Corporate Financial Restructuring

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New York University
Corporate Financial Restructuring

- Corporate restructuring – business and financial
- Debt/Equity restructuring
- Distress-induced restructuring
- Mergers & divestitures
- Leveraged financing
A Simple Framework

- A company is a “nexus of contracts” with shareholders, creditors, managers, employees, suppliers, etc.
- Restructuring is the process by which these contracts are changed – to increase the value of all claims.
- Applications:
  - restructuring creditor claims (Conseco);
  - restructuring shareholder claims (AT&T);
  - restructuring employee claims (UAL)
Example

Conseco

Bondholders were offered the chance to get a more senior position in exchange for deferring repayment of their debt.
“Nexus of Contracts”

- Franchisors
- Senior lenders
- Salespeople
- Subordinated lenders
- Management
- Shareholders
Why and How

- Why restructure?
  - What is the fundamental problem to be solved?
- How restructure?
  - Create or preserve value, and negotiate how the gains are distributed
- When restructure?
  - Pre-emptive, or under duress?
- Implementing restructuring
Restructuring at Tower

Music Retailer Seeks Bankruptcy Protection

By JANNY SCOTT

Tower Records, one of the largest specialty retailers of music and video in the country and one of the last family-run dynasties in an industry increasingly dominated by mass merchants like Wal-Mart, filed for Chapter 11 bankruptcy protection yesterday.

The filing by Tower and its parent company, MTS Inc., comes at a time when the traditional record stores, where generations of Americans first discovered music, are under siege from big-box and electronics stores as well as from the growing availability of music online.

The filing is intended to reduce the company's debt by $80 million so that interest costs will consume less of the company's revenue.

Tower officials said that its 93 stores from California to New York would remain open and that neither its customers nor its employees would be affected.

But some analysts said Tower's plight was a bad sign for the industry at large.

“The future looks particularly grim for all land-based music retailers,” said Kurt P. Flickinger III, managing director of the retail consulting group A.T. Kearney, and with retailers and record companies. He said such stores literally have a toe-tag on them and they’re boxed out for the proverbial air.

With the demise of once-dominant stores like Tower that specialize in selling every category of music and do it with great style, consumers will have to pander to a much narrower band of music--what they hear of the top 25 songs that are programmed in various rotation top-40 songs.

Michael Dresner, chief executive of Newbury Comics, an independent chain of 25 record stores in the Boston area, said that the company should be sold, not restructured.

Tower, which has 8 stores in New York State, 44 in California and outlets in states ranging from Oregon to Tennessee, had been losing money and had tried unsuccessfully to find a buyer.

Under the planned restructuring, the Solomon family, which founded Tower, would give control of the company to its creditors.

“Our issues are financial, not operational,” E. Allen Rodriguez, Tower's chief executive, said yesterday in a statement. He said the reorganization was expected to be completed within 45 to 60 days.

Tower is far from the first record retailer to encounter problems in recent years.

Portfolio?  
Financial?  
Organizational?  
Or what?
Why Restructure? Some Reasons

- Address poor performance
- Exploit strategic opportunities
- Correct valuation errors
How Restructure?

- Fix the business
- Fix the financing
- Fix the ownership/control
- Create or preserve value
- Negotiate distribution of the value
How Restructure? Some Obstacles

- There are market imperfections or institutional rigidities that make it difficult for the firm to recontract.

- These include:
  - Transaction costs
  - Taxes
  - Agency costs
  - Information asymmetries

- Example: The restructuring of USX
Implementation

- Restructuring: Any substantial change in a company’s financial structure, or ownership or control, or business portfolio.
- Designed to increase the value of the firm.
Corporate Restructuring: It’s All About Value

How can corporate and financial restructuring create value?

- Fix the business
- Or fix the financing

Fix the business

Operating Cash Flows

Assets

Liabilities

Debt

Equity

Or fix the financing

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### Restructuring Checklist

<table>
<thead>
<tr>
<th>Task</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure out what the business is worth now</td>
<td>Use valuation model – present value of free cash flows</td>
</tr>
<tr>
<td>Fix the business mix – divestitures</td>
<td>Value assets to be sold</td>
</tr>
<tr>
<td>Fix the business – strategic partner or merger</td>
<td>Value the merged firm with synergies</td>
</tr>
<tr>
<td>Fix the financing – improve D/E structure</td>
<td>Revalue firm under different leverage assumptions – lowest WACC</td>
</tr>
<tr>
<td>Fix the kind of equity</td>
<td>What can be done to make the equity more valuable to investors?</td>
</tr>
<tr>
<td>Fix the kind of debt or hybrid financing</td>
<td>What mix of debt is best suited to this business?</td>
</tr>
<tr>
<td>Fix management or control</td>
<td>Value the changes new control would produce</td>
</tr>
</tbody>
</table>
Dear Michael,

