



History

Valuation

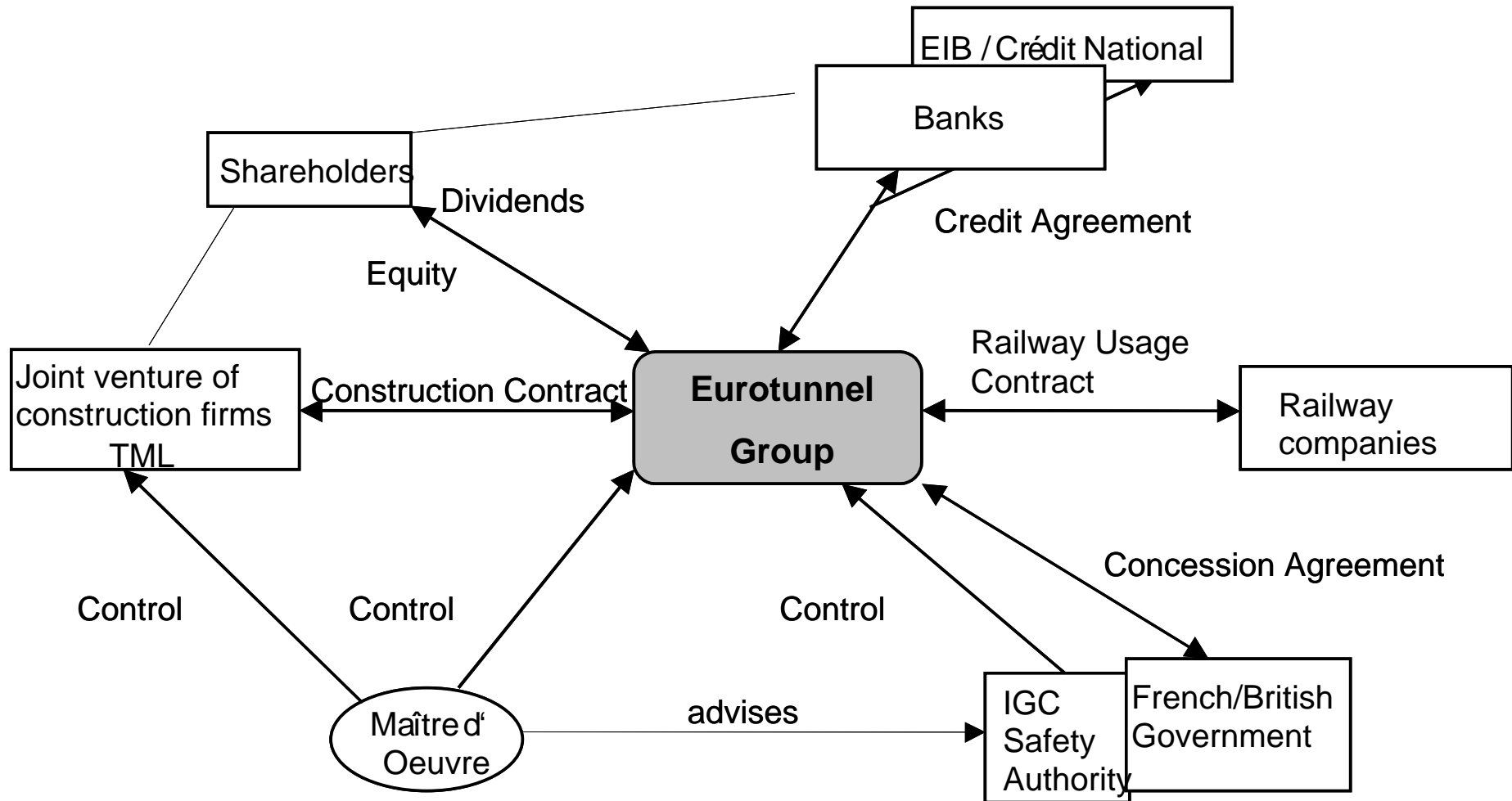
Financial Restructuring 1997

Status Quo

Outlook

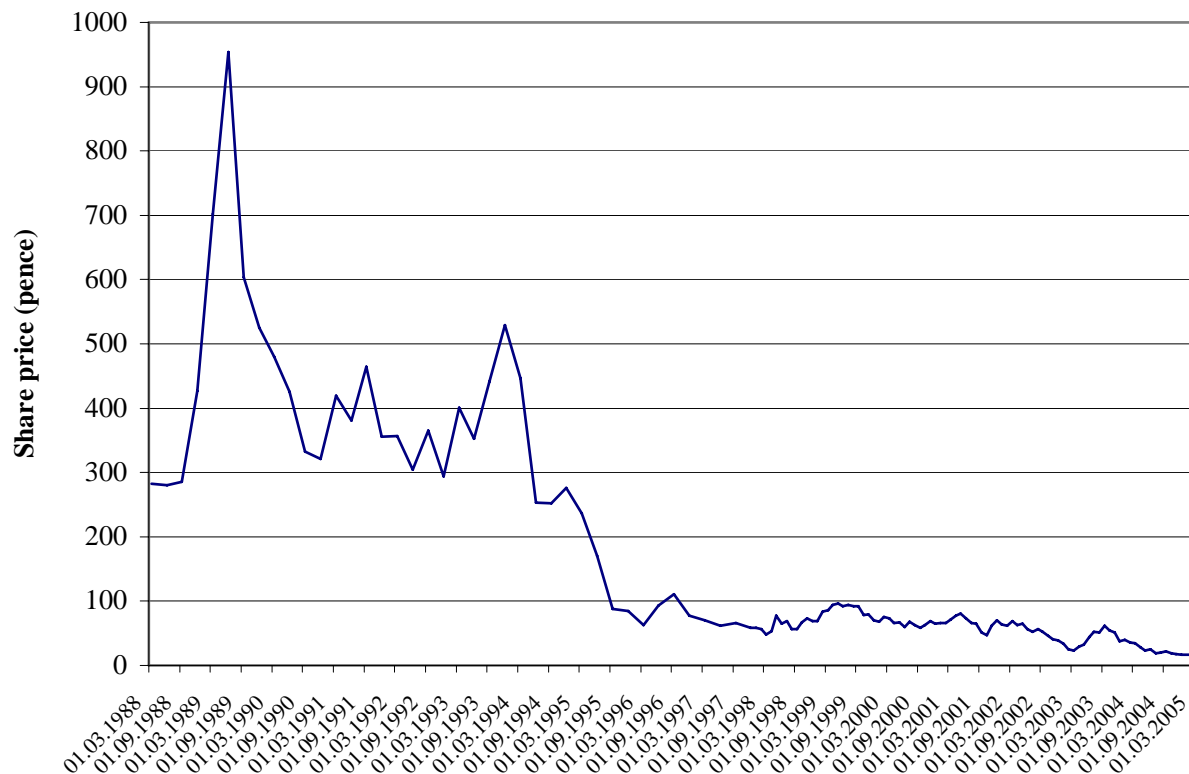
It is important to note the following disclaimer: The conclusions drawn depend heavily upon the assumptions chosen. We do not claim to value Eurotunnel properly; our valuation is based upon estimates.

# Stakeholders



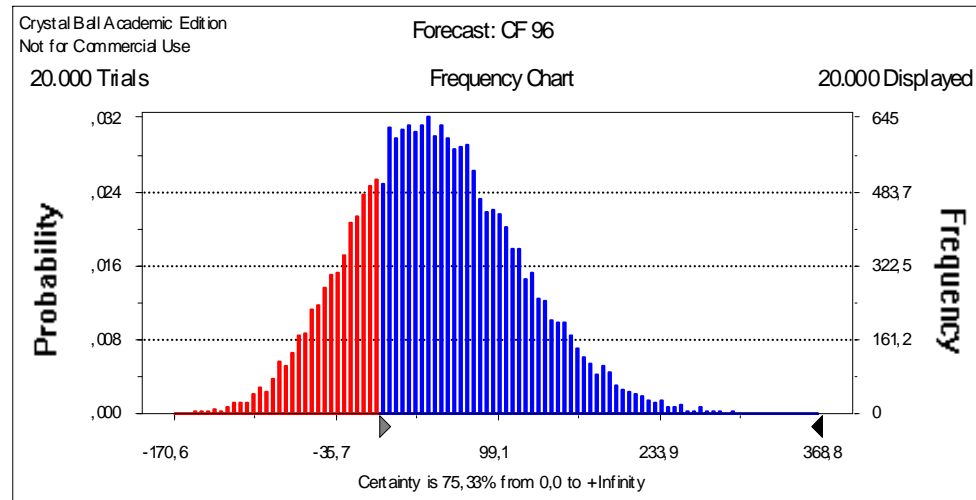
# Rate of returns & share price

- IPO 1987: IRR: 15.2 %; first dividend 1995
- SEO 1990: IRR: 11.5 %; first dividend 1999
- SEO 1994:- IRR: 8.9 % (based upon 400 p) ET, 7.6 % (based upon 400 p) AS  
- first dividend 2004



# Monte Carlo Simulation IPO: Cash Flow & Covenants

- Growth rate shuttle revenues, rail revenues, ancillary revenues as normally distributed
- Triangular distribution for operating expenses



