Module - 8
Floating Rate, Currency Boards & Currency Basket Systems

Prepared by: Dr. A.K. Misra
Assistant Professor, Finance
Vinod Gupta School of Management
Indian Institute of Technology
Kharagpur, India.
Email: arunmisra@vgsom.iitkgp.ernet.in
In this session, various aspects of foreign exchange regime are discussed in details. Exchange rate determination primarily influence by the type of exchange rate regime a country has adopted. Fiscal, monetary and other economic policies are quite responsive to the exchange rate regime a country practice.

In this session, the following details about foreign exchange regimes are discussed:

- Brief review on various exchange rate regime
- Advantages of free and fixed exchange rate regime
- Pros & cons of managed floating exchange rate regime
- Prevalence of Currency Boards Regime
- Practice of Currency Basket Regime

After going through the session, readers would understand the historical development of international exchange rate regimes and the operational aspects of fixed and flexible regimes. This session also introduces readers with the recent practices of Currency Boards and Currency Basket Regimes.
8.1 Introduction

The exchange rate regime is the way a country manages its currency in respect to foreign currencies and the foreign exchange market. **Exchange rate regime is the method that is employed by governments in order to administer their respective currencies in the context of the other major currencies of the world.** The domestic foreign exchange market and the exchange rate regime are intrinsically linked to monetary policies.

**Fixed and Floating are the two extreme exchange rate regimes and in between these two many combinations of exchange rate regimes can be possible which may be partly fixed and partly floating.**

In case of the floating exchange rate regime, the values of the currencies are influenced by the movements in the financial markets. The floating rates are extensively used in most countries of the world. The floating exchange rate regime is also known as a dirty float or a managed float. This is because the governments always intervene in the foreign exchange market to arrest excessive volatility in foreign exchange rates.

Many countries have been practicing **Currencies Basket System** as their policy of exchange rate regime. The Currency Basket System is a Portfolio of Specific Individual Currencies of different countries. The Currency Basket contains a portfolio of several currencies with different weight and the percentage composition determines the exchange rate of the domestic currency. Using a currency basket is a common way to peg a currency without overexposing it to the fluctuations of a single currency. It helps in preventing ills effects, like inflation, currency fluctuations and financial instability of any one currency. In the subsequent sections details about floating exchange rate regime and currency basket system would be discussed.

Theoretically following exchange rate regimes could be possible:

### 8.2: Exchange Rates Regime: Fixed and Floating

- Fully-fixed exchange rate system
- Managed floating system
- Free-floating exchange rate
- Monetary Union with other countries
- Currency Boards System
- Currencies basket system
Under the fixed exchange rate system, the government or the Central Bank intervenes in the foreign exchange market so as to maintain the exchange rate stays close to an ‘exchange rate target’. By intervening in the foreign exchange market, through the process of buying and selling foreign assets/currencies, Central Banks keep the exchange rate at the ‘target fixed level’.

### Advantages of fixed exchange rate are:

- Commitment to a single fixed exchange rate encourages international trade by making prices of goods involved in trade more predictable.
- Fixed exchange rate is a part of a more general argument for national economic policies conducive to international economic integration.
- Since uncertainty and risk of exchange rates volatility is rare in case of fixed exchange rate, hence it promote long-term capital flows.
- Since there is no fear of currencies fluctuations, fixed exchange rate creates confidence in the strength of the domestic currency and there is no fear of adverse effect of speculation on the exchange rate.
- Fixed exchange rate serve as an anchor and imposes a discipline on monetary authorities to follow responsible financial policies within countries. Any inflationary monetary expenditure creates balance of payments deficit and thus reserves loss and hence monetary authorities generally do not practice an independent monetary policies.

### Disadvantages of Fixed Exchange rate are:

- **Fixed exchange rate may achieve exchange rate stability but at the expense of domestic economic stability.**
- Monetary authorities lose the independence of monetary policy formulation to maintain exchange rate stability. Any instability in exchange rate needs to be corrected by buying/selling of foreign exchange reserves or by controlling the domestic money supply. In this context, monetary authorities sacrifice the objectives of monetary policy to protect the fixed exchange rate.
- To protect the fixed exchange rate, country needs to have significant foreign exchange reserves and this imposes heavy burden on the monetary authorities for managing foreign exchange reserves.
- **Fixed exchange rate system need complicated exchange control mechanism which may lead to misallocation of resources?**
Fixed exchange rate regime is rarely practiced by any country at present. Almost all countries, at present, have adopted some forms of flexible exchange rate policy.

