CORPORATE FINANCE

The following topics will be discussed in this lecture.

- Venture Capital
- Cost of Debt & Bond
- Weighted average cost of debt
- Tax and cost of debt
- Cost of Loans & Leases
- Overall cost of capital – WACC
- WACC & Capital Budgeting

Venture Capital

Venture capital is capital typically provided by outside investors for financing of new, growing or struggling businesses. Venture capital investments generally are high risk investments but offer the potential for above average returns. A venture capitalist (VC) is a person who makes such investments. A venture capital fund is a pooled investment vehicle (often a partnership) that primarily invests the financial capital of third-party investors in enterprises that are too risky for the standard capital markets or bank loans.

Alternatives to venture capital

Because of the strict requirements venture capitalists have for potential investments, many entrepreneurs seek initial funding from angel investors, who may be more willing to invest in highly speculative opportunities, or may have a prior relationship with the entrepreneur.

Furthermore, many venture capital firms will only seriously evaluate an investment in a start-up otherwise unknown to them if the company can prove at least some of its claims about the technlogy and/or market potential for its product or services. To achieve this, or even just to avoid the dilutive effects of receiving funding before such claims are proven, many start-ups seek to self-finance until they reach a point where they can credibly approach outside capital providers such as VCs or angels. This practice is called "bootstrapping".

In industries where assets can be scrutinized effectively because they reliably generate future revenue streams or have a good potential for resale in case of foreclosure, businesses may more cheaply be able to raise debt to finance their growth. Good examples would include asset-intensive extractive industries such as mining, or manufacturing industries. The following factors should be considered before making decision to raise capital through venture:

- limited market and access of VC
- introduction market – it works on personal contacts
- very expensive option
- Stake in management make it risky for original owners.
- No physical collateral is required.
- Venture capitalist must be financially strong.
- previous track record or success rate
- Style of venture capitalist – in addition to money skill set will definitely add value.
- Contacts of VC are very important.
- Exit strategy must be finalized.

Cost of Debt – Bonds

A company may have several bond issues outstanding. From debt family we need to calculate first the cost of each class of debt and then we will calculate the cost of debt by taking into account cost of each component using their weight age from total debt. Consider the following example:

						Weighted Average	
Bond	**Book**	**% of**	**MV of**	**% of**	**YTM**	**BV**	**MV**
ISSUE	**Value**	**BV**	**Bonds**	**MV**			
D	500.00	0.33	501.50	0.35	6.24	2.09	2.18
F	496.00	0.33	440.50	0.31	8.36	2.78	2.56
R	200.00	0.13	206.90	0.14	7.31	0.98	1.05
T	297.00	0.20	287.40	0.20	7.90	1.57	1.58
	1,493.00		1,436.30			**7.42**	**7.37**

A company has four outstanding bond issues having different yield to maturity and market value. We have both book values and market values in the above table but using market values are preferred for computing weighted average of cost of bond interest because the market value reflect the current risk level in prices,

Total BV of bond debt is 1493 million and third column from left hosts the % portion of each issue from the total bond debt. In fourth and 5th columns we have market values of bonds and weight of each issue from total market value.

In the last two columns we have cost of each issue by multiplying YTM with BV and MV. The weighted average cost of bond debt is 7.37% using market values.

Like the way we calculated the bond single rate as cost of debt, the cost of loan with a difference that normally we take the book values of debt in computing the single loan rate.

It will be pertinent to note here that the interest paid on loans, bonds and leases are tax deductible whereas the dividend paid to preference shareholders is NOT tax deductible. When we are calculating the single cost rate of debt family we must take into account the tax deductibility of loans, bonds and leases.

After-tax Cost of Debt

After-tax cost of debt = Interest rate x (1 - tax rate)

EXAMPLE:

0.08 = 10% x (1 - 0.2)

This explains how we work out the after tax cost of debt.

Weighted Average Cost of Capital

Once we have calculated the individual component cost then we move ahead to compute the overall weighted average cost of capital. The process is to find the weight of each component from overall capitalization and then multiply it by the interest cost of each component. Adding all the resulting numbers give us the WACC.

A calculation of a firm's cost of capital in which each category of capital is proportionately weighted. All capital sources - common stock, preferred stock, bonds and any other long-term debt - are included in a WACC calculation.

WACC is calculated by multiplying the cost of each capital component by its proportional weight and then summing:

$$WACC = \frac{E}{V} * Re + \frac{D}{V} * Rd * (1 - Tc)$$

Where:
Re = cost of equity
Rd = cost of debt
E = market value of the firm's equity
D = market value of the firm's debt
V = E + D
E/V = percentage of financing that is equity
D/V = percentage of financing that is debt
Tc = corporate tax rate

Broadly speaking, a company's assets are financed by either debt or equity. WACC is the average of the costs of these sources of financing, each of which is weighted by its respective use in the given situation. By taking a weighted average, we can see how much interest the company has to pay for every dollar it finances.

A firm's WACC is the overall required return on the firm as a whole and, as such, it is often used internally by company directors to determine the economic feasibility of expansionary opportunities and mergers. It is the appropriate discount rate to use for cash flows with risk that is similar to that of the overall firm.

Capital Budgeting

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Popular methods of capital budgeting include net present value (NPV), internal rate of return (IRR), discounted cash flow (DCF) and discounted payback period. The discount rate used to find out the PV of future cash flow is normally the WACC.

In capital budgeting context it should be remember that WACC will only be appropriate discount rate if the proposed project has the same risk level. If the risk levels of proposed and existing projects are different then it would be misleading to use WACC as discount rate.

Consider the following example that will aid in understanding the use of WACC in capital budgeting decisions.

- Example: a company intends to undertake a project that will yield after tax saving of Rs. 4 million at the end of year one. However, after that these savings are estimated to grow at 6 percent. The debt equity ratio of 0.5. Cost of equity is 25% and cost of debt is 11%. This project has the same level of risk as the existing company business. Advise company on the financial viability of project. Assume tax rate of 40 percent.

- WACC = 2/3*25 + 1/3 * 11(1-40) = 18.86

- PV = benefit / WACC - g
- PV = 4,000,000 / .1886 – 0.06 = 31,104,199/-

Since the NPV is positive the project can be undertake.