

10 Principles

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Read chapter 1

A. What is economics ?

Three questions any economy faces...

- What goods and services should be produced ?
- How should these goods and services be produced?
- Who should get the goods and services produced ?
- **scarcity** (unlimited desires + Limited resources)

Relates to sociology, psychology and philosophy

- Scarcity: fewer resources which we desire to use; scarce items = value

Naturally limited: land, labour, capital

Supply + demand: to deal with resources in most effective way

- Introduction

How individuals + society as whole manage scarce resources

Allocated by consumer producer interactions through market systems

- Decision making process (business owners, consumers...)
- Interactions between consumers and producers
- Regulation of markets and economy as whole; productive efficiency (no one worse off at least one person better off)

Economic modelling; abstraction from reality; changeable

B. 10 principles: basis of modern economics

1. People face trade-offs

- Scarcity produces trade offs; cant do everything; choose action with most benefits (efficiency v equity)
- 2. Efficiency: the property of society getting most from scarce resources (maximum from well structured limited resources)
- 3. Equity: the property of distributing economic prosperity/output fairly among society

WHY DO YOU THINK THIS EXISTS ?

2. Opportunity cost !!

- Def: value of benefits you are foregoing to do something else (if I do X I miss out on Y)

Nothing free; hidden costs

3. Rational people think in the margin

- Consumer theory basis; economic agent interactions and decision making
- Thinking at the margin; choosing action where marginal cost = marginal benefit
- Marginal change: small incremental adjustment to existing plan (most meaningful)
- Marginal benefit: benefit incremental adjustment reaps
- Marginal cost: cost of incremental adjustment
- Comparing costs + benefits of one incremental adjustment; only way to ensure benefit outweighs cost; most 'profitable' thinking
- Marginal analysis; assume economic agents seeking to maximise/minimize outcomes when making decisions
- Economic agents; an individual, firm or organisation that has some impact on the economy

Hours studied	Total Benefit	Total cost	Marginal Benefit	Marginal Cost	Net Benefit
1	£9	£5	£9	£5	£4
2	£17	£11	£8	£6	£6
3	£24	£19	£7	£8	£5
4	£30	£27	£6	£8	£3

- Net benefit: total benefit - total cost
 - Economic models relying on assumptions of rational behavior; different outcome if assumptions relaxed
- 4. People respond to incentives**
- Decisions made comparing costs and benefits
 - Policy makers change behaviours by altering costs and benefits; predicted reaction not guaranteed- incentives undermine 'moral sentiments'
 - Can be 'unintended consequences' of incentives
- 5. Trade can make everyone better off**
- nationally and globally; allows specialisation; do what best at and enjoy low costs
 - **Market Economy**: economy allocates resources through decentralised marketplace decisions; decisions guided by prices and self interest; common framework for all trades
 - Consumers/ firms buy and produce what they want; free interactions at will
 - **Centrally planned economy**: gov plans how much produced
 - Can damage local economy
- 6. Markets can be a good way to organise economic activity**
- **PRICE** of good reflects **VALUE** and **COST OF PRODUCTION** (signal to buyers/sellers)
 - Economic system: the way in which resources are organised and allocated to provide for the needs on an economy's citizens
 - Capitalist economic system: private ownership of factors of production to produce goods and services exchanged through a price mechanism and where production is operated primarily for profit; 'answer' to economic problem; raise standard of living but not equitable; inherently unstable (boom to bust)
 - Standard of living: income people have allowing them to purchase goods and services needed to survive and enjoy life. Usually measured by the inflation-adjusted (real) income per head of population
 - **Free market economies**: an economy addressing the three key questions of the economic problem by allocating resources through decentralised decisions of many firms and households as they interact in markets for goods and services
 - price determined by interactions between buyers and sellers
 - Resulting price: very good reflection of cost of good production and how much society values it (**everyone can participate**)
 - **Centrally planned economy/ communist/ command economies**: gov estimates society's value of good and cost of production; gov (central planners) organises economic activity in way promoting economic national well-being and more equitable outcome;
 - Price doesn't impact supply and demand; not enough quantity to supply
- 7. Governments can sometimes improve market outcomes**
- Market failure: scarce resources allocated inefficiently; gov intervene to increase efficiency (reducing market power), facilitate trade agreements/increase trade value; Pure market economy doesn't consider wellbeing of whole society

Causes of market failure:

- Externality; cost or benefit of one person's decisions on the well-being of a by-stander (third party) which the decision maker fails to account for.

