The Economic Problem

The Economic Problem

How do we best satisfy unlimited needs and wants with finite resources?

Economic Resources


Labour


Land


Capital


Entrepreneurship

Scarcity of Resources

Economic Trade-off

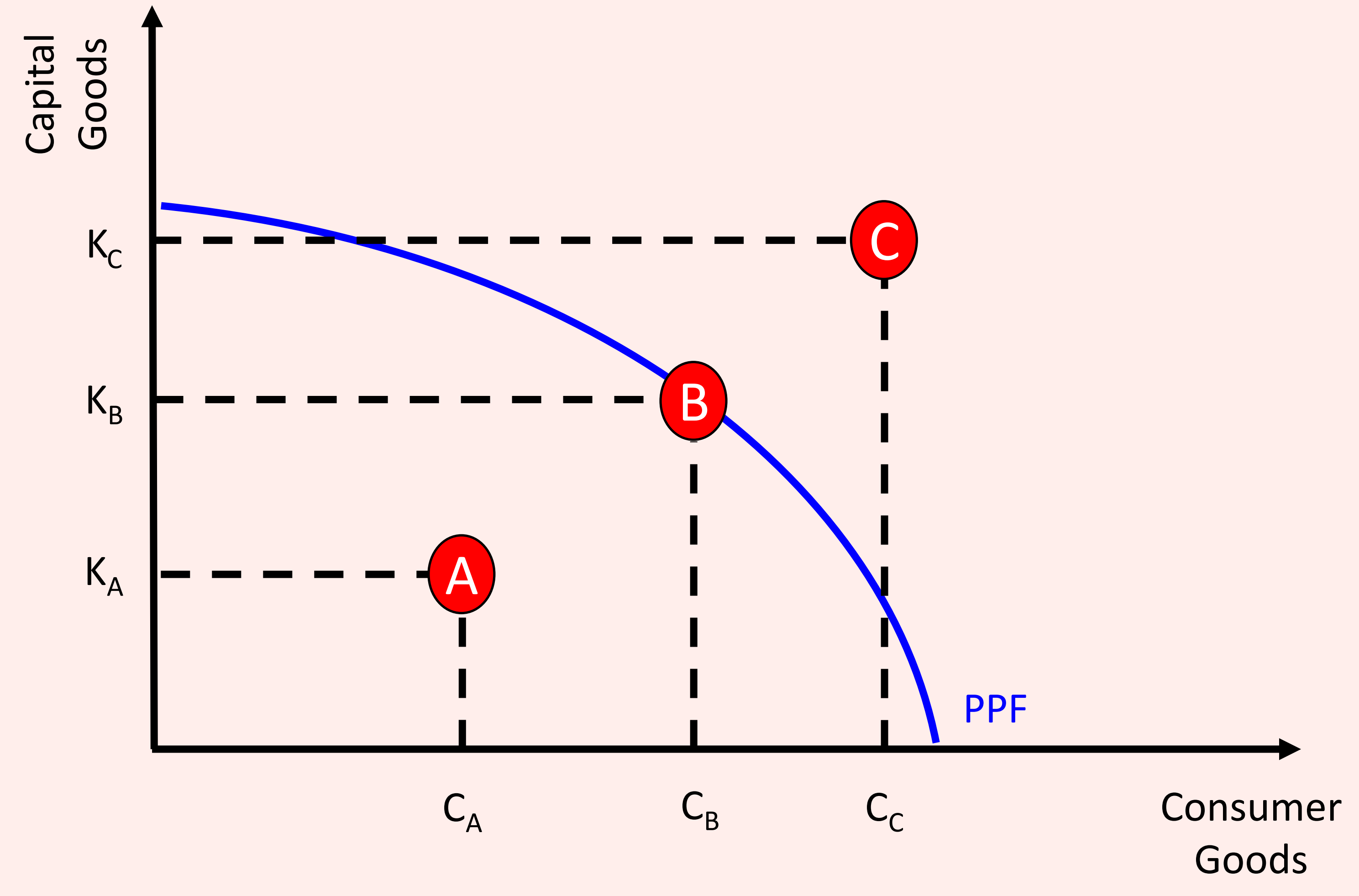
What goods should be produced?

How the goods should be produced?

Who receives the goods?

Opportunity Cost

Production Possibilities Frontier



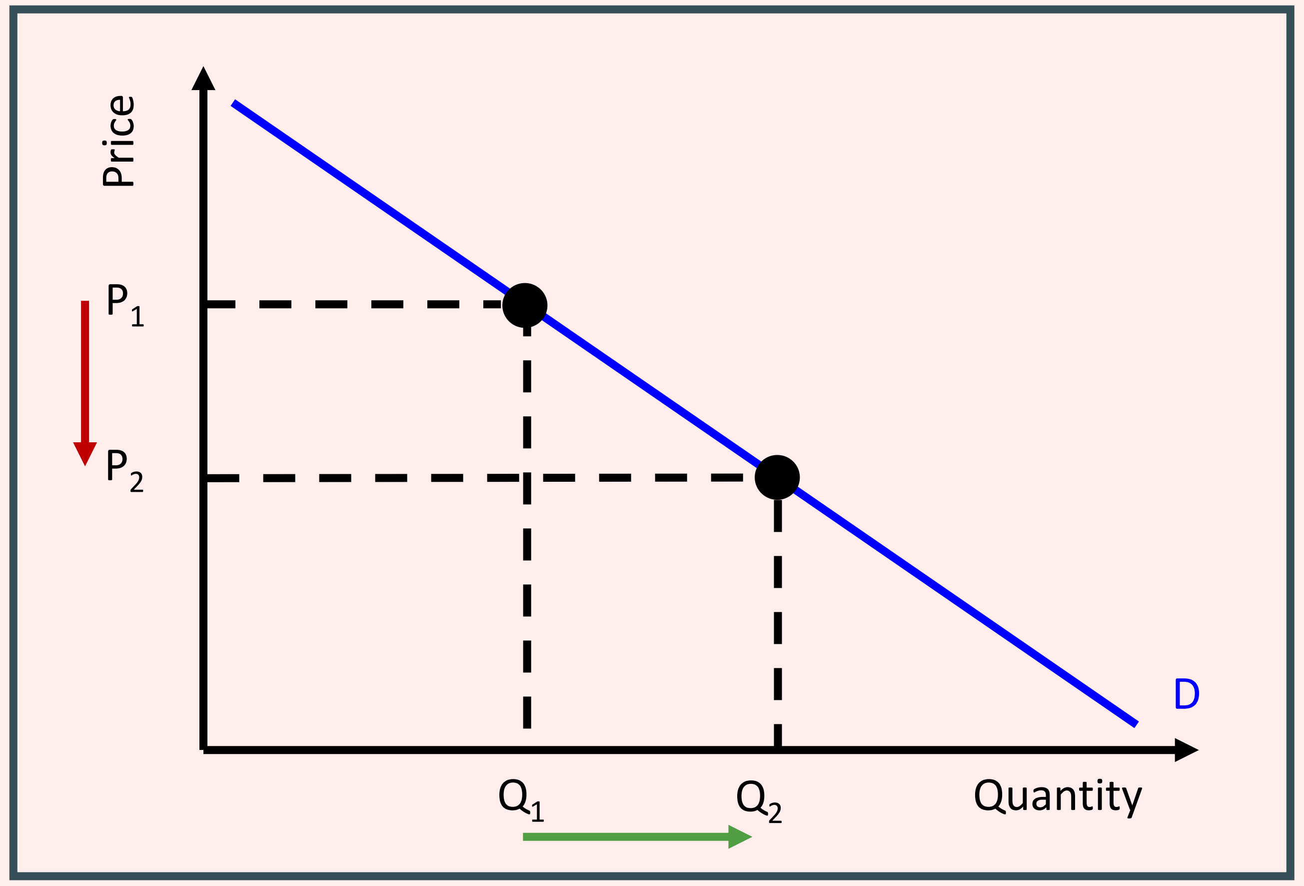
A	Productively Inefficient
B	Productively Efficient
C	Infeasible

Demand Curves

EZY ECONOMICS

Demand – Quantity of a good or service that consumers are willing to buy at any given price.

Demand Curve Movement

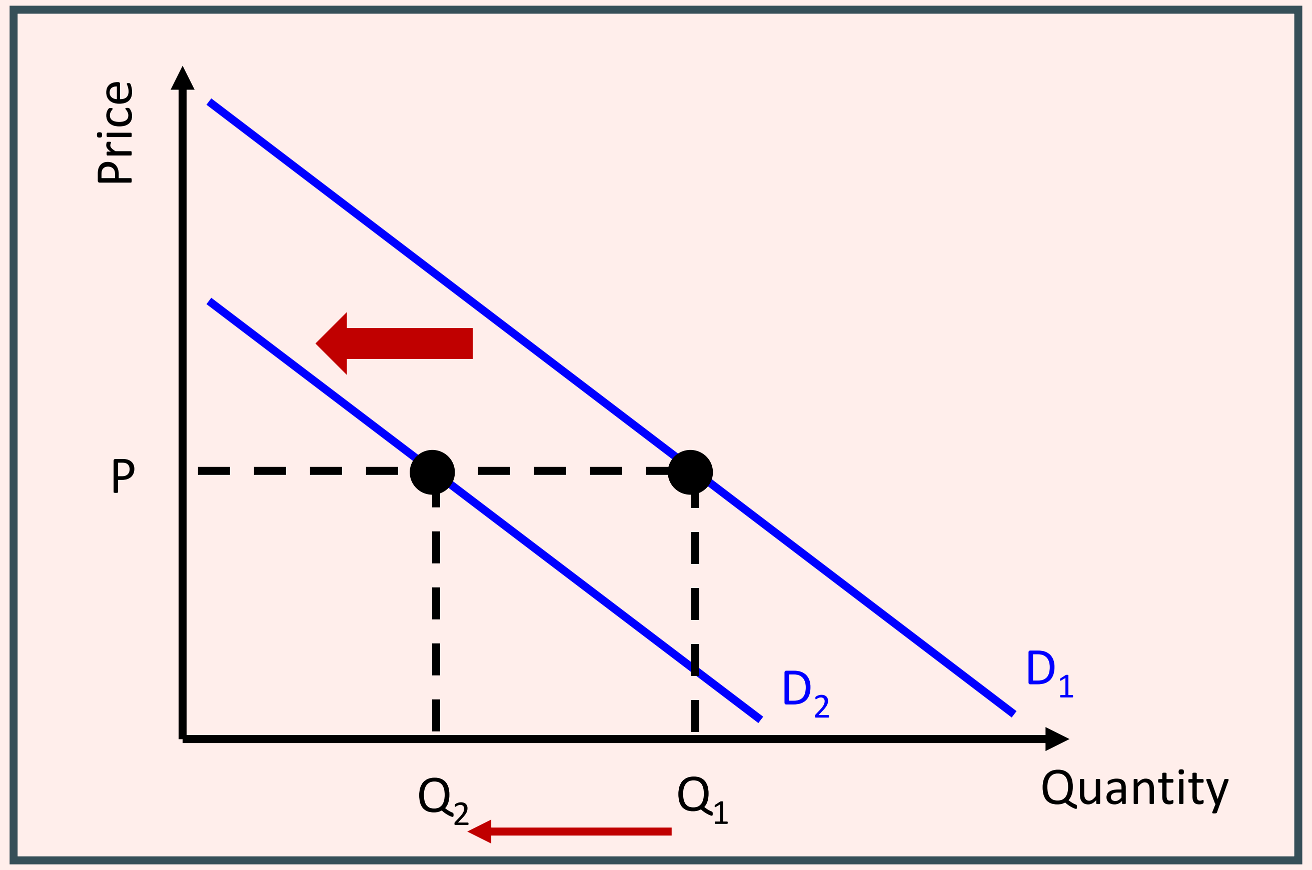


Law of Demand:

Price	▼
Demand	▲

Inverse Relationship

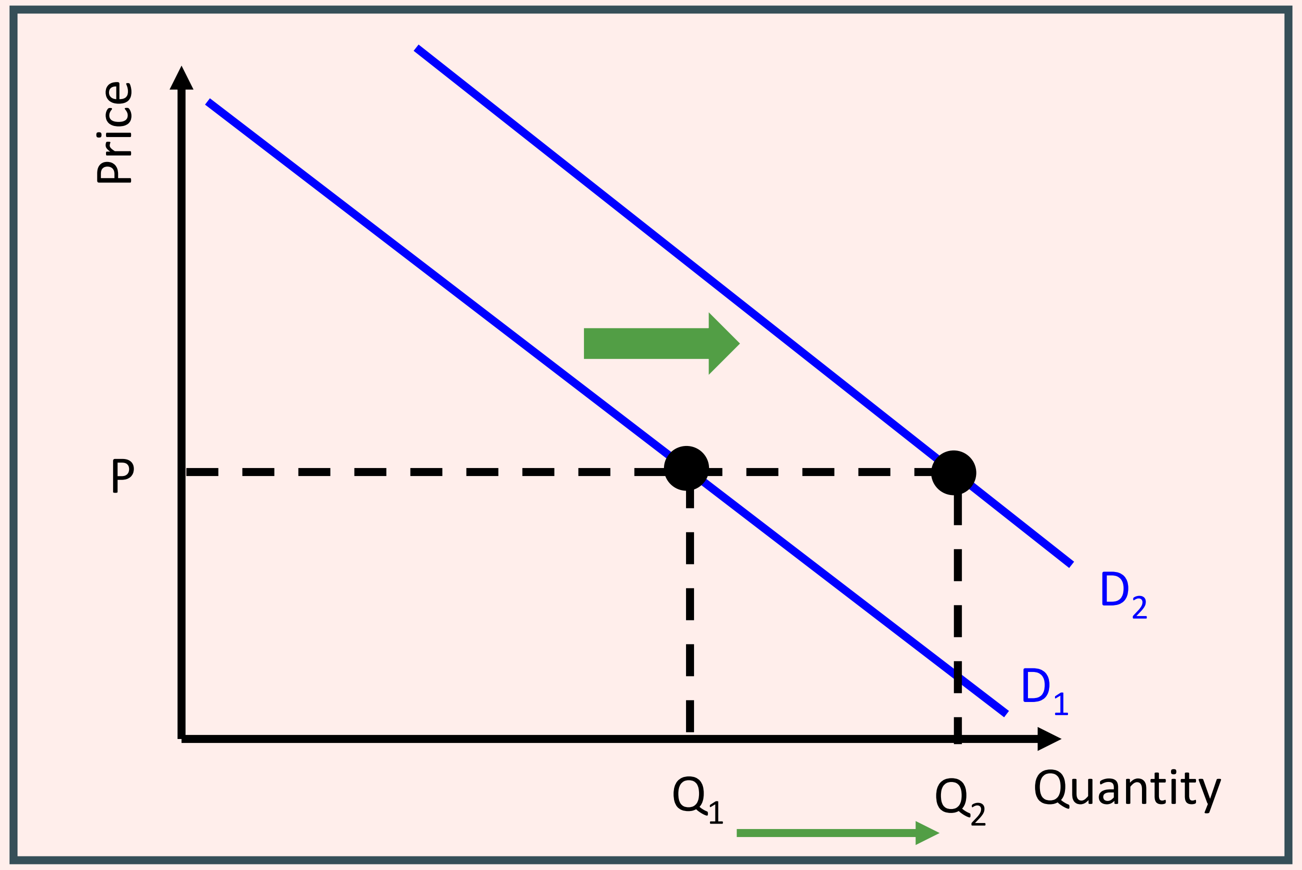
Inwards Shift



Causes:

▼	Level of Income
▼	Substitute Price
▲	Compliment Price
▲	Direct Taxation
▼	Population Size

Outwards Shift



Causes:

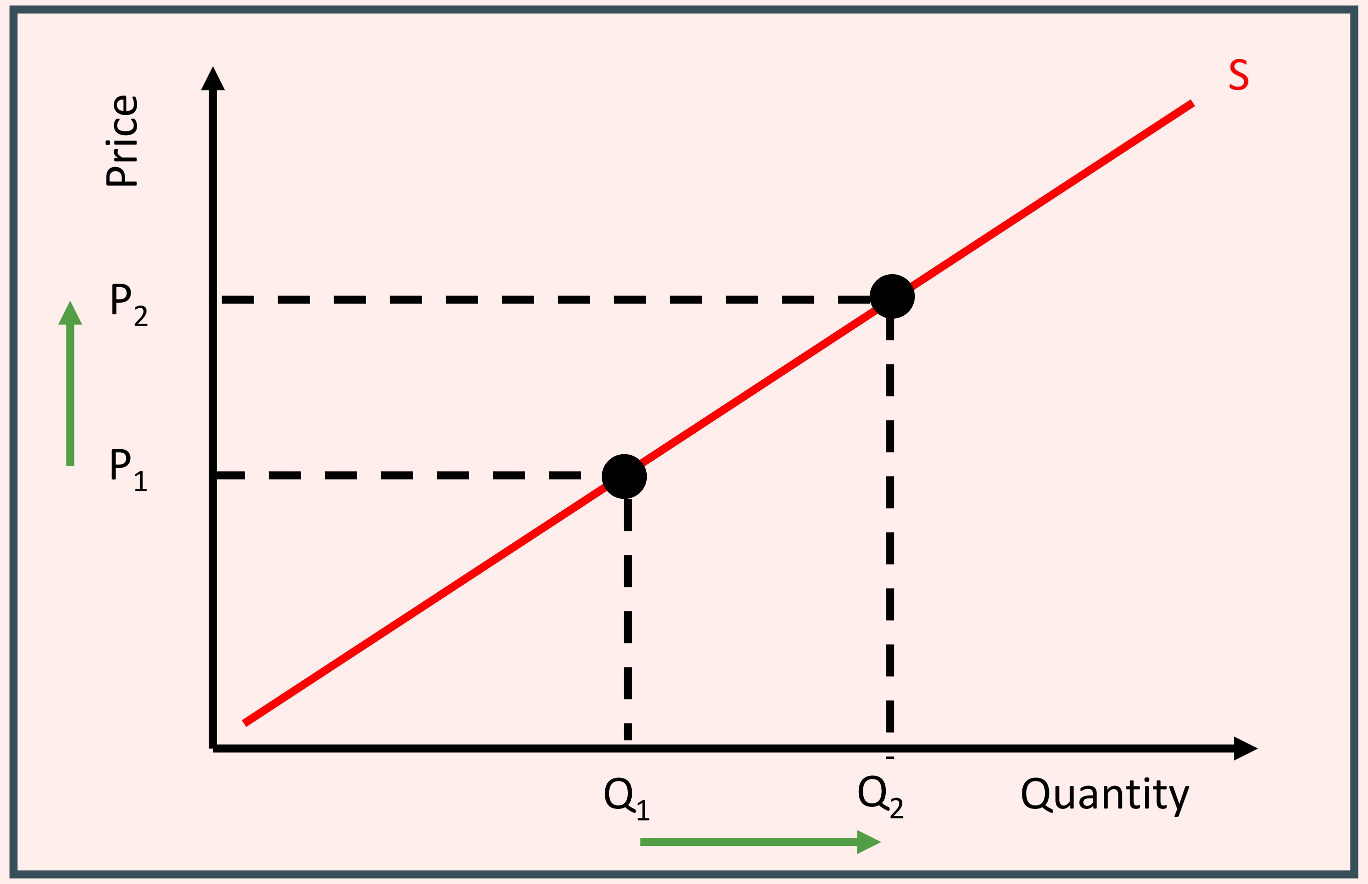
▲	Level of Income
▲	Substitute Price
▼	Compliment Price
▼	Direct Taxation
▲	Population Size

Supply Curves

EZY ECONOMICS

Supply	Quantity of a good or service that producers are willing to produce at any given price.

Supply Curve Movement

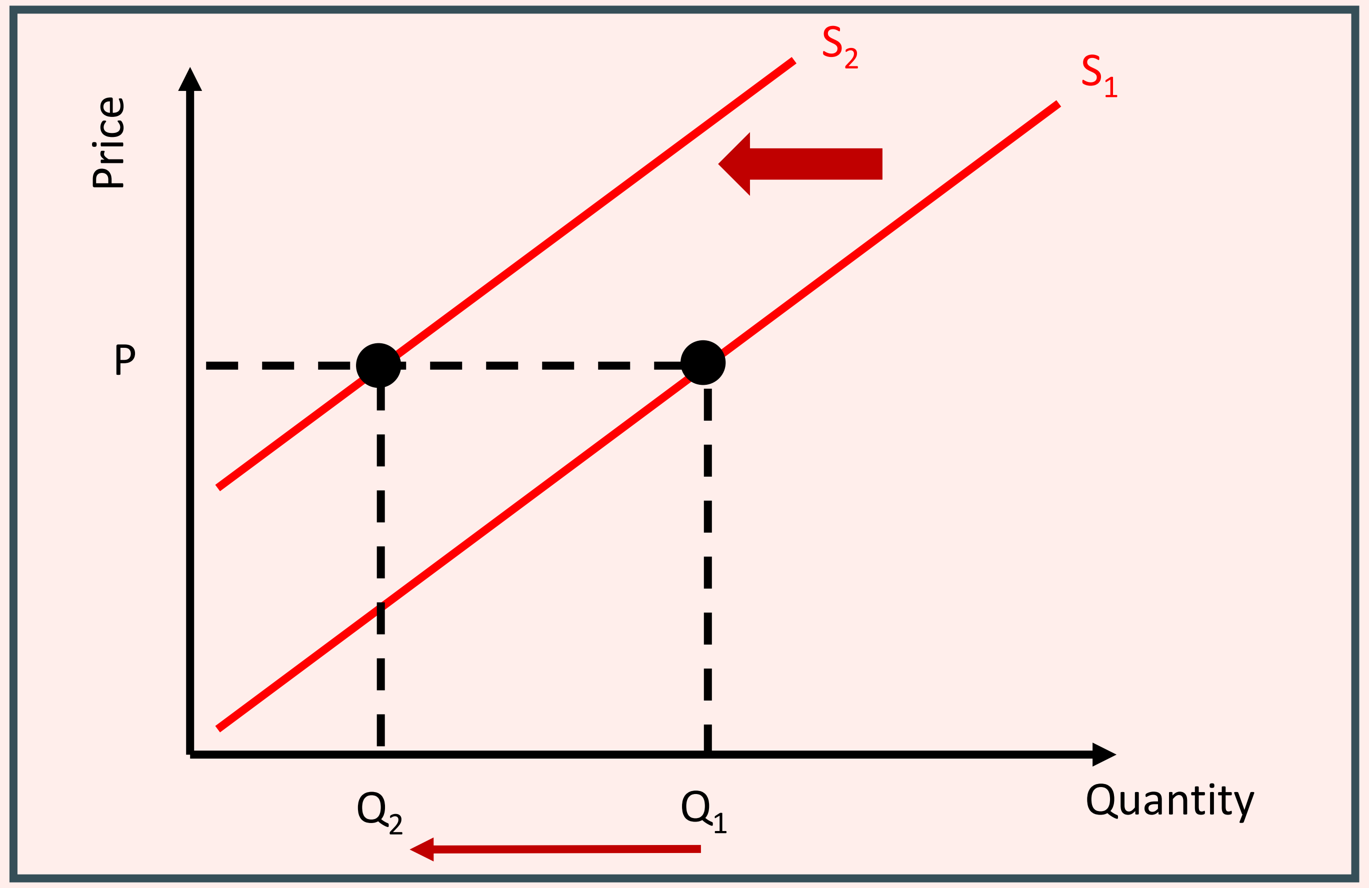


Profit Motive:

Price	▲
Supply	▲
Profits	▲

Positive Relationship

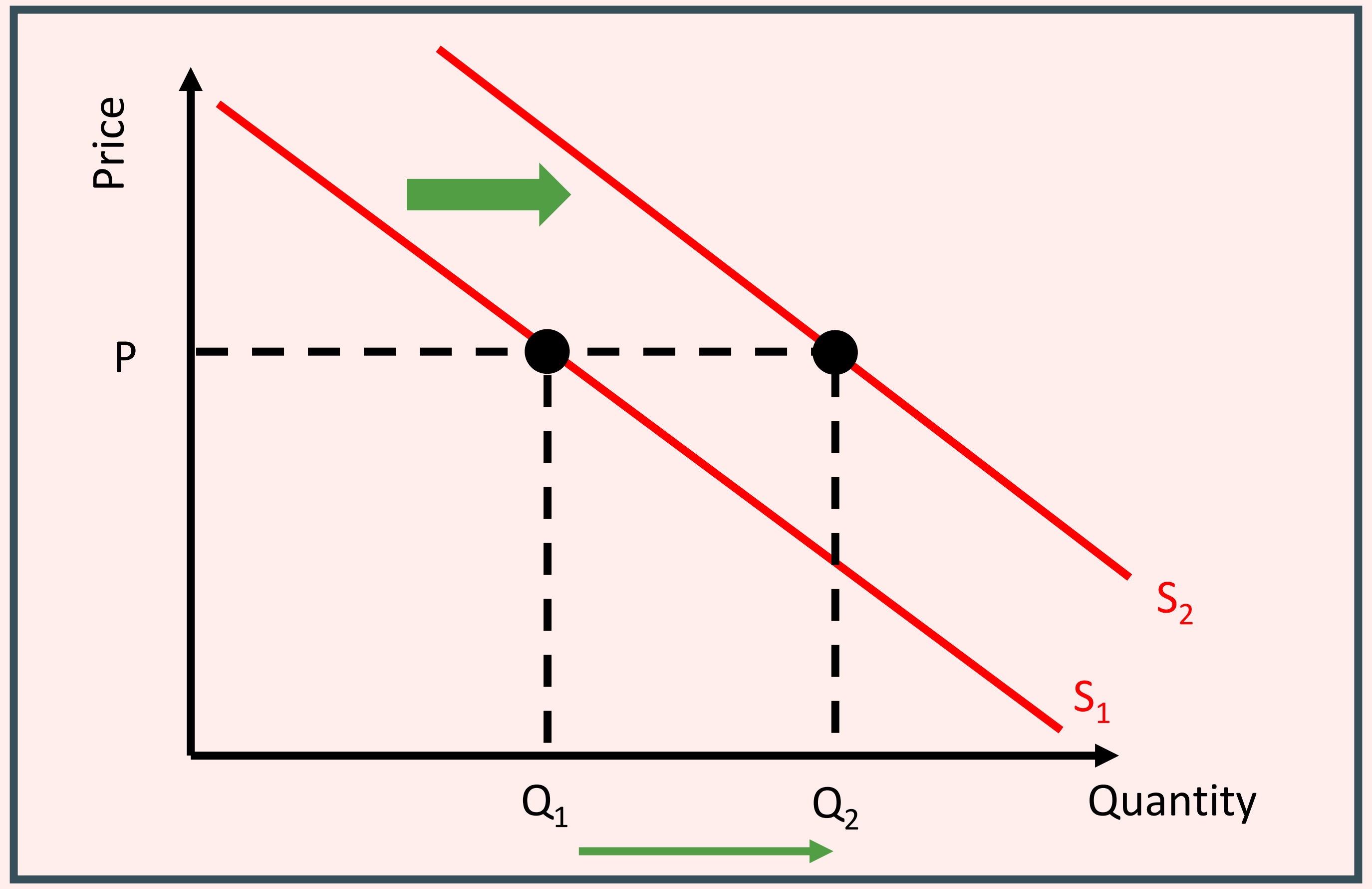
Inwards Shift



Factors:

▲	Production Costs
▼	Technology
▼	Availability of Inputs
▲	Indirect Taxation
▼	Value of Subsidies

Outwards Shift



Factors:

▼	Production Costs
▲	Technology
▲	Availability of Inputs
▼	Indirect Taxation
▲	Value of Subsidies

Price Elasticity of Demand (PED)

EZY ECONOMICS

PED — The responsiveness of the quantity demanded of a good or service to a change in the price.

