The price

The amount of money an economic entity receives or pays for providing or receiving a product / service.

The price can receive different names: rent, tuitions, tariffs, fees, toll, membership fees, wages and salaries, etc.

In the Marketing point of view price is particularly relevant as expression of value, but by two different points:

- For the consumer: the cost, the "sacrifice", the amount of income consumer has to renounce compared to the benefit produced by the product / service.
- For the seller: amount of revenues that reward the effort sustained in producing a product or a service.

The price

Pricing:

- Process and strategy of definition and modification of the price of a product or service.

- 3 main issues:
  - Determining the initial price (a new product)
  - Price manoeuvres (increase or decrease)
  - Price modification (price discrimination and differentiation)

The price

Pricing methods

- Customer-based pricing (demand)
- Competition based pricing (competitors)
- Cost-based pricing (costs)

- The consumer price:
  - Price to consumers includes VAT
  - It is functional to the product positioning, in relation to the market and the competitors.
- Customs duties: taxes to imported products
- Excise duties: i.e. for alcoholic products.
- Price at source, wholesale price, retail price

The price

Influences of the demand on the price determination:

- Demand pricing: estimate the demand at different price levels => maximising the difference between revenues and costs
- Revenues = R = P x Q; Profits = Revenues - Costs
- Price Elasticity of Demand: measures sensitivity of demand to price.
  - It measures the percentage change in demand in response to a change in price.
  - More precisely, it gives the percentage change in quantity demanded in response to a one per cent change in price

Price Elasticity of Demand

$$\eta = \frac{\frac{\Delta Q}{Q}}{\frac{\Delta P}{P}} = \frac{\Delta Q}{Q}\,\frac{P}{\Delta P} = \frac{\Delta Q}{\Delta P}\,\frac{P}{Q}$$

$$\eta = \left| \frac{\Delta Q}{\Delta P}\,\frac{P}{Q} \right|$$

$\lvert\eta\rvert > 1$	elastic	Q changes more than P
$\lvert\eta\rvert=1\}$	unit elastic	Q changes like P
$\lvert\eta\rvert<1\}$	inelastic	Q changes less than P

The price

Influences of the demand on the price determination:

- Psychological pricing = emotional responses from the consumers
  - Price expected by the market
  - Acceptability range
  - Higher prices = quality sign
  - Odd-even (odd-ending) prices
  - Reassuring prices
  - Full price

The price

Price and perceived value:

- Consumers that buy a product exchange its value (=price) with the value measured by the expected benefits.
- Threshold prices (above or under these prices there is a significant change in sales)
- Base prices (are used to compare the prices of the other products)
- Benchmark prices (competing products, previous purchasing experience, other points of sale…)
- Price anchors (and importance of the price range in an assortment)

Price and product life cycle

Market Skimming:

- High price, Low volumes
- Skim the profit from the market
- Inelastic demand
- Suitable for products that have short life cycles or which will face competition at some point in the future (e.g. after a patent runs out)
- Possibility of decreasing the prices in the future
- Examples include: Playstation, jewellery, digital technology, new DVDs or online movies, innovations and First to Market products etc.

Price and product life cycle

Penetration Pricing:

- Prices set to 'penetrate the market'
- 'Low' price to secure high volumes and discourage the competitors
- Typical in mass market products – chocolate bars, food stuffs, household goods, etc.
- Elastic demand
- May be useful if launching into a new market

The price

Influences of the market structure on the price definition:

- Number and dimension of competitors
- Level of product differentiation
- Presence of entry barriers
- Market power along the food chain

- Pricing strategies
  - Profit maximisation
  - Revenues maximisation
  - Market share
  - Adjustment to the competition (survival)

Cost-based pricing

Cost-based pricing

- Selling price must cover production, distribution and promotion costs and assure a margin of profit.
- Profits = Revenues - Costs

Production costs

- Costs represent the value of the resources used for the production processes (the total price paid for the resources used to manufacture a product or create a service)

Determination of the cost of production

- Allocate to a "cost object" (i.e. a specific product) the monetary estimates of the productive resources used for producing this object

