

# **Chapter 21**

## **The International Monetary System: Past, Present, and Future**

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*"...for the international economy the existence of a well-functioning financial system assuring efficient exchange is as important as it is for national economies. For this reason the problems of international monetary organization deserve to be studied with great care."*

Herbert G. Grubel, The International Monetary System, Penguin Books, 1969.

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### **II. Chapter Summary and Review**

The purpose of an **international monetary system** is to promote the

international exchange of goods, services, and factors of production. A complete description of an international monetary system would include the conventions, organizations, and institutions by which nations agree to settle payments and adjust to payments imbalances. Included in the description would be the exchange rate system. Exchange rate systems, as described in Chapter 20, can be fixed, floating, or anywhere in between. To the degree that governments intervene in foreign exchange markets, there is a need for a reserve asset for intervention purposes. If exchange rates are pegged to the dollar, then the dollar will tend to be the reserve asset. If exchange rates are pegged to gold, then gold will tend to be the reserve asset.

Three important characteristics of an international monetary system are **adjustment, liquidity, and confidence**. Adjustment describes the mechanisms that nations choose to adjust to external imbalances. Liquidity is the degree to which reserves are available to intervene in the foreign exchange market. Liquidity is not a characteristic of freely floating exchange rates because reserves are not needed by the monetary authorities to intervene in foreign-exchange markets. If reserves are not in ample supply, then nations are forced to contract the economy which will reduce imports and reduce deficits, or increase interest rates (which can also be recessionary) to attract financial flows. Confidence describes the faith that nations have in the international monetary system, including the fairness of the adjustment mechanism, and their willingness to hold adequate reserves to finance imbalances.

The gold standard, in operation from 1880-1914, was a fixed exchange-rate system in which each participating nation's government agreed to maintain some domestic price of gold, making gold the reserve asset. With each nation's currency fixed to gold, there is an implied fixed exchange rate with each other nation's currency. For example, if the price of gold in the U.S. were to be set at \$5 and the price of gold in the U.K. were to be set at £1 then the implied fixed price of the pound is \$5/£1. If the United States were to run a deficit relative to the United Kingdom, then the price of the pound would begin to increase on the foreign exchange market, say to \$5.10/£1. The discrepancy between the implied price of the pound due to established gold prices and the foreign exchange market price of gold would set off a movement of currencies and gold. For example, anyone with dollars would buy gold in the U.S. at \$5 and ship the gold to the U.K. and receive £1. The pound could then be sold on the foreign exchange market for \$5.10, producing a profit of \$0.10, before netting out the cost of shipping the gold. The buying of gold in the U.S. would threaten to increase the price of gold, but the price of gold is to be set at \$5. The monetary

authorities in the U.S. would have to sell gold for dollars, which reduces the money supply of the U.S. The reduction in the U.S. money supply would cause prices to fall in the United States, which would correct the U.S. external deficit by stimulating exports and reducing imports.

This is Hume's price-specie-flow mechanism described in Chapter 16. In a gold standard, each nation, by agreeing to fix the price of gold, gives up control of its money supply in order to maintain a fixed exchange rate by fixing the price of gold. By the rules of the game, nations with deficits do not offset (*sterilize*) the effects of gold movements on the money supply by changing the money supply through other means, although partial sterilization did occur in order to mitigate the domestic effects of the adjustment mechanism. A problem with this vision of the gold standard is the monetary reductions often worked to decrease domestic income as well as prices. A decrease in the money supply due to a deficit will shift AD down and with an upward-sloping short-run AS curve, both prices and incomes will decrease. Deficit countries must accept recession as part of the adjustment mechanism if they choose to fix exchange rates.

World War I disrupted the gold standard because economic conditions varied across nations, making the the maintenance of fixed exchange rates impossible. The system was further strained by the Depression that was experienced by nations to significantly different degrees. To deal with unemployment, nations devalued their currencies (and implemented tariffs) in an attempt to switch demand to their products. This has the effect, however, of increasing unemployment in other nations, to which the other nations responded by implementing similar policies. These competitive devaluations and beggar-thy-neighbor policies set the stage for the next international monetary system, the **Bretton Woods system**.

