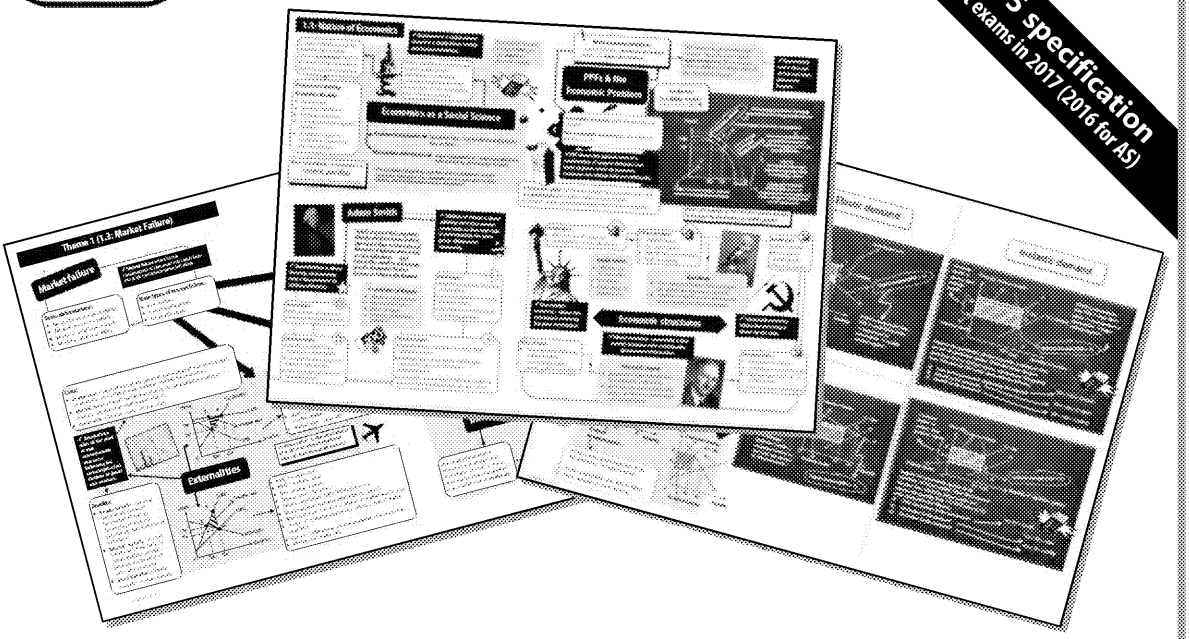
Zig Zag Education

Economics AS & A Level | Edexcel A | 8EC0/9EC0

2015 specification
first exams in 2017 (2016 for AS)



Topic on a Page

For AS & A Level Edexcel A Economics: Theme 1

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POD 6906

Contents

Teacher's Introduction

This resource covers the A Level Edexcel A Economics specification for Theme 1: Introduction to Markets and Market Failure. It provides six A3 posters, each covering all the subtopics.

It is intended as a summary of the material and focuses on the main points rather than the detail, so all important areas are covered, without going into too much depth. The posters can be displayed on classroom walls, or given to students to learn with in lessons or at home. The resource can be used to help students to revise at the end of a topic, or before a test or an exam.

Activity versions of the posters are also included, where some of the sections are blank, so that the students can test their knowledge by completing these. Answers for these activities are on the summary sheets.

Different styles and layouts are used to help to make the information interesting, and to help the students engage with the information in a productive way.

If teachers wished to add extra annotations to clarify or add further information, they could do this as well.

Some of the subtopics are linked, and it will be helpful for students to view the whole of each poster to help them to make connections between concepts. However, posters have clear-cut divisions between subtopics, and the teacher could choose to give students part of a poster, if they wish to focus on a particular subtopic.

The symbol  is used to denote quantitative skills.

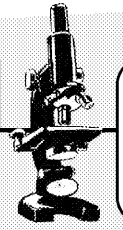
Z Mujib, October 2016

1.1: Nature of Economics

✓ Economics is a social science because it is a study of society and human behaviour.

Economists need to interpret **data** and use **graphs** to illustrate models.

In order to find a causal link between two variables, certain **assumptions** need to be made. These assumptions form the basis of predictions.



Unlike scientists, economists are usually unable to test hypotheses in a lab using controlled experiments. They mostly have to rely on evidence that is already available.

Process of creating economic models:

- Observation
- Forming hypothesis
- Forming predictions
- Testing predictions against evidence
- If evidence supports predictions, hypothesis becomes theory.

Main 'assumption' in economics:

ceteris paribus

= everything else remains constant.

Economics as a science

A *What are positive and normative statements?*

Positive statements:

Normative statements:

These value judgments may be used to influence certain economic decisions. For example, ***in the case of a market failure, should the government intervene?***

B *What is the ma*

PPFs an economic

Renewable resources replenis quickly, e.g. sunlight.

Non-renewable resources do not replenish quickly, e.g. oil.

✓ PPF shows the op combination of out types of goods whe resources are utilise

- **Consumer goods** are directly bo
- **Capital goods** are used to make
- So more capital goods help prod

Adam Smith

Smith argued that markets always existed (even before the state) due to the natural division of labour, which led to specialisation and hence the need to exchange goods. However, the barter system is inherently flawed.

✓ Division of labour is about splitting work into various small tasks so that each task is performed by the same group of labourers repeatedly.

✓ Specialisation is about focusing on producing only a few products to achieve efficiency.

Advantages:

- Efficient use of resources.
- Improves economic growth

H *List three advantages of division of labour*

-
-
-

I *What are the main functions of money?*

-
-
-
-

J *List three disadvant of specialisation.*

-
-
-

Disadvantages:

- Repetitive tasks can cause boredom. High worker turnover.
- Splitting tasks allows easily switching to machines. Can cause structural unemployment.
- Production process may in fact take longer as workers become dependent on each other.

Advantages:

- Efficient use of resource
- Competition means low

- Efficient u
- No waste
- Production

G *What do we mean by a free market economy?*

Role of state:

- Only intervene following a market failure.
- Only provide public goods, welfare spending, etc.

Theme 1 (1.2a: How Markets Work)

Consumer behaviour

Rational decision making:
We assume that economic agents primarily pursue self-interest. For example, firms maximise profit, workers maximise wages, consumers maximise utility.

Irrational behaviour:

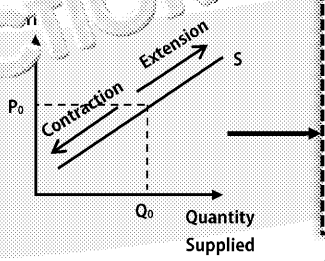
Fill in t

- People like to follow the trend ('_____ behaviour') its usefulness to them. For example, smoking.
- People find it hard to leave habits. For example, people may not change contracts, even if the move benefits them, because they are used to th
- People find it hard to get their heads around mathematics. As a resul _____ the likelihood of an event occurring that in r – and vice versa.

Supply

B *Define supply.*

Movement along supply curve:
Chang ... ven ... a. ... ply c ... ve. For ... ple, if price falls, ... pply contracts.



