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**DOMESTIC OPEN MARKET OPERATIONS**  
**DURING 2007**

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A Report Prepared for the Federal Open Market Committee by  
the Markets Group of the Federal Reserve Bank of New York  
February 2008

# DOMESTIC OPEN MARKET OPERATIONS DURING 2007

FEDERAL RESERVE BANK OF NEW YORK, MARKETS GROUP

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# DOMESTIC OPEN MARKET OPERATIONS DURING 2007

## I. IMPLEMENTATION OF MONETARY POLICY IN 2007

### A. Introduction

The Federal Open Market Committee's (FOMC) domestic policy directive prescribes that the Trading Desk (Desk) of the Federal Reserve Bank of New York (FRBNY) foster conditions in the market for Federal Reserve balances consistent with maintaining the overnight federal funds (fed funds) rate at an average around a specified target rate. Accordingly, the Desk arranges open market operations to keep the fed funds rate around the target rate and to simultaneously achieve other objectives for the structure of Federal Reserve holdings of domestic financial assets.

This report reviews the conduct of open market operations during 2007. In the remainder of this section, the standard operating procedures that have been used by the Desk for many years to influence the fed funds rate are described, and key new developments in the policy implementation framework are summarized. In section II, the demand for balances at the Federal Reserve is presented, and in section III the behavior of autonomous factors – balance sheet items outside the control of the Desk – that affect the supply of these balances is reviewed. In section IV the composition of domestic financial assets held by the Federal Reserve and open market operations are reviewed. In section V the general behavior of the fed funds rate in 2007 and the use of the primary credit facility by depository institutions are presented.

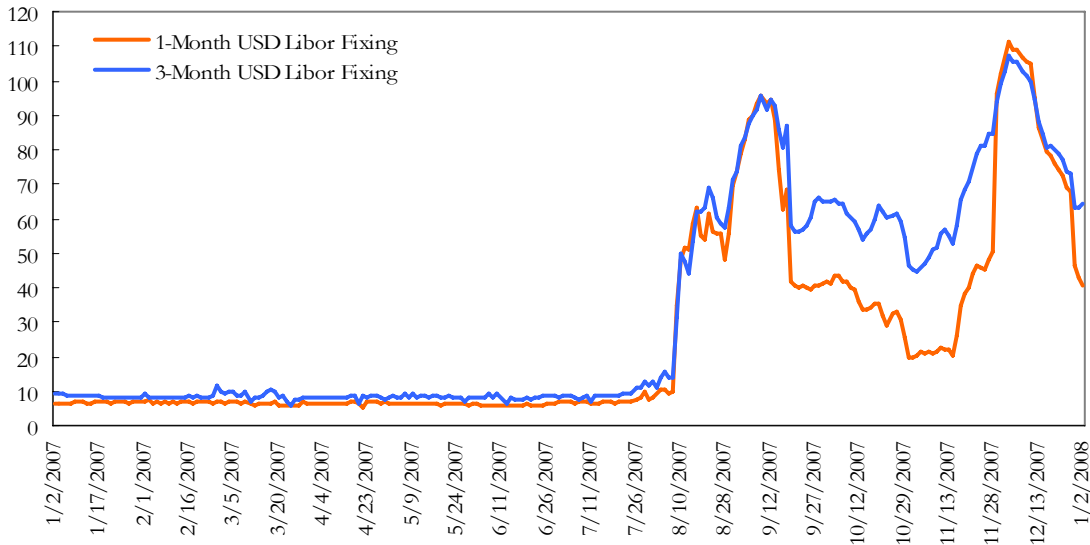
#### *Impact of Financial Market Strains on Open Market Operations*

The financial market pressures that emerged abruptly in the federal funds market in August 2007 had profound implications on open market operations and on other aspects of the monetary policy implementation framework. The underlying causes of global financial strains, such as their linkage to problems in housing markets, and many of their symptoms and effects on financial markets are beyond the scope of this report. An important indicator of the funding stresses in the interbank market was the elevated level of unsecured term interbank rates that emerged in August and which remained elevated through the rest of the year (Chart 1). The elevated rates had direct effects on the overnight federal funds rate, and in turn on the Desk's conduct of open market operations.

Chart 1

Basis Point

**SPREAD TO OVERNIGHT INDEX SWAP RATE**



*\*The Libor-OIS spread represents the difference between market rates and one measure of the expected path of overnight rates for specific terms. The spread is typically narrow and relatively constant.*

This upward pressure on term interbank rates has been attributed to banks having become exceptionally cautious in their liquidity management because of heightened uncertainty about their respective future funding requirements and increased credit concerns. Liquidity conditions in term interbank unsecured funding markets from August through the remainder of the calendar year were generally described as being poor.

Throughout this report, the implications of financial market strains on the Desk's conduct of open market operations are highlighted. The impact of these developments on the overnight federal funds market and the challenges that the Desk faced in maintaining the fed funds rate around the FOMC's operating objective are a particular focus of section V. The implications for levels of excess reserves that the Desk provided are described in section II.B. In addition, broader monetary policy efforts to address funding problems in the interbank market had profound effects on the Desk's management of the domestic financial portfolio. These policy measures are described in section I.C., and their implications for the structure of the portfolio are described in section IV.

## B. Operational Procedures to Influence the Federal Funds Rate

The FOMC maintained a fed funds target of 5¼ percent set in June 2006 until September 2007, at which point it cut the target rate by 50 basis points. It cut the target rate by a further 25 basis points at each of its next two meetings scheduled for the year (Table 1). In August, the Board of Governors reduced the spread between the primary credit rate and the federal funds target rate from 100 basis points to 50 basis points, and it maintained this spread over the remainder of 2007. Other important changes were also made to the administration of discount window facilities at the same time, which are described in the following section.

*Table 1*

### **CHANGES IN FEDERAL FUNDS TARGET RATE AND PRIMARY CREDIT RATE (percent)**

	<i>Federal Funds Target Rate</i>	<i>Primary Credit Rate</i>
June 28, 2006*	5.25	6.25
August 17, 2007**		5.75
September 18, 2007	4.75	5.25
October 31, 2007	4.50	5.00
December 11, 2007	4.25	4.75

*\*Both rates were raised by 25 basis points on this date.*

*\*\* Board of Governors approved the change on August 16, 2007.*

To influence the fed funds rate, the Desk conducts open market operations to align the supply of balances held by depository institutions at the Federal Reserve – or Fed balances – with banks’ demand to hold balances consistent with maintaining the fed funds rate around the target. Each morning, the Desk considers whether open market operations are needed based on estimates of the supply of and demand for Fed balances.

The average level of Fed balances that banks demand over a two-week reserve maintenance period consistent with the fed funds rate remaining around the target is in large part determined by requirements to hold Fed balances, with only a small level of additional, or excess, balances typically demanded. While most large depository institutions generally demand balances equal to their requirements, many small institutions demand some excess as a precaution against the risk of being overdrawn in their Fed accounts.

Depository institutions' holdings of Fed balances over the days within a reserve maintenance period are averaged to determine whether they meet all their requirements, which gives them considerable leeway in day-to-day account management. This flexibility can absorb some volatility in the fed funds rate that might otherwise develop when reserve supply and demand are misaligned.

Beginning in August 2007, the Desk's general operating procedures were less effective than they had been in recent years in maintaining the fed funds rate around its target, reflecting market developments that exerted upward rate pressures that emerged in the overnight market and the Desk's response to these pressures. In the first maintenance period in which these pressures appeared, the period ending August 15, the Desk effectively suspended its normal approach to controlling the funds rate. In order to combat severe and persistent upward rate pressures that were threatening to become even more deeply embedded in market expectations, the Desk provided a level of excess reserves significantly above any amount banks would have chosen to hold at rates anywhere around the target. This extraordinary measure was taken in order to restore a more normal balance between risks of upward and downward rate pressures. In subsequent maintenance periods, the Desk returned to a more normal approach for providing period average levels of reserves.

### **C. New Developments in 2007**

#### *Temporary Changes to the Terms of the Primary Credit Program*

The Federal Reserve Board approved temporary changes to its primary credit discount window facility effective August 17.

- The Board approved a 50 basis point reduction in the primary credit rate, to a level of 5.75 percent at that time, which narrowed the spread between the primary credit rate and the FOMC's target federal funds rate from 100 to 50 basis points. The Board maintained this narrower spread over the remainder of the year as the target federal funds rate was reduced.
- The Board also announced in August a change to Reserve Banks' usual practices, to allow the provision of term financing for as long as 30 days, renewable by the borrower. Borrowers could also terminate these term loans at their discretion.

These measures were designed to help restore orderly conditions in financial markets by providing depository institutions with greater assurance about the cost and availability of funding. The Board indicated that these changes would remain in place until the Federal Reserve determined that market liquidity has improved materially.

### *Introduction of the Term Auction Facility*

The Board of Governors announced the establishment of a temporary Term Auction Facility (TAF) on December 12, through which the Federal Reserve would auction term funds to depository institutions. All depository institutions that are judged to be in generally sound financial condition by their local Reserve Bank and that are eligible to borrow under the primary credit facility are eligible to participate in TAF auctions. Depository institutions can use the wide variety of collateral that can be used to secure loans at the discount window to secure all advances made under the TAF. By allowing the Federal Reserve to inject term funds through a broader range of counterparties and against a broader range of collateral than open market operations, the TAF is designed to help promote the efficient provision of liquidity. The first two TAF auctions, each for up to \$20 billion, settled before year-end 2007.<sup>1</sup>

### *Establishment of Temporary Reciprocal Currency Arrangements (Swap Lines)*

Also on December 12, the FOMC announced that it had authorized temporary reciprocal currency arrangements with the European Central Bank (ECB) and the Swiss National Bank (SNB) for a period of up to six months. These arrangements provided dollar funding in amounts of \$20 billion and \$4 billion to the ECB and the SNB, respectively. The provision of dollars by these central banks to European depository institutions was coordinated with the provision of term funding through TAF auctions to US depository institutions conducted by the Federal Reserve.<sup>2</sup>

### *System Open Market Account (SOMA) Securities Lending Changes*

The Desk announced on August 21, 2007 that the minimum fee for the SOMA securities lending program would be reduced to 50 basis points, from 1 percent. On November 26, 2007, the Desk temporarily broadened dealer borrowing limits.<sup>3</sup> Further discussion on these changes can be found in section IV.C.

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<sup>1</sup> For further information on the TAF auction rules and results, see: [Term Auction Facility](#).

<sup>2</sup> For further information on the swap lines, see: [Board of Governors Press Release](#), [European Central Bank Press Release](#), and [Swiss National Bank Press Release](#).

<sup>3</sup> For further information on changes to the securities lending program, see: [Change in Minimum Fee Rate for SOMA Securities Lending Program](#) and [Statement Regarding Change In Limits For SOMA Securities Lending Program](#).

## **II. BANKS' DEMAND FOR FED BALANCES**

Total demand for Fed balances can be broken down into two components: the portion needed to meet all balance requirements and the portion held in excess of these requirements.

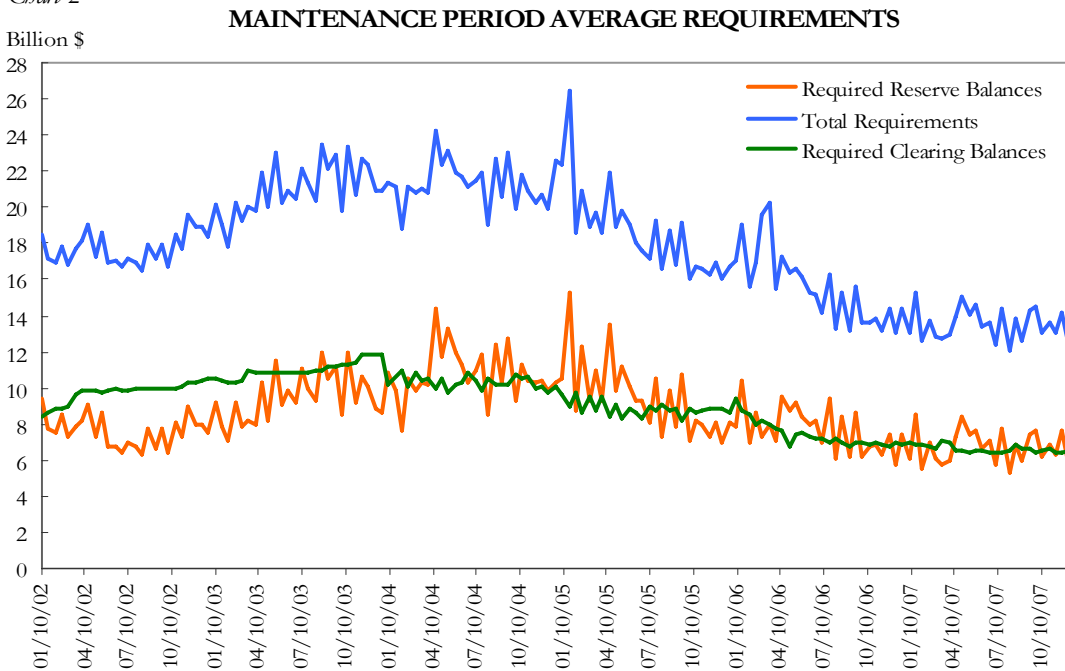
### **A. Total Balance Requirements**

A bank's total balance requirement is the average level of balances it must hold at its Reserve Bank over a two-week maintenance period to meet all obligations. This requirement has regulatory and contractual components. The regulatory component is called the required reserve balance and is equal to the portion of reserve requirements not met with vault cash. The contractual component is called the clearing balance requirement. Total balance requirements may be affected by the application of "as-of" adjustments. Such adjustments may be made to correct Reserve Bank accounting transaction errors, to correct reporting errors (including deposit reporting errors), to recover float incurred by an institution, or to address other circumstances. Required reserve balances, contractual clearing balance requirements, and most as-of adjustments are known at the start of each maintenance period, which facilitates the Desk's estimation of the overall demand for Fed balances.

