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March 7, 2008 Statement Regarding System Open Market Activity

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## Understanding the Recent Changes to Federal Reserve Liquidity Provision

May 2008

Since August 2007, the Federal Reserve System has designed a series of changes to its lending facilities to help improve market liquidity and overall market functioning. Although these changes were made incrementally in response to changing market conditions, they share the common objectives of reducing risks to financial stability and strengthening the effectiveness of monetary policy in addressing risks to the outlook for growth and inflation.

The suite of facilities now in place is designed to enable a set of institutions that play an important role in financial markets to access liquidity from the Federal Reserve against collateral they would normally be able to finance easily with other financial market participants. By giving depository institutions and primary dealers more confidence in their access to current and future funding, these new facilities should reduce the incentives these institutions would otherwise face in these exceptionally challenging market conditions to take actions that might exacerbate pressure on market functioning and they should improve the institutions' ability to extend funding to their customers and counterparties.

The recent changes to the Fed's liquidity provision have entailed a substantial modification of the terms of the primary credit program of the discount window (DW) and the introduction of three new facilities: the Term Auction Facility (TAF), the Term Securities Lending Facility (TSLF) and the Primary Dealer Credit Facility (PDCF).<sup>1</sup>

Together, these initiatives alter several dimensions of the Fed's liquidity facilities:

- They lengthen the duration of access to liquidity.
- They broaden the types of eligible collateral.
- They expand the range of eligible counterparties for some activities.
- They reduce the cost of borrowing from the Fed relative to the Federal Funds rate.

With the introduction of these new facilities, eligible depository institutions and primary dealers now have access to two complementary types of facilities.

- The discount window for depository institutions and the Primary Dealer Credit Facility for primary dealers are effectively "standing" facilities that provide daily access to funding for eligible institutions. Access to funds through these facilities occurs at the initiative of the borrowing institution, in an amount determined by the borrowing institution's needs and collateral. The Fed charges a fixed interest rate set at a premium to market rates on this type of facility to discourage institutions from unnecessary use of Fed lending.
- The Term Auction Facility for depository institutions and the Term Securities Lending Facility for primary dealers constitute a second type of facility in which a pre-determined amount of longer-term funding is available at auction on pre-announced dates for settlement on a later date. These facilities are designed to improve overall liquidity conditions in term and secured funding markets, rather than to satisfy the needs of a particular institution on a particular day. The interest rate and the distribution of the awards across institutions in this second type of facility are determined by an auction.

Liquidity provided through these facilities is offset in the implementation of monetary policy through open market operations (OMO) so as to achieve the Federal Open Market Committee's (FOMC) federal funds target rate. Thus, these facilities enable the Fed to alter the composition of its balance sheet in ways that address strains in market conditions, but also to use its other reserve management tools to maintain any particular overall size it desires for the supply of reserves to the banking system and hence the federal funds rate.

The Federal Reserve will keep this new array of liquidity facilities in place for as long as is necessary. It will also continue to consult with market participants and will adapt these facilities as necessary to enhance their effectiveness as market conditions evolve. Below we describe the recent changes to the Fed's lending facilities and discuss how each is intended to improve liquidity conditions in the markets in which banks and primary dealers participate. The key features of these facilities are summarized in Table 1.

### FACILITIES FOR DEPOSITORY INSTITUTIONS

The primary credit facility of the DW and the TAF are available to depository institutions (DIs) in sound financial condition. Borrowing at each of these facilities can be secured by a wide variety of

collateral, including loans to businesses and households.

### **The Primary Credit Program of the Discount Window**

From January 2003 to August 2007, eligible depository institutions could borrow from the DW on an overnight basis at a penalty rate set at a fixed 100 basis point spread over the target federal funds rate. Starting in August 2007, in view of the significant strains in term interbank funding markets, the Federal Reserve made a number of changes to terms of DW borrowing. On August 17, 2007, the Fed extended the maximum term for borrowing to 30 days, renewable at the request of the borrower, and reduced the spread to the target federal funds rate from 100 to 50 basis points. On March 16, 2008, the Fed further extended the term for borrowing to 90 days, and further reduced the spread to the target federal funds rate to 25 basis points.

The DW facility is available every business day and is designed to ensure that sound depository institutions can meet their funding needs, even if those needs occur unexpectedly or late in the day. For example, if a DI receives an unexpected delivery of securities or experiences operational difficulties with its funds management systems, it would be at risk of an overnight overdraft. Funding need at an individual institution can also arise from circumstances in which aggregate reserves in the banking system are significantly lower than what the Open Market Desk (the Desk) was anticipating in its management of the federal funds rate target. To avoid an overdraft in any of these situations, the bank can borrow funds under the primary credit program of the DW.

