Lecture 10: The Goods Market and the Exchange Rate

- Devaluations (static and dynamic responses)
- Exchange rate determination (capital markets)
- The open economy IS-LM
The Goods Market

\[ Z = C + I + G + X - eQ \]

\[ C(Y-T) + I(Y,I) + G \]

\[ Q = Q(Y,e) \]

\[ X = X(Y^*,e) \]
Figures

• Figs 19-4, 19-5
• Increase in foreign demand
• games countries play
• depreciation
The J-Curve

- $eQ(Y,e)$: increase or decrease with $e$?
- In the very short run: it may increase!
- And if strong enough: $X(Y^*,e) - eQ(Y,e)$ may do the same.
- Dynamics of NX in response to a depreciation; fig 19-6
The Exchange Rate

The Goods Market

\[ Y = C(Y-T) + I(Y,i) + G + NX(Y,Y^*, E \frac{P^*}{P}) \]

constant

Financial Markets

\[ \frac{M}{P} = YL(i) \]

\[ i(t) = i^*(t) + \frac{E(t+1) - E(t)}{E(t)} \]
Cont. The Exchange Rate

\[ i = i^* + \frac{E^e - E}{E} \]

given \( E^e \) and \( i^* \)
The Open Economy IS-LM

\[ Y = C(Y-T) + I(Y,i) + G + NX(Y,Y^*, E) \]

\[ M = \frac{Y L(i)}{P} \]

\[ E = \frac{E^e}{1+i-i^*} \]

\[ IS : Y = C(Y-T) + I(Y,i) + G + NX(Y,Y^*, E^e / (1+i-i^*)) \]
Two IS caveats:

a) Multiplier is smaller

b) **Interest rate affects aggregate demand through the E as well.**

* Fiscal and Monetary policy