

Funding Pressures and the Federal Reserve's Liquidity Facilities

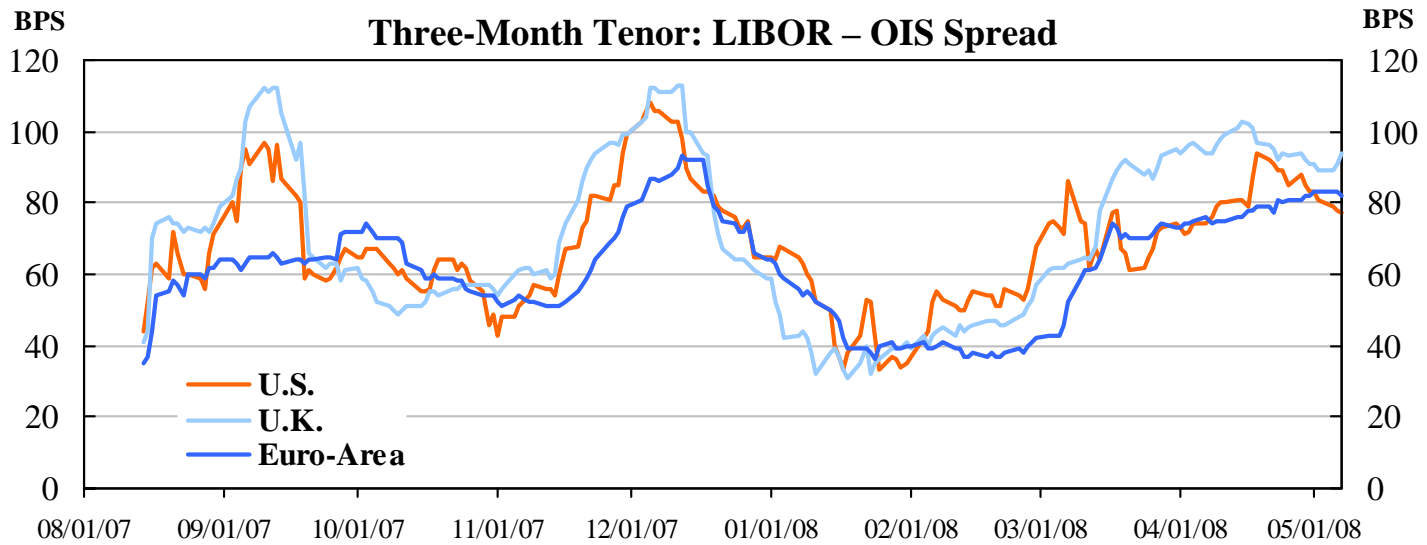
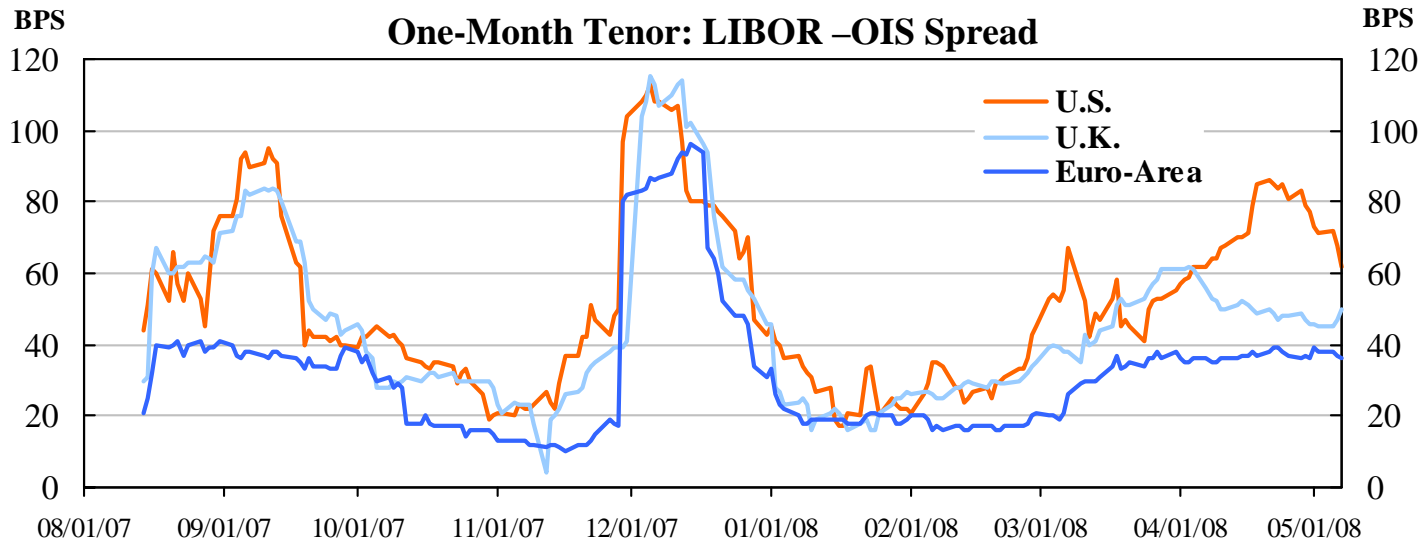