## Debt Service Cover Ratio:

- Unlevered Cash Flow  
Interest and repayments
- Credit agreement: At least 1.1
- Probability for violation during 1994 to 2020:  
49 %

## Total Debt Cover Ratio:

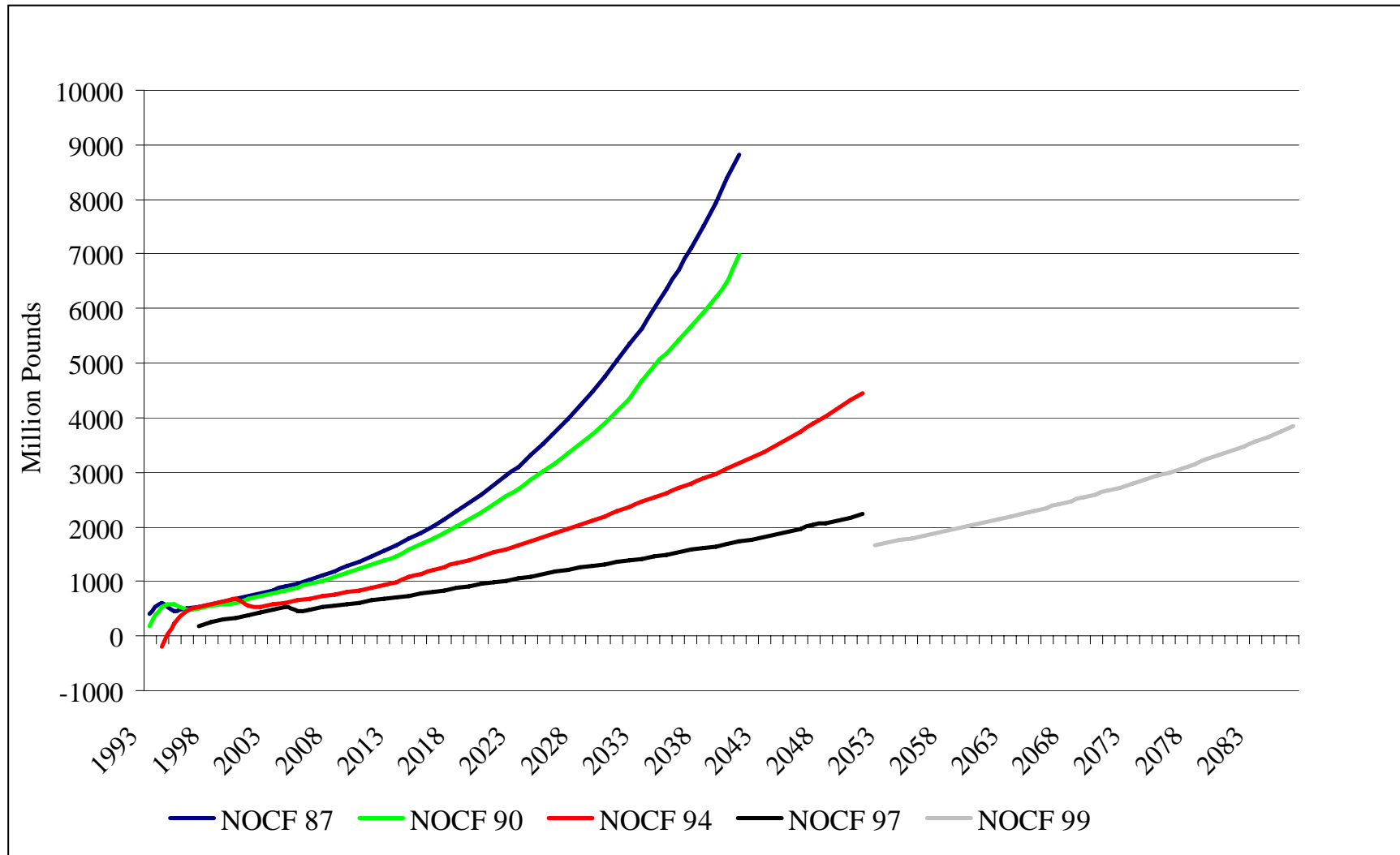
- Present value of operating cf to debt employed
- At least 1.4
- Probability for violation during 1994 to 2020:  
21 %

# Capex and cost until opening

£ million	Nov. 1987	Nov. 1990	Oct. 1991	May 1994
Target works (e.g. tunnels)	1,367	2,009	2,009	2,110
Lump sum works (e.g. buildings)	1,169	1,305	1,305	1,753
Procurement items (e.g. shuttles)	252	583	692	705
Bonus TML		72	72	46
Direct works				36
Project contingency		239	239	
Total construction costs	2,788	4,208	4,317	4,650
Corporate costs	642	787	829	1,128
Provision for inflation	469	1,031	1,031	1,146
Net financing costs	975	1,386	1,534	4,757
Capital Expenditure				222
Transfer to interest reserve				72
Net Cash Out Flow at the Beginning of Operations		196	343	-1,859
Total	4,874	7,608	8,054	10,116

