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## **PRINCIPLES OF MANAGERIAL FINANCE**

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# **1. INTRODUCTION**

Managerial Finance is essentially a combination of economy and accounting. First, finance managers utilized accounting information, cash flows, etc., for planning and distribution of finance resources of the company. Secondly, managers use economic principles as a guide for financial decision making that favor the interest of the organization. In other words, finance constitutes an area applied in economics that is supported by accounting information.

Since finance reflexes what adds value to a company, finance managers constitute important individuals for the majority of business.

Financial managers measure the development of the company, they determine the financial consequences, the tendencies and recommend on how to use the assets of the organization for the well being and survival of the business in the long run. At the same time financial managers seek for the best external financial institutions and recommend the best combination of financial resources for the shareholders of the company / organization.

In today's world it is imperative to have the means and tools needed to be competitive; there must be a vision that there are no borders in order to make a business successful and to guarantee its survival in the long run. Decision making based on different scenarios must be done in order to assure the right use of the assets on the company.

In the following document we will present the concepts in Principles of Managerial Finance and will present the basics to understand in order to make the best decision for a business / company.

## **2. BASIC CONCEPTS IN PRINCIPLES OF MANAGERIAL FINANCE**

### **a. Managerial Finance**

According to Gitman, Lawrence (2003), “Managerial finance is the branch of finance that concerns itself with the managerial significance of finance techniques. It is focused on assessment rather than technique”.

The difference between a managerial and a technical approach can be seen in the questions one might ask of annual reports. One concerned with technique would be primarily interested in measurement. They would ask: are moneys being assigned to the right categories? Was generally accepted accounting practice GAAP followed?

One concerned with management though would want to know what the figures mean.

They might compare the returns to other businesses in their industry and ask: are we performing better or worse than our peers? If so, what is the source of the problem? Do we have the same profit margins? If not, why? Do we have the same expenses? Are we paying more for something than our peers?

Managerial finance is an interdisciplinary approach that borrows from both managerial accounting and corporate finance.

### **b. Financial Statements and Analysis**

Financial statements (or financial reports) are formal records of a business' financial activities. These statements provide an overview of a business' profitability and financial condition in both short and long term. There are four basic financial statements:

1. Balance sheet: also referred to as statement of financial condition, reports on a company's assets, liabilities and net equity as of a given point in time.
2. Income statement: also referred to as Profit or loss statement, reports on a company's results of operations over a period of time.
3. Cash flow statement: reports on a company's cash flow activities, particularly its operating, investing and financing activities.
4. Statement of retained earnings: explains the changes in a company's retained earnings over the reporting period.

For large corporations, these statements are often complex and may include an extensive set of notes to the financial statements and management discussion and analysis. The notes typically describe each item on the balance sheet, income statement and cash flow statement in further detail. Notes to financial statements are considered an integral part of the financial statements.

**According to Gitman, Lawrence (2003), "The objective of financial statements is to provide information about the financial strength, performance and changes in financial position of an enterprise that is useful to a wide range of users in making economic decisions. Financial statements should be understandable, relevant, reliable and comparable. Reported assets, liabilities and equity are directly related to an organization's financial position. Reported income and expenses are directly related to an organization's financial performance".**

Financial statements are intended to be understandable by readers who have a reasonable knowledge of business and economic activities and accounting and who are willing to study the information diligently.

The difference between these inflows and outflows is the net income, also shown in the income statement.

Financial statements are used by a diverse group of parties, both inside and outside a business. Generally, these users are:

1. Internal Users: are owners, managers, employees and other parties who are directly connected with a company.

Owners and managers require financial statements to make important business decisions that affect its continued operations. Financial analyses are then performed on these statements to provide management with a more detailed understanding of the figures. These statements are also used as part of management's report to its stockholders, as it form part of its Annual Report.

2. External Users: are potential investors, banks, government agencies and other parties who are outside the business but need financial information about the business for a diverse number of reasons.

Prospective investors make use of financial statements to assess the viability of investing in a business. Financial analyses are often used by investors and is prepared by professionals (financial analysts), thus providing them with the basis in making investment decisions.

Financial institutions (banks and other lending companies) use them to decide whether to grant a company with fresh working capital or extend debt securities (such as a long-term bank loan or debentures) to finance expansion and other significant expenditures.

Government entities (tax authorities) need financial statements to ascertain the propriety and accuracy of taxes and other duties declared and paid by a company.

Media and the general public are also interested in financial statements for a variety of reasons.

The rules for the recording, measurement and presentation of government financial statements may be different from those required for business and even for non-profit organizations. They may use either of two accounting methods: accrual accounting, or cash accounting, or a combination of the two. A complete set of chart of accounts is also used that is substantially different from the chart of a profit-oriented business.

Although the legal statutes may differ from country to country, an audit of financial statements are usually, but not exclusively required for investment, financing, and

tax purposes. These are usually performed by independent accountants or auditing firms. Results of the audit are summarized in an audit report that either provide an unqualified opinion on the financial statements or qualifications as to its fairness and accuracy. The audit opinion on the financial statements is usually included in the annual report.

**According to Gitman, Lawrence (2003), “Fundamental analysis of a business involves analyzing its income statement, financial statements and health, its management and competitive advantages, and its competitors and markets.**

**The analysis is performed on historical and present data, but with the goal to make financial projections. There are several possible objectives:**

- **to calculate a company's credit risk,**
- **to make projection on its business performance,**
- **to evaluate its management and make internal business decisions,**
- **to make the company's stock valuation and predict its probable price evolution**

**When the objective of the analysis is to determine what stock to buy and at what price, there are two basic methodologies.**

- 1. Fundamental analysis maintains that markets may misprice a security in the short run but that the "correct" price will eventually be reached. Profits can be made by trading the mispriced security and then waiting for the market to recognize its "mistake" and reprise the security.**
- 2. Technical analysis maintains that all information is reflected already in the stock price, so fundamental analysis is a waste of time. Trends 'are your friend' and sentiment changes predate and predict trend changes. Investors' emotional responses to price movements lead to recognizable price chart patterns. Technical analysis does not care what the 'value' of a stock is. Their price predictions are only extrapolations from historical price patterns”.**

Managers may use fundamental analysis to correctly value good and bad companies. Even bad company's stock goes up and down, creating opportunities for profits.

Managers may use fundamental analysis to determine future growth rates for buying high priced growth stocks.

The analysis of a business' health starts with financial statement analysis that includes ratios. It looks at dividends paid, operating cash flow, new equity issues and capital financing.

The determined growth rates (of income and cash) and risk levels (to determine the discount rate) are used in various valuation models. The foremost is the discounted cash flow model, which calculates the present value of the future dividends received by the investor, along with the eventual sale price.

