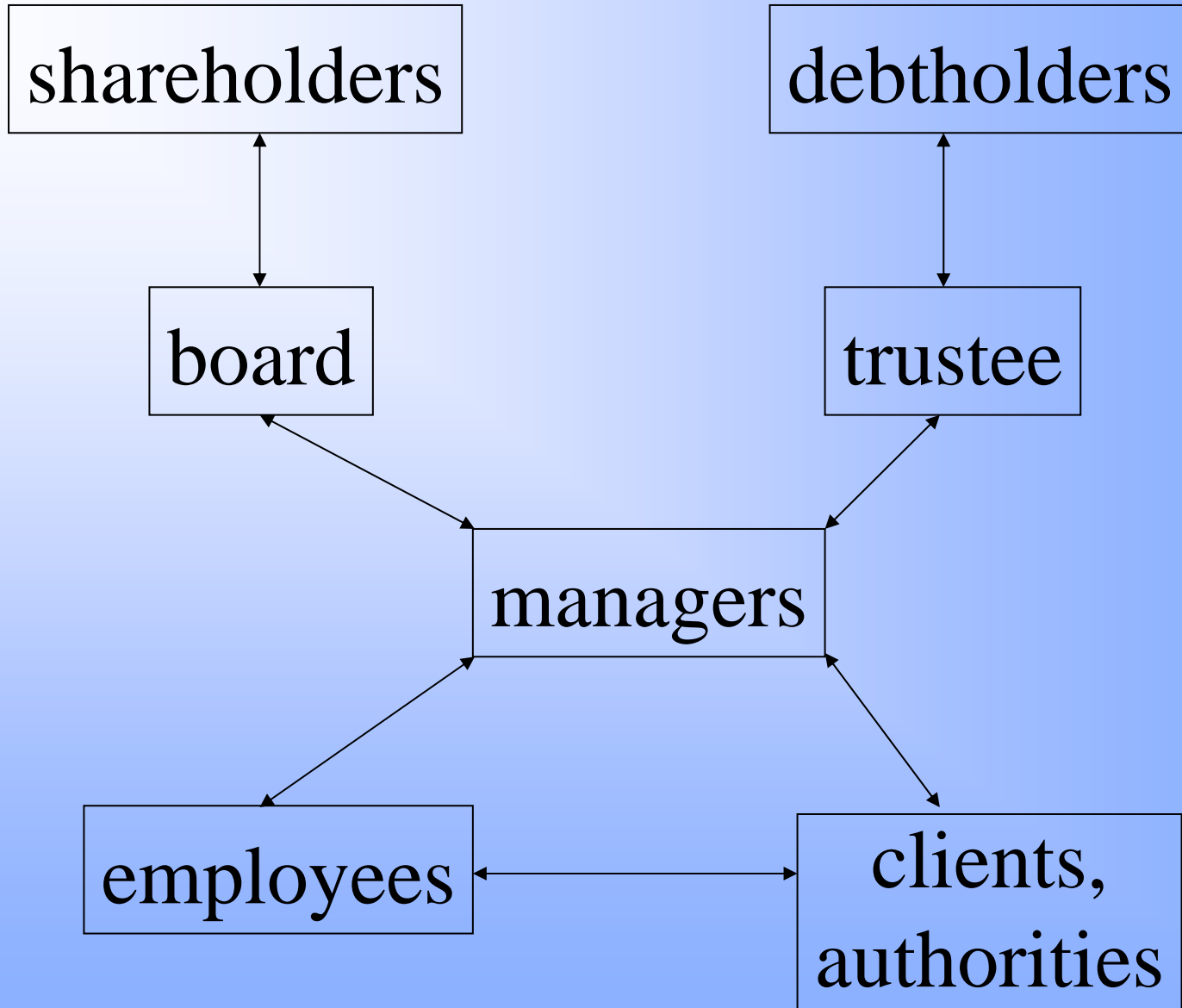




Stakeholders and Voting Rights

Dan Galai and Zvi Wiener

The Hebrew University of Jerusalem



Managers

Try to maximize the value of shareholders.

Act in the best interests of owners.

Board's main functions

Approving a business plan and strategy

Nominating CEO and senior officers

Monitoring performance of the firm

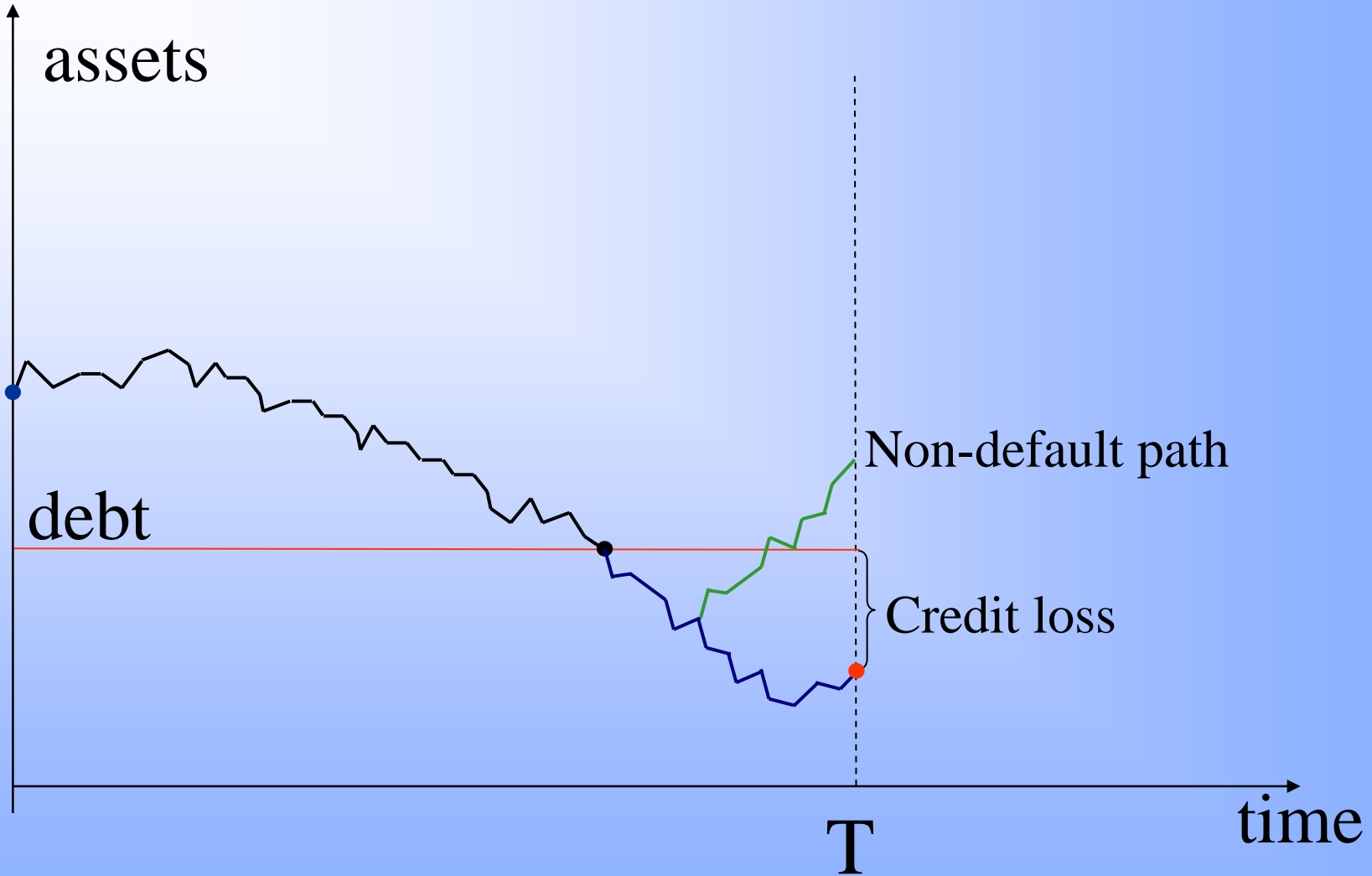
The board should reduce agency costs of the interaction of firm owners and managers.

