Congressional Research Service

MEMORANDUM April 5, 2011

To: Senator Bernie Sanders
Attention: Warren Gunnels

From: Marc Labonte, Specialist in Macroeconomic Policy, 7-0640

Subject: **Bank Borrowing from the Federal Reserve and Purchases of Securities**

This memorandum responds to your request for data on the relationship between Federal Reserve (Fed) lending to banks and banks' securities holdings, for the commercial banking sector overall and for the six largest bank holding companies. If you would like to discuss this information, please do not hesitate to call me at the number above.

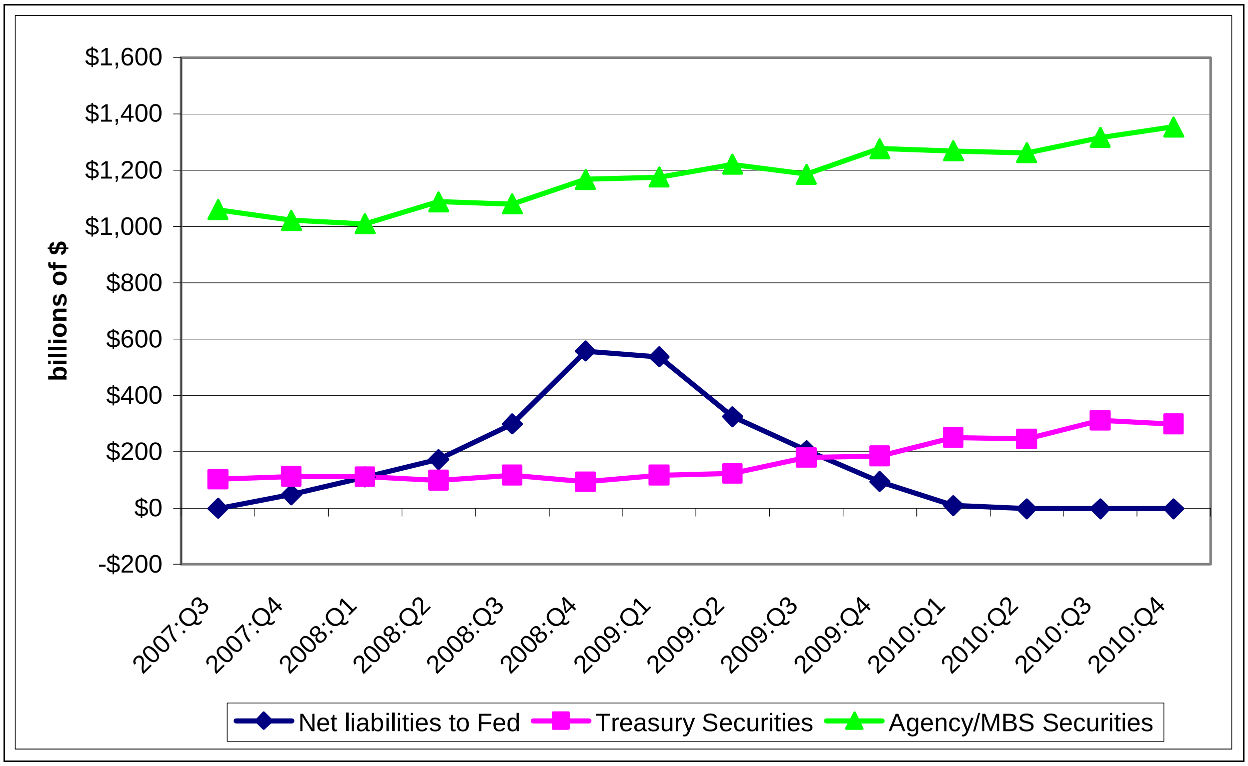
One can compare trends in banks' loans from the Fed and banks' holdings of U.S. Treasury securities, U.S. Agency securities, and mortgage-backed securities over time, while recognizing that correlation does not prove causation. There is no information available on how banks used specific funds borrowed from the Federal Reserve.

