

Micron Inventory Management Ltd

The principles and  
concepts of Inventory  
Optimisation

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# Inventory Optimisation is

“Balancing Inventory  
to meet  
Customer demand”

# The main benefits of Inventory Optimisation

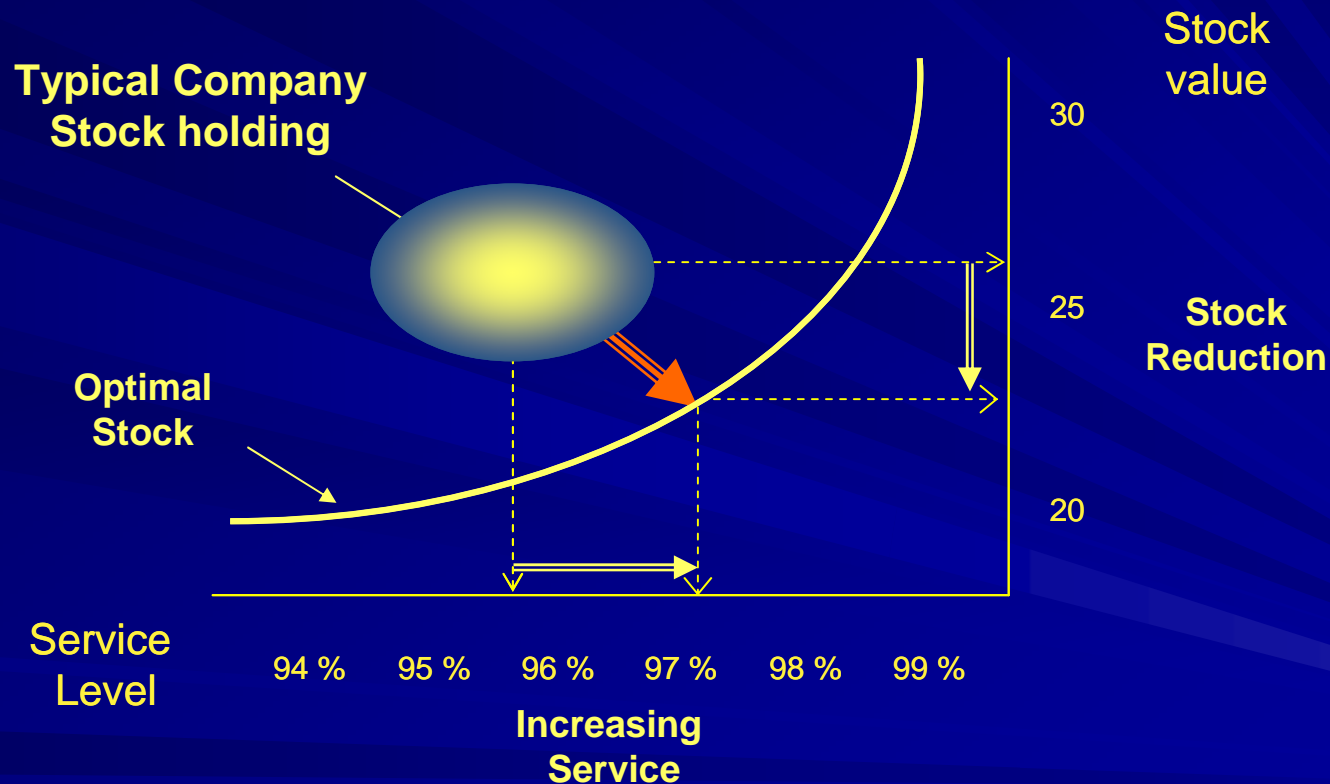
- ✓ Inventory is reduced by at least 25%
- ✓ Higher customer service Levels
- ✓ Far fewer stock shortages
- ✓ Improved “Bottom line”
- ✓ Reduced obsolete stock and “write offs”

# Why should this interest you?

- If your company is carrying more stock than is necessary or desired
- If your company is looking to improve its customer delivery performance
- Or both

With the Micron solution - higher service level and reduced inventory are both possible

# The Dynamics of Inventory Optimisation



- Why are Companies generally not achieving this?

