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Tatom, John

Networks Financial institute at Indiana State University

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The Fed's New Front in the Financial Crisis

The continuing foreclosure crisis worsened in October 2008, though some policy efforts appear to be taking hold. Other efforts may complicate the resolution of the crisis, however. The Federal Reserve (Fed) continued the aggressive expansion of new credit that it began in mid-September. The Fed also created two new credit facilities to add to the plethora of other facilities created since the financial crisis component of the foreclosure crisis began in August 2007. These new facilities are aimed at stabilizing the commercial paper market, most recently adversely affected by the failure of Lehman Brothers and the failures of several money market mutual funds (MMMF) in September 2008.

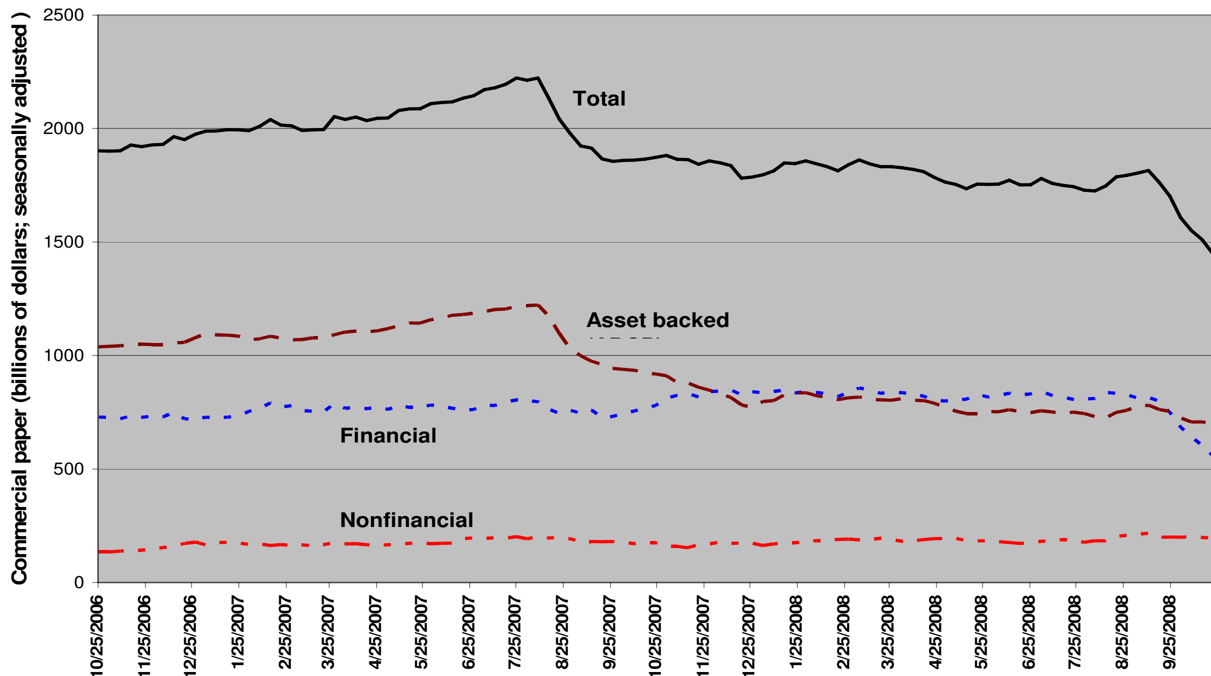
Some background on the commercial paper market

Lehman Brothers was a large issuer of commercial paper, which historically has been unsecured short-term borrowing by large companies with exceptional credit ratings. Companies that issue commercial paper (CP) are typically firms that have relatively large demands for short-term financing. These firms include non-financial firms as well as financial firms, such as the financing arms for auto dealer and buyers including, for example, GMAC. These firms seek to avoid the relatively high cost of bank credit, going instead straight to the marketplace for short term funds, generally with one to six month paper. Here they can trade on their traditionally high credit rating to secure lower cost funds very quickly and easily and on an unsecured basis. Since the late-1990s, however, a new innovation has allowed firms to access the commercial paper market without the credit worthiness and liquidity of the usual issuers by providing CP that is backed, or secured, by a claim on a pool of assets. This paper is called asset-backed commercial paper (ABCP). It has been important for the development of financing for holdings of securitized asset pools, such as mortgage-backed securities (MBS), boosting the market for these new securities.

