"What Were the Effects of the Federal Reserve's Term Discount Window Program?"*

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Abstract

During the recent financial crisis, the Federal Reserve extended maturities of Discount Window (DW) loans and created the Term Auction Facility (TAF) to promote lending behavior in the banking sector. If another financial crisis occurs, such policies may be used again. Thus, it is important to understand why banks may be inclined to take advantage of these unconventional policies and how they might affect banking activity. To address these significant issues, this paper has two objectives. First, we study the different factors that affected banks' decisions to utilize the DWTAF program and the maturities of loans obtained. Specifically, we separate the maturities and loan amounts to differentiate the effects of overnight fund availability from maturity extension. Our findings indicate that within the small bank category, smaller and stronger institutions were more likely not to borrow from either the DW or the TAF. Thus, weaker small banks mainly took advantage of the Federal Reserve's lending programs. Comparatively, large banks that were bigger and had a higher proportion of commercial real estate (CRE) loans were more likely to use both the DW and the TAF simultaneously. As a result, the determinants of participation varied significantly across the size distribution of the banking sector. We also show that they varied across different phases of the financial crisis. In terms of maturities of funds borrowed, small banks with less volatile earnings were more likely to borrow for longer periods of time. Meanwhile, within large banks, banks that were bigger tended to borrow for longer maturities. The second part of the analysis addresses the effect of maturity extension on promoting the availability of credit. Notably, maturity extension of DW loans promoted long-term (LT) lending by small banks in the banking sector, but this was generally limited to the time before the failure of Lehman Brothers. Finally, maturity extension of the TAF promoted residential real estate (RRE) lending

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by medium and large banks but the effects were also stronger in the first half of the crisis.

1 Introduction

During the 2007-2008 financial crisis, the U.S. banking system suffered tremendous stress. On the verge of collapsing, the Federal Reserve along with the U.S. Treasury Department intervened aggressively to provide more liquidity into the market to promote stability within the banking system. They also did so with the intention to restore market confidence while helping maintain the flow of credit from banks to firms and households.

One of the main functions of the Federal Reserve is to act as the lender of last resort (LOLR) during a time of financial stress. Absent the financial crisis, DW loans are typically overnight loans. Institutions that seek funds from the DW generally use the funds as emergency liquidity to meet unexpected liquidity demand in the market. However, in the recent financial crisis, in order to promote stability in the entire financial market, the Federal Reserve took several actions to provide liquidity to the banking system. For example, the Federal Reserve extended the maturities of DW loans. To begin, in August 2007, the Federal Reserve initiated the Term Discount Window Program which extended maturities of DW loans to as long as 30 days. Later in March 2008, the maturities of DW loans were further extended to as long as 90 days.

In addition to the expansion of the DW, the Federal Reserve also created the TAF during December of 2007 to weaken the "stigma" associated with using the DW.[1] In contrast to the DW in which banks approach the window to ask for funds, the TAF auctioned off a set amount of funds to banks in the system. Since the Federal Reserve rather than individual banks initiated the loans, it was hoped that the introduction of the TAF would weaken the "stigma" of borrowing from the DW. Initially, TAF loans were only available for 28 days. However, after August 2008, the impact of the financial crisis grew larger. As a result, terms of TAF loans were extended to as long as 84 days.

Why did some banks borrow simultaneously from both the DW and the TAF but others did not use either method of borrowing from the Federal Reserve? Why did some institutions borrow funds for a short period of time (such as overnight) and others sought to borrow funds for an extended period? Were they borrowing for different reasons? How did banks use the funds that they obtained? How did the maturity of funds borrowed affect lending? Was it the same across the different types of loans?

The objective of this paper is to address these important questions. In order to consider such issues, we look at internal data obtained from the Board of Governors of the Federal Reserve System which includes the maturity and amount of every loan that was provided during the crisis – previous work such

[1] Armantier et al. (2015) show that banks were willing to pay a premium of around 44 basis points across funding sources to avoid using the DW since such usage would be perceived as a sign of weakness.

as Berger et al. (2017) only focuses on the average balance of DWTAF loans each quarter. By determining the average maturities and average loan balances of DWTAF loans, we can seek to understand how changes in the loan maturities affected banks' participation in the DWTAF and usage of the funds. Therefore, we separate the loan amounts and maturities on them in our data construction to distinguish the effect of the availability of extra funds from the effect of maturity extension. For example, we have data on the total of 22,870 DW loans that were provided by the Federal Reserve to commercial banks during the crisis. Notably, about 40% of the DW loans had maturities longer than overnight – the average maturity of term funding from the DW during the crisis was around 21 days. If we include the TAF loans, the average maturity of the term loans would be even longer.

There are two parts to the analysis. The first addresses the factors influencing banks' participation decisions. To begin, we utilize a univariate probit model to assess the factors that triggered banks' decisions to borrow from the Federal Reserve. Here, aside from focusing on the banks' own characteristics, we also include the amount of asset-backed commercial paper (ABCP) and the issuance of financial asset-backed securities (ABS). In addition, we incorporate information on the size of the agency and GSE-backed mortgage pools. Moreover, we also take into account economic factors such as the local and aggregate unemployment rate along with GSP and GDP.

Furthermore, the setup of the DW and the TAF makes them fundamentally different from each other. Hence, a bivariate probit model provides numerous insights as it allows us to look at the joint decision process for the usage of the DW and/or the TAF. Next, we also want to understand banks' decisions to borrow at different maturities. To do so, we use a Heckman selection model to study the specific factors behind banks' decisions for how long to borrow and the amount of funds obtained from the Federal Reserve.

