

NOTE that, IMF does not deal/trade with the private sector. It has no role in recent FINANCIAL CRISIS because it was not the governments that needed loans but failing banks that needed a loan from governments, and these governments do not need to borrow from the IMF since they can borrow cheaply from the market on their own.

Preview from Notesale.co.uk
Page 5 of 26

Lecture 2 – PURCHASING POWER PARITY (PPP)

Exam Q:

- Explain **Purchasing Power Parity** (PPP). Under what circumstances it is likely to hold, if at all?
- Explain the implications of **Purchasing Power Parity** for exchange rates and inflation differentials and outline the empirical evidence on **how well it holds in practice**
- **Critically assess** the concept of **purchasing power parity** (PPP) as an equilibrium condition for price levels and exchange rates.

PPP - is a theory which states that exchange rate between 2 currencies are in equilibrium when their purchasing power is the same in each of the 2 countries. **This means that the exchange rate between 2 countries should equal the ratio of the 2 countries' price level.** When a country's domestic price level is **increasing**, that country's exchange rate must be **depreciated** in order to return to PPP. And vice-versa if the price level is decreasing.

The PPP is based on the "Law Of One Price" (LOOP) – similar goods will sell for the same price in 2 economies, taking into account the exchange rate and in the absence of transportation and other transaction costs.

For example, a particular apple (that is traded across boundaries) that sells for 10 MXN in Mexico should cost 1 USD in USA when the exchange rate is 10 MXN/USD. HOWEVER, if the price of that apple in Mexico was only 5 MXN, this creates arbitrage opportunities - consumers in USA would prefer buying apple in Mexico.

Since that apple in Mexico is now cheaper, the demand for apple in Mexico will increase and as a result the price of Mexican apples will increase. Moreover, as people buy MXN to buy that apple in Mexico, the demand for MXN increases and this will bid up the value of the MXN (MXN appreciates). Meanwhile, the demand for apple in USA would fall this causes the price of apple in USA to fall as well. At the same time, as the demand for USD falls this causes the USD to fall in value (USD depreciates). This process continues until the goods have again the same price, such that LOOP and PPP hold.

NOTE that because of the problems with nominal exchange rates, economists often use the "real exchange rate" when deriving PPP. It plays an important role in indicating the competitiveness of domestic goods relative to foreign goods, and the demand for domestic and foreign currencies.

Economists use 2 versions of PPP:

- **Strong ABSOLUTE PPP** (as described in the previous paragraph) equates the price levels in 2 countries when expressed in common currency, such that the purchasing power of unit of currency is same in 2 countries. Put formally, the exchange rate between Britain and America is equal to the price level in Britain divided by the price level in the America. Assume that the price level ratio P_B/P_A implies a PPP exchange rate of 1.3 GBP/USD. If today's exchange rate is 1.5 GBP/USD, PPP theory implies that the GBP will appreciate against the USD and the USD will in turn depreciate (get weaker) against the GBP:

$$P_B = S * P_A$$

or

$$S = \frac{P_B}{P_A}$$

Absolute PPP alone does not tell us everything, so we should also look at relative PPP, too.

Lecture 4 – FX MARKET EFFICIENCY

Exam Q:

- Are foreign exchange markets efficient? Explain your reasoning and the evidence.

FX market is efficient, so you should never buy any forecasts from anyone since FX market is unforecastable. But there are some evidences showing that FX market is inefficient. That is, essentially if you are testing a joint hypothesis, and therefore in some sense you might think that the market is efficient (it should drive itself towards a particular price). But the basic hypothesis is that there should not be any profitable opportunities and therefore changes in FX prices are unpredictable.

