# Testimony of DAVID S. SCHARFSTEIN PROFESSOR OF FINANCE HARVARD BUSINESS SCHOOL

# on TARP OVERSIGHT: IS TARP WORKING FOR MAIN STREET?

Before the SUBCOMMITTEE ON FINANCIAL INSTITUTIONS AND CONSUMER CREDIT COMMITTEE ON FINANCIAL SERVICES UNITED STATES HOUSE OF REPRESENTATIVES 2:30 p.m., March 4, 2009 Room 2128, Rayburn House Office Building

Good afternoon, Chairman Gutierrez, Ranking Member Hensarling, and Members of the Subcommittee. Thank you for inviting me to speak today. I am David Scharfstein, Professor of Finance at Harvard Business School and Research Associate of the National Bureau of Economic Research. I am also a member of the Squam Lake Working Group on Financial Regulation, a nonpartisan, nonaffiliated group of fifteen academics who have come together to offer guidance on the reform of financial regulation. I speak only for myself today.

I would like to make three main points.

First, there has likely been a contraction in the supply of bank loans because of the poor financial condition of many large banks. This poses a challenge for most firms, but particularly for small firms, which rely on bank loans for almost all of their financing. About half their loans come from large banks, and these banks appear to be cutting their lending more than small banks. Thus, it is important to find ways to ease the supply of credit to small firms.

Second, the Capital Purchase Program (CPP) of TARP should be thought of as two distinct programs. One is a support program for large, troubled financial institutions, some of which are systemically significant. The effect of this program on financial stability and credit availability is hard to measure since we cannot observe what would have happened in its absence. The other part of the CPP program is targeted at small banks. This program is not a support program for troubled financial institutions, but rather a program that provides capital to banks so that they can increase their supply of credit. The effect of this program will be somewhat easier to measure, but such measurement will inevitably be imperfect. Below, I will detail a proposal to improve measurement.

Third – and at the heart of my testimony – Treasury should consider expanding the Capital Purchase Program for small banks, perhaps even creating a separate program for them. The problems of the big banks have no easy solutions, and it is highly uncertain how and when their problems will be resolved. In the meantime, small firms risk losing their primary source of funding. Many small banks are well-positioned to step into the breach given their knowledge of local markets, and with an infusion of capital could do so. However, as with in any government program, one must ask: Why does the government need to be involved? In this case, one should ask: Why can't banks with good lending opportunities raise capital on their own? The answer is that many can raise capital, but are reluctant to do so in the current financial environment. Given extreme investor uncertainty about the health of the banking sector, a bank that issues stock is likely to be perceived by investors as one that is undercapitalized or has unrecognized losses in its loan portfolio. So it is natural that banks have been reluctant to issue stock on their own given that doing so would likely drive down their stock price. In addition, most small banks are privately owned and cannot easily raise capital in illiquid private markets. The government's commitment to purchase stock at a premium would entice small banks to participate in the program and raise capital, as many have already done.

This program will attract more banks if it does not include the same sort of restrictions that are now imposed on TARP recipients. Nor should it; this program would not be designed to put taxpayer dollars at significant risk. The program will also be more effective if it targets small banks that are able to leverage the equity investments by expanding their deposits or other borrowing. And it should target banks with expertise in business lending. The existing TARP investments in small banks do appear to have gone to banks that do more business lending.

It would be tempting to require participating banks to reach a target level of new lending equal to some multiple of the government's investment. This temptation should be resisted. Mandates of this sort could result in a rash of bad loans, and we do not want to turn healthy banks into unhealthy ones. Moreover, we should probably not measure the success of the program purely on the basis of whether there is an increase in lending. It will be a success if the increased lending capacity of small banks increases competition and puts downward pressure on interest rates spreads, which are now at high levels. This would benefit the many firms that are struggling to meet expenses and to keep their doors open.

Of course, it is important to keep in mind the limitations of such a program. Some of the hardest hit communities – the ones that need the most support – may also have many troubled small banks with large real estate exposures. Investments in these banks may help to stabilize them, but this is not the sort of investment I have in mind. Moreover, while many small banks are relatively healthy now, their condition could worsen appreciably. In that case, the investments are unlikely to have the desired effect.

With these limitations in mind, I believe that the government should enhance its program of investment in small banks, targeting healthy banks that are well-positioned to increase lending. At a time when large banks appear to be retrenching, this would better enable our financial system to meet the pressing needs of small enterprise.