Eg. Externality cost; pollution

- market power; refers to ability of single economic agent (or small group of agents) to have substantial influence on market prices/output; **significant price control, little competition**

Policy levers aid society: create equity (redistribute wealth)

- Mandate maximum price
- Promote competition
- Minimum standard of service

Great markets need gov intervention creating **EQUITY/ enhance economic efficiency; gov intervention not always have intended effect (benefits politically powerful/uninformed leaders creating policy)**

8. An Economy's standard of living depends on its ability to produce

- **Economic growth: percentage increase in the amount of goods and services in an economy over a period of time; expressed over a quarter and annually**
- **Gross domestic product (GDP) per capita**; total value of all goods and services produced in country divided by population size; average income of country residents
- **Productivity**: determines country's GDP per capita; number goods/services produced per hour of workers time
- Also review health + education; money positively impacts
- **Human development index**: considers; education, life expectancy, GDP per person, collective country score
- Policy effect on living standards key consideration; how will it effect our ability to produce goods and services.

9. Prices rise when the government prints too much money

- **Inflation**: increase in overall price levels in economy
- Often caused by growing money supply
- Cost: more money = less valuable
- benefit; supply work more efficiently (believe it is an increase in wage)
- Purchase more fuelling economy

10. Society faces a trade-off between inflation and unemployment

- Increasing money supply stimulates economy= reduced unemployment
- Philips curve: shows Short term trade-off (inflation + unemployment);negative relationship; crucial to understand BUSINESS CYCLE; High inflation = low unemployment
- Business cycle: fluctuations in economic activity such as employment and production

Reading

Interactions related to exchange usually with medium of money or direct exchange of services.

Firms buy land labour and capital to produce products and services

Economy: all the production and exchange activities that take place

Economic activity: amount of buying and selling that takes place in economy over period of time

The economic problem

- What goods and services should be produced ?
- How should these goods and services be produced ?
- Who should get the goods and services that have been ?

These questions satisfied by resources...

- Land: all the natural resources on the earth

- Labour: the human effort both mental and physical that goes in to production
- Capital: the equipment and structures used to produce goods and services

Scarcity and Choice

Scarcity: the limited nature of societies resources; Demands for wants/needs greater than ability to satisfy them

Decisions must be made about allocation of incomes and resources to meet needs and wants

Economics: study of how society manages its scarce resources and consequences of its decision making

Thinking like an economist

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Read chapter 2 and appendix

Introduction

- Hidden costs/benefits may cause outcome(s) different to policy's designed intentions

Economic methodology

Neo classical: 'mainstream economics'

- Market central feature in generating well-being and answering the three questions all societies face
- Assumes: decisions based on rationality + economic agents autonomous and act in self-interest
- Prevents Heterodox economics (against mainstream) progress

Feminist: economic well-being through both unpaid housework and market exchange

- argue value-free analysis and research into economic issues impossible
- Assuming only 'work' valuable betrays a value judgement relegating analysis of unpaid work below paid work

Marxist: developed by Karl Marx 19th C work different explanation for same phenomena

- Analyse + understand capitalist system
- Explain how + why production takes place
- Circumstances which different societal groups have economic power
- Competition between capitalists to control means of production generates boom and bust of capitalist economies

Austrian school: narrative analysis so claims untestable originated uni of Vienna 19th C

- Economic well-being maximised when markets not intervened by government
- Gov have minimal role 'laissez-faire'
- Explain business cycles in supply side not demand
- Excess supply drives economic recession

- The Economist as a scientist
- Goal of economics: Describe + Predict behaviour of consumers, firms, markets and whole economy

- Neo-classical: economic issues, ideas, policies tested and analysed
- Allows economist prove or refute claims with evidence
- Principle of fallibility: element of bias in all research

Empiricism; based on extraction from reality by models

- Information/data gathered by observation/experience/experiment of event/phenomena
- Formulation of hypothesis and models designed to replicate collected data testing hypothesis
- Scientists conduct controlled tests, economists analyse history

Inductive reasoning: process of observation to form patterns providing evidence for a hypothesis leading to a theory

Deductive reasoning: Begins with theory from which hypothesis is drawn

- Conclusions questioned and tested further and continually

Theories: used to explain something and make predictions (neo-classical econ)

- Logic (assumption based), reason and induction to form conclusions

Falsifiability: the possibility of a theory being rejected as a result of new observations or data

Empiricism or rationalism ?