Figure 1 shows the components of commercial paper market since late-2006. The largest share of the commercial paper market before August 2007 had been ABCP. Nonfinancial commercial paper has been the smallest component of the market. Commercial paper has declined in two major waves over the past 15 months, first from August 2007 to December 2007 and then since mid-September 2008.

Commercial paper has played a key roll in the foreclosure-financial crisis in two ways. At the beginning of the financial episode in August 2007, many bank holding companies attracted attention because they held structured finance assets in special investment vehicles (SIVs), composed wholly or largely of MBS, securities with a claim on the income from pools of dedicated mortgage assets. These SIVs were financed by ABCP issued by the holding companies. After several months of deterioration of the value of mortgage assets and MBS, commercial paper purchasers became unwilling to buy new ABCP. This led to a dramatic decline in ABCP in August and September 2007. The holding companies adjusted by selling the SIV assets to their affiliated banks, and the banks, in turn, financed the new assets by increasing their sales of money market deposit accounts and time deposits.

Figure 1
Commercial paper outstanding



Source: Board of Governors of the Federal Reserve System

The second period of sharp decline in commercial paper, beginning in mid-September 2008, was triggered by the failure of Lehman Brothers on September 14, 2008. Lehman was a large financial CP issuer and their failure raised risk perceptions of all holders and purchasers of CP. The decline in demand for commercial paper was reinforced by a decline in demand for assets backed by commercial paper. In particular, money market mutual fund (MMMF) issuers were historically major purchasers of CP. When CP became questionable as an asset class, investors in money market funds ran for the exits because their funds were invested, in part, in these CP assets. As a result, some MMMFs failed and the market for commercial paper declined further.

The recent decline is about the same as the earlier one, but unlike the earlier one, it has caused a huge reaction by policymakers. In the five weeks following August 8, 2007, commercial paper outstanding fell $356.1 billion (16 percent) and in the five weeks since September 10, 2008, commercial paper outstanding has fallen $366.2 billion (20 percent). Perhaps the different reaction was due to the fact that the latest event was associated with a decline in MMMF. Interestingly, the sharp and quick two-week decline of $200 billion in money market funds in September 2008 was concentrated in institutional money funds, the type managed by the most astute and informed investors, not the retail investors that one might think warrant policymaker protection. Nevertheless, the Fed and Treasury reacted very strongly, including the introduction by the Treasury of a government insurance program for unlimited balances in money market funds without congressional

approval, and using funds on which Congress had earlier attempted to place strong restrictions after unauthorized Treasury use in the 1995 Mexican peso crisis. In addition, the Fed reacted with new credit facilities described in Tatom (2008a) and below.

There was an earlier shock to public confidence in commercial paper that evoked a Fed response out of concern for the stability of the commercial paper market. In June 1970 the Penn Central railroad was headed for bankruptcy, despite its earlier strong credit rating and reputation in credit markets. The Nixon administration had proposed a loan of $750 million, including $300 million to keep Penn Central out of bankruptcy, but Congress, following the lead of the House Banking Committee chairman Henry Gonzalez, was unwilling to make the loan. This would be the equivalent of about $3.5 billion and $1.4 billion, respectively, today, well below the size of bail-outs involved in recent government programs. Because of its inability to obtain a government or other loan, Penn Central failed on June 21, 1970, at the time the largest bankruptcy in U.S. history. The Fed, fearing repercussions in the CP market because Penn Central's commercial paper had become worthless, tried to boost demand for and the value of commercial paper. To that end, the Fed for some months allowed bank holdings of commercial paper to count as bank reserves for the purpose of meeting reserve requirements at the Fed. This would not work today because total required reserves, largely satisfied already by banks' holding of vault cash, is trivial compared with the volume of commercial paper outstanding.

New Federal Reserve Actions

In September 2008, the Fed announced the Asset-backed Commercial Paper Money Market Mutual Fund Liquidity Facility called AMLF. This program was aimed at lending funds at the primary credit rate to banks and bank holding companies on a non-recourse basis. The maturities of the loans and of the ABCP cannot exceed 270 days for bank holding companies or 120 days for banks. This program is set to end on January 30, 2009.

