Andreas Krause

Foreign exchange markets

The role of exchange rates

- Foreign exchange markets are used to make payments in international trade and foreign investments
- The price of a currency, relative to another currency, is the exchange rate
- The exchange rate is determined such that outcomes in both countries are identical: this is referred to as a parity
- In addition, we will see that exchange rates can be used to clear markets quickly while the economy adjusts to shocks

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Triangular arbitrage

- The exchange rate between different currency pairs is kept consistent with arbitrage
- Investors might directly exchange currencies A for currency B
- Alternatively they can first exchange currency A for currency C and then currency C for currency B
- These two investment strategies should yield the same outcome

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Identical prices and returns across countries

- International trade allows the exchange of goods and a good should not be cheaper in one country than another
- This idea has lead to the development of the BigMac index, the KFC index or iPad index to determine overvalued and undervalued currencies
- Similarly, should otherwise identical investments in one country not yield a higher return than in another country
- The exchange rate should adjust such that goods prices and returns are identical across countries
- We will look at how exchange rates achieve these parities

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Parities

Equal outcomes across countries

- Parities ensure that purchasing goods abroad and making investments are yielding the same outcome
- They assume that prices and interest rates are given and only the exchange rate adjusts to avoid discrepancies

? How would transaction costs affect parities?

! Transaction costs would allow for a band the size of these transaction costs around the parity to be sustainable as these disparities cannot be successfully exploited by traders or investors

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Money supply and sticky prices

- Central banks adjust money supply as part of their monetary policy and prices tend to adjust slowly
- If the economy is in full employment, this would not allow markets to clear
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The effect of monetary shocks

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Exchange rates clearing markets

- To clear markets, exchange rates overshoot the equilibrium price and re-adjust slowly with the wider economy afterwards.
- The exchange rate is used to clear markets as it adjusts quickly, but this leads to volatile exchange rates.

? Will exchange rates partially reverse previous changes necessarily be a sign of overshooting?

! The changes need to be seen in context, it could be the market overreacting to new information, but also to new (opposite) information becoming available.

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Summary of key results

- Exchange rates should be set such that goods have identical prices across countries and investments yield the same returns
- As prices are slow to adjust to any shocks, the exchange rate will adjust quickly to clear markets at all times
- We can best interpret parities as the long-run equilibrium that exchange rates should achieve
- Due to exogenous shocks, for example from monetary policy, we might see temporary deviations from these parities

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