



Lecture 14



The International Financial System

Exchange Market Intervention

► There are 2 types of intervention:

1. Sterilize intervention

2. Unsterilized intervention



Exchange Market Intervention

Unsterilized:

Fed buys \$1 billion of \$, sells \$1 billion of foreign assets
Federal Reserve

Assets

Liabilities

Foreign assets - \$1 b
(international reserves)

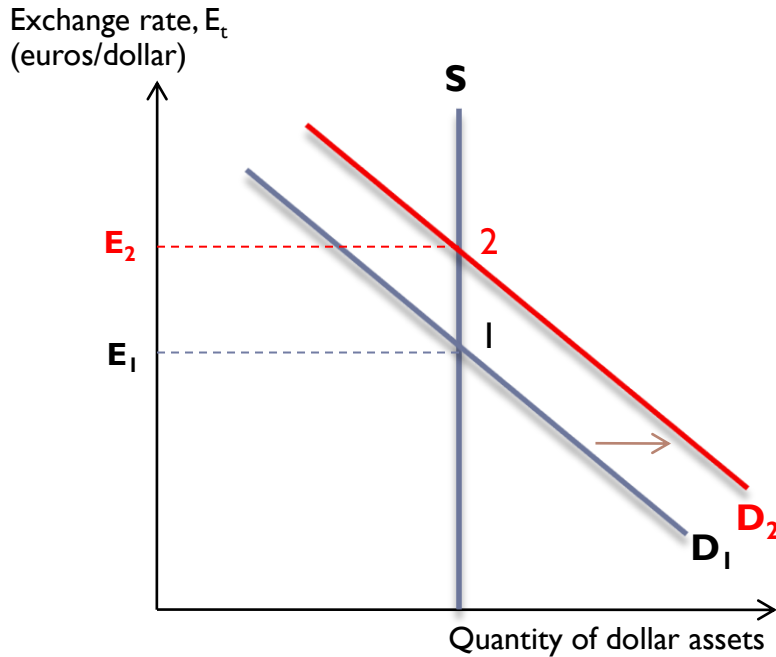
Currency or reserves - \$1 b
(monetary base)

Results:

1. International reserves, -\$1 billion
2. Monetary base, - \$1 billion (from $MB = C + R$)
3. $E_t \uparrow$ (dollar appreciate)

Unsterilized intervention: Central bank allow the purchase and sale of domestic currency to have an effect on monetary base

Unsterilized intervention



Effect of unsterilized purchase of dollars and sales of foreign assets

Monetary base $i^D \downarrow \rightarrow$ Money supply $\downarrow$

$\rightarrow$ Domestic interest rate $\uparrow$

$\rightarrow$ return on dollar asset relative to foreign asset $\uparrow$

$\rightarrow D$ for domestic asset shift right

$\rightarrow$ domestic currency appreciate

Exchange Market Intervention

Sterilized:

To increase *MB* back to old level, Fed buys \$1 billion of government bonds (open market purchase)

Federal Reserve

Assets

Liabilities

Foreign assets - \$1 b
(international reserves)
Government bonds + \$1 b

Currency or reserves \$0 b
(monetary base)

Results

1. International reserves, -\$1 billion
2. Monetary base unchanged
3. Interest rate is not affected. Relative expected return on domestic asset is unchanged $\rightarrow E_t$ unchanged

Sterilized intervention: Central bank engage in offsetting OMO, so that there is no impact on monetary base and money supply

Exchange rate regime

- ▶ Fixed exchange rate regime:

Value of currency is pegged relative to value of another currency (anchor currency).

- ▶ Floating exchange rate regime:

Value of currency is allowed to fluctuate against all other currencies

- ▶ Managed Float exchange rate regime:

Countries intervene in FX market in an attempt to influence their exchange rates by buying and selling foreign assets



The Gold Standard

Currency convertible into gold at fixed value

Example of how it worked:

U.S.: \$20 converted into 1 ounce

U.K.: £4 converted into 1 ounce

Par value of £1 = \$5.00

Two Problems:

1. Country on gold standard loses control of M^s
2. World inflation determined by gold production



Fixed Exchange Rate Systems

Bretton Woods

1. Fixed exchange rates
2. Other central banks keep exchange rates fixed to \$. \$ is reserve currency
3. \$ convertible into gold for central banks only (\$35 per ounce)
4. International Monetary Fund (IMF) sets rules and provides loans to deficit countries
5. World Bank makes loans to developing countries

European Monetary System

1. Value of currency not allowed outside “snake”
2. New currency unit: ECU
3. Exchange Rate Mechanism (ERM)

Key weakness of fixed rate system

Asymmetry: pressure on deficit countries losing international reserves to $\downarrow M$, but no pressure on surplus countries to $\uparrow M$