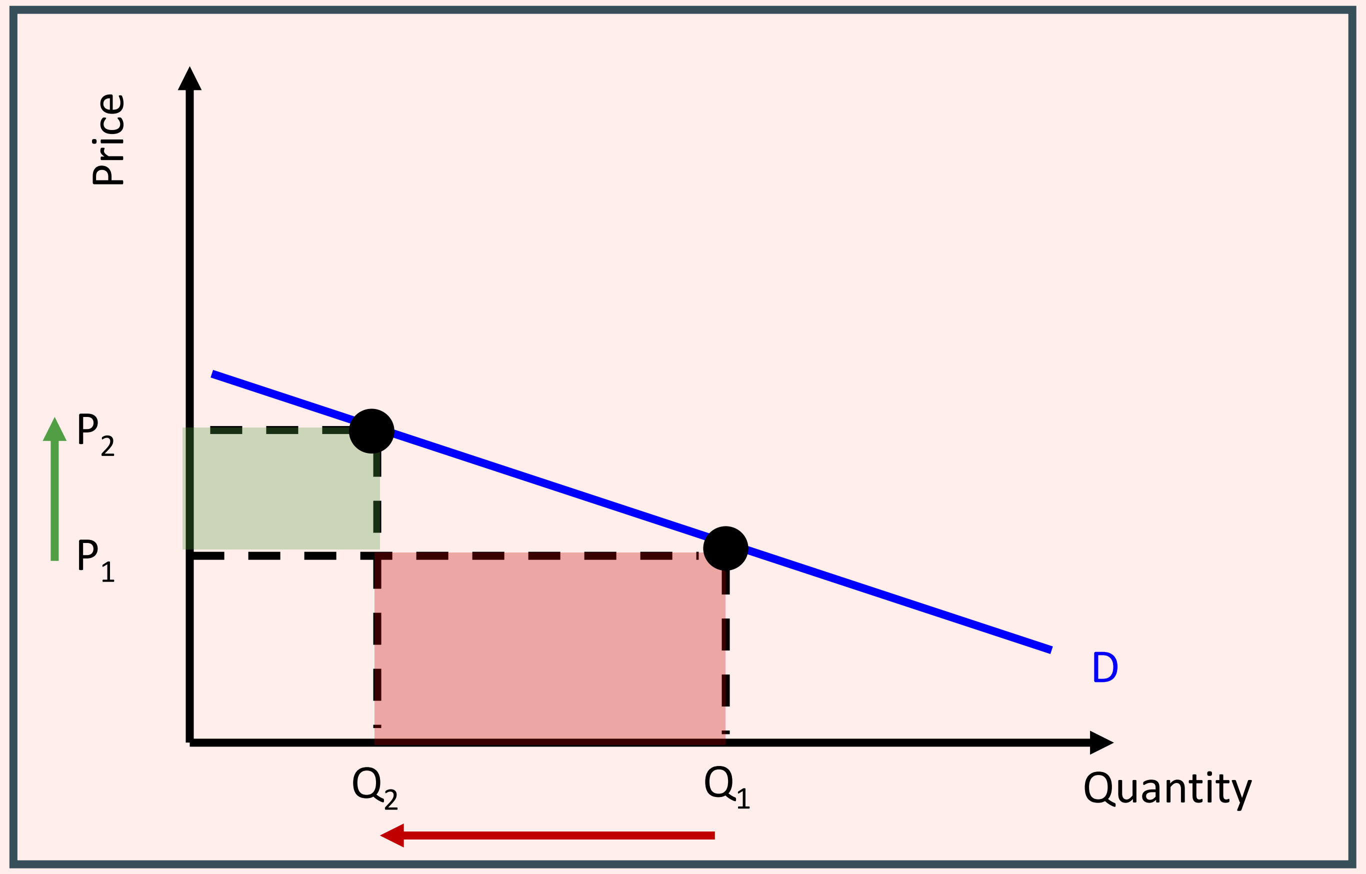
Formula —
$$PED = \frac{Percentage\ Change\ in\ Quantity\ Demanded}{Percentage\ Change\ in\ Price}$$

PED Values

PED Value	Demand
0	Perfectly Inelastic
$0 > PED > -1$	Inelastic
-1	Unit Elastic
$-1 > PED > -\infty$	Elastic
$-\infty$	Perfectly Elastic

- Substitutability of the Good
- Necessity of the Good
- Short-run vs. Long-run
- Proportion of Income
- Specific Market Conditions

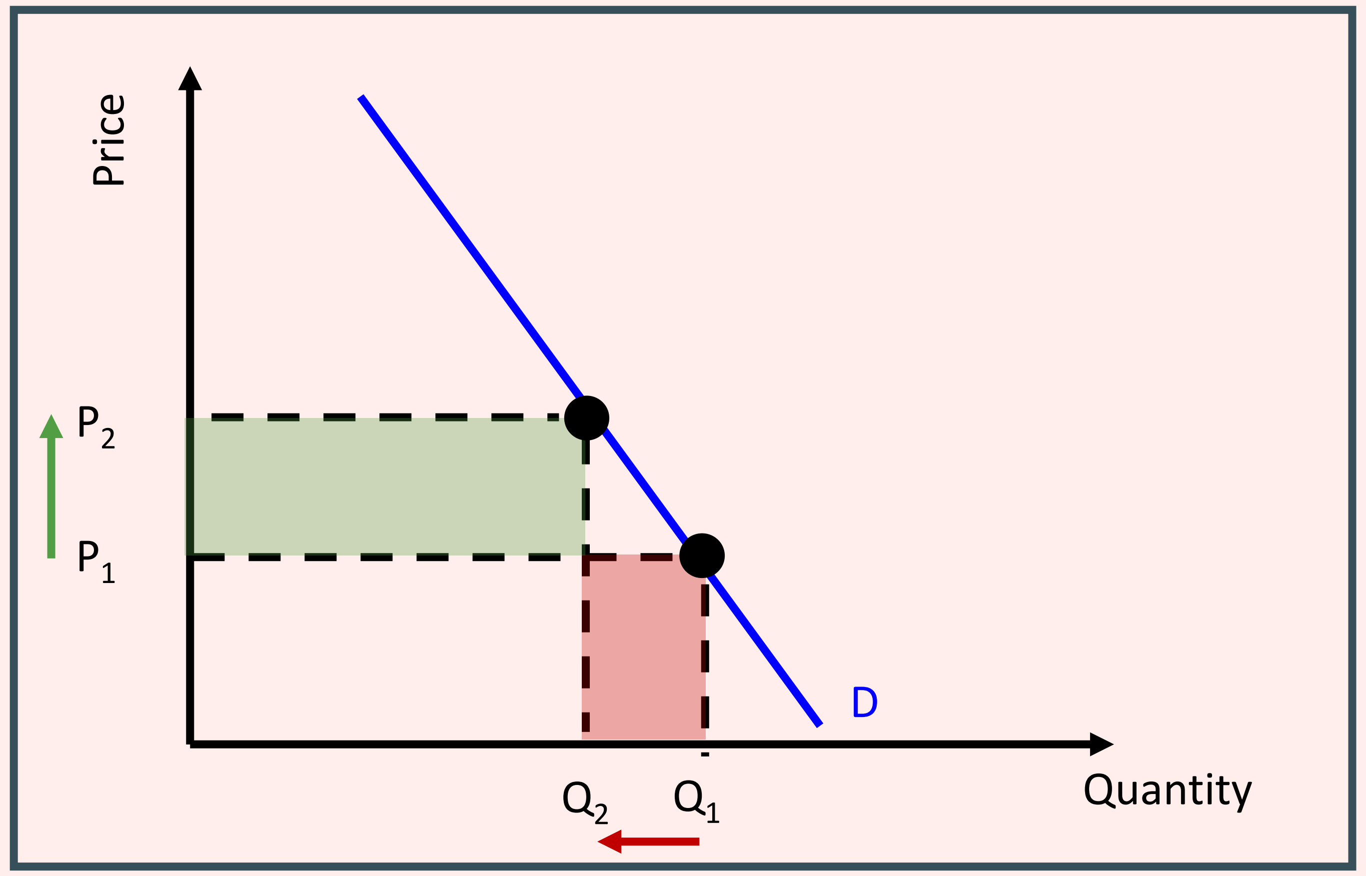
Elastic Demand



PED Value < -1:

△% in QD > △% in P

Inelastic Demand



PED Value > -1:

△% in P > △% in QD

Price Elasticity of Supply (PES)

EZY ECONOMICS

PES — The responsiveness of the quantity supplied of a good or service to a change in the price.

Formula

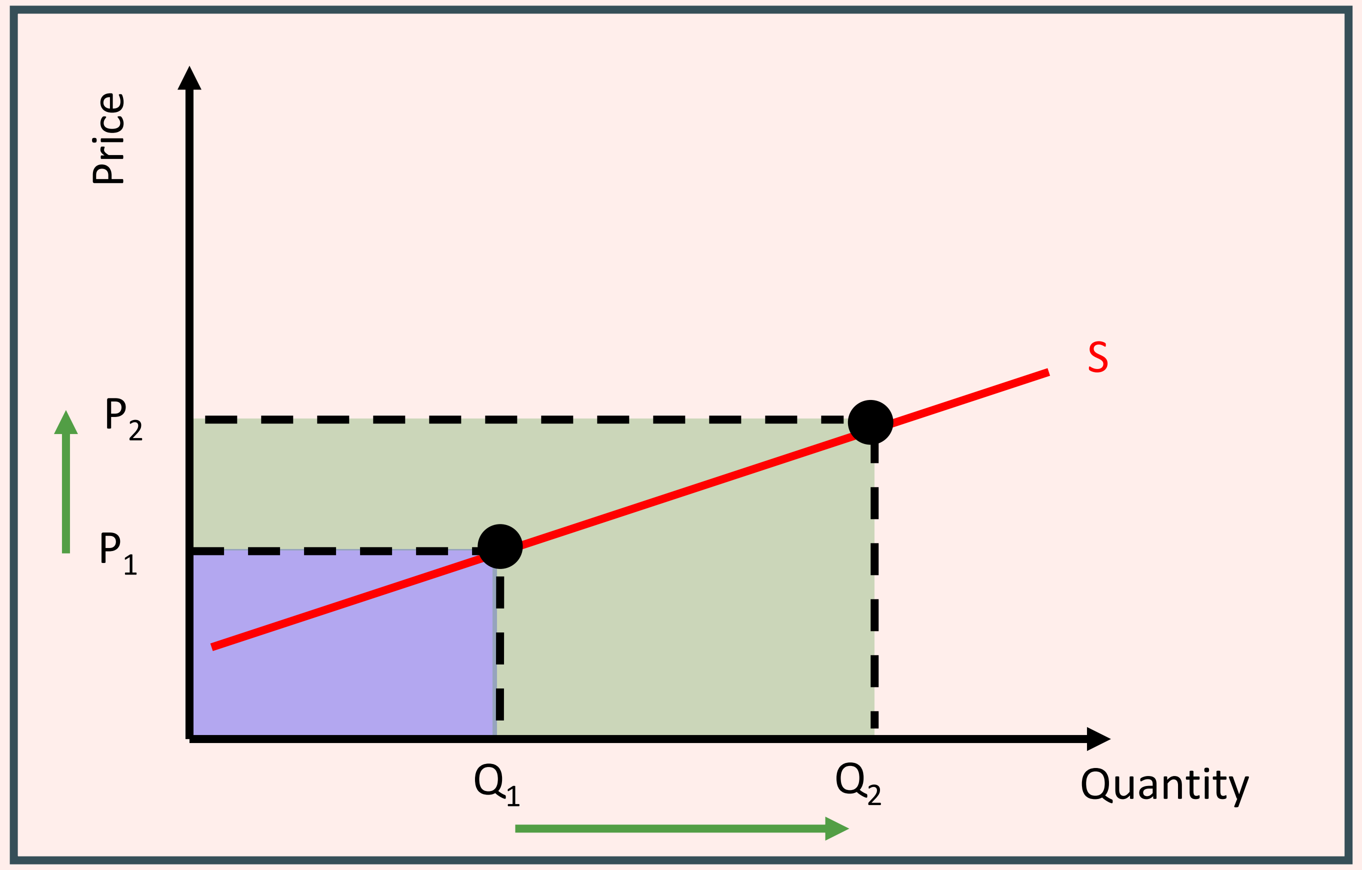
$$PES = \frac{Percentage\ Change\ in\ Quantity\ Supplied}{Percentage\ Change\ in\ Price}$$

PES Values

PES Value	Supply
0	Perfectly Inelastic
$0 < PES < 1$	Inelastic
1	Unit Elastic
$1 < PES < \infty$	Elastic
∞	Perfectly Elastic

- Level of Spare Capacity
- Ease/Cost of Factor Substitutability
- Short-run vs. Long-run
- Inventory Stock Levels
- Market Structure

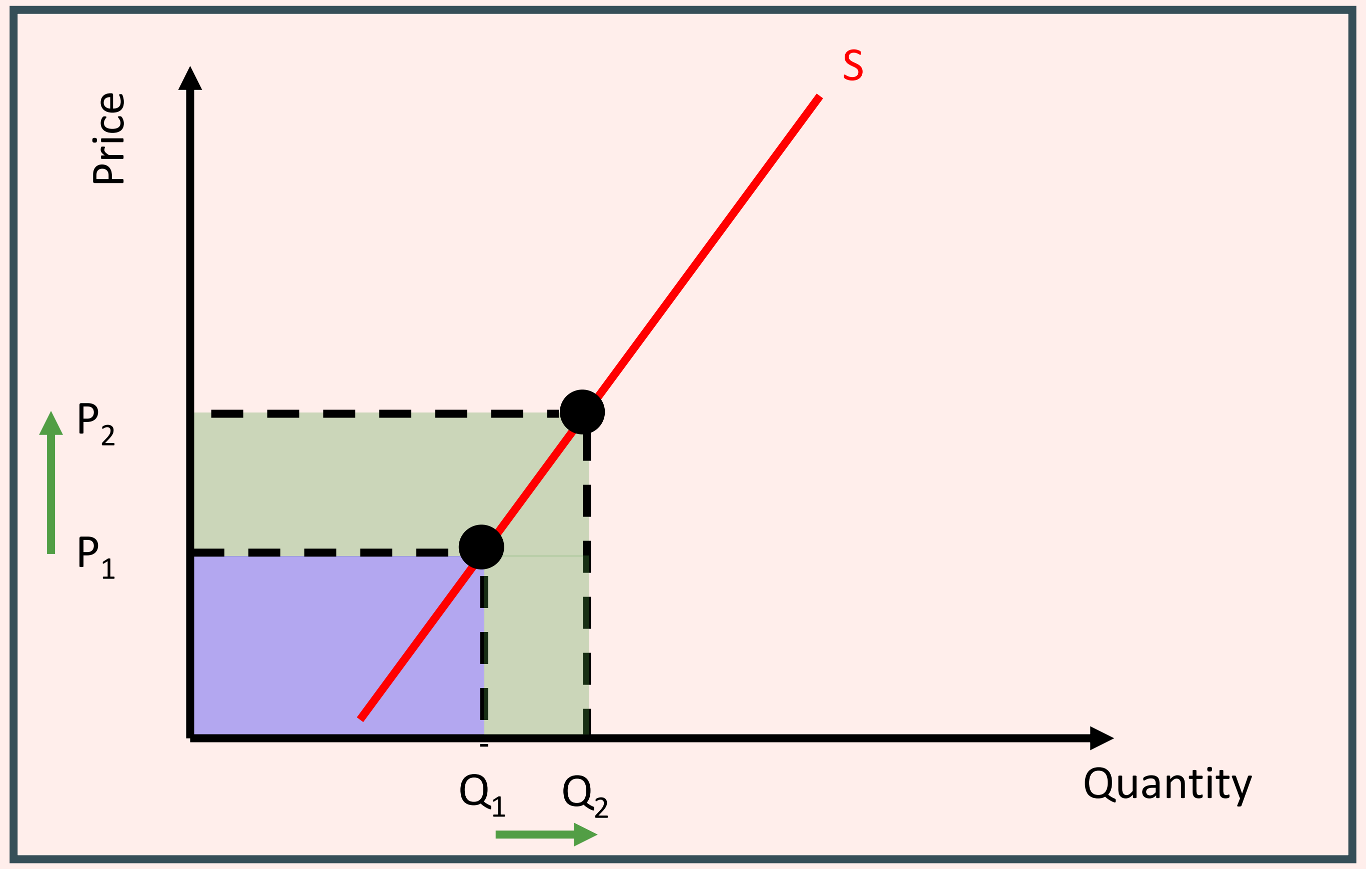
Elastic Supply



PES Value > 1:

△% in QS > △% in P

Inelastic Supply



PES Value < 1:

△% in P > △% in QS

XED and YED

Income Elasticity of Demand (YED)

The responsiveness of the quantity demanded of a good or service to a change in income.

$$YED = \frac{\Delta\% \ in \ Quantity \ Demanded}{\Delta\% \ in \ Income}$$

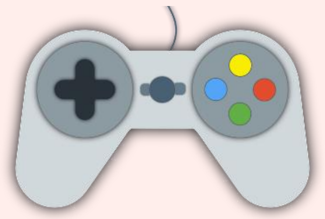
Inferior Good	Normal Good	Luxury Good
YED < 0	0 < YED	YED > 1
Income ▲	Income ▲	Income ▲
Demand ▼	Demand ▲	Demand ▲▲

Cross Elasticity of Demand (XED)

The responsiveness of the quantity demanded of a good or service to a change in the price of another good or service.

$$XED = \frac{\Delta\% \ in \ Quantity \ Demanded \ of \ Good \ B}{\Delta\% \ in \ Price \ of \ Good \ A}$$

Negative XED (-)	Positive XED (+)
Good A Price ▲	Good A Price ▲
Good B Demand ▼	Good B Demand ▲
Compliments	Substitutes



AND

OR

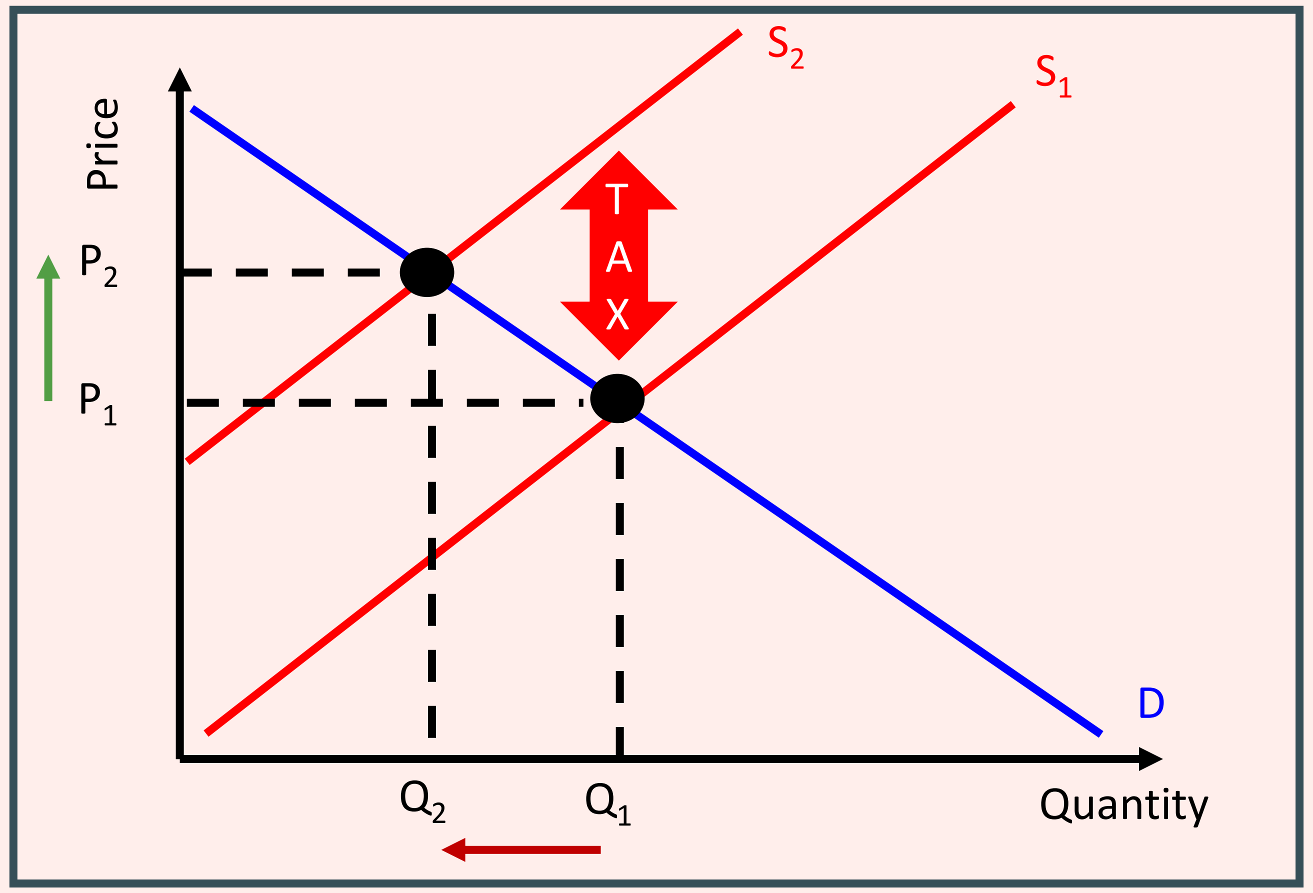
Indirect Taxes

EZY ECONOMICS

Indirect Taxation — Taxes imposed by the government upon the purchase of goods and services.

Specific (Unit) Tax

E.g. Excise Duties

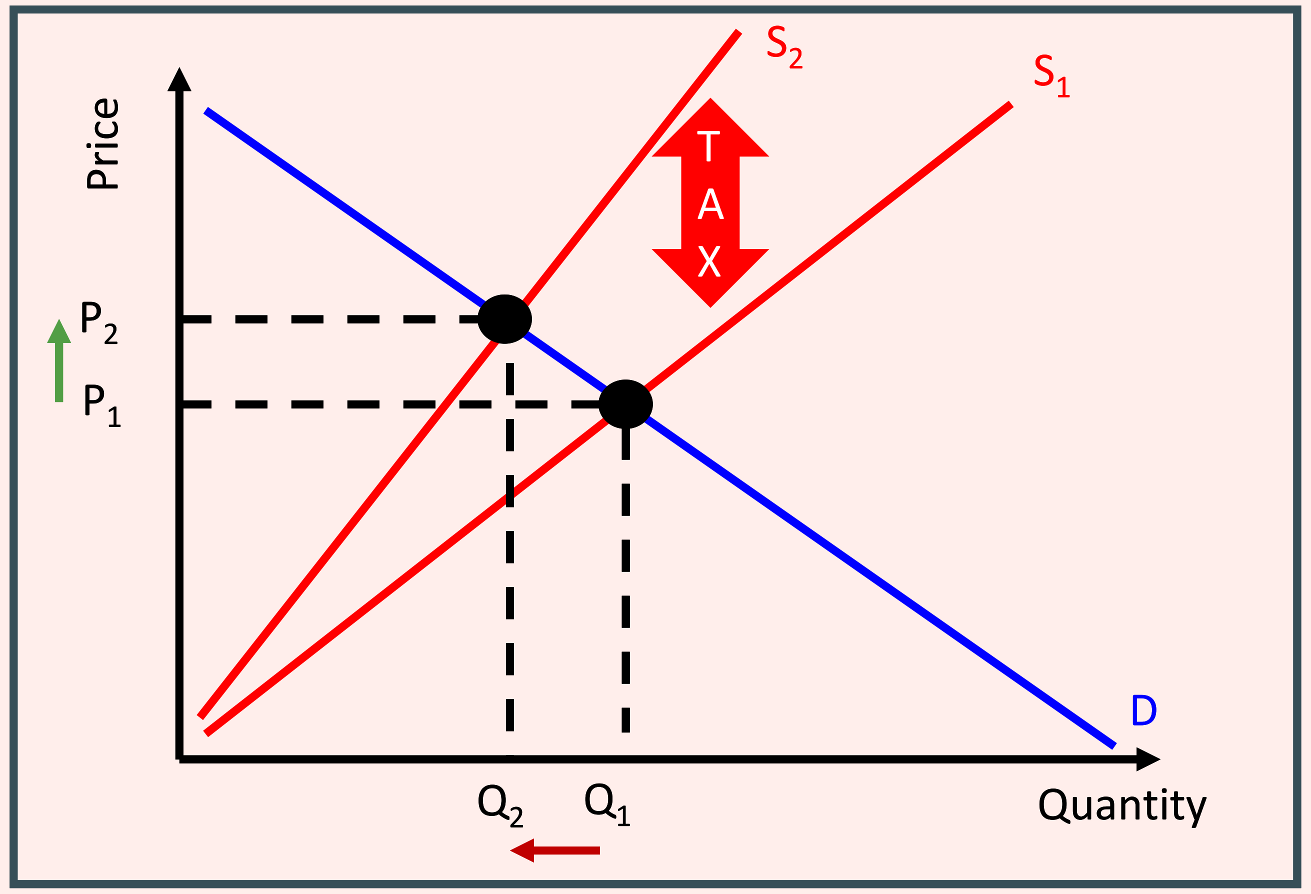


Tax per unit is the vertical distance between supply curves

Price	▲
Quantity	▼

Ad Valorem Tax

E.g. Value Added Tax

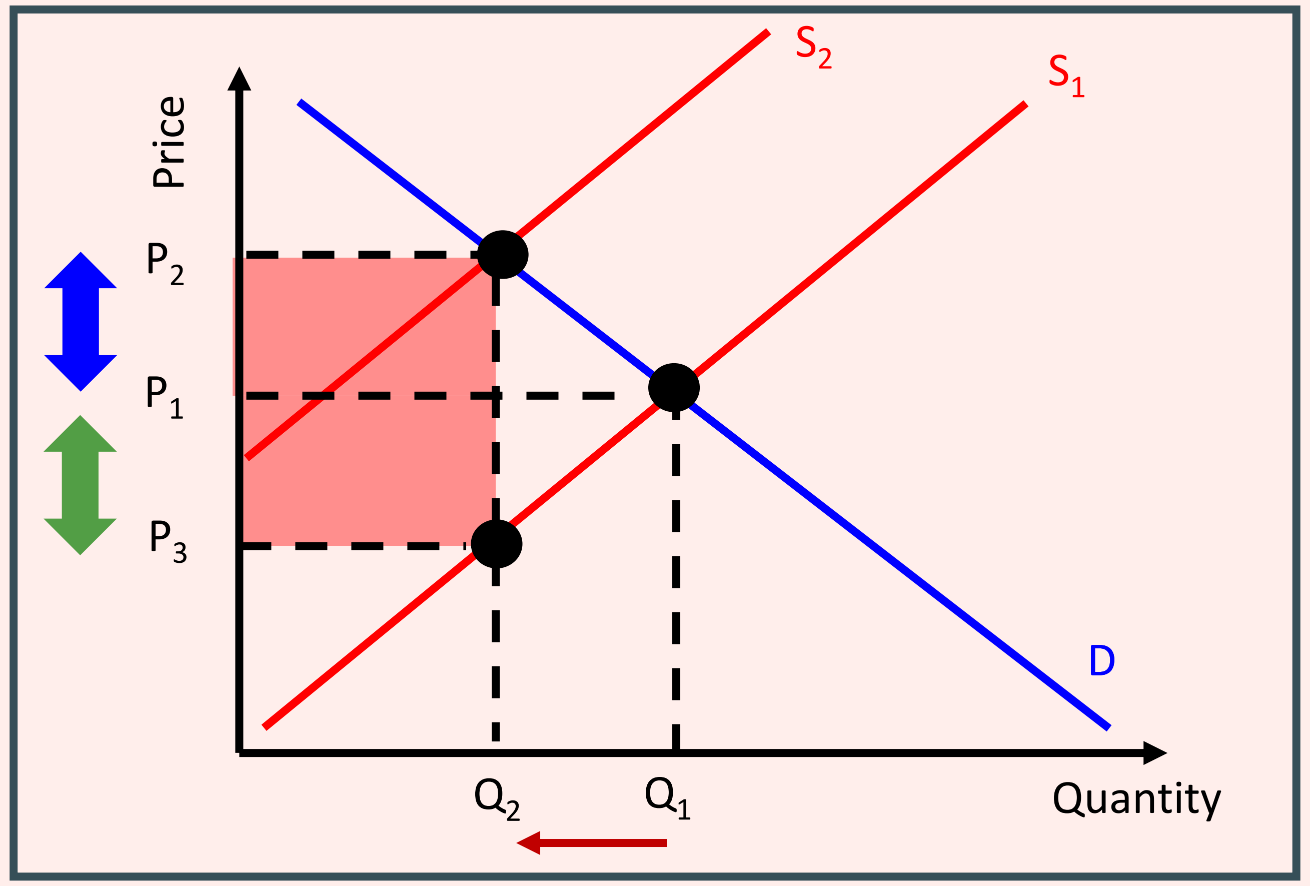


Absolute value of tax increases as price of product increases

Price	▲
Quantity	▼

Incidence of Tax

Tax Burden



Consumer Incidence

Producer Incidence

Govt. Tax Revenue

Elasticity?