Overall Data

Figure 1 presents data for the overall commercial banking sector from the Federal Reserve's *Flow of Funds Accounts*. Figure 1 shows that commercial banks began borrowing from the Federal Reserve (classified as net interbank liabilities to the monetary authority) in the fourth quarter of 2007. Loans outstanding peaked at $558 billion in the fourth quarter of 2008, fell to $95 billion in the fourth quarter of 2009, and were about zero by the second quarter of 2010. During that period, commercial bank holdings of U.S. Treasury securities fell from $112 billion in the fourth quarter of 2007 to $93 billion in the fourth quarter of 2008. Treasury holdings rose to $185 billion in the fourth quarter of 2009 and $299 billion in the fourth quarter of 2010. Thus, the increase in Treasury holdings occurred while borrowing from the Fed was declining or zero. The commercial banking sector's holdings of Agency and mortgage-backed securities rose fairly steadily over this period, growing most rapidly in the period from the fourth quarter of 2008 to the second quarter of 2009 and in the last two quarters of 2010.[1]

[1] Agency securities are defined in the Flow of Funds as securities issued by federal budget agencies (such as the Tennessee Valley Authority) and government-sponsored enterprises, such as Fannie Mae, Freddie Mac, and the Federal Home Loan Banks.

Figure 1. Commercial Banking Sector
2007:Q3 to 2010:Q4



Source: Federal Reserve, Flow of Funds, Table L. 109

Six Largest Banks

For individual banks, the Federal Reserve has released detailed lending records by banks for all of the lending programs established during the crisis. These records do not include discount window lending records. This memorandum focuses on the three Fed programs where funds could have hypothetically been used to purchase securities – the Term Auction Facility (TAF), the Primary Dealer Credit Facility (PDCF), and the Commercial Paper Funding Facility (CPFF). These programs were the main Fed facilities that could have been accessed by the largest bank holding facilities with relatively few restrictions on how the banks used those funds.[2] The TAF was in operation from December 2007 to March 2010. The PDCF was in operation from March 2008 to January 2010. The CPFF was in operation from October 2008 to January 2010. There is no information available on how the banks used the funds that they borrowed from the Fed, and in any case, money is fungible across the bank balance sheet.

You requested that CRS present the following data for the six largest bank holding companies:[3] borrowing from the Fed, interest rate paid on Fed loans, holdings of Treasury, Agency, and mortgage-backed securities during the period of Fed borrowing, and yield on those securities. For borrowing from the Fed,

[2] For more information on these facilities, see CRS Report R41073, *Government Interventions in Response to Financial Turmoil*, by Baird Webel and Marc Labonte.

[3] The six largest bank holding companies are based on the rankings by the Federal Reserve's National Information Center. The rankings can be accessed at [http://www.ffiec.gov/nicpubweb/nicweb/Top50Form.aspx].

CRS estimated the daily average borrowing outstanding for each quarter based on an analysis of the individual loan records released by the Fed.[4] For the interest rate paid on borrowing from the Fed, CRS estimated the average of the interest rate paid on individual loans, weighted by the length of the loan. For holdings of securities and yields on those securities, CRS collected data published in the National Information Center's *Bank Holding Company Performance Report*.[5] Those reports do not contain separate yields for Treasury securities and Agency securities, so a combined yield is reported. Goldman Sachs and Morgan Stanley were not bank holding companies until late 2008, and thus did not file *Bank Holding Company Reports* until 2009. Therefore, there is no comparable data available for holdings of Treasury, Agency, and mortgage-backed securities for those two companies. You requested that we present data on the securities that those two companies posted as collateral for the Primary Dealer Credit Facility instead.[6] In the PDCF records, Treasury and Agency securities are reported jointly. **Tables 1 through 6** present the results of the analysis by bank.

[4] For the six largest banks, CRS was only able to identify loans to the parent company or a subsidiary with a name similar to the parent company. These records can be accessed at [http://www.federalreserve.gov/newsevents/reform_transaction.htm].

[5] The *Bank Holding Company Performance Report* classifies securities into the categories of "Debt Securities" and "Trading Assets." It does not provide any detail on the composition of Trading Assets. Therefore, Tables 1 to 6 do not report Treasury, Agency, or mortgage-backed securities that are included, if any, in the "Trading Assets" category.

[6] Collateral is not posted for the Commercial Paper Funding Facility.

