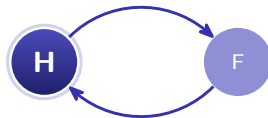


The Macroeconomy

A-Level Economics ■ Topic 4

A-Level Economics



What we will cover

- 1 National income
- 2 The circular flow
- 3 Aggregate demand & supply
- 4 Growth & the business cycle
- 5 Unemployment
- 6 Inflation



output of the whole economy

1

Measuring the economy

National income

GDP vs GNI

made inside vs
+ income earned abroad

nominal vs real

real 实际 removes
rising prices

total vs per capita

per capita 人均
= $\div$ population

National income 国民收入 measures the **standard of living** 生活水平, but ignores distribution, unpaid work & pollution.

Measuring the whole economy

Macroeconomics

Macroeconomics 宏观经济学 studies the economy as a whole – output, employment, prices – rather than one market.

GDP

Gross domestic product 国内生产总值 (GDP): the value of everything produced *inside* a country in a year.

GNI

Gross national income 国民总收入 (GNI): income earned by a country's residents wherever it was produced – GDP plus net income from abroad.

What is missed

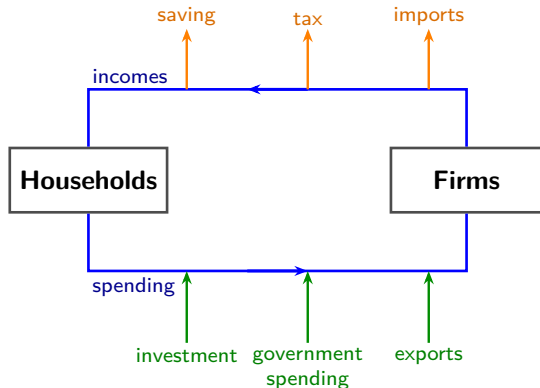
The **informal economy** 非正规经济 is untaxed and unrecorded, so it never enters either figure – which understates output most in developing countries.

Open or closed

An **open economy** 开放经济 trades with others; a **closed economy** 封闭经济 does not. Only the open version needs exports and imports in the circular flow.

GDP counts where production happened; GNI counts who earned it. For a country full of foreign-owned firms, the two differ sharply.

The circular flow of income

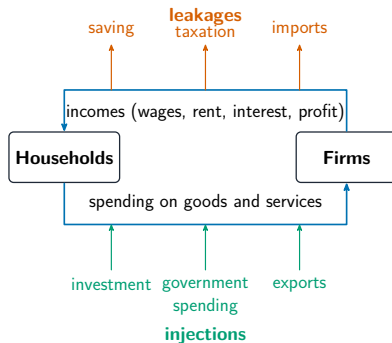


Money loops between
households 家庭 and **firms** 企业.

- **leakages** 漏出 drain it:
saving, tax, imports
- **injections** 注入 add to it:
investment, government
spending, exports

Equilibrium: injections = leakages.

Money loops between households and firms; leakages



Money loops between households and firms; leakages (saving, taxation, imports) drain it, while injections (investment, government spending, exports) add to it.

2

Aggregate demand and supply

Aggregate demand

$$AD = C + I + G + (X - M)$$

 C

consumption
消费

 I

investment
投资

 G

government
政府支出

 $X - M$

net exports
净出口

Aggregate demand 总需求 is total spending; it shifts when any part changes (e.g. a tax cut raises C).

Aggregate demand, in detail

$X - M$
G
I
C

net exports: exports — imports

government spending

investment - spending by firms on capital

consumption - spending by households (the biggest part)

$AD = C + I + G + (X - M)$: total spending on a country's goods and services

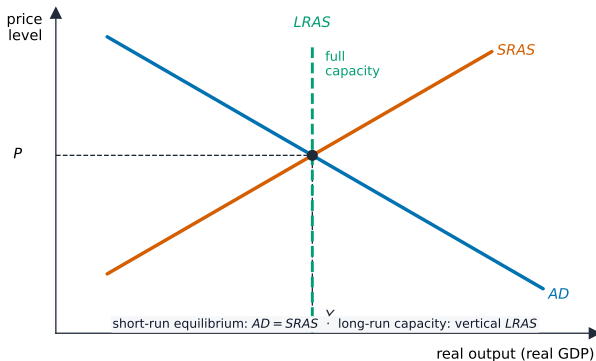
Aggregate demand is total spending: consumption, investment, government spending and net exports

AD–AS equilibrium

Equilibrium is where AD meets AS – it sets the **price level** 价格水平 and **real output** 实际产出.

