Chapter 13

Fixed versus Floating Exchange Rates

One of the big issues in international finance is the appropriate choice of a monetary system. Countries can choose between a floating exchange rate system and a variety of fixed exchange rate systems. Which system is better is explored in this chapter. However, rather than suggesting a definitive answer, the chapter highlights the pros and cons of each type of system, arguing in the end that both systems can and have worked in some circumstances and failed in others.

13.1 Overview of Fixed versus Floating Exchange Rates

LEARNING OBJECTIVE

1. Preview the discussion about fixed versus floating exchange rate systems.

This chapter addresses what is perhaps the most important policy issue in international finance: to have fixed or floating exchange rates. The chapter focuses on three main features that affect the choice of system: volatility and risk, inflationary consequences, and monetary autonomy.

Volatility and risk refers to the tendency for exchange rates to change and the effect these changes have on the risk faced by traders and investors. Although in floating exchange systems volatility is a natural day-to-day occurrence, even in fixed exchange systems, devaluations or revaluations make volatility an issue. This chapter compares the two systems in light of this issue.

Inflationary consequences are shown to be a major potential problem for countries with floating exchange rates. For many countries facing this problem, fixed exchange rate systems can provide relief. The section shows that the relationship between inflation and the exchange rate system is an important element in the choice of system.

Finally, monetary autonomy, and the ability to control the economy, is lost with the choice of fixed exchange rates. We discuss why this loss of autonomy can be problematic in some circumstances but not in others.

The chapter concludes by providing some answers to the policy question, “fixed or floating?”

KEY TAKEAWAYS

- Three main features affect the choice of the exchange rate system: volatility and risk, inflationary consequences, and monetary autonomy.
- The choice between fixed and floating exchange rates is one of the most important policy decisions in international finance.

EXERCISE

1. **Jeopardy Questions.** As in the popular television game show, you are given an answer to a question and you must respond with the question. For example, if the answer is "a tax on imports," then the correct question is "What is a tariff?"

    a. The choice between these two types of exchange rate systems is an important policy debate in international finance.
    b. This term describing the extent to which an exchange rate may vary over time is an important consideration in the choice of exchange rate systems.
    c. This term describing the likelihood of losing money is an important consideration in the choice of exchange rate systems.
    d. Fixed exchange rates are sometimes chosen to mitigate this kind of general price problem.
    e. This term describing the ability to influence the economy through monetary policy is an important consideration in the choice of exchange rate systems.

13.2 Exchange Rate Volatility and Risk

LEARNING OBJECTIVE

1. Learn how exchange rate volatility raises risk for international traders and investors.

Probably the most important characteristic of alternative exchange rate systems is the feature used to describe them, namely fixed or floating. Fixed exchange rates, by definition, are not supposed to change. They are meant to remain fixed, preferably permanently. Floating rates float up and down and down and up from year to year, week to week, and minute by minute. What a floating exchange rate will be a year from now, or even a week from now, is often very difficult to predict.

Volatility represents the degree to which a variable changes over time. The larger the magnitude of a variable change, or the more quickly it changes over time, the more volatile it is.

Since fixed exchange rates are not supposed to change—by definition—they have no volatility. Please note the cautious wording because fixed exchange rates are quite frequently devalued or revalued, implying that they can and do indeed change. However, we will explore this issue in more detail later. A floating exchange rate may or may not be volatile depending on how much it changes over time. However, since floating exchange rates are free to change, they are usually expected to be more volatile.

Volatile exchange rates make international trade and investment decisions more difficult because volatility increases exchange rate risk. **Exchange rate risk**[1] refers to the potential to lose money because of a change in the exchange rate. Below are two quick examples of how traders and investors may lose money when the exchange rate changes.

Exchange Rate Risk for Traders

1. Occurs when the profit in trade or the rate of return on an international investment can fall quickly because of a change in the exchange rate.

First consider a business that imports soccer balls into the United States. Suppose one thousand soccer balls purchased from a supplier in Pakistan costs 300,000 Pakistani rupees. At the current exchange rate of 60 Rs/$, it will cost the importer $5,000 dollars or $5 per soccer ball. The importer determines that transportation,

insurance, advertising, and retail costs will run about $5 per soccer ball. If the competitive market price for this type of soccer ball is $12, he will make a $2 profit per ball if all balls are sold.

