

**Additional Notes on Aggregate Demand and Aggregate Supply Analysis**

**1) The AD Relation**

The AD relation is derived from the IS-LM or IS-MP relation

Any variable except inflation that shifts either the IS or LM or MP curve will also shift the AD curve

## 2) The AS Relation

**The AS curve is upward sloping:**

The AS curve goes through point  $A$ , where  $Y = Y_n$  and  $P = P^e$

This property has two implications:

## Equilibrium in the SR and LR

- The Short Run Equilibrium

- In the short run, there is no reason why  $Y = Y_n$ .

- From the Short run to the Long run

- At point A (SR equilibrium),  $Y > Y_n$ , and  $\pi > \pi^e$

⇒ Inflation  $\pi$  is higher than what wage setters and price setters expected when they set nominal wages and prices

⇒ Over time, they revise upward their inflation expectations

⇒  $\pi^e \uparrow$

⇒ AS curve shifts upward.

⇒  $\pi \uparrow$

- Adjustment ends when  $Y = Y_n$  and  $\pi = \pi^e$  (**Long Run Equilibrium**)

## The effects of a change in Monetary Policy

- Suppose the economy is at point A , and the central bank decide to increase M.

i)  $M \uparrow \rightarrow AD$  shifts to the right

ii)  $Y' > Y_n, \pi' > \pi^e$  so wage setters and price setters revise expectations and AS shifts up over time. The economy moves up the AD curve until  $Y=Y_n$  again (new medium run equilibrium)

Since the output is back to the natural level we have constant real money  $M/P$  ie. Change in money stock = Change in Price level!

**Money is Neutral because the increased money supply is offset directly by the higher price level (constant real money,  $M/P$ )**

### The effects of a Fiscal Policy

- Suppose the government is running a budget deficit and decides to reduce  $G$  (keeping  $T$  unchanged)

i)  $G \downarrow$  causes  $AD$  to shift to the left

ii)  $Y' < Y_n$ ,  $\pi' < \pi^e$ , so  $AS$  curve shifts down and there is a movement along the  $AD$  curve until  $Y=Y_n$

→ However, this is not the same as the effect of a change in money

This equilibrium corresponds to  $Y=Y_n$ , lower  $P$ , lower  $i$ , same  $C$ , higher  $I$