

Chapter 19

Macroeconomic Policy and Coordination Under Floating Exchange Rates

■ Chapter Organization

The Case for Floating Exchange Rates

Monetary Policy Autonomy

Symmetry

Exchange Rates as Automatic Stabilizers

The Case Against Floating Exchange Rates

Discipline

Destabilizing Speculation and Money Market Disturbances

Injury to International Trade and Investment

Uncoordinated Economic Policies

The Illusion of Greater Autonomy

Case Study: Exchange Rate Experience Between the Oil Shocks, 1973–1980

The First Oil Shock and Its Effects, 1973–1975

The Weak Dollar, 1976–1979

The Second Oil Shock, 1979–1980

Macroeconomic Interdependence Under a Floating Rate

Case Study: Disinflation, Crisis, and Global Imbalances, 1980–2008

Disinflation and the 1981–1983 Recession

Fiscal Policies, the Current Account, and the Resurgence of Protectionism

Global Slump Once Again, Recovery, Crisis, and Deficits

Global Imbalances and Real Interest Rates in the 2000s

What Has Been Learned Since 1973?

Monetary Policy Autonomy

Symmetry

The Exchange Rate as an Automatic Stabilizer

Discipline

Destabilizing Speculation

International Trade and Investment

Policy Coordination

Are Fixed Exchange Rates Even an Option for Most Countries?

Directions for Reform

Summary

APPENDIX TO CHAPTER 19: International Policy Coordination Failures

■ Key Themes

The floating exchange rate system in place since 1973 was not, in contrast with the Bretton Woods system, well planned before it began. Instead, it has developed over time and in response to the various events with which the world economy has had to contend. Disillusion with economic performance since 1973 has often fueled demands for alternative international monetary arrangements. This chapter sets forth the case for and against floating exchange rates and considers the evidence concerning the performance of the international exchange-rate system since 1973.

The chapter begins with some theoretical arguments for and against floating exchange rates, arguments that frame the discussion for the entire chapter. Proponents of a floating exchange rate regime cite as its advantages the autonomy it gives to monetary policy, the symmetry of adjustment under floating rates, and the automatic stabilization which floating rates provide when aggregate-demand shocks occur. Critics fault floating rates on the grounds that they do not impose enough discipline on governments or promote economic policy coordination, because of alleged detrimental effects on international trade and investment, and because floating exchange rates may be susceptible to harmful destabilizing speculation. The DD-AA model can be used to demonstrate that money-market shocks are less disruptive to output under a fixed exchange rate regime than under a floating regime while output-market shocks are less disruptive to output under a floating exchange rate regime.

This result is important in considering the relative attractiveness of floating exchange rates in face of the first oil shock in 1973. This shock led to “stagflation,” simultaneous recession and inflation. Industrial countries chose expansionary macro policies as a response, and recovery from the recession of 1974 was underway in most of these countries by the first half of 1975. It is unlikely that a fixed-exchange rate system, which would have demanded less expansionary response from countries, would have survived unless there were widespread realignments which might have caused destabilizing speculative attacks on currencies. The success with which the floating-exchange rate regime allowed countries to adjust to the first oil shock prompted a call by the leaders of the main industrial countries for the International Monetary Fund (IMF) to formally recognize the new arrangement. The IMF directors heeded this by amending the Fund’s Articles of Agreement to recognize the new reality of floating rates.

Floating exchange rates enabled countries to pursue divergent expansionary policies after the first oil shock. This advantage of floating exchange rates proved to be a disadvantage as the recovery of 1974–1975 turned into the slowdown of 1976. American policies, which were more expansionary than those pursued by Germany and Japan, weakened the dollar, pushed the U.S. current account into deficit, and contributed to a resurgence of inflation in the United States. The second oil shock promoted fears of higher inflation, leading to restrictive monetary policies that plunged the world economy, in 1981, into the deepest recession since the Great Depression.