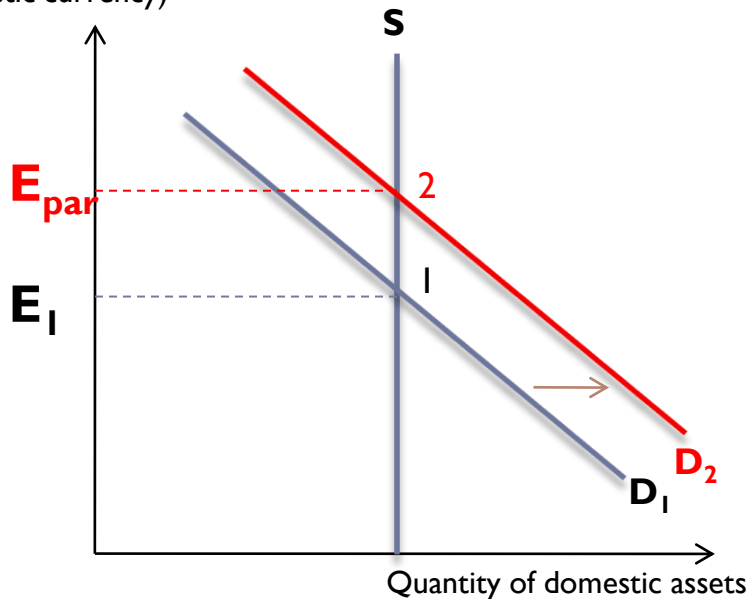


How a fixed exchange rate regime work?

Intervention in case of an overvalued exchange rate

Domestic currency is fixed against anchor currency at E_{par}

Exchange rate, E_t
(foreign currency/
domestic currency)



Demand curve have shifted left to D_1

due to foreign interest rate $\uparrow$

$\rightarrow$ Relative return on domestic asset $\downarrow$

$\rightarrow$ D for domestic asset shift left

$\rightarrow$ domestic currency would depreciate

$\rightarrow E_{\text{par}}$ is overvalued

Intervene to keep exchange rate fixed at E_{par}

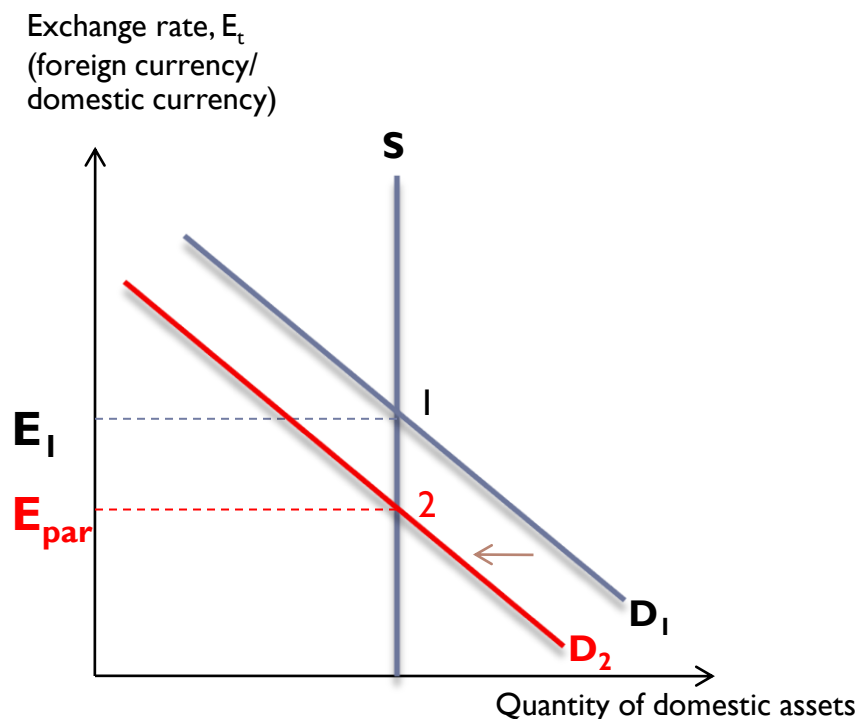
$\rightarrow$ Purchase domestic currency and sell foreign asset until demand curve reach D_2

$\rightarrow$ Central bank lose international reserves

How a fixed exchange rate regime work?

Intervention in case of an undervalued exchange rate

Domestic currency is fixed against anchor currency at E_{par}



Demand curve have shifted right to D_1

- Relative return on domestic asset $\uparrow$
- D for domestic asset shift right
- domestic currency would appreciate
- E_{par} is undervalued

Intervene to keep exchange rate fixed at E_{par}

- Sell domestic currency and purchase foreign asset until demand curve reach D_2
- Central bank accumulate international reserves

International Financial Architecture

Capital Controls

1. Controls on outflows unlikely to work
2. Controls on inflows may prevent lending boom and financial crisis, but cause distortions

Role of IMF

1. There is a need for international lender of last resort (ILLR) and IMF has played this role
2. ILLR creates moral hazard problem
3. IMF needs to limit moral hazard
 - Lend only to countries with good bank supervision
4. Need to do ILLR role fast and infrequently

Monetary Policy: International Considerations

1. Direct effects of FX market

When intervene, MB changes

2. Balance of payments considerations

When B of P is in deficit need $M^s \downarrow$

3. Exchange rate considerations

When want lower E , need $M^s \uparrow$

