

Study Questions
(*with Answers*)

Lecture 14
Pegging the Exchange Rate

Part 1: Multiple Choice

Select the **best** answer of those given.

1. Suppose the central bank of Mexico is pegging its currency, the peso, to the U.S. dollar at a rate of \$0.10/peso. If on a particular day the demand for pesos exceeds the supply by 1.3 billion pesos, the central bank will
 - a. Use its reserves of U.S. dollars to buy 1.3 billion pesos.
 - b. Prohibit individuals from selling pesos for more than the official rate.
 - c. Add to its dollar reserves by \$130,000,000.
 - d. Devalue the peso.
 - e. Buy 1.3 billion pesos on the open market and sell them to those whose demands are not being met by private supply

Ans: *c*

2. When a central bank is trying to maintain an over-valued currency by buying its own currency on the foreign exchange market, sterilization of that transaction means for it to
 - a. Buy foreign currency
 - b. Sell foreign currency
 - c. Buy domestic bonds
 - d. Sell domestic bonds
 - e. Devalue

Ans: *c*

3. Sterilization of exchange-market transactions by a central bank means to prevent those transactions from affecting
- The level of its reserves
 - The level of the domestic money supply
 - The level of the foreign money supply
 - The spot exchange rate
 - The forward exchange rate

Ans: b

4. If Canada were pegging the Canadian dollar to the U.S. dollar and also trying to sterilize the effects of its exchange market intervention, then when it buys U.S. dollars on the foreign exchange market, it should
- Sell Canadian government bonds.
 - Buy Canadian government bonds..
 - Sell U.S. government bonds.
 - Buy U.S. government bonds.
 - Sell Canadian dollars.

Ans: a

5. If a country's currency is undervalued, and if its central bank is pegging its exchange rate but **not** sterilizing the effects of its intervention, then which of the following will happen?
- Its central bank will sell its own currency on the foreign exchange market.
 - Its central bank will gain reserves of foreign currency.
 - The country's money supply will expand.
 - The central bank will buy foreign currency on the foreign exchange market.
 - All of the above.

Ans: e

6. What is Section 421?
- The provision in the International Monetary Fund that requires countries to devalue their currencies when they are losing international reserves.
 - The requirement that the United States Federal Reserve sterilize the effects of its exchange-rate intervention.
 - The portion of the IMF's holdings of currency that is held in US dollars.
 - The Special China Safeguard, negotiated as part of the agreement to let China into the World Trade Organization.
 - The department within the European Commission responsible for managing exchange rates.

Ans: d (see Levy)

7. How has the yuan/dollar exchange rate (the value of the US dollar measured in Chinese yuan) behaved during the 21st century through March 2019?
- It has remained at a constant level throughout the decade, due to Chinese intervention in the exchange market.
 - It has fluctuated around a rising trend.
 - It has fluctuated around a falling trend.
 - It was constant for six years, rose off and on for seven years, and has been roughly constant since then until falling over the last year and half.
 - It was constant for six years, fell off and on for seven years, and has moved up and down since then.

Ans: e (Note that the graph we saw in lecture was dollars per yuan, not yuan per dollar.)

Part II: Short Answer

Answer in the space provided.

1. What are the three rules of the gold standard? That is, what are the rules that a central bank of a country must follow in order to maintain a “gold exchange standard?”

- i. *Fix the value of the currency in terms of gold. (When two countries do this, it also fixes the exchange rate between their two currencies.) [These answers are taken from the Gerber textbook.]*
- ii. *Keep the supply of domestic money fixed in some constant proportion to their supply of gold. (Thus their money supply rises and falls as they acquire and lose gold.)*
- iii. *Stand ready to redeem their own currency with payments in gold, and permit gold to be exported and imported. (This both causes the market exchange rate to equal the official one, and causes the gold stock, and hence the money supply, to respond to excess supply and demand for the currency.)*

2. Define or explain

a. Over-valued exchange rate

A pegged exchange rate that is set higher than (that is, appreciated with respect to) the rate at which supply would equal demand for foreign exchange in the absence of exchange market intervention (or, though not necessarily the same, the rate dictated by Purchasing Power Parity).

b. International reserves

The foreign currency-denominated assets that a government or central bank holds, acquired by and used for exchange market intervention to influence the exchange rate.

