CHAPTER 14
FINANCIAL MANAGEMENT
Chapter content

• Introduction
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• Concepts in financial management
• Objective and fundamental principles of financial management
• Cost-volume-profit relationships
• The time value of money
• Financial analysis, planning and control
Chapter content (continued)

• Asset management: The management of current assets
• Asset management: Long-term investment decisions and capital budgeting
• Financing
• Long-term financing
• The cost of capital
• Summary
Introduction

• Art and science of obtaining enough finance for a business at lowest cost, investing in assets earning greater interest than cost of capital, and managing profitability, liquidity and solvency of the business

• Nature and meaning of financial management and relationship with other functional management areas

• Introduction to basic concepts and techniques

• Goal and fundamental principles discussed

• How to finance a business and evaluate investment decisions
The financial function and financial management

• Concerned with the flow of funds
  – acquisition of funds (financing)
  – application of funds for the acquisition of assets (investment)
  – Cash inflow and cash outflow of the firm
  – administration of, and reporting on, financial matters
The financial function and financial management (continued)

- Performs following tasks:
  - Financial analysis, reporting, planning and control
  - Management of the application of funds
  - Management of the acquisition of funds.
The relationship between financial management, other functional management areas, related disciplines and the environment
Concepts in financial management

• Balance sheet is an instant photo of the financial position of the business

• Asset side reflects all the possessions of the business:
  – Fixed assets
  – Current assets.
Concepts in financial management (continued)

- Liabilities side reflects the nature and extent of interests in assets:
  - Long-term funds
  - Shareholders’ interest
  - Short-term funds.
Capital

- Accrued power of disposal over products and services used by a business to generate a monetary return or profit
- Capital for investing in fixed assets – the need for fixed capital
- Capital for investing in current assets – the need for working capital
Income

• Receipts resulting from the sale of products and/or services
• Income = Units sold x Price per unit
• Can also be obtained from other sources such as interest on investments
Costs

• Monetary value sacrificed in the production of goods and/or services produced for the purpose of resale
• Costs can be subdivided:
  – Direct cost
  – Indirect cost
  – Overhead expenses
  – Fixed costs
  – Variable costs
  – Semi-variable costs
  – Variable cost per unit
  – Total costs.
A graphical representation of total fixed costs

Figure 14.4: A graphical representation of total fixed costs
A graphical representation of fixed costs per unit

Figure 14.5: A graphical representation of fixed costs per unit
Profit

• Favourable difference between the income earned during a specific period and the cost incurred to earn that income
• A loss occurs when the cost exceeds the income
• Profit or loss = Income – Cost
• Profit or loss = (Price \times \text{Units sold}) – Cost
The income statement

Furnishes details about the manner in which the profit or loss for a particular period was arrived at and how it has been distributed.

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**Figure 14.9: A diagrammatic representation of an income statement of a manufacturing firm**

- Gross income (sales) = Selling price × Sales quantity
- Gross profit + Operating costs = Operating profit
- Operating profit + Interest paid = Profit before tax
- Profit before tax + Provision for tax = Net profit (after tax)
- Net profit (after tax) + Preference-shareholder dividends = Profit attributable to ordinary shareholders
- Profit attributable to ordinary shareholders + Dividends to ordinary shareholders = Retained profit
- Retained profit + Reserves* = Undistributed profit for the year*

*Appears in the liability side of the balance sheet – see section 14.3.1
Objective of financial management

• Long term objective should be to increase the value of the business

• This can be accomplished by:
  – Investing in assets that will add value to the business
  – Keeping the cost of capital as low as possible.