Suppose the shipment is scheduled to occur in three months and that payment for the shipment need not be made until that time. Let's assume the importer waits to convert currency until the payment is made and that in three months' time the Pakistani rupee has appreciated to a new value of 55 Rs/$. The shipment cost in rupees remains the same at Rs 300,000, but the dollar value of the shipment rises to $5,454 or $5.45 per soccer ball. Assuming the same $5 of extra costs and a $12 final sale price, the importer will now make only $1.45 profit per soccer ball, if all balls are sold. While this is still a profit, it is about 25 percent less than expected when the decision to purchase was made three months before.

This is an example of the risk an importer faces because of a change in the currency value. Of course, it is true that the currency value could have changed in the opposite direction. Had the rupee value risen to 65 Rs/$, the shipment value would have cost just $4,615, or $4.62 per ball, generating a profit of $2.38 per soccer ball. In this case, the currency moves in the importer's favor. Thus a volatile exchange rate will sometimes lead to greater losses than expected, and at other times, to greater gains.

There are several methods to protect oneself from this type of currency risk. The importer could have exchanged currency at the time the deal was struck and held his 300,000 rupees in a Pakistani bank until payment is made. However, this involves a substantial additional opportunity cost since the funds must be available beforehand and become unusable while they are held in a Pakistani bank account. Alternatively, the importer may be able to find a bank willing to write a forward exchange contract, fixing an exchange rate today for an exchange to be made three months from now.

In any case, it should be clear that exchange rate fluctuations either increase the risk of losses relative to plans or increase the costs to protect against those risks.

Exchange Rate Risk for Investors

Volatile exchange rates also create exchange rate risk for international investors. Consider the following example. Suppose in October 2004, a U.S. resident decides to invest (i.e., save) $10,000 for the next year. Given that the U.S. dollar had been weakening with respect to the Danish krone for several years and since the interest rate on a money market deposit was slightly higher in Denmark at 2.25 percent compared to the 1.90 percent return in the United States, the investor decides to

put the $10,000 into the Danish account. At the time of the deposit, the exchange rate sits at 5.90 kr/$. In October 2005, the depositor cashes in and converts the money back to U.S. dollars. The exchange rate in October 2005 was 6.23 kr/$. To determine the return on the investment we can apply the rate of return formula derived in Chapter 4 "Foreign Exchange Markets and Rates of Return", Section 4.3 "Calculating Rate of Returns on International Investments" and Chapter 4 "Foreign Exchange Markets and Rates of Return", Section 4.4 "Interpretation of the Rate of Return Formula":

$$RoR_{\text{kr}} = i_{\text{kr}} + (1 + i_{\text{kr}}) \frac{\frac{1}{E^{2005}_{\text{kr/\$}}} - \frac{1}{E^{2004}_{\text{kr/\$}}}}{\frac{1}{E^{2004}_{\text{kr/\$}}}}$$

$$= .0225 + (1 + .0225) \frac{\frac{1}{6.23} - \frac{1}{5.90}}{\frac{1}{5.90}}$$

$$= -0.0317 \times 100 = -3.17\%$$

The rate of return works out to be negative, which means that instead of making money on the foreign deposit, this investor actually loses $317. Had he deposited the $10,000 in a U.S. account, he would have had a guaranteed return of 1.90 percent, earning him $190 instead.

By depositing in a foreign account, the depositor subjected himself to exchange rate risk. The dollar unexpectedly appreciated during the year, resulting in a loss. Had the dollar remain fixed in value during that same time, the foreign return would have been 2.25 percent, which is larger than that obtained in the United States.

Thus fluctuating exchange rates make it more difficult for investors to know the best place to invest. One cannot merely look at what the interest rate is across countries but must also speculate about the exchange rate change. Make the wrong guess about the exchange rate movement and one could lose a substantial amount of money.