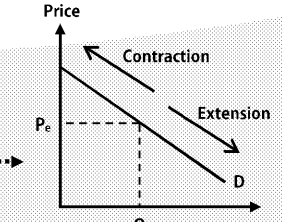
Provide any three factors that w the supply curve to shift.

-
-
-

Demand

D *Define demand.*

Movement along demand curve:
Changes in price lead to movements along a demand curve. For example, if price rises, demand contracts.



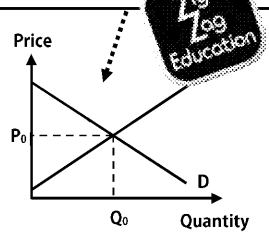
Shift in the demand curve result from changes in:

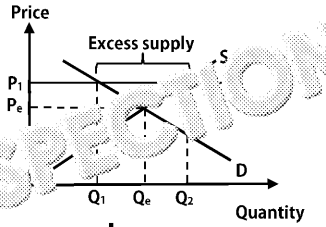
- Population size
- Advertising
- Tastes and preferences
- Income changes
- Others: price of complement/substitute goods

Remember this does not include changes to the price variable.

The price mechanism

The point where demand and supply meet gives us the equilibrium price and ...

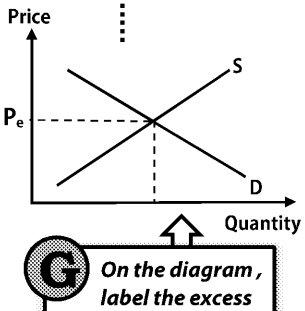




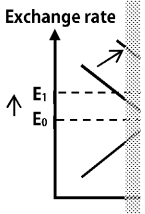
To eliminate **excess supply**, producers _____. Thus, demand _____ and supply contracts until _____ is reached.

F *Fill in the blanks.*

To elimi... de...and, ... s o... igher prices. This ...ows ... ers to increase s... Thus, supply expands and demand contracts until equilibrium is reached.



G *On the diagram, label the excess demand.*



E... U... ri... th... th...

Theme 1 (1.2b: How Markets Work)

A *Write a definition of each of the terms in the black boxes.*

Price elasticity of demand

$$PED = \frac{\%\ \text{change in quantity demanded of good A}}{}$$

Income elasticity of demand

$$YED = \frac{\%\ \text{change in ...ant ...dem...}}{}$$

Cross ela...

$$XED = \frac{\%\ \text{change}}{}$$

B *Fill in the missing elements from the four formulae.*

- PED > 1 means demand is _____ _____.
- PED < 1 means demand is _____ _____.
- PED = 1 means demand has _____ _____.
- PED = 0 means demand is _____ _____.
- PED = infinity means demand is _____ _____.

C *Fill in the blanks.*

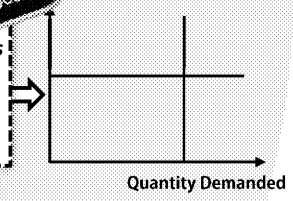
Factors that influence PED:
- Time period
- Proportion of income spent
- Availability of substitutes
- Type of good

Example:
Price of car increases, its demand decreases

Remember: PED is always negative.
- This means that price and demand always move in the opposite direction.
- For ease we will refer to the absolute values, i.e. '-1' becomes '1' as we ignore the minus.

PED and total revenue:
- **Total revenue = Price × Quantity**
- Elastic demand → fall in price increases consumer spending by a larger proportion, thereby increasing total revenue.
- Inelastic demand → increase in prices increases co...er ...nd by a smaller proportion, thereby ...sing ...nue.
- Total revenue is maximise... ...nd ...tic.

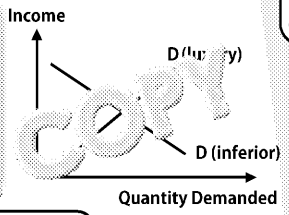
D *Draw and label the following demand curves on the diagram:*
a) Perfectly elastic
b) Perfectly inelastic
c) Unit elastic



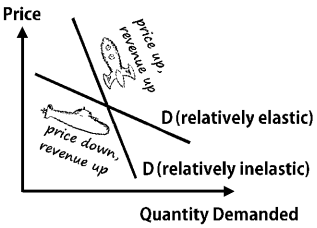
E *...n th... ...anation of the various numerical ...f YED, please indicate what type of goods ...ese explanations correspond to.*

- YED > 0 means demand is elastic/inelastic (i.e. change in income brings about a change in demand in the same direction). (_____)
- 0 < YED < 1 means demand is relatively inelastic. (_____)
- YED > 1 means demand is relatively elastic. (_____ good)
- YED = 1 means demand has unit elasticity.
- YED < 0 means demand is elastic/inelastic. (_____ good)

Example:
Income increases,
- demand for car increases (luxury)
- demand for public transport dec...s... (inferi...



Sign... ...ce of YED:
- ...llows firms to decide what prices to keep
- Helps firms in predicting future sales
- Helps firms to strategise, e.g. diversification



F *Given the ex... values of XE... goods these ...*

- XED > 0 means de... in price of good A ... demand for good ...
- XED < 0 means de... price of good A br... demand for good ...
- XED = 0 means the...

Example:
Price of tea decrease...
- demand for milk i...
- demand for coffe...

Significance of XE...
Allows firms to reduc... their risk through:
- Horizontal integra...
- Vertical integratio...
- Apt pricing strate...

H *Work out the following ques...*

If real income decreases from £3,000 t... demand for Sainsbury's' own brand br... loaves to 1,700 loaves a month,
a) Calculate the YED.
b) What type of good is this?
c) Is the good i) relatively elastic ☐ o...

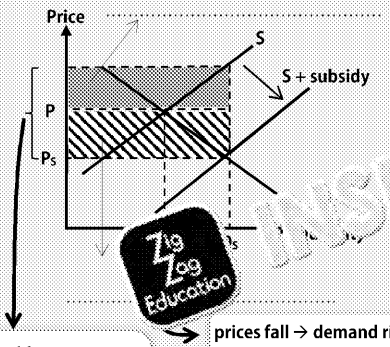
Theme 1 (1.2c: Taxes and subsidies)

Subsidies

Original

A *Label the producer and consumer benefit on the following subsidy diagram.*

prices fall → supply rises

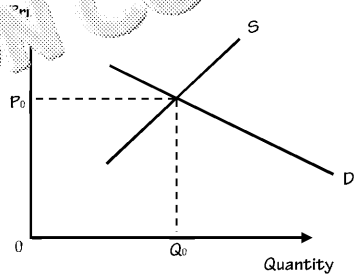


prices fall → demand rises

cost to government in the short-term

Elastic demand

B



Taxes

- **Direct taxes** are levied on income.
- **Indirect taxes** are levied on goods and services.

Indirect taxes

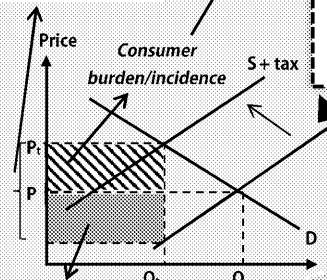
E *Define specific and ad valorem taxes.*

Government: more tax revenue for public spending or debt servicing.

