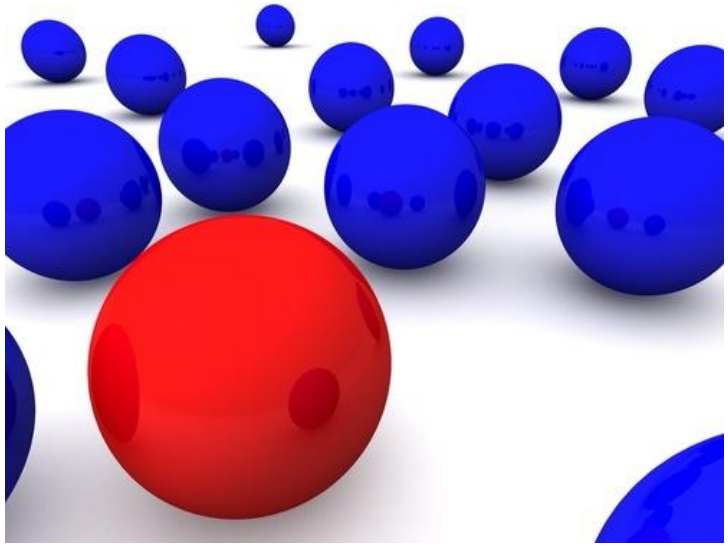
The Model of Perfect Competition



A2 Microeconomics

Tutor2u, November 2013

Key issues

- The meaning of perfect competition
- Characteristics of perfect competition
- Price and output under competition
- Competition and economic efficiency
- Wider benefits of competition in markets

Assumptions Behind a Perfectly Competitive Market

- Many suppliers - each with an insignificant share of the market
- Each firm is too small to affect price via a change in market supply – each business is a **price taker**
- Identical output produced by each firm – i.e. **homogeneous products** that are **perfect substitutes** for each other
- Consumers have **complete information** about prices

Assumptions Behind a Perfectly Competitive Market

- **Transactions are costless** - Buyers and sellers incur no costs in making an exchange
- All firms (i.e. industry participants and new entrants) have **equal access to resources** (e.g. technology)
- **No barriers to entry & exit of firms** in long run – the market is open to competition from new suppliers
- **No externalities** in production and consumption

Examples of Perfectly Competitive Markets?

- It is rare to find a pure example of perfect competitions
- But there are some close approximations:
  - Foreign exchange dealing
    - Homogeneous product - US dollar or the Euro
    - Many buyers & sellers
    - Usually each trader is small relative to total market and has to take price as given
    - Sometimes, traders can move currency markets

Examples of Perfectly Competitive Markets?

Agricultural markets

- Pig farming, cattle
- Farmers markets for apples, tomatoes
- Wholesale markets for vegetables, fish, flowers
- Street food markets in developing countries

Approximations to perfect competition

The law of one price with tens of bookmakers on a race course

Finding market clearing prices at a fish auction

Approximations to perfect competition

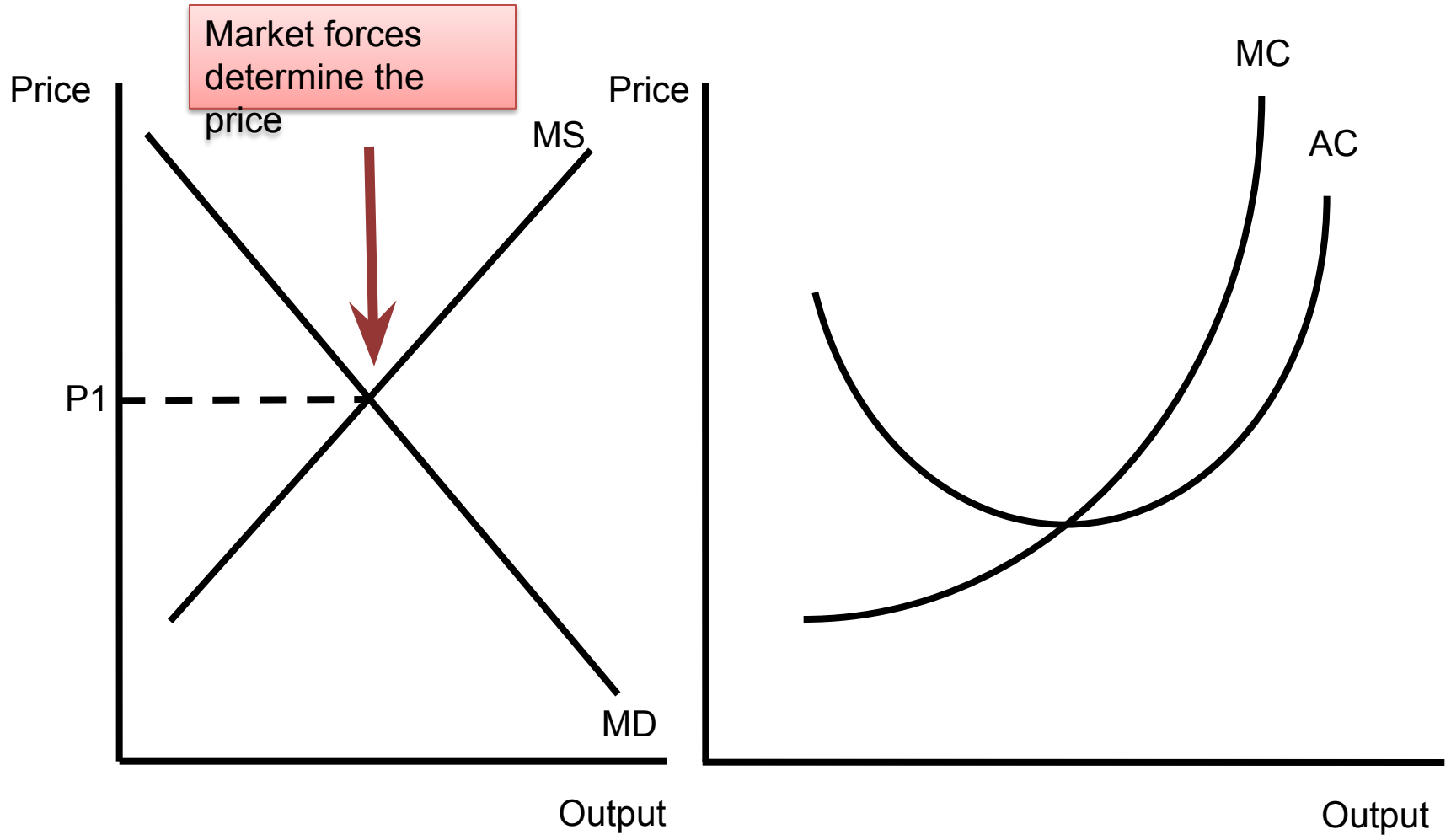
Chinese restaurants in Chinatown London

Fruit sellers at a weekly local market

Price Taking Firms

- Competitive firms in competitive markets have little direct influence on the ruling market price
- Examples of price-taking behaviour:
  - Local farmers selling to large supermarkets
  - A local steel firm selling as much as it can at the ruling international price of steel
- The **law of one price** may hold true – most of the existing firms sell at the prevailing price

Short run price and output



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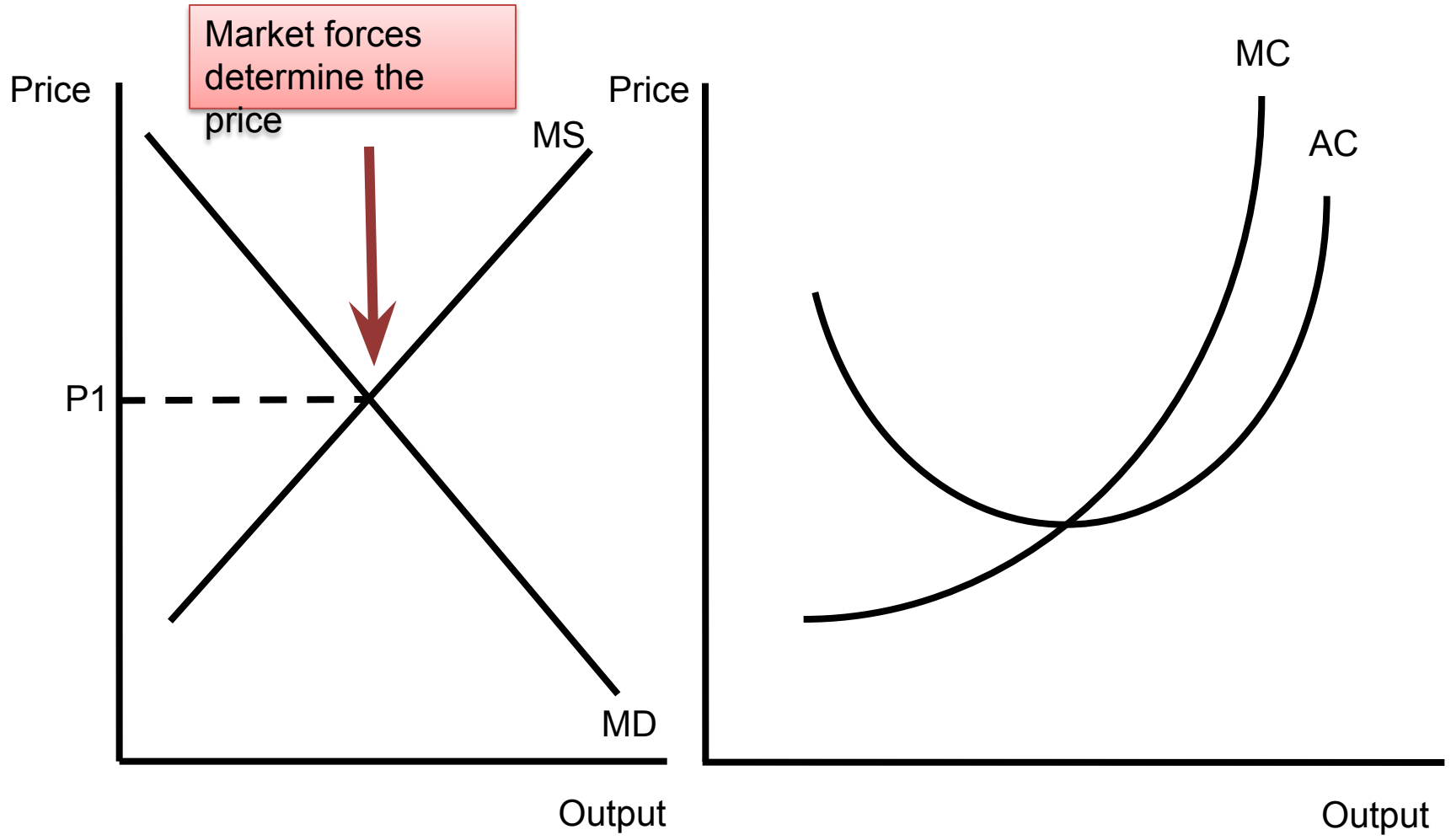

