

China's Exchange Rate Regime

opening case

For years, there have been claims from politicians in the United States that the Chinese actively manipulate their currency, the yuan, keeping its value low against the dollar and other major currencies in order to boost Chinese exports. In November 2015, for example, presidential hopeful Donald Trump claimed that “the wanton manipulation of China’s currency” is “robbing Americans of billions of dollars in capital and millions of jobs.”* But is this claim true? Would it even be possible for China to manipulate the foreign exchange markets to artificially depress the value of their currency? To answer these questions, one needs to look at the history of exchange rate determination for China and understand something about how the international monetary system actually works.

For most of its history, the Chinese yuan was pegged to the U.S. dollar at a fixed exchange rate. When China started to open up its economy to foreign trade and investment in the 1980s, the yuan was devalued by the Chinese government in order to improve the competitiveness of Chinese exports. Thus, the official yuan/USD pegged exchange rate was increased from 1.50 yuan per U.S. dollar in 1980 to 8.62 yuan per U.S. dollar in 1994. With China’s exports growing and the country running a growing current account trade surplus, pressure began to increase for China to let its currency appreciate. In response, between 1997 and 2005, the exchange rate was fixed at 8.27 yuan per U.S. dollar, which represented a small appreciation. One could argue that during this period, China’s currency was indeed undervalued and that this was the result of government policy.

By the 2000s, China’s growing importance in the global economy and the rise of its export-led economy led to calls for the country to reevaluate its fixed exchange rate policy. In response, in July 2005, the country adopted a managed floating exchange rate system. Under this system, the exchange rate for the yuan was set with reference to a basket of foreign currencies that included the U.S. dollar, the euro, the Japanese yen, and the British pound. The daily exchange rate was allowed to float within a narrow band of 0.3 percent around the central parity. The daily band was extended to 0.5 percent in 2007, 1 percent in 2012, and 2 percent in 2014.

Over time, this managed float system allowed for the appreciation of the Chinese yuan. For example, against the U.S. dollar, the exchange rate changed from 8.27 yuan per dollar in mid-2005 to 6.0875 yuan per U.S. dollar on July 20, 2015, representing an appreciation of 26 percent. More generally, the effective exchange rate index of the yuan against a basket of more than 60 other currencies increased from 86.3 in July 2005 to 123.8 by early 2016, representing an appreciation of 43 percent. The yuan has appreciated by

*Matthew Slaughter, “The Myths of China’s Currency Manipulation,” *The Wall Street Journal*, January 8, 2016.

–continued

less than this against the U.S. dollar primarily because the U.S. dollar has also been relatively strong and appreciated against many other currencies over the same time period.

This data suggests that far from artificially trying to keep their currency undervalued, since July 2005, the Chinese have allowed the yuan to increase in value against other currencies, albeit within the constraints imposed by the managed float. In late 2015, this commitment was put to the test when a slowdown in the rate of growth of the Chinese economy led to an outflow of capital from China, which put downward pressure on the yuan. The Chinese responded by trying to maintain the value of the yuan, using their foreign exchange reserves, which are primarily held in U.S. dollars, to buy yuan on the open market and shore up its value. Reports suggest that China spent \$500 billion in 2015 to shore up the value of the yuan and another \$100 billion in January 2016 alone. These actions reduced China's foreign exchange reserves to \$3.23 trillion, the lowest level since 2012. One reason for China to protect the value of the yuan against the dollar: a large number of Chinese companies have dollar-denominated debt. If the yuan falls against the dollar, the price of serving that debt goes up when translated into yuan. This could stress the financials of those companies (possibly pushing some into bankruptcy) and make it more difficult for China to hit the government's economic growth targets. ●

Sources: T. Hult, "The U.S. Shouldn't Fret over Cheaper Yuan," *Time*, August 14, 2015; "The Yuan and the Markets," *The Economist*, January 16, 2016; Madison Gesiotto, "The Negative Effects of China's Currency Manipulation Explained," *Washington Times*, November 13, 2015; Matthew Slaughter, "The Myths of China's Currency Manipulation," *The Wall Street Journal*, January 8, 2016; "The Curious Case of China's Currency," *The Economist*, August 11, 2015.

Introduction

In this chapter, we look at the international monetary system and its role in determining exchange rates. The **international monetary system** refers to the institutional arrangements that govern exchange rates. In Chapter 10, we assumed the foreign exchange market was the primary institution for determining exchange rates and the impersonal market forces of demand and supply determined the relative value of any two currencies (i.e., their exchange rate). Furthermore, we explained that the demand and supply of currencies is influenced by their respective countries' relative inflation rates and interest rates. When the foreign exchange market determines the relative value of a currency, we say that the country is adhering to a **floating exchange rate** regime. Four of the world's major trading currencies—the U.S. dollar, the European Union's euro, the Japanese yen, and the British pound—are all free to float against each other. Thus, their exchange rates are determined by market forces and fluctuate against each other day to day, if not minute to minute. However, the exchange rates of many currencies are not determined by the free play of market forces; other institutional arrangements are adopted.

Many of the world's developing nations peg their currencies, primarily to the dollar or the euro. A **pegged exchange rate** means the value of the currency is fixed relative to a reference currency, such as the U.S. dollar, and then the exchange rate between that currency and other currencies is determined by the reference currency exchange rate. As noted in the opening case, China operated with a pegged exchange rate system until July 2005.

Other countries, while not adopting a formal pegged rate, try to hold the value of their currency within some range against an important reference currency such as the U.S. dollar or a "basket" of currencies. This is often referred to as a **managed float system** or a **dirty-float system**. It is a float because, in theory, the value of the currency is determined by market forces, but it is a managed (or dirty) float (as opposed to a clean float) because the central bank of a country will intervene in the foreign exchange market to try to maintain the value of its currency if it depreciates too rapidly against an important reference currency. As described in the opening case, this has been the policy adopted by the Chinese since July 2005. The value of the Chinese currency, the yuan, has been linked to a basket of other currencies—including the dollar, yen, and euro—and it is allowed to vary in value against individual currencies, but only within limits.

Still other countries have operated with a **fixed exchange rate**, in which the values of a set of currencies are fixed against each other at some mutually agreed-on exchange rate. Before the

International Monetary System

Institutional arrangements countries adopt to govern exchange rates.

Floating Exchange Rate

A system under which the exchange rate for converting one currency into another is continuously adjusted depending on the laws of supply and demand.

Pegged Exchange Rate

Currency value is fixed relative to a reference currency.

Dirty-Float System

A system under which a country's currency is nominally allowed to float freely against other currencies but in which the government will intervene, buying and selling currency, if it believes that the currency has deviated too far from its fair value.

Fixed Exchange Rate

A system under which the exchange rate for converting one currency into another is fixed.

The international monetary system captures our attention because here we are talking about the institutional arrangements that govern exchange rates, and this is a tricky business in which countries have leverage to influence their country's currency value but do not necessarily always use it. The options for how the value, or "rate," is set for a currency are many: floating exchange rate, pegged exchange rate, dirty float, and fixed exchange rate are the ones covered in Chapter 11. We start the chapter by some history related to the "gold standard," a practice that takes us back to ancient times. Technically, no country uses the gold standard any longer but many, including the United

States, hold substantial gold reserves. The international monetary system depends on a lot of variables (see the globalEDGE™ Database of International Business Statistics, which we covered in Chapter 10); today, these variables also include "behavioral" (perception) issues in addition to hard, concrete data. The globalEDGE™ Blog has been a favored "international business" vehicle to stay current on important topics, often related to monetary issues. Check out the globalEDGE™ Blog (globaledge.msu.edu/blog), see what is covered on monetary issues, and engage with people from around the world on issues that are of interest to you.

introduction of the euro in 1999, several member states of the European Union operated with fixed exchange rates within the context of the **European Monetary System (EMS)**. For a quarter of a century after World War II, the world's major industrial nations participated in a fixed exchange rate system. Although this system collapsed in 1973, some still argue that the world should attempt to reestablish it.

This chapter explains how the international monetary system works and points out its implications for international business. To understand how the system works, we must review its evolution. We begin with a discussion of the gold standard and its breakup during the 1930s. Then we discuss the 1944 Bretton Woods conference. The Bretton Woods conference also created two major international institutions that play a role in the international monetary system—the International Monetary Fund (IMF) and the World Bank. The IMF was given the task of maintaining order in the international monetary system; the World Bank's role was to promote development. Today, both these institutions continue to play major roles in the world economy and in the international monetary system. As we will see in the closing case, the IMF has stepped in to help Ukraine navigate its way through an economic crisis caused by political turmoil and a civil war in eastern Ukraine. The Bretton Woods system of fixed exchange rates collapsed in 1973. Since then, the world has operated with a mixed system in which some currencies are allowed to float freely, but many are either managed by government intervention or pegged to another currency.

Finally, we discuss the implications of all this material for international business. We will see how the exchange rate policy adopted by a government can have an important impact on the outlook for business operations in a given country. We also look at how the policies adopted by the IMF can have an impact on the economic outlook for a country and, accordingly, on the costs and benefits of doing business in that country.

