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Report to the Chairman, Committee on Ways and Means, House of Representatives

September 2006

DEBT MANAGEMENT

Backup Funding Options Would Enhance Treasury's Resilience to a Financial Market Disruption

GAO-06-1007

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GAO Accountability·Integrity·Reliability

Highlights

Highlights of GAO-06-1007, a report to the Chairman, Committee on Ways and Means, House of Representatives

Why GAO Did This Study

The September 11, 2001, attacks significantly affected the financial markets that the U.S. Treasury (Treasury) relies on. To understand how Treasury could obtain funds during a future potential wide-scale financial market disruption GAO examined (1) steps Treasury and others took during the September 11 attacks and after to assure required debt obligations and payments were made on time and ensure liquidity in the markets, (2) major actions Treasury and others have taken since the attacks to increase the resiliency of the auction process, and (3) the opinions of relevant parties on the main design features of any backup funding options. We conducted interviews with Treasury officials and others and reviewed appropriate documents.

What GAO Recommends

We recommend that the Secretary of the Treasury examine the requirements for establishing a line of credit and a private placement of a CM bill and select the most appropriate option(s) as a first tier. As a second tier, Congress should consider allowing the Federal Reserve to lend directly to the Treasury during a wide-scale disruption using a carefully crafted last resort funding option. Both Treasury and the Federal Reserve agreed that Treasury should examine the first-tier options. Neither took a position on the second tier, but both emphasized the importance of maintaining the independence of the central bank.

www.gao.gov/cgi-bin/getrpt?GAO-06-1007.

To view the full product, including the scope and methodology, click on the link above. For more information, contact Susan J. Irving at (202) 512-9142 or irvings@gao.gov.

What GAO Found

In response to the effects of the September 11 attacks on the financial markets, Treasury canceled a scheduled 4-week bill auction after communicating with the Federal Reserve Bank of New York (FRBNY). Treasury then used compensating balances from banks across the country to help meet its obligations on time. Compensating balances were replaced by direct payments in 2004. Also, in response to the attacks' financial effects, the Federal Reserve lent billions of dollars to both domestic and foreign financial institutions through a combination of methods to help markets recover. Federal Reserve actions and market behavior in the aftermath of the September 11 attacks are informative when considering potential alternative funding sources for Treasury during a future wide-scale financial market disruption.

Treasury, the Federal Reserve, and primary dealers have added contingency sites and systems intended to increase the resilience of the auction process. Regardless of resiliency efforts, the nature and impact of a potential future wide-scale disruption are unknown. In addition, Treasury has at least one less source of cash since the compensating balances Treasury relied upon during the September 11 attacks are no longer used. Finally, Treasury's cash management policy of minimal cash balances to lower borrowing costs further limits Treasury's access to cash during a wide-scale disruption. All these factors make it prudent for Treasury to explore other funding alternatives to use during a wide-scale disruption. Relevant parties with whom we spoke, including primary dealers, agreed. They also generally agreed on a list of main design features including source of funds, situations for use, approvals, and costs, among others, that should be considered when weighing alternative funding options.

Discussions with Treasury, the Federal Reserve, and other relevant parties have led GAO to conclude that a two-tiered approach is promising. The first tier consists of two funding options involving a range of appropriate financial institutions, namely a credit line and a private placement of a flexible security known as a cash management (CM) bill. The second tier involves a direct draw from the Federal Reserve that would provide Treasury a last resort source of funds when other options are not viable. A credit line with several financial institutions would involve a prior transparent commitment or understanding by certain financial institutions to provide funds to Treasury. A private placement of a CM bill would involve a prior arrangement to issue a CM bill after communicating with certain senior executives at financial institutions who would have the ability and authority to meet Treasury's immediate funding needs. Finally, a direct draw from the Federal Reserve would require a change in the law to allow the Federal Reserve to directly lend to Treasury. Appropriate limitations, adequate flexibility, and accountability would have to be included in the design.

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United States Government Accountability Office
Washington, DC 20548

September 26, 2006

The Honorable William M. Thomas
Chairman
Committee on Ways and Means
House of Representatives

Dear Mr. Chairman:

The massive destruction caused by the September 11, 2001, attacks on the World Trade Center and the resulting loss of life, facilities, telecommunications, and power significantly affected U.S. financial markets, including the markets for U.S. Treasury (Treasury) securities. The attacks exposed the vulnerability to a serious wide-scale disruption[1] of the markets that Treasury relies on as a regular source for financing government operations and large, regularly occurring payments such as Social Security benefits. In response to the attacks, Treasury canceled a scheduled auction of 4-week bills on September 11 and used compensating balances—noninterest-bearing cash balances used to compensate banks for various services—to help meet its obligations on time.

However, compensating balances are no longer used. In addition, Treasury's cash management policy is to maintain minimal cash balances in order to lower borrowing costs. We reported earlier this year that the combination of a minimal cash balance policy and the unavailability of previous methods for accessing cash warrant closer attention to Treasury's ability to raise cash—and ultimately meet federal payment obligations—should normal auctions be unavailable in the event of another wide-scale disruption to financial markets.[2]

In your continuing interest in how Treasury borrows the money required to finance the federal government and in recognition of the risks of a wide-

[1] We broadly refer to a wide-scale disruption as an event that causes a severe disruption or destruction of critical infrastructure components across a geographic area or that results in a wide-scale evacuation or inaccessibility of certain areas.

[2] GAO, *Debt Management: Treasury Has Refined Its Use of Cash Management Bills but Should Explore Options That May Reduce Cost Further*, GAO-06-269 (Washington, D.C.: Mar. 30, 2006).

scale financial market disruption, you asked us how Treasury might obtain funds should normal financial market operations be significantly degraded or closed due to a catastrophic emergency. Specifically, we examined (1) steps Treasury and the Federal Reserve took during the week of the September 11, 2001, attacks and during the weeks following the attacks to assure required debt obligations and payments were made on time and ensure liquidity in the financial markets, (2) major actions Treasury, the Federal Reserve, and primary dealers have taken since the September 11 attacks to increase the resiliency of Treasury's auction process and participation, and (3) the opinions of relevant parties[3] on the main design features of any cash draw authority and how the features would affect accountability and congressional oversight, enhance Treasury's operations, affect Federal Reserve operations, and influence the views of capital market participants.

Results in Brief

Treasury canceled a 4-week bill auction and used certain cash balances to help meet its obligations during the week of the September 11, 2001, attacks. Also in response to the attacks' financial effects, the Federal Reserve provided large amounts of liquidity[4] to financial institutions. Since the attacks, Treasury and the Federal Reserve have added staffed locations and data systems capability for critical auction functions. Primary dealers—who are awarded a large proportion of Treasury securities at auction—have also taken actions intended to increase their resiliency. Regardless of actions taken to increase resiliency, exploring other funding options is appropriate and a promising two-tiered approach that would provide Treasury additional access to cash during a wide-scale disruption has emerged.

To make up for the cash shortfall associated with the cancellation of the 4-week bill auction in 2001, Treasury used compensating balances, which were subsequently eliminated in 2004,[5] to help meet its obligations on time.

[3] Relevant parties include Treasury and Federal Reserve officials and staff, and capital market participants such as traders, senior executives of financial institutions, and trade association executives. We also had discussions with congressional staff regarding oversight.

[4] The term liquidity is used broadly here to encompass cash and credit in hand and promises of credit to meet needs for cash.

[5] Although Treasury's authority to use compensating balances has not been eliminated, it no longer uses compensating balances to pay for financial agent services. It now directly pays for services, which it says improves cash management.

It resumed auctions within a week and replaced compensating balances within 10 business days of the attacks.

In the days following the attacks, the Federal Reserve expanded liquidity, providing billions of dollars to domestic and foreign financial institutions through open market operations, securities lending transactions, discount window lending, and other actions.[6] As Treasury considers an alternative source of cash during a possible future wide-scale disruption, it should be cognizant that the Federal Reserve was, is, and potentially will be a significant source of liquidity for many financial institutions in a crisis.

Since the September 11 attacks, Treasury and the Federal Reserve, acting as Treasury's fiscal agent, have staffed additional operational locations[7] and added data systems capability intended to increase auction resilience. Treasury and the Federal Reserve have added locations in different geographic regions from their primary locations for all four critical auction functions. Treasury periodically tests sites during live auctions, conducts mock auctions, and stipulates that if it cannot conduct any disrupted auction within an hour of the originally scheduled time it will communicate information to market participants as it becomes available.

Primary dealers have also taken actions to increase resiliency. All primary dealers have contingency sites and most have systems that link directly to Treasury's auction systems at their contingency sites. Because of the nature of financial markets, almost all primary dealer contingency locations are well within the same geographic regions as their primary sites and most dealers plan on staff relocating to their contingency sites.

Regardless of the progress of resiliency efforts, the nature and impact of a potential future wide-scale disruption remain unknown. In addition, since compensating balances were eliminated in 2004, Treasury has at least one less source of funds on which to rely. Finally, Treasury's cash management policy of minimal cash balances to lower borrowing costs further limits Treasury's access to cash during a wide-scale disruption. The combination of these factors makes it prudent for Treasury to explore other funding

[6] The discount window is the lending mechanism used by Federal Reserve banks to lend funds to depository institutions on a short-term basis to cover temporary liquidity needs or reserve deficiencies.

[7] An operational location is a site that is staffed and has systems operating during the routine performance of the function.

alternatives to use during a wide-scale disruption. Relevant parties with whom we spoke, including primary dealers, agreed.

These parties also generally agreed that the main design features that should be considered when weighing alternative funding options include situations for use, type of collateral, transaction type, approvals, costs, amount limit, time limit, inclusion under the debt ceiling, disclosure, and length of authority (if required). However, the specifics would depend on the proposed options.

Discussions with Treasury and Federal Reserve officials and other relevant parties have led us to conclude that a two-tiered approach could enhance Treasury's ability to obtain funds during a wide-scale disruption. The first tier consists of two funding options involving a range of appropriate financial institutions, namely a credit line and a private placement of a cash management (CM) bill. The second tier involves a direct draw from the Federal Reserve that would provide Treasury a last resort source of funds when other options are not viable.

We recommend that the Secretary of the Treasury determine the main design features and examine any implementation requirements for establishing a line of credit and a private placement of a CM bill with a range of appropriate private sector financial institutions for use during a wide-scale disruption, and select the most appropriate option(s). In addition, Congress should consider establishing an explicit, carefully crafted, last resort draw authority to permit the Federal Reserve to lend directly to the Treasury. This authority should be limited to situations in which all other funding options are not viable during a wide-scale disruption.

In written comments on a draft of this report, both Treasury and the Federal Reserve agreed that Treasury should examine the first-tier funding options described in this report. Although neither took a position on our suggestion that Congress should consider permitting the Federal Reserve to lend directly to the Treasury, both emphasized the importance of maintaining the independence of the central bank. For example, Treasury stated that it, "is generally opposed to arrangements in which governments, at their discretion, can borrow directly from their central bank as such arrangements compromise the independence of the central bank." As our report notes, we also recognize the importance of maintaining the independence of the central bank and suggest an approach that we believe provides both flexibility and reduces the vulnerability to abuse. Both Treasury and Federal Reserve Board staff also provided technical comments which we incorporated as appropriate. Their letters are reprinted in appendix III and appendix IV respectively.

Background

The September 2001 terrorist attacks and the subsequent collapse of the twin World Trade Center towers damaged more than 400 structures across a 16-acre area, and claimed almost 2,800 lives. Financial services industry employees accounted for about 74 percent of the victims. Dust and debris blanketed the area, creating difficult and hazardous conditions that complicated recovery efforts. Many financial organizations lost telecommunications service when the 7 World Trade Center building collapsed and debris struck a major Verizon central switching office that served approximately 34,000 businesses and residences.[8] Over 13,000 customers also lost power. To accommodate the rescue and recovery efforts and maintain order, pedestrian and vehicle access to the area encompassing the financial district was restricted through September 13, 2001.[9]

The attacks severely disrupted the secondary markets for government securities and money market instruments primarily because of the impact on the brokers that facilitate trading among dealers (broker-dealers) and on one of the clearing banks for those trades. Two banks—the Bank of New York (BONY) and JPMorganChase—provided clearing and settlement services (and still do) for many major broker-dealers in the government securities market. Clearing banks transferred funds and securities for their customers that purchased or sold government securities based on instructions received by the Government Securities Clearing Corporation (GSCC).[10] As a result of the attacks, BONY had difficulty reestablishing its connections with GSCC and its own account at the Federal Reserve, and its customers had difficulties connecting with BONY. These problems contributed to the disruption of the secondary government securities

[8] When this Verizon facility was damaged, about 182,000 voice circuits, more than 1.6 million data circuits, and more than 11,000 lines serving Internet service providers were lost.

