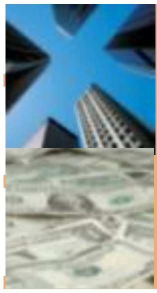
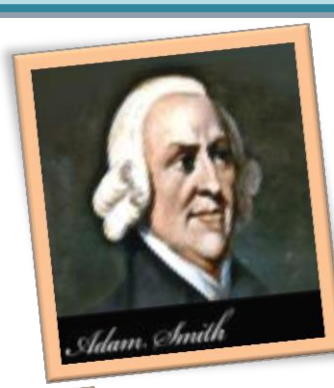
Faculty: Prof. Simrit Kaur and Dr. Amit Sachdeva

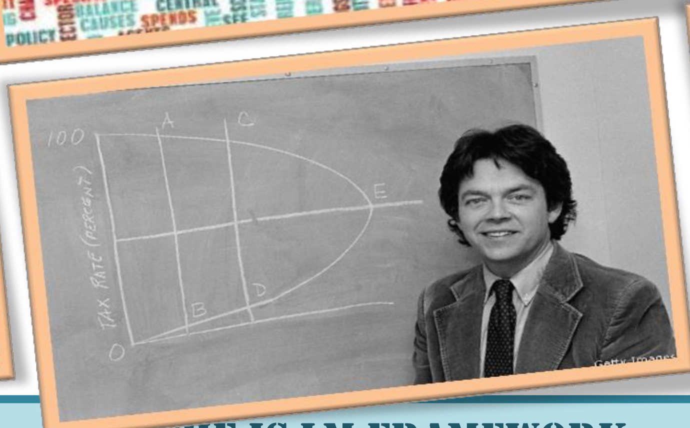


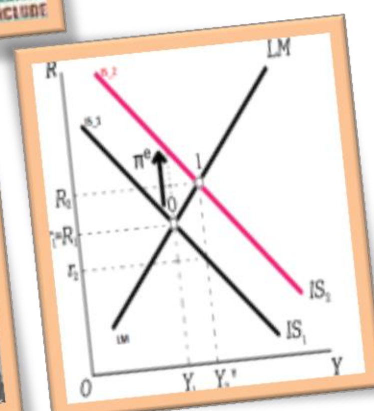
Prof. Simrit Kaur

ECONOMICS
GLOBAL BUSINESS ENVIRONMENT

Online Lecture 4







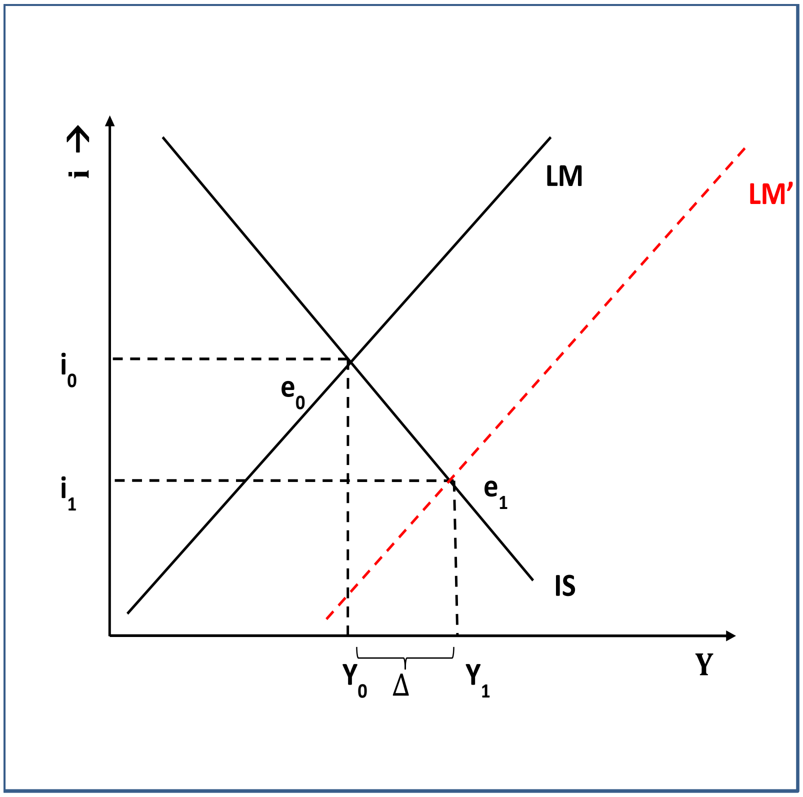
THE IS-LM FRAMEWORK
MONETARY POLICY AND CONCLUDING REMARKS
(MONEY DOES NOT MATTER; MONEY ALONE MATTERS; AND MONEY ALSO MATTERS)