The Gold Standard

The gold standard had its origin in the use of gold coins as a medium of exchange, unit of account, and store of value—a practice that dates to ancient times. When international trade was limited in volume, payment for goods purchased from another country was typically made in gold or silver. However, as the volume of international trade expanded in the wake of the Industrial Revolution, a more convenient means of financing international trade was needed. Shipping large quantities of gold and silver around the world to finance international trade seemed impractical. The solution adopted was to arrange for payment in paper currency and for governments to agree to convert the paper currency into gold on demand at a fixed rate.

MECHANICS OF THE GOLD STANDARD Pegging currencies to gold and guaranteeing convertibility is known as the **gold standard**. By 1880, most of the world's major trading nations, including Great Britain, Germany, Japan, and the United States, had adopted the

European Monetary System (EMS)

EU system designed to create a zone of monetary stability in Europe, control inflation, and coordinate exchange rate policies of EU countries.

LO 11-1

Describe the historical development of the modern global monetary system.

Gold Standard

The practice of pegging currencies to gold and guaranteeing convertibility.

gold standard. Given a common gold standard, the value of any currency in units of any other currency (the exchange rate) was easy to determine.

For example, under the gold standard, one U.S. dollar was defined as equivalent to 23.22 grains of “fine” (pure) gold. Thus, one could, in theory, demand that the U.S. government convert that one dollar into 23.22 grains of gold. Because there are 480 grains in an ounce, one ounce of gold cost \$20.67 (480/23.22). The amount of a currency needed to purchase one ounce of gold was referred to as the **gold par value**. The British pound was valued at 113 grains of fine gold. In other words, one ounce of gold cost £4.25 (480/113). From the gold par values of pounds and dollars, we can calculate what the exchange rate was for converting pounds into dollars; it was £1 = \$4.87 (i.e., \$20.67/£4.25).

Gold Par Value

The amount of currency needed to purchase one ounce of gold.

Balance-of-Trade Equilibrium

Reached when the income a nation's residents earn from exports equals money paid for imports.

STRENGTH OF THE GOLD STANDARD The great strength claimed for the gold standard was that it contained a powerful mechanism for achieving balance-of-trade equilibrium by all countries.¹ A country is said to be in **balance-of-trade equilibrium** when the income its residents earn from exports is equal to the money its residents pay to other countries for imports (the current account of its balance of payments is in balance). Suppose there are only two countries in the world, Japan and the United States. Imagine Japan's trade balance is in surplus because it exports more to the United States than it imports from the United States. Japanese exporters are paid in U.S. dollars, which they exchange for Japanese yen at a Japanese bank. The Japanese bank submits the dollars to the U.S. government and demands payment of gold in return. (This is a simplification of what would occur, but it will make our point.)

Under the gold standard, when Japan has a trade surplus, there is a net flow of gold from the United States to Japan. These gold flows automatically reduce the U.S. money supply and swell Japan's money supply. As we saw in Chapter 10, there is a close connection between money supply growth and price inflation. An increase in money supply will raise prices in Japan, while a decrease in the U.S. money supply will push U.S. prices downward. The rise in the price of Japanese goods will decrease demand for these goods, while the fall in the price of U.S. goods will increase demand for these goods. Thus, Japan will start to buy more from the United States, and the United States will buy less from Japan, until a balance-of-trade equilibrium is achieved.

This adjustment mechanism seems so simple and attractive that even today, nearly 80 years after the final collapse of the gold standard, some people believe the world should return to a gold standard.

THE PERIOD BETWEEN THE WARS: 1918–1939 The gold standard worked reasonably well from the 1870s until the start of World War I in 1914, when it was abandoned. During the war, several governments financed part of their massive military expenditures by printing money. This resulted in inflation, and by the war's end in 1918, price levels were higher everywhere. The United States returned to the gold standard in 1919, Great Britain in 1925, and France in 1928.

Great Britain returned to the gold standard by pegging the pound to gold at the prewar gold parity level of £4.25 per ounce, despite substantial inflation between 1914 and 1925. This priced British goods out of foreign markets, which pushed the country into a deep depression. When foreign holders of pounds lost confidence in Great Britain's commitment to maintaining its currency's value, they began converting their holdings of pounds into gold. The British government saw that it could not satisfy the demand for gold without seriously depleting its gold reserves, so it suspended convertibility in 1931.

The United States followed suit and left the gold standard in 1933 but returned to it in 1934, raising the dollar price of gold from \$20.67 per ounce to \$35.00 per ounce. Because more dollars were needed to buy an ounce of gold than before, the implication was that the dollar was worth less. This effectively amounted to a devaluation of the dollar relative to other currencies. Thus, before the devaluation, the pound/dollar exchange rate was £1 = \$4.87, but after the devaluation it was £1 = \$8.24. By reducing the price of U.S. exports and increasing the price of imports, the government was trying to create employment in the United States by boosting output (the U.S. government was basically using the exchange rate as an instrument of trade policy—something it

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now accuses China of doing). However, a number of other countries adopted a similar tactic, and in the cycle of competitive devaluations that soon emerged, no country could win.

The net result was the shattering of any remaining confidence in the system. With countries devaluing their currencies at will, one could no longer be certain how much gold a currency could buy. Instead of holding onto another country's currency, people often tried to change it into gold immediately, lest the country devalue its currency in the intervening period. This put pressure on the gold reserves of various countries, forcing them to suspend gold convertibility. By the start of World War II in 1939, the gold standard was dead.

The Bretton Woods System

In 1944, at the height of World War II, representatives from 44 countries met at Bretton Woods, New Hampshire, to design a new international monetary system. With the collapse of the gold standard and the Great Depression of the 1930s fresh in their minds, these statesmen were determined to build an enduring economic order that would facilitate postwar economic growth. There was consensus that fixed exchange rates were desirable. In addition, the conference participants wanted to avoid the senseless competitive devaluations of the 1930s, and they recognized that the gold standard would not ensure this. The major problem with the gold standard as previously constituted was that no multinational institution could stop countries from engaging in competitive devaluations.

The agreement reached at Bretton Woods established two multinational institutions—the International Monetary Fund (IMF) and the World Bank. The task of the IMF would be to maintain order in the international monetary system and that of the World Bank would be to promote general economic development. The Bretton Woods agreement also called for a system of fixed exchange rates that would be policed by the IMF. Under the agreement, all countries were to fix the value of their currency in terms of gold but were not required to exchange their currencies for gold. Only the dollar remained convertible into gold—at a price of \$35 per ounce. Each country decided what it wanted its exchange rate to be vis-à-vis the dollar and then calculated the gold par value of the currency based on that selected dollar exchange rate. All participating countries agreed to try to maintain the value of their currencies within 1 percent of the par value by buying or selling currencies (or gold) as needed. For example, if foreign exchange dealers were selling more of a country's currency than demanded, that country's government would intervene in the foreign exchange markets, buying its currency in an attempt to increase demand and maintain its gold par value.

Another aspect of the Bretton Woods agreement was a commitment not to use devaluation as a weapon of competitive trade policy. However, if a currency became too weak to defend, a devaluation of up to 10 percent would be allowed without any formal approval by the IMF. Larger devaluations required IMF approval.

THE ROLE OF THE IMF The IMF Articles of Agreement were heavily influenced by the worldwide financial collapse, competitive devaluations, trade wars, high unemployment, hyperinflation in Germany and elsewhere, and general economic disintegration that occurred between the two world wars. The aim of the Bretton Woods agreement, of which the IMF was the main custodian, was to try to avoid a repetition of that chaos through a combination of discipline and flexibility.

Discipline A fixed exchange rate regime imposes discipline in two ways. First, the need to maintain a fixed exchange rate puts a brake on competitive devaluations and brings stability to the world trade environment. Second, a fixed exchange rate regime imposes monetary discipline on countries, thereby curtailing price inflation. For example, consider what would happen under a fixed exchange rate regime if Great Britain rapidly increased its money supply by printing pounds. As explained in Chapter 10, the increase in money supply would lead

LO 11-2

Explain the role played by the World Bank and the IMF in the international monetary system.

Does the World Bank Make Global Markets Less Competitive?

The World Bank was created in 1944 as an international financial institution of the United Nations that would provide loans to developing countries for capital investments in the country. Broadly, the World Bank's official goal is the reduction of poverty in the global marketplace. According to its Articles of Agreement, all of the World Bank's decisions must be guided by a commitment to the promotion of foreign investment and international trade and to the facilitation of capital investment. These goals are admirable to most people and countries, but what effect does lending to developing countries have on the rest of the world? Would it be better or worse if lending was only based on risk assessments and financial opportunities of countries in a free market system?

to price inflation. Given fixed exchange rates, inflation would make British goods uncompetitive in world markets, while the prices of imports would become more attractive in Great Britain. The result would be a widening trade deficit in Great Britain, with the country importing more than it exports. To correct this trade imbalance under a fixed exchange rate regime, Great Britain would be required to restrict the rate of growth in its money supply to bring price inflation back under control. Thus, fixed exchange rates are seen as a mechanism for controlling inflation and imposing economic discipline on countries.

Flexibility Although monetary discipline was a central objective of the Bretton Woods agreement, it was recognized that a rigid policy of fixed exchange rates would be too inflexible. It would probably break down just as the gold standard had. In some cases, a country's attempts to reduce its money supply growth and correct a persistent balance-of-payments deficit could force the country into recession and create high unemployment. The architects of the Bretton Woods agreement wanted to avoid high unemployment, so they built limited flexibility into the system. Two major features of the IMF Articles of Agreement fostered this flexibility: IMF lending facilities and adjustable parities.