[9] GAO, *Potential Terrorist Attacks: Additional Actions Needed to Better Prepare Critical Financial Market Participants*, GAO-03-414 (Washington, D.C.: Feb. 12, 2003).

[10] Broker-dealers submitted trade information to GSCC, which compared and netted this information and sent settlement information to clearing banks, such as BONY and JPMorganChase. In 2003, GSCC merged into the Fixed Income Clearing Corporation, which now handles the clearing and settlement of U.S. government securities for its member firms.

market. BONY had to evacuate four facilities, including its primary telecommunications data center and over 8,300 staff, because they were located near the World Trade Center. By September 14 BONY reestablished connectivity with GSCC and began receiving and transmitting instructions for securities transfers.[11]

Both the Federal Reserve's Fedwire Securities Service, which provides safekeeping, transfer, and settlement services for securities issued by Treasury and other federal agencies, and its Fedwire Funds Service, which provides payments services associated with securities sales and other large-value transactions, continued processing transactions without interruption. Although the Federal Reserve Bank of New York (FRBNY), which manages the Fedwire services, sustained damage to some communication lines, the Fedwire services were not interrupted because the facilities that process transactions were not located in lower Manhattan. Over 30 banks initially lost connectivity to Fedwire services, but most were able to reestablish connections through backup systems, and most payment system operations continued with minimal disruption.

The Federal Reserve, Treasury, and primary dealers all play important roles in Treasury auctions. The Federal Reserve and its associated Federal Reserve banks function as the United States government's fiscal agent and perform a variety of services for the Treasury including handling Treasury auctions, accepting bids, communicating bids to Treasury, issuing Treasury securities to winning bidders, and collecting payment for securities.

Treasury borrows the money needed to operate the federal government and manages the government's outstanding debt subject to a statutory limit.[12] Treasury's primary debt management goal is to finance the government's borrowing needs at the lowest cost over time. To meet this objective, Treasury issues debt through auctions in a "regular and predictable" pattern across a wide range of securities. Treasury publishes a schedule with tentative announcement,[13] auction, and settlement (issue) dates up to 6 months in advance of regular security auctions. Depending

[11] GAO-03-414.

[12] Treasury's authorities are codified in chapter 31 of title 31 of the United States Code.

[13] The tentative auction schedule provides the date but not the actual amount of an auction, which Treasury provides in an announcement generally a few days prior to auction.

on the type of security, Treasury typically auctions and then issues a security within a week or less. Treasury generally issues short-term regular bills with 4-, 13-, and 26-week maturities every Thursday and issues 2- and 5-year notes at the end of each month. Three- and 10- year notes are issued in the middle of each quarter. Treasury reopens 10-year notes—or increases the amount outstanding for these notes—1 month after their initial issuance. In addition, Treasury issues Treasury Inflation-Protected Securities (TIPS) in 5-, 10-, and 20-year maturities in certain months according to the TIPS' maturity. [14] Finally, Treasury issues 30-year bonds in February and August and reopens these issues in May and November, respectively.

Treasury supplements its regular and predictable schedule with flexible securities called cash management (CM) bills. Unlike for other securities, Treasury does not publish information on CM bills on its auction schedule. Instead, Treasury generally announces CM bill auctions anywhere from 1 to 4 days ahead of the auction. The term to maturity—the length of time the bill is outstanding—varies according to Treasury's cash needs. CM bills allow Treasury to finance very short-term cash needs—for as little as 1 day—while providing short notice to market participants.[15]

As of the end of fiscal year 2005, about 46 percent of marketable Treasury securities held by the public will mature during the next 24 months. As these securities mature and are replaced by new debt, the cost to finance the federal government's debt will vary with changing interest rates.

The bidders in Treasury auctions include depository institutions, individuals, dealers and brokers, pension and retirement funds, insurance companies, investment funds, foreign and international entities, the Federal Reserve, and others. In recent years the percentage of U.S. Treasury securities held internationally has increased. Although the categories of bidders are diverse, primary dealers, other commercial bank dealer departments, and other nonbank dealers and brokers received almost 60 percent of auction awards of marketable securities between August 2001 and May 2006. Federal Reserve banks received almost 21 percent during that same time period for their own accounts. Primary dealers are banks and securities brokers that trade in U.S. government securities with the Federal Reserve. Primary dealers have functioned for

[14] GAO-06-269.

[15] For more information on CM bills see GAO-06-269.

over 40 years as the distribution and support system for Treasury debt and play a “vital” role[16] in the price discovery process.[17] The FRBNY designates primary dealers based on certain capital requirements, and requires primary dealers to participate meaningfully in both Federal Reserve open market operations and Treasury auctions to maintain their designation. However, the Federal Reserve does not have regulatory authority over dealers acting in the primary dealer role.

In the past, outside of the auction process, Treasury had access to a cash draw authority intended for emergencies. Intermittently between 1942 and 1981, Treasury was able to directly sell (and purchase) certain short-term obligations to (and from) the Federal Reserve in exchange for cash. Treasury used the cash draw authority infrequently and mostly in times of war or armed conflict. Congress last granted the authority in 1979 and limited the amount Treasury could draw to $5 billion. Congress allowed this authority to expire in 1981 (see app. II for more background information). Although the existence of a previous draw authority is relevant, we are not suggesting restoration of this authority in its previous form due to certain limitations.

Objectives, Scope, and Methodology

To understand the steps that Treasury and the Federal Reserve took during the week of the September 11 attacks and during the following weeks to assure required debt obligations and payments were made on time and ensure liquidity in the financial market, we conducted interviews with knowledgeable Treasury and Federal Reserve officials and staff. We also reviewed prior audit reports and other documentation from GAO, the Federal Reserve, and Treasury. We analyzed and examined these sources to develop a time line with key actions and to determine actions and financial market behavior that are informative when considering alternative funding sources for Treasury.

To understand major actions Treasury, the Federal Reserve, and primary dealers have taken since the September 11 attacks to increase the resiliency of Treasury’s auction process and participation, we interviewed Treasury and Federal Reserve officials and staff involved in conducting

[16] See *Remarks of the Under Secretary Brian C. Roseboro before The Bond Market Association’s Annual Meeting*, April 22, 2004, js-1454.

[17] Price discovery is the process that primary dealers undertake that determines an appropriate clearing price at auction.

primary dealer visits, the auction process, and systems. We reviewed Treasury contingency and continuity of operations (COOP) plans and other documents that described contingency sites, staff training topics, contingency exercise results, and other Treasury summaries. We also interviewed executives and staff involved and familiar with resiliency efforts at 14 primary dealers and executives involved with emergency planning at The Bond Market Association, the industry association representing participants in the government securities and other debt markets. In addition, some of our work was based on internal knowledge derived from Treasury audits we have conducted in the past.

To describe the opinions of relevant parties on the main design features of any cash draw authority and how the features affect accountability and congressional oversight, enhance Treasury's operations, affect Federal Reserve operations, and influence the views of capital market participants, we interviewed Treasury officials involved with debt management, policy, operations, fiscal management, auctions, and legal matters. Further, we interviewed Federal Reserve officials involved with monetary affairs, open market and discount window operations, and Treasury auction staff and researchers. In addition, we communicated with foreign debt management officials, and conducted interviews with executives and staff involved with Treasury auctions at 14 primary dealers and senior executives at two major commercial banks. We also spoke with other capital market participants, and had discussions with senior congressional staff concerned with oversight. We analyzed relevant Treasury, Federal Reserve, and capital market documentation to obtain government and capital market perspectives. We validated, with relevant parties, main design features for consideration when structuring an alternative cash draw arrangement and looked for emerging funding options based on discussion with relevant parties.

We conducted our review in Washington, D.C., and New York, N.Y., from March 2006 through September 2006 in accordance with generally accepted government auditing standards.

Treasury Canceled an Auction and Used Certain Cash Balances to Help Meet Its Obligations during the Week of September 11, 2001

Treasury took a number of steps in reaction to the September 11 attacks to ensure it met its obligations during a time of disrupted financial markets, as summarized in figure 1. It canceled an auction scheduled for September 11, withdrew compensating balances held in depository institutions across the country, communicated with the FRBNY about the status of markets, and resumed its normal auction schedule within 1 week of the attacks.

Figure 1: Treasury Acted to Ensure Funding after the September 11 Attacks

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9	10 Treasury announced 4-week bill auction for September 11.	11 **Treasury canceled scheduled 4-week bill auction.** ***Treasury called banks to inform them of compensating balance withdrawals on Sept 13.***	12	13 Treasury paid maturing 4-week bill and announced 13- and 26-week bill auctions for Sept. 17. *Treasury received compensating balances.*	14	15
16	17 Treasury conducted normal 13- and 26-week bill auctions.	18	19	20	21 *Treasury replaced most compensating balances.*	22
23	24 *Treasury replaced remaining compensating balances.*					

Source: GAO (data), PhotoDisc (upper left photo), and FEMA/Andrea Booher (lower right photos).

Treasury Canceled a 4-week Bill Auction in Response to the Attacks' Effects

Treasury decided to postpone and then cancel a planned auction of $10 billion worth of 4-week bills because of financial market degradation due to the September 11 attacks. In addition, various infrastructure concerns at the FRBNY made it unclear whether it could have conducted an auction.[18] Following its normal borrowing schedule, on September 10 Treasury announced its intention to auction $10 billion worth of 4-week bills on September 11 to help pay off $11 billion worth of 4-week bills that were about to mature on September 13.

According to a senior Treasury debt management official, after the September 11 attacks, Treasury initially wanted to postpone but not cancel the auction. Treasury officials consulted with the FRBNY about market conditions and learned that some primary dealers had evacuated their office buildings that morning.

As the magnitude of the attacks became clearer Treasury decided to cancel the auction. A markets officer in charge of Treasury auction staff located at the FRBNY told us that it was unclear if they could have executed the auction because of evacuations, structural integrity, and other concerns at the time. Treasury issued a press release on September 12 confirming the cancellation of the 4-week bill auction and that Treasury had no plans for rescheduling the auction. Treasury officials determined that canceling the auction would not damage Treasury's reputation for "regular and predictable" auctions, given the nature of the attacks.

Treasury Relied on Compensating Balances to Help Meet Its Debt Obligations

Treasury decided on September 11 to initiate procedures to withdraw almost $13 billion of compensating balances—noninterest-bearing cash balances that Treasury used to compensate banks for various services—to make up for the cash shortfall associated with the cancellation of the $10 billion 4-week bill.[19] Treasury officials told us that they wanted to pull back as much cash as possible and as quickly as possible without harming the financial position of the banks. Treasury's ending operating cash balance on September 11 was just a little over $11 billion, which would

[18] According to Treasury, the Bureau of Public Debt—a bureau of the Treasury—could have conducted the auction since its systems were available and operational.

[19] The total impact on Treasury's cash balance resulting from the cancellation of the auction was a shortfall of $11.5 billion, including $1.5 billion of Federal Reserve holdings scheduled to be rolled into the 4-week bill. So, other things being equal, Treasury would have had to pull $11.5 billion in compensating balances to make up for the cancellation of the 4-week bill.

have been insufficient to pay off maturing 4-week bills on September 13, meet Treasury's other obligations, and maintain the $5 billion target in its Federal Reserve account.

Treasury contacted banks across the country holding compensating balances on September 11 and asked them to confer with other bank executives and consider whether withdrawing a total of $12.6 billion on September 13 would cause any harm to the banks' operations. The banks responded that the withdrawals would not, and according to senior Treasury officials, also offered to help Treasury in any way during the crisis. Treasury transmitted formal letters on September 12 specifying amounts to be withdrawn on September 13. On that date Treasury received the $12.6 billion from compensating balances and returned posted collateral to applicable banks. Treasury did not pay any penalties because compensating balances could be withdrawn by Treasury at any time, and no telecommunications problems were encountered in completing the transfers.

