

economics: the study of people and their choices.

economics

science of scarcity

study and choices

opportunity cost

wealth and man

(资源稀缺)

- ① the idea of **scarcity** (资源稀缺)
- ② people want more, but resources limited
- ③ everything has a **cost**.

economy

{ micro: small microscope

macro: big telescope

[Who wanted what] economies can explain history.

division of labor

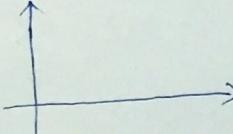
specification

modern society

benefits of trade

production possibilities frontier (PPF)

Quantity  
of  
product A



resources limited

so equilize how much A and B  
quantities to the best level

comparative advantage

every country must produce what they best at.  
specialization + trade. makes world better off.

economic systems → { what will we produce?

★ { How will we produce it?

who gets it?

↓ market economy:

< who owns, controls factors of production >

planned economy: government controls

communism: abolition of private property

classless society.

North Korea

Ireland

modern economies are not completely

planned or completely free market.

there's a spectrum of government involvement

product market

resource market

product market

Businesses

individuals

government

resource market

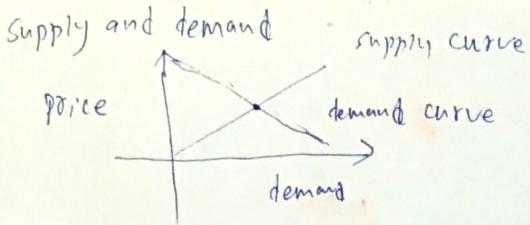
modern economy

simplified

there are no solutions

just only trade-offs

economy explains the world  
(like this)



equilibrium price and amount

price signal

We are well off by their interest Adam Smith

North Korea ← → New Zealand

government planned free economy

macroeconomics: the study of the entire economy

the big stuff, e.g. inflation..

Started 1930s, great depression

prediction; data.

economics: studying people, unpredictable

ideal macroeconomic goals (policy makers')

① keep economy grow overtime

② limit unemployment

③ keep prices stable

↓  
Good!

measured by: ① Gross Domestic Product (GDP)

② Unemployment rate

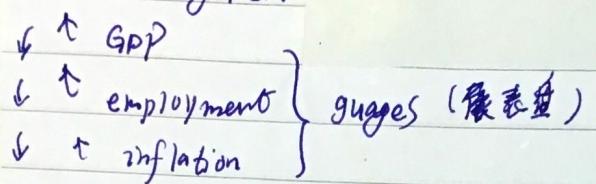
③ Inflation rate.

∞ GDP  
UR

if people don't wanna buy, GDP ↓

## Business Cycle

economy : car



engine of economy (GDP)

{ consumer spending  
Business spending : investment  
Net exports : spending by other countries  
government spending.

Poverty vs wealth | Standard of living

Productivity is key

measure in GDP : market value of stuff made in a

GDP per capita } Standard of living year

why GDP different?

income equality.

4 factors of production: Land + machine

factory + infrastructure

education, skills of workers / special kind of capital  
↓ Human Capital

organizational effectiveness / technology  
↓ internet

⊗ connectivity = productivity

Bubble:

speculation: 中国房地产

inflation: Purchasing Power Home prices ↑ : biggest bubble in history  
price levels in economy CPI isn't perfect

CPI: How prices change in years

measurement of inflation

prices must adjust for inflation

< real > (nominal)

deflation

what causes inflation?

Rich means how much consuming power you have.

(Demand pull inflation: too much money)

(Cost push inflation want more ↓)

(too much money chasing few goods) ↓

decrease of availability of an important supply

fiscal policy: government involvement in economy

Does it work? (fiscal policy)

① classic theory: economy fix itself (before Great Depression)

② John Maynard Keynes: invented modern economics  
expansionary fiscal policy speeds up economy

Deficit spending:

the government spending more money than it collects in tax revenue

Crowding out: increased public sector spending replaces or drives down

private sector spending.

fiscal policy is hard to do well.

Budget deficit: government spends more than its income over a period of time

Debt: the accumulation of budget deficits.

