



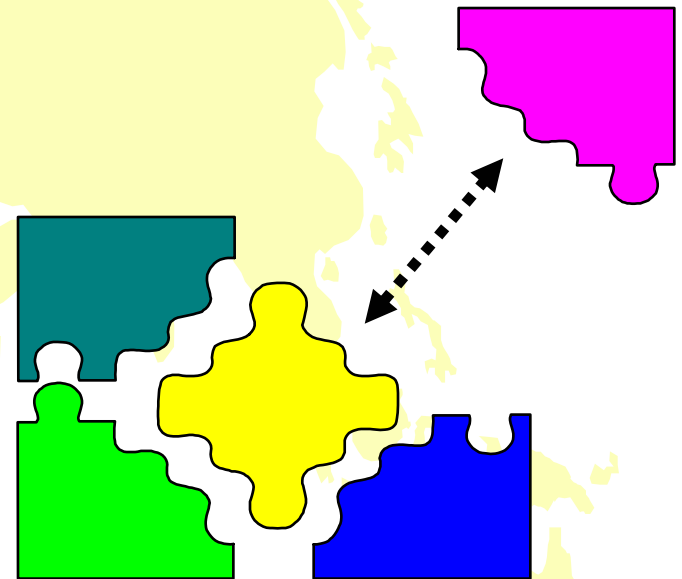
***Corporate Financial  
Restructuring***

**Prof. Ian Giddy**  
New York University

# Corporate Financial Restructuring

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

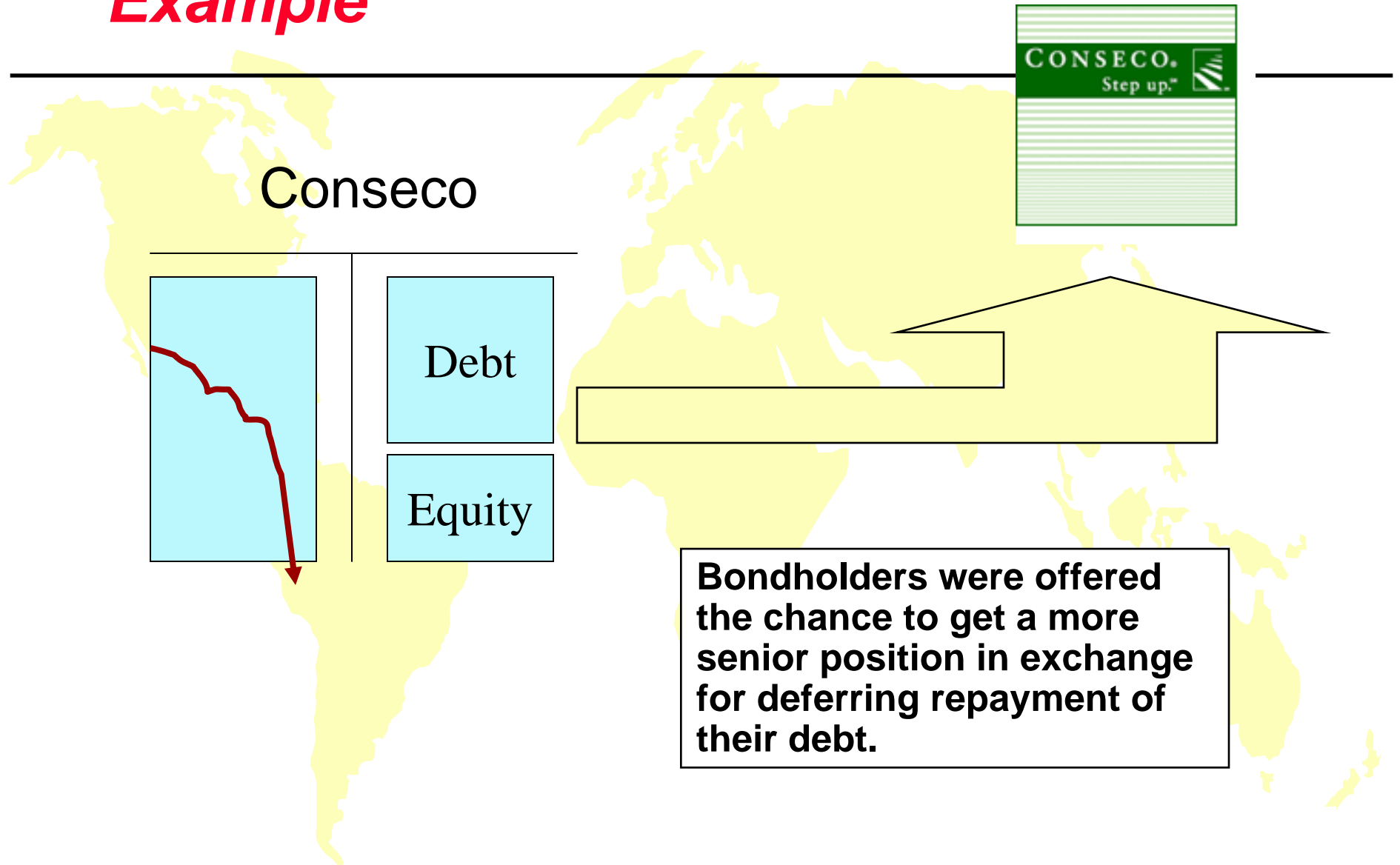


# *A Simple Framework*

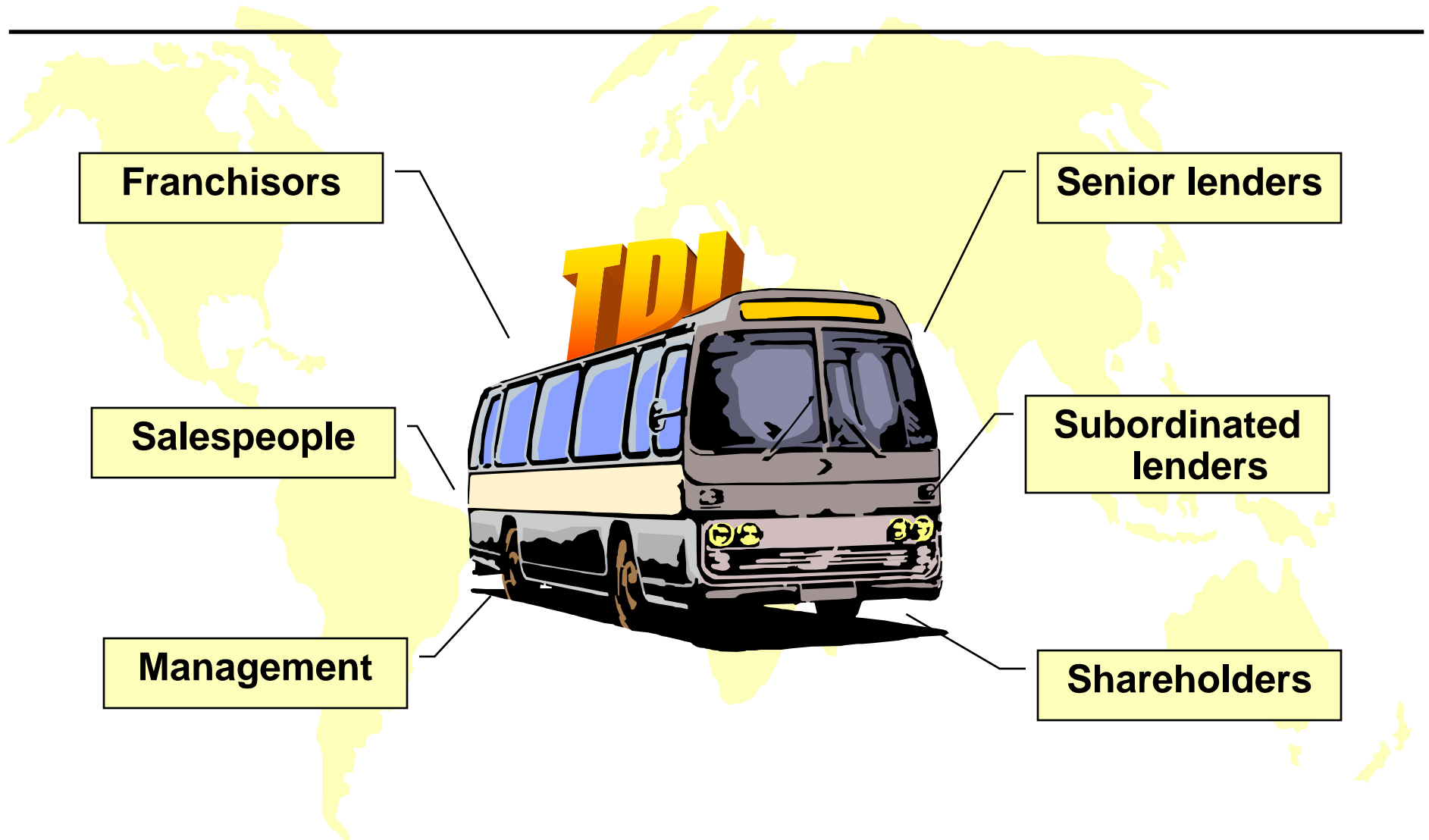
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- A company is a “nexus of contracts” with shareholders, creditors, managers, employees, suppliers, etc
- Restructuring is the process by which these contracts are changed – to increase the value of all claims.
- Applications:
  - ◆ restructuring creditor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

