

ANTITRUST ECONOMICS 2013

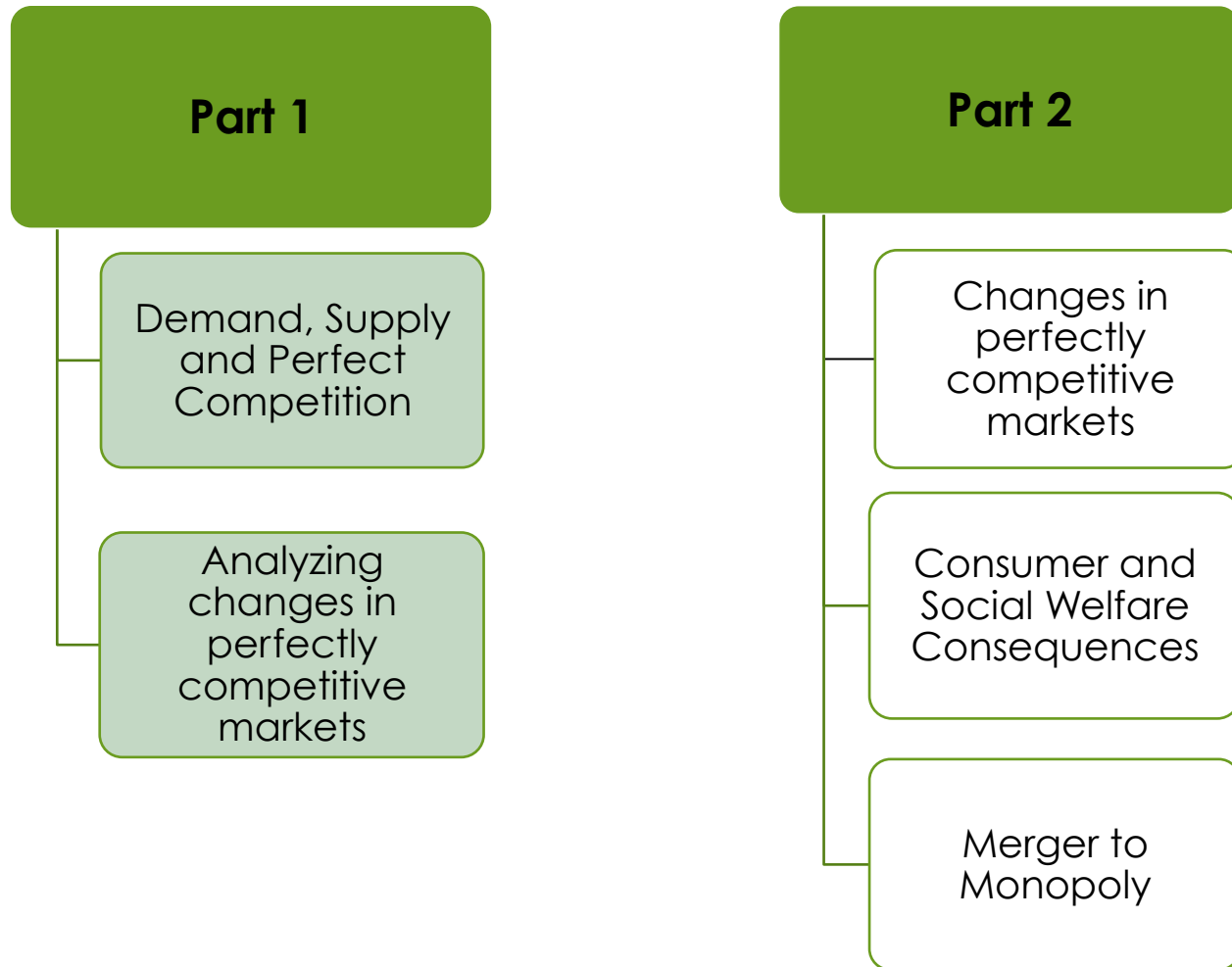
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TOPIC 3: DEMAND SUPPLY & STATIC COMPETITION

Overview

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Demand, Supply and Perfect Competition

What is Perfect Competition?

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Goods are all the same—homogenous demand, no product differentiation: basically commodity markets.

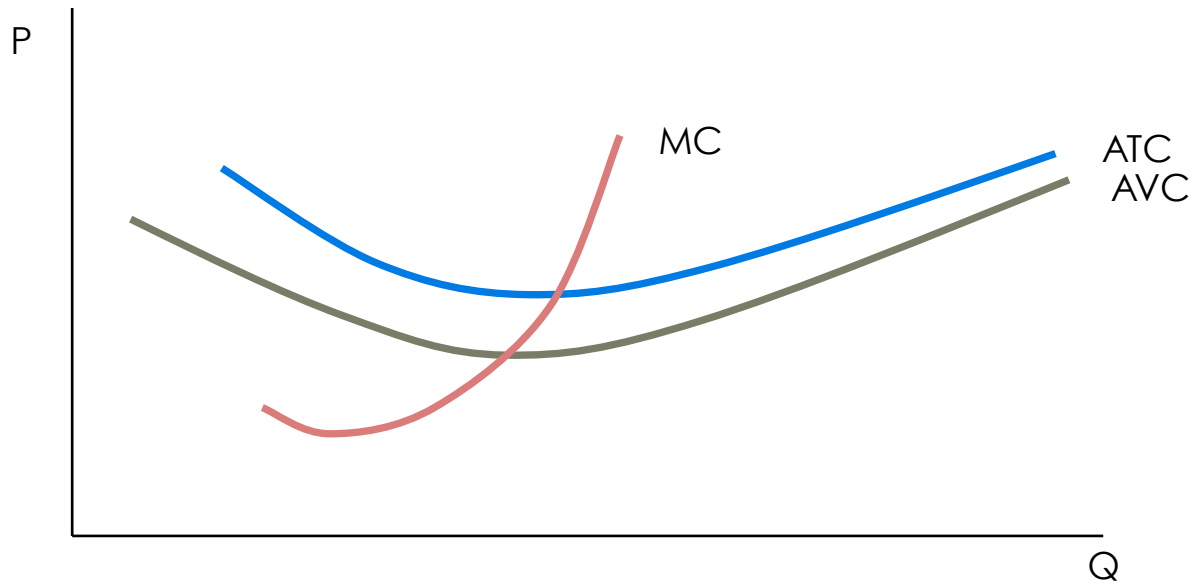
Firms are all small so none has any power over price—they all face a perfectly elastic individual demand: atomistic competition.

Information is widely available so everyone knows the prices being charged and paid.

Transaction costs are zero, eliminating any advantages one firm might have over another.

Costs curves and profit maximization

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ATC – Average Total Cost Curve.