- **SRAS** 短期总供给 slopes up; shifts with costs
- **LRAS** 长期总供给 is vertical – full capacity

AD-AS equilibrium, in detail



Equilibrium is where AD meets AS – it sets the **price level** 价格水平 and **real output** 实际产出.

Aggregate supply, short run and long run

Aggregate supply

Aggregate supply 总供给 is the total output firms will produce at each price level.

Short run

Short-run aggregate supply 短期总供给 slopes up: with wages fixed, a higher price level makes production more profitable.

Long run

Long-run aggregate supply 长期总供给 is vertical at the **productive capacity** 生产能力 of the economy – set by resources, **productivity** 生产率 and technology, not by prices.

Equilibrium

Macroeconomic equilibrium 宏观经济均衡 is where AD crosses AS: it fixes both the price level and real output.

Anything that shifts LRAS changes what the economy *can* produce; anything that shifts AD changes only how much of it is bought.

3

Growth and the cycle

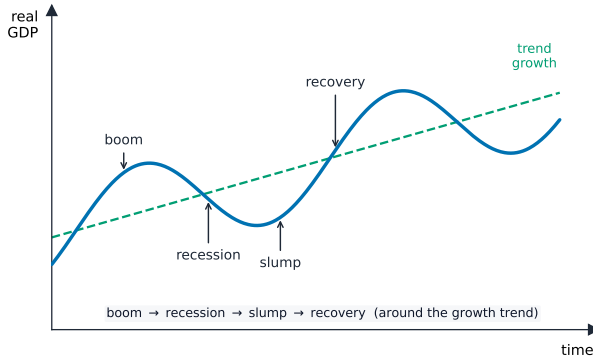
Growth and the business cycle

Economic growth 经济增长 is a rise in real GDP.

- **actual growth** 实际增长 – output that happens
- **potential growth** 潜在增长 – LRAS shifts out

Output swings: boom → recession → slump → recovery.

Growth and the business cycle, in detail



Real GDP swings through boom, recession, slump and recovery around its rising long-run trend.

4

Unemployment and inflation

Unemployment

frictional 摩擦性失业 – between jobs (short)

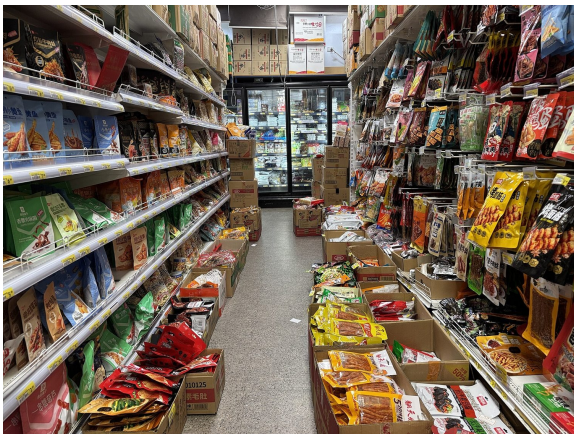
structural 结构性失业 – skills no longer match

cyclical 周期性失业 – low AD in a recession

seasonal 季节性失业 – only at certain times

Measured by the **claimant count** 申领救济人数 or the broader **labour force survey** 劳动力调查.

Inflation and the CPI



Inflation 通货膨胀 is a sustained rise in prices, so **purchasing power** 购买力 falls.

- **deflation** 通货紧缩 – prices fall
- **disinflation** 反通货膨胀 – rising, but slower

Measured by the **CPI** 消费者价格指数: a weighted basket of goods.

How inflation is measured

The index

The **consumer price index** 消费者价格指数 (CPI) prices a fixed basket of goods each month and compares it with a base year.

Weighted

Each item is weighted by how much households actually spend on it, so petrol moves the index more than postage stamps.

Where it misleads

The basket lags real spending, quality changes are hard to price, and one household's inflation is not the average.

Inflation is a *rate*: falling inflation still means prices are rising, only more slowly.

Causes of inflation

- **demand-pull**

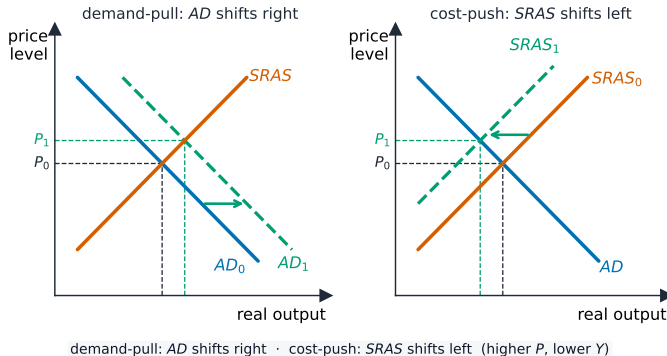
需求拉动型通货膨胀 – AD rises faster than AS

- **cost-push**

成本推动型通货膨胀 – costs rise, SRAS shifts left

Both raise the price level.