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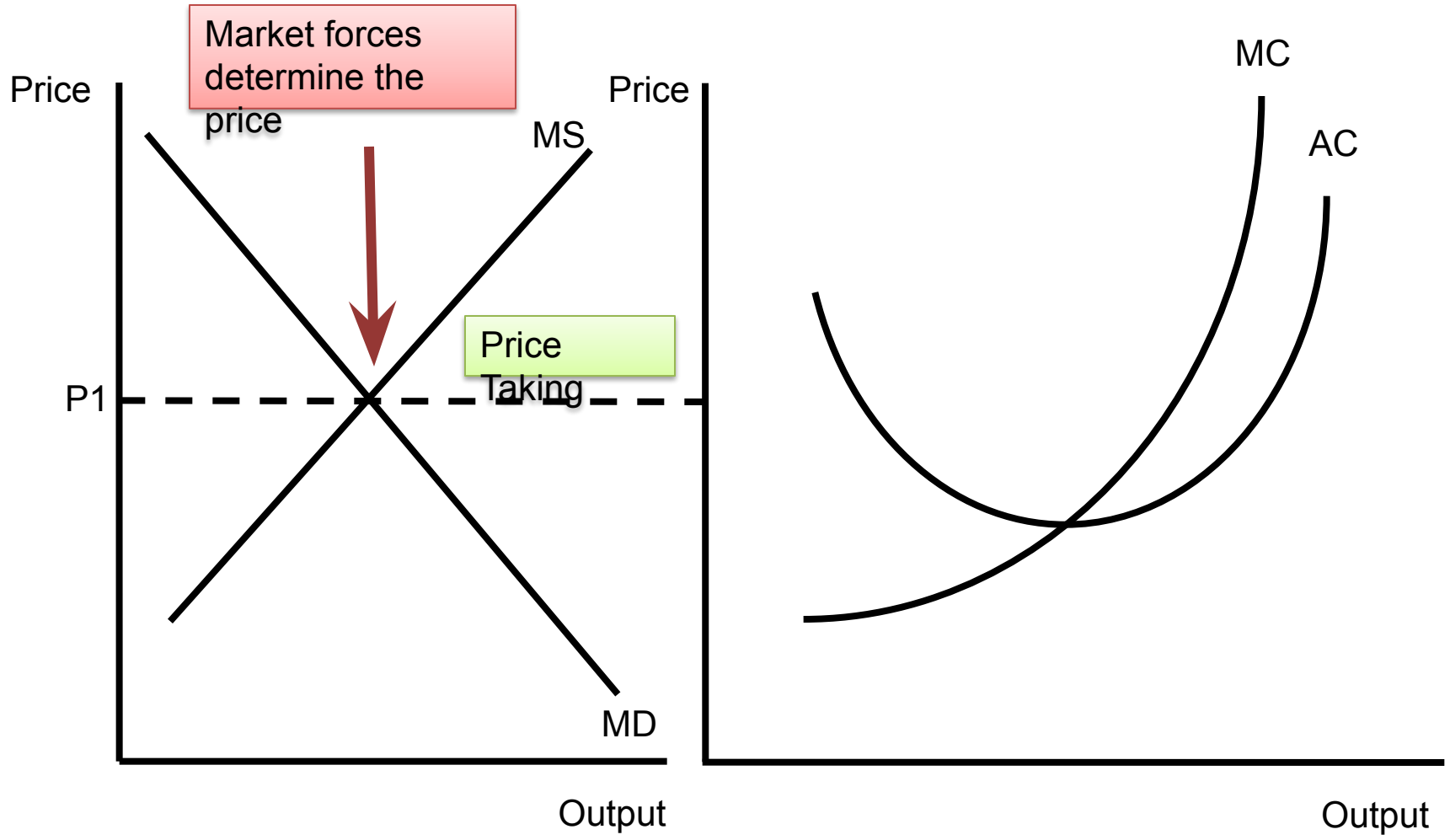

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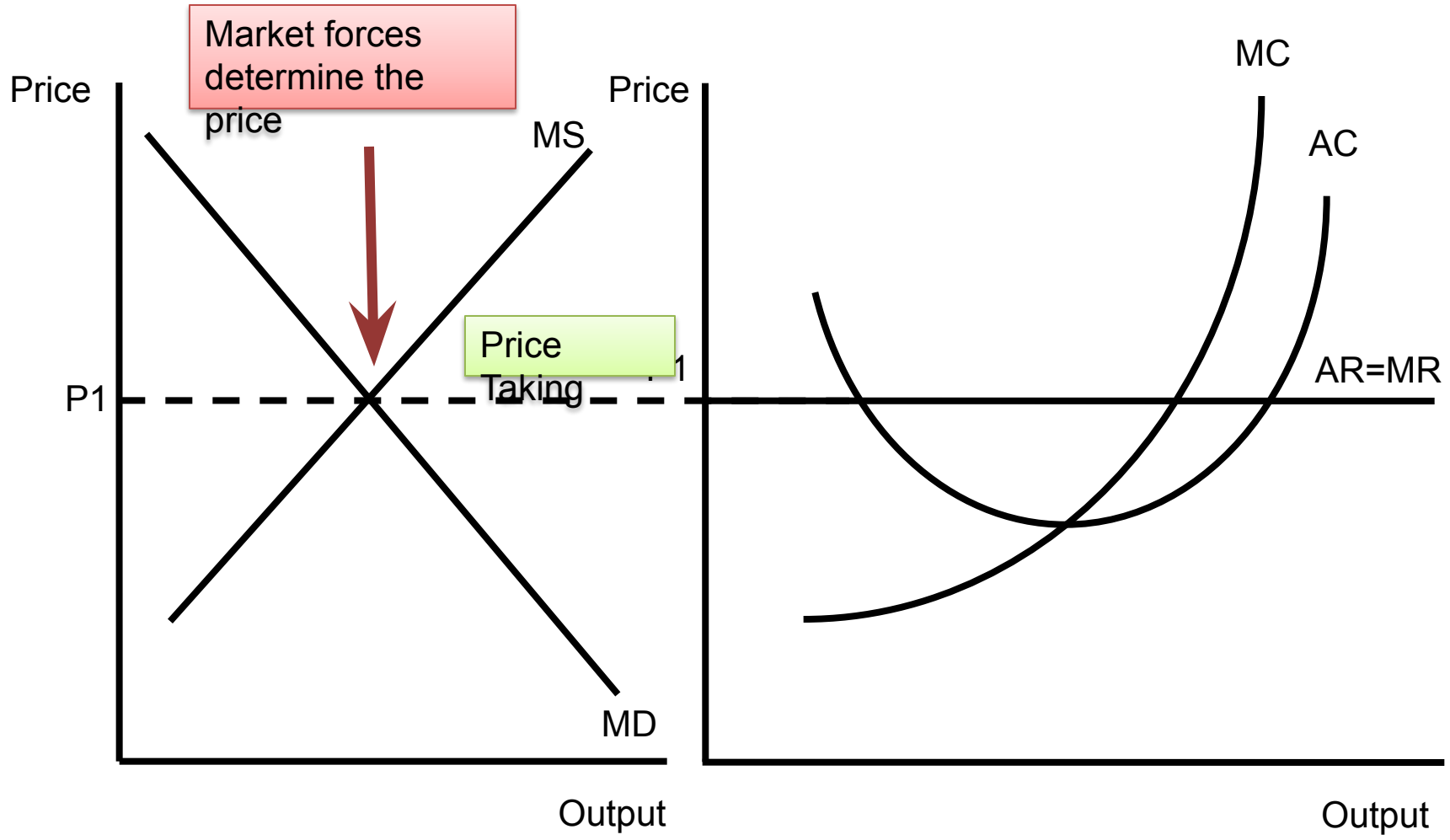

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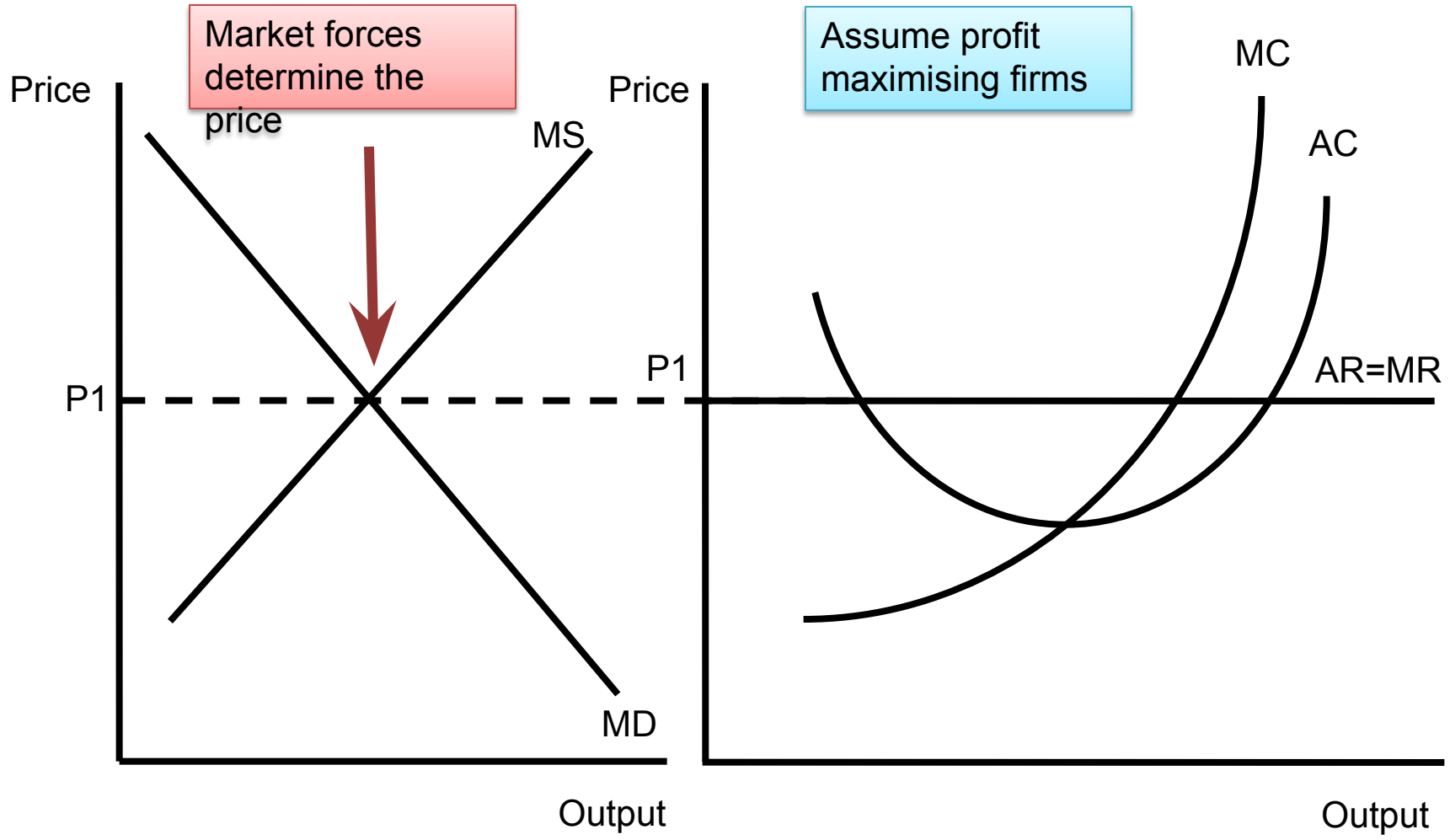

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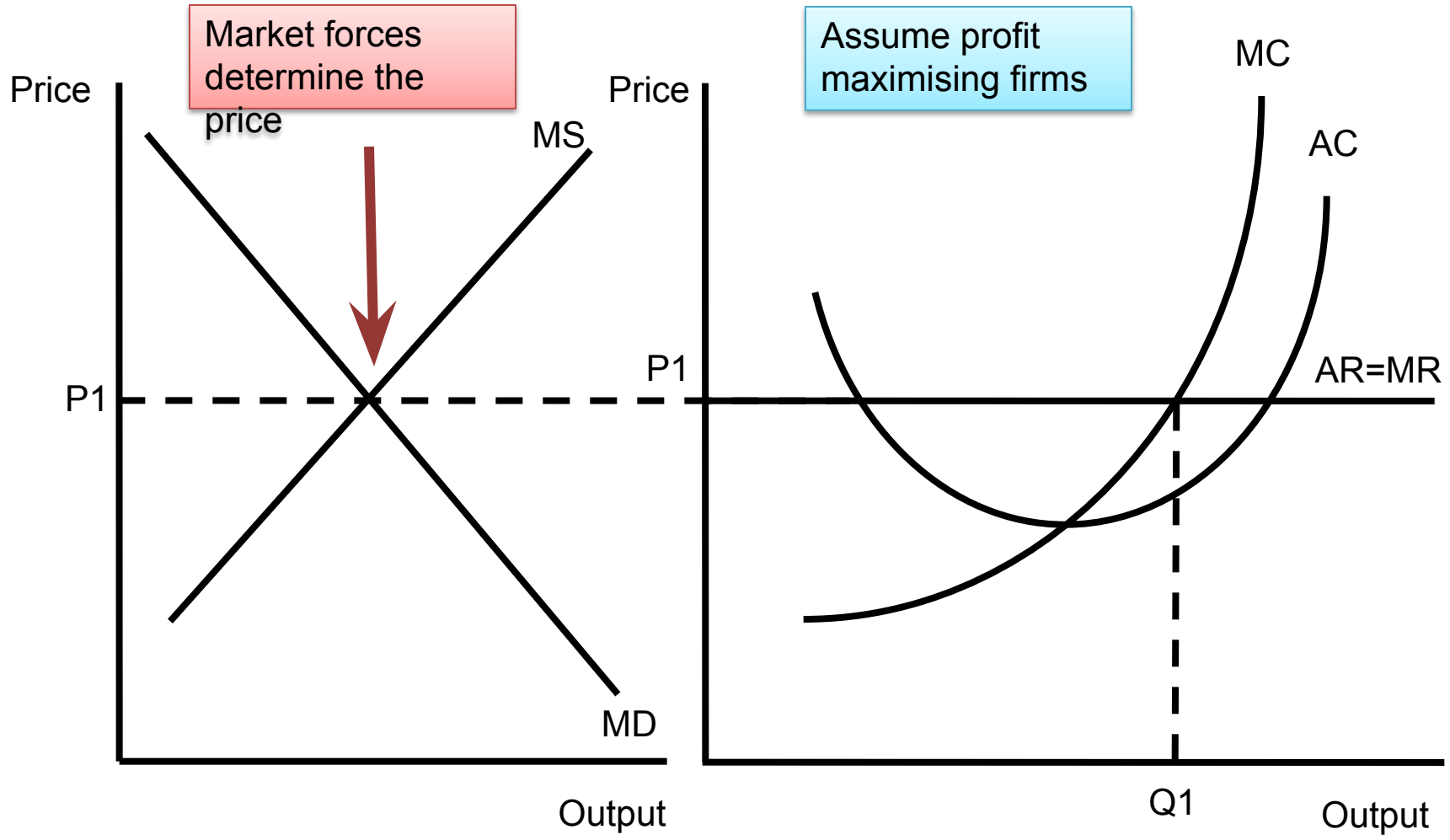