Debt

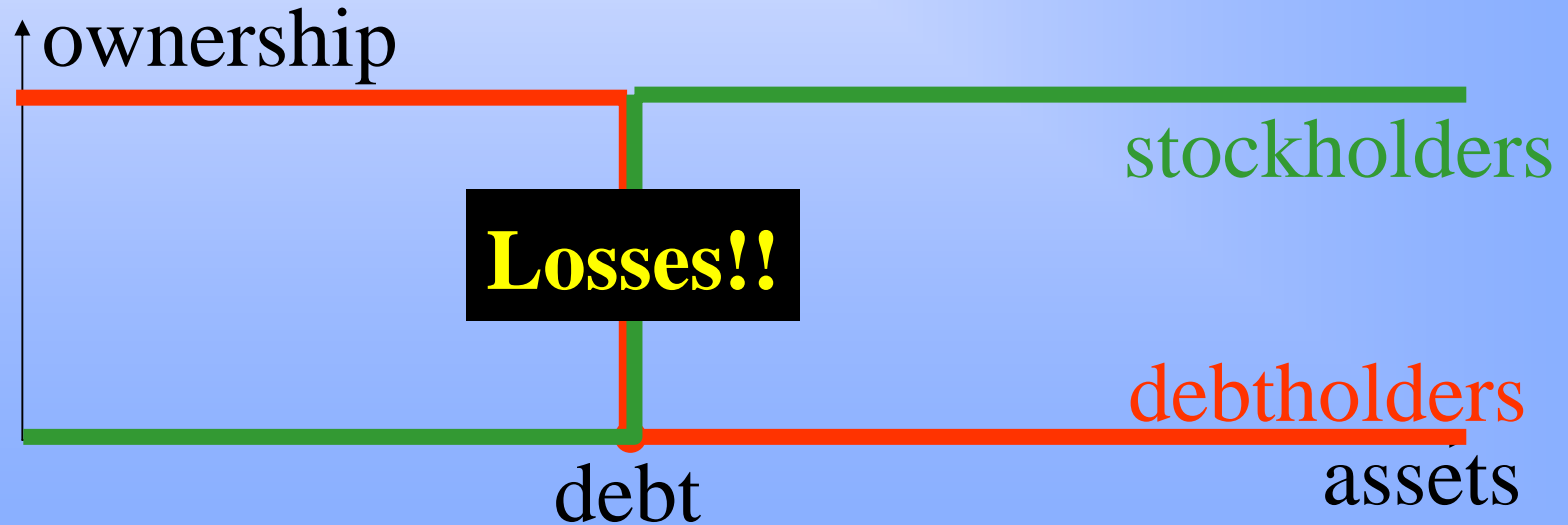
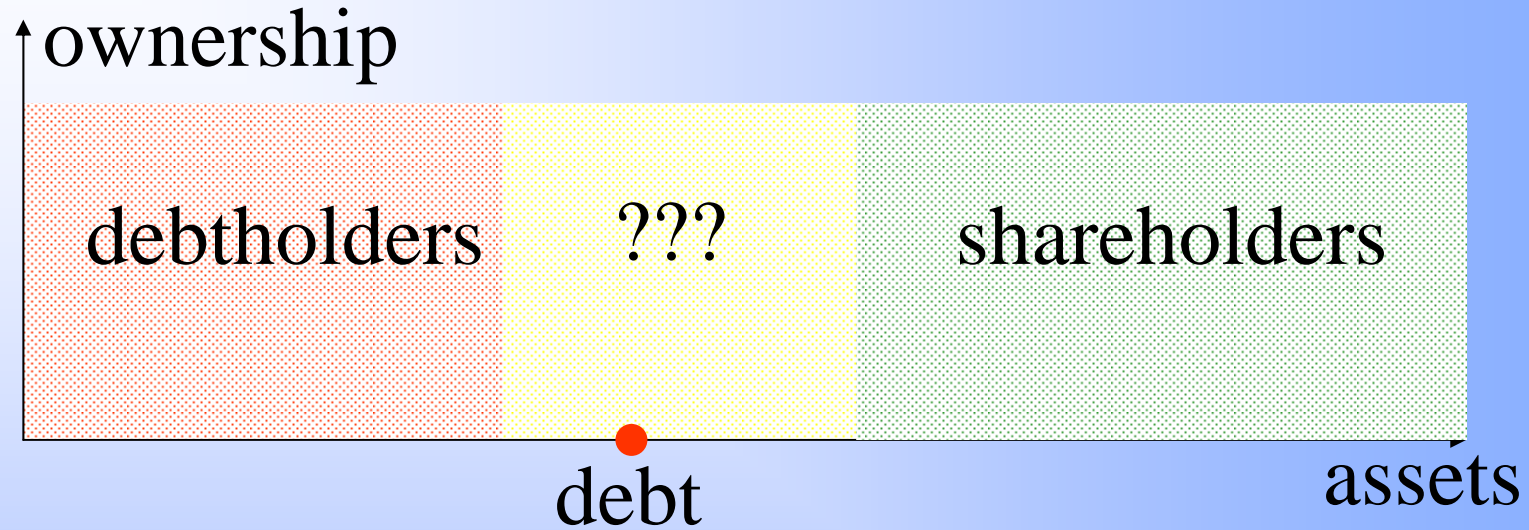
We borrow \$1 today and promise to repay $\$(1+R)$ in the future.

If the promised is not fulfilled, there is a costly procedure which can lead to a change of ownership and control (bankruptcy).