• Short term financial objective should be to ensure the profitability, liquidity and solvency of the business
Fundamental principles of financial management

- The risk-return principle
- The cost-benefit principle
- The time value of money principle
Cost–volume–profit relationships

• Profitability is determined by the unit selling price of a product, the cost of the product and the level of activity of the business
• Change in one of these three components will result in a change in the total profit earned
• Each of these components have to be viewed in conjunction with one another
• A break-even point is reached, where total costs are equal to total income
• A change in one of the variables will result in the break-even point changing
Break-even analysis

\[ N = \frac{F}{(SP - V)} \]

\( N \) = the number of units (volume)

\( (SP - V) \) = the marginal income or variable profit
The time value of money

• Considers the combined effect of both interest and time

• Can be approached from two perspectives:
  – The calculation of the future value of some given present value
  – The calculation of the present value of some expected future amount.
The relationship between present value and future value

Figure 14.11: The relationship between present value and future value
The future value of a single amount

- Future value of an initial investment or principle is determined by means of compounding
- Amount of interest earned in each successive period is added to the amount of the investment at the end of the preceding period
- Interest is therefore earned on capital and interest in each successive period
- The formula for calculating the future value of an original investment is:

\[ FV_n = PV \cdot (1 + i)^n \]
The present value of a single amount

- Present value of a future value is the monetary amount which can be invested today at a given interest rate \((i)\) per period in order to grow to the same future amount after \(n\) periods.
- Discounting process is the reciprocal of the compounding process.
- The formula for calculating the present value of a future single amount is:

\[
PV = FV_n \left( \frac{1}{(1 + i)^n} \right)
\]
Financial analysis, planning and control

• Financial analysis necessary to monitor the general financial position of a business and to limit the risk of financial failure of the business as far as possible

• Financial managers have a number of tools at their disposal to conduct financial analyses:
  – The income statement
  – The balance sheet
  – The funds-flow statement
  – Financial ratios.
The income statement

### Table 14.10: An example of an abridged income statement (rand values)

<table>
<thead>
<tr>
<th>Abridged income statement of ABC Limited for the year ended 28 February 2013</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net sales</strong></td>
<td>R3 000 000</td>
</tr>
<tr>
<td><strong>Less cost of sales (cost of products sold)</strong></td>
<td></td>
</tr>
<tr>
<td>- Direct labour costs</td>
<td>1 000 000</td>
</tr>
<tr>
<td>- Direct material costs</td>
<td>900 000</td>
</tr>
<tr>
<td>- Indirect manufacturing costs</td>
<td>350 000</td>
</tr>
<tr>
<td><strong>Gross profit</strong></td>
<td>750 000</td>
</tr>
<tr>
<td><strong>Less operating costs</strong></td>
<td></td>
</tr>
<tr>
<td>- Selling expenses</td>
<td>150 000</td>
</tr>
<tr>
<td>- Depreciation</td>
<td>80 000</td>
</tr>
<tr>
<td>- Administrative costs</td>
<td>170 000</td>
</tr>
<tr>
<td><strong>Operating profit</strong></td>
<td>350 000</td>
</tr>
<tr>
<td><strong>Less interest paid</strong></td>
<td>30 000</td>
</tr>
<tr>
<td><strong>Profit before tax</strong></td>
<td>320 000</td>
</tr>
<tr>
<td><strong>Tax (29%)</strong></td>
<td>92 800</td>
</tr>
<tr>
<td><strong>Net profit after tax</strong></td>
<td>227 200</td>
</tr>
<tr>
<td><strong>Less dividends to preference shareholders</strong></td>
<td>5 000</td>
</tr>
<tr>
<td><strong>Profit attributable to ordinary shareholders</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Less dividends to ordinary shareholders</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Retained profit (earnings)</strong></td>
<td>147 200</td>
</tr>
<tr>
<td><strong>Less reserves</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Undistributed profit for the year</strong></td>
<td>147 200</td>
</tr>
</tbody>
</table>
The balance sheet