This chapter also discusses the way in which two large countries' economies affect one another, examining the global effects of fiscal and monetary policy in the 1980s and 1990s. This discussion incorporates feedback effects from policy in one economy to economic performance in the other. A fiscal expansion in either country increases output in both countries. A monetary expansion in the domestic country, however, raises domestic output but, by making the foreign currency more expensive, lowers foreign output. In the text, the ideas are used to analyze the effects of U.S. monetary and fiscal policy after 1980, particularly the Volcker disinflation and the Reagan fiscal expansion. The impact of the resulting dollar appreciation on world current accounts and on protectionist sentiment in the United States are also discussed.

In the face of growing protectionist pressure in the United States, economic officials of the Group of Five (G-5) countries met at the Plaza Hotel in New York in September 1985, where they agreed to intervene jointly in the foreign-exchange market to bring about a dollar depreciation. This marked a reversal from the U.S. laissez-faire approach to dollar management in the first half of the 1980s. The dollar depreciated throughout 1986. In February 1987, at a meeting at the Louvre, finance ministers and central bankers from the G-5 countries plus Canada set up (unpublished) target zones to stabilize exchange rates around their then-current level. Currencies stabilized for several months thereafter, but this period of quiescence ended with the October 1987 stock market crash which began a period of further dollar depreciation. Despite a brief theoretical maintenance of zones, by the early 1990s, zones had been abandoned. After a period of slow growth in many nations around 1990, the United States experienced a long expansion until early 2001. Alternatively, by 1999, Japan had not fully recovered from the end of its asset bubble in the early 1990s. America's large current account deficits and the corresponding surpluses in other countries (global imbalances) also receive attention. U.S. investment dramatically outpaced U.S. savings, but a surge in savings in other countries (dubbed a global savings glut) has meant that world interest rates fell as the U.S. current account went up.

Conclusions concerning the advantages of floating exchange rates are not unambiguous. The insulation of economies from inflation, while important in the long run, may not hold in the short run. The exchange rate's role as a macroeconomic target also reduces the autonomy that central banks actually enjoy under floating rates. Evidence does not support the "vicious circle" theory that, in the absence of accommodating monetary policy, currency depreciation leads to inflation, leading to further depreciation, and so on. Nor is there convincing evidence that floating rates have hindered international trade and investment. Lack of policy coordination has been a particularly disappointing feature of the system, but this problem is not unique to floating rates. The chapter also considers the emerging view that durable fixed exchange rates may not be possible, even if they were more desirable than floating rates, unless a single currency is created. These arguments rest on theories of speculative attacks, the problems of the policy trilemma, and the recent experiences in developing countries.

A lesson that emerges from this chapter is that no exchange rate system works well when countries act on the basis of narrowly-perceived self interest. The chapter appendix illustrates this point, using a simple game-theoretic example to show how the beggar-thy-neighbor effects of monetary restriction can lead to uncoordinated macroeconomic policies that make two countries worse off than they would be if they cooperated.

■ Key Terms

Define the following key terms:

1. Destabilizing Speculation _____

_____.
2. Plaza Accord _____

_____.
3. Symmetry (of an Exchange Rate System) _____

_____.
4. Automatic Stabilizer _____

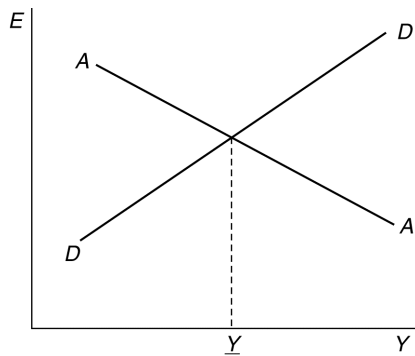
_____.
5. Macroeconomic Interdependence _____

_____.
6. Global Imbalances _____

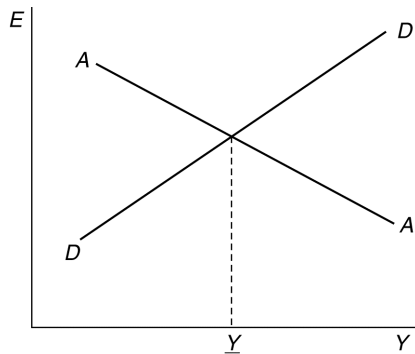
_____.

