ECON1102

1 Macroeconomic Performance: Output/Prices

Macroeconomic Performance Indicators

1. *Rising GDP/Living standards:* rise in per-capita output (quantity & quality)
2. *Stable business cycle:* low volatility in fluctuations of output around trend
3. *Stable price level:* low positive rate of inflation
4. *Sustainable debt:* both public and foreign debt
5. *Current/Future consumption:* balance between aggregate saving/spending
6. *Full employment:* economy provides work for job-seekers

GDP Gross Domestic Product

Gross Domestic Product: market value of final g/s produced during given time period

- *Total value added:* market value of firm's production less cost of inputs
  - Measure of aggregate production
  - Excludes imports, second-hand & intermediate g/s
  - Cost of provision has no market value

Measuring GDP	
Expenditure Method	Expenditure on g/s by final users = Value of production GDP = Expenditure $Y = C + I + G + N - M$ $Y + M = C + I + G + X$ Supply = Demand
Income Method	GDP equal aggregate income paid to labour/capital in production process GDP = Labour Income + Capital Income
Production Method	Total value added by production

Nominal	Real
Values quantities of g/s produced at current year prices	Values quantities of g/s produced at base year prices *Laspeyres:* use initial prices *Passche:* use final prices

Chain Weighted Real GDP: compute real growth implied by both indexes

(1) Take average growth rates implied by initial & final prices

(2) Apply to nominal GDP using either as base year

Price Level Measures

Price Level: nominal GDP = price level x real GDP (need 2 to calculate 3rd)

Consumer Price Index: measures cost of basket of g/s relative to their cost in fixed year

CPI = cost of g/s in current year / cost of g/s in base year

- Limitations of CPI (tends to overstate inflation)
  - Quality adjustment of new goods bias
  - Substitution bias

Inflation: percentage change in CPI over given period

$$\text{Inflation rate} = [\frac{CPI - CPI(-1)}{CPI(-1)}] * 100$$

- Nominal interest rate: % increase in the dollar value of financial asset
- Real interest rate: % increase in real purchasing power

$$i = r + \pi^e$$

Fisher Effect: Nominal rate = Real rate + (Expected) Inflation rate

2 Saving & Wealth

Saving & Wealth

Saving = Current income – Current spending

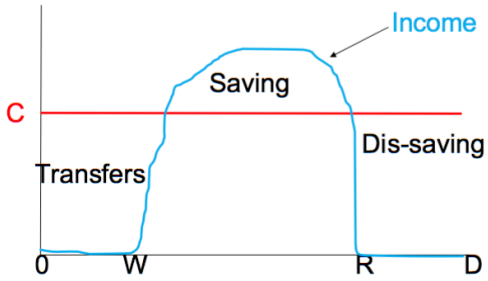
Saving if a flow variable: positive saving leads to asset accumulation

Saving rate: saving / income

Net Wealth = Value of assets – Value of liabilities

Reasons for Saving:

1. *Life-cycle:* to meet long-term goals



2. *Precautionary:* insurance against unexpected decline income/increase consumption
3. *Bequest saving:* inheritance for heirs/dependents

Factions Affecting Saving:

1. *Interest rate:* higher real interest rate makes it relatively more expensive to consume
2. *Credit availability:* encourages temptation to consume
3. *Demonstration effect:* relative consumption of others affects individual consumption
4. *Compulsory saving policy:* increase total saving if individuals do not reduce voluntary

National Saving

National Saving: aggregate saving by households, businesses & government in economy

Y = C + I + G (assume closed economy X=M=0)

National saving: S = Y – C – G

(assume all government expenditure is on spending)

S = I

Private Saving: Y – T – C = saving by households/businesses

Public Saving: T – G = budget surplus

Cost of Capital

Cost of Capital: national saving provides resources for investment

Cost of capital = $P_K(r+\delta)$

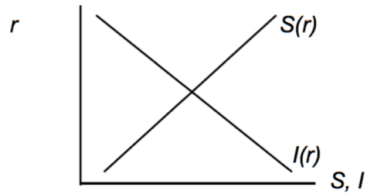
where P_k = price of good, r = real interest rate, s = depreciation

Assume Ceteris paribus

- Higher interest rate/increase in price makes investment less attractive

Saving is an increasing function of the real interest rate

Investment is a decreasing function of the real interest rate



Costs/Benefit Analysis: will invest if value of marginal product of capital > cost of capital

- *MPK (benefit):* output increase resulting from new capital