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Repo Market Effects of the Term Securities Lending Facility

By MICHAEL J. FLEMING, WARREN B. HRUNG, AND FRANK M. KEANE*

On March 11, 2008, the Federal Reserve introduced the Term Securities Lending Facility (TSLF) "to promote liquidity in the financing markets for Treasury and other collateral and thus to foster the functioning of financial markets more generally."[1] Financing markets play a crucial role in the efficient allocation of capital in financial markets. In early 2008, however, these markets became severely impaired. Lenders reduced the amount they were willing to lend against a given amount of collateral, demanded greater compensation for lending against riskier collateral, and halted lending against certain types of collateral altogether.

The TSLF addresses liquidity disruptions in financing markets by letting dealers swap less liquid collateral, which is harder to finance, for more liquid Treasury collateral, which is easier to finance. Primary dealers—dealers with a trading relationship with the Federal Reserve Bank of New York—can bid a fee to borrow Treasury securities from the Fed for 28 days, while agreeing to provide other securities as collateral. Dealers can then use the borrowed Treasury securities as collateral to obtain cash in the private market. The economic rationale for the TSLF is captured by Nobuhiro Kiyotaki and John Moore (2008), who show the conditions under which a government should offset a liquidity shock by swapping money (liquid securities) for less liquid assets.

We assess the effectiveness of the TSLF and find that it has precipitated a significant narrowing of repurchase agreement (repo) spreads between Treasury collateral and less liquid collateral. We find that the effects are driven by operations at which appreciably less liquid securities can be pledged as collateral and that such operations increase repo rates for liquid non-Treasury collateral. The evidence suggests that the provision of Treasury collateral through the TSLF has mitigated a more general shortage of liquid collateral.

Our paper is related to work by James McAndrews, Asani Sarkar, and Zhenyu Wang (2008), John B. Taylor and John C. Williams (2009), and others, that examines the effects of the Term Auction Facility (TAF) on term spreads in the unsecured funding markets. While some of these studies conclude that the TAF lowers term spreads, Taylor and Williams find that the evidence of a significant effect is not robust. One reason for this, offered by Taylor and Williams, is that the TAF did not initially increase the net supply of bank reserves, with reserve increases due to borrowing from the TAF offset by reserve decreases from Fed sales of securities.

Our analysis of the TSLF may provide for a stronger test of liquidity facility effects. First, borrowing from the TSLF does in fact cause a net increase in the quantity of Treasury collateral in the market and a net decrease in the quantity of other collateral. Moreover, the overnight repo rates and spreads we examine are highly sensitive to the supply of collateral in the market on that day, and insensitive to expectations about future changes in supply. Changes in collateral supply from a particular TSLF operation can thus be considered exogenous.

Our paper is also related to work showing that government debt supply is positively related to yields (Robin Greenwood and Dimitri Vayanos 2008, and Arvind Krishnamurthy and Anette

* Fleming: Federal Reserve Bank of New York, 33 Liberty St., New York, NY 10045 (e-mail: michael.fleming@ny.frb.org); Hrung: Federal Reserve Bank of New York, 33 Liberty St., New York, NY 10045 (e-mail: warren.hrung@ny.frb.org); Keane: Federal Reserve Bank of New York, 33 Liberty St., New York, NY 10045 (e-mail: frank.keane@ny.frb.org). We thank Tobias Adrian, Charles Jones, Arvind Krishnamurthy, Carol Osler, Lasse Pedersen, James Wilcox, and seminar participants at Brandeis University, Cass Business School, the Central Bank of Ireland, RiskMetrics Group, the 2009 and 2010 ASSA Annual Meetings, and the Federal Reserve Bank of New York Conference on Central Bank Liquidity Tools for helpful comments. Views expressed are those of the authors and not necessarily those of the Federal Reserve Bank of New York or the Federal Reserve System.

[1] See the Federal Reserve press release announcing the TSLF, http://www.federalreserve.gov/newsevents/press/monetary/20080311a.htm.