Production costs

In relation to the «cost objects»:

- DIRECT COSTS:
  - Direct costs are expenses directly related to the manufacturing process. They can include staff wages, the costs of any raw materials used
- INDIRECT COSTS:
  - Indirect costs are costs used by multiple activities, and which cannot therefore be assigned to specific cost objects (i.e. management or commercial costs)
- Costs allocation
  - To allocate a part of an indirect cost (cost ratio) to a specific cost object

Production costs

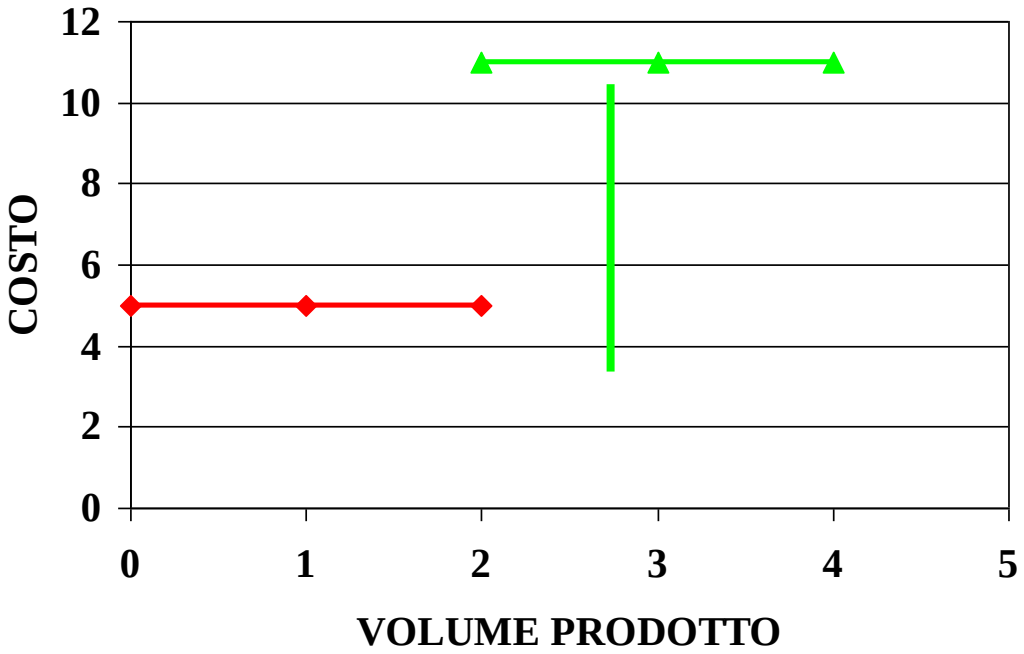
- Classification by Nature:
  - This is the analytical classification of costs. Cost are divided per their nature.
    - Labour costs
    - Material Costs (raw materials, packaging, etc.)
    - Services costs (i.e. rents, etc.)
    - Depreciation costs
    - General expenses (overheads)

Production costs

- VARIABLE COSTS:
  - Variable costs are a company's costs that are associated with the number of goods or services it produces. A company's variable costs increase and decrease with its production volume.
  - may include labor, commissions, and raw materials
- FIXED COSTS:
  - A company's fixed costs do not vary with the volume of production. Fixed costs remain the same regardless of whether goods or services are produced or not (within a range and a period). Thus, a company cannot avoid fixed costs.
  - Fixed costs depend on the productive structure and the production capacity.