■ **Review Questions**

1. The argument is made that floating exchange rates do a better job of stabilizing output in the short run when the economic events occurring in an economy are the type that affect the *DD* curve, such as shifts in investment demand, while fixed rates perform better when the shocks are the type that affect the *AA* curve, such as shifts in money demand.
 - a. Use the diagram below to demonstrate how the variability in investment demand would translate to variability in output around *Y* under a fixed and a floating exchange rate system (for a floating exchange rate system, assume the monetary authorities follow a rule of a constant money supply).



- b. Use the diagram below to demonstrate how the variability in money demand would translate to variability in output around *Y* under a fixed and a floating exchange rate system (again assume that, under the floating exchange rate system, assume the monetary authorities follow a constant money supply rule).



- c. Refer to the diagrams above to explain how your conclusions concerning the desirability of different exchange rate regimes under different circumstances may change if governments are concerned about the short-run variability of the real exchange rate as well as output.

2. The two-country analysis developed in the chapter enables us to understand the feedback effects of policies in one country on output in another country.

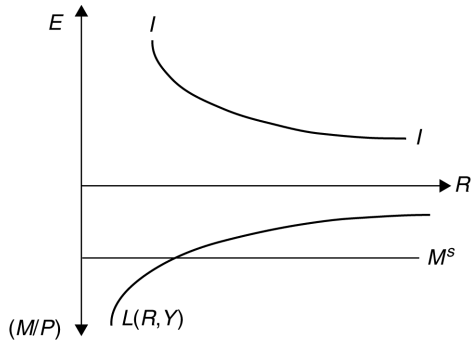
a. What is the effect of a monetary expansion in Home on output in Home and in Foreign?

b. What is the effect of monetary expansions of equal size in both Home and Foreign on output in each country?

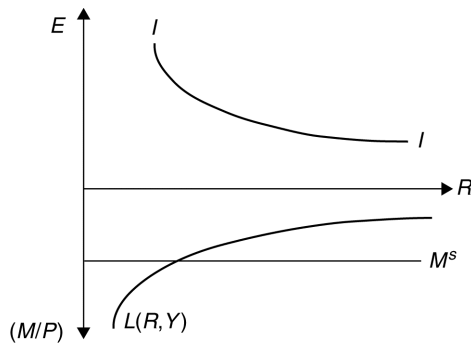
c. What is the effect of a fiscal expansion in Home on output in Home and in Foreign?

d. What is the effect of a fiscal expansion in Home and, at the same time, a fiscal expansion in Foreign, on output in each country?

3. With the problem of growing external imbalances serving as a backdrop, the finance ministers and monetary authorities of the United States, the United Kingdom, Germany, Japan, and France met at the Plaza Hotel over the weekend of September 21–22, 1985. The communiqué issued on September 22 was widely interpreted as calling for a depreciation of the dollar.



- Use the money market/interest parity diagram above to show the effect of this communiqué on the value of the \$/DM exchange rate on Monday, September 23.
- The motivation for the Plaza meeting was the large current account deficit in the United States and the fear that protectionist measures would be enacted. Research has found that announcements of larger than expected current accounts had an immediate, significant effect on the exchange rate after the Plaza meeting, but not before the meeting. Use the diagram below to explain why we may have observed this difference before and after the Plaza meeting. (*Hint: Remember that the United States had taken a “hands-off” approach to exchange rate management before the Plaza meeting. If monetary authorities were concerned with the current account, and were willing to intervene, what action would they take in response to a larger-than-expected current account deficit?*)



4. On July 2, 1990, the monetary systems of West Germany and East Germany were unified. East Germans were able to exchange up to 4000 Ost-marks (the former East German currency) for Deutschemarks at the rate of one Ost-mark to one Deutschemark. For amounts beyond that, each Deutschemark cost two Ost-marks. Wages and pensions denominated in Ost-marks were converted at a one-to-one rate. There was extensive debate before unification concerning the proper exchange rate between West German Deutschemarks and East German Ost-marks. The black market rate for Ost-marks before discussion of monetary union was between five and seven Ost-marks for one Deutschemark.