Table 14.11: An example of a company balance sheet

<table>
<thead>
<tr>
<th>Assets (Employment of capital)</th>
<th>R</th>
<th></th>
<th>Equity and liabilities (Capital employed)</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed assets</td>
<td></td>
<td></td>
<td>Shareholder’s capital</td>
<td></td>
</tr>
<tr>
<td>Land and buildings</td>
<td>200 000</td>
<td>800 000</td>
<td>Authorised and issued — ordinary shares (200 000 at R1 each)</td>
<td>200 000</td>
</tr>
<tr>
<td>(cost price)</td>
<td></td>
<td></td>
<td>Distributable reserves</td>
<td></td>
</tr>
<tr>
<td>Plant and equipment</td>
<td>1 200 000</td>
<td></td>
<td>Capital reserves</td>
<td>300 000</td>
</tr>
<tr>
<td>(cost price)</td>
<td></td>
<td></td>
<td>Undistributed profit</td>
<td>350 000</td>
</tr>
<tr>
<td>Less</td>
<td></td>
<td>600 000</td>
<td>Shareholders’ interest</td>
<td>900 000</td>
</tr>
<tr>
<td>Accumulated depreciation</td>
<td>600 000</td>
<td>600 000</td>
<td>Owners’ equity</td>
<td>850 000</td>
</tr>
<tr>
<td>Other assets</td>
<td></td>
<td></td>
<td>Preference-share capital</td>
<td>50 000</td>
</tr>
<tr>
<td>Investments</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total long-term assets</td>
<td>800 000</td>
<td></td>
<td>Shareholders’ interest</td>
<td>900 000</td>
</tr>
<tr>
<td>Current assets</td>
<td></td>
<td>550 000</td>
<td>Long-term debt</td>
<td></td>
</tr>
<tr>
<td>Cash</td>
<td>60 000</td>
<td></td>
<td>Debentures</td>
<td>200 000</td>
</tr>
<tr>
<td>Marketable securities</td>
<td>30 000</td>
<td></td>
<td>Total long-term liabilities</td>
<td>1 100 000</td>
</tr>
<tr>
<td>Debtors (net)</td>
<td>220 000</td>
<td></td>
<td>Current liabilities</td>
<td>250 000</td>
</tr>
<tr>
<td>Inventory</td>
<td>200 000</td>
<td></td>
<td>Trade creditors</td>
<td>100 000</td>
</tr>
<tr>
<td>Pre-paid expenses</td>
<td>40 000</td>
<td></td>
<td>Bank overdraft</td>
<td>100 000</td>
</tr>
<tr>
<td></td>
<td>1 350 000</td>
<td></td>
<td>Arrear expenses</td>
<td>50 000</td>
</tr>
<tr>
<td></td>
<td>1 350 000</td>
<td></td>
<td></td>
<td>1 350 000</td>
</tr>
</tbody>
</table>
The flow of funds in a business

**Figure 14.14:** A simplified diagrammatical representation of the flow of funds of a business

- **Supply of funds**
- **Internal flow of funds**
- **Outflow of funds**
The funds-flow statement

• Helps with the analysis of the changes in the financial position of the business between two consecutive balance-sheet dates
• Reflects the net effect of all transactions for a specific period on the financial position of the business
• Two approaches for drawing up a funds-flow statement:
  – According to changes in the net working capital
  – According to changes in the cash position.
Financial ratios

- Financial ratio gives the relationship between two items (or groups of items) in the financial statements.
- Serves as a performance criterion to point out potential strengths and weaknesses of the business.
Financial ratios (continued)

• Four types of ratios:
  – Liquidity ratios
  – Solvency ratios
  – Profitability, rate of return or yield ratios
  – Measure of economic value.
Liquidity ratios

Indicate the ability of a business to meet its short-term obligations as they become due without curtailing or ceasing normal activities.

Current ratio = \( \frac{\text{Current assets}}{\text{Current liabilities}} \)

Acid-test ratio = \( \frac{\text{Current assets less inventory}}{\text{Current liabilities}} \)
Solvency ratios

Indicate the ability of a business to repay its debts from the sale of the assets on cessation of its activities

Debt ratio = \frac{\text{Debt}}{\text{Assets}} \times 100

Gearing ratio = \frac{\text{Owners’ equity}}{\text{Debt}}
Profitability, rate of return or yield ratios

Gross profit margin
\[
\text{Gross profit margin} = \frac{\text{Gross profit}}{\text{Sales}} \times 100
\]

Net profit margin
\[
\text{Net profit margin} = \frac{\text{Net income}}{\text{Sales}} \times 100
\]

Return on total capital (after tax)
\[
\text{Return on total capital (after tax)} = \frac{\text{Operating profit less tax}}{\text{Total assets}} \times 100
\]

Return on shareholders' interest
\[
\text{Return on shareholders' interest} = \frac{\text{Net profit after tax}}{\text{Shareholders' interest}} \times 100
\]