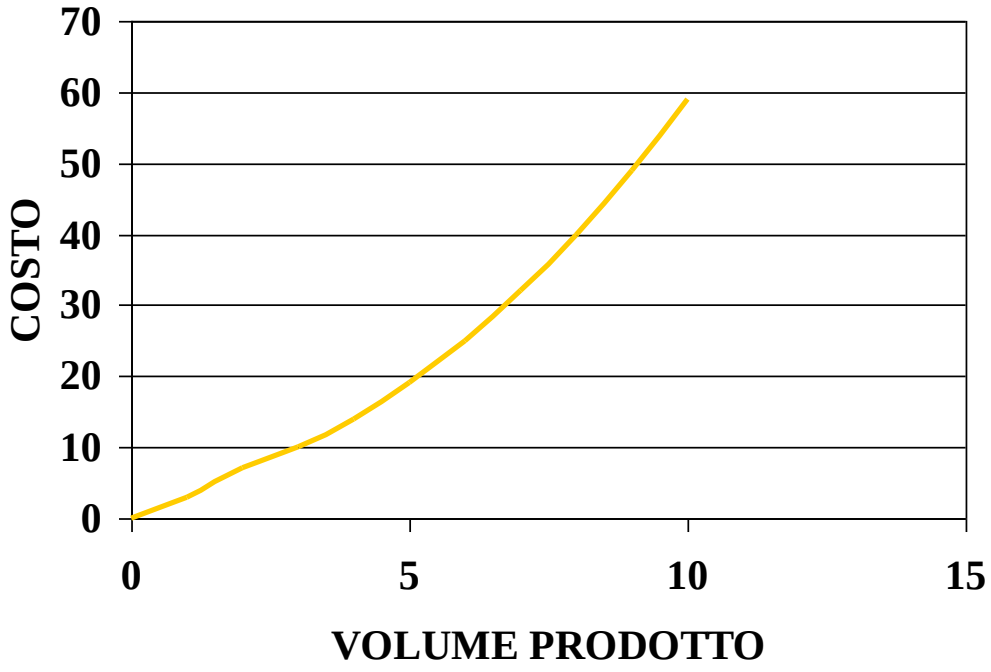
Production costs

Curve of the fixed costs



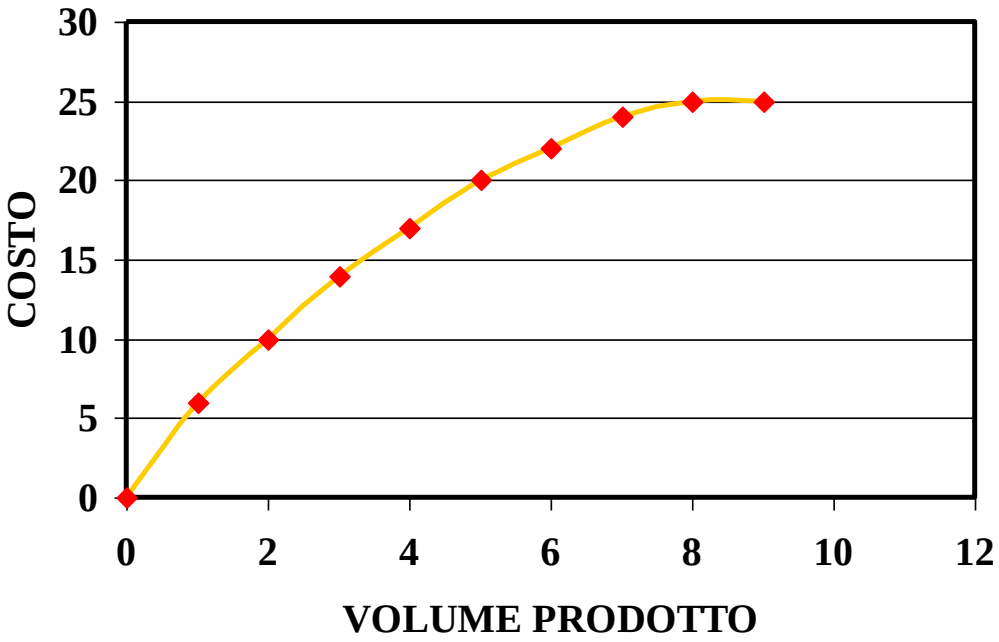
Production costs

Curve of the variables costs (progressive)