# I. Bank Lending During the Financial Crisis

There is no question that business lending has fallen. Some of this decline is to be expected: during a recession the demand for credit falls, as firms cut capital expenditures, reduce working capital, forgo acquisitions, and go out of business. But some of the decline in lending almost surely stems from a contraction in supply – banks and other lenders are less willing to extend credit. The contraction in the supply of bank loans is a feature of other recessions, even when banks are healthy.<sup>1</sup> Given that many of them are in bad financial shape – and some might even be insolvent – it is not hard to believe that there has been a contraction in supply and that it is affecting investment. Indeed, according to one study, which surveyed over 1,000 CFOs, 86% report that they are passing up valuable investment opportunities due to lack of funding.<sup>2</sup>

Measuring the level of bank lending is tricky, particularly lending during the current financial crisis. It is tempting to measure this as the change in the total outstanding amount of commercial and industrial (C&I) loans on banks' balance sheets. However, this amount can increase either because banks are extending new loans or because firms are drawing on their pre-existing revolving credit facilities. In fact, Figure 1A shows, during the first few weeks of the financial crisis – from the failure of Lehman Brothers to mid-October – C&I loans actually rose by roughly \$100 billion. This is puzzling: Why would banks increase lending at the peak of the crisis, when many were near collapse? The answer is that C&I loans rose not because banks were voluntarily extending credit to new borrowers, but rather because firms were drawing down their revolving credit facilities – largely as a precautionary measure given turbulent financial markets. For example, on October 2, 2008, the automotive parts manufacturer, Dana Corporation, drew \$200 million from its \$650 million credit line. Their explanation of why they did so is typical of many firms that drew on their lines:

Drawing down these funds is a prudent liquidity measure. Ensuring access to our liquidity to the fullest extent possible at a time of ambiguity in the capital markets is in the best interest of our customers, suppliers, shareholders, and employees.

<sup>&</sup>lt;sup>1</sup> See Anil K. Kashyap and Jeremy C. Stein (1995), "The Impact of Monetary Policy on Bank Balance Sheets," Carnegie-Rochester Conference Series on Public Policy, vol. 42, pp. 151-95.

<sup>&</sup>lt;sup>2</sup> Murillo Campello, John Graham and Campbell Harvey (2009), "The Real Effects of the Financial Crisis: Evidence from a Financial Crisis," working paper, <u>http://papers.ssrn.com/sol3/papers.cfm?abstract\_id=1318355</u>

Table 1, reproduced from my research paper with Victoria Ivashina of Harvard Business School,<sup>3</sup> provides information on the firms that announced drawdowns. The total comes to \$16 billion, a large fraction of the \$100 billion increase in C&I loans after the Lehman failure.<sup>4</sup> Many of the firms had poor credit ratings -- one later went bankrupt (Tribune Company) and another is at risk of or going bankrupt (General Motors) – but the interest rates they paid were far lower than the rates they would have paid on newly issued loans. Importantly, these draw-downs for precautionary reasons may have forced banks to scale back their lending to other borrowers.

Figure 1A reveals that after the initial increase in C&I loans, the amount of outstanding C&I loans of large banks fell significantly over the ensuing four months. It is telling that the rise and subsequent fall is much more pronounced for large banks (Figure 1B) than it is for small banks (Figure 1C). Interestingly, this is the exact opposite of what happens in typical recessions: C&I lending of large banks usually falls less than that of small banks.<sup>5</sup> The current poor financial condition of the large banks may explain this reversal of the normal pattern.

#### A. Small Business Lending

The relative good health of small banks is good news for small firms since small banks – those with assets of less than \$5 billion -- hold about 43% of small business loans (less than \$1 million in size). The bad news is that big banks provide the rest of the credit to small firms. The recent bank-specific loan data do not break out loans to small business, so it is difficult to say whether large banks are specifically scaling back their loans to small firms. But if they are cutting lending across the board, then this would constitute a significant contraction in loan supply to small firms.