# Example



# “Nexus of Contracts”



# *Why and How*

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- 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**

February 10, 2004

By JANNY SCOTT

**T**ower 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 Burt P. Flickinger III, managing director of the Strategic Financial Group, a New York City-based financial advisory firm. He said such stores "literally have a toe-tap on them and they're boxed up for the proverbial road."

With the demise of once dominant stores like Tower that specialize in selling every category of music and do it with great care, consumers will move to a much narrower band of music - what they hear of the top 25 songs that are programmed in vicious rotation on radio and TV.

Michael Dreese, chief executive of Newbury Comics, an independent chain of 25 record stores in the Boston area, said: "Tower's situation is a disaster. That's probably not desirable. But if the society loses 10,000 artistic voices, that's a disaster. Because music is the most accessible form of art."

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?*

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- Fix the business
- Fix the financing
- Fix the ownership/control
- Create or preserve value
- Negotiate distribution of the value

# *How Restructure? Some Obstacles*

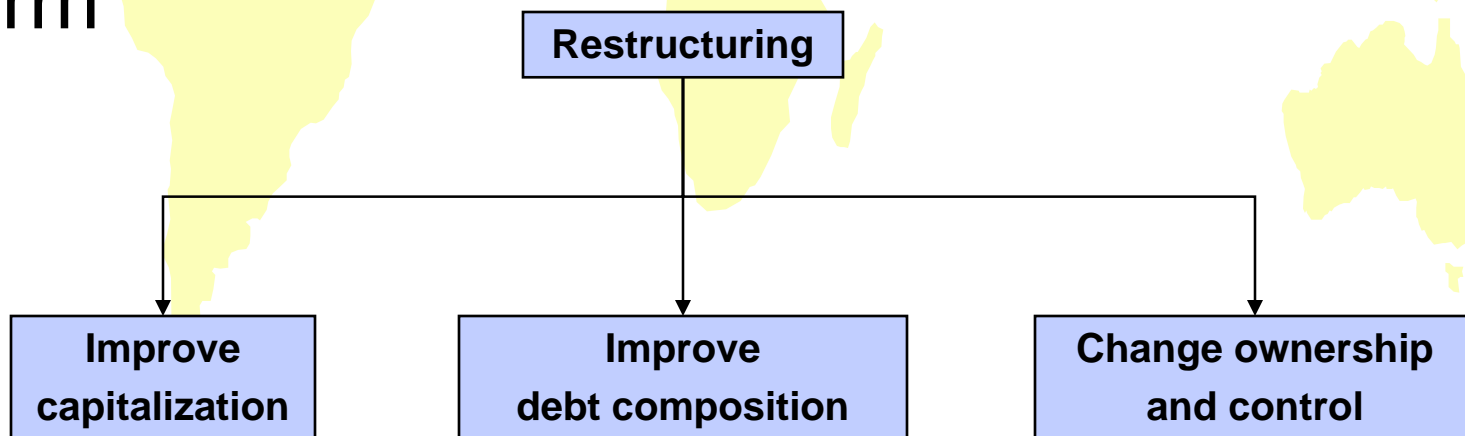
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- There are market imperfections or institutional rigidities that make it difficult for the firm to recontract
- These include:
  - ◆ Transaction costs
  - ◆ Taxes
  - ◆ Agency costs
  - ◆ Information asymmetries
- Example: The restructuring of USX

# Implementation

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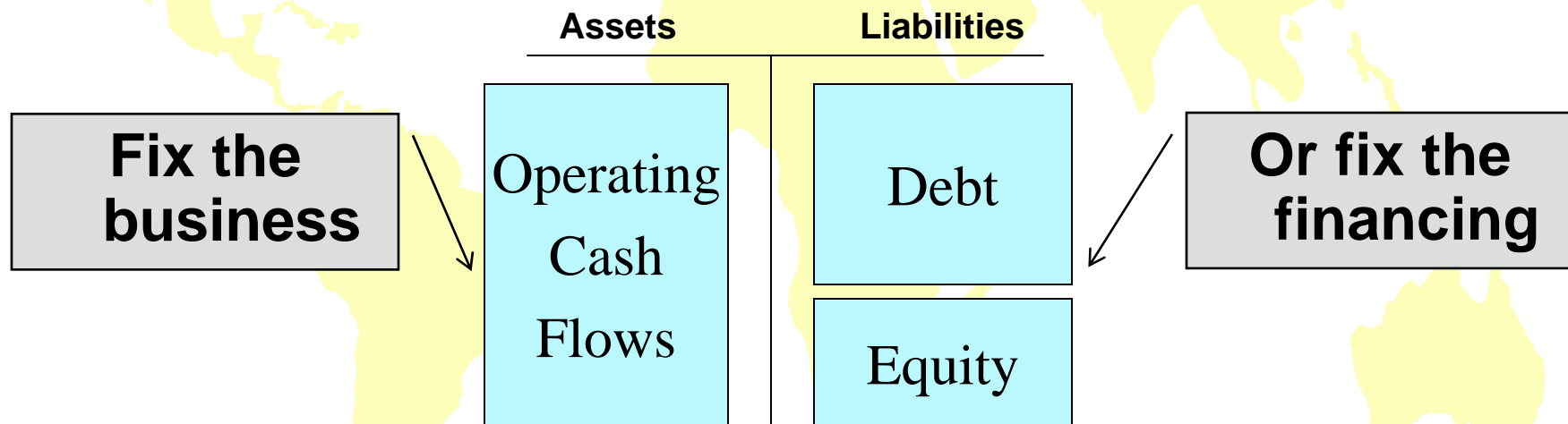
- Restructuring: Any substantial change in a company's financial structure, or ownership or control, or business portfolio.
- Designed to increase the value of the firm



# Corporate Restructuring: It's All About Value

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- How can corporate and financial restructuring create value?



# Restructuring Checklist

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

# 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.

.....