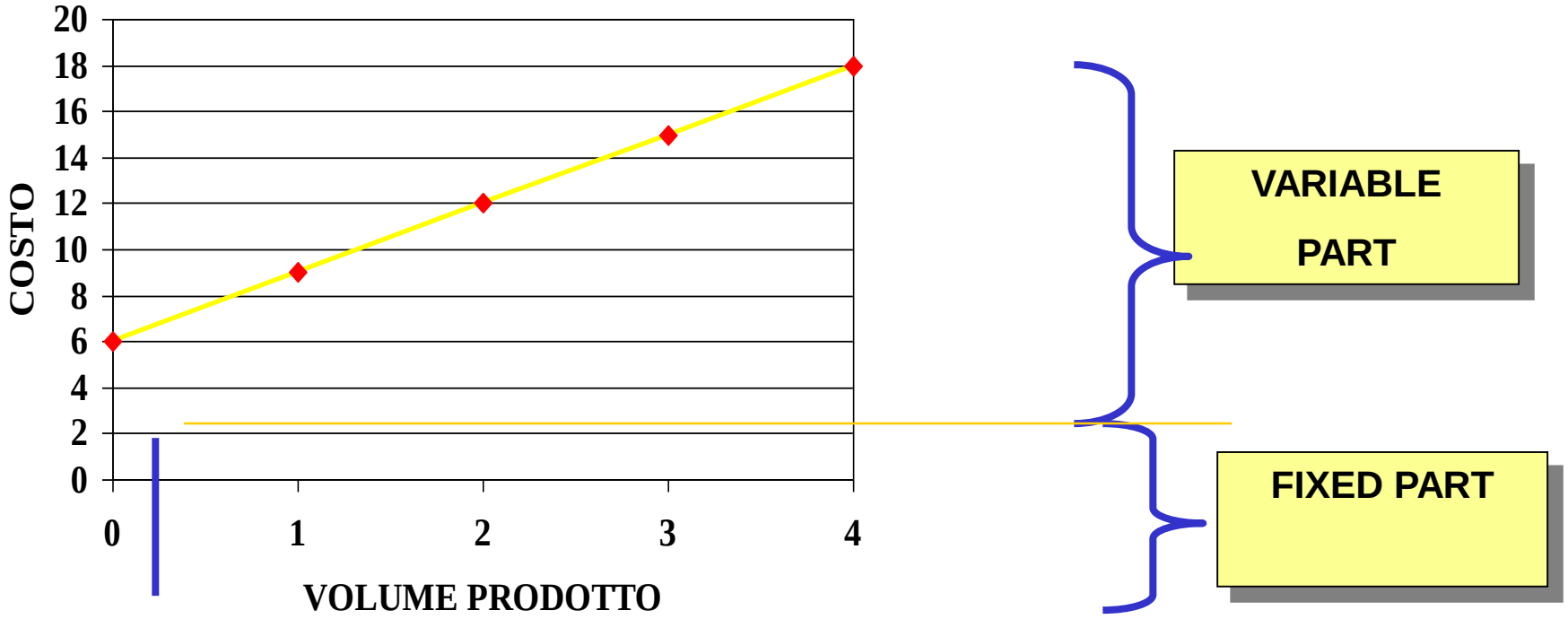
Production costs

Curve of the variables costs (degressive)



Production costs

Curve of the variables costs (semi-fixed)