Treasury Met Its Debt Obligations on Time, Resumed Auctions within a Week, and Replaced Compensating Balances within 10 Business Days of the Attacks

Treasury paid almost $43 billion in maturing bills (including about $11 billion of maturing 4-week bills) and received about $35 billion from issuing bills on September 13. Additionally, on September 13 Treasury announced its intention to auction 13- and 26- week bills and executed the auction on September 17, 2001, awarding almost $35 billion, resuming its normal auction schedule. In deciding to resume auctions, Treasury held conversations with market participants and the FRBNY who conveyed that the market was ready to bid on auctions. The September 17 auction proceeded normally according to one senior debt management official and bid-to-cover ratios[20]—a commonly cited measure of auction performance and market demand for securities—were similar to the 13- and 26-week bill auctions held just before September 11.

[20] The bid-to-cover ratio is the ratio of the amount of bids received in a Treasury security auction compared with the amount of awarded bids. The 13-week bill auction on September 10, 2001, resulted in a bid-to-cover ratio of 2.06, and the September 17, 2001, auction resulted in a ratio of 2.31. The 26-week bill auction on September 10, 2001, resulted in a bid-to-cover ratio of 2.29, and the September 17, 2001, auction resulted in a ratio of 2.19.

Finally, Treasury replaced $11.2 billion of compensating balances on September 21 and another $2 billion on September 24.[21] Banks were required to pledge certain types of collateral to secure compensating balances and one bank could not pledge enough collateral until September 24.

Compensating Balances Are No Longer Used

Treasury replaced compensating balances with direct payments to banks for certain services in 2004.[22] This effectively eliminated the alternative source of funds Treasury had drawn on during the September 11 attacks. Compensating balances were—as the name implies—noninterest-bearing balances deposited in banks to compensate them for collecting tax and nontax receipts. Banks could make loans or buy investments with the compensating balances, which were fully collateralized.

The amount of any compensating balance was determined by Treasury based on specified interest rates.[23] Current Treasury officials told us that they did not view compensating balances as a substitute cash backup source except in extraordinary circumstances. Further, a combination of circumstances starting in 2002 made compensating balances "inefficient and disruptive" for Treasury.[24] Declining interest rates required increases in balances while the need to stay under the debt-limit[25] required decreases in balances, which later had to be reversed and increased to unusually high levels. For example, September end-of-month compensating balances

[21] Treasury replaced $12.6 billion in compensating balances and deposited an additional $0.6 billion in compensating balances based on certain requirements that determined the amount.

[22] Section 218 of the Transportation, Treasury, and Independent Agencies Appropriations Act, 2004, Pub. L. No. 108-199, Div. F, 118 Stat. 279, 321 (Jan. 23, 2004), established a permanent, indefinite, appropriation for Treasury to reimburse financial institutions for depository and financial services previously reimbursed by means of compensating balances.

[23] The banks' compensation for performing these services was based on the imputed earnings from the compensating balances calculated at the 91-day Treasury bill rate. Treasury determined the amount to deposit by comparing the value of services provided with the imputed earnings on the compensating balances.

[24] U.S. Office of Management and Budget, *Budget of the U.S. Government, Analytical Perspectives, Fiscal Year 2006* (Washington, D.C.: 2005), p. 249.

[25] The debt limit is a legal ceiling on the amount of gross federal debt (excluding some minor adjustments), which must be raised periodically by Congress to accommodate additional federal borrowing.

increased from about $6 billion, to $13 billion, and then to $27 billion in fiscal years 2000, 2001, and 2002, respectively. Treasury began to phase out compensating balances in 2003 and drew down the compensating balances to zero in 2004.

The Federal Reserve Used a Number of Methods to Provide Liquidity to Domestic and Foreign Financial Institutions

Consistent with its goal of maintaining the stability of the financial system and containing systemic risks, the Federal Reserve took action in response to the attacks' financial effects. The Federal Reserve communicated that it was available as a source of liquidity and provided billions of dollars through various means to banks and financial market participants experiencing liquidity problems as a result of the September 11 attacks.

The Federal Reserve announced its willingness to provide liquidity on September 11 several times via systems and official statements. For example, soon after the attacks the Federal Reserve broadcast that it was fully operational on the Fedwire system—the Federal Reserve's large-value electronic payment system. In a second broadcast message it announced that it was available to meet liquidity needs. Around noon, the Federal Reserve Board of Governors issued a press release stating that "The Federal Reserve System is open and operating. The discount window is available to meet liquidity needs." These statements along with others by a Federal Reserve governor and a Federal Reserve bank president on that day[26] were intended to reassure financial markets that the Federal Reserve System was functioning normally and to encourage banks to view the discount window as a source of liquidity. According to a then Director of Research at the Federal Reserve Bank of Richmond who has since become that bank's President, the statements also signaled to banks a "distinct" shift in how the Federal Reserve would view discount window borrowing.[27]

The Federal Reserve provided liquidity through discount window and open market operations. We previously reported that banking regulatory staff told us that the attacks largely resulted in a funding liquidity problem

[26] See statements by Federal Reserve Governor Edward Gramlich and Federal Reserve Bank of New York President William McDonough in Jeffrey M. Lacker, "Payment System Disruptions and the Federal Reserve Following September 11, 2001," *Journal of Monetary Economics*, vol. 51, issue 5 (July 2004), 935-965.

[27] See Jeffrey M. Lacker, "Payment System Disruptions and the Federal Reserve Following September 11, 2001," *Journal of Monetary Economics*, vol. 51, issue 5 (July 2004), 935-965.

rather than a solvency crisis for banks.[28] Thus, the challenge the Federal Reserve faced was ensuring that banks had adequate funds to meet their financial obligations. Settlement problems also prevented broker-dealers and others from using the repo markets[29] to fund their daily operations. In 4 days after the attacks, the Federal Reserve provided billions of dollars to banks through various means to overcome the problems resulting from unsettled government securities trades and financial market dislocations. For example, the Federal Reserve provided $37 billion in overnight credit through its discount window on September 11, $46 billion on September 12, and $8 billion on September 13. In contrast, no overnight discount window credit was provided on September 10 and September 14. It also conducted securities purchase transactions and other open market operations to provide needed funds to illiquid institutions. For example, the Federal Reserve held a zero end-of-day balance in overnight repos on September 10 and September 11, but end-of-day balances increased to $38 billion on September 12 and peaked at $81 billion on September 14 during the 4 days following the attacks. In addition, the Federal Reserve waived daylight overdraft fees for all account holders and eliminated the penalty on overnight overdrafts for depository institutions from September 11 through September 21. Had these actions not been taken, some firms unable to receive payments may not have had sufficient liquidity to meet their other financial obligations, which could have produced other defaults and magnified the effects of September 11 into a systemic solvency crisis.

The Federal Reserve provided additional liquidity by continuing its normal check crediting schedule despite delays in transportation. The grounding of air transportation complicated and delayed some check clearing, since both the Federal Reserve and private providers relied on overnight air delivery to transport checks between banks in which they are deposited and banks on which they are drawn. The Federal Reserve continued to credit the value of deposits to banks even when it could not present checks and debit the accounts of paying banks. The Federal Reserve decided to not offset this float through open market operations to continue providing liquidity. Crediting banks for deposited checks before receiving the corresponding credit from banks on which the checks were

[28] GAO, *Potential Terrorist Attacks: Additional Actions Needed to Better Prepare Critical Financial Market Participants*, GAO-03-414 (Washington, D.C.: Feb. 12, 2003).

[29] Repo or a repurchase agreement is a form of short-term collateralized borrowing used by dealers in government securities. See GAO-06-269 for more information on repurchase agreements.

drawn causes float. This additional liquidity—normally less than $1 billion outstanding at any one time—peaked at over $47 billion on September 13, 2001.

To provide dollars needed by foreign institutions, the Federal Reserve also arranged new or expanded swap lines with the Bank of Canada, the European Central Bank, and the Bank of England. The swap lines involved exchanging dollars for the foreign currencies of these jurisdictions,[30] with agreements to re-exchange amounts later. These temporary arrangements provided funds to settle dollar-denominated obligations of foreign banks whose operations were affected by the attacks.

According to a Federal Reserve official, the large injections of liquidity were also necessary in part to offset large reserve drains from other autonomous factors—factors that affect the supply of balances but are generally outside the control of the Federal Reserve. For example, as previously noted, the level of check float peaked at $47 billion on September 13 and a foreign currency swap added $20 billion of balances on that same day, but another autonomous factor reduced balances by over $30 billion on that day, which was between $15 billion and $20 billion more than prior levels.

To further increase liquidity, the Federal Open Market Committee (FOMC)[31] announced on September 17 that it would lower its federal funds target rate by 50 basis points[32] to 3 percent and the Federal Reserve Board of Governors approved a 50 basis point reduction in the discount rate to 2-1/2 percent.[33] In its announcement the Federal Reserve stated that it would "continue to supply unusually large volumes of liquidity to the financial markets, as needed, until normal market functioning is restored." The FOMC acknowledged that the actual federal funds rate might fall below its target in this situation. According to a then Director of Research

[30] Although swap lines permitted up to a total of $90 billion to be exchanged, the maximum foreign currency swap during this period was about $20 billion on September 13, 2001.

[31] As part of the Federal Reserve, the Federal Open Market Committee oversees open market operations, which are used to implement monetary policy on a day-to-day basis.

[32] One basis point is equal to 1/100th of a percent. Thus, 50 basis points are .50 percentage points.

[33] The Federal Reserve Board of Governors exercises general supervision over the operations of the Federal Reserve banks. The Federal Reserve banks establish the discount rates subject to review and determination of the Federal Reserve Board of Governors.

at the Federal Reserve Bank of Richmond, who has since become that bank's President, market participants expected a decline in the federal funds rate driven perhaps by the large amount of liquidity injected by the Federal Reserve, creating excess reserve balances.[34]

Market participants typically use government securities as collateral for financing or to meet settlement obligations. When some broker and bank facilities were destroyed or lost connectivity, the results of trading information, such as amounts of securities or funds to transfer and the ability to transfer funds, were lost or degraded for days. If trade information is not correct and funds and securities are not properly transferred, the trade will be considered a "fail." To help alleviate failed trades resulting from the attacks, the Federal Reserve and Treasury loaned and auctioned securities respectively. From September 11 through September 13, the Federal Reserve loaned $22 billion of securities from its portfolio to broker-dealers that needed securities to complete settlements of failed trades. The Federal Reserve also reduced restrictions on its securities lending, leading to a sharp increase in borrowing at the end of September 2001.[35]

Treasury also conducted an unplanned, special issuance of 10-year notes in order to prevent a possible financial crisis.[36] According to current and former Treasury officials involved with this decision, on September 17 it became evident that the stopped and incomplete trading on September 11 resulted in increasing fails in the secondary market. Treasury officials described how a rapid rise in fails at the end of September and beginning of October was based on demand for the 5- and 10-year notes. After conferring with capital market participants who recommended a reopening, or increasing the amount outstanding, of the 5- or 10-year notes, Treasury officials decided to reopen the 10-year note. They reasoned that since the note was already scheduled to reopen in November, investors—-who were anticipating the November reopening—would be better prepared for the issuance than for a 5-year note. Treasury officials concluded that the additional supply of the 10-year note produced

[34] See Jeffrey M. Lacker, "Payment System Disruptions and the Federal Reserve Following September 11, 2001," *Journal of Monetary Economics*, vol. 51, issue 5 (July 2004), 935-965.

[35] The Federal Reserve loans out securities from its System Open Market Account (SOMA) subject to certain limits. The Federal Reserve suspended per dealer limits on SOMA holdings on September 11 and further loosened terms on September 13.

[36] GAO-03-414.

a positive "psychological" effect on markets by providing increased confidence about the certainty of supply helping to decrease fails in the 5- and 10-year notes trades.

Some Federal Reserve Actions and Financial Market Behavior Are Informative When Considering Alternative Funding Sources for Treasury

Immediately after the September 11 attacks, many financial institutions, including some foreign central banks, looked to the Federal Reserve to provide liquidity through various methods. As Treasury considers potential financial institutions for funding sources during a wide-scale disruption, it will need to remain cognizant of the fact that the Federal Reserve was, is, and potentially will be, the provider of liquidity for many financial institutions in a crisis. Further, the amount and terms of the liquidity provided by the Federal Reserve to financial institutions will likely affect the characteristics of any funding alternatives available to Treasury. As discussed previously, the Federal Reserve eased restrictions and lowered interest rate targets to provide expanded liquidity to financial institutions. Finally, the market fails and other collateral issues in the secondary market may affect the type of security Treasury will want to issue in a crisis. Treasury officials recognize that during a crisis, investors tend to exhibit a "flight-to-quality" behavior, moving their capital away from riskier investments to safer investment vehicles, such as U.S. Treasury securities. These considerations are discussed later in this report.

