IS – LM Model, Part 3

Agenda

• The IS-LM Model.
• Working with the IS-LM Model.
  ➢ Generating Business Fluctuations.
  ➢ Monetary and Fiscal Policy.

The IS-LM Model

• Put the IS and LM curves together to create the IS-LM model.
  ➢ General equilibrium requires:
    • Equilibrium in the goods market.
    • Equilibrium in the money market.

The IS-LM Model

• Endogenous variables
  ➢ Y
  ➢ R
  ➢ C
  ➢ I
  ➢ T
  ➢ M
  ➢ Md

The IS-LM Model

• Exogenous variables
  ➢ \( C_0 \)
    • Consumer wealth
    • Consumer confidence
  ➢ \( I_0 \)
    • Corporate profits
    • Business confidence
  ➢ \( G \)
  ➢ \( t \)

Disequilibria Dynamics

• Exogenous variables
  ➢ \( X_0 \)
  ➢ \( M_0 \)
  ➢ \( M_s \)
  ➢ \( L_0 \)
    • Payments technology
    • Expected R
  ➢ \( P \)
The IS-LM Model

• Disequilibria Adjustments:
  • Money market adjusts quickly.
    • \( R \) changes first
  • Goods and Services market adjusts more slowly.
    • \( Y \) changes second.
  • Adjustment path is counterclockwise.

Working with the IS-LM Model

• Increase any component of \( Ap \).
• Increase \( Ms \).
• Increase \( L_0 \).

Increase Any Component of \( Ap \), 1

\[ R \]
\[ LM_0 \]
\[ R_0 \]
\[ Y_0 \]
\[ IS_0 \]
\[ Y \]

Increase Any Component of \( Ap \), 2

\[ R \]
\[ LM_0 \]
\[ R_0 \]
\[ R_1 \]
\[ Y_0 \]
\[ Y_1 \]
\[ IS_0 \]
\[ IS_1 \]

Increase \( Ms \), 1

\[ R \]
\[ LM_0 \]
\[ R_0 \]
\[ Y_0 \]
\[ IS_0 \]
\[ Y \]

Increase \( Ms \), 2

\[ R \]
\[ LM_0 \]
\[ R_0 \]
\[ R_1 \]
\[ Y_0 \]
\[ Y_1 \]
\[ IS_0 \]
\[ LM_1 \]
Key Points

- Increases in Autonomous Spending.
  - Increase Y and R.
- Increases in the Money Supply.
  - Increase Y and decrease R.
- Increases in the Demand for Money, L0.
  - Decrease Y and increase R.

Policy Analysis with the IS-LM Model

- Monetary policy.
  - Changes in the money supply.
- Fiscal Policy.
  - Changes in government spending.
  - Changes in tax rates.
  - Assume can be represented by a parallel shift in the IS curve.

Policy Analysis with the IS-LM Model

- Monetary Policy:
  - Expansionary policy:
    - Results in higher Y and lower R.
    - Transmission effects.
    - Composition of output.
  - Contractionary policy.
Policy Analysis with the IS-LM Model

- Fiscal Policy:
  - Expansionary policy.
    - Results in higher $Y$ and higher $R$.
    - Effect on the multiplier.
      - Crowding out.
      - Composition of Spending.
      - Avoiding crowding out.
    - Use in conjunction with expansionary monetary policy.
  - Contractionary policy.

Increase $G$

Crowding Out, 1

Avoiding Crowding Out, 1
Policy Analysis with the IS-LM Model

- Observations:
  - Can achieve any \( Y \), but with different R’s.
    - Easy monetary policy, tight fiscal policy.
      - Low R.
      - Composition of output.
    - Tight monetary policy, easy fiscal policy.
      - High R.
      - Composition of output.
Policy Analysis with the IS-LM Model

- Observations:
  - Which composition of output is better?
    - Higher or lower I.
    - What kind of G?
      - Consumption versus investment
    - What kind of T?
      - Personal income versus business