## AOL Time Warner

DIVISION	ESTIMATED VALUE
AOL	\$15.2 billion
Cable	\$36.9 billion
Movie studios	\$17.8 billion
Music	\$4.6 billion
Publishing	\$31.9 billion
TV Networks	\$13.3 billion
Total value:	\$119.7 billion
- debt:	\$25 billion
Breakup value:	\$94.7 billion
	<b>\$21.14 per share</b>
Current market value:	\$53.4 billion
	<b>\$12.05 per share</b>

Estimates: CNN, Jan 2003

## 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

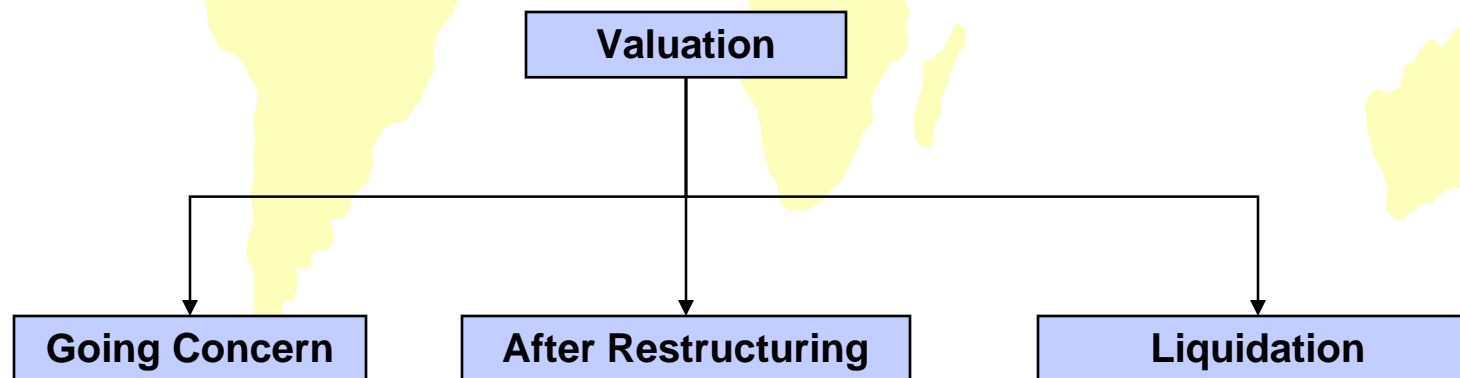
**-\$500 mil** (operating income)  
**\$3 bil** (breakup value)

Estimates: Forbes, Dec 2002

# ***Valuation is a Key to Unlock Value***

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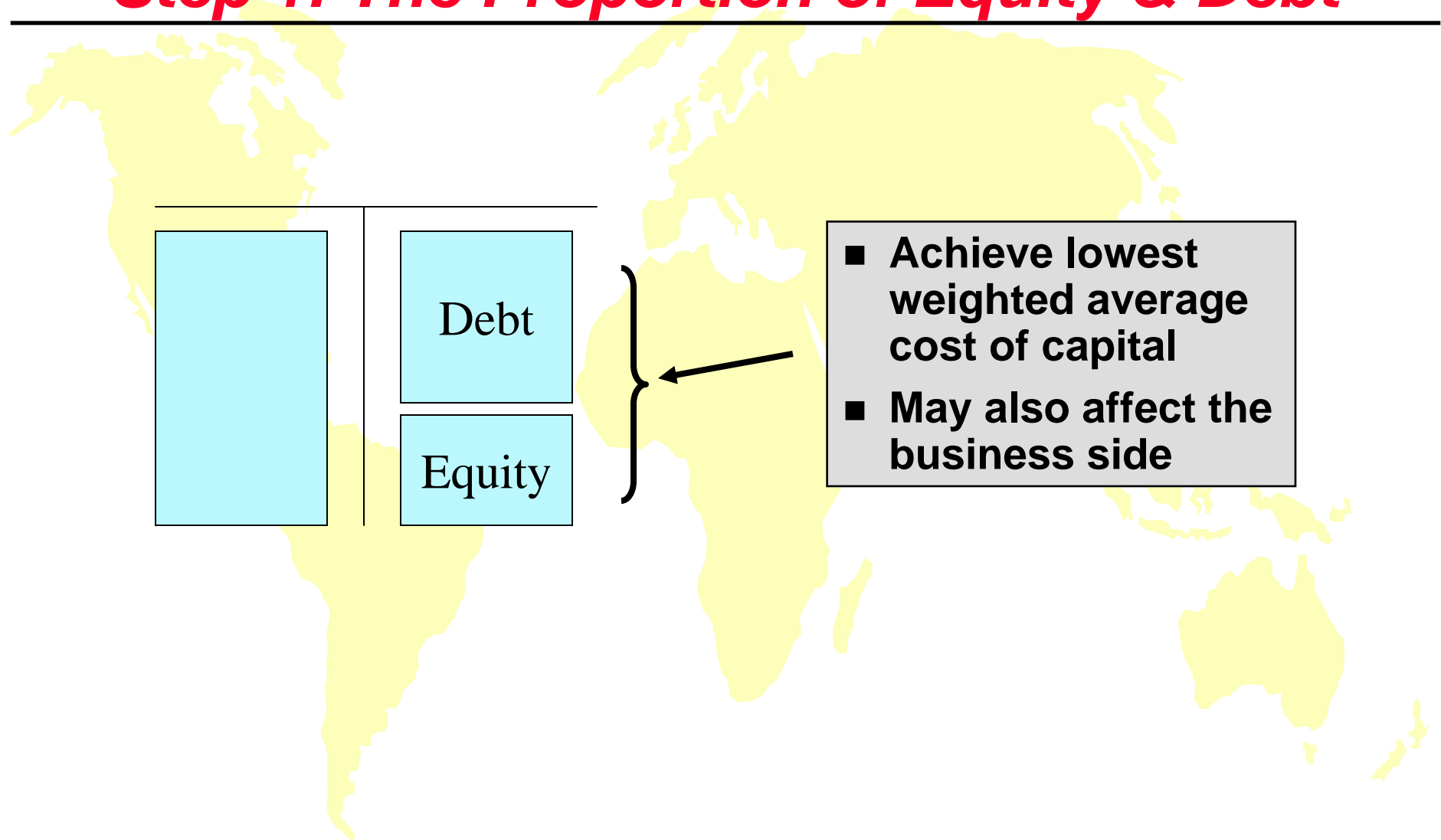
- Value with and without restructuring
- Consider means and obstacles
- Who gets what?
- Minimum is liquidation value