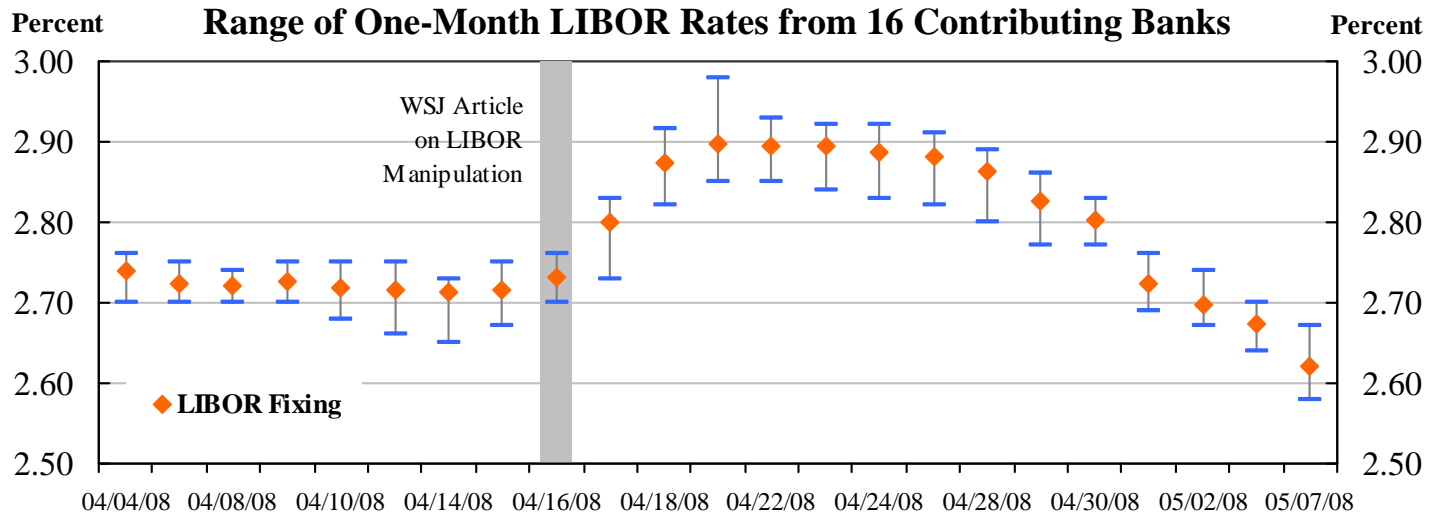
William Dudley

Head of Markets Group

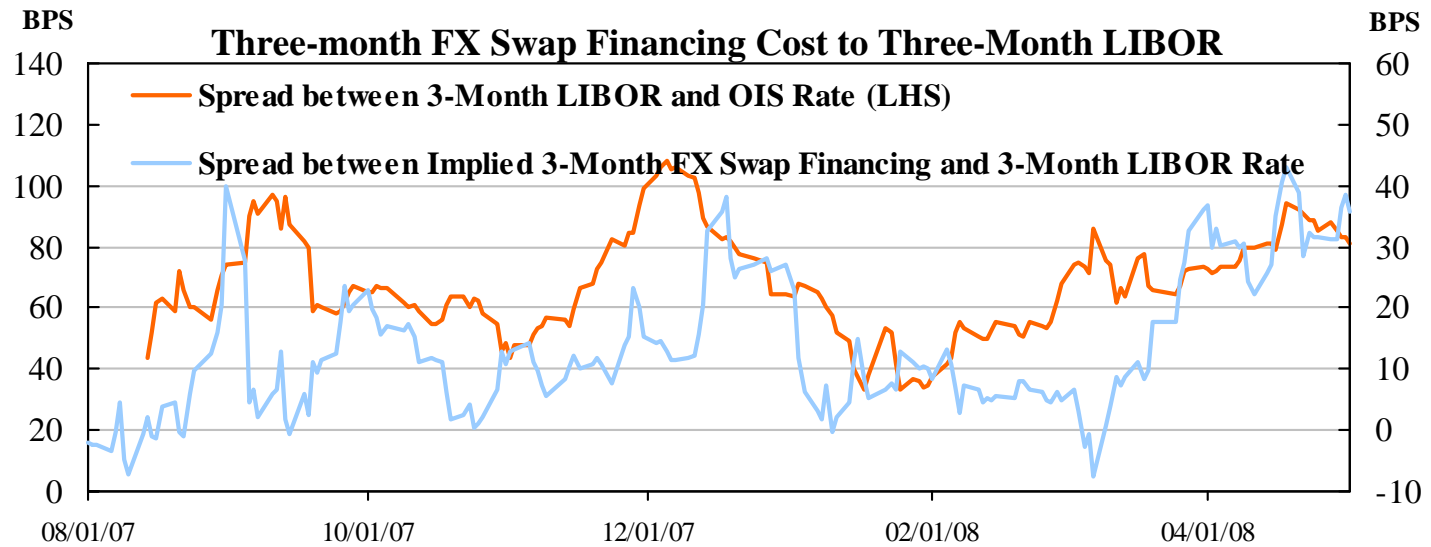
Federal Reserve Bank of New York

May 2008

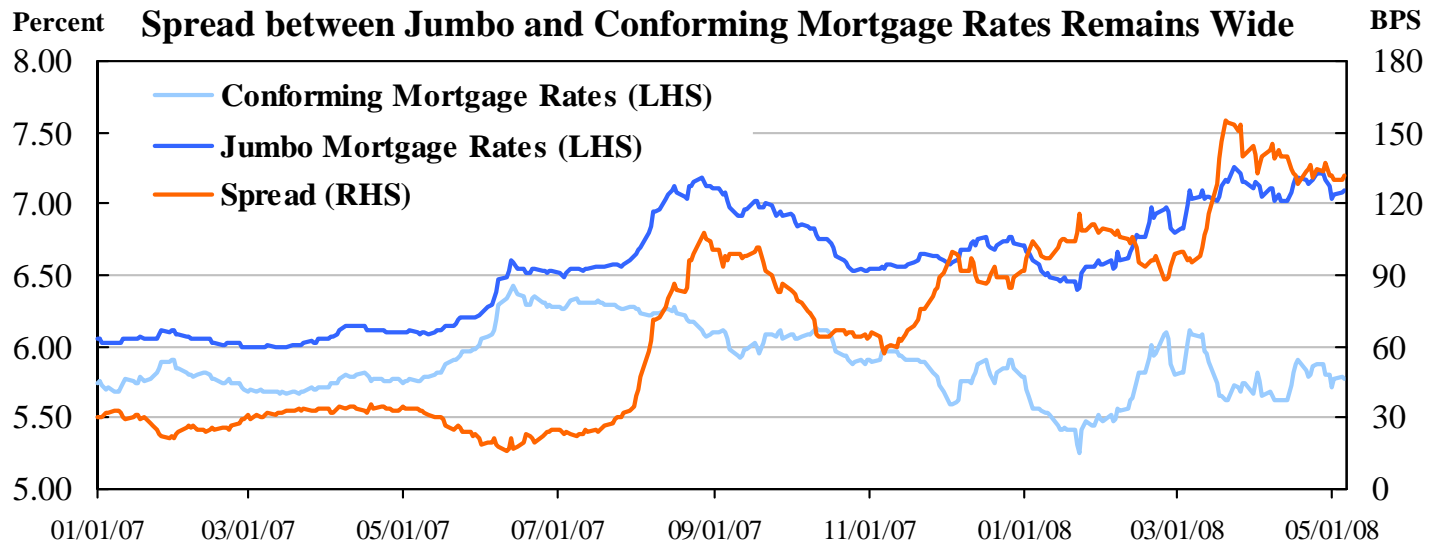




Source: Bloomberg



Source: JP Morgan



Source: Bloomberg

Depository Institutions

- Term Auction Facility
 - Fixed quantity, rate determined by auction
 - Minimum rate
 - Single price auction
 - Fixed 28-day term
- Primary Credit Facility
 - No quantity limit
 - At fixed spread to overnight federal funds rate target
 - Up to 90 day term, can be pre-paid

Primary Dealers

- Term Securities Lending Facility
 - Fixed quantity, rate determined by auction
 - Minimum rate, single price auction
 - Two Schedules—OMO (Treasury, Agency and Agency MBS), OMO + AAA-rated RMBS, CMBS, and ABS collateral
 - 28-day maturity
- Primary Dealer Credit Facility
 - Overnight maturity, no quantity limit