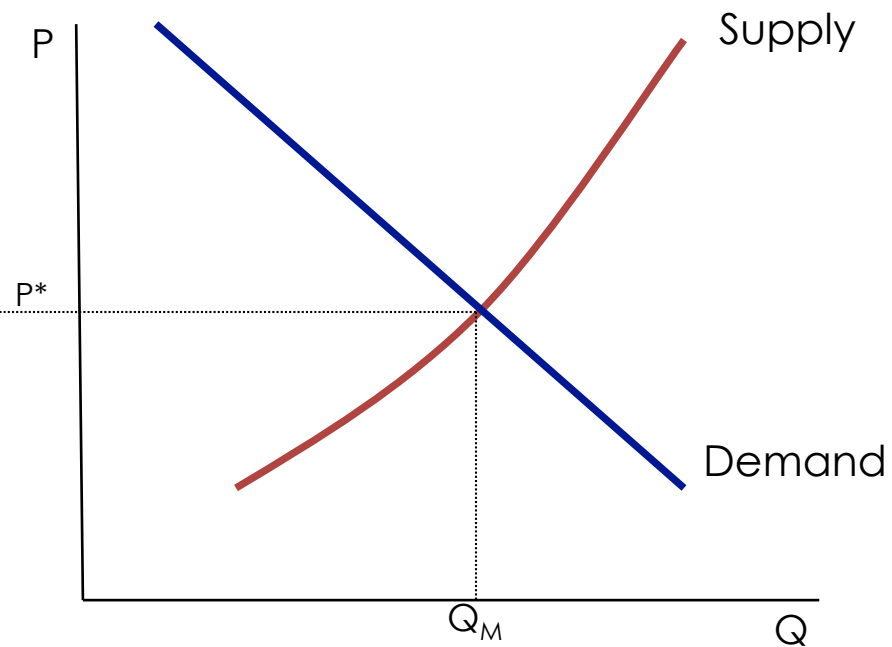
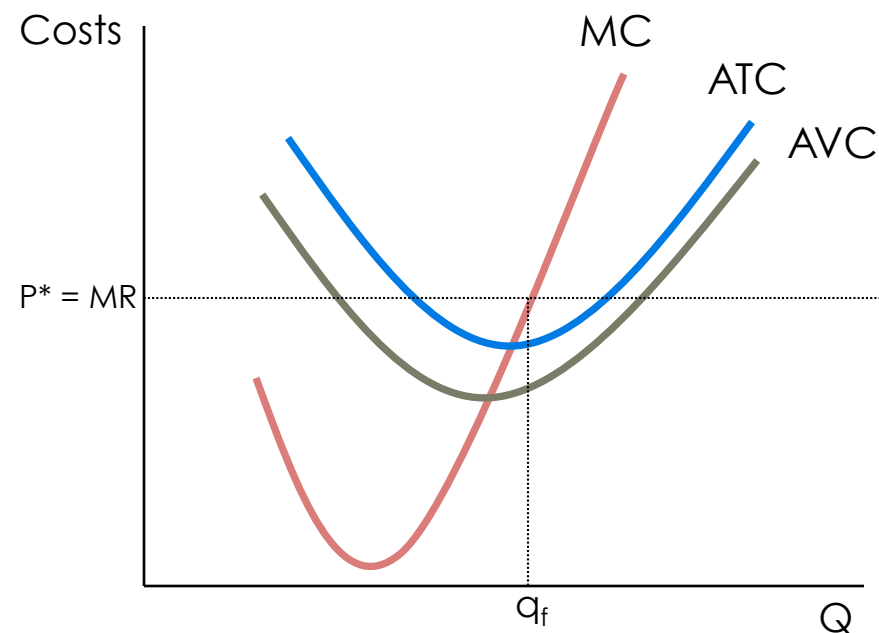
AVC – Average Variable Cost Curve.

MC – Marginal Cost Curve.



Typical Firm in the Short Run Equilibrium

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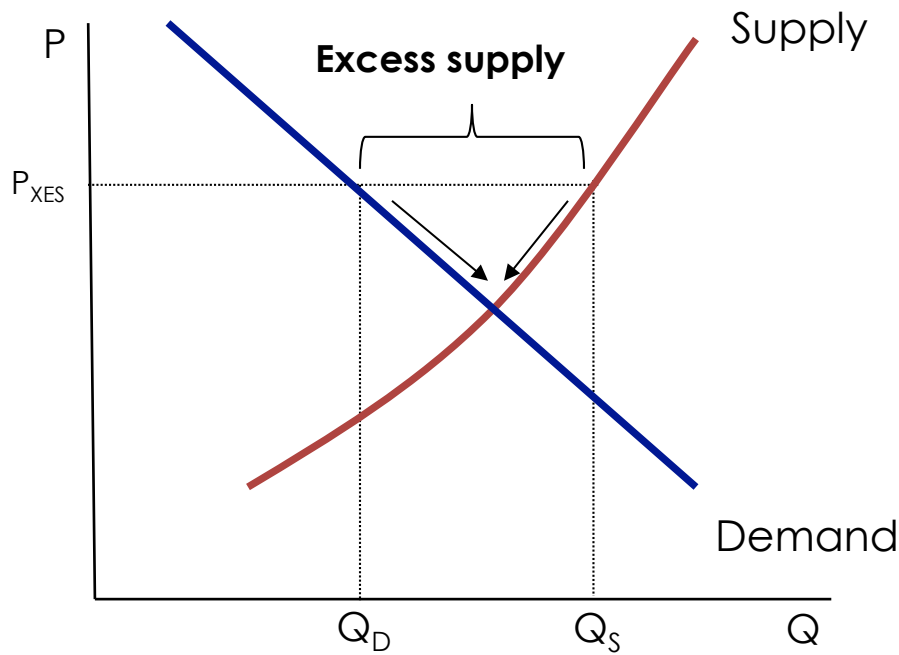


The supply curve is the upward sloping part of the MC curve that lies above the AVC curve.

The firm will not operate on points on the MC curve below the AVC curve since it could have higher profits by shutting down.

Why is equilibrium the point where Supply and Demand intersect?

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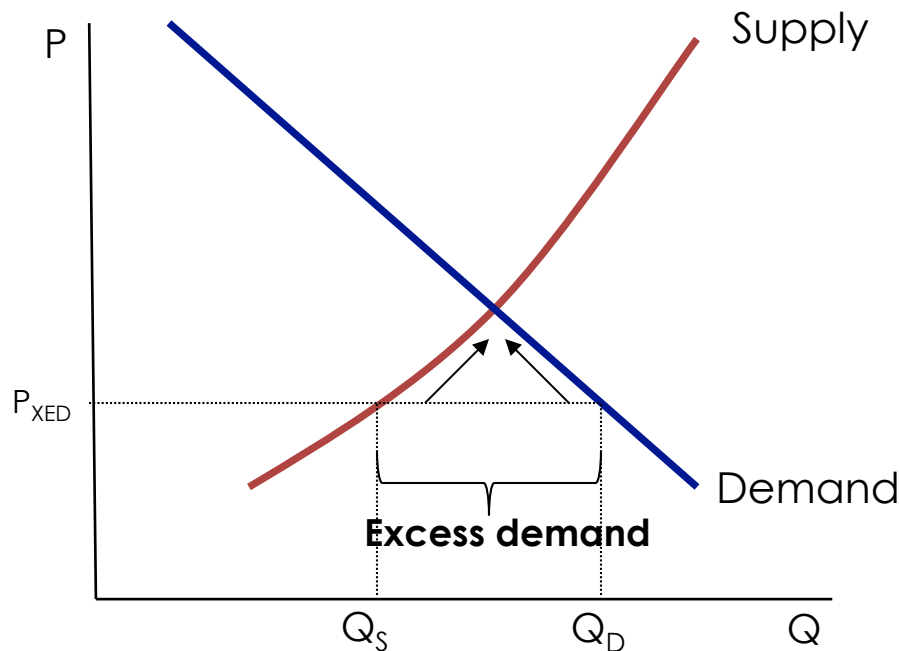
What if price were above the equilibrium?

At that price, quantities demanded would be less than quantities offered.

- The firm has an incentive to reduce price and eliminate the extra quantity in the market
- Consumers will be willing to demand additional quantities as price falls

Why is equilibrium the point where Supply and Demand intersect?

