

7. Policy Effectiveness

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- ① Monetary policy and its effectiveness in solving macroeconomics problems
 - ① Responsiveness of Money Demand (M^d) to a change in interest rate
 - ② Responsiveness of investment to a a change in interest rate
 - ③ Monetary Policy Effectiveness : Keynes VS. Monetarist.
- ② Fiscal policy and its effectiveness in solving macroeconomics problems

1. Short-Run Monetary Policy Effectiveness

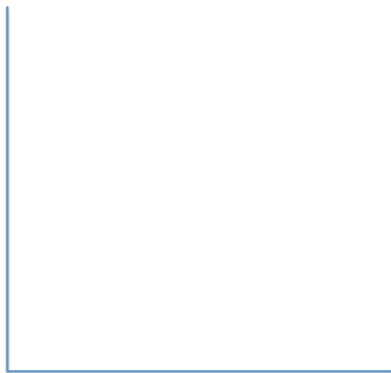
Monetary Policy Transmission Mechanism

- $MS \uparrow \Rightarrow$ Interest Rate (r)
 $\Rightarrow$ Investment (I) $\Rightarrow$ DAE shift $\Rightarrow Y_E$
- $MS \downarrow \Rightarrow$ Interest Rate (r)
 $\Rightarrow$ Investment (I) $\Rightarrow$ DAE shift $\Rightarrow Y_E$

Effectiveness of monetary policy depends on

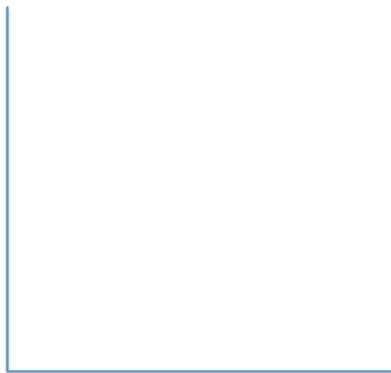
- 1 Responsiveness of Money Demand (M^d) to a change in interest rate $\left[\frac{\Delta M^d}{\Delta r} \right]$
- 2 Responsiveness of investment to a change in interest rate $\left[\frac{\Delta I}{\Delta r} \right]$

1.1. Responsiveness of Money Demand (M^d) to a change in interest rate $\left[\frac{\Delta M^d}{\Delta r} \right]$

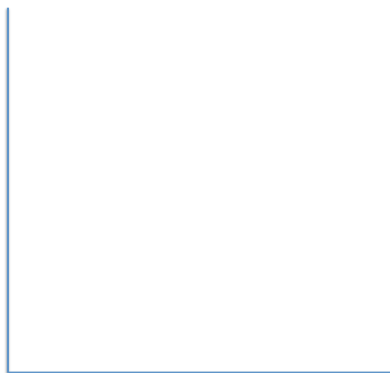


- Compare two cases : high $\left[\frac{\Delta M^d}{\Delta r} \right]$ and low $\left[\frac{\Delta M^d}{\Delta r} \right]$
- Given the same magnitude decrease in r , Money Demand increases more when $\left[\frac{\Delta M^d}{\Delta r} \right]$ is high than when $\left[\frac{\Delta M^d}{\Delta r} \right]$ is low.

- Monetary Policy Effectiveness and value of $\left[\frac{\Delta M^d}{\Delta r} \right]$



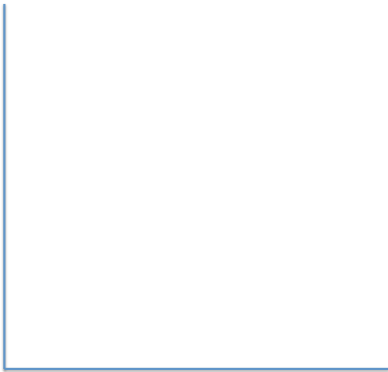
High $\left[\frac{\Delta M^d}{\Delta r} \right]$, M^d is flat, when
 $M^s \uparrow$, $r \downarrow$ a little.



Low $\left[\frac{\Delta M^d}{\Delta r} \right]$, M^d is steep, when
 $M^s \uparrow$, $r \downarrow$ a lot.