The IMF stood ready to lend foreign currencies to members to tide them over during short periods of balance-of-payments deficits, when a rapid tightening of monetary or fiscal policy would hurt domestic employment. A pool of gold and currencies contributed by IMF members provided the resources for these lending operations. A persistent balance-of-payments deficit can lead to a depletion of a country's reserves of foreign currency, forcing it to devalue its currency. By providing deficit-laden countries with short-term foreign currency loans, IMF funds would buy time for countries to bring down their inflation rates and reduce their balance-of-payments deficits. The belief was that such loans would reduce pressures for devaluation and allow for a more orderly and less painful adjustment.

Countries were to be allowed to borrow a limited amount from the IMF without adhering to any specific agreements. However, extensive drawings from IMF funds would require a country to agree to increasingly stringent IMF supervision of its macroeconomic policies. Heavy borrowers from the IMF must agree to monetary and fiscal conditions set down by the IMF, which typically included IMF-mandated targets on domestic money supply growth, exchange rate policy, tax policy, government spending, and so on.

The system of adjustable parities allowed for the devaluation of a country's currency by more than 10 percent if the IMF agreed that a country's balance of payments was in "fundamental disequilibrium." The term *fundamental disequilibrium* was not defined in the IMF's Articles of Agreement, but it was intended to apply to countries that had suffered permanent adverse shifts in the demand for their products. Without devaluation, such a country would experience high unemployment and a persistent trade deficit until the domestic price level had fallen far enough to restore a balance-of-payments equilibrium. The belief was that devaluation could help sidestep a painful adjustment process in such circumstances.

THE ROLE OF THE WORLD BANK The official name for the World Bank is the International Bank for Reconstruction and Development (IBRD). When the Bretton Woods participants established the World Bank, the need to reconstruct the war-torn economies of Europe was foremost in their minds. The bank's initial mission was to help finance the building of Europe's economy by providing low-interest loans. As it turned out, the World Bank was overshadowed in this role by the Marshall Plan, under which the United States lent money directly to European nations to help them rebuild. So the bank turned its attention to development and began lending money to third-world nations. In the 1950s, the bank concentrated on public-sector projects. Power stations, road building, and other transportation investments were much in favor. During the 1960s, the bank also began to lend heavily in support of agriculture, education, population control, and urban development.

The bank lends money under two schemes. Under the IBRD scheme, money is raised through bond sales in the international capital market. Borrowers pay what the bank calls a market rate of interest—the bank's cost of funds plus a margin for expenses. This "market" rate is lower than commercial banks' market rate. Under the IBRD scheme, the bank offers low-interest loans to risky customers whose credit rating is often poor, such as the governments of underdeveloped nations.

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A second scheme is overseen by the International Development Association (IDA), an arm of the bank created in 1960. Resources to fund IDA loans are raised through subscriptions from wealthy members such as the United States, Japan, and Germany. IDA loans go only to the poorest countries. Borrowers have up to 50 years to repay at an interest rate of less than 1 percent a year. The world's poorest nations receive grants and interest-free loans.

The Collapse of the Fixed Exchange Rate System

The system of fixed exchange rates established at Bretton Woods worked well until the late 1960s, when it began to show signs of strain. The system finally collapsed in 1973, and since then, we have had a managed-float system. To understand why the system collapsed, one must appreciate the special role of the U.S. dollar in the system. As the only currency that could be converted into gold and as the currency that served as the reference point for all others, the dollar occupied a central place in the system. Any pressure on the dollar to devalue could wreak havoc with the system, and that is what occurred.

Most economists trace the breakup of the fixed exchange rate system to the U.S. macroeconomic policy package of 1965–1968.² To finance both the Vietnam conflict and his welfare programs, President Lyndon Johnson backed an increase in U.S. government spending that was not financed by an increase in taxes. Instead, it was financed by an increase in the money supply, which led to a rise in price inflation from less than 4 percent in 1966 to close to 9 percent by 1968. At the same time, the rise in government spending had stimulated the economy. With more money in their pockets, people spent more—particularly on imports—and the U.S. trade balance began to deteriorate.

The increase in inflation and the worsening of the U.S. foreign trade position gave rise to speculation in the foreign exchange market that the dollar would be devalued. Things came to a head in spring 1971, when U.S. trade figures showed that for the first time since 1945, the United States was importing more than it was exporting. This set off massive purchases of German deutsche marks in the foreign exchange market by speculators who guessed that the mark would be revalued against the dollar. On a single day, May 4, 1971, the Bundesbank (Germany's central bank) had to buy \$1 billion to hold the dollar/deutsche mark exchange rate at its fixed exchange rate, given the great demand for deutsche marks. On the morning of May 5, the Bundesbank purchased another \$1 billion during the first hour of foreign exchange trading! At that point, the Bundesbank faced the inevitable and allowed its currency to float.

In the weeks following the decision to float the deutsche mark, the foreign exchange market became increasingly convinced that the dollar would have to be devalued. However, devaluation of the dollar was no easy matter. Under the Bretton Woods provisions, any other country could change its exchange rates against all currencies simply by fixing its dollar rate at a new level. But as the key currency in the system, the dollar could be devalued only if all countries agreed to simultaneously revalue against the dollar. Many countries did not want this, because it would make their products more expensive relative to U.S. products.

To force the issue, President Richard Nixon announced in August 1971 that the dollar was no longer convertible into gold. He also announced that a new 10 percent tax on imports would remain in effect until U.S. trading partners agreed to revalue their currencies against the dollar. This brought the trading partners to the bargaining table, and in December 1971, an agreement was reached to devalue the dollar by about 8 percent against foreign currencies. The import tax was then removed. The problem was not solved, however. The U.S. balance-of-payments position continued to deteriorate throughout 1973, while the nation's money supply continued to expand at an



LO 11-1

Describe the historical development of the modern global monetary system.

Should We Go Back to the Gold Standard?

Nixon's decision to not link the dollar to gold is the "primary cause of the troubles we have [today]," says Porter Stansberry, founder of Stansberry & Associates Investment Research. "The purpose of gold is to make sure credit growth is restrained and limited to real growth and productivity." Since 1971, the amount of debt in the United States has skyrocketed, while the value of the dollar has tumbled. Moving away from gold "allows people who have borrowed money to pay it back in currency that's worth less," Stansberry says. Unfortunately, "it's hugely disruptive to our economy." His idea is that the United States and other countries should go back to a gold (or silver) standard. On the other hand, "Why should we limit the amount of currency floating in circulation by a rock we have to dig out of the ground and store?" asks James Altucher of Formula Capital. "Gold is ultimately a limited resource." Why should we arbitrarily pick this yellow rock and limit the world's economy by it? Innovation happens because we've been able to extend credit . . . beyond what gold would allow us. And it's through debt and lending that companies grow." Who do you agree with: Stansberry, who argues for the gold standard, or Altucher, who argues for today's currency system?

Source: Aaron Task, "40 Years Later: Should America Go Back to the Gold Standard?" *Yahoo! Finance*, August 19, 2011. <http://finance.yahoo.com>.



inflationary rate. Speculation continued to grow that the dollar was still overvalued and that a second devaluation would be necessary. In anticipation, foreign exchange dealers began converting dollars to deutsche marks and other currencies. After a massive wave of speculation in February 1973, which culminated with European central banks spending \$3.6 billion on March 1 to try to prevent their currencies from appreciating against the dollar, the foreign exchange market was closed. When the foreign exchange market reopened March 19, the currencies of Japan and most European countries were floating against the dollar, although many developing countries continued to peg their currency to the dollar, and many do to this day. At that time, the switch to a floating system was viewed as a temporary response to unmanageable speculation in the foreign exchange market. But it is now more than 40 years since the Bretton Woods system of fixed exchange rates collapsed, and the temporary solution looks permanent.

The Bretton Woods system had an Achilles' heel: The system could not work if its key currency, the U.S. dollar, was under speculative attack. The Bretton Woods system could work only as long as the U.S. inflation rate remained low and the United States did not run a balance-of-payments deficit. Once these things occurred, the system soon became strained to the breaking point.

LO 11-1

Describe the historical development of the modern global monetary system.

The Floating Exchange Rate Regime

The floating exchange rate regime that followed the collapse of the fixed exchange rate system was formalized in January 1976, when IMF members met in Jamaica and agreed to the rules for the international monetary system that are in place today.

THE JAMAICA AGREEMENT The Jamaica meeting revised the IMF's Articles of Agreement to reflect the new reality of floating exchange rates. The main elements of the Jamaica agreement include the following:

- Floating rates were declared acceptable. IMF members were permitted to enter the foreign exchange market to even out "unwarranted" speculative fluctuations.
- Gold was abandoned as a reserve asset. The IMF returned its gold reserves to members at the current market price, placing the proceeds in a trust fund to help poor nations. IMF members were permitted to sell their own gold reserves at the market price.
- Total annual IMF quotas—the amount member countries contribute to the IMF—were increased to \$41 billion. (Since then, they have been increased to \$767 billion, while the membership of the IMF has been expanded to include 188 countries. Non-oil-exporting, less developed countries were given greater access to IMF funds.)

