The Foreign Exchange Exposure of Chinese Banks

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Discussion by

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What They Do

• Study the foreign exchange exposure of Chinese banks from July 2005- February 2008 using a sample of 14 banks, 6 of which are cross-listed in the Hong-Kong stock market

• Broad Question: Do Chinese banks display foreign exchange exposure?

• Specific question: To what extent are these banks exposed to the fluctuations in the US$/RMB and is the exposure a function of the organizational form, ownership structure, and listing status?
What They Find

• There is some evidence that Chinese banks are exposed
  – Of 6 cross-listed banks 4 are exposed, three of which are State-owned commercial banks
  – The 4th is a Joint-stock commercial bank
• For banks that are not cross listed only 2 are exposed
• Suggests that there is a distinct relationship between state-owned banks and F/X exposure
• Paper Published in “China Economic Review”
What They Estimate

• Using daily returns they estimate the following model:

\[
R_{n,t} - RF_t = \alpha_n + \beta_n^{m} (R_m,t - RF_t) + \beta_n^{I} I_t + \beta_n^{X} X_t + \varepsilon_{n,t}
\]

\[
R_{n,t} - RF_t = \alpha_n + \beta_n^{CH} (R_{CH,t} - RF_{CH,t}) + \beta_n^{HK} (R_{HK,t} - RF_{HK,t})
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+ \beta_n^{A} Dum_A + \beta_n^{I} I_t + \sum_{j=0}^{J} \beta_{j,n}^{X} X_{t-j} + \varepsilon_{n,t}
\]  

(2)

• Specifically, the authors estimate separate regressions for each bank.

• Note that $\beta^x_t$ is then the residual F/X exposure.
What they Estimate (contd.)

• $X_t$ is the exchange rate risk Factor and $I_t$ is other risk factors that are supposed to impact the bank’s excess returns.

• It is somewhat difficult to accept $I_t$ which is defined as the yield on a 5-year risk-free bond as a risk-factor. By definition if it is a risk factor there has to be some risk that investors are being compensated for.

• One solution is to subtract the 1-year rate from this yield which then makes it the term premium – (see, e.g., Harvey and Ferson (JPE, 1991))
What they Estimate (contd.)

• Difficult to ascertain exactly what was estimated – did each model have the same number of lags for the exchange rate factor? How were the number of lags determined?

• Were there lags for the bond factor – this would seem appropriate given that bond are typically less volatile than stocks and tend to be traded less frequently.

• Given that the F/X market is the most liquid market, to the extent that there is a lagged effect in this market chances are there will also be a lagged effect in the stock market.
What They Estimate (contd.)

- The authors use daily returns – probably motivated by the relatively short time period.
- Daily returns for individual stocks are relatively noisy
- Suggestion: (i) Use weekly returns
  (ii) form portfolios of the stocks that have similar organizational form, ownership structure or cross-listed
- Using daily returns for RMB is also problematic given the lack of variability in exchange rate movement
- Presenting summary statistics would be helpful to give us a feel for the data
RMB/US$ for Sample Period

Título do Gráfico

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## Results

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Results (Contd.)

• A significant part of the sample includes the recent financial crisis.
• This was not dealt with - it would have been helpful to see how the results were influenced by the crisis.
• A result that is somewhat surprising is the size of the F/X exposure coefficients –
  – Much larger than typically found in the literature
  – More important is that they are larger than the coefficients on the market premium
Conclusion

• The authors address an important question, which is increasing in importance, that of the issue of foreign exchange rate exposure of Chinese banks
• Unfortunately because of data issues the findings are tenuous.
• Difficult to draw conclusions because of the data limitations
• We wait until more data become available to revisit this issue where we would be better able to interpret the results