The second part of the analysis examines how the availability and maturity of funds promoted the extension of credit in the banking system. In particular, we break down banks' lending activities into different categories such as RRE loans, CRE loans, consumer loans, etc., to look at the effects of the availability and maturity of funds on different types of loans. To account for the potential connections between these different types of lending, we use a seemingly unrelated regressions (SUR) model to study loan activity.

Here are a few of our main results. First, we analyze the factors behind banks' joint decision process to participate in both the DW and the TAF or neither. We find that small banks mainly utilized the DW whereas large banks mainly utilized the TAF.[2,3] Within the small bank category, banks that were smaller and stronger (i.e. banks had higher capital ratios and a lower share of MBS) compared to their peers were more likely not to use either the DW or the TAF. Thus, weaker small banks mainly took advantage of the Federal Reserve's lending programs.

[2] Small banks are banks with gross total assets (GTA) less than $1 billion.
[3] Large banks are banks with GTA over $3 billion.

For large banks, banks that were bigger and had a higher proportion of CRE loans within the category were more likely to utilize both the DW and the TAF within the same quarter. Therefore, the determinants of participation varied significantly across the size distribution of the banking sector. We also show that they varied across different phases of the financial crisis.

Secondly, we look at the factors that were driving banks to borrow at different maturities and loan amounts. Small banks that had less volatile earnings tended to borrow for longer maturities. Moreover, at higher amounts of outstanding ABCP, small banks were more likely to borrow for longer maturities and larger amounts. Comparatively, among large banks, banks that were bigger within the group tended to borrow for longer maturities. Furthermore, large banks that were regulated by the OCC were more inclined to borrow for shorter maturities.

Lastly, funds available through the DWTAF along with the maturity extension policies helped promote lending in the banking sector. In particular, maturity extension of DW loans promoted LT lending by small banks. Moreover, maturity extension of the TAF promoted LT lending and RRE loans by medium and large banks.

We acknowledge that there has been previous work by Berger et al. that has explored similar issues. In contrast to their research, we separate the effects of maturity extension from overnight fund availability. In particular, Berger et al. did not focus explicitly on the role of maturity extension. That is, they only looked at the effect of changes in average DWTAF balances over an entire quarter which does not allow one to separately consider the role of maturity extension from the amount of funds borrowed.

By comparison, we construct the weighted-average maturity for each bank during each quarter. For example, when only considering the average loan balance during a quarter as Berger et al., a $1,000 loan with a 90-day maturity is equivalent to a $3,000 loan with a 30-day maturity. In our analysis, these two data points would be represented by two different variables. One is the average balance which is the simple average across loan amounts. The other is the weighted-average maturity which is calculated by multiplying the maturity by the percentage share of the loan over the total loan amount that the bank borrowed in each quarter. In this case, we are able to distinguish these two loans and separate the effects of maturity extension from average loan size.

Moreover, when exploring the decisions to use the DWTAF, we need to take the issue of sample selection into account. That is, standard OLS estimation of funds borrowed and maturities on the sample of banks that participated in the DWTAF program would be biased because it does not take the conditional probability of borrowing into account. Hence, by using a Heckman-selection model we attempt to avoid selection bias in our estimation procedures.

Finally, we proceed to study how the availability of term funds affected banks' lending activity. Our results show that, even if small banks only borrowed funds overnight from the DW, they responded by increasing total lending along with additional commercial and industrial (C&I) loans. At longer maturities, LT loans by small banks increased as well but the effects were limited to the

period before the failure of Lehman Brothers. More interestingly, if there were only extra funds available through the TAF, with the initial 28-day offering, there is a negative effect on RRE loans and LT loans by medium and large banks. However, when the terms of these funds were extended to 84 days, they became positively correlated with RRE loans and LT loans but the effects were somewhat weak. Thus, these results indicate that maturity extension played an important role in promoting the flow of credit to firms and households but it was arguably more effective prior to October 2008.[4]

2 Background on the Discount Window and the Term Auction Facility

This section outlines the design of the DW and the TAF. To understand the role of DW and TAF fund usage during the recent financial crisis, the time line of the expansion and maturity extension during the financial crisis is presented as well.

The DW is a program that the Federal Reserve developed for it's role as LOLR. "The DW helps to relieve liquidity strains for individual depository institutions and for the banking system as a whole by providing a reliable backup source of funding."[5] The DW generally includes three types of credit: primary credit, secondary credit, and seasonal credit. After the reform of the DW in 2003, the primary credit rate was set to be 100 basis points above the federal funds rate target set by the Federal Open Market Committee (FOMC) to avoid "opportunistic borrowing".[6] Since then, primary credit serves as a backup source of funding for depository institutions. It normally is only available to depository institutions in sound financial condition at a short-term basis, mostly overnight.

Institutions that are not eligible for primary credit can instead borrow through secondary credit. As one would expect, the secondary credit rate is higher than the primary credit rate. The secondary credit rate is 50 basis points above the primary credit rate and therefore was 150 basis points above the federal funds rate target before the crisis. Seasonal credit is a program that provides funds for small depository institutions suffering significant seasonal swings in their loans and deposits.

However, in 2007, signs of stress in the global financial system emerged before the crisis took place. Notably, in February 2007, sub-prime mortgage borrowers were increasingly delinquent on their mortgage payments and defaults increased

[4] Givens and Reed (forthcoming) find that the effects of conventional monetary policy vary across the different components of the capital goods sector. Other related work focuses on the effects of monetary policy on disaggregated components in personal consumption. See Clark (2006), Boivin, Giannoni, and Mihov (2009), and Baumeister, Liu, and Mumtaz (2013) for examples.

[5] Federal Reserve Board, Discount Window Lending.

