SCRIPT

Academic Script

1. Introduction Hello, friends so in this last series of first unit of understanding international foreign exchange markets under international financial management, we will understand two important theorem. This theorem and theories are purchasing power parity and international fisher effect while purchasing power parity it will taught absolute as well as relative aspects and lastly we will talk about international fisher postulate, Proportionality relationship between two countries' exchange rate and nominal interest rate prevailing in the two countries at that point of time.

2. Purchasing Power ParityOrigins of the PPP TheoryThe term "purchasing-power-parity" was originated by Cassel (1918) but he presented his PPP theory nearly three years earlier using the equivalent term "theoretical rate of exchange" (1916).While many credit Cassel as the originator of the PPP theory, some observers consider the founders to be the English economists writing at the time of the floating pound during the so called Bank Reconstruction period, 1997-1821.Specifically they credit Wheatley, writing in 1803 with the earliest complete formulation of the theory. Other writers assert that the theory was anticipated even earlier. Cassel was the first economist to place PPP within a systematic framework so that it clearly became an operational theory. As noted by Viner, Cassel was the first to express the theory in terms of statistical averages of prices. Not only did Cassel make PPP an operational theory, he was also the first to test it empirically and he certainly was the most active proponent of PPP. Most impressive of all, Cassel's theoretical analysis and empirical tests of PPP are remarkably similar to those current in later periods up to and including the present. Therefore, Cassel's contributions and not those of preceding writers, are the earliest analyses and applications of PPP discussed here.

3. Absolute Price Parity Cassel's theory of PPP is appropriately named, for its foundation is the idea that the value of a currency and therefore the demand for it is determined fundamentally by the amount of goods and services that a unit of the currency can buy in the country of issue, that is by its internal purchasing power the latter is defined as the inverse of the price level for goods and services. With this statement applying to two countries the value of one country's currency relative to the other's is the short-run equilibrium exchange rate; and the ratio of the internal purchasing powers or price levels defines the absolute PPP (PPPabs). Thus, a theory of absolute price parity results. The internal purchasing power of a currency is sometimes referred to merely as it's "purchasing power" and is called "buying power" or "paying powers" in Cassel's early writings. It is clear that the price levels used to define the absolute FTP are general price levels of the countries, representing prices of all goods and services, available for

purchase. Cassel is explicit on this point. Indeed he is emphatic that only a general price level can represent the purchasing power of money in a country and that price measures limited to traded goods (exports and imports) are unsuitable. Moreover, Cassel describes the process whereby an exchange value for a country's currency below (above) the PPP leads to an increase (decrease) in demand for the currency followed by an increase (decrease) in its commodity exports and a decrease (increase) in its commodity imports. Thus the ability to use currency to purchase goods and services in the country of issue is the foundation of Cassel's PPP theory. So he notes that the theory works best as the short-run equilibrium exchange rate is expected to have minimum deviations from the PPP under conditions of free international trade. Cassel also states that the theory holds when trade restrictions are of equal severity in both directions, that is, on both imports and exports of a country. Cassel's justification of absolute price parity has not been superseded to the present day. Both the critics and supporters exposit the theory in terms of virtually indistinguishable from those of Cassel. Under the extreme conditions outlines by Samuelson (and others before him) the existing exchange rate whether freely floating, managed floating or pegged cannot deviates even infinitesimally from the PPP, except to the extent that there are imperfections in the arbitrage process. In contrast, Cassel's absolute price parity does not rely on the unrealistic assumption that all commodities are traded and without transport costs, tariffs or quantitative restrictions. In particular the theory accepts the fact that there are non-traded goods but notes that the prices of traded and non-traded goods are closely related through various links. Haberler, although critical of PPP, describes its basis correctly "The proposition, that general price levels in different countries are connected through the prices of internationally traded goods is the foundation of the purchasing power parity doctrine".t the international financial management better.

4. Relative Price ParityCassel's theory of relative like that of absolute price parity is consistently, presented throughout his writings. The actual exchange rate in a base period, which for Cassel must be a "normal" period, is multiplied by the ratio of proportionate changes in price levels in the countries concerned. The result is the (relative) PPP in the current period. The ideal base period would be one in which the exchange rate is equal to the absolute PPP.The question arises as to whether the PPP calculated in this fashion, that is, the relative PPP in the current period is equal to the absolute PPP newly calculated for this period. The answer is affirmative, according to Cassel, only if the changes in the economies that occurred since the base period were purely monetary in nature.In this respect Cassel is at one with his critics. Viner writes, "The one type of case which would meet the requirement of exact inversely proportional changes in the price levels and in exchange rates would be a monetary change in one country which would operate to change all prices and money incomes in that country in

