CHAPTER 2: THE INTERNATIONAL MONETARY SYSTEM

1. The gold standard and the money supply. Under the gold standard all national governments promised to follow the "rules of the game". This meant defending a fixed exchange rate. What did this promise imply about a country's money supply?

A country's money supply was limited to the amount of gold held by its central bank or treasury. For example, if a country had 1,000,000 ounces of gold and its fixed rate of exchange was 100 local currency units per ounce of gold, that country could have 100,000,000 local currency units outstanding. Any change in its holdings of gold needed to be matched by a change in the number of local currency units outstanding.

2. Causes of devaluation. If a country follows a fixed exchange rate regime, what macroeconomic variables could cause the fixed exchange rate to be devalued?

The following macroeconomic variables could cause the fixed exchange rate to be devalued:

- An interest rate that is too low compared to other competing currencies
- A continuing balance of payments deficit
- An inflation rate consistently higher than in other countries

3. Fixed versus flexible exchange rates. What are the advantages and disadvantages of fixed exchange rates?

- Fixed rates provide stability in international prices for the conduct of trade. Stable prices aid in the growth of international trade and lessen risks for all businesses.
- Fixed exchange rates are inherently anti-inflationary, requiring the country to follow restrictive monetary and fiscal policies. This restrictiveness, however, can often be a burden to a country wishing to pursue policies that alleviate continuing internal economic problems, such as high unemployment or slow economic growth.
- Fixed exchange rate regimes necessitate that central banks maintain large quantities of international reserves (hard currencies and gold) for use in the occasional defense of the fixed rate. As international currency markets have grown rapidly in size and volume, increasing reserve holdings has become a significant burden to many nations.
- Fixed rates, once in place, may be maintained at rates that are inconsistent with economic fundamentals. As the structure of a nation's economy changes, and as its trade relationships and balances evolve, the exchange rate itself should change. Flexible exchange rates allow this to happen gradually and efficiently, but fixed rates must be changed administratively—usually too late, too highly publicized, and at too large a one-time cost to the nation's economic health.

4. The Impossible Trinity. Explain what is meant by the term "Impossible Trinity" and why it is true.

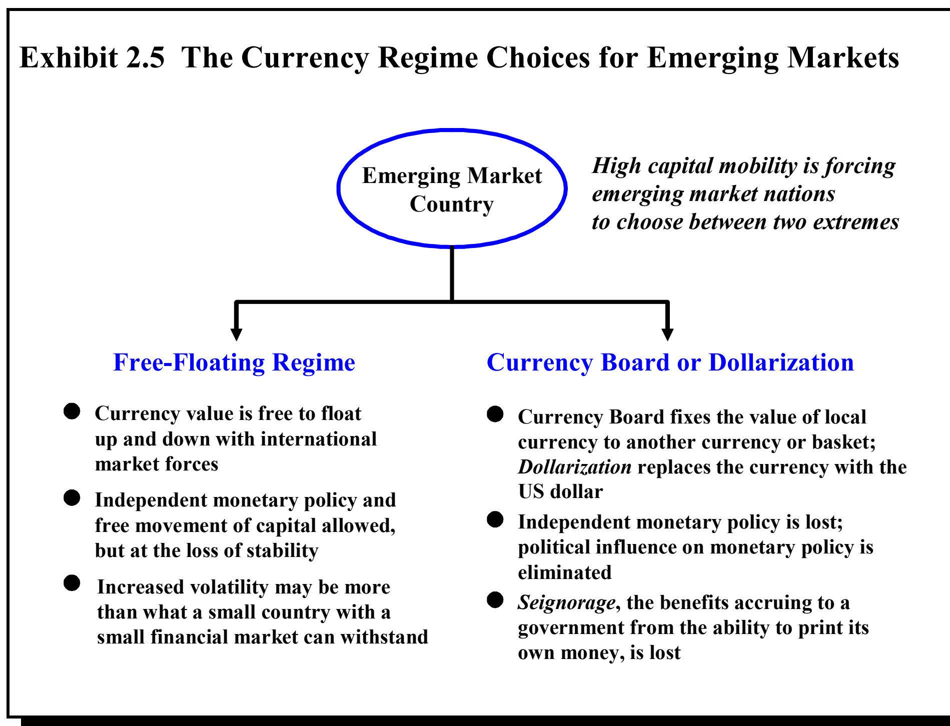
- Countries with floating rate regimes can maintain monetary independence and financial integration but must sacrifice exchange rate stability.
- Countries with tight control over capital inflows and outflows can retain their monetary independence and stable exchange rate, but surrender being integrated with the world's capital markets.
- Countries that maintain exchange rate stability by having fixed rates give up the ability to have an independent monetary policy.