[6] Before the reform, the discount window rate was set to be below the target federal funds rate.

as interest rates rose from the low point in 2003. As a result, in June, two of Bear Stearns' sub-prime mortgage hedge funds failed. By August 2007, the French investment bank BNP Paribas suspended three investment funds that invested in sub-prime mortgage debt. Consequently, institutions became concerned about exposures to sub-prime mortgage debt. This increased the incentives of investors to withdraw funds which subsequently caused the interbank lending market to freeze.

In August 2007, to compensate for lack of liquidity in the market, the Federal Reserve lowered the primary credit rate from 100 basis points to 50 basis points above the federal funds rate target to provide liquidity to banks. At the same time, they also extended the maturities of DW loans from overnight to up to 30 days. However, borrowing from the DW was still associated with a "stigma" problem.

To avoid the "stigma" problem as well as to provide liquidity to institutions that were in need for funds, the Federal Reserve announced the establishment of the TAF on December 12, 2007. The TAF was an alternative term fund lending program to the DW which operated in an auction format. As opposed to the DW where banks approach the Federal Reserve to ask for funds, the TAF auctioned off a set amount of funds to banks. All depository institutions that were eligible to access the DW were also eligible to access the TAF. Institutions that were interested in the term funds submitted the loan amount and the rate they were willing to pay. Winners received the funds at the "stop-out rate".[7] All term funds were fully collateralized. Initially, only 28-day term loans were available.

Following the failure of Bear Stearns, the Federal Reserve further reduced the spread between the primary credit rate and the federal funds rate target to 25 basis points and extended the term of DW funds to up to 90 days. Further, beginning in August 2008, the Federal Reserve extended the TAF term loan maturity to as long as 84 days. Notably, the decision by the Federal Reserve to increase the maturities available to encourage bank lending behavior was intended to promote the flow of credit to firms and households during the crisis. "Together these actions should encourage term lending across a range of financial markets in a manner that eases pressures and promotes the ability of firms and households to obtain credit."[8]

In February 2010, the primary credit rate was reset to 50 basis points above the federal funds rate target. As for the TAF, it was a temporary program to help ease funding pressure during the financial crisis. The last TAF auction was held on March 8, 2010. All TAF loans were repaid in full with interest.

[7] The "stop-out rate" is the lowest rate which qualified for the funds or the lowest rate which all the funds were distributed.

[8] The Federal Reserve Board Press Release, October 6, 2008

3 Data

Our DW loan data is based upon internal data obtained from the Board of Governors of the Federal Reserve System. The identity of every financial institution that obtained funds from the Federal Reserve System during the crisis is available. By comparison, the TAF data is obtained separately and is publicly available due to provisions in the Dodd-Frank Act.

In contrast to Berger et al., we seek to separate the different roles of loan sizes and loan maturities. To begin, the DW spreadsheet includes the bank's name, transaction date, maturity date, and loan amount along with the number of days until the loan matures. For example, suppose that bank A borrowed $2000 from the DW on Dec. 9th, 2007. On the following date, the entry will still list $2000 with the number of days to maturity reduced by one.

We isolate each new loan originated within a quarter and format them under the borrower's RSSD-ID number. Therefore, we can determine the number of times one institution approached the DW within a certain quarter. The same procedures are repeated for the TAF data. The DWTAF data is obtained in the same fashion by combining the DW and the TAF loans together.

Our data construction mainly focuses on two variables: one is the average loan size and the other is the weighted-average maturity. The average loan size is obtained by calculating the average size for new loans each bank obtained in a quarter. That is, we take a simple average across all new loan originations. For example, suppose a bank obtained two new loans: one is a $2,000 loan for overnight and another is a $3,000 loan for three days. The average size measure would be equal to $2,500. As we are ultimately interested in understanding how the various sources of funds affected banks' lending activities, we need to scale the average size of loans by the size of a bank. Thus, the average balance is divided by gross total assets (GTA).

In particular, we construct separate average size measures for DWTAF, DW and TAF loans to study the effects of different types of funds borrowed from the Federal Reserve. Notably, DW loans are 'demand-driven' as they are granted after the application is made by a depository institution. By comparison, in some sense, TAF loans are 'supply-driven' since the total amount of funds auctioned is determined by the Federal Reserve. However, each bid has a minimum and maximum restriction set at each auction.[9]

We now describe how we define and obtain our maturity measures. In particular, we choose to weight the maturities by the size of loans obtained. That is, the weighted-average maturity is calculated by multiplying the maturity with the percentage share of the loan amount over the aggregate loan amount for a particular bank within that quarter. For example, consider the same example loans from above. In this hypothetical case, our average maturity for this particular bank would be 2.2 days. If instead, the first loan was only for $1,000, the average maturity measure would be 2.5 days. We also considered simple

[9] The minimum bid amount started at $10 million but was lowered to $5 million in Feb. 2008. The maximum bid was 10% of the offering amount in each auction.

averages for maturities but the results are fairly close to the results for the weighted-average maturities.

Notably, the pattern of banks' borrowing activities throughout the crisis period varies across the size distribution of the industry. To begin, we look at the average size of DWTAF loans over time for the banking sector and across different bank sizes. This is presented in Figure 1. Overall borrowing for the entire banking industry from the DWTAF spiked at both 2008Q1 and 2008Q4. The highest average loan amount was recorded in 2008Q1 at almost $200 million.

Figure 2 shows the number of banks that borrowed from the DWTAF in each quarter through our sample period. We can see that through the development of the crisis, the number of banks that borrowed from the DWTAF was increasing steadily leading up to the peak in the second quarter of 2009. Also, the share of small banks that borrowed from the DWTAF was increasing as the crisis progressed. At 2007Q3, about 58.3% of banks that borrowed from the DWTAF were small banks. But at the peak in 2009Q2, small banks took up 76.3% of the banks that borrowed from the DWTAF. By comparison, the share for large banks went from 29.2% in 2007Q3 to around 8.3% in 2009Q2 because the increase in the number of small banks exceeded the increase in the number of large banks.