EXCHANGE RATES SINCE 1973 Since March 1973, exchange rates have become much more volatile and less predictable than they were between 1945 and 1973.³ This volatility has been partly due to a number of unexpected shocks to the world monetary system, including:

- The oil crisis in 1971, when the Organization of the Petroleum Exporting Countries (OPEC) quadrupled the price of oil. The harmful effect of this on the U.S. inflation rate and trade position resulted in a further decline in the value of the dollar.
- The loss of confidence in the dollar that followed a sharp rise in the U.S. inflation rate in 1977–1978.
- The oil crisis of 1979, when OPEC once again increased the price of oil dramatically: this time, it was doubled.
- The unexpected rise in the dollar between 1980 and 1985, despite a deteriorating balance-of-payments picture.
- The rapid fall of the U.S. dollar against the Japanese yen and German deutsche mark between 1985 and 1987, and against the yen between 1993 and 1995.
- The partial collapse of the European Monetary System in 1992.
- The 1997 Asian currency crisis, when the Asian currencies of several countries—including South Korea, Indonesia, Malaysia, and Thailand—lost between 50 and 80 percent of their value against the U.S. dollar in a few months.
- The global financial crisis of 2008–2010 and the sovereign debt crisis in the European Union during 2010–2011.

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The U.S. Dollar, Oil Prices, and Recycling Petrodollars

Between 2004 and 2008, global oil prices surged. They peaked at \$147 a barrel in July 2008, up from about \$20 in 2001, before falling sharply back to a \$34 to \$48 range by early 2009. From 2010 onward, they increased again, rising to over \$100 a barrel in early 2014, before falling back to around \$30 a barrel by early 2016. The rise was due to a combination of greater-than-expected demand for oil, particularly from rapidly developing giants such as China and India; tight supplies; and perceived geopolitical risks in the Middle East, the world's largest oil-producing region. The fall since mid-2014 was due to the combination of a weak global economy and rapidly increasing production from shale oil fields in the United States.

The surge in oil prices between 2004 and 2009 was a windfall for oil-producing countries. Collectively, they earned around \$700 billion in oil revenues in 2005 and well over \$1 trillion in 2007 and 2008—some 64 percent of which went to members of OPEC. Saudi Arabia, the world's largest oil producer, reaped a major share. Because oil is priced in U.S. dollars, the rise in oil prices translated into a substantial increase in the dollar holdings of oil producers (the dollars earned from the sale of oil are often referred to as *petrodollars*). In essence, rising oil prices represent a net transfer of dollars from oil consumers in countries such as the United States to oil producers in Russia, Saudi Arabia, and Venezuela. What did they do with these dollars?

One option for producing countries was to spend their petrodollars on public-sector infrastructure, such as health services, education, roads, and telecommunications systems. Among other things, this could boost economic growth in those countries and pull in foreign imports, which would help counterbalance the trade surpluses enjoyed by oil producers and support global economic growth. Spending did indeed pick up in many oil-producing countries. However, according to the IMF, OPEC

members spent only about 40 percent of their windfall profits from higher oil prices in 2002–2007 (an exception was Venezuela, whose leader, Hugo Chávez, was on a spending spree until his death in early 2013). The last time oil prices increased sharply in 1979, oil producers significantly ramped up spending on infrastructure, only to find themselves saddled with excessive debt when oil prices collapsed a few years later. This time they were more cautious—an approach that seems wise given the rapid fall in oil prices during late 2008 and again in late 2014.

Another option was for oil producers to invest a good chunk of the dollars they earned from oil sales in dollar-denominated assets, such as U.S. bonds, stocks, and real estate. This did happen. OPEC members in particular funneled dollars back into U.S. assets, mostly low-risk government bonds. The implication is that by recycling their petrodollars, oil producers helped finance the large and growing current account deficit of the United States, enabling it to pay its large oil import bill.

A third possibility for oil producers was to invest in non-dollar-denominated assets, including European and Japanese bonds and stocks. This, too, happened. Also, some OPEC investors had purchased not just small equity positions but entire companies. In 2005, for example, Dubai International Capital purchased the Tussauds Group, a British theme-park firm, and DP World of Dubai purchased P&O, Britain's biggest port and ferries group. Despite examples such as these, the bulk of petrodollars appear to have been recycled into dollar-denominated assets. In part, this was because U.S. interest rates increased throughout 2004–2007 and in part because the United States was viewed as a safe haven in economically troubled times. However, if the flow of petrodollars should dry up, which could occur if oil prices continue to stay around their 2015 lows, the value of the dollar could be negatively impacted going forward.

Sources: "Recycling the Petrodollars; Oil Producers' Surpluses," *The Economist*, November 12, 2005, pp. 101–02; S. Johnson, "Dollar's Rise Aided by OPEC Holdings," *Financial Times*, December 5, 2005, p. 17; "The Petrodollar Puzzle," *The Economist*, June 9, 2007, p. 86.

have produced a volatile dollar exchange rate. Governments have sometimes responded by intervening in the market—buying and selling dollars—in an attempt to limit the market's volatility and to correct what they see as overvaluation (in 1985) or potential undervaluation (in 1987) of the dollar. In addition to direct intervention, statements from government officials have frequently influenced the value of the dollar. The dollar may not have declined by as much as it did in 2004, for example, had not U.S. government officials publicly ruled out any action to stop the decline. Paradoxically, a signal not to intervene can affect the market. The frequency of government intervention in the foreign exchange market explains why the current system is sometimes thought of as a **managed-float system** or a dirty-float system.

Fixed Versus Floating Exchange Rates

The breakdown of the Bretton Woods system has not stopped the debate about the relative merits of fixed versus floating exchange rate regimes. Disappointment with the system of floating rates in recent years has led to renewed debate about the merits of fixed exchange rates. This section reviews the arguments for fixed and floating exchange rate regimes.⁶ We discuss the case for floating rates before studying why many critics are disappointed with the experience under floating exchange rates and yearn for a system of fixed rates.

Managed-Float System

System under which some currencies are allowed to float freely, but the majority are either managed by government intervention or pegged to another currency.

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LO 11-3

Compare and contrast the differences between a fixed and a floating exchange rate system.

THE CASE FOR FLOATING EXCHANGE RATES The case in support of floating exchange rates has three main elements: monetary policy autonomy, automatic trade balance adjustments, and economic recovery following a severe economic crisis.

Monetary Policy Autonomy It is argued that under a fixed system, a country's ability to expand or contract its money supply as it sees fit is limited by the need to maintain exchange rate parity. Monetary expansion can lead to inflation, which puts downward pressure on a fixed exchange rate (as predicted by the PPP theory; see Chapter 10). Similarly, monetary contraction requires high interest rates (to reduce the demand for money). Higher interest rates lead to an inflow of money from abroad, which puts upward pressure on a fixed exchange rate. Thus, to maintain exchange rate parity under a fixed system, countries were limited in their ability to use monetary policy to expand or contract their economies.

Advocates of a floating exchange rate regime argue that removal of the obligation to maintain exchange rate parity would restore monetary control to a government. If a government faced with unemployment wanted to increase its money supply to stimulate domestic demand and reduce unemployment, it could do so unencumbered by the need to maintain its exchange rate. While monetary expansion might lead to inflation, this would lead to a depreciation in the country's currency. If PPP theory is correct, the resulting currency depreciation on the foreign exchange markets should offset the effects of inflation. Although under a floating exchange rate regime, domestic inflation would have an impact on the exchange rate, it should have no impact on businesses' international cost competitiveness due to exchange rate depreciation. The rise in domestic costs should be exactly offset by the fall in the value of the country's currency on the foreign exchange markets. Similarly, a government could use monetary policy to contract the economy without worrying about the need to maintain parity.

Trade Balance Adjustments Under the Bretton Woods system, if a country developed a permanent deficit in its balance of trade (importing more than it exported) that could not be corrected by domestic policy, this would require the IMF to agree to currency devaluation. Critics of this system argue that the adjustment mechanism works much more smoothly under a floating exchange rate regime. They argue that if a country is running a trade deficit, the imbalance between the supply and demand of that country's currency in the foreign exchange markets (supply exceeding demand) will lead to depreciation in its exchange rate. In turn, by making its exports cheaper and its imports more expensive, exchange rate depreciation should correct the trade deficit.

Crisis Recovery Advocates of floating exchange rates also argue that exchange rate adjustments can help a country to deal with economic crises. When a country is hit by a severe economic crisis, its currency typically declines on foreign exchange markets. The reason for this is that investors respond to the crisis by taking their money out of the country, selling the local currency, and driving down its value. At some point, however, the currency becomes so cheap that it starts to stimulate exports. This is what occurred in Iceland after the krona lost 50 percent of its value against the U.S. dollar and euro following a banking crisis in 2008. By 2009, exports of fish and aluminum from Iceland were booming, which helped pull the Icelandic economy out of a recession. A similar process occurred in South Korea after the 1997 Asian banking crisis. The value of the South Korean won plunged to 1,700 per dollar from around 800. In turn, the cheap won helped South Korea increase its exports and resulted in an export-led economic recovery. On the other hand, in both countries, the declining value of the currency did raise import prices and led to an increase in inflation, so there is a price that has to be paid for an export-led recovery due to falling currency values.

A contrast can be drawn with the recent situation in Greece, where the economy imploded following the 2008–2009 global financial crisis and has struggled to recover. Part of the problem in Greece is that it gave up its own currency to adopt the euro in 2001, and the euro has remained quite strong; thus, Greece cannot rely on a falling local currency to boost exports and stimulate economic recovery.

