Chapter 20 Flexible Versus Fixed Exchange Rates, the European Monetary System, and Macroeconomic Policy Coordination

"It has been argued, correctly I believe, that the social risks and uncertainties regarding future changes in foreign-exchange rates are the same under fixed and under flexible exchange rates; they are merely borne by different people."

Fritz Machlup, "The Forward Exchange Market: Misunderstandings Between Practitioners and Economists," in Halm, G., ed., <u>Approaches to Greater Flexibility</u> <u>of Exchange Rates: The Burgenstock Papers</u>, Princeton University Press, 1970.

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II. Chapter Summary and Review

The last few chapters have analyzed the effects of automatic adjustments and discretionary adjustment policies under fixed versus floating exchange rates, but did not directly address the desirability of different exchange rate regimes. This chapter discusses the relative merits and implications of alternative exchange rate systems.

In a **freely floating exchange rate system**, exchange rates are allowed to continuously equate the supply and demand for foreign exchange with no government intervention in the foreign exchange market. One argument for floating exchange rates is that a freely floating rate will efficiently maintain continuous balance of payments equilibrium, freeing monetary policy for internal purposes. In a fixed exchange-rate system, external deficits and surpluses produce changes in the money supply that are necessary to support the exchange rate. These changes in the money supply produce changes in domestic prices. Proponents of a freely floating exchange rate system hold that it is more efficient for one price—the exchange rate—to change than to change all internal prices, which may be rigid, or at least "sticky."

In a fixed exchange-rate system, governments must choose a particular value of the exchange rate to defend, and there is no guarantee that the correct value of the exchange rate will be chosen. The correct value is the value that can be supported in the long run. If the wrong value of the exchange rate is chosen, then the goods exported and imported may not be correct in terms of comparative advantage and the exchange rate may not be that which can be supported in the long run with existing foreign currency reserves. Added to these costs of a fixed exchange rate is the cost of the government bureaucracy necessary to administer the fixed exchange rate.

Additionally, in a world where there are limited policies to achieve many goals, a fixed exchange rate system removes the exchange rate as a policy tool. In a fixed exchange-rate system, exchange rates change only at discrete intervals. With a flexible exchange rate, the exchange rate can move continuously to produce external balance while fiscal and monetary policies are freed to pursue other objectives like full employment and growth.

Although the private sector may find fixed rates easier for planning and currency conversion, there are forward markets, futures markets and options markets in foreign currency that can be used to hedge foreign currency exposure, as discussed in Chapter 14.

Advocates of fixed exchange rates argue that those who favor flexible rates underestimate the risk associated with exchange rate movements. Since the adoption of floating rates among the major developed economies in the early 1970s, exchange rates have exhibited considerable volatility. Although the risk of particular transactions can be hedged with various foreign currency instruments, an entire business cannot be hedged. The decision to build a factory in Atlanta for exporting to Europe can prove unsuccessful as a result of a continued appreciation of the dollar. Hedging instruments are relatively short term, and do not allow a company to maintain a long-term comparative advantage. The reply by floating-rate advocates is that under the same kind of economic pressures that would cause floating rates to appreciate, fixed rates would also have to change. The kinds of changes that occur with fixed rates are large and abrupt, imposing as much cost as smaller, continuous changes in a floating rate.

Fixed exchange rates may also impose inflationary discipline on an economy. This argument is known as the "anchor argument." With a fixed exchange rate, domestic inflation will lead to decreased exports and increased imports which will put downward pressure on the exchange rate. To maintain the exchange rate, the nation's monetary authorities will have to buy domestic currency, reducing their money supply and restraining inflation. If inflationary pressures repeatedly occur, there will be a loss of foreign exchange reserves that will force policy makers to curb their inflationary policies. Mexico's decision to attempt to maintain a fixed exchange rate prior to 1994 is an example of the use of an exchange rate as an inflation anchor. Flexible exchange rates impose no such anchor. With flexible rates, inflation causes a depreciation of the domestic currency, and such depreciation is in itself inflationary, as discussed in Chapter 16. Flexible rate advocates note, in response, that countries that wish to pursue a higher rate of inflation than their trading partners can do so with flexible rates. Additionally, nations with fixed rates can always abandon the fixed rate, often in crisis, as in the case of the Mexican peso devaluation of 1994.

The types of disturbances faced by a country can also influence the choice of an exchange-rate system. A country with substantial external shocks will find that floating exchange rates insulate the domestic economy from those shocks, the shock being absorbed by changes in the exchange rate. Countries

with internal shocks would find that floating rates add to instability. For example, an internal expansion will increase imports, causing a currency depreciation, which would cause a larger expansion as exports increase and imports decrease in response to the depreciation. Internal expansion with fixed exchange rates would lead to a defense of the currency, which would cause monetary contraction, offsetting the expansion.

