Discussion of

The Drivers and Pricing of Liquidity in Interest Rate Option Markets

P. Deuskar, A. Gupta, and M. Subrahmanyam

Haitao Li

Stephen M. Ross School of Business

University of Michigan

Bank of Canada Fixed-Income Conference

May 2006

Summary of the Paper

- Objectives
  - To study the effect of liquidity on interest rate option prices.
  - To examine whether liquidity is driven by a common systematic factor.
  - To determine how the common liquidity factor is related to macroeconomic variables.

- Data: Daily bid and offer quotes of euro interest rate caps/floors with nine maturities (2 years to 10 years) and twelve strike rates (2% to 8%) from January 1999 to May 2001 from WestLB Global Derivatives and Fixed Income Group.

- Main Findings:
  - Less liquid options (options with higher percentage bid-ask spreads) trade at higher prices (measured by Black implied volatilities after various adjustments).
  - There is a systematic common factor that explains about one-third of the variation in bid-ask spreads of options across all strikes and maturities.
  - The common liquidity factor is related to changes in uncertainty in the equity and fixed income markets.

Comments

- Comment #1: Is the OTC euro cap/floor market the best place to study the impact of liquidity on interest rate option prices? For this market, the only information on liquidity we have is bid-ask spread. Can we examine these issues better by studying exchange-traded interest rate options, for which we have much richer microstructure information?

- Comment #2: Given that the bid-ask spread is the only proxy of liquidity we have, a better understanding of how the spreads are set would be very important.
  - It seems that the option price and the spread should be determined simultaneously in equilibrium.

- The way the market maker sets the spread should also have implications for the second and third empirical findings.

- Comment #3: More detailed discussion and explanation of the first empirical finding would be helpful.
  - Who are the buyers and sellers in this market? Aren't most customers on the ask side? Did you use implied volatilities from bid or ask prices and did it make a difference?
  - What is the market share of WestLB? Is it a monopoly in the euro cap/floor market?
  - How does the relative strength between "seller-effect" and "buyer-effect" change with market conditions?