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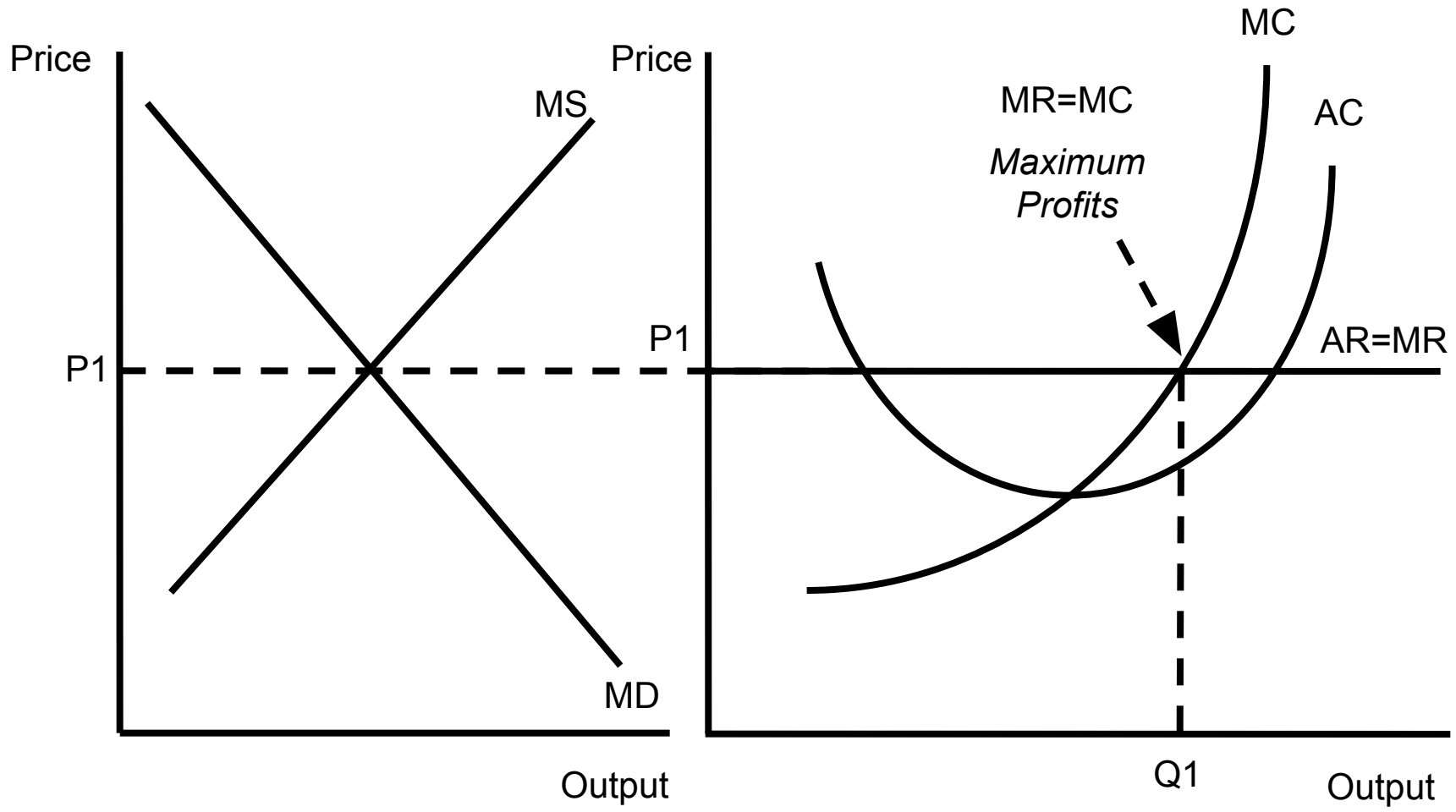

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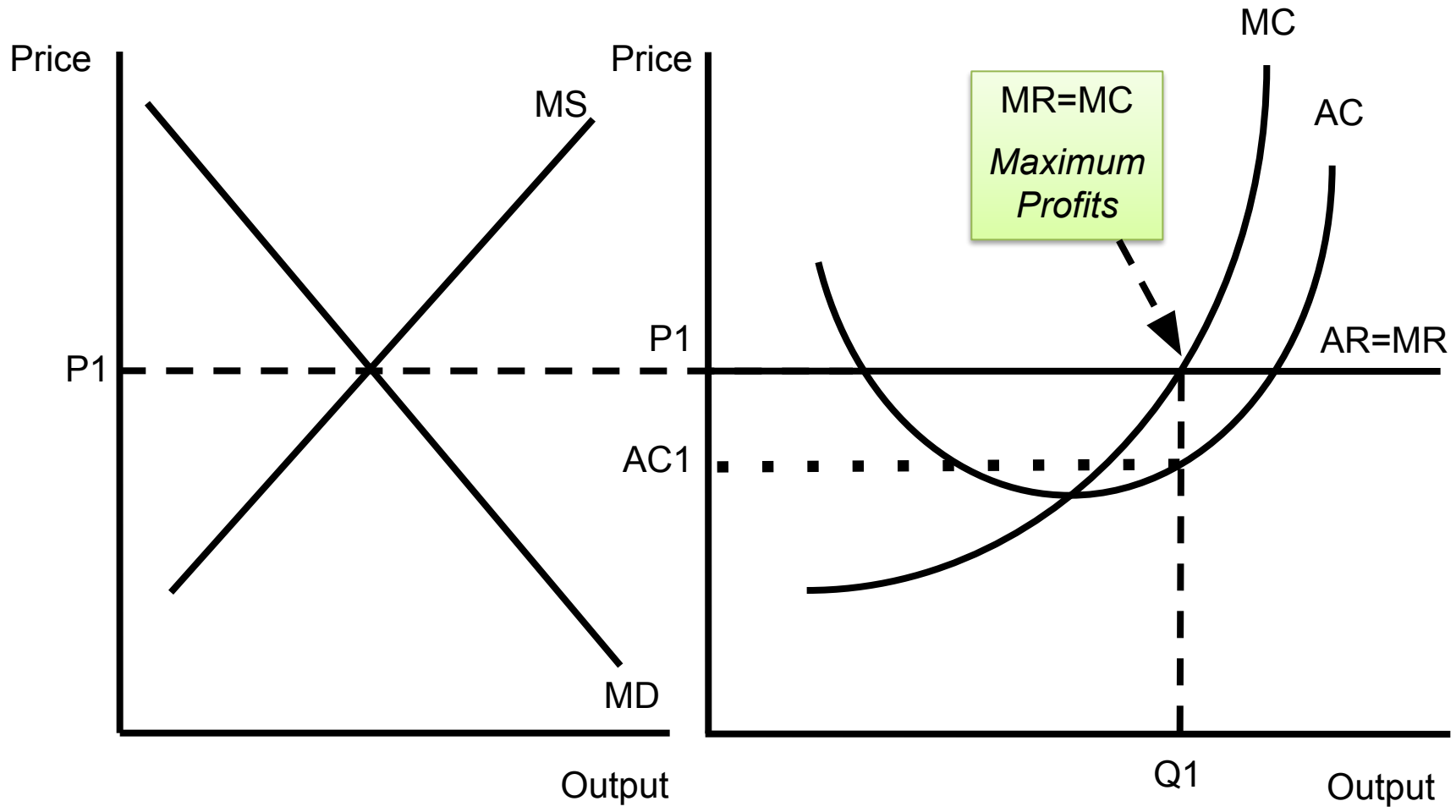
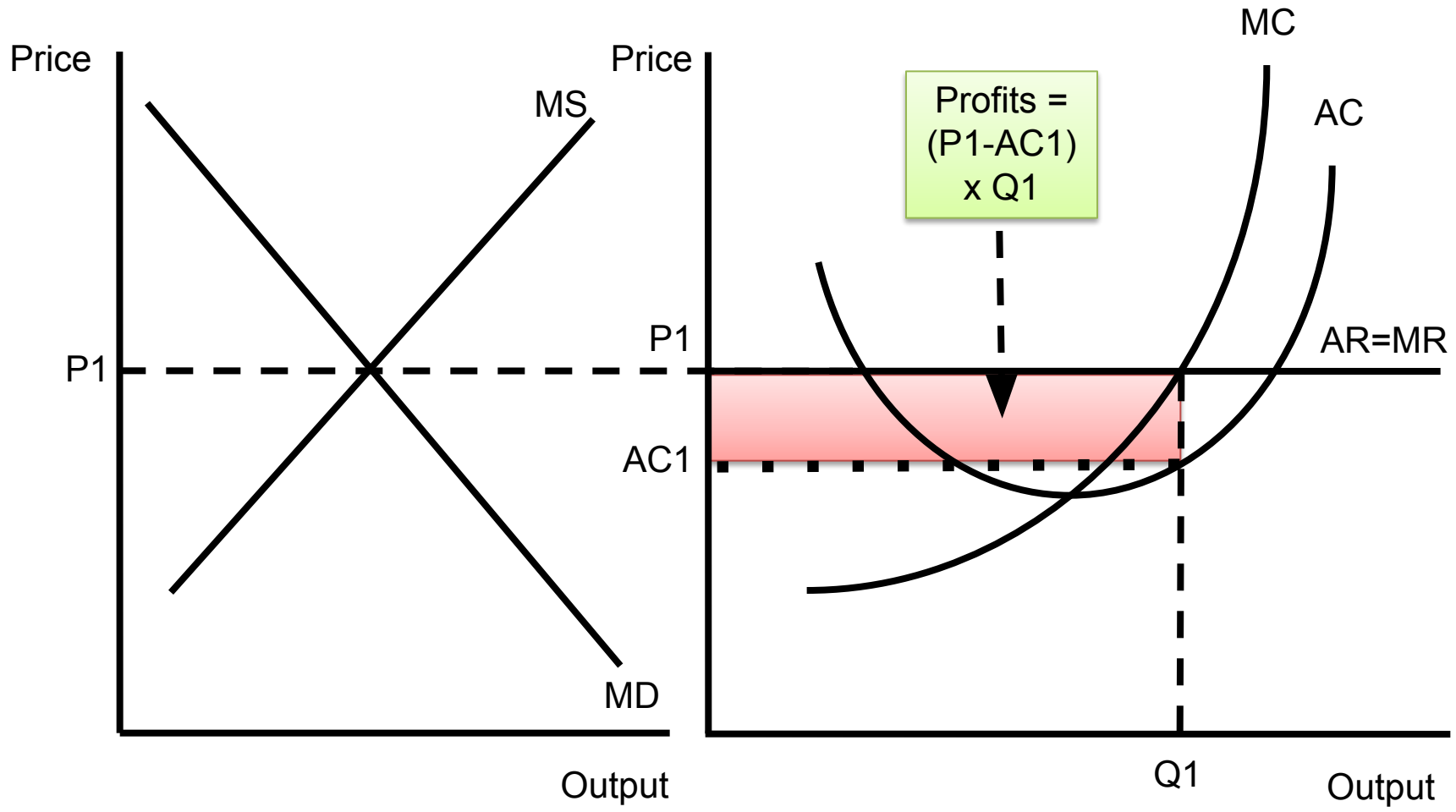
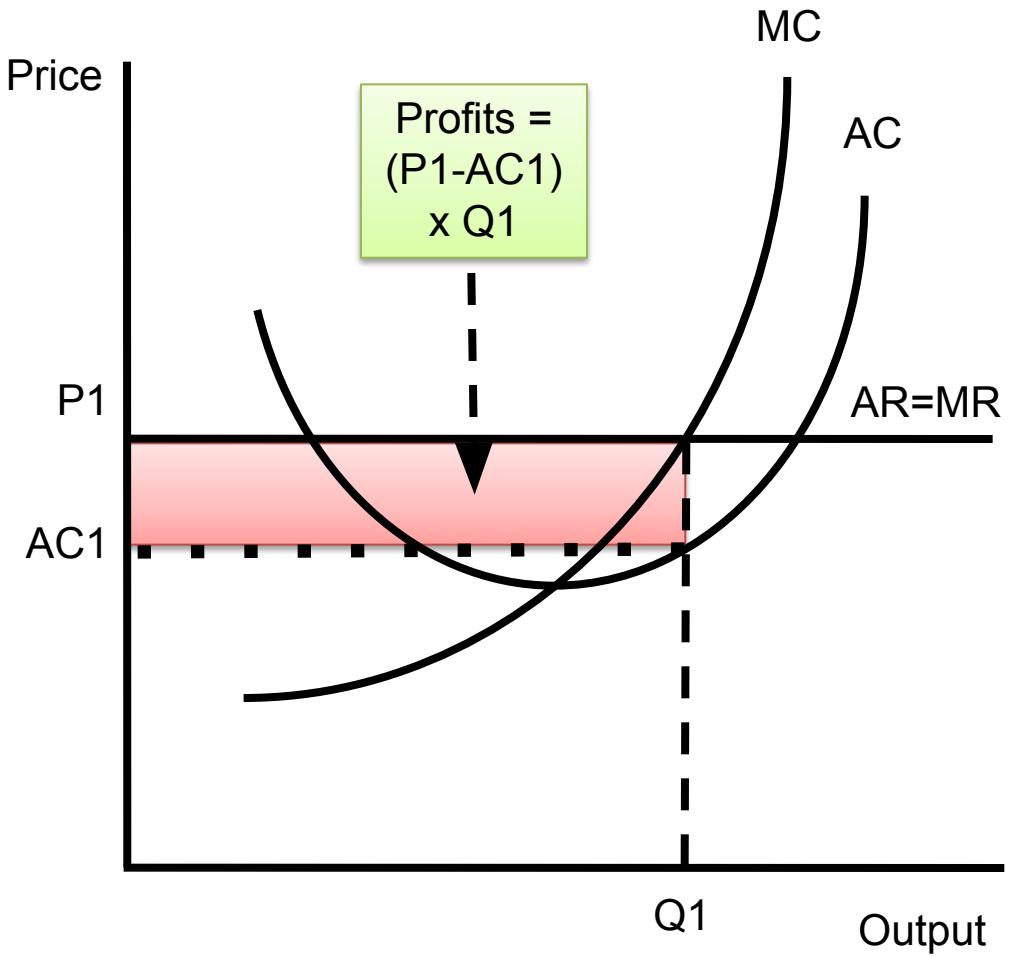