# Customer Service and Inventory

## ➤ The 'Traditional View'

Higher Service Levels means more inventory - not less

- Senior management determines target Service Levels
- Instruction passed to Inventory Manager to achieve

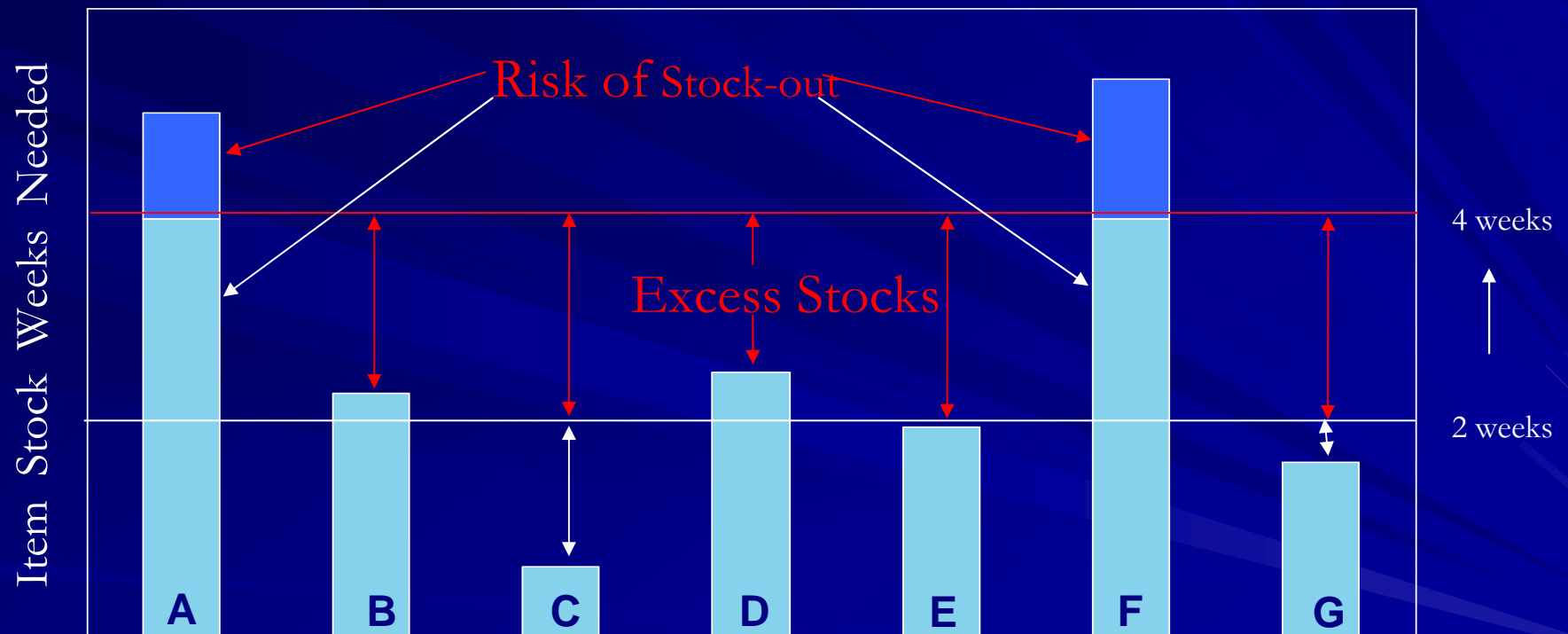
## ➤ But there is no link between

- Setting Service levels
- And
- The management of individual item stocking policies

## ➤ To be safe a lot more stock is held than is needed

A common remedy is to increase the  
**'Fixed Weeks of Supply'** across product range

As shown in **red** this policy is futile

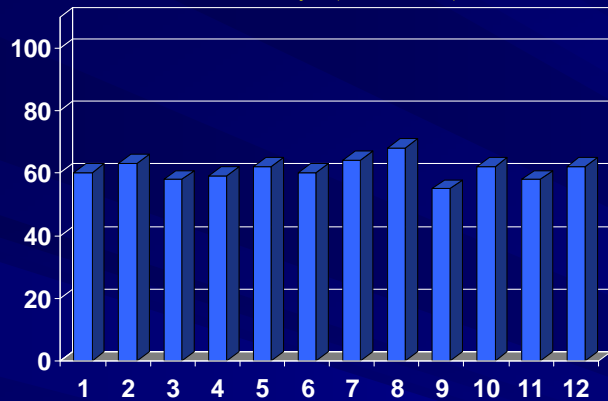


Why do individual items require Different Stock levels?

