Macroeconomic Policy in the World Economy

Chapter 18

Outline

- The international financial and monetary system
- History of the world financial and monetary system
- Monetary policy rules in the world economy
- Macroeconomic performance in Japan

18.1 The International Financial and Monetary System

- Macroeconomic Policy for the United States:
  - Floating exchange rates
  - Free movement of capital
  - Implicit inflation target of about 2%
  - Taylor Rule for monetary policy

Many other countries conduct macroeconomic policy in a similar manner, including Australia, Canada, the United Kingdom, and the Euro-zone countries.

18.1 THE INTERNATIONAL FINANCIAL AND MONETARY SYSTEM

- Strong trend toward making the world economy more integrated.
  - 12 European countries have combined their national currencies to form the euro.
    - These countries are called the **Euro zone.** The European Central Bank (ECB) conducts monetary policy for the Euro-zone.

18.1 THE INTERNATIONAL FINANCIAL AND MONETARY SYSTEM

- The specific steps that a country needs to take to free up its financial markets and thereby join the world financial and monetary system are as follows:
  - 1. *Open up currency transactions.*
  - 2. *Open up capital movement.*
  - 3. *Open up movement of goods.*

How a Central Bank Carries Out Its Exchange-Rate Policy

- Central banks buy and sell government securities to affect exchange rates, interest rates, and ultimately the domestic price level.
  - The value of domestic securities held by a central bank is frequently called **domestic credit.**
  - The value of foreign securities held by a central bank is **foreign reserves.**

How a Central Bank Carries Out Its Exchange-Rate Policy

- The monetary base is defined as currency plus bank reserves.
  - Monetary base = Domestic credit + Foreign reserves.
  - Suppose that the central bank wants to purchase foreign securities. This will increase the money supply.
  - Monetary policy cannot be used for both domestic policy and stabilizing the exchange rate.

Sterilized Intervention

- It is possible for the central bank to sell foreign reserves and buy domestic credit at the same time in the same amount.
  - Such a move is called a **sterilized foreign exchange intervention.**
  - Under modern conditions with highly integrated capital markets, a sterilized intervention is unlikely to have much effect.

Capital or Exchange Controls

- Capital controls, such as restrictions on the amount of foreign currency that domestic residents can purchase, would permit the domestic interest rate to be different from the world rate.
  - In fact, capital controls are still used in many small countries for exactly this reason.
  - Although they enable monetary policy to be more effective, capital controls have the disadvantage that they reduce the efficiency of international capital markets.

18.2 HISTORY OF THE WORLD FINANCIAL AND MONETARY SYSTEM

- Until early in the twentieth century, almost all countries defined their monetary units in terms of gold or silver.
  - After World War I and the Great Depression in the 1930s, currencies began to lose their connection with gold.

HISTORY OF THE WORLD FINANCIAL AND MONETARY SYSTEM

- Near the end of World War II, in 1944, representatives of major economies met in Bretton Woods, to design a new world financial and monetary system to replace the gold standard
  - The Bretton Woods system proposed to keep exchange rates almost constant.

HISTORY OF THE WORLD FINANCIAL AND MONETARY SYSTEM

- Problems with the Bretton Woods system:
- Speculation if traders thought a currency would be devalued.
- Vulnerability to mistakes in U.S. monetary policy.

The Devaluation of the Dollar and the Collapse of Bretton Woods

- The Bretton Woods system finally broke down in the early 1970s.
  - The United States ended its commitment to sell gold to other governments for $35 per ounce.
  - The United States used the club of a special tariff to force other countries to revalue their currencies against the dollar.
  - The general revaluation of other currencies was equivalent to a dollar devaluation.

Exchange Rate Policies Today

- Three policy choices that are often considered desirable are
  - 1. *Fixed exchange rates.*
  - 2. *Free movement of capital.*
  - 3. *Independent monetary policy.*

Exchange Rate Policies Today

- The **macroeconomic policy trilemma** is that only two of these three objectives can be attained simultaneously.
  - The trilemma provides a convenient way to categorize the choices that different countries make.
  - The United States runs an independent monetary policy (the Taylor rule), allows free capital mobility, and has a flexible exchange rate.

18.3 MONETARY POLICY RULES IN THE WORLD ECONOMY

- One example of this class of policy rules is the Taylor rule, where the interest rate also responds to the output gap.

- In this section, we extend the analysis of policy rules to the world economy.

The Demise of Fixed Exchange Rates

- An important development of the 1990s and 2000s is that, over time, more countries chose to abandon fixed exchange rates and, instead, adopted a monetary policy based on flexible exchange rates or permanently connected their monetary policy to other countries through monetary union, dollarization, or a currency board.
  - The foremost example of a monetary union is the European Union

The Role of the Exchange Rate in the Taylor Rule

- Recall the Taylor rule from Chapter 16:

$$r = \pi + \delta(\pi - \pi^*) + B\hat{Y} + R^* \qquad (18.3)$$

  - Although the exchange rate does not appear in Equation 18.3, the Taylor rule contains an important *indirect* reaction of the interest rate to the exchange rate.

The Role of the Exchange Rate in the Taylor Rule

- Suppose the exchange rate rises.
  - With sticky prices, a higher nominal exchange rate raises the real exchange rate.
  - According to the net export function, the higher real exchange rate decreases net exports, lowering GDP in the short run.
  - This, in turn, decreases the GDP gap, causing the central bank, according to the Taylor rule, to lower the interest rate.

The Role of the Exchange Rate in the Taylor Rule

- The Taylor rule can be modified to account for a *direct* effect of the exchange rate on the interest rate set by the central bank:

$$r = \pi + \delta(\pi - \pi^*) + B\hat{Y} + R^* - \alpha(EP / P_w) \qquad (18.4)$$

  - where (EP/Pw) is the real exchange rate and α is a positive coefficient.
  - When the real exchange rate rises, net exports and GDP fall.
    - With coefficient α being positive, the central bank lowers the interest rate, mitigating the contraction.

Taylor Rules and Macroeconomic Performance in the World Economy

- This section describes the macroeconomic performance of three countries (Australia, Canada, and the United Kingdom) that, like the United States, adopted all three parts of the trinity in the 1990s.
  - There are many similarities between the experience of inflation in these countries and inflation in the United States.

18.4 MACROECONOMIC PERFORMANCE IN JAPAN

- Japan's economy is the second largest in the world, about half the size of the United States' and about double the size of Germany's
  - The magnitude of the deterioration of Japan's macroeconomic performance is large enough to be called a *depression*.
    - Between 1991 and 2003, real GDP in Japan grew by only 14 percent, compared with 44 percent in the United States.

MACROECONOMIC PERFORMANCE IN JAPAN

- Real GDP was 20 percent below potential GDP by 1995
  - a shortfall nearly as large as in the Great Depression of the 1930s in the United States.
  - Following an enormous increase in asset prices that was not sustainable, an **asset price bubble,** in the 1980s, Japan's major stock market index, the Nikkei, fell 79 percent from its peak in 1989 to 2003 and the land price index fell by 70 percent

MACROECONOMIC PERFORMANCE IN JAPAN

- Much worse than macroeconomic performance in the United States in the 1990s and early 2000s.
- Japan has experienced sustained *near-negative inflation* (inflation close to zero) and even periods of *deflation* (negative inflation).
- Overly restrictive monetary policy in the early 1990s was a major cause of Japan's deflation.
- Escaping from deflation and restoring economic growth requires changes in both monetary and banking policy.