

<http://www.economicdiscussion.net/theories/purchasing-power-parity-theory/purchasing-power-parity-theory-and-foreign-exchange-rate/10862>

Let us make in-depth study of the purchasing power parity theory and foreign exchange rate.

Introduction:

No country today is rich enough to have a free gold standard, not even the U.S.A. All countries have now paper currencies and these paper currencies of the various countries are not convertible into gold or other valuable things. Therefore, these days various countries have paper currency standards. The exchange situation is difficult in such cases. In such circumstances the ratio of exchange between the two currencies is determined by their respective purchasing powers. The purchasing power parity theory was propounded by Professor Gustav Cassel of Sweden. According to this theory, rate of exchange between two countries depends upon the relative purchasing power of their respective currencies. Such will be the rate which equates the two purchasing powers. For example, if a certain assortment of goods can be had for £1 in Britain and a similar assortment with Rs. 80 in India, then it is clear that the purchasing power of £ 1 in Britain is equal to the purchasing power of Rs. 80 in India. Thus, the rate of exchange, according to purchasing power parity theory, will be $£1 = Rs. 80$.

Let us take another example. Suppose in the USA one \$ purchases a given collection of commodities. In India, same collection of goods cost 60 rupees. Then rate of exchange will tend to be $\$ 1 = 60$ rupees. Now, suppose the price levels in the two countries remain the same but somehow exchange rate moves to $\$1=61$ rupees.

This means that one US\$ can purchase commodities worth more than 46 rupees. It will pay people to convert dollars into rupees at this rate, ($\$1 = Rs. 61$), purchase the given collection of commodities in India for 60 rupees and sell them in U.S.A. for one dollar again, making a profit of 1 rupee per dollar worth of transactions. This will create a large demand for rupees in the USA while supply thereof will be less because very few people would export commodities from USA to India. The value of the rupee in terms of the dollar will move up until it will reach $\$1 = 60$ rupees. At that point, imports from India will not give abnormal profits. $\$ 1 = 60$ rupees and is called the purchasing power parity between the two countries. Thus while the value of the unit of one currency in terms of another currency is determined at any particular time by the market conditions of demand and supply, in the long run the exchange rate is determined by the relative values of the two

currencies as indicated by their respective purchasing powers over goods and services.

In other words, the rate of exchange tends to rest at the point which expresses equality between the respective purchasing powers of the two currencies. This point is called the purchasing power parity. Thus, under a system of autonomous paper standards the external value of a currency is said to depend ultimately on the domestic purchasing power of that currency relative to that of another currency. In other words, exchange rates, under such a system, tend to be determined by the relative purchasing power parities of different currencies in different countries.

In the above example, if prices in India get doubled, prices in the USA remaining the same, the value of the rupee will be exactly halved. The new parity will be \$ 1 = 120 rupees. This is because now 120 rupees will buy the same collection of commodities in India which 60 rupees did before. We suppose that prices in the USA remain as before. But if prices in both countries get doubled, there will be no change in the parity.

In actual practice, however, the parity will be modified by the cost of transporting goods (including duties etc.) from one country to another.

A Critique of Purchasing Power Parity Theory:

The purchasing power parity theory has been subject to the following criticisms:

The actual rates of exchange between the two countries very seldom reflect the relative purchasing powers of the two currencies. This may be due to the fact that governments have either controlled prices or controlled exchange rates or imposed restrictions on import and export of goods.

Moreover, the theory is true if we consider the purchasing power of the respective currencies in terms of goods which enter into international trade and not the purchasing power of goods in general. But we know that all articles produced in a country do not figure in international trade.

Therefore, the rate of exchange cannot reflect the purchasing power of goods in general. For example, in India we may be able to get a dozen shirts washed with Rs. 40, but only 2 shirts with one dollar in the USA. Obviously, the purchasing power of one dollar in the USA is much less than the purchasing power of Rs. 40 in India.

This is due to the fact that dhobis do not form an article of international trade. If dhobis entered into international trade and freely moved into the U.S.A., then in terms of clothes washed, the purchasing power of Rs. 40 may be equalized with

the purchasing power of a dollar. Further, it is very difficult to measure purchasing power of a currency. It is usually done with the help of index numbers. But we know that the index numbers are not infallible.

Among the difficulties connected with index numbers are the following important ones:

- (i) Different types of goods that enter into the calculation of index numbers;
- (ii) Many goods which may enter into domestic trade may not figure in international trade;
- (iii) Internationally traded goods also may not have the same prices in all the markets because of differences in transport costs.

Besides, the theory of purchasing power applies to a stationary world. Actually the world is not static but dynamic. Conditions relating to money and prices, tariffs, etc., constantly go on changing and prevent us from arriving at any stable conclusion about the rates of exchange.

The internal prices and the cost of production are constantly changing. Therefore, a new equilibrium between the two currencies is almost daily called for. As Cassel observes, “differences in two countries’ economic situation, particularly in regard to transport and customs, may cause the normal exchange rate to deviate to a certain extent from the quotient of the currencies intrinsic purchasing powers.” If a country raises its tariffs, the exchange value of its currency will rise but its price level will remain the same.

Besides, many items of balance of payments like insurance and banking transactions and capital movements are very little affected by changes in general price levels. But these items do influence exchange rates by acting upon the supply of and the demand for foreign currencies.

The Purchasing Power Parity Theory ignores these influences altogether. Further, the theory, as propounded by Cassel, says that changes in price level bring about changes in exchange rates but changes in exchange rates do not cause any change in prices. This latter part is not true, for exchange movements do exercise some influence on internal prices.

The purchasing power parity theory compares the general price levels in two countries without making any provision for distinction being drawn between the price level of domestic goods and that of the internationally traded goods. The prices of internationally-traded goods will tend to be the same in all countries (transport costs are, of course omitted). Domestic prices on the other hand, will be different in the two countries, even between two areas of the same country.

The purchasing power parity theory assumes that there is a direct link between the purchasing power of currencies and the rate of exchange. But in fact there is no direct relation between the two. Exchange rate can be influenced by many other considerations such as tariffs, speculation and capital movements