EXCHANGE RATES PART II

Is a currency worth anything if no one wants it?

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TYPES OF FOREIGN EXCHANGE RATES

An exchange rate can be determined in several ways, depending on the degree of control by the nation's government over the value of its currency. These exchange rate systems are practiced to varying degrees by different countries at different times, depending on countries' macroeconomic objectives.

FLEXIBLE OR FLOATING EXCHANGE RATES

Flexible or floating exchange rates change freely and are determined by trading in the forex market. A currency's value against other currencies is determined solely by the market demand for it and the supply of it in the other countries' forex market. Neither governments nor central banks make any effort to manipulate the value of the currency.

PROS OF A FLOATING EXCHANGE RATE

- Monetary policy freedom: With a floating ER, a central bank may focus its monetary policies on domestic macroeconomic goals. Interest rates may be altered to stimulate and contract AD, rather than to manipulate demand for the currency.
- Automatic adjustment: A floating exchange rate should be the right exchange rate, meaning that it reflects the true demand for the nation's currency abroad. Through management, a government may over-value or under-value its currency on forex markets, which can lead to persistent deficits or surpluses in the current and financial accounts of the balance of payments.

PROS OF A FLOATING EXCHANGE RATE

- Foreign reserves: A central bank committed to *managing* its currency's exchange rate must keep large reserves of foreign currencies on hand to intervene in forex markets to manage its exchange rates. This is money earned from export sales that is not being spent on imports, and therefore represents a type of forced savings upon the nation's households. With a floating exchange rate this is not necessary.

FIXED EXCHANGE RATE SYSTEM

A fixed rate occurs when a currency's value against one or more other currencies is set by the government or central bank (CB) in order to promote particular macroeconomic objectives. Fixed rates provide greater certainty for exporters and importers. Exchange rate fixing requires governments or central banks to intervene in the forex market to manipulate the demand for or supply of the currency.

FIXED EXCHANGE RATE SYSTEM

- Methods for maintaining a currency peg (fixed rate):
  - The CB can raise or lower *interest rates* to attempt to change foreign demand for its currency.
  - The CB can buy or sell *foreign currencies* to manipulate their supplies and exchange rates.
  - The government can place limits on the amount of *foreign investment* in the country.

MANAGED EXCHANGE RATES

Managed exchange rates occur when a currency's value against one or more other currencies is allowed to fluctuate between a certain *range* by the country's government or central bank. If the exchange rate gets below a certain level or above a certain level, then the government or central bank will intervene to bring it back within the desired range.

PROS OF FIXED/MANAGED EXCHANGE RATES

- Reduced risk of speculation: A country with a floating exchange rate is vulnerable to speculation by international investors. If investors speculate the country's currency will appreciate, it will likely do so and harm the nation's producers and reduce growth rate. Management prevents such speculative shocks to the exchange rate.
- Inflation control: If a low-income, developing nation has few exports the world demands, it may have a very weak currency, making it expensive to import much needed capital. A government policy that brings up the value of the currency may help make capital goods cheaper and give the country an advantage in its path towards growth and development.