Subsidies

EZY ECONOMICS

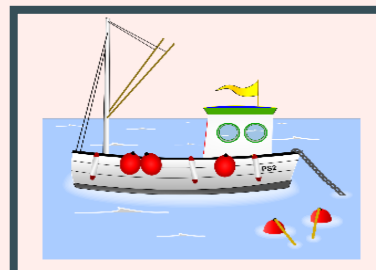
Subsidies — Fixed payments made by the government to producers, to help reduce the cost and price of a good or service.

Subsidy Examples


Rail Travel Subsidies

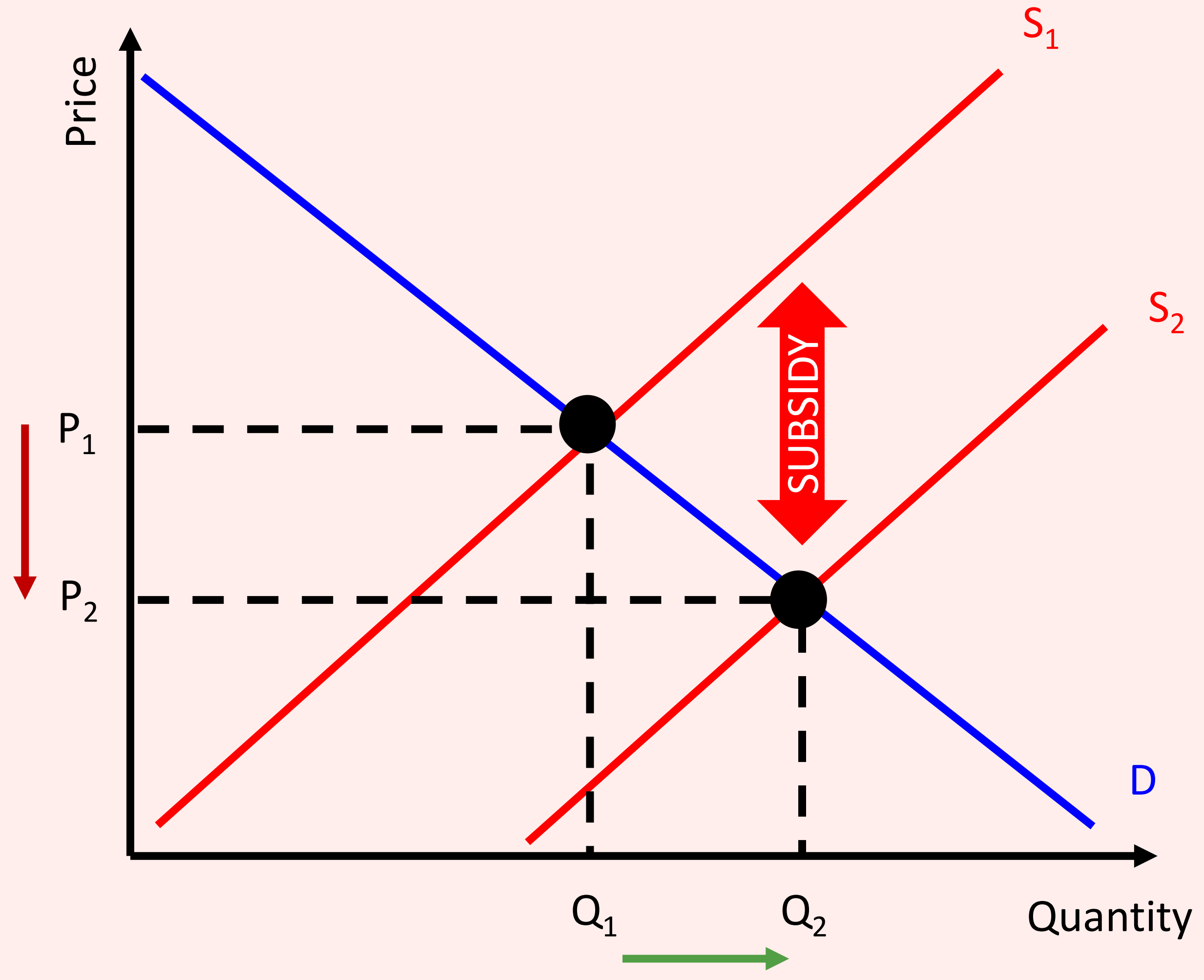

Renewable Energy Subsidies


Farming Subsidies


Fishery Subsidies


Childcare Subsidies

Effect of a Producer Subsidy

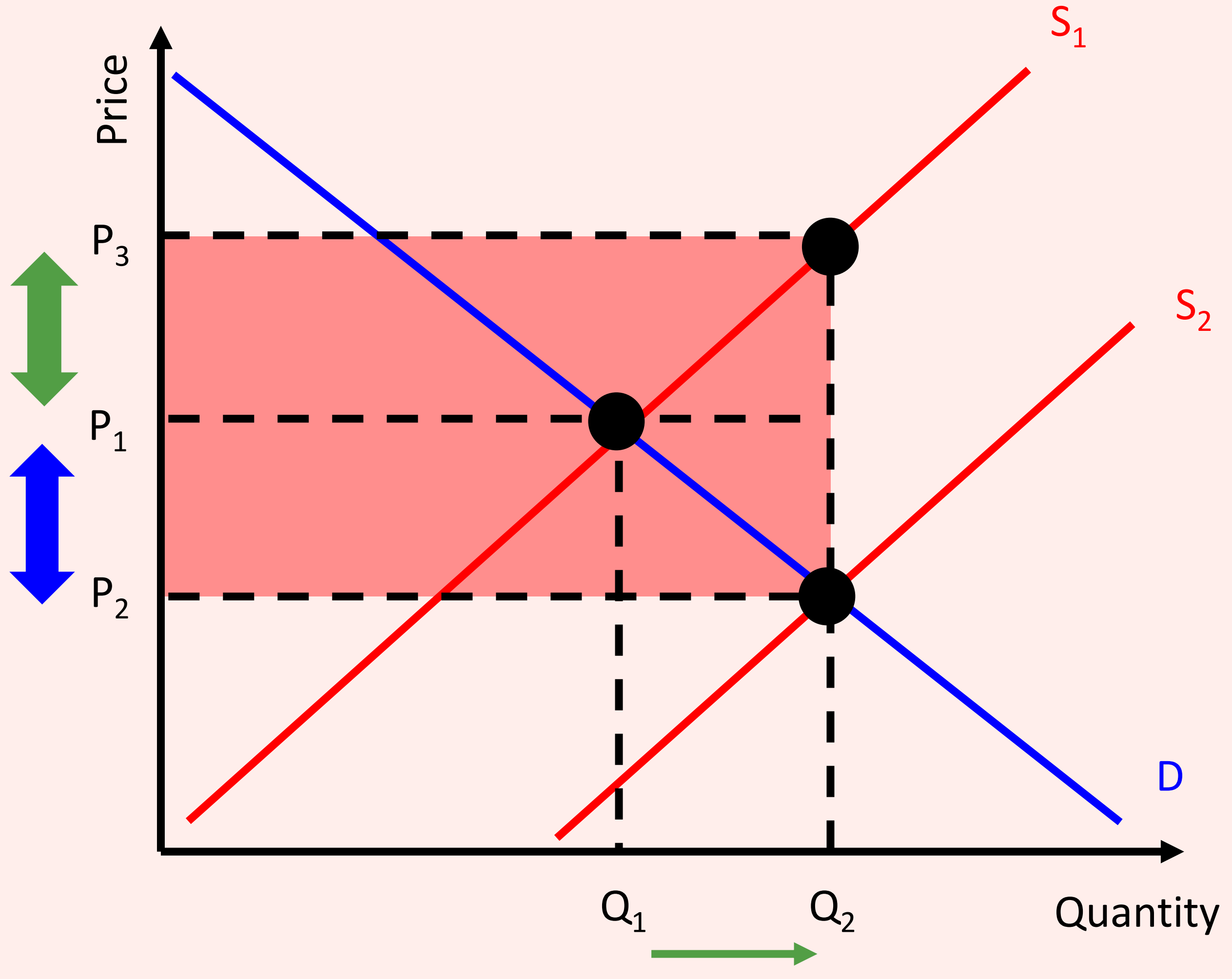


Vertical distance represents value of per unit subsidy

Price ▼

Quantity ▲

Incidence of Subsidy



Consumer Benefit

Producer Benefit

Govt. Subsidy Cost

Elasticity?

The Theory of Competition

EZY ECONOMICS

Competition – The extent to which rival firms compete with each other within a market.

Objectives
- Survival/Growth
- Sales Revenue
- Market Share
- Profits

Perfect Competition

A theoretical model that describes the conditions required for intense competition to take place between firms.

- Large number of buyers and sellers
- Price takers
- Sell homogeneous products
- No barriers to entry/exit

Theoretical Model
- Low Prices
- Efficiency Benefits

Monopoly

A market structure where one firm exerts dominant control of the market.

- One dominant firm
- Price maker (Monopoly Power)
- Absolute product differentiation
- Significant barriers to entry/exit
- High Prices
- Lower Welfare and Efficiency

Factors

- Number of Firms
- Extent of Product Differentiation
- Degree of Barriers to Entry
- Availability of Information
- Miscellaneous e.g. Advertising

The Price Mechanism

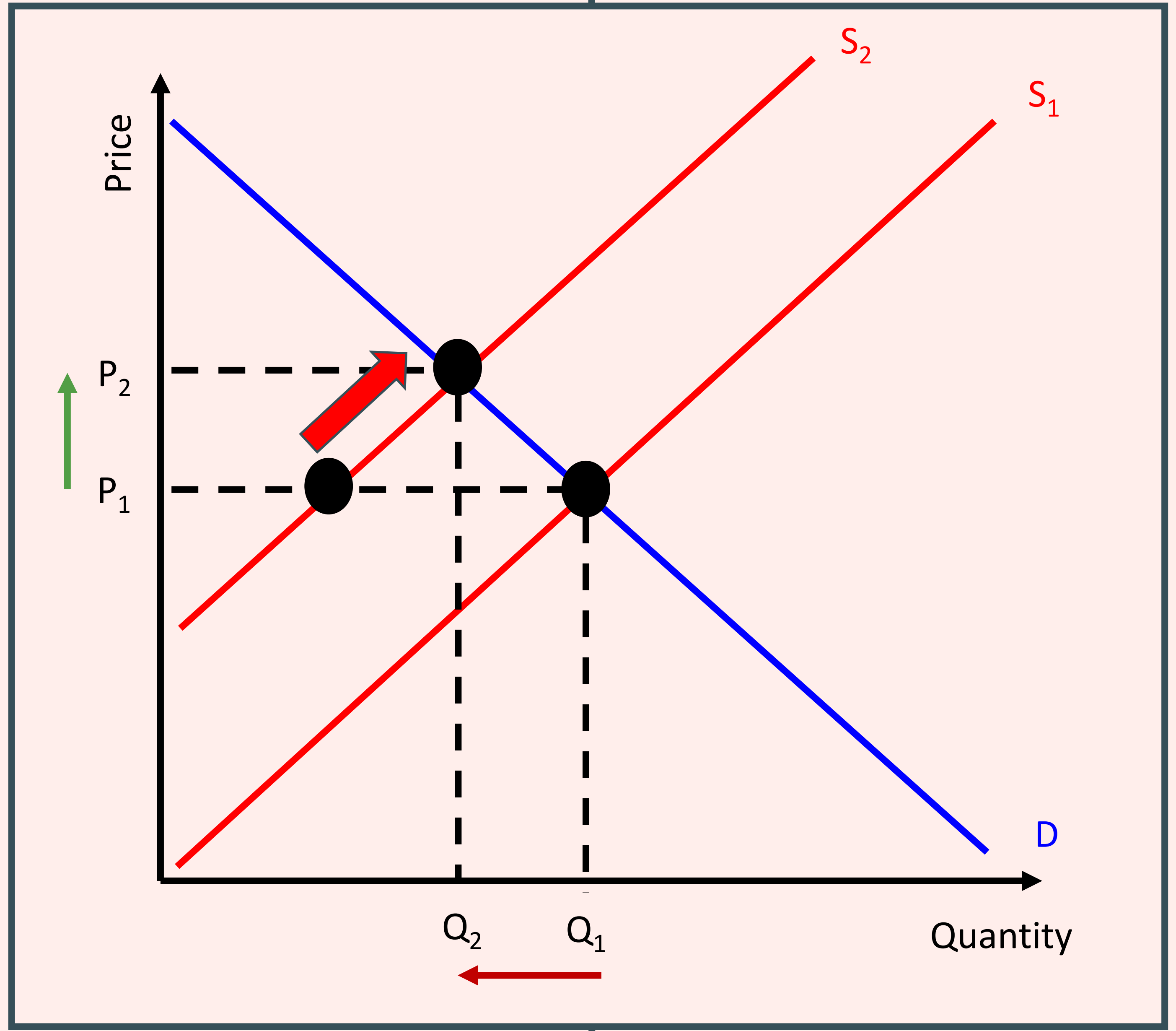
EZY ECONOMICS

The Price Mechanism

How the interaction of demand and supply determine the price and quantities of the goods that get produced.

Incentive Function

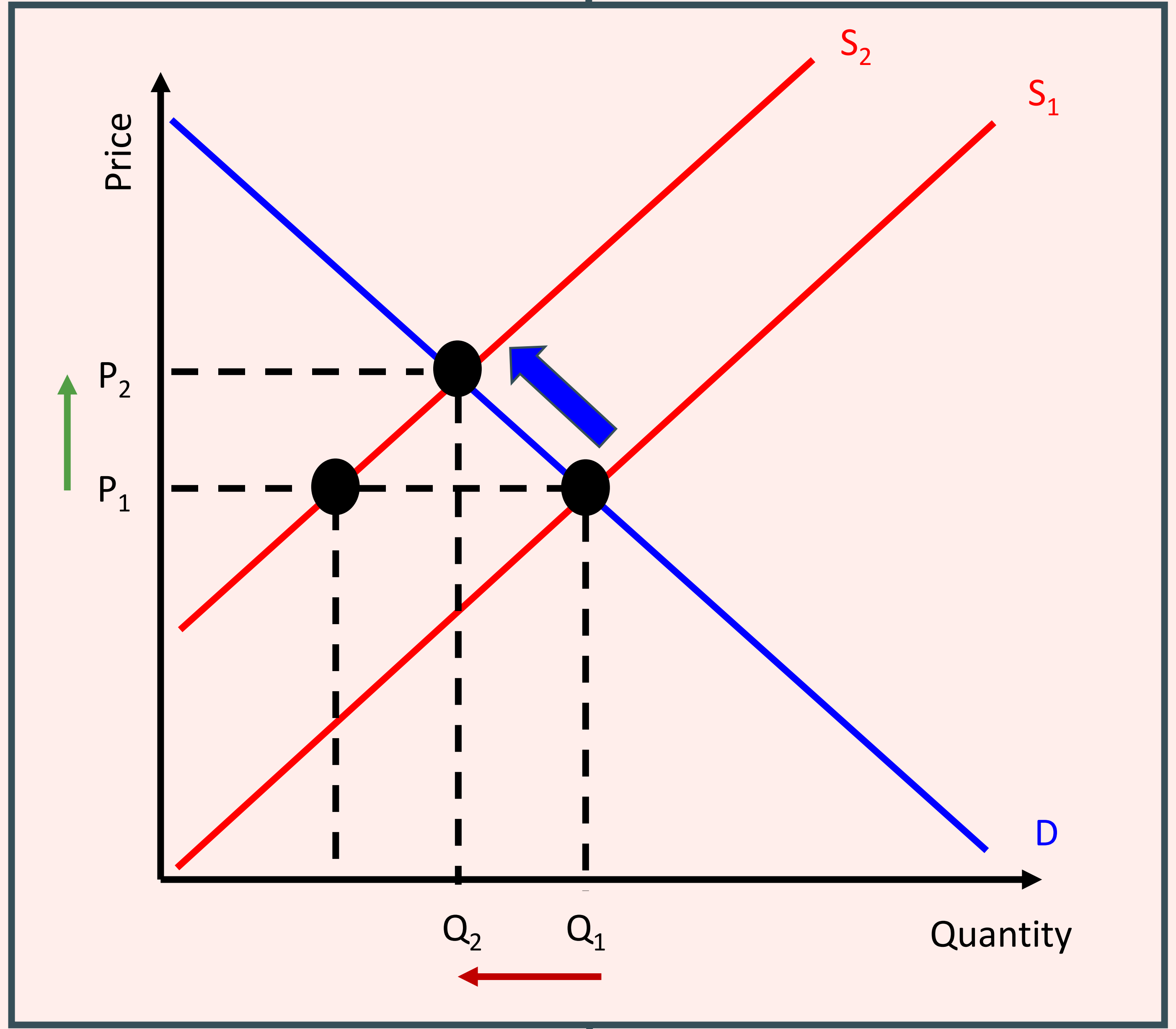
Prices provide economic agents with incentives to alter their behaviour.



Higher price **incentivises** firms to provide more

Rationing Function

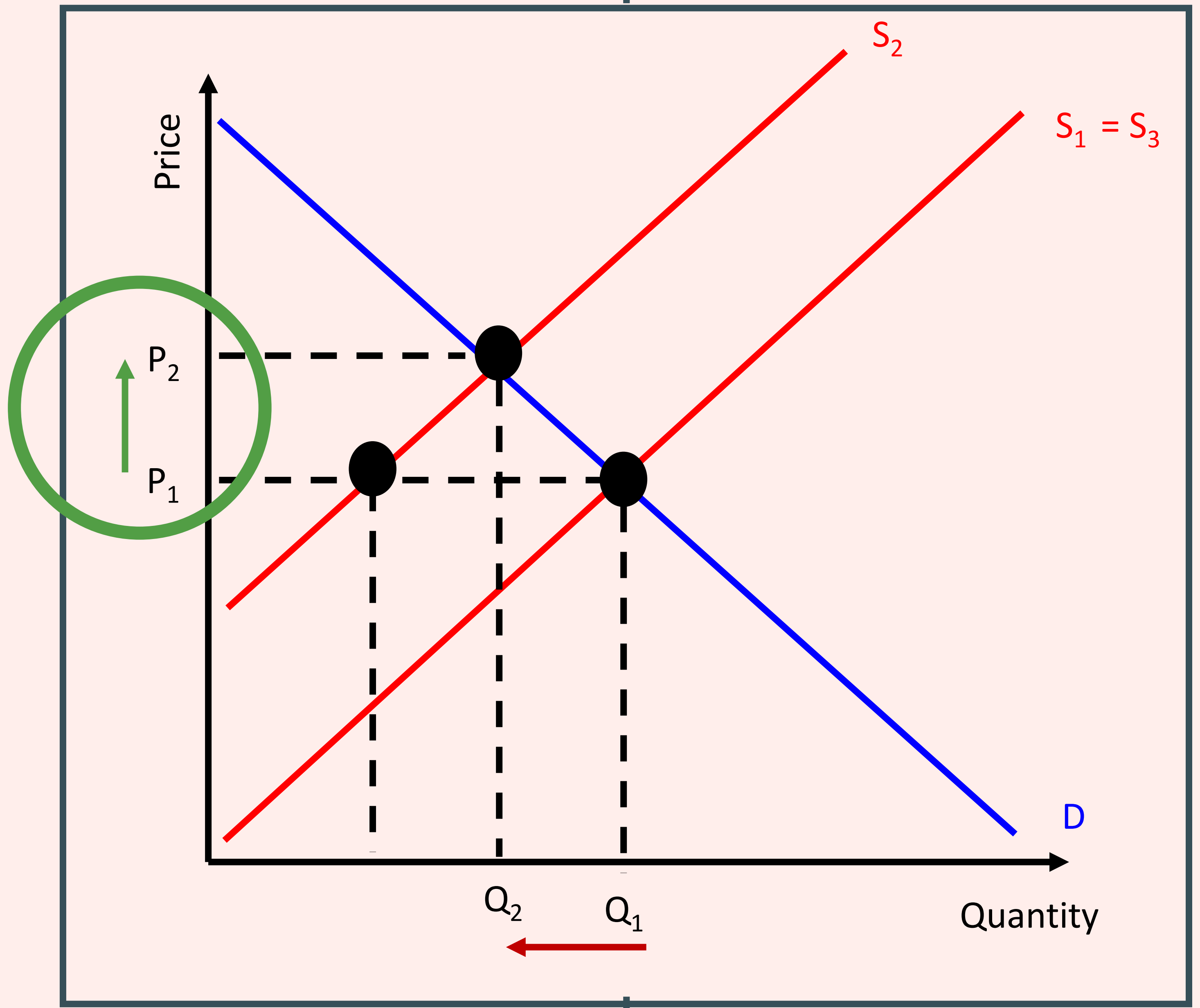
Prices allocate economic resources which are in finite supply.



Higher price **rations** lower supply by forcing some consumers out of market

Signalling Function

Prices signal information to economic agents about a specific market.



Higher price **signals** to all agents the change in market conditions

Public Goods

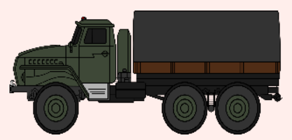
EZY ECONOMICS

Public Goods — Goods that are non-rival and non-excludable and likely to be underprovided by the market.

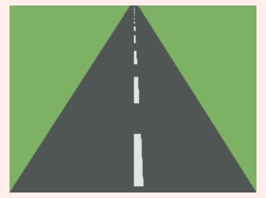
Examples

Lighthouse

Flood Barriers



National Defence



Roads/Motorways

Goods Spectrum

Pure Public Goods:
Non-Rival
AND
Non-Excludable

Quasi-Public Goods:
Non-Rival
OR
Non-Excludable

Private Goods:
Rival
AND
Excludable

Free Goods:
Basic Need
AND
No Opportunity Cost

Characteristics

Non-Excludability

No person can be excluded from the benefit of the good.

Non-Rival

Consumption by one person does not affect consumption ability of others.

Characteristics ensure no effective demand for the good from the market.

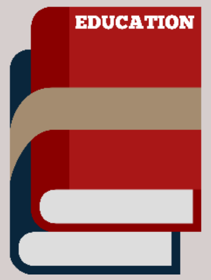
Free-Rider Problem

Positive Externalities

EZY ECONOMICS

Positive Externalities

A benefit enjoyed by third parties as a result of the production/consumption of a good or service.

External Benefit

Private Costs/Benefits ⟷ External Benefit ⟷ Social Costs/Benefits

Misallocation of Resources

Market Failure

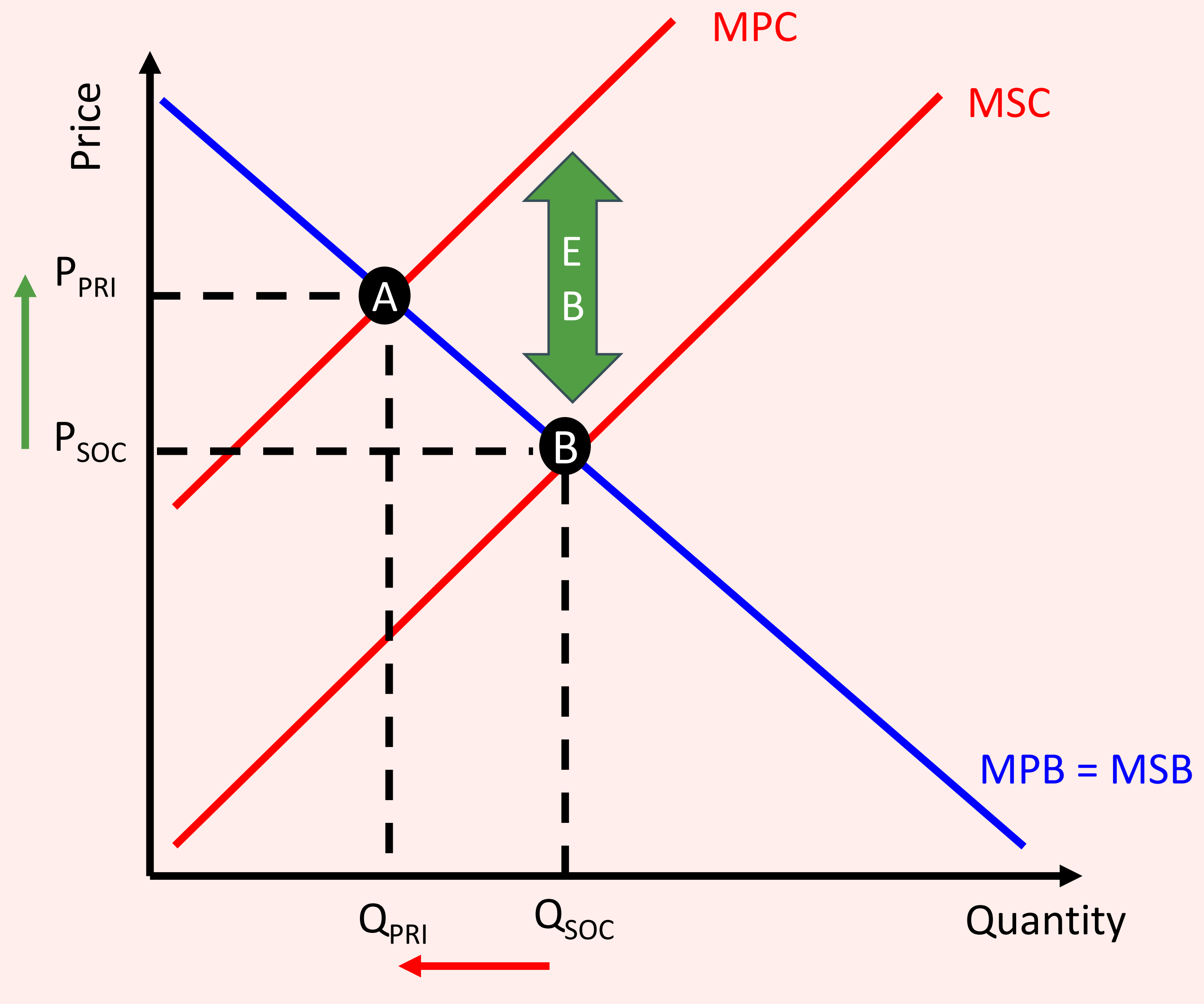
Positive Production Externality

Renewable Energy

MPC > MSC

Prices do not reflect social cost

Under production of good



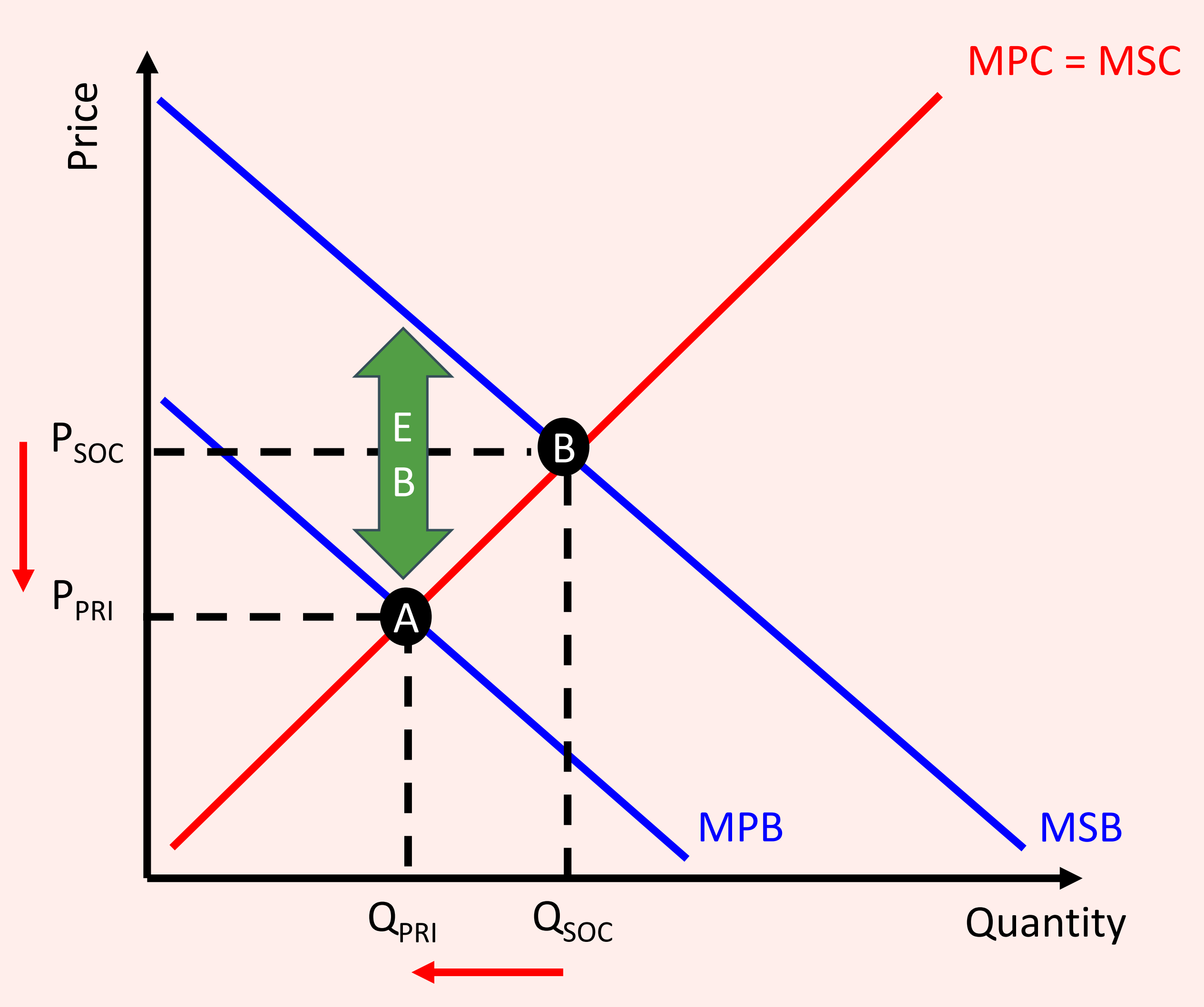
Positive Consumption Externality

Merit Goods

MPB < MSB

Positive spill over effects

Under consumption of good



Negative Externalities

EZY ECONOMICS

Negative Externalities

A cost imposed on third parties as a result of the production/consumption of a good or service.