Simultaneous Determination of Income and Interest and Corresponding Changes in Interest and Income: An IS-LM Analysis

Structure of Class:

- Monetary Policy Expansion: Shift of LM Curve (Graphical Representation)
- Mathematical Derivation
- Money Does Not Matter; Money Alone Matters; Money Also Matters

Monetary Expansion: Monetary Policy Multiplier (LM Shifts)



Mathematical Derivation:

$y = \propto_g (\bar{A} - b\, i)$ --------- Equation of IS curve - **Eqn 1**

$i = \frac{1}{h}(ky - \frac{M}{P})$ --------- Equation of LM curve - **Eqn 2**

Inserting Eqn 2 in Eqn 1 we get

$$y = \propto_g [\bar{A} - \frac{b}{h}\left(ky - \frac{M}{P}\right)]$$

$$y = [\propto_g \bar{A}] - [\propto_g \frac{b}{h} k]y + [\propto_g \frac{b}{h} \frac{M}{P}]$$

$$y + [\propto_g \frac{b}{h} k]y = [\propto_g \bar{A}] + [\propto_g \frac{b}{h} \frac{M}{P}]$$

$$y\{ 1 + [\propto_g \frac{b}{h} k]\} = [\propto_g \bar{A}] + [\propto_g \frac{b}{h} \frac{M}{P}]$$

$$y = \left[\frac{\propto_g}{\{ 1 + [\propto_g \frac{b}{h} k]\}}\right] \bar{A} + \left[\frac{\propto_g}{\{ 1 + [\propto_g \frac{b}{h} k]\}}\right] \frac{b}{h} \frac{M}{P}$$

Let $\left[\frac{\propto_g}{\{ 1 + [\propto_g \frac{b}{h} k]\}}\right] = \gamma$ (pronounced as gamma)

$$y = \gamma \bar{A} + \gamma \frac{b}{h} \frac{M}{P}$$

Determination of Equilibrium Income in IS-LM

Where:

$$\bar{A} = C_0 - cT + c\,\bar{T}\bar{R} + \bar{I} + \bar{G}$$

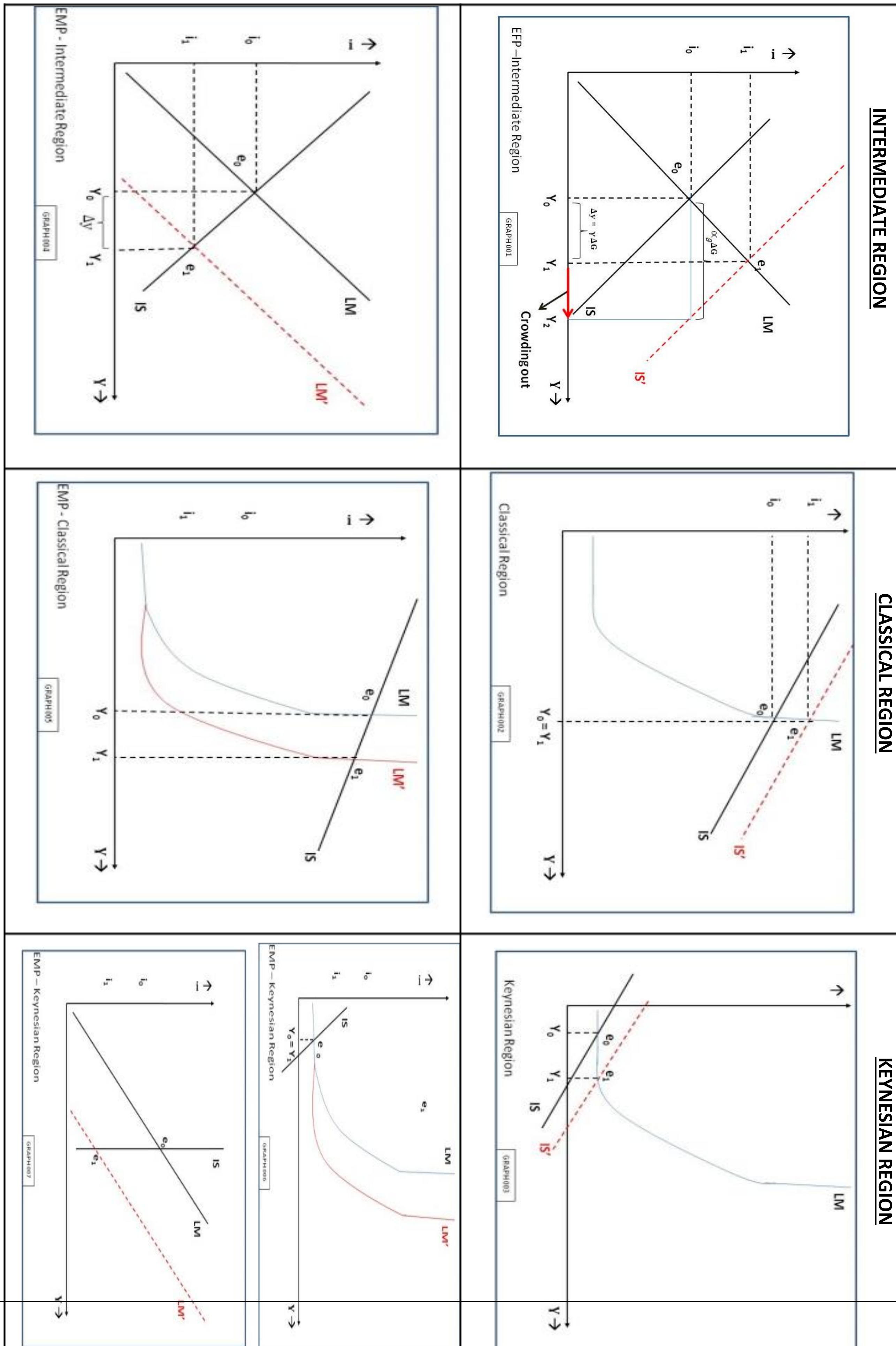
$$\frac{\Delta y}{\Delta \frac{M}{P}} = \gamma \frac{b}{h}$$

Change in income due to change in Money Supply:

It represents Monetary Policy Multiplier in IS-LM framework

Money Alone Matters, Money Does Not Matter and Money Also Matters

(The Seven Graphs)


INTERMEDIATE REGION
EFP –Intermediate Region
GRAPH001
LM
IS
IS'
Crowding out
CLASSICAL REGION
Classical Region
GRAPH002
LM
IS
IS'
KEYNESIAN REGION
Keynesian Region
GRAPH003
LM
IS
IS'
EMP - Intermediate Region
GRAPH004
LM
LM'
IS
EMP - Classical Region
GRAPH005
LM
LM'
IS
EMP – Keynesian Region
GRAPH006
EMP – Keynesian Region
GRAPH007

Concluding Remarks:

Money does not matter

1. In this case Monetary policy is totally ineffective in increasing the level of income, while Fiscal policy is fully effective.
2. This occurs in the Liquidity Trap Region, wherein LM curve is horizontal.

Money alone matters

1. Monetary policy matters , but Fiscal policy does not matter
2. Case of Vertical LM Curve; wherein MP is fully effective, while Fiscal Policy is totally ineffective (full crowding out).

Money also matters

1. Both Monetary and Fiscal policy matter.
2. In the intermediate region of LM curve, both monetary and fiscal policy are effective in increasing Income levels, provided IS curve is not vertical.

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Preview of Next Lecture

Perfect Capital Mobility: The Mundell-Fleming Model

- With Flexible Exchange Rates
- With Fixed Exchange Rates
- Beggar Thy Neighbour Policy: Competitive Depreciation