

## IS-LM Model

### A Case of Closed Economy with Constant Prices

# 6.1 Product Market and IS Curve

## 6.1.1 Investment, interest rate, and Product Market Equilibrium

•  $I = f(r, Y)$  ,  $r \uparrow \Rightarrow I \downarrow$  Investment is negatively related to real interest rate

• Equilibrium in product market occurs when

With government

1)

2)

Without government

## 6.1.2 The derivation of IS curve

- Derivation of IS Curve



Use  $Y = DAE$  approach

- Use relationship between  $r$ ,  $I$ ,  $Y$

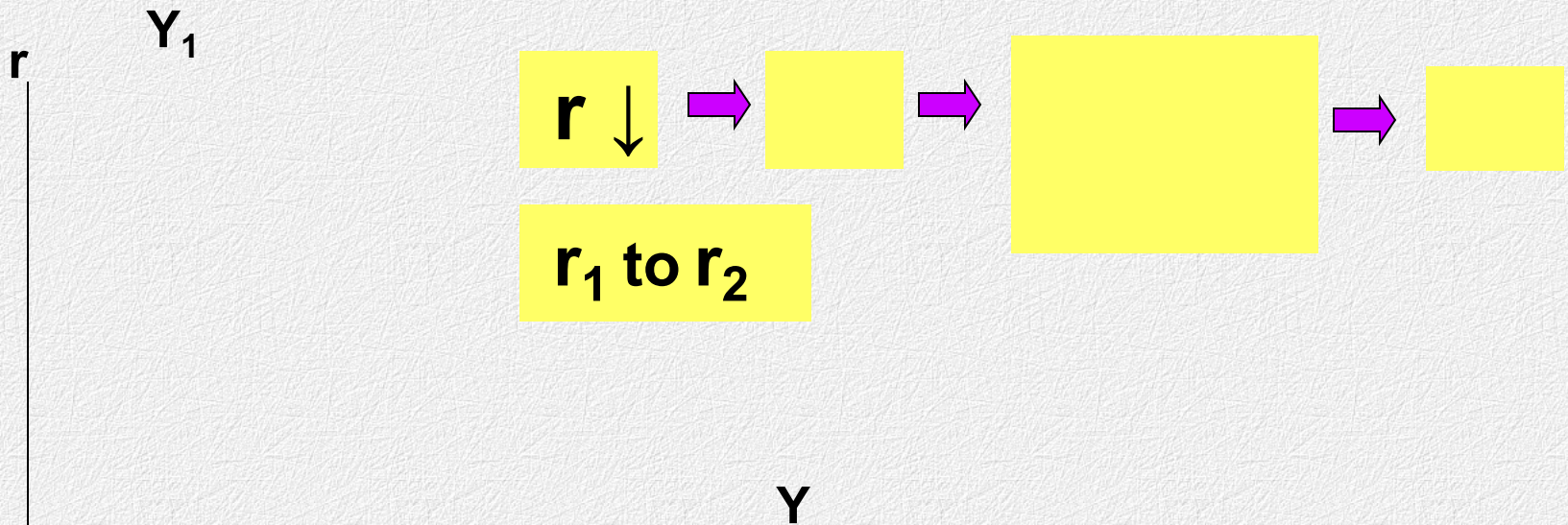
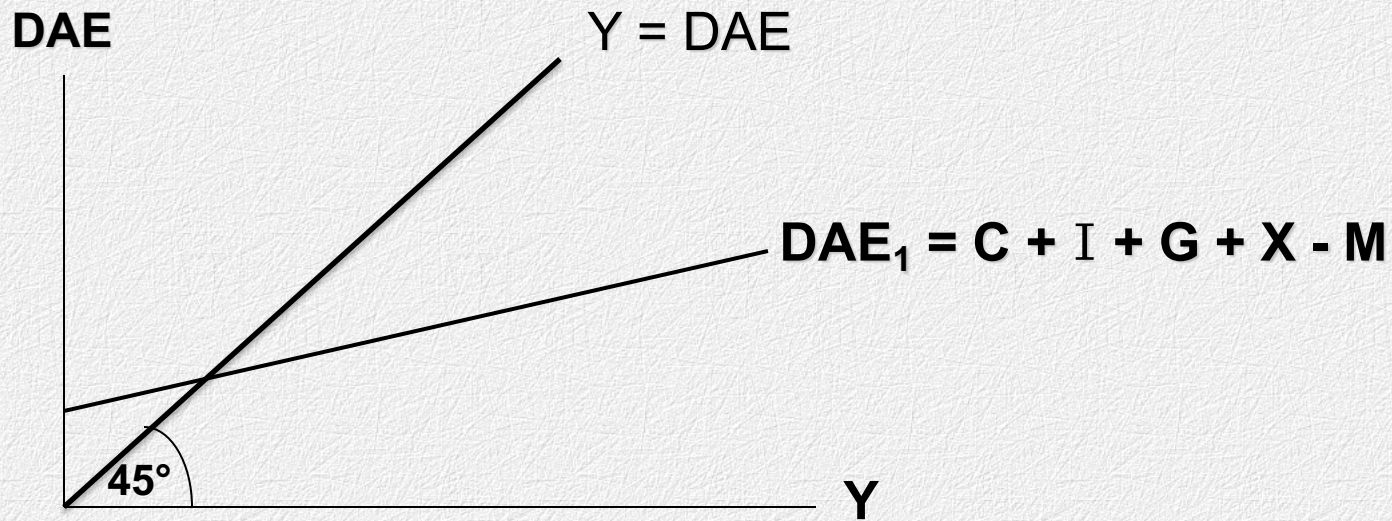
•  $r \uparrow$