Such a contraction would present a significant challenge to small firms because, unlike large firms, they do not have access to other sources of credit such as commercial paper, public bonds, or private placements with institutional investors. It has been shown that when banks scaled back their supply of credit during the recessions of 1974-75 and 1981-82, small firms that could not issue public bonds were more adversely affected than large firms, who generally have access to other non-bank sources of capital.<sup>6</sup>

<sup>6</sup> See Anil Kashyap, Owen Lamont and Jeremy Stein (1994), "Credit Conditions and the Cyclical Behavior of Inventories," *Quarterly Journal of Economics*, pp. 565-592.

http://faculty.chicagobooth.edu/anil.kashyap/research/creditconditions.pdf

<sup>&</sup>lt;sup>3</sup> Victoria Ivashina and Scharfstein, David (2008) "Bank Lending during the Financial Crisis of 2008," Harvard Business School working paper. <u>http://papers.ssrn.com/sol3/papers.cfm?abstract\_id=1297337</u>

<sup>&</sup>lt;sup>4</sup> This is clearly only a portion of the firms that increased their drawdowns. Using data released by The Shared National Credit Program of the Federal Reserve, it is possible to show that the \$100 billion increase in C&I loans would occur if firms drew an extra 15-20% of the unused portion of their credit facilities. It is not unlikely that they did this.

<sup>&</sup>lt;sup>5</sup> See Anil K. Kashyap and Jeremy C. Stein (1995), "The Impact of Monetary Policy on Bank Balance Sheets," Carnegie-Rochester Conference Series on Public Policy, vol. 42, pp. 151-95.

In addition to the decline in lending, there has almost surely been an increase in interest rate spreads (the difference between loan interest rates and safe government bonds). Some of this increase, of course, is related to the decline in credit quality, but some of it is likely related to the contraction in supply of credit. This added extra interest expense creates problems for all firms, particularly many small firms that are struggling to keep expenses down and their doors open.

### **B.** Large Business Lending

Large borrowers also face significant challenges. Their bank loans are almost always organized through the loan syndication market, which has experienced major disruptions since the middle of 2007, leading to dramatic declines in bank loans to large borrowers.

Some background on this market is useful. Syndicated loans are "originated" by "lead" banks, which retain a share of the loan, and sell the remaining share to a syndicate of other lenders. This market started out in the mid-1980s with banks as the main participants (including investment banks), but grew to include numerous institutional investors including insurance companies, mutual funds, and hedge funds. Bank of America, Citigroup, and JPMorgan Chase are central to this market. Together, they originate over 60% of all syndicated loans, and are involved in 70% of all syndications. During the credit boom of 2002 to mid-2007, syndicated loans were often pooled together and packaged into collateralized debt obligations (CDOs), as was done with residential mortgages (including subprime). Funds raised from loan syndications were used for a variety of restructuring purposes including mergers and acquisitions (M&A), leveraged buyouts (LBOs), and share repurchases, as well as for the usual investments companies make in working capital and plant and equipment (real investment loans). At the peak of the credit boom, about half the loan syndications were restructuring loans (i.e. for M&A, LBOs and share repurchases).

In mid-2007, the world became aware of the problems in subprime lending, and began to recognize that AAA tranches of securities that used subprime loans as collateral were a lot riskier than their ratings implied. Because of those concerns, the market for all kinds of securitized products dried up, including the market for CDOs of loan syndications. Since many of the loans that went into the CDOs were below-investment-grade debt primarily used to fund leveraged buyouts (LBOs) and some mergers and acquisitions (M&A), this led to a huge drop in this market. But it also led to a significant fall in real investment loans.

Figure 2, which is based on my research with Victoria Ivashina of Harvard Business School, plots quarterly volumes of restructuring loans and real investment loans.<sup>7</sup> What this figure makes clear is that much of the reduction in lending to large borrowers pre-dates the crisis that erupted in September 2008; rather it began in mid-2007 with concerns about sub-prime lending.

The volume of loan syndication will likely not return to its peak -- nor should it. There was clearly too much credit then. And much of that credit was going to fund restructuring activities, which is arguably a less important source of economic growth than real investments. It is more important to make sure that large firms that want to fund valuable real investments can do so at reasonable cost. Unfortunately, it is harder to do this through loan syndications than it once was for two main reasons. First, the main lead banks – JPMorgan Chase, Citigroup, and Bank of America – are among the most troubled banks in the financial system. While they earned significant fees for arranging loan syndications, they still have to hold a share of their loan originations in their portfolio and they may be increasingly reluctant to do so given their own financial troubles. Second, many of the banks that were active syndicate members have retrenched significantly – particularly investment banks. This may be putting more pressure on the lead banks to hold a larger share of the loans and cooling their appetite for originating large loans.