### **c. Cash Flow and Financial Planning**

**According to Brigham, Eugene and Johnson, Ramon (1980), “Cash flow is an accounting term that refers to the amounts of cash being received and spent by a business during a defined period of time, sometimes tied to a specific project”. Measurement of cash flow can be used to:**

- To evaluate the state or performance of a business or project.
- To determine problems with liquidity. Being profitable does not necessarily mean being liquid. A company can fail because of a shortage of cash, even while profitable.
- To generate project rate of returns. The time of cash flows into and out of projects are used as inputs to financial models such as internal rate of return, and net present value.
- To examine income or growth of a business when it is believed that accrual accounting concepts do not represent economic realities. Alternately, cash

flow can be used to 'validate' the net income generated by accrual accounting.

Cash flow as a generic term may be used differently depending on context, and certain cash flow definitions may be adapted by analysts and users for their own uses. Common terms (with relatively standardized definitions) include operating cash flow and free cash flow.

Cash flows can be classified into:

1. Operational cash flows: Cash received or expended as a result of the company's core business activities.
2. Investment cash flows: Cash received or expended through capital expenditure, investments or acquisitions.
3. Financing cash flows: Cash received or expended as a result of financial activities, such as receiving or paying loans, issuing or repurchasing stock, and paying dividends.

All three together are necessary to reconcile the beginning cash balance to the ending cash balance.

The cash flow statement is one of the four main financial statements of a company. The cash flow statement can be examined to determine the short-term sustainability of a company. If cash is increasing (and operational cash flow is positive), then a company will often be deemed to be healthy in the short-term. Increasing or stable cash balances suggest that a company is able to meet its cash needs, and remain solvent. This information cannot always be seen in the income statement or the balance sheet of a company. For instance, a company may be generating profit, but still have difficulty in remaining solvent.

The cash flow statement breaks the sources of cash generation into three sections: operational cash flows, investing and financing. This breakdown allows the user of financial statements to determine where the company is deriving its cash for operations.

Many investors have lost faith in the value of published income statements. One way to by-pass them is to use cash flows instead. The feeling is that:

- Cash flows cannot be forged. This presumption may be inaccurate.
- Cash liquidity is necessary for survival. This is true, and even truer for businesses with limited access to financing.
- Cash is tangible proof of income

Cash flow planning is critical to financial success. It is useful to consider three aspects of cash flow planning:

1. Cash flow analysis - researching historical cash flows to understand the current situation.
2. Cash flow planning - considering where changes should be made to cash flows in order to accomplish prioritized goals.
3. Cash flow management - having the discipline to stay with the plan.

**According to Brigham, Eugene and Johnson, Ramon (1980), “Financial planning is the task of determining how a business will afford to achieve its strategic goals and objectives. Usually, a company creates a Financial Plan immediately after the vision and objectives have been set. The Financial Plan describes each of the activities, resources, equipment and materials that are needed to achieve these objectives, as well as the timeframes involved”.**

The Financial Planning activity involves the following tasks:

- Assess the business environment
- Confirm the business vision and objectives
- Identify the types of resources needed to achieve these objectives
- Quantify the amount of resource (labor, equipment, materials)
- Calculate the total cost of each type of resource
- Summarize the costs to create a budget
- Identify any risks and issues with the budget set

Performing Financial Planning is critical to the success of any organization. It provides the Business Plan with rigor, by confirming that the objectives set are

achievable from a financial point of view. It also helps the CEO to set financial targets for the organization, and reward staff for meeting objectives within the budget set.

#### **d. Time Value of Money**

**According to Brigham, Eugene and Johnson, Ramon (1980), “The time value of money is the premise that an investor prefers to receive a payment of a fixed amount of money today, rather than an equal amount in the future, all else being equal.**

**In other words, the present value of a certain amount of money is greater than the present value of the right to receive the same amount of money at time  $t$  in the future. This is because the amount could be deposited in an interest-bearing bank account (or otherwise invested) from now to time  $t$  and yield interest. (Consequently, lenders acting at arm's length demand interest payments for use of their financial capital. Additional motivations for demanding interest are to compensate for the risk of borrower default and the risk of inflation, as well as other, more technical considerations.)”**

All of the standard calculations are based on the most basic formula, the present value of a future sum, "discounted" to a present value.

Some standard calculations based on the time value of money are:

- **Present Value (PV)** of an amount that will be received in the future.
- **Future Value (FV)** of an amount invested (such as in a deposit account) now at a given rate of interest.
- **Present Value of an Annuity (PVA)** is the present value of a stream of (equally-sized) future payments, such as a mortgage.
- **Future Value of an Annuity (FVA)** is the future value of a stream of payments (annuity), assuming the payments are invested at a given rate of interest.
- **Present Value of a Perpetuity** is the value of a regular stream of payments that lasts "forever", or at least indefinitely.

**Formulas: According to Brigham, Eugene and Johnson, Ramon (1980),**

**Present value of a future sum**

The present value formula is the core formula for the time value of money; each of the other formulas is derived from this formula. For example, the annuity formula is the sum of a series of present value calculations.

The present value (PV) formula has four variables, each of which can be solved for:

1. PV is the value at time=0
2. FV is the value at time=n
3.  $i$  is the rate at which the amount will be compounded each period
4.  $n$  is the number of periods

$$PV = \frac{FV}{(1 + i)^n}$$

**Future value of a present sum**

The future value (FV) formula is similar and uses the same variables.

$$FV = PV \cdot (1 + i)^n$$

**Present value of an annuity**

The present value of an annuity (PVA) formula has four variables, each of which can be solved for:

1. PVA the value of the annuity at time=0
2. A the value of the individual payments in each compounding period

3.  $r$  equals the interest rate that would be compounded for each period of time
4.  $n$  is the number of payment periods.

$$PV(A) = A \cdot \frac{1 - \frac{1}{(1+r)^n}}{r}$$

### **Future value of an annuity**

The future value of an annuity (FVA) formula has four variables, each of which can be solved for:

1.  $FV(A)$  the value of the annuity at time= $n$
2.  $A$  the value of the individual payments in each compounding period
3.  $r$  equals the interest rate that would be compounded for each period of time
4.  $n$  is the number of payment periods.

$$FV(A) = A \cdot \frac{(1+r)^n - 1}{r}$$

### **Present value of a growing annuity**

Similar to the formula for an annuity, the present value of a growing annuity (PVGA) uses the same variables with the addition of  $G$  as the rate of growth of the annuity ( $A$  is the annuity payment in the first period). This is a calculation that is rarely provided for on financial calculators.

$$PV = \frac{A}{(r - g)} \left[ 1 - \left( \frac{1+g}{1+r} \right)^n \right]$$

## Present value of a perpetuity

The PV of a perpetuity (a perpetual annuity) formula is simple division.

$$PV(P) = \frac{A}{r}$$

## Present value of a growing perpetuity

When the perpetual annuity payment grows at a fixed rate (g) the value is theoretically determined according to the following formula. In practice, there are few securities with precisely these characteristics, and the application of this valuation approach is subject to various qualifications and modifications. Most importantly, it is rare to find a growing perpetual annuity with fixed rates of growth and true perpetual cash flow generation. Despite these qualifications, the general approach may be used in valuations of real estate, equities, and other assets.

$$PVGP = \frac{A}{(r - g)}$$

## Annuity derivation

The formula for the present value of a regular stream of future payments (an annuity) is derived from a sum of the formula for future value of a single future payment, as below, where C is the payment amount and n the time period.