a. Discuss how the rate of conversion of Ost-marks into Deutschemarks affects the money supply in a unified Germany. Compare the effects on the money supply of conversion at the black market rate with conversion at a one-to-one rate. Do you think that an excessive increase in the money supply would fuel continuing German inflation?

b. Discuss how the rate of conversion of Ost-marks into Deutschemarks affects the relative wages in East and West Germany. What are the likely effects of choosing a one-to-one conversion rate, rather than a five-to-one conversion rate, on the viability of East German firms in the short run? In the long run?

c. The average wage in East Germany before unification was about 1100 Ost-marks, and the average wage in West Germany was about 3300 Deutschemarks. What is the likely effect of the removal of intra-German barriers to labor mobility on emigration between East and West Germany, and on wages throughout the country?

5. The text cites the theory that due to speculation, fixed rates may only be possible if there are capital controls or a permanent fixed rate with one monetary policy. Why do these policies make fixed rates more feasible? (In your answer, specifically mention the way these policies change our models.)

■ Answers to Odd-Numbered Textbook Problems

1. A rise in the foreign price level leads to a real domestic currency depreciation for a given domestic price level and nominal exchange rate; thus, as shown in the following diagram, the output market curve shifts from DD to $D'D'$ moving the equilibrium from points 0 to 1. This shift causes an appreciation of the home currency and a rise in home output. If the expected future exchange rate falls in proportion to the rise in P^* , then the asset market curve shifts down as well, from AA to $A'A'$ with the equilibrium at point 2. Notice that the economy remains in equilibrium in this case, at the initial output level, if the current exchange rate also falls in proportion to the rise in P^* . Why? The goods market is in equilibrium because the real exchange rate has not changed; the foreign-exchange market is in equilibrium if the domestic interest rate does not change (there has been no change in the expected rate of future currency depreciation); and with output and the interest rate the same, the money market is still in equilibrium. The economy thus remains in internal and external balance if these conditions held initially.

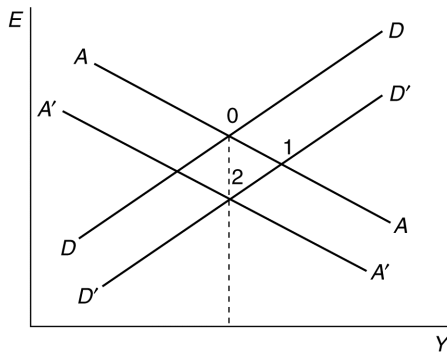
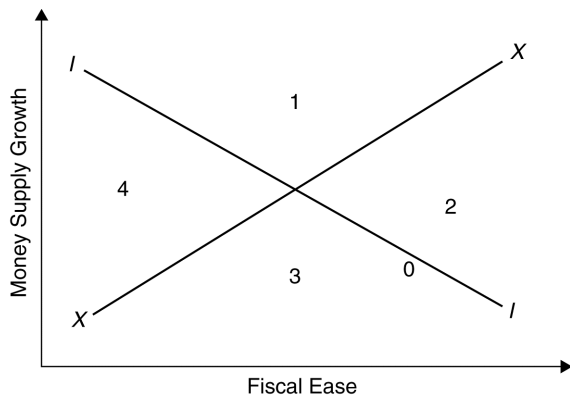


Figure 19-1

3. The effect of a permanent rise in the foreign nominal interest rate depends upon whether that rise is due to an increase in inflationary expectations abroad or a rise in the foreign real interest rate. If the foreign real interest rate rises because of monetary contraction abroad, there is a long-run depreciation of the domestic currency which reinforces the depreciation that occurs in Problem 2. The expansionary effect on home output is thus greater than in the transitory case. If the foreign nominal interest rate rises only because foreign inflationary expectations rise, however, the expectations effect goes the other way and the long run expected price of foreign currency falls, shifting AA to the left. Domestic output need not rise in this case. Under a fixed exchange rate there is still no short run effect on the economy in the $DD-AA$ model, but as P^* starts to rise, the home country will have to import foreign inflation. Under a floating rate the home economy can be completely insulated from the subsequent foreign inflation.
5. We can include the aspect of imperfect asset substitutability in the $DD-AA$ model by recognizing that the AA schedule now must equate $MIP = L(R^* + \text{expected depreciation} + \text{risk premium}, Y)$. An increase in the risk premium shifts out the AA curve, leading to a currency depreciation and an increase in output. Output will not change under a fixed exchange rate regime: since the exchange rate parity must be preserved, there will be no depreciation and no effect on output.

