Direct Approach	
Depreciation (appreciation) of the home currency $\frac{e_0 - e_1}{e_1}$	Appreciation (depreciation) of the foreign currency $\frac{e_1 - e_0}{e_0}$

Central Bank Intervention – central banks may prefer a strong or weak domestic currency.

Advantages of a Strong Domestic Currency	Disadvantages of a Strong Domestic Currency
• Cheaper imported goods and services • Lower import prices = lower production cost = low inflation • Low cost of foreign investment • Strong Currency attracts foreign capital = keeps interest rates (borrowing cost) low	• Exports become less competitive • Domestic firms face strong competition from low price imports • Job loss • Reduces foreign investment at home

Intervention:

- Central Bank can raise the value of the domestic currency buy buying the domestic currency will a foreign currency. Reduce the value of the domestic currency, it will sell the domestic currency on the foreign exchange market.
- Sterilizing vs Unsterilized intervention – buying the domestic currency using foreign currency, but it may put downward pressure on the price, to neutralize/sterilize this the central bank may purchase T-bills to increase the money supply.

International Monetary System - Independent monetary and fiscal policies will lead to volatile exchange rates as market participants receive and assess new information on these policies.

- Gold – 'Burglar alarm' because an expectation of an increase in inflation would increase the demand for gold and therefore prices of gold – warns politicians of tampering with fiat money.
- **Seigniorage** - profit made by a government by issuing currency, especially the difference between the face value of coins and their production costs. It's the economic cost of producing a currency within a given economy or country. If the seigniorage is positive, then the government will make an economic profit; a negative seigniorage will result in an economic loss.

System	Benefits	Costs
Free Floating – exchange rates are determined by the interaction of currency supplies. Adopted in 1973!	• Reduce Economic volatility and facilitates free trade. • Milton Friedman points out – with a floating exchange rate, there never has been a foreign exchange crisis. The reason is simple: The floating rate absorbs the pressures that would otherwise build up in countries that try to peg the exchange rate while simultaneously pursuing an independent monetary policy • Automatic Stabilisation of economy • Shock Absorber – to cushion the real economic shocks that change the equilibrium exchange rate. • floating exchange rates would offset international differences in inflation rates so that trade, wages, employment, and output would not have to adjust.	• May lead to excessive volatility - Many economists point to excessive volatility as a major cost of a floating rate system. The experience to date is that the dollar's ups and downs have had little to do with actual inflation and a lot to do with expectations of future government policies and economic conditions
Managed Floating – governments actively intervene in the foreign exchange market to smooth out exchange rate fluctuations to reduce the economic uncertainty associated with a free-float.	The potential benefit of a managed float is that governments can reduce the volatility associated with a freely floating exchange rate	inability of governments to recognize the difference between temporary and permanent exchange rate disequilibrium. By trying to manage exchange rates when a permanent shift in the equilibrium exchange rate has occurred, governments run the risk of creating an exchange rate crisis and wasting reserves.

Target Zone Arrangement – countries adjust their national economic policies to maintain their exchange rates within a specific margin around agreed-on fixed central exchange rates	The experience with the European Monetary System is that the target zone arrangement in effect forced convergence of monetary policy to that of the country – *Germany – with the most disciplined and strongest anti-inflation policy and led to low inflation.*	• Maintaining a genuinely stable target zone arrangement requires the political will to direct fiscal and monetary policies at that goal and not at purely national goals. This turns out to be difficult for countries to achieve. • fundamental changes in the equilibrium exchange rate cannot get reflected in actual exchange rate changes without a currency crisis occurring.
Fixed Rate System – (Bretton Woods System, 1946-71) governments are committed to maintaining the target exchange rates. Each central bank actively buys or sells its currency in the FX market whenever the FX rate threatens to deviate from its stated par value.	will have more monetary discipline than in a freely floating system and hence lower inflation than might otherwise be the case	In a permanently fixed system, the exchange rate cannot cushion the effects of real economic shocks, such as devaluation of a major competitor's currency.
Hybrid System – major currencies floating on a managed basis, some currencies freely floating, and other currencies moving in and out of various types of pegged exchange rate relationships.	The current system gives countries the option to select the system that best meets their needs. However, all too often, the decision is based on political rather than economic calculations.	The costs of a hybrid system, such as the one currently in place, is that there is no constraint on the choices that governments can make. The resulting choices can be good ones or bad ones.

International Parity Conditions and Balance of Payments

Forward Premium/Discount – forward delivery price > spot deliver = premium vice versa	$= \frac{Forward\ rate\ -Spot\ rate}{Spot\ rate} \times \frac{360}{n} \times 100$

Law of One Price (LOOP) – prices of identical goods traded in different markets should be the same – if 2 identical goods are priced differently in two countries, then arbitrage will take place as everyone will buy the cheaper one (price increase) and no one buying the expensive one (price decrease) – eventually they will converge.

LOOP across countries/currency zones: In the absence of transport costs, trade restrictions and other barriers to goods market arbitrage, the spot exchange rate equates the prices of any good *i* in two countries.	$e_0(U\$/A\$) = \frac{P^{\,i}_{US}}{P^{\,i}_{AU}}$

Purchasing Power Parity (PPP) - PPP deals with the relationship between the prices of goods and services (rates of inflation), and the exchange rates. PPP says that the exchange rates would adjust to offset the difference in inflation rates between countries

Absolute Purchasing Power Parity - says that the exchange rates would adjust to offset the difference in price levels between countries. One unit of currency has the same purchasing power globally

Intuitively pleasing, but difficult to test because:	Absolute PPP ignores differences in trade restrictions
• baskets may vary between countries • not all goods are traded internationally • thus, prices may not conform to PPP, even if the law of one price holds.	• tariffs, import quotas, • Restrictions on the movement of certain types of goods (e.g. quarantine requirements) • transportation costs, transaction costs, etc.

Relative Purchasing Power Parity – states that the exchange rate of one currency against another will adjust to reflect changes in the price levels (inflation rates) of the two countries	$\frac{e_t}{e_0} = \frac{(1 + i_h)^t}{(1 + i_f)^t}$	where e_t = future spot rate e_0 = spot rate i_f = foreign country inflation i_h = home country inflation t = the time period

Purchasing Power Parity –If purchasing power parity is expected to hold, then the best prediction for the spot rate should be: PPP implication – inflation (h) > inflation (f) = home country currency depreciates, if they are the same there will be no change in the exchange rate.	$e_t = e_0 \frac{(1 + i_h)^t}{(1 + i_f)^t}$