+ > 100%

# Cash Flow Forecasts



NOCF: Net Operating Cash Flow = Revenues – Operating Costs – Taxes – Change in Working Capital

# Operations

		Passengers (millions)	Freight (million tons)
Actual	Cars · 2.55	5.81	
	Coaches · 25	1.80	
	Eurostar	6.32	
	Sum	13.93	
Actual	HGV · 11.7		15.03
	Rail Freight		1.70
	Sum		16.73
Forecast	ET 1987	39.5	21.1
	ET 1990	44.6	26.8
	ET 1994	35.8	25.3

# DCF-Valuation: Equations

- ◆  $V_L > V_{Liq} + I_{Restr}$

- ◆ APV

$$V_{U,0} = \sum_{t=1}^n E[\widetilde{C_{U,t}}] (1+r_U)^{-t} \quad V_{TS,0} = \sum_{t=1}^n E[\widetilde{C_{TS,t}}] (1+r_{TS})^{-t}$$

$$V_{L,0} = V_{U,0} + V_{TS,0} \quad D_0 = \sum_{t=1}^n E[\widetilde{C_{D,t}}] \prod_{j=1}^t (1+r_{D,j})^{-1} \quad E_0 = V_{L,0} - D_0$$

- ◆ WACC

$$WACC_t = r_{L,t} \frac{E_{t-1}}{V_{L,t-1}} + r_{D,t} \frac{D_{t-1}}{V_{L,t-1}} - \frac{C_{TS,t}}{V_{L,t-1}} \quad V_{L,0} = \sum_{t=1}^n E[\widetilde{C_{U,t}}] \prod_{j=1}^t (1+WACC_j)^{-1}$$

- ◆ FTE

$$r_{L,t} = r_U + (r_U - r_{D,t}) \frac{D_{t-1}}{E_{t-1}} + (r_U - r_{TS}) \frac{-V_{TS,t-1}}{E_{t-1}} \quad E_0 = \sum_{t=1}^n E[\widetilde{C_{L,t}}] \prod_{j=1}^t (1+r_{L,j})^{-1}$$

# APV-Valuation of Distressed Firms I

## 1. Unlevered Firm Value ( $V_U$ ):

$$V_{U,0} = \sum_{t=1}^n C_U (1 + r_u)^{-t}$$

- Assuming constant business risk
- 7.2 % used by ET for impairment test
- without financial risk

## 2. Value of Tax Shields ( $V_{TS}$ ):

interest expenses depend upon

- amount of debt used
- repayment schedule
- interest rate according to loan contracts
- cash flow available

tax shields depend upon

- see above
- tax rates (French & British tax system)
- taxable income
- loss carry forwards

# APV-Valuation of Distressed Firms II

## 3. ...continued

Approach chosen for case study (valuation in 1997 and 2005)

- Use loss carry forwards (about 3 billion £ end of 2004)
- Compare levered and unlevered taxes
- Difference: periodic tax shields
- Discount rate chosen here:  $r_u \Rightarrow$

## 4. Subtract Value of Debt (D) to get value of equity:

- Eurotunnel:  $D_{\text{Face Value}} > \underbrace{V_U + V_{\text{TS}}}_{V_L}$  (at least) in 1997, 2005 until now

