Chapter 3
The International Monetary System

Learning Objectives

• Learn how the international monetary system has evolved from the days of the gold standard to today’s eclectic currency arrangement
• Discover the origin and development of the Eurocurrency market
• Analyze the characteristics of an ideal currency
• Explain the currency regime choices faced by emerging market countries
• Examine how the euro, a single currency for the European Union, was created

International Monetary System

• It is the structure within which foreign exchange rates are determined, international trade and capital flows are accommodated, and balance of payments adjustments are made.
• All of the instruments, institutions, and agreements that link together the world’s currency markets, securities and real estate and commodity markets are also encompassed within that term.

Currency Terminology

• A foreign currency exchange rate, or exchange rate, is the price of one country’s currency in units of another currency or commodity
  – The system, or regime, is classified as a fixed, floating, or managed exchange rate regime
  – The rate at which the currency is fixed, or pegged, is frequently referred to as its par value
  – If the government doesn’t interfere in the valuation of its currency, the currency is classified as floating or flexible

Currency Terminology

• Spot exchange rate is the quoted price for the foreign exchange to be delivered at once, or in two days for interbank transactions
  – Example: ¥114/$ is quote for 114 yen to buy one US dollar for immediate delivery
• Forward rate is the quoted price for foreign exchange to be delivered at a specified date in the future
  – Assume the 90-day forward rate for the Japanese yen is ¥112/$
  – No currency is exchanged today, but in 90 days it will take 112 yen to buy one U.S. dollar
  – This can be guaranteed by a forward exchange contract

Currency Terminology

• Forward premium or discount is the percentage difference between the spot and forward exchange rate
• Devaluation of a currency refers to a drop in foreign exchange value of a currency that is pegged to gold or another currency
  – In other words, the par value is reduced
  – The opposite of devaluation is revaluation
Currency Terminology

- **Weakening, deteriorating, or depreciation** of a currency refers to a drop in foreign exchange value a floating currency. The opposite of weakening is **strengthening or appreciation**, which refers to a gain in the exchange value of a floating currency.
- **Soft or weak** describes a currency that we expect to devalue or depreciate relative to major currencies; **hard or strong** is the opposite.

History of the International Monetary System

- **The Gold Standard, 1876-1913**
  - Countries set par value for their currency in terms of gold.
  - This came to be known as the gold standard and gained acceptance in Western Europe in the 1870s.
  - The US adopted the gold standard in 1879.
  - The “rules of the game” for the gold standard were simple:
    - Example: US$ gold rate was $20.67/oz, the British pound was pegged at £4.2474/oz.

- **The Inter-War years and WWII, 1914-1944**
  - During WWI, currencies were allowed to fluctuate over wide ranges in terms of gold and each other, theoretically, supply and demand for imports/exports caused moderate changes in exchange rates about an equilibrium value.
  - In 1934, the US devalued its currency to $35/oz from $20.67/oz prior to WWI.
  - From 1924 to the end of WWII, exchange rates were theoretically determined by each currency’s value in terms of gold.
  - During WWII and aftermath, many main currencies lost their convertibility. The US dollar remained the only major trading currency that was convertible.

- **Bretton Woods and the IMF, 1944**
  - Allied powers met in Bretton Woods, NH and created a post-war international monetary system.
  - The agreement established a US dollar based monetary system and created the IMF and World Bank.
  - Under original provisions, all countries fixed their currencies in terms of gold but were not required to exchange their currencies.
  - Only the US dollar remained convertible into gold (at $35/oz with Central banks, not individuals).

- **Therefore, each country established its exchange rate vis-à-vis the US dollar and then calculated the gold par value of their currency.**
  - Participating countries agreed to try to maintain the currency values within 1% of par by buying or selling foreign or gold reserves.
  - Devaluation was not to be used as a competitive trade policy, but if a currency became too weak to defend, up to a 10% devaluation was allowed without formal approval from the IMF.
History of the International Monetary System

- The Special Drawing Right (SDR) is an international reserve assets created by the IMF to supplement existing foreign exchange reserves
  - It serves as a unit of account for the IMF and is also the base against which some countries peg their exchange rates
  - Defined initially in terms of fixed quantity of gold, the SDR has been redefined several times
  - Currently, it is the weighted average value of currencies of 5 IMF members having the largest exports
  - Individual countries hold SDRs in the form of deposits at the IMF and settle IMF transactions through SDR transfers

- Eurocurrencies
  - Eurocurrencies are domestic currencies of one country on deposit in a second country
  - Any convertible (exchangeable) currency can exist in “Euro-” form (do not confuse this term with the European Euro)
  - Eurocurrency markets serve two valuable purposes
    - These deposits are an efficient and convenient money market device for holding excess corporate liquidity
    - This market is a major source of short-term bank loans to finance corporate working capital needs