Return on owners' equity
\[
\text{Return on owners' equity} = \frac{\text{Net income}}{\text{Owners' equity}} \times 100
\]
Measures of economic value

- Measures of economic value are the economic value added (EVA) and market value added (MVA)
- EVA = EBIT \times (1 - T) - \text{cost of capital expressed in Rand}
- EBIT = \text{earnings before interest and tax}
- T = \text{tax rate}
Financial planning and control

- Integral part of the strategic planning of the business
- Done in most businesses or organisations by means of budgets
An integrated budgeting system

- Operating budgets
  - Cost budgets
  - Income budgets
  - Profit plan or profit budget

- Financial budgets
  - Capital expenditure budget
  - The cash budget
  - Financing budget
  - The balance sheet budget
The integrated budget system

Figure 14.15: The operating and financial components of an integrated budgeting system
Traditional budgeting

• Using the actual income and expenditure of the previous year as a basis and making adjustments for expected changes in circumstances
Zero-base budgeting

• Enables the business to look at its activities and priorities afresh on an annual basis because historical results are not taken as a basis for the next budgeting period
The management of current assets

- Current assets include items such as cash, marketable securities, debtors and inventory
- Current assets are needed to ensure the smooth and continuous functioning of the business
The management of cash and marketable securities

• Costs of holding cash:
  – Loss of interest
  – Loss of purchasing power.

• Costs of little or no cash:
  – Loss of goodwill
  – Loss of opportunities
  – Inability to claim discounts
  – Cost of borrowing.
Marketable securities

• Investment instruments on which a business earns a fixed interest income
• Three reasons to have a certain amount of cash available:
  – The transaction motive
  – The precautionary motive
  – The speculative motive.
The cash budget

• Determining the cash needs of a business is crucially important
• Cash budget is a detailed plan of future cash flows for a specific period
• Composed of three elements:
  – Cash receipts
  – Cash disbursements
  – Net changes in cash.
The cash cycle

- Investing cash in raw materials
- Converting the raw materials to finished products
- Selling the finished products on credit
- Ending the cycle by collecting cash

Figure 14.17: The cash cycle in a business
The management of debtors

- Debtors arise when a business sells on credit.
- Credit granted to individuals is referred to as consumer credit.
- Credit extended to businesses is known as trade credit.
The management of debtors (continued)

- Three most important facets of the management of debtor accounts are:
  - The credit policy
  - The credit terms
  - The collection policy.
The credit policy

• Credit policy contains information on how decisions are made about who to grant credit to and how much

• The four Cs of credit:
  – Character: The customer's willingness to pay
  – Capacity: The customer's ability to pay
  – Capital: The customer's financial resources
  – Conditions: Current economic or business conditions.
The credit terms

- Credit terms define the credit period and any discount offered for early payment
- Discount is usually offered for early payment
- Where early payment is not made, no discount is applicable and the full amount becomes due
The collection policy

• Collection policy concerns the guidelines for collection of debtor accounts that have not been paid by due dates

• Costs of granting credit include the following:
  – Loss of interest
  – Costs associated with determining customer’s creditworthiness
  – Administration and record-keeping costs
  – Bad debts.
The management of stock (inventory)

- Conflict between profit objective and operating objective
- Costs of holding stock:
  - Lost interest
  - Storage cost
  - Insurance costs
  - Obsolescence.
The management of stock (inventory) (continued)

• Costs of holding little or no stocks:
  – The loss of customer goodwill
  – Production interruption dislocation
  – Loss of flexibility
  – Re-order costs.
Long-term investment decisions and capital budgeting

• Capital investment involves the use of funds of a business to acquire fixed assets such as land, the benefits of which accrue over periods longer than one year.