Rationalism: methodology where 'trusts' established through reasoning and intellectual deduction not emotions/senses

Empiricism: asserts knowledge gained by real-world experience

- Evidence derived from data observation; interpreted leading to different conclusions

Cause and effect: challenging to establish cause and effect when controlled experiments impossible

The role of assumptions

- Most economic issues effected by multiple factors
- When complex factors prevent development of understanding (ceteris paribus)
- Researching phenomenon, economists look at one factor effect change and all other factors held consistent
- Assumptions tested to see extent of accuracy and reasonableness

Experiments in economics:

- Econ: Science centred on human behaviour
- Economic experiments conducted in 'laboratory' where data collected by observations on individual/group through qualitative methods (surveys etc) OR collection and analysis of existing data (wages, prices, stock prices and trade volumes etc)
- Endowment effect; explains behaviour; counter to assumption of rational behaviour in economics; theory extended to distinguish goods held for trade from goods held for use (use more powerful)
- Natural experiments: use statistical tools (correlation and regression) to determine relationship between two or more variables and if existing nature + strength of relationship
- Extent to which relationship between two or more variables links to cause and effect

Models in economics:

- Econ is Science: built on observation and theory, reliant on scientific method
- Challenging: Economists describe + Predict human behaviour; unpredictable with countless factors
- Rely on **models** to discuss behaviour of people + economies
- Theoretical construction to **replicate + represent** real process
 - reliant on models 'map' representing reality to understanding real world + inform decisions + judgements; built with assumptions
 - compared Model prediction with observed data; amend model if predictions differ
 - Single model represents whole economy in one diagram; **circular-flow diagram** (useful not exact); summarises market place, economy organisation, interactions
 - Factor of production; land, labour, capital, enterprise input into production process

Must represent factors impacting outcome of model : equilibrium point, disequilibrium situation, external factors

- multiple variables: some determined by model, some generated within model
- Production possibilities frontier (deals with trade off, opportunity cost, Efficiency, GDP, specialisation)
- Represents maximum national production within limited/scarce resources
- Knowing where production possibility frontier lies allows country to specialise; crucial component for profit margin (lowest cost, highest profit)
 - Shows possible production then most efficient compromise; depicts trade-offs

E.g. Market model

- (Qd) Dependant on price (dependant variable) **endogenous variable**: variable value determined within model
- (P) independent variable- affects model not affected by it. **Exogenous variable**: variable value determined outside model

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- Principle of reflexivity: Behaviour conveyed by models change with human understanding, belief and interpretation of model
 - Shock: impossible to factor into model construction; change long-term dynamics
 - Butterfly effect: butterfly flapping wings at particular time and place slightly alters conditions causing significant changes far away
 - Two principle uses:
 - Predicting + Forecasting future as consequences of decision/policy
 - Simulating event and providing comparison to what would happen if decision/policy/change not implemented (the counterfactual)
 - Institute for fiscal studies; UK independent research organisation (provides insight and analysis into effect of policies on individuals,businesses,families,gov.
 - The Economist as a Policy Advisor

Two statement types when advising policy:

- Positive: objective fact based statement about how world is

- Can be tested, confirmed, refuted or shown unprovable
- Normative: perspective, value-based judgement about how world should be
- Possible to conduct both positive and normative analysis; **interlinked; equally valued**
- positive views about world affect our normative views about desirable policy
- Why do Economists Disagree ?

Two sources of disagreement:

- Facts; validity of alternative positive theories
- Values; Different values/beliefs = different normative views

Differences in scientific judgements:

- Arguably not 'true science'; cant subject humans to natural science controls/comparisons

Economists as decision-makers:

- Economists make/recommend decisions by...
 - Identifying problem
 - Analysing costs + benefits decision involves; order by value to understand relationships between decisions costs + benefits

Deficit: difference between gov. income (tax/other revenues) and gov. expenditure (providing goods/services)

- Tools of Economics
- **Equilibrium**; most models only identify; what is **equilibrium price ? Equilibrium quantity** sold ?
- when competing sources balanced + stability achieved
- When reached, system fixed unless outside conditions change
- disequilibrium will reach equilibrium if one exists
- **relationships** (corelations between factors)
- Summarised using graph when between two variables
- Equation for a line
 - Linear equation: $y = a+bx$
 - Y intercept, gradient

e.g. Grade= 80-2xbox

Every additional hour of Xbox lowers grade by 2, no Xbox (Xbox=0) so 80% grade distinguish...

- **movement along** line: increased Xbox use
- **shift** in line: influence of (exogenous) factors not Xbox, impacts Xbox use affecting grades

Relationships deceiving: one doesn't always **cause** other

Mistaken casual relationships due to:

- Omitted variables: you think x causes y but both x and y caused by z
- Reverse causality: you think x causes y but y causes x
- Mere coincidence: x and y not related
- **Constrained optimisation**; maximising/minimising objective x , subject to restriction of y

Market forces of supply and demand

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1. Introduction

What is model of supply + demand and why is it useful?

Supply + Demand:

- Fluctuations alter prices
- interactions within market; buyers + sellers; willingness to pay + sell

What do we want to represent In demand and supply schedules ?