Turning back to Figure 1, we look at the average loan sizes of DWTAF loans across the size distribution of banks. For small banks, the average loan size of DWTAF loans started low and had a large increase in 2008Q2. But after 2008Q3, the average loan size had a steadily decreasing trend. Medium banks' borrowings from the DWTAF have a consistent upward trend throughout the entire sample period.

As for the large banks, there was a steady increase of the average DWTAF loan size from 2007Q4 to 2008Q2 followed by a small dip in 2008Q3 before the surge in 2008Q4. The highest average loan size for large banks was recorded in 2008Q4 and 2009Q1 at close to $1.6 billion. Starting in 2009Q1 through the rest of the year, the size of DWTAF loans steadily decreased.

Overall, the average loan size that small banks acquired was much lower compared to large banks. Therefore, we see the spike in the aggregate industry DWTAF loan size in 2008Q1 which is not present when we break it down according to bank size.

Although access to the DW and the TAF was available for all depository institutions, small banks tended to use the DW more often than the TAF. One of the reasons is that the TAF had a minimum bid amount which started at $10 million and was later lowered to $5 million in Feb. 2008. Also, for smaller institutions, they might not have a high enough demand for liquidity that required them to acquire a large amount of funds at once. Not surprisingly, large banks utilized the TAF more than small banks.

We now look at Figure 3 which focuses on the average sizes of DW loans only. In comparison to the rise of the DWTAF loans, the average loan size of DW loans was decreasing until the first quarter of 2009. It remained roughly the same throughout the rest of the sample period. In Figure 4, we see that this was linked to the increasing number of small banks that borrowed from the

DW.

Looking back to Figure 3, for both small and medium banks, the average loan size plot for the DW is almost identical to its DWTAF plot. This shows that small and medium banks were mainly utilizing the DW.

However, for large banks, there was a significant difference between the average loan size from the DWTAF versus only the DW since large banks were the main users of the TAF. For the average loan size of the DW alone, there was a spike in 2008Q4 with the average loan amount recorded at $500 million. The spike only lasted for one quarter and the average loan size decreased steadily afterwards. Furthermore, among large banks, the average size of DW loans was significantly smaller than the average size of DWTAF loans.

We move on to focus on the maturities of loans that banks obtained. Over the entire sample period, from 2007Q3 to 2009Q4, the distribution for maturities changed over time. Please see Figures 5 and 6 which show the different maturities as a cumulative percentage of the overall borrowings of DWTAF loans and DW loans respectively.

In Figure 5, there was initially a discrete drop in the percentage share of overnight loans at the DWTAF from the second half of 2007 to 2008Q1. Starting in 2008Q1, the highest percentage of DWTAF loans was for 28 days. Further, at the peak of the crisis in 2008Q4, overnight loans were merely 10% of overall transactions. Meanwhile, in 2008Q4, loans with maturities around 30 days and 90 days became the majority - each took up 40% of overall transactions. After 2009Q2, overnight loans rose again with the 28-day loans still in the dominant position.

We turn now to Figure 6 where we focus exclusively on the maturity of DW loans. For the DW loans only, prior to Lehman Brothers' bankruptcy, the majority of funds borrowed were overnight loans. Yet, in the quarter following the bankruptcy, overnight loans dropped to less than 40% of overall transactions. Beginning in 2009Q2, however, LT borrowing contracted and the majority of loans slowly shifted back to short-term loans. In particular, loans with maturities of overnight up to less than a week took up close to 90% of overall DW transactions.

We move to discuss the explanatory variables in our framework. In particular, we use bank balance sheet data that is obtained from banks' Call Report data. Notably, all regulated financial institutions in the United States file financial and other information on a quarterly basis through their Consolidated Report of Condition and Income, or their "Call Report". The Call Report data is available from the commercial bank database of the Federal Reserve Bank of Chicago. This allows us to investigate how the characteristics of a bank affected their decisions to borrow from the DWTAF. To be clear, we want to avoid selection bias in our analysis, so we start with the Call Reports for all banks in each quarter during the crisis whether they borrowed from the Federal Reserve in a given quarter or not.

We construct several variables from the Call Report data. First of all, we look at GTA to account for the size of banks. Secondly, capital indicators (equity ratio or alternatively Tier 1 ratio) and portfolio risk variables (standard

deviation of rate of return on assets (ROA), the proportion of CRE loans, and the proportion of mortgage-backed securities (MBS)) allow us to assess the riskiness of the banks and take into account their capital structures. Furthermore, we also construct variables representing banks' earnings (rate of return on equity (ROE)).

Additionally, we include banks' alternative funding sources (repos, core deposits, cash, federal funds purchased, Federal Home Loan Bank (FHLB) loans, other hot money, and TARP funding) to account for their source of income and funding. TARP funding information is the only outside funding source that is not included in the Call Report. Therefore, we collected the TARP balance data separately from the U.S. Treasury Department.

We are only interested in analyzing the variation of borrowing and lending behavior for commercial banks that had access to the DWTAF. Hence, we eliminate the foreign bank branches in our data due to uncertainty of their fund distribution. Moreover, we dropped out all workout entities within our data and banks that have less than 8 quarters out of 12 quarterly measures of ROA to construct their standard deviation of ROA. We also limited our data to commercial banks that were non-startup depository institutions.[10] Lastly, we drop all institutions that did not carry CRE and C&I loans since these two variables are two of the loan categories that we are interested in.