The weakness of the loan syndication market is a problem for large borrowers but, as noted above, many of them have access to public bond markets and private placements. There is some weak evidence that some firms, particularly very large ones, are beginning to access the public bond markets. How effective firms will be at substituting away from large banks is an open question. If they can do so successfully, the negative implications of a weak banking sector will be muted.

## II. The Allocation of TARP Funds and Measuring Their Effect on Lending

#### A. Allocation of TARP Funds

To date, Treasury has invested over \$236 billion in the preferred stock and warrants of financial institutions as part of its Capital Purchase Program (\$196 billion) and Targeted Investment Program (\$40 billion). Not surprisingly, most of this money (\$211 billion) has gone to large banks. But relative to their size, they have received about the same amount as small banks. Banks with assets of greater than \$25 billion account for 92% of bank assets, and these

<sup>&</sup>lt;sup>7</sup> Victoria Ivashina and Scharfstein, David (2008) "Bank Lending during the Financial Crisis of 2008," Harvard Business School working paper. <u>http://papers.ssrn.com/sol3/papers.cfm?abstract\_id=1297337</u>

banks received 90% of the TARP money.<sup>8</sup> About 4.5% (\$11 billion) of the TARP investments went to small banks with assets less than \$5 billion, and they account for 3.5% of bank assets. The remaining 5.9% (\$14 billion) went to medium sized banks with assets of \$5-25 billion and they account for 4.8% of bank assets. This implies little about the cost of the programs since the premiums that were paid for the securities may have differed across size classes.

The investments in small banks and large banks should be thought of differently. Much of the money that was invested in large banks went to institutions that are in significant financial trouble and pose systemic risks. These investments were an attempt not just to increase lending, but also to promote financial stability. Whether this program enhances financial stability in a cost-effect manner is an open question, but if it does then the benefits are significant even if they cannot be measured in a specific bank's lending statistics.

The program of investment in small banks appears to be less about propping them up to promote financial stability and more about providing capital for them to lend. It is therefore useful to look in greater detail at the characteristics of small bank TARP recipients. The Exhibit below summarizes some key characteristics.

_	Small Bank Tarp Recipients	Small Bank Not TARP Recipients
Domestic Loans as % of Banks Assets	72.6%	65.7%
C&I Loans as % of Domestic Loans	18.3%	15.4%
Commercial Real Estate as % of Domestic Loans	29.4%	28.1%
% of Total Small Bank Assets	22.8%	77.2%
% of Total Small Bank C&I Loans	27.3%	72.7%
% of Total Small Bank Commercial Real Estate Loans	24.8%	75.2%

#### **Characteristics of Small Bank TARP Recipients and Non-Recipients**

There are two main points that are worth noting:

 Small bank TARP recipients are heavily involved in business lending. C&I loans and commercial real estate loans comprise 47.7% of their domestic loan portfolios. By contrast, these business loans comprise a smaller share of the loan portfolios of small banks that did not receive TARP funds (43.5%). Small bank TARP recipients also have a larger share of their assets in domestic loans. Though not shown in the exhibit, large banks have only 29% of their loan portfolios in C&I and commercial real estate

<sup>&</sup>lt;sup>8</sup> The money was actually invested in bank holding companies, but we only measure the assets of the banks in the bank holding company and thus understate the assets of the bank holding company. In this respect, the large banks are likely to have received less of their pro-rata share.

combined. In addition, a much smaller percentage of their assets on a consolidated holding company basis is invested in domestic loans.

2. TARP money invested in small banks has been invested in banks that account for 22.8% of the assets of the small bank sector, 27.3% of the C&I loans of the small bank sector, and just under a quarter of the commercial real estate loans of the small bank sector. Not surprisingly, these percentages are much higher for medium and large banks. Medium size bank TARP recipients control 53.7% of bank assets in that size range, and large bank recipients control 91.1% of the assets of large banks. Whether desirable or not, this suggests that if there is additional TARP money that could go to many small banks that have not yet received any funding from TARP.

### **B.** Measuring the Effect of TARP on Bank Lending

There is great interest in determining whether TARP investments have led to an increase in bank lending. This is understandable given the magnitude of taxpayer dollars at risk. Unfortunately, measuring the effect of Treasury's investments is difficult and – in the case of the large banks – probably impossible. Almost all large banks have received TARP funds so there are no meaningful non-recipients against which to compare recipients. We also cannot observe the counterfactual world in which large banks did not receive TARP funding as well as other significant support. While their lending does appear to have fallen after the capital infusion, as shown in Figure 1B, we do not know whether it would have fallen even more without the government's support.