External Cost

Private Costs/Benefits — External Cost — Social Costs/Benefits

Misallocation of Resources

Market Failure

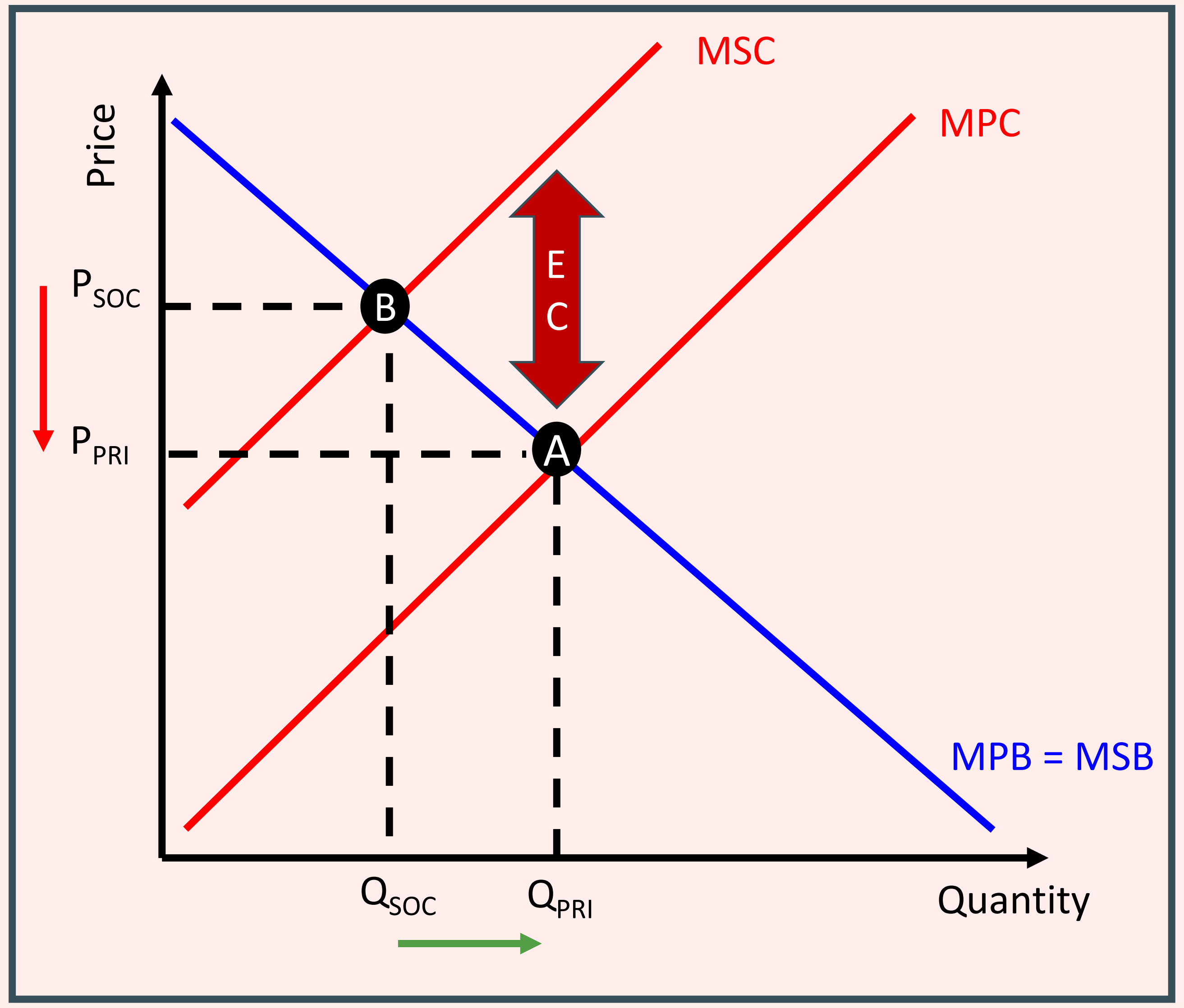
Negative Production Externality

Factory Pollution

MSC > MPC

Prices do not reflect social cost

Over production of good



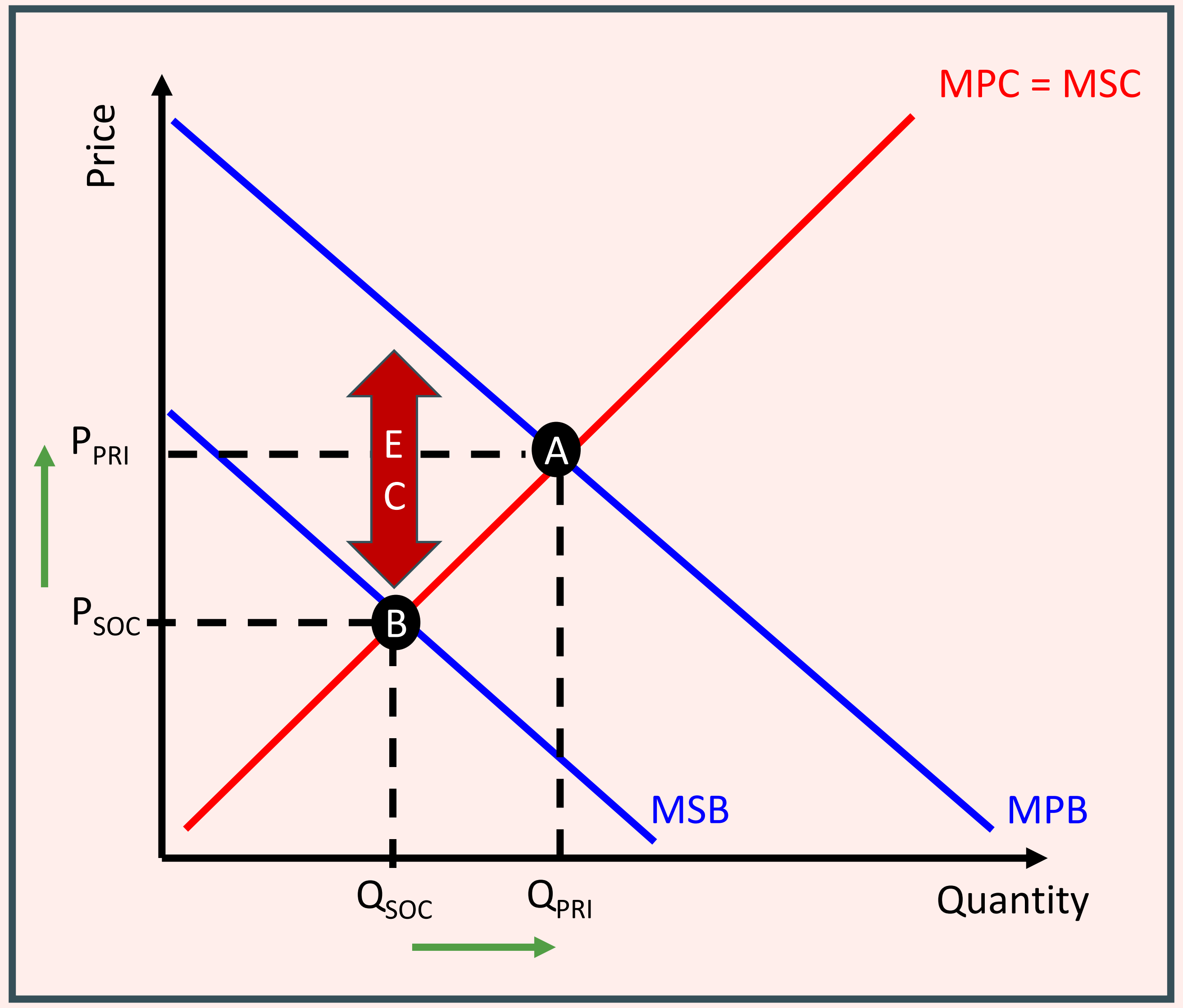
Negative Consumption Externality

Demerit Goods

MSB < MPB

Negative spill over effects

Over consumption of good



State Provision and Regulation

EZY ECONOMICS

Government Intervention

Concerted regulatory action taken by the government designed to overcome market failure.

State Provision

The process of an industry or group of firms moving from the private sector to the public sector.

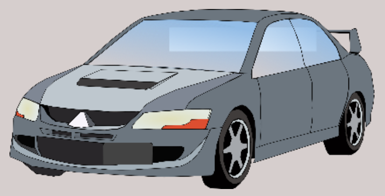
Protects industries/firms in decline

Loss of Profit Incentive

State provision may introduce moral hazard problems for industries

Regulation

Rules and laws enforced by the government that influence the behaviour and incentives of economic agents.



Controls externalities present

Places too many restrictions on firms

Government needs to have perfect information to identify the social optimum.

Government Failure

Price Controls

EZY ECONOMICS

Price Controls — A form of government intervention which places restrictions on what the price in a market can be.

Examples

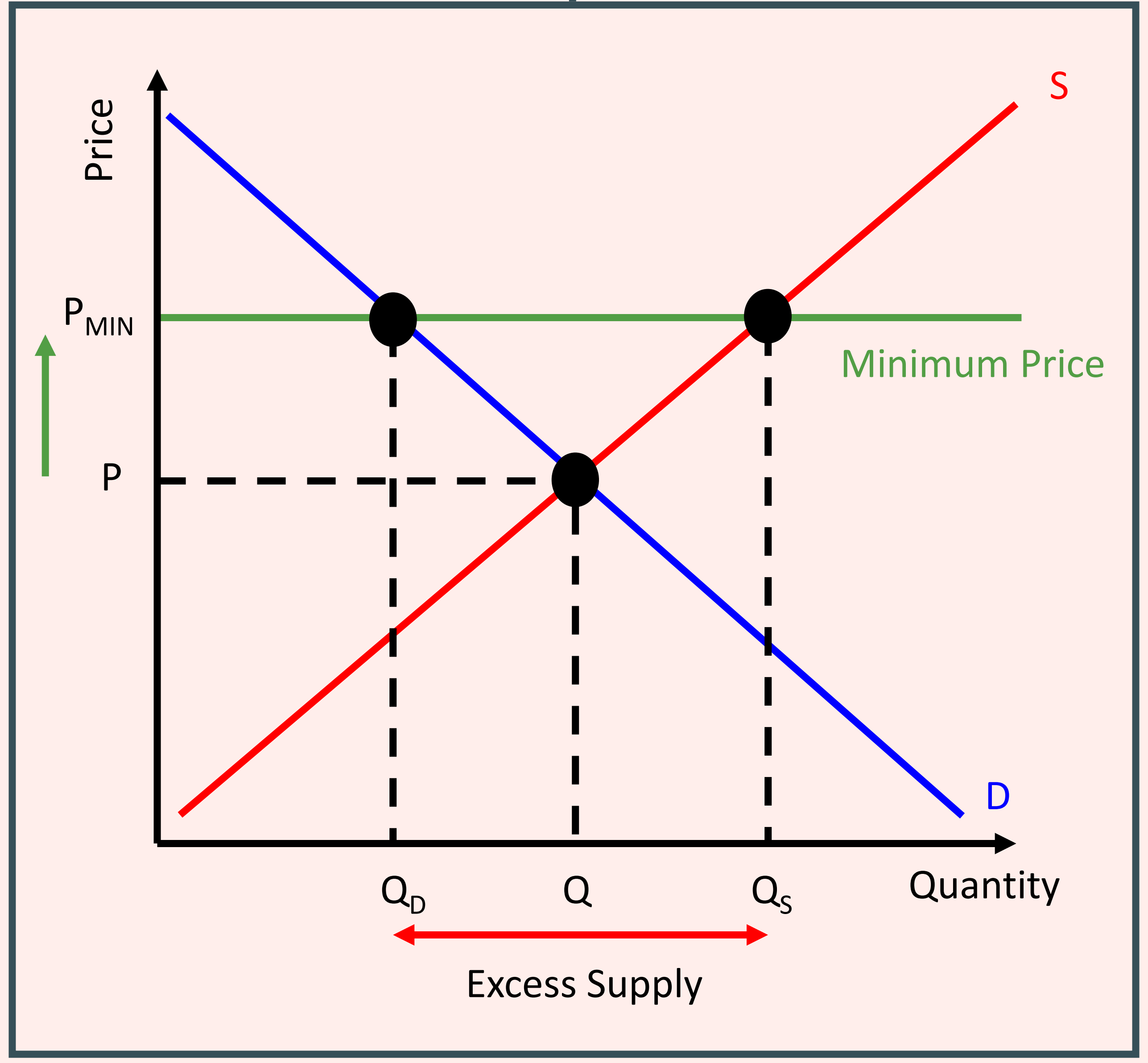
Minimum Wage

Rent Controls

Agricultural Price Controls

Minimum Alcohol Pricing

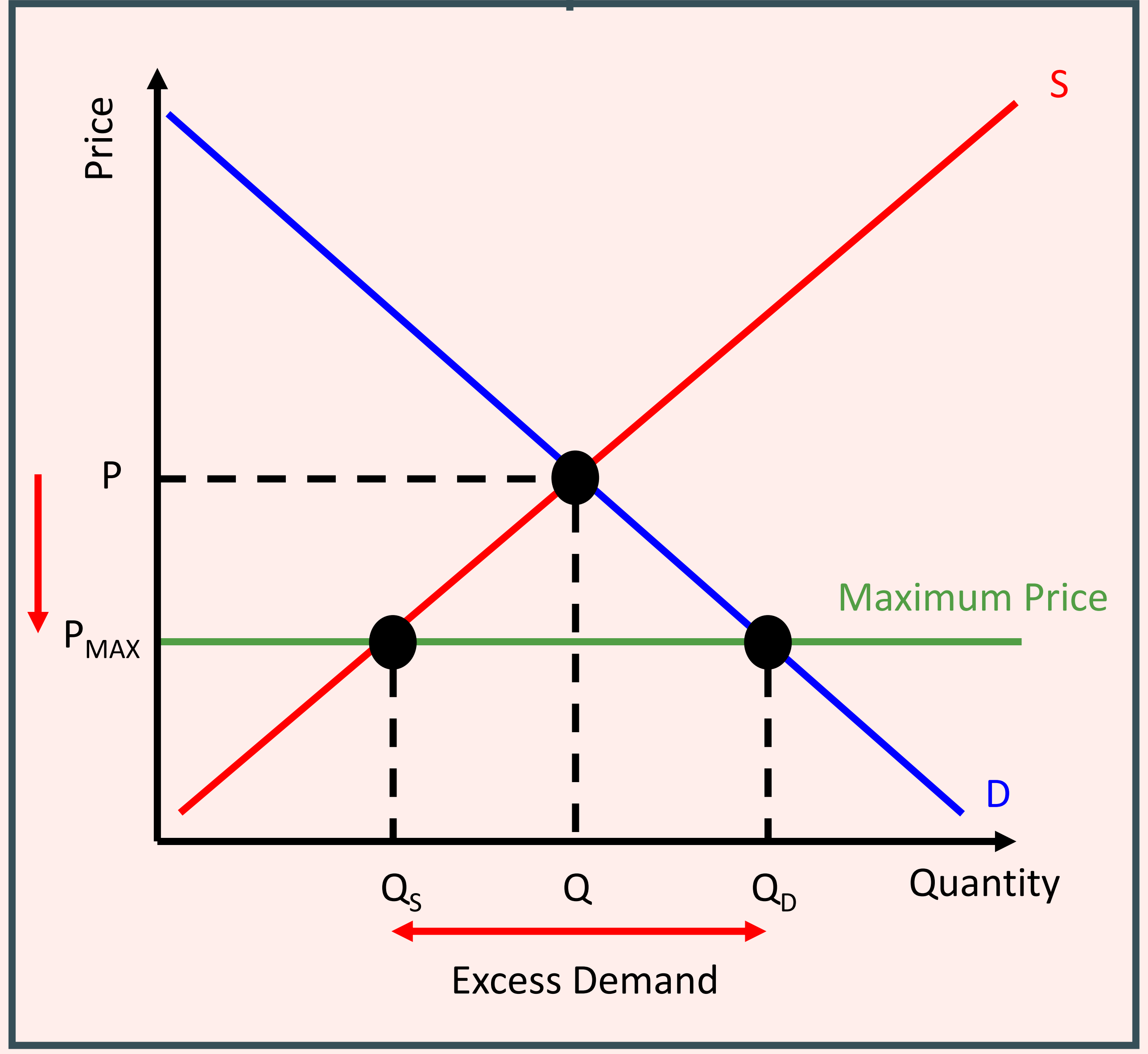
Minimum Price



Only Effective if....

Min. Price > Original Price

Maximum Price



Only Effective if....

Max. Price < Original Price

Aggregate Demand (AD)

EZY ECONOMICS

Aggregate Demand Equation:

Aggregate Demand	=	Consumption	+	Investment	+	Government Spending	+	Net Exports
AD		**C**		**I**		**G**		**X-M**
The total expenditure on an economy's goods and services at any given price level.		Total spending by consumers on domestic goods and services.		Spending that increases the size of a nation's capital stock.		Spending set by the government to inject economic activity into the economy.		Net trade component: export revenues less import expenditure.
		66% of UK GDP		18% of UK GDP		20% of UK GDP		-4% of UK GDP

Dependent on…

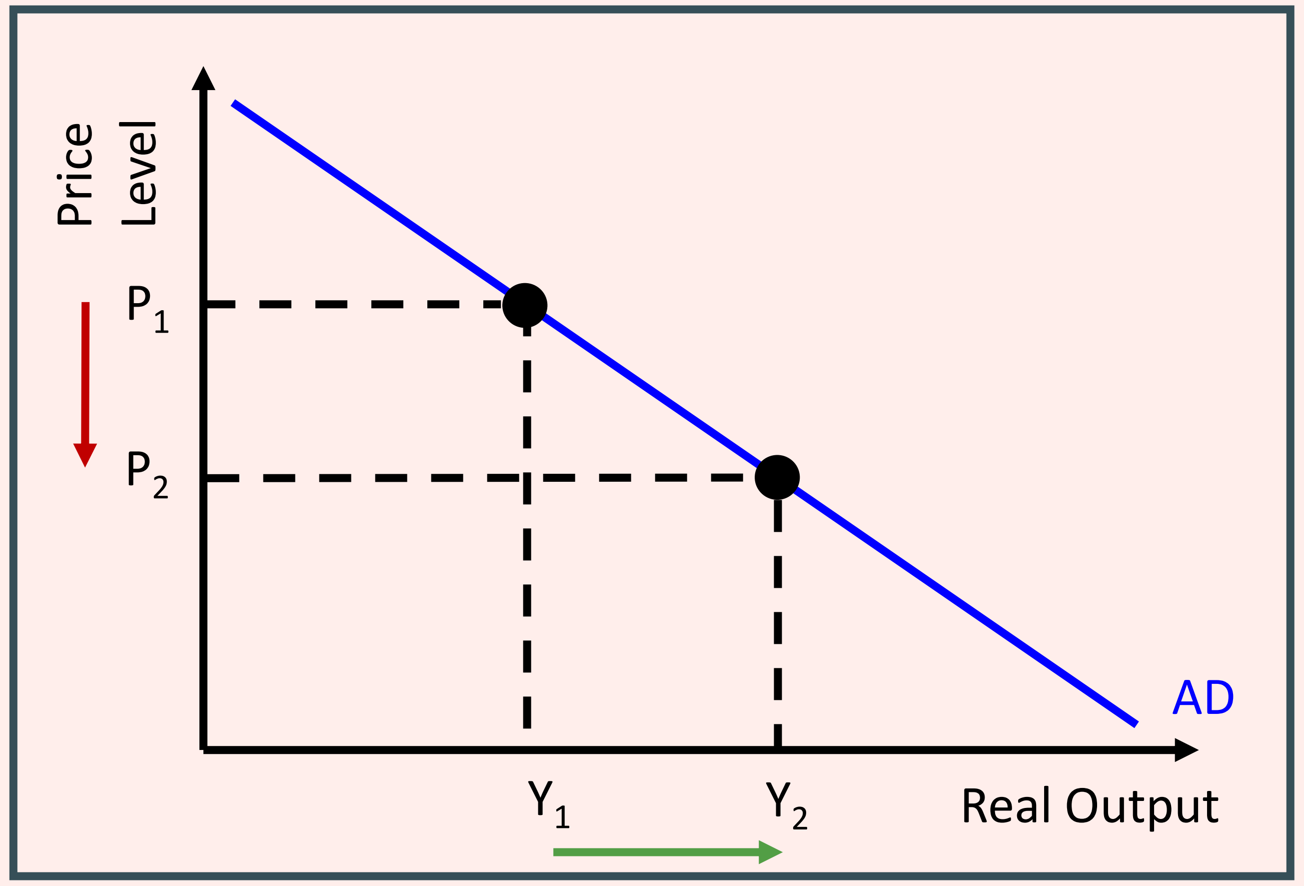
AD	C	I	G	X-M
Domestic Expenditure	Disposable Income	Profits	Tax Revenue	Exchange Rates
Foreign Expenditure	Interest Rates	Interest Rates	Budget Position	Global Demand
	Confidence	Confidence	Debt Burden	Relative Inflation Rate

Aggregate Demand Curve

EZY ECONOMICS

AD Curve — Graphical representation of the aggregated demand for goods and services produced within a country at any given price level.