Short run (abnormal) profits



Abnormal profits

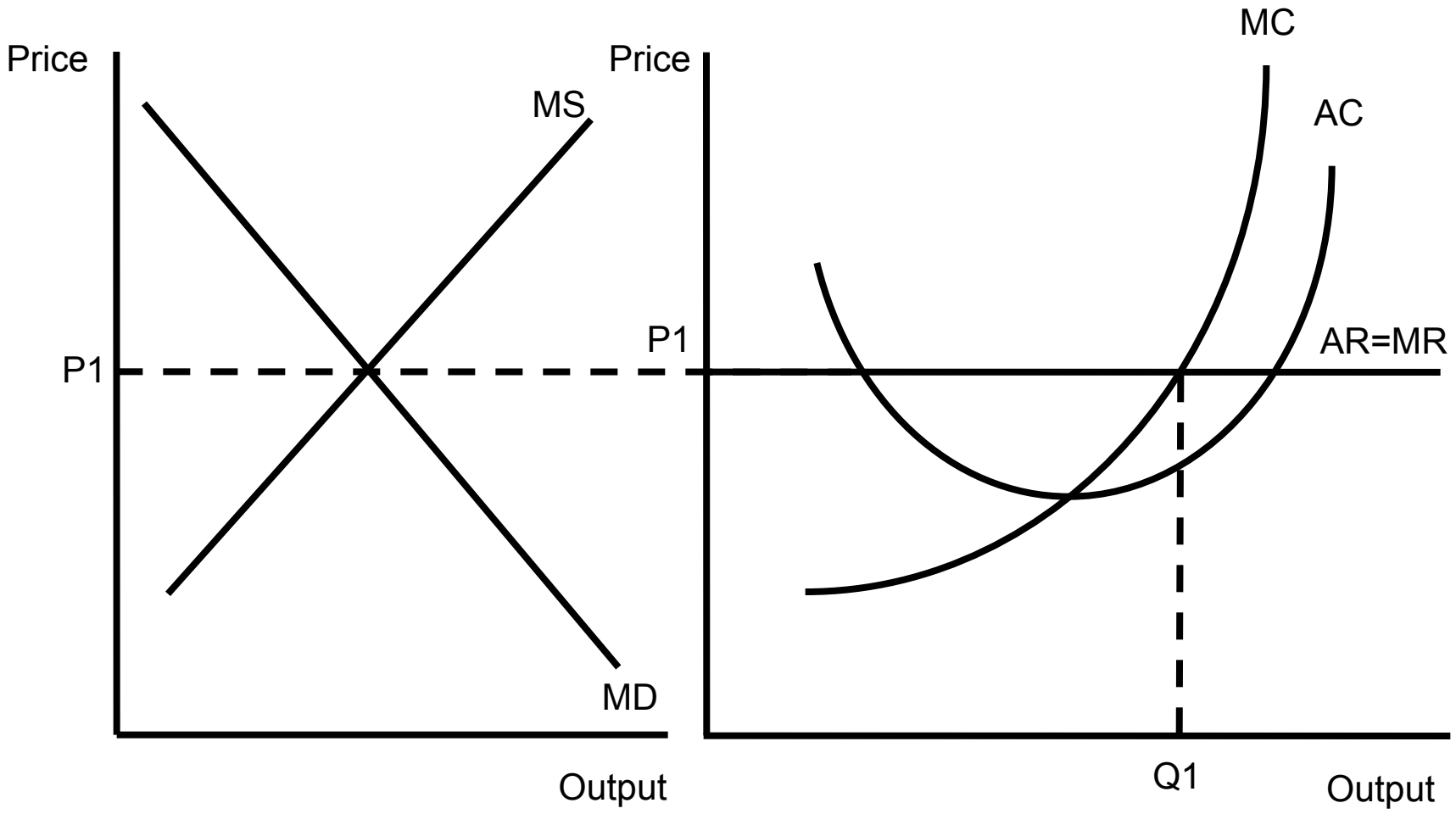


Possible for firms in a perfectly competitive market to make abnormal (i.e. Supernormal) profits in the short run

This is where price > AC

Remember that normal profit is assumed to be included in the AC curve

Effect of a rise in market demand



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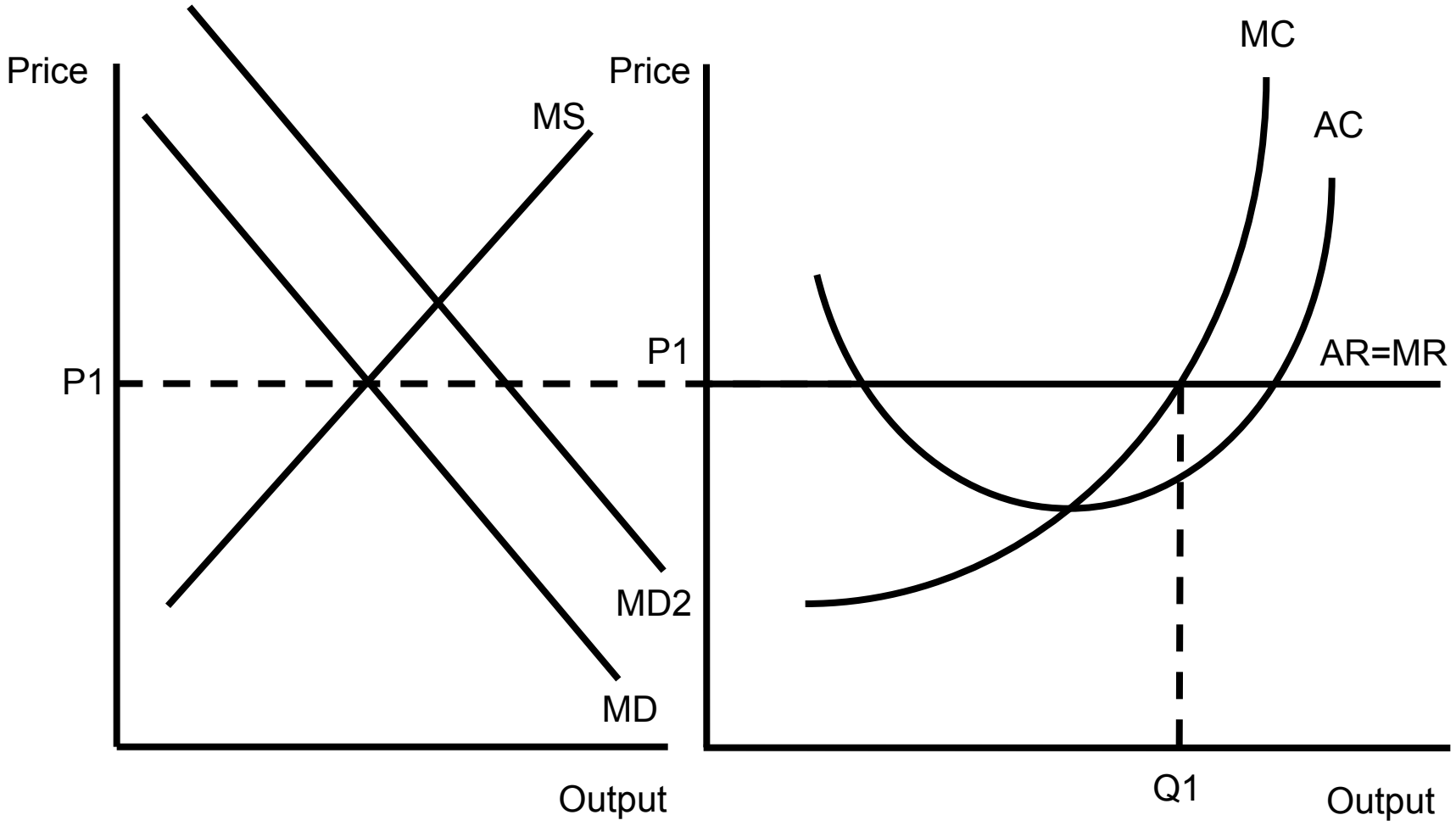