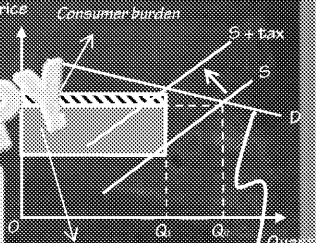
prices rise → demand falls

Specific tax

Ad valorem tax



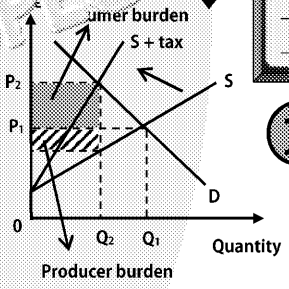
Consumer burden is _____ than producer burden.



...rect... (producer ...urden + consumer burden) is the _____ to _____.

F *Fill in the blanks.*

G



D *...nks.*

If PED is more elastic than PES → big fall in demand → _____.

If PED is less elastic than PES → slight fall in demand → _____.

Theme 1 (1.3: Market Failure)

Market failure

A *Define market failure.*

Some abbreviations:
- Marginal private benefit (MPB)
- Marginal private cost (MPC)
- Marginal social benefit (MSB)
- Marginal social cost (MSC)

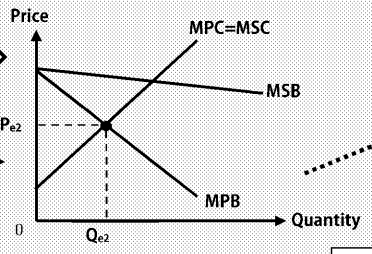
Main types of market failure:
- Externalities
- Lack of public goods
- Information gaps

D *Briefly explain t… g ty…*
- **Private cost** = ...
- **External cost** = ...
- **Social costs** = ...

✓ **Externalities refer to the good or bad consequences that occur following the consumption/production of goods and services..**

On the diagrams below, label welfare loss and welfare gain, respectively.

C

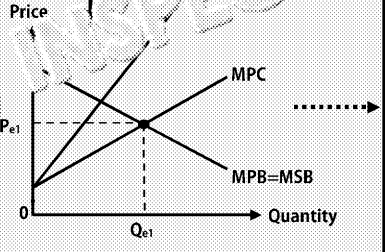


- Zero external costs
- External benefits = DE units.
- Market equilibrium (MPC=MPB) at point D.
- Social optimum position (MSC=MSB) at point F.
- Social optimum position is different to market equilibrium.
- Hence, for marginal output (Q_{e2} and Q_{s2}), MSB is greater than MSC.
- Good is underpriced and underproduced in a free market.
- Welfare … a DEF

To … t … construction of … unway at Heathrow … kely to lead to market failure?

Externalities

Benefits:
- **Private benefit** = personal utility to the producer (consumer) of making (buying) a product, e.g. satisfaction from consu… education.
- **External benefit** = inc… benefit to a third party … producing/consuming a … product, e.g. benefits of education to society.
- **Social benefits** = External benefits + Private benefits



- MPC = supply curve
- MPB = demand curve
- Zero external benefits
- External cost = AB units.
- Market equilibrium (MPC=MPB) at point A.
- Social optimum position (MSC=MSB) at point C.
- Social optimum position is different to market equilibrium.
- Hence, for marginal output (Q_{e1} and Q_{s1}), MSC is greater than MSB.
- Good is underpriced and overproduced in a free market.
- Welfare loss = area ABC

Theme 1 (1.4: Government Intervention)

Providing information:
Providing certain information can
to facilitate making efficient choic

A ***State and explain any three causes of government failure.***

-
-
-

B ***Fill in the blanks.***

Maximum price:

- A maximum price is generally imposed on goods with _____ _____.
- Max. price is set _____ the market equilibrium price, t_____ consumption.
- _____ and demand _____, creating excess _____ (or a shortage of output).

C ***What is meant by government fa...***

D ***Briefly state why and how public goods are provided.***

Government intervention and failure

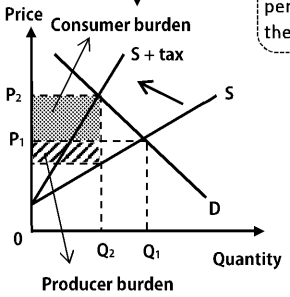
✓ Government intervention is any measure that is undertaken by the state to correct a market failure, e.g. taxation.

E ***Fill in the blanks.***

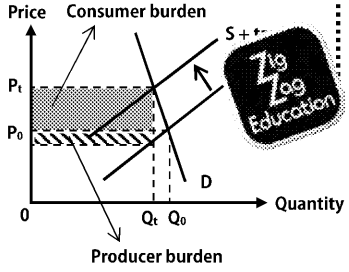
Taxing alcohol:

- Alcohol has _____ externalities.
- Placing an _____ tax equal to the amount of the _____ shifts the supply curve to the left. This _____ the price of alcohol, _____ its consumption.

Ad valorem tax = levied as a percentage of the good's price.



Specific tax = set amount of tax levied on a good.



Regulation:
Enforcement of rules/laws restricting consumption and/or production of goods and service... with negative ext..., e.g. restrict the ... of ...garettes sold.

Possible government failure

Possible government failure:

- The government may under- or overestimate the value of the externality, caused through excessive alcohol consumption. And so the socially optimal level will not be achieved.
- Potential risk of illegal trade to escape higher taxes.
- Demand for alcohol tends to be very inelastic, so people keep on drinking too much alcohol in spite of the tax.

F ***Fill in the blanks.***

Regulation:

- Can lead to a misallocation of resources, as th... _____ _____ is not allowed to function freely.
- Can create a _____ market.
- Costly to _____ _____

Theme 1 (1.1: Nature of Economics)

In order to find a causal link between two variables, certain **assumptions** need to be made. These assumptions form the basis of predictions.

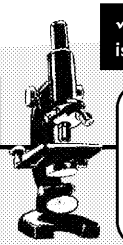
Process of creating economic models:

- Observation
- Forming hypothesis
- Forming predictions
- Testing predictions against evidence
- If evidence supports predictions, hypothesis becomes theory.

Main 'assumption' in economics is:

ceteris paribus

= everything else remains constant.



✓ **Economics is a social science because it is a study of society and human behaviour.**

Unlike scientists, economists are usually unable to test hypotheses in a lab using controlled experiments. They mostly have to rely on evidence that is already available.

Economists need to interpret **data** and use **graphs** to illustrate models.

Economics as a [illegible] science

Positive statements → based on facts. Can be tested and proven true or false.

Normative statements → value judgments or subjective opinions, and cannot be proven true or false.

These value judgments may be used to influence certain economic decisions. For example, ***in the case of a market failure, should the government intervene?***

Main ec[illegible]

= scarcity becau[illegible] while our **wan[illegible]**

PPFs an[illegible] economic [illegible]

Renewable resource[illegible] sunlight.

Non-renewable reso[illegible] quickly, e.g. oil.

