## Intraday Liquidity Management and the Value of Flexibility

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## Abstract

Since 2008, the need for banks to trade reserves in the federal funds market has waned. Several studies have shown that large excess reserves have led to a stark decline in fed funds trading. Foreign banks trading for arbitrage account for most of the borrowing, rather than domestic banks seeking liquidity. The Federal Home Loan Banks (FHLBs) are the main lenders of fed funds, using this market to manage their intraday liquidity. This market structure has resulted in an almost always stable fed funds rate, despite notable fluctuations in the volume. But then can the fed funds market still provide useful information for liquidity conditions in the banking system? In this paper we show that as "lenders-of-next-to-last-resort" to the banking system, FHLBs' intraday liquidity management provides valuable information about liquidity conditions in the broader banking system. We show that FHLBs price fed funds loans according to their intraday liquidity needs. Focusing on borrower-lender relationships in the fed funds market, we show that counterparties willing to take on excess cash late in the day receive favorable rates. During times of heightened liquidity demand, such counterparties not only borrow later in the day, but also with more flexibility in volume. We address endogeneity concerns using borrower-time fixed effects as well as measures of FHLBs' regulatory liquidity requirements. Finally, we show that FHLBs' preference for overnight repo, which unlike fed funds does not provide intraday flexibility, is highly correlated with our measure of liquidity conditions in the broader banking system based on FHLBs' intraday pricing of fed funds.