 - At fixed spread to overnight federal funds rate target
 - Collateral—OMO + Investment Grade Securities
 - Backend fee for persistent usage

Both TSLF and PDCF use tri-party repo facilities of 2 major clearing banks

Other Special Liquidity Provisions

- Foreign Exchange Swaps
 - With ECB and SNB, funds disbursed by auction to banks
 - ECB, non-competitive auction at US stop-out rate
 - SNB, competitive, multi-price auction, with US minimum bid rate
- Single-Tranche OMO operations
 - 28-day term repo
 - All OMO collateral eligible
 - Agency MBS dominates
 - Fixed amount, via auction

Theory of Facilities

- Two purposes
 - PCF and PDCF: Standby facilities for depository institutions and primary dealers
 - Other facilities: To address term funding pressures
- Standby facilities—Ensure liquidity of individual institutions, forestall bank runs
- Other facilities designed to mitigate term funding pressures and improve market function
 - Normal times—narrow collateral
 - In extremis, broader collateral and longer maturities

Term Auction Facility Results

Federal Reserve Bank:

<u>Auction</u> <u>Settlement</u>	<u>Term</u>	<u>Amount</u>	<u>Minimum</u> <u>Bid Rate</u>	<u>Stop-out</u> <u>Rate</u>	<u>Propositions</u>	<u>Bid/Cover</u>	<u>Bidders</u>
12/20/2007	28 Days	\$20 b	4.17%	4.65%	\$61.6 b	3.08	93
12/27/2007	35 Days	\$20 b	4.15%	4.67%	\$57.7 b	2.88	73
1/17/2008	28 Days	\$30 b	3.88%	3.95%	\$55.5 b	1.85	56
1/31/2008	28 Days	\$30 b	3.10%	3.12%	\$37.5 b	1.25	52
2/14/2008	28 Days	\$30 b	2.86%	3.01%	\$58.4 b	1.95	66
2/28/2008	28 Days	\$30 b	2.81%	3.08%	\$68.0 b	2.27	72
3/13/2008	28 Days	\$50 b	2.39%	2.80%	\$92.6 b	1.85	82
3/27/2008	28 Days	\$50 b	2.19%	2.62%	\$88.9 b	1.78	88
4/10/2008	28 Days	\$50 b	2.11%	2.82%	\$91.6 b	1.83	79
4/24/2008	28 Days	\$50 b	2.05%	2.87%	\$88.9 b	1.77	89
5/8/2008	28 Days	\$75 b	2.00%	2.22%	\$96.8 b	1.29	71

