Incorporating Liquidity Risk in Currency Futures Pricing

Anshul Goel, Indian Institute of Technology Kanpur

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This work will be an extension of the paper "Derivatives Pricing with Liquidity Risk" [1] with the aim to include liquidity risk factor into derivative pricing of currency futures. The reason for choosing currency markets lies in its significance to the economies as whole, in addition to financial markets and some of the currency futures' volumes are in similar lines to Gold & oil. `https://www.barchart.com/futures/most-active/all`

It is well established literature that the future markets is a great tool for risk management. Corporations need to hedge their foreign exchange risks if their transactions are booked in foreign currencies and currency futures help in that.Literature also provides evidence that currency risk can be minimised through futures hedging. [2] In addition to the liquid currencies, there are some liquid currency pairs whose daily transaction volumes in range of gold futures turnover or even less but are instrumental to respective currency economies and corporations.

I aim to extend the concept introduced in the paper [1] to currency futures market. In addition to it being a different market from the paper, there is also a scope of iterating over various proxies as measures of liquidity as it is not directly observed like prices. From very common measures like bid-ask spread to more refined measures like Ahimud measures [3] [4] [5], we can compare our results with benchmark to find the usability of the study.

References

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