Inventory Models

Business & Management

How much to order and when, and the trade-off underneath.

Economic order quantity balances the cost of ordering against the cost of holding.

$$EOQ = \sqrt{(2DS \div H)}$$

D = annual demand	Units per year
S = cost per order	Fixed cost of placing one
H = holding cost per unit per year	Storage, capital, obsolescence

THE COMMON MISTAKE

× Ordering in large batches for a volume discount

✓ Comparing the discount against the extra holding cost

Holding cost is typically 20–30% of unit value per year, which frequently exceeds the discount.

Reorder point = demand during lead time + safety stock. Safety stock sizes the service level you want.