Monetary Policy central banks: ① regulate and oversee the nation's commercial banks  
② monetary policy. ( $\uparrow \downarrow$  money provide)

interest rate.

expansionary monetary Policy: money supply  $\uparrow$  loans  $\uparrow$  economy  $\uparrow$  hot

contractionary Monetary Policy:

Bank must have: confidence + liquidity (cash)

economist consider money as

anything that excepted as a medium of exchange.

many economist consider bitcoin as money.

can buy bitcoin, ∵ it is also a speculative asset 投机品

a piece of green paper have value, ∵ everyone thinks they have value

Bitcoin doesn't  
need a bank.  
(anonymous  
businesses)

Stock market

a small part of financial system

① lenders + ② borrowers + ③ governments

through: Bank, Bond market 债券市场, Stock market.

stock: slices of ownership in the company.

things have  $\rightarrow$  thing want

boiled down economy

2008 financial  
crisis

mortgages (按揭贷款) default (违约) stop paying the money

↓ Banks sells mortgages to third parties.

- Shakespeare

the fault lies not in the stars, but in us.

economic  
crashes

hyperinflation  $\rightarrow$  erodes wealth

expectations of people matter. collective decisions makes economy up

if enough people fear a recession, they're gonna decrease their spending  
and it'll cause a recession.

address expectation & create confidence.

My economic  
thoughts

Thomas Malthus population theory + Darwinism  $\Rightarrow$  Social Darwinism  
economics theories wrong, they'll effect millions of ppl.

economics isn't an exact science.

it aims to draw conclusions about human behavior without  
the benefit of labs or perfect control groups.

economic theories reflect different attitudes about human  
nature and those are likely to change over time

**Adam Smith**; father of modern economics (Scottish economist)

When both focus on what they are best off and then trade

then everyone benefits. (David Ricardo) expanded Smith's idea.

**communist manifesto** (1848)  $\downarrow$  comparative advantage theory

rather than examining individual  $\Rightarrow$  history was explained by the conflict  
behavior, looked at economic classes between workers and property owners.

collective ownership of the  $\downarrow$  **communism** stateless, classless system  
means of production

Adam Smith; individual self-interest serves the common good

**free market capitalism** private property

market-based economy, theories developed despite Marx's challenge, with the  
contributions of French, American, British economists till end of 19th c.

$\downarrow$  classical economics  $\ll$  principles of economics >>

Marx's ideas expand too.

- Alfred Marshall

1922. Soviet Union established. (when great depression crushing western)

keynes's idea of ever-present Marxist critique  $\downarrow$  John Maynard Keynes fixed this  
 $\downarrow$  more and more government involvement launched **macroeconomics**

after great depression **Socialism** was popular.

$\downarrow$  keynesian economics  
(government intervention)  
 $\rightarrow$  classical economy

Socialism, Keynesian economics expanded, Austrian School of Economics continued to push free market economy.  
heavy state involvement never produce the results it promise  
government interfering is problem.

- ② Milton Friedman, Privatization of many government function  
the great depression isn't cuz of inherent fault of capitalism  
but of botched monetary policy. Friedman + followers  
at Chicago U. → Chicago School of Economics
- ③ monetarism: focus on price stability, money supply control

ideas shape the course of history

china once supported strict communism  
moved toward capitalism.

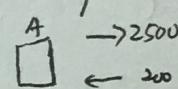
-keynian theory of

15.

international trade.

international trade: lifeblood of the global economy.

net export: the annual difference between a country's exports and imports.  
trade surplus: has positive net export



$$\begin{aligned} \text{trade surplus} &= \\ \text{net export} &= \\ &= 500 \end{aligned}$$

You don't need to make everything by yourself  
when you can buy easily.

WTO: eradicate protectionism.

exchange rate:

Yuan Buys Dollars: US import goods from China: Yuan  $\uparrow$  appreciated

↓ Yuan Buys Dollar to keep its exchange rate the same.

international trade can be hard for individuals.

UN goal: eradicate poverty and hunger.

World trade increase dramatically after WWII

Mobile Phone: single most transformative technology when it comes to the developing world

besides the negative effects of it, not deny part of it is the worst

[globalization]

Let them participate in economy

micro credits

16. Poverty

32 \$ Day

Poverty.

