Text Book Summary

Please read through the text book. Do depend on this summary as errors & omissions may occur.

Done By

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Part A: Chapter 1

Purpose of Management Information:
- Planning
- Control
- Decision-Making

Cost unit is a unit of product or service which has costs attached to it.

Type of Codes:
- Sequential (or progressive)
- Block (group classification)
- Mnemonic codes – LAX, CAI, SIN
- Heretical codes – first digit represents a classification and then next represents a subset
- Faceted codes

Main Features of a report:
- Title
- Who is it intended for?
- Who is the report from?
- Date
- Subject
- Appendix

Chapter 2

Advantage of computers
- Speed
- Accuracy
- Volume and complexity
- Access to information

Stages of Data input:
1) Origination of Data
2) Transcription of Data
3) Data Input

Graphical User Interfaces
- Windows
- Icons
- Mouse
- Pull-Down Menu

Automatic input devices:
- Magnetic ink character recognition (MICR) – used in banking industry
- Optical mark reading – multiple choice answer sheets
- Scanner
- Barcodes
- EFTPOS

*A VDU is a monitor.

Card Reading Devices are Magnetic Stripe card and Smart Card.
Data can be stored on disks, tape storage, CD-ROM, DVD, Memory stick (Pen drive)
A management information system is the hardware and software used to drive a database system which provides useful information for management.

Chapter 3

*Just Read

Chapter 4

Cost behavior is the way in which costs are affected by changes in the volume of output

Cost Behavior Patterns are Fixed, Stepped-fixed, variable & semi-variable/fixed/mixed. Other cost patterns are Maximum and minimum charge costs.

Cost Behavior is essential in budgeting, decision making and control accounting.

The high-low method = \[
\frac{\text{Total cost at highest activity level} - \text{total cost at lowest activity level}}{\text{Total units at highest activity level} - \text{total units at lowest activity level}}
\]

Part B: Chapter 5

Purchase Requisition

\[\downarrow\]

Identify Supplier (Quotation)

\[\downarrow\]

Order Form

\[\downarrow\]

Dispatch Note

\[\downarrow\]

Delivery Note

\[\downarrow\]

Goods Received Note GRN

Just-in-time inventory is to have the inventory just in time of production & have no left over after it.

Buffer Inventory is to have the inventory stored before the production. This where inventory valuation arises (FIF, LIFO, Weight Average)
The Effect of Value of Issues & Closing Inventory in Rising Prices (Inflation)

<table>
<thead>
<tr>
<th>Method</th>
<th>Value of issues (Prod’ Cost)</th>
<th>Value of closing inventory</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIFO</td>
<td>Lower than LIFO</td>
<td>Higher than LIFO</td>
</tr>
<tr>
<td>LIFO</td>
<td>Higher than FIFO</td>
<td>Lower than LIFO</td>
</tr>
<tr>
<td>Cum. Weighted Average</td>
<td>Lower than periodic average</td>
<td>Higher than periodic average</td>
</tr>
<tr>
<td>Periodic Weighted Average</td>
<td>Higher than weighted average</td>
<td>Lower than weighted average</td>
</tr>
</tbody>
</table>

*LIFO is not used anymore according to the Accounting Standards.
*Read Page 79 for inventory valuation

**Perpetual Inventory System** is the use of bin cards & stores ledger to ensure that every issue & receipt of inventory as it occurs (control)

**Periodic Stocktaking:** to count the stock annually, on a specific date
**Continuous Stocktaking:** to always count and check the stock

**Inventory discrepancies:** is when the physical amount of the inventory and the one shown in the records disagree.

**Inventory Costs:**
- Ordering Costs
- Holding Costs
- Stockout Costs

**Inventory control levels:**

- **Reorder level** = maximum usage x maximum lead time
- **Minimum level (Safety/Buffer)** = reorder level – (average x usage average led time)
- **Maximum level** = reorder level + reorder quantity – (minimum usage x minimum lead time)

**Reorder quantity** is the quantity which to be ordered when inventory reaches the reorder level

- **Average inventory** = safety inventory + ½ reorder quantity
- **Economic order quantity (EOQ)** is the order quantity which minimizes the inventory costs.