AD Curve Movement

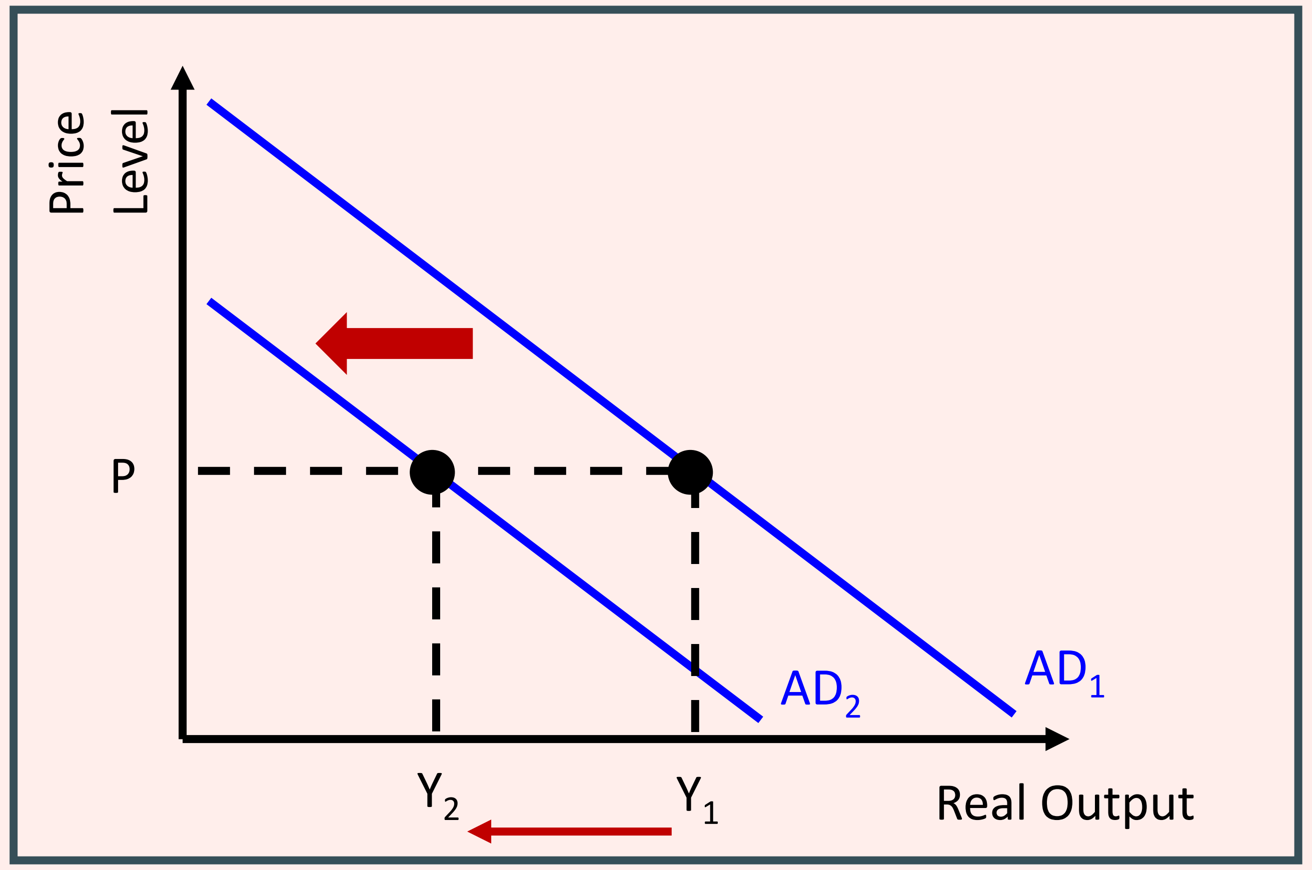


Downward Sloping Curve

Average Price Level	▼
Real Output	▲

Inverse Relationship

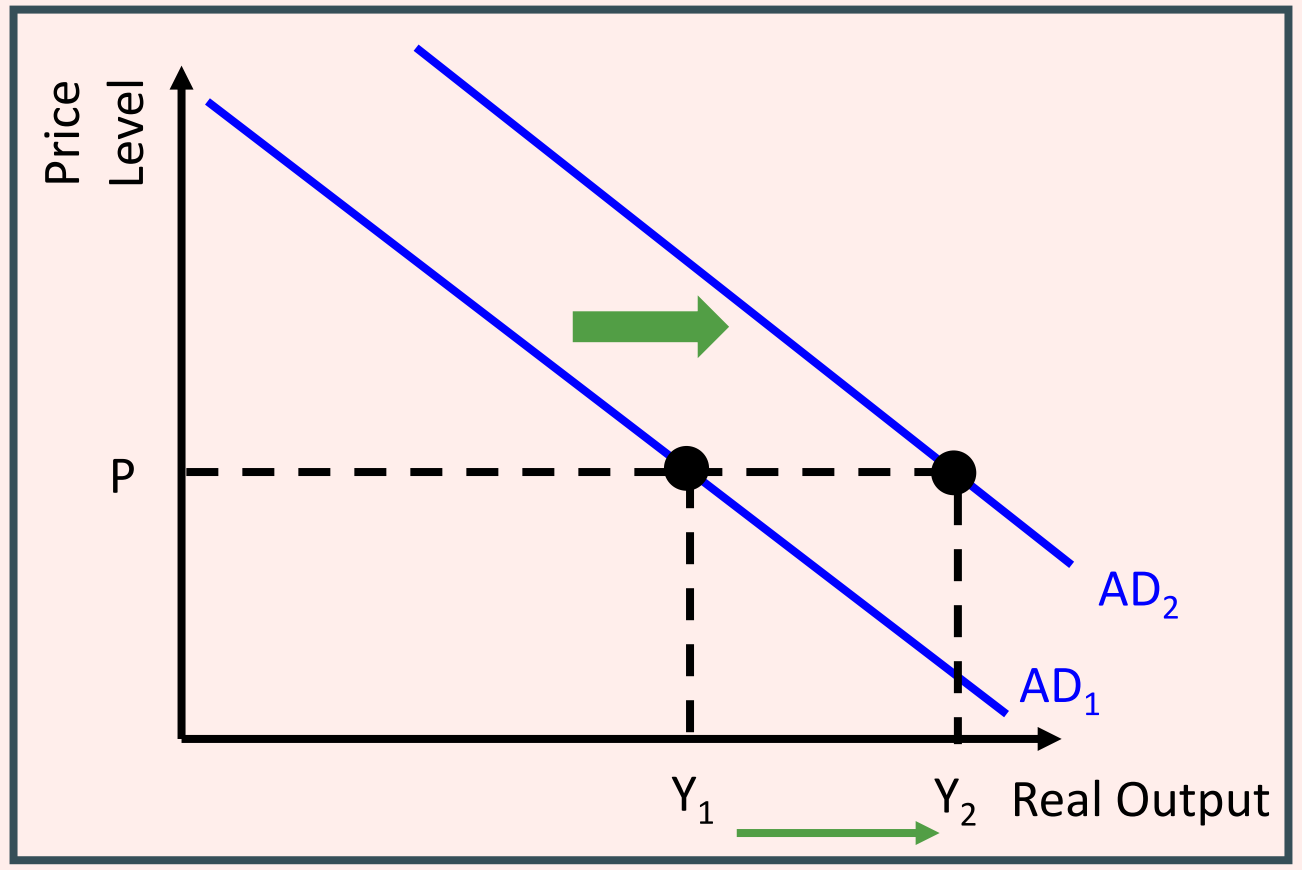
Inwards Shift



Causes:

▼	Consumption
▼	Investment
▼	Government Spending
▼	Exports
▲	Imports

Outwards Shift



Causes:

▲	Consumption
▲	Investment
▲	Government Spending
▲	Exports
▼	Imports

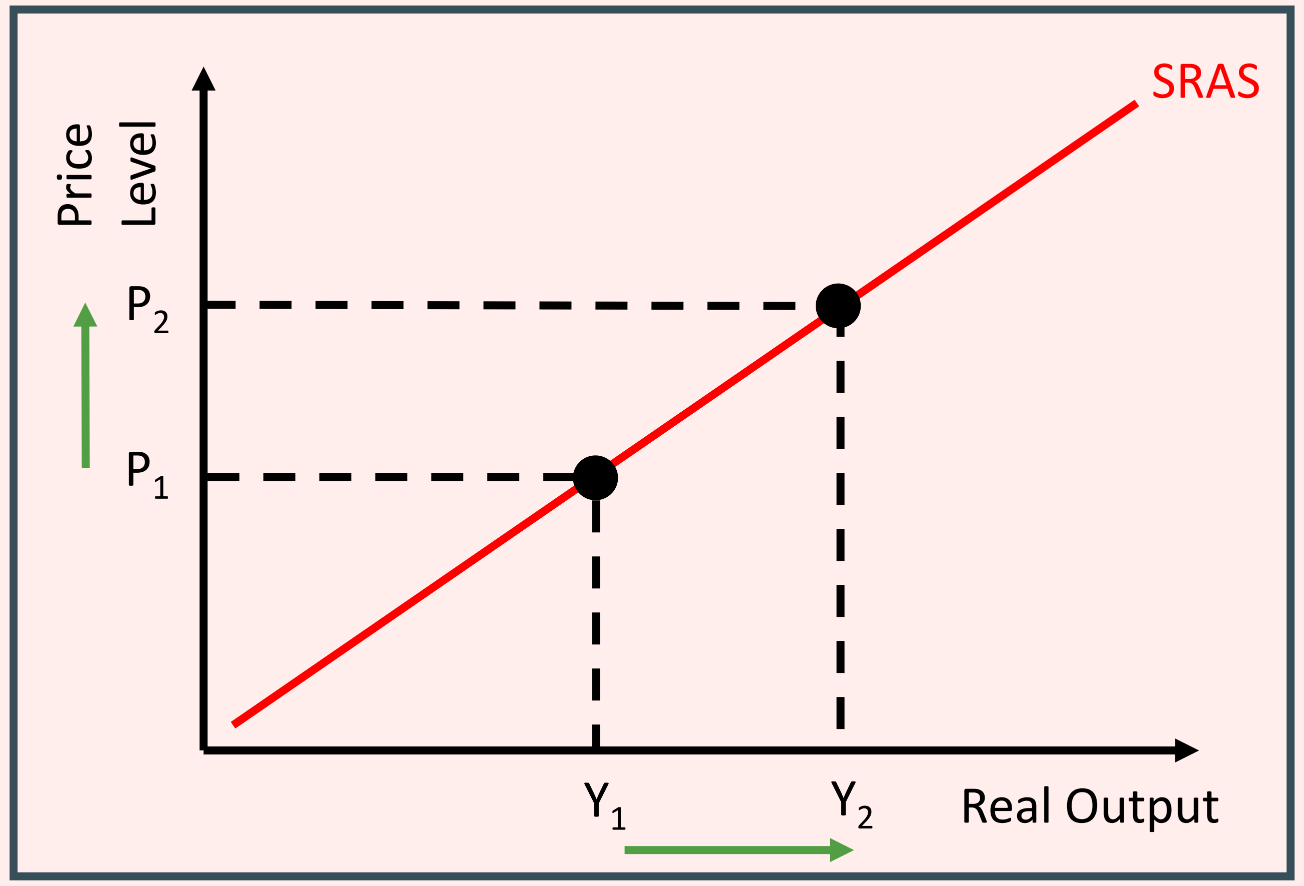
Short-run Aggregate Supply Curve

EZY ECONOMICS

SRAS Curve

The aggregated supply for all goods and services produced within a country at any given price level over a limited period of time.

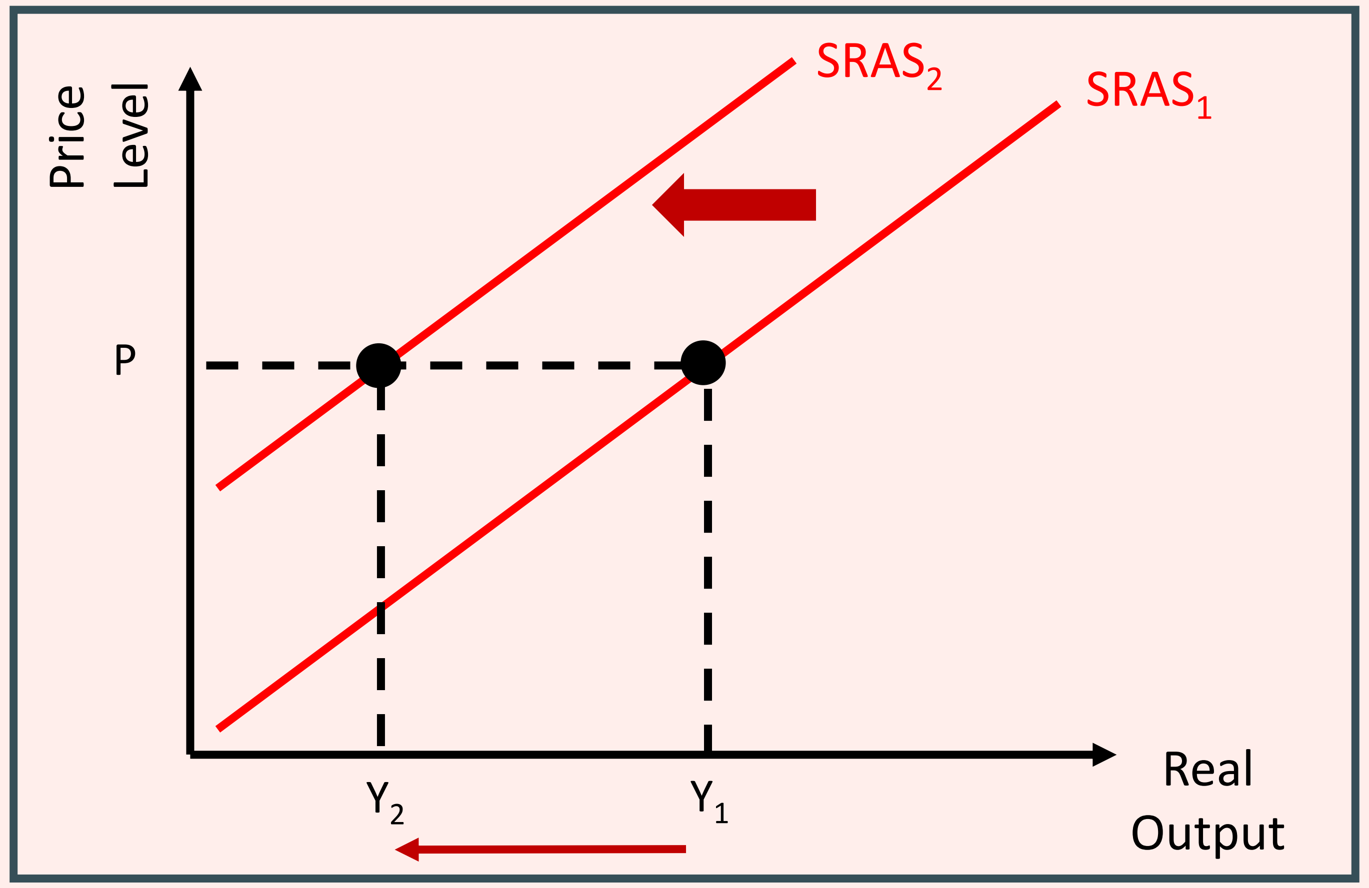
SRAS Curve Movement



Upward Sloping Curve

Average Price Level	▲
Real Output	▲
Profits	▲

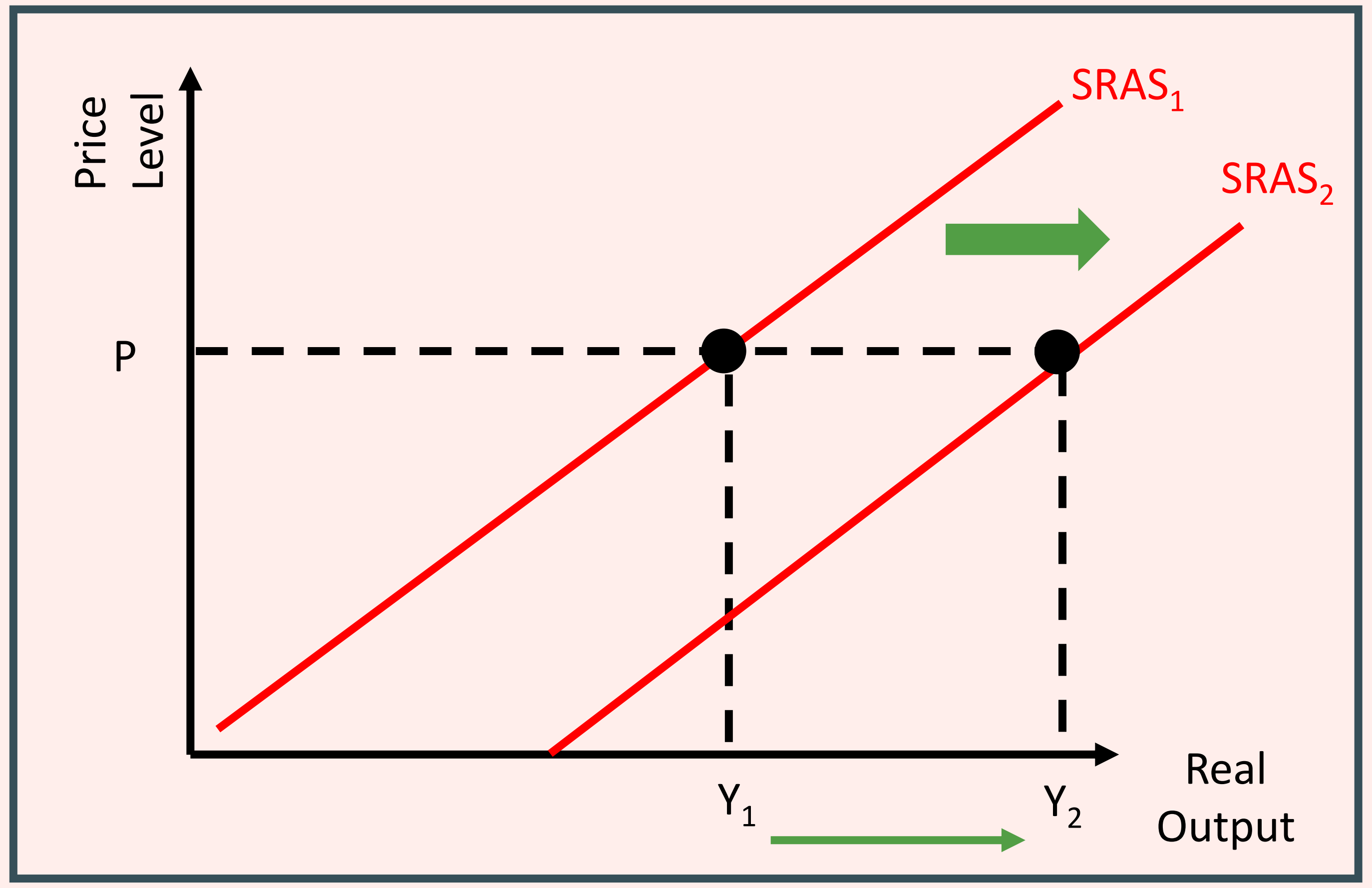
Inwards Shift



Causes:

▲	Labour Costs
▲	Raw Materials Costs
▲	Oil Price

Outwards Shift



Causes:

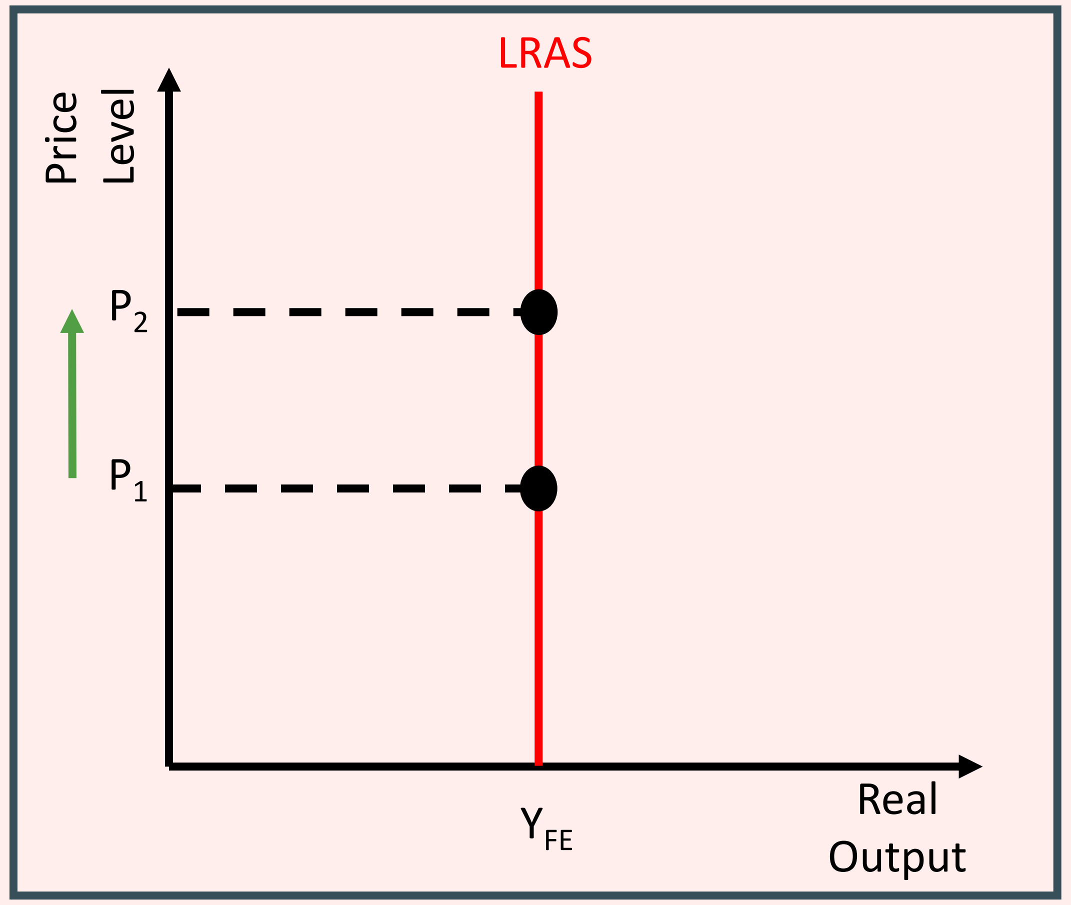
▼	Labour Costs
▼	Raw Materials Costs
▼	Oil Price

Long-run Aggregate Supply Curve

EZY ECONOMICS

LRAS Curve

LRAS Curve Movement

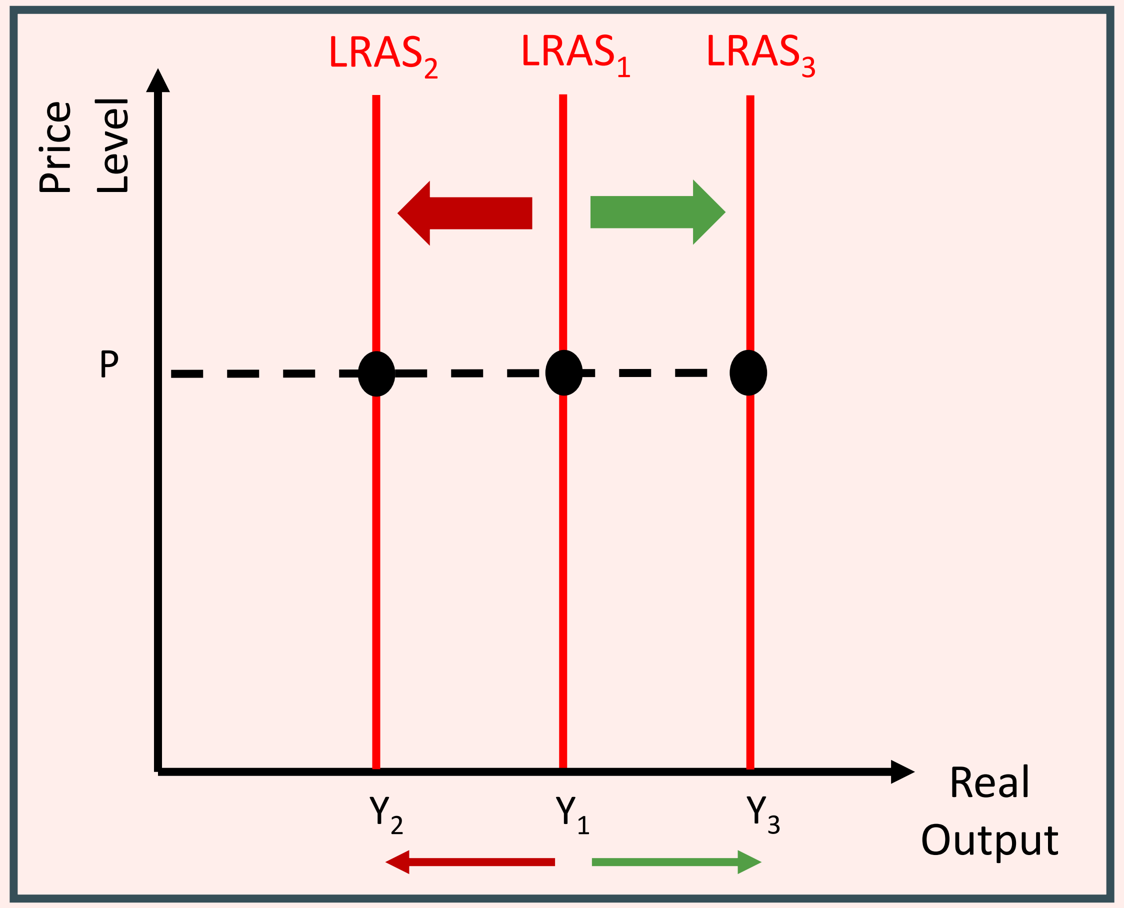


Perfectly Inelastic Curve

Full Employment Output

Price Level	▲
Real Output	—

LRAS Curve Shifts



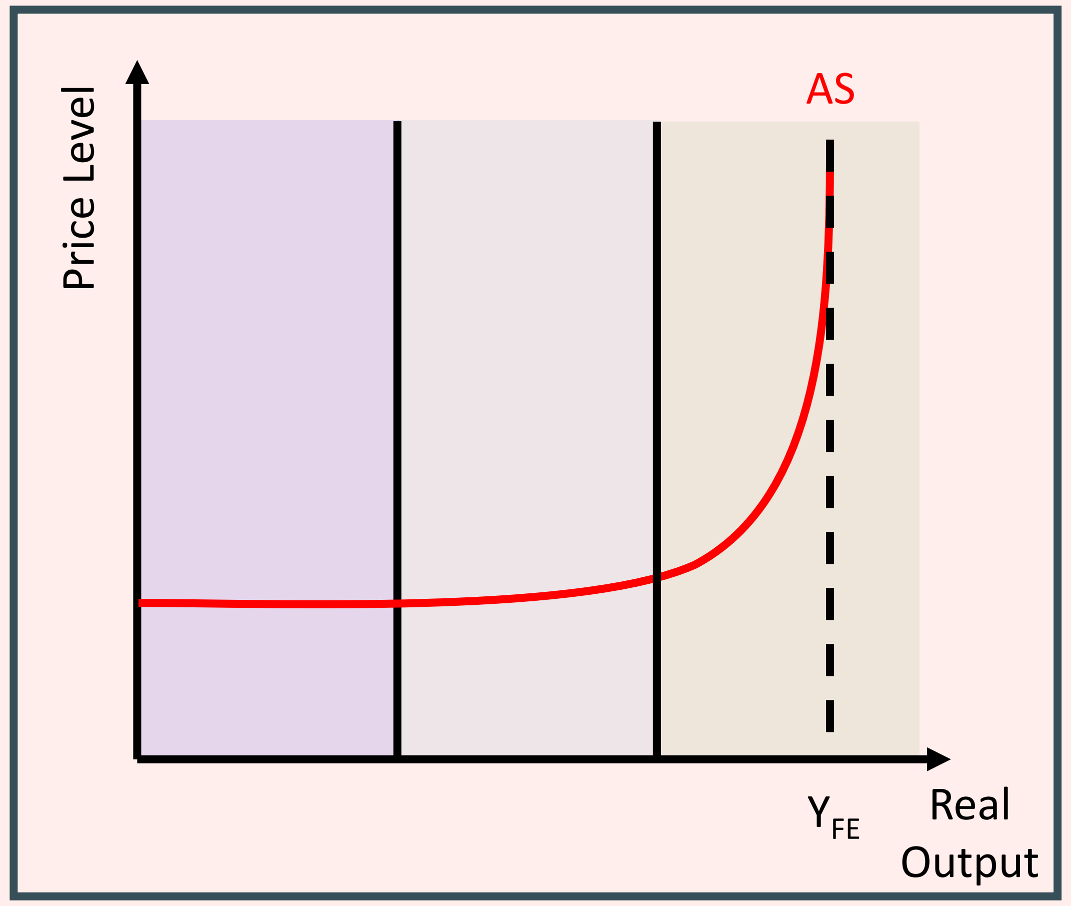
Causes:

Change in **quantity** and/or **quality** in factors of production.

▲	Inward Migration
▼	Fall in Capital Stock

Keynesian AS Curve

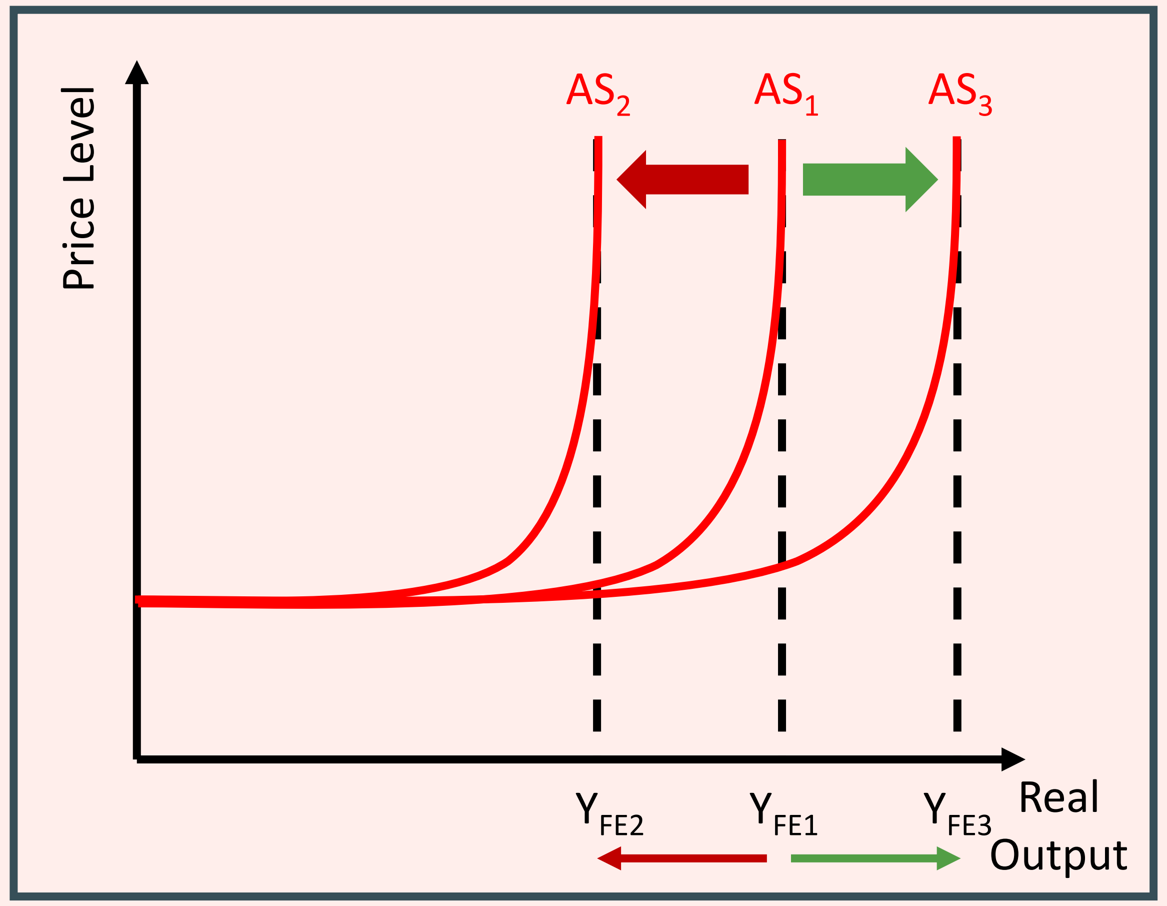
Keynesian Movement



Three Phases:

Elastic	Spare Capacity
Intermediate	Close to Full Capacity
Inelastic	Full Capacity

Keynesian Movement



Causes:

Change in **quantity** and/or **quality** in factors of production.