✓ **PPF shows the op[illegible] combination of out[illegible] types of goods whe[illegible] resources are utilise[illegible]**

- **Consumer goods** are directly bough[illegible]
- **Capital goods** are used to make con[illegible]
- So more capital goods help produce [illegible]

Adam Smith

Smith argued that markets always existed (even before the state) due to the natural division of labour, which led to specialisation and hence the need to exchange goods. However, the barter system is inherently flawed.

✓ **Division of labour is about splitting work into various small tasks so that each task is performed by the same group of labourers repeatedly.**

Advantages:

- Repeating o[illegible] ta[illegible] incre[illegible]ity.
- [illegible]ne w[illegible]d in moving [illegible]asks.
- Less time and money spent on training workers.

Disadvantages:

- Repetitive tasks can cause boredom. High worker turnover.
- Splitting tasks allows easily switching to machines. Can cause structural unemployment.
- Production process may in fact take longer as workers become dependent on each other.

✓ **Specialisation is about focusing on producing only a few products to achieve efficiency.**

Advantages:

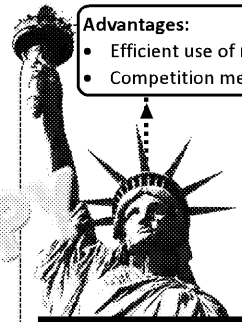
- Efficient use of resources.
- Improves economic growth.

Disadvantages:

- Country becomes over-reliant on certain goods.
- Can experience supply and demand side shocks.
- This could lead to massive unemployment.

Functions of money

- Medium of exchange
- Measure of val[illegible]
- Store o[illegible]
- [illegible] of [illegible]d p[illegible]



Advantages:

- Efficient use of resource[illegible]
- Competition means low[illegible]

✓ **Free market economy – where the economy is driven by the price mechanism.**

Role of state:

- Only intervene following a market failure.
- Only provide public goods, welfare spending, etc.

Theme 1 (1.2a: How Markets Work)

Consumer behaviour

Rational decision making:
We assume that economic agents primarily pursue self-interest. For example, firms maximise profit, workers maximise wages, consumers maximise utility.

Irrational behaviour:
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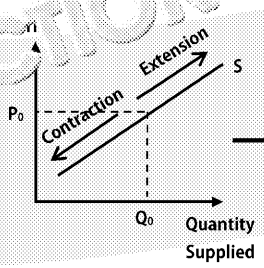
- People find it hard to leave habits. For example, people may not chang… contracts, even if the move benefits them, because they are used to th…
- People find it hard to get their heads around mathematics. As a resu… overestimate the likelihood of an event occurring that in reality has a… probability – and vice versa.

Supply

✓ **Supply** is the amount of a good or service that a firm wants to and is able to sell at a certain price, in a given time period.

Movement along supply curve:
Chang… …even… a… …ply c…ve. For …ple, if price falls, …pply contracts.



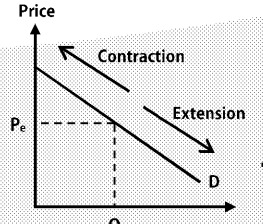
…ift in the supply curve:
- Subsidies provided by the government
- Indirect taxes imposed by the governm…
- Changes in the number of firms in the … providing a particular good or service
- Changes in technology
- Changes in costs, such as wage costs o… of capital goods
- Changes in the quantity of a resource, … emergence of a new gas field

Remember this does not include changes … price variable.

Demand

✓ **Demand** is the amount of goods and services that consumers want and can afford to buy for a given price over a given time period.

Movement along demand curve:
Changes in price lead to movements along a demand curve. For example, if price rises, demand contracts.

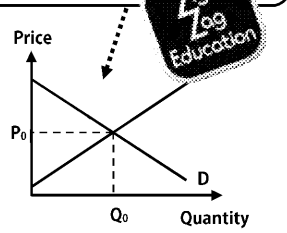


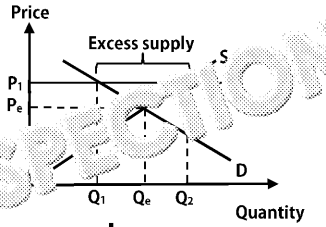
Shift in the demand curve result from …
- Population size
- Advertising
- Tastes and preferences
- Income changes
- Others: price of complement/substitut…

Remember this does not include changes … price variable.

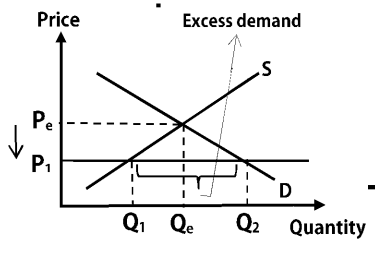
The price mechanism

The point where demand and supply meet gives us the equilibrium price and …



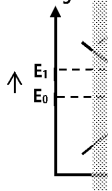


To eliminate **excess supply**, producers offer lower prices. Thus, demand rises and supply contracts until equilibrium is reached.



To elimi… …de…and, …s o… …gher prices. This …ows … …ers to increase …. Thus, supply expands and demand contracts until equilibrium is reached.

Exchange r…



E… U… ri… th… th…

Theme 1 (1.2b: How Markets Work)

Price elasticity of demand

Measures the responsiveness of demand following a change in price

$$PED = \frac{\%\ \text{change in quantity demanded of good A}}{\%\ \text{change in price of good A}}$$

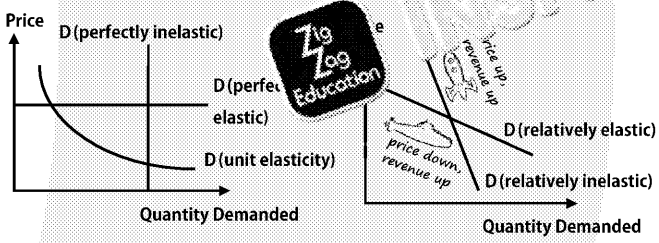
- PED > 1 means demand is relatively elastic.
- PED < 1 means demand is relatively inelastic.
- PED = 1 means demand h… elasti…
- PED = 0 means deman… inelastic.
- PED = infinity means de… fectly elastic.

Factors that influence PED:
- Time period
- Proportion of income spent
- Availability of substitutes
- Type of good

Example:
Price of car increases, its demand decreases

Remember: PED is always negative.
- This means that price and demand always move in the opposite direction.
- For ease we will refer to the absolute values, i.e. '-1' becomes '1' as we ignore the minus.