THE CASE FOR FIXED EXCHANGE RATES The case for fixed exchange rates rests on arguments about monetary discipline, speculation, uncertainty, and the lack of connection between the trade balance and exchange rates.

Monetary Discipline We have already discussed the nature of monetary discipline inherent in a fixed exchange rate system when we discussed the Bretton Woods system. The need to maintain fixed exchange rate parity ensures that governments do not expand their money supplies at inflationary rates. While advocates of floating rates argue that each country should be allowed to choose its own inflation rate (the monetary autonomy argument), advocates of fixed rates argue that governments all too often give in to political pressures and expand the monetary supply far too rapidly, causing unacceptably high price inflation. A fixed exchange rate regime would ensure that this does not occur.

Speculation Critics of a floating exchange rate regime also argue that speculation can cause fluctuations in exchange rates. They point to the dollar's rapid rise and fall during the 1980s, which they claim had nothing to do with comparative inflation rates and the U.S. trade deficit but everything to do with speculation. They argue that when foreign exchange dealers see a currency depreciating, they tend to sell the currency in the expectation of future depreciation, regardless of the currency's longer-term prospects. As more traders jump on the bandwagon, the expectations of depreciation are realized. Such destabilizing speculation tends to accentuate the fluctuations around the exchange rate's long-run value. It can damage a country's economy by distorting export and import prices. Thus, advocates of a fixed exchange rate regime argue that such a system will limit the destabilizing effects of speculation.

Uncertainty Speculation also adds to the uncertainty surrounding future currency movements that characterizes floating exchange rate regimes. The unpredictability of exchange rate movements in the post-Bretton Woods era has made business planning difficult, and it adds risk to exporting, importing, and foreign investment activities. Given a volatile exchange rate, international businesses do not know how to react to the changes—and often they do not react. Why change plans for exporting, importing, or foreign investment after a 6 percent fall in the dollar this month, when the dollar may rise 6 percent next month? This uncertainty, according to the critics, dampens the growth of international trade and investment. They argue that a fixed exchange rate, by eliminating such uncertainty, promotes the growth of international trade and investment. Advocates of a floating system reply that the forward exchange market ensures against the risks associated with exchange rate fluctuations (see Chapter 10), so the adverse impact of uncertainty on the growth of international trade and investment has been overstated.

Trade Balance Adjustments and Economic Recovery Those in favor of floating exchange rates argue that floating rates help adjust trade imbalances and can assist with economic recovery after a crisis. Critics question the closeness of the link between the exchange rate, the trade balance and economic growth. They claim trade deficits are determined by the balance between savings and investment in a country, not by the external value of its currency.⁷ They argue that depreciation in a currency will lead to inflation (due to the resulting increase in import prices). This inflation, they state, will wipe out any apparent gains in cost competitiveness that arise from currency depreciation. In other words, a depreciating exchange rate will not boost exports and reduce imports, as advocates of floating rates claim; it will simply boost price inflation. In support of this argument, those who favor fixed rates point out that the 40 percent drop in the value of the dollar between 1985 and 1988 did not correct the U.S. trade deficit. In reply, advocates of a floating exchange rate regime argue that between 1985 and 1992, the U.S. trade deficit fell from more than \$160 billion to about \$70 billion, and they attribute this in part to the decline in the value of the dollar. Moreover, the experience of countries like South Korea and Iceland seems to suggest that floating rates can help a country recover from a severe economic crisis.

Floating or Fixed Exchange Rates?

In Chapter 11, we have included a lot of material on the positives and negatives of floating and fixed exchange rates. The case for a floating exchange rate includes monetary policy autonomy, trade balance adjustments, and crisis recovery issues. The case for a fixed exchange rate includes monetary discipline, speculation issues, uncertainty, trade balance adjustments and economic recovery. We conclude these topics with a short section on “who is right” without actually addressing this very complex issue. But, what do you think? Who is right? Should we have a floating or fixed exchange rate system?

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LO 11-4

Identify exchange rate regimes used in the world today and why countries adopt different exchange rate regimes.

WHO IS RIGHT? Which side is right in the vigorous debate between those who favor a fixed exchange rate and those who favor a floating exchange rate? Economists cannot agree. Business, as a major player on the international trade and investment scene, has a large stake in the resolution of the debate. Would international business be better off under a fixed regime, or are flexible rates better? The evidence is not clear.

However, a fixed exchange rate regime modeled along the lines of the Bretton Woods system probably will not work. Speculation ultimately broke the system, a phenomenon that advocates of fixed rate regimes claim is associated with floating exchange rates! Nevertheless, a different kind of fixed exchange rate system might be more enduring and might foster the stability that would facilitate more rapid growth in international trade and investment. In the next section, we look at potential models for such a system and the problems with such systems.

Exchange Rate Regimes in Practice

Governments around the world pursue a number of different exchange rate policies. These range from a pure “free float” in which the exchange rate is determined by market forces to a pegged system that has some aspects of the pre-1973 Bretton Woods system of fixed exchange rates. Some 21 percent of the IMF’s members allow their currency to float freely. Another 23 percent intervene in only a limited way (the so-called managed float as practiced by China, among other nations—see the opening case). A further 5 percent of IMF members now have no separate legal tender of their own (this figure excludes the European Union countries that have adopted the euro). These are typically smaller states, mostly in Africa or the Caribbean, that have no domestic currency and have adopted a foreign currency as legal tender within their borders, typically the U.S. dollar or the euro. The remaining countries use more inflexible systems, including a fixed peg arrangement (43 percent) under which they peg their currencies to other currencies, such as the U.S. dollar or the euro, or to a basket of currencies. Other countries have adopted a system under which their exchange rate is allowed to fluctuate against other currencies within a target zone (an adjustable peg system). In this section, we look more closely at the mechanics and implications of exchange rate regimes that rely on a currency peg or target zone.

PEGGED EXCHANGE RATES Under a pegged exchange rate regime, a country will peg the value of its currency to that of a major currency so that, for example, as the U.S. dollar rises in value, its own currency rises too. Pegged exchange rates are popular among many of the world’s smaller nations. As with a full fixed exchange rate regime, the great virtue claimed for a pegged exchange rate is that it imposes monetary discipline on a country and leads to low inflation. For example, if Belize pegs the value of the Belizean dollar to that of the U.S. dollar so that $US\$1 = B\1.97 , then the Belizean government must make sure the inflation rate in Belize is similar to that in the United States. If the Belizean inflation rate is greater than the U.S. inflation rate, this will lead to pressure to devalue the Belizean dollar (i.e., to alter the peg). To maintain the peg, the Belizean government would be required to rein in inflation. Of course, for a pegged exchange rate to impose monetary discipline on a country, the country whose currency is chosen for the peg must also pursue sound monetary policy.

Evidence shows that adopting a pegged exchange rate regime moderates inflationary pressures in a country. An IMF study concluded that countries with pegged exchange rates had an average annual inflation rate of 8 percent, compared with 14 percent for intermediate regimes and 16 percent for floating regimes.⁸ However, many countries operate with only a nominal peg and in practice are willing to devalue their currency rather than pursue a tight monetary policy. It can be very difficult for a smaller country to maintain a peg against another currency if capital is flowing out of the country and foreign exchange traders are speculating against the currency. Something like this occurred in 1997, when a combination of adverse capital flows and currency speculation forced several Asian countries, including Thailand and Malaysia, to abandon pegs against the U.S. dollar and let their currencies float freely. Malaysia and Thailand would not have been in this position had they dealt with a number of problems that began to arise in their economies during the 1990s, including excessive private-sector debt and expanding current account trade deficits.

CURRENCY BOARDS Hong Kong's experience during the 1997 Asian currency crisis added a new dimension to the debate over how to manage a pegged exchange rate. During late 1997, when other Asian currencies were collapsing, Hong Kong maintained the value of its currency against the U.S. dollar at about \$1 = HK\$7.80 despite several concerted speculative attacks. Hong Kong's currency board has been given credit for this success. A country that introduces a **currency board** commits itself to converting its domestic currency on demand into another currency at a fixed exchange rate. To make this commitment credible, the currency board holds reserves of foreign currency equal at the fixed exchange rate to at least 100 percent of the domestic currency issued. The system used in Hong Kong means its currency must be fully backed by the U.S. dollar at the specified exchange rate. This is still not a true fixed exchange rate regime, because the U.S. dollar, and by extension the Hong Kong dollar, floats against other currencies, but it has some features of a fixed exchange rate regime.

Under this arrangement, the currency board can issue additional domestic notes and coins only when there are foreign exchange reserves to back it. This limits the ability of the government to print money and, thereby, create inflationary pressures. Under a strict currency board system, interest rates adjust automatically. If investors want to switch out of domestic currency into, for example, U.S. dollars, the supply of domestic currency will shrink. This will cause interest rates to rise until it eventually becomes attractive for investors to hold the local currency again. In the case of Hong Kong, the interest rate on three-month deposits climbed as high as 20 percent in late 1997, as investors switched out of Hong Kong dollars and into U.S. dollars. The dollar peg held, however, and interest rates declined again.