After having steadily declined over the preceding three years, both required reserve balances and clearing balance requirements leveled off in 2007, and their combined total mostly fluctuated within a range between \$13 billion and \$14 billion (Chart 2). The level of total requirements in 2007 did not appear to have been affected by the financial market strains that emerged in funding markets in August.



Chart 2

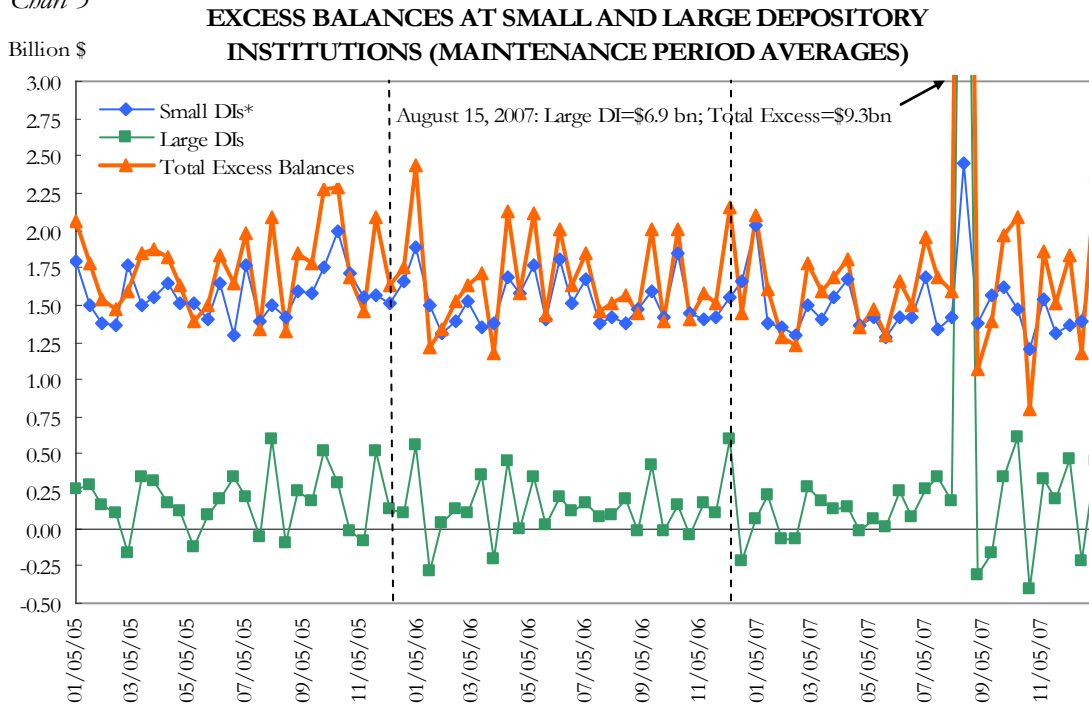


A low level of total requirements challenges banks by limiting their flexibility in distributing balance holdings over a maintenance period consistent with meeting their total requirements over a maintenance period. Experience suggests that there is some practical level of aggregate balances necessary each day to maintain liquidity in the reserves market. As the amount of available balances falls below this level, the risks of a spike in fed funds rates in late-day trading and sizable borrowing from the discount window increase significantly. Evidence suggests that this critical level of balances may vary over time, but it is currently thought to be around \$10 billion. On a number of days in 2007 aggregate balances (before new primary credit discount window borrowing) were near or fell below this level, sometimes inadvertently and sometimes by design.

**B. Excess Balances**

Balances accumulated by institutions over a maintenance period that are above the level needed to meet their total requirements are considered excess balances. Excess balances earn no interest and therefore represent a lost investment opportunity. But many institutions, especially small banks that lack access to wholesale funding markets, routinely hold a modest amount of balances above the level of their requirements each day in a maintenance period to mitigate the potential for end-of-day overdrafts. Period-average excess levels, notably excluding the exceptional period ended August 15, fluctuated in a range around \$1 1/2 billion in 2007 (Chart 3).

Chart 3

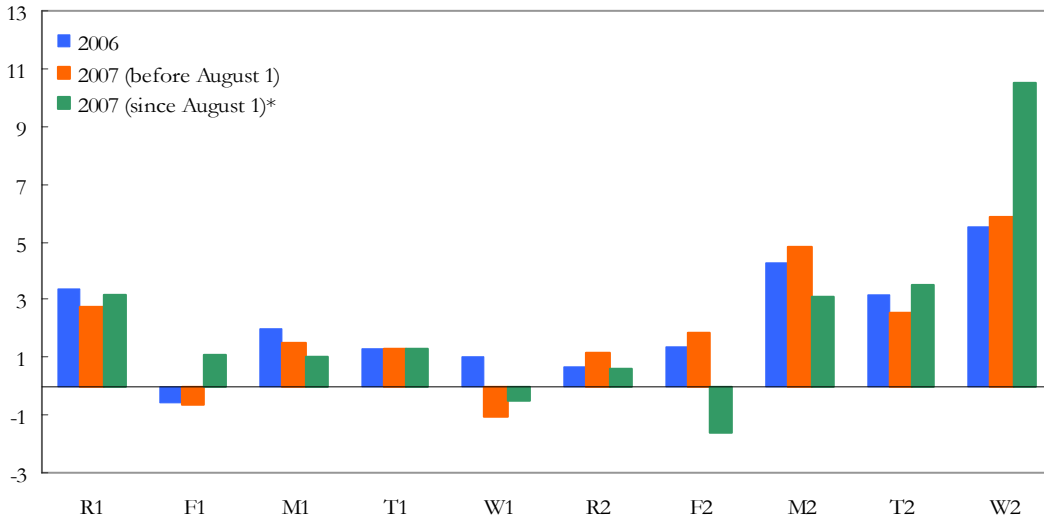


*\*Foreign Institution data is also included in the small depository institution category*

To combat the extraordinary upward pressures on the federal funds rate that abruptly emerged in early August, period average excess for the maintenance period ended August 15 was elevated to a level exceeding \$9 billion. Period-average excess levels were returned to more normal levels in subsequent maintenance periods in the year, and financial market strains did not appear to have any material impact on the period-average level of excess reserves that banking institutions wished to hold, although somewhat more volatility in this two-week average series was noted.

In designing open market operations, the Desk aims to satisfy banks' preferences for holding Fed balances on a daily basis, as suggested by historical patterns and as revealed by rate pressures evident each morning, consistent with their maintenance period-average demands. In 2007, daily reserve demand was heavily weighted towards the last three days of each maintenance period, in keeping with a long-standing pattern. This general pattern continued to hold even after August. However, since that time, the Desk often had to depart significantly from normal daily patterns in order to combat funding market pressures (even excluding the extraordinary period ended August 15), but did so in a manner still consistent with normal period average levels of excess reserves (Chart 4).

*Chart 4* **EXCESS LEVELS BY MAINTENANCE PERIOD DAY (EXCLUDING MAINTENANCE PERIODS WITH AN FOMC TARGET RATE CHANGE)**  
Billion \$



*\*Maintenance period ended 8/15/2007 is not included*

### III. AUTONOMOUS FACTORS AFFECTING THE SUPPLY OF FED BALANCES

The supply of Fed balances is determined by the size of the Federal Reserve’s domestic financial assets, discount window loans and the levels of the various autonomous factors on the Federal Reserve’s balance sheet over which the Desk has little or no control. The currency liabilities of the Federal Reserve (F.R. notes) comprise the largest of these autonomous factors. Other balance-sheet items are not as large, but can contribute significantly to changes in net autonomous factor levels. Among these other items are the Treasury’s general account balance, the foreign RP pool and Federal Reserve statement float.

Net autonomous factors (liabilities less assets)—excluding the \$24 billion in swap lines established with the ECB and SNB late in the year—increased by \$38.0 billion during 2007.

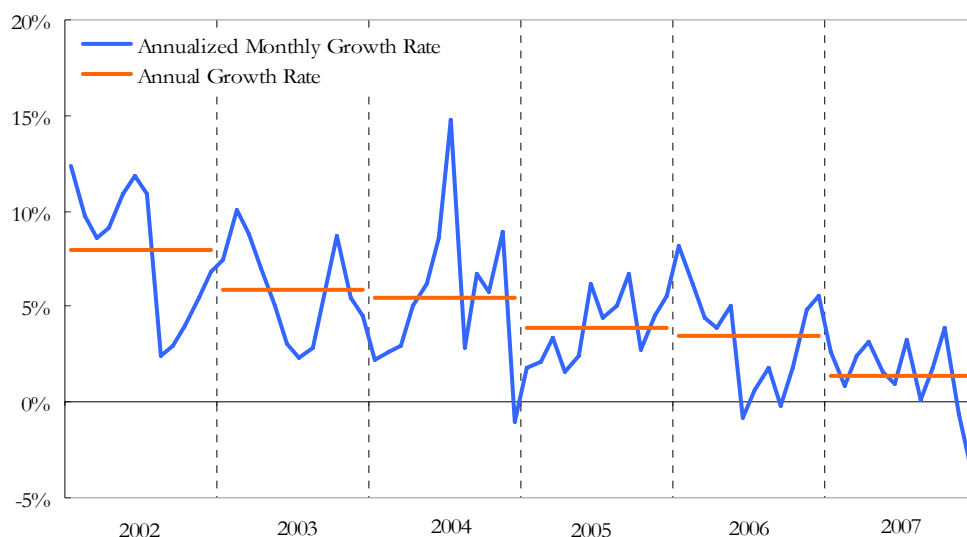
A large portion of this growth was specific to the foreign repo pool, the size of which increased by \$14.4 billion over the course of the year.

#### *Developments in Federal Reserve Notes Outstanding*

The quantity of F.R. notes outstanding increased by a relatively small amount (\$8.7 billion) during 2007. This increase resulted in year-over-year growth of a little more than one percent, which is the lowest such growth rate for any calendar year since 1960 (exclusive of 2000, when a large quantity of F.R. notes was returned to the Fed after the century date change).

Rates of growth varied from month to month during 2007. This can be inferred from Chart 5 in which appear annualized monthly growth rates of a closely related series (the seasonally adjusted currency component of M1). Much of this month-to-month variation owed to fluctuations in net currency shipments to foreign destinations. On net, evidence suggests that residents of other nations returned a substantial amount of F.R. notes to the U.S. during 2007. However, large reflows do not seem to explain entirely the slow growth of F.R. notes during 2007. Available evidence suggests that the growth rate for 2007 would have been relatively low even in the absence of net inflows from abroad, in keeping with a trend toward slower growth in domestic demand observed since 2002.

