



Stock Control

- The word “stock” can refer to a number of things:
 - **Raw materials and other components**
 - things that go into the production process
 - **Work-in-progress**
 - products that are not yet finished, but where the production process has started
 - **Finished goods**
 - products that have been completed to the right quality – and are waiting to be delivered to customers
 - **Spares**
 - in case of machinery break down





Problems of Holding Too Much Stock

- Businesses want to hold as little stock as possible due to
 - **Higher insurance costs**
 - Since the value of the company on paper is higher
 - **Shrinkage**
 - Instances of theft are less noticeable
 - **Obsolescence**
 - Stock may go out of date, or be superseded by new technology
 - **Storage Costs**
 - Stock must be stored – so larger warehouses are needed
 - **Finance**
 - Many firms buy supplies using trade credit. If the stocks are not sold before payment is due it could create cash flow problems
 - **Opportunity Cost**
 - Money tied up in stocks cannot be used elsewhere





Problems of Holding Too Little Stock

● If insufficient stock is held a business may encounter:

➤ **Lost Sales**

■ Customers are likely to go elsewhere, and may not return!

➤ **Loss of Goodwill**

■ Business will get a reputation for being unreliable

➤ **Longer Lead Times**

■ Customers will be expected to wait if they don't go elsewhere

● This problem can be overcome in 2 ways:

➤ **The use of EPOS**

■ Common in retail industry

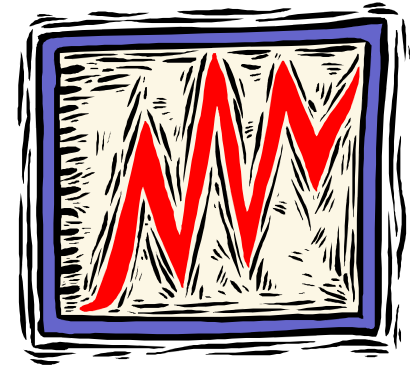
➤ **The use of Stock Control Charts**





Stock Control Charts

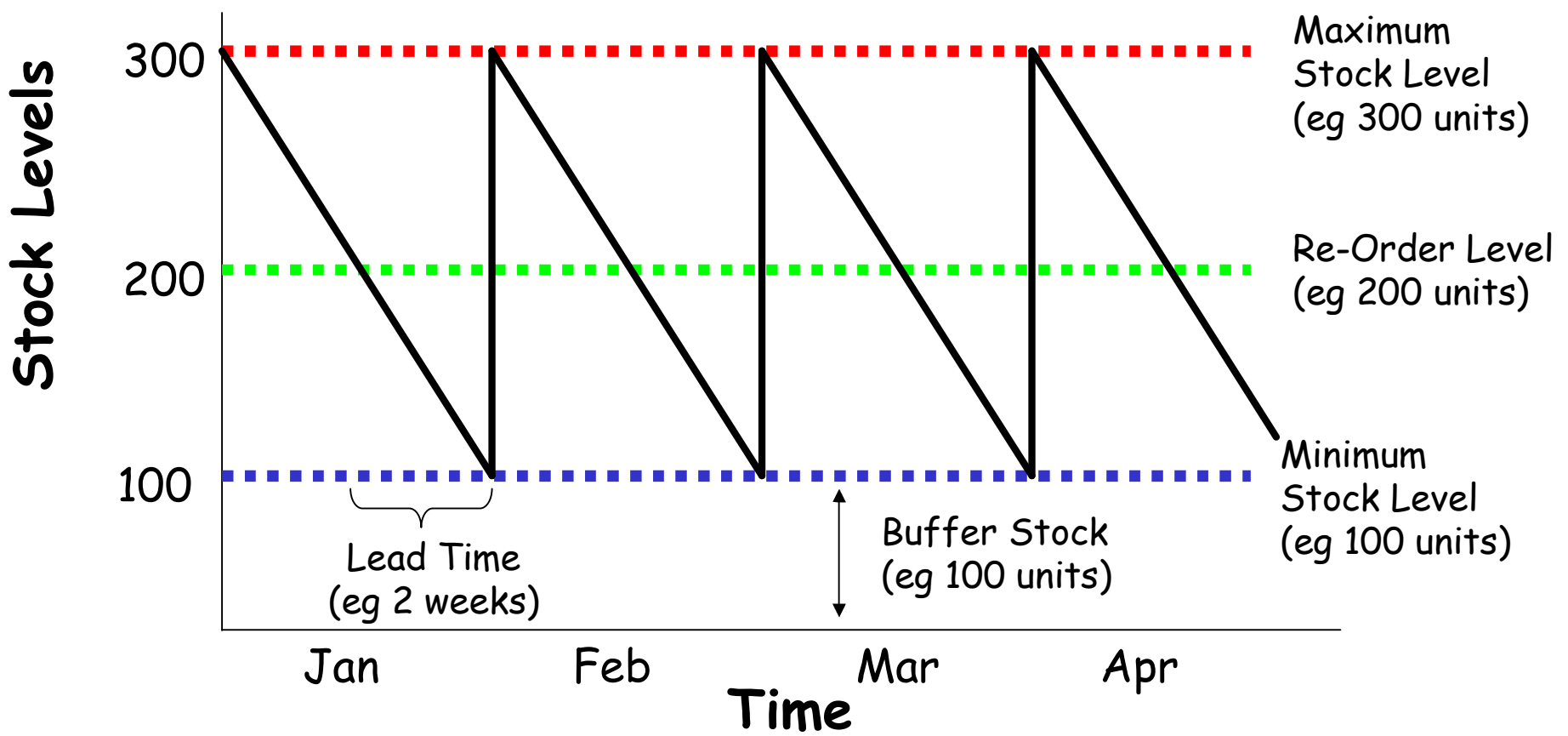
- These are used to maintain favourable stock levels
- They are based upon 3 assumptions:
 - All deliveries are made correctly and on time
 - There are no faulty stocks
 - Stock is used up at a constant rate
- The chart will show:
 - **The Maximum Stock Level** – the most stock a firm wants to hold
 - **The Re-Order Level** – the level at which a new order is placed
 - **The Minimum (Buffer) Stock Level** – the least stock a firm wants to hold
 - **Re-Order Quantity** – the number of items that are ordered
 - **Lead Time** – the time between placing the order and receiving it





Stock Control Charts

● A typical stock control chart will look like this:





Calculating Average Stock

- It is sometimes useful for a firm to know how much stock it holds on average
- This can be calculated using the following formula:

$$\text{Average Stock Level} = \frac{\text{Minimum Stock Level} + \text{Maximum Stock Level}}{2}$$

- This would be drawn as a horizontal straight line half way between the maximum and minimum stock levels on a stock control chart



Just-In-Time Stock Control

- An idea developed by the Japanese at Toyota in the 1950s
- They recognised that efficiency could be maximised if stocks were always at an absolute minimum
- It therefore involves deliveries taking place just as stocks are required
- It has become very popular, particularly in the automotive industry and it has been adopted by





The Advantages of Just-In-Time

- Better cash flow since money is not tied up in stocks
- Reduced waste, obsolescence and damage
- More factory space is available for productive use
- Improved relationships with suppliers
- Motivation of workers is improved, since they are given more responsibility





The Advantages of Just-In-Time

- Rely very heavily on suppliers
- Increased administration costs, due to increase in orders
- May lose advantages of bulk buying
- Problems if breakdowns occur
- Difficult to respond to changes in demand
- Loss of control on the ability to meet deadlines