There is somewhat more hope that we will be able to measure the effect of capital infusions on the lending of small and medium banks. As noted above, small bank TARP recipients make up about 23% of the assets controlled by small banks; the equivalent number is 53.7% for medium size banks. Therefore, there is a sizable set of non-recipients against which to compare the TARP recipients. However, it is important to keep in mind that TARP recipients are not randomly selected; those who applied for TARP funds, may have done so because they saw better lending opportunities. It is also possible that some TARP recipients applied for funds because they were having financial difficulties and had fewer lending opportunities. With these important caveats in mind, it may still prove useful to track lending by TARP recipients relative to banks that do not receive TARP funds.

Measuring bank lending would be facilitated by a small change in the way banks report loans and loan commitments. Currently, FDIC-insured banks report C&I loans outstanding in their Reports of Condition and Income (Call Reports) filed with the Federal Financial Institutions Examination Council. But they should also be required to report the outstanding amount of C&I revolving credit facilities. Approximately 80% of all C&I loans originally start as credit facilities and are drawn from these facilities.<sup>9</sup> And as noted above, a big portion of the increase in C&I loans after Lehman Brothers failed was the result of precautionary credit facility drawdowns by credit-challenged borrowers rather than the result of lending to new borrowers. It would be useful to be able to track this more closely.

It would not take much to add this information to Call Reports or to report this information to regulators. Banks are already required to report outstanding credit card lines, commercial real estate commitments, and home equity lines.<sup>10</sup> C&I credit facilities, by contrast, are subsumed in a catchall reporting item called "Other Unused Commitments" that, for many banks, is largely made up of C&I commitments, but may include other types of commitments.<sup>11</sup>

During the fourth quarter of 2008, the three largest bank holding companies – JPMorgan Chase, Citigroup and Bank of America – had large drops in "Other Unused Commitments" totaling \$173 billion, nearly 16% of the outstanding amount of these commitments. Was this large decline because firms were drawing down on existing C&I credit facilities, or because banks were cutting bank on new issues of C&I credit facilities?<sup>12</sup> Was this driven by other items including in this data item unrelated to C&I lending? Without more detailed information, it is impossible to know.

### III. Increasing the Supply of Credit to Small Firms

What can be done to increase the supply of credit to small firms? One potential solution is to improve the health of big banks. While this would help – and it is important for the stability of the financial system and the overall economy – the road to their recovery is going to be bumpy, and has no clear end in sight. In the meantime, undercapitalized (or maybe even insolvent) banks will be under pressure to "deleverage" – to sell assets or curtail lending in order to pay down debt and improve their financial health.

While the big bank crisis is being worked out, we should consider making further equity investments in small banks, on top of the approximately \$11 billion of TARP money that has already been invested in small banks. The goal of this program would be to increase the lending of small banks as an antidote to the reduction in lending by big banks. Ideally, banks would not

<sup>&</sup>lt;sup>9</sup> Survey of Terms of Business Lending, Federal Reserve Statistical Release, <u>http://www.federalreserve.gov/releases/E2/current/default.htm</u>

<sup>&</sup>lt;sup>10</sup> These items are reported on Schedule RC-L of the Call Reports.

<sup>&</sup>lt;sup>11</sup> Kashyap, Rajan and Stein (2002) use item RCFD 3818, "Other Unused Commitments" as a measure of outstanding C&I credit facilities. This item also includes other commitments such as mortgages that have been committed to but have not yet closed.

just increase lending one-for-one, but rather would leverage the equity investment to increase lending. At historical ratios, each dollar of equity invested in a small bank leads to seven dollars of additional loans. Thus, for example, a \$5 million investment might eventually increase loans by \$35 million. Of this amount just under half – about \$16 million -- would end up in C&I and commercial real estate loans. Of course, there is no guarantee that banks will increase lending – they have to be able to identify good loans. But the chances are increased if troubled large banks are indeed shedding small borrowers.