A single payment C at future time i has the following future value at future time n:

$$FV = C(1 + r)^{n-i}$$

Summing over all payments from time 1 to time n, then reversing the order of terms and substituting  $k = n - i$ :

$$FVA = \sum_{i=1}^n C(1 + r)^{n-i} = \sum_{k=0}^{n-1} C(1 + r)^k$$

Note that this is a geometric series, with the initial value being  $a = C$ , the multiplicative factor being  $1 + r$ , with  $n$  terms. Applying the formula for geometric series, we get the following:

$$FVA = \frac{C(1 - (1 + r)^n)}{1 - (1 + r)} = \frac{C((1 + r)^n - 1)}{r}$$

The present value of the annuity (PVA) is obtained by simply dividing by  $(1 + r)^n$ :

$$PVA = \frac{FVA}{(1 + r)^n} = \frac{C}{r} \left( 1 - \frac{1}{(1 + r)^n} \right)$$

Another simple and intuitive way to derive the future value of an annuity is to consider an endowment, whose interest is paid as the annuity, and whose principal remains constant. The principal of this hypothetical endowment can be computed as that whose interest equals the annuity payment amount:

$$\text{Principal} \times r = C$$

$$\text{Principal} = C / r$$

Note that no money enters or leaves the combined system of endowment principal + accumulated annuity payments, and thus the future value of this system can be computed simply via the future value formula:

$$FV = PV(1 + r)^n$$

Initially, before any payments, the present value of the system is just the endowment principal ( $PV = C / r$ ). At the end, the future value is the endowment principal (which is the same) plus the future value of the total annuity payments ( $FV = C / r + FVA$ ). Plugging this back into the equation:

$$\frac{C}{r} + FVA = \frac{C}{r}(1+r)^n$$

$$FVA = \frac{C}{r}((1+r)^n - 1)$$

### Perpetuity derivation

Without showing the formal derivation here, the perpetuity formula is derived from the annuity formula. Specifically, the term:

$$\left(1 - \frac{1}{(1+r)^n}\right)$$

can be seen to approach the value of 1 as n grows larger. At infinity, it is equal

to 1, leaving  $\frac{C}{r}$  as the only term remaining.

Time value of money formulae with continuous compounding

Rates are sometimes converted into the continuous compound interest rate equivalent because the continuous equivalent is more convenient (for example, more easily differentiated). Each of the formulae above may be restated in their continuous equivalents. For example, the present value of a future payment can be restated in the following way, where e is the base of the natural logarithm:

$$PV = FVe^{-rn}$$

See below for formulaic equivalents of the time value of money formulae with continuous compounding.

### Present value of an annuity

$$PV = \frac{A(1 - e^{-rn})}{e^r - 1}$$

### Present value of a perpetuity

$$PV = \frac{A}{e^r - 1}$$

### Present value of a growing annuity

$$PV = \frac{A(1 - e^{-(r-g)n})}{e^{(r-g)} - 1}$$

### Present value of a growing perpetuity

$$PV = \frac{A}{e^{(r-g)} - 1}$$

### Present value of an annuity with continuous payments

$$PV = \frac{1 - e^{(-rn)}}{r}$$

### **e. Risk and Return**

According to Gitman, Lawrence (2003), “Risk adjusted return on capital (RAROC) is a risk based profitability measurement framework for analyzing risk-adjusted financial performance and providing a consistent view of profitability across businesses. Note, however, that more and more Risk Adjusted Return on Risk Adjusted Capital (RARORAC) is used as a measure, whereby the risk adjustment of Capital is based on the capital adequacy.

Broadly speaking, in business enterprises, risk is traded off against benefit. RAROC is defined as the ratio of risk adjusted return to economic capital. Economic capital is a function of market risk, credit risk, and operational risk. This use of capital based on risk improves the capital allocation across different functional areas of banks, insurance companies, or any business in which capital is placed at risk for an expected return above risk-free.”

RAROC system allocates capital for 2 basic reasons:

1. Risk management
2. Performance evaluation

For risk management purposes, the main goal of allocating capital to individual business units is to determine the bank's optimal capital structure.

As a performance evaluation tool, it allows banks to assign capital to business units based on the economic value added of each unit.

RAROC is a risk-adjusted profitability measurement and management framework for measuring risk-adjusted financial performance and for providing a consistent view of profitability across businesses (strategic business units / divisions). RAROC and related concepts such as RORAC and RARORAC are mainly used within banks and insurance companies. RAROC is defined as the ratio of risk-adjusted return to economic capital.

Economic capital methodologies can be applied across products, clients, lines of business and other segmentations, as required, to measure certain types of performance. The resulting capital attributed to each business line provides the financial framework to understand and evaluate sustainable performance and to actively manage the composition of the business portfolio. This enables a financial company to increase shareholder value by reallocating capital to those businesses with high strategic value and sustainable returns, or with long-term growth and profitability potential.

Economic profit elaborates on RAROC by incorporating the cost of equity capital, which is based on the market required rate of return from holding a company's equity instruments, to assess whether shareholder wealth is being created. Economic profit measures the return generated by each business in excess of a bank's cost of equity capital. Shareholder wealth is increased if capital can be employed at a return in excess of the bank's cost of equity capital. Similarly, when returns do not exceed the cost of equity capital, then shareholder wealth is diminished and a more effective deployment of that capital is sought.

**According to Gitman, Lawrence (2003), "Market risk is the risk that the value of an investment will decrease due to moves in market factors. The four standard market risk factors are:**

1. **Equity risk, or the risk that stock prices will change.**
2. **Interest rate risk, or the risk that interest rates will change.**
3. **Currency risk, or the risk that foreign exchange rates will change.**
4. **Commodity risk, or the risk that commodity prices (i.e. grains, metals, etc.) will change.**

**Sometimes, a fifth risk factor is also considered:**

- ***Equity index risk, or the risk that stock or other index prices will change***".

Market risk is typically measured using a Value at Risk methodology. Value at risk is well established as a risk management technique, but it contains a number of limiting assumptions that constrain its accuracy. The first assumption is that the composition of the portfolio measured remains unchanged over the single period of the model. For short time horizons, this limiting assumption is often regarded as acceptable. For longer time horizons, many of the transactions in the portfolio may mature during the modeling period. Intervening cash flow, embedded options, changes in floating rate interest rates, and so on are ignored in this single period modeling technique.

Market risk can also be contrasted with Specific risk, which measures the risk of a decrease in ones investment due to a change in a specific industry or sector, as opposed to a market-wide move.

Credit risk is the risk of loss due to a debtor's non-payment of a loan or other line of credit (either the principal or interest (coupon) or both).

Companies carry credit risk when, for example, they do not demand up-front cash payment for products or services. By delivering the product or service first and billing the customer later if it's a business customer the terms may be quoted as net 30 the company is carrying a risk between the delivery and payment.

Credit risk is not really manageable for very small companies. This makes these companies very vulnerable to defaults, or even payment delays by their customers.