There are some ways to hedge against exchange rate risk. For example, with short-term deposits, an investor can purchase a forward contract or enter a futures market. In these cases, the investor would arrange to sell Danish krone in the future when the deposit is expected to be converted back to dollars. Since the future exchange rate is predetermined on such a contract, the rate of return is guaranteed

as well. Thus the risk of floating exchange rates can be reduced. However, for long-term investment such as foreign direct investment, these types of arrangements are more difficult and costly to implement.

Volatility and the Choice of Exchange Rate System

On the face of it, floating exchange rates would appear to be riskier than fixed rates since they are free to change regularly. For this reason, countries may choose fixed exchange rates to reduce volatility and thus to encourage international trade and investment.

The problem with this perception is that it has not worked out this way in practice. A 2004 International Monetary Fund (IMF) studyPeter Clark, Natalia Tamirisa, and Shang-Jin Wei, "Exchange Rate Volatility and Trade Flows—Some New Evidence," International Monetary Fund, May 2004[0], http://www.imf.org/external/np/res/exrate/2004/eng/051904.pdf. notes that on average, during the 1970s, 1980s, and 1990s, the volatility of fixed exchange rates was approximately the same as that of floating rates. There are two reasons this can occur. First, a currency fixed to another reserve currency will continue to float against other currencies. Thus when China pegged its currency to the U.S. dollar, it continued to float with the dollar vis-à-vis the euro. Second, it is common for fixed currencies to be devalued or revalued periodically, sometimes dramatically. When this happens, the effects of volatility are concentrated in a very short time frame and can have much larger economic impacts.

The second thing noted by this study is that volatility had only a small effect on bilateral international trade flows, suggesting that the choice of exchange rate system on trade flows may be insignificant. However, the study does not consider the effects of volatility on international investment decisions. Other studies do show a negative relationship between exchange rate volatility and foreign direct investment. But if these results were true and fixed exchange rates are just as volatile as floating rates, then there is no obvious exchange system "winner" in terms of the effects on volatility. Nevertheless, volatility of exchange rate systems remains something to worry about and consider in the choice of exchange rate systems.

KEY TAKEAWAYS

- Volatile exchange rates make international trade and investment decisions more difficult because volatility increases exchange rate risk.
- Volatile exchange rates can quickly and significantly change the expected rates of return on international investments.
- Volatile exchange rates can quickly and significantly change the profitability of importing and exporting.
- Despite the expectation that fixed exchange rates are less volatile, a 2004 IMF study notes that on average, during the 1970s, 1980s, and 1990s, the volatility of fixed exchange rates was approximately the same as that of floating rates.

EXERCISES

1. **Jeopardy Questions.** As in the popular television game show, you are given an answer to a question and you must respond with the question. For example, if the answer is "a tax on imports," then the correct question is "What is a tariff?"

    a. This term describes the unpredictable movement of an exchange rate.
    b. Of *increase*, *decrease*, or *no change*, the effect on an importer's profits if he waits to exchange currency and the foreign currency rises in value vis-à-vis the domestic currency in the meantime.
    c. Of *increase*, *decrease*, or *no change*, the effect on an importer's profits if he waits to exchange currency and the domestic currency falls in value vis-à-vis the foreign currency in the meantime.
    d. Of *increase*, *decrease*, or *no change*, the effect on an investor's rate of return on foreign assets if the foreign currency rises in value more than expected vis-à-vis the domestic currency after purchasing a foreign asset.
    e. Of *increase*, *decrease*, or *no change*, the effect on an investor's rate of return on foreign assets if the foreign currency falls in value less than expected vis-à-vis the domestic currency after purchasing a foreign asset.

2. Between 2007 and 2008, the U.S. dollar depreciated significantly against the euro. Answer the following questions. Do not use graphs to explain. A one- or two-sentence verbal explanation is sufficient.

    a. Explain whether European businesses that compete against U.S. imports gain or lose because of the currency change.
    b. Explain whether European businesses that export their products to the United States gain or lose because of the currency change.
    c. Explain whether European investors who purchased U.S. assets one year ago gain or lose because of the currency change.