### **The Term Auction Facility**

Established on December 12, 2007, the TAF provides term funding secured by the same collateral that is accepted at the discount window to the same depository institutions that are eligible for the primary credit program.<sup>2</sup> In contrast to the DW, the total amount of funds available at any TAF auction is determined and announced in advance by the Fed, and the rate is set in a competitive process among the eligible depositories, so those depositories with the highest bid rates receive the funds. Thus, the rate charged for borrowing (known as the “stop-out rate”) can vary from auction to auction depending on overall demand for funds relative to the amount being auctioned. Bids at each auction are subject to a minimum bid rate that is equal to the one-month overnight index swap (OIS) rate—this is equal to the market’s expectation of the average federal funds rate over that month—and limits are imposed on how much of the available funds a particular DI can bid for in the auction in order to ensure that the funds are distributed across a number of institutions.<sup>3</sup>

Introducing the TAF in December 2007 allowed the Fed to provide term funds to DIs in a manner that alleviated the strains arising from a generalized reduction in the willingness of sound depository institutions to lend to one another. The TAF allows banks to borrow against a wide range of collateral, including securities that are not widely pledged in private markets, such as bank loans.

In response to the continued strains in term funding markets even in the wake of the first few months of TAF auctions, the Federal Reserve announced on March 7, 2008, that it would continue to conduct TAF auctions for at least an additional six months unless market conditions evolved in a manner that clearly indicated the auctions were no longer necessary. Unlike DW borrowing, which has same-day settlement, the delivery of funds from TAF is delayed and hence is not designed to satisfy an individual depository institution’s immediate need for funding. Also in contrast to DW borrowing, the total amount of funds offered in a TAF auction is predetermined, and the settlement date for the funds is announced in advance, which makes it easier for the Desk to offset the effect of TAF borrowing on overall reserves.

## **FACILITIES FOR PRIMARY DEALERS**

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The Desk at the Federal Reserve Bank of New York conducts operations in U.S. government and select other securities on a regular basis with the set of banks and securities broker-dealers that constitute the Fed’s designated primary dealers. These operations are an essential part of the implementation of the FOMC’s monetary policy objectives. Open market operations are auction transactions in which the Desk buys, or sells, securities with the primary dealers or it lends funds to the primary dealers through the sale and repurchase of securities in agreements known as “repos” (though it occasionally borrows using reverse repurchase agreements) in order to add, or drain, reserves from the banking system. Repo transactions are the principle means by which the Desk achieves the federal funds rate target set by the FOMC. Collateral for open market operations consists of U.S. Treasury, agency and agency mortgage-backed securities.

From the perspective of the primary dealers’ balance sheets, these repo transactions with the Desk are only a small fraction of their overall volume of repo market activity. In recent months, repo markets have come under significant strain as well, and the volume of repo financing has shrunk considerably, while the cost has risen. The two facilities below were developed in response to those strains.

### **The Primary Dealer Credit Facility**

The establishment of the PDCF was announced by the Board of Governors of the Federal Reserve System on March 16, 2008. The Board determined that unusual and exigent circumstances existed in financial markets, including a severe lack of liquidity that threatened to impair the functioning of a broad range of markets, and announced that the PDCF will be in place for at least six months and may be extended as conditions warrant.

Use of the PDCF by primary dealers differs from their participation in OMO in two important ways. First the PDCF allows primary dealers to borrow funds from the Fed against a broader range of collateral than is eligible for OMO. Second, the rate on that borrowing is fixed rather than determined through an auction mechanism.

The PDCF is similar in spirit to the primary credit program of the DW available to depository institutions. As with the DW, the amount of funds being lent is determined at the request of an individual primary dealer, and the interest rate paid on borrowings through the PDCF is equal to the rate by depository institutions for credit obtained at the DW. Under normal market conditions, this rate would constitute a penalty rate for these types of transactions.

As with the DW, the PDCF is available every day and is meant to provide funding to individual dealers in situations in which the dealer's ability to fund its holdings of securities in the broader repo market is impaired. This impairment might occur because poor liquidity conditions in the trading of particular classes of securities prevent them from being readily used as collateral in the repo market. In this situation, the PDCF will help to prevent the forced sale of specific types of securities by providing temporary financing for the collateral. In general, by assuring dealers of their access to funding against program-eligible collateral, the PDCF is intended to improve market liquidity and encourage primary dealers to make markets and to provide credit to customers.

### **The Term Securities Lending Facility**

The TSLF is a term lending facility for primary dealers established on March 11, 2008.<sup>4</sup> Like the TAF, the TSLF is an auction facility, but unlike the TAF, which auctions funds from the Federal Reserve in exchange for securities and loans, the TSLF auctions securities in exchange for securities. Specifically, the TSLF allows dealers to offer relatively illiquid securities as collateral in exchange for a loan of Treasury securities.<sup>5</sup> In doing so, this facility is intended to promote liquidity in the financing markets for Treasury and other collateral and thus foster the functioning of financial markets more generally.

