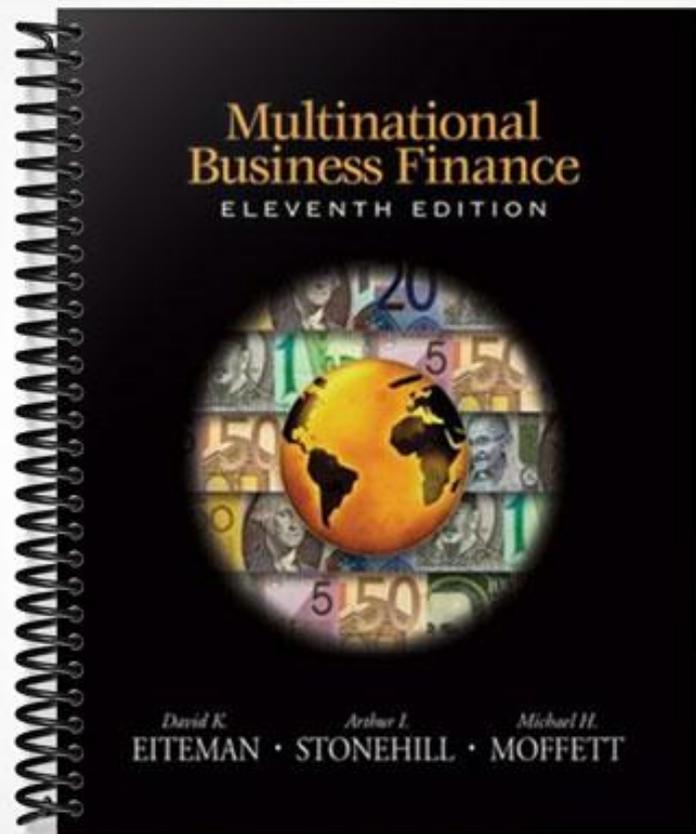


SOLUTIONS MANUAL



Chapter 2

The International Monetary System

■ End-of-Chapter Questions

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?

Answer: 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?

Answer: 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?

Answer:

- 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 concept of the “impossible trinity” and why it is accurate?

Answer:

- 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.

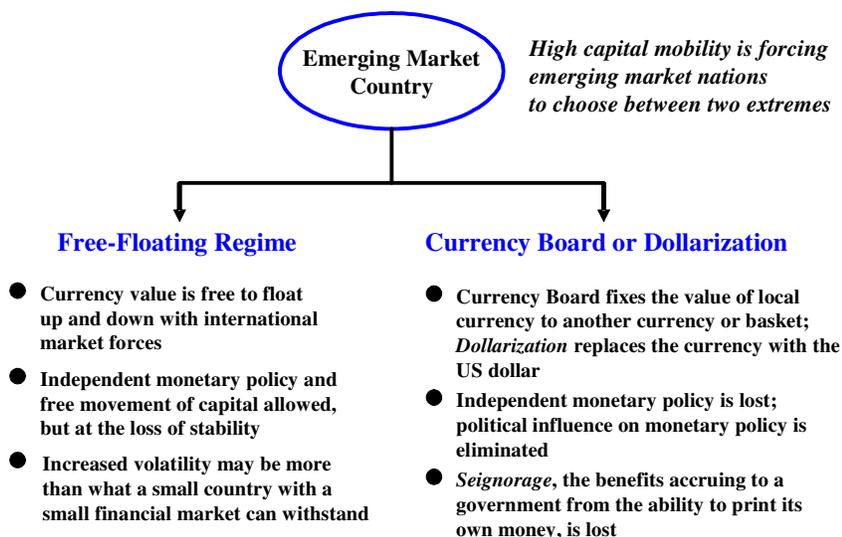
5. Currency board or dollarization. Fixed exchange rate regimes are sometimes implemented through a *currency board* (Hong Kong) or *dollarization* (Ecuador). What is the difference between the two approaches?

Answer: 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?

Answer: 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.

Exhibit 2.5 The Currency Regime Choices for Emerging Markets



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

Answer: 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.
 - (d) 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.

Answer: 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 to maintain their individual currencies. What are the motivations of each of these three countries that are also members of the EU?

Answer: 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 forces 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?

Answer: 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 Special Drawing Rights?

Answer: 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. 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 each of the following countries?

Answer: (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.

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

Answer: 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.

14. EU and euro expansion. With so many new countries joining the EU in 2004, when will they officially move to the euro—if ever. Will the new member states of the EU automatically join the Euro?

