Discussion of:
"Higher Moment Exchange Rate Exposure of S&P500 Firms"

by
Marcelo Bianconi, Jerry Cai and Joe Yoshino

Caio Almeida

EPGE/FGV

SBFIN, July 14, 2016
In this paper, the authors estimate the exposure of equity returns to volatility and higher moments (skewness and kurtosis) of U.S. exchange rate returns. This can be seen as a factor model where volatility, skewness and kurtosis are the factors. Question: In such models, what is the meaning of having exposure to a certain factor? Knowing the exposure of returns to a certain factor allows only to obtain contemporaneous sensitivity. Estimating the exposure adopting panel data is silent about any factor price of risk. Interesting directions: Would that factor be priced? Would it forecast future returns?
Robustness on the choice of Factors: Non-FX Factors...

- In general, to verify robustness of equity returns exposure (or predictability) to a certain set of factors, researchers have controlled for at least a set of basic factors:

- The three Fama and French factors, momentum, liquidity (Pastor and Stambaugh) and S&P 500 (realized volatility).

- Maybe thinking about a way to incorporate those factors could give strength to your empirical results.

- One way could be to aggregate the above factors quarterly, and include them in the panel analysis.

- Another one, introduces a way to verify if your factors are priced...
A possible strategy to verify if the FX factors are priced

- Sort the S&P 500 individual firms returns according to exchange rate volatility exposure (or skewness / kurtosis) and form groups (portfolios).

- Track the returns of these portfolios for two quarters and compute alphas (average values) controlling for the above-mentioned factors (FF, Momentum, etc...).

- Statistically significant alphas will indicate that your factors have a chance to be priced.

- Could proceed estimating Fama and Macbeth two-step regressions.

- See, for instance, Almeida, Ardison and Garcia (2016) - "Nonparametric Tail Risk, Stock Returns and the Macroeconomy".
Robustness of Factor Measures

- Volatility, Skewness and kurtosis are measured quarterly using weekly returns of the trade weighted dollar index.

- i) 12 observations to estimate measures of higher moments must generate large noise.
  - Maybe adopting daily data would mitigate this problem.

  - Maybe using a model for (conditional) volatility, skewness and kurtosis would be interesting.

  - Extracting volatility, skewness and kurtosis from exchange rate options could also be an alternative.

- How robust are the results to these alternative choices?

- Chang, Christoffersen and Jacobs (JFE, 2013) is an interesting reference to look at - Market Skewness explain the cross-section of stock returns.