Credit Risk



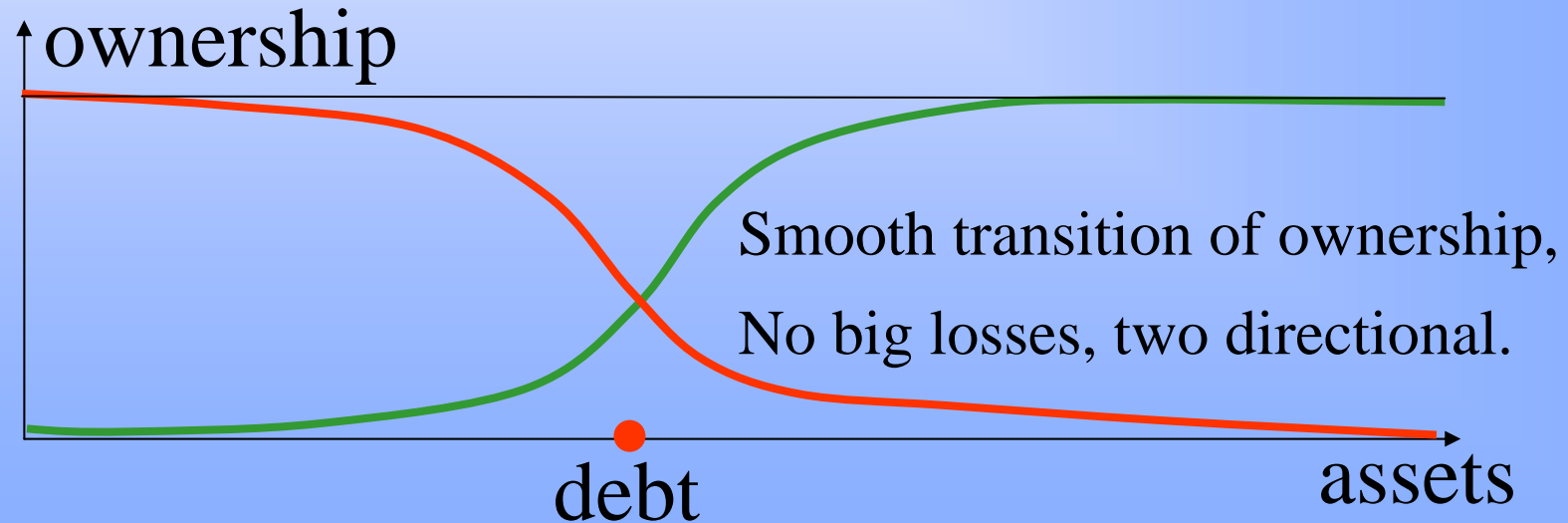
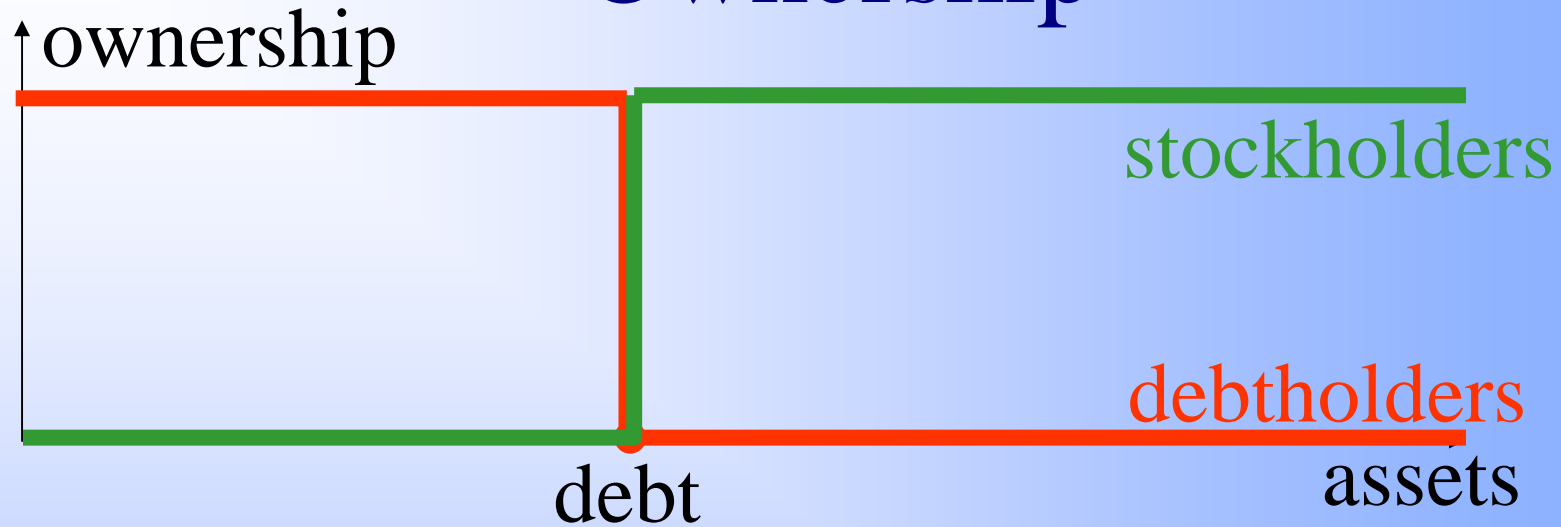
Ownership