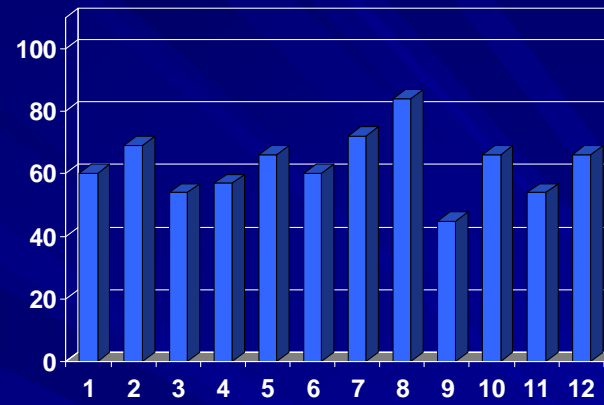
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# Examples - All Average 60 pcs/mth

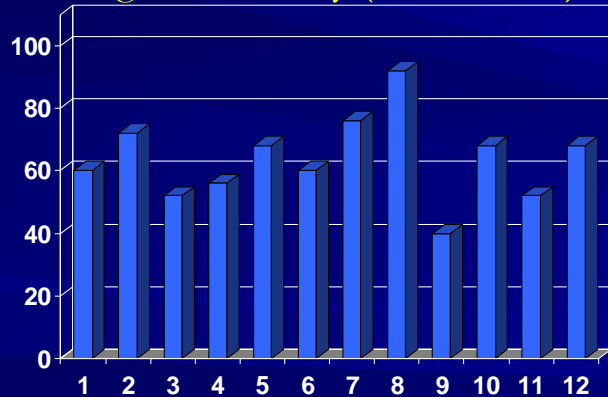
Low Volatility (Item C)



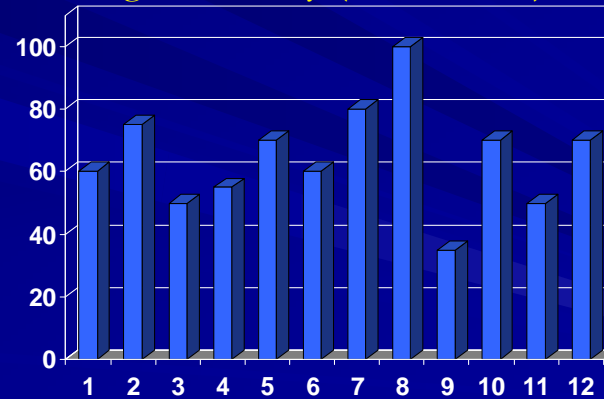
Medium Volatility (Items E&G)



Higher Volatility (Items B&D)