Causes of inflation, in detail



Demand-pull inflation comes from AD shifting right; cost-push inflation comes from SRAS shifting left. Both raise the price level.

Uses and limitations

GDP per capita **shows**

- ✓ average income
- ✓ output of the economy
- ✓ growth over time
- ✓ a rough living standard

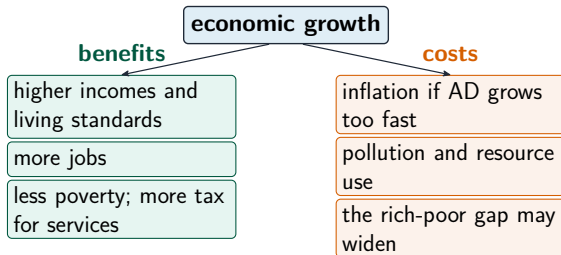
but it **misses**

- ✗ how income is distributed
- ✗ unpaid and informal work
- ✗ pollution and resource use
- ✗ leisure, health, wellbeing

a higher GDP per capita usually means a better life - but not always

GDP per capita shows average income and output, but misses distribution, unpaid work and pollution

Costs and benefits of growth



whether growth is worth it depends on how the gains and costs are shared

Economic growth brings higher incomes and jobs, but can bring inflation, pollution and inequality

Types and causes

frictional
short-term,
between
jobs

structural
skills no longer
match the jobs

cyclical
low demand in
a recession

Three types of unemployment: frictional, structural and cyclical

The four kinds of unemployment

Frictional

Frictional unemployment 摩擦性失业: between jobs, while searching. Short, and a sign of a moving labour market.

Structural

Structural unemployment 结构性失业: the skills or the region no longer match where the jobs are. The longest-lasting and hardest to fix.

Cyclical

Cyclical unemployment 周期性失业: demand-deficient, in a recession. It disappears when demand recovers.

Seasonal

Seasonal unemployment 季节性失业: predictable, in farming, tourism and construction.

Name the type before prescribing the policy: demand policies cure only the cyclical kind, and retraining only the structural.

Consequences

Unemployment wastes output (the economy produces inside its PPC), lowers incomes, and costs the government (more benefits, less tax).

It also harms families and can raise crime and ill health.

Measuring unemployment

how do we count the unemployed?

claimant count

counts only people claiming
unemployment benefits

cheap - the data already exists

misses those who do not claim

labour force survey

asks a large sample: working,
or looking for work?

international standard -

good for comparing countries

a survey - slower and dearer

Two ways to count the unemployed - and what each one misses

Exam tips

- Distinguish **real vs nominal** (real removes inflation) and calculate an **inflation rate** from a price index.
- Explain **$AD = C + I + G + (X - M)$** and what shifts each part; distinguish an AD shift from an AS shift.
- Distinguish the **types of unemployment** (frictional, structural, cyclical) and how each is tackled.
- Distinguish **demand-pull vs cost-push** inflation on an AD/AS diagram.

5

Recap

Worked example – inflation from a CPI

A CPI rises 100 → 104 in one year, then 104 → 107. Find the inflation rate in each year.

- Inflation = the **percentage change** in the index.
- Year 1: $\frac{104 - 100}{100} \times 100 = 4.0\%$
- Year 2: $\frac{107 - 104}{104} \times 100 = 2.9\%$
- Inflation **fell**, but prices still **rose** ⇒ **disinflation**, not deflation.

Divide by the **previous** year's index, not the base year. Falling inflation $\neq$ falling prices – deflation needs a **negative** rate.

Topic 4 – key takeaways

1

National income

real, per-capita GDP measures living standards

2

AD & AS

$AD = C + I + G + (X - M)$;
equilibrium sets P & Y

3

Unemployment

frictional, structural, cyclical, seasonal

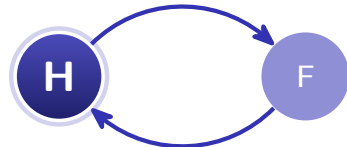
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Inflation

demand-pull & cost-push; CPI basket

Check yourself

- 1 Name a leakage from the circular flow.
- 2 Write the four parts of AD.
- 3 Which unemployment type comes from low AD?
- 4 Cost-push inflation shifts which curve, which way?



Answers 1. saving / taxation / imports 2. $C + I + G + (X - M)$ 3. cyclical 4. SRAS left