### 8.2.2 Floating Exchange Rate Regime: Advantages and Disadvantages

With floating exchange rates, changes in market demand and market supply of a currency cause a change in value. In the diagram below we see the effects of a rise in the demand for US$ lead to an appreciation of its market value.

![Diagram showing the effects of a rise in demand for US$ leading to appreciation of its market value.](image)

Changes in currency supply also have an effect. In the diagram below there is an increase in currency supply (S1-S2) which puts downward pressure on the market value of the exchange rate.

![Diagram showing the effects of an increase in currency supply leading to depreciation.](image)
Under floating exchange rate regime, currency can operate under following exchange rate system:

8.2.3 Free Floating

- Value of the currency is determined by market demand for and supply of the currency. Trade flows and capital flows are the main factors affecting the exchange rate.
- There is no pre-determined official target for the exchange rate and the monetary authorities can set interest rates as target variable for monetary policy objective.
- In the long-run macroeconomic factors, like performance of the economy, technological development, productivity and competitiveness etc., drives the value of the currency.
- It is rare for pure free floating exchange rates to exist - most governments at one time or another seek to "manage" the value of their currency through changes in interest rates and other controls.

8.2.3 Managed Floating

- Under the managed floating regime, though exchange rate is determined by market forces of demand and supply, the central banks or the governments set some kind target exchange rate to protect their exports/import. The central banks thus regularly intervene in the foreign exchange market to prevent any kind of excessive volatility or divergence from the target rate.
- Currency can move between permitted bands of fluctuation. Exchange rate is dominant target of economic policy-making.
- Interest rate, money supply and the FII/FDI policy are also set to meet the target exchange rate.
Advantages of floating exchange rates

- Fluctuations in the exchange rate can provide an automatic adjustment for countries with a large balance of payments deficit. If an economy has a large deficit, there is a net outflow of currency from the country. This puts downward pressure on the exchange rate and if a depreciation occurs, the relative price of exports in overseas markets falls while the relative price of imports in the home markets goes up. This leads to reduce the overall deficit in the balance of trade provided that the price elasticity of demand for exports and the price elasticity of demand for imports is sufficiently high.

- Floating exchange rates gives the government / monetary authorities’ flexibility in determining interest rates. This is because interest rates do not have to be set to keep the value of the exchange rate within pre-determined bands.

- Balance of Payments on current account disequilibrium can automatically be restored to equilibrium floating exchange rate regime and the scarcity or surplus of any currency is eliminated under floating exchange rate regime. Balance of payment adjustment is smoother and painless under floating exchange rate regime compared to fixed exchange rate system.

- Autonomy of monetary authorities preserve under floating exchange rate system as there is no target exchange rate to maintain. The fundamental argument in favour floating exchange rate system is that it allows countries autonomy with respect to their use of monetary, fiscal and other policy instruments and at the sametime external equilibrium is ensured because of flexible exchange rate.

Arguments against floating exchange rates

- Market forces may fail to determine the appropriate exchange rate and hence floating exchange rate regime may not provide the desired results and may also lead to misallocation of resources.

- It is impossible to have an exchange rate system without official intervention. Government may not intervene, however domestic monetary policy and fiscal policy would definitely influence the exchange rate.

- A wildly fluctuating exchange rate at the mercy of national and international currency speculators. Volatile exchange rate introduces considerable uncertainty in export and import prices and consequently to economic development. At the sametime, abolition of exchange controls causes capital flight.
A depreciating currency will help a country's exporting sector. However, the cost of imports will invariably rise leading to cost push inflationary pressures. Those people whose livelihoods rely on the consumption of goods with high import content will experience hardship.

From the above advantages and disadvantages of fixed and floating exchange rate regimes, it can be concluded that **neither rigidly fixed or freely floating exchange rate systems are desirable**. Thus, a system of managed floating exchange rate has been practicing by many countries at present. The central banks have been trying to control fluctuations of exchange rates around some "narrow band", however, the demand and supply forces determining the exchange rate.