*Chart 5* **SEASONALLY ADJUSTED CURRENCY COMPONENT OF M1  
GROWTH RATES**



#### *Developments in the Treasury Balance*

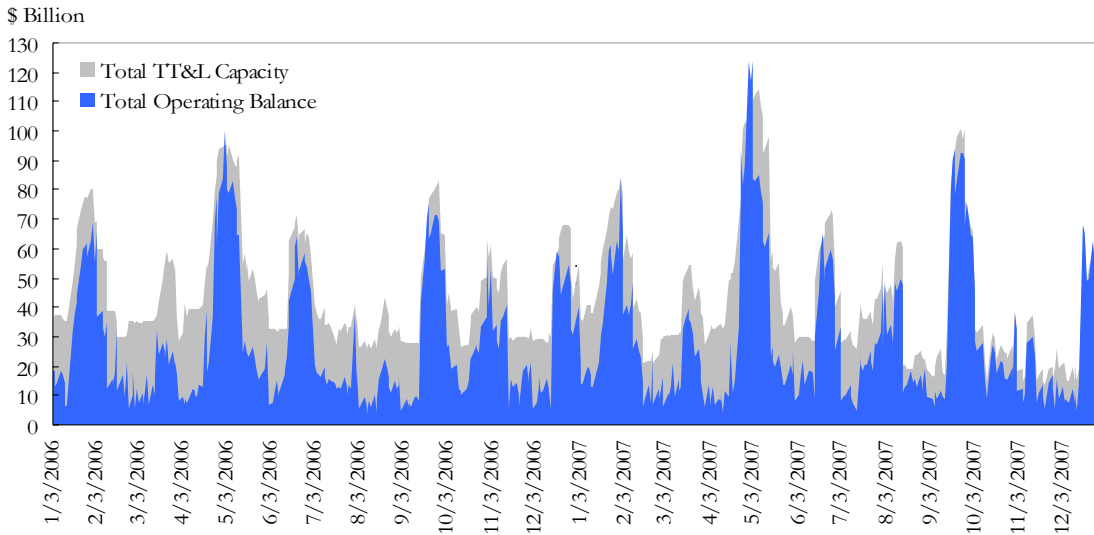
Treasury's total operating balance (TOB) was \$2 ½ billion higher on average in 2007 than in 2006.<sup>4</sup> Meanwhile, Treasury Tax and Loan (TT&L) capacity was on average lower and more volatile than either of the prior two years.<sup>5</sup> Nonetheless, on most days Treasury was able to keep its balance at the Fed close to the usual \$5 billion dollar target level. Treasury held larger and more frequent Term

<sup>4</sup> Treasury's total operating balance is defined as funds held in the Treasury's account with the Federal Reserve (the Treasury General Account or TGA) plus balances held in Treasury Tax and Loan (TT&L) note accounts at commercial banks, which includes term investment option (TIO) and reverse repurchase (repo) programs.

<sup>5</sup> Overall TT&L capacity includes funds Treasury placed in TIO and overnight repo agreements with depository institutions.

Investment Option (TIO) auctions, and commercial banks responded by actively managing the collateral pledged to the TT&L program. Since 2005, average overall TT&L capacity has declined by 13 percent, but its daily variability has increased significantly and is closely correlated with the TOB (Chart 6).

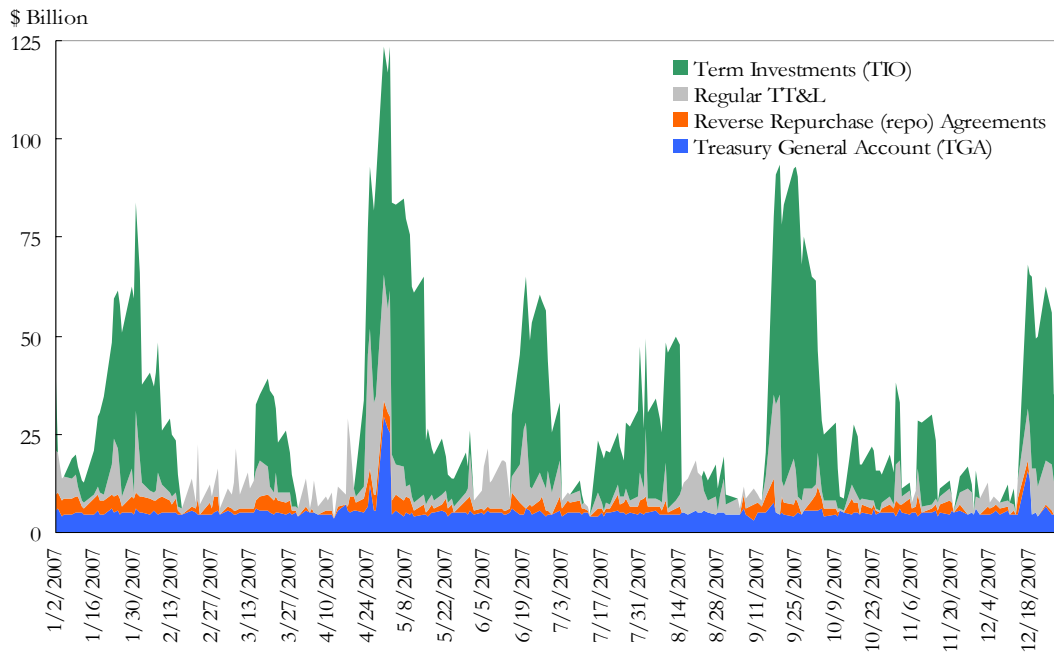
*Chart 6* **TREASURY'S TOTAL OPERATING BALANCE & TT&L CAPACITY**



On a few occasions during the year, amid large and rapid increases in the TOB around major tax due dates, TT&L capacity was not sufficient to prevent sharp increases in the balance maintained at the Fed. The TOB reached an all-time high of \$124 billion in late April and again in early May (Chart 7). During this period of heavy tax receipts the TGA exceeded the usual \$5 billion target on several days and peaked at \$30 billion on April 30. The Treasury and Fed strategy to manage the surge in the TOB and TGA is described in the accompanying box.

Chart 7

**DISTRIBUTION OF TREASURY'S TOTAL OPERATING BALANCE**



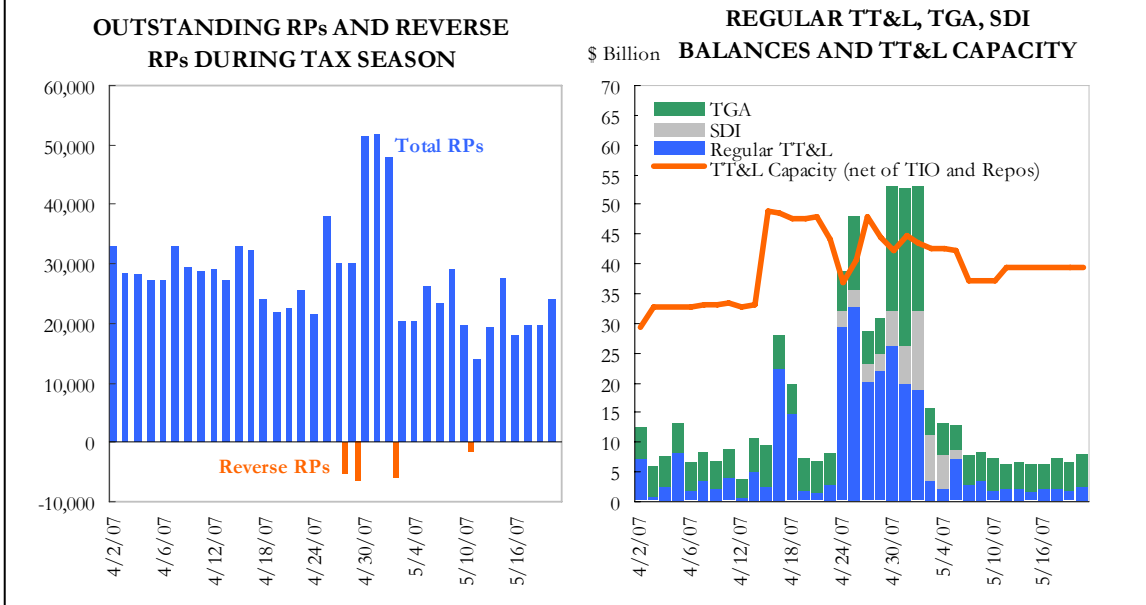
The Investment of Treasury Balances during the 2007 Tax Season

Elevated individual non-withheld income tax receipts coupled with insufficient investment capacity this April caused exceptional challenges in Treasury's cash management, resulting in very high levels of the Treasury General Account (TGA) balance at the Federal Reserve for several days, which in turn resulted in difficulties for the Desk in managing reserves. The Desk established an unusually large amount of outstanding RPs to offset the forecast high TGA. However, several reverse RPs were subsequently conducted, partially due to actual tax receipts being lower than initially projected and thus Treasury's total operating balances (TOB) not exceeding Treasury's investment capacity.

In early April, individual tax receipts were forecast to be quite high in late April and early May, potentially leading the TOB to exceed Treasury's investment capacity in its various programs over a number of days. The TOB was initially forecast to reach as high as \$140 billion, but actually peaked at just \$124 billion, still substantially higher than the prior year's peak of \$100 billion. Treasury's investment programs include Treasury Tax and Loan (TT&L), Term Investment Option (TIO), Special Direct Investment (SDI), and repo agreements. Total capacity in these programs was initially estimated to be around \$85 billion. However, as institutions pledged additional collateral to the TIO program, total capacity peaked at \$114 billion.

In general, when the TOB exceeds investment capacity, the TGA would need to absorb excess balances, draining bank reserves, and requiring an offset with open market operations. However, the magnitude of excess TGA balances was potentially too great to be completely offset with single same-day RPs, particularly on the month-end, when participation in the Desk's operations can be limited. Therefore, Treasury agreed to target elevated TGA balances for several days, and the Desk layered a series of term RPs. Treasury agreed to target TGA balances of \$10 billion beginning on April 25. For the peak days for tax receipts of April 30 through May 2, Treasury intended to target TGA balances of \$27 billion. Consequently, beginning on April 25, the Desk began layering in term RPs, with total outstanding RPs ultimately peaking at near \$52 billion on May 1.

Tax receipts proved somewhat lower than forecast, and Treasury's investment capacity was greater than estimated. Therefore, on April 26 and 27 the TGA was returned to \$5 billion and the Desk conducted reverse RPs. The \$27 billion target was maintained on April 30 and May 1, although forecast errors on April 30 resulted in an actual TGA balance of \$29.5 billion, a record high over recent years. On May 2, the TGA target was reduced slightly and the Desk conducted another reverse RP.



On most days in 2007 Treasury invested excess funds overnight with depository institutions via repo agreements. This program, which began in March 2006, has further reduced the amount of funds Treasury invests in regular TT&L. Treasury can decide the size of the auction and place the funds under this program on a same-day basis, whereas funds placed in TIO are placed the day after the auction. Typically repo transactions are \$4 billion or less, although a maximum of \$6.5 billion was placed during the April 2007 tax season.

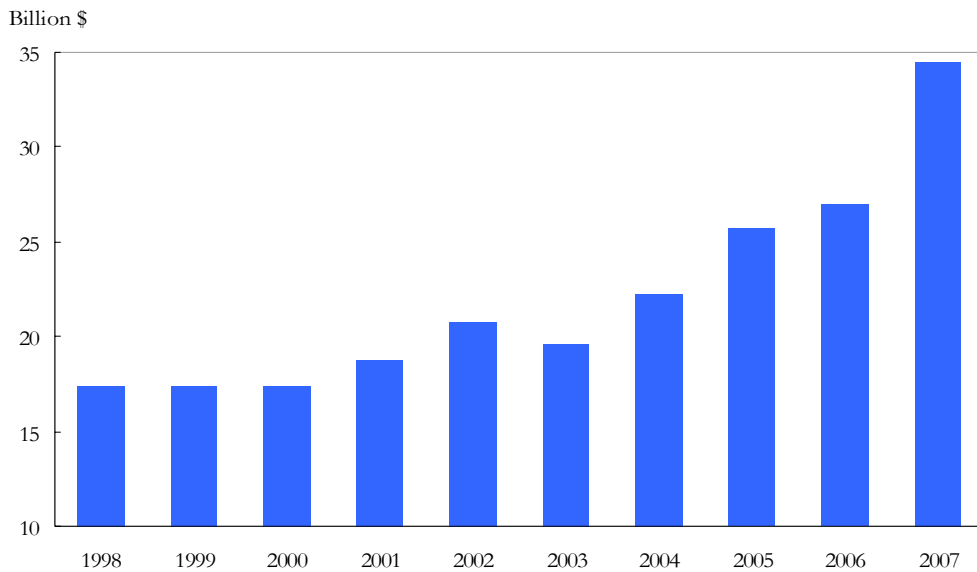
*Developments in the Foreign RP Pool*

The foreign RP pool grew rapidly during 2007.<sup>6</sup> When measured in terms of average annual levels, the size of the pool increased by roughly 28 percent (about \$7.5 billion), which was much more than it had grown during any of the prior nine years (Chart 8). Volatile conditions in financial markets, dollar exchange rate movements, and relatively low yields on alternative short-term dollar investments all may have contributed directly or indirectly to this growth, making it difficult to anticipate how much of this past year's growth might eventually be reversed.