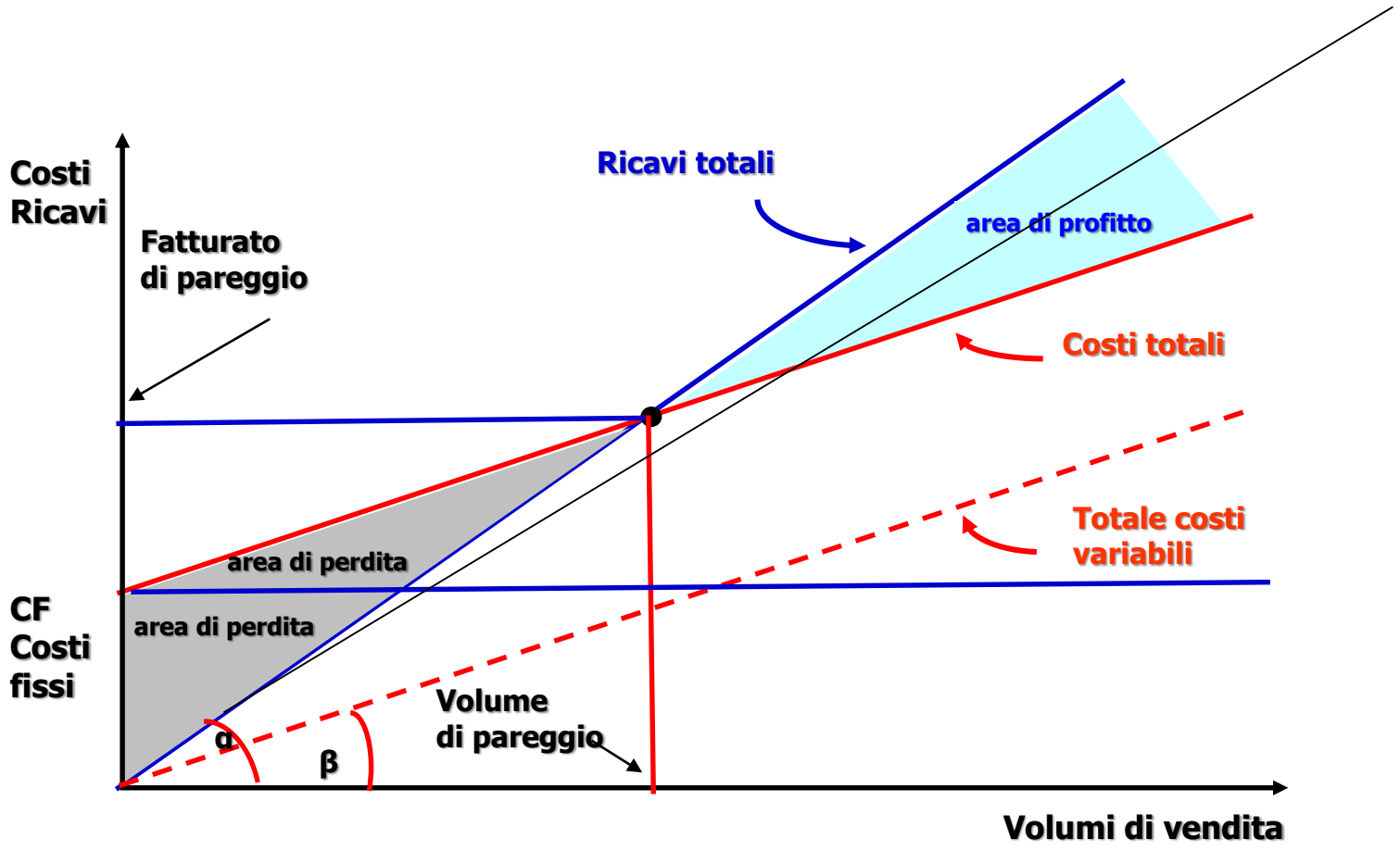
Cost-based pricing

- Cost-plus pricing (in manufacturing)
  - Calculating the cost of producing the product and adding on a fixed percentage profit to the total
- Mark-up pricing (in retailing)
  - A retailer buy in stock and add on a fixed percentage to the bought-in-price (a mark-up) in order to arrive to the shelf price
  - Add up to the average production cost (or to the break-even price) an additional value (= mark-up)
  - It is usually expressed in % of the final price

- Break-even point
  - The break-even point is the level of production at which the costs of production equal the revenues for a product.