$$\text{EOQ} = \sqrt{\frac{2CD}{CH}}$$

- $C_h$ = Cost of holding one unit of inventory of one time period
- $C_D$ = Cost of ordering a consignment from a supplier
- $D$ = Demand during the time period

**Annual cost of holding inventory** = [buffer inventory + (EOQ/2)] x Annual holding cost per component

**Chapter 6**

**Incentives & bonuses:**
- Piece work
- Time-saving bonus
- Discretionary bonus – if the boss feels like it
- Group bonus scheme
- Profit-Sharing Scheme

\[
\text{Labor turnover rate} = \frac{\text{Replacements}}{\text{Average number of employees in period}} \times 100\%
\]

**Labor Efficiency & Utilization:**

- Efficiency ratio \(= \frac{SH}{AH} \times 100\%\)
- Capacity utilization ration \(= \frac{AH}{BH} \times 100\%\)
- Production volume ratio \(= \frac{SH}{BH} \times 100\%\)

\[
\text{Idle Time ratio} = \frac{\text{Idle Hours}}{\text{Total hours}} \times 100\%
\]

**Chapter 7**

**Depreciation:**

- The Straight line method – equal amount every year
- Reducing balance method – calculate a percentage from the NBV
- Machine hour method – depends on expected hours of usage

\[
\text{Depreciation per unit} = \frac{\text{Cost of fixed asset} - \text{residual value}}{\text{estimated total of production}} \times \text{actual production}
\]

(Product Unit Cost)

**Part C: Chapter 8 + q?**

**Marginal Costing**

<table>
<thead>
<tr>
<th>Marginal Costing</th>
<th>Absorption Costing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>DM</td>
</tr>
<tr>
<td>COGS (Variable Cost)</td>
<td>DL</td>
</tr>
<tr>
<td>Contribution</td>
<td>DE</td>
</tr>
<tr>
<td>-FC</td>
<td>PC</td>
</tr>
<tr>
<td>Profit</td>
<td>+Prod^n O/H</td>
</tr>
<tr>
<td></td>
<td>Factory cost</td>
</tr>
<tr>
<td></td>
<td>+Non-Prod^n O/H</td>
</tr>
<tr>
<td></td>
<td>Total Cost</td>
</tr>
</tbody>
</table>

The **main reasons** for using absorption costing are for **inventory valuations** and establishing the **profitability of different products**

\[
\text{The Predetermined Absorption Rate} = \frac{\text{Budgeted Output}}{\text{Budgeted Hours}}
\]

The **procedures** are **Allocation, Apportionment, Reapportionment** and **Absorption**

**Direct Method** of reapportionment involves apportioning the costs of each service cost center to production cost centers only
**Step-down method** of reapportionment recognizes the inter-service cost centers work. In this method, each service cost center’s costs are not only apportioned to production department but to some (but not all) of other service cost centers that makes use of the service provided.

*The service centers which would be reapportioned to first, depends on which one would cause a higher Absorption rate.

**Actual – Absorbed = Positive/Negative**
- If the result is **negative**, there is **over absorption**
- If the result is **positive**, there is **under absorption**

**Chapter 10**

They are two types of cost bookkeeping system:

1) **Interlocking System**: require separate ledgers to be kept for the cost accounting function and the financial accounting function, which means that the cost accounting profit and financial profit have to be reconciled.

2) **Integrated System**: Combines the two functions in one set of ledger accounts

*Modern cost accounting systems (computerized) are integrated systems.

**Costs are debited as normal into the appropriate expense accounts (the credit entry going to cash or creditors):**

<table>
<thead>
<tr>
<th>Material</th>
<th>Amounts are taken out of each cost account and put in to work in progress accounts</th>
<th>Work-in-progress</th>
<th>Finished Goods</th>
<th>Finished goods are then sold, forming the cost of sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash/ X</td>
<td>To WIP X</td>
<td>To finished goods</td>
<td>From work-in-progress, items will be transferred to finished goods</td>
<td>To profit and loss account (cost of sales)</td>
</tr>
<tr>
<td>Creditors</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Labour</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash/ X</td>
<td>To WIP X</td>
<td>Material</td>
<td>To finished goods</td>
<td>To profit and loss account (cost of sales)</td>
</tr>
<tr>
<td>Creditors</td>
<td></td>
<td>Labour</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Overheads</td>
<td>From work-in-progress</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>overheads</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash/ X</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Creditors</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Advantages and Limitations of Interlocking & Integrated cost accounting systems