Operations of the market

- Intersection of supply + demand schedules determines equilibrium quantity and equilibrium price
- Why important ? Helps understand change as well as how consumers + producers respond to occurring change ?
- Important for policy makers; what effect does policy have on demand + supply; how do consumers react ?
- product products more volatile depending on its market
- Influences assumptions for economists + buyer/seller decision

Model of supply + demand: assume market perfectly competitive ; make predictions

Market model: Neoclassical resource allocation view; if assumptions hold, resource allocation efficient; based on value judgements

Consumers + producers max. benefits, min. costs assumed society max. welfare; goods and services desirable and demanded

Characteristics of competitive market:

- Many buyers + sellers
- Product is homogenous
- Each buyer + seller has perfect information
- Each buyer + seller composes small fraction of market (no 'price takers')
- Individual buyers + sellers cant influence market price/quantity
- All sellers supplying similar products
- Freedom of entry + exit in market
- Everybody takes market price as given
- Buyers + sellers act independently considering only own position when making decisions

2. Demand

Law of demand: Consumers buy less product when it is more expensive, holding all other factors constant

- **Demand curve:** represents buyer willing + able to pay at different price holding everything else constant (negative slope) (steeper than market demand)
- **Market demand curve:** represents all buyers in market willingness to pay based on price (everything else constant)

E.g add individual quantities (x axis) of individual demand curves

Movement along demand curve:

change in quantity demanded (change in price)

- **Income effect:** indicates direction of change (income same, price lower: can buy more; increasing demand)
- **Substitution effect:** indicates scope of change (always positive; buyers substitute to cheaper item)

Shift in demand curve:

Alternative factors (not price) effecting demand curve: exogenous factor (out with model); external environment changes impacting model; demand lower at any price (increase to right/decrease in demand to left)

Factors affecting demand-

Prices of other related goods:

- **Substitutes:** two goods for which an increase in price of one, increases demand for other (vice versa) (butter and margarine)
- **Complements:** Two goods where increase in one price decreases demand for other (bread and butter)

Income:

- **Normal:** a good for which increased income leads to increased demand (vice versa)
- **Inferior goods:** A good for which an increase in income leads to a decrease in demand for (vice versa)

Tastes: key determinant of demand

Population: Larger population (ceteris paribus) = higher demand all goods/services

Advertising: firm with ad. Campaign increases product demand

Expectation of consumers: Future Expectation may affect demand for good/service today

3. Supply

Supply curve: graph of relationship between price of good and quantity supplied (positive)

- **Market supply vs individual supply:** change in price sum of two individual supplies
- **Market supply curve:** total quantity supplied varies simultaneously with price of good
- **Shifts in supply curve:**

any change raising quantity supplied at every price; increase in supply; (shift to right)

Any change reducing quantity supplied at every price; decrease in supply; shifts to left cause; one/more factor affecting supply other than price

- Profitability of other goods in production + prices of goods in joint supply: can switch product/ supply both
- Technology: technological advances increase productivity allowing greater production + fewer factor inputs (cost of total + unit fall, supply increase)
- Natural/ social factors: weather, disasters, pestilence + disease, changing attitudes + social expectations
- Input prices: factor of production prices; supply of good negatively relates to price of inputs used to make good
- Expectations of Producers: output levels vary according to expectations of producers about future state of market
- Number of sellers: determined by product profitability and ease of market entry and exit

Quantity supplied: amount seller willing and able to sell at different prices

Factors determining supply of firm:

- Cost of inputs
- Technology
- Amount of competitors

(defines type of market oligopoly, monopoly: less competitors, greater market power)

- Price of product
- Natural/social factors

Law of supply: claim that Quantity supplied increases when prices of good increase

Supply Schedule: table showing relationship between price of good + quantity supplied (*ceteris paribus*)

4. Market Equilibrium

market equilibrium: market equilibrium when quantity supplied equals quantity demanded.

Equilibrium: maintains until exogenous factors differ.

market equilibrium when quantity supplied equals quantity demanded.

Equilibrium Quantity: quantity bought and sold at equilibrium price
AKA market clearing price: everyone in market satisfied at price (no shortage/surplus)

Equilibrium remains until factor causes shift in demand/supply curve/both creating...

Surplus: excess supply than demand

Response: cutting prices (Shift demand) /reducing amount of supply (shift supply)

Price above equilibrium quantity will decrease back to equilibrium

Comparative statistics: comparison of one initial static equilibrium with another

- Activities of markets automatically push towards equilibrium price

Law of supply and demand: price of any good adjusts bringing quantity supplied + quantity demanded of good to balance

Prices as Signals; Main function of price in competitive market signal to buyers + sellers

- Buyers: price tells sacrifice (usually money) to acquire benefits of having the good (utility/satisfaction derived from consumption; reflects willingness to pay)
- Sellers: price signals relation to profitability of production

Three Steps to Analysing changes in equilibrium:

- Decide whether event shifts supply curve, demand curve or both
- Decide whether curve shifts to right or left