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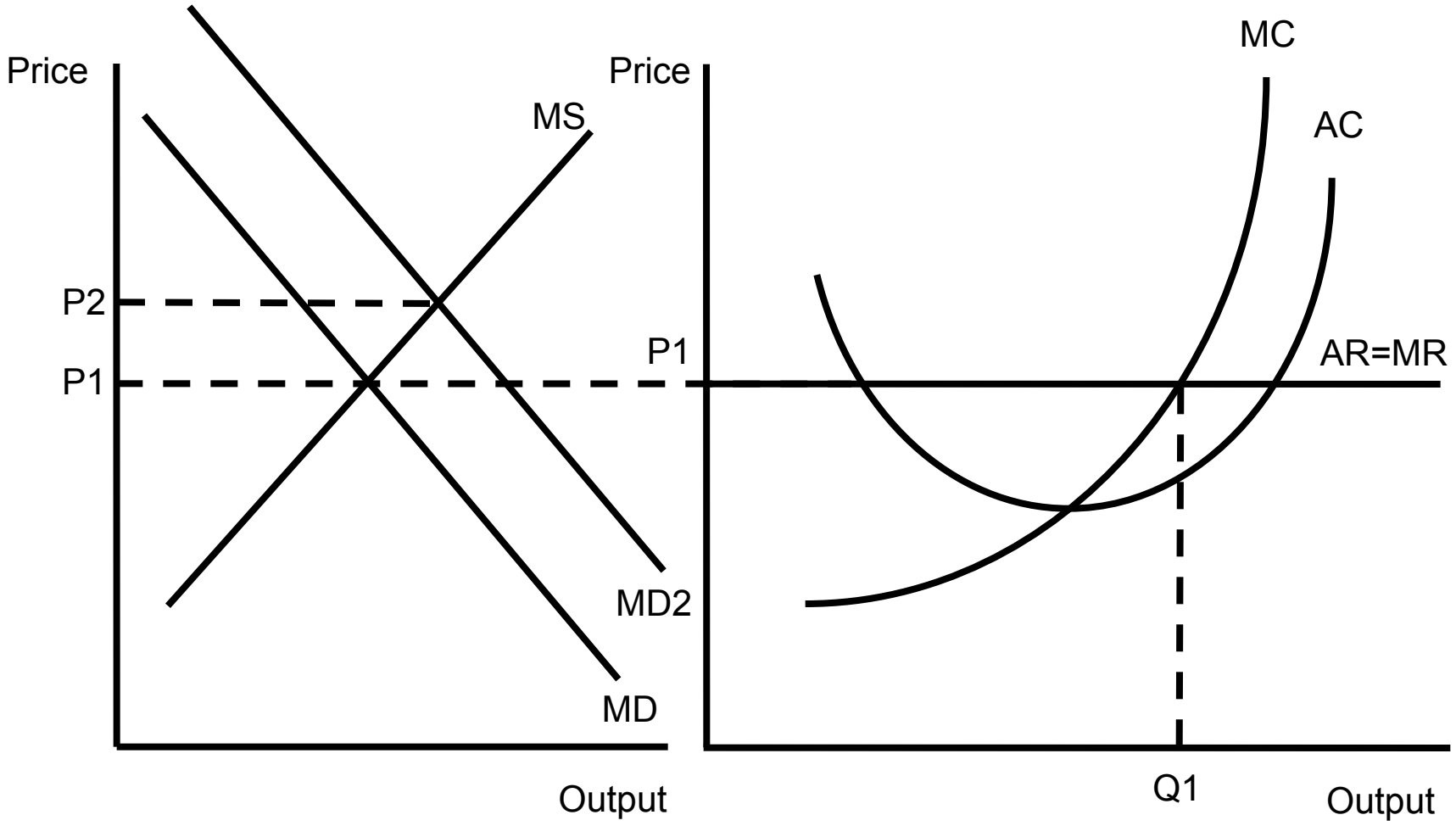

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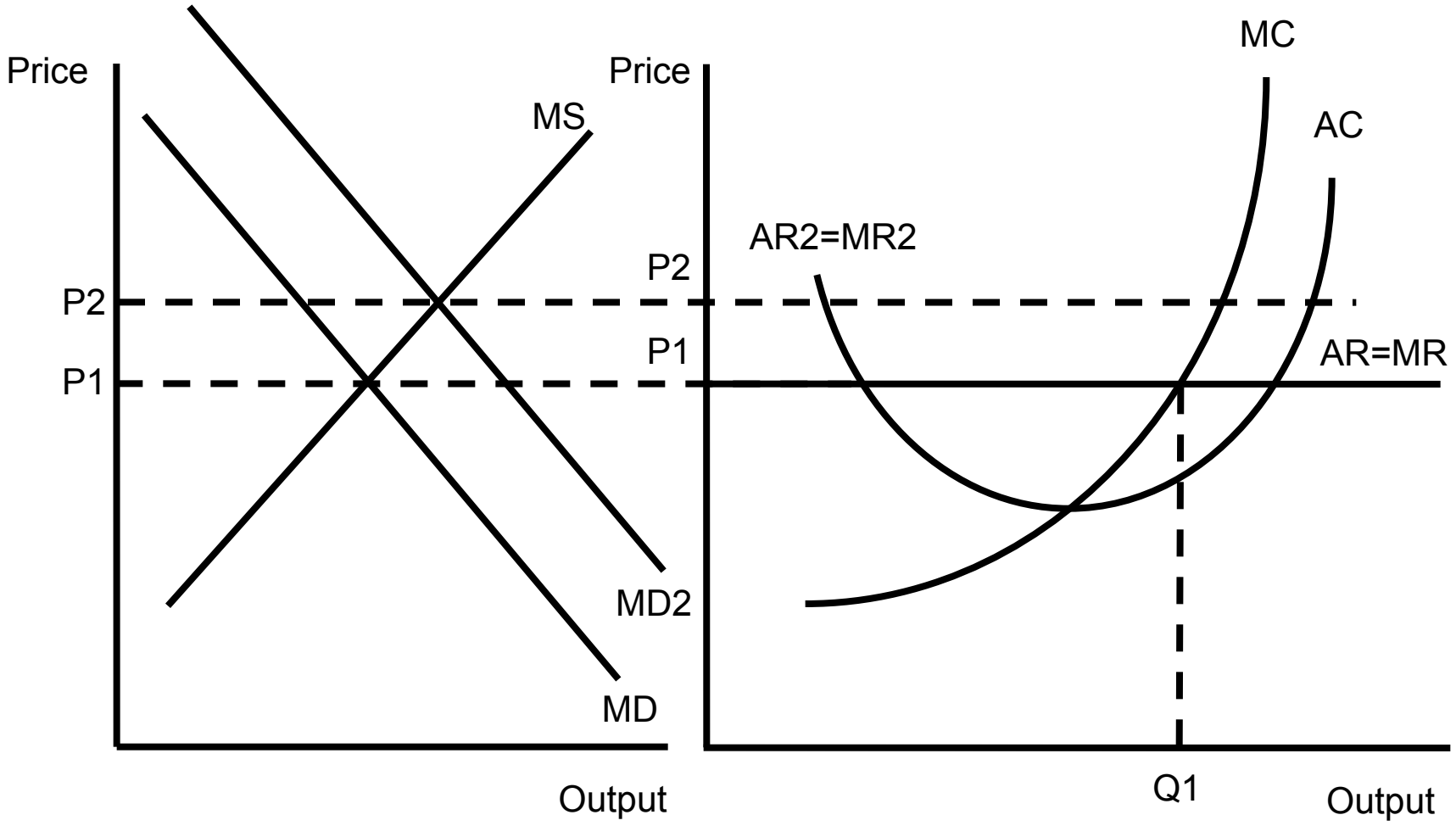

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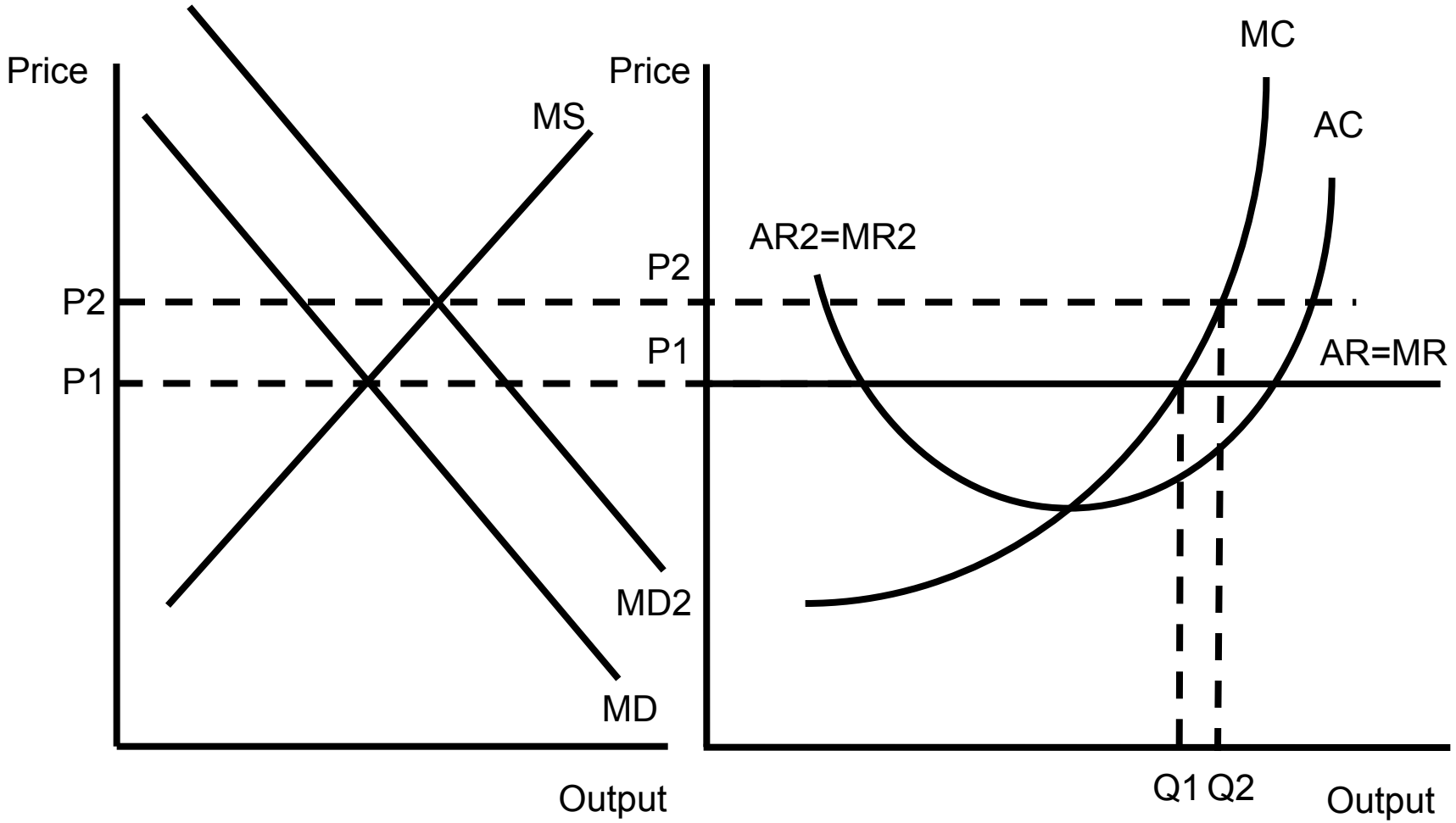

