold up the process, threaten litigation, and reduce overall recoveries unless they are dealt with.

## Capital structure as a tool to manage credit risk

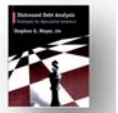
- Credit risk consists of leverage, priority, and time
- The amount of leverage or debt capacity that is considered acceptable is a function of a company's credit support
  - Cash flow credit support - capacity determined as DEBT/EBITDA
  - Collateral support – Asset / Debt ratio
  - Interest coverage - EBITDA / Interest

## Capital structure as a tool to manage credit risk

- In addition to leverage, priority is an important determinant in traditional credit analysis
- It is critically important in distressed debt analysis
- Priority can be segmented in 4 ways:
  - Grants of collateral
  - Term structure
  - Contractual provisions
  - Corporate structure

## Grants of collateral

- Granted through a separate security agreement
- Additional steps need to be taken by lenders to perfect their security interest
- Perfecting requires compliance with complex rules – failure to perfect security interest provides negotiating leverage to unsecured creditors
- Collateral is critically important because it gives secured lenders a priority claim on the assets of a firm



# Priority and management of credit risk

**Contractual provisions**

- Creditors can agree among themselves to subordinate one claim relative to another claim
- For example, via an intercreditor agreement, a bank loan could become senior to a subordinated bond
- Creditor cannot declare itself senior to another claim – rather, creditor can only declare itself subordinate to another claim
- Typically intercreditor agreements will precisely specify the security(ies) that the loan is subordinate to, rather than a broad subordination
- This has an important implication:
  - The senior claim has no priority claim over other unsecured claims, such as trade

# Contractual provisions

## Effect of subordination on recoveries

| | | Pro rata recovery | Effect of subordination | Adjusted recovery | Recovery % |
|---|---|---|---|---|---|
| Bank debt (senior to subordinated notes) | 50.00 | | | | |
| Trade claims | 50.00 | | | | |
| Subordinated notes | 100.00 | | | | |
| Total claims | 200.00 | | | | |
| Asset value | 90.0 | | | | |
| Asset value as % of total claims | 45.0% | | | | |

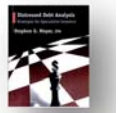
# Contractual provisions

## Effect of subordination on recoveries

| | | Pro rata recovery | Effect of subordination | Adjusted recovery | Recovery % |
|---|---|---|---|---|---|
| Bank debt (senior to subordinated notes) | 50.00 | 22.50 | 27.50 | 50.00 | 100.0% |
| Trade claims | 50.00 | 22.50 | 0.00 | 22.50 | 45.0% |
| Subordinated notes | 100.00 | 45.00 | (27.50) | 17.50 | 17.5% |
| Total claims | 200.00 | 90.00 | | 90.00 | |
| Asset value | 90.0 | | | | |
| Asset value as % of total claims | 45.0% | | | | |

## Maturity structure

- Bank debt typically has a floating interest rate (often tied to LIBOR, plus a spread)
- Bonds typically carry a fixed coupon
- Maturity structure adds a level of complexity to the priority issue because subordinated debt could be due prior to senior debt, whose payment would erode credit support to the senior lender



## Maturity structure

- Imagine the same capital structure as in prior example, except with the following additional data points:

| Date: | 12/31/2009 |
|---|---|
| Bank debt due 2015 | 50.00 |
| Trade claims | 50.00 |
| Subordinated notes due 6/2010 | 100.00 |
| Total claims | 200.00 |
| Asset value (all cash) | 90.0 |
| Asset value as % of total claims | 45.0% |
| Annual cash burn: | 30 |
| 2015 bank debt trading level (% of par) | 80% |
| 6/10 Sub notes trading level (% of par) | 60% |

## Maturity structure

- Company could buy out the sub debt with cash on hand and continue operating for a little while
- Maturity clearly alters the calculation of recoveries here and needs to be considered
- Of course, restrictive covenants by the bank debt and what appears to be a credible fraudulent conveyance argument would possibly mitigate the concern in actuality.