7. The diagram described in the answer to Question 6 (shown below) can be used to answer this question. The United States begins at point 0 after 1985, where it is in internal balance but there is a large current account deficit. In the short run, monetary expansion (an upward shift in the point) moves the economy toward the goal of a greater current account surplus, but also moves the economy out of internal balance toward overemployment. The expenditure-reducing policy of reducing the budget deficit (represented by a leftward shift in the point), used in tandem with an expenditure-switching monetary expansion, can restore external balance while maintaining internal balance. Moving the economy into a zone of overemployment puts pressure on the price level which ultimately reverses the short-run effect of monetary expansion on the real exchange rate.

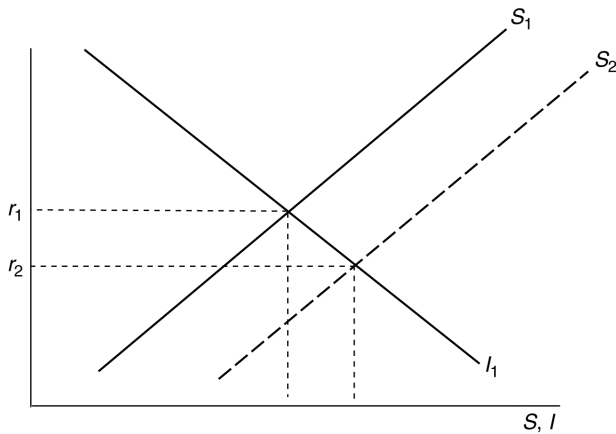


9. Sterilized intervention has no effect on the supply of high-powered money. A way to check whether the Japanese interventions in 2003–2004 were sterilized is to see if there are unusual movements in Japanese stocks of high-powered money around that time. The *International Financial Statistics*, published by the IMF, includes measures of reserve money (Line 14) and reserves minus gold (Line 1d). Below, we see the percentage change in both series from late spring 2003 to late spring 2004 (the peak of the intervention):

	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04
Reserves	0.5%	2.0%	-0.4%	9.1%	3.6%	2.9%	4.5%	10.3%	4.9%	6.4%
Money	0.9%	-0.1%	-0.2%	4.6%	-3.8%	1.5%	4.7%	-1.3%	-0.9%	3.0%

There are some months where we see large increases in reserves and also large increases in high powered money (September and December 2003) which would suggest unsterilized intervention, but in general, the changes in reserves are not always accompanied by changes in high powered money. In particular, high powered money fell during the peak of intervention in January–February 2004, suggesting sterilization (or possibly offsetting factors in the economy for which we are not controlling).

11. The simple model of savings and investment against the real interest rate can be drawn as follows below. The increase in world savings can be shown as a rightward shift in the savings schedule. The result is that the world real interest rate falls and the amount of savings and investment rises. We can think of the “global savings glut” story here. World interest rates went down as large-scale savings (public and private), in emerging market countries in particular, increased the supply of world savings. This falling interest rate should lead to an increase in world investment. If this investment is in countries other than the ones who increased savings, then the increased investment and constant savings (or possibly falling savings due to the falling world real interest rate) in countries like the U.S. will lead to current account deficits in the U.S. and like countries and current account surpluses in the savings countries.



13. If MD increased in Figure 19-2 but the exchange rate is fixed, then the central bank will increase the money supply such that the AA curve does not in fact move. If the increase in the money supply to meet the money demand encourages banks to lend more domestically, this will generate higher investment by firms and shift out the DD curve. The central bank will have to meet this increase by increasing the money supply slightly more to shift out the DD curve and keep E constant.