<sup>6</sup> The foreign RP pool comprises overnight repurchase agreements between the Federal Reserve System and its foreign central bank and international account customers. SOMA holdings are used as collateral. The pool is offered to customers as an overnight investment vehicle to help meet their cash management needs. An increase in the level of the foreign RP pool drains reserve balances from the banking system.

Chart 8

**AVERAGE ANNUAL FOREIGN RP POOL LEVELS**



*Developments in Federal Reserve Float*

Federal Reserve statement float levels exhibited much less variability in 2007 than they did in either of the preceding two years. The decline in variability seemed primarily to be a consequence of improvements made to the hardware and software used to implement the Check 21 initiative. Check processing disruptions were less frequent during 2007 than in 2006, and the quantities of float created during such disruptions typically were smaller.

*Reciprocal Currency Arrangements*

Swap lines represent an autonomous factor, the levels and changes of which have the same implications for open market operations as do those of other autonomous factors. However, the swap lines established in 2007 were coordinated with the introduction of the Term Auction Facility, which was essentially a monetary policy tool, and once introduced, their reserve impact was entirely predictable within relevant forecasting horizons. Their coordination with open market operations is discussed in section IV.

*Volatility and Predictability of Key Autonomous Factors*

The variability of autonomous factors, when measured in terms of average absolute daily changes, was smaller during 2007 than in 2006, due largely to the decreased variability of float (Table 2). The



variability of currency and the foreign RP pool decreased by small amounts while the variability of the Treasury's Fed balance increased.

Table 2

**DAILY AUTONOMOUS FACTORS CHANGE AND FORECAST MISSES (MILLION \$)**

<b>Daily Change</b> (Absolute Values)	<u>2005</u>		<u>2006</u>		<u>2007</u>	
	<u>Average</u>	<u>Max.</u>	<u>Average</u>	<u>Max.</u>	<u>Average</u>	<u>Max.</u>
Currency in Circulation	855	2,930	927	3,112	922	3,282
Treasury balance	704	4,942	585	6,945	919	23,791
Foreign RP pool	756	6,773	805	5,666	763	4,544
Float	943	6,572	1,192	6,853	662	2,854
Net Value*	1,666	7,483	1,887	11,747	1,800	28,230

<b>Daily Forecast Miss</b> (Absolute Values)	<u>2005</u>		<u>2006</u>		<u>2007</u>	
	<u>Average</u>	<u>Max.</u>	<u>Average</u>	<u>Max.</u>	<u>Average</u>	<u>Max.</u>
Currency in Circulation	213	1,561	186	1,281	184	1,277
Treasury balance	444	4,277	404	7,040	424	3,291
Foreign RP pool	148	1,768	176	1,106	272	1,260
Float	594	5,803	629	5,624	394	3,390
Net Value*	879	8,156	854	7,524	656	3,749

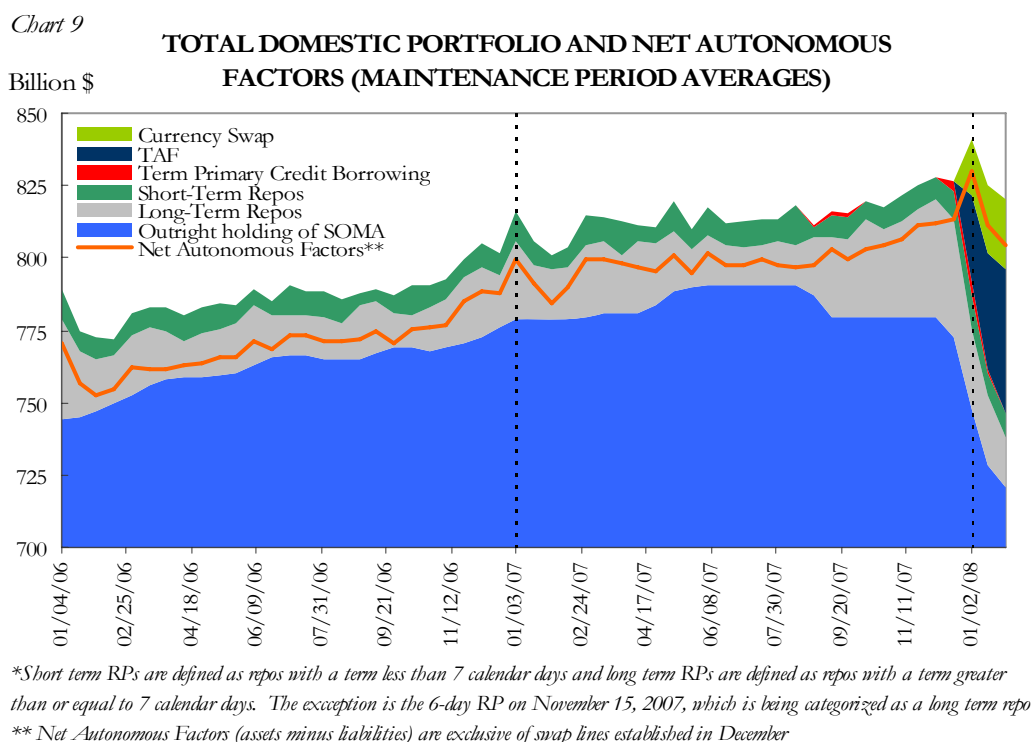
\*Net value reflects offsetting movements and forecast misses of all autonomous factors.

Forecast accuracy improved from 2006 to 2007. The decrease in the variability of float coincided with a decrease in the mean absolute float forecast miss; the primary reason for the improvement in forecast accuracy overall. Mean absolute misses with respect to projections of the Treasury's balance and the foreign RP pool were somewhat larger in 2007 than in 2006, while the mean absolute misses with respect to currency were about the same for both years. Notwithstanding the increase in the mean absolute pool miss, the mean absolute miss across all autonomous factors was much smaller for 2007 than it was for either 2005 or 2006.

## IV. DOMESTIC FINANCIAL ASSETS & OPEN MARKET OPERATIONS

### A. Different Types of Open Market Operations and Their General Uses

The Federal Reserve holds two general types of financial assets in its domestic financial portfolio that it may adjust through open market operations, at the direction of the FOMC, to achieve monetary policy objectives: outright holdings of Treasury securities, which account for the bulk of the portfolio and temporary repurchase (RP) agreements (Chart 9 includes the Term Auction Facility and Swaps). The Federal Reserve may also issue temporary liabilities by delivering Treasury securities under reverse repurchase agreements (RRPs). While normally the Desk adheres to somewhat standardized practices for the use and composition of each general type of asset, the trade-off between outright holdings and temporary RPs in the portfolio and the composition of each were heavily influenced by market and reserve management developments beginning in August. Late in the year, the domestic portfolio and open market operations were managed in close coordination with the TAF, a discretionary tool under the direction of the Board of Governors, and with drawings by the ECB and the SNB on the swap lines approved by the FOMC.



For any given total size of the domestic financial portfolio, the Desk typically structures its outright holdings to maintain a need to add routinely to balances by arranging RPs. The targeted magnitude

of this structural deficiency allows the Desk to respond to volatility in the supply of and demand for balances and to autonomous factor forecast errors by adjusting the level of RPs outstanding, avoiding a routine need to drain reserves with reverse RPs or to reduce the permanent portfolio. The Desk addresses increases in the level of autonomous factor liabilities that are expected to be long lasting through outright purchases of Treasury securities for the System Open Market Account (SOMA). Maturing securities are routinely reinvested in new issues at auction. Though less common, redemptions and sales of portfolio holdings may be used to achieve needed reductions in outright holdings.

In late-August, developments influencing reserve supply grew more uncertain, including the possibility of heavy use of the discount window under its altered terms. In response, the Desk adjusted the composition of its portfolio to include a somewhat higher level of RPs and lower level of outright holdings, by arranging two redemptions of bill holdings at weekly auctions. In December, further redemptions were made and adjustments to outstanding RPs made as needed, to accommodate the impact of TAF loans and swap drawings on reserve supplies. These adjustments were designed to maintain an overall level of reserves consistent with achieving the operating objective for the overnight federal funds rate while still meeting the objectives of the TAF and swap programs.

## **B. Temporary Holdings and Operations**

### *Short-Term and Long-Term RPs and Reverse RPs*

Short-term RPs and long-term RPs are used somewhat differently in managing total reserve supply. While the dividing line between these two maturity buckets is to some degree arbitrary, RPs with an original maturity of six days or less may be considered short-term, and those of seven days or more considered long-term.

Short-term RPs may be used to make daily adjustments to the supply of Fed balances. In fact, RPs for one business day are arranged most days. Short-term RPs may be quickly built up or drawn down via daily market entries to offset short-term changes to net autonomous factors and reserve demand. Long-term RPs are arranged on a less frequent basis. Their size is adjusted as needed to address seasonal volatility in autonomous factors or swings in demand for reserve balances that may be expected to last for a number of weeks or even months, but at the very least until the next such long-term operation is planned. Typically some level of long-term RPs is also maintained on an

ongoing basis, which is available to be reduced in the event that net autonomous factors provide more reserves than expected for an extended period.

Short-term RPs are usually arranged at the Desk's normal operating time of 9:30 am ET, after reserve supply and demand projections are complete. Long-term operations may be conducted earlier in the morning when the financing market is more liquid, and before daily reserve supply and demand projections are complete. The Desk has arranged 14-day RPs for several years early each Thursday morning. But late in the year, as the size of total RPs outstanding expanded, the Desk began to arrange RPs of a 7-day maturity more routinely, and these operations were arranged at the Desk's normal operating time.

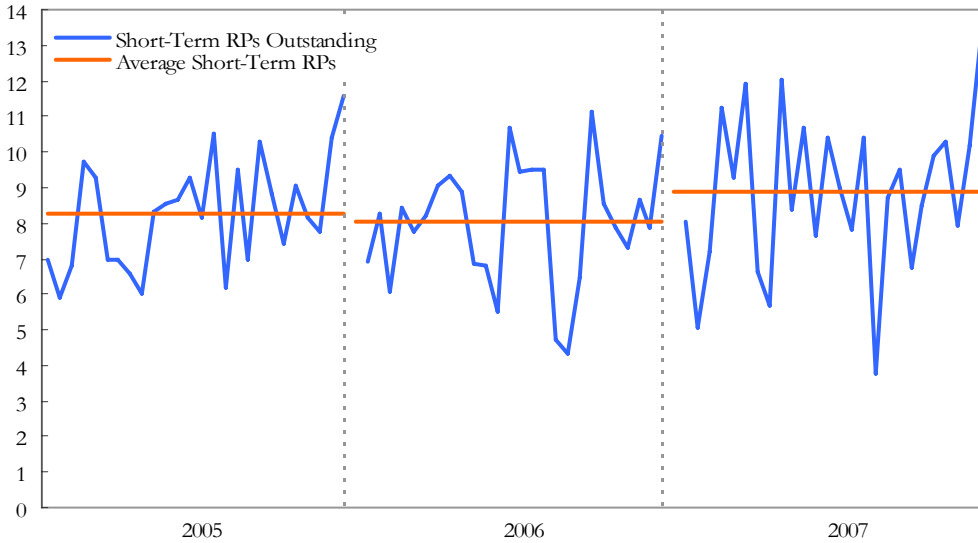
August 10 marked a significant departure from these normal operating procedures as they apply to the use of short-term RPs. On that date the Desk entered the market and arranged an over-the-weekend RP on three occasions, the first one at 8:10 am followed by operations at 10:40 am and 1:30 pm. In addition to their cumulative impact on reserve supply, these multiple entries were intended to indicate to the market the Desk's resolve to combat severe and persistent upward rate pressures that had suddenly emerged in the overnight fed funds market the previous morning. That day, and on all subsequent days through August 16, the Desk also departed from normal operating practices by posting brief statements on the FRBNY public website to offer some guidance about the possible timing of RP operations, and emphasizing their purpose as being to facilitate trading at rates around the operating objective.

