

Capital Structure: Financial Distress and Information Issues

(Welch, Chapter 19-2)

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Focus Switch

Above was mostly about *bad* times.

Below will be mostly about *good* times.

Managerial Pay and Firm Size

As a manager, do you prefer running a bigger company or a smaller company?

Why?

Maximize PV: Mergers?

Who gets the most out of the surplus generated in mergers and takeovers?

Are mergers good news for shareholders?

Are they good news for managers?

Overpriced Acquisitions

- ▶ If the potential for overpriced acquisitions is large,

What security would this favor?

What would be the optimal capital structure?

- ▶ *But* who would have to watch out and implement this?

Jets or Dividends?

If you are the CEO and CB, would you prefer investing great (and possibly surprise) profits

- ▶ into a corporate jet, or
- ▶ into an extra dividend or a share repurchase?

Peace or Unions?

- If you are the manager of a profitable company,
- ▶ would you rather spend your time fighting union demands (e.g., for higher pension promises for the distant future), or
 - ▶ would you rather just give in?
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- ▶ ... far worse problem in the public sector!

Union Digression I

Feel free to disagree with the material in the digression here. It contains some personal views, too.

You are not (yet) management. Be objective.

Union Digression II: Management

Don't Blame (Just) The Unions!

Unions have good aspects and bad aspects.

General Motors (and others) were not ruined (just) by the unions; they were ruined *primarily* by their bad management!

- ▶ Unions did their jobs (up to a point).
- ▶ Management shirked its responsibilities. They indulged bad arrangements.
- ▶ Was it the union's job to be the grown-ups?
- ▶ PS: What are the incentives of union leaders?

Union Digression III: Work Rules

Unions often create inefficient negotiated work rules:

- ▶ Bad employees are difficult to fire;
- ▶ good employees are difficult to reward.
- ▶ Hello, United Auto Workers 2865.
- ▶ Hello, Teamsters 2010.

Union Digression IV: Public Sectors

Public sector unions are problematic.

- ▶ They are organized “one-issue voters,” who elect the politicians supposed to negotiate with them at arms length on behalf of voters.
- ▶ Teachers’ Union has made voters reluctant to approve more school taxes. This hurts our kids.
 - ▶ The TU do not represent our children. They (are supposed to) represent the teachers!

Union Digression V: Employees

In modern firms, the key assets leave the building at 5pm.

- ▶ Good companies treat their employees well.
- ▶ Good companies share profits with their employees via equity and high bonuses, not salaries.
- ▶ Good companies fire unethical and bad managers.

Union Digression VI: Best Case

Typically bad management behavior (bad work rules, capricious decisions, low salaries) has created the union in the first place!

- ▶ Often the fault of MBAs.

Today's employees and many (not all) private-sector unions already realize that they have a stake in the company health.

- ▶ But unions have their own agency problems,
- ▶ care less about firm than about industry.

Moral Hazard

- ▶ If moral hazard costs are large,
What security would this favor?
What would be the optimal capital structure?

Viable Debt Financing?

Perfect market. Risk-Neutral, $E(r)=0$.

The firm is worth either \$100 or \$200 next year with equal probability.

Would you be willing to extend credit for the \$100 bond to this firm at a price of \$99.99?

What is the value of the levered equity?

Risky Negative-NPV Projects

Is it difficult to find a project that costs nothing and pays off $-\$50$ or $+\$40$ next year with equal probability?

Should you take it?

Would you take it?

Reconsider Debt Viability

Would you be willing to extend credit for the \$100 bond to this firm at a price of \$99.99?

- ▶ PS: In a PCM, creditors can anticipate your moves as well as you can.

Spiraling Effects

What would be effect on the interest rate demanded by creditors?

What would be the effect on the capital structure?

What would be the resulting incentives for managers?

Protecting Debt

What can the firm do to raise debt at a more advantageous interest rate?

Bond Covenants

Typical bond covenants relate to

1. Production/Investment
2. Dividend
3. Financing
4. Bonding

Strong Covenants?

Should you issue a bond with a covenant that says that you cannot take very risky projects in the future.

Covenants Balance

Covenants are a delicate balancing act between

- ▶ preventing you from wanting to take bad projects ex-post *because* they shift risk from shareholders to bondholders;
- ▶ and preventing you from taking good projects ex-post that come naturally with risk.

More Creditor Fears

Creditors should also fear

- ▶ Payouts
- ▶ Priority Changes,
- ▶ Implicit Priority Changes,
- ▶ Clever forced exchange offers.

Collateralizable assets often have high debt burdens (mortgages)!

Public Debt Negotiations

Do firms write covenants only when they issue bank debt, where the bank can insist on them being included?

Or do firms also institute covenants when they issue public debt (where no creditors are present to negotiate with the firm)?

Alternative: Sharing the Spoils

Convertible Bonds

Callable Bonds

Comforting Debt

- ▶ If creditors are worried about ex-post behavior,
What security would this favor?
What would be the optimal capital structure?

Information

Perfect market. Risk-Neutral, $E(r)=0$.

As a (penniless) entrepreneur who is good at (and enjoys) drilling, you have an opportunity to develop an oil field, which

- ▶ has a 50% chance of success, \$5M, and
- ▶ has a 50% chance of failure, recovering only its land value of \$1M.

It costs \$1M to put up the drill rig.

Financing Choices

How much **debt** would you have to sell?

[OR]

How much **equity** would you have to sell?

What would be your take after fund raising?

Which capital structure is better?

Expertise

You have just developed a better nose.

You can smell whether there is oil in the ground.

Does this special skill help you?

Financing Choices Again

How much would you have to promise debt if you wanted to finance with debt?

How much would you have to promise equity if you wanted to finance with equity?

Personal Wealth

What if you have cash in your bank account?
Or if your relatives are wealthy?

Pecking Order

Pecking Order means that firms have ordered preferences for financing projects.

1. if possible, finance with cash first.
2. if not sufficient, issue safer securities (debt).
3. if not enough, issue riskier securities (equity).

Information asymmetries can cause a pecking order.
So can other forces.

Financing Pyramid

Financing Pyramid means that the firm issued a lot more less-risky securities (debt) than risky securities (equity).

A pecking order can create a financing pyramid.

But equity appreciation can undo a pyramid over time.

Basic Auction Theory

What is the bottle with cash worth?

Let's auction it.

- ▶ skipped because this has been covered in our statistics course.

Inside Information

- ▶ If inside information considerations are large,
What security would this favor?
What would be the optimal capital structure?