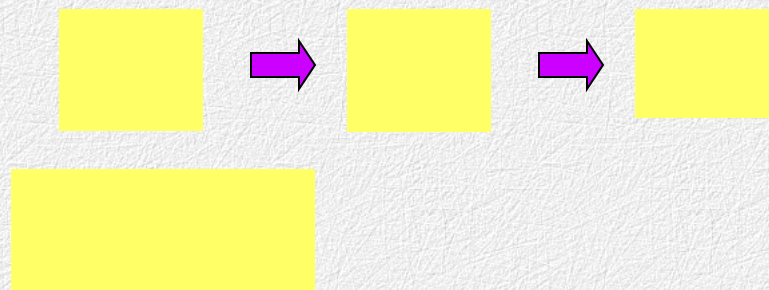
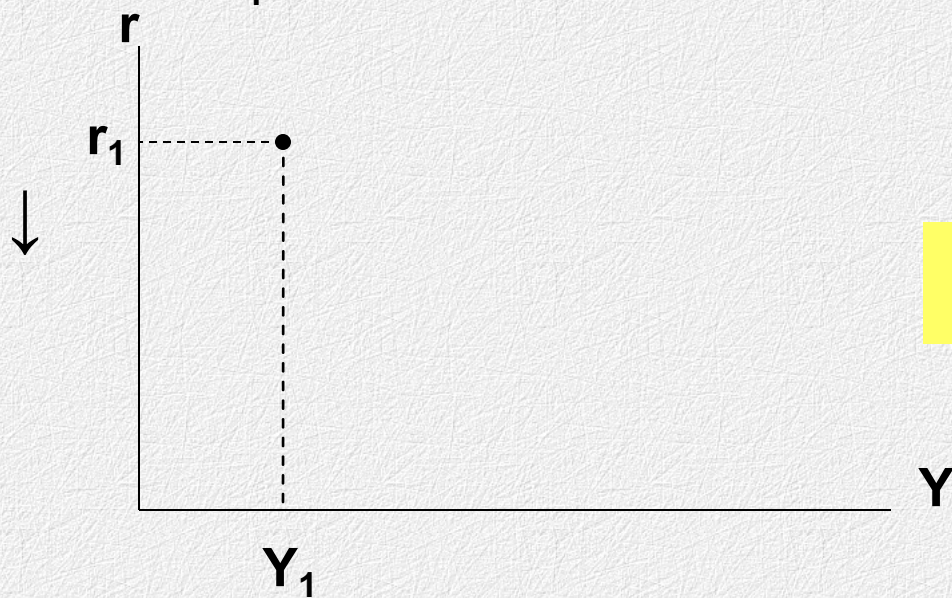
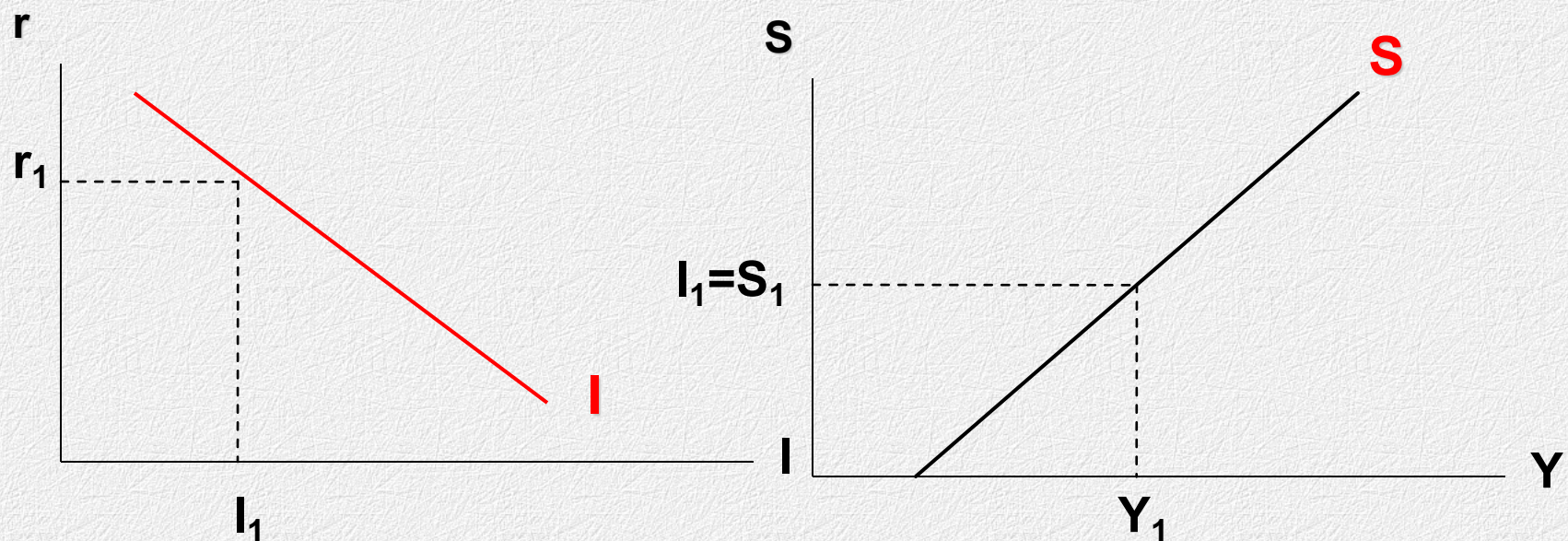
$r \downarrow$