The Bretton Woods system is named after the rural town in New Hampshire where delegates of 44 nations met to construct a new international monetary system that would be monitored by the International Monetary Fund (IMF), which was established for that purpose. In the Bretton Woods system, the United States occupied center stage. The United States agreed to fix the price of gold at \$35 per ounce, and the other member nations would fix their currency to the dollar, with  $\pm 1\%$  deviations allowed, for a total bandwidth for exchange rates of 2%. Thus, the Bretton Woods system is known as a "gold-exchange standard." To maintain the band, nations would use reserves of dollars to intervene in the foreign exchange market. The dollar was both the reserve asset and the **intervention currency**. Reserves can be held in any form if they can be readily exchanged for the intervention currency. At the time, however, only the dollar

possessed full currency convertibility, so it was both the reserve asset and the intervention currency. Reserves of dollars could be earned when a nation's currency was strong. A strong currency meant its value threatened to appreciate relative to the dollar, requiring that the currency be sold for dollars. Reserves of dollars could also be borrowed from the IMF.

The IMF funded its lending to member nations through initial contributions made by member nations. The initial total contribution to the fund was \$8.8 billion, with each nation contributing (subscribing) a percentage (quota) based on the economic importance of each country in world trade. Twenty-five percent of the contribution was made in gold, with the remainder made in its own currency. Member nations could borrow funds from the IMF, with borrowing above the initial contribution in gold subject to conditions and higher interest rates. The IMF policy of imposing conditions on the national economic policies of borrowing nations is known as **IMF conditionality**.

The lending facilities of the IMF contributed to the liquidity of the fixed exchange-rate system. In addition, the member nations of the IMF agreed to accept a new asset reserve asset called **Special Drawing Rights (SDRs)**. Special drawing rights were essentially accounting entries (international fiat money) that member nations agreed to create and accept as reserve assets exchangeable for their own currencies. A nation could use its SDR allocation to buy dollars to intervene in the foreign exchange market and support their own currency. SDRs were not used for private transactions.

Exchange rates were to be changed only when absolutely necessary, which was known as **fundamental disequilibrium**, which was not defined precisely, but was understood to mean continual, sizeable deficits or surpluses. Exchange rate changes of less than 10% could be undertaken without IMF approval. In practice, devaluations were infrequent during the span of the Bretton Woods system, despite the apparent need for such devaluations. The consequence was persistent surpluses and deficits, which became apparent and so sparked destabilizing speculation, which only made the deficits and surpluses more pronounced.

Once the new international monetary system was underway, nations were expected to remove restrictions on currency exchange that were introduced after the breakdown of the gold standard, although restrictions on currency exchange for financial flows could remain to stem possible destabilizing speculation. In addition, trade barriers would be removed under the auspices of GATT.

The basic purpose of the IMF was to promote trade through monetary stability by providing the liquidity necessary to maintain relatively fixed exchange rates. The IMF's companion organization, the **World Bank**, also known as the **International Bank for Reconstruction and Development (IBRD)** would finance long-term loans to help reconstruct the economies damaged by war and provide long-term development loans for the developing economies.

From 1945-1949 the U.S. economy was the source of goods for the war-damaged economies of Europe, and the United States ran considerable surpluses. By 1950, and until 1957, these surpluses became small deficits. These deficits were instrumental in that the net outflow of dollars supplied the liquidity necessary to European countries to maintain dollar reserve balances consistent with expanded trade and expanded external imbalances. Recall that the dollar was both the reserve and intervention currency. Dollar reserves were willingly held because they could be converted to gold at a fixed price, and dollar balances earned interest that gold did not.

From 1958 until the early 1970s, U.S. deficits increased, reflecting large private direct investment in Europe and the high rate of inflation associated with the Vietnam War. Holdings of dollars by both foreign governments (reserve balances) and private sectors increased substantially. The United States could have devalued to correct the deficit but chose not to in order to maintain confidence in the dollar, which was viewed as necessary for the continued functioning of the dollar as a reserve asset. Devaluation of the dollar (a higher price for gold) would have reduced the value of foreign-held dollar reserves and possibly have led to a crisis of confidence. Instead, the United States instituted a number of policies, including direct controls, which would hopefully stem the outflow of dollars. By 1970, some foreign dollar balances had been converted to gold in the United States so U.S. gold balances fell, while foreign holdings of dollars continued to increase. By 1970, outstanding dollars were four times as great as U.S. gold holdings.