Since its establishment in 1983, the Hong Kong currency board has weathered several storms, including the latest. This success persuaded several other countries in the developing world to consider a similar system. Argentina introduced a currency board in 1991 (but abandoned it in 2002), and Bulgaria, Estonia, and Lithuania have all gone down this road in recent years. Despite interest in the arrangement, however, critics are quick to point out that currency boards have their drawbacks.⁹ If local inflation rates remain higher than the inflation rate in the country to which the currency is pegged, the currencies of countries with currency boards can become noncompetitive and overvalued (this is what happened in the case of Argentina, which had a currency board). Also, under a currency board system, government lacks the ability to set interest rates. Interest rates in Hong Kong, for example, are effectively set by the U.S. Federal Reserve. In addition, economic collapse in Argentina in 2001 and the subsequent decision to abandon its currency board dampened much of the enthusiasm for this mechanism of managing exchange rates.

Crisis Management by the IMF

Many observers initially believed that the collapse of the Bretton Woods system in 1973 would diminish the role of the IMF within the international monetary system. The IMF's original function was to provide a pool of money from which members could borrow, short term, to adjust their balance-of-payments position and maintain their exchange rate. Some believed the demand for short-term loans would be considerably diminished under a floating exchange rate regime. A trade deficit would presumably lead to a decline in a country's exchange rate, which would help reduce imports and boost exports. No temporary IMF adjustment loan would be needed. Consistent with this, after 1973, most industrialized countries tended to let the foreign exchange market determine exchange rates in response to demand and supply. Since the early 1970s, the rapid development of global capital markets has generally allowed developed countries such as Great Britain and the United States to finance their deficits by borrowing private money, as opposed to drawing on IMF funds.

Despite these developments, the activities of the IMF have expanded over the past 30 years. By 2016, the IMF had 188 members, 33 of which had some kind of IMF program in place. In 1997, the institution implemented its largest rescue packages until that date, committing more than \$110 billion in short-term loans to three troubled Asian countries—South Korea, Indonesia, and Thailand. This was followed by additional IMF rescue packages in Turkey, Russia, Argentina, and Brazil. IMF loans increased again in late 2008 as the global financial crisis took hold. Between 2008 and 2010, the IMF made more than \$100 billion in loans to troubled economies such as Latvia, Greece, and Ireland. In April 2009, in response to the growing financial crisis, major IMF

Currency Board

Means of controlling a country's currency.

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LO 11-5

Understand the debate surrounding the role of the IMF in the management of financial crises.

members agreed to triple the institution's resources from \$250 billion to \$750 billion, thereby giving the IMF the financial leverage to act aggressively in times of global financial crisis.

The IMF's activities have expanded because periodic financial crises have continued to hit many economies in the post-Bretton Woods era. The IMF has repeatedly lent money to nations experiencing financial crises, requesting in return that the governments enact certain macroeconomic policies. Critics of the IMF claim these policies have not always been as beneficial as the IMF might have hoped and, in some cases, may have made things worse. Following the IMF loans to several Asian economies, these criticisms reached new levels, and a vigorous debate was waged as to the appropriate role of the IMF. In this section, we discuss some of the main challenges the IMF has had to deal with over the past three decades and review the ongoing debate over the role of the IMF.

Currency Crisis

Occurs when a speculative attack on the exchange value of a currency results in a sharp depreciation in the value of the currency or forces authorities to expend large volumes of international currency reserves and sharply increase interest rates to defend the prevailing exchange rate.

Banking Crisis

A loss of confidence in the banking system that leads to a run on banks, as individuals and companies withdraw their deposits.

Foreign Debt Crisis

Situation in which a country cannot service its foreign debt obligations, whether private-sector or government debt.

FINANCIAL CRISES IN THE POST-BRETTON WOODS ERA A number of broad types of financial crises have occurred over the past 30 years, many of which have required IMF involvement. A **currency crisis** occurs when a speculative attack on the exchange value of a currency results in a sharp depreciation in the value of the currency or forces authorities to expend large volumes of international currency reserves and sharply increase interest rates to defend the prevailing exchange rate. This happened in Brazil in 2002, and the IMF stepped in to help stabilize the value of the Brazilian currency on foreign exchange markets by lending it foreign currency. A **banking crisis** refers to a loss of confidence in the banking system that leads to a run on banks, as individuals and companies withdraw their deposits. This is what happened in Iceland in 2008. The experience of Iceland with the IMF is discussed in depth in the next Country Focus feature. A **foreign debt crisis** is a situation in which a country cannot service its foreign debt obligations, whether private-sector or government debt. This happened to Greece, Ireland, and Portugal in 2010.

country FOCUS

The IMF and Iceland's Economic Recovery

When the global financial crisis hit in 2008, tiny Iceland suffered more than most. The country's three biggest banks had been expanding at a breakneck pace since 2000, when the government privatized the banking sector. With a population of around 320,000, Iceland was too small for the banking sector's ambitions, so the banks started to expand into other Scandinavian countries and the United Kingdom. They entered local mortgage markets, purchased foreign financial institutions, and opened foreign branches, attracting depositors by offering high interest rates. The expansion was financed by debt, much of it structured as short-term loans that had to be regularly refinanced. By early 2008, the three banks held debts that amounted to almost six times the value of the entire economy of Iceland! So long as they could periodically refinance this debt, it was not a problem. However, in 2008, global financial markets imploded following the bankruptcy of Lehman Brothers and the collapse of the U.S. housing market. In the aftermath, financial markets froze. The Icelandic banks found that they could not refinance their debt, and they faced bankruptcy.

The Icelandic government lacked the funds to bail out the banks, so it decided to let the big three fail. In quick succession, the local stock market plunged 90 percent and unemployment increased ninefold. The krona, Iceland's currency, plunged on foreign exchange markets, pushing up the price of imports, and inflation soared to 18 percent. Iceland appeared to be in free fall. The economy shrank by almost 7 percent in 2009 and another 4 percent in 2010.

To stem the decline, the government secured \$10 billion in loans from the International Monetary Fund (IMF) and other countries. The Icelandic government stepped in to help local depositors, seizing the domestic assets of the Icelandic banks and using IMF and other loans to backstop deposit guarantees. Far from implementing austerity measures to solve the crisis, the Icelandic government looked for ways to shore up consumer spending. For example, the government provided means-tested subsidies to reduce the mortgage interest expenses of borrowers. The idea was to stop domestic consumer spending from imploding and further depressing the economy.

With the financial system stabilized, thanks to the IMF and other foreign loans, what happened next is an object lesson in the value of having a floating currency. The fall in the value of the krona helped boost Iceland's exports, such as fish and aluminum, while depressing demand for costly imports, such as automobiles. By 2009, the krona was worth half as much against the U.S. dollar and euro as it was in 2007 before the crisis. Iceland's exports surged and imports slumped. While the high cost of imports did stoke inflation, booming exports started to pump money back into the Icelandic economy. In 2011, the economy grew again at a 3.1 percent annual rate. This was followed by 2.7 percent growth in 2012 and 4 percent growth in 2013, while unemployment fell from a high of nearly 10 percent to 4.4 percent at the end of 2013.

Sources: Charles Forelle, "In European Crisis, Iceland Emerges as an Island of Recovery," *The Wall Street Journal*, May 19, 2012, pp. A1, A10; "Coming in from the Cold," *The Economist*, December 16, 2010; Charles Duxbury, "Europe Gets Cold Shoulder in Iceland," *The Wall Street Journal*, April 26, 2012; "Iceland," *The World Factbook 2013* (Washington, DC: Central Intelligence Agency, 2013).

These crises tend to have common underlying macroeconomic causes: high relative price inflation rates, a widening current account deficit, excessive expansion of domestic borrowing, high government deficits, and asset price inflation (such as sharp increases in stock and property prices).¹⁰ At times, elements of currency, banking, and debt crises may be present simultaneously, as in the 1997 Asian crisis, the 2000–2002 Argentinean crisis, and the 2010 crisis in Ireland.

To assess the frequency of financial crises, the IMF looked at the macroeconomic performance of a group of 53 countries from 1975 to 1997 (22 of these countries were developed nations, and 31 were developing countries).¹¹ The IMF found there had been 158 currency crises, including 55 episodes in which a country's currency declined by more than 25 percent. There were also 54 banking crises. The IMF's data suggest that developing nations were more than twice as likely to experience currency and banking crises as developed nations. It is not surprising, therefore, that most of the IMF's loan activities since the mid-1970s have been targeted toward developing nations.

In 1997, several Asian currencies started to fall sharply as international investors came to the realization that there was a speculative investment bubble in the region. They took their money out of local currencies, changing it into U.S. dollars, and those currencies started to fall precipitously. The currency declines started in Thailand and then, in a process of contagion, quickly spread to other countries in the region. Stabilizing those currencies required massive help from the IMF. In the case of South Korea, local enterprises had built up huge debt loads as they invested heavily in new industrial capacity. By 1997, they found they had too much industrial capacity and could not generate the income required to service their debt. South Korean banks and companies had also made the mistake of borrowing in dollars, much of it in the form of short-term loans that would come due within a year. Thus, when the Korean won started to decline in fall 1997 in sympathy with the problems elsewhere in Asia, South Korean companies saw their debt obligations balloon. Several large companies were forced to file for bankruptcy. This triggered a decline in the South Korean currency and stock market that was difficult to halt.