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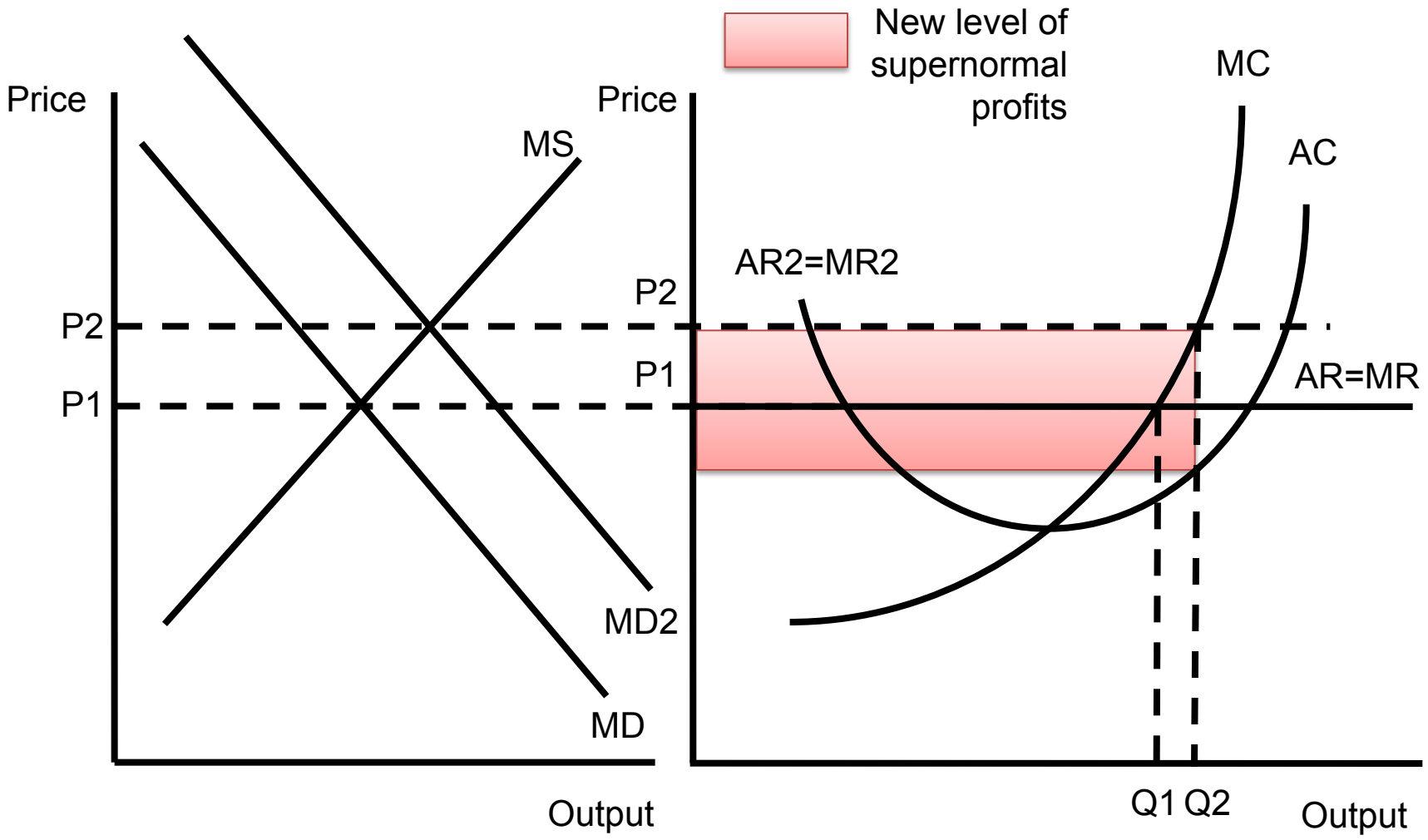
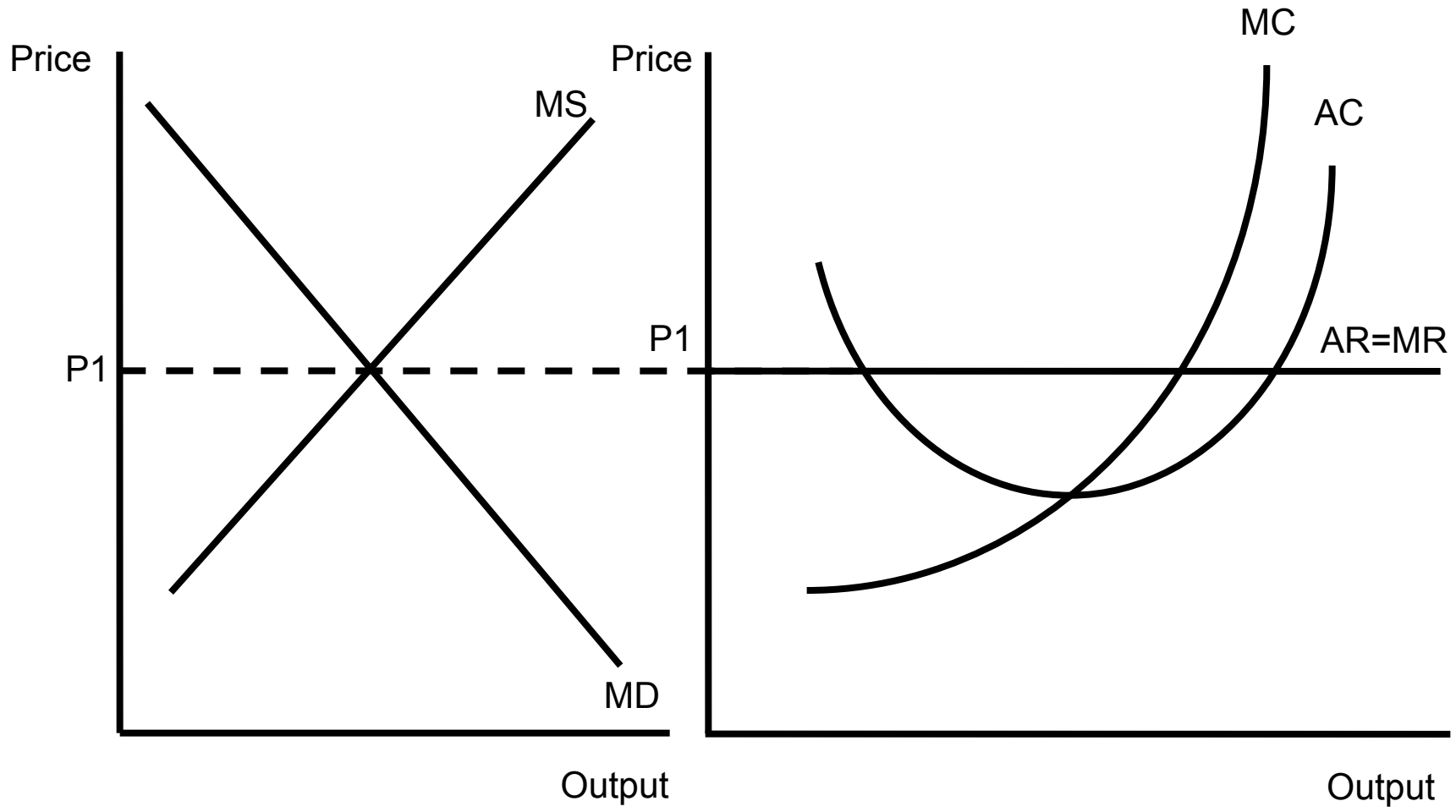


What is a Long Run Equilibrium?

- Usual interpretation of a long run equilibrium is as follows:
- (1) The quantity of the product supplied in the market equals the quantity demanded by all consumers
- (2) Each firm in the market maximizes its profit, given the prevailing market price
- (3) Each firm in the market earns zero economic profit (i.e. normal profit) so there is no incentive for other firms to enter the market

You Tube video on perfect competition

Long run equilibrium price



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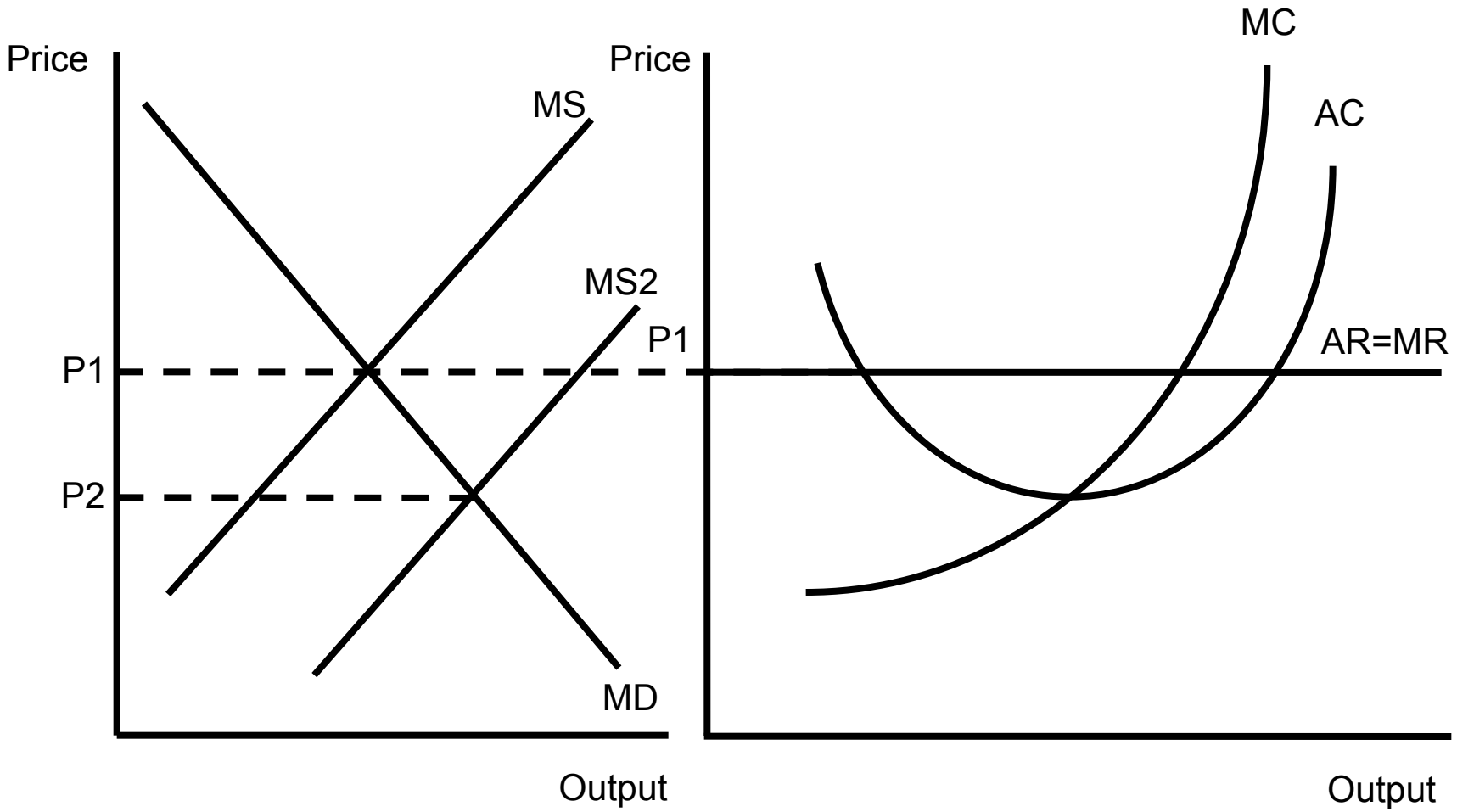

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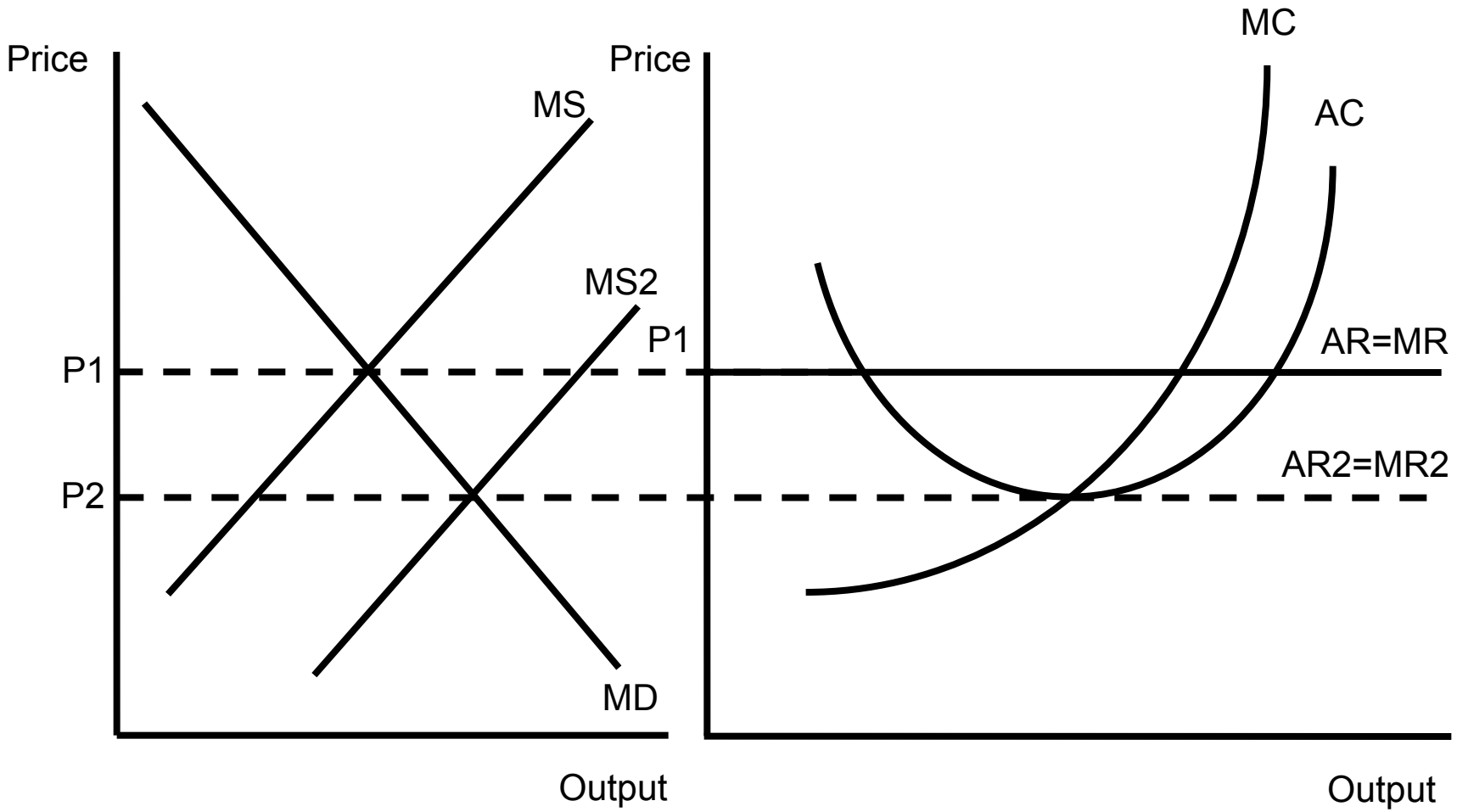