Operational risk was initially defined in the negative as any form of risk that is not market or credit risk. This negative definition is rather vague as it does not tell us much about the exact types of operational risks faced by banks today, nor does it provide banks with a proper basis for measuring risk and calculating capital requirements.

## **f. Interest Rates and Bond Valuation**

According to Gitman, Lawrence (2003), “Interest is a fee paid on borrowed assets. By far the most common form these assets are lent in is money, but other assets may be lent to the borrower, such as shares, consumer goods through hire purchase, major assets such as aircraft, and even entire factories in finance lease arrangements. In each case the interest is calculated upon the value of the assets in the same manner as upon money.

The fee is compensation to the lender for foregoing other useful investments that could have been made with the loaned money. Instead of the lender using the assets directly, they are advanced to the borrower. The borrower then enjoys the benefit of the use of the assets ahead of the effort required to obtain them, while the lender enjoys the benefit of the fee paid by the borrower for the privilege. The amount lent, or the value of the assets lent, is called the principal. This principal value is held by the borrower on credit. Interest is therefore the price of credit, not the price of money as is commonly and mistakenly believed. The percentage of the principal which is paid as fee (the interest), over a certain period of time, is called the interest rate.”

### **Simple interest**

Simple Interest is calculated only on the principal, or on that portion of the principal which remains unpaid.

The amount of simple interest is calculated according to the following formula:

$$A = P \cdot \left( \frac{r}{100} \right) \cdot n$$

where  $A$  is the amount of interest,  $P$  the principal,  $r$  the interest rate as a percentage, and  $n$  the number of time periods elapsed since the loan was taken.

### **Compound interest**

In the short run, compound Interest is very similar to Simple Interest, however, as time continues the difference becomes considerably larger. The conceptual difference is that the principal changes with every time period, as any interest

incurred over the period is added to the principal. Put another way, the lender is charging interest on the interest.

Assuming that no part of the principal or subsequent interest has been paid, the amount of compound interest incurred is calculated by the following formula:

$$A = P \cdot \left( \left( 1 + \frac{r}{100} \right)^n - 1 \right)$$

Where;  $A$ ,  $P$ ,  $r$  and  $n$  have the same meanings as before.

A problem with compound interest is that the resulting obligation can be difficult to interpret. To simplify this problem, a common convention in economics is to disclose the interest rate as though the term were one year, with annual compounding, yielding the effective interest rate. However, interest rates in lending are often quoted as nominal interest rates.

In economics, continuous compounding is often used due to its particular mathematical properties.

### **Fixed and floating rates**

Commercial loans generally use compound interest, but they may not always have a single interest rate over the life of the loan. Loans for which the interest rate does not change are referred to as fixed rate loans. Loans may also have a changeable rate over the life of the loan based on some reference rate (such as LIBOR), usually plus (or minus) a fixed margin. These are known as floating rate, variable rate or adjustable rate loans.

Combinations of fixed-rate and floating-rate loans are possible and frequently used. Less frequently, loans may have different interest rates applied over the life of the loan, where the changes to the interest rate are governed by specific criteria other than an underlying interest rate.

According to Gitman, Lawrence (2003), “Theoretical composition of interest rates, in economics, interest is considered the price of money, therefore, it is also subject to distortions due to inflation. The nominal interest rate, which refers to the price before adjustment to inflation, is the one visible to the consumer. Nominal interest is composed by the real interest rate plus inflation, among other factors. A simple formula for the nominal interest is:

$$i = r + \pi$$

Where  $i$  is the nominal interest,  $r$  is the real interest and  $\pi$  is inflation.

This formula attempts to measure the value of the interest in units of stable purchasing power. However, if this statement was true, it would imply at least two misconceptions. First that all interest rates within an area that shares the same inflation. Second, that the lender knows the inflation for the period of time that he/she is going to lend the money.”

According to Gitman, Lawrence (2003), “Bond valuation is the process of determining the fair price of a bond. As with any security or capital investment, the fair value of a bond is the present value of the stream of cash flows it is expected to generate. Hence, the price or value of a bond is determined by discounting the bond's expected cash flows to the present using the appropriate discount rate.”

The fair price of a straight bond is determined by discounting the expected cash flows:

Cash flows:

The periodic coupon payments  $C$ , each of which is made once every period;

The par or face value  $F$ , which is payable at maturity of the bond after  $T$  periods.(NB final year payment will include the par value plus the coupon payment for the year)

Discount rate: the required (annually compounded) yield or rate of return  $r$ .

$r$  is the market interest rate for new bond issues with similar risk ratings

$$\text{Bond Price} = P_0 = \sum_{t=1}^T \frac{C}{(1+r)^t} + \frac{F}{(1+r)^T}$$

Because the price is the present value of the cash flows, there is an inverse relationship between price and discount rate: the higher the discount rate the lower the value of the bond (and vice versa). A bond trading below its face value is trading at a discount, a bond trading above its face value is at a premium.

### **Coupon yield**

The coupon yield is simply the coupon payment (C) as a percentage of the face value (F).

$$\text{Coupon yield} = C / F$$

Coupon yield is also called nominal yield.

### **Current yield**

The current yield is simply the coupon payment (C) as a percentage of the bond price (P).

$$\text{Current yield} = C / P_0$$

### **Yield to Maturity**

The yield to maturity (YTM) is the discount rate which returns the market price of the bond. It is thus the internal rate of return of an investment in the bond made at the observed price. YTM can also be used to price a bond, where it is used as the required return on the bond.

Solve for YTM where

$$\text{Market Price} = \sum_{t=1}^T \frac{C}{(1+YTM)^t} + \frac{F}{(1+YTM)^T}$$

To achieve a return equal to YTM, the bond owner must:

- reinvest each coupon received at this rate,
- hold the bond until maturity, and
- redeem the bond at par.

The concept of current yield is closely related to other bond concepts, including yield to maturity, and coupon yield. The relationship between yield to maturity and coupon rate is as follows:

- When a bond sells at a discount, YTM > current yield > coupon yield.
- When a bond sells at a premium, coupon yield > current yield > YTM.
- When a bond sells at par, YTM = current yield = coupon yield.

The YTM is of limited use in valuing bonds with uncertain cash flows, such as mortgage-backed securities or asset-backed securities. In these instances, other measures such as option adjusted spread should be used instead when comparing yields across different types of bonds.

### **g. Stock Valuation**

There are several methods used to value companies and their stocks. They attempt to give an estimate of their fair value, by using fundamental economic criteria. This theoretical valuation has to be perfected with market criteria, as the final purpose is to determine potential market prices.