<table>
<thead>
<tr>
<th></th>
<th>Interlocking</th>
<th>Integrated</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Advantages</strong></td>
<td>- Feature two ledgers each fulfill different purposes</td>
<td>- Saving in administration time &amp; costs</td>
</tr>
<tr>
<td></td>
<td>- It is less likely that any conflict of needs will arise</td>
<td>- No need to reconcile the profits of the separate cost &amp; financial accounts</td>
</tr>
<tr>
<td><strong>Limitations</strong></td>
<td>- Profit of separate cost &amp; financial accounts must be reconciled</td>
<td>- one set of accounts is expected to fulfill two different purposes (Cost for Management &amp; Financial for external reporting)</td>
</tr>
<tr>
<td></td>
<td>- requires more administration time</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- More costly to run</td>
<td></td>
</tr>
</tbody>
</table>

Chapter 11

A **job** is a cost unit which consists of a single order or contract.

**Cost plus pricing** is when after you determine the cost, you add a percentage mark-up for profit.

A **batch** is a cost unit which consists of a separate, readily identifiable group of product units which maintain their separate identity throughout the production process. (It is very similar to job costing but in batches)

Chapter 12
The problems in accounting for joint products:
   a) How common costs should be apportioned between products, in order to put a value to
      closing inventories and to the cost of sale (and profit) for each product
   b) Whether it is more profitable to sell a joint product at one stage of processing, or to
      process further and it at a later stage

Abnormal loss is a cost/expense Dr Income Statement
Abnormal gain is gain/revenue Dr Process Account Cr Income Statement

*Page 220 and 221

Part D: Chapter 13

Cost-volume-profit (CVP) analysis is the study of the interrelationships between costs, volume and
profit at various levels of activity

The CVP analysis is done to know these two main points:

- The break-even point which is the activity level at which there is neither profit nor loss.
- The amount by which actual sales can fall below anticipated sales, without a loss being incurred

Break-even point (BEP) = \[
\frac{Total\ fixed\ costs}{Contribution\ per\ unit}\]
= \[
\frac{Contribution\ required\ to\ break\ even}{Contribution\ per\ unit}\]
= Number of units of sales required to break even.

Alternative way to calculate BEP = \[
\frac{Required\ Contribution}{C/S\ Ratio}\]
= \[
\frac{Fixed\ Costs}{C/S\ Ratio}\]

*Assume Contribution = Fixed Costs BUT only in BEP not in general because profit is 0 at BEP.

\[
C/S\ ratio = \frac{Contribution}{Sales} \times 100\%
\]

The margin of safety is the difference in units between the expected sales volume and the break-even
sales volume and it is sometimes expressed as a percentage of the expected sales volume

At the break-even point, \[
S = V + F\]
* \[
S - V = F\]
The target profit is achieved when \[
S = V + F + P\]
* \[
S - V = F + P\] so, total contribution required = \[
F + P\]

*Subtracting V from each equations side will give you the total contribution = Fixed Costs

*CHECK CHANGES IN SELLING PRICE

Total profit is maximized when the total contribution at its maximum
They are **two types of charts**, - Breakeven chart - Profit/Volume Chart

**Limitations** of CVP analysis
- It can only apply to a single product
- Time consuming
- Assumes **fixed costs are constant**
- Assumes **variable costs are the same per unit** at all levels of output
- Assumes that **sales price are constant** at all levels of output
- Assumes production and sales are the same (inventory levels are ignored)
- It’s uses estimates (budgets)

*Check out the charts part advantage and limitations.*

**Chapter 14**

**Relevant cost (incremental)** is a cost that will occur in the future from the result of a decision made now, at present. Relevant costs are cash flows. So they do not reflect **additional cash spending** (Such as depreciation and notional costs)

**Past/Sunk Costs** are costs that have been incurred in the past which are totally irrelevant to any decision that is being made now

A **opportunity cost** is the value of the benefit sacrificed when one course of action is chosen, in preference of alternative. It is the cost of the other alternative that have not been chosen.