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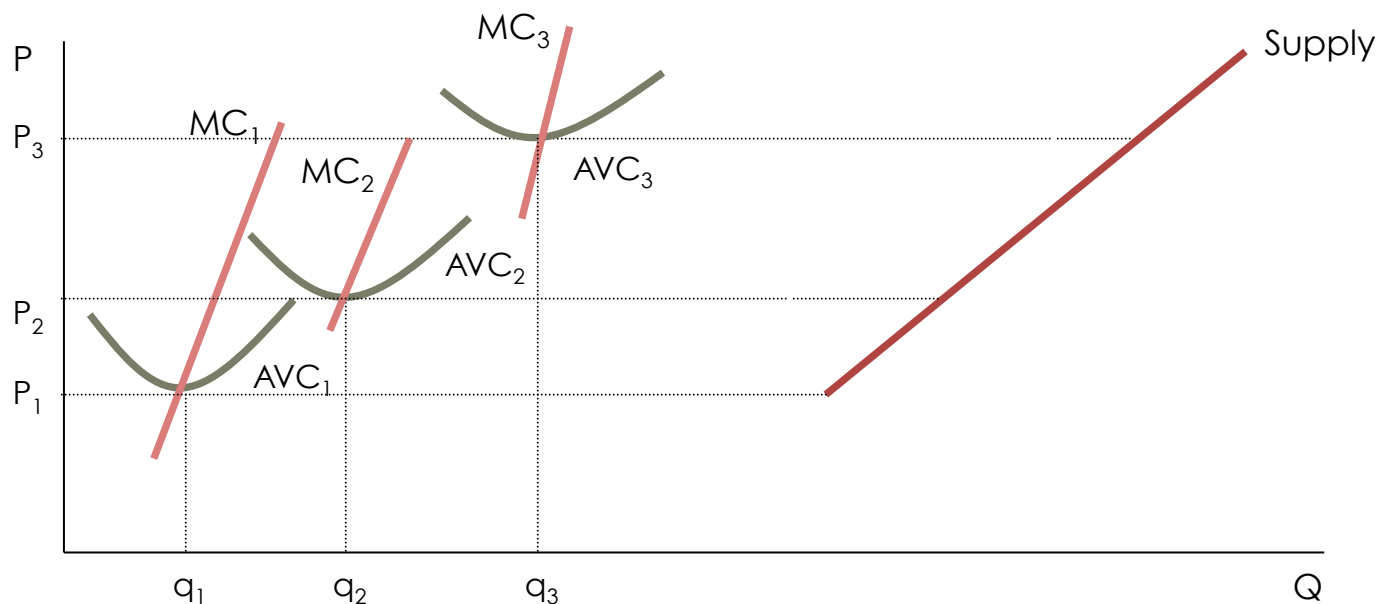
What if price were below the equilibrium?

At that price, quantities demanded would be greater than quantities offered.

- The firm has an incentive to increase price and offer additional quantities in the market
- As price rises, consumers will be less willing to pay for additional quantities

Typical Firm in the Short Run Equilibrium

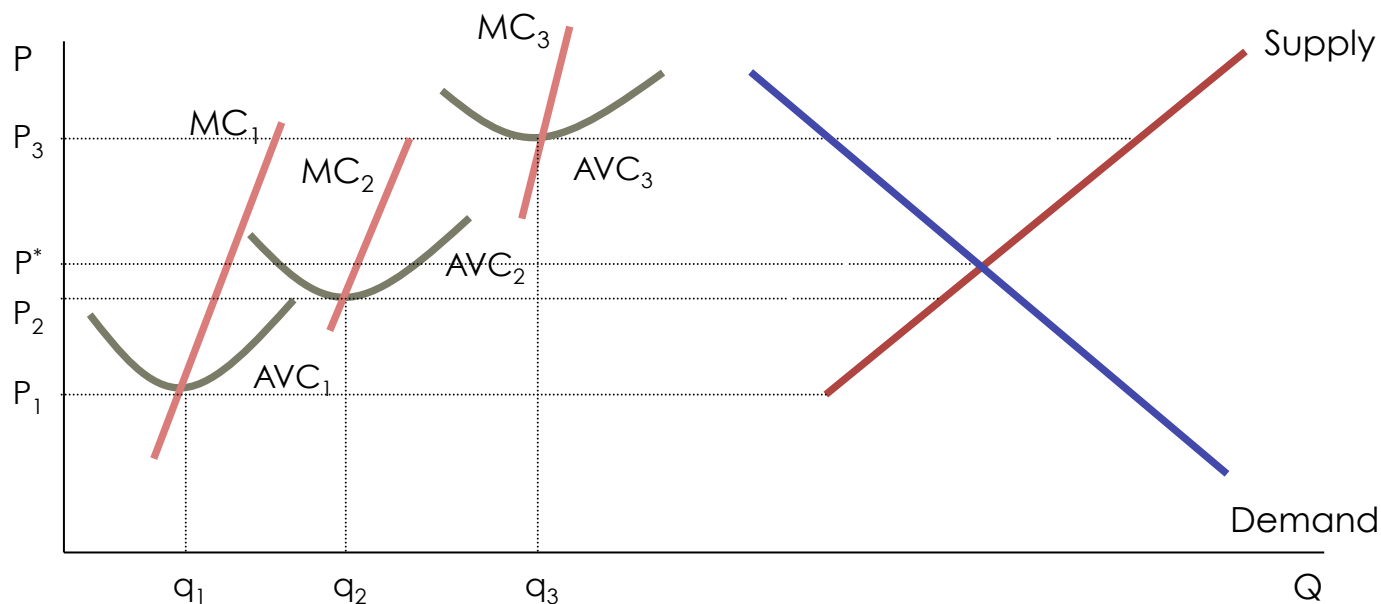
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The supply curve is the horizontal sum of the marginal cost curves for those firms that find it profitable to be in the market and produce at those prices (where $MC > AVC$).

Typical Firm in the Short Run Equilibrium

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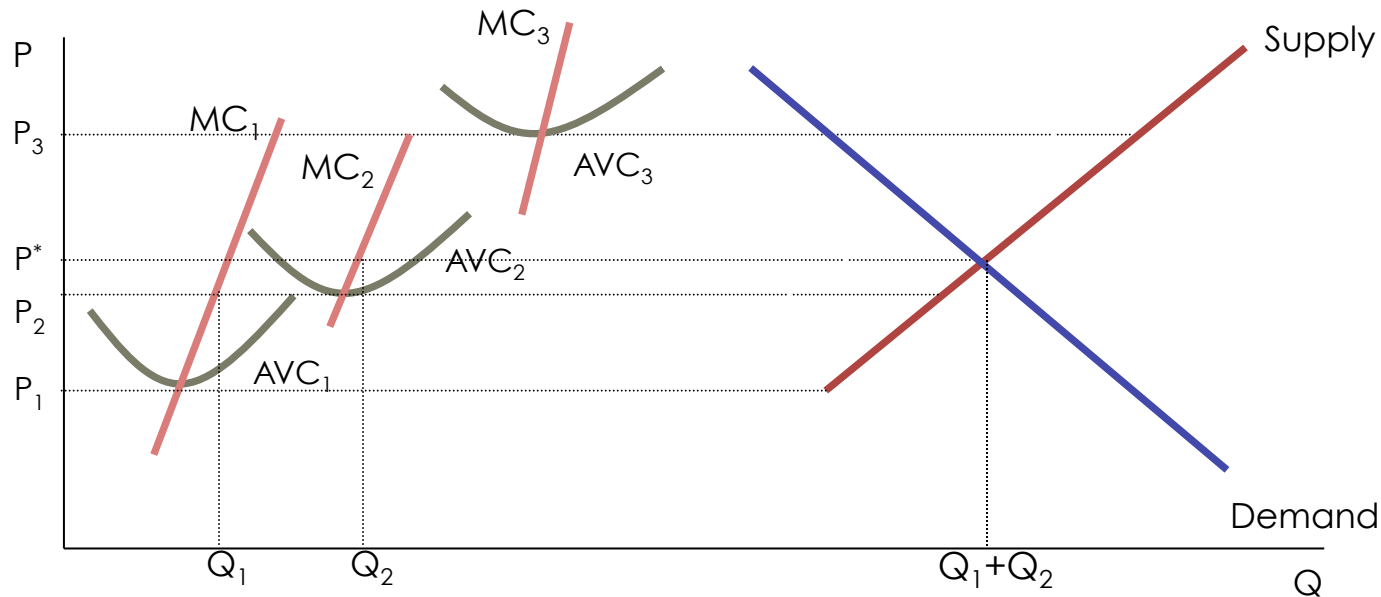


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Example of “perfect competition” with three firms that vary in their levels of efficiency.

Typical Firm in the Short Run Equilibrium

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The supply curve is the horizontal sum of the marginal cost curves for those firms that find it profitable to be in the market and produce at those prices (where $MC > AVC$).

Example of “perfect competition” with three firms that vary in their levels of efficiency.