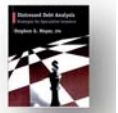
## Corporate structure

- Imagine the following scenario:
  - Company has $200 in assets and a $100 Senior Note
  - Company needs to borrow an additional $50 from a bank, which requires the senior notes to adopt a subordination clause as a condition of funding
  - The desired capital structure would look like this:

| Consolidated | |
|---|---|
| Sub 1 Stock | $50 Bank Loan |
| | $100 Sr Notes |
| | $50 Equity |

## Corporate structure

- The senior notes, however, disagree to subordinate their claims
- Depending on a company's corporate structure, however, this consent is not expressly needed.
- Consider the following corporate structure on the next page



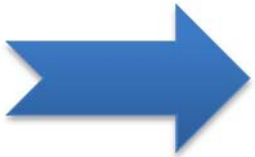
# Corporate structure

- Companies often have multi-tier corporate structures

| Holding Corp. | |
|---|---|
| Sub 1 Stock | $100 Sr Notes |
| | Equity |

| Sub 1 Corp | |
|---|---|
| Sub 2 Stock | $50 Bank Loan |
| | Equity |

| Sub 2 Corp. | |
|---|---|
| $200 | Equity |



| Consolidated | |
|---|---|
| Sub 1 Stock | $50 Bank Loan |
| | $100 Sr Notes |
| | $50 Equity |

## Corporate structure

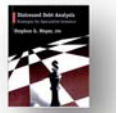
- In the corporate structure presented in the prior page, the entity that has the assets is Sub 2, and is unburdened by debt
- Sub 1 owns 100% of the stock of Sub 2
- The holding company owns 100% of Sub 2
- Suppose the senior notes were issued originally by the holding company
- If the bank loan was made to Sub 1, it would be structurally senior to the senior loans, and an explicit subordination clause would be unnecessary

## Corporate structure

- Since value flows up based on standard bankruptcy rules, it would work as follows:
  - Sub 2, being the sub containing the assets would be liquidated, and $200 in assets would be distributed to Sub 1, which now has a $50 liability. The bank loan would be paid out, and whatever remains (in this case $150) would flow up to the holding company which would distribute $100 to the senior notes, and $50 remainder to shareholder

## Corporate structure

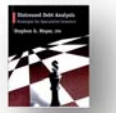
- Of course lenders protect themselves from this via several mechanisms, including requesting guaranties from the operating subsidiary (sub 2 in our example) when making the loan, in addition to guaranties from the holding company
- Sometimes these guarantees are not available
- Conversely, nonrecourse loans limit a lenders ability to foreclose on assets other than those explicitly defined



# Priority and management of credit risk

**Covenants**

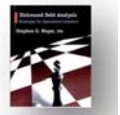
- Imagine in the prior example that several months after the bank loan is made (with the guarantee) the holding company makes a $2000 acquisition that is guaranteed by Sub 2, that is subsequently deemed worthless
- Now $200 in assets back $2000 in claims – the bank loan is severely impaired
- Clearly, while collateral protection, contractual provisions, as well as guarantees represent efforts by creditors to manage credit risk, a company can still do things that will gravely increase credit risk
- Covenants are an important tool by lenders to further manage this credit risk



# Priority and management of credit risk

**Typical covenants**

- Leverage (limit Debt/EBITDA)
- Priority
  - Restricted payments – limitations on spending beyond pre-specified carve-outs ("basket")
  - Negative pledge – pledge required of borrower to include lender in any subsequent grant of a security interest
- Performance covenants (coverage ratios)
- Put rights
- Forced call in the event of a downgrade



## Cancellation of debt (COD)

- Cancellation of debt (COD) income is created when the debtor is discharged of creditor claims and exchanged for consideration (cash, new debt, stock) valued at less than the principal balance of the original debt.
- This income is normally taxable, but in the context of bankruptcy and an out of court restructuring where the debtor is deemed insolvent, this COD income is not taxable, subject to certain conditions

## Cancellation of debt (COD)

- COD of solvent companies creates taxable income
- In bankruptcy, COD is not taxable
- Out of court, insolvent company excludes COD from taxable income up to the amount of the company's insolvency

## Cancellation of debt (COD)

- Any tax attributes an insolvent or bankrupt company may have must be reduced by the COD amount excluded from income for purposes of calculating taxes in the following order:
  - NOLs
  - General business credits
  - Minimum tax credits
  - Capital loss carryover
  - Basis in PP&E
  - Passive activity losses/credits
  - Foreign tax credits