Source: Federal Reserve Board

European Central Bank:

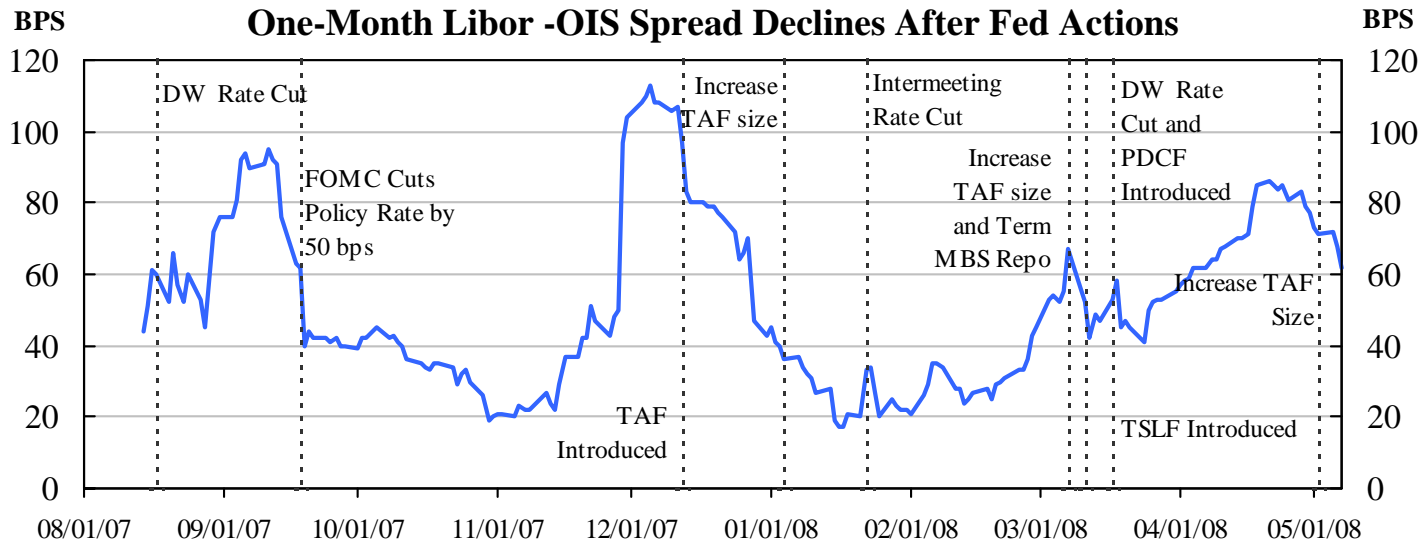
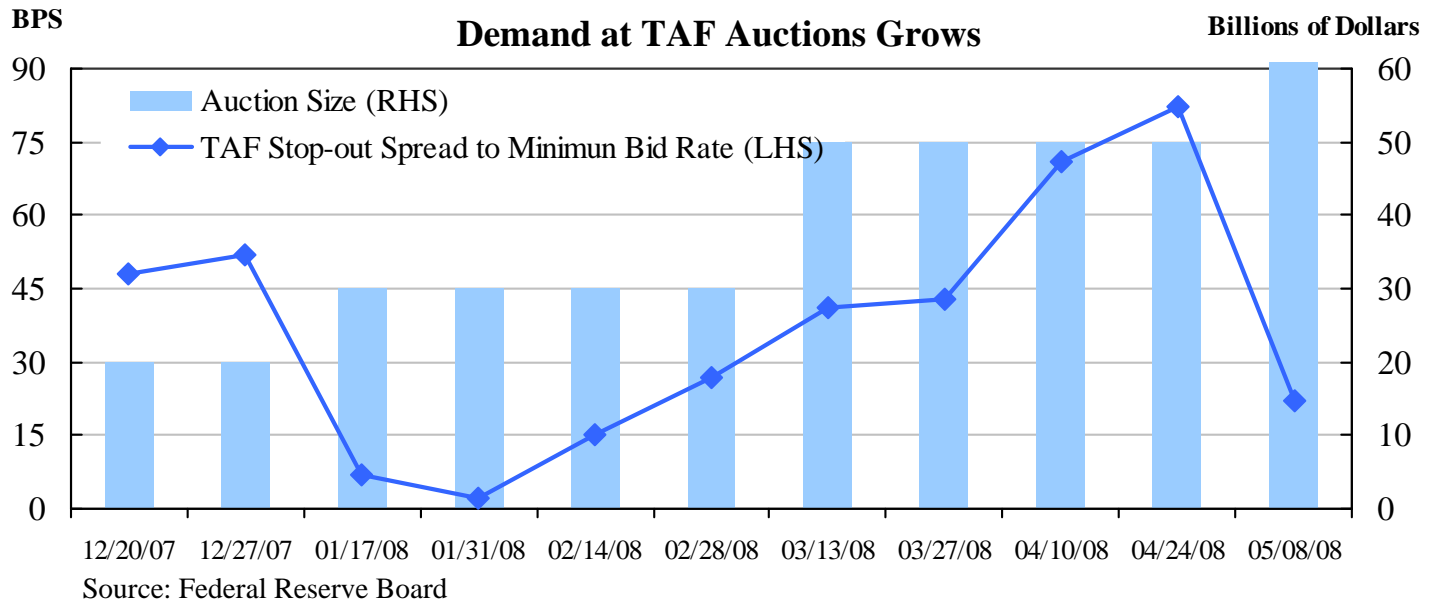
<u>Auction Settlement</u>	<u>Term</u>	<u>Amount</u>	<u>Fixed Rate</u>	<u>% of All at Fixed Rate</u>	<u>Propositions</u>	<u>Bid/Cover</u>	<u>Bidders</u>
12/20/2007	28 Days	\$10 b	4.65%	45.29%	\$22.08	2.21	39
12/27/2007	35 Days	\$10 b	4.67%	70.85%	\$14.12 b	1.41	27
1/17/2008	28 Days	\$10 b	3.95%	67.61%	\$14.79 b	1.48	22
1/31/2008	28 Days	\$10 b	3.12%	80.65%	\$12.42 b	1.24	19
3/27/2008	28 Days	\$15 b	2.62%	48.02%	\$31.24 b	2.08	34
4/10/2008	28 Days	\$15 b	2.82%	48.76%	\$30.76 b	2.05	32
4/24/2008	28 Days	\$15 b	2.87%	49.79%	\$30.13 b	2.01	33
5/8/2008	28 Days	\$25 b	2.22%	63.24%	\$39.53 b	1.58	31