Subsequently the Fed announced the Commercial Paper Funding Facility (CPFF) on October 7, 2008 which creates a Fed financed Special Purpose Vehicle (SPV) that would buy CP and ABCP directly from issuers. The SPV is run by PIMCO and began work on October 27, 2008. Under the terms of the program, the SPV buys three month assets issued at an interest rate equal to the three-month Overnight Indexed Swap Rate (OIS) plus 200 basis points, (includes a 100 basis point surcharge for unsecured credit). For ABCP the rate is the three-month OIS plus 300 basis points. Each issuer participating must pay 10 basis points on the maximum potential borrowing under the program in order to participate. This program is set to end on April 30, 2009.

Finally, on October 21, 2009, the Fed announced the Money Market Investor Funding Facility (MMIF) which creates another SPV managed by JP Morgan Chase that will buy CDs, bank notes and highly-rated commercial paper with 90 days to maturity or less from 50 approved MMMFs. The SPV will pay with ABCP issued by the SPV equal to 10 percent of the purchase price; the other 90 percent of the purchase price will be paid from funds advanced by the Fed to the SPV. The assets acquired will be held to maturity and

the proceeds will be used to pay the Fed and to redeem the ABCP issued by the SPV. The rate on the Fed loans will be the primary credit rate and the SPV will pay each holder of the new ABCP issued 25 basis points less than the rate on the assets acquired. Assets are purchased by the SPV at amortized cost.

On Monday October 27, 2008, the Treasury began to use the $700 billion allocated by Congress on October 3, 2008 for the Temporary Asset Relief Program (TARP). The Emergency Economic Stabilization Act of 2008 authorized $250 billion for immediate use, $100 billion to be released on the approval of the president and a final $350 billion available subsequently with the approval of Congress. Originally intended to purchase illiquid mortgage-related securities, the first $250 billion will be used to purchase stock in the nation's banks. The first $125 billion was spent on the first day, October 27, 2008, to acquire non-voting stock in the largest nine U.S. banks.

The explosion in Federal Reserve credit has continued

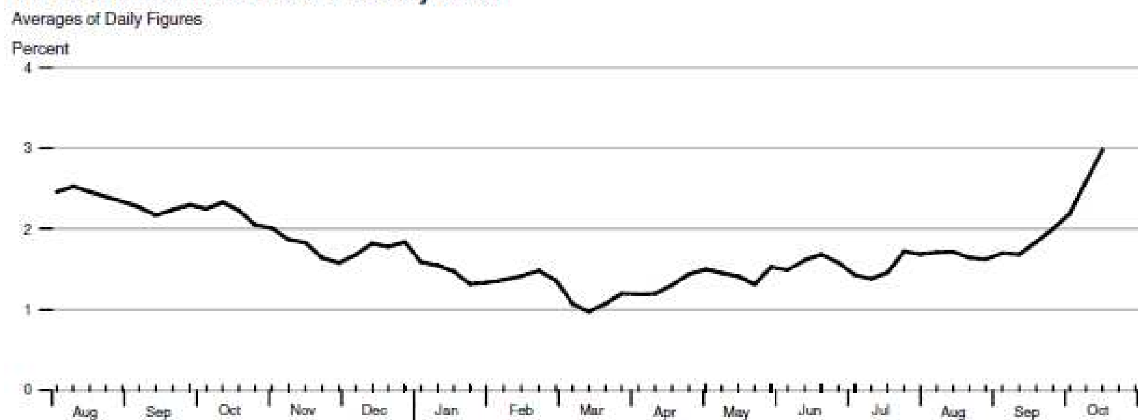
Table 1 shows selected Fed balance sheet items on a weekly average basis for the weeks indicated, except for total assets which are for the last day of the period shown. All of the new programs for private sector credit are indicated, as well as what was previously the largest Fed asset, Government securities held outright, and government securities held under repurchase agreements. The new AMLF and CPFF are shown, but the latter only existed for the final three days in the period. It reached about $145 billion by the end of the period, however. The other new facility discussed above, the MMIF, is not shown because it had not begun as of October 29, 2008. The penultimate row, a Fed liability called supplementary financing, captures Treasury borrowing from the Fed, the proceeds of which are held on deposit at the Fed. These Treasury securities are then sold by the Fed in order to raise funds to be lent to the private sector. This new program was announced on September 17, 2008. This convoluted operation is done to keep Fed lending to the private sector from increasing bank reserves by more than they otherwise would, putting more downward pressure on the federal funds rate.