Unless stated otherwise, you should assume the following.
- Variable costs will be relevant costs
- Fixed costs are irrelevant to a decision

**Non-Relevant variable costs** are variable costs that may be irrelevant. For example, if you have raw material that is no longer been used and has no scrap value. However, they can be used in a special job which the company is trying to decide to undertake.

**Attributable fixed costs** are those costs which, although fixed within a relevant range of activity are relevant to a decision for either of the following reasons:
  a) They could increase if extra activities were undertaken (STEPPED FIXED COSTS). For Example, you will need to employ extra supervisors for every 10 units.
  b) They would decrease or be eliminated entirely if a decision were taken either to reduce the scales of operations or shut down entirely.

**Absorbed overhead** is a **notional** accounting cost and hence should be ignored in decision-making purposes. It is **overhead incurred** which may be relevant to a decision.

A **limiting factor** is a factor which limits the organization’s activities. It could be sales if there are sufficient production resources to meet the sales demands, but any one of the organizations sources (labor, materials and so on) may be insufficient to meet the level of production demands.

In a **limiting factor situation**, contribution will be maximized by earning the biggest possible contribution per unit of limiting factor.

In a **make/buy-in problem** with no limiting factors, the **relevant costs** for the decision are the **differential costs** between the two options.
Long term decisions generally involve looking at the options available when a company (or an individual) puts money into an investment. Companies will need to consider the time value of money (how much $5 that I have now will be worth in 5 years’ time?)

Interest is the amount of money which an investment earns over time

Simple interest is the interest which is earned in equal amounts every year assuming no change in the interest rate, and which is given proportion of the original investment (the principal)

\[ S = P + nrP \]

Compound interest is when the interest earned also earns interested itself in later periods

\[ S = P(1 + r)^n \]

The Nominal rate is the interest rate expressed a per annum (the rate may per annum but it is actually compounded over periods of less than one year)

Adjusted Nominal rate = Equivalent annual rate

Effective Annual Rate = equivalent annual rate (the rate per day or per month adjusted to a given an annual rate)

Effective Annual rate = Annual Percentage Rate (APR) = Compound Annual Rate (CAR)

Effective Interest Rate = \([(1 + r)^{12/n} - 1]\) or \([(1 + r)^{365/n} - 1]\)

Present value means the cash equivalent now of a sum to be received or to be paid in the future. (the value of an investment today at time)

The basic principle of discounting involves calculating the present value of an investment. It starts with a future value and converts a future value to a present value.

The Future value an investment plus accumulated interest (compounding formula)
FV = PV (1 + r)^n

FV is the future value of the investment with interest
PV is the initial or 'present' value of the investment
r is the compound rate of return per time period, expressed as a proportion (interest)
n is the number of time periods

The **discounting formula** is

\[ PV = S \times \frac{1}{(1+r)^n} \]

*S is the sum to be received after n time periods. This equation is the rearrangement of the equation above.*

An **annuity** is a constant sum of money received or paid each year for a given number of years.

**Present value of an annuity** = Annuity x annuity factor

**Perpetuity** is an annuity which lasts forever

**The present value of a perpetuity** = \( \frac{\text{annuity}}{\text{interest rate}} \)

**Net profit** measure how much of the capital has increased over a period of time by applying the matching concept.

**Net cash flow** measure the difference in the payments leaving an organization's bank account and the receipts that are paid into the bank account.

**Reasons why net profit and net cash flow differ are mainly due to timing differences**

1. Purchase of non-current assets
2. Sale of non-current assets
3. Matching receipts from receivables and sales invoices raised
4. Matching payments to payable and cost of sales

**Discounting cash flow** involves discounting future cash flows from a project in order to decide whether the project will earn a satisfactory rate of return.

**The Net Present Value (NPV) method** calculates the present values of all times of income & expenditure related to an investment at a given rate of return, and then calculates a net total. If it is positive, the investment is considered to be acceptable.