Since the Attacks, Treasury and the Federal Reserve Have Added Staffed Locations and Data System Capability Intended to Increase Auction Resilience

After an auction is announced, the critical functions that must occur without interruption for Treasury to raise the required funds from the issuance of Treasury securities are (1) auction, (2) prepare issue file, (3) issue securities, and (4) cash transfer (see fig. 2). If any of these functions are disrupted, Treasury would not be able to obtain the cash needed from an auction. During the September 11 attacks, Treasury and the Federal Reserve, acting as Treasury's fiscal agent, had two operational locations to conduct auctions, one operational location to prepare files with important issuance information, one operational location to issue securities, and one operational location with a secondary location—which could be activated if necessary—to transfer cash. Since then, Treasury and the Federal Reserve have added locations for all of Treasury's critical auction process functions.

Treasury depends on certain systems to auction and issue its securities. The critical systems that must be operational for an auction to occur and for Treasury to receive the funds from that auction are (1) the auction system which receives and processes bids for securities, (2) the funds and securities transfer system, (3) the book-entry accounting system, and

(4) the cash reporting system. In addition, since the September 11 attacks the Federal Reserve has strengthened its out-of-region data system capability. Figure 2 describes each of these processes and associated systems.

Figure 2: Four Major Processes Must Be Performed for Treasury to Receive Its Cash After Announcement

Auction	Prepare issue file	Issue securities	Cash transfer
Bids are electronically submitted to the securities auction system. In the event that a bidder cannot access the auction system, bids can be accepted by phone. The auction system automatically calculates the auction results and determines the award price and winners based on the bid information submitted. If the auction system is not available, bids can be calculated and awarded manually.	Auction staff transfers the data, including the awarded bidders, award price, and delivery instructions for the securities, to an issuance file. After verifying that the file is correct, auction staff at either Treasury or the Federal Reserve provide the file to Federal Reserve staff responsible for issuing the securities.	On issuance day, usually a few days after auction day, the Federal Reserve staff releases the securities into the book-entry accounting system. At this time, the funds and securities transfer system generates acknowledgments indicating that the securities were released. Simultaneously, the book-entry accounting system issues securities versus payment by debiting the awarded bidder's account for the payment amount of the security.	Entries are made into the cash reporting system for cash received by the Federal Reserve for issued securities. After these entries are made, the Federal Reserve, through its New York bank, transfers the cash to the Treasury General Account for the securities sold.

Source: GAO.

Treasury and the Federal Reserve Have Added Sites for All Four Critical Functions Since the September 11 Attacks

Treasury and the Federal Reserve have added sites that are geographically separated from each other for all four of Treasury's critical auction functions, as seen in figure 3. Contingency sites are located in different geographic regions and do not require staff to relocate from the primary site, while backup facilities are generally located in the same region as the sites they are intended to backup. For example, staff would relocate from a primary site, like site A in figure 3, to the cold backup facility listed under site A in a contingency.

Figure 3: Current Operations of the Auction and Issuance of Marketable Treasury Securities

Function	Locations	Locations	Locations	Locations
Auction	Site A–hot *(with cold backup facility)*	Site D–hot	Site F–hot	
Prepare issue file	Site A–hot *(with cold backup facility)*	Site D–warm		
Issue securities	Site B–hot *(with cold backup facility)*	Site E–warm		
Cash transfer	Site B–hot *(with cold backup facility)*	Site G–cold	Site H–cold	Site C–cold

Source: GAO.

Notes: Gray sites have been added since the September 11 attacks.

A hot site is generally staffed and has systems operating during the routine performance of the function. Hot sites simultaneously perform the function.

A warm site is generally staffed and has systems operating on a periodic basis (i.e., bi-weekly) or is aware and ready to take over when necessary during the operations of the function.

A cold site is generally not staffed to perform its associated function on a routine or nonroutine basis until the organization deems it necessary due to some contingency.

Auctions can now be performed at three operational locations with one backup facility. All three locations are fully operational for every auction.

Issuance files can now be prepared at one operational location with a backup facility and one semi-operational location. Site D is geographically separated from site A, periodically performs the functions for specific auctions, and can be immediately activated to perform the tasks of this function. Further, site A has trained staff at its backup facility that can perform the tasks of this function after being notified of a contingency situation or event.

Securities can now be issued at one operational location with a backup facility and one semi-operational location. Site E periodically performs the function of issuing securities for specific auctions approximately once every 2 weeks. This site is also geographically located in another region.

The cash transfer function has added two cold contingency locations since September 11, 2001. Site B is the primary location and sites G and H are the secondary locations, which are geographically separated from site B and can be activated in the case of a contingency event. Site C is now a third contingency location that was a secondary location at the time of the September 11 attacks.

Treasury Alternates Sites to Process Auctions and Conducts Mock Auction Tests

Treasury periodically switches auction processing between sites during live auctions to test their readiness and conducts mock auctions. For example, in one exercise, Treasury directed one site to take over the auction processing from another site during a live auction. Treasury reported the test a success since staff demonstrated their ability to "seamlessly" take over and perform auction closing procedures, release auction results, and complete other normal post-auction activities. In another exercise, Treasury conducted a manual mock auction to expose staff to an atypical situation and reported achieving its objective of calculating auction results within 2 hours.[37]

Treasury Has Adopted a Flexible Contingency Policy for Auction Disruptions

In April 2003, Treasury began discussing options for postponing a scheduled auction "when the market is operating in a contingency or extraordinary environment" with dealers. In July of that year, Treasury presented dealers with a matrix of contingencies and Treasury responses, shown in table 1.

[37] Calculating results within 2 hours assumes all bids have been received and processed.

Table 1: Matrix Treasury Presented to Dealers on Potential Responses to Contingencies

Contingency	Treasury response
Treasury/Fed operational/technical problems	Delay auction.[a] Notify market of specific length of delay (e.g., 1 hour).
Treasury/Fed systems failure	Reschedule auction. Notify market of rescheduling with specific date and time if possible. If not immediately possible, provide follow-up with specific date and time as soon as feasible.
Bidder connectivity disrupted (some participants affected, auction still covered)	Response will depend on strength of auction coverage. If delay is necessary, then notify market of specific length of delay (e.g., 1 hour).
Bidder connectivity disrupted (many participants affected, auction not covered)	Delay auction.[a] Notify market of specific length of delay (e.g., 1 hour).
Independent of connectivity auction not covered	Delay auction.[a] Notify market of specific length of delay (e.g., 1 hour).

Source: U.S. Treasury.

[a]If an auction is delayed for any reason, Treasury will notify the market of the delay and the new closing time. In all cases, a delay will cause Treasury to reject all competitive bids already tendered and participants will need to resubmit competitive bids when the auction resumes.

Treasury gathered feedback from participants and concluded a more flexible contingency approach would be appropriate. Treasury told us that some dealers suggested that writing rules for various contingencies may be too burdensome and that it may be to Treasury's advantage to remain discreet on how certain auction fails will be handled. For example, in the case where one or two dealers have missed the auction, and if the auction was covered sufficiently, then Treasury may want to complete the auction without the missing parties. Treasury told us that it needs a flexible approach because there are an "infinite number of possible situations" to which it might have to respond, so the best it can do is provide general guidelines about how it will respond. According to Treasury, the matrix of Treasury responses to a number of possible contingencies was generally considered comprehensive and reasonable by the dealers they interviewed.

The Bond Market Association (TBMA)[38] commended Treasury for developing the matrix of possible circumstances, but encouraged Treasury to expand its list of contingencies to include actions Treasury would take in the face of extraordinary circumstances such as natural disasters, terrorist attacks, suspension of trading, or a disruption to the clearance and settlement system. TBMA proposed that Treasury delay and reschedule an auction in these circumstances, while notifying the market with a specific date and time if possible or provide this information as soon as feasible. The association predicted that market participants would likely support the decision to delay the auction, assuming the securities were still auctioned and settled by the originally announced issuance date. TBMA stated that it was unclear what the impact of these circumstances would be on future auctions.

This discussion process resulted in the following Treasury statement in February 2004: "Treasury will conduct any announced auction that is disrupted within an hour of the originally scheduled time and in the event that circumstances and conditions are such that a one hour postponement cannot be met, Treasury will communicate information to market participants as it becomes available."

Primary Dealers Have Taken Actions Intended to Increase Their Resilience and Treasury Has Suggested Additional Improvements

All primary dealers have contingency sites. According to Treasury, most primary dealers have systems that link directly to Treasury's auction systems at their contingency sites and have conducted connectivity tests to ensure they could participate in an auction from their contingency sites if required. Because of the nature of the financial markets, almost all primary dealer contingency locations are within the same geographic region as their primary sites. Treasury periodically visits dealers, and has suggested improvements in systems and testing for many dealers. According to 14 dealers with whom we spoke, dealer personnel are cross-trained to bid on and complete auctions for all types of Treasury securities.

A Treasury official with whom we spoke noted that the nature of financial markets encourages the close proximity of staff. A professor of economics has stated, "high density levels are particularly conducive to chance meetings, regular exchanges of new ideas, and the general flow of

[38] TBMA is an industry association representing participants in the government securities and other debt markets.

information" [39] that aid in the rapid access to information that is crucial to financial markets. This likely helps to explain why almost all primary dealers' primary sites are within the same geographic region. All 23 primary dealers also have at least one contingency site for their operations, generally in the same geographic region as their primary sites, since most primary dealers plan on relocating their staff from their primary sites to their contingency sites during a wide-scale disruption. Treasury expects this migration might take several hours. Treasury also expects it might have to postpone an auction for a day, depending on the severity of the disruption, so dealers have enough time to report to their contingency sites.

According to Treasury officials, 17 primary dealers[40] have added systems at their contingency sites that directly link with Treasury auction systems and have successfully tested the connectivity of these systems. Treasury encouraged dealers to add these systems and offered cost information on these systems so dealers could more easily consider the systems implementation. All of the dealers have the ability to submit auction bids via the Internet or phone at their contingency sites.

Eight dealers[41] have told Treasury that they have participated in live auctions from their contingency sites, but Treasury told us that its auction systems do not automatically track whether or not dealers are participating in auctions from contingency sites. Treasury has encouraged dealers to conduct live auction tests from their contingency sites and plans to continue to work with primary dealers to increase their resiliency by developing test plans for primary dealers to participate in mock auctions. One dealer expressed reservations about participating in an auction from a contingency site because it would not want to take bids from traders over the phone, while another dealer stated that it planned to conduct a mock auction before participating in a live auction from the contingency site.

Primary dealers we spoke with said they have cross-trained their staff to participate in auctions of different Treasury securities and told us that they have sufficient staff trained to participate and provide backup

[39] Edward L. Glaeser, "Urban Colossus: Why is New York America's Largest City?" *FRBNY Economic Policy Review* (December 2005), p. 22.

[40] As of August 2006, 3 additional primary dealers have installed systems that directly link with Treasury auction systems and are in the process of conducting user tests.

[41] As of August 2006.

support. These same dealers estimated about 15 to 20 people per dealer are involved in the Treasury auction process, including support personnel. While some dealers indicated that their overseas staff are able to participate in auctions, other dealers expressed reservations about the readiness of their overseas staff to bid on auctions. In addition, while some dealers report having backup personnel for traders and multiple sites, one reports that backup personnel are in the same location as traders, and most plan on relocating their staff from primary locations to their contingency sites during a wide-scale disruption.

Despite Actions Intended to Increase Auction Resilience, Exploring Funding Alternatives Outside of the Auction Process Is Appropriate

Regardless of the progress of resiliency efforts, the nature, duration, and effects of any potential future wide-scale disruption are unknown. In addition, since compensating balances are no longer used, Treasury has at least one less source of funds to rely upon. Current Treasury officials stated they had not viewed compensating balances as a cash source except in extraordinary circumstances such as the September 11 attacks, and a former Treasury official acknowledged that compensating balances provided extra flexibility for Treasury. Finally, Treasury's cash management policy of maintaining minimal cash balances to lower borrowing costs further limits Treasury's access to cash during a wide-scale disruption. The combination of these factors makes it prudent for Treasury to explore alternative backup funding options to use during a wide-scale disruption. The relevant parties with whom we spoke, including primary dealers, agreed.