**According to Brigham, Eugene and Johnson, Ramon (1980), “The most theoretically sound stock valuation method is called income valuation or the discounted cash flow (DCF) method, involving discounting the profits (dividends, earnings, or cash flows) the stock will bring to the stockholder in the foreseeable future, and a final value on disposition. The discount rate normally has to include a risk premium which is commonly based on the capital asset pricing model”.**

***The Gordon model or Gordon's growth model is the best known of a class of discounted dividend models. It assumes that dividends will increase at a constant growth rate (less than the discount rate) forever. The valuation is given by the formula:***

$$P = D \cdot \sum_{i=1}^{\infty} \left( \frac{1+g}{1+k} \right)^i = D \cdot \frac{1+g}{k-g}$$

and the following table defines each symbol:

| Symbol   | Meaning                      | Units        |
|----------|------------------------------|--------------|
| <i>P</i> | <i>estimated stock price</i> | \$ or € or £ |

|          |   |              |
|----------|---|--------------|
| <i>D</i> | <i>last dividend paid</i>               | \$ or € or £ |
| <i>k</i> | <i>discount rate</i>                    | %            |
| <i>g</i> | <i>the growth rate of the dividends</i> | %            |

The P/E method is perhaps the most commonly used valuation method in the stock brokerage industry. By using comparison firms, a target price/earnings (or P/E) ratio is selected for the company, and then the future earnings of the company are estimated. The valuation's fair price is simply estimated earnings times target P/E. This model is essentially the same model as Gordon's model, if  $k-g$  is estimated as the dividend payout ratio ( $D/E$ ) divided by the target P/E ratio.

Some feel that if the stock is listed in a well organized stock market, with a large volume of transactions, the listed price will be close to the estimated fair value. This is called the efficient market hypothesis.

On the other hand, studies made in the field of behavioral finance tend to show that deviations from the fair price are rather common, and sometimes quite large.

Thus, in addition to fundamental economic criteria, market criteria also have to be taken into account market-based valuation. Valuing a stock is not only to estimate its fair value, but also to determine its potential price range, taking into account market behavior aspects. One of the behavioral valuation tools is the stock image, a coefficient that bridges the theoretical fair value and the market price.

## **h. Capital Budgeting Cash Flows**

**According to Brigham, Eugene and Johnson, Ramon (1980), “Capital budgeting (or investment appraisal) is the planning process used to determine a firm's long term investments such as new machinery, replacement machinery, new plants, new products, and research and development projects.”**

Many formal methods are used in capital budgeting, including the techniques such as:

- Net present value
- Profitability index
- Internal rate of return
- Modified Internal Rate of Return, and
- Equivalent annuity.

These methods use the incremental cash flows from each potential investment, or project. Techniques based on accounting earnings and accounting rules are sometimes used - though economists consider this to be improper such as the accounting rate of return, and "return on investment." Simplified and hybrid methods are used as well, such as payback period and discounted payback period.

**According to Brigham, Eugene and Johnson, Ramon (1980), “Net present value; “Each potential project's value should be estimated using a discounted cash flow (DCF) valuation, to find its net present value (NPV). This valuation requires estimating the size and timing of all of the incremental cash flows from the project. These future cash flows are then discounted to determine their present value. These present values are then summed, to get the NPV. The NPV decision rule is to accept all positive NPV projects in an unconstrained environment, or if projects are mutually exclusive, accept the one with the highest NPV.”**

The NPV is greatly affected by the discount rate, so selecting the proper rate sometimes called the hurdle rate is critical to making the right decision. The hurdle rate is the minimum acceptable return on an investment. It should reflect the riskiness of the investment, typically measured by the volatility of cash flows, and must take into account the financing mix. Managers may use models such as the

CAPM or the APT to estimate a discount rate appropriate for each particular project, and use the weighted average cost of capital (WACC) to reflect the financing mix selected. A common practice in choosing a discount rate for a project is to apply a WACC that applies to the entire firm, but a higher discount rate may be more appropriate when a project's risk is higher than the risk of the firm as a whole.

The internal rate of return (IRR) is defined as the discount rate that gives a net present value (NPV) of zero. It is a commonly used measure of investment efficiency.

The IRR method will result in the same decision as the NPV method for independent (non-mutually exclusive) projects in an unconstrained environment, in the usual cases where a negative cash flow occurs at the start of the project, followed by all positive cash flows. In most realistic cases, all independent projects that have an IRR higher than the hurdle rate should be accepted. Nevertheless, for mutually exclusive projects, the decision rule of taking the project with the highest IRR which is often used may select a project with a lower NPV.

In some cases, several zero NPV discount rates may exist, so there is no unique IRR. The IRR exists and is unique if one or more years of net investment (negative cash flow) are followed by years of net revenues. But if the signs of the cash flows change more than once, there may be several IRRs. The IRR equation generally cannot be solved analytically but only via iterations.

One shortcoming of the IRR method is that it is commonly misunderstood to convey the actual annual profitability of an investment. However, this is not the case because intermediate cash flows are almost never reinvested at the project's IRR; and, therefore, the actual rate of return is almost certainly going to be lower. Accordingly, a measure called Modified Internal Rate of Return (MIRR) is often used.

Despite a strong academic preference for NPV, surveys indicate that executives prefer IRR over NPV, although they should be used in concert. In a budget-constrained environment, efficiency measures should be used to maximize the overall NPV of the firm. Some managers find it intuitively more appealing to evaluate investments in terms of percentage rates of return than dollars of NPV.

The equivalent annuity method expresses the NPV as an annualized cash flow by dividing it by the present value of the annuity factor. It is often used when

assessing only the costs of specific projects that have the same cash inflows. In this form it is known as the equivalent annual cost (EAC) method and is the cost per year of owning and operating an asset over its entire lifespan.

The use of the EAC method implies that the project will be replaced by an identical project.

Alternatively the chain method can be used with the NPV method under the assumption that the projects will be replaced with the same cash flows each time. To compare projects of unequal length, say 3 years and 4 years, the projects are chained together, i.e. four repetitions of the 3 year project are comparing to three repetitions of the 4 year project. The chain method and the EAC method give mathematically equivalent answers.

The assumption of the same cash flows for each link in the chain is essentially an assumption of zero inflation, so a real interest rate rather than a nominal interest rate is commonly used in the calculations.

### ***i. The Cost of Capital***

**According to Gitman, Lawrence (2003), “The cost of capital for a firm is a weighted sum of the cost of equity and the cost of debt. It is also known as the "Hurdle Rate" or "Discount Rate". Firms finance their operations by three mechanisms: issuing stock (equity), issuing debt (borrowing from a bank is equivalent for this purpose) (those two are external financing), and reinvesting prior earnings (internal financing).**

**Capital used to fund a business should earn returns for the capital owner who risked their saved money. For an investment to be worthwhile the estimated return on capital must be greater than the cost of capital. Otherwise stated, the risk-adjusted return on capital (incorporating not just the projected returns, but the probabilities of those projections) must be higher than the cost of capital.”**

The cost of debt is relatively simple to calculate, as it is composed of the interest paid (interest rate), including the cost of risk (the risk of default on the debt). In practice, the interest paid by the company will include the risk-free rate plus a risk component, which itself incorporates a probable rate of default (and amount of

recovery given default). For companies with similar risk or credit ratings, the interest rate is largely exogenous.