# The derivation of IS curve



# The derivation of IS curve (Injection = leakage approach)





## 6.1.3 Factors determining slope of IS curve

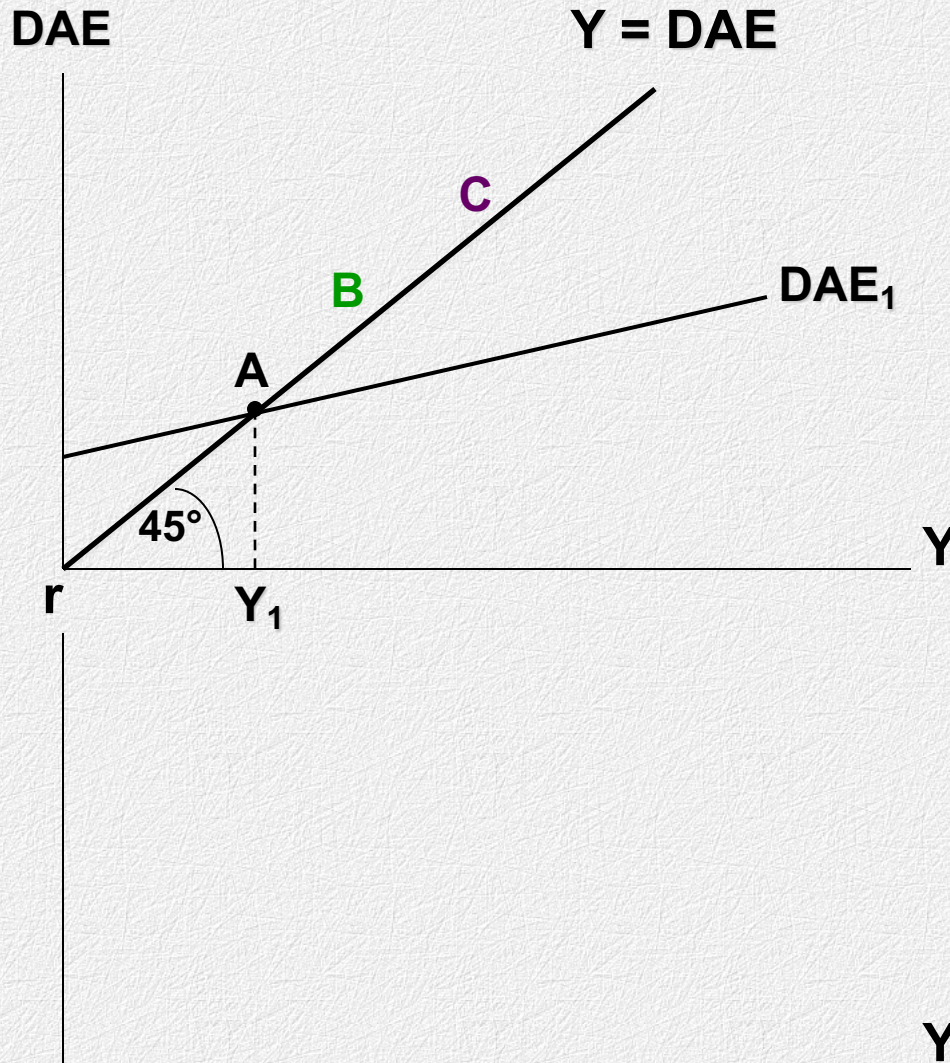
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- Changes in investment when real interest rate change