Relevant Parties Validated Design Features and a Potential Tiered Approach to Treasury Funding Options Has Emerged from Discussions

These parties also generally agreed that the main design features to be considered when weighing alternatives for backup funding options are the situations for use, source of funds, type of collateral, transaction type, approvals, determination of cost, amount limit, time limit, inclusion under debt ceiling, disclosure, and length of authority (if required). However, the specifics would depend on proposed options. For example, some parties thought that borrowing from the Federal Reserve should require higher level approval than borrowing from financial institutions.

Discussions with Treasury and Federal Reserve officials and other relevant parties have led us to conclude that a two-tiered approach could enhance Treasury's ability to obtain funds during a wide-scale disruption. We discussed design features and broad options with relevant parties and progressively adjusted options based on comments and our own analysis. The two-tiered approach is suggested as a strategy to be used only when auctions are not viable based on some sort of wide-scale disruption to the financial markets that Treasury relies upon, and not as a substitute or complement to Treasury's normal auction process when market prices become expensive, or cash balances are lower than expected. The first tier consists of two funding options involving a range of appropriate financial institutions, namely (1) a credit line and (2) a private placement of a CM bill. The second tier involves a direct draw from the Federal Reserve that would provide Treasury a last resort source of funds when other options are not viable. Under this system, Treasury would first seek to use the credit line and/or the private placement of a CM bill. Then, if and only if those options are not available or insufficient, would it turn to the Federal Reserve.

Any system for obtaining cash from financial institutions—whether through a line of credit or private placement of a CM bill—may, in a crisis, ultimately depend on the Federal Reserve to provide liquidity to those institutions.[42] One party suggested the viability of a credit line or a private placement of a CM bill would likely be enhanced if these options involved depository institutions that could borrow from the discount window. Most market participants with whom we spoke preferred a direct draw authority for the Treasury. Although that might be the most direct route, we recognize the importance of maintaining the independence of the central bank. For example, some economists believe that if a central bank regularly lends money to the government (Treasury), it would lead to an expansion of the monetary base and inflation and the expectation that the central bank would lend to the government whenever the government wants.

The Committee on Banking and Currency also recognized the importance of central bank independence in the establishment of the Federal Reserve in 1913. In its report the committee stated, "It can not be too emphatically stated that the committee regards the Federal reserve board as a distinctly nonpartisan organization whose functions are to be wholly divorced from politics. In order, however, to guard absolutely against any suspicion of political bias or one-sidedness, it has been deemed expedient to provide in the law against a preponderance of members of one party."[43]

[42] The Federal Reserve's regular lending authority generally extends only to depository institutions.

[43] H.R. Rep. No. 63-69, at 43 (1913).

A tiered approach would recognize independence concerns, offering both flexibility and protection against the potential for abuse because of its two-stage structure. The availability of the first tier would provide Treasury an extra option(s) outside of its normal auction process to obtain funds making it less likely that Treasury would have to go to the second tier, the Federal Reserve, as a last resort funding option.

Some relevant parties with whom we spoke noted that consideration of how any funding option would interact with the debt ceiling is important to consider given the number of times in recent years Treasury has operated in an environment under debt ceiling constraints, including debt issuance suspension periods (DISP).[44] A wide-scale disruption such as occurred on September 11 could also result in a delay in congressional action to raise the debt limit. This in turn could worsen any problems in the government's ability to finance operations. Given this, some relevant parties suggested that if a wide-scale disruption occurred when Treasury was at or near the debt limit, use of any alternative funding option during such a disruption should be excluded from the debt ceiling. Others argued that any funding options should be included in the debt ceiling to prevent having the options become a tool to evade the debt ceiling.

Primary dealers we spoke with stated that if Treasury did postpone an auction and use any of these funding options, they preferred that Treasury resume auctions as soon as possible. They also expressed a strong desire to maintain the originally scheduled settlement date, even if an auction had to be performed on the settlement date.

In addition, the impact on the Federal Reserve of replacing an auction with one of these options would have to be considered since the Federal Reserve places bids to replace its existing securities inventories at many Treasury auctions. Other options we discussed but were less viable are summarized in appendix I.

Obtain a Line of Credit with Financial Institutions

A credit line would provide Treasury a prior transparent commitment or understanding with several financial institutions to provide funds to Treasury during a wide-scale disruption. The financial institutions would

[44] When debt is nearing the statutory limit, Treasury has to take a number of extraordinary steps to meet the government's obligation to pay its bills while keeping under the debt ceiling. DISPs have been declared for certain periods in fiscal years 2002, 2003, 2005, and 2006. For more information on DISPs see GAO-06-269 and GAO-04-526.

have to have the willingness and capability to lend money to Treasury in the appropriate amount and time required by Treasury. Treasury could select the financial institutions through a bidding process or other procedure on a periodic basis that could help determine and perhaps lower any required fees or costs that this arrangement would entail. Canada and France have similar borrowing arrangements with financial institutions. For example, Canada has a $6 billion (U.S.) standby line of credit with a syndicate of international banks. Also, according to a French debt management official, France has credit lines with some primary dealers on which it could draw during a wide-scale disruption.

Some primary dealers suggested that Treasury seek such a line of credit with a broad range of financial institutions that could include not only commercial banks but also institutional mutual funds and others who could meet Treasury requirements. Another party suggested that institutional mutual funds may not be practical because these funds typically obtain cash by selling short-term assets, which might not be possible in a crisis.

Some parties, including commercial bankers with whom we spoke, stated providing liquidity to Treasury based on a formal line of credit might require regular maintenance fees to offset costs associated with the treatment of regulatory capital for the line of credit under U.S. and international capital standards. However, since funds would be lent to the U.S. Treasury, it is unclear if this arrangement would be subject to the same requirements as guaranteeing credit to other borrowers.[45]

Some commercial banks raised the possibility of a prearranged understanding with Treasury instead of a formal commitment. Since an understanding is not a formal commitment, it would not impose costs on banks, and so might not require any maintenance fees. These commercial bankers told us that they would very likely lend funds to Treasury because it is in their financial interest to ensure that Treasury can make its payments, but that such an understanding would be subject to fulfilling their own liquidity needs in a time of crisis. As discussed previously, and

[45] Some commercial bankers we spoke with said that certain international banking capital accords would require them to incur costs if a credit line is guaranteed. Another party thought that banks would not necessarily incur costs because guaranteeing credit to the U.S. Treasury may be viewed differently under those accords. U.S. banking regulators are currently determining the application of a new approach to calculate regulatory credit risk capital requirements based on a new international capital accord.

given the actions taken during the September 11 attacks, it seems likely that the Federal Reserve would be available to provide commensurate liquidity to depository institutions. Federal Reserve officials we spoke with said that an obligation from Treasury would likely be accepted as sufficient collateral by a depository institution at the discount window. Although an understanding could avoid fees, it does not offer the certainty of a committed line of credit for Treasury's use.

Private Placement of a Cash Management Bill

A private placement of a CM bill would involve a prior arrangement to issue a CM bill after communicating with certain senior executives at financial institutions who would have the ability and authority to purchase a CM bill that meets Treasury's immediate funding needs. The specific terms of the CM bill, such as amount, yield, settlement date, and maturity, would be determined at the time of CM bill placement. Similar to the credit line option, some market participants suggested that Treasury seek a broad range of financial institutions that could include not only commercial banks but also institutional mutual funds that could meet Treasury requirements. The Federal Reserve would again likely provide liquidity to depository institutions. Since this option involves delivering a security, clearing and settlement systems would have to be functioning adequately to complete transactions.

Some parties told us that the market would react positively to accepting a tradable security like a CM bill because it fits well with their normal operations and implied that Treasury may benefit from flight-to-quality behavior in a crisis. Some parties also commented that this option was appropriately aligned with Treasury's current operations, since Treasury is used to issuing CM bills and has auctioned and issued CM bills in 1 day under normal conditions.

Among a number of policy and operational issues that must be considered before Treasury could place a cash management bill, Treasury would have to decide how to set an appropriate price when it executes this arrangement. During a wide-scale disruption to financial markets, price-discovery—the process that determines an appropriate clearing price at auction—would likely prove challenging to financial institutions because of degradation in the financial market.

Explicitly Authorize a Treasury Draw Authority with the Federal Reserve

In the event that the first tier options involving financial institutions proved insufficient, turning to the Federal Reserve as a last resort funding source would require a change in law to allow the Federal Reserve to directly lend to Treasury. Appropriate limitations, adequate flexibility, and accountability would have to be included in the design.

As we previously discussed, primary dealers and commercial bankers generally agreed that this was the most resilient and direct way for Treasury to ensure it met its obligations. Some Treasury and Federal Reserve officials we spoke with also confirmed that this method would likely be technically and operationally easy to implement. In addition, despite central bank independence concerns discussed previously, primary dealers and commercial bankers we spoke with stated that they did not think this arrangement would damage Treasury's or the Federal Reserve's reputation if it is used in a limited way during a wide-scale disruption.

Although direct lending by a central bank is not without precedent, it is viewed as a last resort. For example, although the Canadian federal government has legal authority to borrow directly from the Bank of Canada—its central bank—this legal authority was last used in the early 1960s and is not expected to be used in the future.

Some parties, including Federal Reserve officials, expressed concerns about any direct lending arrangement and the potential for abuse of such authority in the future. They thought a high hurdle would be appropriate for using this authority. For example, one Federal Reserve official emphasized that this option should only be considered during a situation where it was "physically impossible" for Treasury to conduct auctions and after judgment is reached at suitably high levels in the executive branch and at the Federal Reserve that other options would not work. Another Federal Reserve official stated that it is important to clarify that this option should only be used in a national emergency. Another party concerned with Treasury oversight commented to us that legislation should be written "very tightly" to limit this authority to when it is absolutely required. Some Federal Reserve officials suggested that the approval for a direct draw should be at a very high level—perhaps the President of the United States, Secretary of the Treasury, and the Chairman of the Federal Reserve, and wanted to maintain some veto power on the draw to preserve the Federal Reserve's independence.

Federal Reserve officials concerned with central bank independence and the risks of direct lending stated that any draw from the Federal Reserve should be at a market price, perhaps even higher to discourage use, even though they acknowledged that proceeds from a higher price would eventually be delivered back to Treasury. Some officials suggested that the Federal Reserve should be able to review the draw arrangement daily to ensure it did not last longer than necessary. There was broad agreement among Federal Reserve officials with whom we spoke that the draw should be reversed as soon as Treasury could hold an auction again and that any arrangement should be fully transparent and disclosed by Treasury and the Federal Reserve.

Other parties emphasized the need to maintain some flexibility for Treasury while protecting central bank independence. An approach that appears promising would be to require joint approval from the Chairman of the Federal Reserve and the Secretary of the Treasury. Since a Federal Reserve Chairman is unlikely to agree to a direct draw unless convinced that other options are not viable, this would provide sufficient protection against abuse of this authority. Since the authority is predicated on a wide-scale emergency and disruption, adding presidential approval might unnecessarily delay necessary actions without adding any additional protection beyond that provided by requiring agreement of the Chairman of the Federal Reserve. Both the duration of the draw and the amount might be established at the time the Secretary and Chairman agree to the direct draw.

If the authority is to be provided, a decision on how to facilitate congressional oversight would be necessary. One party concerned with congressional oversight referred to a “delicate balance” between Treasury’s need to obtain funding during a wide-scale disruption and Congress’s need to conduct oversight of debt management. One possibility would be to require notification of the majority and minority leadership in both houses of Congress at the time of a draw and report after the use of this authority in addition to regular reporting requirements. Finally, legislation developing an authority for a direct draw might require periodic review and renewal by Congress.

Conclusion

The combination of minimal cash balances and the elimination of compensating balances have effectively increased Treasury reliance on the auction process as a funding source. Treasury, the Federal Reserve, and primary dealers have taken actions intended to increase the resilience of the auction process. Regardless of resiliency efforts, the duration and the effects of a potential future wide-scale disruption are unknown. All these factors make it prudent to explore other funding options for Treasury to use during a wide-scale disruption.