PROS OF FIXED/MANAGED EXCHANGE RATES

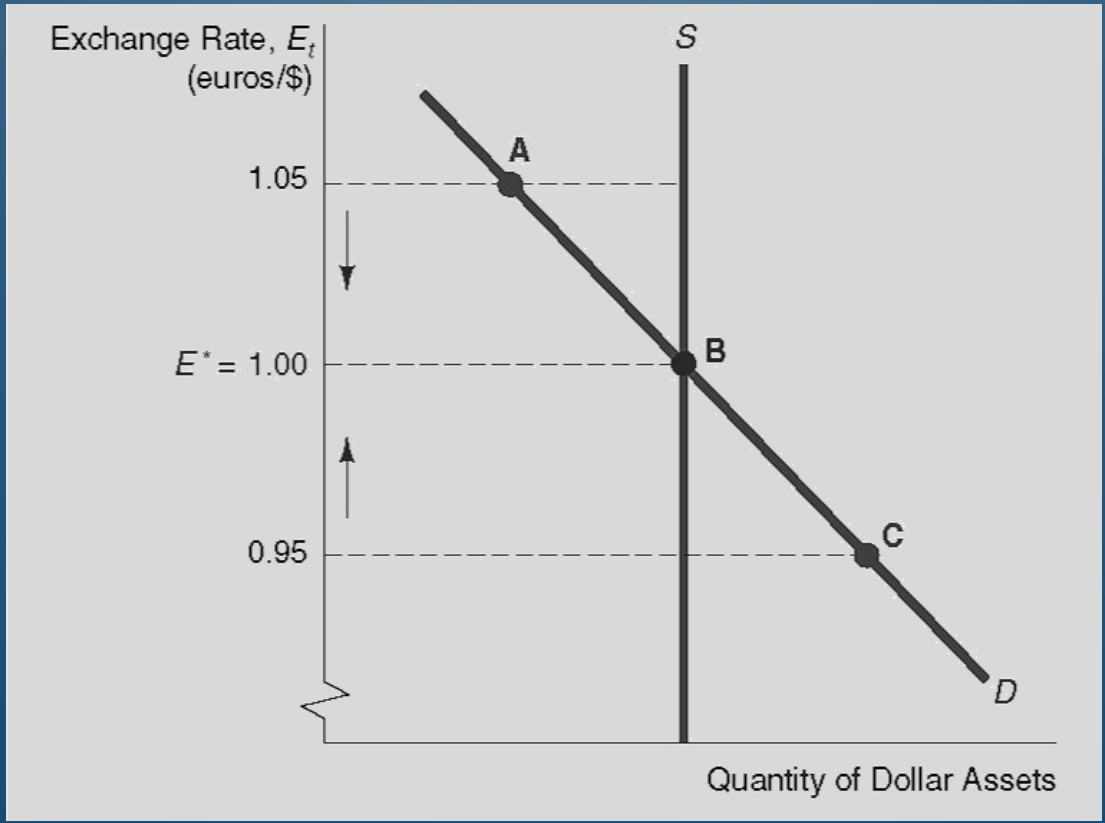
- Competitive trade advantage: A country that keeps its currency artificially weak, or under-valued against other currencies, is likely doing so in order to give its exporters a competitive advantage in international trade. A weak currency contributes to persistent current account surpluses and keeps employment and economic growth rates high.
- Investor confidence: When less developed countries are seeking foreign investors, a volatile, floating exchange rate may deter potential investment, reducing the country's growth potential. Managed, stable exchange rates may encourage foreign investors to put their money into the economy.

DEMAND AND SUPPLY

Recall the laws of demand and supply, which explain why demand slopes downwards and supply slopes upwards. In a forex market, the explanations for these relationships are as follows.

CHART: EQUILIBRIUM IN THE FOREX MARKET

Equilibrium occurs at point B, the intersection of the demand curve D and the supply curve S.



DEMAND AND SUPPLY

Demand for a currency is *inversely* related to the currency's value because as a currency becomes less expensive, so do the goods, services and assets of that country. Foreign consumers and investors will demand more of the country's goods, services and assets, therefore, they demand greater quantities of the currency as it depreciates. As dollars get cheaper, so do American goods and assets … so foreigners demand more.

DEMAND AND SUPPLY

Supply of a currency is *directly* related to the currency's value because as it appreciates, foreign goods become cheaper, so holders of the currency will supply greater quantities in order to buy more foreign goods, services and assets. As dollars get stronger, Americans want to buy more foreign goods … and so supply more dollars.

DEMAND AND SUPPLY

Remember: If an exchange rate is determined by supply and demand for a currency, and if supply or demand changes, the exchange rate changes as well.

WHO SUPPLIES AND WHO DEMANDS?

In a particular currency's forex market, both domestic stakeholders and foreign stakeholders play a role. For example, the market for US dollars in Britain:

American households, firms, banks and the government supply dollars to Britain, so that they can buy British goods, services, financial and real assets.