Globalization  
deficiency

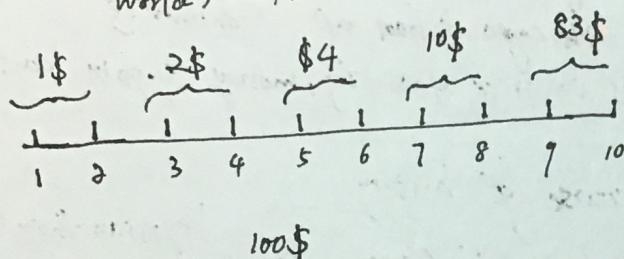
China : population: America + Europe, wealth: 8% of world. 17. economic globalization, improves billions of life. But concentrates wealth to few. Inequality

Wealth: accumulated assets minus liabilities.

economic inequality: the extent to which income is distributed in an uneven manner

260 trillion dollars  
world's wealth

America 72% population  
Europe 67% wealth.



economic big bang

after Industrial Revolution  
globalization also → inequality

### Skill-biased technological change

Gini index ↗

⇒ additional

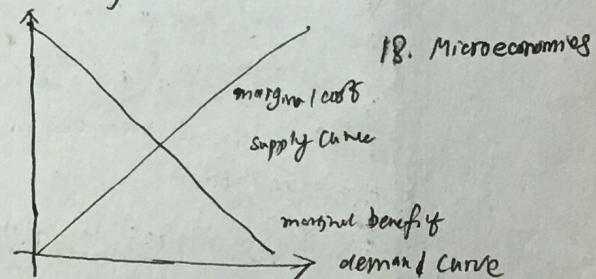
#### marginal analysis:

an analysis of how individuals, businesses and governments make decisions

- one of the most important concepts from microeconomics.

No society can surely be flourishing and happy of which the far greater part of the members are poor and miserable

Adam Smith  
the law of diminishing marginal utility



### Water-Diamond Paradox

Why water, crucial to life is cheap? while diamond is expensive?

the satisfaction from another additional diamond is high

demand depends on : the preference of consumers

the existing substitutes (substitution effect)

Apple X  
watermelon ✓

### Elasticity of demand

gas stations don't have sales.  
∴ low elasticity.

### Microeconomics in a Nutshell

19.

# Market

centrally planned economy:

- everyone wants a job gets one.
- production aims for societal goals.

centrally planned economy

China, Cuba moved away from large scale central planning.

free market

supply and demand determine what gets produced.

centrally planned economy.

government agencies decide what gets produced.

inefficient: China, Cuba walked out

efficiency

(1) productive efficiency: Lowest price  
nobody spends somebody else's money  
freemarket is efficient  
as carefully as he spends his own

(2) allocated efficiency: — Milton Friedman

products that people need.

central economy hardly gets feedback.

freemarket has price signal

gift giving is inefficient, disturbs price signal

(FDA) But free market is not always good. Need regulations.  
Corporates can be evil, P&G, Capitalism, with its focus on prices, rather than fairness, is often characterized as the opposite of altruism.

But capitalism and altruism can and do coexist.

Capitalism, with its system of price signals, is basically crowdfunding.

Market Based Society still share social goals, but it doesn't come from central planner. i.e. Starbucks cares about environment, even though it does, and supports.

## 20. Price Controls

### 2 types of Price Control

① government maximum price: price ceiling

equilibrium price — Low price → more demand → profit shrink → supply fall shortage

High price → supply surplus → substitute goods take → supply surplus waste place

Price controls are counterproductive  
except: minimum wage

Price control (price ceiling) on rent  
reduce quality and quantity of housing

Some economist argue: any form of governments assistance distorts the markets resulting in unintended consequences.

markets work. Sometimes markets fail, ∴ need government step in.

sometimes markets fail. example:

"Select whether you want 2 points or 6 points added to your final paper grade, But if more than 10% of the class selects 6 point, then no one gets any grade."

ep. 27.

people have personal incentive to do something that against the collective interest of the group. free rider problem

↓ .. essential things like fire departments get support through tax, not by free chosen donation.

non-exclusion

non-rival

goods, private sectors

will not produce, no matter how essential it's.

the incentive to do what is best for you.

rather than

what is best for everyone. is the root

of Tragedy of the Commons

→ causes environmental problems....

externalities are the justification for almost everything the government does

benefits or costs  
for the whole society

how much government should regulate?