Although Treasury, the Federal Reserve, primary dealers, and other financial institutions might be able to develop some funding mechanism at the time of a wide-scale disruption, prearranged funding alternatives offer the advantage of explicit legal approaches with adequate built-in oversight and disclosure requirements. One approach discussed earlier requires changes in law. Without having prearranged access to additional funding sources and methods outside of the normal auction process, Treasury is missing an opportunity to strengthen its ability to obtain funds—and ultimately meet payment obligations—during a wide-scale disruption to the financial markets it relies upon. A tiered system that involves a range of private sector financial institutions as a first tier and the Federal Reserve as a second tier would expand Treasury's access to cash and would enhance its ability to obtain necessary funds during a major, wide-scale disruption while limiting the potential for abuse.

Recommendations for Executive Action

We recommend that the Secretary of the Treasury examine in detail the implementation requirements for establishing a line of credit and a private placement of a CM bill with a range of appropriate private sector financial institutions, select the most appropriate option(s), and take steps to put required frameworks into place for use during a wide-scale disruption. Implementation details to be considered for both options include determining the design features discussed earlier, including situations or criteria for use, how to determine the appropriate financial institutions to rely upon, and the amount needed. For the private placement of a CM bill, the cost or price determination method would have to be analyzed since price discovery may not be possible in a significantly degraded financial market. For a credit line, ways to reduce the cost of an understanding or a guarantee of credit would have to be explored, such as a prearranged proposal process that determines the fees (if any) and terms of the transaction. As Treasury explores these options, it should consider how other countries have implemented alternative funding options to obtain any useful insights on its design, recognizing that the U.S. Treasury market has a unique role as the largest and most active debt market in the world.

Matters for Congressional Consideration

Congress should consider providing the Federal Reserve the explicit authority to lend directly to Treasury as a last resort when other options are not viable during a wide-scale disruption. Developing a direct draw authority would require careful consideration and determination of design features and any other requirements to support Treasury's need for an effective funding source, the Federal Reserve's independence, and congressional oversight and accountability concerns. An approach that appears promising would be to require that both the Secretary of the Treasury and Chairman of the Federal Reserve approve any draw and agree on specific amounts and duration at the time of any draw. This might balance independence and accountability concerns with the need for sufficiently prompt action and flexibility.

Agency Comments

We requested comments on a draft of this report from the Secretary of the Treasury and the Chairman of the Board of Governors of the Federal Reserve System. The agencies' letters are reprinted in appendix III and appendix IV, respectively. Both Treasury and the Federal Reserve noted that they had taken steps to increase their resiliency in recent years but agreed that Treasury should examine the first-tier funding options described in this report. Although neither took a position on our suggestion that Congress should consider permitting the Federal Reserve to lend directly to the Treasury, both emphasized the importance of maintaining the independence of the central bank. For example, Treasury stated that it, "is generally opposed to arrangements in which governments, at their discretion, can borrow directly from their central bank as such arrangements compromise the independence of the central bank." Treasury and the Federal Reserve suggested that any legislation that would provide the Federal Reserve the authority to lend directly to the Treasury should be very carefully and tightly drawn to preserve the independence of the central bank. As our report notes, we also recognize the importance of maintaining the independence of the central bank and suggest an explicit, carefully crafted, last resort authority and approach that we believe provides both flexibility and reduces the vulnerability to abuse. Indeed, part of the rationale for a two-tiered approach is to reduce the chances that the Treasury would ever need to turn to the Federal Reserve. Both Treasury and Federal Reserve Board staff also provided technical comments, which we incorporated as appropriate.

We are sending copies of this report to the Ranking Minority Member of the House Committee on Ways and Means, the Chairs and Ranking Minority Members of the House Committee on Financial Services, the

Senate Committee on Finance, the Senate Committee on Banking, Housing and Urban Affairs, the Secretary of the Treasury, the Chairman of the Board of Governors of the Federal Reserve System, and other interested parties. We will also make copies available to others upon request. In addition, the report will be available at no charge on GAO's Web site at http://www.gao.gov.

If you or your staff have any questions about this report please contact Susan J. Irving at (202) 512-9142 or irvings@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff making key contributions to this report are listed in appendix V.

Sincerely yours,

Susan J. Irving
Director, Federal Budget Analysis

Appendix I: Cost and Complexity Rule Out Other Options That Were Discussed

Holding Additional Cash Balances Would Not Be Cost Efficient

Although holding excess cash balances would supply the Department of the Treasury with an extra source of funds to draw from in an emergency, it is generally more cost-efficient to repay debt than run higher cash balances because the interest earned on excess cash balances is generally insufficient to cover borrowing costs. As we previously reported, because of this negative funding spread, Treasury has placed increased emphasis on minimizing cash balances to reduce overall borrowing cost.[1] Treasury's current cash balance target is $5 billion, which represents the amount to be held at the Federal Reserve. Treasury invests excess cash above the $5 billion target in Treasury Tax and Loan (TT&L) accounts,[2] the Term Investment Option (TIO) program, and Repurchase Agreement (Repo) pilot program. TT&L accounts are held at financial institutions and earn interest rates equal to the federal funds rate less 25 basis points, a rate set in 1978 originally intended to reflect the rate paid on overnight repurchase (repo) agreements—a short-term collateralized loan used by dealers in government securities.[3] The rate earned on TT&L accounts is generally less than the average rate Treasury pays on CM and other regular short-term bills. The TIO program was introduced in 2002 to add investment capacity to the TT&L program and to increase the rate that Treasury earns on invested funds. The Repo program is a pilot program that allows Treasury to place a portion of its excess operating funds with TT&L depositories through a repo transaction for a set period of time at an agreed upon rate of interest. Treasury told us that it now places over 70 percent of its cash balances through the TIO and Repo program. Treasury officials with whom we spoke acknowledged that holding additional cash balances would not be a viable option because of the negative funding spread.

[1] GAO, *Debt Management: Treasury Has Refined Its Use of Cash Management Bills but Should Explore Options That May Reduce Cost Further*, GAO-06-269 (Washington, D.C.: Mar. 30, 2006).

[2] The TT&L program helps stabilize the supply of reserves in the banking system. If Treasury held all its cash in its Federal Reserve account, increases in its cash position would drain reserves from the banking system, and decreases would add reserves. Thus, the Federal Reserve would have to conduct frequent and perhaps large open market operations to mitigate undesired fluctuations in bank reserves and the federal funds rate. The TT&L program also helps Treasury manage federal tax receipts and earn interest on public funds.

[3] GAO-06-269.

Foreign Central Banks Add Complexity to Obtaining Funds

Treasury and Federal Reserve officials we spoke with agreed that borrowing from foreign central banks may require some sort of currency conversion, unless the banks had adequate funds in dollars. The currency conversion would presumably have to occur on a very short-term and possibly same day basis. If the foreign central banks did not have adequate dollar-based liquidity, they may have to rely on the Federal Reserve to provide them with liquidity. As discussed previously, the Federal Reserve conducted currency swaps with some foreign central banks to help them fulfill their dollar-denominated obligations. Treasury officials we spoke with acknowledged that although this type of arrangement is possible, it is less promising because of the transactions and currency conversions that would likely be required. In addition, Treasury told us that although most large foreign banks operating in the U.S. have access to the discount window, Treasury would not advocate relying upon these banks for emergency funding.

Appendix II: Background on Previous Treasury Draw Authorities

In the past, Treasury had access to both a cash and securities draw authority. Intermittently between 1942 and 1981, Treasury was able to directly sell (and purchase) certain short-term obligations to (and from) the Federal Reserve in exchange for cash. Congress first granted this cash draw authority temporarily in 1942,[1] allowed it to lapse several times, and extended it 22 times until 1979, when it modified some of the terms and added controls.[2] In 1979, Congress also authorized a securities draw authority, which permitted Treasury to borrow securities from the Federal Reserve, sell them, and then repurchase the securities in the open market and return the securities to the Federal Reserve within a specified period.[3] The securities draw authority was never used.

After Congress authorized Treasury to earn interest on its Treasury Tax & Loan (TT&L) account balances in 1977,[4], [5] Congress allowed both draw authorities to expire in 1981. In a 1979 proceeding, one Member of Congress said that after World War II, the cash draw authority allowed Treasury to carry lower cash balances.[6] According to another Member, since TT&L accounts earned interest, there was no reason for Treasury not to "keep plenty of cash on hand" thereby reducing the need for a draw authority,[7] although the interest that Treasury earned on these accounts was .25 percentage points below the federal funds rate.[8] Current Treasury officials to whom we spoke said that they did not know if the passage of legislation allowing Treasury to earn interest on its TT&L accounts led Congress to allow both draw authorities to expire. Table 2 summarizes the

[1]The cash draw authority lapsed in certain months in 1973, 1974, 1976, and 1977. See H.R. Rep. No. 96-111, 7 (1979).

[2]Treasury Draw Policy, as amended, Pub. L. No. 96-18, sec. 1 (c), 93 Stat. 35 (Jun. 8, 1979).

[3]Pub. L. No. 96-18, sec. 2.

[4]Treasury Tax and Loan Accounts are funds held in accounts at financial institutions in the name of the U.S. Treasury. Their purpose is to dampen fluctuations in bank reserves, process federal tax payments, and provide an interest-earning location for cash.

[5]Public Moneys Investment Act, Pub. L. No. 95-147, 91 Stat. 1227 (Oct. 28, 1977).

[6]125 Cong. Rec. 10081 (1979) (Statement of Congressman Hansen).

[7]125 Cong. Rec. 10080 (1979) (Statement of Congressman Wylie).

[8]The federal funds rate is the interest rate at which financial institutions exchange balances in their accounts at the Federal Reserve with each other on an overnight and unsecured basis.

key design features of Treasury's draw authorities in 1979. A somewhat fuller discussion of each feature follows.

Table 2: Design Features of 1979 Cash and Securities Draw Authorities

Design features	Cash draw authority	Securities draw authority
Situations specified for use	Emergencies, markets closed	More routine for cash management purposes
Source of funds	Federal Reserve Bank System	Financial market (through sale of borrowed securities from Federal Reserve)
Type of collateral	None	None
Transaction type	Direct sale of special short-term certificates to Federal Reserve	Borrow security from Federal Reserve and sell to financial market, repurchase security and return to Federal Reserve
Approvals	Five Governors of Federal Reserve System Board	Federal Open Market Committee
Cost determination	Interest rate of .25 percent below discount rate of Federal Reserve Bank of New York	Market value of securities when Treasury repurchases
Amount limit	$5 billion	No limit
Time limit	No later than 30 days	Repurchase of securities no later than 6 months
Inclusion in debt ceiling	Included in debt subject to limit	Included in debt subject to limit
Disclosure	Annual Federal Reserve report to Congress	None specified
Length of authority	2 years	2 years

Source: GAO.

Situations When Treasury Used Previous Draw Authorities

The Treasury Draw Policy, as amended in 1979 (hereafter, amended Treasury Draw Policy) stated that Treasury could use the cash draw authority in only "unusual and exigent circumstances."[9] In 1979, both Federal Reserve and Treasury officials supported the extension of the cash draw authority for emergencies. A Treasury Assistant Secretary said that Treasury might not have sufficient time to raise funds through the securities draw authority and that the cash draw authority provided Treasury with immediate funds to meet unforeseen developments,

[9]Pub. L. No. 96-18.

especially if these developments transpired late in the trading day.[10] A Federal Reserve Board Governor testified that the cash draw authority functioned well in the past and that Treasury needed this authority to obtain immediate funds when securities markets might be in "general disarray" based on a national emergency.[11] Members of Congress said a number of times that they intended Treasury to use the cash draw authority only in certain situations, such as when military attacks disrupt or close markets.[12] One Member cited examples beyond wartime when the use of the cash draw authority might be appropriate, such as grave health and well-being emergencies or nuclear accidents.[13]

Treasury used previous cash draw authorities infrequently. Between 1942 and 1981, the Federal Reserve held special short-term certificates purchased directly from the Treasury on 228 days. In the years Treasury used this authority, it borrowed on average about 11 days per year. Use of this authority was concentrated mostly in times of war or armed conflict, as seen in figure 4. The most Treasury borrowed on a single day throughout the period was $2.6 billion in 1979.

