Chapter 16: Bankruptcy

The decrease in cash flows related to bankruptcy or the high risk of bankruptcy are usually classified as either *direct bankruptcy costs* or *indirect bankruptcy costs*.

Nonfinancial stakeholders are customers, employees, and suppliers. A financially distressed organization may find it hard to acquire credit and may find it more costly in other ways to efficiently carry out its day-to-day business.

When there are conflicts between an organization's debt and shareholders, the net present value of a project can differ from the NPV computed with either the APV or the WACC method. Organizations that operate exclusively in the interests of their shareholders may miss some value creating opportunities.

Organizations in the U.S. that are not capable to make required payments to their creditors can file for a bankruptcy, which leads to the liquidation of the organization's assets in the settlement of the creditors' claims, or a bankruptcy, which allows the organization to restructure its debt and equity claims and continue to operate.

The first type of bankruptcy, the bankruptcy court chooses a trustee external to the company who liquidates the assets of the organization and distributes the proceeds to the debt holders, according to the *absolute priority rule*, which states that debt holders must be paid in full before shareholders receive any proceeds of the bankruptcy.

With the second type of bankruptcy, the claims of debt and shareholders cannot be settled with cash realized from the liquidation of assets, the debt and shareholders receive new financial claims in exchange for their existing claims.

We know several costs that are linked to bankruptcy:

- The time management spends dealing with creditors and the additional time creditors spend with the managers of a bankrupt organization.
- Legal expenses
- Court costs
- Advisory fees.

Debt holders want an interest premium for the risks of default. Therefore, shareholders indirectly bear the risks of default and the expected costs of bankruptcy. Therefore, shareholders must take these costs into account when choosing their optimal capital structures.

Organizations that want to maximize their stock prices make different decisions when they have debt in their capital structures than when they are financed completely with equity.

Shareholders can take wealth from the debt holders. That is the reason that debt holders demand covenants. Covenants are contracts between the borrower and lender that prevent such actions.

The conflicts between debt holders and shareholders can be categorized as follows:

- The *debt overhang problem*: shareholders may under invest. This means that they pass up profitable investments because the organization's existing debt captures most of the project's benefits. This is also called the *underinvestment problem*
- The *asset substitution problem*: shareholders have a tendency to take on overly risky projects, even when they have negative NPV.

- The *short-sighted investment problem*: shareholders will have a tendency to pass up profitable investment projects that pay off over a long time horizon in favour of less profitable projects that pay off more quickly
- The *reluctance to liquidate problem*: shareholders may want to keep an organization operating when its liquidation value exceeds its operating value

Since debt holders have a main concern in the event of liquidation, they have a stronger interest in liquidating the assets of a distressed organization than the organization's shareholders, because they profit from the possible upside benefits that may be realized if the organization continues to operate. Therefore, an organization's financial structure partly determines the conditions under which it liquidates.

Shareholders and other junior claimants have claims like options which may be nearly worthless if bankruptcy arises. They thus have an inducement to put more money into the organization if it allows them to extend the life of their claims, in hopes that the claims finally will have value. This is particularly true when asset values are highly volatile.

In the second type of bankruptcy, organizations are able to acquire debtor-in-possession (DIP) financing. DIP financing allows bankrupt corporations to raise money necessary to fund investments that are required to continue the organization. This provision of the bankruptcy code mitigates the debt overhang/underinvestment problem. However, the provision also may allow some organizations to continue operating when they would be improved off liquidating.

The simplest way to solve the problems between debt holders and equity holders is to remove the debt holders. However, there are offsetting advantages to the inclusion of debt in an organization's capital structure.

There are six other ways to minimize the inducement costs associated with debt financing:

1. *Protective covenants*
   Many covenants deliver some protection to the original debt holders against the tendency of an organization's management to undertake high-risk investment projects in the future. Covenants that directly limit the types of projects that organizations can undertake are less common.

2. *Bank and privately placed debt*
   Bank debt has additional advantages over publicly traded bonds when the inducements to raise risk are most severe. Banks and other private providers of debt capital are more capable to check the investment decisions of organizations and enforce protective covenants. There are also more stringent covenants imposed on private debt because it is much easier to renegotiate and to enforce a covenant with a bank than with a group of bondholders. Consequently, bank loan covenants limit flexibility far less than equivalent bond covenants. However, if an organization relies too much on any single bank, the bank takes advantage of this reliance and charges the organization higher than-market rates on its subsequent loans (=the hold up problem).

3. *The use of short-term instead of long-term debt*
   The value of short-term debt is less sensitive to changes in an organization's investment strategy than the value of long-term debt. So, problems are less for organizations financed with short-term debt. Though, with short-term financing, unexpected enlargements in interest rates could bankrupt a highly leveraged organization.

4. *Security design: the use of convertibles*
   Options become more valuable as the volatility of the organization's stock raises. This raise in the value of the option component can offset the cut in the value of the convertible's straight bond component that arises when the organization's volatility raises.

5. *Project financing*
   Project financing is done by investing capital in projects. The use can moderate the conflicts between debt holders and equity holders in several ways.

6. *Management compensation contracts*
   Managers make choices that benefit debt holders at the expense of shareholders and vice versa. So organizations have an inducement to compensate managers in ways that make them sensitive to the welfare of both debt holders and shareholders.

There are several reasons why the conflicts between debt and equity holders are even worse in smaller organizations:

- Small organizations can be more flexible and are more capable to raise the risk of their investment projects
- Top managers in small organizations are more likely to also have a large amount of shares in the organization. Therefore, it benefits them to pay shareholders at the expense of debt holders

Debt holder – shareholders conflicts are not likely to be as severe in Japan, because in Japan, banks play a much larger role in the financing of corporations.