The volatility of floating exchange rates depends, in part, on the actions of speculators. If speculators are, on average, correct about the movement of the exchange rate, buying currencies when they are cheap and selling them when they are expensive, then speculation will be *stabilizing*. Stabilizing speculation occurs when the action of speculators produces a smoother time path of the exchange rate than would exist in the absence of speculation. If speculators do indeed buy low and sell high, then they will reduce swings in the exchange rate. Proponents of floating rates argue that speculators cannot, on average, be wrong. If they were wrong—buying high and selling low—then they would be out of business. Floating-rate proponents argue that a fixed exchange rate is prone to crisis for it becomes apparent when there is pressure on an exchange rate to change as readily observable official reserve balances of nations change. With apparent pressure on the exchange rates, and their actions will put further pressure on the exchange rate to change, resulting in major costly currency devaluations.

Advocates of fixed rates argue that a credible fixed exchange rate policy will create stabilizing speculation. If speculators believe that the monetary authority will maintain a fixed exchange rate, then they will not bet that the exchange rate will change. Indeed, as an exchange rate in a fixed-rate system reaches its announced limit (fixed exchange rates usually are allowed to move within a narrowly defined band), they will bet on its return because they believe government will act to produce its return. Speculators, then, will actually do the work of the monetary authority, stabilizing the exchange rate within the announced band.

In summary, the stated advantages of a floating-rate system include efficiency; policy freedom, including the decision to pursue an independent rate of inflation; and insulation from external shocks. The advantages of a fixed-rate system are reduced uncertainty, inflation control, and insulation from internal disturbances. A fixed exchange-rate system and an independent monetary policy is possible, but at the cost of free financial capital flows. It is the movement of financial capital that limits monetary policy when exchange rates are fixed. The choice of an exchange rate system depends on the anticipated costs and benefits for the nation in question. A relatively small economy with significant exports and imports to a few large countries will find that a floating rate creates risk for a significant amount of the country's economic activities, and so will establish a fixed rate relative to their large trading partners. A large, relatively closed nation, with inflation preferences different than other nations will choose a floating exchange rate. For a relatively closed nation, a floating rate adds risk to only a small part of economic activity.

Related to the debate over fixed versus floating exchange rates is the theory of **optimum currency areas**. A fixed exchange rate is one in which participating nations attempt to maintain a given exchange rate, with currency devaluations pursued only when pressures on the given exchange rate are large and unlikely to be reversed. An optimum currency area, on the other hand, is one in which it is optimal for exchange rates to be permanently fixed. The United States is a currency area (although not necessarily an optimum one) in which a dollar in Boston is always equivalent to a dollar in Hartford, or in New York, or in Phoenix. The benefit of a one-currency area is the certainty of exchange. With flexible exchange rates between many regions of the United States, the size of the market would be limited. Each region would turn inward, avoiding to some degree the risk of external transactions. The benefits of trade, including the usual comparative advantage benefits, as well as the economies of scale benefits, would be reduced.

The disadvantage of a currency area is that each region in the currency area does not possess a separate monetary policy. Each region uses the same money and so is subject to the same monetary policy. If one region is experiencing unemployment, then it must rely on the redistributive policies of the central policy maker and the ability of labor to migrate from depressed regions to expanding regions. A currency area is more desirable the more similar are preferences for a particular rate of inflation and the greater the mobility of resources among regions.

Similar to, but stopping just short of a currency area, is a **currency board arrangement**. A currency board arrangement is a fixed exchange rate system where the monetary authority relinquishes control of monetary policy. A fixed exchange rate is announced usually relative to one anchor currency, but combinations like the SDR are sometimes used as an anchor. In order to establish the credibility of the fixed exchange rate, the new rate is often part of the laws governing the operation of the currency board. The currency board takes a completely passive stance with respect to monetary policy. The board is required to maintain the exchange rate and can accumulate no assets other than the reserves of the anchor currency.

If there is a surplus relative to the anchor currency, then the nation's exchange rate will threaten to appreciate, to which the currency board will respond by buying the anchor currency, which expands the domestic money supply. If there is a deficit then the currency will threaten to depreciate, to which the currency board will respond by buying its currency with the anchor currency's reserves. Thus, monetary expansion will only occur when reserves of the anchor currency increase, and monetary contraction will only occur when reserves of the anchor currency decrease.

Because the currency board can accumulate no assets other than reserves of the anchor currency, inflation as well as interest rates will mimic that of the anchor currency. Traditional open market operations that require the buying and selling for securities (usually government securities) cannot occur because securities other than the anchor currency can be held. Inflation in the anchor currency will spill over as a surplus in the nation with the currency board and cause inflation. It is therefore important to choose an anchor currency with stable inflation.

The commitment to a currency board is a strong commitment to produce inflation rates equal to those of the anchor currency. To the extent that the commitment is credible, the currency board will be able to reduce inflationary expectations, which is instrumental in reducing actual inflation and nominal interest rates.

Because a credible commitment is so important in establishing stable inflation, some nations may go further than a currency board and actually adopt the currency of a stable currency. The process of the adoption of the dollar by nations,(e.g. Ecuador, El Salvador, Panama, and Puerto Rico) is called **dollarization**. Dollarization has benefits and costs similar to those of any fixed exchange-rate system, but is more likely to be realized because it is a more complete commitment and so less likely to be reversed.