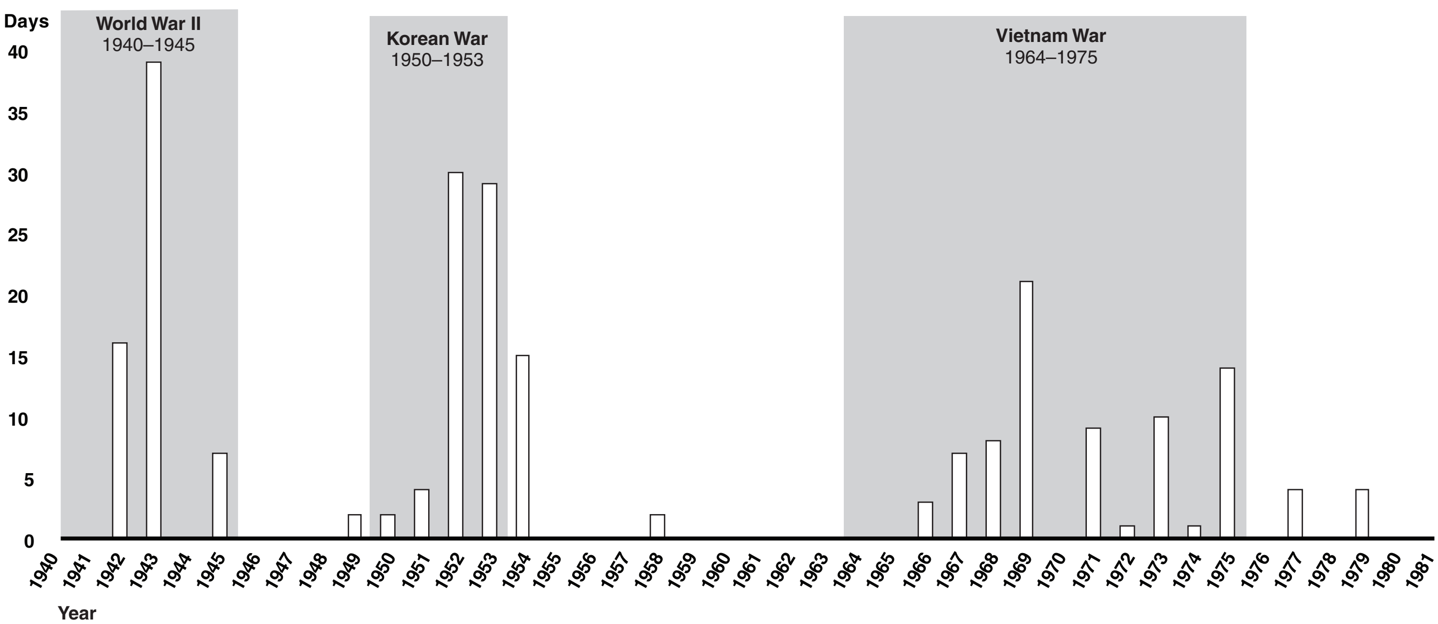
[10] *Federal Reserve-Treasury Draw Authority: Hearing on H.R. 2281 and H.R. 421 before the Subcommittee on Domestic Monetary Policy of the House Committee on Banking, Finance and Urban Affairs*, 96th Cong. 18-20 (1979) (letter from the Honorable Roger Altman, Assistant Secretary of the Treasury, to the Honorable Parren J. Mitchell, Chairman of the Subcommittee on Domestic Monetary Policy, House Committee on Banking, Finance and Urban Affairs, March 16, 1979).

[11] *Federal Reserve-Treasury Draw Authority: Hearing on H.R. 2281 and H.R. 421 before the Subcommittee on Domestic Monetary Policy of the House Committee on Banking, Finance and Urban Affairs*, 96th Cong. 7-8 (1979) (statement of the Honorable J. Charles Partee, member, Board of Governors of the Federal Reserve System).

[12] 125 Cong. Rec. 10081 (1979) (Statement of Congressman Hansen) and 125 Cong. Rec. 10083 (1979) (Statement of Congressman Mitchell).

[13] 125 Cong. Rec. 10083 (1979) (Statement of Congressman Mitchell).

Figure 4: Concentrated Use of Cash Draw Authority 1942-1981
(Days Federal Reserve Held Special Short-Term Treasury Certificates)



Source: GAO analysis of Federal Reserve annual reports.

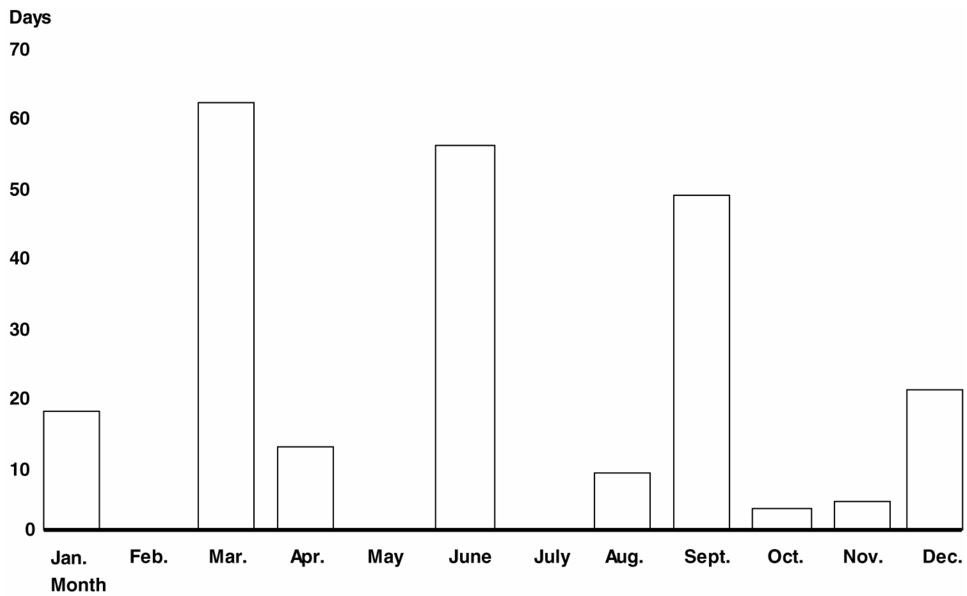
In the years Treasury used the cash draw authority, it most often used it surrounding tax payment dates in March, June, and September and to a lesser extent in January, April, October, and December, as seen in figure 5.[14] In other months, Treasury used this authority for less than 10 days total per month. According to a 1979 testimony by a Federal Reserve Governor, Treasury had used the authority in earlier years to offset cash drains just before funds became available from quarterly income tax payments. He went on to explain that Treasury used the cash draw authority less in recent years since it relied more often on cash management bills to "cover low points in its cash balance" prior to tax payment dates.[15] In that same proceeding, an Assistant Secretary of the Treasury credited the access to

[14]Both corporate and individual estimated tax payment dates occur in April, June, and September. In addition, corporate tax payment dates occur in March, October, and December. An individual estimated tax payment date also occurs in January.

[15]*Federal Reserve-Treasury Draw Authority: Hearing on H.R. 2281 and H.R. 421 before the Subcommittee on Domestic Monetary Policy of the House Committee on Banking, Finance and Urban Affairs*, 96th Cong. 7-8 (1979) (statement of the Honorable J. Charles Partee, member, Board of Governors of the Federal Reserve System).

short-term funds, specifically weekly bills and cash management bills, with reduced use of the cash draw authority after 1975.[16]

Figure 5: Borrowing Concentrated Around Tax Payment Months 1942-1981 (Days Federal Reserve Held Special Short-Term Treasury Certificates)



Source: GAO analysis of Federal Reserve annual reports.

After 1979, the cash draw authority was only to be used in emergencies, while the securities draw authority could be used "in more routine circumstances."[17] However, we did not find any evidence that Treasury used the securities draw authority between 1979 and its expiration in 1981. One Member of Congress described how the securities draw authority could be used when Treasury did not have the time to "prepare and market" a new security issue quickly enough to meet short-term cash needs. He reasoned that since Treasury would borrow "seasoned securities" from the Federal Reserve —existing securities in the Federal Reserve's portfolio—that Treasury would be able to sell them quickly

[16] *Federal Reserve-Treasury Draw Authority: Hearing on H.R. 2281 and H.R. 421 before the Subcommittee on Domestic Monetary Policy of the House Committee on Banking, Finance and Urban Affairs*, 96th Cong. 9-10 (1979) (Statement of Paul H. Taylor, Fiscal Assistant Secretary of the Treasury).

[17] H.R. Rep. No. 96-111, at 2 (1979).

enough to meet cash needs.[18] A committee report also stated that the requirement for Treasury to repurchase securities in the open market would subject Treasury to market discipline.[19]

Source of Funding

The source of funds for the cash draw authority was the Federal Reserve, while the source of funds for the securities draw authority was the financial market. As shown in figure 6, when using the cash draw authority, Treasury sold special short-term certificates directly to the Federal Reserve in exchange for cash from the Federal Reserve. The amended Treasury Draw Policy also specified that Treasury could borrow obligations (securities) from the Federal Reserve and sell them in the open market (in exchange for cash) to meet short-term cash needs, as shown in figure 6.[20]

Collateral Used

The cash draw authority did not require any specific collateral beyond the special short-term Treasury certificates that the Federal Reserve purchased from Treasury. The securities draw authority also did not require any collateral.

Type of Financial Transaction

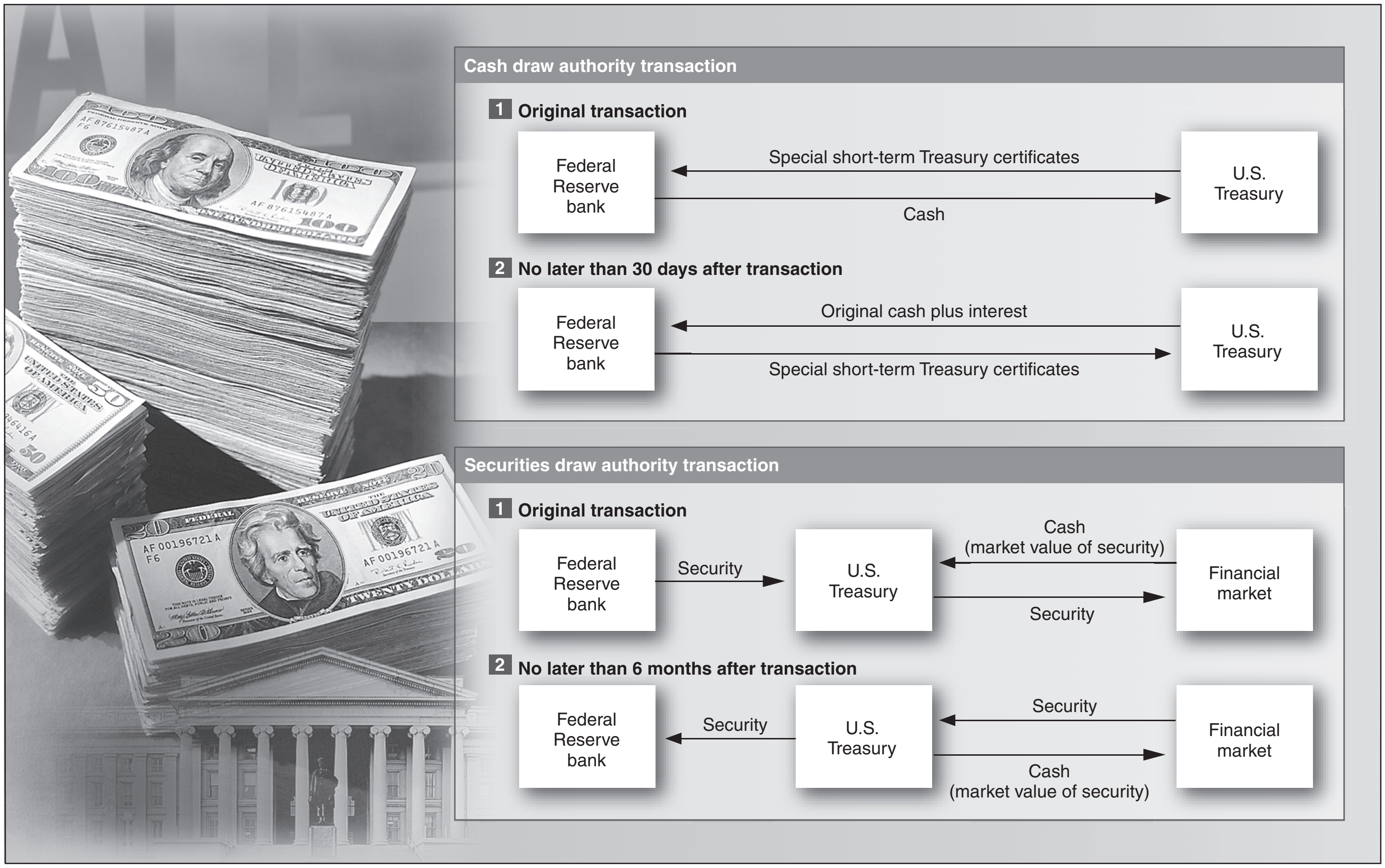
The cash draw authority and securities draw authority represented different transactions. As shown in figure 6, the cash draw authority directly involved only the Federal Reserve and Treasury, while the securities draw authority involved the Federal Reserve, Treasury, and the financial market.