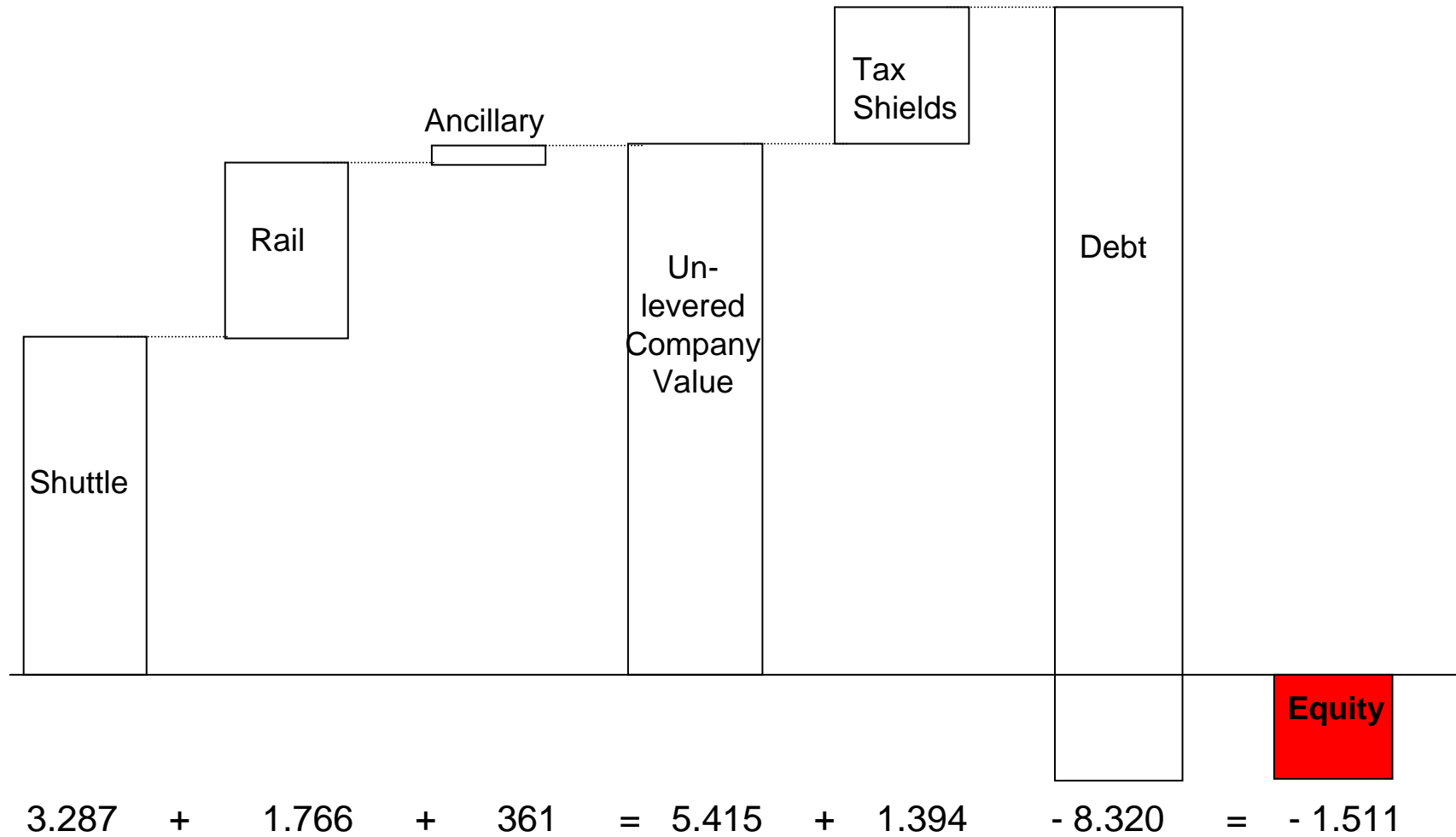
- $V_L - D_{\text{Face Value}} = \text{Over-indebtedness}$