Entry takes place until price equals marginal cost and the marginal firm just breaks even. Firm 3 is not efficient enough to compete in this market. It would enter at a price of P_3

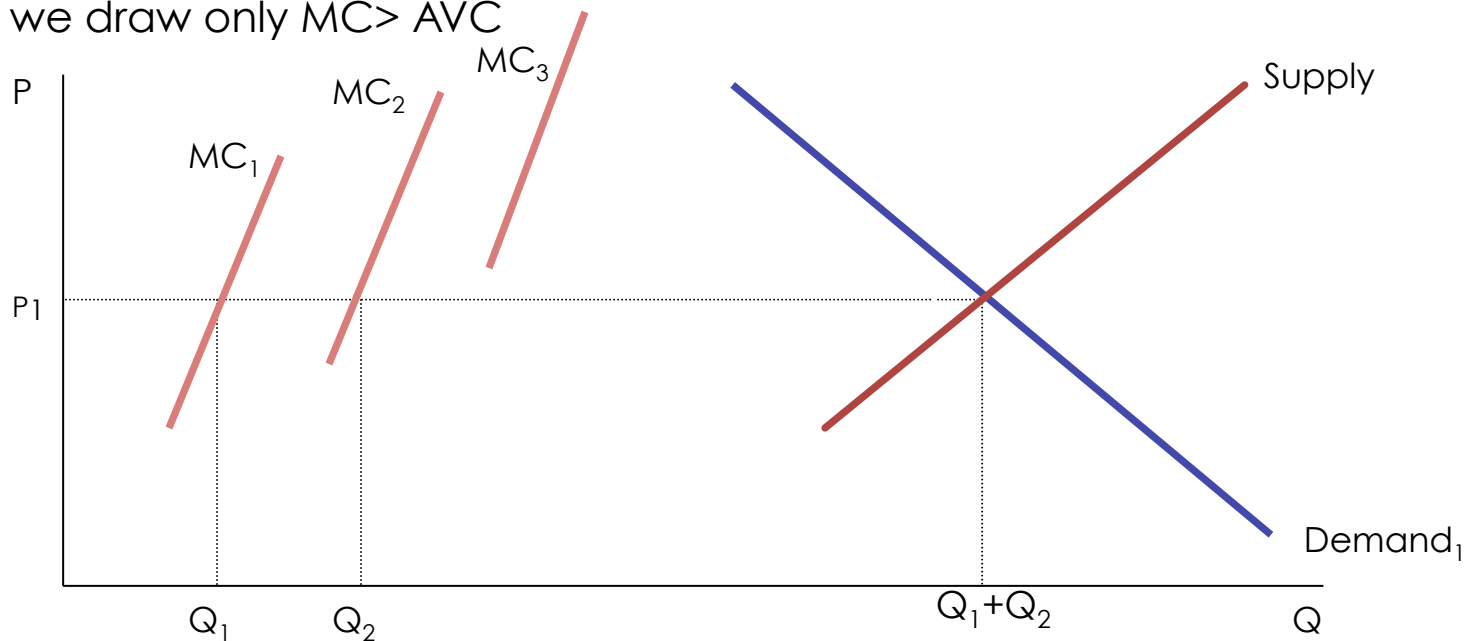
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Analyzing Changes in Perfectly Competitive Markets

The effect of an increase in demand

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Assuming we draw only $MC > AVC$

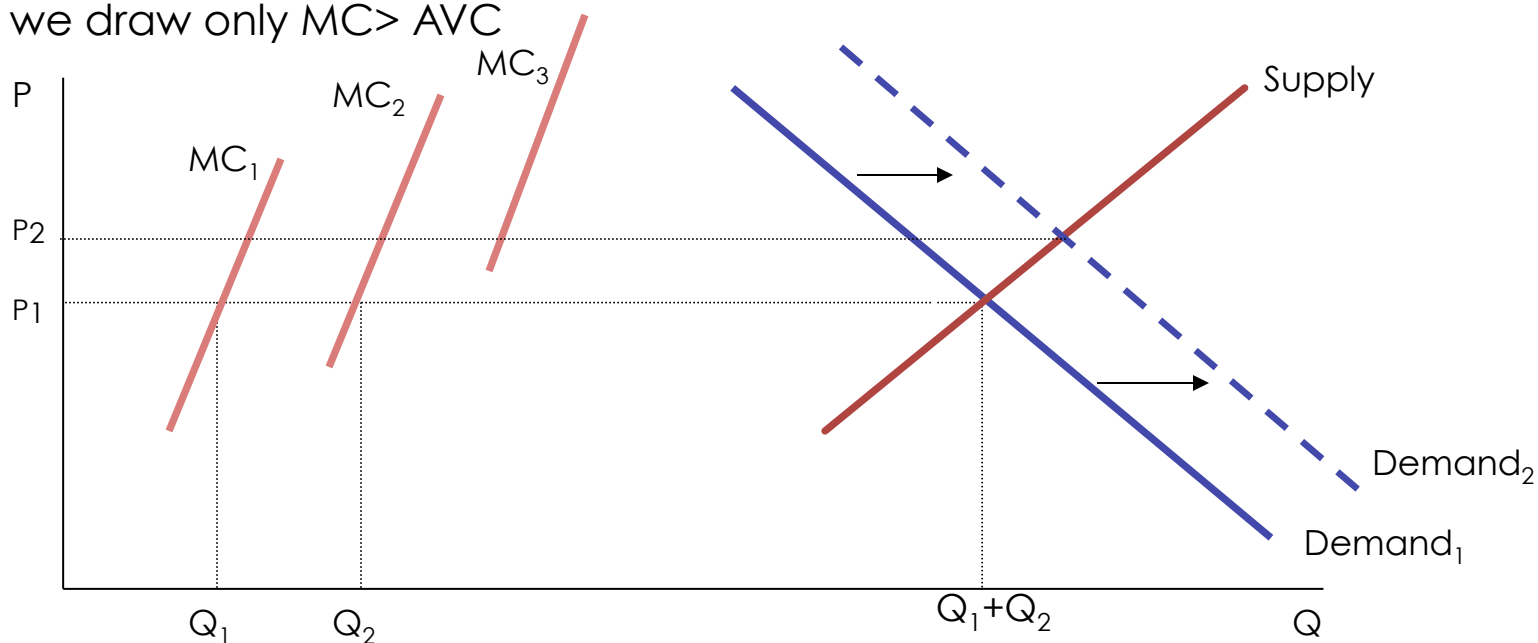


A demand increase could be caused by an increase in consumer income.

The effect of an increase in demand

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Assuming we draw only $MC > AVC$