With its economy on the verge of collapse, the South Korean government requested \$20 billion in standby loans from the IMF on November 21. As the negotiations progressed, it became apparent that South Korea was going to need far more than \$20 billion. On December 3, 1997, the IMF and South Korean government reached a deal to lend \$55 billion to the country.



Christine Lagarde heads the IMF.

Source: © Stephen Jaffe/IMF/Handout/Getty Images News/Getty Images

Is the International Monetary Fund (IMF) Needed?

The International Monetary Fund (IMF) is an organization of 188 countries working to foster global monetary cooperation, secure financial stability, facilitate international trade, promote high employment and sustainable economic growth, and reduce poverty around the world. It is a specialized agency of the United Nations but has its own charter, governing structure, and finances. Its members are represented through a quota system broadly based on their relative size in the global economy. The Board of Governors, the highest decision-making body of the IMF, consists of one governor and one alternate governor for each member country. The governor is appointed by the member country and is usually the minister of finance or the governor of the central bank. Chapter 11 includes a lot of material on the IMF, the debate about its positive and negative effects on world markets, and its policy prescriptions. Based on this material, should the IMF's one-size fits-all approach (see the section on "Inappropriate Policies" in this chapter) be evaluated? If yes, how would you change it? If no, why not?

Source: <http://www.imf.org>.



The agreement with the IMF called for the South Koreans to open their economy and banking system to foreign investors. South Korea also pledged to restrain Korea's largest enterprises, the *chaebol*, by reducing their share of bank financing and requiring them to publish consolidated financial statements and undergo annual independent external audits. On trade liberalization, the IMF said South Korea would comply with its commitments to the World Trade Organization to eliminate trade-related subsidies and restrictive import licensing and would streamline its import certification procedures, all of which should open the South Korean economy to greater foreign competition.¹²

EVALUATING THE IMF'S POLICY PRESCRIPTIONS

By 2016, the IMF had programs in more than 30 countries that were struggling with economic and/or currency crises. All IMF loan packages come with conditions attached. Until very recently, the IMF has insisted on a combination of tight macroeconomic policies, including cuts in public spending, higher interest rates, and tight monetary policy. It has also often pushed for the deregulation of sectors formerly protected from domestic and foreign competition, privatization of state-owned assets, and better financial reporting from the banking sector. These policies are designed to cool overheated economies by reining in inflation and reducing government spending

and debt. This set of policy prescriptions has come in for tough criticisms from many observers, and the IMF itself has started to change its approach.¹³

Inappropriate Policies One criticism is that the IMF's traditional policy prescriptions represent a "one-size-fits-all" approach to macroeconomic policy that is inappropriate for many countries. In the case of the 1997 Asian crisis, critics argue that the tight macroeconomic policies imposed by the IMF were not well suited to countries that are suffering not from excessive government spending and inflation but from a private-sector debt crisis with deflationary undertones.¹⁴

In South Korea, for example, the government had been running a budget surplus for years (it was 4 percent of South Korea's GDP in 1994–1996), and inflation was low at about 5 percent. South Korea had the second-strongest financial position of any country in the Organisation for Economic Co-operation and Development. Despite this, critics say, the IMF insisted on applying the same policies that it applies to countries suffering from high inflation. The IMF required South Korea to maintain an inflation rate of 5 percent. However, given the collapse in the value of its currency and the subsequent rise in price for imports such as oil, critics claimed inflationary pressures would inevitably increase in South Korea. So to hit a 5 percent inflation rate, the South Koreans would be forced to apply an unnecessarily tight monetary policy. Short-term interest rates in South Korea did jump from 12.5 to 21 percent immediately after the country signed its initial deal with the IMF. Increasing interest rates made it even more difficult for companies to service their already excessive short-term debt obligations, and critics used this as evidence to argue that the cure prescribed by the IMF may actually increase the probability of widespread corporate defaults, not reduce them.

At the time, the IMF rejected this criticism. According to the IMF, the central task was to rebuild confidence in the won. Once this was achieved, the won would recover from its oversold levels, reducing the size of South Korea's dollar-denominated debt burden when expressed in won and making it easier for companies to service their debt. The IMF also argued that by requiring South Korea to remove restrictions on foreign direct investment, foreign capital would flow into the country to take advantage of cheap assets. This, too, would increase demand for the Korean currency and help improve the dollar/won exchange rate.

South Korea did recover fairly quickly from the crisis, supporting the position of the IMF. While the economy contracted by 7 percent in 1998, by 2000, it had rebounded and grew at a 9 percent rate (measured by growth in GDP). Inflation, which peaked at 8 percent in 1998, fell to 2 percent by 2000, and unemployment fell from 7 to 4 percent over the same period. The won hit a low of \$1 = W1,812 in early 1998 but by 2000 was back to an exchange rate of around \$1 = W1,200, at which it seems to have stabilized.

Moral Hazard A second criticism of the IMF is that its rescue efforts are exacerbating a problem known to economists as moral hazard. **Moral hazard** arises when people behave recklessly because they know they will be saved if things go wrong. Critics point out that many Japanese and Western banks were far too willing to lend large amounts of capital to overleveraged Asian companies during the boom years of the 1990s. These critics argue that the banks should now be forced to pay the price for their rash lending policies, even if that means some banks must close.¹⁵ Only by taking such drastic action, the argument goes, will banks learn the error of their ways and not engage in rash lending in the future. By providing support to these countries, the IMF is reducing the probability of debt default and in effect bailing out the banks whose loans gave rise to this situation.

This argument ignores two critical points. First, if some Japanese or Western banks with heavy exposure to the troubled Asian economies were forced to write off their loans due to widespread debt default, the impact would have been difficult to contain. The failure of large Japanese banks, for example, could have triggered a meltdown in the Japanese financial markets. That would almost inevitably lead to a serious decline in stock markets around the world, which was the very risk the IMF was trying to avoid by stepping in with financial support. Second, it is incorrect to imply that some banks have not had to pay the price for rash lending policies. The IMF insisted on the closure of banks in South Korea, Thailand, and Indonesia after the 1997 Asian financial crisis. Foreign banks with short-term loans outstanding to South Korean enterprises have been forced by circumstances to reschedule those loans at interest rates that do not compensate for the extension of the loan maturity.

Lack of Accountability The final criticism of the IMF is that it has become too powerful for an institution that lacks any real mechanism for accountability.¹⁶ The IMF has determined macroeconomic policies in those countries, yet according to critics such as noted economist Jeffrey Sachs, the IMF, with a staff of less than 1,000, lacks the expertise required to do a good job. Evidence of this, according to Sachs, can be found in the fact that the IMF was singing the praises of the Thai and South Korean governments only months before both countries lurched into crisis. Then the IMF put together a draconian program for South Korea without having deep knowledge of the country. Sachs's solution to this problem is to reform the IMF so it makes greater use of outside experts and its operations are open to greater outside scrutiny.

Observations As with many debates about international economics, it is not clear which side is correct about the appropriateness of IMF policies. There are cases where one can argue that IMF policies had been counterproductive or only had limited success. For example, one might question the success of the IMF's involvement in Turkey given that the country has had to implement some 18 IMF programs since 1958! But the IMF can also point to some notable accomplishments, including its success in containing the Asian crisis, which could have rocked the global international monetary system to its core, and its actions in 2008–2010 to contain the global financial crisis, quickly stepping in to rescue Iceland, Ireland, Greece, and Latvia. Similarly, many observers give the IMF credit for its deft handling of politically difficult situations, such as the Mexican peso crisis, and for successfully promoting a free market philosophy.

Several years after the IMF's intervention, the economy of Asia recovered. Certainly, the kind of catastrophic implosion that might have occurred had the IMF not stepped in had been averted, and although some countries still faced considerable problems, it is not clear that the IMF should take much blame for this. The IMF cannot force countries to adopt the policies required to correct economic mismanagement. While a government may commit to taking corrective action in return for an IMF loan, internal political problems may make it difficult for a government to act on that commitment. In such cases, the IMF is caught between a rock and a hard place, because if it decided to withhold money, it might trigger financial collapse and the kind of contagion that it seeks to avoid.

Moral Hazard

Arises when people behave recklessly because they know they will be saved if things go wrong.

Finally, it is notable that in recent years the IMF has started to change its policies. In response to the global financial crisis of 2008–2009, the IMF began to urge countries to adopt policies that included fiscal stimulus and monetary easing—the direct opposite of what the fund traditionally advocated. Some economists in the fund are also now arguing that higher inflation rates might be a good thing, if the consequence is greater growth in aggregate demand, which would help pull nations out of recessionary conditions. The IMF, in other words, is starting to display the very flexibility in policy responses that its critics claim it lacks. While the traditional policy of tight controls on fiscal policy and tight monetary policy targets might be appropriate for countries suffering from high inflation rates, the Asian economic crisis and the 2008–2009 global financial crisis were caused not by high inflation rates but by excessive debt, and the IMF’s “new approach” seems tailored to deal with this.¹⁷

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FOCUS ON MANAGERIAL IMPLICATIONS

LO 11-6

Explain the implications of the global monetary system for currency management and business strategy.

CURRENCY MANAGEMENT, BUSINESS STRATEGY, AND GOVERNMENT RELATIONS



The implications for international businesses of the material discussed in this chapter fall into three main areas: currency management, business strategy, and corporate–government relations.