Furthermore, we create a list of six dummy variables to represent each institution that we selected. We include a bank holding company dummy variable, a listed dummy variable, a foreign-owned dummy variable and three primary federal regulator dummies. These primary federal regulator dummies represent the Federal Reserve System (FRS), the Office of Comptroller and Currency (OCC), and the Federal Deposit Insurance Corporation (FDIC) respectively.

Next, we have a total number of more than 7,000 institutions whose organizational hierarchies need to be identified. The list is developed by submitting their RSSD-ID number to the Federal Reserve System National Information Center to look at their organization hierarchy. This gives us the information about their holding company or companies to pin down whether they belong to a holding company or not. We also look at the holding companies to see if they are listed or foreign.

In addition to Berger et al., we incorporate external credit market conditions and macroeconomic variables. ABCP, financial ABS, and the agency and GSE-backed mortgage pools were significantly impacted by the crisis. In particular, these markets were some of the main funding sources for commercial banks prior to the crisis. Therefore, we include them in our analysis. These data are obtained through the Board of Governors of the Federal Reserve System. The methodology is outlined on the website: *https://www.federalreserve.gov/ data-download.*[11] All credit market indicators in the regressions are logged. Specifically, for the issuance of financial ABS, some of the values are negative. There-

[10] Start-up institutions are institutions that have mean GTA less than $25 million.

[11] Source Code: Agency-and GSE-backed mortgage pools: Z1/Z1/FA413065005.Q; Issuers of Asset-backed Securities:Z1/Z1/FA674090005.Q; ABCP outstanding: CP/OUTST/DTBSPCKA.M

fore, we took the negative log of its absolute value to adjust for the sign. We also used state and national level macroeconomic variables to control for the influence of the overall economic performance. These state and national level macroeconomic variables include the state and national level unemployment rate obtained from the BLS, and the GSP and GDP from the BEA.[12]

Further, we add the movement of the federal funds rate and the spread to control for banks' incentives to borrow simply based on the costs of obtaining funds from the Federal Reserve. Moreover, to incorporate regional effects, we include census region variables based on the location of their headquarters.

The complete dataset is broken down to several different subpanels. First, for banks' participation decisions, we divide the data into three subpanels: small, medium, and large banks.[13] In particular, we are mainly focused on the behavior of small and large banks. The purpose of having the medium bank subpanel is to serve as a buffer between small and large banks. Therefore, we are able to observe the variation across the size distribution more clearly.

Secondly, for the banks' lending behavior, we first consider the aggregate level and then break it down into subcomponents. Initially, we attempted to follow the procedures in the participation decision analysis and divided the data into three subpanels. However, the number of observations for the large bank subpanel alone is too small for the lending analysis. Hence, we merge the medium and large banks subpanels together. Thus, the data is separated into two subpanels instead of three.

Table 1 shows the summary statistics of all variables.

4 Statistical Methodology

This section addresses the methodologies that we employed. As mentioned above, there are two parts to the analysis. First, we focus on the borrowing side, which is the bank's participation decision. Furthermore, for those banks that did borrow, we also examine the determinants of loan maturities that they obtained. Second, we move on to analyze the lending behavior of banks. That is, how the availability of funds and maturity extension policy affected banks' lending behavior.

4.1 Univariate Probit

To study banks' participation decisions, we begin by utilizing an univariate panel probit model to help us understand which type of banks were more likely to borrow funds from the Federal Reserve. The regression equation is

[12] BLS website: *https://beta.bls.gov/dataQuery/find?st=20&r=20&s=popularity%3AD&fq=survey:[la]&more=0.*
and BEA website: *https://www.bea.gov/itable/iTable.cfm?ReqID=70&step=1#reqid=70&step=1&isuri=1;*

[13] Small, medium and large banks are consists of banks have GTA less than $1 billion, between $1 and $3 billion and more than $3 billions, respectively.

as follows:

$$P_{i,t} = \Pr(y_{i,t} = 1|X_{i,t}) = \Phi(X_{i,t}\beta) \tag{1}$$

where $P_{i,t}$ represents the probability that a bank borrowed from the Federal Reserve with respect to the DWTAF, the DW, and the TAF separately while i, t indicates the specific entity and time period. $X_{i,t}$ represents a vector of independent variables. The vector includes a set of bank characteristic variables that describe the bank's size, capital structure, risk composition, earnings, ownership status, and its primary federal regulator. We also include the federal funds rate and the spread between the federal funds rate and the primary credit rate. For banks' primary federal regulators, the dummy variable representing the Federal Reserve is dropped to serve as the omitted category (same as Berger et. al.).

To account for macroeconomic performance and some unobservable factors, there are two sets of analyses conducted following the methodology discussed above. One includes time fixed effects which serves as the baseline model. Another uses macroeconomic indicators and credit market conditions. Macroeconomic variables include GSP and national GDP, along with state and national unemployment rates. Credit market conditions include the volume of market outstanding ABCP, the issuance of financial ABS, and the size of the agency and GSE-backed mortgage pools.

4.2 Bivariate Probit

To deepen our understanding of the DW and the TAF, we employ a bivariate probit model to analyze the joint decision process for banks to utilize the DW and/or the TAF. The methodology follows the same set up as in Cameron and Trivedi (2010).

In particular, the DW acts as a "demand-driven" channel which is more attractive to small banks. On the contrary, the TAF was a "supply-driven" channel which along with its minimum bid requirement, was more attractive to large banks. Also, the TAF program was announced in 2007Q4, whereas the first maturity extension of the DW was announced in 2007Q3. Hence, for this analysis, we drop all observations for 2007Q3.