PED and total revenue:
- **Total revenue = Price × Quantity**
- Elastic demand → fall in price increases consumer spending by a larger proportion, thereby increasing total revenue.
- Inelastic demand → increase in prices increases consumer spending by a smaller proportion, thereby increasing total revenue.
- Total revenue is maximised when demand is unit elasti…



Income elasticity of demand

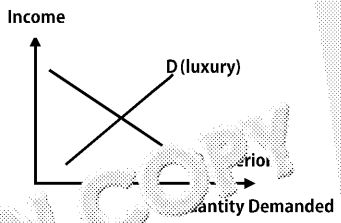
Measures the responsiveness of demand following a change in incom…

$$YED = \frac{\%\ \text{change in q…ant … dem…}}{\%\ \text{…ha… rea… …me}}$$

YED … means demand is elastic/inelastic … change in income brings about a change in demand in the same direction). (**Normal good**)
- 0 < YED < 1 means demand is relatively inelastic. (**Necessity**)
- YED > 1 means demand is relatively elastic. (**Luxury good**)
- YED = 1 means demand has unit elasticity.
- YED < 0 means demand is elastic/inelastic. (**Inferior good**)

Example:
Income increases,
- demand for car increases (luxury)
- demand for public transport decreases (inferior)

Significance of YED:
- Allows firms to decide what prices to keep
- Helps firms in predicting future sales
- Helps firms to strategise, e.g. diversification



If real income decreases from £3,000 to £2,000 a month and the d… Sainsbury's' own brand bread increases from 500 loaves to 1,700 l… month,

a) Calculate the YED.
b) What type of good is this? Inferior good
c) Is the good relatively elastic or inelastic? Relatively elastic (a…

- $\%\ change\ in\ demand = \frac{1700-500}{500} \times 100 = 240\%$
- $\%\ change\ in\ income = \frac{3000-2000}{2000} \times 100 = 50$
- $YED = \frac{240}{50} = 4.8\%$

Cross ela…

Measures the resp… following a c…

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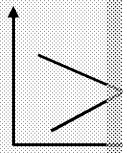
- XED = 0 means there is no …

Example:
Price of tea decreas…
- demand for milk …
- demand for coffe…

Significance of XE…
Allows firms to redu… through:
- Horizontal integr…
- Vertical integrati…
- Apt pricing strate…



Theme 1 (1.2c: Taxes and subsidies)

Subsidies

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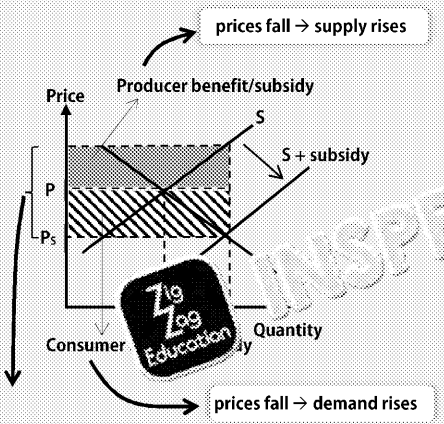
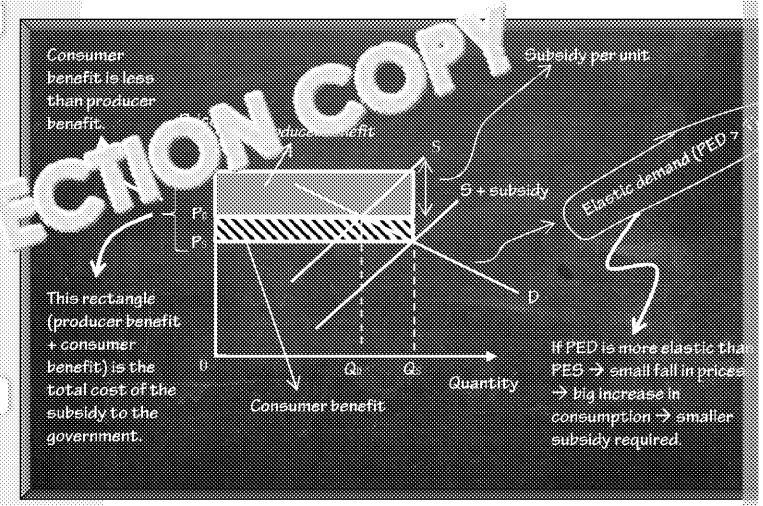


cost to government in the short-term

Elastic demand



Taxes

- **Direct taxes** are levied on income.
- **Indirect taxes** are levied on goods and services.

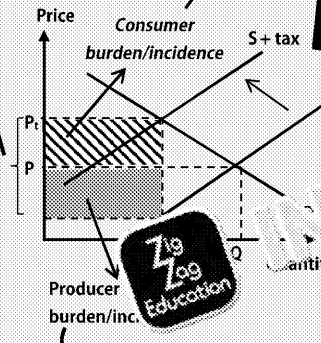
Indirect taxes

Specific tax

Government: more tax revenue for public spending or debt servicing.

prices rise → demand falls

set amount of tax levied on a good

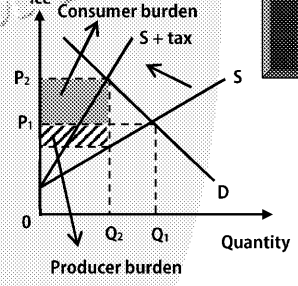


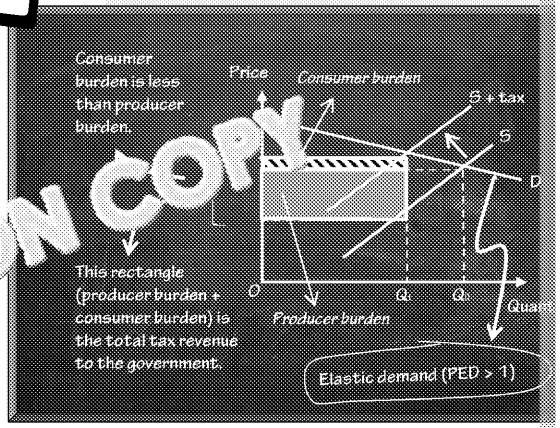
If PED is more elastic than PES → big fall in demand → lower revenue.

If PED is less elastic than PES → slight fall in demand → more revenue.

Ad valorem tax

levied as a percentage





Theme 1 (1.3: Market Failure)

Market failure

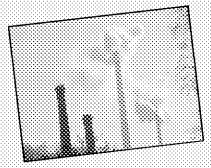
✓ **Market failure** refers to the misallocation of resources that result from the price mechanism when left alone.

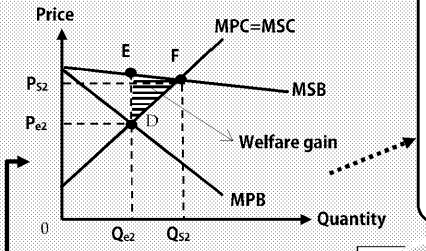
Some abbreviations:
- Marginal private benefit (MPB)
- Marginal private cost (MPC)
- Marginal social benefit (MSB)
- Marginal social cost (MSC)

Main types of market failure:
- Externalities
- Lack of public go
- Informati

Costs:
- **Private cost** = personal cost to the producer (consumer) of making (buying) a product, e.g. cost of labour/raw materials needed for production.
- **External cost** = indirect cost to a third party of producing/consuming a product, e.g. pollution from power stations.
- **Social costs** = External costs + Private costs.