13.3 Inflationary Consequences of Exchange Rate Systems

LEARNING OBJECTIVE

1. Learn how a fixed exchange rate system can be used to reduce inflation.

One important reason to choose a system of fixed exchange rates is to try to dampen inflationary tendencies. Many countries have (over time) experienced the following kind of situation. The government faces pressure from constituents to increase spending and raise transfer payments, which it does. However, it does not finance these expenditure increases with higher taxes since this is very unpopular. This leads to a sizeable budget deficit that can grow over time. When the deficits grow sufficiently large, the government may become unable to borrow additional money without raising the interest rate on bonds to unacceptably high levels. An easy way out of this fiscal dilemma is to finance the public deficits with purchases of bonds by the country's central bank. In this instance, a country will be financing the budget deficit by monetizing the debt, also known as printing money. New money means an increase in the domestic money supply, which will have two effects.

The short-term effect will be to lower interest rates. With free capital mobility, a reduction in interest rates will make foreign deposits relatively more attractive to investors and there is likely to be an increase in supply of domestic currency on the foreign exchange market. If floating exchange rates are in place, the domestic currency will depreciate with respect to other currencies. The long-term effect of the money supply increase will be inflation, if the gross domestic product (GDP) growth does not rise fast enough to keep up with the increase in money. Thus we often see countries experiencing a rapidly depreciating currency together with a rapid inflation rate. A good example of this trend was seen in Turkey during the 1980s and 1990s.

One effective way to reduce or eliminate this inflationary tendency is to fix one's currency. A fixed exchange rate acts as a constraint that prevents the domestic money supply from rising too rapidly. Here's how it works.

Suppose a country fixes its currency to another country—a reserve country. Next, imagine that the same circumstances from the story above begin to occur. Rising budget deficits lead to central bank financing, which increases the money supply of the country. As the money supply rises, interest rates decrease and investors begin

to move savings abroad, and so there is an increase in supply of the domestic currency on the foreign exchange market. However, now the country must prevent the depreciation of the currency since it has a fixed exchange rate. This means that the increase in supply of domestic currency by private investors will be purchased by the central bank to balance supply and demand at the fixed exchange rate. The central bank will be running a balance of payments deficit in this case, which will result in a reduction in the domestic money supply.

This means that as the central bank prints money to finance the budget deficit, it will simultaneously need to run a balance of payments deficit, which will soak up domestic money. The net effect on the money supply should be such as to maintain the fixed exchange rate with the money supply rising proportionate to the rate of growth in the economy. If the latter is true, there will be little to no inflation occurring. Thus a fixed exchange rate system can eliminate inflationary tendencies.

Of course, for the fixed exchange rate to be effective in reducing inflation over a long period, it will be necessary that the country avoid devaluations. Devaluations occur because the central bank runs persistent balance of payments deficits and is about to run out of foreign exchange reserves. Once the devaluation occurs, the country will be able to support a much higher level of money supply that in turn will have a positive influence on the inflation rate. If devaluations occur frequently, then it is almost as if the country is on a floating exchange rate system in which case there is no effective constraint on the money supply and inflation can again get out of control.

To make the fixed exchange rate system more credible and to prevent regular devaluation, countries will sometime use a currency board arrangement. With a currency board, there is no central bank with discretion over policy. Instead, the country legislates an automatic exchange rate intervention mechanism that forces the fixed exchange rate to be maintained.

For even more credibility, countries such as Ecuador and El Salvador have dollarized their currencies. In these cases, the country simply uses the other country's currency as its legal tender and there is no longer any ability to print money or let one's money supply get out of control.

However, in other circumstances fixed exchange rates have resulted in more, rather than less, inflation. In the late 1960s and early 1970s, much of the developed world was under the Bretton Woods system of fixed exchange rates. The reserve currency was the U.S. dollar, meaning that all other countries fixed their currency value to the U.S. dollar. When rapid increases in the U.S. money supply led to a surge of inflation in the United States, the other nonreserve countries like Britain, Germany,

France, and Japan were forced to run balance of payments surpluses to maintain their fixed exchange rates. These BoP surpluses raised these countries' money supplies, which in turn led to an increase in inflation. Thus, in essence, U.S. inflation was exported to many other countries because of the fixed exchange rate system.