equal degree, while every other element in the situation, in both countries, remained absolutely constant". Similar discussions of the case of proportionate changes in exchange rates and price levels with no real changes are provided by Samuelson, Vanek and Stern. Samuelson points out that this ideal result, founded on the neutrality of money, can occur only in the long-run. In the short-run (and also in the long-run if ideal conditions are not fulfilled) real changes will take place in the economies and the relative PPP theory will not hold exactly. However, if the monetary changes dominate the real changes, relative PPP still applies, although in an approximate fashion. This is certainly the position of Cassel.Let us discuss how a change in the internal value of dollar affects its external value. Effects of a change in the domestic purchasing power of the dollar on the exchange value of that currency are illustrated in the following diagrams. In figure-A we have elastic demand curves (greater than unity) to indicate that the rest of the world has substitutes for American exports or alternative markets in which to purchase similar goods and services. This means that the rest of the world is rather sensitive to slight changes in American export prices.It is assumed, that inflation has already occurred in the United States to send up general prices, including export prices. Before the inflation American export prices were P, and American exports to the rest of the world (imports by others) were OQ1, given the initial world demand for American exports, D1 as shown in Figure-A. After inflation American export prices go up to P2, in response to which the world demand for American exports decreases to D2, that is a downward shift of the demand curve to the left. As a consequence American exports (or imports by rest of the world) decreases to OQ2.Effects of a change in the Purchasing power of dollar on its exchanges rate This means that the world demand for dollar exchange also declines, for the simple reason that the rest of the world now has less payment to make to American exporters or creditors. From the American point of view this means that the supply of foreign exchange decreases. Note the leftward shift of the supply curve in figure-C.In Figure (B) the demand curves are drawn so as to have a price elasticity of less than unity, on the assumption that the United States does not find close substitutes for those goods and services offered by the rest of the world. It is also assumed that world export prices remain unchanged; no inflation abroad. Under these circumstances the U.S. finds the rest of the world a cheaper place in which to purchase, and consequently the American demand for world exports Increases from D1 to D2 at the old price level P1 as shown in (ii).Imports by the U.S. (or world exports to U.S.) increases from OQ, to OQ2 note that, while American imports have increased by Q1Q2 in (B), American exports have decreased even more, namely, by Q2Q1 in (A). In other words, the U.S. has a larger import surplus (an export surplus from the standpoint of others). This excess of imports over exports is reflected in the upward shift of the demand curve in (C), that is, in the rise of American demand for foreign exchange.The American demand for world exports and therefore for foreign exchange far

exceeds the world demand for American exports and therefore the dollar exchange. Accordingly, the domestic price for foreign exchange rises from P1 to P2 as shown in Figure (C). A rise in the dollar price of foreign exchange means a fall in the external value of the dollar, since Americans must now give up more dollars to get the same amount of foreign exchange.The low exchange value of dollar will stimulate American exports and discourage American Imports until equilibrium is restored in the American balance of payments. Thus, a change in the purchasing power of dollar due to domestic inflation can affect the external value of the dollar, and the balance of payments position will change with it.5. International fisher effectInternational Fisher Theory states that an estimated change in the current exchange rate between any two currencies is directly proportional to the difference between the two countries nominal interest rates at a particular time.According to International Fisher Theory hypothesis, the real interest rate in a particular economy is independent of monetary variables. With the assumption that real interest rates are calculated across the countries, it can also be concluded that the country with lower interest rate would also have a lower inflation rate. This will make the real value of the country's currency rise over time. This theory is also known as the assumption of Uncovered Interest Parity.According to the generalized International Fisher Theory, the real interest rates should be same across the borders. But the validity of generalized Fisher theory largely depends on the integration of the capital market. That is, the capital in the market needs to be free to flow across borders. Usually the capital markets of the developed countries are integrated in nature. It has been seen that in the underdeveloped countries the currency flow is restricted.The International Fisher theory is calculated by the following formula:$E = [(i1-i2)/(1+i2)] \approx (i1-i2)$Where:E represents the percentage change in exchange ratei1 represents the interest rate of country Ai2 represents the interest rate of country BAn example may help to understand the value of the theory. For example, if the interest rate of country A is 10% and that of country B is 5%, then the currency of country B should appreciate roughly 5% compared to the currency of country A.The International Fisher Theory observation holds that a country with higher interest rate will also be inclined to have a higher inflation rate. The International Fisher Theory also estimates the future exchange rates based on the nominal interest rate relationships. The estimate of the spot exchange rate 12 months from now is calculated by multiplying the current spot exchange rate by the nominal annual U.S. interest rate and then dividing it by the nominal annual British interest rate. 6. SummarySo in this last session of series of first unit understanding international foreign exchange markets under international financial management, we tried understanding two important theories, purchasing power parity and international fisher effect, while talking purchasing power parity, we started with the origin of purchasing power parity absolute purchasing power parity, relative purchasing power parity, limitations of purchasing power parity as recognize by Cassel

and lastly cost parity, in the end the last theory we talked about international fisher effect, postulating direct Proportionality relationship between two countries exchange rates and the nominal interest rate prevailing in the two countries at that point of time. I hope this session would have been useful to you in understanding more about the fundamentals of international financial management better.Thank You.