The dependent variable is still a binary variable that indicates whether an entity participated in the Federal Reserve's lending program or not. However, instead of examining the probabilities of borrowing separately, we jointly estimate the probability of one entity to participate in both of the Federal Reserve's lending programs within the same quarter. The regression equations are as follows:

$$P_{1,i,t} = \Pr(y_{i,t} = 1|X_{i,t}) = \Lambda_1(X_{i,t}\gamma_1) \tag{2}$$

$$P_{2,i,t} = \Pr(z_{i,t} = 1|X_{i,t}) = \Lambda_2(X_{i,t}\gamma_2) \tag{3}$$

In the equations above, $P_{1,i,t}$ represents the probability that a bank participated in the DW program and $P_{2,i,t}$ represents the probability that a bank participated in the TAF program. The same set of independent variables from

the univariate probit model is used for the bivariate probit model. There are also two alternative analyses conducted to account for macroeconomic and seasonal changes. As mentioned in the univariate probit model, one is with time fixed effects, and the other uses macroeconomic indicators and credit market activity.

4.3 Heckman-Selection model

Other than studying the factors that affected banks' decisions to participate in the Federal Reserve's lending programs, we are also intrigued by the factors behind banks' maturity requests and demand for funds. However, only around 35% of banks in the banking sector borrowed from at least one of the Federal Reserve's lending programs during the sample period. Thus, simple OLS analysis might produce biased estimates due to sample selection. Therefore, we choose to use a Heckman-selection model to adjust for potential selection bias. In particular, Cameron and Trivedi (2005) point out that with censored data, the Heckman selection model can produce consistent estimators.

There are two estimation methods for the Heckman-selection model: a two-step approach and joint MLE. However, for the joint maximum likelihood function to converge, there needs to be enough disparity between the probit regressors and the OLS regressors. For our data, the information set is narrow and almost identical between the two regressions. Thus, there is not enough disparity between the regressors. Consequently, we decide to employ the two-step approach.

The two-step approach starts with a standard univariate probit model. To begin, equation (1) with time-fixed effects is used for the first stage of the Heckman-selection model. With the information obtained from the probit regression, we are able to construct the inverse Mills ratio. The inverse Mills ratio incorporates the conditional probability for a bank to borrow which is estimated in the first stage regression. In the second stage, the inverse Mills ratio is included in the OLS regression on the censored data.

In standard practice, the second stage of the Heckman-selection model is a simple OLS regression. However, banks make decisions about how much they are going to borrow and how long they are going to borrow at the same time. Therefore, to account for the potential connections between loan amounts and maturities, we utilized a Seemingly Unrelated Regressions (SUR) model. The second stage regression function is as follows:

$$\begin{aligned} Y_{i,t} \quad = \quad & \theta_1 X_{i,t} + \theta_2 \text{Credit market variables}_t + \theta_3 \text{Macroeconomic indicators}_t \\ & + \theta_4 \text{Inverse Mills}_{i,t} \ + \varsigma_{i,t} \end{aligned} \tag{4}$$

where $Y_{i,t}$ represents the vector of weighted-average maturity and the average loan size.

4.4 Lending regressions

In the lending analysis, we broke down the lending activities into different categories of loans. The regression model is as follows:

$$\begin{aligned}\Delta\text{Loans}_{i,j,t} &= \varphi_0 + \varphi_1 \text{Loan size}_{i,t} + \varphi_2(\text{Loan size}_{i,t} \times \text{Weighted\_maturity}_{i,t}) \\ &\quad + \varphi_3 \text{Other funding sources}_{i,t} + \varphi_4 X_{i,t} + \varphi_5 \text{Credit market variables}_t \\ &\quad + \varphi_6 \text{Macroeconomic indicators}_t + \epsilon_{i,t} \end{aligned} \tag{5}$$

where $\Delta\text{Loans}_{i,j,t}$ represent the change of loans for the each different categories. Here, j includes Total loans, RRE loans, CRE loans, C&I loans, LT loans, short-term (ST) loans, consumer loans and other loans.[14] Loan $\text{size}_{i,t}$ represents the average loan size a bank obtained in a given quarter. We first conducted the regressions without controlling for a bank's other funding sources, but we later proceed to include them. Therefore, in the benchmark specification, φ_3 is equal to zero. Lastly, $\epsilon_{i,t}$ represents the error terms. We also use a SUR regression, where we jointly estimate all equations. This allows us to account for the underlying connections between the different types of loans.

We next discuss how we control for the maturity of funds obtained. First, the maturity variable on its own does not have any meaning without a loan origination. Instead, maturity extension of funds borrowed may promote the willingness of banks to lend. Thus we model the role of maturity through an interaction term, $\textit{Loan size}_{i,t} \times \textit{Weighted\_ maturity}_{i,t}$. As a result, the partial derivative of the change in loan size is equal to ($\varphi_1 + \varphi_2 \times \textit{Weighted\_ maturity}_{i,t}$) - an increase in maturity may promote the effect of funds obtained and therefore φ_2 would be statistically different from zero.

5 Results

The analysis contains two main parts, one is analyzing banks' participation decisions in the Federal Reserve lending programs while the other analyzes how banks used the funds that they obtained. In particular, the first analysis is conducted across subpanels according to the size distribution of the banking sector. To be specific, we divide the sample into small, medium, and large banks. Second, in order to study banks' behavior at different stages of the crisis, we also break the full sample down to two different sub-periods. Notably, the bankruptcy of Lehman Brothers marked the peak of the crisis. Therefore, we refer to the different periods as the pre and post-Lehman periods.

5.1 Results for banks' participation decisions

In this section, we present the results concerning banks' participation decisions in the different lending programs. For the univariate probit and bivariate probit

[14] Long-term loans are defined as loans with maturities longer than 12 months. Short-term loans are defined as loans with maturities less than 12 months.

results, the tables report the marginal effects instead of the coefficients obtained in the regressions.