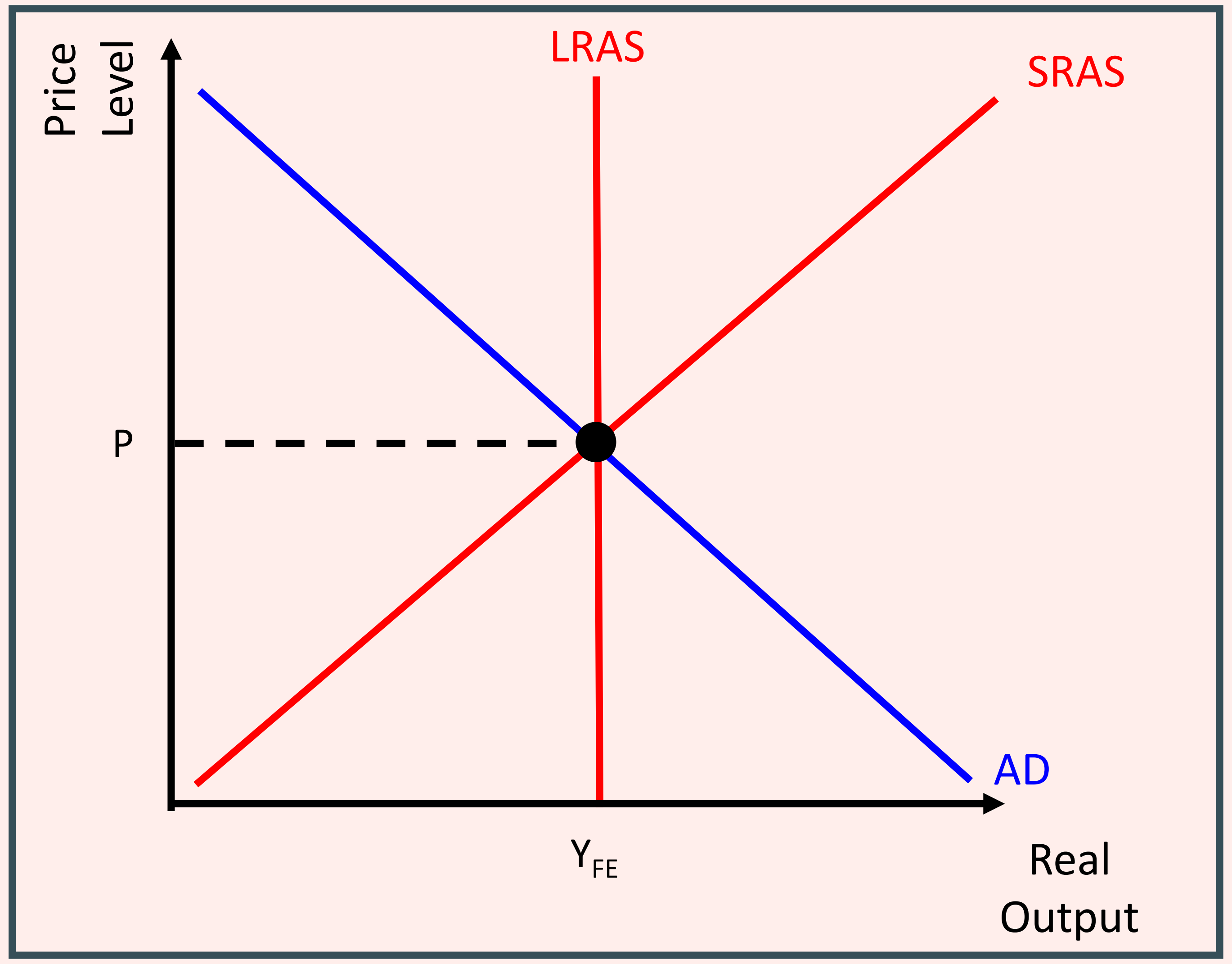
▲	Research + Development
▼	Technological Progress

Economic Growth

EZY ECONOMICS

Economic Growth — An increase in the real GDP of a country over time.

Macroeconomic Equilibrium



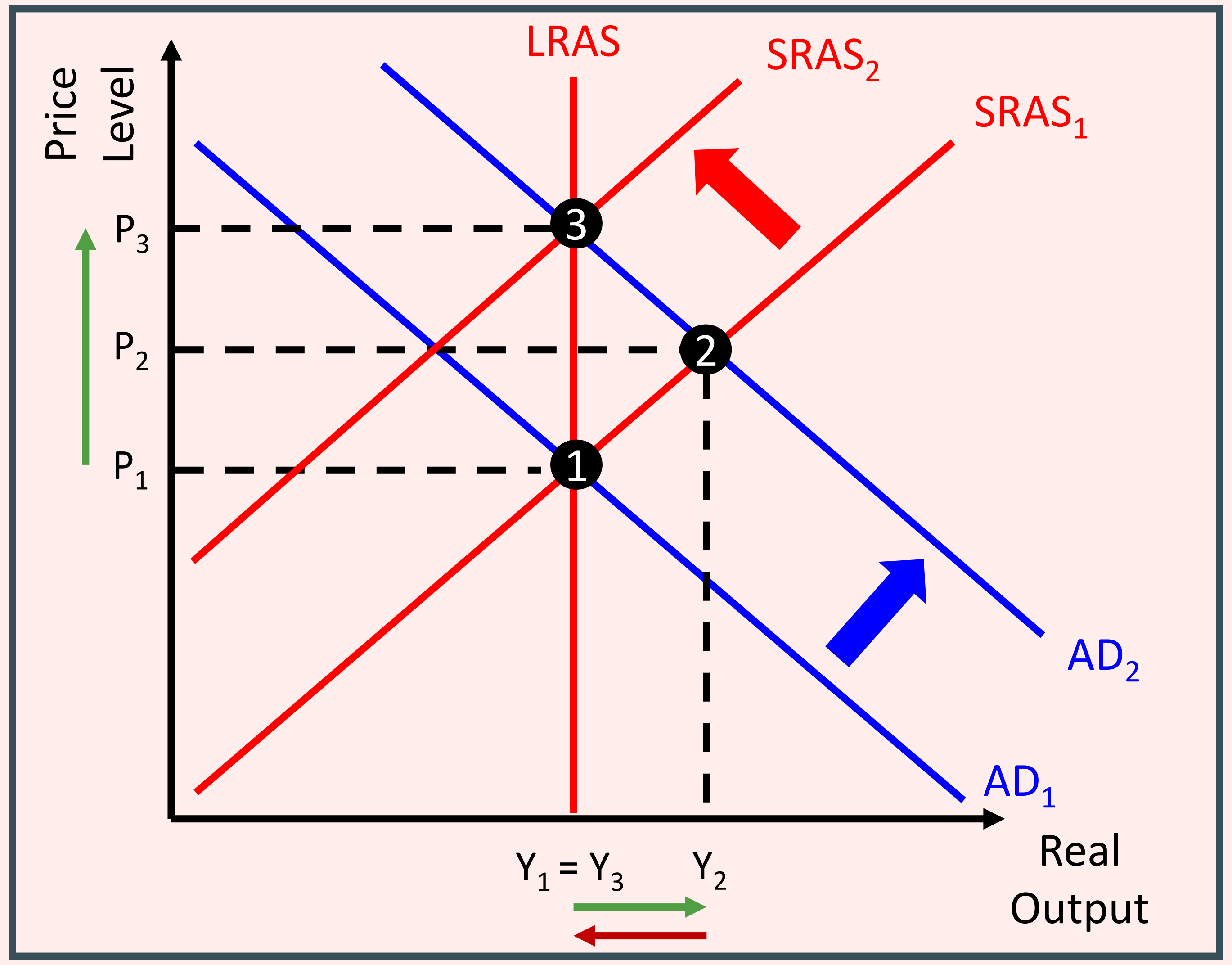
In the Short-run…

AD = SRAS

In the Long-run…

AD = SRAS = LRAS

Short-run Growth



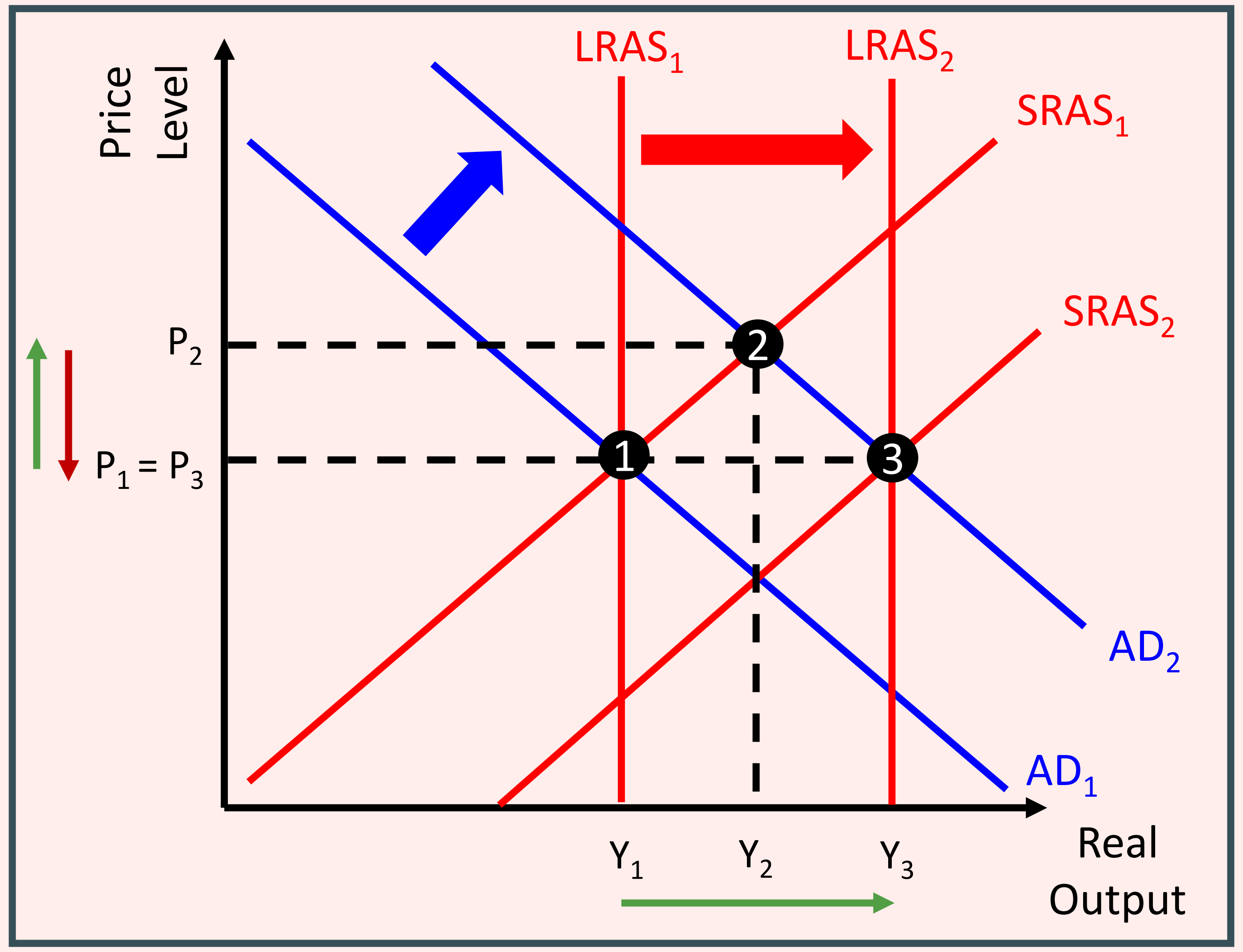
AD Curve Expansion **<u>only</u>**

Positive Output Gap (Y_2-Y_1)

Actual GDP > Potential GDP

Unsustainable Growth

Long-run Growth



AD **<u>and</u>** LRAS Curve Expansion

Full Employment Level of Output increases in LR

Sustainable Growth

Business Cycles

EZY ECONOMICS

Business Cycles

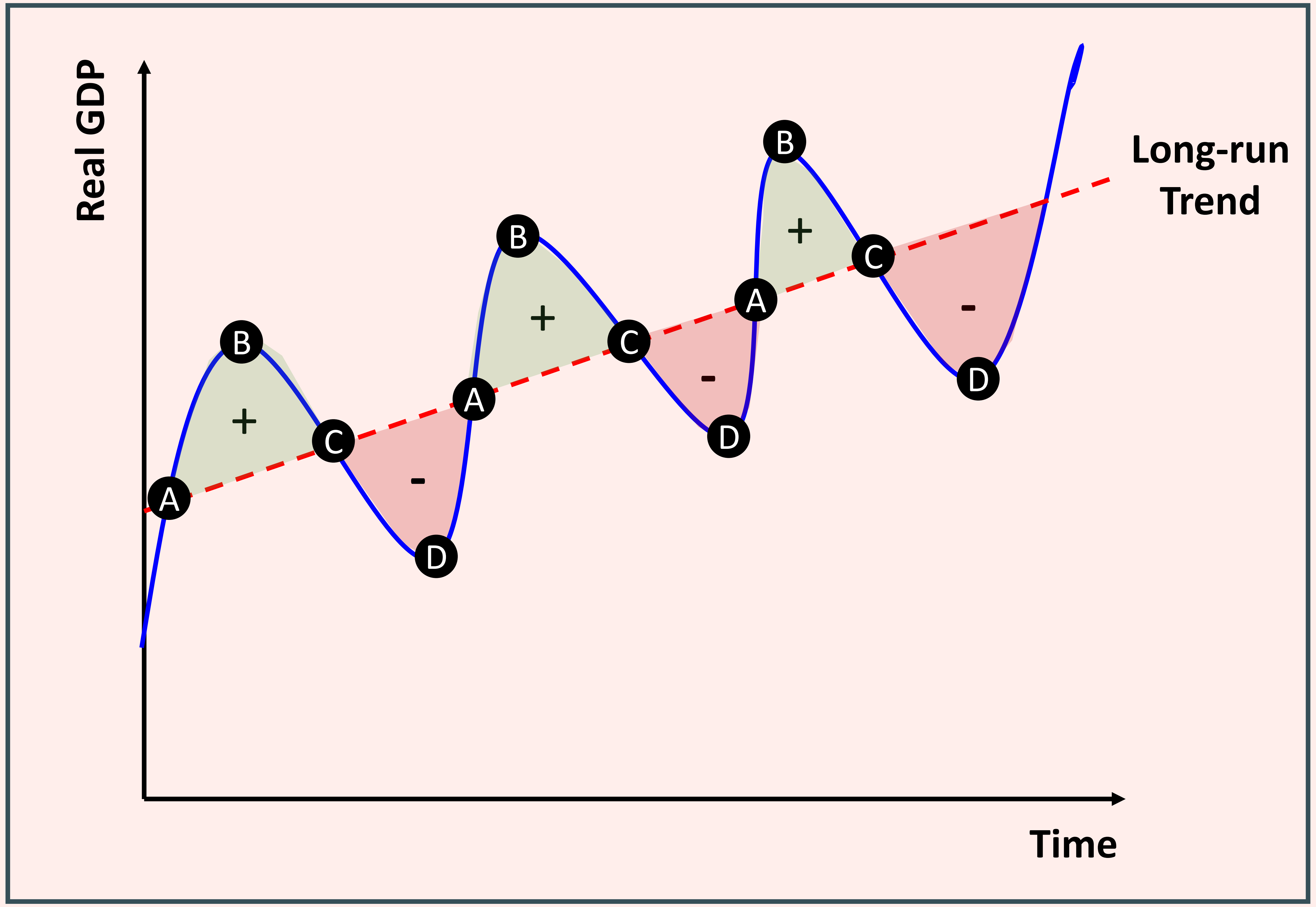
Describes the process of economic expansion and contraction that economies experience over time.

A — Growth

A period of increasing economic growth without any evidence of inflationary pressure.

B — Boom

A period of rapidly rising economic growth exhibiting inflationary pressure.



+ Positive Output Gap

- Negative Output Gap

C — Recession

A period of declining economic growth with negative growth in 2 successive quarters.

D — Trough

A sustained period of low economic growth with the possibility of deflationary pressure.

Macroeconomic Objectives

EZY ECONOMICS

Macroeconomic Objectives – Policy goals set by the government which represent a strong and stable economy.

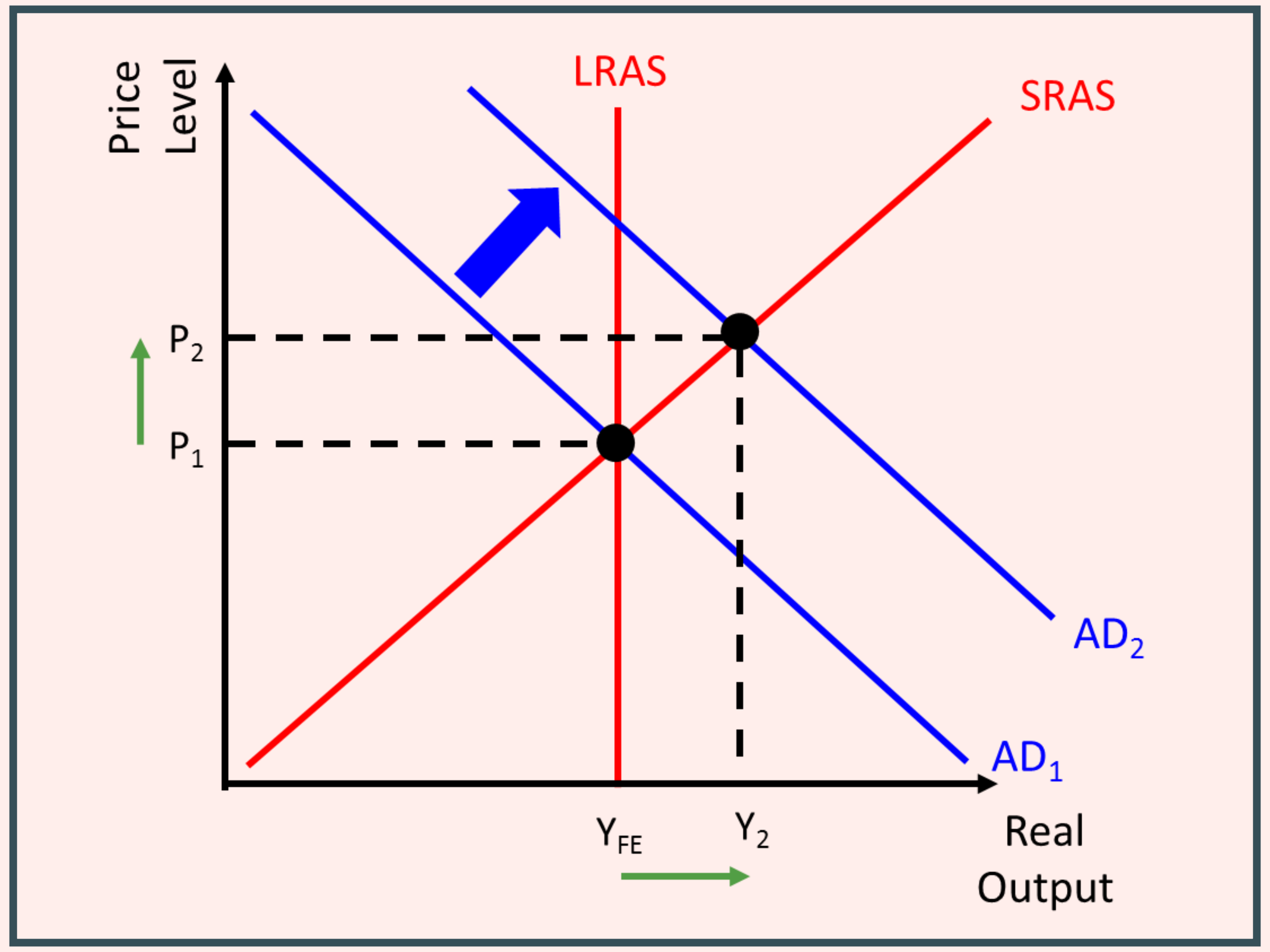
Macroeconomic Stability

- Sustainable Economic Growth
- Low Stable Inflation
- Low Unemployment
- Competitive Trade Position

Sign of a strong and robust economy

Very difficult to achieve **all** objectives!

Objectives Conflict



- Higher Econ. Growth
- Inflation Rises
- Unemployment Falls
- Loss of Competitiveness

How to decide?

The UK government often faces a trade-off when setting economic policies.

Exploitable Policy Trade-off

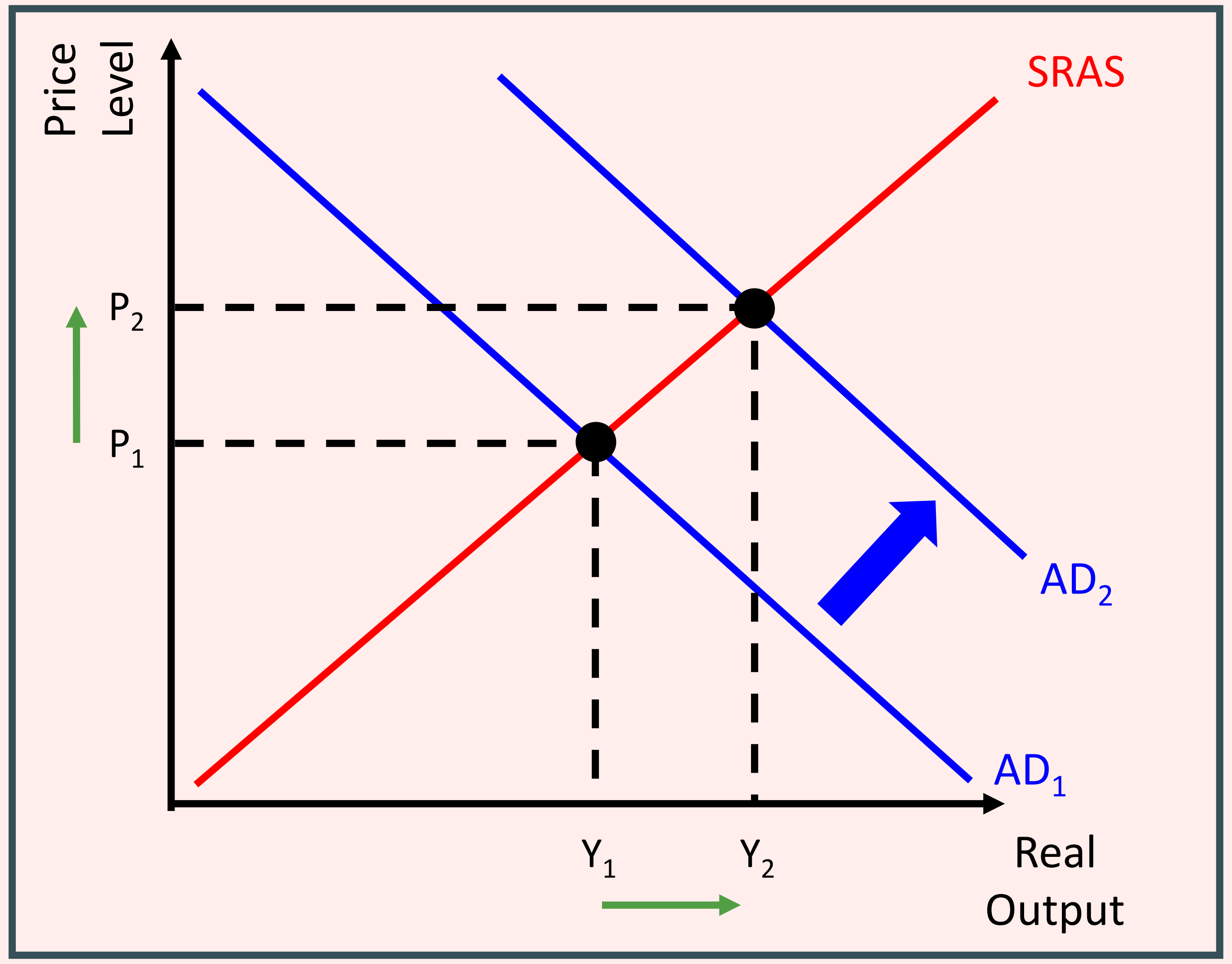
Uses economic data and forecasts to determine the primary objective to achieve.

Inflation

EZY ECONOMICS

Inflation – A persistent increase in the general price level of an economy over time.

