## **PRICE THEORY**

**PRICE** functions for the purposes of **signalling**, **incentivising**, **rationing** -**price mechanism** allows for allocative, productive and distributive efficiency.

**DEMAND** refers to the amount of a good/service that consumers are willing and able to purchase at each given price over a given period of time

### EFFECT OF CHANGE IN PRICE OF GOOD ON CONSUMERS

**The Income Effect**: Effect of change in **real income** (i.e. purchasing power) resulting from change in price

The Substitution Effect: Arising from the consumer switching to or from alternative products

Tastes and preferences	Advertisements, education, culture, age group Temporary change due to fads: k-pop, k-dramas Permanent change: nobody likes CD players because we have iPods	
Change in income	Normal goods: demand increases when income increases Inferior goods: cheap but inferior substitutes, demand falls	
Expectations of future prices	Demand falls when consumers expect prices to fall in future and vice versa	
Prices of interrelated goods	<b>Complement</b> : A good used in conjunction with another to settle the same want -E.g. memory cards and digital cameras	
	<b>Substitute:</b> A good that can be used in place of another Substitutes are in <b>competitive demand</b> -E.g. MRT and taxi, coke and pepsi	
Government policies	<b>Direct tax</b> : tax on people's incomes <b>Direct subsidy</b> : payments made by government to consumers -E.g. housing grants for married couples living near parents, GST rebates	
Population	Absolute changes in total population or change in composition/ demographics	
Interest rates	Price of borrowing/using money	
Exchange rates	The rate at which a country's currency exchanges for another Change in exchange rates will affect <b>foreign demand</b> for a country's goods and services	

#### NON-PRICE DETERMINANTS OF DEMAND

Change in **price** causes a change in **quantity demanded** Change in **non-price determinants** causes a change in **demand** 

### **CONSUMER SURPLUS**

The difference between the maximum amount consumers are willing to pay for a given quantity of good and what they actually pay. This is also a measure of **consumer welfare**.



**SUPPLY** refers to the quantity of a good or service that producers are willing and able to offer for sale at each given price over a given period of time.

### EFFECT OF CHANGE IN PRICE OF GOOD ON SUPPLIERS

As output increases, marginal cost increases

Higher price induces firms to increase qty supplied because marginal cost covered by marginal benefit

Costs of production	Affect minimum price at which firms are able to supply a quantity of goods	
Innovation/ state of technology	Better technology can make use of resources more efficiently/ increase productivity -at same factor price, cost per unit of output decreases	
Natural Factors	Rain, haze, droughts, pests, earthquakes, floods	
Number of firms	Entry of new firms into industry increases market supply	
Government policies	Indirect tax: tax on producers (increases cost of production) Indirect subsidy: payments made by government to producers	
Prices of interrelated goods	Joint supply: produced at the same time E.g. refining crude oil -petrol and diesel produced Competitive supply: alternative goods made with same factor resources E.g. chicken meat and eggs	
Expectations of future prices	If price is expected to increase, may temporarily build up stocks to release when prices increase, vice versa	

### FACTORS INFLUENCING MARKET SUPPLY

### PRODUCER SURPLUS

The difference between the amount received by producers for selling their goods and the minimum amount they are willing and able to accept to produce the good



**Overall**, when the sum of consumers' and producers' surplus is maximized, society maximizes **total** economic welfare and achieves allocative efficiency.

### **MARKET EQUILIBRIUM** refers to a theoretical situation in which buyer and sellers are **on**

aggregate satisfied with the current combination of price and quantity of a good bought or sold, and are under no incentive to change present behaviour.