5. Currency board or dollarization. Fixed exchange rate regimes are sometimes implemented through a *currency board* (Hong Kong) or *dollarization* (Ecuador). What is the difference between the two approaches?

In a currency board arrangement, the country issues its own currency but that currency is backed 100% by foreign exchange holdings of a hard foreign currency – usually the U.S. dollar. In dollarization, the country abolishes its own currency and uses a foreign currency, such as the U.S. dollar, for all domestic transactions.

6. Emerging market exchange rate regimes. High capital mobility is forcing emerging market nations to choose between free-floating regimes and currency board or dollarization regimes. What are the main outcomes of each of these regimes from the perspective of emerging market nations?

There is no doubt that for many emerging markets a currency board, dollarization, and freely-floating exchange rate regimes are all extremes. In fact, many experts feel that the global financial marketplace will drive more and more emerging market nations towards one of these extremes. As illustrated by Exhibit 2.5, there is a distinct lack of "middle ground" left between rigidly fixed and freely floating. In anecdotal support of this argument, a poll of the general population in Mexico in 1999 indicated that 9 out of 10 people would prefer dollarization over a floating-rate peso. Clearly, there are many in the emerging markets of the world who have little faith in their leadership and institutions to implement an effective exchange rate policy.



7. Argentine currency board. How did the Argentine currency board function from 1991 to January 2002 and why did it collapse?

Argentina's currency board exchange regime of fixing the value of its peso on a one-to-one basis with the U.S. dollar ended for several reasons:

a) As the U.S. dollar strengthened against other major world currencies, including the euro, during the 1990s, Argentine export prices rose vis-à-vis the currencies of its major trading partners.
b) This problem was aggravated by the devaluation of the Brazilian real in the late 1990s.
c) These two problems, in turn, led to continued trade deficits and a loss of foreign exchange reserves by the

Argentine central bank. (4) This problem, in turn, led Argentine residents to flee from the peso and into the dollar, further worsening Argentina's ability to maintain its one-to-one peg.

8. The euro. On January 4, 1999, 11 member states of the European Union initiated the European Monetary Union (EMU) and established a single currency, the *euro*, which replaced the individual currencies of participating member states. Describe three of the main ways that the euro affects the members of the EMU.

The euro affects markets in three ways: 1) countries within the euro zone enjoy cheaper transaction costs; 2) currency risks and costs related to exchange rate uncertainty are reduced; and 3) all consumers and businesses both inside and outside the euro zone enjoy price transparency and increased price-based competition.

9. Mavericks. The United Kingdom, Denmark, and Sweden have chosen not to adopt the *euro* but rather maintain their individual currencies. What are the motivations of each of these three countries that are also members of the European Union?

The United Kingdom chose not to adopt the euro because of the extensive use of the U.K. pound in international trade and financial transactions. London is still the world's most important financial center. The British are also very proud of their long tradition in financial matters when "Britannia ruled the waves." They are afraid that monetary and financial matters may eventually migrate to Frankfurt where the European Central Bank is located. The British are also worried about continued concentration of decision making in Brussels where the main European Union institutions are located.

Denmark is also worried about losing its economic independence as a small country surrounded by big neighbors. Denmark's currency, the krone, is mostly tied to the euro anyway, so it does not suffer a misalignment with the primary currency unit of the surrounding economies.

Sweden has strong economic ties to Denmark, Norway, and the United Kingdom, none of which adopted the euro so far. Sweden, like the others, are afraid of over concentration of power within European Union institutions.