The average outstanding level of short-term RPs was \$8.9 billion in 2007, modestly higher than in the previous year. Outstanding amounts ranged between \$3.8 billion and \$13.5 billion on a maintenance period average basis, and between \$0.0 billion \$38.0 billion on a daily basis (Chart 10). A total of 208 overnight RPs were arranged in 2007 (including those spanning a weekend or a holiday), and the Desk arranged 38 other short-term RPs. The average size of all short-term temporary operations during 2007 was \$7.4 billion, and individual amounts ranged between \$1.75 billion and \$19.25 billion.

Chart 10

**SHORT-TERM RPs OUTSTANDING  
(MAINTENANCE PERIOD AVERAGES)**

Billion \$



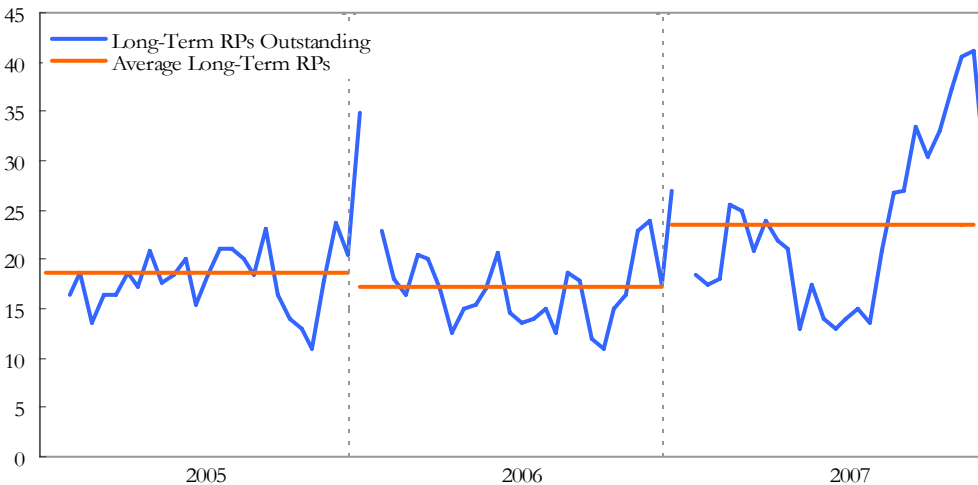
\*Short term RPs are defined as repos with a term less than 7 calendar days

The average level of outstanding longer term RPs was \$23.5 billion in 2007. This level grew substantially post-August (Chart 11). The average size of all long-term RP operations arranged in 2007 was \$9.9 billion, with individual operations ranging in size from \$3.0 billion to \$24.0 billion.

Chart 11

**LONG TERM RPs OUTSTANDING  
(MAINTENANCE PERIOD AVERAGES)**

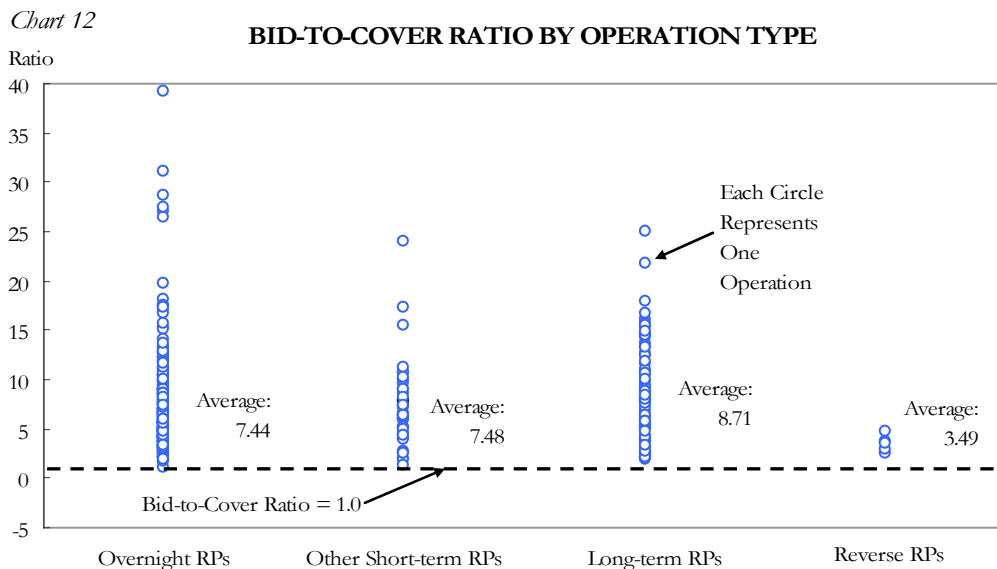
Billion \$



\*Long term RPs are defined as repos with a term greater than or equal to 7 calendar days, with the exception of the 6-day RP on November 15, 2007, which is being categorized as a long term repo

Although less commonly used, the Desk may arrange reverse RPs as needed. Given the way the Desk manages the total portfolio, reverse RPs are apt to be used to address unexpected reserve surpluses, usually of a short-term nature. The Desk arranged four reverse RPs in 2007, all for one business day, the first such draining operations since 2004. These operations averaged \$4.75 billion in size.

Proposition levels were adequate to cover the intended size of all temporary operations arranged in 2007, but there were several instances when the bid-cover ratio was relatively low. This coverage ratio can be volatile from operation to operation, but in general it was lower for overnight RPs than for other RPs, and low for the reverse RPs (Chart 12). The Desk continued to minimize the potential for having insufficient coverage on its overnight RPs by arranging overlapping term operations to layer in balances ahead of days when dealer participation in overnight RPs has sometimes been low and projected balance needs high, such as quarter-end dates.



*\*Short term RPs are defined as repos with a term less than 7 calendar days and long term RPs are defined as repos with a term greater than or equal to 7 calendar days. The exception is the 6-day RP on November 15, 2007, which is being categorized as a long term repo*

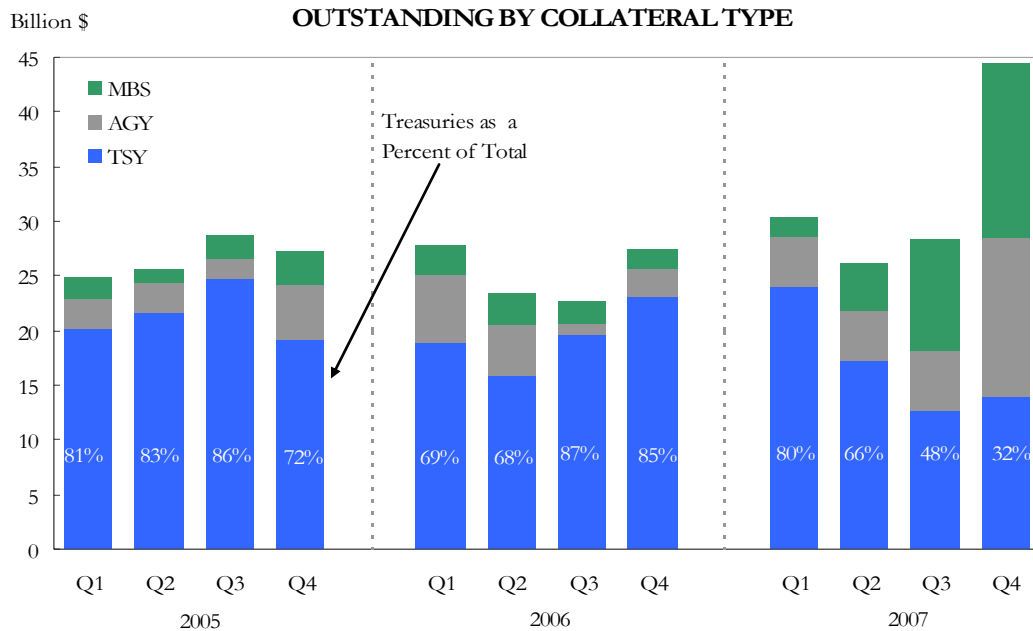
#### *Collateral Distribution in Repurchase Agreements*

The Desk accepts three types of collateral in its RPs, arranging the operations with three separate collateral tranches. In the first tranche, only Treasury securities are accepted; in the second, direct federal agency obligations are also eligible (in addition to Treasury securities); and, in the third, agency mortgage-backed securities are eligible in addition to the first two collateral types. The Desk

selects from propositions across the three tranches according to the attractiveness of bids, measured relative to current rates in the financing market for each particular class of collateral. Benchmark rates for this purpose are based on an internal daily survey of financing rates paid by the primary dealers. Overall, in recent years the distribution by collateral tranche of outstanding RPs has been weighted heavily toward the Treasury tranche (Chart 13). This pattern continued to hold in 2007, until financial market strains appeared in short-term funding markets. At that point dealers' propositions against agency and MBS collateral tranches that it accepts on its RPs became more attractive on a relative basis.<sup>7</sup>

Chart 13

**QUARTERLY AVERAGE LEVELS OF TOTAL RPs  
OUTSTANDING BY COLLATERAL TYPE**

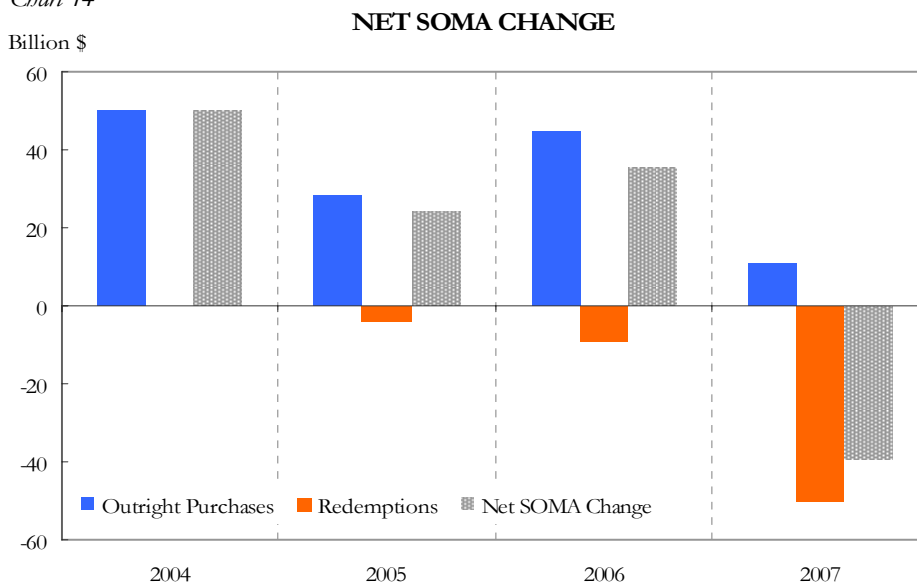


<sup>7</sup> In August, the Desk arranged three RPs with a single tranche—the third category under which agency MBS securities along with the other collateral types are eligible. In order to reduce operational complexity, this step was taken during a period of extreme market volatility and at a time when market quotes with which to benchmark propositions for different collateral tranches were not available. Despite the desire to reduce operational complexity, the choice to use a single-tranche in these operations, at a time when there was considerable market focus on non-agency mortgage-backed securities elicited some confusion about exactly what types of collateral were eligible.

### C. Permanent Holdings and Operations

During 2007, the value<sup>8</sup> of the permanent holdings in the SOMA portfolio decreased by \$39.3 billion, ending the year at \$735.7 billion.<sup>9</sup> The contraction was comprised of \$50.4 billion in redemptions offset by \$10.7 billion in outright purchases and \$0.5 billion in realized TIPS inflation compensation.<sup>10</sup> Redemptions consisted of \$1.2 billion in Treasury coupon securities and \$49.2 billion in Treasury bills. Outright purchases were conducted in the secondary market with primary dealers as counterparties. This year there were no purchases by the SOMA account from foreign central banks or other international institutions that hold accounts with the Federal Reserve. This year's contraction of the permanent holdings in the SOMA portfolio was the first since 1989, and was driven mainly by actions taken by the Desk to increase balance sheet flexibility in response to pressures in the funding markets.

Chart 14



Purchases in both the secondary and primary markets are aimed at maintaining a liquid portfolio, while avoiding significantly distorting prices or liquidity of specific Treasury securities. Consequently, SOMA holdings comprised an array of Treasury securities with varying remaining maturities. Holdings are constrained by per-issue limits of 35% of outstanding supply for individual Treasury issues.