# Cancellation of debt (COD)

| **Example** | |
|---|---|
| Debt principal balance of $1,000[1] exchanged for $150 in cash, $200 in new debt instrument, and $100 in new equity. | |
| **Balance sheet items** | |
| Market value of assets | 800 |
| Principal balance of liabilities | 1000 |
| Insolvent? | Yes |
| | |
| Debt principal | 1,000.0 |
| Less: Cash | 150.0 |
| Less: New debt | 200.0 |
| Less: New equity | 100.0 |
| Equals: Cancellation of debt (COD) | 550.0 |
| | |
| Accounting entries | |
| Debit debt principal | 1,000.0 |
| Credit cash | 150.0 |
| Credit new debt | 200.0 |
| Credit equity - new equity | 100.0 |
| Credit equity - COD | 550.0 |
| (1) Assume no unamortized premium or discount for simplicity | |

# Fresh start accounting

**Overview**

- Companies in distress often have ugly balance sheets with large losses in retained earnings and high liabilities
- Companies emerging from bankruptcy may choose to adopt an accounting treatment called “Fresh Start”, which allows for a revaluation of assets and liabilities, as well as a reset of the retained earnings balance back to 0.
- Fresh start accounting essentially calls for a revaluation of the company’s assets as if they were purchased by another company, as prescribed by FASB in accordance with statements 141, 142 and 141R
- To qualify for fresh start, companies must satisfy two rules:
  1. Immediately prior to confirmation of the company's plan of reorganization, the company must be "balance sheet insolvent" – that is, the “reorganization value” of its assets is less than the sum of its post-petition liabilities and allowed claims (in other words, recoveries are less than 100%).
  2. In addition to this test, pre-Ch. 11 shareholders must now own less than 50% of the common stock.

## M&A accounting basics

- Fresh Start accounting rules are the same as those prescribed by FASB for acquisition accounting
- There is one big difference:
  - In acquisition accounting, the purchase price of equity is allocated to the fair market value (FMV) of the target's equity, with any excess going to goodwill
  - In fresh start, the reorganization value is allocated to the FMV of assets, with any excess going to goodwill.
- Before proceeding with Fresh Start, let's briefly review the basics of M&A accounting:

# Acquisition accounting & purchase price allocation

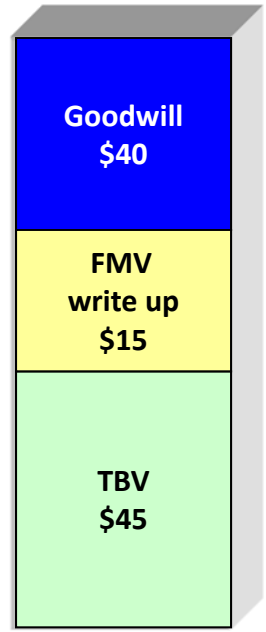
## Purchase price allocation

- Purchase price allocation is a sequence of steps to get from a pre-deal target balance sheet to a post-deal target balance sheet:
  1. Allocate the purchase price to the target's net tangible book value (TBV), defined as assets, excluding goodwill, less liabilities. Goodwill is excluded because it has no intrinsic value.
  2. Then, assets and liabilities are marked up to fair market value (FMV)
  3. If purchase price is still higher than FMV of net assets, the remaining purchase price is allocated to goodwill. Goodwill is the excess of purchase price over the FMV of the company's tangible book value.

***Illustration: PPA***

Revising a target's balance sheet to reflect a $100 purchase price

In this example, assuming the FMV of assets were $15 greater than the TBV, goodwill would be calculated as $40.



# Acquisition accounting & purchase price allocation

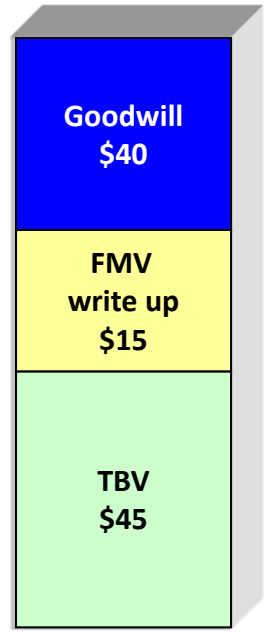
**Estimating asset write-ups**

- Some assets are commonly carried at below FMV on target books and require write up upon an acquisition
- Assets like PP&E, intangible assets, and LIFO inventories will be written up
- Appraisals dictate the amount of write ups
- Since appraisals will be conducted at late stages of the deal and often long after initial analysis is required, practitioners often either estimate the write ups by applying an "industry" % or simply using the book value as a proxy and letting all the value initially flow to goodwill.