Cost of equity is more challenging to calculate as equity does not pay a set return to its investors. Similar to the cost of debt, the cost of equity is broadly defined as the risk-weighted projected return required by investors, where the return is largely unknown. The cost of equity is therefore inferred by comparing the investment to other investments with similar risk profiles to determine the "market" cost of equity.

The cost of capital is often used as the discount rate, the rate at which projected cash flow will be discounted to give a present value or net present value.

The cost of debt is computed by taking the rate on a non-defaulting bond whose duration matches the term structure of the corporate debt, then adding a default premium. This default premium will rise as the amount of debt increases (since the risk rises as the amount of debt rises). Since in most cases debt expense is a deductible expense, the cost of debt is computed as an after tax cost to make it comparable with the cost of equity (earnings are after-tax as well). Thus, for profitable firms, debt is discounted by the tax rate. Basically, this is used for large corporations only.

**According to Gitman, Lawrence (2003), "Expected return can be calculated as the "dividend capitalization model" which is (dividend per share / price per share) + growth rate of dividends. Which is the dividend yield + growth rate of dividends\*dividend."**

The capital asset pricing model (CAPM) is used in finance to determine a theoretically appropriate price of an asset such as a security. The expected return on equity according to the capital asset pricing model. The market risk is normally characterized by the  $\beta$  parameter. Thus, the investors would expect (or demand) to receive:

$$E_s = R_f + \beta_s(R_m - R_f).$$

Where:

$E_s$

The expected return for a security

$R_f$

The expected risk-free return in that market (government bond yield)

$\beta_s$

The sensitivity to market risk for the security

$R_M$

The historical return of the equity market

$(R_M - R_f)$

The risk premium of market assets over risk free assets.

The expected return (%) = risk-free return (%) + sensitivity to market risk \*  
(historical return (%) - risk-free return (%))

The market risk premium has historically been between 3-5%

**According to Gitman, Lawrence (2003), "The Weighted Average Cost of Capital (WACC) is used in finance to measure a firm's cost of capital."**

The total capital for a firm is the value of its equity (for a firm without outstanding warrants and options, this is the same as the company's market capitalization) plus the cost of its debt (the cost of debt should be continually updated as the cost of debt changes as a result of interest rate changes). Notice that the "equity" in the debt to equity ratio is the market value of all equity, not the shareholders' equity on the balance sheet.

**Formula:**

The cost of capital is then given as:

$$K_c = (1 - \delta)K_e + \delta K_d$$

Where:

$K_c$

The weighted cost of capital for the firm

$\delta$

The debt to capital ratio,  $D / (D + E)$

$K_e$

The cost of equity

$K_d$

The after tax cost of debt

D

The market value of the firm's debt, including bank loans and leases

E

The market value of all equity (including warrants, options, and the equity portion of convertible securities)

**“WACC = (1 - debt to capital ratio) \* cost of equity + debt to capital ratio \* cost of debt”**

Because of tax advantages on debt issuance, it will be cheaper to issue debt rather than new equity (this is only true for profitable firms, tax breaks are available only to profitable firms). At some point, however, the cost of issuing new debt will be greater than the cost of issuing new equity. This is because adding debt increases the default risk and thus the interest rate that the company must pay in order to borrow money. By utilizing too much debt in its capital structure, this increased default risk can also drive up the costs for other sources (such as retained earnings and preferred stock) as well. Management must identify the "optimal mix" of financing the capital structure where the cost of capital is minimized so that the firm's value can be maximized.

### ***j. Leverage and Capital Structure***

**According to Gitman, Lawrence (2003), “Capital structure refers to the way a corporation finances itself through some combination of equity, debt, or hybrid securities. A firm's capital structure is then the composition or 'structure' of its liabilities.**

**The Modigliani-Miller theorem, proposed by Franco Modigliani and Merton Miller, forms the basis for modern thinking on capital structure, though it is generally viewed as a purely theoretical result since it assumes away many important factors in the capital structure decision. The theorem states that, in a perfect market, the value of a firm is unaffected by how that firm is financed. This result provides the base with which to examine real world reasons why capital structure is relevant, that is, a company's value is**

**affected by the capital structure it employs. These other reasons include bankruptcy costs, agency costs and asymmetric information. This analysis can then be extended to look at whether there is in fact an 'optimal' capital structure: the one which maximizes the value of the firm.”**

Their analysis was extended to include the effect of taxes and risky debt. Under a classical tax system, the tax deductibility of interest makes debt financing valuable; that is, the cost of capital decreases as the proportion of debt in the capital structure increases. The optimal structure, then would be to have virtually no equity at all.

If capital structure is irrelevant in a perfect market, then imperfections which exist in the real world must be the cause of its relevance. The theories below try to address some of these imperfections, by relaxing assumptions made in the M&M model.

### **Agency Costs**

There are three types of agency costs which can help explain the relevance of capital structure.

***Asset substitution effect:*** As D/E increases, management has an increased incentive to undertake risky (even negative NPV) projects. This is because if the project is successful, share holders get all the upside, whereas if it is unsuccessful, debt holders get all the downside. If the projects are undertaken, there is a chance of firm value decreasing and a wealth transfer from debt holders to share holders.

***Underinvestment problem:*** If debt is risky (for instance in a growth company), the gain from the project will accrue to debt holders rather than shareholders. Thus, management have an incentive to reject positive NPV projects, even though they have the potential to increase firm value.

***Free cash flow:*** unless free cash flow is given back to investors, management has an incentive to destroy firm value through empire building and perks etc. Increasing leverage imposes financial discipline on management.

### **k. Dividend Policy**

**According to Gitman, Lawrence (2003), “The Dividend Decision, in Corporate finance, is a decision made by the directors of a company. It relates to the amount and timing of any cash payments made to the company's stockholders. The decision is an important one for the firm as it may influence its capital structure and stock price. In addition, the decision may determine the amount of taxation that stockholders pay.”**

There are three main factors that may influence a firm's dividend decision:

- Free-cash flow
- Dividend clienteles
- Information signalling

Under this theory, the dividend decision is very simple. The firm simply pays out, as dividends, any cash that is surplus after it invests in all available positive net present value projects.

A key criticism of this theory is that it does not explain the observed dividend policies of real world companies. Most companies pay relatively consistent dividends from one year to the next and managers tend to prefer to pay a steadily increasing dividend rather than paying a dividend that fluctuates dramatically from one year to the next. These criticisms have led to the development of other models that seek to explain the dividend decision.

A particular pattern of dividend payments may suit one type of stock holder more than another. A retiree may prefer to invest in a firm that provides a consistently high dividend yield, whereas a person with a high income from employment may prefer to avoid dividends due to their high marginal tax rate on income. If clienteles exist for particular patterns of dividend payments, a firm may be able to maximize its stock price and minimize its cost of capital by catering to a particular clientele. This model may help to explain the relatively consistent dividend policies followed by most listed companies.