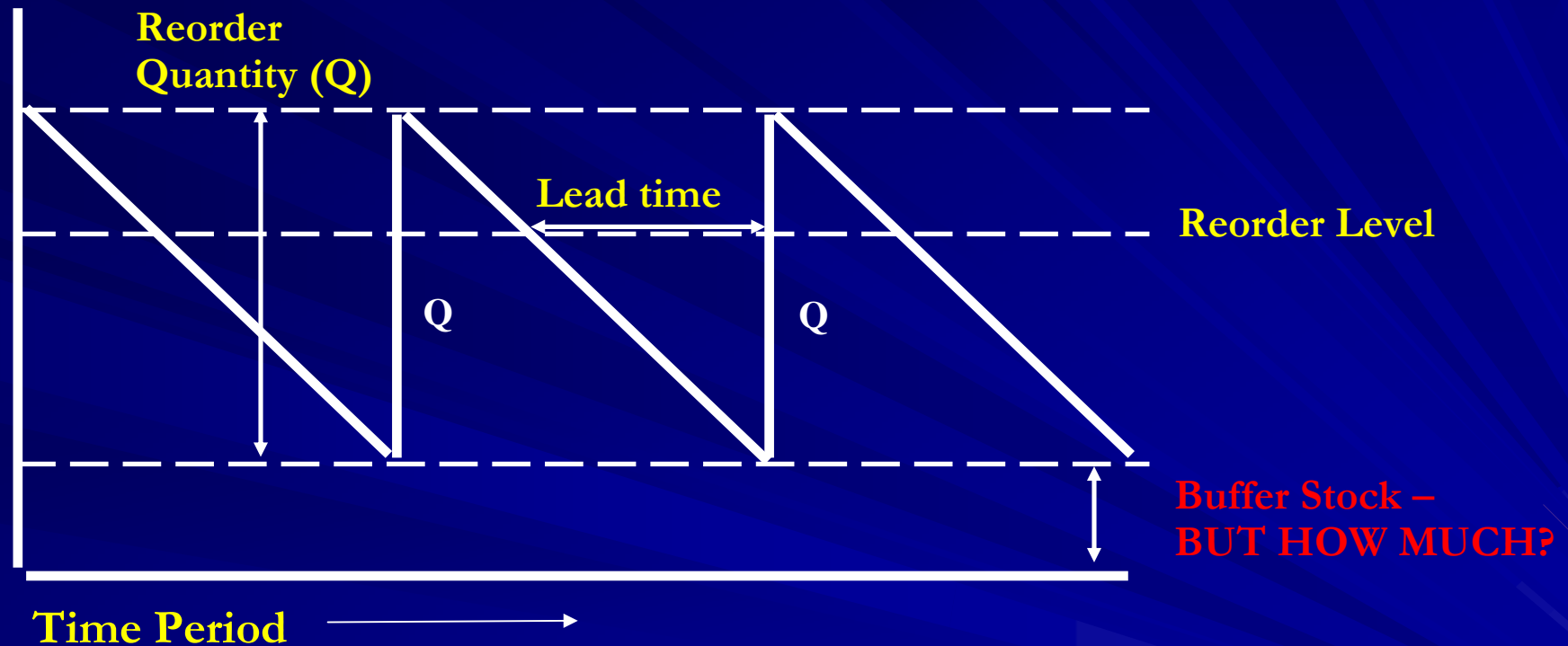


High Volatility (Items A&F)



But they're all different because of demand volatility

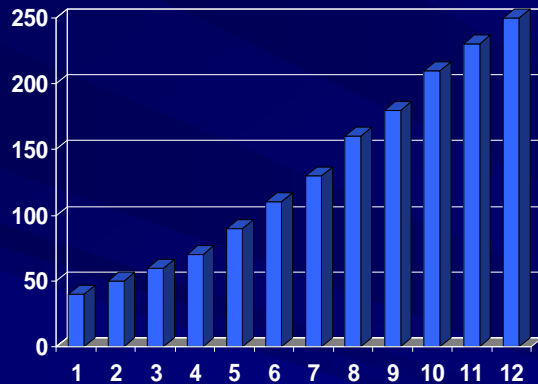
# Traditional 'Saw Tooth' Model for stock replenishment:



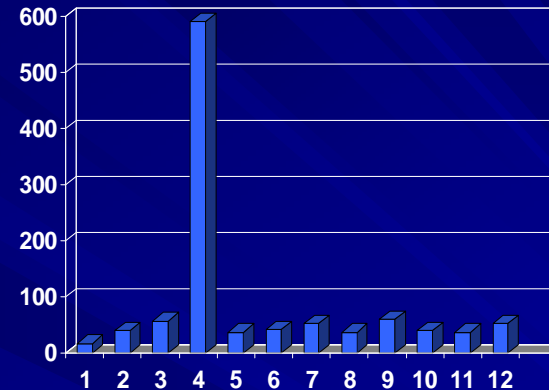
**This model only applies to items with the following characteristics:**

- fast movers
- a stable demand pattern (no trend, seasonality, promotions)
- a stable lead-time

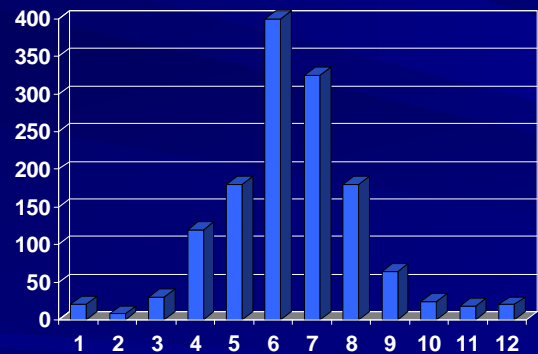
# There are other Demand Profile Types: Each of these average 100 pcs/mth.