In the market for pounds in the US, the demand and supply are reversed. Americans demand pounds and British supply them.

British households, firms, banks and the British government demand dollars, which they wish to have in order to buy American goods, services, financial and real assets.

DETERMINANTS OF SUPPLY AND DEMAND FOR EXCHANGE RATES

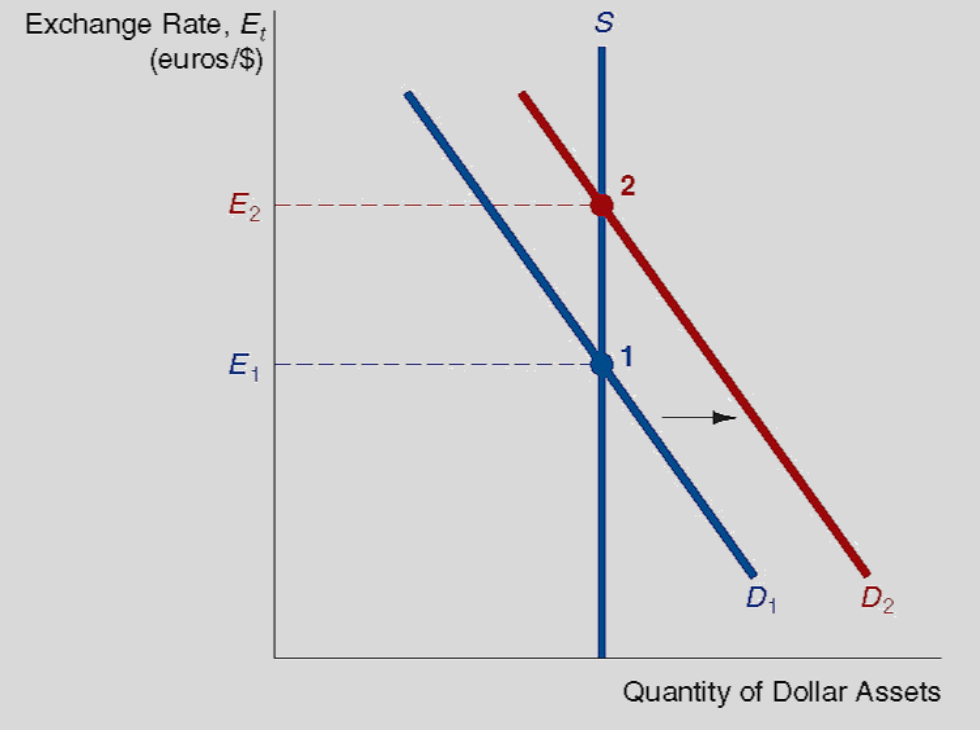
We know that exchange rates are determined by the demand for and supply of currencies. But what determines the demand and supply? There are several determinants. If any of those determinants change, the demand and supply of a currency will change and it will either appreciate or depreciate against other currencies.

DETERMINANTS OF SUPPLY AND DEMAND FOR EXCHANGE RATES

- Tastes and Preferences - As a country's exports become more popular among international consumers, demand for its currency will increase and the supply of other countries' currency in its forex market will increase.
- Relative Interest Rates - There is a *direct* relationship between the interest rates in a country and the value of its currency. At higher interest rates, foreigners will demand more financial assets from the country, and therefore more of the currency.

