**What are the differences between warrants and convertibles?**

Warrants are generally very long-term call options.

The company writes them and warrants the exercise, which results in additional outstanding shares.

Warrants can normally be detached from the original securities and sold separately,

Exercise of warrants reduces EPS, so warrants are included when a firm reports “diluted EPS.”

Generally, a warrant will sell in the open market at a premium above its exercise value (it would never sell for less).

Therefore, warrants tend not to be exercised until just before expiration.

When exercised, each warrant will bring in an amount equal to the strike price, $25.

This is equity capital; holders will receive one share of common stock per warrant.

When the warrants are issued, the strike price is typically 20% to 30% above the current stock price.

Question- Because bonds with warrants have a lower coupon rate, should all debt be issued with warrants? No. As we shall see, the warrants have a high required return, which drives up the bond-with-warrants package’s true cost of capital.

There are two types of convertibles: Bonds and preferred Stocks.

Convertible bonds (or preferred stock) may be converted into a specified number of common shares at the bondholders' option.

Corporations issue them in conjunction with other securities to reduce the yield required on the other securities.

The exercise price is paid to the company, generates cash for the firm, and alters the capital structure.

The conversion price is the effective price paid for the stock.

The conversion ratio is the number of shares received when the bond is converted.

Convertible bonds will be worth at least the straight or the conversion value, whichever is greater.

When the convertible is converted, the debt ratio decreases, and the firm’s financial risk declines.

The exercise of warrants brings in new equity capital.

Convertible conversion brings in no new funds.

In either case, new lower debt ratio can support more financial leverage.

Bonds with warrants typically have much higher flotation costs than do convertible issues.

Agency costs due to conflicts between shareholders and bondholders

* **Agency Conflicts**

In addition to pricing, the option characterization of debt and equity securities provides a new interpretation of agency conflicts.

* Because equity is like a call option, equity holders will benefit from risky investments.
* Debt is a short put option position, so debt holders will be hurt by an increase in risk.
* This can potentially lead to an overinvestment problem.
* When the firm makes new investments that increase the value of its assets, the value of the put option will decline.
* Because debt holders are short a put, the value of the firm’s debt will increase, so some fraction of the increase in the value of assets will go to debt holders.
* This reduces equity holders’ incentive to invest, possibly leading to a debt overhang (or underinvestment) problem.

How do convertibles help minimize agency costs?

* Agency costs due to conflicts between shareholders and bondholders
  + Asset substitution (or bait-and-switch). Firm issues low cost straight debt, then invests in risky projects
  + Bondholders suspect this, so they charge high interest rates
  + Convertible debt allows bondholders to share in upside potential, so it has low rate.

Agency Costs Between Current Shareholders and New Shareholders

* Information asymmetry: company knows its future prospects better than outside investors
  + Outside investors think company will issue new stock only if future prospects are not as good as market anticipates
  + Issuing new stock send negative signal to market, causing stock price to fall
* Company with good future prospects can issue stock “through the back door” by issuing convertible bonds
  + Avoids negative signal of issuing stock directly
  + Since prospects are good, bonds will likely be converted into equity, which is what the company wants to issue