TSLF auctions are held on a weekly basis, and the term of a TSLF loan is 28 days. Bidding is subject to a minimum bid rate that is chosen to be slightly higher than the spread between the Treasury GC rate and the GC rate of the particular collateral accepted in the facility under more normal market conditions. The resulting rate on the collateral loan is set through a competitive auction process, and as with the TAF auctions, limits are imposed on the share of the auction allocated to each winning bidder in order to ensure that the lending is distributed across multiple institutions. In contrast to the Fed's other liquidity facilities, the TSLF is reserve neutral because it lends Treasury securities against collateral. In other words, no OMO are needed to offset lending done through the TSLF.

## KEY FEATURES OF LENDING FACILITIES

		DEPOSITORY INSTITUTION IN SOUND FINANCIAL CONDITION	PRIMARY DEALERS
<b>Backstop Standing Facilities</b>	<b>Name</b>	<b>Primary credit program of discount window</b>	<b>Primary Dealer Credit Facility</b>
	<b>Size</b>	Limited by eligible collateral and aggregate credit needs. Aggregate amount made public with a lag.	
	<b>Price</b>	Primary credit rate	Primary credit rate plus frequency based fee
	<b>Frequency</b>	Available daily	
	<b>Term</b>	Overnight - 90 days	Overnight
	<b>Collateral</b>	Discount window collateral	Standard OMO plus investment grade debt securities
	<b>Prepay</b>	Yes	N/A
<b>Auction Facilities</b>	<b>Name</b>	<b>Term Auction Facility</b>	<b>Term Securities Lending Facility</b>
	<b>Size</b>	Fixed and public. Also constrained by availability of collateral.	
	<b>Price</b>	Single	Single
	<b>Frequency</b>	Biweekly	Weekly
	<b>Term</b>	28 days	28 days
	<b>Collateral</b>	Discount window collateral	Standard OMO plus AAA private label RMBS, CMBS, agency CMOs and other ABS
	<b>Prepay</b>	No	No

<sup>1</sup> Aggregate information on the amount of borrowing through the TAF and the PDCF as well as through the Federal Reserve's other lending facilities is made available each Thursday, generally at 4:30 p.m., on Federal Reserve Statistical Release H.4.1 Factors Affecting Reserve Balances of Depository Institutions and Condition Statement of Federal Reserve Banks. The H.4.1 release will contain the total amount of PDCF and TAF credit outstanding as of the close of business on the prior business day and the average daily amounts for each week. Summary information will be posted on the New York Fed website following each TSLF auction. Information on amounts lent through the TSLF will also be provided on the H.4.1 statistical release. The identities of the institutions using these facilities will not be made public.

<sup>2</sup> When announcing the TAF, the Federal Reserve also announced that it had approved the extension of temporary reciprocal currency arrangements (swap lines) with the European Central Bank (ECB) and the Swiss National Bank (SNB). On March 11, 2008, the Federal Reserve extended the arrangements through September 30, 2008, and established their current sizes of \$30 billion and \$6 billion with the ECB and the SNB, respectively. These lines allow the ECB and SNB to lend dollars to depository institutions in their jurisdictions, which complements the ability of the TAF to provide dollars to banking institutions in the United States.

<sup>3</sup> It is also the case that bidders in the TAF are required to hold an amount of collateral beyond that necessary to secure TAF borrowing. This requirement ensures that depository institutions retain

some capacity to borrow under the primary credit program in the event they encounter unexpected overnight funding needs.

<sup>4</sup> On March 7, 2008, the Federal Reserve announced that it would initiate a series of 28-day term repurchase transactions in its open market operations that are expected to cumulate to \$100 billion. For these transactions, primary dealers may elect to deliver as collateral any of the types of securities that are eligible as collateral in its regular open market operations—Treasury, agency debt or agency mortgage-backed securities. As with the TAF auction sizes, the Federal Reserve will increase the sizes of these term repo operations if conditions warrant. These operations are designed to address the same strained liquidity conditions in these markets as the TSLF.

<sup>5</sup> The TSLF auctions a fixed amount of general collateral (GC) Treasury securities from the System Open Market Account (SOMA) in exchange for any collateral eligible for repurchase agreements arranged by the Desk, AAA/Aaa-rated private-label residential mortgage-backed securities, commercial mortgage-backed securities, agency collateralized mortgage obligations and other asset-backed securities excluding collateralized debt obligations, collateralized loan obligations, and collateralized bond obligations.

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