$$\left( \frac{\Delta I}{\Delta r} \right)$$

- Size of Expenditure Multiplier

# Factors determining slope of IS curve

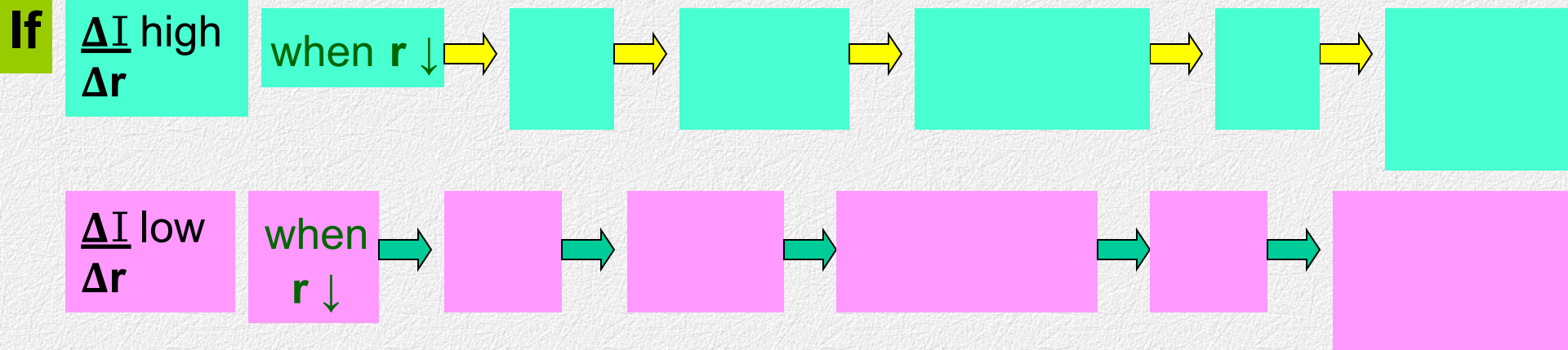


High  $\frac{\Delta I}{\Delta r}$  ,

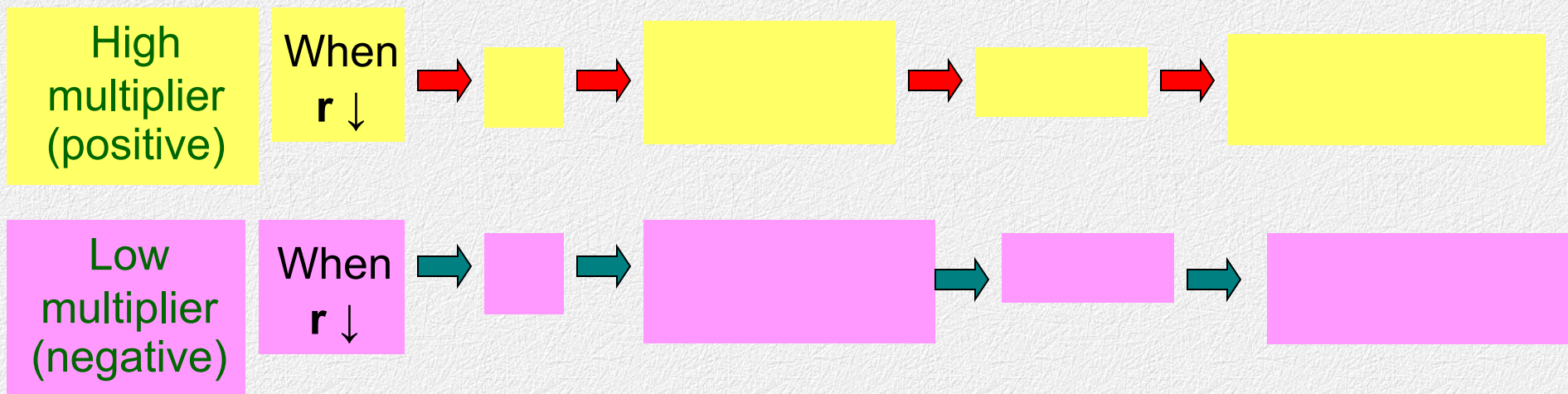
High Expenditure Multiplier

# Factors determining slope of IS curve

- **Changes in investment when real interest rate change**



- **Size of Expenditure Multiplier**