It is reasonable to ask why the government needs to step in to provide capital to small banks. After all, why can't these banks raise capital on their own, particularly if they are in good financial shape? The answer is that many *can* raise capital, but are reluctant to do so in the current financial environment. It has been shown that investors often interpret stock issues as a signal that the issuer thinks its stock is overvalued. Investors respond by driving down the stock price. Given extreme investor uncertainty about the health of the banking sector, investors are likely to respond to a bank that issues stock by lowering the price they are willing to pay So it is natural that banks have been reluctant to issue stock on their own given the adverse stock price consequences it is likely to have. The government's commitment to purchase stock at a premium may entice small banks to participate in the program, as many have already done.<sup>13</sup>

Unlike the TARP investments in big banks, these investments would not be a "bailout" of shareholders and creditors. Thus, it would not be necessary to cap compensation or restrict dividend payments. The idea is simply to subsidize the expansion of healthy small banks, akin to a host of other government subsidies (such as investment tax credits) used to encourage particular behavior.

It would be tempting to require participating banks to reach a target level of new lending equal to some multiple of the government's investment. This temptation should be resisted for two reasons. First, mandates of this sort could result in a rash of bad loans; we do not want to turn healthy banks into unhealthy ones. Second, we should probably not measure the success of the program purely on the basis of whether there is an increase in lending. It will be a success if the increased lending capacity of small banks increases competition and puts downward pressure on interest rates spreads, which are now at high levels. This would benefit the many firms that are now struggling to meet expenses and to keep their doors open.

There are at least two caveats to keep in mind. First, for this program to be successful, it is important that banks be able to leverage their equity investments. They can do this by borrowing from a variety of sources – from the Federal Home Loan Bank, by getting brokered deposits, or by trying to attract new retail deposits. Some banks may be more effective than

<sup>&</sup>lt;sup>13</sup> The premium paid by Treasury has been documented in "Valuing Treasury's Acquisitions," February Oversight Report of the Congressional Oversight Panel, February 6, 2009.

others in tapping these sources. For example, some banks may not currently have outstanding arrangements with the FHLB; others may have a hard time expanding retail deposits. To the extent possible, any additional investments should be in banks that have the capacity to leverage the investment.

A second problem is that some of the hardest hit communities – the ones that need the most support – may also have many troubled small banks with large real estate exposures (including construction loans and commercial real estate). Investment in these banks may help to stabilize them, but it is not the sort of investment I have in mind. Moreover, while many small banks are relatively healthy now, their condition could worsen appreciably in which case investments in them is unlikely to have the desired effect.

With these limitations in mind, I believe that the government should enhance its program of investment in small banks, targeting healthy banks that are well-positioned to increase lending. At a time when large banks appear to be retrenching, this would better enable our financial system to meet the pressing needs of small enterprise.

Thank you for the opportunity to address you today. I look forward to answering any questions you may have.

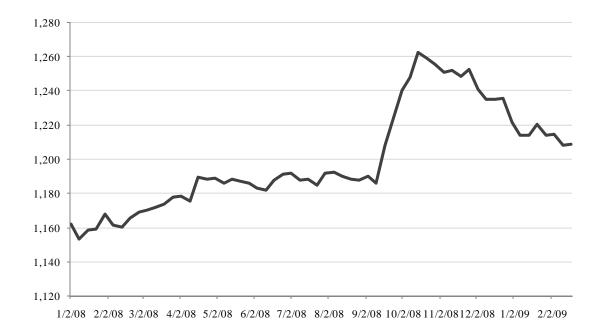


Figure 1A: C&I Loans by Domestically Chartered Commercial Banks (Billion USD)

Source: Federal Reserve Board, Assets and Liabilities of Commercial Banks in the United States, (http://www.federalreserve.gov/releases/h8). Not seasonally adjusted, adjusted for mergers.

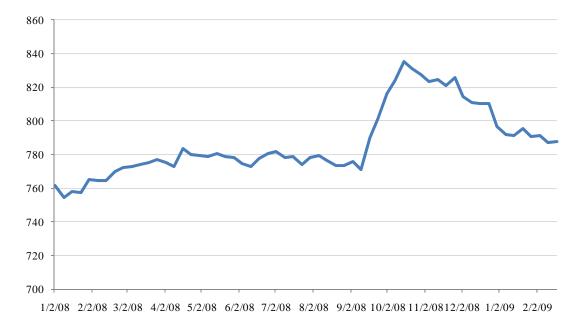
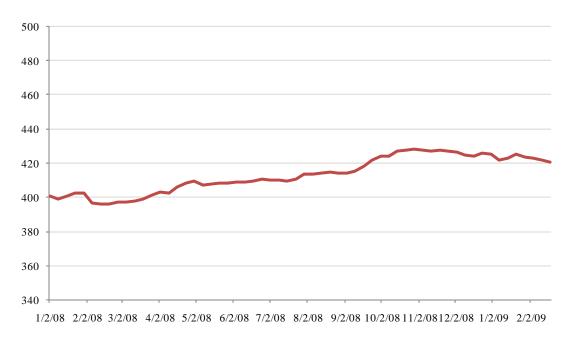


