

2.4.4 The multiplier

- a) *The multiplier ratio*
- b) *The multiplier process*
- c) *Effects of the multiplier on the economy*
- d) *Understanding of marginal propensities and their effects on the multiplier:*
 - *The marginal propensity to consume (MPC)*
 - *The marginal propensity to save (MPS)*
 - *The marginal propensity to tax (MPT)*
 - *The marginal propensity to import (MPM)*
- e) *Calculations of the multiplier using the formulae $1/(1-MPC)$ and $1/MPW$, where $MPW=MPS+MPT+MPM$*
- f) *The significance of the multiplier for shifts in AD*

- The multiplier shows the amount by which a change in an injection or leakage causes total spending to change as a result of income being re-spent in the economy, having second and successive effects
- **Positive multiplier: an initial injection leads to a greater final increase in real GDP- one person's spending becomes another's income**
- **Negative multiplier: an initial decrease in an injection leads to a greater final decrease in real GDP**
- The multiplier can be written as x:y to show how much of an impact and initial injection (x) has on total incomes (y)
- If injections into the circular flow increase, then there will be a larger final change on total spending in the economy and if they increase the multiplier will be smaller.
- MPC (Marginal propensity to consume): the percentage of income immediately spent
- MPS (Marginal propensity to save)P: the percentage of income saved which means you spend less so the multiplier is lower and an injection has a smaller overall impact on the economy
- MPT (Marginal propensity to tax): the percentage of income spent on taxes; the higher the MPT the lower the multiplier ratio
- MPM (Marginal propensity to import): the percentage of income spent on imports which is money leaving the country. A higher MPM reduced the multiplier on the person's own country
- MPW (Marginal propensity to withdraw) = $MPS+MPT+MPM$
- Multiplier = $1/MPW$ (or $1-MPC$)
- Positive multiplier: when an initial increase in an injection (or a decrease in leakage) leads to a greater final increase in GDP
- The effect of the multiplier is to magnify exogenous changes. If any of the injections increase then the effect on level of real output and price level will be more than the initial change.
- The relationship between the initial change and total overall change is the multiplier effect
- Exogenous changes: changes that arise outside the system, for example, a rise in export earnings
- Multiplier x Injection = Overall change in national income

- If there is a fall in nation income of x and the multiplier is 2 then the total fall in national income will be $2x$
- The multiplier magnifies the impact of changes on the economy (if it is greater than 1) as a whole- the larger the multiplier the greater the impact of changes in injections or leakages
- Each time you shift aggregate demand (AD) remember to shift it a bit further because of the multiplier. The bigger the multiplier the larger the overall AD shift. This can be a magnified increase or a magnified decrease
- **Factors affecting the value of the multiplier:**
 - **Spare capacity: production can easily expand to meet demand from an initial investment. Likely to be unemployment so people spend more than they save**
 - **Marginal propensity to import**
 - **Marginal propensity to consume: interest rates affect saving or consumption**