• Importance of capital investment projects:
  – Relative magnitude of the amounts involved
  – Long-term nature of capital investment decisions
  – Strategic nature of capital investment projects.
The evaluation of investment projects

• Basic principle underlying the evaluation of investment decision-making is cost benefit analysis – cost of each project is compared to its benefits

• Two additional factors require further consideration when comparing benefits and costs:
  – Benefits and costs occur at different times
  – Costs and benefits are accounting concepts that do not necessarily reflect the timing and amount of payments to the business.
Cash-flow concepts

• Cash flow represents cash transactions
• Three cash-flow components used for capital budgeting:
  – Initial investment
  – Expected annual cash flows over the life of the project
  – Expected terminal cash flow, related to the termination of the project.
• Annual net cash flows are calculated as the earnings before interest and tax, plus any non-cash cost items such as depreciation minus cash outflows for particular year
Cash-flow concepts (continued)

- Concepts to understand:
  - Initial investment \( (C_0) \)
  - Annual net cash flows \( (CF_t) \)
  - Life of the project \( (n) \)
  - Terminal cash flow \( (TCF) \)
The net present value method

• The formula used to calculate NPV is:
  – NPV = present value of net cash inflows – initial investment

• The application of NPV involves:
  – Forecasting the three components of project cash flows as accurately as possible
  – Deciding on an appropriate discounting rate
  – Calculating the present values of the three project cash flow components for a project
  – Accepting all projects with a positive NPV and rejecting all those with a negative NPV, in accordance with NPV decision criteria.
Decision criteria for the NPV

- Accept all independent projects with a positive NPV (NPV > 0)
- Reject all independent projects with a negative NPV (NPV < 0)
- Projects with NPV = 0 make no contribution to value and are usually rejected
Risk and uncertainty

• Risk is defined as any deviation from the expected outcome
• Risks may or may not occur
• Uncertainty describes a situation where the managers are simply unable to identify the various deviations and are unable to assess the likelihood of their occurrence
• Sensitivity analysis is a method that can be used to take risk into account in capital investment decisions
Financial markets

• Financial markets and financial institutions play an important role in the financing of businesses
  – Financial markets are channels through which holders of surplus funds make funds available to those who require additional finance
  – Financial institutions act as intermediaries on financial markets between savers and those with a shortage of funds
  – Financial intermediation is the process in which financial institutions pool funds from savers and make these funds available to those requiring finance
Money and capital markets

• Money market is the market for financial instruments with a short-term maturity
  – Funds are borrowed and lent for periods of one day or for a few months
• Funds required for long-term investment are raised and traded by investors on the capital market
  – Mostly takes place on the Johannesburg Securities Exchange (JSE)
  – Long-term investment transactions of this nature can also be done privately
Types of institutions

- Financial institutions divided into two broad categories:
  - Deposit-taking institutions
  - Non-deposit institutions
Types of institutions (continued)

• Deposit-taking institutions
  – Private-sector bank, such as ABSA, Nedbank, FNB, Standard Bank and Investec

• Non-deposit-taking institutions
  – Short-term insurers, such as Outsurance, Santam and Mutual & Federal
  – Life assurers, such as Old Mutual and Sanlam
  – Pension funds
  – Provident funds
Short-term financing

- Common forms of short-term financing:
  - Trade credit
  - Accruals
  - Bank overdrafts
  - Factoring.
Short-term financing

• Trade credit
  – Occurs mainly in the form of suppliers’ credit
  – Prompt payment is often secured in the form of rebates
  – Advantages of trade credit:
    • Readily available to businesses that pay their suppliers regularly
    • It is informal
    • It is more flexible than other forms of short-term financing.
Short-term financing

• Accruals
  – Accruals are a source of spontaneous finance
    • Accrued wages represent money that a business owes its employees (wages or salaries)
    • Accrued tax is a form of financing which is determined by the amount of tax payable and the frequency with which it is paid
Short-term financing

- **Bank overdrafts**
  - Overdraft facility allows the business to make payments from a cheque account in excess of the balance in the account
  - Bridges the gap between cash income and cash expenses
  - Interest charged on overdraft is negotiable and is related to the borrower’s risk profile
  - Interest is charged daily on the outstanding balance
Short-term financing

- Debtor finance
  - Involves the sale of debtors to a debtor-financing company:
    - Invoice discounting is the sale of existing debtors and future credit sales to a debtor financing company
    - Factoring is similar to invoice discounting, except the financer undertakes to administer and control the collection of debt.
Short-term financing plans