The lesson from these stories is that sometimes fixed exchange rates tend to lower inflation while at other times they tend to increase it. The key is to fix your currency to something that is not likely to rise in value (inflate) too quickly. In the 1980 and 1990s, when the European **Exchange Rate Mechanism**[2] (ERM) was in place, countries were in practice fixed to the German deutschmark. Since the German central bank was probably the least prone to inflationary tendencies, all other European countries were able to bring their inflation rates down substantially due to the ERM system. However, had the countries fixed to the Italian lira, inflation may have been much more rapid throughout Europe over the two decades.

Many people propose a return to the gold standard precisely because it fixes a currency to something that is presumed to be steadier in value over time. Under a gold standard, inflation would be tied to the increase in monetary gold stocks. Because gold is strictly limited in physical quantity, only a limited amount can be discovered and added to gold stocks each year, Thus inflation may be adequately constrained. But because of other problems with a return to gold as the monetary support, a return to this type of system seems unlikely.

KEY TAKEAWAYS

- A fixed exchange rate can act as a constraint to prevent the domestic money supply from rising too rapidly (i.e., if the reserve currency country has noninflationary monetary policies).
- Adoption of a foreign country's currency as your own is perhaps the most credible method of fixing the exchange rate.
- Sometimes, as in the Bretton Woods system, a fixed exchange rate system leads to more inflation. This occurs if the reserve currency country engages in excessively expansionary monetary policy.
- A gold standard is sometimes advocated precisely because it fixes a currency to something (i.e., gold) that is presumed to be more steady in value over time.

2. An exchange rate system used within the European Union to maintain exchange rates within a specific band around a predetermined central exchange rate.

EXERCISE

1. **Jeopardy Questions.** As in the popular television game show, you are given an answer to a question and you must respond with the question. For example, if the answer is "a tax on imports," then the correct question is "What is a tariff?"

    a. Hyperactivity in this aggregate variable is often a reason countries turn to fixed exchange rates.
    b. If a country fixes its exchange rate, it effectively imports this policy from the reserve country.
    c. A country fixing its exchange rate can experience high inflation if this country also experiences high inflation.
    d. Of *relatively low* or *relatively high*, to limit inflation a country should choose to fix its currency to a country whose money supply growth is this.
    e. The name for the post–World War II exchange rate system that demonstrated how countries fixing their currency could experience high inflation.

13.4 Monetary Autonomy and Exchange Rate Systems

LEARNING OBJECTIVE

1. Learn how floating and fixed exchange rate systems compare with respect to monetary autonomy.

Monetary autonomy[3] refers to the independence of a country's central bank to affect its own money supply and conditions in its domestic economy. In a floating exchange rate system, a central bank is free to control the money supply. It can raise the money supply when it wishes to lower domestic interest rates to spur investment and economic growth. By doing so it may also be able to reduce a rising unemployment rate. Alternatively, it can lower the money supply, to raise interest rates and to try to choke off excessive growth and a rising inflation rate. With monetary autonomy, monetary policy is an available tool the government can use to control the performance of the domestic economy. This offers a second lever of control, beyond fiscal policy.

In a fixed exchange rate system, monetary policy becomes ineffective because the fixity of the exchange rate acts as a constraint. As shown in Chapter 12 "Policy Effects with Fixed Exchange Rates", Section 12.2 "Monetary Policy with Fixed Exchange Rates", when the money supply is raised, it will lower domestic interest rates and make foreign assets temporarily more attractive. This will lead domestic investors to raise demand for foreign currency that would result in a depreciation of the domestic currency, if a floating exchange rate were allowed. However, with a fixed exchange rate in place, the extra demand for foreign currency will need to be supplied by the central bank, which will run a balance of payments deficit and buy up its own domestic currency. The purchases of domestic currency in the second stage will perfectly offset the increase in money in the first stage, so that no increase in money supply will take place.

Thus the requirement to keep the exchange rate fixed constrains the central bank from using monetary policy to control the economy. In other words, the central bank loses its autonomy or independence.

