# Output measures, spending and the multiplier

Edexcel IAL Economics WEC12 sections 2.3.1-2.3.5 full package

# Topic 3 at a glance

> Measure the economy, then explain output with demand and supply.

- WEC12 spec sections 2.3.1 to 2.3.5.
- SAM-labelled examples are adapted from Pearson.

# Worked: real GDP per head

1. **Nominal GDP index** 112, with a deflator of 108
2. **Real GDP** $112 \div 108 \times 100 = 103.7$
3. **Per capita** $103.7 \div 102 \times 100 = 101.7$

**Decision**

Real growth 3.7%, but living standards rose only 1.7%.

# Read the measure correctly

| **Pair** | **The difference** |
|---|---|
| real vs nominal | with or without price changes |
| total vs **per capita** | divided by population |
| value vs volume | money values or quantities |
| PPP | fair comparisons between countries |
| **recession** | two quarters of negative growth |

# What GDP misses

## GDP leaves out

non-market work, shadow economy

distribution and hours

environmental damage

## Wellbeing adds

life expectancy

corruption perception

reported happiness

# Disinflation, not deflation

> The rate fell, but prices still rose every year.

- **Inflation**: a sustained rise in the price level.
- **Deflation**: a sustained fall.

# Worked: a consumer price index

1. **Weights** 0.5, 0.3 and 0.2
2. **Price relatives** 110, 100 and 120
3. **CPI** $55 + 30 + 24 = 109$

## Decision

CPI 109: **inflation** of 9%.

# Why prices rise

> Too much demand, dearer inputs, or too much money.

- **Deflation**: falling AD, rising AS, less money.
- Name the cause before the cure.

# Who inflation hits

| Group | Effect |
|---|---|
| consumers | real incomes and savings shrink |
| government | tax receipts rise; debt worth less |
| firms | harder planning, rising costs |
| workers | real wages fall if pay lags |
| borrowers vs lenders | borrowers gain, lenders lose |
| trade | competitiveness and current account worsen |

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# Five causes of unemployment

| Cause | Meaning |
|---|---|
| frictional | between jobs |
| seasonal | work that follows the season |
| structural | skills no longer match jobs |
| demand-deficiency | too little AD |
| real-wage inflexibility | wages stuck above equilibrium |

# What unemployment costs

| Costs |
| --- |
| lost income and demand |
| lost tax, more benefits |
| output inside the PPF |

| Also watch |
| --- |
| **underemployment** |
| economic inactivity |
| net migration |

# The current account

Goods, services and two kinds of income make up the current account.

- A trade deficit: imports exceed exports.
- The balance is on the whole account.

# The parts of aggregate demand

C 60 + I 20 + G 20 + net trade 0 = AD of 100.

- AD = C + I + G + (X − M).
- A price-level change moves along AD.

# What drives each part

| Part | Main drivers |
|---|---|
| C | disposable income, interest rates, confidence, credit, wealth |
| I | growth, interest rates, confidence, corporation tax |
| G | fiscal policy, the cycle, political priorities |
| X − M | real income, exchange rate, world economy, quality |

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# Two shapes of long-run supply

Keynesian: flat, then curving, then vertical. Classical: always vertical.

- SRAS slopes up; costs shift it.
- Both LRAS shapes end at capacity.

# What shifts aggregate supply

## SRAS

raw material and energy costs

exchange rates

tax rates

## LRAS

technology, productivity

education and skills

demography, migration, competition

# Injections and withdrawals

| Injections | Withdrawals |
| --- | --- |
| investment | saving |
| government spending | taxation |
| exports | imports |

# An injection shifts AD

An injection of 15 moves the economy from (70, 55) to (85, 62.5).

- Net injections raise equilibrium output.
- Net withdrawals lower it.

# The multiplier, round by round

With MPC 0.8, an injection of 20 adds 100 in total.

- Each round of spending becomes income.
- Withdrawals drain each round.

# Worked: the size of the multiplier

1. **MPC 0.5** $k = 1 \div 0.5 = 2$: £30bn adds £60bn
2. **From withdrawals** $MPW = 0.1 + 0.15 + 0.25 = 0.5$: $k = 2$
3. **MPC 0.8** $k = 1 \div 0.2 = 5$: 20 adds 100

**Decision**

Bigger leakages, smaller multiplier.

# Actual and potential growth

> Actual growth moves towards the frontier; potential growth shifts it.

- Actual: any part of AD rises.
- Potential: investment, innovation, labour, productivity.

# Growth: benefits and costs

| Benefits | Costs |
| --- | --- |
| higher living standards | environmental damage |
| lower **unemployment** | trade deficits, inequality |
| more tax, better services | **inflation** past capacity |

# Output gaps, drawn

> Above trend: inflationary pressure. Below trend: spare capacity.

- Gaps are hard to measure: the trend is estimated.
- Data arrive late and are revised.

# Data response: Ireland's GDP

1. **Nominal** €200bn to €262bn; deflator 100 to 104
2. **Real year 2** $262 \div 104 \times 100 \approx$ €251.9bn
3. **Real growth** $(251.9 - 200) \div 200 \times 100 \approx 26\%$

**Decision**

Deflate first: 31% nominal is about 26% real.

# Data response: is GDP a good measure?

| Useful | Limited |
| --- | --- |
| regular, standard, everywhere | distorted by multinationals |
| tracks jobs and tax | ignores distribution, environment |
| shows recessions | large revisions |

# Check yourself

| **Question** | **Answer** |
|---|---|
| Nominal 112, deflator 108: real? | 103.7 |
| **Inflation** falls from 12% to 9%? | **disinflation** |
| MPC 0.8: multiplier? | 5 |
| Injection 20, MPC 0.8? | income +100 |
| Positive output gap? | above trend: inflationary |