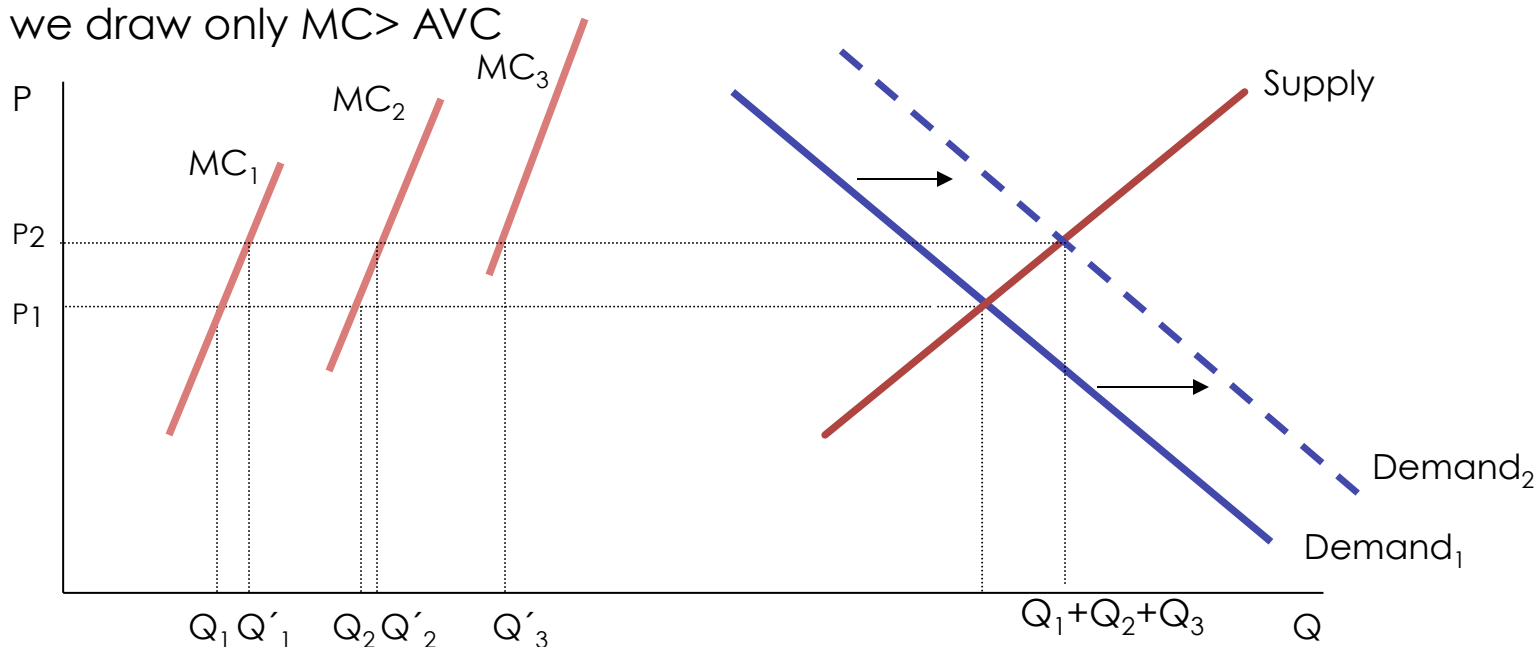


A demand increase could be caused by an increase in consumer income.

The effect of an increase in demand

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Assuming we draw only $MC > AVC$



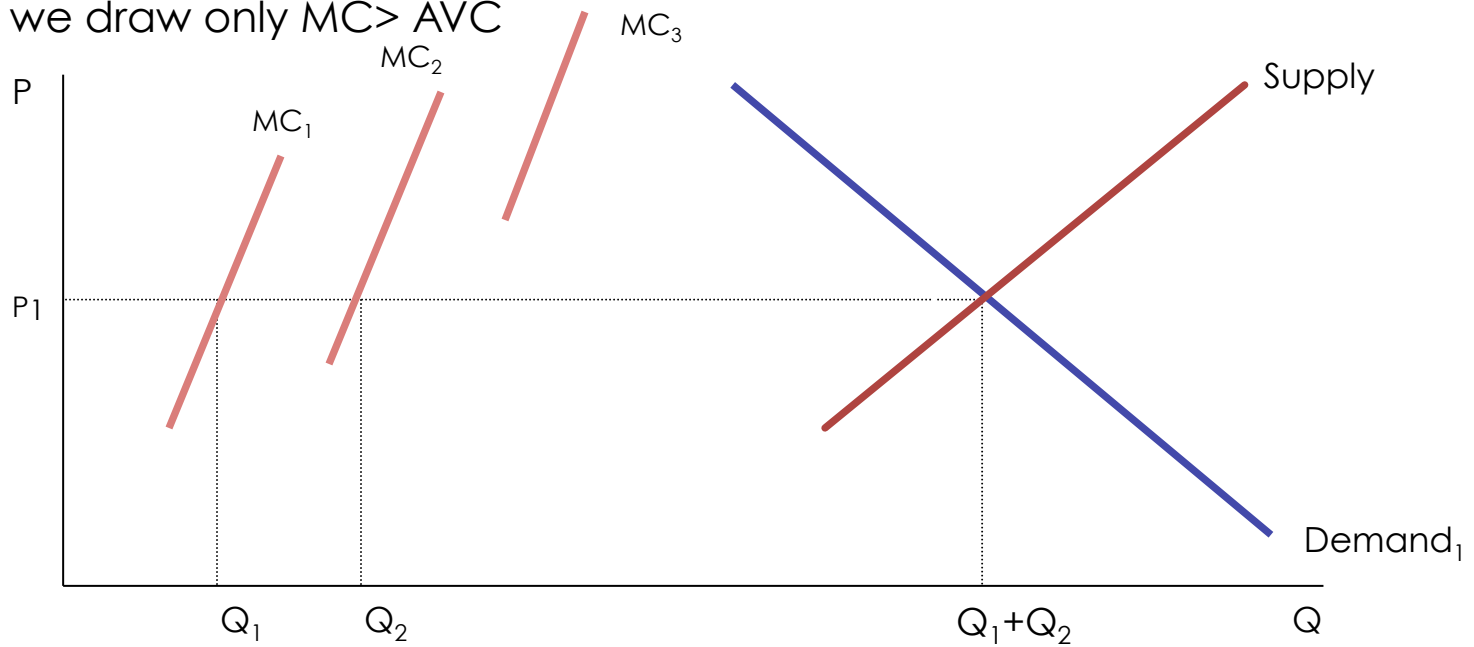
A demand increase could be caused by an increase in consumer income.

Demand increases, price rises, inframarginal firms enter the market, and existing firms expand.

The effect of costs increases

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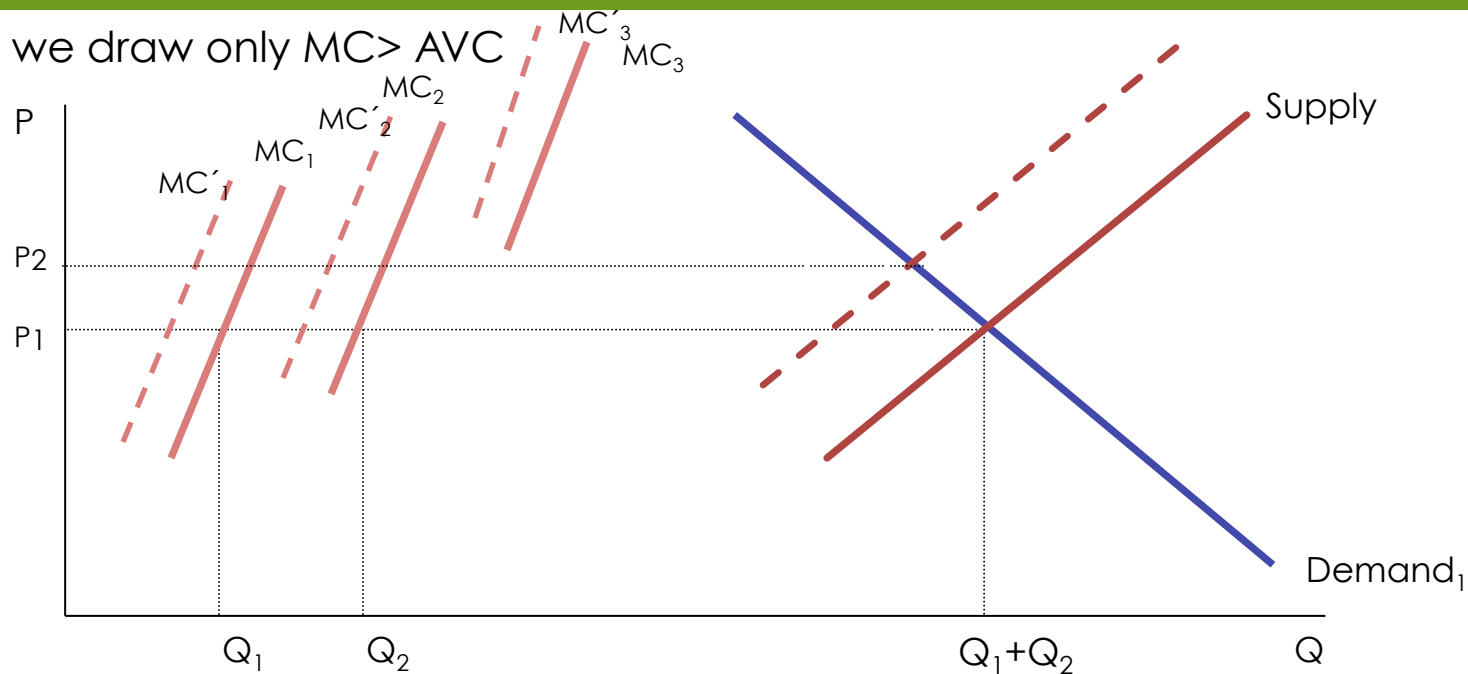
Assuming we draw only $MC > AVC$



The effect of costs increases

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Assuming we draw only $MC > AVC$