Table 1. Bank of America

	Average Loans Outstanding and Interest Rate for TAF	Average Loans Outstanding and Interest Rate for PDCFa	Loans and Interest Rate for CPFF	Holdings of Treasury Securities	Holdings of Treasury and Agency Securities	Yield on Treasury and Agency Securities	Holdings of MBS	Yield on MBS
2008:Q3	$453 million at 2.7%	$635 million at 2.3%	$0	$801 million	$4.6 billion	3.1%	$210.6 billion	5.0%
2008:Q4	$33.5 billion at 1.4%	$3.5 billion at 1.6%	$14.9 billion for 9 weeks at 1.8%	$764 million	$4.7 billion	3.0%	$226.3 billion	5.1%
2009:Q1	$47.5 billion at 0.3%	$4.9 billion at 0.5%	$14.9 billion for 3 weeks at 1.8%	$753 million	$4.8 billion	5.0%	$201.8 billion	5.5%
2009:Q2	$47.1 billion at 0.25%	$1.3 billion at 0.5%	$0	$11.1 billion	$14.9 billion	3.5%	$196.9 billion	5.1%
2009:Q3	$2.9 billion at 0.25%	$0	$0	$23.5 billion	$26.9 billion	3.2%	$180.5 billion	5.1%

Source: CRS calculations based on data from Federal Reserve

Notes: TAF = Term Auction Facility, PDCF = Primary Dealer Credit Facility, CPFF = Commercial Paper Funding Facility. Bank of America only accessed the CPFF once; therefore, average data is not presented.

a. Loans made to Bank of America subsidiary, Banc of America Securities LLC.

Table 2. J.P. Morgan Chase

	Average Loans Outstanding and Interest Rate for TAF[a]	Loans Outstanding and Interest Rate for PDCF	Loans Outstanding and Interest Rate for CPFF	Holdings of Treasury Securities	Holdings of Treasury and Agency Securities	Yield on Treasury and Agency Securities	Holdings of MBS	Yield on MBS
2008:Q2	$1.2 billion at 2.1%	$0	none	$2.1 billion	$2.2 billion	4.6%	$86.2 billion	4.7%
2008:Q3	$1.2 billion at 2.3%	$3 billion for one day at 2.25%		$3.8 billion	$5.6 billion	2.3%	$106.8 billion	4.4%
2008:Q4	$10.1 billion at 0.6%	$10 million for 2 days at 2%		$611 million	$10.3 billion	1.7%	$130.5 billion	4.4%
2009:Q1	$29.2 billion at 0.3%	$0		$347 million	$30.2 billion	2.1%	$182.3 billion	3.8%
2009:Q2	$7.6 billion at 0.25%	$0		$639 million	$34.6 billion	2.3%	$197.1 billion	3.7%

Source: CRS calculations based on data from Federal Reserve

Notes: TAF = Term Auction Facility, PDCF = Primary Dealer Credit Facility, CPFF = Commercial Paper Funding Facility.

CRS identified no records of J.P. Morgan Chase using the CPFF.

a. Includes Chase Bank USA.

Table 3. Citigroup

	Average Loans Outstanding and Interest Rate for TAF[b]	Average Loans Outstanding and Interest Rate for PDCF[c]	Average Loans Outstanding and Interest Rate for CPFF	Holdings of Treasury Securities	Holdings of Treasury and Agency Securities	Yield on Treasury and Agency Securities	Holdings of MBS	Yield on MBS
2007:Q4	$1 million at 4.7%	$0	$0	$12.2 billion	$19.4 billion	4.3%	$63.1 billion	6.5%
2008:Q1	$5.2 billion at 3.3%	$225 million at 2.5%	$0	$7.9 billion	$17.3 billion	4.4%	$58.4 billion	6.4%
2008:Q2	$3.5 billion at 2.3%	$379 million at 2.5%	$0	$13.5 billion	$37.8 billion	2.8%	$57.6 billion	6.0%
2008:Q3	$0	$2.0 billion at 2.25%	$0	$14.1 billion	$26.4 billion	3.0%	$48.8 billion	5.8%
2008:Q4	$11.6 billion at 1.1%	$15.8 billion at 1.2%	$4.9 billion at 2.7%	$3.6 billion	$24.0 billion	3.1%	$59.4 billion	5.4%
2009:Q1	$21.7 billion at 0.3%	$12.1 billion at 0.5%	$7.5 billion at 2.3%	$5.0 billion	$14.3 billion	3.9%	$64.0 billion	4.2%
2009:Q2	$17.8 billion at 0.25%	$23.1 billion at 0.5%	$4.0 billion at 2.9%	$7.6 billion	$24.3 billion	2.3%	$63.0 billion	4.5%
2009:Q3	$10 billion for 2 days at 0.25%	$0	$2.4 billion at 3.2%	$6.2 billion	$23.2 billion	2.2%	$57.6 billion	4.7%

Source: CRS calculations based on data from Federal Reserve

Notes: TAF = Term Auction Facility, PDCF = Primary Dealer Credit Facility, CPFF = Commercial Paper Funding Facility.

b. Includes Citibank, North Dakota.

c. Includes London subsidiary.