The **cost of capital** has two aspects to it

a) It is the **cost of funds** that a company raises and uses
b) The **minimum return** that a company should make on its own investments, to earn the cash flows out of which investors can be paid their return.

*Page 271 question 6.3 and 6.4*

**The Internal Rate of Return (IRR) method** determines the rate of interest (internal rate of return) at which the NPV=0. The internal rate of return is therefore the rate of return on an investment.
It can be calculated either by a graphical method or by a technique called as the interpolation method

$$\text{IRR} = a \% + \left[ \frac{\text{NPV}_b}{\text{NPV}_a - \text{NPV}_b} \right] \times (a - b) \%$$

*The negative sign shouldn’t be shown. The answer should be somewhere between the two rates.

The payback period is the time that is required for the cash inflows from a capital investment project to equal the cash outflows. It is to measure of how long it will take to recover the initial cash spending on an investment.

The discounted payback period is the time it take before a project’s cumulative NPV turns from being negative to being positive.

**Part E: Chapter 16**

For management purposes cash includes petty cash, bank account balances, marketable securities and the un-used portion of any overdraft facility.

Cash flow is the movement of funds into and out of a business. A business which runs out of cash even if profitable, will fail.

Working capital is the net differences between current assets and current liabilities. The working capital cycle measures the period of time between cash outflows for materials and cash inflow from customers.

Types of cash transactions:

1. Capital - increase capital, non-current assets
2. Revenue – day-day operations, overdraft interest
3. Exceptional – unusual such as closing down part of a business
4. Unexceptional -
5. Regular – at predictable intervals, salary, rent, etc
6. Irregular – not at predictable intervals, such as buying new machine, disaster recover expense
Cash Outflows
1) Suppliers
2) Employees
3) Government Taxes
4) Dividends
5) Interest
6) Drawings
7) Purchase of non-current assets
8) New business or takeover of companies (capital)
9) Short-term financial investments
10) Purchase of foreign currency for trading overseas

Cash Inflows
1) Cash received from sales credit + cash
2) Long-term grants from government institutions
3) Equity share capital invested
4) Long-term loans provided by banks, etc.
5) Sale of non-current assets
6) Liquidation (conversion into cash) of short-term investments

Differences between trading profits and cash flows
- Cash may be obtained from a transaction which has nothing to do with profit or loss Ex. issue of shares
- Cash may be paid for the purchase of non-current assets
- When a non-current asset is sold there is a profit/loss from the NBV only
- Profit is sales minus COGS. The cash may not be received or paid yet due to the matching concept. Ex Payables & Receivables

Operational Cash flow = Cash in - Cash out
Cash in = sales + opening receivables – closing receivables
Cash out = Purchases + opening payables – closing payables

Causes of Negative Cash flows
- Spend cash on non-current assets
- High inflation rates may cause the business to increase its funding
- Dividends may exceed cash surpluses for the year. Happens in recession to encourage investors
- Debt Repayment

Negative cash flows from operations would be an indicator of financial distress, unless the company is in a period of rapid (and profitable) growth and is having to invest heavily in additional working capital.
Cash budgets are not prepared according to the accruals concepts, which tries to ensure income and expenditure are matched. Instead they are prepared on a cash (receipts and payments) basis.

The accruals concept basis of accounting is a way of letting investors knows how much profit has made by the matching Income and expenses. It has no relevance whatsoever to day to day cash management.

Advantages of cash flow
- Business ability to repay
- Helps management on which decisions should be taken
- Can provide a satisfactory basis for stewardship accounting

Cash flow management or liquidity management includes the management of inventory levels, receivables and payables, to ensure that the working capital cycle does not become too long.

Chapter 17

Treasury management is the corporate handing of all financial matters, the generation of external and internal funds for business, the management of currencies and cash flows, and the complex strategies, policies and procedures of corporate finance.

The role of the treasurer
1) Corporate financial objectives
2) Liquidity management
3) Funding Management
4) Currency management
5) Corporate finance
6) Related subjects

Cash handling procedures relating to receipts include:
- Proper post-opening arrangements
- Prompt recording
- Prompt banking
- Reconciliation of records of cash received and banked

Cash handling procedures over payments include:
- Restriction of access to cash and cheques
- Procedures for preparation and authorization of payments

Major factors in the financial enviroment are the level of interest rates and the relative ease or difficulty in borrowing or raising capital.