Figure 1B: C&I Loans by Large Domestically Chartered Commercial Banks (Billion USD)

Source: Federal Reserve Board, Assets and Liabilities of Commercial Banks in the United States, (http://www.federalreserve.gov/releases/h8). Not seasonally adjusted, adjusted for mergers.

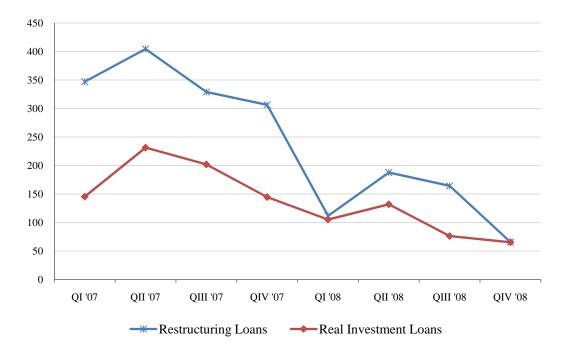
Figure 1C: C&I Loans by Small Domestically Chartered Commercial Banks (Billion USD)



Source: Federal Reserve Board, Assets and Liabilities of Commercial Banks in the United States, (http://www.federalreserve.gov/releases/h8). Not seasonally adjusted, adjusted for mergers.

#### Figure 2: Real Investment Loans vs. Restructuring Loans (Billion USD)

Compiled from DealScan database of loan originations. Real Investment Loans are defined as those that are intended for general corporate purposes, capital expenditure or working capital. Restructuring Loans are defined as those that are intended for leveraged buyouts, mergers and acquisitions, or share repurchases.



# Table 1: Revolving Lines Drawdonws, US Corporate Loans (Billion USD)

Compiled from SEC filings and Reuters. Exposure to Lehman Brothers identifies loans with Lehman in the original lending syndicate.

Date drawn	Company	Current credit rating	Amount drawn (\$MM)	Credit line (\$MM)	Maturity	Spread (Undrawn/ Drawn)	Lead bank	Exposure to Lehman Brothers	Comment (SEC filings)
08/25/2008	Delta Air Lines	BB-/Ba2	1,000	1,000	2012	50/ L+200	JPM	Yes	Simply put, we have taken this action to increase our cash balance as we approach the closing of the merger. We believe this will provide us with the utmost in flexibility – at minimal cost – as we prepare for this critical transition.
09/15/2008	FairPoint Communications	BB+/Ba3	200	200	2014	37.5/ L+275	Lehman Brothers	Yes	The Company believes that these actions were necessary to preserve its availability to capital due to Lehman Brothers' level of participation in the Company's debt facilities and the uncertainty surrounding both that firm and the financial markets in general.
9/19/2008	Michaels Stores	В	120	1,000	2011	25/ L+150	Bank of America	No	The Company took this proactive step to ensure that it had adequate liquidity to meet its cash needs while there are disruptions in the debt markets.
9/22/2008	General Motors	B-/Caa3	3,400	4,100	2011	30/ L+205	Citigroup, JPM	No	The company said it was drawing down the credit in order to maintain a high level of financial flexibility in the face of uncertain credit markets.
9/26/2008	Goodyear Rubber & Tire Co.	BB+/ Baa3	600	1,500	2013	37.5/ L+125	JPM	No	Temporary delay in the company's ability to access \$360 million currently invested with The Reserve Primary Fund, Goodyear said in a statement. The funds also will be used to support seasonal working capital needs and to enhance the company's liquidity position.
9/26/2008	AMR Corp	B-	255	225	2013	50/ L+425	GE Capital Corp.	No	Cash balance
9/30/2008	Duke Energy	A-/ Baa2	1,000	3,200	2012	9/ L+40	Wachovia, JPM	Yes	In light of the uncertain market environment, we made this proactive financial decision to increase our liquidity and cash position and to bridge our access to the debt capital markets. This improves our flexibility as we continue to execute our business plans.
10/1/2008	GameStop	BB+/Ba1	150	400	2012	25/ L+100	Bank of America	No	Acquisition
10/2/2008	Dana Corp	BB+/Ba3	200	650	2013	37.5/ L+200	Citibank	Yes	Drawing down these funds is a prudent liquidity measure. Ensuring access to our liquidity to the fullest extent possible at a time of ambiguity in the capital markets is in the best interest of our customers, suppliers, shareholders, and employees.
Oct-2008	Six Flags	B/B2	244	275	2013	50/ L+250	JPM	Yes	(W)e borrowed \$244.2 million under the revolving facility portion of the Credit Facility to ensure we would have sufficient liquidity to fund our off-season expenditures given difficulties in the global credit markets.
Oct-2008	Saks	B+/B2	80.6	500	2011	25/L+100	Bank of America	No	Cash balance
Oct-2008	Monster Worldwide		247	250	2012	8/L+30	Bank of America	No	"We have always viewed our revolving credit as an insurance policy, and given the events in the market, we felt that it was appropriate to access that insurance," CFO Timothy Yates said in an Oct. 30 earnings call.