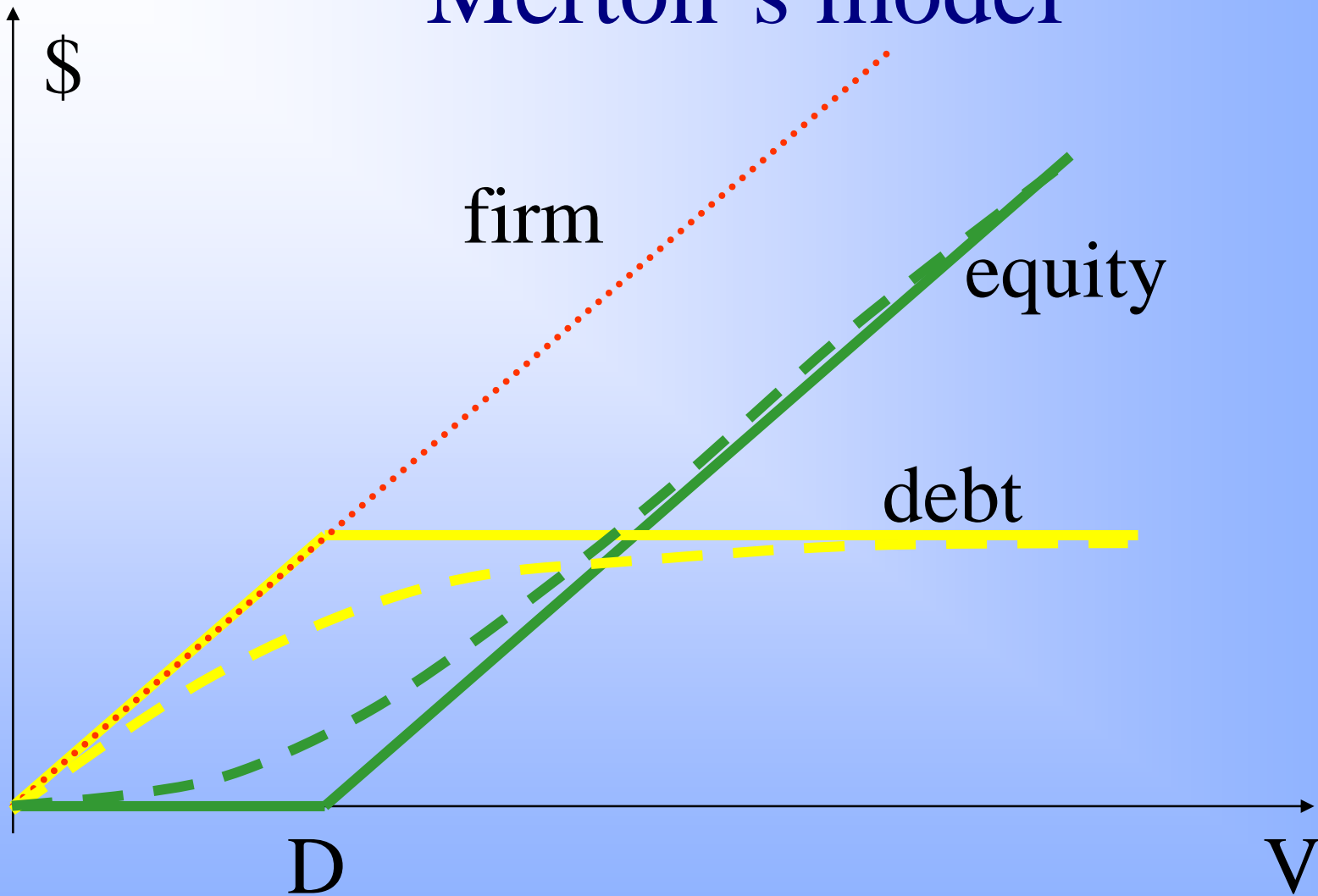
Credit Lyonnais

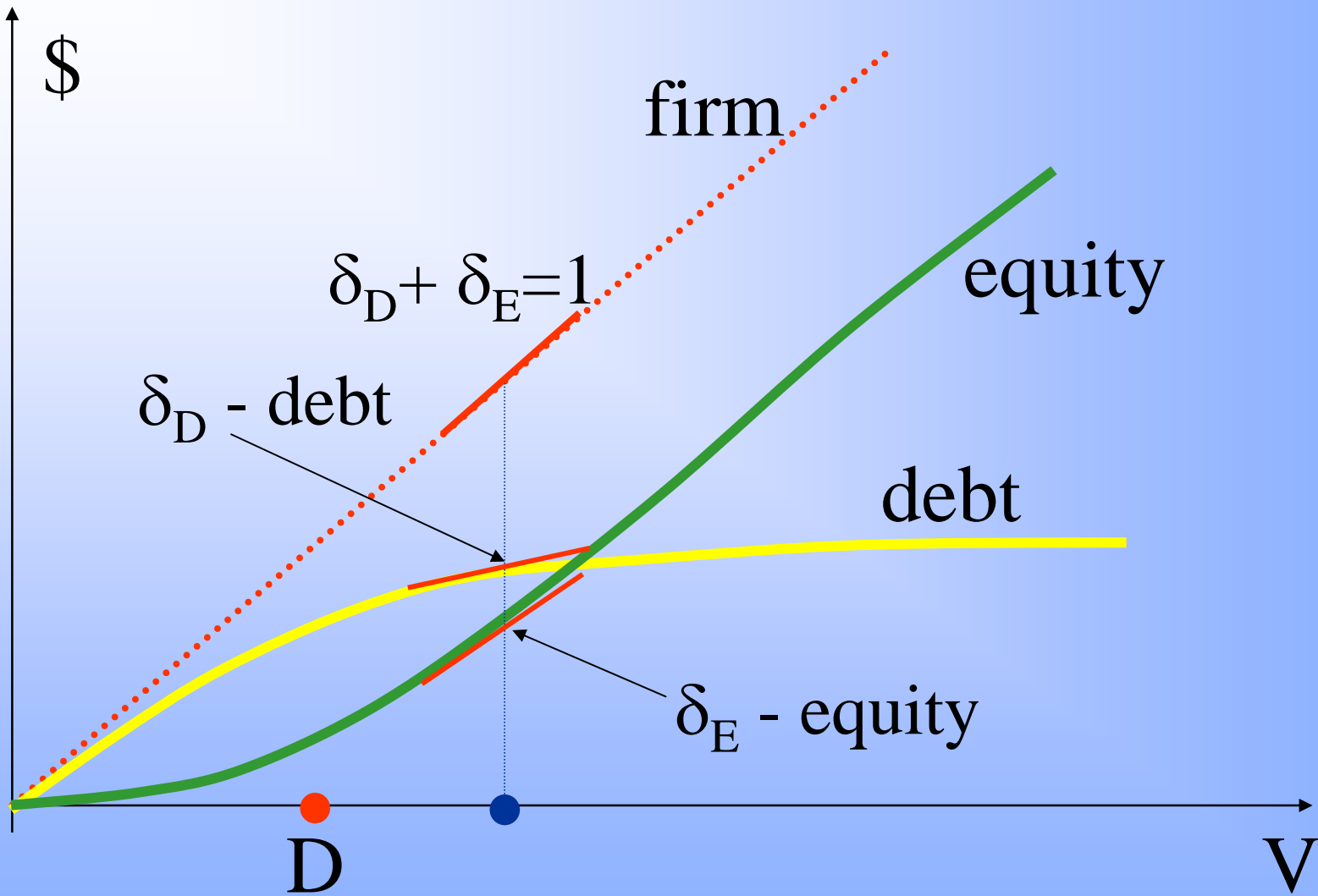
Chancellor Allen: “At least where a corporation is operating in the vicinity of insolvency, a board of directors is not merely the agent of the residue risk bearers, but owes its duty to the corporate enterprise.”

Ownership



Merton's model





Our Proposal

We suggest a normative model for board composition.

Board seats will be allocated according to δ of each stakeholder.

This means that board composition will change with the total assets (or other parameters).

We will discuss practical implementation later.

Consistent with economic optimization!

Our Proposal

Our approach draws on **marginal** impact on each claimant's value as a result of a small change in the value of total assets.