# Getting the Financing Right

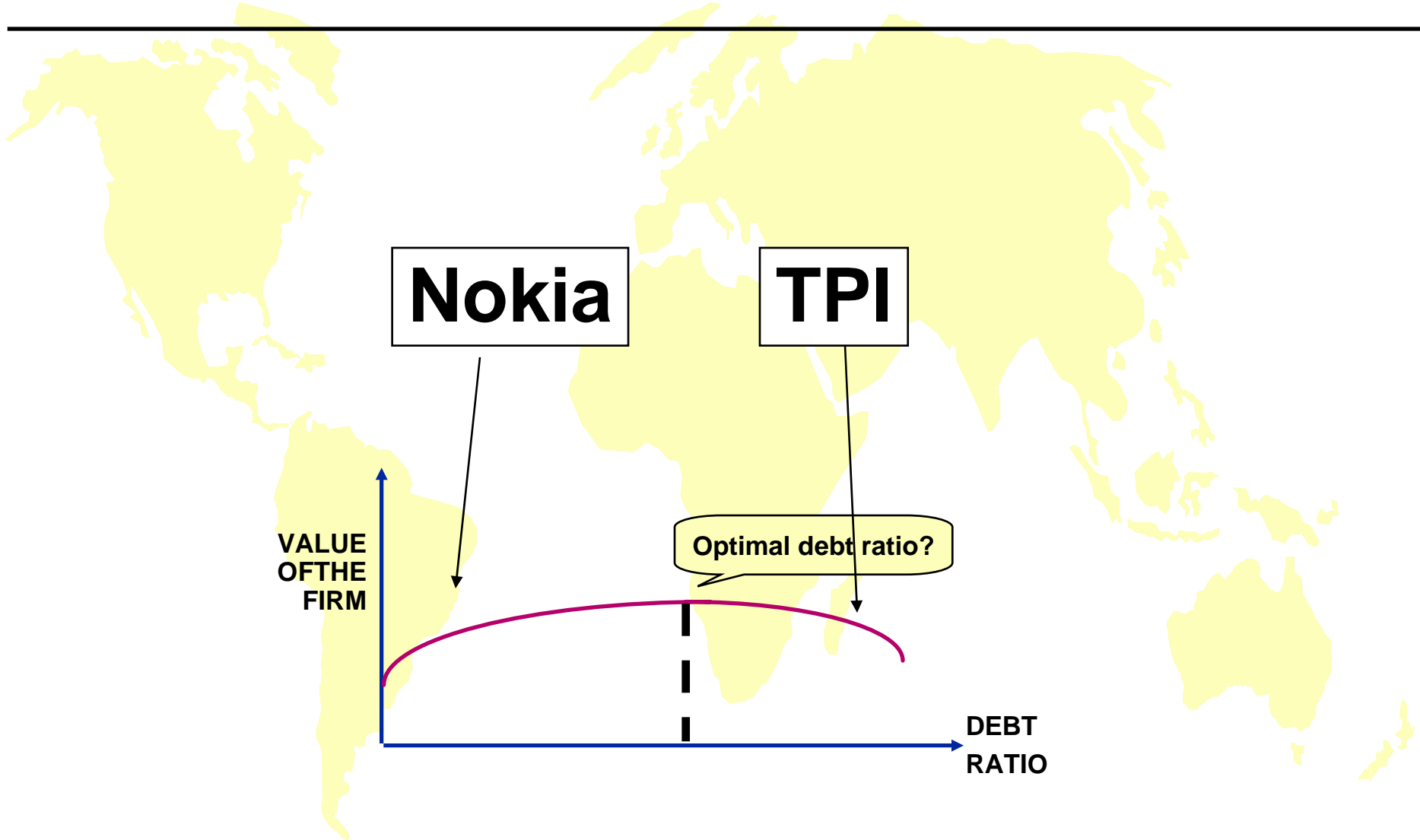
## Step 1: The Proportion of Equity & Debt

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# Capital Structure: East vs West



# **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...***

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*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

Moody's bond rating table

Rating	1 yr	2 yr	3 yr	5 yr	7 yr	10 yr	30 yr
Aaa/AAA	9	11	22	28	45	57	77
Aa1/AA+	18	26	27	39	55	68	89
Aa2/AA	20	32	34	43	58	70	92
Aa3/AA-	21	35	36	48	62	74	99
A1/A+	43	48	52	60	75	89	112
A2/A	46	51	54	62	77	91	116
A3/A-	50	54	57	66	80	94	119
Baa1/BB							
B+	58	68	76	86	116	138	164
Baa2/BB							
B	61	76	84	91	123	146	171
Baa3/BB							
B-	68	81	86	96	128	153	176
Ba1/BB+	230	240	250	260	280	300	320
Ba2/BB	240	250	260	270	290	310	330
Ba3/BB-	250	260	270	280	300	320	340
B1/B+	360	370	380	410	450	490	540
B2/B	370	380	390	420	460	500	550
B3/B-	380	390	400	430	470	510	560
Caa/CCC	565	675	685	710	720	730	760

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](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

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- Standard approach to estimating cost of equity:

$$\text{Cost of Equity} = R_f + \text{Equity Beta} * (E(R_m) - R_f)$$

where,

$R_f$  = Riskfree rate

$E(R_m)$  = Expected Return on the Market Index  
(Diversified Portfolio)

- 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

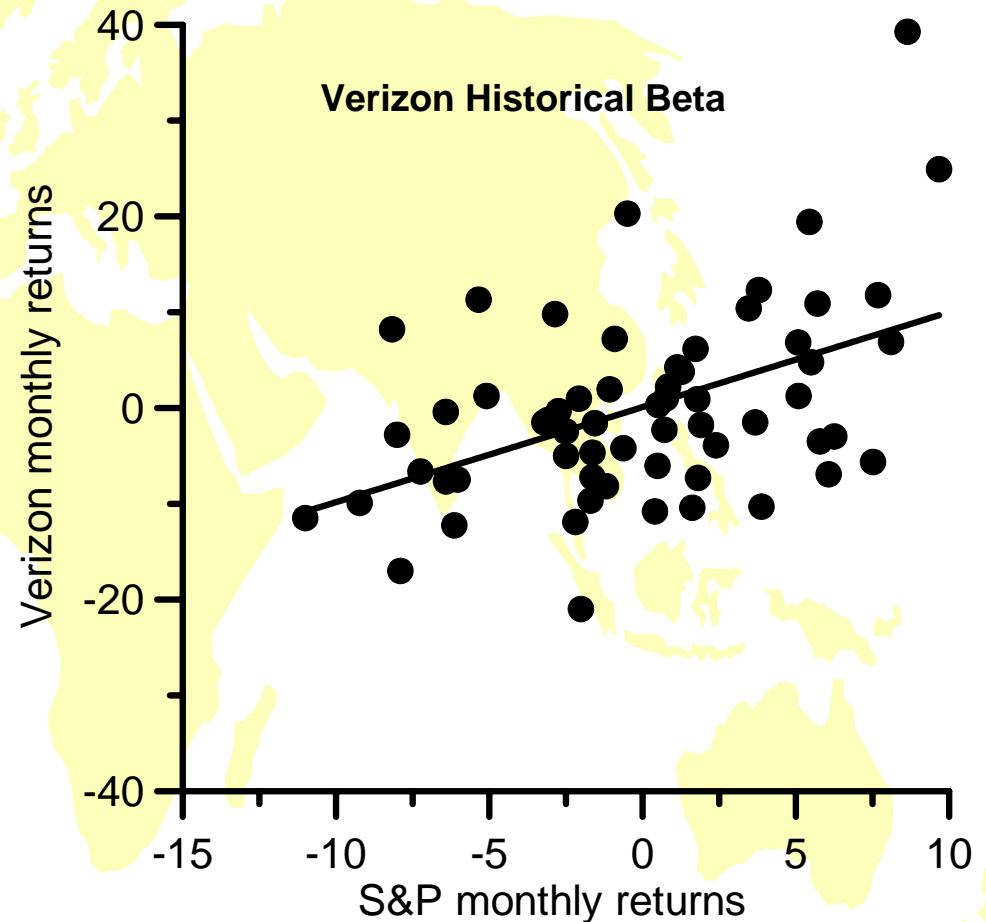
Average Y = 0.0739327

Residual sum of squares = 4881.98

Regression sum of squares = 1401.71

Coef of determination, R-squared = 0.223071

Residual mean square,  $\sigma^2 = 81.3663$



**Observation & Analysis. High equity risk.**

Verizon's beta is 1.014 (from <http://finance.yahoo.com/q/ks?s=VZ>, [www.investor.reuters.com/StockOverview.aspx?ticker=VZ.N](http://www.investor.reuters.com/StockOverview.aspx?ticker=VZ.N)) which means that Verizon equity is as risky as the market index to an investor.