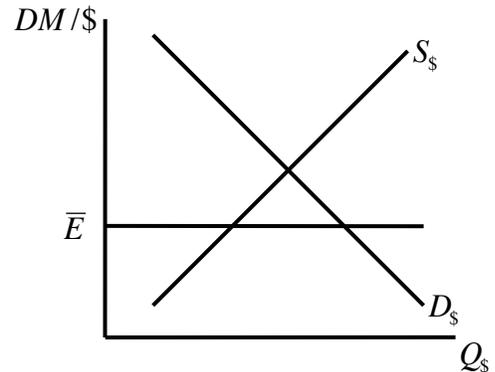
c. Sterilization

The use by a central bank of open-market operations (buying and selling its government's bonds) to offset the effects of its own exchange-market intervention and therefore keep its money supply constant.

3. In each of the following examples, a currency is being pegged to another at the exchange rate shown as \bar{E} in the figure. The central bank is either sterilizing or not sterilizing, as stated. For each example, do the following:

- i. First, fill in the first set of blanks by checking the correct responses, as indicated, to say what is happening in the initial situation shown in the figure.
- ii. Second, analyze the indicated change by shifting the appropriate curve or curves in the figure.
- iii. Third, fill in the second set of blanks, by checking responses, to say what happens as a result of the change.

a. Germany's central bank, the Bundesbank, is pegging its currency the deutsche mark, DM, to the US dollar, and it is *not* sterilizing.



i. In the initial situation, the Bundesbank is.....

_____ gaining _____ losing _____ not changing

its international reserves, and the German money supply is.....

_____ expanding _____ contracting _____ not changing

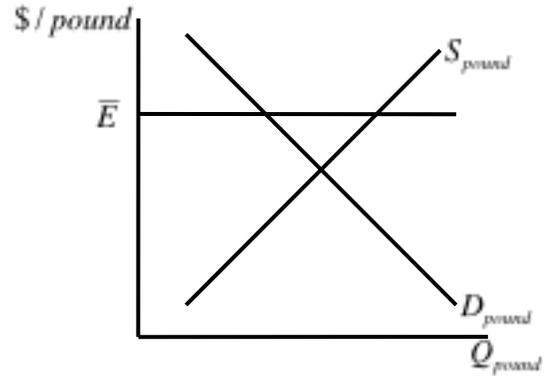
ii. Now, the demand for exports of German cars expands. (Show what happens in the diagram.) *Ans: The $S_{\$}$ curve shifts to the right.*

iii. As a result, the Bundesbank will.....

_____ increase _____ decrease _____ not change

the pace at which it intervenes.

b. The United States central bank, the Fed, is pegging the US dollar to the British pound (£), and it *is* sterilizing.



i. In the initial situation, the Fed is.....

buying selling neither buying nor selling

British pounds on the foreign exchange market, and it is

buying selling neither buying nor selling

bonds on the U.S. bond market.

ii. Now, interest rates in the United Kingdom go down. (Show this in the diagram.) Ans: The S_{pound} curve shifts to the right and/or the D_{pound} curve shifts to the left.

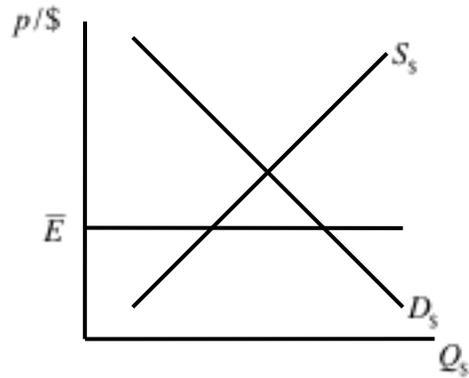
iii. As a result, the Fed will

increase decrease not change

the pace at which it buys/sells pounds, and the U.S. money supply will.....

- expand more rapidly
- expand less rapidly
- contract more rapidly
- contract less rapidly
- continue to remain constant

c. The Mexican central bank, Banco de México, is pegging the peso (here denoted “p”) to the U.S. dollar (\$), and it is *not* sterilizing.



i. In the initial situation, Banco de México is.....

buying selling neither buying nor selling

pesos on the foreign exchange market, and

buying selling neither buying nor selling

bonds in the Mexican bond market.

ii. Now, Mexico devalues the peso. (Show this in the diagram.) *Ans: The supply and demand curves do not shift, but \bar{E} increases and the horizontal line at \bar{E} shifts up.*

iii. As a result, Banco de México will.....

increase decrease not change

the pace at which it buys/sells dollars, and the Mexican money supply will

- expand more rapidly
- expand less rapidly
- contract more rapidly
- contract less rapidly
- continue to remain constant