Open questions

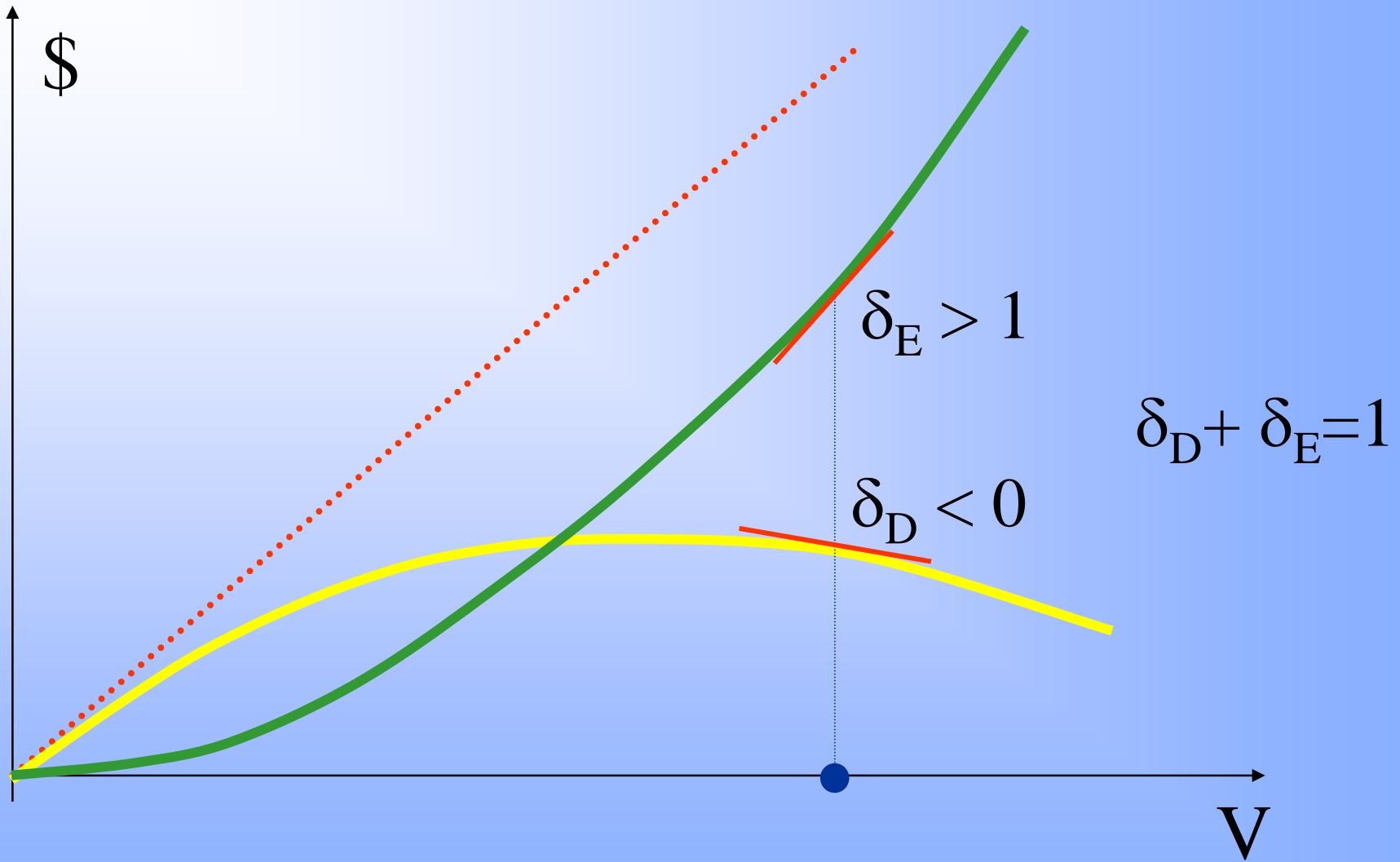
How to implement?

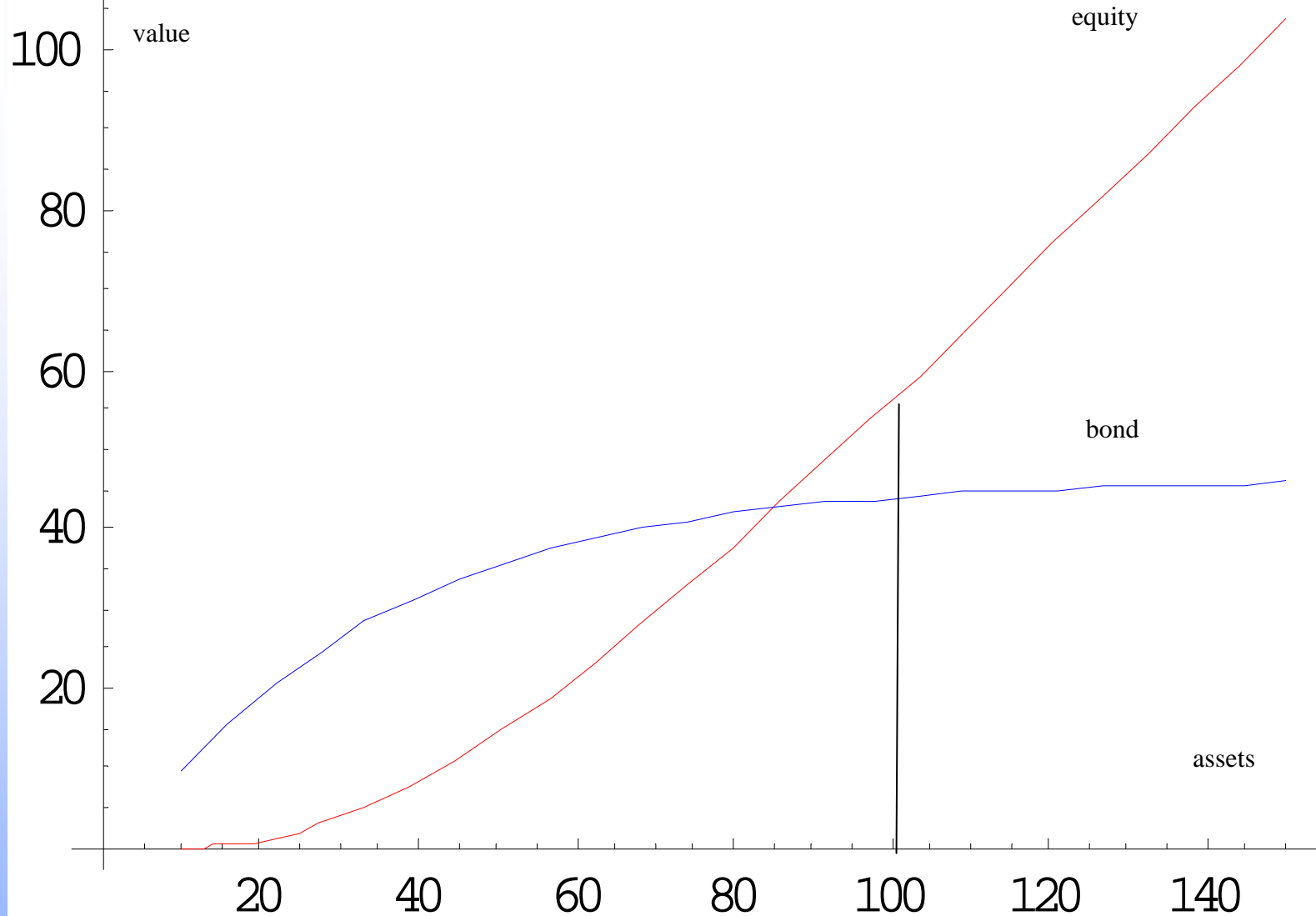
Can delta be negative?

Comparison with average or Gamma based approach.

