

# 2.4.4 The Multiplier

## Multiplier Ratio

- Shows the amount by which a change in an injection or leakage causes total income to change
- The final increase in demand and RGDP will be greater than the initial injection
- This is due to money being re-spent in the economy, in a series of rounds
- Keynesian theory

## Multiplier Process

- Process begins with an injection (G, I, X) (£100bn investment in new hospitals)
- This injection spending forms the incomes of other groups of people (Construction Firms, Cleaning Companies)

- This generates new incomes (wages and dividends)
- Some of this income is spent but some leaks out as savings taxes and imports
- The spent income forms the new incomes of another group who will save and spend. This is another round of spending and is reduced by leakages
- This process continues until full effects have worked through entire economy
- Final GDP increase is initial multiplied by the multiplier

## **Effects of Multiplier on Economy**

- UK multiplier is expected to be between 0.9 and 1.7
- Multiplier is difficult to estimate as it depends on many factors such as amount of unemployed resources

- If economy is at full employment, multiplier effect can cause a rise in GDP that causes an increase in GPL
- Multiplier tends to be higher in developing economies

## Marginal Propensities

- Marginal Propensity to consume
  - The proportion of an change in income that is spent rather than saved
  - The higher the MPC the higher the multiplier
- Marginal Propensity to save
  - The proportion of an change in income that is saved rather than spent
- Marginal Propensity to import
  - The proportion of an increase in income that is spent on imports
- Marginal Propensity to tax

- The proportion of an increase in income that is taxed
- Marginal Propensity formula
  - $MP_n = \frac{\Delta n}{\Delta Y}$
  - Where n is (consumption, saving, tax, imports) and y is income

## Multiplier Formulas

$$K = \frac{1}{1 - MPC}$$

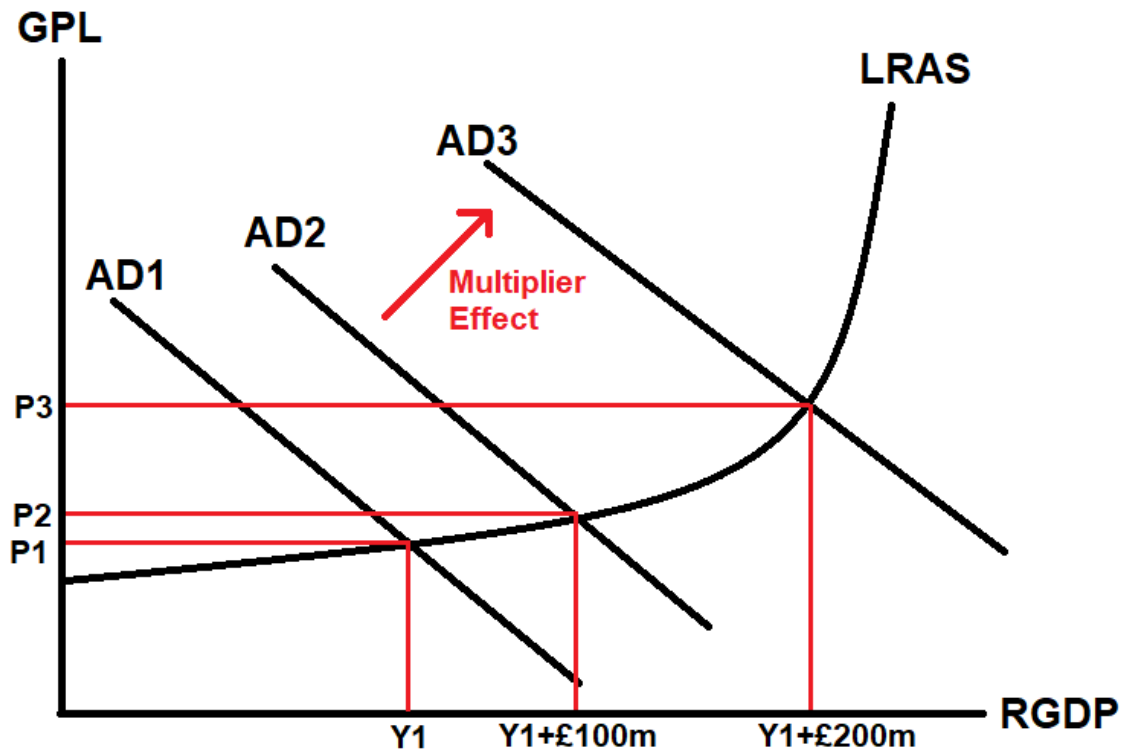
$$K = \frac{1}{MPW}$$

$$\Delta J \times K = \Delta Y$$

(J is injections, Y is RGDP)

## Multiplier Effects on AD

- Multiplier magnifies effects of changes on the economy as a whole
- Multiplier effect causes a larger shift in AD



## Accelerator Effect

- Multiplier regards extra spending as a result of an injection
- The Accelerator looks more at firms spending money on investment. Changes in investment can be directly linked to changes in the RATE of GDP growth
  - When rate of GDP is increasing, firms are more willing to invest
  - This is because firms are bullish, they want to invest in new capital to

facilitate speculated future demand