In substitution, however, the government does have a new policy lever available in a fixed system that is not available in a floating system, namely exchange rate policy. Using devaluations and revaluations, a country can effectively raise or lower the money supply level and affect domestic outcomes in much the same way as it

3. Refers to the independence of a country's central bank to affect its own money supply and conditions in its domestic economy.

might with monetary policy. However, regular exchange rate changes in a fixed system can destroy the credibility in the government to maintain a truly “fixed” exchange rate. This in turn could damage the effect fixed exchange rates might have on trade and investment decisions and on the prospects for future inflation.

Nonetheless, some countries do apply a semifixed or semifloating exchange rate system. A crawling peg, in which exchange rates are adjusted regularly, is one example. Another is to fix the exchange rate within a band. In this case, the central bank will have the ability to control the money supply, up or down, within a small range, but will not be free to make large adjustments without breaching the band limits on the exchange rate. These types of systems provide an intermediate degree of autonomy for the central bank.

If we ask which is better, monetary autonomy or a lack of autonomy, the answer is mixed. In some situations, countries need, or prefer, to have monetary autonomy. In other cases, it is downright dangerous for a central bank to have autonomy. The determining factor is whether the central bank can maintain prudent monetary policies. If the central bank can control money supply growth such that it has only moderate inflationary tendencies, then monetary autonomy can work well for a country. However, if the central bank cannot control money supply growth, and if high inflation is a regular occurrence, then monetary autonomy is not a blessing.

One of the reasons Britain has decided not to join the eurozone is because it wants to maintain its monetary autonomy. By joining the eurozone, Britain would give up its central bank’s ability to control its domestic money supply since euros would circulate instead of British pounds. The amount of euros in circulation is determined by the European Central Bank (ECB). Although Britain would have some input into money supply determinations, it would clearly have much less influence than it would for its own currency. The decisions of the ECB would also reflect the more general concerns of the entire eurozone rather than simply what might be best for Britain. For example, if there are regional disparities in economic growth (e.g., Germany, France, etc., are growing rapidly, while Britain is growing much more slowly), the ECB may decide to maintain a slower money growth policy to satisfy the larger demands to slow growth and subsequent inflation in the continental countries. The best policy for Britain alone, however, might be a more rapid increase in money supply to help stimulate its growth. If Britain remains outside the eurozone, it remains free to determine the monetary policies it deems best for itself. If it joins the eurozone, it loses its monetary autonomy.

In contrast, Argentina suffered severe hyperinflations during the 1970s and 1980s. Argentina’s central bank at the time was not independent of the rest of the national government. To finance large government budget deficits, Argentina resorted to

running the monetary printing presses, which led to the severe hyperinflations. In this case, monetary autonomy was a curse, not a blessing.

In an attempt to restrain the growth of the money supply, Argentina imposed a currency board in 1992. A currency board is a method of fixing one's exchange rate with a higher degree of credibility. By legislating mandatory automatic currency interventions, a currency board operates in place of a central bank and effectively eliminates the autonomy that previously existed. Although Argentina's currency board experiment collapsed in 2002, for a decade Argentina experienced the low inflation that had been so elusive during previous decades.

KEY TAKEAWAYS

- Monetary autonomy refers to the independence of a country's central bank to affect its own money supply and, through that, conditions in its domestic economy.
- In a fixed exchange rate system, a country maintains the same interest rate as the reserve country. As a result, it loses the ability to use monetary policy to control outcomes in its domestic economy.
- In a floating exchange rate system, a country can adjust its money supply and interest rates freely and thus can use monetary policy to control outcomes in its domestic economy.
- If the central bank can control money supply growth such that it has only moderate inflationary tendencies, then monetary autonomy (floating) can work well for a country. However, if the central bank cannot control money supply growth, and if high inflation is a regular occurrence, then monetary autonomy (floating) will not help the country.

EXERCISE

1. **Jeopardy Questions.** As in the popular television game show, you are given an answer to a question and you must respond with the question. For example, if the answer is "a tax on imports," then the correct question is "What is a tariff?"

    a. The term describing the relationship between the U.S. Federal Reserve Board and the U.S. government that has quite likely contributed to the low U.S. inflation rate in the past two decades.
    b. In part to achieve this, the United Kingdom has refused to adopt the euro as its currency.
    c. Of *fixed* or *floating*, in this system a country can effectively set its money supply at any level desired.
    d. Of *fixed* or *floating*, in this system a country's interest rate will always be the same as the reserve country's.
    e. Of *fixed* or *floating*, in this system a country can control inflation by maintaining moderate money supply growth.