- For restructuring:  
 $E \rightarrow 0$

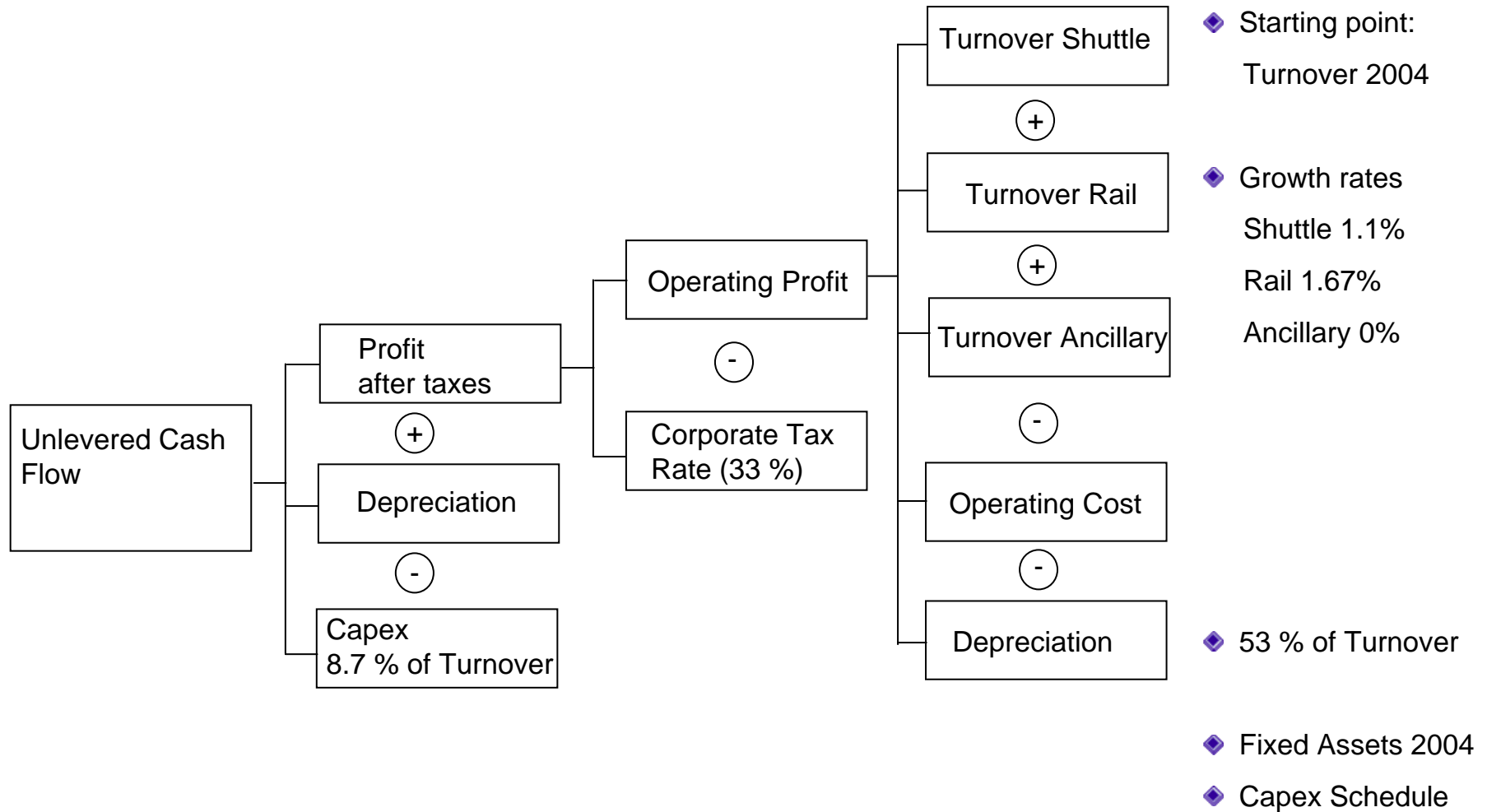
$$\text{Debt Capacity} = V_U + V_{\text{TS}}$$

↙                      ↘  
Interdependency

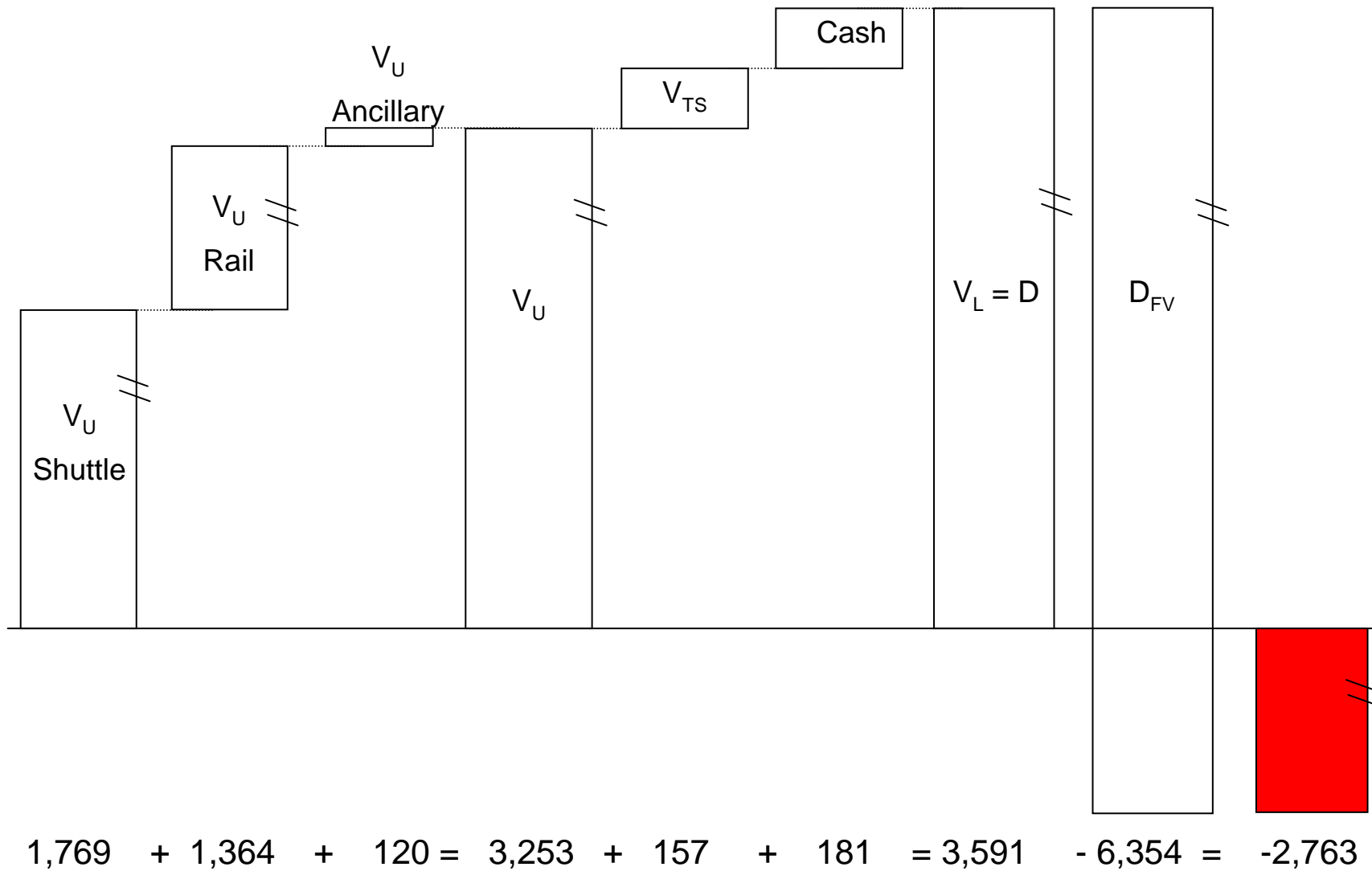
# Financial Restructuring 1997: APV-Valuation (estimation)