Demand-Pull Inflation



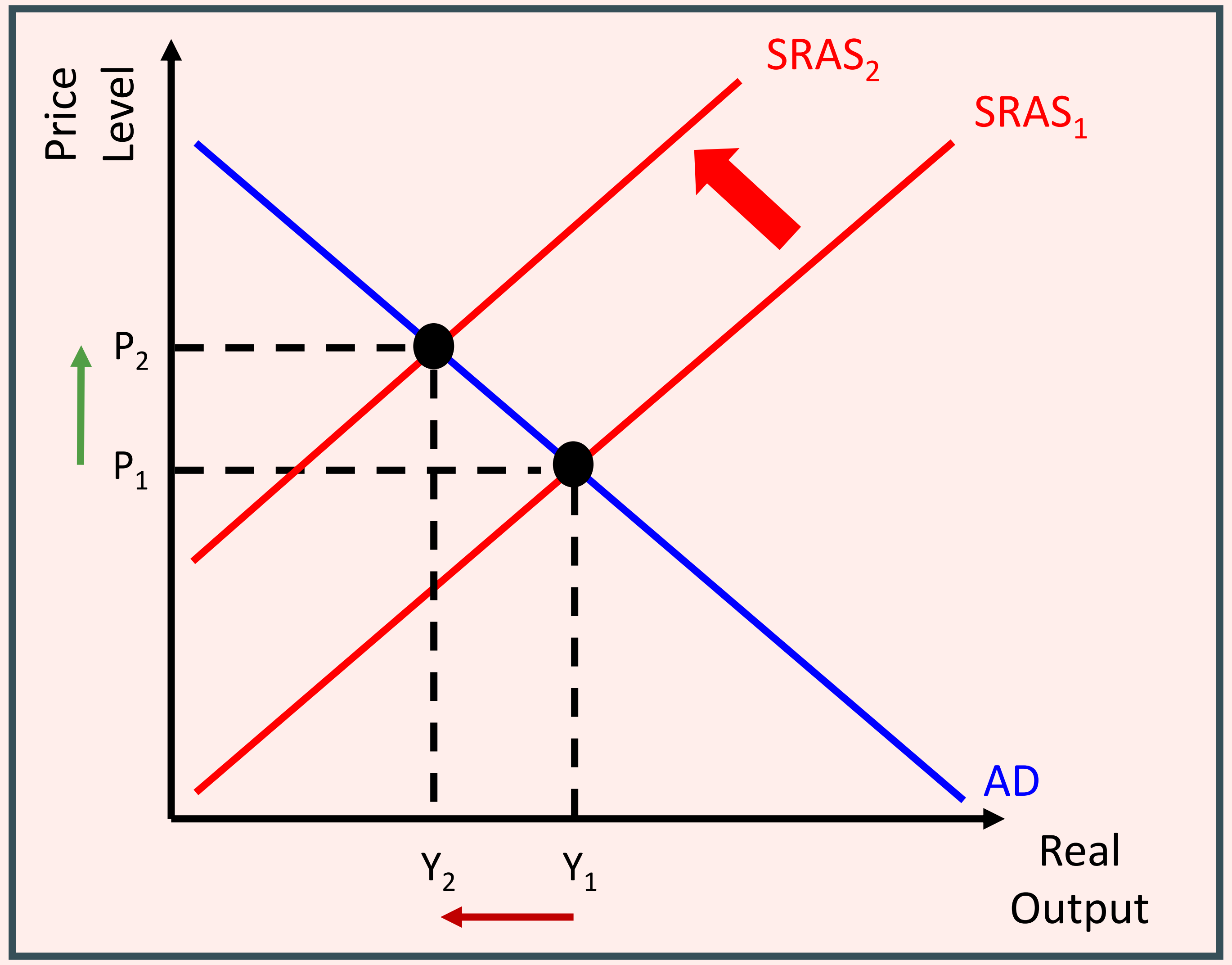
AD Curve Expansion

Pulls up Price Level from P_1 to P_2

Causes:

- High Confidence
- Expansionary Policy
- Export-Led Growth

Cost-Push Inflation



SRAS Curve Contraction

High Costs → PUSH → High Prices

Causes:

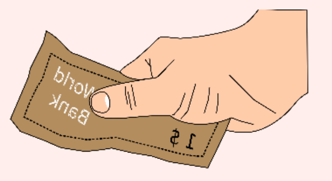
- Higher Wages
- Higher Price of Raw Materials
- Higher Cost of Capital

Consequences

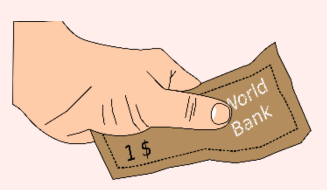

Shoe and Leather Costs

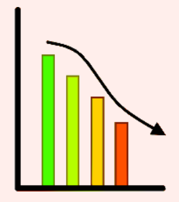

Menu Costs


Reduction in Real Incomes


Savers/Lenders Negatively Impacted

However…

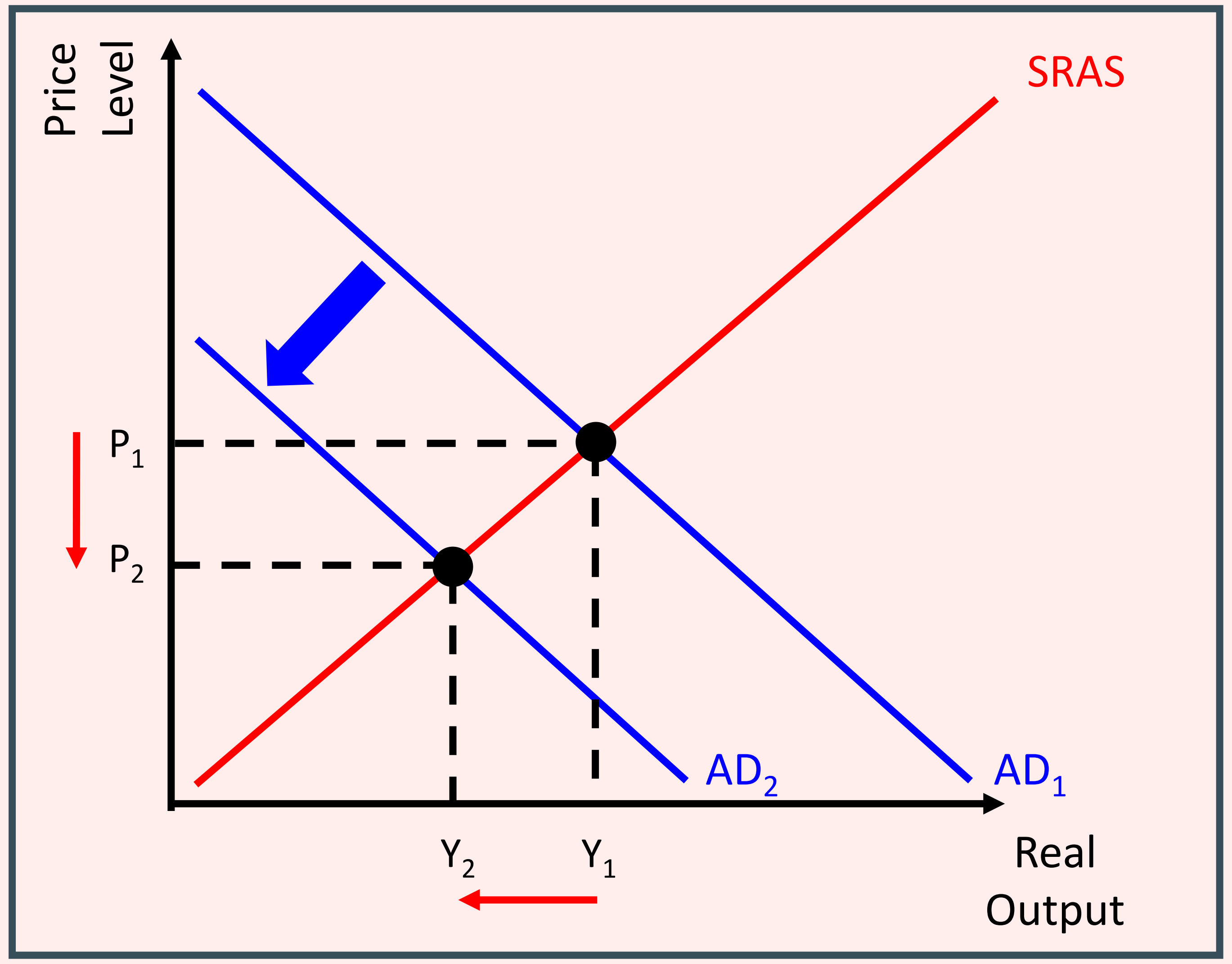

Borrowers Positively Impacted


Reduction in Real Value of Debt

Deflation

Deflation	A persistent decrease in the general price level of an economy over time.

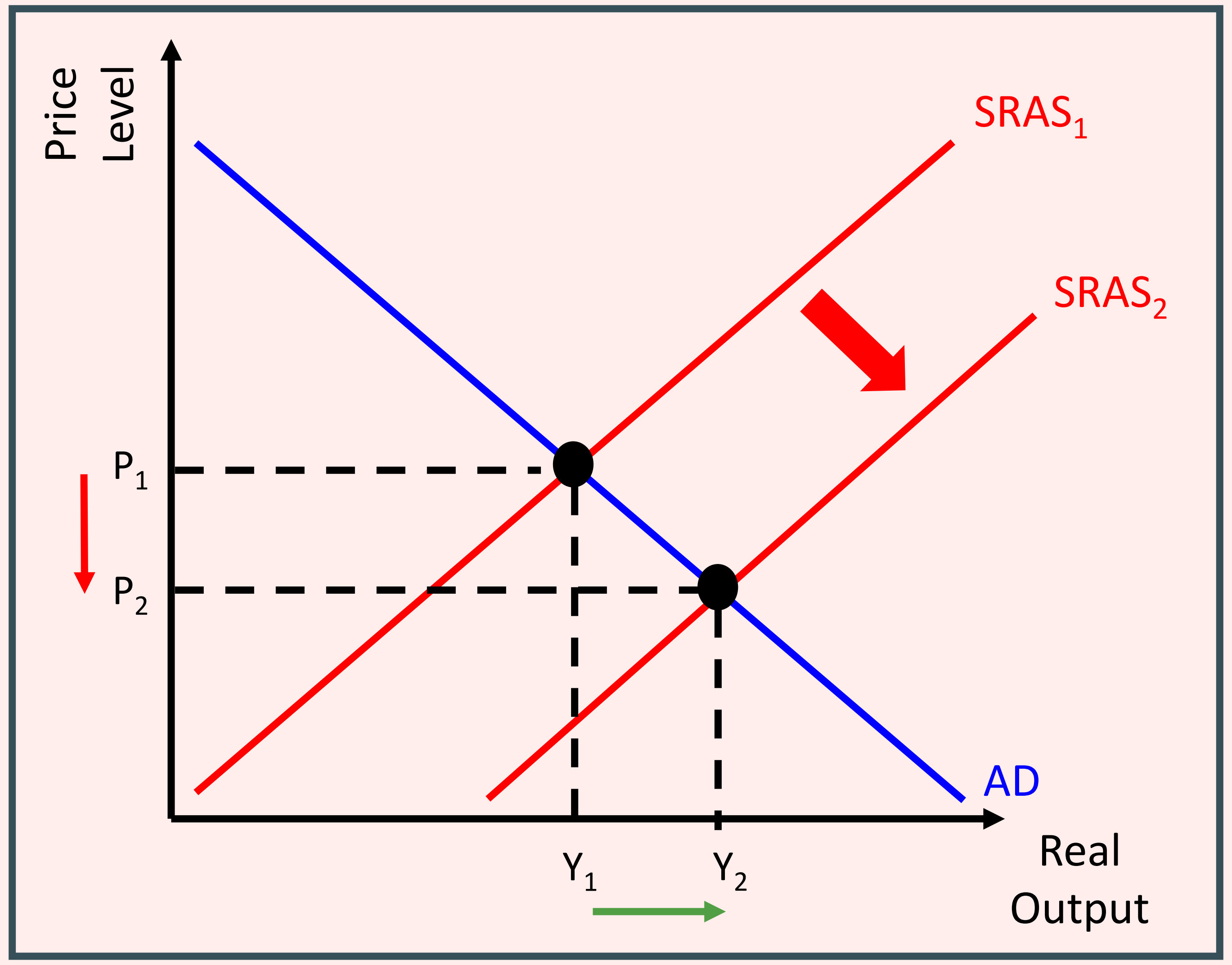
'Bad' Deflation



AD Curve Contraction

Real Output	▼
Employment	▼
Price Level	▼

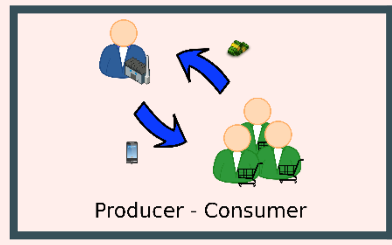
'Good' Deflation



SRAS Curve Expansion

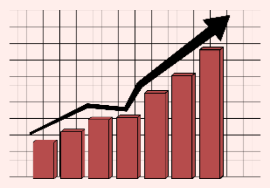
Real Output	▲
Employment	▲
Price Level	▼

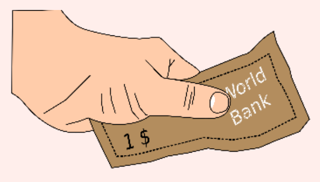
Consequences



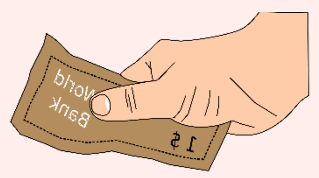
Consumption Deferral


Reduction in Business Investment


Increase in Real Value of Debt


Borrowers Negatively Impacted

However…


Savers/Lenders Positively Impacted


Increase in Purchasing Power

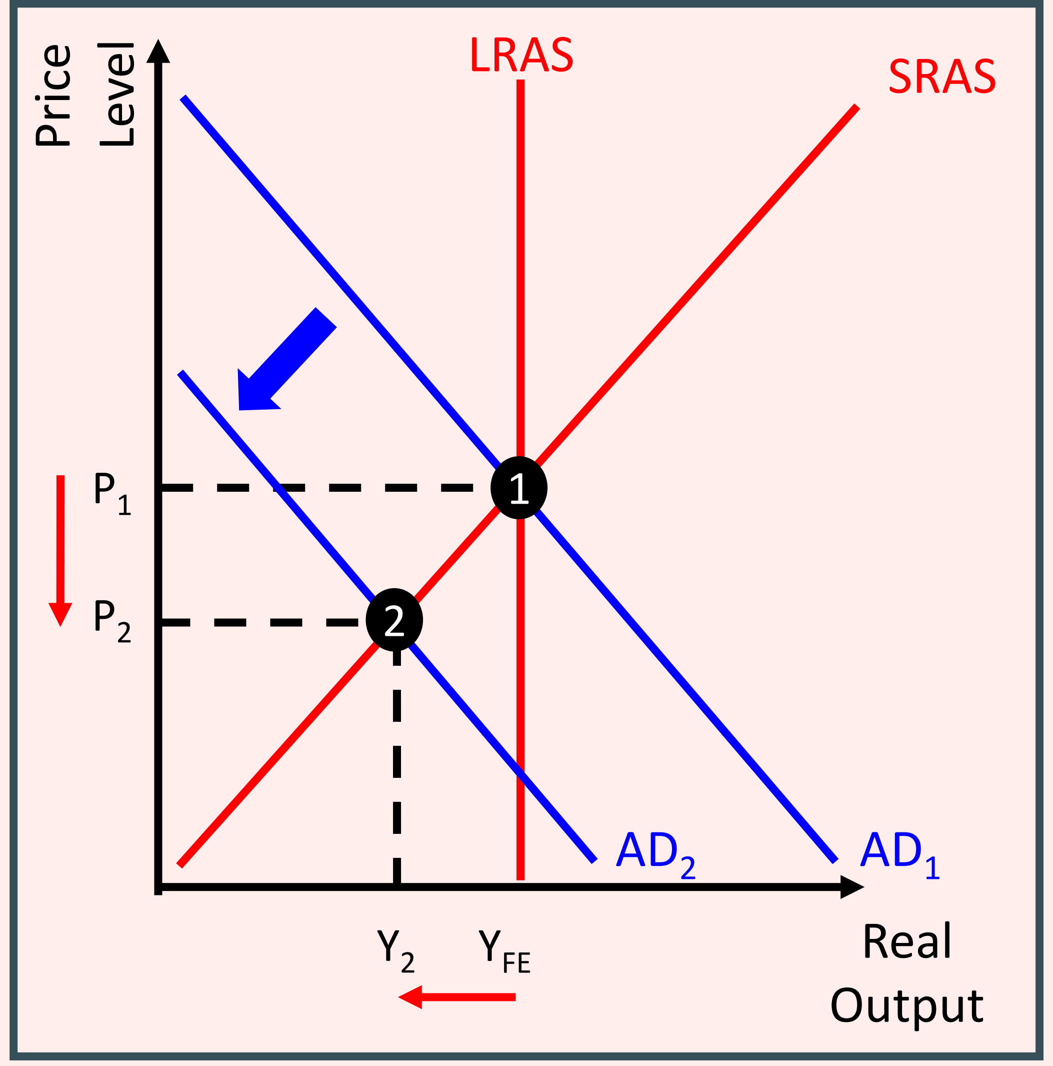
Unemployment

EZY ECONOMICS

Unemployment — The number of people of working age without work, but are actively seeking employment opportunities.

Cyclical Unemployment

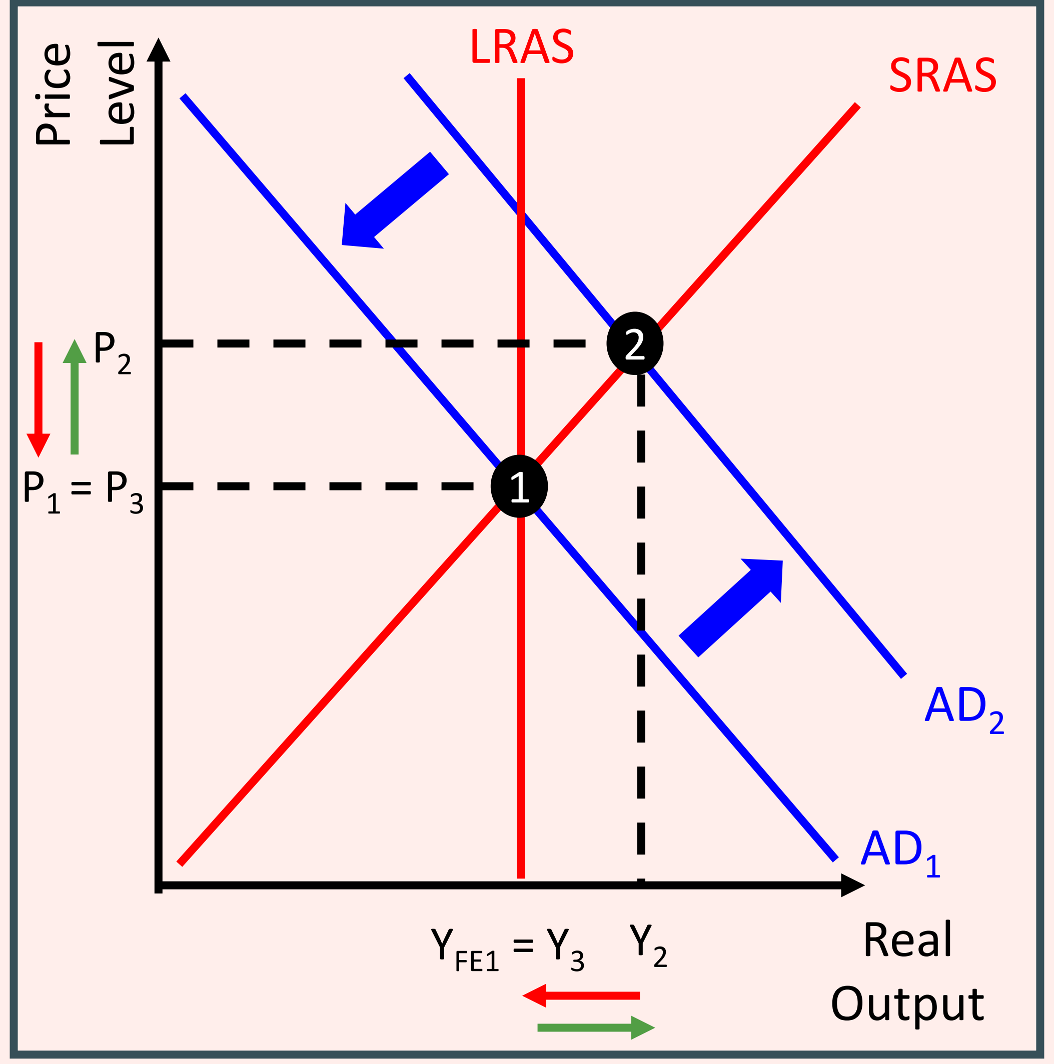
Unemployment caused by a downturn in the economy.



- ▼ Demand for Goods + Services
- ▼ Demand for Labour

Seasonal Unemployment

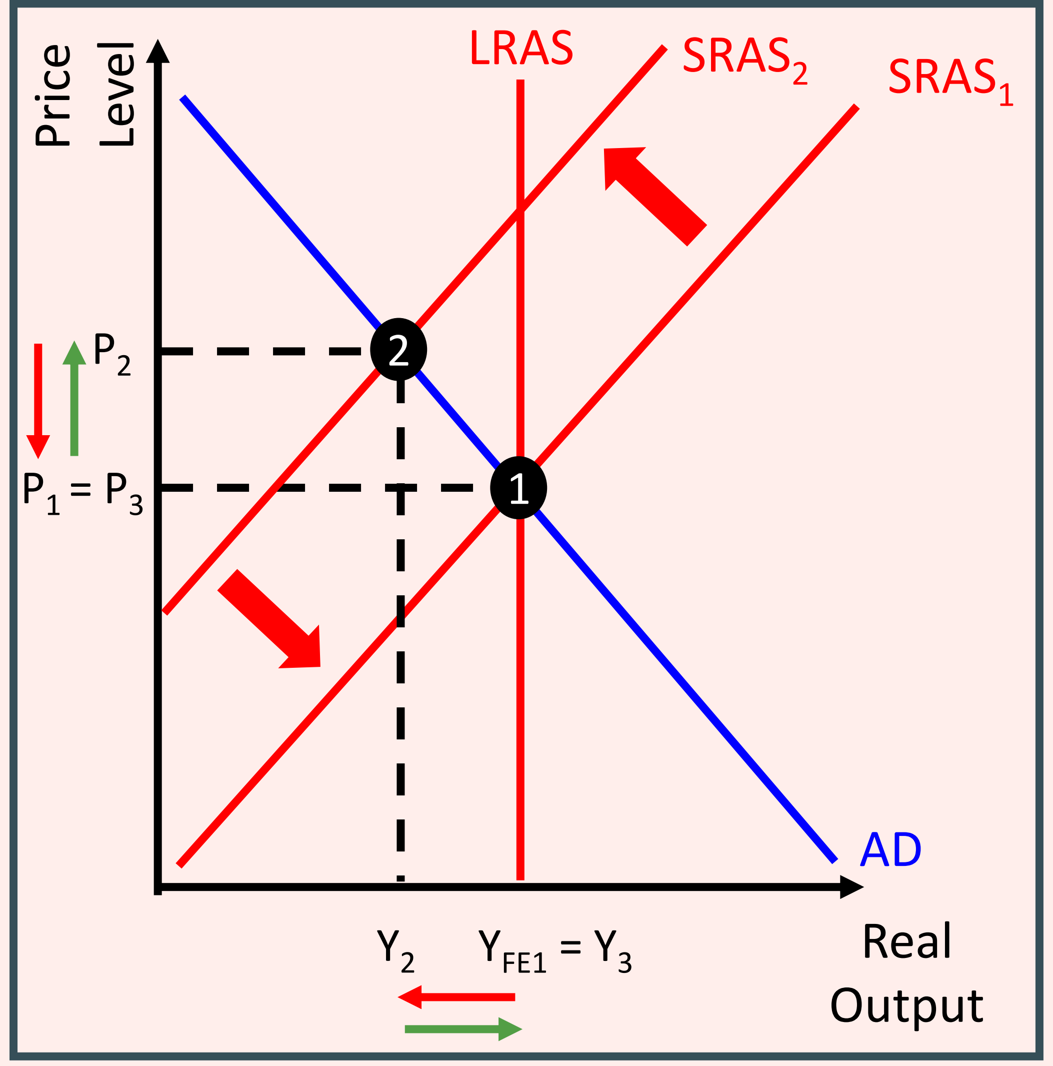
Unemployment caused by peak business periods ending.



Only short-term as demand returns for the next peak season.

Frictional Unemployment

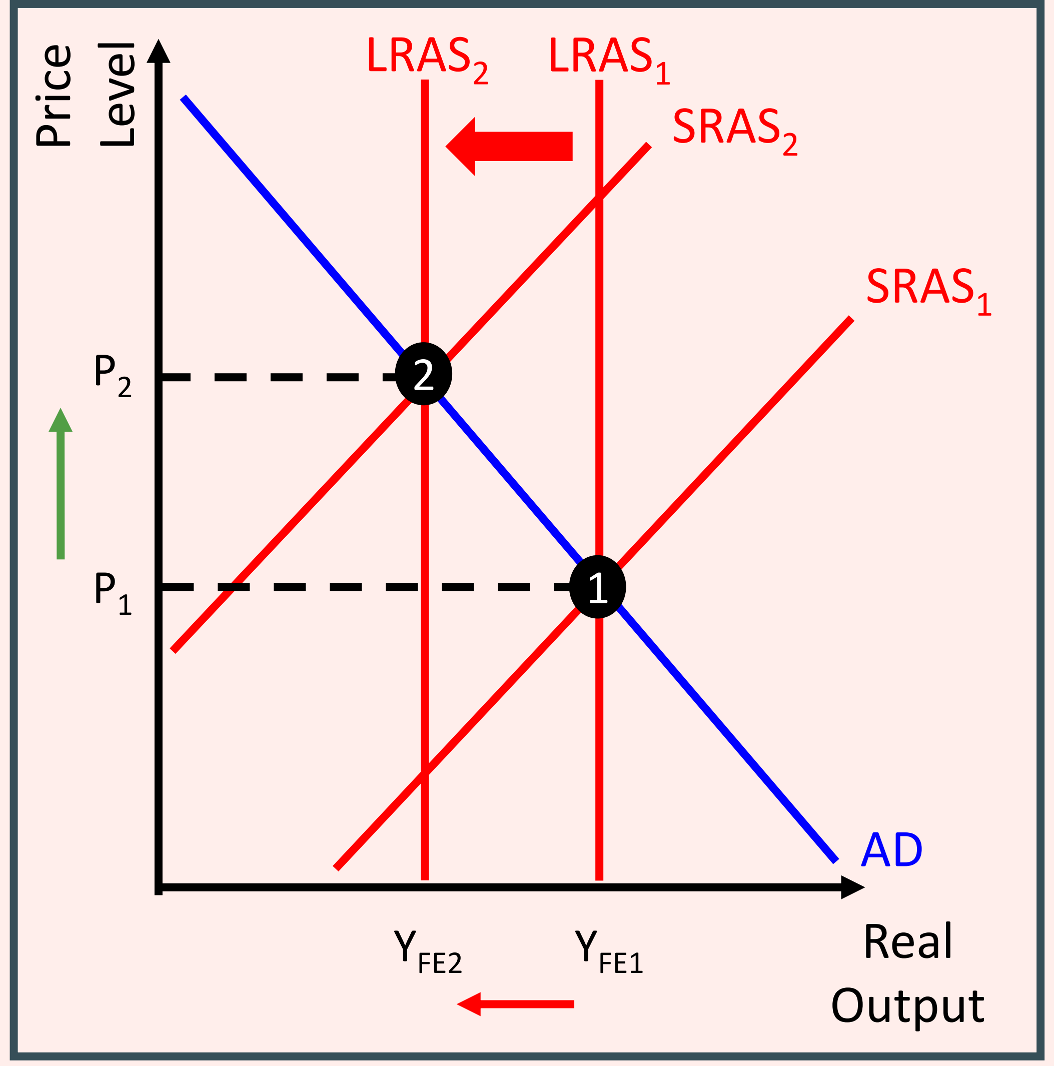
Unemployment caused by workers moving between jobs.



Only short-term as workers make themselves available to work again.

Structural Unemployment

Unemployment caused by a long-term decline in an industry.



- ▼ Full Employment Output
- ▲ Natural Rate of Unemployment

Balance of Payments

EZY ECONOMICS

Balance of Payments – A trading account which records all the transactions made between one country and the rest of the world.

Current Account

Measures the balance in trade with the ROW.

- Goods + Services
- Investment Income
- Transfers (Aid)

Surplus (+)

Deficit (-)

Balance of Payments

Must ‘**balance**’

CA Deficit

FA Surplus

CA Surplus

FA Deficit

Financial Account

Measures the balance in trade of financial assets with the ROW.