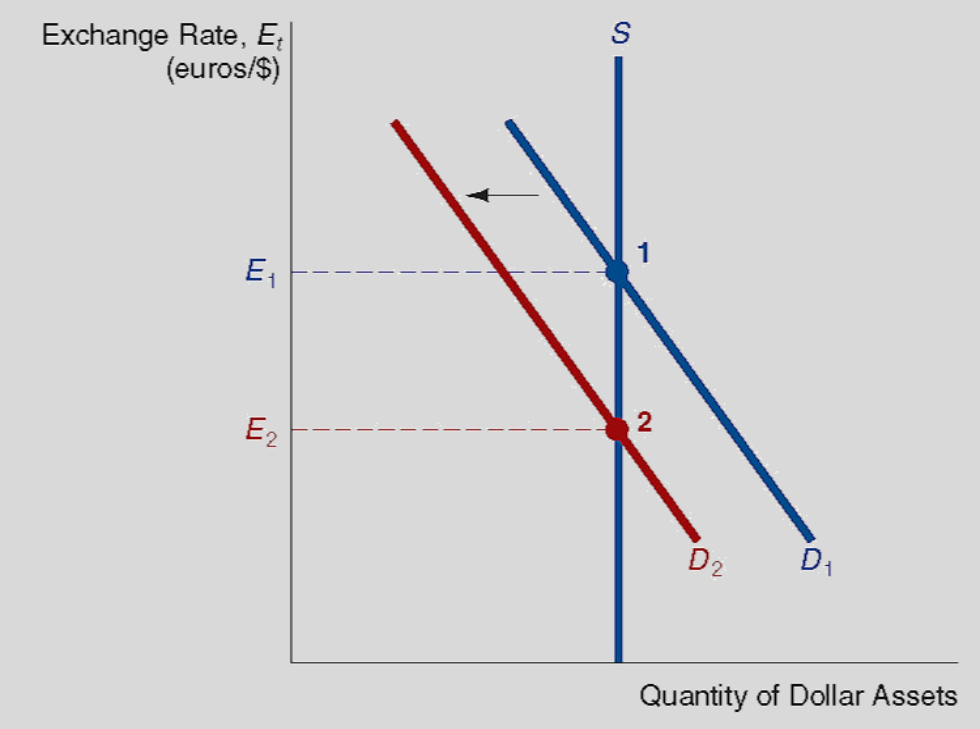
EXAMPLE: RESPONSE TO AN INCREASE IN THE DOMESTIC INTEREST RATE

When the domestic interest rate increases, the relative expected return on domestic (dollar) assets increases and the demand curve shifts to the right.



EXAMPLE: RESPONSE TO AN INCREASE IN A FOREIGN INTEREST RATE

When a foreign interest rate increases, the relative expected return on domestic (dollar) assets falls and the demand curve shifts to the left.



DETERMINANTS OF SUPPLY AND DEMAND FOR EXCHANGE RATES

- Relative Price Levels (or inflation rates) - If a country's inflation rate is high relative to its trading partners, demand for the country's exports will fall and demand for its currency will fall. If inflation is lower at home than abroad, foreigners will demand more of its exports and its currency.
- Speculation - If international financial investors expect a country's currency to appreciate in the future, demand for it will rise today. If a currency is expected to depreciate, demand for it will decrease today. Speculation is simply betting on the future value of an asset or currency.

DETERMINANTS OF SUPPLY AND DEMAND FOR EXCHANGE RATES

- Relative Incomes (or growth rates) - As incomes rise abroad, foreigners will demand more of a country's currency. If foreign incomes fall, there will be less demand for a country's exports and its currency. If domestic incomes rise, *ceteris paribus*, demand for foreign currencies will rise and the supply of the foreign currency will increase abroad as households wish to buy more imports.

DETERMINANTS OF EXCHANGE RATES

- Impact of inflation and deflation
- Trends in the balance of trade
- Government budget
- Changes in interest rate
- Economic growth
- Speculation
- Creditor vs debtor nations

DETERMINANTS OF EXCHANGE RATES

- Stock market operations
- Demand and supply for foreign exchange
- Demand for foreign goods and services
- Relative interest rates
- Relative inflation rates
- Speculation of a change in the value of a currency

DETERMINANTS OF EXCHANGE RATES

- Relative income levels (Higher incomes in one country lead to more demand for foreign goods and foreign currencies.)
- Convertibility - freely convertible: residents/non-residents allowed to purchase unlimited amounts of a foreign currency with the local currency, not freely convertible: residents/non-residents not allowed to purchase unlimited amounts of a foreign currency with the local currency

FLUCTUATIONS IN EXCHANGE RATES

- A market based exchange rate will change whenever the values of either of the two component currencies change.
- The higher a country's interest rates, the greater will be the demand for that currency.