***Illustration: PPA***

Revising a target's balance sheet to reflect a $100 purchase price

In this example, assuming the FMV of assets were $15 greater than the TBV, goodwill would be calculated as $40.



# Acquisition accounting & purchase price allocation

## Fill in the blanks where appropriate

| Adjusting the target balance sheet in accordance with PPA | | | | | | |
|---|---|---|---|---|---|---|
| Purchase price of target equity: | 1,000.0 | | | | | |
| FMV of target PP&E | 400.0 | | | | | |
| **Target balance sheet** | | **Step 1** | **Step 2** | | **Step 3** | |
| | **Pre-deal BS of target** | **Elimination of existing goodwill** | **Adjust to FMV** | **FMV of target** | **Calculate goodwill** | **New Target BS** |
| Cash | 100.0 | | | | | |
| PP&E | 300.0 | | | | | |
| Goodwill | 50.0 | | | | | |
| Total assets | 450.0 | | | | | |
| | | | | | | |
| Deferred tax liabilities | 0.0 | | | | | |
| Debt | 50.0 | | | | | |
| Equity | 400.0 | | | | | |
| Total assets & liabilities | 450.0 | | | | | |

# Acquisition accounting & purchase price allocation

## Solution

| Adjusting the target balance sheet in accordance with PPA | | | | | | |
|---|---|---|---|---|---|---|
| Purchase price of target equity: | 1,000.0 | | | | | |
| FMV of target PP&E | 400.0 | | | | | |
| **Target balance sheet** | | **Step 1** | **Step 2** | | **Step 3** | |
| | **Pre-deal BS of target** | **Elimination of existing goodwill** | **Adjust to FMV** | **FMV of target** | **Calculate goodwill** | **New Target BS** |
| Cash | 100.0 | | | 100.0 | | 100.0 |
| PP&E | 300.0 | | 100.0 | 400.0 | | 400.0 |
| Goodwill | 50.0 | (50.0) | | 0.0 | 550.0 | 550.0 |
| Total assets | 450.0 | | | 500.0 | | 1,050.0 |
| | | | | | | |
| Deferred tax liabilities | 0.0 | | | 0.0 | | 0.0 |
| Debt | 50.0 | | | 50.0 | | 50.0 |
| Equity | 400.0 | (50.0) | 100.0 | 450.0 | 550.0 | 1,000.0 |
| Total assets & liabilities | 450.0 | | | 500.0 | | 1,050.0 |

## Reorganization value vs. purchase price

- Notice how goodwill was calculated as the excess of the purchase price of equity over the FMV of the company's equity.
- In fresh start, the reorganization value represents the value of the assets, and thus must be allocated to the FMV of the company's assets.
- See how goodwill would be calculated for the same company under fresh start:

# Acquisition accounting & purchase price allocation

## Fill in the blanks where appropriate

| Adjusting the debtor balance sheet in accordance with Fresh Start | | | | | | |
|---|---|---|---|---|---|---|
| Reorganization value: | 1,050.0 | | | | | |
| FMV of debtor PP&E | 400.0 | | | | | |
| **Debtor balance sheet** | | **Step 1** | **Step 2** | | **Step 3** | |
| | **Pre-confirmation** | **Elimination of existing goodwill** | **Adjust to FMV** | **FMV of target** | **Calculate goodwill** | **New Debtor BS** |
| Cash | 100.0 | | | | | |
| PP&E | 300.0 | | | | | |
| Goodwill | 50.0 | | | | | |
| Total assets | 450.0 | | | | | |
| | | | | | | |
| Deferred tax liabilities | 0.0 | | | | | |
| Debt | 50.0 | | | | | |
| Equity | 400.0 | | | | | |
| Total assets & liabilities | 450.0 | | | | | |