**“A model developed by Merton Miller and Kevin Rock in 1985 suggests that dividend announcements convey information to investors regarding the firm's future prospects. Many earlier studies had shown that stock prices**

**tend to increase when an increase in dividends is announced and tend to decrease when a decrease or omission is announced. Miller and Rock pointed out that this is likely due to the information content of dividends.”**

When investors have incomplete information about the firm (perhaps due to opaque accounting practices) they will look for other information that may provide a clue as to the firm's future prospects. Managers have more information than investors about the firm, and such information may inform their dividend decisions. When managers lack confidence in the firm's ability to generate cash flows in the future they may keep dividends constant, or possibly even reduce the amount of dividends paid out. Conversely, managers that have access to information that indicates very good future prospects for the firm are more likely to increase dividends.

Investors can use this knowledge about managers' behavior to inform their decision to buy or sell the firm's stock, bidding the price up in the case of a positive dividend surprise, or selling it down when dividends do not meet expectations. This, in turn, may influence the dividend decision as managers know that stock holders closely watch dividend announcements looking for good or bad news. As managers tend to avoid sending a negative signal to the market about the future prospects of their firm, this also tends to lead to a dividend policy of a steady, gradually increasing payment.

In a fully informed, efficient market with no taxes and no transaction costs, the free cash flow model of the dividend decision would prevail and firms would simply pay as a dividend any excess cash available. The observed behavior of firms differs markedly from such a pattern. Most firms pay a dividend that is relatively constant over time. This pattern of behavior is likely explained by the existence of clienteles for certain dividend policies and the information effects of announcements of changes to dividends.

The dividend decision is usually taken by considering at least the three questions of: how much excess cash is available? What do our investors prefer? And what will be the effect on our stock price of announcing the amount of the dividend?

The result for most firms tends to be a payment that steadily increases over time, as opposed to varying wildly with year to year changes in free cash flow.

## **I. Working Capital and Current Assets Management**

**According to Gitman, Lawrence (2003), “Working capital (also known as net working capital) is a financial metric which represents the amount of day by day operating liquidity available to a business. Along with fixed assets such as plant and equipment, working capital is considered a part of operating capital. It is calculated as current assets minus current liabilities”.** A company can be endowed with assets and profitability, but short of liquidity, if these assets cannot readily be converted into cash.

Current assets and current liabilities include three accounts which are of special importance. These accounts represent the areas of the business where managers have the most direct impact:

- Accounts receivable (current asset)
- Inventory (current assets), and
- Accounts payable (current liability)

A positive change in working capital indicates that the business has either increased current assets (that is received cash, or other current assets) or has decreased current liabilities, for example has paid off some short term creditors.

Working capital refers to the firm's current assets while net working capital refers to current assets less current liabilities. Current Ratio and Quick Ratio both attempt to measure a firm's liquidity and management of working capital.

### **Current Assets**

- Current Assets Accounts - Cash, Marketable Securities (short term investments), Accounts Receivable, and Inventory
- Risk-Return Trade-off of Current Asset Investment - having lots of cash, marketable securities, inventory, and a generous accounts receivable terms makes the company very “safe” but all of these assets earn very low rates of return compared to investing in long term assets.

## **Current Liabilities**

- Current Liability Accounts - Accruals, Accounts Payable, Notes Payable, and Commercial Paper

A firm's working capital policy has two components:

1. Policies regarding the appropriate level of current assets (Current Asset Investment Policy)
2. Policies regarding the use of short term financing (Current Asset Financing Policy)

## **Alternative Current Asset Investment Policies**

**According to Gitman, Lawrence (2003), "There are general policies strategies that firms may follow with regard to their overall level of current assets investment or holdings.**

**1. Relaxed Current Asset Investment Policy; relatively large amounts of cash, marketable securities and inventories are carried and sales are stimulated by a liberal (generous) trade credit policy resulting in high levels of receivables. This is a low risk strategy because the firm always has plenty of cash and inventory on hand. The return is low because more money is invested in low yielding assets.**

**2. Restricted Current Asset Investment Policy; holdings of cash securities, inventories, and receivables are minimized. This is a high risk strategy because the firm tries to keep the bare minimum of cash and inventory. The potential return is high because less money is invested in low yielding assets.**

**3. Moderate Current Asset Policy; balance between relaxed and restricted current asset investment policies".**

## **Asset allocation**

The different asset classes are stocks, bonds, real-estate and commodities. The exercise of allocating funds among these assets (and among individual securities within each asset class) is what investment management firms are paid for. Asset classes exhibit different market dynamics, and different interaction effects; thus, the allocation of monies among asset classes will have a significant effect on the performance of the fund. Some research suggests that allocation among asset classes has more predictive power than the choice of individual holdings in determining portfolio return.

## **Long Term Returns**

It is important to look at the evidence on the long term returns to different assets, and to holding period returns (the returns that accrue on average over different lengths of investment).

## **Diversification**

Against the background of the asset allocation, fund managers consider the degree of diversification that makes sense for a given client and construct a list of planned holdings accordingly. The list will indicate what percentage of the fund should be invested in each particular stock or bond.

## **Investment Styles**

There are a range of different styles of fund management that the institution can implement. For example, growth, value, market neutral, small capitalization, indexed, etc. Each of these approaches has its distinctive features, adherents and, in any particular financial environment, distinctive risk characteristics. For example, there is evidence that growth styles (buying rapidly growing earnings) are especially effective when the companies able to generate such growth are scarce; conversely, when such growth is plentiful, then there is evidence that value styles tend to outperform the indices particularly successfully.

## **Performance measurement**

Fund performance is the acid test of fund management, and in the institutional context accurate measurement is a necessity. For that purpose, institutions measure the performance of each fund under their management, and performance is also measured by external firms that specialize in performance measurement.

Generally speaking it is probably appropriate for an investment firm to persuade its clients to assess performance over longer periods to smooth out very short term fluctuations in performance and the influence of the business cycle. This can be difficult however and, industry wide, there is a serious preoccupation with short term numbers and the effect on the relationship with clients and resultant business risks for the institutions.

### **m. Current Liabilities Management**

One important area of business management and tax planning is revenue and expense recognition for tax and financial statement reporting purposes. How revenue and expenses are recognized depends on type and size of business, and company structure.

**According to Gitman, Lawrence (2003), “The two options for recognizing revenues and expenses are cash basis and accrual basis. The cash basis is recognizing revenue when cash is received and expenses are paid. The accrual basis is recognizing revenue when income is earned and expenses are incurred. The cash basis is selected when at the time of sale cash is normally received for services. There is no credit extended to customers. There are a small number of expenditures or no goods or services are purchased on credit terms. This is a common method used for businesses in start up phase.”**

The accrual basis or modified accrual basis is selected when credit terms are extended to customers and goods and services are purchased on credit. Usually, small purchases are recognized as expenses when they are received and paid. An example of these purchases would be office supplies, delivery charges and petty cash items.

This is a good opportunity to briefly discuss accounts receivable, accounts payable and cash management. Accounts receivable are monies owed by customers for

goods or services received. Some important aspects of accounts receivable management are ensuring that customer billings are done on a daily or monthly basis, customer disputes are resolved in a timely manner, and cash received is deposited and recorded on a timely basis. There is an accounts receivable collection policy. These procedures will assist in having a smoother cash flow into the company.