## 6.1.4 Shifts in IS Curve

Equilibrium

$$Y = DAE = C + I + G$$

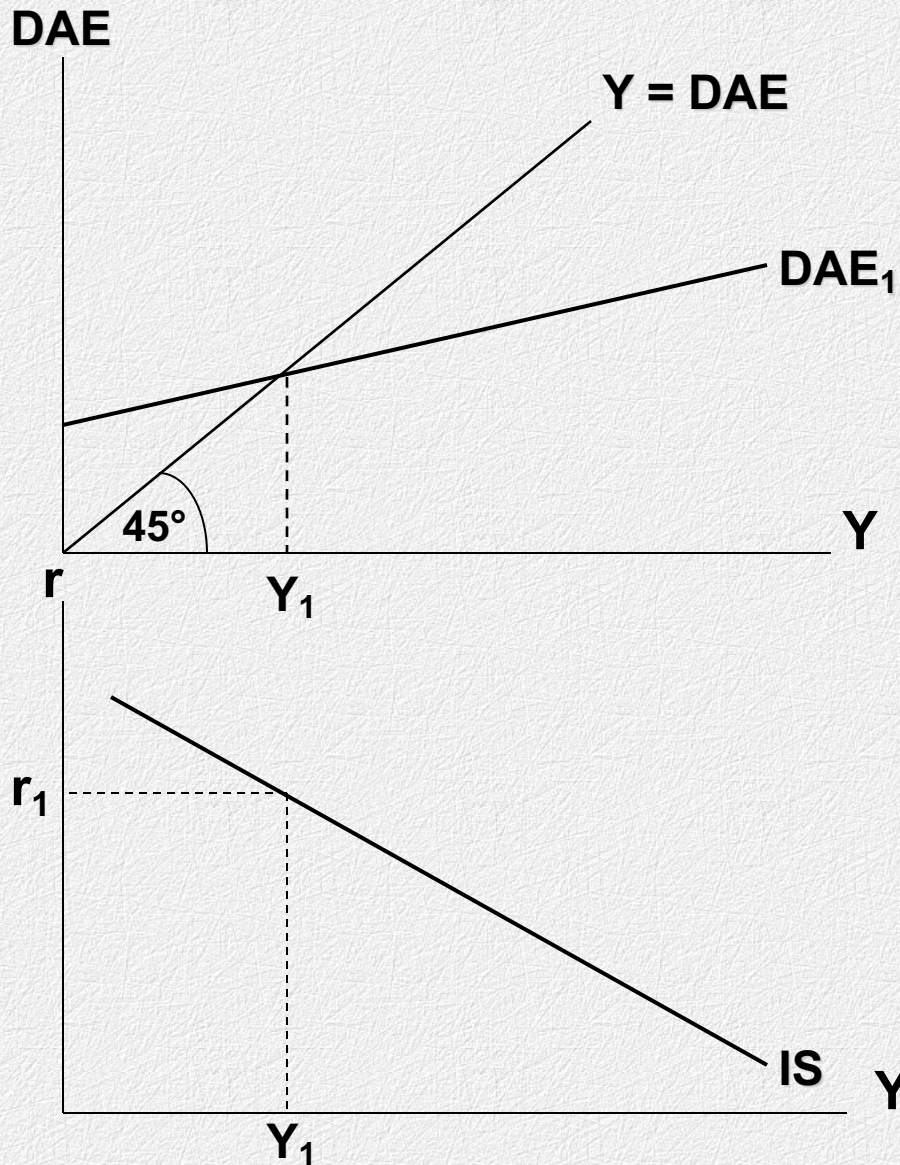
$$I + G = S + T$$

$$I = I(r) \quad , \quad S = S(Y^d)$$

**Shift** of the **IS curve** occurs from  $\Delta$  of any variable (except  $r$ ) that determine **DAE**. For example

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# Shifts in IS Curve



• If  $G \uparrow$



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