# Equity Betas and Leverage

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- 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  
 $B_u = B_l / (1 + D/E(1-T))$

Levered Beta  
With different leverage  
 $B_l = B_u(1 + D/E(1-T))$

Cost of equity  
With different leverage  
 $E(R) = R_f + B_l(R_m - R_f)$

## Debt

Leverage, EBITDA  
And interest cost

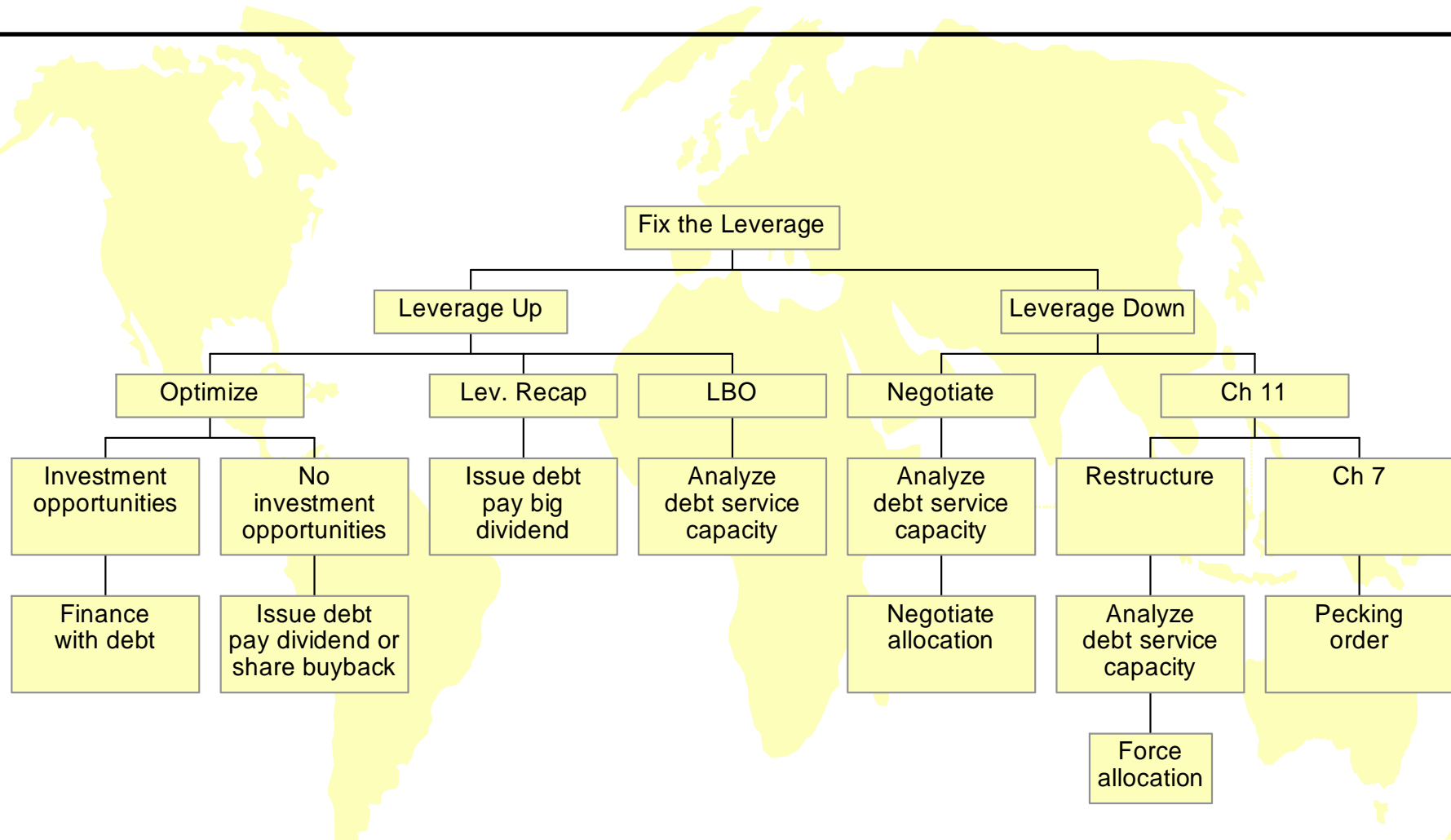
Interest Coverage  
EBITDA/Interest

Rating  
(other factors too!)

Cost of debt  
With different leverage  
 $\text{Rate} = R_f + \text{Spread} + ?$



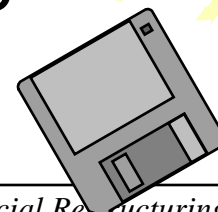
# Debt Restructuring Analysis



## Case Study: SAP

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

- 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***

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- 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.