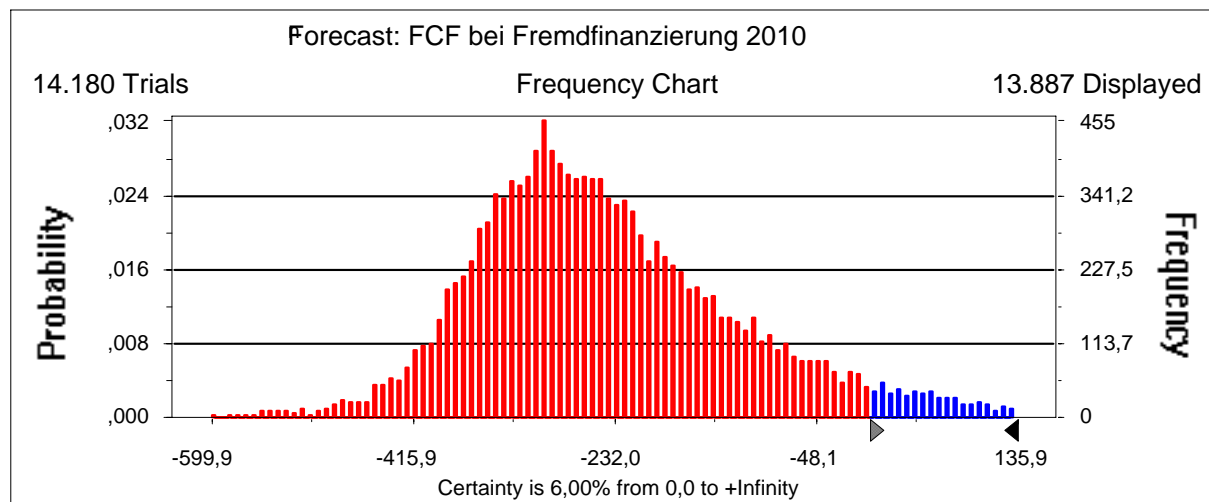
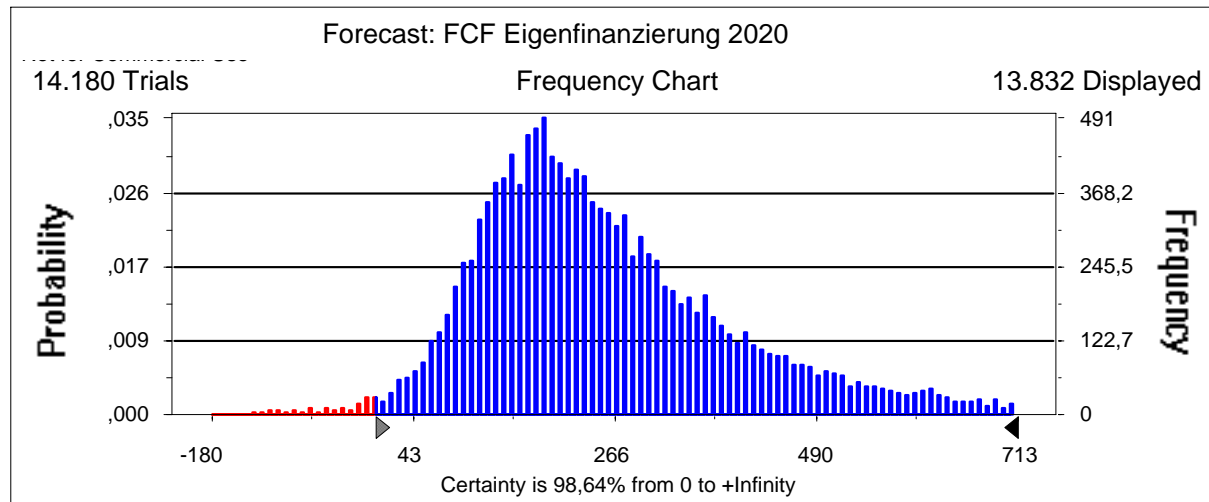
# Simplified Cash Flow Forecast