Table 4. Wells Fargo

	Average Loans Outstanding and Interest Rate for TAF	Loans Outstanding for PDCF	Loans Outstanding for CPFF	Holdings of Treasury Securities	Holdings of Treasury and Agency Securities	Yield on Treasury and Agency Securities	Holdings of MBS	Yield on MBS
2008:Q1	$1.1 billion at 3.5%	none	none	$464 million	$1.0 billion	3.7%	$61.2 billion	5.7%
2008:Q2	$4.7 billion at 2.2%			$455 million	$1.1 billion	3.7%	$68.2 billion	5.5%
2008:Q3	$9.8 billion at 2.4%			$412 million	$1.2 billion	3.7%	$64.9 billion	5.8%
2008:Q4	$26.0 billion at 1.4%			$2.4 billion	$3.3 billion	2.6%	$99.7 billion	5.3%
2009:Q1	$29.2 billion at 0.4%			$2.1 billion	$2.9 billion	1.0%	$126.9 billion	6.1%
2009:Q2	$18.1 billion at 0.25%			$1.2 billion	$2.5 billion	1.8%	$157.6 billion	5.7%
2009:Q3	$4.8 billion at 0.25%			$1.2 billion	$2.5 billion	2.5%	$132.9 billion	6.2%

Source: CRS calculations based on data from Federal Reserve

Notes: TAF = Term Auction Facility, PDCF = Primary Dealer Credit Facility, CPFF = Commercial Paper Funding Facility.

CRS identified no records of Wells Fargo using the PDCF or CPFF.

Table 5. Goldman Sachs

	Average Loans Outstanding and Interest Rate for TAF	Average Loans Outstanding and Interest Rate for PDCF[a]	Loans Outstanding and Interest Rate for CPFF	Average Treasury and Agency Securities Posted As Collateral at PDCF[Error! Reference source not found.]	Average Mortgage-Backed Securities Posted As Collateral at PDCF[Error! Reference source not found.]
2008:Q1	none	$100 million for one day at 2.5%	$0	$0	$0
2008:Q2		$0	$0	$0	$0
2008:Q3		$1.7 billion at 2.25%	$0	$0	$1.7 billion
2008:Q4		$7.9 billion at 1.6%	$10 million at 1.9% for 64 days	$0	$2.1 billion
2009:Q1		0	$10 million at 1.9% for 26 days	$0	$0

Source: CRS calculations based on data from Federal Reserve

Notes: TAF = Term Auction Facility, PDCF = Primary Dealer Credit Facility, CPFF = Commercial Paper Funding Facility.

CRS identified no records of Goldman Sachs using the TAF. Goldman Sachs only accessed the CPFF once; therefore, average data is not presented.

a. Includes London subsidiary.

b. Average collateral for days when loans were outstanding.

Table 6. Morgan Stanley

	Average Loans Outstanding and Interest Rate for TAF	Average Loans Outstanding and Interest Rate for PDCF[a]	Average Loans Outstanding and Interest Rate for CPFF	Average Treasury and Agency Securities Posted As Collateral at PDCF[b]	Average Mortgage-Backed Securities Posted As Collateral at PDCF[b]
2008:Q1	none	$2 billion for 1 day at 3.25%	0	$0	$1.4 billion
2008:Q2		$64 million at 2.5%	0	$0	$552 million
2008:Q3		$7.0 billion at 2.25%	0	$326 million	$1.6 billion
2008:Q4		$20.1 billion at 1.3%	$2.1 billion at 1.7%	$247 million	$812 million
2009:Q1		$3.9 billion at 0.5%	$2.2 billion at 1.5%	$10 million	$484 million

Source: CRS calculations based on data from Federal Reserve

Notes: TAF = Term Auction Facility, PDCF = Primary Dealer Credit Facility, CPFF = Commercial Paper Funding Facility.

CRS identified no records of Morgan Stanley using the TAF.

a. Includes London subsidiary.

b. Average collateral for days when loans were outstanding.