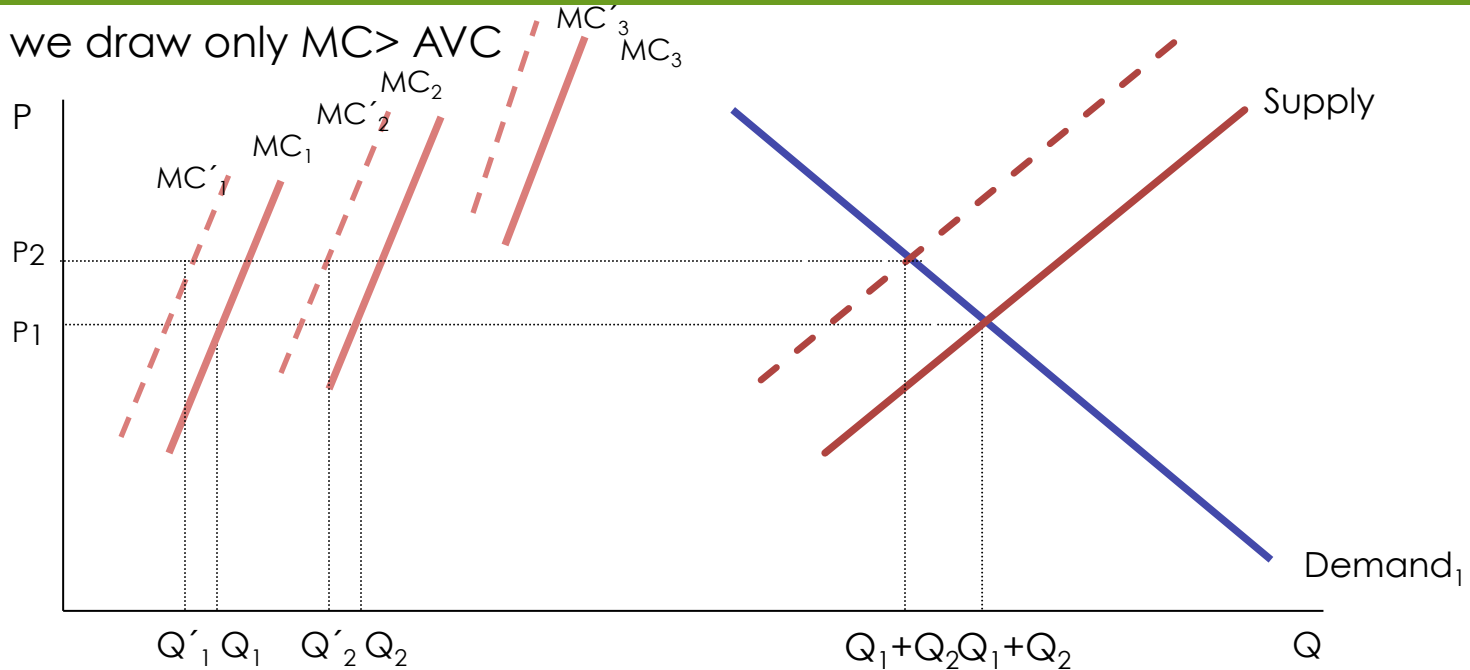


Costs can increase perhaps from a rise in the cost of a key input.

The effect of costs increases

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Assuming we draw only $MC > AVC$



Costs can increase perhaps from a rise in the cost of a key input.

When all costs increase, supply falls and price rises. This counters some of the fall in supply. Marginal firms exit the business and other firms contract.

Economists use this framework to do “comparative statics”

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What would happen to prices and output if:

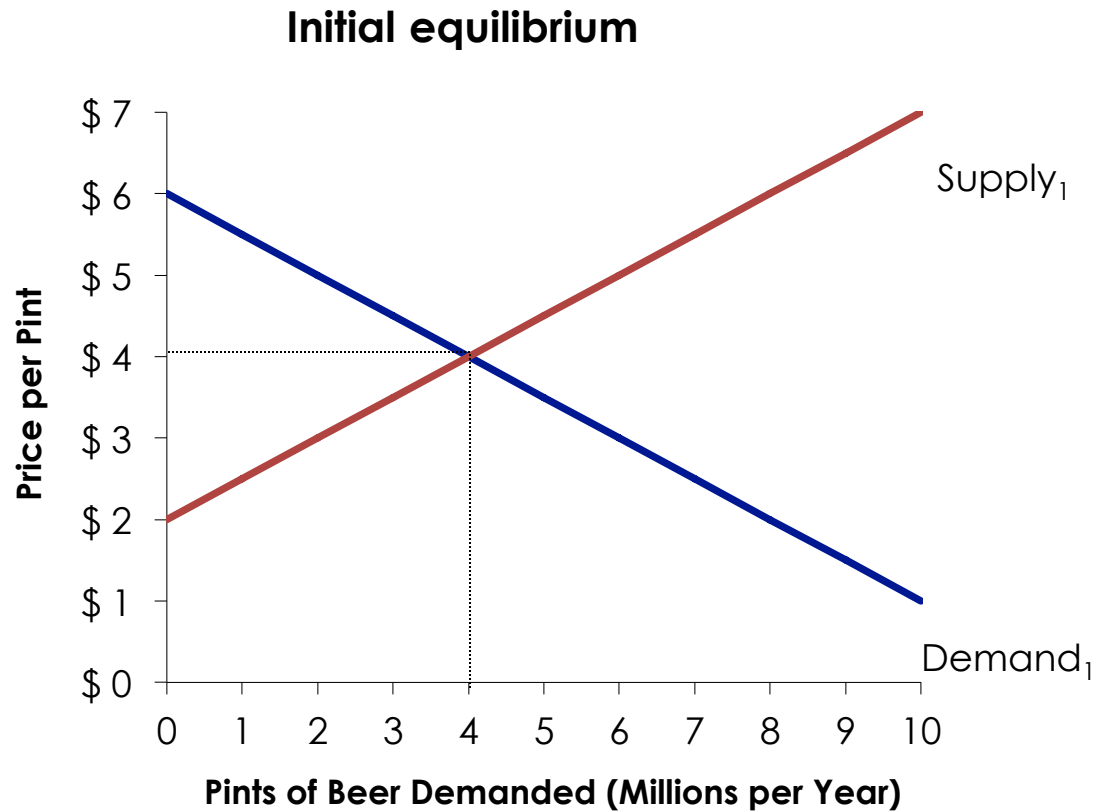
- The costs of inputs increases?
- New products enter the market?
- Your product becomes popular?
- Competitors exit the market?
- The government levies a tax on each unit you sell?

All of these events will cause shifts and movements along the demand and supply curves until a new equilibrium is achieved where $S = D$.

Let's take a look at some examples:

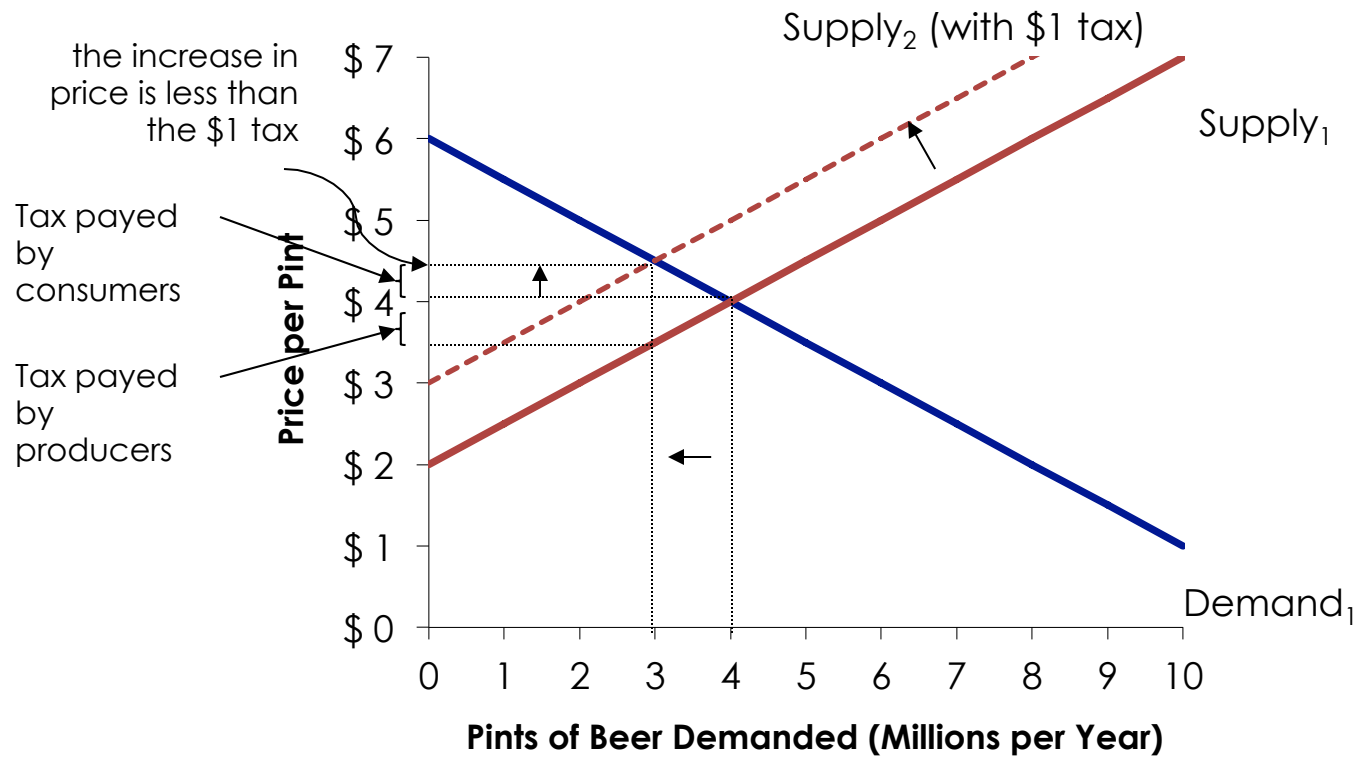
The effect of a \$1 unit tax

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The effect of a \$1 unit tax

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Results: Price rises but by less than the amount of the \$1 tax and output falls.



The effect of unit tax

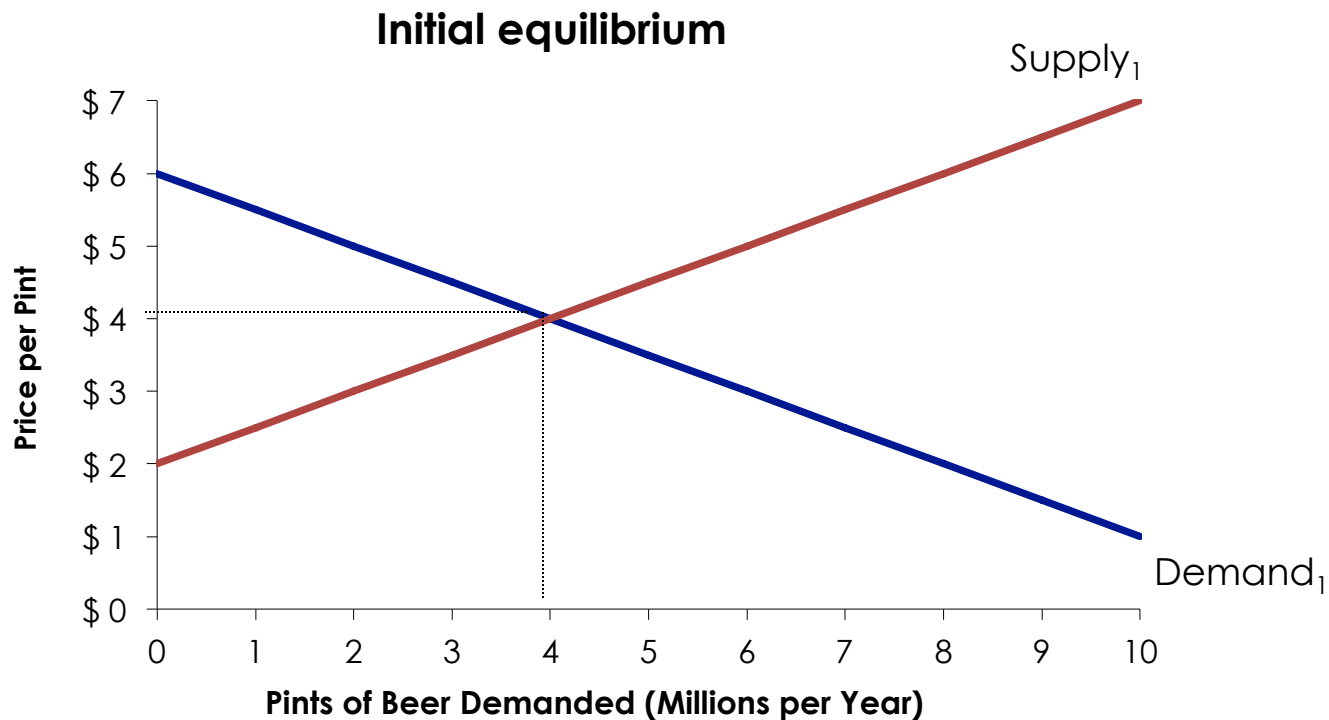
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Why do prices not increase by the total amount of the tax?

- It has to do with elasticities again.
- For a given supply schedule, producers carry more of the burden of the tax increase the more elastic is demand
- For a given demand schedule, producers carry more of the burden of the tax increase the more inelastic is supply.

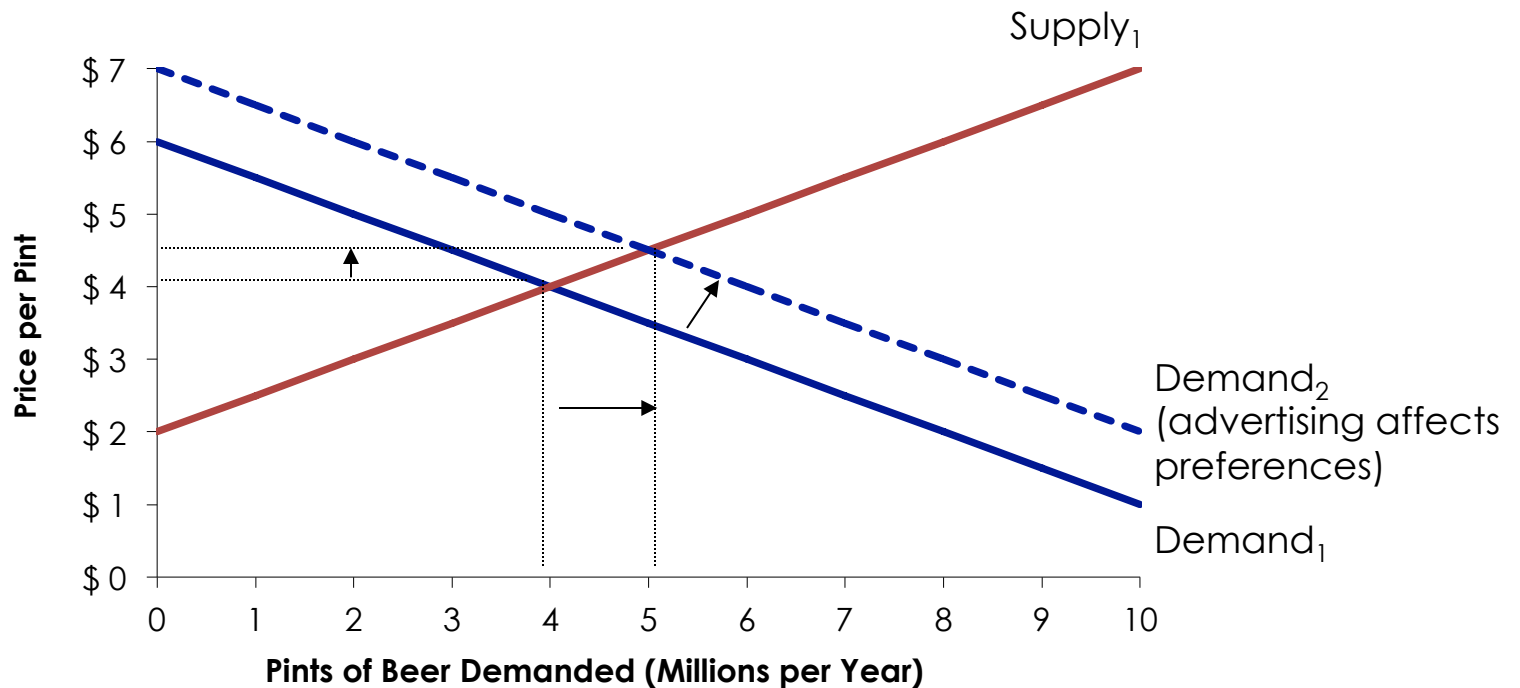
There is an increase in demand

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There is an increase in demand