FX market is **EFFICIENT** because (we distinguish 2 different investments):

- 1) One is known as “**triangular arbitrage**”. Suppose we’ve got 3 currencies: USD, Pound Sterling and Yen, where there is no FX control, so these currencies are freely traded. Clearly there is price of Yen/Dollar, Dollar/Pound and Yen/Pound. It is called a “**triangular arbitrage**” because the cross-currency quotes have to be consistent with each other. However, if the Yen/Pound quote is inconsistent with the Yen/Dollar and Dollar/Pound quote then you can sell Pounds for Dollars, Dollars for Yen, and Yen for Pounds and end up with more than you started with, then there is an arbitrage profit which you can make **QUICKLY**. So if you find a trader who is quoting prices which are inconsistent with another prices then you can make a profit out of that inconsistency – and that would be the sign of INEFFICIENT MARKET. But in the process people who trade like this will drive this inconsistency away such that the quotes will be very consistent with other quotes. And in modern days where the technology is growing fast everyone can look up using their computer of whether there is an inconsistency in the price, and if there is then as long as people trade on that and make money out of that inconsistency, this inconsistency will be eliminated eventually. So the “triangular arbitrage” drives the prices to be consistent. So this is one reason why INEFFICIENCY tends to not arise such that FX Market is EFFICIENT.
- 2) The second is **covered interest rate arbitrage**, where you have a spot rate, forward rate, and fixed interest rates. If you can make money out of covered interest rate arbitrage then you can do so with **CERTAINTY** because you are locking in the inconsistency at the beginning of the period and that is why that inconsistency gets driven away and therefore the market is EFFICIENT. HOWEVER, given that FX market is dominated by wholesale traders who are looking for inconsistency, the risk-free profit is pretty well eliminated and very quickly.

INEFFICIENT MARKET: the statistical tests of forward rate bias showed that forward premium has no predictability power in predicting the future spot rate which means people making money out of it are exposed to **HIGH RISKS**, and you can lose a lot of money because the change in the spot rate is highly volatile - **UNCERTAIN**. Therefore, you need sufficient risk premium to compensate for taking this uncovered/unhedged interest rate positions for a very long period of time. So, it looks like the forward market is **INEFFICIENT** in a sense that you could make money by taking uncovered interest rate positions and use that to predict the future spot rate, although it is very risky. But once you add the risk premium it is questionable whether the FX market is still efficient.

Lecture 8 – CURRENCY CRISES

Exam Q:

- What are the theoretical reasons for **currency crises**? Illustrate with reference to at least one crisis, pointing out which mechanisms in the theories were relevant in the case you have chosen.
- What are the main drivers of **currency crises**?

CURRENCY CRISIS is either associated with pegged exchange rate (which is forced to devalue) or some run-off of a currency (which is associated with big changes in currency value which has big effects on profitability of some institutions which are affected by it).

The currency crisis **adjustments** options available are different depending whether the country belongs to a big monetary zone or country with its own currency that could devalue.

Currency crisis is mainly about exchange rate crisis, which may be linked with sovereign debt crisis and banking crisis.

The FIRST-GENERATION CURRENCY CRISIS MODEL:

Assumes that a country has a **pegged exchange rate regime** and as a floor in which the government will intervene with its reserves. In a **fixed** exchange rate regime, the government must fix the money supply in accordance with the fixed exchange rate. This requirement severely limits the government's ability to raise seigniorage revenue. A distinctive feature of the first-generation model is that the government runs a persistent primary deficit. This deficit implies that the government must either use assets, such as foreign reserves, or borrow to finance the deficit. It is not possible for the government to borrow or use reserves indefinitely. Therefore, the government must eventually finance the deficit by printing money to raise seigniorage revenue. Since printing money is inconsistent with keeping the exchange rate fixed, first-generation models predict that the regime must collapse. The problem arises because money supply is rising faster than the money demanded, and this means there will be an excess supply of money in the home FOREX market and the authorities will have to buy back it with reserves. But those reserves are finite so they can run out. As reserves keep falling, at some point, domestic residents will switch their money to foreign money. And basically, there is a crisis. The model assumes that there is something **WRONG** with economic **FUNDAMENTALS**: a policy inconsistent with a fixed exchange rate system is adopted. If that policy persists, the crisis will carry on until it hits the 0 reserves, which at that point the government may borrow from overseas or devalue or do something else.

HOWEVER, the devaluation may be a good thing because it will stimulate the net export and boom the home economy.

Examples of this crisis include: Argentina (had to give up its 1:1 pegged exchange rate against USD in early 2000 because it was running out of reserves and eventually there was a major devaluation of home currency which helped to stimulate demand and helped the economy to recover)