February 11, 2004

Mr. Michael D. Eisner
The Walt Disney Company
500 South Buena Vista Street
Burbank, California 91521

Dear Michael:

I am writing following our conversation earlier this week in which I proposed that we enter into discussions to merge Disney and Comcast to create a premier entertainment and communications company. It is unfortunate that you are not willing to do so. Given this, the only way for us to proceed is to make a public proposal directly to you and your Board.

We have a wonderful opportunity to create a company that combines distribution and content in a way that is far stronger and more valuable than either Disney or Comcast can be standing alone. To this end, we are proposing a tax-free stock for stock merger in which Comcast would issue 0.78 of a share of its Class A voting common stock for each share of Disney. This represents a premium of over $5 billion for your shareholders, based on yesterday’s closing prices. Under our proposal, your shareholders would own approximately 42% of the combined company.

The combined company would be uniquely positioned to take advantage of an extraordinary collection of assets. Together, we would unite the country’s premier cable provider with Disney’s leading filmed entertainment, media networks and theme park properties.

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### AOL Time Warner

<table>
<thead>
<tr>
<th>Division</th>
<th>Estimated Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>AOL</td>
<td>$15.2 billion</td>
</tr>
<tr>
<td>Cable</td>
<td>$36.9 billion</td>
</tr>
<tr>
<td>Movie Studios</td>
<td>$17.8 billion</td>
</tr>
<tr>
<td>Music</td>
<td>$4.6 billion</td>
</tr>
<tr>
<td>Publishing</td>
<td>$31.9 billion</td>
</tr>
<tr>
<td>TV Networks</td>
<td>$13.3 billion</td>
</tr>
<tr>
<td><strong>Total value:</strong></td>
<td><strong>$119.7 billion</strong></td>
</tr>
<tr>
<td>- debt:</td>
<td>$25 billion</td>
</tr>
<tr>
<td><strong>Breakup value:</strong></td>
<td><strong>$94.7 billion</strong></td>
</tr>
<tr>
<td><strong>Current market value:</strong></td>
<td><strong>$53.4 billion</strong></td>
</tr>
</tbody>
</table>

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**Estimates:** CNN, Jan 2003

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**Disney Divided**

Though its market cap is $38 billion, the pieces are worth far more-over $60 billion.

- **ESPN/Disney Channel and other cable outlets**
  - $1.1 bil (operating income)
  - 38% (% of total)
  - $26 bil (breakup value)

- **TV and Radio Stations**
  - $600 mil (operating income)
  - 19% (% of total)
  - $10 bil (breakup value)

- **Theme Parks**
  - $1.2 bil (operating income post-9/11)
  - 38% (% of total)
  - $19 bil (breakup value)

- **Movie Studios**
  - $350 mil (operating income)
  - 11% (% of total)
  - $7 bil (breakup value)

- **Consumer Products**
  - $400 mil (operating income)
  - 13% (% of total)
  - $4.5 bil (breakup value)

- **ABC Network**
  - $500 mil (operating income)
  - $3 bil (breakup value)
Valuation is a Key to Unlock Value

- Value with and without restructuring
- Consider means and obstacles
- Who gets what?
- Minimum is liquidation value
Getting the Financing Right
Step 1: The Proportion of Equity & Debt

- Achieve lowest weighted average cost of capital
- May also affect the business side
Capital Structure: East vs West

 VALUE OF THE FIRM

 NOKIA  TPI

 DEBT RATIO

Optimal debt ratio?
Equity versus Bond Risk

**Assets**

- Uncertain value of future cash flows

**Liabilities**

**Debt**
- Contractual int. & principal
- No upside
- Senior claims
- Control via restrictions

**Equity**
- Residual payments
- Upside and downside
- Residual claims
- Voting control rights
What the Cost of Debt Is and Is Not...

The cost of debt is

- the rate at which the company can borrow at today
- corrected for the tax benefit it gets for interest payments.