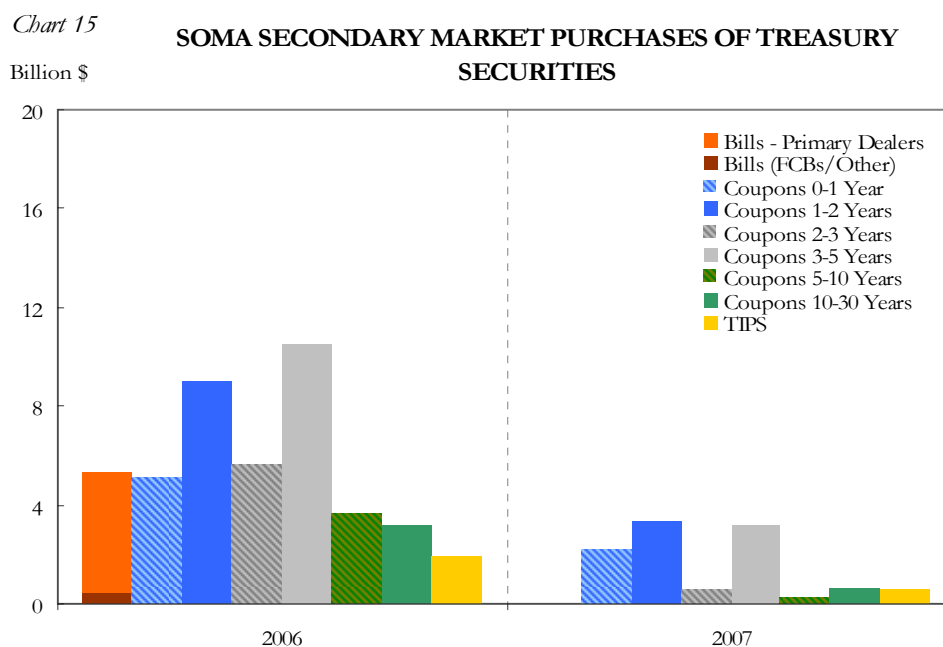
<sup>8</sup> All values cited in this section of the report represent par value.

<sup>9</sup> This amount excludes \$4.9 billion in inflation compensation on Treasury inflation-protected securities.



### Secondary Market Purchases

Relative to 2006, the SOMA purchased fewer securities of all types (Chart 15). In 2007, no Treasury bills were purchased as bill holdings were near their per-issue limit levels.



Altogether, in 2007 the Desk bought \$10.7 billion in 8 outright operations. In the preceding year, the Desk purchased \$44.3 billion in 39 outright operations while buying \$0.4 billion directly from foreign accounts. The large decrease in outright purchases relative to 2006 was due to the lack of robust currency growth over the year and the absence of outright purchases in the second half of the year amid pressures in the funding markets and portfolio draining needs.

Outright operations with the primary dealers are typically conducted mid-morning, when market liquidity is relatively high, and are scheduled to avoid coinciding with major economic data releases, Treasury auctions, or other events that are likely to influence Treasury yields. Outright operations generally settle on the following business day and, therefore, do not have a same-day impact on Fed balances.

Treasury coupon operations continued to be segmented into separate tranches across different portions of the yield curve to facilitate efficient execution. The selection of specific issues in each operation was based on the relative attractiveness of propositions and on per-issue limit

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<sup>10</sup> The SOMA portfolio realizes inflation compensation upon maturity of TIPS holdings.

considerations. In addition to remaining within the per-issue limits, the Desk avoided purchases that would be expected to cause a sizable redemption on any day within the foreseeable future, and it bought no issues in the secondary market that had less than five weeks remaining until maturity. The Desk also refrained from purchasing issues that were trading with significant scarcity value (“specialness”) in the repo market in order to avoid impairing the liquidity of individual securities that were in greater demand elsewhere. In a similar vein, the Desk refrained from secondary market purchases of newly issued securities.

#### *Primary Market Activity*

Growth in the SOMA portfolio is achieved through outright purchases of Treasury securities in the secondary market, which is then sustained by replacing maturing holdings with newly issued debt at Treasury auctions. The auction rollover process differs slightly between coupon and discount securities. For coupons, the Desk rolls over maturing securities by placing add-on bids for the SOMA, noncompetitively at auction, equal to the lesser of (a) its maturing holdings on the issue date of a new security or (b) the amount that would bring the SOMA holdings as a percentage of the issue to the percentage guideline limits. For bill rollovers, the maturing amount is allocated across newly issued bills to maintain roughly an equal percentage amount of ownership in each security settling on the same date.

Of the seven redemptions in 2007, one, totaling \$1.2 billion, was due to rollover guideline constraints, as the size of maturing issues exceeded the percentage guideline limits for holdings of specific issues. The other six redemptions were all conducted in the Treasury bill sector during August and December to give the Desk greater flexibility in the day-to-day management of reserve levels.

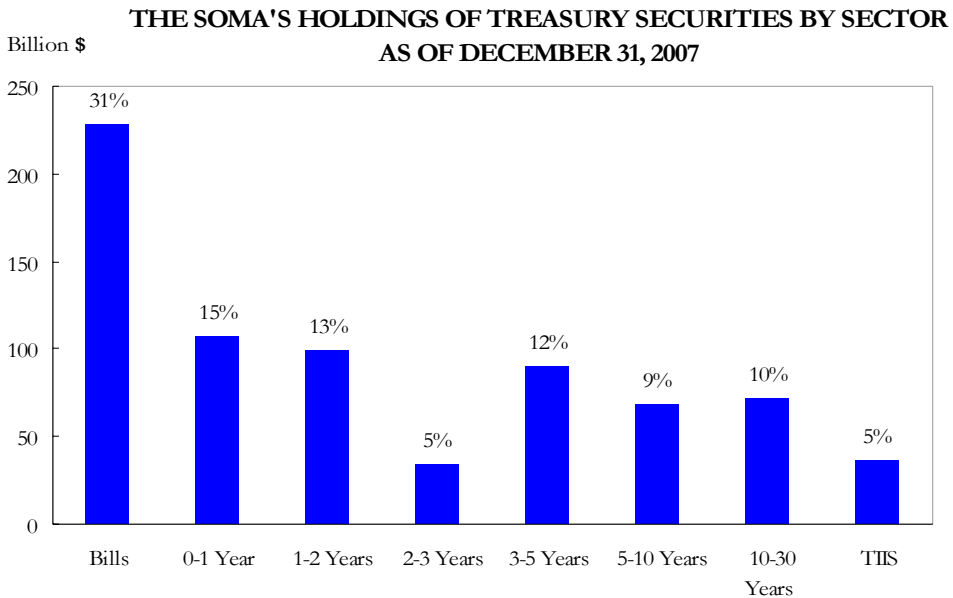
In 2007, the SOMA rolled over maturing holdings into \$8.0 billion of TIPS in eight primary auctions. In 2006, the SOMA rolled over maturing holdings of \$8.2 billion of TIPS in five primary auctions.

The Treasury announced a “call” of one coupon security held in the SOMA portfolio in 2007, totaling \$2.5 billion. The Desk rolled over the entire amount into newly issued securities with matching settlement dates.

*General Characteristics of the SOMA at Year End*

The distribution of the SOMA holdings by remaining maturity at the end of 2007 is shown in Chart 16. The average remaining maturity of the SOMA portfolio was 49.0 months at the end of the year, compared to an average remaining maturity of 55.7 months on all outstanding marketable Treasury debt. At the end of 2006, the average remaining maturities of the SOMA portfolio and of outstanding Treasury debt were 40.0 months and 54.5 months, respectively. The increase in the average remaining maturity of the SOMA portfolio relative to that of all outstanding marketable Treasury debt is largely explained by the \$50.4 billion in Treasury bill redemptions and a partial reallocation of funds from two-year to five-year securities following the change in the settlement date of the five-year auctions from mid-month to month-end in February 2006. At the end of 2007, 16.2 percent of total outstanding marketable Treasury debt was held in the portfolio, down from 18.0 percent one year earlier.

*Chart 16*



### *SOMA Securities Lending Activity*

The FRBNY provides a secondary and temporary source of securities to the Treasury financing market via a securities lending program, to promote the smooth clearing of Treasury securities. The program offers for loan, on an overnight basis, outright holdings in the SOMA portfolio in accordance with specified terms and conditions.<sup>11</sup> Securities are awarded to primary dealers based on competitive bidding in an auction held each business day at noon. To prevent securities lending operations from affecting overnight Fed balances, securities loans are collateralized with Treasury securities rather than cash.

Over the course of 2007, the Desk changed the program's terms and conditions on two separate occasions. On August 21, 2007, in response to significant volatility in overnight financing rates, the Desk announced that the minimum fee for the SOMA securities lending program would be reduced to 50 basis points, from 1 percent. Additionally, on November 26, 2007, the Desk temporarily broadened dealer borrowing limits<sup>12</sup> in an effort to more efficiently allocate SOMA holdings to the primary dealers, particularly during times of collateral market dislocation. The lower minimum fee and broad demand for Treasury collateral amid ongoing credit market disruptions led to record lending in 2007.

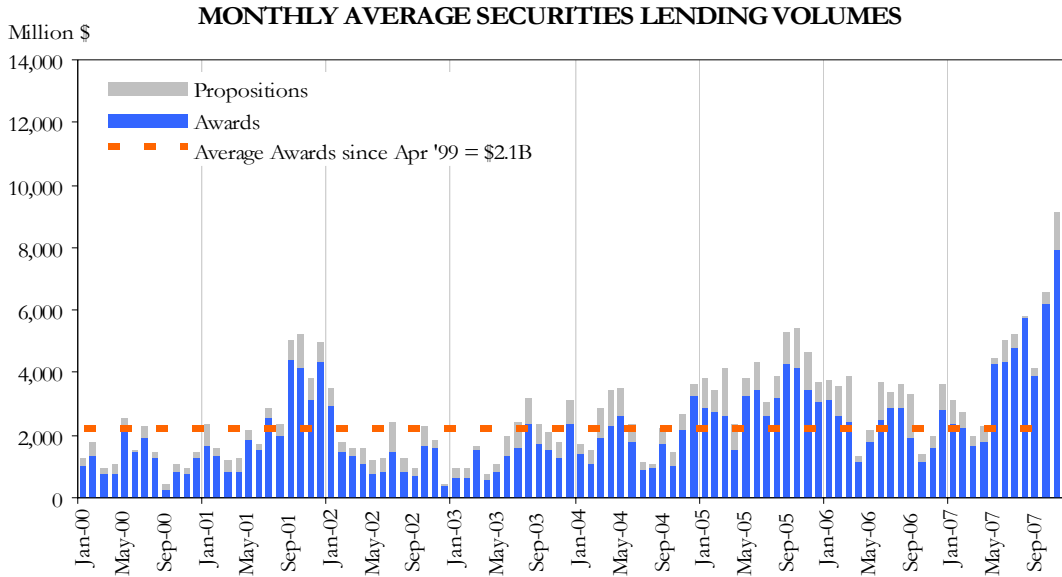
Average daily securities lending volume rose to \$4.7 billion in 2007, from \$2.2 billion in 2006. This is the highest daily average since the program was modernized in April 1999, and well above the previous record of \$3.1 billion set in 2005. Demand for high-quality assets driven by turmoil in credit and funding markets, in addition to the prolonged "specialness" of certain securities and the adjustment to borrowing limits, contributed to this year's record lending activity (Chart 17).

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<sup>11</sup> For terms and conditions of the Federal Reserve's securities lending program, see: [Program Terms and Conditions](#).

<sup>12</sup> In particular, the amount available to borrow from SOMA before taking account of outstanding loans was increased to 90 percent of holdings, from 65 percent. Dealer limits were raised to the lesser of \$750 million or 25 percent of the amount available in an issue, from the lesser of \$500 million or 20 percent. Lastly, securities with maturity of greater than 6 days became available for borrowing, compared to maturities greater than 13 days.

Chart 17



## V. THE FEDERAL FUNDS MARKET AND DISCOUNT WINDOW CREDIT

### A. The Federal Funds Market

Beginning in August 2007, measures of intraday rate volatility in the fed funds market jumped, reflecting both financial market strains that emerged in funding markets, and the Desk's responses to those pressures (Table 3). Prior to August, measures of volatility in 2007 were roughly similar to those of recent years. Higher volatility since that time has been the result of several related developments. Intensified demand for funding early in the morning, partly attributed to banks' inability to secure funding in term markets aggressively seeking overnight funding, was an important source of upward rate pressure. This pressure was apparent on many mornings despite aggregate reserve levels that were generally adequate for meeting demands for end-of-day reserve holdings. The large provisions of reserves made occasionally by the Desk to combat these pressures, while necessary to restore trading around the target, added to intra-day measures of rate volatility. Finally, the cut in the spread between the primary credit rate and the fed funds target may also have affected intraday rate dynamics and added to volatility by affecting the relative costs to banks between ending a day with a reserve deficiency versus holding excess reserves. In contrast to some other recent years, anticipation effects ahead of FOMC meeting dates when policy was expected to be changed were not a significant source of rate volatility in 2007.