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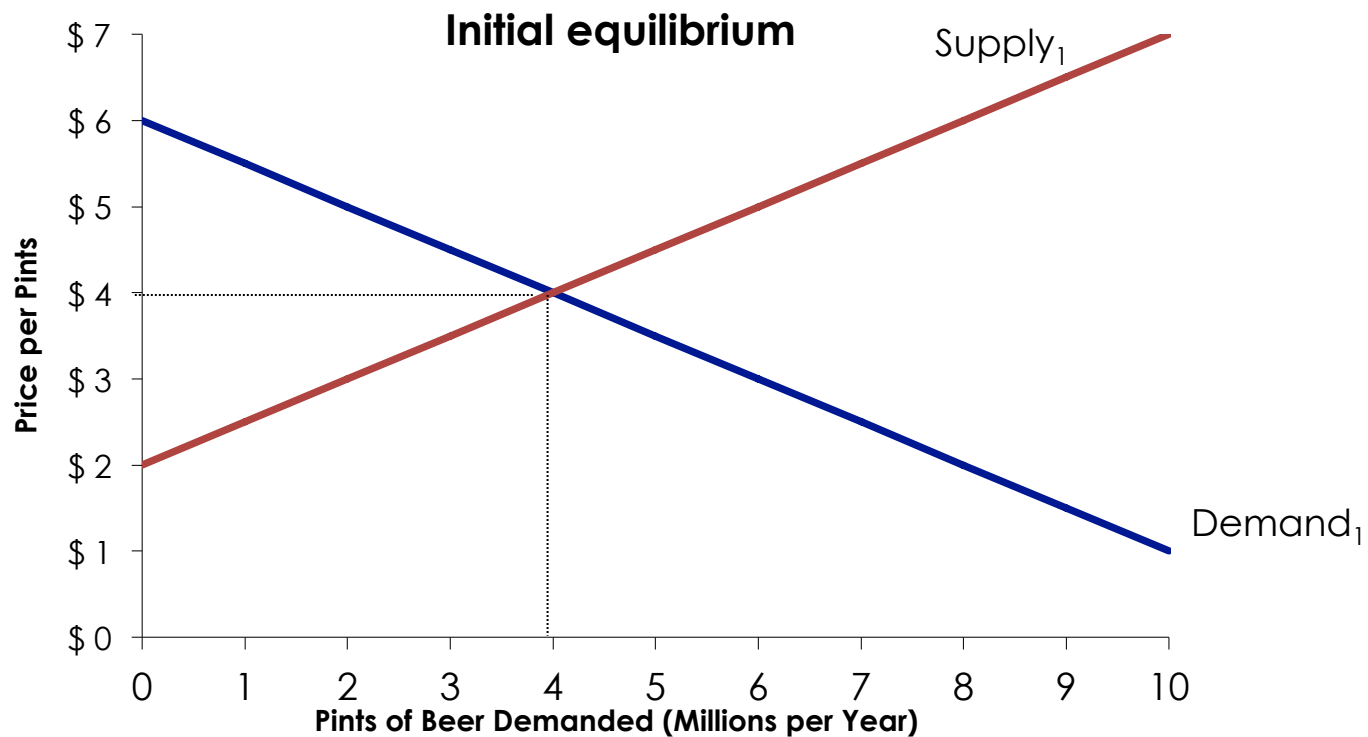


Let's suppose that demand increases due to advertising.

Result: Price rises and output rises

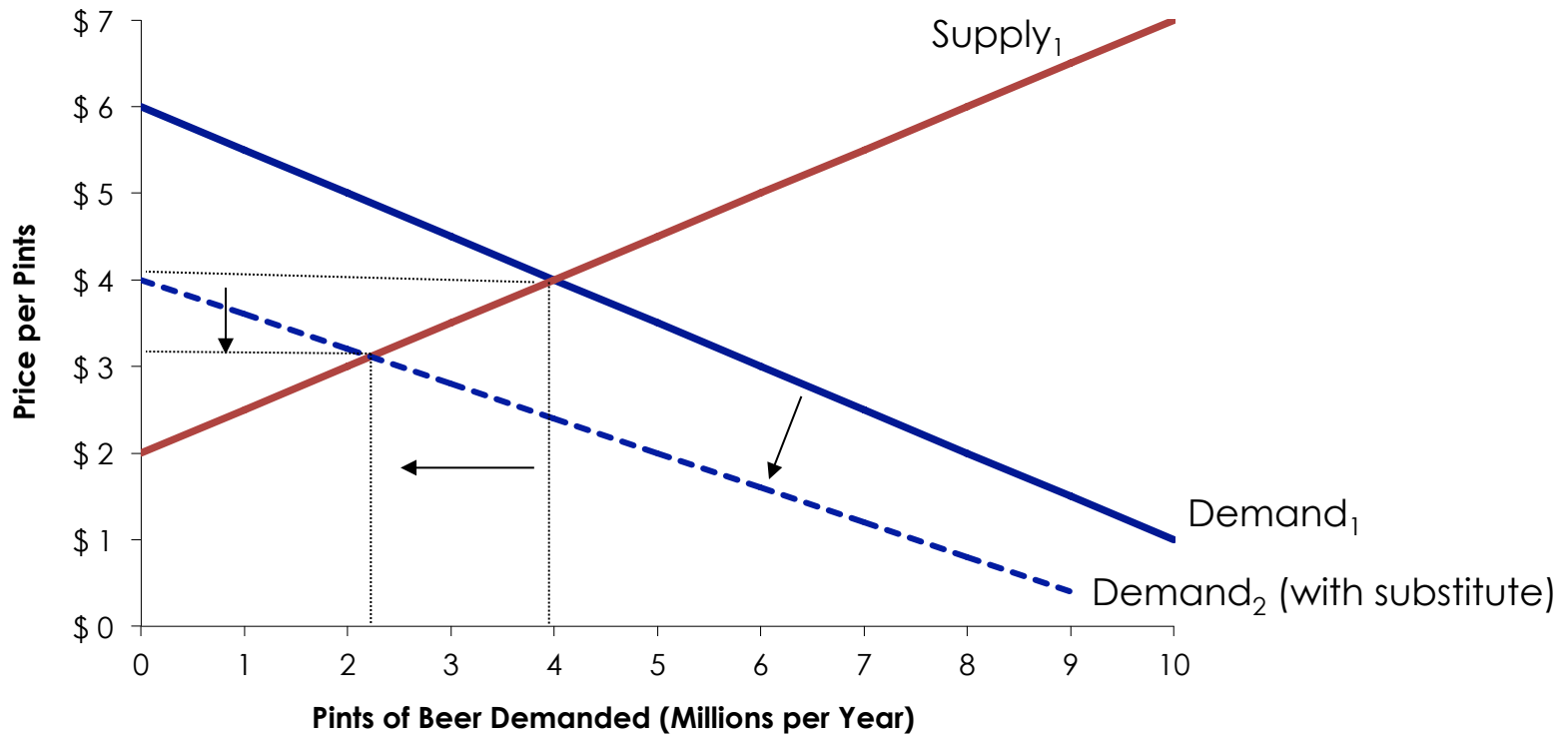
A cheaper substitute makes demand more elastic

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A cheaper substitute makes demand more elastic

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Result: Demand schedule becomes flatter. Price falls and output falls.

End of Part 1, Next week Part 2

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