- The modern eurocurrency market was born shortly after World War II
  - Eastern European holders of dollars, including state trading banks in the Soviet Union, were afraid to deposit their dollar holdings in the United States because they felt claims could be made against these deposits by U.S. residents
  - These currency holders then decided to deposit their dollars in Western Europe
  - While economic efficiencies helped spur the growth of this market, institutional events were also important

- Eurocurrency Interest Rates: LIBOR
  - In the eurocurrency market the reference rate of interest is LIBOR—The London Interbank Offered Rate
  - LIBOR is now the most widely accepted rate of interest used in standardized quotations, loan agreements or financial derivatives valuations
  - LIBOR is officially defined by the British Bankers Association
  - For example, the U.S. dollar LIBOR is the mean of 16 multinational banks inter bank offered rates as sampled at 11 am London time in London
  - Yen LIBOR, EURO LIBOR and all other LIBOR rates are calculated the same way

- Fixed exchange rates, 1945-1973
  - Bretton Woods and IMF worked well post WWII, but diverging fiscal and monetary policies and external shocks caused the system’s demise
    - The US dollar remained the key to the web of exchange rates
    - Heavy capital outflows of dollars became required to meet investors’ and deficit needs and eventually this overhang of dollars held by foreigners created a lack of confidence in the US’ ability to meet its obligations
History of the International Monetary System

- This lack of confidence forced President Nixon to suspend official purchases or sales of gold on Aug. 15, 1971
- Exchange rates of most leading countries were allowed to float in relation to the US dollar
- By the end of 1971, most of the major trading currencies had appreciated vis-à-vis the US dollar; i.e. the dollar depreciated
- A year and a half later, the dollar came under attack again and lost 10% of its value
- By early 1973 a fixed rate system no longer seemed feasible and the dollar, along with the other major currencies was allowed to float
- By June 1973, the dollar had lost another 10% in value

Exhibit 3.2 The IMF’s Nominal Exchange Rate Index of the Dollar

Contemporary Currency Regimes

- The IMF today is composed of national currencies, artificial currencies (such as the SDR), and one entirely new currency (Euro)
- All of these currencies are linked to one another via a “smorgasbord” of currency regimes

Contemporary Currency Regimes

- **IMF Exchange Rate Regime Classifications**
  - **Exchange Arrangements with No Separate Legal Tender:** Currency of another country circulates as sole legal tender or member belongs to a monetary or currency union in which same legal tender is shared by members of the union
  - **Currency Board Arrangements:** Monetary regime based on implicit national commitment to exchange domestic currency for a specified foreign currency at a fixed exchange rate

Contemporary Currency Regimes

- **Other Conventional Fixed Peg Arrangements:** Country pegs its currency (formal or de facto) at a fixed rate to a major currency or a basket of currencies where exchange rate fluctuates within a narrow margin or at most ± 1% around central rate
- **Pegged Exchange Rates w/in Horizontal Bands:** Value of the currency is maintained within margins of fluctuation around a formal or de facto fixed peg that are wider than ± 1% around central rate
- **Crawling Peg:** Currency is adjusted periodically in small amounts at a fixed, preannounced rate in response to changes in certain quantitative measures

Contemporary Currency Regimes

- **Exchange Rates w/in Crawling Peg:** Currency is maintained within certain fluctuation margins around a central rate that is adjusted periodically
- **Managed Floating w/ No Preannounced Path for Exchange Rate:** Monetary authority influences the movements of the exchange rate through active intervention in foreign exchange markets without specifying a pre-announced path for the exchange rate
- **Independent Floating:** Exchange rate is market determined, with any foreign exchange intervention aimed at moderating the rate of change and preventing undue fluctuations in the exchange rate, rather than at establishing a level for it
Contemporary Currency Regimes

- Fixed Versus Flexible Exchange Rates and why countries pursue certain exchange rate regimes, based on premise that all else equal, countries would prefer fixed exchange rates:
  - Fixed exchange rates provide stability in international prices for the conduct of trade
  - Fixed exchange rates are inherently anti-inflationary, requiring the country to follow restrictive monetary and fiscal policies
  - Fixed exchange rates regimes necessitate that central banks maintain large quantities of international reserves for use in occasional defense of fixed rate
  - Fixed rates, once in place, may be maintained at rates that are inconsistent with economic fundamentals

Exhibit 3.3 World Currency Events 1971 - 2007

- Various currency events and impacts over the years:

Attributes of the “Ideal” Currency

- Exchange rate stability – the value of the currency would be fixed in relationship to other currencies so traders and investors could be relatively certain of the foreign exchange value of each currency in the present and near future
- Full financial integration – complete freedom of monetary flows would be allowed, so traders and investors could willingly and easily move funds from one country to another in response to perceived economic opportunities or risk
- Monetary independence – domestic monetary and interest rate policies would be set by each individual country to pursue desired national economic policies, especially as they might relate to limiting inflation, combating recessions and fostering prosperity and full employment
Attributes of the "Ideal" Currency

This is referred to as **The Impossible Trinity** because a country must give up one of the three goals described by the sides of the triangle, monetary independence, exchange rate stability, or full financial integration. The forces of economics do not allow the simultaneous achievement of all three.