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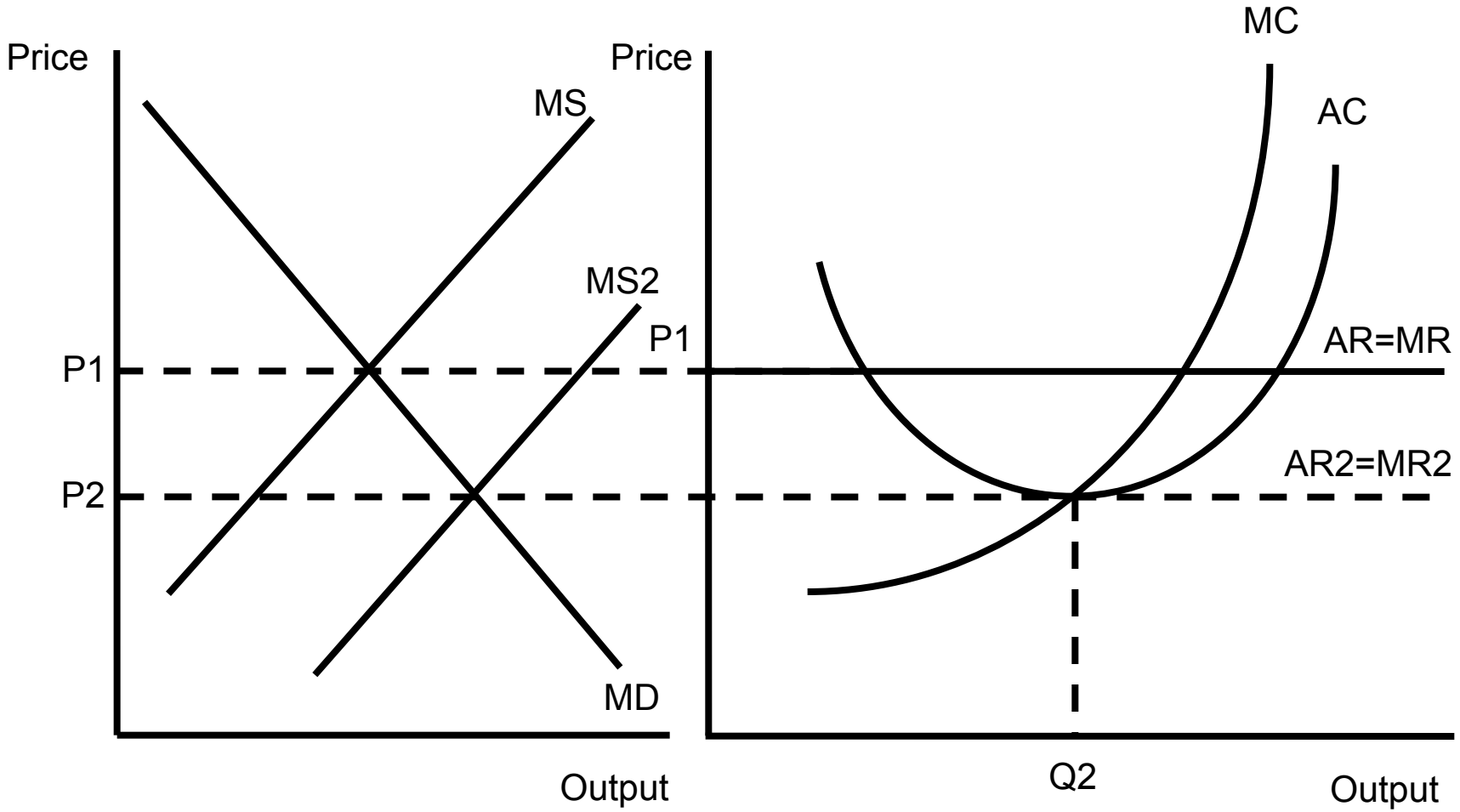
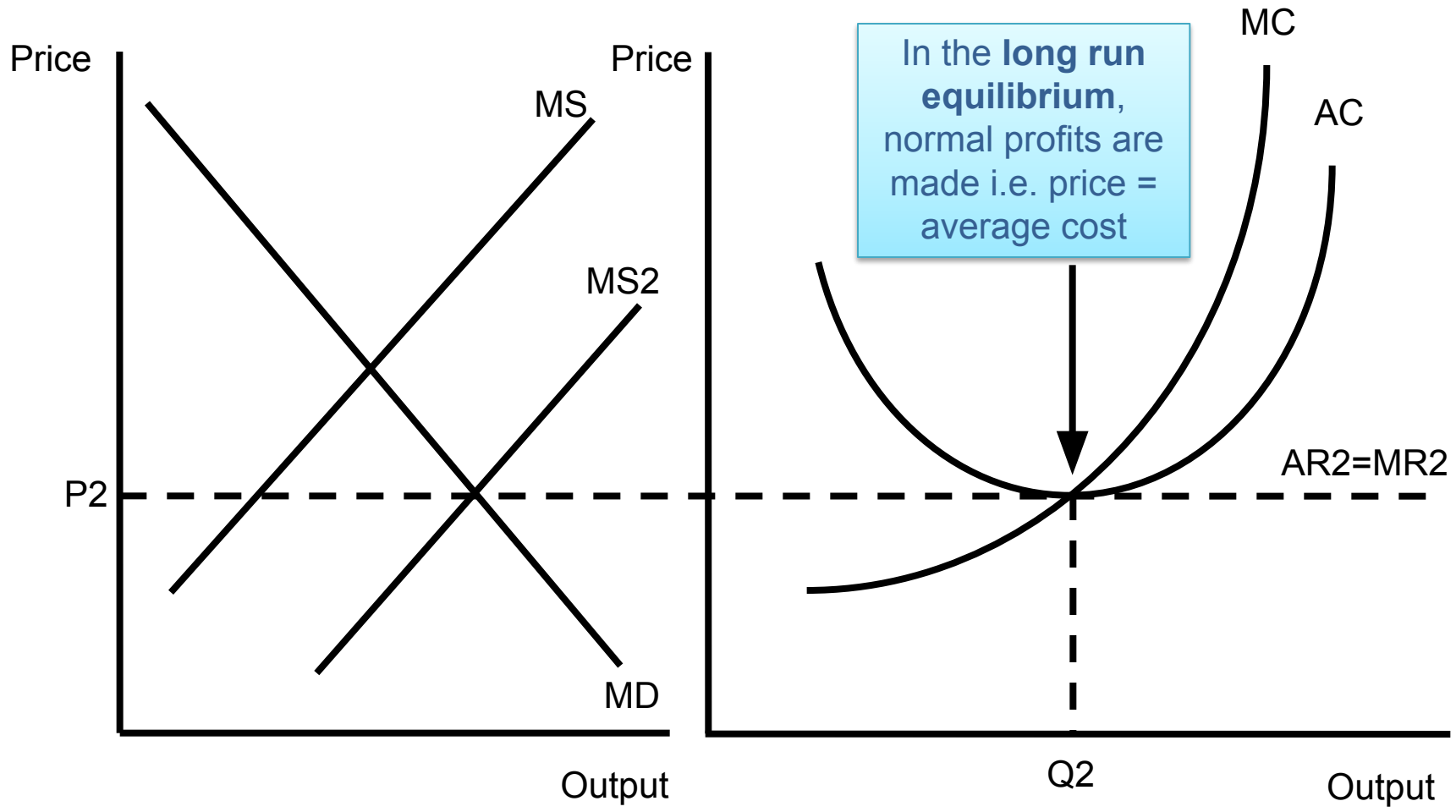


The long run equilibrium

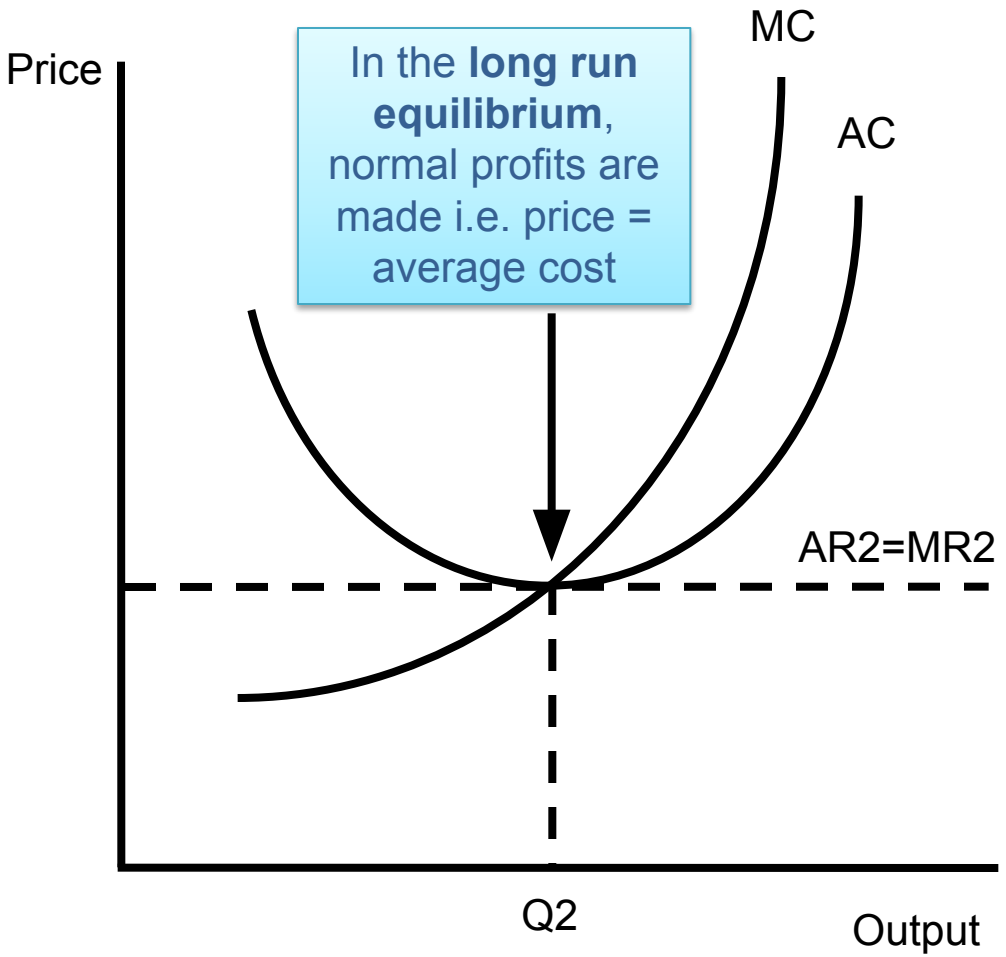


The long run equilibrium

Normal profit is the profit just sufficient to keep a business in their current market in the long run