Currency Management

An obvious implication with regard to currency management is that companies must recognize that the foreign exchange market does not work quite as depicted in Chapter 10. The current system is a mixed system in which a combination of government intervention and speculative activity can drive the foreign exchange market. Companies engaged in significant foreign exchange activities need to be aware of this and to adjust their foreign exchange transactions accordingly. For example, the currency management unit of Caterpillar claims it made millions of dollars in the hours following the announcement of the Plaza Accord by selling dollars and buying currencies that it expected to appreciate on the foreign exchange market following government intervention.

Under the present system, speculative buying and selling of currencies can create very volatile movements in exchange rates (as exhibited by the rise and fall of the dollar during the 1980s and the Asian currency crisis of the late 1990s). Contrary to the predictions of the purchasing power parity theory (see Chapter 10), exchange rate movements during the 1980s and 1990s often did not seem to be strongly influenced by relative inflation rates. Insofar as volatile exchange rates increase foreign exchange risk, this is not good news for business. On the other hand, as we saw in Chapter 10, the foreign exchange market has developed a number of instruments, such as the forward market and swaps, that can help ensure against foreign exchange risk. Not surprisingly, use of these instruments has increased markedly since the breakdown of the Bretton Woods system in 1973.

Business Strategy

The volatility of the current global exchange rate regime presents a conundrum for international businesses. Exchange rate movements are difficult to predict, and yet their movement can have a major impact on a business’s competitive position. For a detailed example, see the accompanying Management Focus on Airbus. Faced with uncertainty about the future value of currencies, firms can utilize the forward exchange market, which Airbus has done. However, the forward exchange market is far from perfect as a predictor of future exchange rates (see Chapter 10). It is also difficult, if not impossible, to get adequate insurance coverage for exchange rate changes that might occur several years in the future. The forward market tends to offer coverage for exchange rate changes a few months—not years—ahead. Given this, it makes sense to pursue strategies that will increase the company’s strategic flexibility in the face of unpredictable exchange rate

Airbus and the Euro

Airbus had reason to celebrate in 2003; for the first time in the company's history, it delivered more commercial jet aircraft than long-time rival Boeing. Airbus delivered 305 planes in 2003, compared to Boeing's 281. The celebration, however, was muted because the strength of the euro against the U.S. dollar was casting a cloud over the company's future. Airbus, which is based in Toulouse, France, prices planes in dollars, just as Boeing has always done. But more than half of Airbus' costs are in euros. So as the dollar drops in value against the euro—and it dropped by more than 50 percent between 2002 and the end of 2009—Airbus' costs rise in proportion to its revenue, squeezing profits in the process.

In the short run, the fall in the value of the dollar against the euro did not hurt Airbus. The company fully hedged its dollar exposure in 2005 and was mostly hedged for 2006. However, anticipating that the dollar would stay weak against the euro, Airbus started to take other steps to reduce its economic exposure to a strong European currency. Recognizing that raising prices is not an option given the strong competition from Boeing, Airbus decided to focus on reducing its costs. As a step toward doing this, Airbus gave U.S. suppliers a greater share of work on new aircraft models, such as the A380 superjumbo and the A350. It also shifted supply work on some of its older models from European to American-based suppliers. This increased the proportion of its costs that were in dollars, making profits less vulnerable to a rise in the value of the euro and reducing the costs of building an aircraft when they were converted back into euros.

In addition, Airbus pushed its European-based suppliers to start pricing in U.S. dollars. Because the costs of many suppliers were in euros, the suppliers found that to comply with Airbus' wishes, they too had to move more work to the United States or to countries whose currency is pegged to the U.S. dollar. Thus, one large French-based supplier, Zodiac, announced that it was considering acquisitions in the United



Wings are assembled at the Airbus SAS factory in Broughton, United Kingdom. Completed wings are transported to Toulouse, France, or Hamburg, Germany, for final assembly.

Source: © Christopher Furlong/Getty Images News/Getty Images

States. Not only was Airbus pushing suppliers to price components for commercial jet aircraft in dollars, but the company was also requiring suppliers to its A400M program, a military aircraft that will be sold to European governments and priced in euros, to price components in U.S. dollars. Beyond these steps, the CEO of EADS, Airbus' parent company, publicly stated it might be prepared to assemble aircraft in the United States if that would help win important U.S. contracts. While this strategy made good sense for years, it worked against Airbus between mid-2014 and 2015 as the dollar rose rapidly against the euro.

Sources: D. Michaels, "Airbus Deliveries Top Boeing's; But Several Obstacles Remain," *The Wall Street Journal*, January 16, 2004, p. A9; J. L. Gerondeau, "Airbus Eyes U.S. Suppliers as Euro Gains," *Seattle Times*, February 21, 2004, p. C4; "Euro's Gains Create Worries in Europe," *HoustonChronicle.com*, January 13, 2004, p. 3; K. Done, "Soft Dollar and A380 Hitches Lead to EADS Losses," *Financial Times*, November 9, 2006, p. 32.

movements—that is, to pursue strategies that reduce the economic exposure of the firm (which we first discussed in Chapter 10).

Maintaining strategic flexibility can take the form of dispersing production to different locations around the globe as a real hedge against currency fluctuations (this seems to be what Airbus has considered). Consider the case of Daimler-Benz, Germany's export-oriented automobile and aerospace company. In June 1995, the company stunned the German business community when it announced it expected to post a severe loss in 1995 of about \$720 million. The cause was Germany's strong currency, which had appreciated by 4 percent against a basket of major currencies since the beginning of 1995 and had risen by more than 30 percent against the U.S. dollar since late 1994. By mid-1995, the exchange rate against the dollar stood at \$1 = DM1.38. Daimler's management believed it could not make money with an exchange rate under \$1 = DM1.60. Daimler's senior managers concluded the appreciation of the mark against the dollar was probably permanent, so they decided to move substantial production outside of Germany and increase purchasing of foreign components. The idea was to reduce the vulnerability of the company to future exchange rate movements. Even before the company's acquisition of Chrysler Corporation in 1998, the Mercedes-Benz division planned to produce 10 percent of its cars outside Germany by 2000, mostly in the United States. Similarly, the move by Japanese automobile companies to expand their productive capacity in the United States and Europe can be seen in the context of

the increase in the value of the yen between 1985 and 1995, which raised the price of Japanese exports. For the Japanese companies, building production capacity overseas was a hedge against continued appreciation of the yen (as well as against trade barriers).

Another way of building strategic flexibility and reducing economic exposure involves contracting out manufacturing. This allows a company to shift suppliers from country to country in response to changes in relative costs brought about by exchange rate movements. However, this kind of strategy may work only for low-value-added manufacturing (e.g., textiles), in which the individual manufacturers have few if any firm-specific skills that contribute to the value of the product. It may be less appropriate for high-value-added manufacturing, in which firm-specific technology and skills add significant value to the product (e.g., the heavy equipment industry) and in which switching costs are correspondingly high. For high-value-added manufacturing, switching suppliers will lead to a reduction in the value that is added, which may offset any cost gains arising from exchange rate fluctuations.

The roles of the IMF and the World Bank in the current international monetary system also have implications for business strategy. Increasingly, the IMF has been acting as the macroeconomic police of the world economy, insisting that countries seeking significant borrowings adopt IMF-mandated macroeconomic policies. These policies typically include anti-inflationary monetary policies and reductions in government spending. In the short run, such policies usually result in a sharp contraction of demand. International businesses selling or producing in such countries need to be aware of this and plan accordingly. In the long run, the kind of policies imposed by the IMF can promote economic growth and an expansion of demand, which create opportunities for international business.

Corporate-Government Relations

As major players in the international trade and investment environment, businesses can influence government policy toward the international monetary system. For example, intense government lobbying by U.S. exporters helped convince the U.S. government that intervention in the foreign exchange market was necessary. With this in mind, business can and should use its influence to promote an international monetary system that facilitates the growth of international trade and investment. Whether a fixed or floating regime is optimal is a subject for debate. However, exchange rate volatility such as the world experienced during the 1980s and 1990s creates an environment less conducive to international trade and investment than one with more stable exchange rates. Therefore, it would seem to be in the interests of international business to promote an international monetary system that minimizes volatile exchange rate movements, particularly when those movements are unrelated to long-run economic fundamentals.

Key Terms

international monetary system, p. 298

floating exchange rate, p. 298

pegged exchange rate, p. 298

dirty-float system, p. 298

fixed exchange rate, p. 298

European Monetary System (EMS), p. 299

gold standard, p. 299

gold par value, p. 300

balance-of-trade equilibrium, p. 300

managed-float system, p. 307

currency board, p. 311

currency crisis, p. 312

banking crisis, p. 312

foreign debt crisis, p. 312

moral hazard, p. 315

Summary

This chapter explained the workings of the international monetary system and pointed out its implications for international business. The chapter made the following points:

1. The gold standard is a monetary standard that pegs currencies to gold and guarantees convertibility to gold. It was thought that the gold standard contained an automatic
2. The Bretton Woods system of fixed exchange rates was established in 1944. The U.S. dollar was the central

mechanism that contributed to the simultaneous achievement of a balance-of-payments equilibrium by all countries. The gold standard broke down during the 1930s as countries engaged in competitive devaluations.

2. The Bretton Woods system of fixed exchange rates was established in 1944. The U.S. dollar was the central