13.5 Which Is Better: Fixed or Floating Exchange Rates?

LEARNING OBJECTIVE

1. Learn the pros and cons of both floating and fixed exchange rate systems.

The exchange rate is one of the key international aggregate variables studied in an international finance course. It follows that the choice of exchange rate system is one of the key policy questions.

Countries have been experimenting with different international payment and exchange systems for a very long time. In early history, all trade was barter exchange, meaning goods were traded for other goods. Eventually, especially scarce or precious commodities, for example gold and silver, were used as a medium of exchange and a method for storing value. This practice evolved into the metal standards that prevailed in the nineteenth and early twentieth centuries. By default, since gold and silver standards imply fixed exchange rates between countries, early experience with international monetary systems was exclusively with fixed systems. Fifty years ago, international textbooks dealt almost entirely with international adjustments under a fixed exchange rate system since the world had had few experiences with floating rates.

That experience changed dramatically in 1973 with the collapse of the Bretton Woods fixed exchange rate system. At that time, most of the major developed economies allowed their currencies to float freely, with exchange values being determined in a private market based on supply and demand, rather than by government decree. Although when Bretton Woods collapsed, the participating countries intended to resurrect a new improved system of fixed exchange rates, this never materialized. Instead, countries embarked on a series of experiments with different types of fixed and floating systems.

For example, the European Economic Community (now the EU) implemented the exchange rate mechanism in 1979, which fixed each other's currencies within an agreed band. These currencies continued to float with non-EU countries. By 2000, some of these countries in the EU created a single currency, the euro, which replaced the national currencies and effectively fixed the currencies to each other immutably.

Some countries have fixed their currencies to a major trading partner, and others fix theirs to a basket of currencies comprising several major trading partners. Some have implemented a crawling peg, adjusting the exchange values regularly. Others have implemented a dirty float where the currency value is mostly determined by the market but periodically the central bank intervenes to push the currency value up or down depending on the circumstances. Lastly, some countries, like the United States, have allowed an almost pure float with central bank interventions only on rare occasions.

Unfortunately, the results of these many experiments are mixed. Sometimes floating exchange rate systems have operated flawlessly. At other times, floating rates have changed at breakneck speed, leaving traders, investors, and governments scrambling to adjust to the volatility. Similarly, fixed rates have at times been a salvation to a country, helping to reduce persistent inflation. At other times, countries with fixed exchange rates have been forced to import excessive inflation from the reserve country.

No one system has operated flawlessly in all circumstances. Hence, the best we can do is to highlight the pros and cons of each system and recommend that countries adopt that system that best suits its circumstances.

Probably the best reason to adopt a fixed exchange rate system is to commit to a loss in monetary autonomy. This is necessary whenever a central bank has been independently unable to maintain prudent monetary policy, leading to a reasonably low inflation rate. In other words, when inflation cannot be controlled, adopting a fixed exchange rate system will tie the hands of the central bank and help force a reduction in inflation. Of course, in order for this to work, the country must credibly commit to that fixed rate and avoid pressures that lead to devaluations. Several methods to increase the credibility include the use of currency boards and complete adoption of the other country's currency (i.e., dollarization or euroization). For many countries, for at least a period, fixed exchange rates have helped enormously to reduce inflationary pressures.

Nonetheless, even when countries commit with credible systems in place, pressures on the system sometimes can lead to collapse. Argentina, for example, dismantled its currency board after ten years of operation and reverted to floating rates. In Europe, economic pressures have led to some "talk" about giving up the euro and returning to national currencies. The Bretton Woods system lasted for almost thirty years but eventually collapsed. Thus it has been difficult to maintain a credible fixed exchange rate system for a long period.