Chapter 18

Cash flow forecasts provide an early warning of liquidity problems, by estimating:
- How much is required
- When it is required
- How long it is required for
- Whether it will be available from anticipated sources

A **cash budget** is a detailed forecast of cash receipts, payments and balances over a planning period. It is formally adopted as part of the business plan or master budget for the period.

**Cash flow based forecasts** (receipts and payments) are forecasts of the amount and timing of cash receipts and payments, net cash flow and changes in cash balances, for each time period covered by the forecast. Cash flow based forecasts include cash budgets up to a year or so ahead and short-term forecasts of just a few days.

A **rolling forecast** is a forecast that is continually updates.

**Cash flow problems** can arise in various ways:

a) Making losses
b) Inflation
c) Growth
d) Seasonal business
e) One-off items of expenditure

**Controlling the working capital cycle: short-term deficiencies**

a) Short-term borrowing
b) Sale of short-term investment
c) Raising share capital
d) The nature and timing of discretionary flows might alter
e) Different sources of finance
f) Leading and lagging – Effectively means shortening the working the cycle by obtaining money from customers as soon as possible, and taking as much credit as possible.

When a **company is in need for cash**, those steps are taken:

1) Postponing capital expenditure
2) Accelerating cash inflows which would otherwise be expected in a later period
3) Reversing past investment decision by selling assets previously acquired
4) Negotiating a reduction in cash outflows, so as to postpone or even reduce payments

An **index** is a measure over a period of time of the average changes in prices of items or a group of items

A **quantity index** is measures the change in the non-monetary values of a group of items over a group of time. A **price index** is the same but in monetary value.

**Index numbers can be used for:**

- To predict future cash inflows
- Estimated future price index
- Need for increased borrowing limits

A **time series** is simply a record of figures that have occurred over a past period of time.

A **moving average** is an average value that is revised as new information is received. (Middle of three numbers). It is often used to compute forecasts as it represent the most recent available.

**Seasonal variations**

- **Trend** – general long-term movement
- **Cyclical variation** – long-term variation due to general economic conditions
- **Seasonal variation**
- **Random variation** – variation in the figures due to unexplained or random events

The **additive model** is \( A = T + S \)

The **multiplicative model** is \( A = T \times S \)

So **seasonal variation** may be calculated by either

\[ S = A - T \quad \text{or} \quad S = \frac{A}{T} \]

**Disadvantages of using time series for forecasting**

- The less historic data available the less reliable the results will be
- The further into the future we forecast the less reliable the results will be
- There is an assumption that the trend and seasonal variation from the past will continue in the future
- Cyclical and random variation have been ignored

**Chapter 19**

A **cash deficit** is a shortage of available funds to satisfy current obligations. It may arise for the following reasons… current funding arrangements, seasonal factors, companies who are reliant on one or two large customers (if they fail to pay in time).

A **cash surplus** is the value of cash over and above what is required to satisfy current obligations.

The choice of investing **cash surplus** is determined by considerations of profitability, liquidity and safety. Cash must be kept as safety buffer to cover unforeseen expenses. Many business do not hold on cash surplus as an asset, they invest in it.

1) **Transaction motive** - the need for a business to meet it’s regular commitment of covering it’s expenses, taxes, dividends, etc.
2) **Precautionary motive** – to keep cash to cover unforeseen contingencies, safety!
3) **Speculative motive** – Cash is not kept as a an asset in hope for interest rates will rise.

**Interest bearing accounts** are accounts for a fixed period of time. Withdrawals may not be permitted and the principal does not decline in monetary value.

**Compound Annual Rate of interest (CAR)**

\[
(1 + \frac{x}{n})^n - 1 \times 100
\]

**Money-market deposit account (MMDA)** is a deposit account offered by a bank which invests in stocks and bonds. The money is deposited for a fix period or a notice period. The interest rate is paid based on current interest rates in the money markets.