Cost of debt =

\[ k_d = \text{LT Borrowing Rate} (1 - \text{Tax rate}) \]

The cost of debt is not

- the interest rate at which the company obtained the debt it has on its books.
Estimating Verizon’s Cost of Debt

Verizon debt rating = A+ (S&P), suggests expected spread of 56 basis points (based on today’s spread) or 60 based on bondsonline.com.

Also, see article, 4/20/04
“Moody’s cuts Verizon New York unsecured debt”

http://biz.yahoo.com/rc/040420/telecoms_verizonny_moodys_ratings_1.html

Observation & Analysis. Moderate investment grade risk. Some of the Verizon bonds seems to have been downgraded from A2 to Baa2. From bondsonline A2 has a spread of 91 points (compared to 10year treasury) and Baa2 has a spread of 146 basis points. So just this last week their bond interest rate has gone up by 0.55% approximately.
The Cost of Equity

- Standard approach to estimating cost of equity:
  \[
  \text{Cost of Equity} = R_f + \text{Equity Beta} \times (E(R_m) - R_f)
  \]
  where,
  \[
  \begin{align*}
  R_f &= \text{Riskfree rate} \\
  E(R_m) &= \text{Expected Return on the Market Index (Diversified Portfolio)}
  \end{align*}
  \]
- In practice,
  - Long term government bond rates are used as risk free rates
  - Historical risk premiums are used for the risk premium
  - Betas are estimated by regressing stock returns against market returns
Estimating Verizon’s Beta

Beta is slope = 1.014

Equation Y = 0.9917964672 * X + 0.09068610643
Number of data points used = 62
Average X = -0.016892
Average Y = 0.0739327
Residual sum of squares = 4881.98
Regression sum of squares = 1401.71
Coef of determination, R-squared = 0.223071
Residual mean square, sigma-hat-sq’d = 81.3663

**Equity Betas and Leverage**

- The beta of equity alone can be written as a function of the unlevered beta and the debt-equity ratio

\[ \beta_L = \beta_u (1 + ((1-t)D/E)) \]

where

- \( \beta_L \) = Levered or Equity Beta
- \( \beta_u \) = Unlevered Beta
- \( t \) = Corporate marginal tax rate
- \( D \) = Market Value of Debt
- \( E \) = Market Value of Equity

- While this beta is estimated on the assumption that debt carries no market risk (and has a beta of zero), you can have a modified version:

\[ \beta_L = \beta_u (1 + ((1-t)D/E) - \beta_{\text{debt}} (1-t) D/(D+E)) \]
Cost of Capital and Leverage: Method

**Equity**
- **Estimated Beta**
  - With current leverage
  - *From regression*
- **Unlevered Beta**
  - With no leverage
  - $Bu = Bl/(1+D/E(1-T))$
- **Levered Beta**
  - With different leverage
  - $Bl = Bu(1+D/E(1-T))$
- **Cost of equity**
  - With different leverage
  - $E(R) = R_f + Bl(R_m - R_f)$

**Debt**
- **Leverage, EBITDA**
  - And interest cost
- **Interest Coverage**
  - EBITDA/Interest
- **Rating**
  - (other factors too!)
- **Cost of debt**
  - With different leverage
  - Rate = $R_f + \text{Spread} + ?$
Debt Restructuring Analysis

Fix the Leverage

Leverage Up
- Optimize
  - Investment opportunities
    - Finance with debt
  - No investment opportunities
    - Issue debt pay dividend
Leverage Down
- Leverage Down
  - Ch 11
  - Negotiate
    - Analyze debt service capacity
    - Analyze debt service capacity
    - Restructure
- Ch 7
  - Pecking order
  - Force allocation

Leverage Up
- Leverage Up
  - Issue debt pay big dividend
  - LBO
  - Analyze debt service capacity

No investment opportunities

Issue dividend or share buyback

Investment opportunities

Finance with debt

Analyzing debt service capacity

Negotiating debt service capacity

Ch 7

Leverage Down

Restructuring debt service capacity

LBO

Fixing the leverage

Analyzing debt service capacity
**Case Study: SAP**

<table>
<thead>
<tr>
<th>Debt</th>
<th>Rating</th>
<th>Interest rate</th>
<th>Interest expense</th>
<th>Interest coverage ratio</th>
<th>Debt / capitalization</th>
<th>Debt/book equity</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>AAA</td>
<td>5.65%</td>
<td>11</td>
<td>138.76</td>
<td>1%</td>
<td>0.1</td>
</tr>
<tr>
<td>2500</td>
<td>AAA</td>
<td>5.65%</td>
<td>153</td>
<td>10.28</td>
<td>7%</td>
<td>0.7</td>
</tr>
<tr>
<td>5000</td>
<td>A</td>
<td>6.37%</td>
<td>331</td>
<td>4.73</td>
<td>14%</td>
<td>1.4</td>
</tr>
<tr>
<td>7500</td>
<td>A-</td>
<td>6.56%</td>
<td>505</td>
<td>3.10</td>
<td>21%</td>
<td>2.1</td>
</tr>
<tr>
<td>10000</td>
<td>B+</td>
<td>10.90%</td>
<td>1,112</td>
<td>1.41</td>
<td>27%</td>
<td>2.7</td>
</tr>
</tbody>
</table>