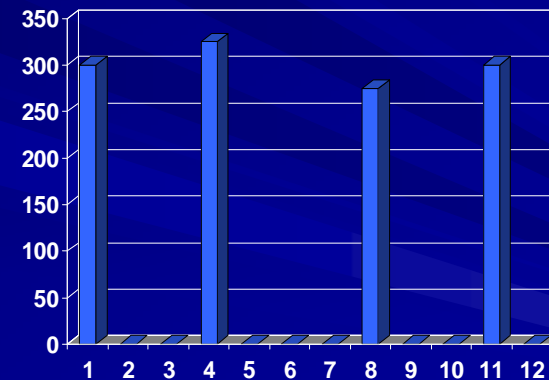
Trend



Spike



Seasonal



Irregular

To control these demand profiles:

- It is necessary to detect which Profile Type applies
- Avoid Traditional 'Saw Tooth' Techniques

# DEMAND FORECASTS

## ➤ How does the buyer know what to buy?

- Unless a Company is able to promise delivery beyond the Purchase/Manufacturing lead time, it must hold strategic stocks.
- To do this the Company must rely on forecasts.
- Customer schedules can help. But, if customers fail to abide by them, uncertainty still exists.
- With uncertainty, inventory builds to 'be on the safe side'
- Unless there is a clear way of dealing with this problem, excessive stocks become 'acceptable'
- **Carrying stock is reckoned to cost 2.5% a month**
- £££thousands are wasted in this way – perhaps the difference between success and failure of a Company

## The Micron solution

# You need Inventory – But how much?

- Consumers generally require a regular supply.
- The Supply Chain, however, contrives to make the regular Consumer demand lumpy.
- Some of the Problems:
  - Forecasts are either wrong or 'lucky'
  - Sales staff and 'Champagne Order' incentives
  - Customers 'Unintelligible' Stocking Policies
  - Quantity Break Pricing
  - Inefficient / untimely procurement procedures

The Micron solution

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# Your system should tell you what to buy/make and when

## In reality the system cannot:

- Make a poor forecast accurate
  - Compensate for wrongly set parameters (Minimum stocks, Lead times etc)
  - Differentiate between varying usage profiles (Seasonality, Irregularity, Exceptional demands, etc)
- The results may appear reliable - **but it is an illusion**
- Any system needs an **effective** forecasting module, including detection of differing **profile types**
- The buyer needs **help with setting parameters**

## The Micron solution

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# How good are system-based procedures?

- They address all aspects of a Company's business: Finance, Logistics, Manufacturing, Personnel, etc.
- They are great for transactions and reports
- They are not strong in specialist areas

**Inventory Management  
is a specialist area!**

# Even sophisticated systems, do not control Customer Service Levels and Inventory.

Consider these possible system shortcomings?

## ➤ Stock Control Parameters

Q: How are the following assessed?

When are they changed / reviewed?

- Lead times
- Minimum Order Quantities
- Customer Service Levels (rarely available)
- Safety (Buffer) Stock

➤ A: (Generally): Set initially against a 'rule of thumb', and rarely revisited

The Micron solution

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# More possible system shortcomings?

## ➤ Demand Anomalies

Q: How does your system deal with the following?

- Trends
- Seasonality
- Irregular demands
- Slow movers
- 'Exceptionally High' orders

➤ A: (Generally): It doesn't.

The Micron solution

# The Good News

- Improved customer service AND lower inventory can be achieved
- Your existing system does not need to be replaced
- The inventory manager will have the tools to optimise inventory and help to combat the downward pressure on prices
- **The Micron solution** - proven and cost effective

# The Micron Solution

- ✓ Micron will conduct an initial FREE Inventory 'Health Check', addressing all the issues raised
- ✓ Identify the scope and areas of potential Inventory savings. In our experience, 25% is conservative
- ✓ Present a report with detailed supporting evidence
- ✓ Agree a costed proposal to turn the potential savings into sustainable reality
- Contact MICRON today

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The logo for Micron, featuring the word "Micron" in a stylized, italicized font with a red-to-orange gradient. A red underline is positioned beneath the text.