By 1971, it had become apparent that the dollar needed to be devalued, which led to huge destabilizing speculative dollar outflows. In mid-1971, the United States suspended convertibility of the dollar into gold, marking the end of the Bretton Woods system. An attempt was made to maintain fixed exchange rates by devaluing the dollar and revaluing the German mark and the Japanese yen, the principal surplus countries relative to the United States. At the new currency values, the band was widened from  $\pm 1$  percent to  $\pm 2.25$  percent, but the dollar was no longer convertible into gold, so this new system, called the **Smithsonian Agreement**, was a genuine **dollar standard**, in which no currency

was pegged to gold.

Under the Bretton Woods dollar-exchange standard, exchange rates were allowed to change when there was a fundamental disequilibrium. In practice, exchange rates changed very little, despite the obvious need for devaluations and revaluations. Especially problematic was the need for a devaluation of the dollar, the center of the system. It was necessary for reserves to grow in order to provide *liquidity*, so the Bretton Woods system needed U.S. deficits to continue to function well, but such deficits threatened the *confidence* of the world's reserve asset. National policy makers were reluctant to allow adjustment of the domestic economy because this meant recession in deficit countries and inflation in surplus countries. Without a smooth adjustment mechanism and problems with liquidity and confidence, the system ended.

The relatively fixed exchange-rate system of the Bretton Woods era has been replaced by increased flexibility of exchange rates. Many smaller countries peg to their major trading partners, and the EU has adopted one currency, but the remaining countries of the North and many large countries of the South have moved to a managed floating system, in which intervention is used to smooth short-term exchange rate fluctuations. Under the new floating system, reserves are still necessary for short-term interventions, and the IMF has expanded its lending facilities.

As might be expected, the problems associated with the current system of more flexible exchange rates, combined with freer movements of capital, include excessive volatility of exchange rates, and periodic financial crises, especially in emerging market economies.

Excessive short-run volatility can disrupt international trade and investment. In addition, there appears to be excessive long-run volatility. The United States, for example, experienced a period of continued appreciation in the early 1980s, followed by a period of continued depreciation in the late 1980s. Suggestions for reform of the system generally include more stability of exchange rates, which require some form of macroeconomic policy coordination. If nations have different inflation goals, then this is not possible and floating exchange rates are necessary. The late Professor James Tobin of Yale has suggested that floating rates move excessively because of very short-term capital flows (hot money) and proposed a tax (now known as the "Tobin Tax") on such transactions that increases as the duration of the flow decreases.

In the past few years a number of emerging market economies (Mexico, south-East Asia, Russia and Brazil) have experienced financial crises, all due to substantial outflows of short-term funds in response to a lack of confidence. This lack of confidence is due to suspect banking and financial institutions. The recent financial crisis in the U.S. and most of the developed world has led to a renewed commitment to regulation of financial markets and policy coordination between nations.

Because of the difficulty of close macroeconomic policy coordination between countries, it appears that flexible exchange rates are here to stay for some time, with some intervention to reduce short-term fluctuations, and perhaps some attention to wide bands with limited policy coordination. In addition, financial crises in emerging market economies can be ameliorated by improved information flows (early-warning signals), improved safety of banking and financial institutions (more prudent monitoring and standards), and increased financial backing from both private and official (including IMF) at the first signs of crisis.

### **III. Questions**

1. a) What are the "rules of the game" in the gold standard?  
  
b) What are the "rules of the game" in the Bretton Woods system?
2. a) What was the dilemma associated with the relationship between liquidity and confidence in the Bretton Woods system?  
  
b) Explain how the creation and distribution of SDRs was an attempt to settle the dilemma explained in part a.
3. a) What automatic adjustments to an external deficit would occur under the Bretton Woods system?  
  
b) How could policy makers resist the automatic adjustment mechanism? Why would policy makers resist the automatic adjustment mechanism?  
  
c) What problems would resistance to the automatic adjustment mechanism

create?

**4. a)** What was the historical context in which the Bretton Woods system of relatively fixed exchange rates was created?

b) What was the role of the IMF in the Bretton Woods system?

**5. a)** Why was destabilizing speculation a major problem in the Bretton Woods system?

b) How could intervention in the spot and forward markets stem destabilizing speculation, and what role do expectations play in the success of such attempts?

**6.** What are the crucial similarities and differences between the Bretton Woods system and the short-lived Smithsonian Agreement that was intended to replace the Bretton Woods system?

**7. a)** Provide a brief description of the exchange-rate arrangements of the current international monetary system.

b) What are some of the major problems associated with the current international monetary system?