

## Comments on "A Yield Curve Perspective on Uncovered Interest Parity" by Leo Krippner

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## Background

- From a policy and market practitioner perspective, understanding the relationship between exchange rates and economic fundamentals is an important but difficult task.
  - UIPH/FRUH puzzle
  - PPP puzzle
  - Exchange rate disconnect puzzle

# No doubt that interest rate differentials are an important driver of FX markets

- But the UIPH suggests the "carry trade" should not be expected to yield profits – but often it does and is a popular trade at the moment.
- Higher yield currencies should not be expected to appreciate and lower yield currencies should not be expected to depreciate – but they often do, adding to carry profitability.
- Though, higher (country, stable) risk premia in benchmark yield curves should be associated with currency depreciation, particularly over a longer horizon

## **Predicting / explaining exchange rates**

- Explaining exchange rates is challenging given the multitude of time-varying factors that appear to influence currency markets.
- Currencies can be viewed as a portal into asset classes that are denominated in that currency.
- UIPH attempts to specify a relationship between the path of an exchange rate and interest rate differentials, omitting returns on other assets denominated in the currency.
- This suggests to me that tests of the UIPH may suffer from omitted variable bias, at least cyclically.
- Also, are there time-varying risk premia that should be explicitly accounted for?

## Main comment: I like the paper

- Provides an intuitively appealing insight to the UIPH puzzle.
- Results consistent with, and provide empirical support for, some key findings in the literature, particularly around cyclical dynamics as the source of the UIPH failure in empirical tests.
- Innovative use of a Nelson and Siegel type yield curve model to derive RE consistent cyclical and fundamental interest rate components.
- Abstracts from modelling specific macroeconomic linkages, which for the purpose of the paper, contributes to the clarity of the empirical models.
- Impressive array of tests based on alternative models of market quoted yields, estimated zero coupon yields and estimated components of zero coupon yields.
- Pays close attention to the data.
- Rigorous and thorough approach.

#### The paper's key conclusion:

"... it is found that the UIPH is not rejected based on the fundamental components of interest rates, but is soundly rejected based on the cyclical components."

## Why I find this conclusion appealing:

- Decomposing the yield curve into cyclical and fundamental components is intuitively appealing
  - given that short-term rates can be characterised as being influenced by cyclical macroeconomic factors and long-term interest rates are seen as largely reflecting more structural or long-term fundamental aspects of an economy.
- It is reasonable to expect that investors react differently to cyclical and fundamental components of interest rates, or that cyclical exchange rate/ interest rate dynamics are different to the dynamics around the fundamental component of interest rates.
- Cyclical dynamics appear to be behind the common short-horizon empirical finding that the interest rate differential coefficient has a negative sign, consistent with what market participants expect based on the carry trade.

- The paper's key conclusion can be interpreted as being consistent with the finding in the literature that the UIPH is rejected for short horizon tests but not for long horizons.
- The cyclical component may also reflect the influence of monetary policy, and may be more likely to be correlated with returns on other assets denominated in that currency.
  - The inconsistency between the observed profitability of the carry trade and the UIPH would seem to be because the carry trade targets the cyclical component of interest rates.
- However, investors may well expect the UIPH to hold based on the fundamental yield differential, embodying structural factors related to the economy

#### Some other points

- Perhaps model comparisons could be made using a nested or non-nested testing framework?
- The existence of time varying risk premia may induce bias and inconsistency into the parameter estimates.
- A cautious approach is taken with regard to nonstationarity. I agree with the view that interest rate differentials and currency spreads have little reason to be non-stationary, and would suggest that there is little reason to model these types of series as non-stationary variables.
- It may be interesting to compare the time series properties of the fundamental and cyclical components of rates with what would be expected given macroeconomic fundamentals.
- It would be interesting to see how this approach works with other currency pairs, for instance those more susceptible to carry trade influences, or currency pairs for economies with less synchronised macroeconomic cycles than the US and Canada have.