- These methods take no account of the marketplace (consumers' perception, competitors prices)
- Circularity: volumes of sales / costs / price / demand

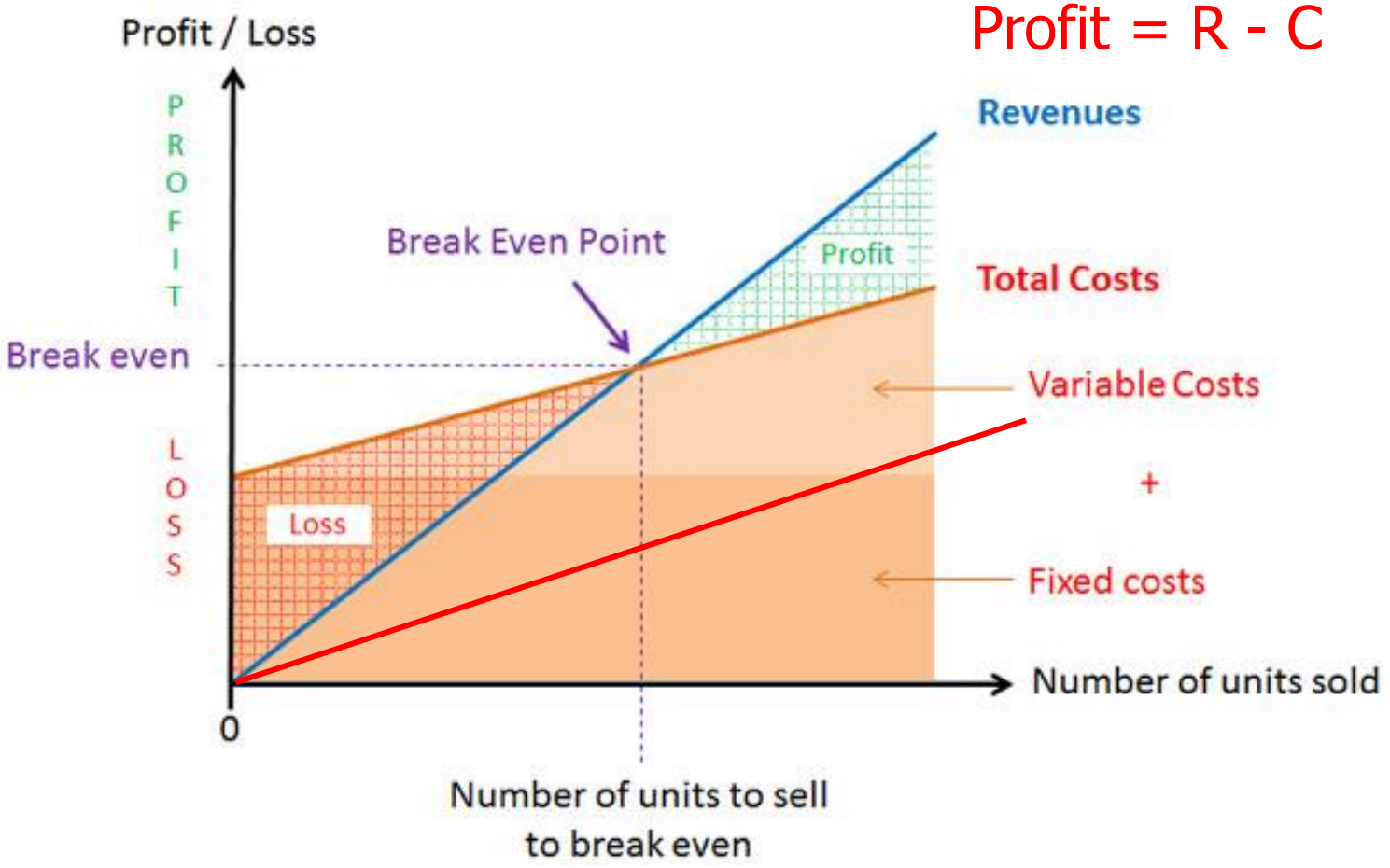
Break-even point



* Sistemi di Controllo Analisi economiche per le decisioni Aziendali – Antony Merchant McGraw-Hill

Break-even point

R = P x Q (volumes)
Profit = R - C



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Break-even price

The break-even price is the price at which the revenues equal the costs (fixed and variables)

Break-even point: Revenues = Total costs = Fixed costs + Variables costs

P x Q = TFC + (Cu x Q) TFC = total fixed cost Cu = Cost x unit

P = CFT/Q + (Cu x Q)/Q = CFT/Q + Cu

Break-even volume (quantity):

P x Q = CFT + (Cu x Q) ; CFT = (P x Q) – (Cu x Q); CFT = Q (P-Cu)

Q = CFT / (P-Cu)

P-Cu = Contribution margin

Target price

Target price: price that ensures the achievement of a defined gross operating income.