✓ **Externalities refer to the good or bad consequences that occur following the consumption/production of goods and services..**



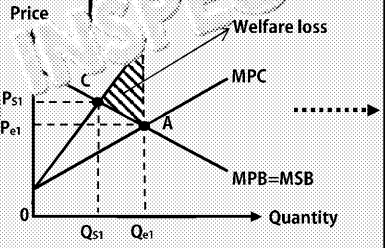


- Zero external costs
- External benefits = DE units.
- Market equilibrium (MPC=MPB) at point D.
- Social optimum position (MSC=MSB) at point F.
- Social optimum position is different to market equilibrium.
- Hence, for marginal output (Q_{e2} and Q_{S2}), MSB is greater than MSC.
- Good is underpriced and underproduced in a free market.
- Welfare [illegible]ea DEF

To [illegible] construction of [illegible] runway at Heathrow likely to lead to market failure?

Externalities

Benefits:
- **Private benefit** = personal utility to the producer (consumer) of making (buying) a product, e.g. satisfaction from consum[illegible] education.
- **External benefit** = in[illegible] benefit to a third party producing/consuming a product, e.g. benefits of education to society.
- **Social benefits** = External benefits + Private benefits



- MPC = supply curve
- MPB = demand curve
- Zero external benefits
- External cost = AB units.
- Market equilibrium (MPC=MPB) at point A.
- Social optimum position (MSC=MSB) at point C.
- Social optimum position is different to market equilibrium.
- Hence, for marginal output (Q_{e1} and Q_{S1}), MSC is greater than MSB.
- Good is underpriced and overproduced in a free market.
- Welfare loss = area ABC

Theme 1 (1.4: Government Intervention)

Government intervention and failure

Causes of government failure:

- ***Distortion of price mechanism*** = misallocation of resources when the price mechanism does not operate freely.
- ***Unintended consequences*** = state intervention can have added undesirable effects.
- ***Administrative costs***, e.g. monitoring compliance of rules and collecting of fines, taxes, etc.
- ***Asymmetric information*** = governments may lack all essential information necessary to make informed decisions.
- ***Conflicting priorities*** = can lead to incorrect or compromised measures taking place to deal with market failure.

✓ Government failure is a misallocation of resources from government intervention (to correct market failure).

✓ Government intervention is any measure that is undertaken by the state to correct a market failure, e.g. taxation.

Maximum price:

- A maximum price is generally imposed on goods with positive externalities.
- Max. price is set below the market equilibrium price, to encourage consumption.
- Supply contracts and excess demand or a shortage

Providing informa

Providing certain information can be r mandatory to facilita making efficient cho

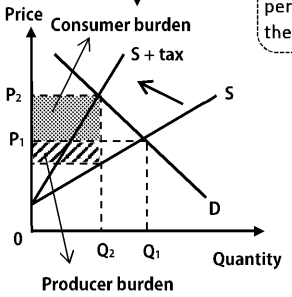
Tradable p

- Permits g
- Firms ca
- Gives inc
- This met market b

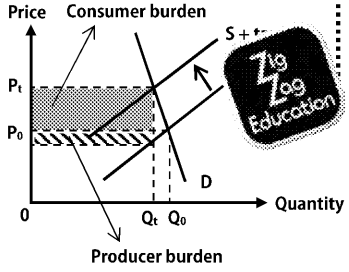
Public goods:

As free markets do not provide public goods, governments raise taxes to provide them.

Ad valorem tax = levied as a percentage of the good's price.



Specific tax = set amount of tax levied on a good.



Taxing alcohol:

- Alcohol has negative externalities.
- Placing an indirect tax equal to the amount of the externality shifts the supply curve to the left. This increases the price of alcohol, discouraging its consumption.
- This will decrease the negative externality, while tax revenue can be used for improving a country's welfare.

Possible gover... fa...

xi... ohol:

- The government may under- or overestimate the value of the externality, caused through excessive alcohol consumption. And so the socially optimal level will not be achieved.
- Potential risk of illegal trade to escape higher taxes.
- Demand for alcohol tends to be very inelastic, so people keep on drinking too much alcohol in spite of the tax.

Regulation:

Enforcement of rules/laws restricting consumption and/or production of goods and services with negative ext..., e.g. restrict the ... of ...garettes sold.

Possible government failure

Regulation:

- Can lead to a misallocation of resources, as the price mechanism is not allowed to function freely.
- Can create a black market.
- Costly to monitor compliance.

Theme 1 (1.1: Nature of Economics)

In order to find a causal link between two variables, certain **assumptions** need to be made. These assumptions form the basis of predictions.

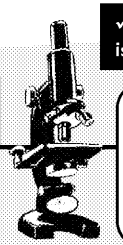
Process of creating economic models:

- Observation
- Forming hypothesis
- Forming predictions
- Testing predictions against evidence
- If evidence supports predictions, hypothesis becomes theory.

Main 'assumption' in economics is:

ceteris paribus

= everything else remains constant.



✓ **Economics is a social science because it is a study of society and human behaviour.**

Unlike scientists, economists are usually unable to test hypotheses in a lab using controlled experiments. They mostly have to rely on evidence that is already available.

Economists need to interpret **data** and use **graphs** to illustrate models.

Economics as a [illegible] science

Positive statements → based on facts. Can be tested and proven true or false.

Normative statements → value judgments or subjective opinions, and cannot be proven true or false.

These value judgments may be used to influence certain economic decisions. For example, ***in the case of a market failure, should the government intervene?***

Main ec[illegible]

= scarcity becau[illegible] while our **wan[illegible]**

PPFs an[illegible] economic [illegible]

Renewable resource[illegible] sunlight.

Non-renewable reso[illegible] quickly, e.g. oil.

✓ **PPF shows the op[illegible] combination of out[illegible] types of goods whe[illegible] resources are utilise[illegible]**

- **Consumer goods** are directly bough[illegible]
- **Capital goods** are used to make con[illegible]
- So more capital goods help produce [illegible]

Adam Smith

Smith argued that markets always existed (even before the state) due to the natural division of labour, which led to specialisation and hence the need to exchange goods. However, the barter system is inherently flawed.

✓ **Division of labour is about splitting work into various small tasks so that each task is performed by the same group of labourers repeatedly.**

Advantages:

- Repeating o[illegible] ta[illegible] incre[illegible]ity.
- [illegible]ne w[illegible]d in moving [illegible]asks.
- Less time and money spent on training workers.

Disadvantages:

- Repetitive tasks can cause boredom. High worker turnover.
- Splitting tasks allows easily switching to machines. Can cause structural unemployment.
- Production process may in fact take longer as workers become dependent on each other.

✓ **Specialisation is about focusing on producing only a few products to achieve efficiency.**

Advantages:

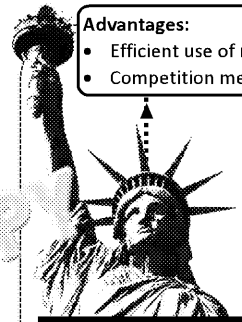
- Efficient use of resources.
- Improves economic growth.

Disadvantages:

- Country becomes over-reliant on certain goods.
- Can experience supply and demand side shocks.
- This could lead to massive unemployment.