Source: European Central Bank

Swiss National Bank:

<u>Auction Settlement</u>	<u>Term</u>	<u>Amount</u>	<u>Marginal Interest Rate</u>	<u>% of All at Fixed Rate</u>	<u>Weighted Avg. Interest Rate</u>	<u>Propositions</u>	<u>Bid/Cover</u>	<u>Bidders</u>
12/20/2007	28 Days	\$4 b	4.50%	30.28%	4.79%	\$17.01 b	4.25	17
1/17/2008	28 Days	\$4 b	3.88%	15.03%	3.91%	\$10.87 b	2.72	10
3/27/2008	28 Days	\$6 b	2.62%	85.00%	2.63%	\$14.80 b	2.47	13
4/24/2008	28 Days	\$6 b	2.86%	100.00%	2.94%	\$15.34 b	2.56	9
5/8/2008	28 Days	\$6 b	2.27%	92.00%	2.41%	\$9.72 b	1.62	10

Source: Swiss National Bank

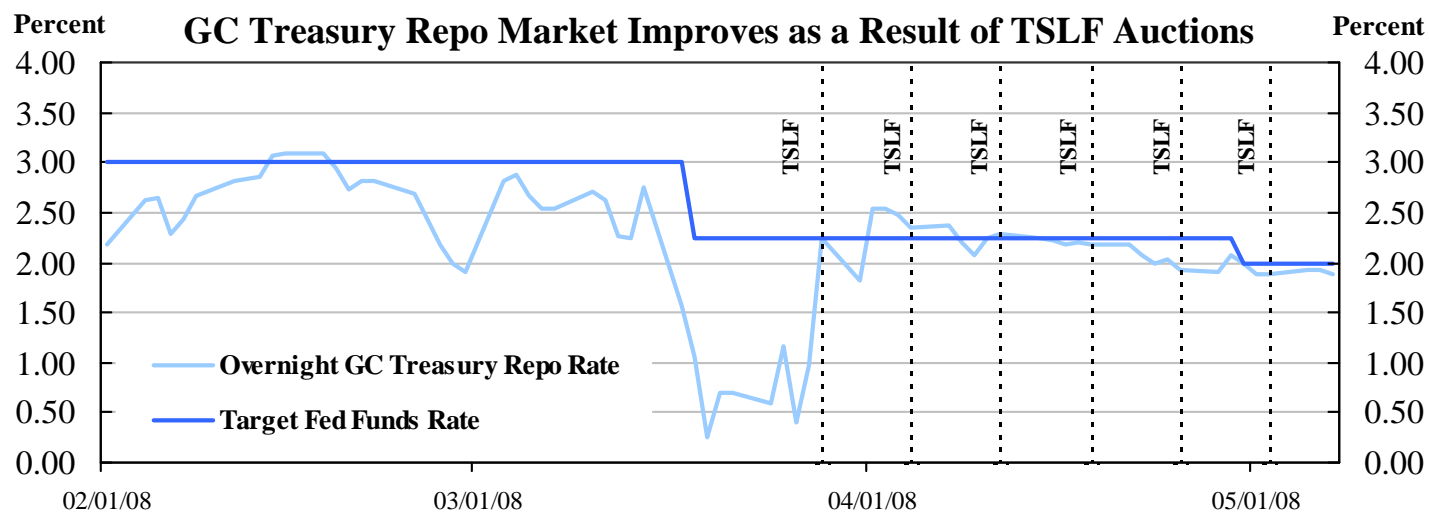


Term Securities Lending Facility

Federal Reserve Term Securities Lending Facility Results

<u>Auction Settlement</u>	<u>Term</u>	<u>Collateral</u>	<u>Amount</u>	<u>Minimum Fee Rate</u>	<u>Stop-out Rate</u>	<u>Propositions</u>	<u>Bid/Cover</u>
3/28/2008	28 Days	Schedule 2	\$75 b	0.25%	0.33%	\$86.1 b	1.15
4/4/2008	28 Days	Schedule 1	\$25 b	0.10%	0.16%	\$46.9 b	1.88
4/11/2008	28 Days	Schedule 2	\$50 b	0.25%	0.25%	\$40.0 b	0.68
4/18/2008	28 Days	Schedule 1	\$25 b	0.10%	0.10%	\$35.1 b	1.40
4/25/2008	28 Days	Schedule 2	\$75 b	0.25%	0.25%	\$ 59.5 b	0.79
5/2/2008	28 Days	Schedule 1	\$25 b	0.10%	0.10%	\$ 24.1 b	0.96

Source: Federal Reserve Board



Source: Federal Reserve Bank of New York