Discussion

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There has been a resurgence of research interest in issues of crisis, contagion, and commonality in liquidity. The paper by Furfine and Remolona is a welcome addition to this literature. Fleming (2001) had shown that price impact and trading activity are higher during crisis periods. Furfine and Remolona show that price impact is higher, even after accounting for trading activity.

In the paper, the proxy for trading intensity activity is the time between trades (Dufour and Engle 2000). Furfine and Remolona state that trades during crisis periods may reflect far more information above and beyond the information being conveyed by their increased rate of arrival. It is not clear, however, what kind of information is conveyed by rate of arrival of trades in the government bond markets.

Information in Stock and Bond Markets

The nature of information conveyed by trade arrival is clear in the context of equity markets. Dufour and Engle (p. 2469) apply their model to equity markets, and they state: "informed traders may choose to break up large volume trades, thereby generating a large number of informationally based trades. . . . Therefore, trading intensity, which results in short and long durations between trades, may provide information to market participants."

For government bond markets, Furfine and Remolona find that trades are positively autocorrelated. They interpret this result to mean that informed traders break up trades. But are there informed traders in Treasury bonds? An alternative interpretation lies in an institutional feature of government

bond markets: there is quantity negotiation but no price negotiation in Treasuries. Thus, large trades have to be broken up, irrespective of trader intentions.

It is likely that the nature of information in bond markets is more similar to foreign exchange than to equity markets. Order flow is informative, but traders do not have private information about asset values. Order flow may move trades because it could be informative of dealers' inventory positions or market demand conditions. So why should time between trades be relevant for bond markets? Perhaps the trade duration is related to changes in dealer inventory. In any case, this issue needs further exploration.

Empirical Design

The main issue here is the selection of the crisis period. There is no widely accepted method, but the crisis period should not be selected based on volatility. The authors use the change in swap spreads, and the change is likely to be correlated with volatility. I prefer selection criteria based on exogenous variables. A simple alternative is to use the fact that there is a degree of consensus as to when the crisis occurred in calendar time. Thus, the authors could use a longer sample, say all of 1998, then consider the period July-December 1998 as the crisis period (Bank for International Settlements 1999). This would include both volatile and non-volatile days and would be a better proxy for crisis. (The paper currently uses May-December 1998 as the sample period, so there is essentially no "normal" period in the sample.)

I am also concerned whether the dummies, as they are defined, are picking up a crisis effect or something else. To examine this issue, the authors should study days with high and low swap-spread changes during both normal and crisis periods—is there a difference? Similar remarks apply to the dummy for asymmetric bids—are these unique to crisis periods? More generally, the dummy-variable approach is sensitive to model misspecification (specific functional forms, lag structure). It would be useful to try alternative ways of introducing the trade duration T; instead of log(T), the authors may consider using time-interval dummies that are not sensitive to specific functional forms.

Other Comments

There are strong day-of-the-week effects in bond markets. Since there are only ten crisis days, it is worth checking whether such calendar effects are driving the results.

How sensitive are the results to the omission of slow trading days? The claim in the paper is that such days are "atypical," but then so are crisis days.

Clearly, trade time is not exogenous (Dufour and Engle). This problem is particularly acute in the application here. This is difficult, but Dufour and Engle suggest some diagnostics.

Overall, Furfine and Remolona have written an interesting paper on an important topic. I look forward to a revised version, incorporating a discussion of information flows in the Treasury bond markets and a robust empirical design.

References

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