One pattern that is emerging is the federal government's depression-era practice of creating multiple new agencies and programs known by an alphabet soup of acronyms. In the Fed's case, all of this new credit could have been provided by open market purchases of U.S. government securities. But the Fed has chosen instead to target credit to specific private financial firms and groups of firms. Until recently, the Fed had chosen to finance the new credit by reducing credit provided to the federal government. This is indicated by the small change in total assets from August 2007 to August 2008. Since August 2008, the Fed has more than doubled its total assets, largely by expanding its private sector lending. Meanwhile it has sharply reduced its net lending to the federal government, the liquidity of its balance sheet and the government securities available should it wish to sell securities for monetary policy purposes.

Generally these efforts have spawned new demands for subsidized credit to the private sector apparently with little reduction in the illiquidity of private sector assets. See Thornton (2008). Moreover, each new emergency program of the Fed or Treasury has been followed by an equity market decline, suggesting that these actions are lowering the

expected return to capital and/or raising risk premiums that investors require to be compensated for heightened risk. Since mid-September, another disturbing development is that investors have pushed up the real rate of interest required on default risk-free assets, the yield on Treasury Inflation-Protected Securities (TIPS) securities. Apparently investors are coming to recognize the crowding out of productive investment and the reduced private capital stock that are implied by recent policy actions. Figure 2 shows the yield on 10-year TIPS securities rose to the highest level since 2003, 2.99 percent in the week ending October 17, 2008 from about 1.63 percent in September and the record low of 0.99 percent in the week ending March 14, 2008. A greater and quieter reliance on less risky and more effective traditional programs in future might induce less of a decline in expectations and increase in uncertainty, fear and panic in financial markets.

Figure 2



Source: Federal Reserve Bank of St. Louis, *U.S. Financial Data*, October 24, 2008.

Perhaps the most significant question to emerge over the past two months is not whether these actions will stem the financial crisis, but whether the government and the Fed have an exit strategy to pull all of this new financial asset creation out after it succeeds in stemming deflation and before it kick starts the economy into a major inflation problem. For example, the Fed successfully injected a huge amount of credit and liquidity into the economy in late 1999 in anticipation of the Y2K millennial change and as quickly pulled it out at the beginning of 2000, after it was clear that there were no disruptions to the economy. It may not be so easy this time.

Table 1
Fed asset growth: from nothing to an explosion
(millions of dollars)

Selected Assets (average for week ending on date indicated)	**October 29, 2008**	**August 6, 2008**	**August 1, 2007**
Securities held outright	$490,382	$479,291	$790,758
Repurchase agreements	80,000	110,500	25,786
Term auction credit (TAF)	301,363	150,000	NA
Primary credit	111,946	17,370	2
Primary dealer Credit facility (PDCF)	87,393	0	NA
Asset backed CP MMMF liquidity facility (AMLF)	99,902	NA	NA
Other credit extensions	89,549	0	NA
Commercial Paper Funding facility CPFF*	40,819	NA	NA
Maiden Lane**	26,809	29,105	NA
Securities lent to dealers -term (TSLF) -overnight facility	 222,566 25,067	 124,862 7997	 NA 9,917
Total private credit -Incl. security loans	837,781 1,085,414	306,975 439,834	25,788 35,705
Total assets (end of period)	1,931,261	901,307	874,112
Supplementary Financing Account***	558,864	NA	NA
Available Government Securities	242,749	346,432	780,841

* Portfolio value of the SIV created to hold and transact commercial paper acquired under this facility; equity position.
**Maiden Lane is counted as a credit even though it is an equity position.
** *Fed liability for Treasury Supplementary Financing Account created in the week ending September 24, 2008
Source: Board of Governors of the Federal Reserve System

Additional Reading

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