

## 14.6: Currency Crises and Capital Flight

### Learning Objective

1. Learn how currency crises develop and lead to capital flight.

To maintain a credible fixed exchange rate system, a country will need to buy and sell the reserve currency whenever there is excess demand or supply in the private foreign exchange (Forex). To make sales of foreign currency possible, a country will need to maintain a foreign exchange reserve. The reserve is a stockpile of assets denominated in the reserve currency. For example, if the United States fixes the dollar to the British pound, then it would need to have a reserve of pound assets in case it needs to intervene on the Forex with a sale of pounds.

Generally, a central bank holds these reserves in the form of Treasury bonds issued by the reserve country government. In this way, the reserve holdings earn interest for the central bank and thus the reserves will grow in value over time. Holding reserves in the form of currency would not earn interest and thus are less desirable. Nonetheless, a central bank will likely keep some of its reserves liquid in the form of currency to make anticipated daily Forex transactions. If larger sales of reserves become necessary, the U.S. central bank can always sell the foreign Treasury bonds on the bond market and convert those holdings to currency.

A fixed exchange rate is sustainable if the country's central bank can maintain that rate over time with only modest interventions in the Forex. Ideally, one would expect that during some periods of time, there would be excess demand for domestic currency on the Forex, putting pressure on the currency to appreciate. In this case, the central bank would relieve the pressure by selling domestic currency and buying the reserve on the Forex, thus running a balance of payments (BoP) surplus. During these periods, the country's reserve holdings would rise. At other periods, there may be excess demand for the reserve currency, putting pressure on the domestic currency to depreciate. Here, the central bank would relieve the pressure by selling the reserve currency in exchange for domestic currency, thus running a balance of payments deficit. During these periods, the country's reserve holdings would fall. As long as the country's reserve holdings stay sufficiently high during its ups and downs, the fixed exchange rate could be maintained indefinitely. In this way, the central bank's interventions "smooth-out" the fluctuations that would have occurred in a floating system.

Problems arise if the reserves cannot be maintained if, for example, there is a persistent excess demand for the foreign currency over time with very few episodes of excess supply. In this case, the central bank's persistent BoP deficits will move reserve holdings closer and closer to zero. A balance of payments crisis occurs when the country is about to run out of foreign exchange reserves.

### Borrowing Reserves

Several things may happen leading up to a balance of payments crisis. One option open to the central bank is to borrow additional quantities of the reserve currency from the reserve country central bank, government, or an international institution like the International Monetary Fund (IMF). The IMF was originally created to help countries with balance of payments problems within the Bretton Woods fixed exchange rate system (1945–1973). When a country was near to depleting its reserves, it could borrow reserve currency from the IMF. As long as the balance of payments deficits leading to reserve depletion would soon be reversed with balance of payments surpluses, the country would be able to repay the loans to the IMF in the near future. As such, the IMF "window" was intended to provide a safety valve in case volatility in supply and demand in the Forex was greater than a country's reserve holdings could handle.

### Devaluation

If a country cannot acquire additional reserves and if it does not change domestic policies in a way that causes excess demand for foreign currency to cease or reverse, then the country will run out of foreign reserves and will no longer be able to maintain a credible fixed exchange rate. The country could keep the fixed exchange rate at the same level and simply cease intervening in the Forex; however, this would not relieve the pressure for the currency to depreciate and would quickly create conditions for a thriving black market.

If the country remains committed to a fixed exchange rate system, its only choice is to devalue its currency with respect to the reserve. A lower currency value will achieve two things. First, it will reduce the prices of all domestic goods from the viewpoint of foreigners. In essence, a devaluation is like having a sale in which all the country's goods are marked down by some percentage. At

the same time, the devaluation will raise the price of foreign goods to domestic residents. Thus foreign goods have all been marked up in price by some percentage. These changes should result in an increase in demand for domestic currency to take advantage of the lower domestic prices and a decrease in demand for foreign currency due to the higher foreign prices.

The second effect occurs for investors. When the currency is devalued, the rate of return on foreign assets may fall, especially if investors had anticipated a devaluation and had adjusted their expectations accordingly. (See the next section on capital flight for further discussion.) When the rate of return on foreign assets falls, the demand for foreign currency will also fall.

If the devaluation is large enough to reverse the currency demand in the Forex, generating excess demand for the domestic currency, the central bank will have to buy foreign reserves to maintain the new devalued exchange rate and can begin to accumulate a stockpile of reserves once again.

## Capital Flight

Balance of payments crises are often anticipated by investors in the marketplace. When this occurs it will result in capital flight, which in turn is likely to aggravate the balance of payments crisis. Here's why.

The interest rate parity condition holds when rates of return on domestic and foreign assets are equalized. Recall from Chapter 11, [Section 11.3](#) that in a fixed exchange rate system the IRP condition simplifies to equalization of interest rates between two countries. However, this result assumed that investors expected the currency to remain fixed indefinitely. If investors believe instead that a country is about to suffer a balance of payments crisis and run out of foreign reserves, they will also anticipate that a devaluation will occur soon.

