Exchange Rates, Business Cycles, and Macroeconomic Policy in the Open Economy, Part 3

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Agenda

- Fixed Exchange Rates
- Macroeconomic Policy in an Open Economy with Fixed Exchange Rates
- Fixed versus Flexible Exchange Rates

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Fixed Exchange Rates

- Fixed-exchange-rate systems are historically important.
  - The U.S. was on a fixed exchange rate system before the early 1970s.
  - Fixed exchange rates are still used by many countries.

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Fixed Exchange Rates

- Two key questions:
  - How does the use of a fixed-exchange-rate system affect an economy and macroeconomic policy?
  - Which is the better system, flexible or fixed exchange rates?
Fixed Exchange Rates

- Fixing the exchange rate:
  - The government sets the exchange rate.
    - Either unilaterally or in agreement with other countries.
  - What happens if the official rate differs from the fundamental rate determined by the supply and demand of the currency?

Fixing the exchange rate

- An overvalued currency:
  - When the official rate is above its fundamental value, the currency is said to be overvalued.

An overvalued exchange rate

- The government has three choices for dealing with an overvalued currency.
  - First, the government could devalue the currency, reducing the official rate to the fundamental value.
Devaluing the currency

Fixing the exchange rate

• An overvalued currency:

- The government has three choices for dealing with an overvalued currency.

• Second, the country could restrict international transactions.
  - This would reduce the supply of its currency to the foreign exchange market and raise the fundamental value of the currency.
  - If a country prohibits people from trading the currency at all, the currency is said to be inconvertible.

Restricting international transactions

Fixing the exchange rate

• An overvalued currency:

- The government has three choices for dealing with an overvalued currency.

• Third, the government can buy (or demand) its own currency to make the fundamental value equal to the official rate.
  - The central bank buys the domestic currency in the foreign exchange market using its official reserve assets.
  - The decline in official reserve assets equals the country’s balance of payments deficit.
Fixing the exchange rate

• An overvalued currency:
  ➢ An overvalued currency cannot be maintained forever.
  • The country will eventually run out of official reserve assets and have to devalue its currency.

A speculative run on an overvalued currency

• If investors think a currency may soon be devalued, they may sell assets denominated in the overvalued currency, increasing the supply of that currency on the foreign exchange market.
Fixing the exchange rate

• An overvalued currency:
  
  ➢ A speculative run (or attack) may end the attempt to support an overvalued currency.
  
  • This causes even bigger losses of official reserves from the central bank and speeds up the likelihood of devaluation.
  

• An undervalued currency:
  
  ➢ When the official rate is below its fundamental value, the currency is said to be undervalued.

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An undervalued exchange rate

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Fixing the exchange rate

• An undervalued currency:
  
  ➢ The government has three choices for dealing with an undervalued currency.
  
  • First, the government could revalue the currency, increasing the official rate to the fundamental value.
Revaluing the currency

Fixing the exchange rate

- An undervalued currency:
  - The government has **three** choices for dealing with an *undervalued currency*.
    - **Second**, the government could ease restrictions on international transactions.
      - This would increase the supply of its currency to the foreign exchange market and raise the fundamental value of the currency.

Easing restrictions on int’l transactions

Fixing the exchange rate

- An undervalued currency:
  - The government has **three** choices for dealing with an *undervalued currency*.
    - **Third**, the government can continue to acquire official reserve assets.
      - The central bank sells the domestic currency in the foreign exchange market to buy official reserve assets.
      - The *increase* in official reserve assets equals the country’s balance of payments *surplus*. 
Foreign exchange market intervention

Fixing the exchange rate

• An undervalued currency:
  ➢ An overvalued currency can seemingly be maintained forever, except …
    • If the domestic central bank is gaining official reserve assets, foreign central banks must be losing them.
    • So the undervalued currency cannot be maintained forever.

Macro policy with fixed exchange rates

• Monetary policy and the fixed exchange rate:
  ➢ The best way for a country to make the fundamental value of a currency equal the official rate is through the use of monetary policy.
  ➢ The nominal exchange rate is given by:
    \[ e_{\text{nom}} = e_{\text{For}} / P \]
Macro policy with fixed exchange rates

• Monetary policy and the fixed exchange rate:
  
  ➢ For an overvalued currency, a monetary contraction is desirable:
    
    • The relationship between the money supply and the nominal exchange rate determines the level of the money supply for which the fundamental value of the exchange rate equals the official rate.