10/9/2008	CMS Energy	BB+/ Baa3	420	550	2012	20/ L+100	Citigroup	No	Cash balance
10/10/2008	American Electric Power	BBB/ Baa2	2,000	3,000	2012	9/ L+45	JPM, Barclays	No	AEP took this proactive step to increase its cash position while there are disruptions in the debt markets. The borrowings provide AEP flexibility and will act as a bridge until the capital markets improve.
10/15/2008	Lear Corp	BB/B1	400	1,000	2012	50/ L+200	Bank of America	No	Given the recent volatility in the financial markets, we believe it is also prudent to temporarily increase our cash on hand by borrowing under our revolving credit facility.
10/16/2008	Southwest Airlines	BBB+/ Baa1	400	1,200	2010	15/ L+75	JPM	No	Although our liquidity is healthy, we have made the prudent decision in today's unstable financial markets to access \$400 million in additional cash through our bank revolving credit facility.
10/16/2008	Chesapeake Energy	BB/Ba2	460	3,000	2012	20/ L+100	Union Bank of California	Yes	Cash balance
10/16/2008	Ebay		1,000	1,840	2012	4/ L+24	Bank of America	Yes	Acquisition
10/20/2008	Tribune Co.	B/Caa1	250	750	2013	75/ L+300	JPM	Yes	Tribune is borrowing under the revolving credit facility to increase its cash position to preserve its financial flexibility in light of the current uncertainty in the credit markets.
10/23/2008	FreeScale Semiconductor	BB/B-	460	750	2012	50/ L+200	Citibank	Yes	We made this proactive financial decision to further enhance our liquidity and cash position. This improves the company's financial flexibility as we continue to execute our business plans.
10/24/2008	Idearc	BBB-/ Ba3	249	250	2011	37.5/ L+150	JPM	No	The company made this borrowing under the revolver to increase its cash position to preserve its financial flexibility in light of the current uncertainty in the credit markets.
11/13/2008	Genworth Financial	A/A2	930	1,700	2012	5/ L+20	Bank of America, JPM	Yes	The Company intends to use the borrowings along with other sources of liquidity for the repayment of outstanding holding company debt (including the Company's senior notes maturing in 2009) at maturity and/or the purchase and retirement of outstanding debt prior to maturity or for other general corporate purposes.
11/23/2008	Computer Sciences	A-/Baa1	1,500	1,500	2012	7/L+25	Citibank	No	The Company took the action due to the current instability of the commercial paper market and to ensure the Company's liquidity position in light of the ongoing credit market dislocation.
11/25/2008	NXP Semiconductors	В	400	600	2012	50/ L+275	Morgan Stanley	No	In view of the current global financial turmoil we are drawing USD 400 million under our revolving credit facility. This is a proactive financial decision in order to secure availability of this facility in a turbulent financial market environment.

Source: Victoria Ivashina and David Scharfstein, "Bank Lending During the Financial Crisis of 2008," Harvard Business School working paper. <u>http://papers.ssrn.com/sol3/papers.cfm?abstract\_id=1297337</u>