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Emerging Markets & Regime Choices

- **Currency Boards** – exist when a country’s central bank commits to back its monetary base, money supply, entirely with foreign reserves at all times.
  - This means that a unit of the domestic currency cannot be introduced into the economy without an additional unit of foreign exchange reserves being obtained first.
  - Example is Argentina in 1991 when it fixed the Argentinean Peso to the US Dollar.

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Emerging Markets & Regime Choices

- **Dollarization** – the use of the US dollar as the official currency of the country.
  - Arguments for dollarization include:
    - Country removes possibility of currency volatility
    - Theoretically eliminate possibility of future currency crises
    - Greater economic integration with the US and other dollar based markets
  - Arguments against dollarization include:
    - Loss of sovereignty over monetary policy
    - Loss of power of seignorage, the ability to profit from its ability to print its own money
    - The central bank of the country no longer can serve as lender of last resort
  - Examples include Panama circa 1907 and Ecuador circa 2000.
The Birth of a Currency: The Euro

1. 15 Member nations of the European Union are also members of the European Monetary System (EMS)
   - Maastricht Treaty specified timetable and plan for replacing currencies for a full economic and monetary union
   - Convergence criteria called for countries’ monetary and fiscal policies to be integrated and coordinated
     - Nominal inflation should be no more than 1.5% above average for the three members of the EU with lowest inflation rates during previous year
     - Long-term interest rates should be no more than 2% above average for the three members of the EU with lowest interest rates
     - Fiscal deficit should be no more than 3% of GDP
     - Government debt should be no more than 60% of GDP
   - European Central Bank (ECB) was established to promote price stability within the EU

The Euro & Monetary Unification

1. Successful unification of the euro relies on two factors:
   - Monetary policy for the EMU has to be coordinated via the ECB
     - Focus should be on price stability of euro and inflationary pressures of economies
   - Fixing the Value of the euro
     - On 12/31/1998, the national exchange rates were fixed to the euro
     - On 1/4/1999 the euro began trading on world currency markets and value slid steadily until early 2002 when the euro began a sustained climb against the dollar and other foreign currencies

Exhibit 3.7 The U.S. Dollar/Euro Spot Exchange Rate, 1999-2007 (Monthly Average)

The Euro & Monetary Unification

1. The euro, €, was launched on Jan. 4, 1999 with 11 member states
2. Effects for countries using the euro currency include
   - Cheaper transaction costs,
   - Currency risks and costs related to exchange rate uncertainty are reduced,
   - All consumers and businesses, both inside and outside of the euro zone enjoy price transparency and increased price-based competition

Global Finance in Practice 3.3

1. The euro peaked against the dollar at $1.36/€ in late 2004
2. After dropping against the dollar in 2005, the euro has risen to $1.47/€ by year-end 2007
3. The decline of the dollar since 2002 has been caused by severe balance of payments deficits as well as massive federal budget deficits
4. 12 countries have been added to the EU since 2005 and they will allowed to adopt the euro only after meeting the same rigorous criteria met by all euro members
**Summary of Learning Objectives**

- The international monetary system has evolved from the days of the gold standard to today’s eclectic currency arrangement
  - Gold Standard (1876 – 1913)
  - Inter-war period (1914 – 1944)
  - Bretton Woods (1944)
  - Elimination of dollar convertibility into gold (1971)
  - Exchange rates began to float
- Eurocurrencies are domestic currencies of one country on deposit in a second country

**Summary of Learning Objectives**

- If the ideal currency existed in today’s world, it would have three attributes: a fixed value, convertibility, and independent monetary policy
- Emerging market countries must often choose between two extreme exchange rate regimes, either free-floating or fixed regime such as a currency board or dollarization

**Summary of Learning Objectives**

- The 15 members of the EU are also members of the EMS.
  - Twelve members of this group have formed an island of fixed exchange rates amongst themselves in a sea of floating currencies
  - They rely heavily on trade among themselves, so day-to-day benefits are great
  - May 1, 2004 the European Union admitted 10 more countries

**Summary of Learning Objectives**

- The euro affects markets in three ways
  - Countries within the zone enjoy cheaper transaction costs
  - Currency risks and costs related to exchange rate uncertainty are reduced,
  - All consumers and businesses, both inside and outside of the euro zone enjoy price transparency and increased price-based competition

**Exhibit 3.8 The Trade-offs between Exchange Rate Regimes**

- Diagram showing the trade-offs between exchange rate regimes with different policy rules and monetary systems.