Table 3

**FEDERAL FUNDS RATE BEHAVIOR (BASIS POINTS)**

	2003	2004	2005	non- FOMC <sup>a</sup> 2005	2006	non- FOMC <sup>a</sup> 2006	Prior to August 9 2007	From August 9 2007	non- FOMC <sup>a</sup> From August 9 2007
<b>All Days</b>									
<i>Intraday Standard Deviation</i>									
Median	4	3	4	4	5	5	5	20	20
Average	5	4	7	6	7	7	7	30	33
<i>Daily Trading Ranges</i>									
Median	25	19	38	31	50	44	50	200	213
Averages	33	30	55	53	77	72	79	241	256
<i>Absolute Deviation of Effective Rate from Target</i>									
Median	2	1	2	2	2	2	1	9	10
Averages	4	3	5	3	3	2	2	14	16
<b>High Payment Flow Days<sup>b</sup></b>									
<i>Intraday Standard Deviation</i>									
Median	6	4	7		7		8	40	
Average	8	7	9		12		10	44	
<i>Absolute Deviation of Effective Rate from Target</i>									
Median	6	4	7		3		4	10	
Averages	8	4	9		5		5	21	

<sup>a</sup> Excludes all data from maintenance periods when the FOMC changed the target rate.

<sup>b</sup> High payment flow dates include the first and last business days of each month, and the first business day after the 14th of each month.

Strong upward rate pressures continued to be evident many mornings beginning August 9, with upward spikes particularly prevalent on dates with elevated flows in payment systems (Chart 18). The ultimate rate effects of the heavy reserve provisions that the Desk provided in response to upward rate pressure in the morning was evident in the tendency for rates to fall off during the day (Chart 19), and which sometimes contributed to very low rates even early in the morning on subsequent days. For a time, until about mid-September, the Desk's reserve provisions contributed to an overall soft bias in daily average rates, despite a tendency for upward rate pressures to re-emerge many mornings. But since that time, the Desk has succeeded in maintaining daily rates on average around the target, although volatility in the rate around the target, while somewhat dampened, has remained elevated (Charts 20-22).

Chart 18

**SPREAD BETWEEN MORNING RATE AND FED FUNDS TARGET RATE**

Basis Point

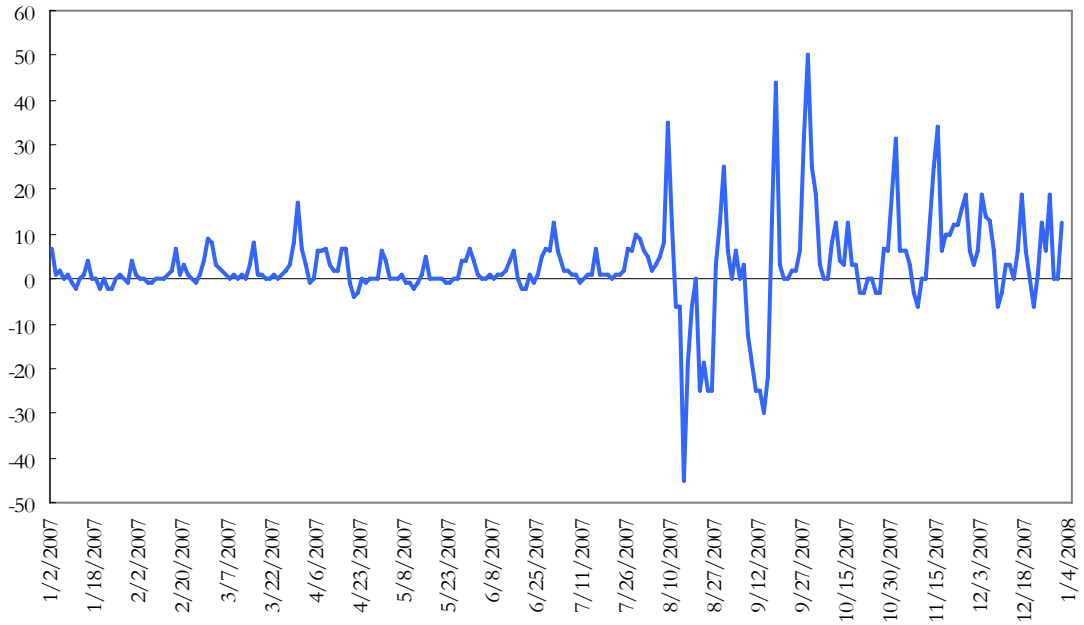


Chart 19

**SPREAD BETWEEN FED FUNDS EFFECTIVE RATE AND MORNING RATE**

Basis Point

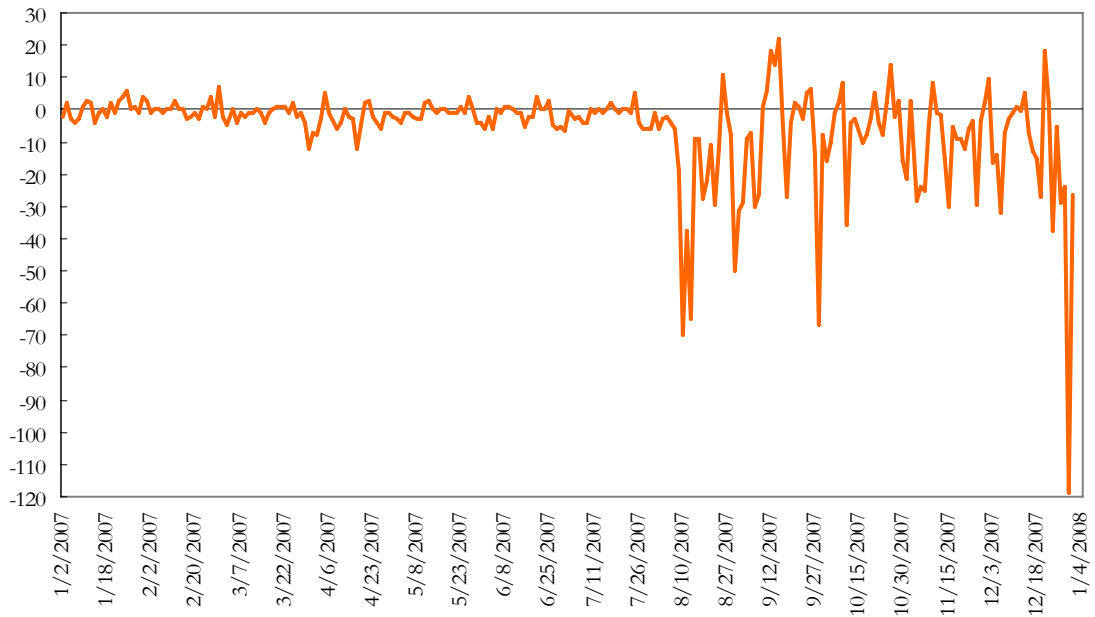


Chart 20

**AVERAGE DEVIATION OF THE FED FUNDS EFFECTIVE RATE FROM THE TARGET RATE**

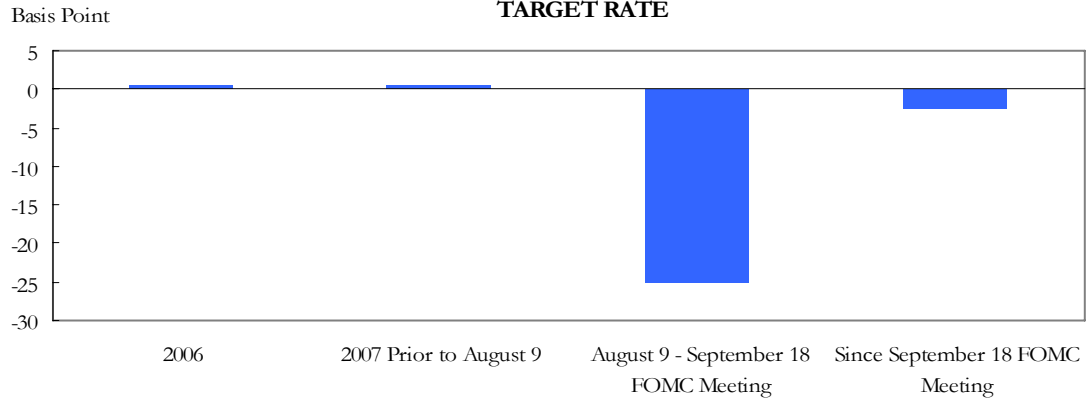


Chart 21

**AVERAGE ABSOLUTE DEVIATION OF THE FED FUNDS EFFECTIVE RATE FROM THE TARGET**

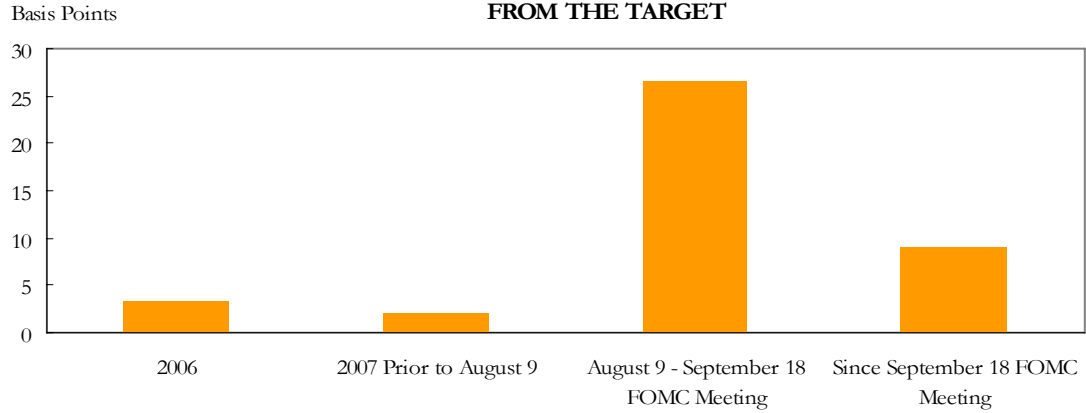
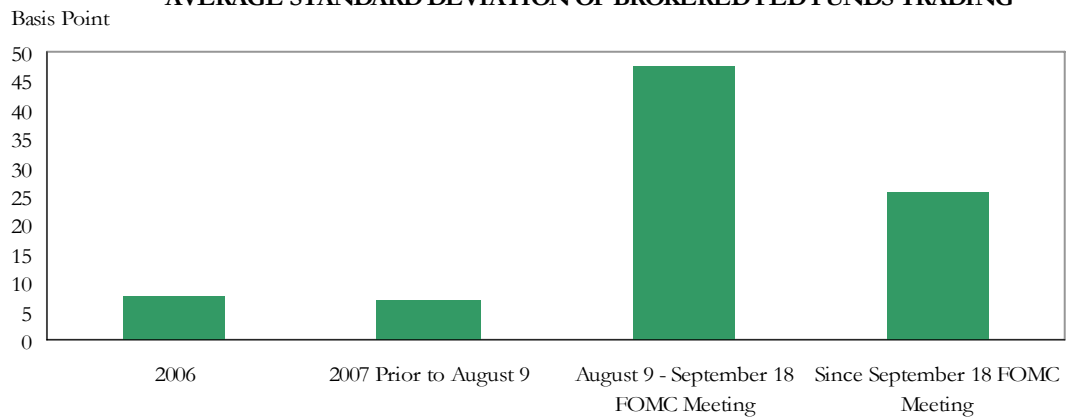


Chart 22

**AVERAGE STANDARD DEVIATION OF BROKERED FED FUNDS TRADING**





## **B. Primary Credit Facility**

The Federal Reserve's primary credit facility serves as a backup source of short-term liquidity for depository institutions in generally sound financial condition and with appropriate collateral. This facility effectively serves as a "standing facility," the use of which is initiated at the discretion of depository institutions. This facility is a critical component of the monetary policy implementation framework, one that helps the Desk to achieve its operating objective for the overnight federal funds rate by relieving upward rate pressures when there is a net reserve shortage.

Prior to August 17, Reserve Banks had extended primary credit at a rate 100 basis points above the fed funds target rate; then on August 17, this spread was cut to 50 basis points. Also at that time, borrowing institutions could request primary credit loans for terms of up to 30 days, with the lending rate to be adjusted for any change in the target funds rate while a loan was outstanding. These term loans were both renewable and could be terminated early if desired by the borrowing institution.