- Should SAP take on additional debt? If so, how much?
- What is the weighted average cost of capital before and after the additional debt?
- What will be the estimated price per share after the company takes on new debt?
Minimize the Cost of Capital by Changing the Financial Mix

- Add debt, reduce equity
- See effect of added debt on interest costs and rating
- See effect of rating on interest cost
- See effect of leverage on cost of equity
- Net effect will determine whether the WACC decreases if the firm takes on more or less debt.
Exercise 1

You have been asked to evaluate whether the company has an appropriate amount of debt. Debt outstanding: 1,000 EUR million. Debt rating: AAA. Market rate on bonds with rating AAA: 5.10%. Government 10-year bond rate: 4.25%. Estimated pretax profit: 1600.

Based on the company's interest coverage, prepare a table showing what an increase in long term debt would do to the company's ratings and its cost of borrowing.

<table>
<thead>
<tr>
<th>New debt</th>
<th>Total debt</th>
<th>New Rating</th>
<th>Interest rate</th>
<th>Interest expense</th>
<th>Interest coverage ratio</th>
<th>Debt / capitalization</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1,000</td>
<td>AAA</td>
<td>5.10%</td>
<td>51</td>
<td>32.37</td>
<td>3%</td>
</tr>
<tr>
<td>2500</td>
<td>3,500</td>
<td>AAA</td>
<td>5.10%</td>
<td>179</td>
<td>9.96</td>
<td>11%</td>
</tr>
<tr>
<td>5000</td>
<td>6,000</td>
<td>A+</td>
<td>5.67%</td>
<td>340</td>
<td>5.70</td>
<td>19%</td>
</tr>
<tr>
<td>10000</td>
<td>11,000</td>
<td>A-</td>
<td>6.01%</td>
<td>661</td>
<td>3.42</td>
<td>35%</td>
</tr>
</tbody>
</table>

Source: debtcapacity.xls
Restructuring at TDI
TDI Financial History

![Graph showing TDI Financial History from 1986 to 1995]

- Debt
- EBITDA

$ millions

Restructuring Debt and Equity, Part II

- SAP (optimizing the capital structure)
- Argus (application to a private firm)
- TDI (sequence of operational and financial restructuring efforts)
  - Restructuring under threat of financial distress
  - Restructuring to exploit free cash flows
  - Exit options
TDI Financial History

![Graph showing TDI Financial History]

- **Debt**
- **EBITDA**

Years: 1986 to 1995

$ millions

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Corporate Financial Restructuring 34
Exercise 2

A company is struggling with a weaker market. It expects a turnaround in a couple of years, but now must work out the amount of debt it can carry.

Based on last year's performance, management estimates EBIT at 12 m
Discussions with the banks show that in order to avoid violating covenants a minimum EBIT interest coverage ratio of 1.3 must be maintained
Currently US treasurys pay 4%
It currently has debt of 90 m
What is the company's debt capacity?

**Estimating borrowing capacity**

<table>
<thead>
<tr>
<th>Given:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EBIT</td>
<td>$ 12</td>
</tr>
<tr>
<td>Min EBIT int coverage ratio</td>
<td>1.3</td>
</tr>
<tr>
<td>Interest capacity</td>
<td>$ 9</td>
</tr>
<tr>
<td>Interest rate</td>
<td>14.00%</td>
</tr>
<tr>
<td>Debt capacity</td>
<td>$ 66</td>
</tr>
</tbody>
</table>

Source: debtcapacity.xls
“Nexus of Contracts”

- Franchisors
- Senior lenders
- Salespeople
- Subordinated lenders
- Management
- Shareholders
Restructuring Debt and Equity at TDI (A & B)

Evaluate the financial restructuring taking place at TDI:

- Effect of the LBO on capital structure?
- How did LBO lenders protect their interests?
- Alternative restructuring plans?
- Post Dec 89 operational, portfolio and financial restructuring proposals?
- 1992-93 restructuring, before-and-after comparison
**TDI Financial History**

TDI

$ millions

Debt

EBITDA

Exercise 3

A company is struggling with too much debt. It expects to resume a growth rate of 7% in a couple of years, but now must renegotiate its capital structure.