**Equilibrium price** is the price at which **quantity demanded = quantity supplied (equilibrium quantity)** Can therefore be referred to as **market clearing price** 

Prices above EP Quantity supplied > Quantity demanded	Producers compete to sell surplus at lower prices Consumers recognise surplus and offer lower price Downward pressure on price is exerted Market price falls until it reaches EP
<b>Prices below EP</b> Quantity supplied < Quantity demanded	Consumers compete and <b>bid up</b> the price Producers increase qty supplied at higher price Upward pressure on price is exerted Market price increases to EP

In dynamic markets, quantity and price levels tend towards equilibrium

### **INTERRELATED MARKETS**

JOINT SUPPLY: Increased demand for one leads to increased supply of the other COMPETITIVE SUPPLY: Increased demand for one leads to decreased supply of the other SUBSTITUTES: Increased price of one leads to increased demand of the other COMPLEMENTS: Increased price of one leads to decreased demand of the other DERIVED DEMAND: refers to the demand for a factor of production that occurs as a result of demand for another intermediate/ final good or service (e.g. derived demand for milk to make cheese) Increased demand for intermediate/final good A leads to increased demand for FOP A.

# ELASTICITY

**PED** refers to the responsiveness of the **quantity demanded** of a good to a change in its price, ceteris paribus. It is %change in Qd/ %change in price

PED>1	Price Elastic Demand	P
PED<1	Price Inelastic Demand	0 elastic Q
PED infinite	Infinitely Price Elastic Demand	
PED=0	Perfectly Price Inelastic Demand	P Perfectly inelastic
PED=1	Unit Price Elastic Demand	Unit price elasticity 0

### MAGNITUDE OF PED VALUES

### DETERMINANTS OF PED

Availability of Substitutes - Closeness and number of substitutes

Habitual Consumption - Habitually consumed goods are more price inelastic

**Income (proportion of) spent on good** - Increased proportion means increased elasticity **Time** - Greater amount of time = greater price inelasticity -allows for development/ discovery of substitutes **YED** refers to the responsiveness of **demand** for a good to a change in consumer's income, ceteris paribus. YED predicts how much the demand curve will shift for a given change in income, ceteris paribus.

### THE SIGN OF A YED VALUE



#### DETERMINANTS OF YED

#### Mainly determined by the necessity of the good

\*Countries at different stages of economic development have widely different income elasticities for the same products



Effect on demand curves for a rise in income for goods with different YED values

**KED** refers to the responsiveness of **demand** for a good to a change in the price of another good, ceteris paribus. XED predicts how much the demand curve will shift in response to a change in price of another good.

### INTERPRETATION OF THE SIGN OF THE CED VALUE



Generally, XED is determined by the **relationship** between the two goods and the **degree of closeness** of the substitutes/ complements

**PES** refers to the responsiveness of **quantity supplied** to a change in the price of a commodity, ceteris paribus

### DETERMINANTS OF PES

**Stock and spare capacity** - Ability of firms to store spare stock/ increase capacity (manufactured goods) **Time period** - Supply is more price elastic in the LR because producers have more time to adjust inputs **No. of firms** - Increased no. of firms = Increased ease of increasing output = Increased PES **Factor mobility** - Ease and speed at which firms can shift resources

# **USEFULNESS OF ELASTICITY CONCEPTS**

PED	<ul> <li>Pricing decisions and total revenue</li> <li>Timing of pricing and marketing decisions <ul> <li>SR: price adjustment strategy</li> <li>LR: product innovation, promotions, marketing strategies - price inelasticity</li> </ul> </li> <li>Primary commodities and manufactured products <ul> <li>PED of primary commodities</li> <li>PED, indirect taxes and government tax revenue</li> <li>Effectiveness of trade unions in bargaining for higher wages</li> </ul> </li> </ul>
YED	<ul> <li>Firms - responding to changes in income, targeting different regions</li> <li>Increasing/ decreasing stock</li> <li>Increasing/ decreasing outlets</li> <li>Government - predicting future consumption patterns to plan policies</li> </ul>
XED	<ul> <li>Pricing policies - Can predict effect on sales and revenue caused by change in rival prices</li> <li>Marketing and sales strategies</li> <li>Substitutes - build customer loyalty to decrease substitutability (E.g. better</li> </ul>

	<ul> <li>customer service, delivery, longer warranty, membership services)</li> <li>Complementary goods - Firms can link marketing strategies to pricing policies of others</li> <li>Collaboration between firms -E.g. Airlines collaborating with hotels to boost sales</li> </ul>
PES	Understanding effect of change in price on quantity supplied