The lower spread and ability to borrow on a term basis changed the rate dynamics in the market that would make it economical for a bank to borrow from the primary credit facility, either for overnight or on a term basis. On days when a reserve shortage necessitated some degree of borrowing, market rates would not have to rise by as much as they had previously to induce banks to tap the primary credit facility. The lower spread on the primary credit rate combined with the ability to borrow on a term basis sometimes made it cost effective for banks to borrow even on days when the overnight rate did not come under upward pressure. In arranging its open market operations, the Desk had to anticipate the degree to which banks might wish to borrow on a term basis, or the extent to which outstanding term primary credit loans might be terminated early. For the most part, banks that borrowed for term were helpful in providing the Desk with information about their intentions beforehand. Still, the Desk's estimates of primary credit borrowing were subject to more error than before, the effects of which were akin to errors made in projections of autonomous factors in terms of their impact on total reserve levels and the behavior of the federal funds rate.

These many changes in administration make comparisons between borrowing levels and frequencies before and after August 2007 difficult (Table 4). However, the incidence of primary credit loans of at least \$100 million that were identified as being overnight loans increased late in the year, largely

reflecting the greater number of instances that a relatively low absolute level of reserve balances was provided by the Desk, often intended to address bouts of rate softness.<sup>13</sup>

*Table 4*  
**AVERAGE AND FREQUENCY OF ADJUSTMENT/ PRIMARY CREDIT BORROWING**

	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007 Prior to</u> <u>August 17</u>	<u>2007 Since</u> <u>August 17</u>	<u>2007 Since</u> <u>August 17</u>
							All Loans	Overnight Loans
<i>Daily Averages, \$ million</i> (business days)	\$48	\$43	\$43	\$57	\$70	\$60	\$417	\$306
<i>Number of business days when borrowing was.....</i>								
\$100 million or more	13	14	19	16	25	14	32	27
\$500 million or more	6	3	3	6	9	7	19	13

Since the inception of the primary credit facility in January 2003, there have been many occasions when fed funds brokers reported some trading in the market at rates in excess of the primary credit rate. Most of these occasions coincided with days when there was at least a modest level of primary credit borrowing (Chart 23-24). Thus, some institutions have continued to show a preference to pay a higher rate in the market, at least for relatively small amounts. In at least some of these instances, some banks borrowed from the primary credit facility to finance lending in the fed funds market at rates above the primary credit rate. Overall, the frequency of overnight borrowing did increase beginning in August, for the reasons outlined in the preceding paragraph, and the reduced spread between the primary credit rate and the target funds rate did appear to have some effect in reducing the market rates that banks would pay before borrowing at the primary credit facility.

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<sup>13</sup> Many of these instances of rate softness were the eventual byproduct of aggressive reserve provisions intended to combat rate firmness.

Chart 23

**PRIMARY CREDIT BORROWING FOR DAYS WHEN OVERNIGHT BORROWING WAS AT LEAST \$100 MILLION OR FED FUNDS TRADED ABOVE THE PRIMARY CREDIT RATE**

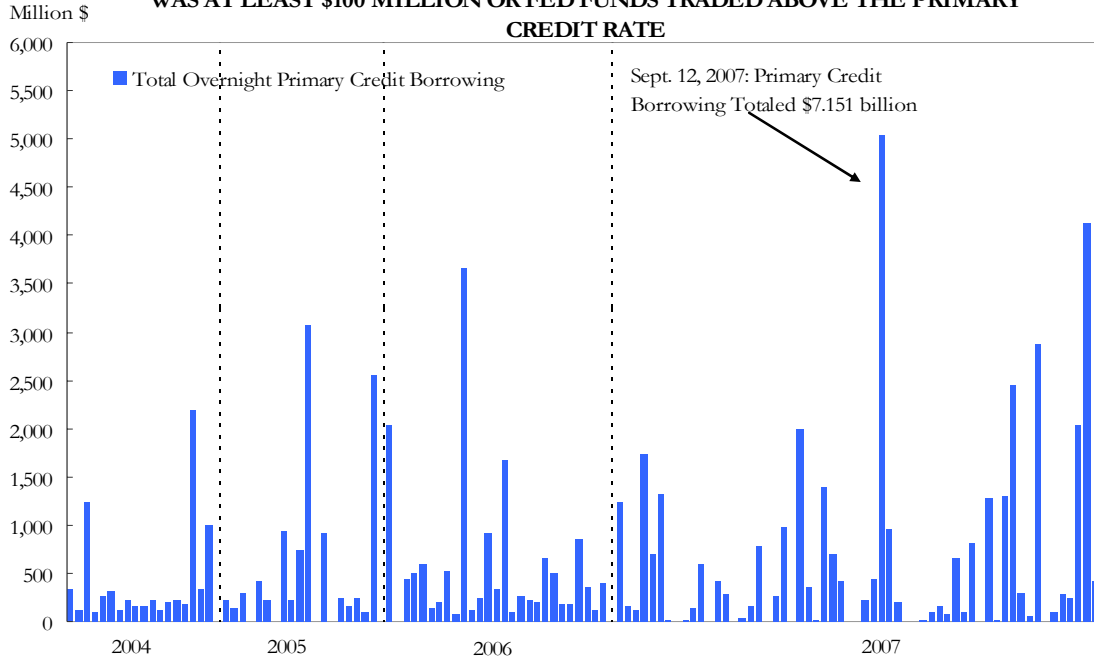
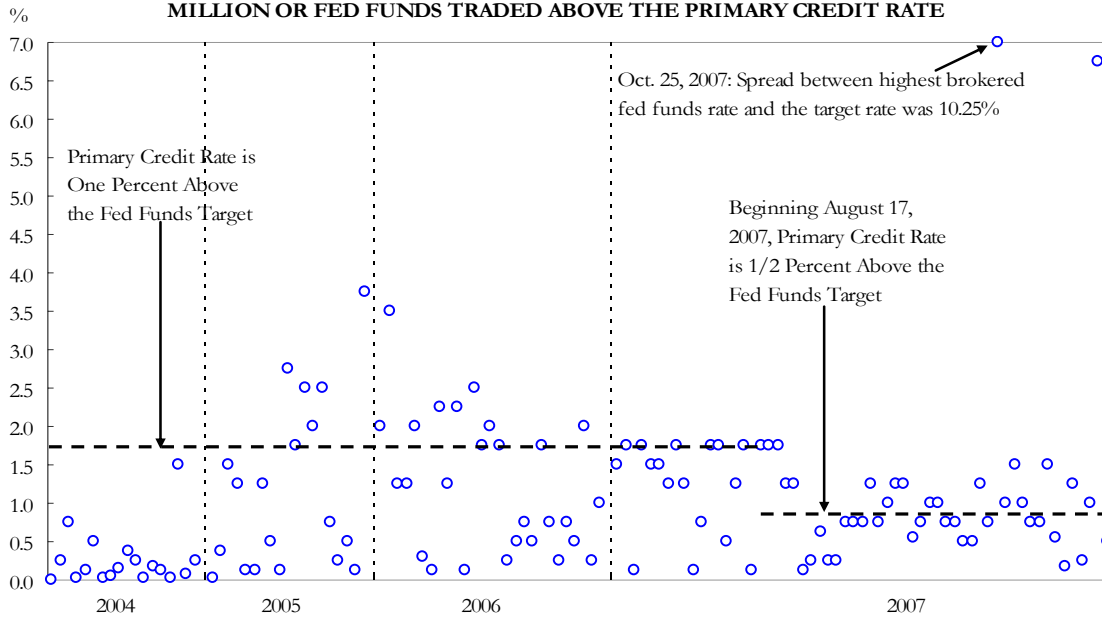


Chart 24

**SPREAD BETWEEN HIGHEST BROKERED FED FUNDS RATE AND THE TARGET FOR DAYS WHEN OVERNIGHT PRIMARY CREDIT BORROWING WAS AT LEAST \$100 MILLION OR FED FUNDS TRADED ABOVE THE PRIMARY CREDIT RATE**



## **APPENDIX A: AUTHORIZATION FOR DOMESTIC OPEN MARKET OPERATIONS**

By unanimous vote, the Committee approved the Authorization for domestic Open Market Operations with an amendment to paragraph 1(b) that brings the language for repurchase agreements into conformity with the authorization's existing language for outright purchases and reverse repurchase agreements. Accordingly, the Authorization for Domestic Open Market Operations was adopted, effective January 30, 2007, as shown below:

1. The Federal Open Market Committee authorizes and directs the Federal Reserve Bank of New York, to the extent necessary to carry out the most recent domestic policy directive adopted at a meeting of the Committee:

(a) To buy or sell U.S. Government securities, including securities of the Federal Financing Bank, and securities that are direct obligations of, or fully guaranteed as to principal and interest by, any agency of the United States in the open market, from or to securities dealers and foreign and international accounts maintained at the Federal Reserve Bank of New York, on a cash, regular, or deferred delivery basis, for the System Open Market Account at market prices, and, for such Account, to exchange maturing U.S. Government and Federal agency securities with the Treasury or the individual agencies or to allow them to mature without replacement;

(b) To buy U.S. Government securities, obligations that are direct obligations of, or fully guaranteed as to principal and interest by, any agency of the United States, from dealers for the account of the System Open Market Account under agreements for repurchase of such securities or obligations in 65 business days or less, at rates that, unless otherwise expressly authorized by the Committee, shall be determined by competitive bidding, after applying reasonable limitations on the volume of agreements with individual dealers.

(c) To sell U.S. Government securities and obligations that are direct obligations of, or fully guaranteed as to principal and interest by, any agency of the United States to dealers for System Open Market Account under agreements for the resale by dealers of such securities or obligations in 65 business days or less, at rates that, unless otherwise expressly authorized by the Committee, shall be determined by competitive bidding, after applying reasonable limitations on the volume of agreements with individual dealers.

2. In order to ensure the effective conduct of open market operations, the Federal Open Market Committee authorizes the Federal Reserve Bank of New York to lend on an overnight basis U.S. Government securities held in the System Open Market Account to dealers at rates that shall be determined by competitive bidding. The Federal Reserve Bank of New York shall set a minimum lending fee consistent with the objectives of the program and apply reasonable limitations on the total amount of a specific issue that may be auctioned and on the amount of securities that each dealer may borrow. The Federal Reserve Bank of New York may reject bids which could facilitate a dealer's ability to control a single issue as determined solely by the Federal Reserve Bank of New York.

3. In order to ensure the effective conduct of open market operations, while assisting in the provision of short-term investments for foreign and international accounts maintained at the Federal Reserve Bank of New York and accounts maintained at the Federal Reserve Bank of New York as fiscal agent of the United States pursuant to Section 15 of the Federal Reserve Act, the Federal Open

Market Committee authorizes and directs the Federal Reserve Bank of New York (a) for System Open Market Account, to sell U.S. Government securities to such accounts on the bases set forth in paragraph 1(a) under agreements providing for the resale by such accounts of those securities in 65 business days or less on terms comparable to those available on such transactions in the market; and (b) for New York Bank account, when appropriate, to undertake with dealers, subject to the conditions imposed on purchases and sales of securities in paragraph 1(b), repurchase agreements in U.S. Government and agency securities, and to arrange corresponding sale and repurchase agreements between its own account and such foreign, international, and fiscal agency accounts maintained at the Bank. Transactions undertaken with such accounts under the provisions of this paragraph may provide for a service fee when appropriate.

4. In the execution of the Committee's decision regarding policy during any intermeeting period, the Committee authorizes and directs the Federal Reserve Bank of New York, upon the instruction of the Chairman of the Committee, to adjust somewhat in exceptional circumstances the degree of pressure on reserve positions and hence the intended federal funds rate. Any such adjustment shall be made in the context of the Committee's discussion and decision at its most recent meeting and the Committee's long-run objectives for price stability and sustainable economic growth, and shall be based on economic, financial, and monetary developments during the intermeeting period. Consistent with Committee practice, the Chairman, if feasible, will consult with the Committee before making any adjustment.

**APPENDIX B: GUIDELINES FOR THE CONDUCT OF SYSTEM OPEN MARKET OPERATIONS IN FEDERAL AGENCY ISSUES**

The FOMC has established specific guidelines for operations in agency securities to ensure that Federal Reserve operations do not have undue market effects and do not serve to support individual issuers. The guidelines are reprinted below.

*Guidelines for the Conduct of System Open Market Operations in Federal Agency Issues*

1. System open market operations in Federal agency issues are an integral part of total System open market operations designed to influence bank reserves, money market conditions, and monetary aggregates.
2. System open market operations in Federal agency issues are not designed to support individual sectors of the market or to channel funds into issues of particular agencies.