- High $\left[\frac{\Delta M^d}{\Delta r} \right]$, M^d is flat,
 - $MS \uparrow \Rightarrow$ Interest Rate (r) $\downarrow$ a little $\Rightarrow$ Investment (I) a little
 $\Rightarrow$ DAE shift a little $\Rightarrow Y_E$ a little
 - $MS \downarrow \Rightarrow$ Interest Rate (r) a little $\Rightarrow$ Investment (I) a little
 $\Rightarrow$ DAE shift a little $\Rightarrow Y_E$ a little
 - Monetary policy (is/ is not) very effective.
- Low $\left[\frac{\Delta M^d}{\Delta r} \right]$, M^d is steep,
 - $MS \uparrow \Rightarrow$ Interest Rate (r) $\downarrow$ a lot $\Rightarrow$ Investment (I) a lot
 $\Rightarrow$ DAE shift a lot $\Rightarrow Y_E$ a lot
 - $MS \downarrow \Rightarrow$ Interest Rate (r) a lot $\Rightarrow$ Investment (I) a lot
 $\Rightarrow$ DAE shift a lot $\Rightarrow Y_E$ a lot
 - Monetary policy (is/ is not) very effective.

1.2. Responsiveness of investment to a change in interest rate $\left(\frac{\Delta I}{\Delta r}\right)$

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- Compare two cases : high $\frac{\Delta I}{\Delta r}$ and low $\frac{\Delta I}{\Delta r}$
 - Given the same magnitude decrease in r , investment increases more when $\frac{\Delta I}{\Delta r}$ is high than when $\frac{\Delta I}{\Delta r}$ is low.

Monetary Policy Effectiveness and value of $\left[\frac{\Delta I}{\Delta r} \right]$

Given $\left[\frac{\Delta M^d}{\Delta r} \right]$, compare the two cases; high $\left[\frac{\Delta I}{\Delta r} \right]$ and low $\left[\frac{\Delta I}{\Delta r} \right]$

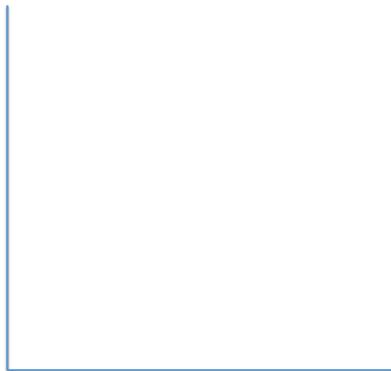
- High $\left[\frac{\Delta I}{\Delta r} \right]$, I is flat,
 - Interest Rate (r) $\downarrow \Rightarrow$ Investment (I) a lot
 $\Rightarrow$ DAE shift a lot $\Rightarrow Y_E$ a lot
 - Interest Rate (r) $\uparrow \Rightarrow$ Investment (I) a lot
 $\Rightarrow$ DAE shift a lot $\Rightarrow Y_E$ a lot
 - Monetary policy (is/ is not) very effective.
- Low $\left[\frac{\Delta I}{\Delta r} \right]$, I is steep,
 - Interest Rate (r) $\downarrow \Rightarrow$ Investment (I) a little
 $\Rightarrow$ DAE shift a little $\Rightarrow Y_E$ a little
 - Interest Rate (r) $\uparrow \Rightarrow$ Investment (I) a little
 $\Rightarrow$ DAE shift a little $\Rightarrow Y_E$ a little
 - Monetary policy (is/ is not) very effective.

1.3 Monetary Policy Effectiveness : Keynes VS. Monetarist

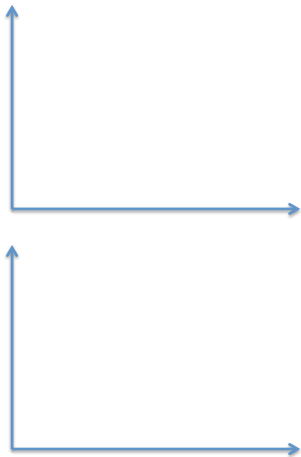
- Keynesians believes that in our economy,
 - $\left[\frac{\Delta I}{\Delta r} \right]$ is small (I is steep) and $\left[\frac{\Delta M^d}{\Delta r} \right]$ is large (M^d is flat).
 - Money demand is interest elastic and Investment is interest inelastic
 - Monetary Policy is not effective.
- Monetarist
 - $\left[\frac{\Delta I}{\Delta r} \right]$ is large (I is flat) and $\left[\frac{\Delta M^d}{\Delta r} \right]$ is small (M^d is steep).
 - Money demand is interest inelastic and Investment is interest elastic
 - Monetary Policy is effective.