The European Union (EU) has moved towards greater monetary integration first by establishing relatively fixed rates between its members in 1979, and more recently by the decision to implement one money—the **Euro**—in 1999. In order to be part of the one-currency area, each participating nation was

required to meet certain economic convergence criteria as established by the **Maastricht Treaty**. These convergence criteria included limits on inflation rates, budget deficits, interest rates and exchange rate fluctuations. It is expected that one currency will save considerable resources involved in currency conversions, reduce inflation, and reduce the risks of trade and investment between European countries. The cost is the loss of control over their money supply that each member nation gives up to the European Central Bank.

The convergence criteria attempted to establish the macro prerequisites for a currency area. The micro prerequisites have been promoted by the dismantling of barriers to the mobility of factors between countries, described in Chapter 10. The recent inability of a number of European nations (e.g., Greece, Ireland, and Spain) to restrain spending and borrowing increased the risk of holding these nations' financial assets and threatened confidence in the Euro. In order to avoid financial flight from the Euro, the European Central Bank purchased the high-risk assets of a number of nations and provided low-interest loans to commercial banks, making it feasible for banks to buy and hold the highrisk sovereign assets.

Exchange-rate systems have been referred to as fixed or flexible (floating). In practice, these systems represent polar extremes of possible exchange-rate systems. Other than in single currency areas, a fixed exchange-rate system is usually one in which a par value is established for the exchange rate, but the exchange rate is allowed to move within a relatively narrow band around par. Within the band the exchange rate can move according to the supply and demand for foreign exchange, but is restricted to the band by government intervention. For example, the Bretton Woods system allowed fluctuations within 1% of an agreed-upon par value, and in the gold system the gold points determined the band.

An **adjustable peg system** is equivalent to the band version of fixed exchange rates, but it is recognized that the par value may have to be changed. The difficulty, of course, is for participants in the system to agree as to when a new par should be established. The issue is one of determining whether pressures on the exchange rate are permanent, requiring a change in the par value, or temporary, in which case the par value should not be changed.

A **crawling peg system**, or **gliding parity**, is an adjustable-peg system in which a new par value is established in announced increments rather than all at once. If a nation has an inflation rate in excess of its trading partners, then a new par value will have to be established continuously. A crawling peg allows an orderly way of continuously changing the exchange rate while maintaining some of the benefits of a fixed-rate system.

Finally, a **managed floating exchange rate system** is one in which the exchange rate is allowed to be determined by market forces in the long run, but the monetary authority attempts to smooth the short-run fluctuations. If it is assumed that there are short-run cycles within long-run changes in the exchange rate, then the monetary authority can reduce some short-run fluctuations **leaning against the wind**—by selling a small amount of domestic currency on the foreign exchange market when the exchange rate appreciates, and by buying a small amount when the exchange rate depreciates.

Whatever exchange rate system is adopted, it has to be recognized that economic conditions in one country will affect those in other countries. This issue has become particularly acute as the proportion of economic activity accounted for by international transactions has increased. Because good policy in one nation could be bad for another nation, **international macroeconomic policy coordination** is beneficial, but examples of well-planned policy coordination are few.

III. Questions

1. Suppose monetary policy becomes restrictive in the United States as a result of inflation fears.

a) How might this affect the ability of Mexico to maintain its fixed exchange rate?

b) Would you expect speculation to be stabilizing or destabilizing?

2. Referring to the quote introducing this chapter, explain who bears the costs and uncertainties of a flexible exchange rate, and who bears the costs and uncertainties of a fixed exchange rate.

3. a) Why is a flexible exchange-rate system considered more efficient for the allocation of resources?

b) If a flexible exchange-rate system allocates resources better, then why have the EU countries adopted the euro?

c) Why will fixed exchange-rate arrangements, including currency boards and dollarization tend to be adopted by small open economies rather than large closed economies?

4. a) What view towards speculation would support a fixed exchange-rate system?

b) What view towards speculation would support a floating exchange-rate system?

5. Suppose a nation is subject to many internal changes, e.g. volatile investment, domestic inflation, bumper crops, drought, etc. Explain whether the nation would be better off, other things being equal, with fixed rates or floating rates.

6. "The anchor argument assumes that it is easier to commit to an exchange rate than to an acceptable rate of inflation." Explain.

7. a) A nation chooses an inflation rate that is somewhat higher than most of its trading partners. What kind of exchange-rate system should the nation choose?

b) A nation's chooses to lower its inflation rate to that of its trading partners. What kind of exchange-rate system should the nation choose?

8. a) How is the decision of the United Kingdom to not participate in the euro area an example of the policy advantages of a floating-rate system?b) How could the decision of the UK be seen as a decision that promotes the free flow of financial assets?

9. Why does the United States function better as a one-currency area than would the countries of Latin America?

10. a) Among other things, the Maastricht convergence criteria required the EU

countries to meet inflation and interest rate criteria in order to be eligible for participation in the European one-currency area. Comment on how the convergence criteria promoted the conditions necessary for the introduction of one currency.

- b) What are the benefits of a single currency for Europe?
- c) What are the costs of a single currency for Europe?