The **risks and returns** is that the business can retain their money in a few business days. Minimum deposits are as high as 50K, deposit rates are variable (you won’t know how much will you be getting in
return), over the long time, inflation can eat away at returns.

A **certificate of deposit** (CD) is a certificate indicating that a sum of money have been deposited with a bank and will be repaid at a later date with interest. They can be bought and sold, so they are liquid type of investment.

CD’s have one major advantage over a money-market fixed deposit which is namely is liquidity. They can be easily converted to cash by buying & selling them.

**Gilts** (gilt-edged) are securities issued by the UK government which are basically stocks. Although, they have a small face value (usually $100) they dominate the fixed interest market.

*Government stocks are about as safe as an investment you can get. However, returns are relatively low.*

**Local authority stocks** may be issued by any size of authority. They are not considered as safe as the central government stocks. However, they are usually tend to be obtained by few institutions.

*The return on local authority stocks tend to be rather higher than on glits*

**Yearlings**: bonds issues by local authorities which are redeemable in a year or two.

Investments are rated according their return and risk. Diversification across a range of separate investments can reduce risk for the investor.

**Chapter 20**

Companies often rely on **bank finance**. They are three aspects to the maintenance of liquidity:

a) The firm needs enough money to **function operationally**

b) The firm also needs to **minimize the risk**

c) The firm also need to **provide against the contingency** of any sudden movements in cash (safety)

Bank borrowing can be obtained in the following ways

- **Overdraft** – repayable on demand
- **Term loan**: customer borrows a fixed amount & pays it back with interest over a period or at the end of it
- **Committed facility**: the bank undertake to make a stipulated amount available to a borrower, on demand
- **A revolving facility**: is a facility that is renewed after a set period. You can renew (re-borrow) only after you have paid the full amount.
- **Uncommitted facility**: the banks will give you if it feels like it, by the condition that all paperwork is done upfront. It has no obligation to give you this loan.
- **Banker’s acceptance facilities**: The bank agrees to make payments on your bills. It will have a legal agreement to do so; they’ll also charge interest on it. Ex. Bank Mandate

**THEBANKCUSTOMER RELATIONSHIP**

- **Debtor/creditor** when you open a bank account.
- **Mortgagoor/mortgage** when you secure a loan over an asset such as property
- **Fiduciary** The law 'superior party' (which is the bank) to act in good faith

**The bank’s rights**
- Charges and commissions
- Overdrawn balances

**The bank’s duties**
- Honor customer’s cheques
- Receipt of customer’s funds
- Comply with customer’s instructions
- Provide a statement
- Confidentiality
- Advice of forgery
- Care and skill
- Closure of accounts

**Borrower’s duties**
- Duty of care
- Advice of forgery

---

**CAMPARI – Lending Criteria**

<table>
<thead>
<tr>
<th>Character of the customer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to borrow and repay</td>
</tr>
<tr>
<td>Margin of profit</td>
</tr>
<tr>
<td>Purpose of the borrowing</td>
</tr>
<tr>
<td>Amount of borrowing</td>
</tr>
<tr>
<td>Repayment terms</td>
</tr>
<tr>
<td>Insurance against the possibility of non-payment</td>
</tr>
</tbody>
</table>

**Discretionary rates:** the bank will decide on the return (interest return) which it requires from the lending. This will apply on a risky venture such as a new business.

The bank would give a loan to a borrower that is willing to pay a certain ‘up front’ amount. For example, a bank may be willing to lend $2 million to help a company to buy new premises, but only if the customer will contribute $1 million of its own money.

Banks have to take **securities when lending**, those securities should have the following characteristics:

a) Easy to take  
b) Easy to value  
c) Easy to realise (to be converted to cash)

**Overdraft considerations:**

a) Amount  
b) Margin – interest is charged on an amount overdrawn, usually as a margin over base rate.  
c) Purpose  
d) Repayment – On demand  
e) Security – may be required  
f) Benefits – flexible

When a business customer has an overdraft facility, and the account is always in overdraft, then it has **solid core** (or **hard core**) instead of swing. If this continues, the bank may ask the customer to change the overdraft loan to a long-term loan.
An overdraft facility for day-today should be to either increase total current assets or to reduce other current liabilities.