Accounts payable are monies owed to suppliers for goods or services received. Some important aspects of accounts payable management are negotiating favorable credit terms with suppliers, goods or services are received as ordered, correct price and quantities are charged for goods or services, bills are recorded on a timely basis, supplier statements reconcile to company records, bill payment policy and procedures, and take advantage of sales discounts, etc. These procedures are simple ways to ensure that the business is paying for goods received at the correct price and when payments are due. The cash management is tying together the cash received and cash paid. It is good practice to reconcile the bank account balance on a very timely basis. A spreadsheet is an excellent tool for a cash management schedule. The cash flow spreadsheet can be used to see where and when the money is coming in and how it is being spent. The current information can be used to determine how much and when money will be needed to project or plan future activities. An accurate income amount and amount paid in expenses will present a more accurate picture of current operations and result in better planning.

### **Financial accounting**

In financial accounting, a liability is defined as an obligation of an entity arising from past transactions or events, the settlement of which may result in the transfer or use of assets, provision of services or other yielding of economic benefits in the future.

Liabilities in financial accounting need not be legally enforceable; but can be based on equitable obligations or constructive obligations. An equitable obligation is a duty based on ethical or moral considerations. A constructive obligation is an

obligation that can be inferred from a set of facts in a particular situation as opposed to a contractually based obligation.

### **Classification of liabilities**

Liabilities are reported on a balance sheet and are usually divided into two categories:

- **Current liabilities:** these liabilities are reasonably expected to be liquidated within a year. They usually include payables such as wages, accounts, taxes, and accounts payables, unearned revenue when adjusting entries, portions of long-term bonds to be paid this year, short-term obligations (e.g. from purchase of equipment), and others.
- **Long term liabilities:** these liabilities are reasonably expected not to be liquidated within a year. They usually include issued long term bonds, notes payables, long-term leases, pension obligations, and long-term product warranties.

### **3. GENERAL ANALYSIS**

In the case of a company, managerial or corporate finance is the task of providing the funds for the corporation's activities. It generally involves balancing risk and profitability.

Another business decision concerning finance is investment, or fund management. An investment is an acquisition of an asset in the hope that it will maintain or increase its value. In investment management one has to decide what, how much and when to invest. In doing so, one needs to:

- Identify relevant objectives and constraints: institution or individual goals, time horizon, risk aversion and tax considerations;
- Identify the appropriate strategy: active v. passive, hedging strategy
- Measure the portfolio performance

Financial management is a duplicate with the financial function of the Accounting profession. However, financial accounting is more concerned with the reporting of historical financial information, while the financial decision is directed toward the future of the firm.

## **4. GENERAL RECOMMENDATIONS**

Achieving the goals of corporate finance requires that any corporate investment be financed appropriately. Management must therefore identify the "optimal mix" of financing, the capital structure that results in maximum value.

The sources of financing will, generically, comprise some combination of debt and equity. Financing a project through debt results in a liability that must be serviced and hence there are cash flow implications regardless of the project's success. Equity financing is less risky in the sense of cash flow commitments, but results in a dilution of ownership and earnings. The cost of equity is also typically higher than the cost of debt, and so equity financing may result in an increased hurdle rate which may offset any reduction in cash flow risk.

Management must also attempt to match the financing mix to the asset being financed as closely as possible, in terms of both timing and cash flows.

Working capital management entails short term decisions, generally, relating to the next one year period which is "reversible". These decisions are therefore not taken on the same basis as Capital Investment rather they will be based on cash flows and / or profitability.

In this context, the most useful measure of profitability is Return on capital (ROC). The result is shown as a percentage, determined by dividing relevant income for the 12 months by capital employed; Return on equity (ROE) shows this result for the firm's shareholders. Firm value is enhanced when, and if, the return on capital, which results from working capital management, exceeds the cost of capital, which results from capital investment decisions as above. ROC measures are therefore useful as a management tool, in that they link short term policy with long term decision making.

## **5. CONCLUSIONS**

As exposed in the document, we conclude that Financial Managers measure the development of the company, they determine the financial consequences, the tendencies and recommend on how to use the assets of the organization for the well being and survival of the business in the long run.

As mention before, in today's world it is imperative to have the means and tools needed to be competitive; there must be a vision that there are no borders in order to make a business successful and to guarantee its survival in the long run. Decision making based on different scenarios must be done in order to assure the right use of the assets on the company.

## **6. REFERENCES**

1. Albrecht, William P. (1983). Economics. Englewood Cliffs, New Jersey: Prentice-Hall.
2. Ansoff, Igor, (1965), Corporate Strategy, McGraw Hill, New York.
3. Barney, J. (1991) Firm Resources and Sustainable Competitive Advantage, Journal of Management, vol 17, no 1.
4. Bluhm, Christian, Ludger Overbeck, and Christoph Wagner (2002). An Introduction to Credit Risk Modeling. Chapman & Hall/CRC.
5. Booth, T. (1997), Economic Value Added as a Management Incentive, Management Accounting, page 48.
6. Bowen, R. (1986), Evidence on the Relationships between Earnings and Various Measures of Cash Flow, The Accounting Review, LXI (4), 1986, pages 713-725.
7. Brigham, Eugene and Johnson, Ramon (1980), Issues in Managerial Finance, Holt Rinehart and Winston Publishers, Hindale Illinois, 1908
8. Chen, Henry editor, (1967), Frontiers of Managerial Finance, Gulf Publishing, Huston Texas, 1967
9. Darrell Duffie and Kenneth J. Singleton (2003). Credit Risk: Pricing, Measurement, and Management. Princeton University Press.
10. Davis, H.A., (1996), Cash Flow Performance Measurement: Managing for Value, Financial Executives Research Foundation, Morristown, N.J.
11. de Servigny, Arnaud and Olivier Renault (2004). The Standard & Poor's Guide to Measuring and Managing Credit Risk. McGraw-Hill.
12. Dierks, P. (January 1997), Using EVA at Outsourcing, Inc., Management Accounting, pages 56-59.

13. Dorfman, Mark S. (1997). Introduction to Risk Management and Insurance (6th ed.). Prentice Hall.
14. Drucker, Peter, (1954), The Practice of Management, Harper and Row, New York.
15. Ehrbar, A., (1998), EVA: The Real Key To Creating Wealth, John Wiley & Sons, New York.
16. F. Modigliani and M. Miller, The Cost of Capital, Corporation Finance and the Theory of Investment, American Economic Review (June 1958).
17. Gitman, Lawrence (2003), Principles of Managerial Finance, 10th edition, Addison-Wesley Publishing.
18. Goldratt, Eliyahu M., & Cox, Jeff, (1986), The Goal, Croton-on Hudson, New York, North River Press.
19. Pyle, William W., and Kermit D. Larson (1981). Fundamental Accounting Principles. Homewood, Illinois: Richard D. Irwin.
20. Weston, Fred and Brigham, Eugene (1972), Managerial Finance, Dryden Press, Hinsdale Illinois, 1972