Figure 14.22: Short-term financing plans
Shareholders’ interest

- Shareholders’ interest in a company is subdivided into owners’ equity and preference shareholders’ capital
- Owners’ equity consists of funds made directly available by the legal owners in the form of share capital
- Preference-shareholder capital falls between debentures and ordinary shares in terms of risk
Owners’ equity

- Ordinary shareholders are true owners of a business
- Two types of ordinary shares:
  - Par value shares
  - Non-par value shares.
- A co-owner of the business, the ordinary shareholder, has a claim to profits
Owners’ equity

• Important characteristics of the ordinary share:
  – Liability of ordinary shareholders is limited to the amount of share capital they contributed to the business
  – No certainty that money paid for shares will be recouped
  – Ordinary shares in listed company are tradable on stock exchange
  – Ordinary shareholders are owners of the business and usually have full control of it
  – Business has no legal obligation to reward ordinary shareholders for their investment in shares
  – Share capital is available to the business for an unlimited period.
Preference-shareholders’ capital

• Two types of preference shares:
  – Ordinary preference share
  – Cumulative preference share.

• Characteristics of preference shares:
  – Have a preferential claim over ordinary shares on profit after tax
  – Have a preferential claim over ordinary shares on the assets of the business in the case of liquidation
  – The term of availability is unlimited
  – Authority can vary between full voting rights and no voting rights at all.
Sources and forms of long-term financing

<table>
<thead>
<tr>
<th>Source</th>
<th>Balance-sheet classification</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Owners or ordinary shareholders</td>
<td>Owner’s equity or own capital</td>
<td>• Ordinary shares</td>
</tr>
<tr>
<td>2 Preference shareholders</td>
<td>Preference-shareholders’ capital</td>
<td>• Reserves</td>
</tr>
<tr>
<td>1 + 2 Share capital</td>
<td>Shareholders’ interest</td>
<td>• Undistributed profit</td>
</tr>
<tr>
<td>3 Suppliers of debt capital/credit suppliers</td>
<td>Long-term or borrowed capital over a long-term period</td>
<td>• Preference shares</td>
</tr>
<tr>
<td>1 + 2 + 3</td>
<td>Total long-term capital</td>
<td>• Debitentures</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Bonds</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Registered term loans</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Financial leases</td>
</tr>
</tbody>
</table>

Notes:
The sources and forms of long-term financing for other forms of businesses differ only in some respects from those for a company:
1. Other forms of business do not have any preference shareholders, and therefore there are no preference shares and no preference-shareholders’ capital.
2. The own capital or owner’s equity comprises funds that the owner/s contribute to the business, as well as profits that are not withdrawn by the owners. The owners’ equity is included in a capital account in the balance sheet.
3. Other forms of business do not make use of debentures.
Long-term debt

• Refers to debt that will mature in a year or more
• Usually obtained in two ways:
  – Loans
    • Debentures
    • Bonds
    • Registered term loans
  – Financial leasing (credit)
    • Direct financial leasing
    • Leaseback agreements
Sources of financing for small businesses

- Personal funds
- Loans from relatives and friends
- Trade credit
- Loans or credit from equipment sellers
- Mortgage loans
- Commercial bank loans
- Small-business loans
- Taking in partners
- Selling capital shares
- Venture-capital funding
The cost of capital

- Financial management should ensure that only the necessary amount of capital is obtained.
- Cost and risk should be kept to a minimum.
- In capital investment decisions, cost of capital serves as a benchmark for investment proposals.
- In financing decisions, various types of capital earmarked for financing investments of a business should be combined so that the cost of capital to the business is kept to a minimum.
Risk

• For an investor, risk consists of two components:
  – Possible loss of the principal sum (the original amount invested)
  – Possibility that no compensation will be paid for the use of the capital (no interest or dividend payments).
Summary

• Nature of financial function and task of financial management
• Concepts and techniques in financial management
• Goals and principles of financial management
• Financial analysis, planning and control
• Management of the asset structure including investments
Summary

- Guidelines and techniques for short- and long-term investments
- Nature and characteristics of long-term capital
- Factors involved in determining cost of capital
- Risk involved