Risk-taking incentives

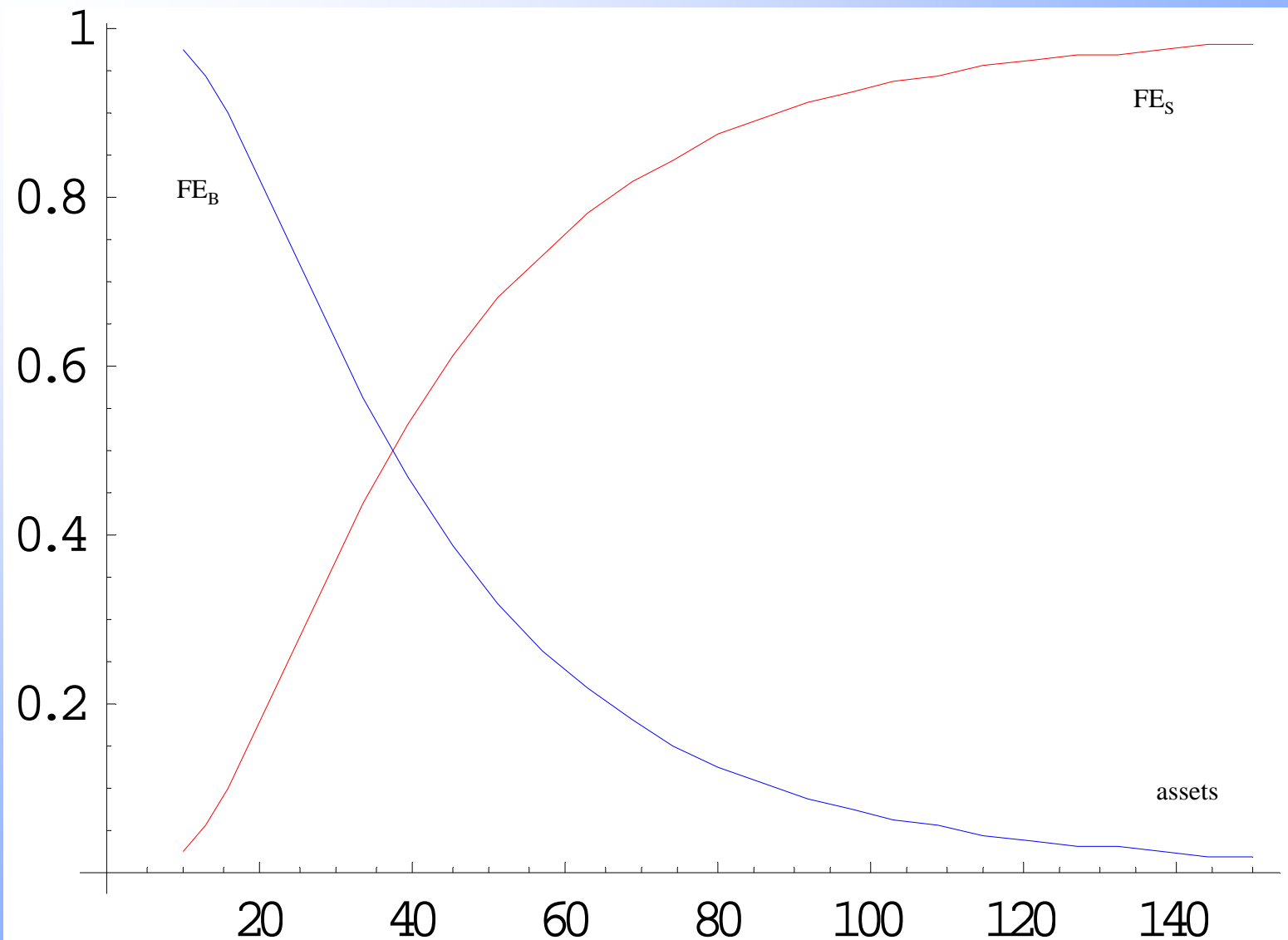
Negative Delta?





$V=100$, $F=60$ (face), $T=5y$, $r=5\%$, $\sigma=30\%$

$\delta_E=93\%$, $\delta_B=7\%$, $E=56$, $B=44\%$.