### 8.4 Currency Board System

A number of smaller countries with stable economies are able to maintain exchange rate that pegged to a major hard currency. The **Hong Kong dollar** is an example of currency which has been pegged to the US$ for many years. The exchange rate system of Hong Kong is the Currency Board, where it provides complete convertibility to domestic currency for foreign currencies.

**Under a Currency Board regime the domestic currency is backed (generally more than 50%) with foreign currency reserves and the Board is mandated to convert domestic currency into foreign currency on demand at a fixed price.** A currency board maintains absolute, unlimited convertibility between its notes and coins and the currency against which they are pegged, at a fixed rate of exchange, with no restrictions on current-account or capital-account transactions. **Currency Board regime is generally considered as Gold Standard without Gold.**

A currency board government do not permit to have discretionary powers to effect monetary policy. **Under currency board Governments cannot print money without backing foreign currency assets and hence it can only tax or borrow to meet their spending commitments.** A currency board does not act as a lender of last resort to commercial banks, and does not regulate reserve requirements.

Under currency board regime governments could not manipulate interest rate. **Domestic interest rates and inflation are closely aligned to the country against whose currency the exchange rate is pegged.**
Advantages and Disadvantages

- **Currency Boards** are said to substitute a disciplined monetary policy rule for undisciplined discretionary monetary policy, thereby eliminating the inflation bias of the later.
- The virtue of this system is that questions of currency stability no longer apply.
- The drawbacks are that the country no longer has the ability to set monetary policy according to other domestic considerations, and that the fixed exchange rate will, to a large extent, also fix a country's terms of trade, irrespective of economic differences between it and its trading partners.

Hong Kong, Bulgaria, Lithuania, Estonia and many small economies have been practicing currency board system. Argentina abandoned its currency board in January 2002 after a severe recession. Typically, currency boards have advantages for small open economies which would find independent monetary policy difficult to sustain. They can also form a credible commitment to low inflation.

8.5 Currency Basket System

A currency basket contains number of currencies with different weight. For example, one may construct a currency basket with 25% Euros, 40% U.S. dollars, and 35% British pounds. The weight and the value of the different currencies determine the Currency Basket value.

Currency basket provides an ideal method to peg a currency without overexposing it to the fluctuations of a single currency. For example, Kuwait adopted currency basket system in 2007, by shifting the peg of the Kuwaiti dinar to the U.S. because the dollar was weak at the time, resulting in high inflation.

Currency Basket is generally used method for stabilizing the value of a national currency against multiple freely-traded other currencies. Some countries have very little interest in floating their national currencies on the open market, often because of high inflation in their past. One method of controlling this is to tie the value of your national currency to another country's strong currency, as was seen recently in Argentina with the peso's value tied to the U.S. dollar. However, this can cause problems when the currency to which yours is tied becomes extremely strong; Argentinian exports became uncompetitive because they had to be paid for in USD as the dollar kept rising against other world currencies like the euro, yen, and pound sterling.

The "currency basket" attempts to temper this effect by fixing the value of a currency to a theoretical currency built on percentages of other freely-traded currencies. For example, if Elbonia decided to fix the Elbo to a currency basket made up of 50% euros and 50% dollars, this would immunize Elbonian companies against dollar-vs.-euro fluctuation: should the dollar weaken against the euro, an Elbonian company's foreign bills payable in EUR would become more expensive (it would take more Elbos to buy the same number of euros), but bills payable in USD would become cheaper at the same rate (less Elbos to buy the same USD). A currency
The currency of People's Republic of China is renminbi. Upon its establishment, the renminbi was fixed to the U.S. Dollar, with periodical adjustment according to fluctuations in U.S. Dollar. From early 1970s, China began to list an Effective Rate, which was later pegged to a trade-weighted basket of 15 currencies, for foreign exchange transactions. The former Official Rate since became inoperative. (IMF 1985, p.373) With its implementation of the opening policy, China created in early 1980s a multiple rate structure, which contained a different exchange rate for trade-related foreign transaction. This structure was abolished 5 years later with the Effective Rate governing all trade. Later, the Effective Rate was placed on a controlled float based developments in the balance of payments and in costs and exchange rates of China's major competitors. Witnessing the development of foreign exchange market and increase in foreign exchange in China, China also created a Foreign Exchange Swap Rate for foreign investment corporations and Chinese enterprises under the foreign exchange retention regime.