The layout is as follows. In all tables, panel A, B, and C represent the DWTAF, the DW, and the TAF respectively. Within each panel, subpanel 1, 2, and 3 represent the small, medium, and large bank subpanels. Notably, the TAF program was initiated in December 2007. Therefore, the regression for the TAF started in 2007Q4 instead of 2007Q3. Furthermore, in each set of regressions, the tables show the results with alternative capital ratio measures - one is with the equity ratio and the other is with the Tier 1 ratio. The results are similar for both types of capital ratio measures.

5.1.1 Results - Univariate Probit

The first set of results that are presented incorporates the credit market activity and macroeconomic performance.[15] To be specific, Table 2 shows the results for the DWTAF and the DW participation across the full sample period. In addition, Table 3 presents the full sample period results for the TAF participation.

To begin, we first look at panel A of Table 2. It shows the results for participation in the DWTAF across the entire crisis period for different bank sizes. Notably, a number of our results are consistent with Berger et al. For example, the comparatively bigger banks within each group were more likely to borrow from the DWTAF. In addition, small banks with a lower capital ratio had a lower probability of participating in the DWTAF programs. When using the Tier 1 ratio, we also see that small banks that carried a higher proportion of MBS were more likely to borrow from the DWTAF. Moreover, small banks that were regulated by the FDIC were less likely to borrow from the DWTAF.

We also have a number of results in addition to what Berger et. al. find. To begin, while Berger et al. do not find that small banks that were owned by a listed holding company were more likely to participate in the DWTAF, we do.

Furthermore, we gain extra insights from the credit market conditions which were not incorporated in the analysis of Berger et al. We view that is particularly important to consider as Bernanke (2010) and others have argued that the different lending programs were important for alleviating the loss of funding to banks from various structured credit vehicles such as ABCP conduits and issuers of asset-backed securities that took place during the crisis. Finally, we also include different macroeconomic indicators.

Notably, credit market performance played a role in small banks' decisions to borrow from the Federal Reserve. In particular, the coefficient estimate for the issuance of financial ABS is negative and statistically significant, suggesting that banks borrowed from the Federal Reserve when financial securitization tightened. Furthermore, small banks were less likely to borrow from the DWTAF if the federal funds rate was higher.

In addition, we control for the influence of the level of local economic activity. In particular, a higher state unemployment rate was positively correlated with

[15] For brevity, we omit the results with the time and regional fixed effects.

the decision to participate in the DWTAF program. By comparison, higher levels of GSP were negatively correlated with the participation choice.

We proceed to look at the decisions by medium banks which were not a separate size category in Berger et al. Among this group of institutions, individual bank characteristics do not matter for participation except for their own size. In particular, the coefficient estimate for bank size is more than twice as large as in the case of small banks, indicating that bank size played a stronger role in participation among medium-sized banks than small banks.

Moreover, as in the case of small banks, new issuance of financial ABS was negatively correlated with the decision to borrow from the DWTAF. However, in comparison to small banks, the coefficient estimate is nearly ten times larger indicating that securitization funding was more important for medium-sized banks than small banks. In a similar manner, the coefficient estimate for the federal funds rate is also negative, but much stronger among medium banks than small institutions. In addition, the signs for the state unemployment rate and GSP are the same as in the regressions for small banks but with higher point estimates.

Next, we look at large banks' participation decisions. As in the case of Berger et al., large banks with lower Tier 1 ratios were more likely to borrow from the DWTAF. Similarly, when analyzing the decision where the Tier 1 ratio is included, large banks that carried a higher proportion of CRE loans were more likely to borrow. Turning to the role of financial ABS (which was not included in Berger et al.), larger issuance led to a lower probability of borrowing but the point estimate is higher in comparison to smaller banks. The role of the federal funds rate is analogous but the coefficient estimate is not as large as in the regressions for medium-sized banks.

Panel B of Table 2 presents the results for banks' participation decisions regarding the DW in the full sample period. For small banks, the factors that affected their decisions to borrow from the DW were almost identical to those found in the DWTAF results. The point estimates for those variables are similar as well. This is as expected since small banks mainly utilized the DW.

We now turn to look at medium banks' participation decisions regarding the DW. Here, in contrast to the DWTAF, none of the individual bank characteristics were correlated with the decision to borrow from the DW. However, consistent with the DWTAF, the issuance of financial ABS and the federal funds rate have the same effects on medium banks' utilization of the DW. Moreover, the state unemployment rate is not a significant factor here unlike in the DWTAF. But, GSP still is and it has the same sign as in the DWTAF.

For large banks' decisions about the DW, size is no longer a factor in comparison to the DWTAF. But, their capital ratios were still significant for their decisions to borrow. Moreover, institutions that were regulated by the FDIC were less likely to borrow from the DW.

Interestingly, credit market conditions affected large banks' decisions in slightly different ways at the DW than the DWTAF. At higher amounts of market outstanding ABCP, large banks were more likely to borrow from the DW. But, ABCP was not significant to their decisions to borrow from the DWTAF.

We suspect that because ABCP conduits package together loans, the demand for loans in the originate to distribute model was higher when ABCP issuance was also higher.

Meanwhile, the issuance of financial ABS is negatively correlated with large banks' participation in the DW which is consistent with what we found in the DWTAF. Again, this likely reflected their ability to obtain funds through financial securitization.

Lastly, unlike the DWTAF where macroeconomic performance does not matter, a higher GDP led to a higher probability for large banks to borrow from the DW.

We now turn to Table 3 which presents the full sample period results for banks' participation in the TAF. The variable foreign is dropped in both the small and medium banks regressions because it predicts failure perfectly.