It is also the opportunity cost of capital

Profits act as an incentive for enterprise

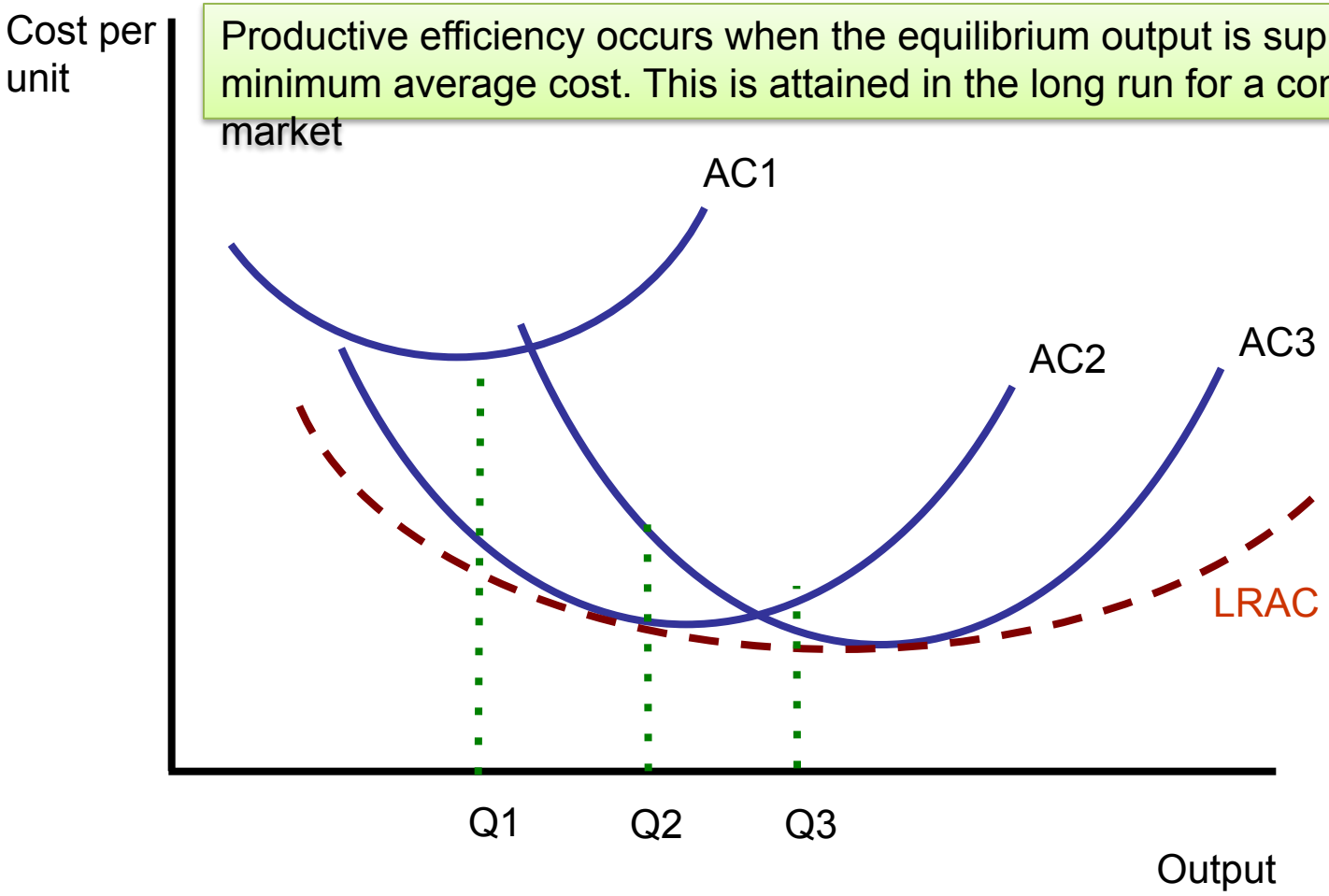


Competition and Economic Efficiency

- Economic efficiency has several meanings:
  - Productive efficiency
    - when output is produced at the lowest feasible average cost (either in the short run or the long run)
  - Allocative efficiency
    - Achieved when the market provides goods and services that meet consumer needs and wants
    - Achieved when the price of output reflects the true marginal cost of production
    - This is where **price=marginal cost**

Productive Efficiency

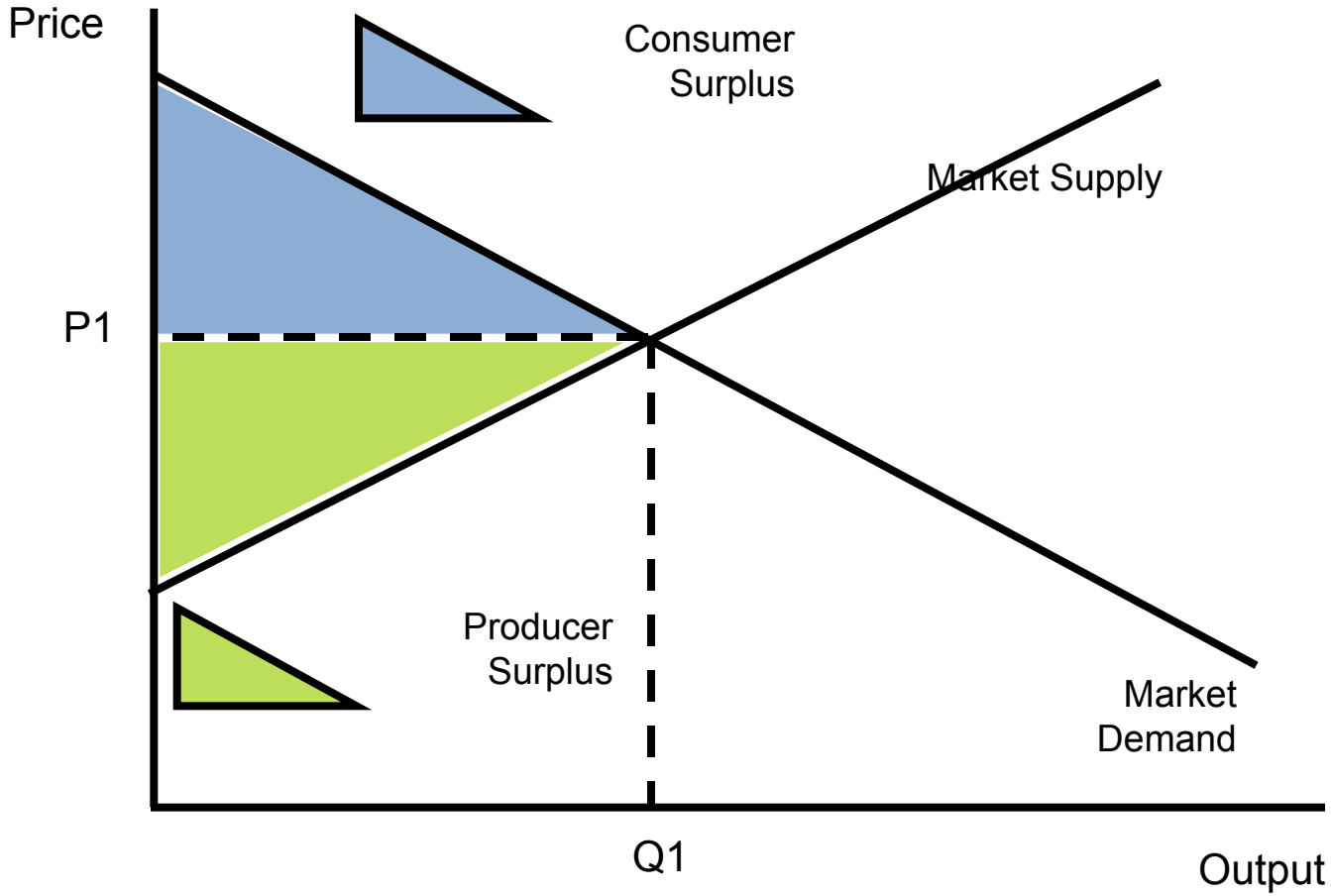
Productive efficiency occurs when the equilibrium output is supplied at minimum average cost. This is attained in the long run for a competitive market



Allocative efficiency

- Allocative efficiency
  - achieved when it is impossible to make someone better off without making someone else worse off
- Also called Pareto Optimality
- No trades are left that would make one person better off without hurting someone else
- Occurs when price = marginal costs of production
- This occurs in the long run under perfect competition

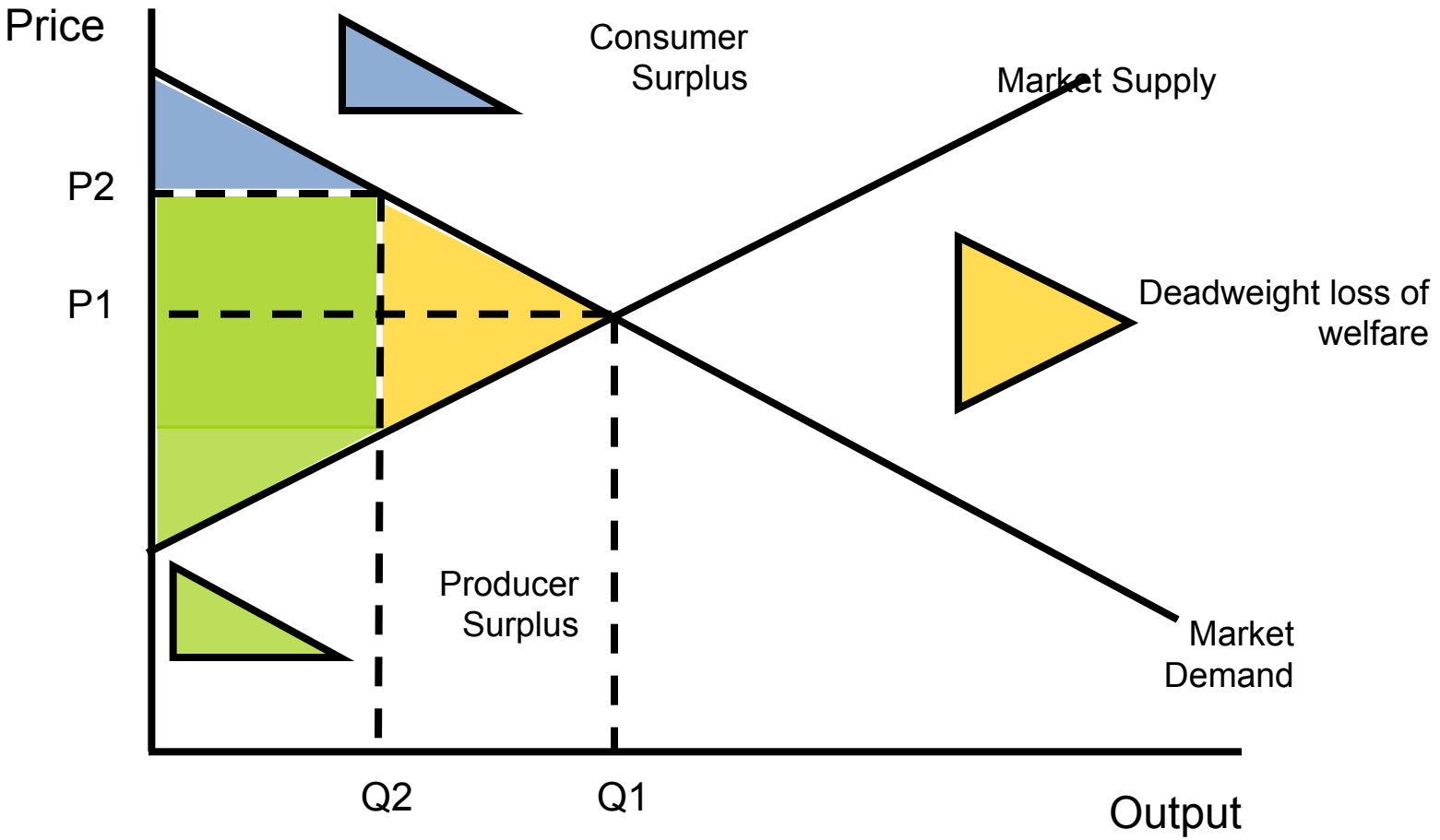
Allocative Efficiency



When price is equal to marginal cost (P=MC), allocative efficiency is achieved. At the ruling price, consumer and producer surplus are maximised.

No one can be made better off without making some other agent at least as worse off – i.e. we achieve a Pareto optimum allocation of resources

Allocative Inefficiency



Competition and Economic Efficiency

- Technological efficiency
  - where maximum output is produced from given inputs
- Dynamic Efficiency
  - Refers to the range of choice and quality of service
  - Also considers the pace of technological change and innovation in a market

Importance of a Competitive Environment

- The standard view is that competition drives an improvement in welfare and efficiency
- Competition forces under-performing firms out of the market and shifts market share to more efficient firms in the long run
- Competition encourages firms to innovate and adopt best-practise techniques

How useful is model of perfect competition?

- Assumptions are not meant to reflect real world markets where most assumptions are not satisfied
  - Pure competition is devoid of what most people would call real competitive behaviour by businesses!
  - The model provides a **theoretical benchmark** used to compare and contrast imperfectly competitive markets
  - Consider perfect competition as an interesting point of reference but one with few real world applications
- Useful when considering
  - The effects of monopoly / imperfect competition
  - The case for free international trade

Real world – **imperfect competition**!

1. Most suppliers have a degree of control over market supply
2. Some buyers have **monopsony power** against suppliers because they purchase a significant percentage of total demand
3. Most markets have **heterogeneous products** due to product differentiation and constant innovation
4. Consumers nearly always **have imperfect information** and their preferences and choices can be influenced by the effects of persuasive marketing and advertising
5. Finally there may be **imperfect competition** in related markets such as the market for essential raw materials, labour and capital goods.

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Revision notes on perfectly competitive markets