Central Bank Monetary Policy and FX

The interest rates given in the cross currency interest rate parity equation are often thought to be short-term risk free rates which are set by a country's central bank.

These short term risk free rates are called 'policy rates' since they're used to set monetary policy. The policy rate in:

- Australia is the interbank overnight cash rate (OCR), which is the rate that banks lend AUD to each other for one day, unsecured. The RBA targets this rate, hence it's often also called the 'target rate'.
- US is the federal funds rate, the overnight unsecured USD lending rate between banks.

Central banks determine a country's monetary policy which is adjusted to speed up or slow down the economy and thereby help control inflation. Since the 1990's most central banks have a policy of 'inflation targeting' to try to keep inflation in a narrow, predictable band because they believe that this helps promote long-term economic growth.

Different countries' central banks:

- The United States has the Federal Reserve (the Fed).
- The Euro-area's is the European Central Bank (ECB).
- Japan's is the Bank of Japan (BoJ).
- China's is the Peoples' Bank of China (PBoC).
- England's is the Bank of England (the BoE or 'Old Lady').
- Australia's is the Reserve Bank of Australia (RBA).

Monetary policy is conducted using 'open market operations' to adjust the very short term interest rate, also called the cash rate, overnight rate or policy rate.

Surprise Central Bank Policy Rate Changes

Unexpected changes in a central bank's monetary policy have an instant effect on exchange rates. If short-term interest rates are unexpectedly raised, the exchange rate will instantly appreciate.

Theory Example: Short and Long Term Effects

Question: If the US Federal Reserve unexpectedly decides to increase its federal funds rate, what will happen to the AUD per USD exchange rate immediately *and* in the next year? Assume that the:

- US federal funds rate and the Australian interbank overnight cash rate are equal, so: $r_{USD} = r_{AUD}$
- Australian dollar and US Dollar (USD) are at parity, so 1 AUD = 1 USD or there's 1 USD per AUD.
- Markets are efficient.

Answer: Due to the surprise US federal funds rate **hike**, the USD will instantly **appreciate** against the AUD, all things remaining equal. Therefore the AUD will <u>instantly</u> **depreciate** against the USD.

But due to cross-currency interest rate parity (IRP), since the US fed funds rate is now greater than the Australian overnight cash rate ($r_{USD} > r_{AUD}$), the USD per AUD forward exchange rate will be higher than the new spot exchange rate ($F_{T,USD/AUD} > S_{0,USD/AUD}$). Therefore, all things remaining equal, as time goes by the AUD will <u>slowly</u> **appreciate** against the USD.

Theory Examples: Short Term Effects Only

- If the BoJ <u>un</u>expectedly decides to **increase** its policy rate, the Japanese Yen will **appreciate** against other currencies.
- If the Fed <u>un</u>expectedly decide to **decrease** their policy rate, then the US Dollar will **depreciate** against other currencies.
- If the market <u>expects</u> the RBA to **decrease** rates and the RBA does **decrease** its policy rate then the Australian Dollar will remain **unchanged** since the decrease in policy rates would already be reflected in the price. In other words, the Australian Dollar would have fallen at an earlier time when the market first found out that the Australian policy rate was likely to fall.