Functions of money

- Medium of exchange
- Measure of val[illegible]
- Store o[illegible]
- [illegible] of [illegible]d p[illegible]



Advantages:

- Efficient use of resource[illegible]
- Competition means low[illegible]

✓ **Free market economy – where the economy is driven by the price mechanism.**

Role of state:

- Only intervene following a market failure.
- Only provide public goods, welfare spending, etc.

Theme 1 (1.2a: How Markets Work)

Consumer behaviour

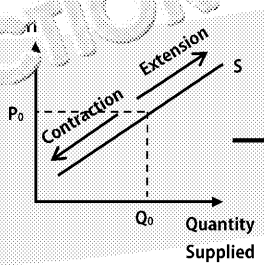
Rational decision making:
We assume that economic agents primarily pursue self-interest. For example, firms maximise profit, workers maximise wages, consumers maximise utility.

Irrational behaviour:
- People like to follow the trend ('herding behaviour'), regardless of its … them. For example, smoking.
- People find it hard to leave habits. For example, people may not chang… contracts, even if the move benefits them, because they are used to th…
- People find it hard to get their heads around mathematics. As a resu… overestimate the likelihood of an event occurring that in reality has a… probability – and vice versa.

Supply

✓ **Supply** is the amount of a good or service that a firm wants to and is able to sell at a certain price, in a given time period.

Movement along supply curve:
Chang… …even… a… …ply c…ve. For …ple, if price falls, …pply contracts.



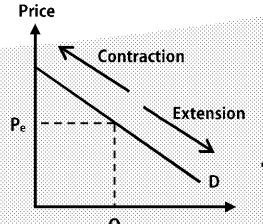
…ift in the supply curve:
- Subsidies provided by the government
- Indirect taxes imposed by the governm…
- Changes in the number of firms in the … providing a particular good or service
- Changes in technology
- Changes in costs, such as wage costs o… of capital goods
- Changes in the quantity of a resource, … emergence of a new gas field

Remember this does not include changes … price variable.

Demand

✓ **Demand** is the amount of goods and services that consumers want and can afford to buy for a given price over a given time period.

Movement along demand curve:
Changes in price lead to movements along a demand curve. For example, if price rises, demand contracts.

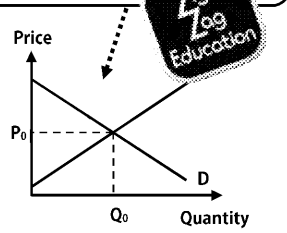


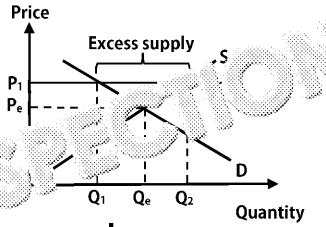
Shift in the demand curve result from …
- Population size
- Advertising
- Tastes and preferences
- Income changes
- Others: price of complement/substitut…

Remember this does not include changes … price variable.

The price mechanism

The point where demand and supply meet gives us the equilibrium price and …





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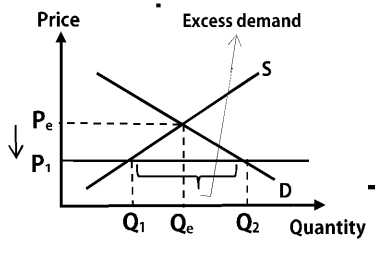

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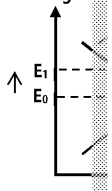

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PED and total revenue:
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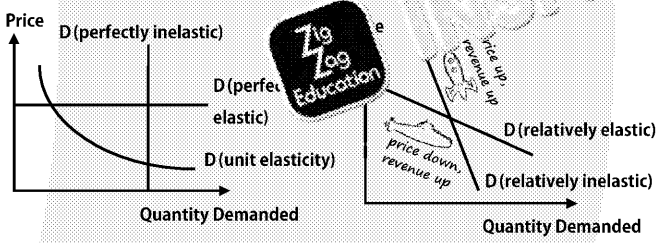

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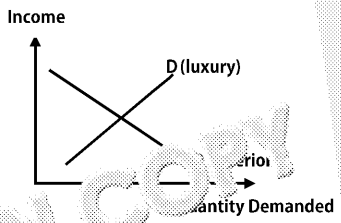
- Helps firms to strategise, e.g. diversification



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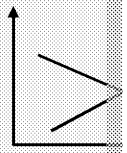
- XED < 0 means demand is … price of good A brings abo… demand for good B). (**Com…**
- XED = 0 means there is no …

Example:
Price of tea decreas…
- demand for milk …
- demand for coffe…

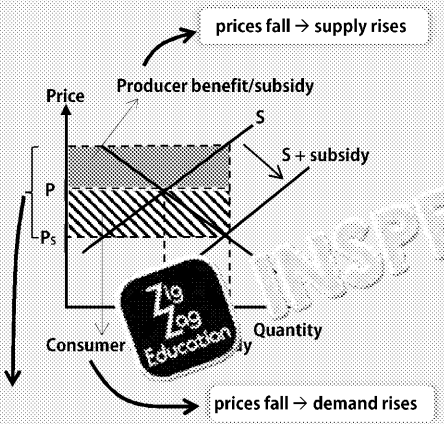
Significance of XE…
Allows firms to redu… through:
- Horizontal integr…
- Vertical integrati…
- Apt pricing strate…



Theme 1 (1.2c: Taxes and subsidies)

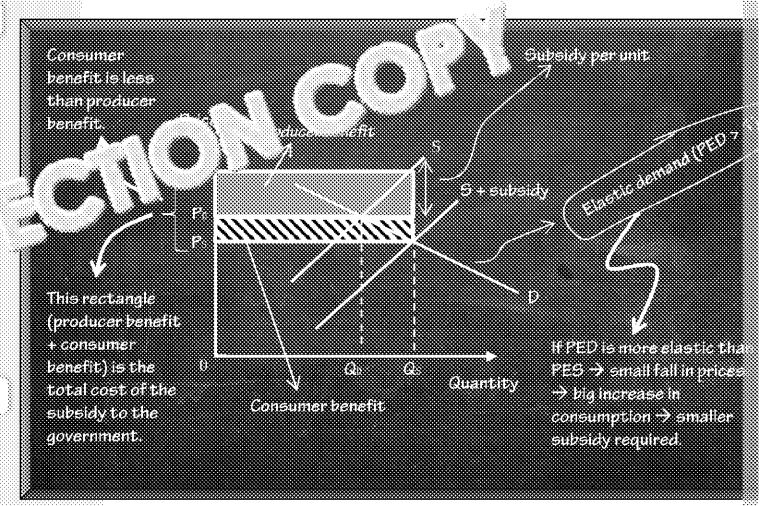
Subsidies

Original



cost to government in the short-term

Elastic demand



Taxes

- **Direct taxes** are levied on income.
- **Indirect taxes** are levied on goods and services.