APPRECIATION OF CURRENCY

Appreciation refers to an increase in the value of the domestic currency with respect to the foreign currency. It makes home goods more expensive for foreigners and foreign goods cheaper for domestic residents. Importers gain from appreciation of domestic currency and loose when it depreciates. Appreciation raises the relative price of its exports, lowers the relative price of its imports and raises the domestic currency return expected of foreign currency deposits. A rise in dollar interest rates causes the dollar to appreciate with respect to other currencies.

DEPRECIATION OF CURRENCY

Depreciation refers to a decrease in the value of the domestic currency with respect to the foreign currency. It makes home goods cheaper for foreigners and foreign goods more expensive for domestic residents. Exporters lose from appreciation and gain from depreciation. Depreciation lowers the relative price of its exports, raises the relative price of its imports and lowers the expected domestic currency return on foreign currency deposits. A rise in another currency's interest rates causes the dollar to depreciate with respect to that currency.

TABLE: THE ECONOMIC EFFECTS OF APPRECIATION AND DEPRECIATION

The table below outlines the likely effects on domestic macroeconomic conditions and on a nation's external balance of payments of both an appreciation and a depreciation of its currency.

	Inflation rate	Economic Growth	Unemployment rate	Balance of payments
As a result of appreciation	Inflation will be lower, since imported goods and services and raw materials are now cheaper	Growth will likely slow, since a stronger currency will reduce net exports, a components of AD	Unemployment could rise if net exports decline. Also, domestic firms may choose to move production overseas, where costs are now lower due to strong currency	The current account should move into deficit (since Xn will fall) and the financial account towards surplus, as financial and real assets become more attractive to foreign investors
As a result of depreciation	Inflation will increase, since imports are more expensive, and there could be cost-push inflation if raw material costs rise for producers	Growth should increase, since the country's exports are cheaper and more attractive to foreigners. AD will increase, leading to short-run growth	Unemployment should fall as net exports increase, shifting AD out. Domestic firms may choose to relocate some of their overseas production to the now cheaper domestic market	The current account should move towards surplus (since Xn will increase) and the financial account towards deficit, as financial and real assets become less attractive to foreign investors.

CURRENCY TRADING RULES

- Plan your trade and trade your plan.
- The trend is your friend.
- Focus on capital preservation.
- Know when to cut loss.
- Take profit when the trade is good.
- Be emotionless.
- Don’t trade based on a tip from a friend or broker.

MISTAKES OF FOREIGN EXCHANGE TRADERS

- Trading out of boredom or anger
- Having unrealistic expectations
- Taking highly correlated trades
- Failing to use a stop
- Taking unnecessary risks
- Being too patient with losers and not patient enough with winners
- Being a possum trader (with a losing trade, deciding to shut off your computer or walk away with the hope that it will turn around if you stop watching it)

TRY THE FOLLOWING

Indicate whether each of the following creates a *demand* for or a *supply* of European Euros in foreign exchange markets:

a. A US airline firm purchases several Airbus planes assembled in France.

b. A Gran automobile firm decides to build an assembly plant in South Carolina.

c. A US college student decides to spend a year studying at the Sorbonne.

d. An Italian manufacturer ships machinery from one Italian port to another on a Liberian freighter.

e. The US economy grows faster than the French economy.

f. A US government bond held by a Spanish citizen matures and the loan is paid back to that person.

g. It is widely believed that the Swiss franc will fall in the near future.

HOW DID YOU DO?

- Answers:
  - A demand for Euros is created in (a), (c), (e), (f) and (g). Note: Answer for (e) assumes US demand for French goods will grow faster than French imports of US goods, for (g) assumes some holders of francs will buy Euros instead (Switzerland is not in the EU.).
  - A supply of Euros is created in (b) and (d).

THE END