Assume as before that the United States fixes its currency to the British pound. The interest rate parity condition can be written as where the left side is the rate of return on U.S. assets, equal to the average U.S. interest rate, and the right side is the rate of return on British assets. When there is no imminent balance of payments crisis, investors should expect the future exchange rate ( $E_{\$/\pounds}^e$ ) to equal the current fixed exchange rate ( $E_{\$/\pounds}$ ) and the interest parity condition simplifies to  $i_{\$} = i_{\pounds}$ . However, if investors recognize that the central bank is selling large quantities of its foreign reserves in the Forex regularly, then they are likely also to recognize that the balance of payments deficits are unsustainable. Once the reserves run out, the central bank will be forced to devalue its currency. Thus forward-looking investors should plan for that event today. The result is an increase in the expected exchange rate, above the current fixed rate, reflecting the expectation that the dollar will be devalued soon.

This, in turn, will increase the expected rate of return of British assets, raising the right side of the above expression. Now,  $R_o R_{\pounds} > R_o R_{\$}$ , and investors will increase demand for British pounds on the Forex. In this instance, investors are "fleeing" their own domestic assets to purchase foreign assets (or capital) that now have a greater expected return. Thus the action is called **capital flight**.

The intuition for capital flight is simple. If an investor expects the domestic currency (and assets denominated in that currency) will soon fall in value, it is better to sell now before the value actually does fall. Also, as the domestic currency falls in value, the British pound is expected to rise in value. Thus it is wise to buy British pounds and assets while their prices are lower and profit on the increase in the pound value when the dollar devaluation occurs.

The broader effect of capital flight, which occurs in anticipation of a balance of payments crisis, is that it can actually force a crisis to occur much sooner. Suppose the United States was indeed running low on foreign reserves after running successive balance of payments deficits. Once investors surmise that a crisis may be possible soon and react with a change in their expected exchange rate, there will be a resulting increase in demand for pounds on the Forex. This will force the central bank to intervene even further in the Forex by selling foreign pound reserves to satisfy investor demand and to keep the exchange rate fixed. However, additional interventions imply an even faster depletion of foreign reserve holdings, bringing the date of crisis closer in time.

It is even possible for investor behavior to create a balance of payments crisis when one might not have occurred otherwise. Suppose the U.S. central bank (or the Fed) depletes reserves by running balance of payments deficits. However, suppose the Fed believes the reserve holdings remain adequate to defend the currency value, whereas investors believe the reserve holdings are inadequate. In this case, capital flight will likely occur that would deplete reserves much faster than before. If the capital flight is large enough, even if it is completely unwarranted based on market conditions, it could nonetheless deplete the remaining reserves and force the central bank to devalue the currency.

## Return to Float

There is one other possible response for a country suffering from a balance of payments crisis. The country could always give up on the fixed exchange rate system and allow its currency to float freely. This means the central bank no longer needs to intervene on the Forex and the exchange rate value will be determined by daily supply and demand conditions on the private Forex. Since the reason for the BoP crisis was continual pressure for the currency to depreciate, moving to a floating system would undoubtedly result in a rapidly depreciating currency.

The main advantage of returning to a floating exchange rate is that the private Forex market will quickly move the exchange rate to the level that equalizes supply and demand. In contrast, many times countries that devalue their fixed exchange rate do not devalue sufficiently and a second devaluation becomes necessary shortly thereafter. When the countries in the Bretton Woods system switched to floating rates in 1973, the original intention was to allow markets to adjust to the equilibrium exchange rates reflecting market conditions and then to refix the exchange rates at the sustainable equilibrium level. However, an agreement to reestablish fixed rates was never implemented. The U.S. dollar and many other currencies have been floating ever since.

A second advantage of switching to a floating system is that it relieves the central bank from the necessity of maintaining a stockpile of reserves. Thus the whole problem of balance of payments crises disappears completely once a country lets its currency float.

### Key Takeaways

- A fixed exchange rate is sustainable if the country's central bank can maintain that rate over time with only modest interventions in the Forex.
- A balance of payments crisis occurs when persistent balance of payments deficits bring a country close to running out of foreign exchange reserves.
- BoP crises can be resolved by (a) borrowing foreign reserves, (b) devaluation of the currency, or (c) moving to a floating exchange rate.
- In the midst of a BoP crisis, investors often purchase assets abroad in anticipation of an imminent currency devaluation or depreciation. This is known as capital flight.
- Capital flight works to exacerbate the BoP crisis because it results in a more rapid depletion of foreign exchange reserves and makes the crisis more likely to occur.

### learning goals

1. List the three ways in which a balance of payments crisis can be resolved either temporarily or permanently. Which of these methods will be most effective, especially if the country continues to pursue the policies that led to the crisis?
2. Explain why capital flight, spurred by the expectation of a currency devaluation, can be a self-fulfilling prophecy.
3. If an expected currency devaluation inspires capital flight, explain what might happen if investors expect a currency revaluation.

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