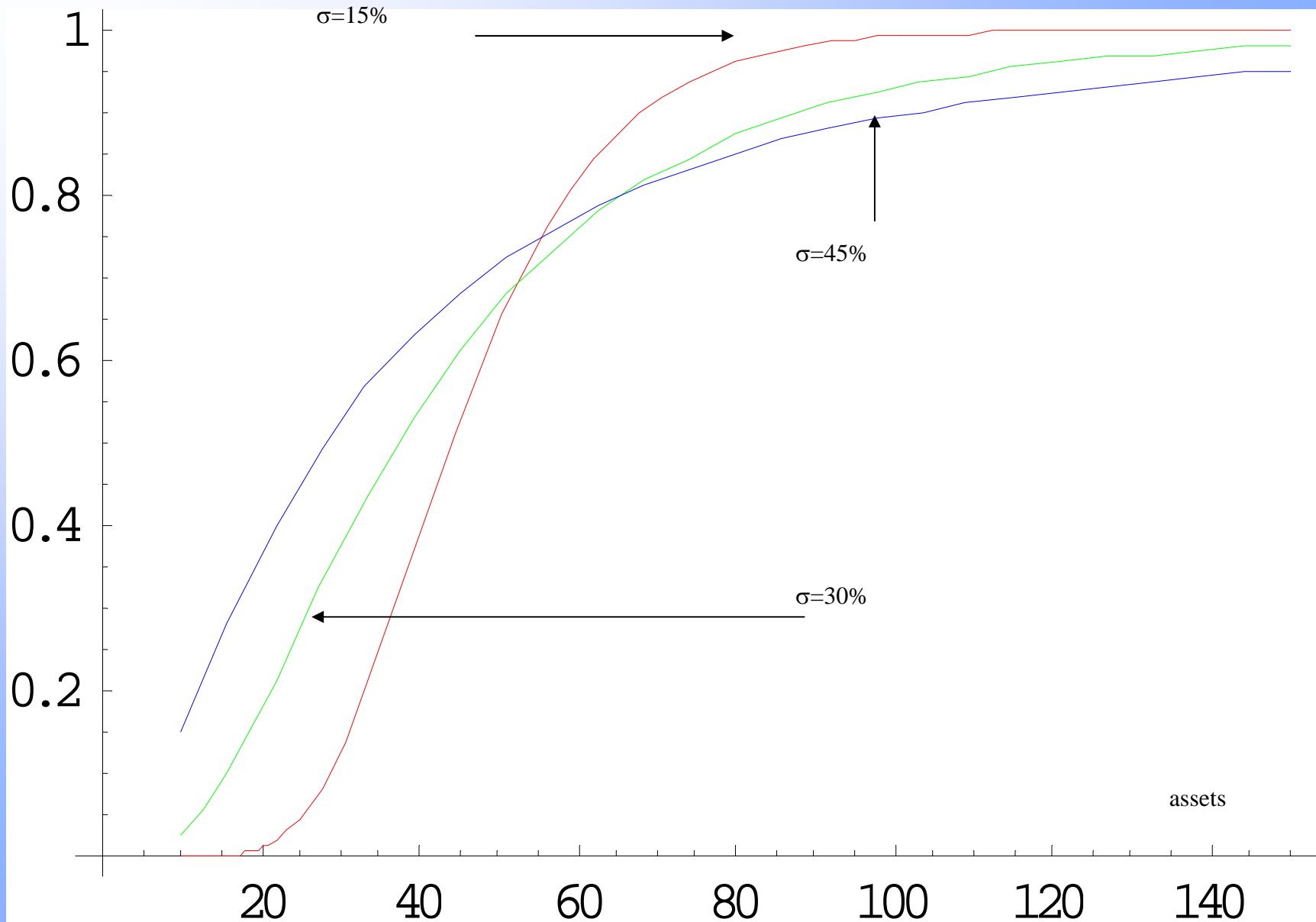
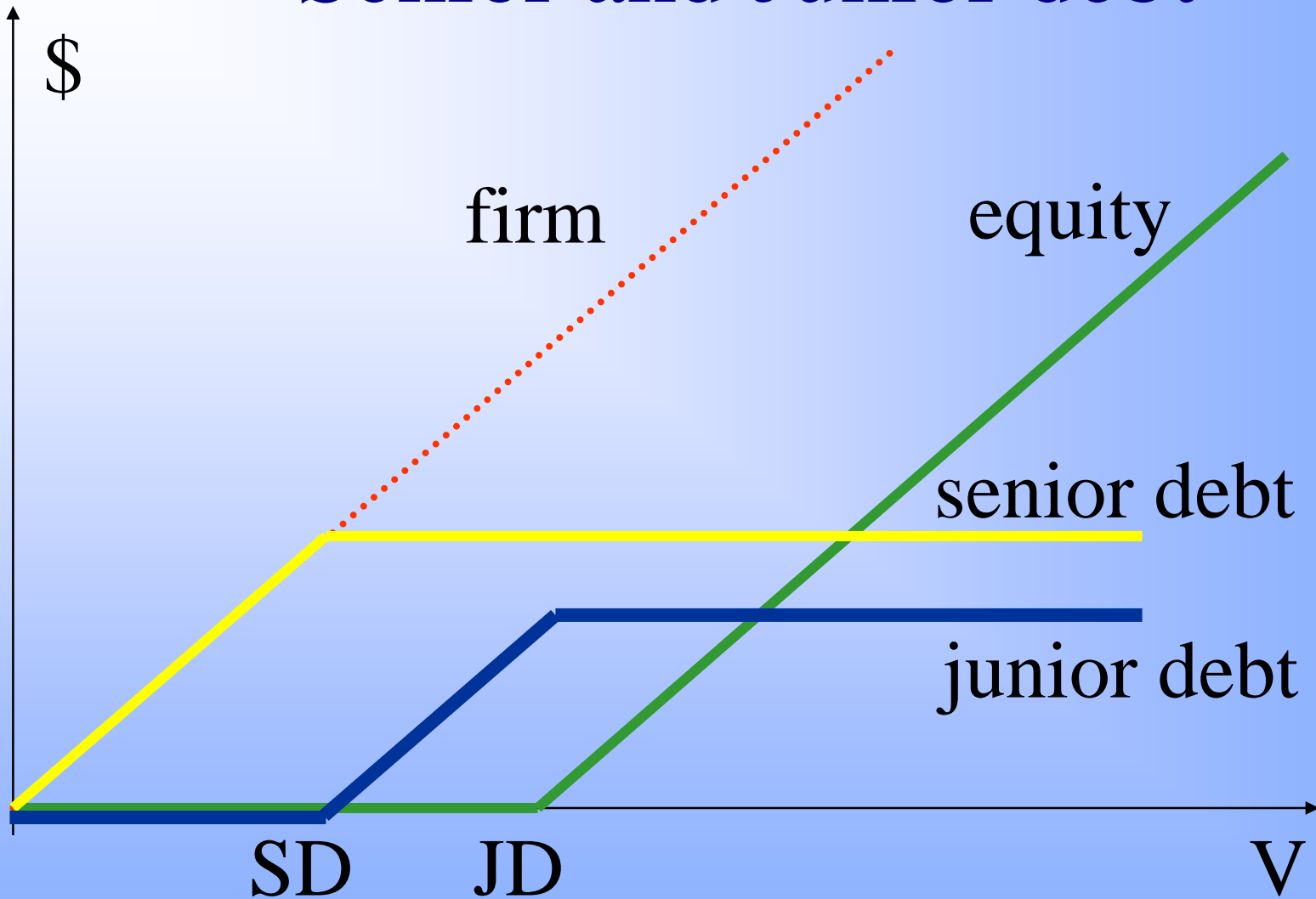


Table 1.

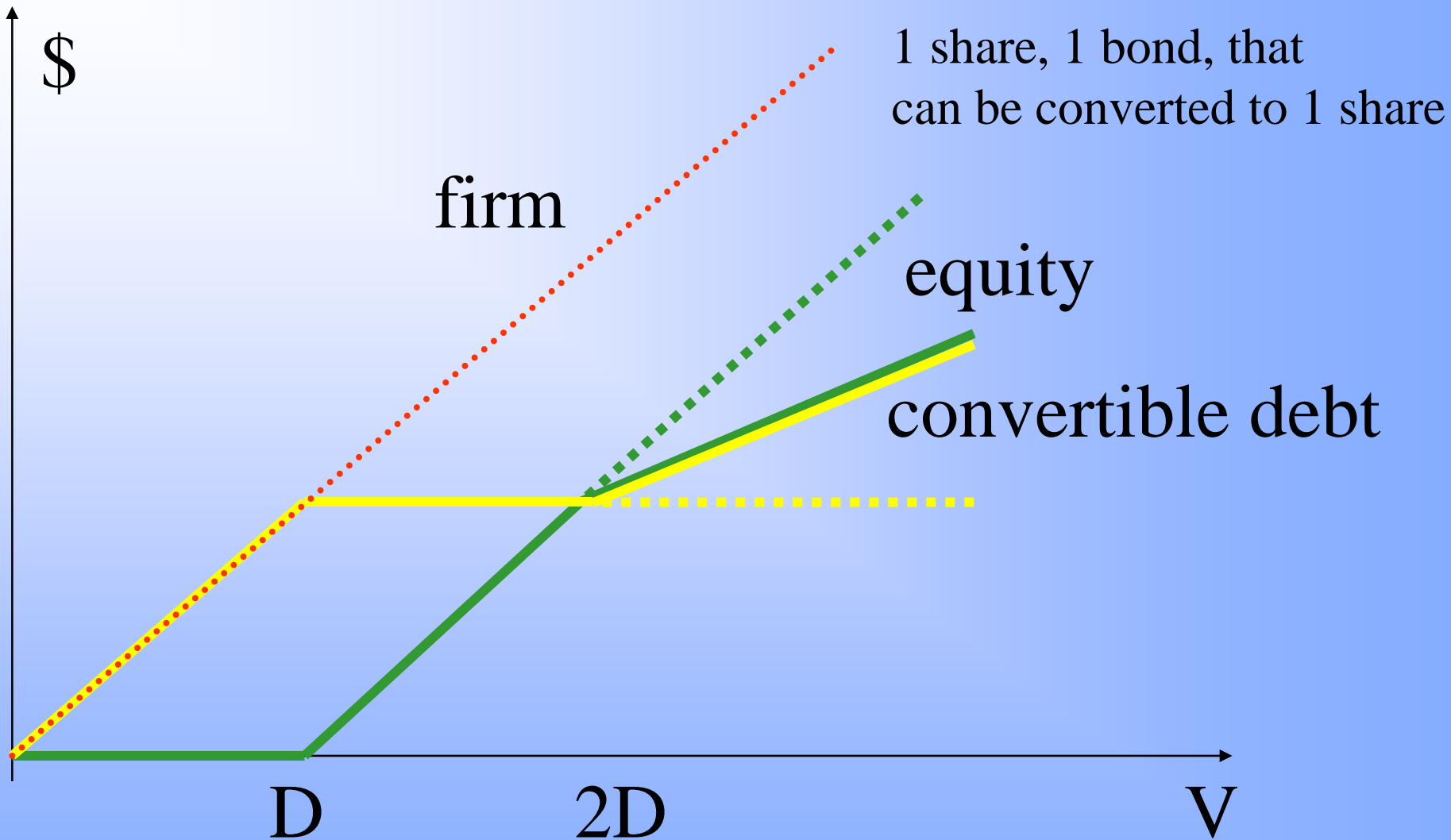
The basic case: $T=5Y$, $r=5\%$, face value of debt = $60 \cdot e^{rT}$, $\sigma = 30\%$, no dividends.