In the 1990s, the China authorities worked towards putting the exchange rate regime on more market-oriented basis. Renminbi were firstly allowed to adjust frequently based on the previous indicators. Since 1994, China has been maintaining a controlled float foreign exchange regime under which the Effective Rate was replaced by the prevailing swap market rate. The State Administration for Exchange Control (SAEC), under direct control of the People's Bank of China (PBC), administers all phases of exchange control. The Bank of China (BOC) implements the foreign exchange plan and is the principal foreign exchange bank of the People's Republic of China. From the second half of 1980s on, authorized banks and institutions can also handle designated foreign exchange transactions with the approval of SAEC.


Historical Exchange Rate Regime: India
During the period 1950-1951 until mid-December 1973, India followed an exchange rate regime with Rupee linked to the Pound Sterling, except for the devaluations in 1966 and 1971. When the Pound Sterling floated on June 23, 1972, the Rupee’s link to the British units was maintained; paralleling the Pound’s depreciation and effecting a de facto devaluation. On September 24, 1975, the Rupee’s ties to the Pound Sterling were broken. India conducted a managed float exchange regime with the Rupee’s effective rate placed on a controlled, floating basis and linked to a “basket of currencies” of India’s major trading partners.

In early 1990s, the above exchange rate regime came under severe pressures from the increase in trade deficit and net invisible deficit, which led the Reserve Bank of India (RBI) to undertake downward adjustment of Rupee in two stages on July 1 and July 3, 1991. This adjustment was followed by the introduction of the Liberalized Exchange Rate Management System (LERMS) in March 1992 and hence the adoption of, for the first time, a dual (official as well as market determined) exchange rate in India. However, such system was characterized by an implicit tax on exports resulting from the differential in the rates of surrender to export proceeds.

Subsequently, in March 1993, the LERMS was replaced by the unified exchange rate system and hence the system of market determined exchange rate was adopted. However, the RBI did not relinquish its right to intervene in the market to enable orderly control. In addition, the foreign exchange market of India was characterized by the existence of both official and black market rates with median premium. However, such black market premium steadily declined during the following decades until 1993.


Historical Exchange Rate Regime: Argentina
We cannot neglect the chronic inflation and currency crisis in Argentina when discussing its historical exchange rate regime. Since mid 1960s, Argentina has adopted 6 programs aimed at stabilizing domestic prices. Fixed exchange rate was used as an anchor in these programs, in the belief that with fixed exchange rates domestic inflation would recover quickly to world level. These programs somewhat tamed the inflation at the beginning. However, the pressures of external debts, decreases in the export price, and speculative attacks always led to failures of these programs. When a program failed, the government always abolished the fixed exchange rate regime, or devalued the Argentine currency, or set a two-tier exchange market which allowed the exchange rate for financial payments to float. Changing the domestic currency was also a measure in these programs. For example, from June 1985 to January 1992, also as a part of the price control program, Argentina had once replaced the circulating Peso with a currency named Austral. The most recent currency crisis Argentina has met was triggered by its default on a US$132 billion loan payment. Before that, Argentina had been fixing its Peso to the U.S. Dollar under a currency board type of arrangement and controlling the money supply. However, the huge spending and decrease in commodity price led to great deficit in its currency account. In January 2002, in a necessary attempt to secure further aids from the IMF, Argentina un-pegged Peso from the U.S. dollar. The Central Bank, which was established in 1935 and came under government control in 1949, functions as the national bank and has the sole right to issue currency.

**Source:** IMF Annual Report on Exchange Arrangement and Exchange Restriction.

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**Historical Exchange Rate Regime: Singapore**
Created in 1967, the Singapore Dollar originally followed a exchange rate with a fixed link to a single currency. It was formerly linked to Pound Sterling. After the dismantling of the Sterling Area in early 1970s, the Singapore Dollar was linked to the U.S. Dollar for a short period of time.