Based on last year's performance, management estimates EBIT at 12 m.
Discussions with the banks show that in order to extend credit, they insist on a minimum EBIT interest coverage ratio of 1.5.
Currently US treasurys pay 4%.
The company has debt of 90 m paying 12.0%.
Equity is estimated to be worth 20 m.

What is the debt worth?
What is the company's debt capacity?
What new capital structure could be negotiated with the banks?

Estimating borrowing capacity

<table>
<thead>
<tr>
<th></th>
<th>Preliminary capital structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Given:</td>
<td></td>
</tr>
<tr>
<td>EBIT</td>
<td>Debt $ 60</td>
</tr>
<tr>
<td>Min EBIT int coverage ratio</td>
<td>Mezzanine $ 7</td>
</tr>
<tr>
<td>Interest capacity</td>
<td>Equity $ 13</td>
</tr>
<tr>
<td>Interest rate</td>
<td>Total financing $ 80</td>
</tr>
<tr>
<td>Debt capacity</td>
<td>Pre-restr debt value: 60</td>
</tr>
<tr>
<td></td>
<td>Banks happy with Debt 60</td>
</tr>
<tr>
<td></td>
<td>Equity 10</td>
</tr>
</tbody>
</table>

Source: debtcapacity.xls
Restructuring Debt and Equity at TDI (C)

Consider the choices facing TDI in 1994:

- Evaluate the alternatives available to take best advantage of TDI’s free cash flow:
  - Leveraged buyout
  - Leveraged ESOP
  - Leveraged recapitalization
- Or: Invest cash or debt in growth opportunities
- Or: Do nothing to retain flexibility
Exercise 4

The company has succeeded in improving EBIT

**Now management is considering doing a leveraged recap**

Currently the company has debt of 90 m
Management estimates EBIT at 45 m
Banks' minimum EBIT interest coverage ratio 2
Currently US treasurys pay 4%
The estimated value of the firm is 250 m
The firm's tax rate is 30%

What is the company's debt capacity?
What should they do?
What effect would this have on the share price?

### Estimating borrowing capacity

<table>
<thead>
<tr>
<th>Given:</th>
<th>Preliminary capital structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBIT</td>
<td>Debt $214</td>
</tr>
<tr>
<td>Min EBIT int coverage ratio</td>
<td>Mezzanine $36</td>
</tr>
<tr>
<td>Interest capacity</td>
<td>Equity $23</td>
</tr>
<tr>
<td>Interest rate</td>
<td>Total financing $250</td>
</tr>
<tr>
<td>Debt capacity</td>
<td>Dividend? $124</td>
</tr>
<tr>
<td></td>
<td>Tax shield gain? 13.05</td>
</tr>
<tr>
<td></td>
<td>PV tax shield gain? $125</td>
</tr>
<tr>
<td></td>
<td>Assumes growth 3%</td>
</tr>
<tr>
<td></td>
<td>WACC 10.50%</td>
</tr>
</tbody>
</table>

Assumes growth 3%

Equity value: $285
Gain of 78%

Source: debtcapacity.xls
Restructuring Debt and Equity at TDI (D)

Evaluate the possible means for cashing out shareholder value in a private company such as TDI in 1996:

- Leveraged recap
- IPO
- Sale to financial buyer
- Sale to strategic buyer

- Which when?
TDI Financial History

[Bar chart showing TDI's debt and EBITDA from 1986 to 1995]
TDI Negotiation

Banks → Restructuring Agreement → Saratoga

Bill & Co.
TDI In-Class Negotiation Assignment

- Three teams:
  - Senior bank group: what do the banks agree to?
  - Saratoga Partners: what do the equity investors get?
  - Apfelbaum & management: what equity/bonus package does management get?

- Assignment:
  - Study TDI (A). Show, with numbers, why a restructuring is necessary
  - It is October 1989. Negotiate an agreement that will see TDI through 1992
  - Turn in your Team Report (2 pages plus exhibits) listing the terms of the agreement by 6pm Friday 20th. (Send it by email to ian.giddy@nyu.edu, with cc to ts664@stern.nyu.edu)
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