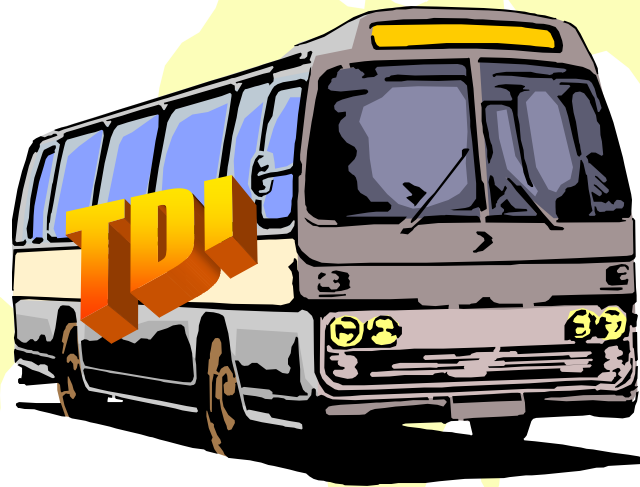
# Exercise 1

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

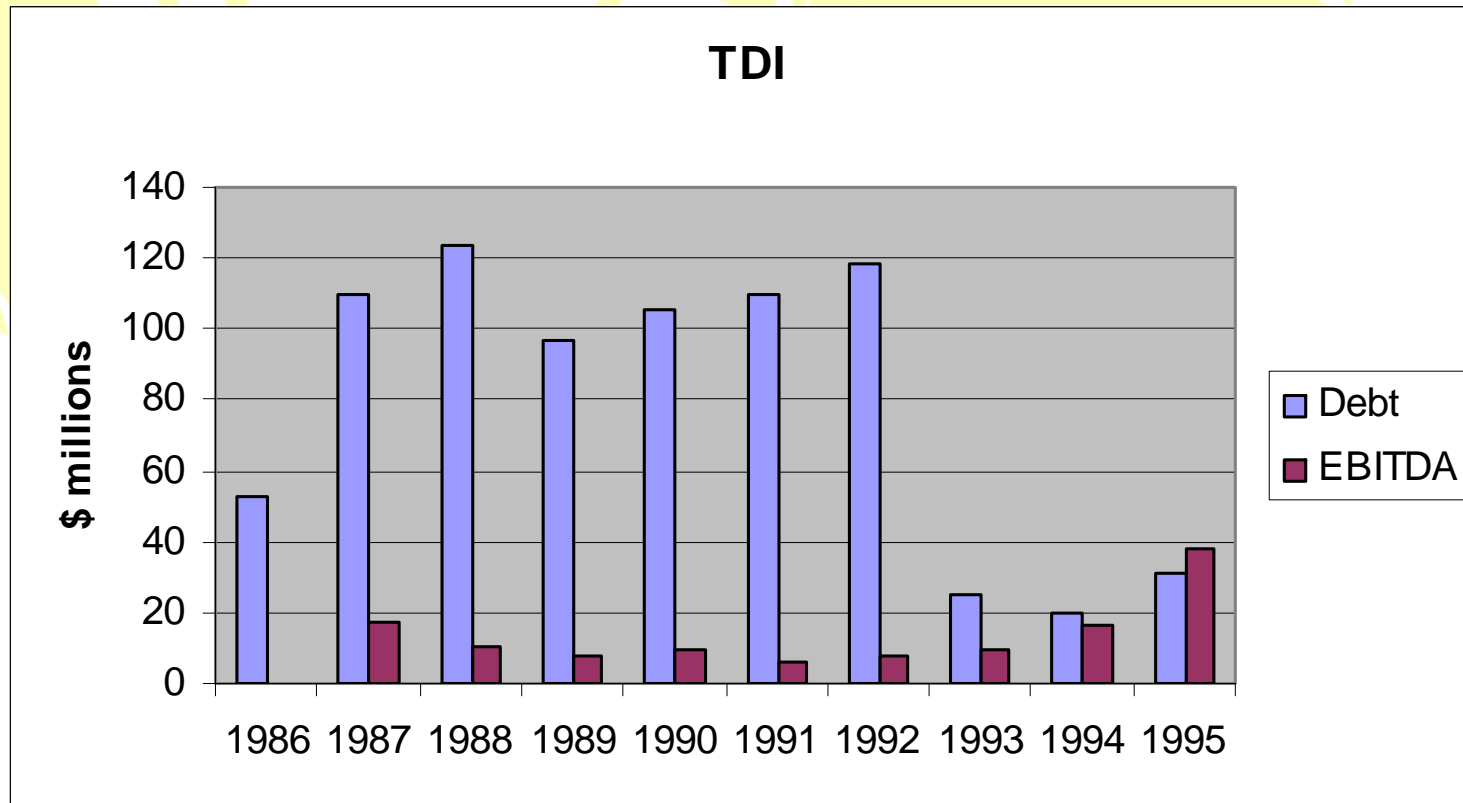
Source: debtcapacity.xls

# ***Restructuring at TDI***

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# TDI Financial History

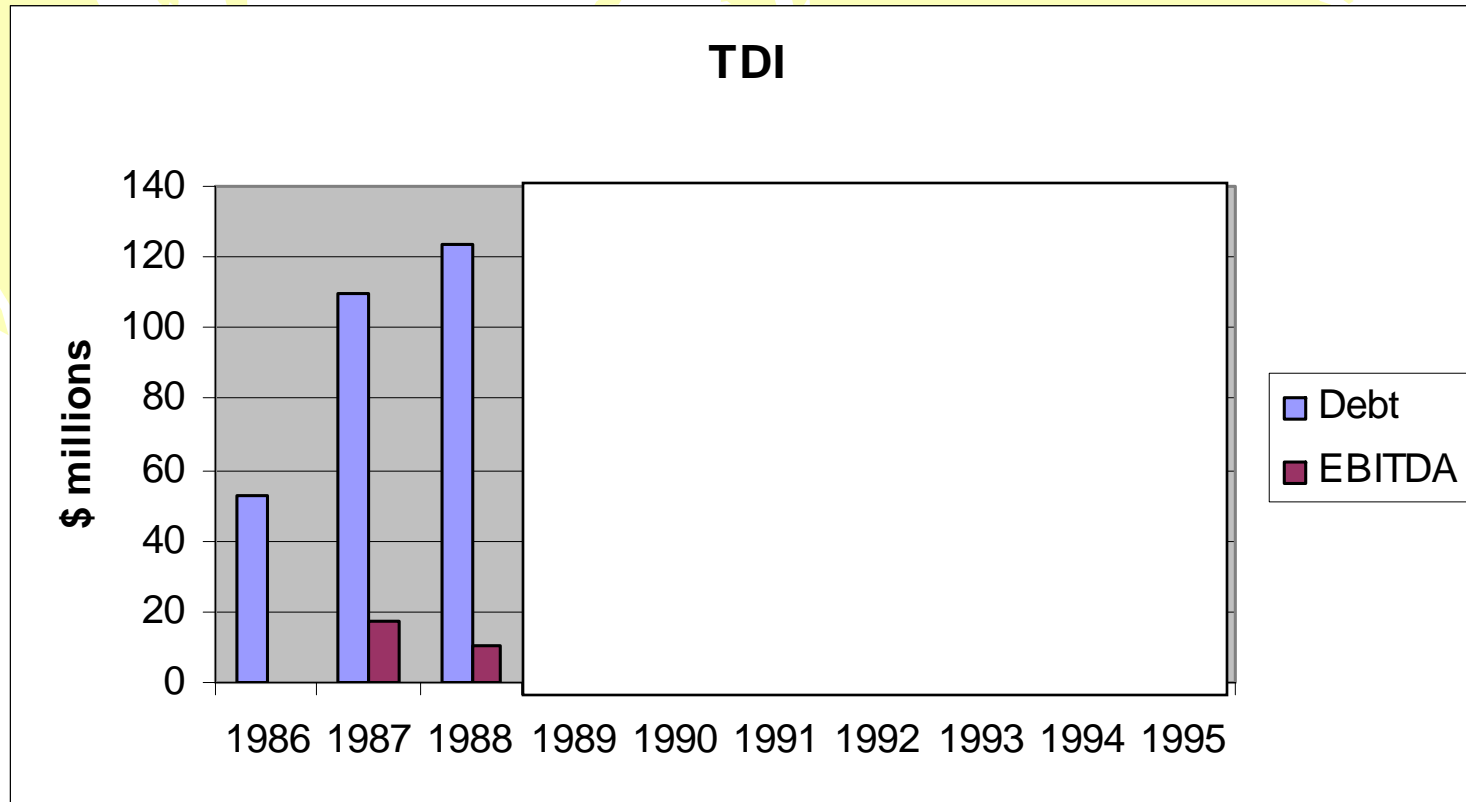


# ***Restructuring Debt and Equity, Part II***

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- 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





## 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

Given:

EBIT \$ 12

Min EBIT int coverage ratio 1.3

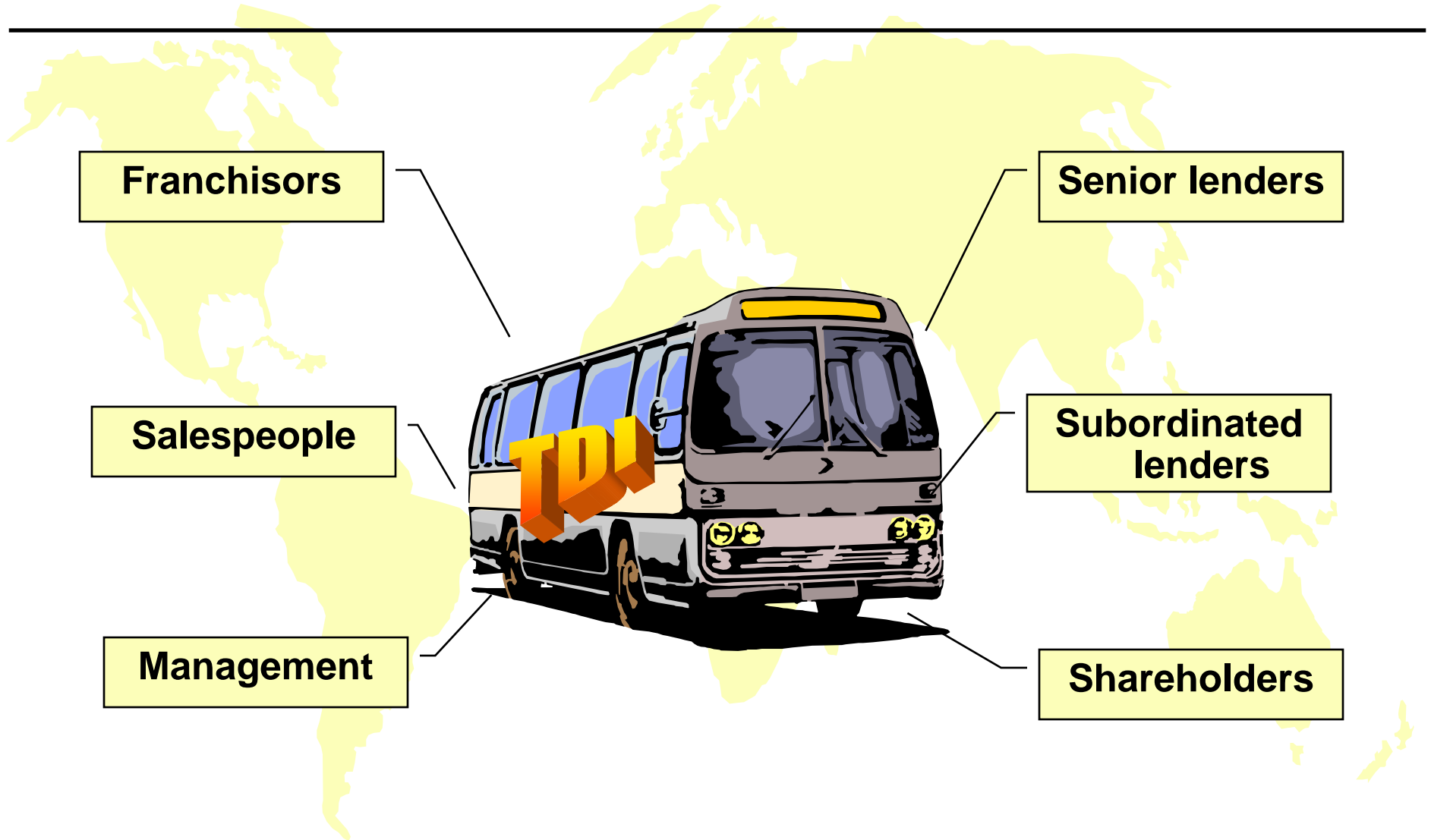
Interest capacity \$ 9

Interest rate 14.00%

Debt capacity \$ 66

Source: [debtcapacity.xls](#)

# “Nexus of Contracts”



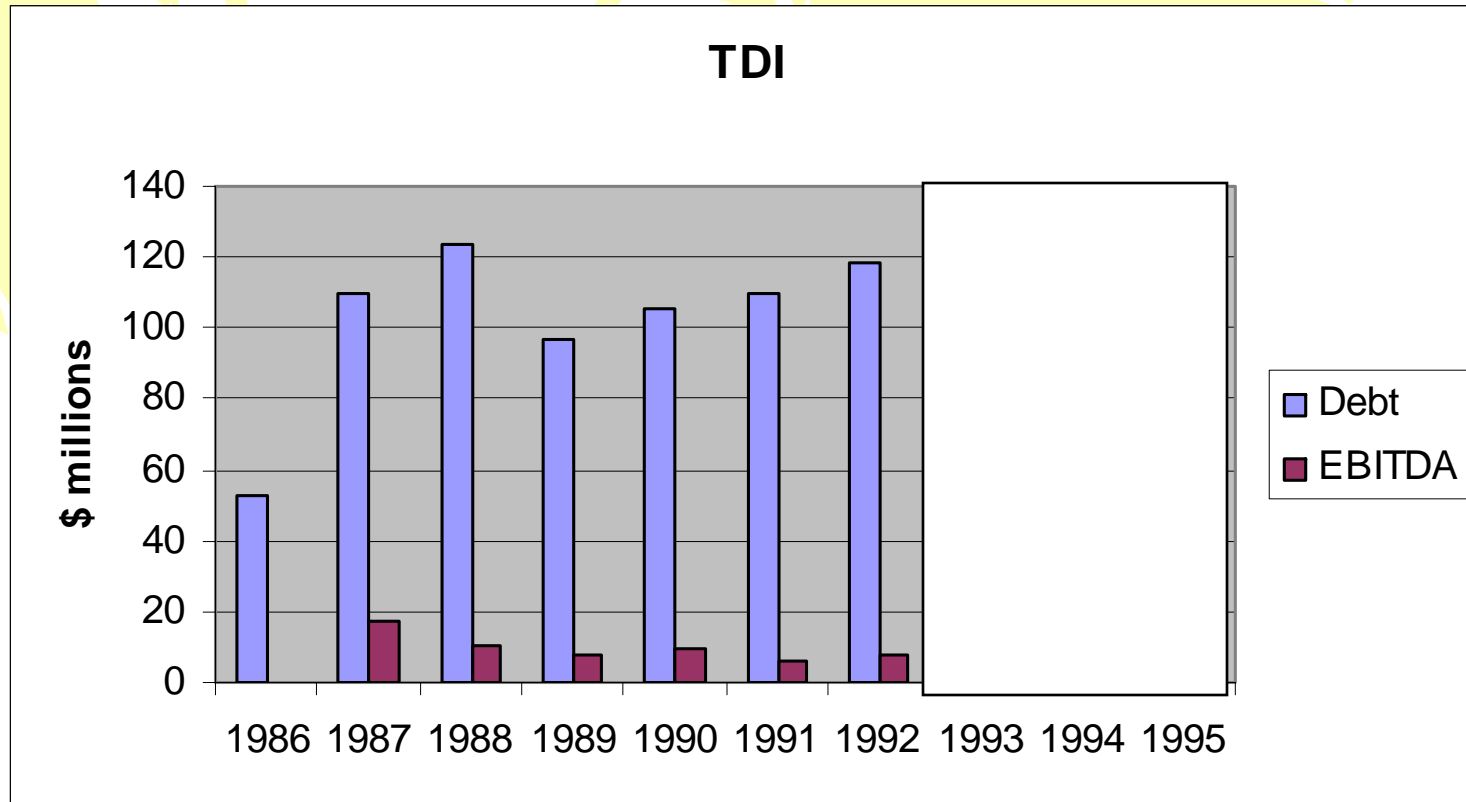
# ***Restructuring Debt and Equity at TDI (A & B)***

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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



# Exercise 3

A company is struggling with a 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

## Preliminary capital structure

Given:			Debt	\$	60
EBIT	\$	12	Mezzanine	\$	7
Min EBIT int coverage ratio		1.5	Equity	\$	13
Interest capacity	\$	8	Total financing	\$	80
Interest rate		12.00%			
Debt capacity	\$	67	Pre-restr debt value:		60
			Banks happy with Debt		60
			Equity		10

Source: **debtcapacity.xls**

## ***Restructuring Debt and Equity at TDI (C)***

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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							
<b>Now management is considering doing a leveraged recap</b>							
Currently the company has debt of			90 m				
Management estimates EBIT at			45 m				
Banks' minimum EBIT interest coverage ratio			2				
Currently US treasuries 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?							
<b>Estimating borrowing capacity</b>				<b>Preliminary capital structure</b>			
Given:				Debt			\$ 214
EBIT		\$ 45		Mezzanine			
Min EBIT int coverage ratio		\$ 2		Equity			\$ 36
Interest capacity		\$ 23		Total financing			\$ 250
Interest rate		10.50%					
Debt capacity		\$ 214		Dividend?			\$ 124
				Tax shield gain?			13.05
				PV tax shield gain?			\$ 125
				Assumes growth		3%	
				WACC		10.50%	
				Equity value:			\$ 285
				Gain of			78%