[18] 125 Cong. Rec. 12514 (1979) (Statement of Congressman Mitchell).

[19] H.R. Rep. No. 96-111, at 2 (1979).

[20] Pub. L. No. 96-18.

Figure 6: Cash and Securities Draw Authority Transactions



Source: GAO analysis, PhotoDisc (images).

In 1979, members of Congress and Treasury officials discussed how these transactions might affect monetary policy. For example, a number of members saw the cash draw authority as a way to monetize the debt and in effect print new money, thereby complicating monetary policy.[21] In a letter to Congress, Treasury wrote that the cash draw authority did not create problems for monetary policy since the Federal Reserve could offset Treasury borrowings through its open market operations, thus

[21] 125 Cong. Rec. 10080, (1979) (Statement of Congressman Wylie) and 125 Cong. Rec. 10081, (1979) (Statement of Congressman Hansen).

having the same net effect as if Treasury borrowed from the market instead of the Federal Reserve.[22]

Approvals on Use of Draw Authority

According to the amended Treasury Draw Policy, at least five members of the Board of Governors of the Federal Reserve System had to approve purchases and sales of bonds, notes, or other obligations to the United States (Treasury) by the Federal Reserve.[23] The act also specified that the securities draw authority was subject to the approval, rules, and regulations of the Federal Open Market Committee.[24]

The Cost of the Draw Authorities

The cost that Treasury paid to use the draw authorities was implied in the interest rate that the Federal Reserve charged or the market value of the securities that Treasury repurchased. The interest rate Treasury paid to use the cash draw authority changed between 1942 and 1981. The Federal Reserve reported that Treasury paid a fixed .25 percent interest rate on the amount borrowed when it used this authority through December 3, 1957; after December 3, 1957, and through the expiration of this authority it paid a rate set at .25 percent below the prevailing discount rate of the Federal Reserve Bank of New York.[25] Although a memorandum of understanding between the Federal Reserve and Treasury was not readily available and may not have existed, according to one Member of Congress the interest rate for the cash draw authority was “arbitrarily” set by negotiations between Treasury and the Federal Reserve.[26]

In contrast, legislative history shows some members intended to subject Treasury to “market discipline” when it used the securities draw authority.

[22] *Federal Reserve-Treasury Draw Authority: Hearing on H.R. 2281 and H.R. 421 before the Subcommittee on Domestic Monetary Policy of the House Committee on Banking, Finance and Urban Affairs*, 96th Cong. 18-20 (1979) (letter from the Honorable Roger Altman, Assistant Secretary of the Treasury, to the Honorable Parren J. Mitchell, Chairman of the Subcommittee on Domestic Monetary Policy, House Committee on Banking, Finance and Urban Affairs, Mar. 16, 1979).

[23] Pub. L. No. 96-18.

[24] The Federal Open Market Committee is part of the Federal Reserve and oversees open market operations to promote monetary policy.

[25] The discount rate is the rate that commercial banks pay to borrow funds from the Federal Reserve. The Federal Reserve Board of Governors sets this rate.

[26] 125 Cong. Rec. 12515 (1979) (Statement of Congressman Stanton).

During discussions in 1979, to describe market discipline, one member offered a scenario in which Treasury would repurchase securities at a slightly higher price than it paid for them—since the securities would be closer to maturity—and that this price differential reflected a fair market interest rate on Treasury's borrowing.[27] A Federal Reserve Governor noted that Treasury could pay a substantial premium for selling securities it borrowed from the Federal Reserve late in the day because the action would probably take market participants by surprise. He went on to say that if markets were unsettled Treasury may not be able to sell all of the securities it needed.[28]

Amount and Time Limits for Use of Draw Authorities

Congress limited the amount and time that Treasury could use the cash draw authority. The amended Treasury Draw Policy stated that the aggregate amount of obligations acquired (at any one time by the 12 Federal Reserve banks) directly from the United States (Treasury) could not exceed $5 billion.[29] In addition, the act specified that Treasury could use the cash draw authority for renewable periods not to exceed 30 days.

Congress limited the amount of time that Treasury could use the securities draw authority but did not limit the amount of securities Treasury could borrow. The amended Treasury Draw Policy required Treasury to repurchase obligations (securities) no later than 6 months after the date of sale and return these securities to the Federal Reserve.[30]

The Inclusion of Draw Authorities in the Debt Ceiling

The use of the cash and securities draw authorities was not expressly excluded from the debt subject to limit.

[27]125 Cong. Rec. 10081 (1979) (Statement of Congressman Hansen).

[28]*Federal Reserve-Treasury Draw Authority: Hearing on H.R. 2281 and H.R. 421 before the Subcommittee on Domestic Monetary Policy of the House Committee on Banking, Finance and Urban Affairs*, 96th Cong. 7-8 (1979) (statement of the Honorable J. Charles Partee, member, Board of Governors of the Federal Reserve System).

[29]Pub. L. No. 96-18.

[30]Pub. L. No. 96-18.

Disclosure of the Use of the Draw Authorities

Congress specified reporting requirements for the cash draw authority but not for the securities draw authority. The amended Treasury Draw Policy required the Board of Governors of the Federal Reserve System to include detailed information about use of the cash draw authority in its annual report to Congress.[31] In addition, a Treasury Assistant Secretary testified in 1979 that any previous use of the cash draw authority was reported in the daily Treasury statement of cash and debt operations and in the weekly Federal Reserve statement.[32]

Expiration of Draw Authorities

The amended Treasury Draw Policy established the cash and securities draw authority for 2 years.[33] In 1979, members of Congress deliberated over how long to extend the authorities, some advocating 1 year, while others advocated 2 or 5 years. Those who advocated shorter periods wanted to give Congress a chance to evaluate the authorities' use and make modifications, if necessary, prior to a 5-year period.[34] After the expiration of the authorities, the Federal Reserve was and still is limited to purchasing and selling obligations of the United States only in the open market.

[31]Pub. L. No. 96-18.

[32]*Federal Reserve-Treasury Draw Authority: Hearing on H.R. 2281 and H.R. 421 before the Subcommittee on Domestic Monetary Policy of the House Committee on Banking, Finance and Urban Affairs*, 96th Cong. 9-10 (1979) (Statement of Paul H. Taylor, Fiscal Assistant Secretary of the Treasury).

[33]Pub. L. No. 96-18.

[34]125 Cong. Rec. 10082 (1979) (Statement of Congressman Rousselot).

Appendix III: Comments from the Department of the Treasury

DEPARTMENT OF THE TREASURY
WASHINGTON

ASSISTANT SECRETARY

September 7, 2006

Ms. Susan J. Irving
Director, Federal Budget Analysis
GAO
441 G Street, NW
Room 2908
Washington, DC 20548

Dear Ms. Irving:

This responds to your letter of August 8, 2006 to Secretary Paulson requesting our comments on the draft report entitled *Debt Management: Backup Funding Options Would Enhance Treasury's Resilience to a Financial Market Disruption (GAO-06-1007).* The report makes two recommendations for improving on the government's ability to raise cash in emergency situations when the financial markets are not functioning. These recommendations are: (1) Treasury should examine the implementation requirements for establishing a back-up line of credit or the direct placement of cash management bills with a broad range of appropriate financial institutions to be activated in situations where the financial markets are unable to meet our cash needs; and (2) that Congress should examine whether the Federal Reserve should lend directly to the Treasury, as a last resort, during a wide-scale disruption to the financial markets.

Since September 11, 2001, Treasury has been working with the Federal Reserve to implement more robust processes to ensure that the Department can effectively carry out its cash and debt management responsibilities even in the most adverse and challenging conditions. As your recommendations on the line of credit and direct placement of securities would provide other alternatives for meeting our funding needs in emergencies, we agree that Treasury should examine these options and the related implementation requirements and issues.

The draft report also recommends that Congress consider allowing the Federal Reserve to lend directly to the Treasury, as a last resort, during a wide-scale disruption to the financial markets. Treasury is generally opposed to arrangements in which governments, at their discretion, can borrow directly from their central bank as such arrangements compromise the independence of the central bank. Any proposal to grant authority to the Federal Reserve to lend directly to Treasury should carefully study the terms and conditions that would be necessary to ensure the independence of the Federal Reserve in its lending decisions and the conduct of monetary policy.

We appreciate the opportunity to review an advance copy of the report and provide our comments on the recommendations. We look forward to working with you in improving our debt management program.

Sincerely,

Emil W. Henry, Jr.

Appendix IV: Comments from the Board of Governors of the Federal Reserve System

BOARD OF GOVERNORS
OF THE
FEDERAL RESERVE SYSTEM
WASHINGTON, D. C. 20551

DIVISION OF MONETARY AFFAIRS

September 6, 2006

Ms. Susan J. Irving
Director, Federal Budget Analysis
Strategic Issues
U.S. Government Accountability Office
441 G. Street N.W.
Washington, D.C. 20548

Dear Ms. Irving:

We appreciate the opportunity to comment on the GAO's draft report entitled "Backup Funding Options Would Enhance Treasury's Resilience to a Financial Market Disruption."

As you are aware, the Treasury and the Federal Reserve, as well as financial institutions and other major market participants, have made substantial strides in recent years in enhancing their capabilities for operating in contingency situations. Nonetheless, circumstances can be envisioned in which it may be exceedingly difficult for Treasury to raise cash in the markets. While such a situation may be improbable, the consequences should it occur could be quite serious. Accordingly, we agree that it is appropriate to consider the pros and cons of various arrangements that would provide additional assurance that the Treasury could meet the nation's financial obligations even in circumstances of severe disruption to financial markets.

The GAO's report recommends a two-tiered approach to providing such assurance. As the first tier, the Treasury would establish private credit lines and make arrangements for private placements of cash management bills. The Federal Reserve has not studied such measures and has not formulated a view on their feasibility or desirability but concurs that further study by the Treasury of such arrangements could be worthwhile. However, the Treasury and taxpayers have benefited over the years from reliance on funding through a transparent auction process in the open market, suggesting that a pre-announced means of setting a market-related price for any borrowings under the proposed private credit arrangements would be a key issue.

The GAO recommends that the Congress consider legislation that would establish a second tier of emergency cash facilities by authorizing the Federal Reserve to lend directly to the Treasury during a wide-scale disruption. Especially should the first-tier arrangements be established, the likelihood that the Treasury would need to borrow from the Federal Reserve seems remote. In addition, as the report recognizes, contemplating the possibility of direct lending to the Treasury raises very serious issues regarding the

- 2 -

independence of the central bank. It also poses other significant policy issues, such as treatment of any such lending under the debt ceiling. The importance of these issues implies that Congress would need to give very careful consideration to the disadvantages of creating such lending authority. Eliminating the potential for abuse of a direct lending authority would seem to necessitate a number of rigorous requirements, such as certifications by the Secretary of the Treasury, and perhaps the President, as well as by the Federal Reserve Board or Chairman that funding in the markets was not possible and that the reason market funding was not available was related to disruption of market infrastructure. It would also be essential that such a facility could not be used as a means of evading debt ceiling constraints or otherwise become involved in what are intrinsically political decisions. I should emphasize that the Board has not taken a position as to whether creation of such a direct lending authority would be appropriate and has not considered in any detail suitable specifications for such a facility.

Federal Reserve staff have separately provided a number of specific comments and suggestions on the draft. We understand that GAO will take these into account in preparing the final report.

Please do not hesitate to contact me if we can be of further assistance.

Sincerely,

Vincent R Reinhart

Vincent R. Reinhart
Director

Appendix V: GAO Contact and Staff Acknowledgments

GAO Contact

Susan J. Irving, (202) 512-9142

Acknowledgments

In addition to the contact named above, Jose Oyola (Assistant Director), Julie Atkins, Richard Cambosos, Dean Carpenter, Abe Dymond, Cody Goebel, Thomas McCabe, James McDermott, Naved Qureshi, Keith Slade, and Dawn Simpson made significant contributions to this report.

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