Noticing its complicated links in trade to other countries and regions, from 1973 to 1985, Singapore pegged the value of Singapore Dollar against a fixed and undisclosed trade-weighted basket of currencies. Since 1985, with an aim to a more market-oriented regime, Singapore allowed its currency to float under the monitor of the Monetary Authority of Singapore (MAS), which retains responsibility for exchange control matters in Singapore. (IMF 1979, p.356).

The present exchange regime of Singapore may be classified as a Monitoring Band. With a primary goal to maintain public confidence, the currency in circulation is 100 % backed by international assets for notes-issuance. The MAS monitors the Singapore dollar against an undisclosed basket of currencies of Singapore's major trading partners and competitors. The central parity is determined on the basis of countries that are the main sources of imported inflation and competition in export markets. There is an undisclosed target band around the computed central parity. Both the central parity and the bandwidth are periodically reviewed to ensure that they are always "consistent with economic fundamentals and market conditions" (Rajan and Siregar, 2002, p.8-9) Rajan and Siregar (2002) viewed this exchange regime of Singapore as an effective measure in maintaining domestic price stabilities and export competitiveness for small and open economies. In addition, it has a large degree of flexibility during great economic fluctuations. During the height of the East Asian crisis, the MAS allowed the Singapore dollar to depreciate by about 20%.


References

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**Model Questions**

1. Identify these pairs by putting the letter of the synonym in the blank provided (Term Means essentially the same as)

   a. appreciation --------
   b. supply of foreign currency --------
   c. law of one price --------
   d. dirty float --------
   e. floating exchange rate --------
   f. devaluation --------
   g. demand for domestic currency --------
   h. pegged exchange rate --------
   i. revaluation --------
   j. fixed exchange rate --------
   k. managed float --------
   l. depreciation --------
   m. purchasing power parity --------
   n. flexible exchange rate --------

2. Under a gold standard, countries should

   a) keep the supply of their domestic money constant.
   b) keep the supply of their domestic money fixed in proportion to their gold holdings.
   c) keep the supply of foreign exchange less than their domestic money supply.
   d) restrict the demand for foreign goods.
   e) outlaw speculation.

3. Under a fixed exchange standard, if the domestic demand for foreign exchange increases

   a) the central monetary authority must meet the demand out of its reserves.
b) the central monetary authority must increase the supply of domestic money.
c) the fixed exchange standard will breakdown.
d) inflation will increase.
e) the domestic currency must be devalued.

4. The Bretton Woods exchange rate system was an example of a

a) target zone.
b) managed float.
c) pure gold standard.
d) modified gold standard.
e) floating exchange rate system

5. Which of the following is NOT one of the determinants of the gains of adopting a single currency?

a) A well-synchronized business cycle involving all member countries
b) The possibility of factors of production to freely move across borders
c) The willingness and ability of member countries to design policies to address regional imbalances that may develop
d) Widening the common market by allowing other countries to join
e) None of the above.

6. The biggest disadvantage of a fixed exchange rate is the

a) increased probability of high inflation.
b) tradeoff between supporting the exchange rate and adjusting the trade balance.
c) tradeoff between supporting the exchange rate and maintaining full employment.
d) increased probability of a trade deficit.
e) tradeoff between supporting the exchange rate and maintaining a balanced budget.

7. Write, in brief, pros & cons of fixed and completely flexible exchange rate regimes.

8. How the Managed Floating exchange rate regime overcome the difficulties of completely flexible exchange rate regime.

9. Discuss the advantages and disadvantages of Currency Boards System?

10. How can a Currency Basket Exchange rate regime be created? What are the advantages of currency basket regime over the flexible exchange rate regime?

11. Briefly outlines the historical developments of exchange rate regime in case of India.

**Answer to Question 1- 6:**
1.  
   a. appreciation  
   b. supply of foreign currency  
   c. law of one price  
   d. dirty float  
   e. floating exchange rate  
   f. devaluation  
   g. demand for domestic currency  
   h. pegged exchange rate  
   i. revaluation  
   j. fixed exchange rate  
   k. managed float  
   l. depreciation  
   m. purchasing power parity  
   n. flexible exchange rate  

2.  b.  
3.  e.  
4.  b  
5.  c  
6.  a  

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