Floating exchange rate systems have had a similar colored past. Usually, floating rates are adopted when a fixed system collapses. At the time of a collapse, no one really knows what the market equilibrium exchange rate should be, and it makes some sense to let market forces (i.e., supply and demand) determine the equilibrium rate. One of the key advantages of floating rates is the autonomy over monetary policy that it affords a country's central bank. When used wisely, monetary policy discretion can provide a useful mechanism for guiding a national economy. A central bank can inject money into the system when the economic growth slows or falls, or it can reduce money when excessively rapid growth leads to inflationary tendencies. Since monetary policy acts much more rapidly than fiscal policy, it is a much quicker policy lever to use to help control the economy.

Prudent Monetary and Fiscal Policies

Interestingly, monetary autonomy is both a negative trait for countries choosing fixed rates to rid themselves of inflation and a positive trait for countries wishing have more control over their domestic economies. It turns out that the key to success in both fixed and floating rates hinges on prudent monetary and fiscal policies. Fixed rates are chosen to force a more prudent monetary policy, while floating rates are a blessing for those countries that already have a prudent monetary policy.

A prudent monetary policy is most likely to arise when two conditions are satisfied. First, the central bank, and the decisions it makes, must be independent of the national government that makes government-spending decisions. If it is not, governments have always been inclined to print money to finance government-spending projects. This has been the primary source of high inflation in most countries. The second condition is a clear guideline for the central bank's objective. Ideally, that guideline should broadly convey a sense that monetary policy will satisfy the demands of a growing economy while maintaining sufficiently low inflation. When these conditions are satisfied, autonomy for a central bank and floating exchange rates will function well. Mandating fixed exchange rates can also work well, but only if the system can be maintained and if the country to which the other country fixes its currency has a prudent monetary policy.

Both systems can experience great difficulties if prudent fiscal policies are not maintained. This requires governments to maintain a balanced budget over time. Balance over time does not mean balance in every period but rather that periodic budget deficits should be offset with periodic budget surpluses. In this way, government debt is managed and does not become excessive. It is also critical that governments do not overextend themselves in terms of international borrowing. International debt problems have become the bane of many countries.

Unfortunately, most countries have been unable to accomplish this objective. Excessive government deficits and borrowing are the norm for both developing and developed countries. When excessive borrowing needs are coupled with a lack of central bank independence, tendencies to hyperinflations and exchange rate volatility are common. When excessive borrowing is coupled with an independent central bank and a floating exchange rate, exchange rate volatility is also common.

Stability of the international payments system then is less related to the type of exchange rate system chosen than it is to the internal policies of the individual countries. Prudent fiscal and monetary policies are the keys.

With prudent domestic policies in place, a floating exchange rate system will operate flawlessly. Fixed exchange systems are most appropriate when a country needs to force itself to a more prudent monetary policy course.

KEY TAKEAWAYS

- Historically, no one system has operated flawlessly in all circumstances.
- Probably the best reason to adopt a fixed exchange rate system is whenever a central bank has been independently unable to maintain prudent monetary policy, leading to a reasonably low inflation rate.
- Probably the best reason to adopt a floating exchange rate system is whenever a country has more faith in the ability of its own central bank to maintain prudent monetary policy than any other country's ability.
- The key to success in both fixed and floating rates hinges on prudent monetary and fiscal policies. Fixed rates are chosen to force a more prudent monetary policy; floating rates are a blessing for those countries that already have a prudent monetary policy.

EXERCISE

1. **Jeopardy Questions.** As in the popular television game show, you are given an answer to a question and you must respond with the question. For example, if the answer is "a tax on imports," then the correct question is "What is a tariff?"

    a. Of *fixed* or *floating*, this system is often chosen by countries that in their recent history experienced very high inflation.
    b. Of *fixed* or *floating*, this system is typically chosen when a country has confidence in its own ability to conduct monetary policy effectively.
    c. Of *fixed* or *floating*, this system is typically chosen when a country has little confidence in its own ability to conduct monetary policy effectively.
    d. Of *fixed* or *floating*, this system is sometimes rejected because it involves the loss of national monetary autonomy.
    e. Of *fixed* or *floating*, this system is sometimes chosen because it involves the loss of national monetary autonomy.