**Source: debtcapacity.xls**

## ***Restructuring Debt and Equity at TDI (D)***

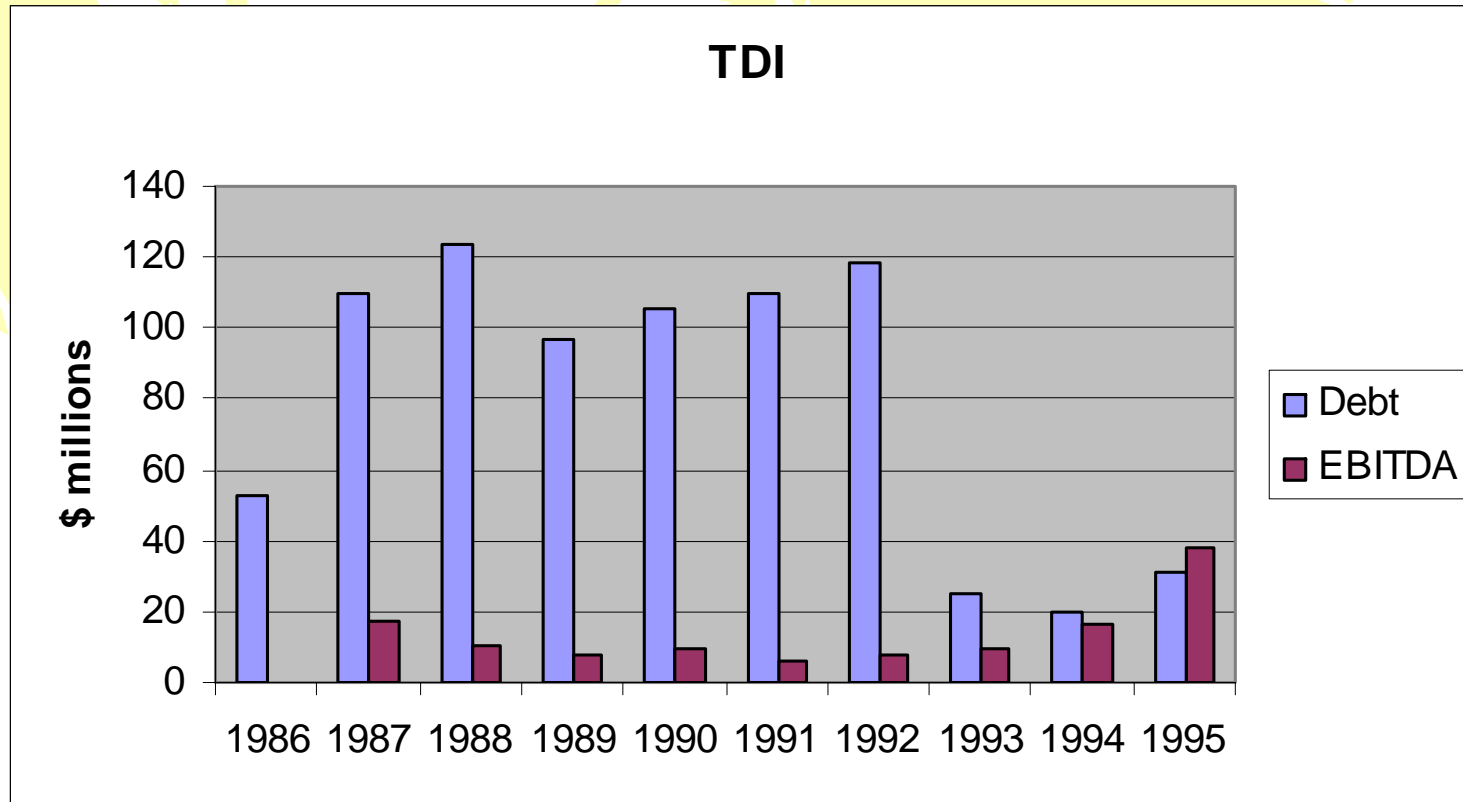
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Evaluate the possible means for cashing out shareholder value in a private company such as TDI in 1996:

- ◆ Leveraged recap
- ◆ IPO
- ◆ Sale to financial buyer
- ◆ Sale to strategic buyer
- Which when?

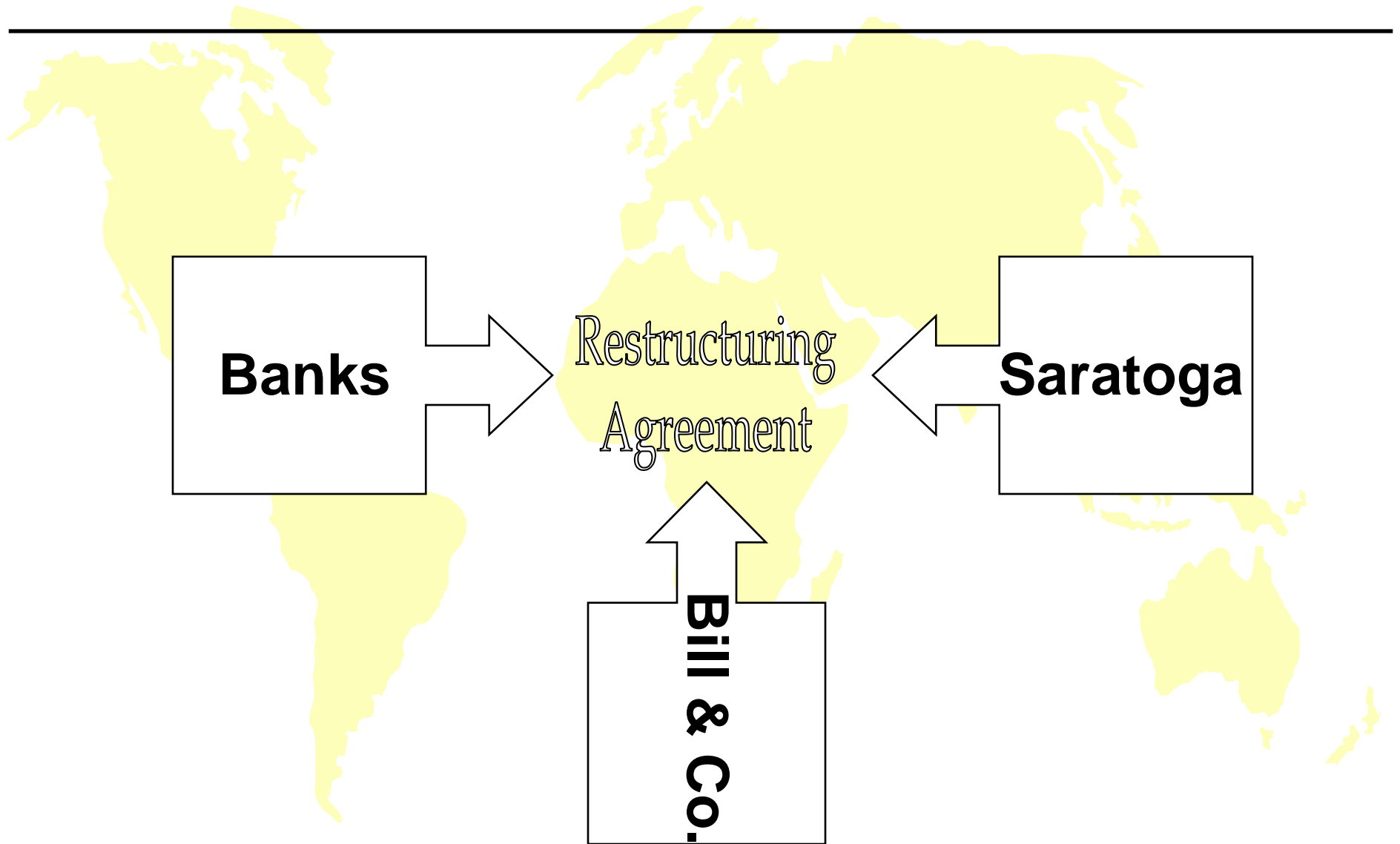


# TDI Financial History



# *TDI Negotiation*

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# ***TDI In-Class Negotiation Assignment***

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- 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](mailto:ian.giddy@nyu.edu), with cc to [ts664@stern.nyu.edu](mailto:ts664@stern.nyu.edu))

## ***Contact Info***

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<http://giddy.org>

The logo for Giddy.org, featuring the text "Giddy.org" in white on a dark blue rectangular background. A red arc is positioned above the "y" in "Giddy".