# Acquisition accounting & purchase price allocation

## Solution

| Adjusting the debtor balance sheet in accordance with Fresh Start | | | | | | |
|---|---|---|---|---|---|---|
| Reorganization value: | 1,050.0 | | | | | |
| FMV of debtor PP&E | 400.0 | | | | | |
| **Target balance sheet** | | **Step 1** | **Step 2** | | **Step 3** | |
| | **Pre-deal BS of debtor** | **Elimination of existing goodwill** | **Adjust to FMV** | **FMV of target** | **Calculate goodwill** | **New Target BS** |
| Cash | 100.0 | | | 100.0 | | 100.0 |
| PP&E | 300.0 | | 100.0 | 400.0 | | 400.0 |
| Goodwill | 50.0 | (50.0) | | 0.0 | 550.0 | 500.0 |
| Total assets | 450.0 | | | 500.0 | | 1,050.0 |
| | | | | | | |
| Deferred tax liabilities | 0.0 | | | 0.0 | | 0.0 |
| Debt | 50.0 | | | 50.0 | | 50.0 |
| Equity | 400.0 | (50.0) | 100.0 | 450.0 | 550.0 | 1,000.0 |
| Total assets & liabilities | 450.0 | | | 500.0 | | 1,050.0 |

# Distress Express – Case Study

| Distress Express Balance Sheet | | | |
|---|---|---|---|
| ASSETS | | LIABILITIES | |
| Cash | 300.0 | Postpetition Claims | |
| Accounts Receivable | 335.0 | DIP Facility/Short term bank loan | 75.0 |
| Inventory | 350.0 | Accounts payable | 125.0 |
| Other current assets | 30.0 | Wages payable | 55.0 |
| PPE | 915.0 | Prepetition Claims | |
| Patent | 125.0 | Accounts payable subject to compromise | 600.0 |
| Reorganization excess | 0.0 | Taxes payable | 150.0 |
| Total Assets | 2,055.0 | Interest payable | 90.0 |
| | | Bank note | 260.0 |
| | | 15% bonds payable | 1,200.0 |
| | | New Debt | |
| | | Current portion - bonds | 0.0 |
| | | 12% senior debt | 0.0 |
| | | Subordinated debt | 0.0 |
| | | | |
| | | Retained earnings | (1,000.0) |
| | | Common stock | 500.0 |
| | | Total Liabilities and Stockholders' Equity | 2,055.0 |

# Distress Express – Case Study

**Distress Express Reorganization Plan**

| | Claim Amount | Cash Payable | New Debt | New Equity | Reorg Value | % Recovery |
|---|---|---|---|---|---|---|
| Administrative Claims | | | | | | |
| DIP Facility | 75.0 | 75.0 | | | 75.0 | 100.0% |
| Accounts Payables | 125.0 | 125.0 | | | 125.0 | 100.0% |
| Wages Payables | 55.0 | 55.0 | | | 55.0 | 100.0% |
| Priority Tax Claim | 150.0 | 150.0 | | | 150.0 | 100.0% |
| 15% Bonds payable | 1,200.0 | 100.0 | 500.0 | 500.0 | 1,100.0 | 91.7% |
| Accounts payable subject to compromise | 600.0 | 0.0 | 275.0 | 140.0 | 415.0 | 69.2% |
| Interest Payable | 90.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0% |
| Bank Note Payable - Unsecured | 260.0 | 0.0 | 120.0 | 60.0 | 180.0 | 69.2% |
| Equity | 500.0 | 0.0 | 0.0 | 100.0 | 100.0 | 20.0% |
| Total | 3,055.0 | 505.0 | 895.0 | 800.0 | | |

**Notes**

- Cash to be paid after the emergence from bankruptcy (i.e. the claim stays in place post bankruptcy)
- New debt for 15% Bond payable will be a 12% Senior Note
- Interest payable is an unallowed claim
- All other new debt will be subordinated debt

# Distress Express – Case Study

**Distress Express Asset Valuation**

| | Book Value | Fair Value | Difference |
|---|---|---|---|
| Inventory | 350.0 | 375.0 | 25.0 |
| PP&E | 915.0 | 910.0 | (5.0) |
| Patent | 125.0 | 0.0 | (125.0) |
| Total | 1,390.0 | 1,285.0 | (105.0) |

**Distress Express – Case Study**

1. Calculate the reorganization value
2. What valuation methodologies are typically employed to arrive at the reorganization value
3. Does Distress Express meet both criteria for Fresh Start accounting?
4. If the reorganization value was $500 higher, would the equity be better off?
5. What is the company's goodwill? *(Hint: To calculate goodwill, calculate the reorganization value minus the fair market value of Distress Express assets).*
6. Build Distress Express' reorganized balance sheet under Fresh Start