- Financial Assets
- Stock + Bonds
- Currency Reserves

Surplus (+)

Deficit (-)

Trade Balance

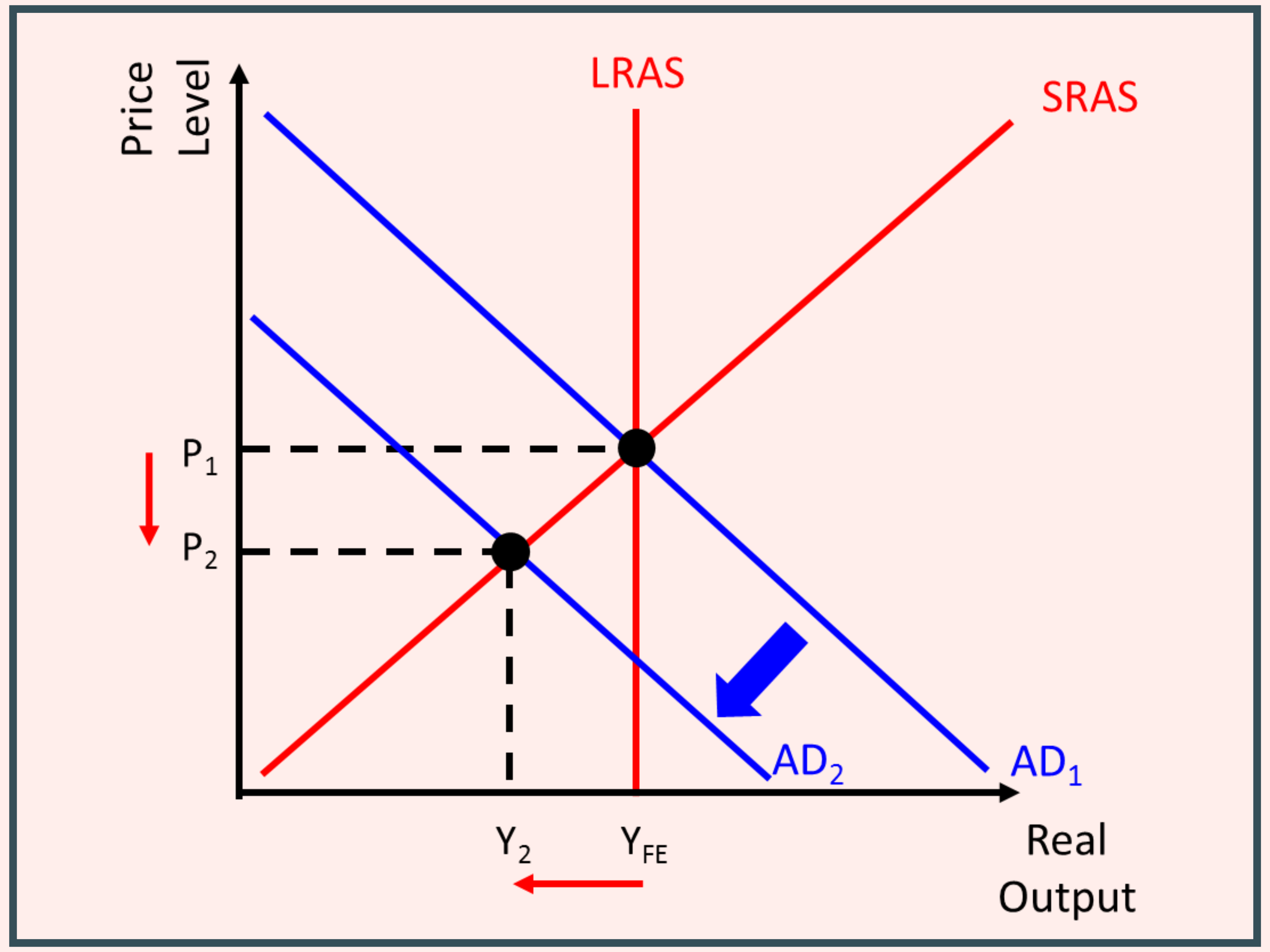
EZY ECONOMICS

Trade Deficit

Import expenditure exceeds export revenue.

Net Exports (X-M) ▼

Ceteris Paribus…



Trade Balance in Goods + Services

Net trade position of a country with the rest of the world in terms of goods and services.

EXPORTS = INFLOW

OUTFLOW = IMPORTS

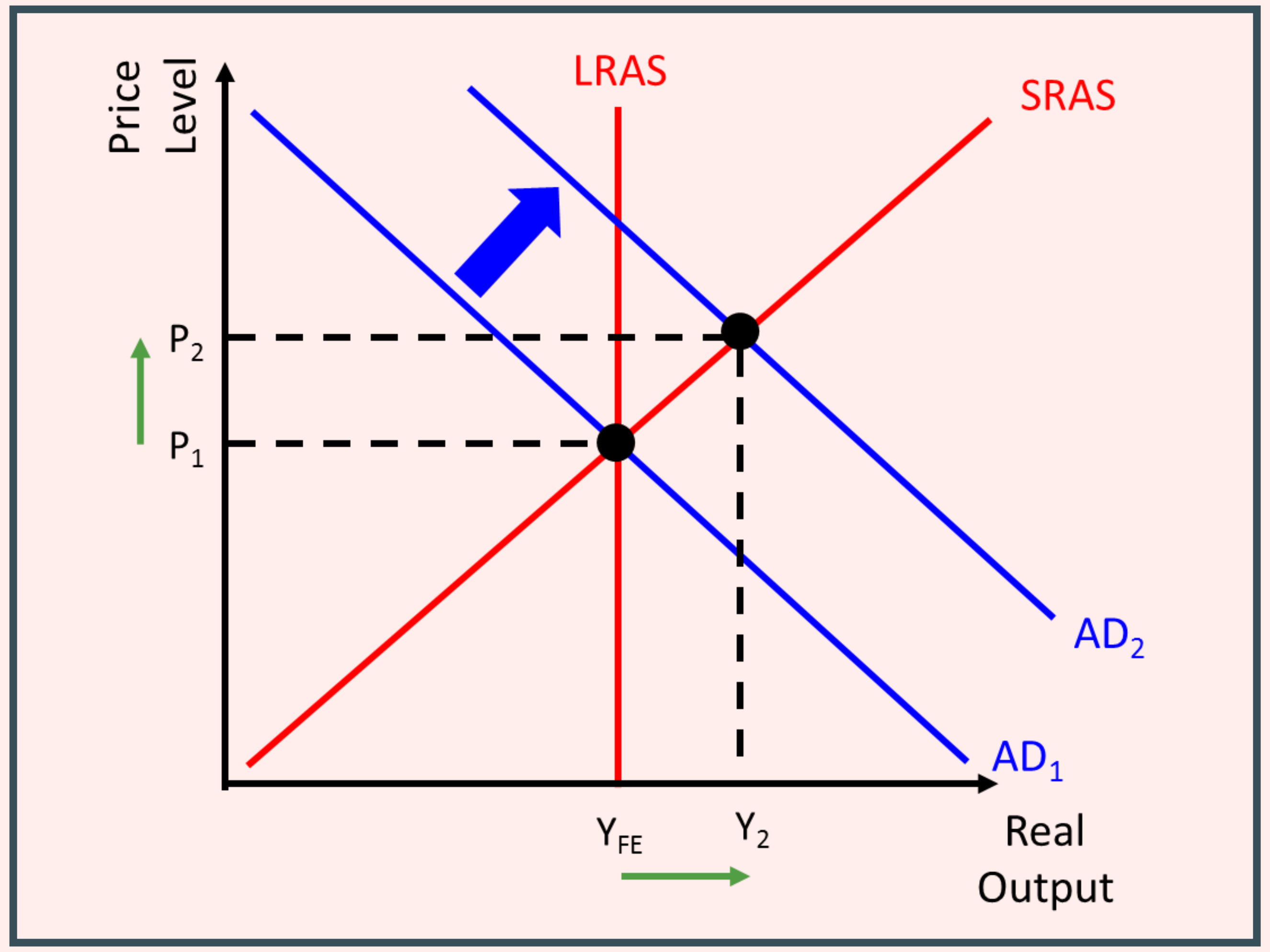
Good indicator of the competitiveness of a country with the rest of the world.

Trade Surplus

Export revenue exceeds import expenditure.

Net Exports (X-M) ▲

Ceteris Paribus…



Monetary Policy

EZY ECONOMICS

Monetary Policy	Policies set by the Central Bank which involve changing the money supply and interest rates to create price stability.

Bank of England:

Bank Rate Change

↓

Savings Rate	Value of Debt	Exchange Rate

↓

AD Curve Impact

↓

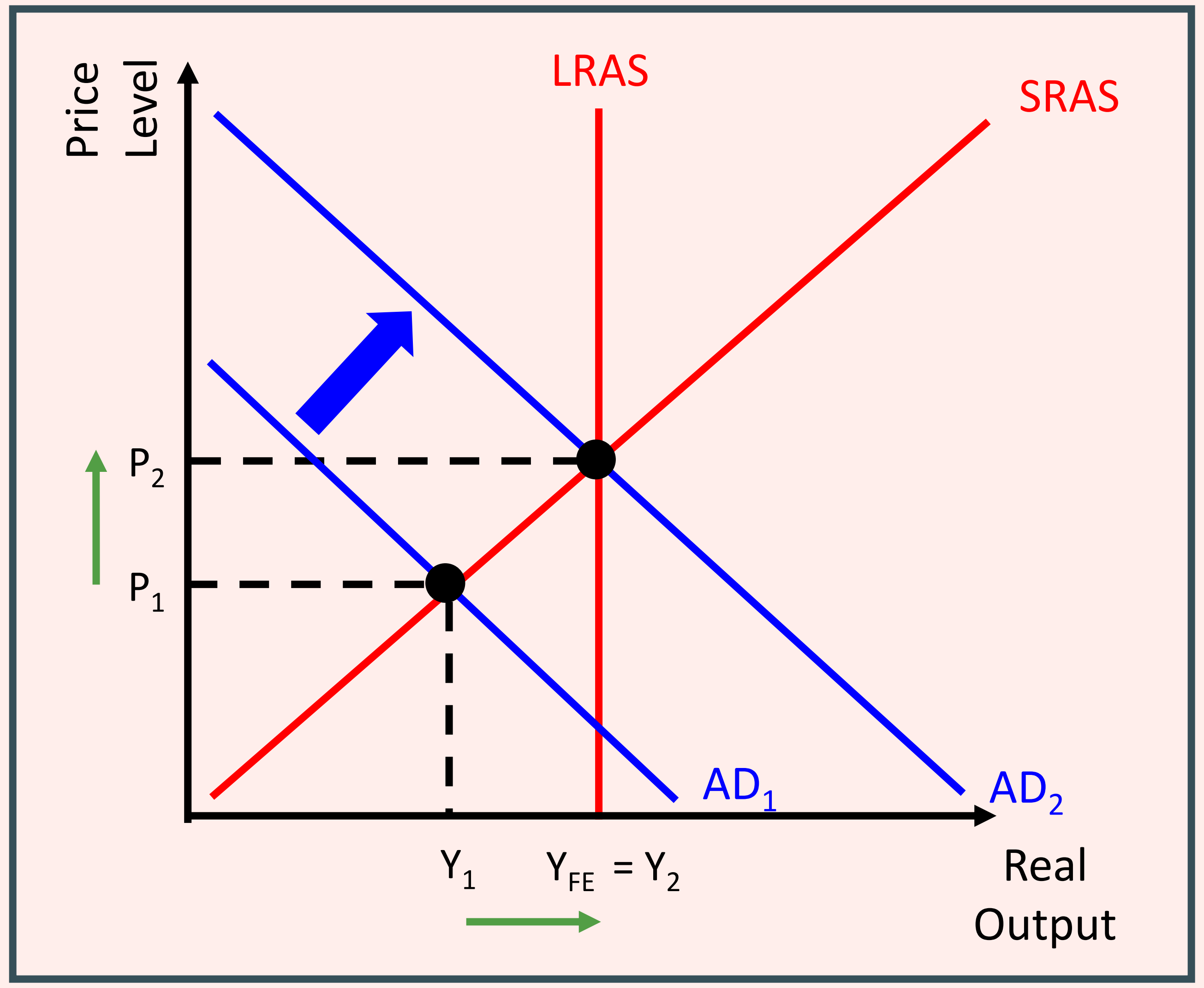
Inflation Rate

CPI Inflation Target	2%

Inflation below Target

Expansionary Monetary Policy

Bank Rate **Cut**

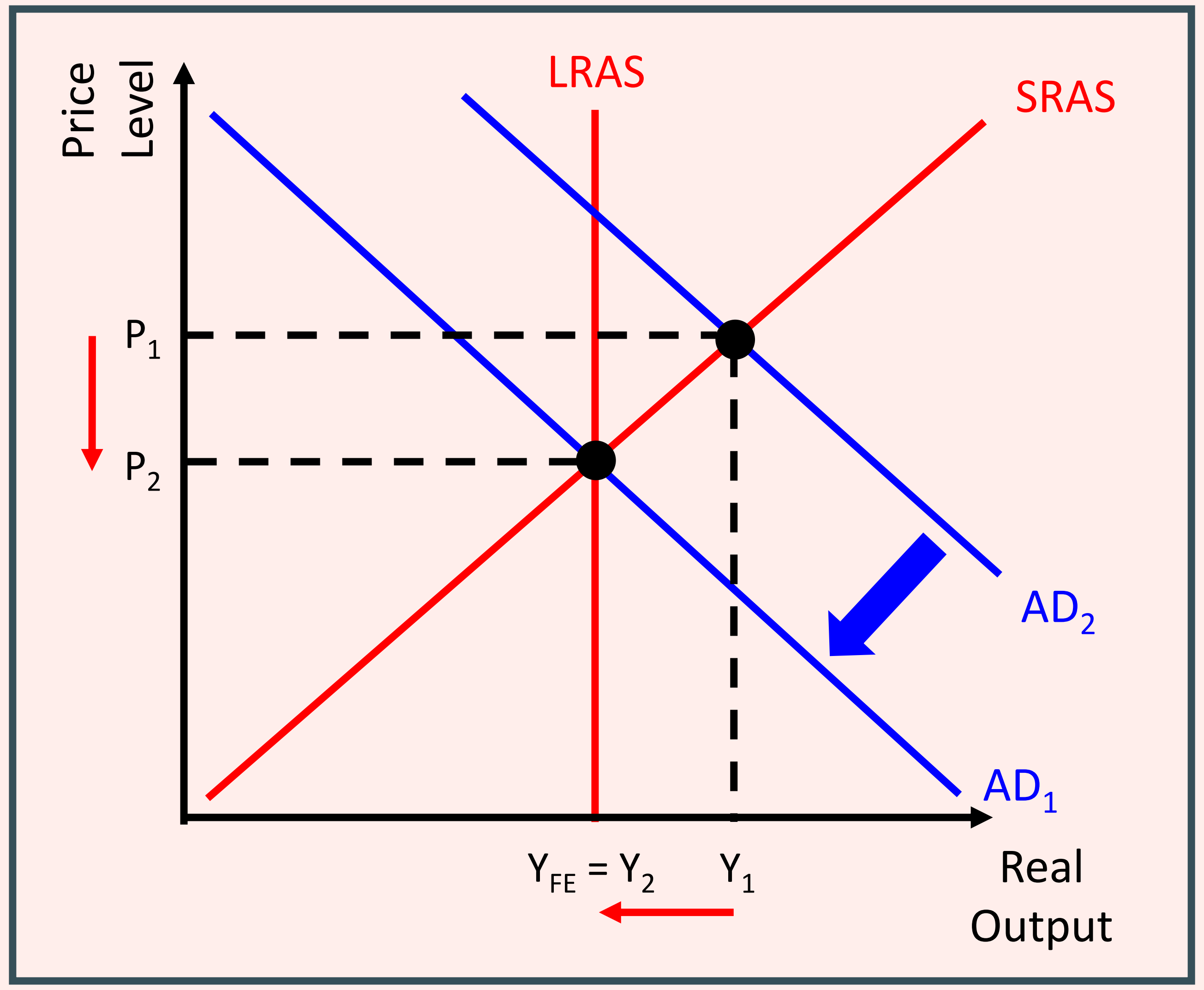


Price Level ▲	Real Output ▲

Inflation above Target

Contractionary Monetary Policy

Bank Rate **Rise**



Price Level ▼	Real Output ▼

Fiscal Policy

EZY ECONOMICS

Fiscal Policy — Changes in taxation, government spending and borrowing that are designed to influence AD in the economy.

Government Budget

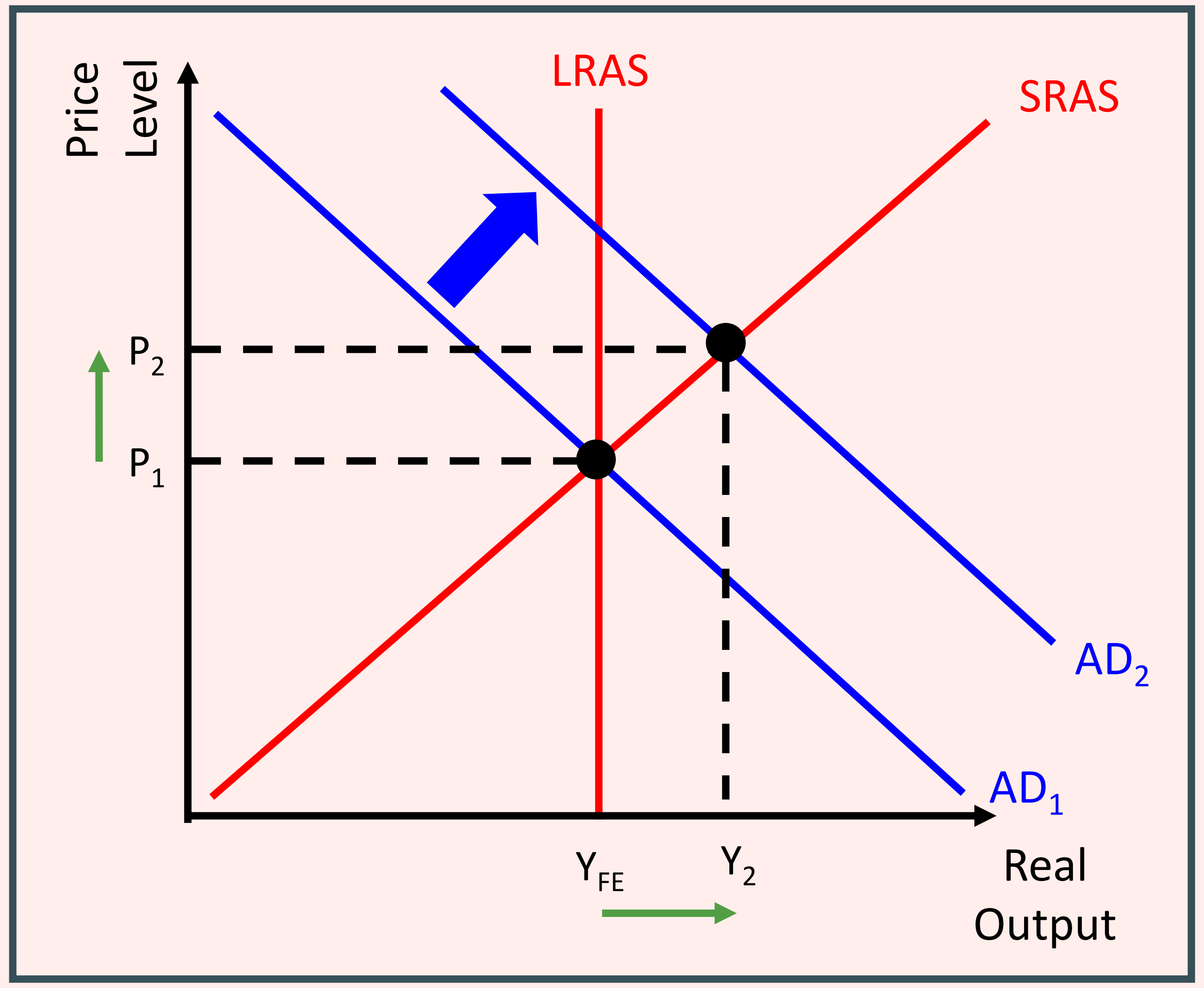
A plan detailing the revenue and expenditure a government anticipates over a given period of time together with details of any borrowing requirements.

Surplus	Taxes > Spending	National Debt Falls
Balance	Taxes = Spending	No change in National Debt
Deficit	Taxes < Spending	National Debt Rises

Expansionary Fiscal Policy

Reduction in taxes and/or increase in govt. spending

Increase in AD

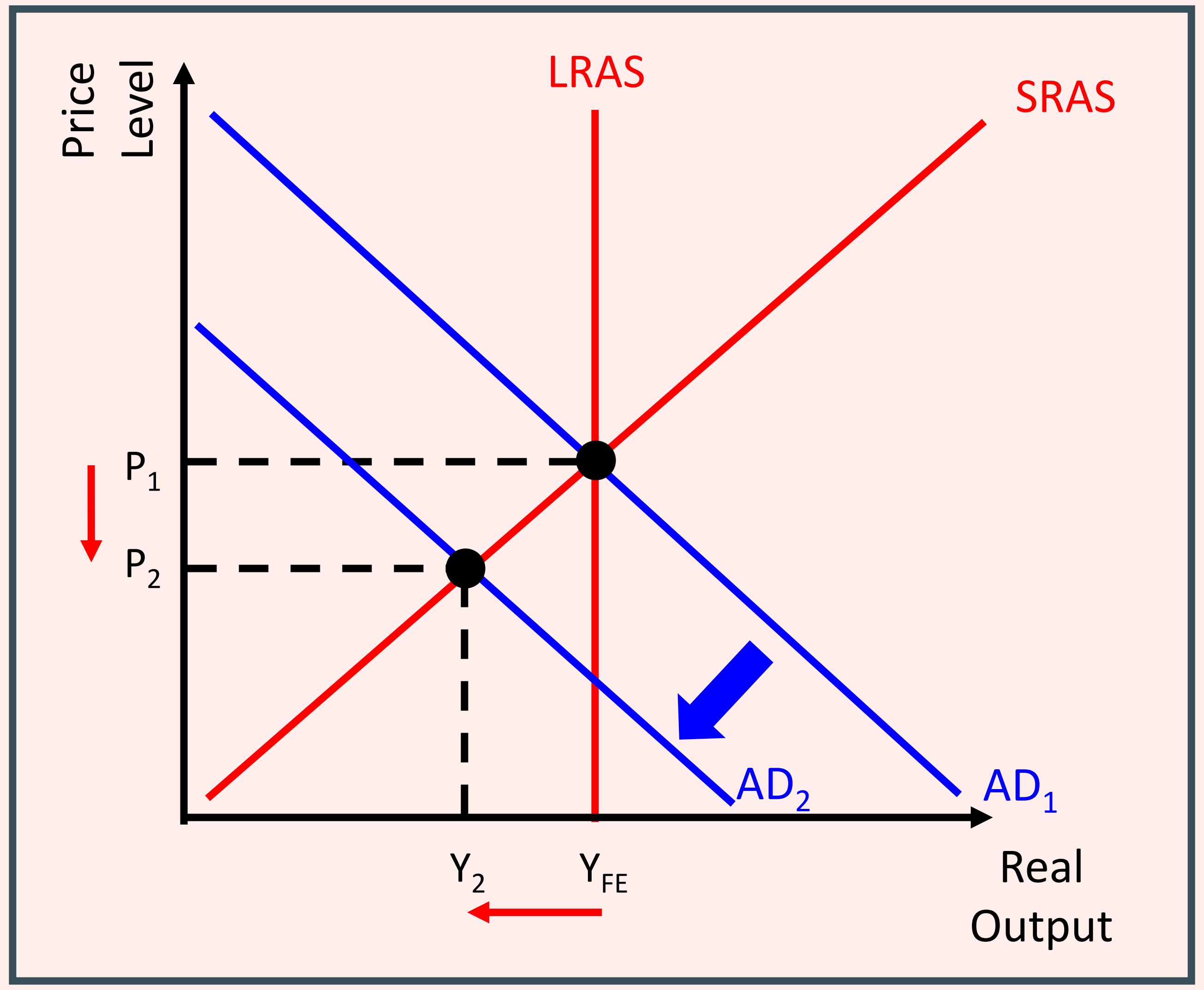


Price Level ▲ Real Output ▲

Contractionary Fiscal Policy

Increase in taxes and/or decrease in govt. spending

Decrease in AD



Price Level ▼ Real Output ▼

Supply Side Policy

EZY ECONOMICS

Supply Side Policy	Policies designed to increase the quantity and/or quality of an economy's factors of production.

Interventionist SSPs

Government policies which generate supply side improvements.

Examples:

- Education and Training Programmes
- Infrastructure Projects
- Securing Intellectual Property Rights

Free Market SSPs

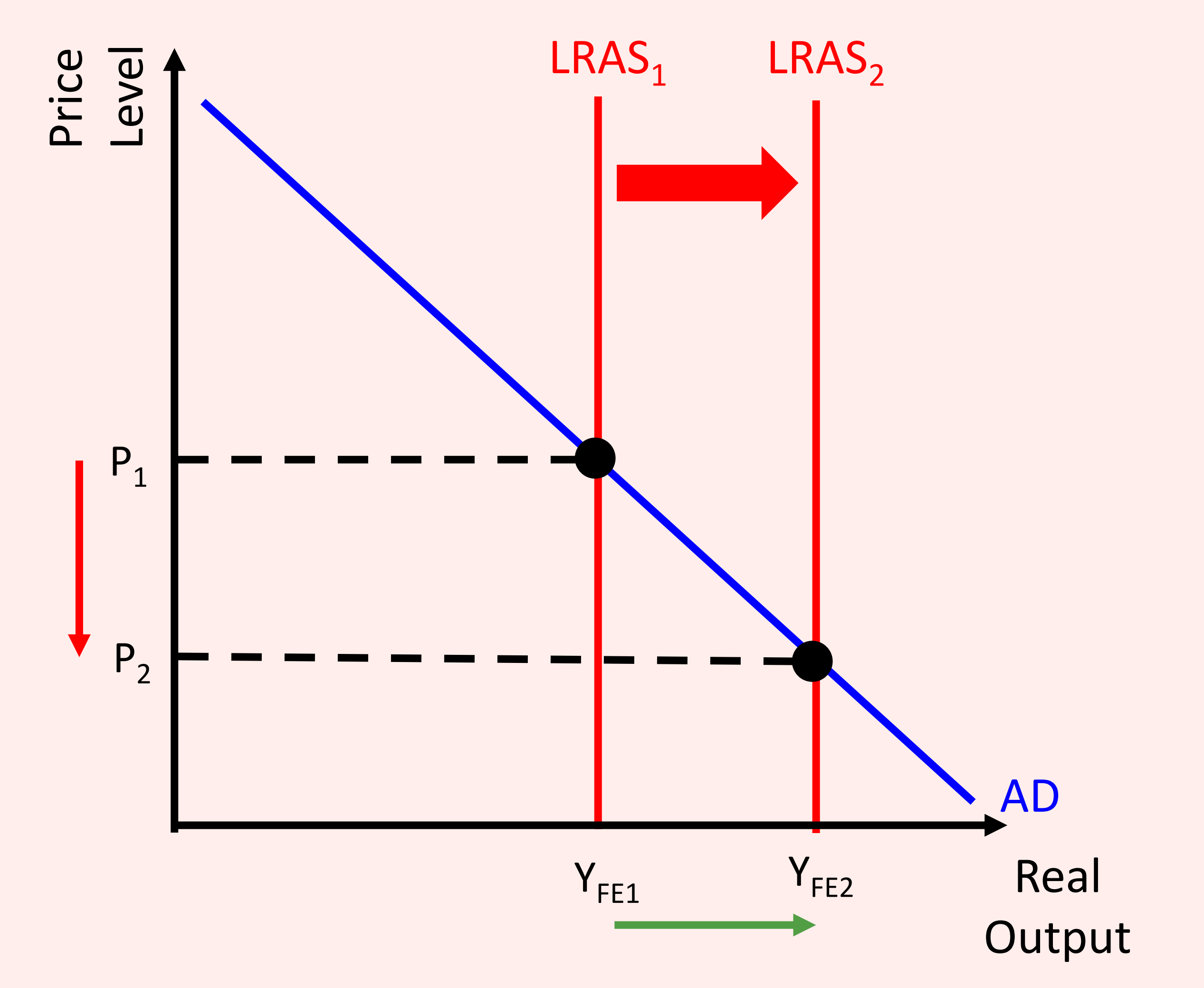
Policies which provide markets with more freedom, resulting in supply side improvements.

Examples:

- Reduction in Corporation Tax
- Deregulation
- Labour Market Reforms

Supply Side Improvements

Increases the long-run productive potential of the economy



Price Level ▼ | Real Output ▲

Supply side policies often involve long time lags!