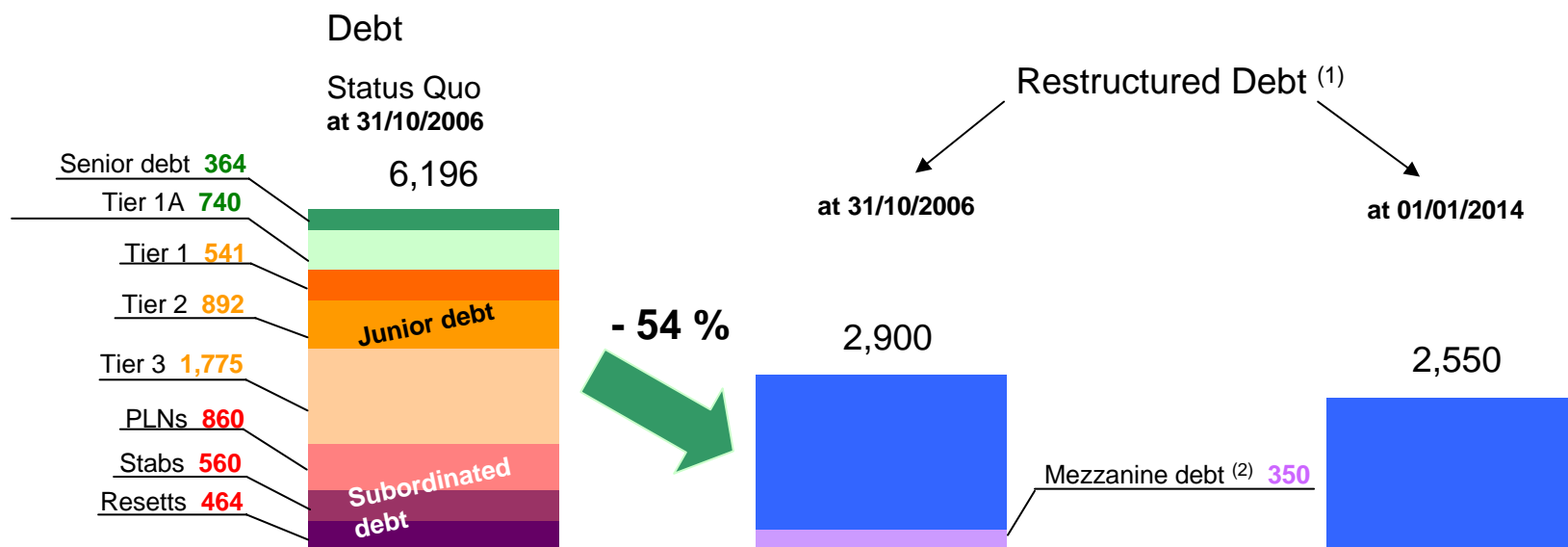
# Base Case (estimation)



# Simulation of cash flows (estimated)



# Debt restructuring: Proposal July 2006



(1) The structure of the restructured finance also includes hybrid securities for a face value of £ 1 billion, the non-redeemed part of which is convertible into shares. The securities are not debt equivalents.

(2) Part used to refinance Junior debt Tier 3, part of the repurchase of part of the subordinated and the constitution of a cash reserve for the Group.

Quelle: Eurotunnel (2006), Explanatory Note, Preliminary Restructuring Agreement & What you really need to know about the financial restructuring plan

# Summary

- ◆ Adjusted Present Value (APV) approach recommended valuation approach as it can deal with
  - ◆ uncertain tax shields
  - ◆ differences between contractual and required cost of capital
  - ◆ differences between face value and market value of debt
- ◆ Use of private funds only seems to be questionable
- ◆ Current financial situation:
  - ◆ Company claims not be insolvent
  - ◆ Auditors have not certified annual accounts 2005 yet
  - ◆ Proposal for financial restructuring is being discussed currently
  - ◆ Discussions between shareholders and creditors and within creditors
- ◆ Outlook