V_0	S_0	FE_S	B_0	FE_B	YTM	σ_B	S_0/V_0	B_0/V_0	RNP
30	3.717	37.3%	26.283	62.7%	16.5%	18.8%	0.124	0.876	84.0%
40	8.320	54.1%	31.680	45.9%	12.8%	13.8%	0.208	0.792	71.5%
50	14.403	66.9%	35.597	33.1%	10.4%	9.9%	0.288	0.712	59.3%
60	21.575	76.1%	38.425	23.9%	8.9%	7.2%	0.360	0.640	48.5%
70	29.525	82.6%	40.475	17.4%	7.9%	5.2%	0.422	0.578	39.5%
80	38.029	87.2%	41.971	12.8%	7.1%	3.8%	0.475	0.525	32.1%
90	46.926	90.5%	43.074	9.5%	6.6%	2.8%	0.521	0.479	26.1%
100	56.105	92.9%	43.895	7.1%	6.3%	2.1%	0.561	0.439	21.2%
110	65.487	94.6%	44.513	5.4%	6.0%	1.6%	0.595	0.405	17.3%
120	75.019	95.9%	44.981	4.1%	5.8%	1.2%	0.625	0.375	14.2%
130	84.660	96.9%	45.340	3.1%	5.6%	0.9%	0.651	0.349	11.7%
140	94.383	97.6%	45.617	2.4%	5.5%	0.7%	0.674	0.326	9.7%
150	104.167	98.1%	45.833	1.9%	5.4%	0.6%	0.694	0.306	8.0%

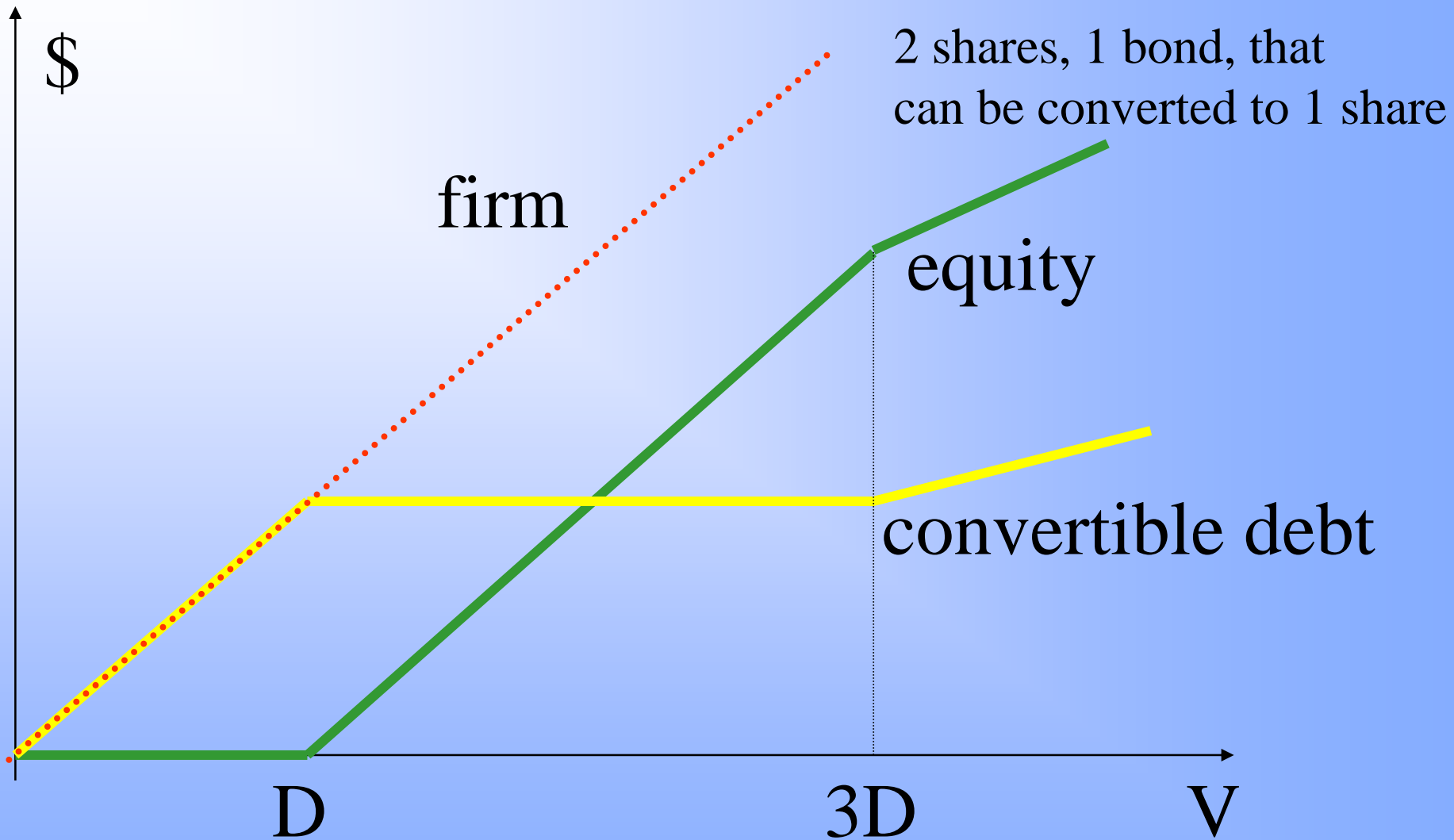
Senior and Junior debt



Convertible bond



Convertible bond



Other Value Maximizing Alternatives

By value as a % part of total assets.

By gamma.

Implementation Problems

How to value the assets?

How often to update the board composition?

Which stakeholders to consider?

Does it really matter if majority still changes abruptly?

Employees

The proposed model allows to view employees as stakeholders. This will typically take place when

1. The business depends on a certain (irreplaceable) employee with unique skills.
2. The business owes to employees (pensions for example).
3. The employees can harm the business (??).

The End