Loan repayment profiles
- **Bullet**: you do not pay the principal until at end of the period
- **Balloon**: Some of the loan principal is repaid during the term of the loan. At maturity, however, there is still a substantial proportion of loan outstanding, which is then repaid.
- **Amortising or straight repayment loan**: the loan principal is repaid gradually over the term of the loan. At the final loan payment, the outstanding loan will be zero. Ex. Mortgage

Loan interest may be fixed or variable (depending on money markets).

Covenants are the obligations for the borrower:
- **a)** Positive covenants require the borrower to do something
- **b)** Negative or restrictive covenants are promises by a borrower not to do something (Ex. Borrow more money)
- **c)** Quantitative covenants set limitation on the borrower’s financial position. Ex. Loan does not exceed 100% of shareholders’ funds.

### Advantages

<table>
<thead>
<tr>
<th>Overdraft</th>
<th>Medium-term loan</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Only pays interest when overdrawn</td>
<td>- Both bank &amp; borrower know what amount, how much interest and when will the loan be repaid</td>
</tr>
<tr>
<td>- Flexibility for the bank to review the loan conditions</td>
<td>- Borrower does not have to worry about the bank to reduce the facility</td>
</tr>
<tr>
<td>- Can do the same job as medium-term loan</td>
<td>- They normally carry a facility letter setting out the precise terms of agreement</td>
</tr>
</tbody>
</table>

### Chapter 21+22

Advantages
- Easy to learn & use
- Can make calculation & manipulation of data easier and quicker
- They enable the analysis, reporting and sharing of financial information
- They enable ‘what-if’ Analysis very quickly

Disadvantages
- is only as its original design, garbage in = garbage out
- formulae are hidden from sight
- spreadsheet presentation may make reports appear infallible
- Research says that high proportion of large models contain critical errors
- Database is more suitable for large volumes of data
- Can easily get corrupted & difficult to find errors in large models

Numbers can be formatted into several ways. Ex. Commas, percentages, currency, etc.

Cell contents may be text, values, and formulae.

<table>
<thead>
<tr>
<th>Error Value</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Error Code</td>
<td>Description</td>
</tr>
<tr>
<td>------------</td>
<td>-------------</td>
</tr>
<tr>
<td>#DIV/0!</td>
<td>Dividing a number by zero</td>
</tr>
<tr>
<td>#VALUE!</td>
<td>Due to one of the cells contain text. It is a data type error. SUM ignore texts.</td>
</tr>
<tr>
<td>#NULL</td>
<td>A formula is not separated correctly</td>
</tr>
<tr>
<td>#REF!</td>
<td>Invalid cell reference. The cell may have been deleted.</td>
</tr>
</tbody>
</table>

Relative cell references (B3) change when you copy formulae to other locations or move data from place to another. Absolute cell references ($B$3) stay the same.  

IF Statement follow the following structure (or syntax).  

\[ =IF(\text{logical}\_\text{test},\text{value\_if\_true},\text{value\_if\_false}) \]

Bar Chart is a chart which data is shown in a form of a bar. It is used to show the magnitude of the corresponding data item.

Component Bar Chart (stacked bar chart) is a bar that shows component information in each bar on a percentage basis.

Line Graphs are often used in commercial contexts. They are useful for demonstrating trends. X is the dependent variable. Y is the independent variable.

Pie Charts it is in the shape of a pie. To show percentage figures. One of the main disadvantage is without showing figures on it, it is difficult to compare.

Scatter Diagram are graphs that exhibit data, rather than equations in order to compare the way in which to variables very with each other. The points may not follow a trend. However, if a trend is noticed in a scatter diagram, a trend line is drawn.

Freezing titles is to always keep the titles visible to the user even when scrolling down. It can be done by the excel menu Window>Freeze Panes (you have to select the column or rows you want to freeze first)

Referring to a different spreadsheet file = \( \text{SUM('C:\Sales[Annual.xls]Jan'!$C$10:$C$25)} \)

iPhone= Eye Phone= Illuminati Phone. Siri spelled backwards is Iris, that's a part of the Eye. Apple is Illuminati. They are Watching You.