ECON1002: Introductory Macroeconomics

1. Introduction to Macroeconomics + Measuring Economic Output

- Economics explains the behavior of people, firms and government due to the role of incentives → impacts economy due to the constraint of scarce resources (economic problem).
- Microeconomics – studies individual decision-making.
- Macroeconomics – studies the aggregate impact of individual decisions (interested in whole economy).
    - Relevant to business: tool for prediction, identify strategies, affects prices of M and X, interest rates affect borrowing etc.

Economic Output: GDP

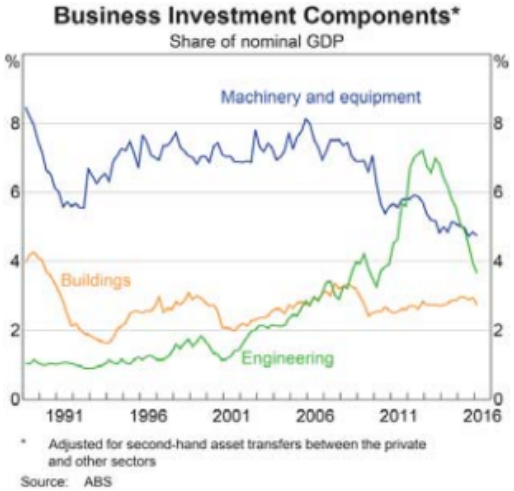
- Economic growth – the expansion of an economy's long-term capacity to produce g/s (McNeill 1999).
- GDP – the market value of the final g/s produced in an economy over a given period of time.
    - Final g/s – g/s consumed by the ultimate user (end products of production process).
- GDP per capita – upward trend → standards of living have been improving in terms of GDP per capita.

Measurement problems

- Price changes.
- Multi-stage production.
- Multinational production.
- Informal economy & public goods.

Measurement

- Prices used because it is a convenient way to aggregate different g/s bought/sold in markets (also allows items with high value to be weighted more).
- Production approach ("value added"):
    - Market value is value of g/s minus the costs of inputs purchased from other firms.
- Expenditure approach:
    - Adding up total amount spent by households, firms, government and foreign sector on final g/s and subtracting spending on M.
- Income approach:
    - GDP = labour income + capital income.
- *E.g. a MacBook is sold for $1500:*
    - Expenditure method: C = $1500 (bought by household).
    - Value-added approach: CPU (450) + LED display (300) + Apple design (750).
    - Income approach: employee wages + employer profits.



Real vs Nominal GDP

- Real GDP – adjusted for inflation (price changes) = less volatile measure.
- Nominal GDP – generally higher than real GDP.

Composition of GDP

- **GDP = C + I + G + NX.**

Calculating nominal & real GDP values

- Nominal GDP = p x q.
- Real GDP = picks a base year, determine GDP by using prices from base year.

Real GDP & Economic Wellbeing

- GDP vs environment, health indicators, distribution of income/wealth, leisure time, quality of life etc.
- GDP highly correlated with economic wealth:
    - Life expectancy.
    - Infant mortality rate.
    - Literacy rate.

2. Measuring Macro Performance: The Price Level, Savings & Wealth

Consumer Price Index (CPI)

- CPI – measures changes in the price of a weighted basket of g/s.

1. Define a base year.
2. Determine basket of g/s consumed
3. **CPI =** $\frac{cost\ of\ base\ year\ basket\ in\ current\ year}{cost\ of\ base\ year\ basket\ in\ base\ year}$

- *E.g. CPI = 1.25 → prices 25% higher in current year compared to base year.*

Cost of Living Indices I

- Ideal cost of living index (how CPI should be calculated):
  - A: determine the minimum cost of the utility-maximising consumption basket in the base year (say 2000).
  - B: determine the minimum cost of the current year (ie 2016) consumption basket required to yield base year utility at current year prices.
  - Index value = B/A.
- Calculated based on preferences (ideal - g/s that will maximize utility), not purchases.

Cost of Living Indices II

- Laspeyres Index (how CPI is measured):
  - A: Determine the cost of the (utility-maximising) consumption basket in the base year.
  - B: Determine the cost of purchasing the **same** consumption basket in the current year.
  - Index value = B/A.
- Does not account for changes in demand due to price changes.
- Laspeyres Index > "Ideal" Index (if prices increase).
  - Laspeyres Index in some sense overestimates inflation/price increases --> more cautious measure to use.

Cost of Living Indices III

- Paasche Index:
  - A: Determine the cost of the current year consumption basket.
  - B: Determine the cost of purchasing the **same** consumption basket in the base year.
  - Index value = A/B.
- Does not account for changes in demand due to price changes.
- Paasche < "Ideal" < Laspeyres (if prices increase).

Cost of Living Indices IV

- "Chain-weighting process" to measure CPI:
  - Weights updated every 5 years using consumption data from the HES (Household Expenditure Survey).
  - New series formed and linked to earlier series.
- RBA measures:
  - Excluding volatile items (underlying).
  - Trimmed mean (middle 70% of price changes).
  - Weighted median.

Inflation

- % change in the CPI over some period ($^{C-O}/_{O} \times 100$)
- Deflation = prices falling.

Costs of inflation

- "Shoe-leather costs" – looking for cheaper/better deals (increased transaction costs).
- Noise in price system.
- Tax system distortions – "bracket creep".
- Unexpected redistribution of wealth.
- Distorts decision-making.
- Menu costs.
- Reduces real value of debts.

Costs of deflation

- Real value of debt rises (debt burden increases).
- Consumers delay purchases (anticipating further price falls).