The money supply and fixed exchange rates

Macro policy with fixed exchange rates

• Monetary policy and the fixed exchange rate:
  
  ➢ A large money supply yields an overvalued currency.
    
    • Larger than the level of the money supply for which the fundamental value of the exchange rate equals the official rate.


Macro policy with fixed exchange rates

• Monetary policy and the fixed exchange rate:
  
  ➢ IMPLICATION: Countries cannot both maintain the exchange rate and use monetary policy to affect output.
    
    • Expansionary monetary policy to fight a recession would lead to an overvalued currency.
    
    • Contractionary monetary policy to fight rising inflation would lead to an undervalued currency.
Macro policy with fixed exchange rates

• Monetary policy and the fixed exchange rate:
  ➢ A group of countries may be able to coordinate their use of monetary policy.
  • If two countries that have fixed their exchange rates both increase their money supplies to fight joint recessions, there need not be an overvaluation.

Macro policy with fixed exchange rates

• Monetary policy and the fixed exchange rate:
  ➢ A group of countries may be able to coordinate their use of monetary policy.
    • One country increasing its money supply by itself would lead to a depreciation.
    • When the other country increases its money supply, it provides an offsetting effect.
    • If the money supplies expand in each country, they offset each other, so the exchange rate need not change.

Coordinated monetary expansion

Fixed versus flexible exchange rates

• Currency unions:
  ➢ Under a currency union, countries agree to share a common currency:
    • They often agree to cooperate economically and politically as well.
Fixed versus flexible exchange rates

- Currency unions:
  - To work effectively, a currency union must have just one central bank.
    - Because countries do not usually want to give up control over their own monetary policy, currency unions are very rare.
    - Advantages of currency unions over fixed exchange rates: reduces the costs of trading goods and assets across countries and because speculative attacks on a national currency can no longer occur.

Fixed versus flexible exchange rates

- Currency unions:
  - Major advantages of currency unions:
    - Reduces the costs of trading goods and assets across countries.
    - Speculative attacks on a national currency can no longer occur.

Fixed versus flexible exchange rates

- Currency unions:
  - Major disadvantages of currency unions:
    - All countries share a common monetary policy.
      - A problem that also arises with fixed exchange rates.
      - If one country is in recession while another is concerned about inflation, monetary policy cannot help both.
      - With flexible exchange rates, the countries could have independent monetary policies to help their particular situation.

Fixed versus flexible exchange rates

- Which is better?
  - Both fixed and flexible exchange rate systems have benefits and disadvantages.
  - Which exchange rate system is better for an individual country depends on its economic and political circumstances and those of its major trading partners.
Fixed versus flexible exchange rates

• Major benefits of fixed exchange rates:
  
  ➢ First, stable exchange rates make international trades easier and less costly.
  
  ➢ Second, fixed exchange rates help discipline monetary policy, making it impossible for a country to engage in expansionary policy.
    - The result may be lower inflation in the long run.

• Major disadvantages to fixed exchange rates:
  
  ➢ First, they take away a country’s ability to use expansionary monetary policy to combat recessions.
  
  ➢ Second, disagreement among countries about the conduct of monetary policy may lead to the breakdown of the system.

• Major benefits of flexible exchange rates:
  
  ➢ First, flexible exchange rates allow countries to use monetary policy to combat recessions and inflations.
  
  ➢ Second, flexible exchange rates permit countries to follow independent monetary and fiscal policies.

• Major disadvantages to flexible exchange rates:
  
  ➢ First, exchange rate volatility introduces uncertainty into international transactions, making them more costly.
  
  ➢ Second, there is no independent restraint on expansionary monetary and fiscal policies.
Fixed versus flexible exchange rates

• Which is better?

➢ Which is better depends on the circumstances.

• Fixed exchange rates are more desirable:
  – If there are large benefits to be gained from increased trade and integration, AND
  – If countries can coordinate their monetary policies closely.

• Flexible exchange rates are more desirable:
  – If countries that value having independent monetary policies.
    » Either because they face different macroeconomic shocks or hold different views about the costs of unemployment and inflation than other countries.