Despite popular fears and a certain amount of nationalism, all three countries have strong fores within that would like these countries to adopt the euro. This would usually require popular referendums, so you may see them adopt the euro in the future.

10. International Monetary Fund (IMF). The IMF was established by the Bretton Woods Agreement (1944). What were its original objectives?

The IMF was established to render temporary assistance to member countries trying to defend the value of their currencies against cyclical, seasonal, or random occurrences. Additionally it was to assist countries having structural trade problems. More recently it has attempted to help countries, such as Russia, Brazil, Argentina, and Indonesia to resolve financial crises.

11. Special Drawing Rights. What are the *Special Drawing Rights*?

The Special Drawing Right (SDR) is an international reserve asset created by the IMF to supplement existing foreign exchange reserves. It serves as a unit of account for the IMF and other international and regional organizations, and is also the base against which some countries peg the exchange rate for their currencies.

Defined initially in terms of a fixed quantity of gold, the SDR has been redefined several times. It is currently the weighted value of currencies of the five IMF members having the largest exports of goods and services. Individual countries hold SDRs in the form of deposits in the IMF. These holdings are part of each country's

international monetary reserves, along with official holdings of gold, foreign exchange, and its reserve position at the IMF. Members may settle transactions among themselves by transferring SDRs.

12. Definitions. Define the following currency terms:

a. devaluation of a currency refers to a drop in foreign exchange value of a currency that is pegged to gold or to another currency
b. revaluation of a currency refers to an increase in foreign exchange value of a currency that is pegged to gold or to another currency
c. depreciation of a currency refers to a drop in the foreign exchange value of a floating currency
d. appreciation of a currency refers to an increase in the foreign exchange value of a floating currency
e. soft or weak describes a currency that we expect to devalue or depreciate relative to other major currencies
f. hard or strong describes a currency that we expect to revalue or appreciate relative to other major trading currencies
g. eurodollar is a U.S. dollar-denominated interest-bearing deposit in a bank outside of the United States
h. euroyen is a Japanese yen-denominated interest-bearing deposit in a bank outside of Japan

13. Exchange rate regime classifications. The IMF classifies all exchange rate regimes into eight specific categories that are summarized in this chapter. Under which exchange rate regime would you classify the following countries?

a. France: Exchange arrangements with no separate legal tender
b. The United States: independent floating
c. Japan: independent floating
d. Thailand: managed floating with no pre-announced path for the exchange rate. Prior to the Asian Crisis of 1997 it was tied to the U.S. dollar.

14. The ideal currency. What are the attributes of the ideal currency?

If the ideal currency existed in today's world, it would possess three attributes, often referred to as *The Impossible Trinity*:

1) Exchange rate stability. The value of the currency would be fixed in relationship to other major currencies so traders and investors could be relatively certain of the foreign exchange value of each currency in the present and into the near future.

2) Full financial integration. Complete freedom of monetary flows would be allowed, so traders and investors could willingly and easily move funds from one country and currency to another in response to perceived economic opportunities or risks.

3) Monetary independence. Domestic monetary and interest rate policies would be set by each individual country to pursue desired national economic policies, especially as they might relate to limiting inflation, combating recessions, and fostering prosperity and full employment.

15. Bretton Woods failure. Why did the fixed exchange rate regime of 1945-1973 eventually fail?

The fixed exchange rate regime of 1945-1973 failed because of widely diverging national monetary and fiscal policies, differential rates of inflation, and various unexpected external shocks. The U.S. dollar was the main reserve currency held by central banks was the key to the web of exchange rate values. The United States ran persistent and growing deficits in its balance of payments requiring a heavy outflow of dollars to finance the deficits. Eventually the heavy overhang of dollars held by foreigners forced the United States to devalue the dollar because the U.S. was no longer able to guarantee conversion of dollars into its diminishing store of gold.

16. Inter-war float. What was the experience with floating exchange rates during the inter-war years and World War II, 1914-1944?

During the inter-war years (1914-1944) flexible exchange rates did not work in an equilibrating manner. Speculators drove currencies up or down past their real economic values, destabilizing international economic relationships. The net result was that trade did not grow, thus worsening the great depression of the 1930s.