Global Finance in Practice 2.2

EU Expected			
Country	Currency	Entry Date	Current Exchange Rate Regime
Cyprus	Pound	2007	Pegged to the euro
Czech Republic	koruna	2009/10	Free floating, references the euro
Estonia	kroon	2007	Pegged to the euro in early 1999
Hungary	forint	2009/10	ERM-II type band since May 2001
Latvia	lat	2008	Pegged to the IMF's SDR since 1994
Lithuania	lita	2007	Pegged to the euro since February 2002
Malta	lira	2007/08	Pegged to a basket (70% euro, 20% sterling, 10% dollar)
Poland	zloty	2008/09	Free floating since April 2000
Slovakia	koruna	2009	Free floating since October 1998
Slovenia	tolar	2008	Managed float, euro reference rate

Answer: The ten new Member States acceding to the EU on 1 May 2004 (Czech Republic, Estonia, Cyprus, Latvia, Lithuania, Hungary, Malta, Poland, Slovenia and Slovakia) will not automatically adopt the euro by joining the EU. They will only do so once they have achieved the high degree of sustainable economic convergence with the euro area required for membership of the single currency.

They will thus need to fulfil the same Maastricht convergence criteria which were applied to the existing euro area members, namely a high degree of price stability, sustainable government finances (in terms of both public deficit and public debt levels), a stable exchange rate, and convergence in long term interest rates. There is no pre-defined timetable for adoption of the euro by the new Member States, but the levels of convergence required for membership will be assessed by the Council of the EU on a proposal from the European Commission and on the basis of convergence reports by the Commission and the European Central Bank. These reports are produced at least every two years or at the request of a Member State wishing to adopt the euro.

Sources: "EU Enlargement and the Adoption of the Euro," *AIG Global Treasury*, Economic Research Unit; The euro homepage.
http://europa.eu.int/comm/economy_finance/euro/faqs/faqs_19_en.htm. Accessed May 19, 2004.

■ Mini-Case: The Revaluation of the Chinese Yuan

1. Many Chinese critics had urged China to revalue the yuan by 20% or more. What would the Chinese yuan's value be in U.S. dollars if it had indeed been revalued by 20%?

Answer: If the yuan had been revalued to Yuan 6.90/\$, it would have constituted an increase in its value by 20% against the U.S. dollar:

$$\frac{\text{Yuan } 8.28/\$ - \text{Yuan } 6.90/\$}{\text{Yuan } 6.90/\$} \times 100 = 20.0\%$$

2. Do you believe that the revaluation of the Chinese yuan was politically or economically motivated?

Answer: This is a matter of opinion. The primary pressure on China to revalue the yuan was, however, political in nature. China's current account surplus and financial account surplus allows it significant room for currency management. By revaluing the currency, although minor in size initially, it did show the Chinese government's willingness to listen to some of its critics.

3. If the Chinese yuan were to change by the maximum allowed per day, 0.3% against the U.S. dollar, consistently over a 30 or 60 day period, what extreme values might it reach?

Answer: All the following outcomes follow the calculation as shown here for the 30 day revaluation:

$$\text{Value at end of 30 - days} = \frac{\text{Yuan } 8.11/\$}{(1 + 0.003)^{30}} = \text{Yuan } 7.41/\$.$$

- If the yuan were to *revalue* by 0.3% per day for 30 days against the U.S. dollar, assuming an initial value of Yuan 8.11/\$, its value at the end of 30 days would be Yuan 7.41/\$. If the yuan were to *revalue* by 0.3% per day for 60 days against the U.S. dollar, assuming an initial value of Yuan 8.11/\$, its value at the end of 60 days would be Yuan 6.78/.
- If the yuan were to *devalue* by 0.3% per day for 30 days against the U.S. dollar, assuming an initial value of Yuan 8.11/\$, its value at the end of 30 days would be Yuan 8.87/\$. If the yuan were to *devalue* by 0.3% per day for 60 days against the U.S. dollar, assuming an initial value of Yuan 8.11/\$, its value at the end of 60 days would be Yuan 9.71/.

4. Chinese multinationals would now be facing the same exchange rate-related risks borne by U.S., Japanese, and European multinationals. What impact do you believe this rising risk will be on the strategy and operations of Chinese companies in the near-future?

Answer: Chinese multinationals will now increasingly face the multitude of currency risks—transaction exposure, operating exposure, and translation exposure—faced by multinational firms resident in floating currency markets like that of the United States, Japanese yen, and European euro. As the following chapters will describe, this rising currency risk will affect every dimension of their sales growth, profitability, and general competitiveness from this point onwards into the future. Life and business was certainly easier under the previous fixed exchange rate regime.