2. Fiscal Policy Effectiveness

2.1 Fiscal Policy and Crowding out effect



- If there is a deflationary gap, the government applies expansionary fiscal policy.
- $\uparrow G$ or $\downarrow T$ or both
- The DAE curve shift upward and the gap will be eliminated
- $Y \uparrow$ to Y_F



- $Y \uparrow$ to Y_F
- $M^d \uparrow$, Money Demand shifts to the right, r
- $r \uparrow$, Investment

- Fiscal Policy Crowding out Effect

Commodity Market

Money Market

$$\begin{array}{ccc}
 \uparrow G \text{ or } \downarrow T \Rightarrow DAE \uparrow \Rightarrow Y \uparrow & \Rightarrow & M^d \uparrow \Rightarrow r \uparrow \\
 & & \downarrow \\
 Y \downarrow \Leftarrow DAE \downarrow \Leftarrow I \downarrow & \Leftarrow & \Leftarrow
 \end{array}$$

The increase in Y_E by $\uparrow G$ or $\downarrow T$ is partially offset by the rising of r .

- Crowding out effect is “the offsetting reduction in private expenditure caused by the rise in interest rates that follows an expansionary fiscal policy”

- Keynesians believe that in our economy,

- $\left[\frac{\Delta I}{\Delta r} \right]$ is small (I is steep) and $\left[\frac{\Delta M^d}{\Delta r} \right]$ is large (M^d is flat).
- Money demand is interest elastic and Investment is interest inelastic.
- The effect of ΔM^d on r is small and the effect of r on I is also small.
- Hence, the crowding out effect is small.
- Fiscal Policy is effective.

- Monetarist

- $\left[\frac{\Delta I}{\Delta r} \right]$ is large (I is flat) and $\left[\frac{\Delta M^d}{\Delta r} \right]$ is small (M^d is steep).
- Money demand is interest inelastic and Investment is interest elastic
- The effect of ΔM^d on r is small and the effect of r on I is also small.
- Hence, the crowding out effect is large.
- Fiscal Policy is not effective.

Keynes	Monetarist
$\left[\frac{\Delta I}{\Delta r} \right]$ is small	$\left[\frac{\Delta I}{\Delta r} \right]$ is large
Investment is interest rate inelastic	Investment is interest rate elastic
$\left[\frac{\Delta M^d}{\Delta r} \right]$ is large	$\left[\frac{\Delta M^d}{\Delta r} \right]$ is small
Money demand is interest rate elastic	Money demand is interest rate inelastic
Fiscal Policy is more effective	Monetary Policy is more effective

- Fiscal Policy Crowding out Effect

Commodity Market

Money Market

$$\begin{array}{ccc}
 \uparrow G \text{ or } \downarrow T \Rightarrow DAE \uparrow \Rightarrow Y \uparrow & \Rightarrow & M^d \uparrow \Rightarrow r \uparrow \\
 & & \downarrow \\
 Y \downarrow \Leftarrow DAE \downarrow \Leftarrow I \downarrow & \Leftarrow & \Leftarrow
 \end{array}$$

- $MS \uparrow \Rightarrow \text{Interest Rate } (r) \dots\dots\dots$
 $\Rightarrow \text{Investment } (I) \dots\dots\dots \Rightarrow DAE \text{ shift } \dots\dots\dots \Rightarrow Y_E \dots\dots\dots$
- $MS \downarrow \Rightarrow \text{Interest Rate } (r) \dots\dots\dots$
 $\Rightarrow \text{Investment } (I) \dots\dots\dots \Rightarrow DAE \text{ shift } \dots\dots\dots \Rightarrow Y_E \dots\dots\dots$