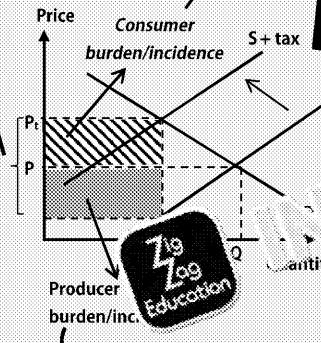
Indirect taxes

Specific tax

Government: more tax revenue for public spending or debt servicing.

prices rise → demand falls

set amount of tax levied on a good

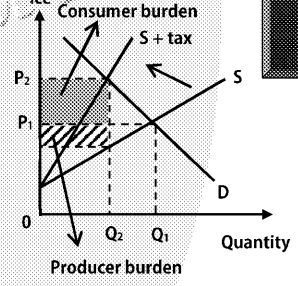


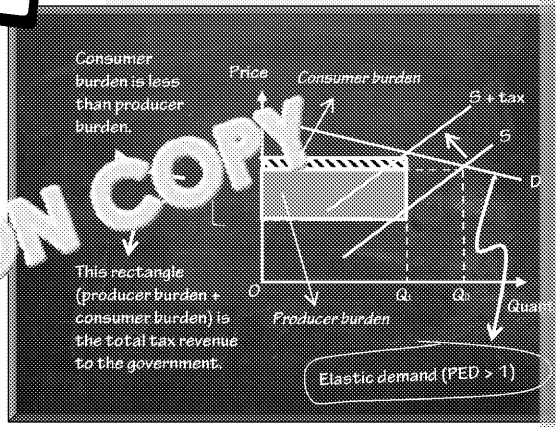
If PED is more elastic than PES → big fall in demand → lower revenue.

If PED is less elastic than PES → slight fall in demand → more revenue.

Ad valorem tax

levied as a percentage





Theme 1 (1.3: Market Failure)

Market failure

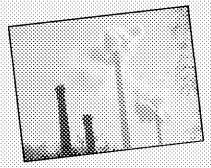
✓ **Market failure** refers to the misallocation of resources that result from the price mechanism when left alone.

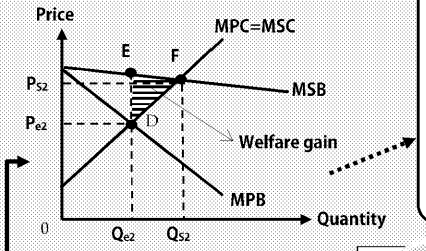
Some abbreviations:
- Marginal private benefit (MPB)
- Marginal private cost (MPC)
- Marginal social benefit (MSB)
- Marginal social cost (MSC)

Main types of market failure:
- Externalities
- Lack of public go
- Informati

Costs:
- **Private cost** = personal cost to the producer (consumer) of making (buying) a product, e.g. cost of labour/raw materials needed for production.
- **External cost** = indirect cost to a third party of producing/consuming a product, e.g. pollution from power stations.
- **Social costs** = External costs + Private costs.

✓ **Externalities refer to the good or bad consequences that occur following the consumption/production of goods and services..**



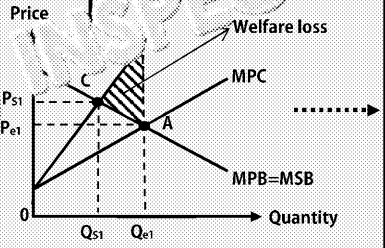


- Zero external costs
- External benefits = DE units.
- Market equilibrium (MPC=MPB) at point D.
- Social optimum position (MSC=MSB) at point F.
- Social optimum position is different to market equilibrium.
- Hence, for marginal output (Q_{e2} and Q_{S2}), MSB is greater than MSC.
- Good is underpriced and underproduced in a free market.
- Welfare [illegible]ea DEF

To [illegible] construction of [illegible] runway at Heathrow likely to lead to market failure?

Externalities

Benefits:
- **Private benefit** = personal utility to the producer (consumer) of making (buying) a product, e.g. satisfaction from consum[illegible] education.
- **External benefit** = in[illegible] benefit to a third party producing/consuming a product, e.g. benefits of education to society.
- **Social benefits** = External benefits + Private benefits



- MPC = supply curve
- MPB = demand curve
- Zero external benefits
- External cost = AB units.
- Market equilibrium (MPC=MPB) at point A.
- Social optimum position (MSC=MSB) at point C.
- Social optimum position is different to market equilibrium.
- Hence, for marginal output (Q_{e1} and Q_{S1}), MSC is greater than MSB.
- Good is underpriced and overproduced in a free market.
- Welfare loss = area ABC

Theme 1 (1.4: Government Intervention)

Government intervention and failure

Causes of government failure:

- ***Distortion of price mechanism*** = misallocation of resources when the price mechanism does not operate freely.
- ***Unintended consequences*** = state intervention can have added undesirable effects.
- ***Administrative costs***, e.g. monitoring compliance of rules and collecting of fines, taxes, etc.
- ***Asymmetric information*** = governments may lack all essential information necessary to make informed decisions.
- ***Conflicting priorities*** = can lead to incorrect or compromised measures taking place to deal with market failure.

✓ Government failure is a misallocation of resources from government intervention (to correct market failure).

✓ Government intervention is any measure that is undertaken by the state to correct a market failure, e.g. taxation.

Maximum price:

- A maximum price is generally imposed on goods with positive externalities.
- Max. price is set below the market equilibrium price, to encourage consumption.
- Supply contracts and excess demand or a shortage

Providing informa

Providing certain information can be r mandatory to facilita making efficient cho

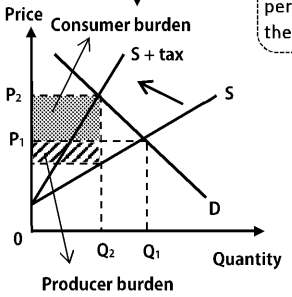
Tradable p

- Permits g
- Firms ca
- Gives inc
- This met market b

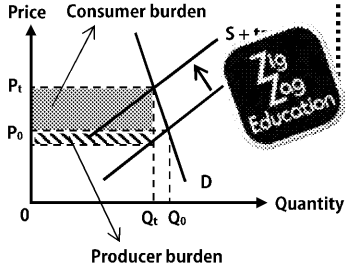
Public goods:

As free markets do not provide public goods, governments raise taxes to provide them.

Ad valorem tax = levied as a percentage of the good's price.



Specific tax = set amount of tax levied on a good.



Taxing alcohol:

- Alcohol has negative externalities.
- Placing an indirect tax equal to the amount of the externality shifts the supply curve to the left. This increases the price of alcohol, discouraging its consumption.
- This will decrease the negative externality, while tax revenue can be used for improving a country's welfare.

Possible gover... fa...

xi... ohol:

- The government may under- or overestimate the value of the externality, caused through excessive alcohol consumption. And so the socially optimal level will not be achieved.
- Potential risk of illegal trade to escape higher taxes.
- Demand for alcohol tends to be very inelastic, so people keep on drinking too much alcohol in spite of the tax.

Regulation:

Enforcement of rules/laws restricting consumption and/or production of goods and services with negative ext..., e.g. restrict the ... of ...garettes sold.

Possible government failure

Regulation:

- Can lead to a misallocation of resources, as the price mechanism is not allowed to function freely.
- Can create a black market.
- Costly to monitor compliance.