① regulatory policy ; Ruled by government decrees: speed limit e.g.

② market based regulatory: taxes, subsidies

economics is about choices, and how we use our scarce resources.  
It's not just about producing and consuming, it can be about conserving.

Pollution is a byproduct of human existence.

CO<sub>2</sub>, planetary emergency.

① identify the sources of most air pollution:

② decrease the supply of these technologies and products or decrease the demand:

But implementations are difficult: tragedy of common pool

∴ government needs to step in.

price incentives, subsidies, tax reduction..

everyone must work together

market failures

23.

environmental  
economics  
(How economy help don't  
planet liveable)

## 24. economics of education

nothing is actually free, there is always an opportunity cost  
education is a good externality.

college graduates gets more income: ∵ Human Capital [Skills]

does college worth? it depends

theory

or signalling [degree, background]

## 25

### costs of production

opportunity cost, profit also includes: { accounting Profit

Businesses also calculate potential economic profit

revenue and their costs of production, including implicit costs, to make informed decisions: man mass production

total costs { variable costs (employee wage) : ↓ economies of scale  
fixed costs: rent (doesn't change)

But not producing maximum product is the goal, goal is to maximize profit  
Profit maximizing Rule: must produce the right amount of products

## 26. Monopolies

"the growth of a large business is merely a survival of the fittest."

— Rockefeller

Pure monopoly: a market controlled by one seller with a good or service that has no close substitutes.

government also shouldn't help certain companies monopoly the market

↳ Need transparency: crony capitalism (if money can buy monopoly)

Oligopoly: Google in search market: almost-monopoly

anti-trust laws: reject monopoly or big companies reject others in the game

Patent: on the other hand protects monopoly for a period of time.

## 27

### Game theory the study of strategic decision making

Prisoners dilemma

↳ if you lose, you bankrupt

Market differs from market structure, they vary based on number of producers control over prices ... each

① Perfect competition: agricultural products like strawberries

non-price competition: Apple.

Half of the money spent on advertisement is wasted, the trouble is you don't know which half. → Don Draper

game theory: even if people or companies rationally follow their own self-interest, the best outcome is hard to reach when they can't do or don't cooperate.



when economists make model, they assume

people are rational, predictable; But they're not.

☒ Bounded rationality: limits of information, abilities, time

may prevent the best decision making

conspiring price

Cartel

OPEC

Collusion

28

Behavioral economics  
how ppl actually make decisions

classical economics → classical physics

Behavioral economics → Quantum Physics

↙ lack of information, psychological effects, perception change enjoyment

Animal spirit

Ultimatum game effect: explains, people don't like 80/20 split of free money.

Justice  
equality  
fairness  
revenge

Changes human behavior

in identical condition, people may don't make same decisions

framing effect

Psychological pricing

4.99 ₦, 10₦/½ ₦...

nudge theory

loss aversion

people feel losses are painful more than gains are pleasurable

wage discrimination

gains are pleasurable

voluntary exchange, opportunity cost minimum wage

medicare: free medicare isn't free. cost of healthcare

administrative cost iRon Triangle

dying is expensive

Malice a plan ...

credit debt, death?

29

Labor markets

30.

Healthcare economy

31. economy of health

32. taxes

income tax, carbon tax, property tax, sales taxes, tax and history

33.

informal economy: electricity, cash can idleafe it.

underground economy

by

IMMIGRATION

immigrants are good for economy. ∵ cost or benefit is higher?

immigrants also can come with add.

US is an immigrant country. 41 million immigrants.

34.

Foreign Aid.  
(censored).

Censored.

35.

→ But Psychology discovered sth different:

economy of Happiness  
we have unlimited, inexhaustible desires, more equals better, economists says they know

Happiness comes from status, not income.