OI = Revenues – Total costs = Revenues – (Fixed costs + Variables costs)

$OI = (P \times Q) - CFT - (Cu \times Q)$

$P \times Q = OI + CFT + (Cu \times Q)$

$P = OI/Q + CFT/Q + (Cu \times Q)/Q$ $\quad P = CFT/Q + Cu$

Target $P = [(CFT + OI) / Q] + Cu$

The mark-up

Add up to the average production cost an additional value (= mark-up)

P = AC + mark-up AC = Average Cost

The mark-up is expressed as a function of the price:

P = AC + (P x mark-up %) => AC = P x (1 – mark-up%) =>

P = AC / (1-mark-up %)

Example: bought-in-price 3€; mark up 50%

Price on the shelf (selling price)?

P = 3 / 1-50% = 3 / 0,5 = 6€

Exercises

1) Given a cost of acquisition per unit of 5€ calculate the selling price, considering:

- 1a) a mark-up equal to 30%
- 1b) 22% VAT

2)

2a) Calculate the break-even price of a company with the maximum production capacity (volume of production) of 300,000 bottles per year, in the following hypothesis:

- Use of 100% of the maximum production capacity
- Use of 70% of the maximum production capacity
- Use of 50% of the maximum production capacity

Fixed costs: € 200.000

Average cost per unit (variable cost): € 2 per bottle

2b) Calculate the target price necessary for achieving an operating income of € 100.000 (with the different hypothesis of use of the maximum production capacity)

2c) Calculate the total revenues at the three target prices

The price

Price modification

(Price Discrimination and Differentiation)

- A unique price for any situation?

- Geographical differentiation of the price
- Discounts, rebates and promotional prices
- Price Discrimination based on
  - Customers
  - Product version
  - Product image
  - Location
  - Time

The price

Price modification:

- Geographical differentiation of the price

- Price at source FOB (free on board); CIF (cost of insurance and freight)
- Price ex-works / free at destination
- Uniform delivery price: the same price regardless the distance
- Price per zones: higher prices for more distant locations
- Price from a base point: identify a reference city (or port)
- Absorption pricing: the transportation costs are charged to the seller

Prices FOB and CIF

Tabella 5.13 Spese a carico del venditore nei prezzi FOB e CIF

	Prezzi FOB	Prezzi CIF
Assicurazione*	No	Si
Carico prodotto	Si	Si
Dogana export	Si	Si
Trasporto fino al porto di partenza e carico nave	Si	Si
Trasporto fino al porto di arrivo	No	Si
Scarico nave e trasporto fino a destinazione	No	No
Dogana import	No	No
Tasse importazione	No	No

* Se richiesta

M. Gregori
Il Marketing del Vino
EdiSES

The price

Price modification:

- Discounts and rebates
  - Cash discounts
  - Volume / quantity discounts
  - Trade discounts
  - Seasonal discounts
  - Rebates: for exchange or promotional
- Promotional prices:
  - loss leader products; special prices for events; low interest rate financing; additional guaranties; psychological discounts

The price

Price manoeuvre:

- Price reduction:
  - Productive overcapacity
  - Decreasing of the market share
  - Cost leadership strategy
  - Recession
- Price increase:
  - Increase of costs
  - Excess demand
  - Introduction of new features

The price

A model for price determination:

1. Identify the target market
2. Estimate the market potential
3. Product positioning
4. Define the marketing mix
5. Estimate of the price sensitivity (demand)
6. Estimate costs
7. Review competitive offerings (and prices)
8. Select pricing objectives and policies
9. Determine the price structure