First, focusing on small banks, larger institutions had a higher probability to borrow from the TAF which is the same as in the case of the DW and the DWTAF. This also likely reflects that there were minimum bid requirements in the TAF program. However, in comparison to the DW, small banks that were in more sound financial condition were more likely to borrow from the TAF. For example, small banks with less volatile and higher earnings (i.e. a lower standard deviation of ROA and a higher ROE) were more inclined to borrow from the TAF compared to their peers.

The ability to obtain funds through alternative sources also affected small banks' decisions but in different ways than at the DW. Specifically, the size of the agency and GSE-backed mortgage pools and the issuance of financial ABS were positively associated with small banks' utilization of the TAF. By comparison, at the DW, the size of the mortgage pool was not significant. In addition, the sign of financial ABS was negative. This also suggests that there were different incentives to use the DW versus the TAF.

Moreover, similar to the DW, the federal funds rate and the spread are negatively correlated with small banks' decisions. This indicates that lower costs of borrowing were important in the decision of small banks to use the TAF.

Proceeding to look at the results for medium banks' decisions to borrow from the TAF, there are no significant results in the regression that used the equity ratio. However, with the Tier 1 ratio, the size of the bank and local economic activity are significant. Among medium banks, in contrast to the DW in which size was irrelevant, larger institutions were more likely to borrow from the TAF. This could also be linked to the minimum bid requirements in the TAF as in the case of small banks. Furthermore, consistent with the DW, medium banks were more likely to borrow from the TAF if GSP was lower.

Moving on to large banks, as in the case of small and medium banks, the size of the bank is one of the significant factors and it had the same effect on participation at the TAF. However, at the DW, size was not important to large banks' decisions.

Furthermore, as previously mentioned, we further include credit market performance and macroeconomic indicators which were absent in Berger et al.. In

particular, credit market performance influenced large banks' decisions but in different ways than the DW. For example, at the DW, only market outstanding ABCP and the issuance of financial ABS were significant. Also, the sign of market outstanding ABCP was positive.

However, here, all credit market activities, including the size of the agency and GSE-backed mortgage pools, were negatively associated with large banks' participation in the TAF. Notably, although financial ABS has the same sign as in the case of the DW, its point estimate was almost twenty times higher compared to that found for the DW. Moreover, a lower spread between the federal funds rate and the primary credit rate incentivized large banks to borrow from the TAF as it did for small banks.

As for the role of macroeconomic performance, large banks were more prone to borrow from the TAF when the national unemployment rate was lower. The reason is that large banks were using TAF funds to lend to other businesses and individuals, which we will show later in the lending results. Meanwhile, GDP is negatively associated with large banks' participation decisions for the TAF which is the opposite of that at the DW. Thus, both macroeconomic indicators provide conflicting pieces of information. However, we believe that the unemployment rate plays a bigger role for participation at the TAF because it is a better indicator of loan default risk.

In contrast to Berger et al., we also break down the analysis to look at the pre and post-Lehman periods. To begin, Table 4 shows the DWTAF and the DW results for different bank sizes during the pre-Lehman period. Table 5 contains the results for the TAF. National level macroeconomic indicators and the spread are dropped in the pre-Lehman regressions due to multicollinearity. Moreover, the TAF regression of the small bank subpanel is unable to converge due to a small number of positive observations. Therefore, for the TAF results, only medium and large bank subpanels are presented.

As in the full sample period results, bigger institutions across the different size categories were more likely to borrow from the DWTAF. However, among small and medium-sized banks, the role of GTA is not as important in the pre-Lehman era as in the full sample period – the opposite is true for the largest banks.

Shifting our focus to small banks, a number of the results are similar to what we find in the full sample period. Consequently, we choose to highlight the key differences. In particular, all of the point estimates reflecting credit market conditions are statistically significant in the pre-Lehman sample whereas only the coefficient for financial ABS is significant in the full sample. Thus, the ability of institutions to find buyers of loans they originated had a stronger impact on participation at the DWTAF prior to the bankruptcy of Lehman Brothers.

In terms of the role of macroeconomic conditions, the magnitudes of the estimates for the state unemployment rate and GSP are smaller in the pre-Lehman period. This suggests that macroeconomic performance was not as important before the peak of the financial crisis.

We now move on to look at the results for medium banks. Similar to small banks, credit market conditions represent the key differences in comparison to

the results in the full sample for medium banks' decisions. In the pre-Lehman period, the amount of market outstanding ABCP, which was not relevant in the full sample period, was negatively correlated with medium banks' utilization of the DWTAF. Meanwhile, issuance of financial ABS and the federal funds rate do not play a role here as oppose to the full crisis period.

Furthermore, the effect of the state unemployment rate remains but not the GSP. The state unemployment rate was positive and significant as in the case of the full sample period. This indicates that in the first half of the crisis, the effect of local macroeconomic conditions was weaker in comparison to the full sample.

Turning our attention to large banks, there are a number of differences for the role of bank characteristics in comparison to the full sample period. First of all, portfolio risk factors were not major factors influencing large banks' utilization of the DWTAF in the pre-Lehman period. Instead, a bank's holding company status and its regulator are the main factors. For example, large banks that were owned by a holding company were more likely to use the DWTAF. But if a large bank is owned by a listed company or itself is listed, then it was less likely to borrow from the DWTAF in the pre-Lehman era.

Second, credit market performance affected large banks' decisions the same way as in the full sample period. However, the impact of a tightening financial securitization environment was stronger before the bankruptcy of Lehman Brothers.

We next look at Panel B in Table 4 which focuses on banks' participation at the DW. For small banks, individual bank characteristics have similar roles as in the full crisis period. Moreover, the results are almost identical to the DWTAF results during the same period. Similar to the DWTAF, in comparison to the full sample results, the key differences are the impact of credit markets conditions.

Medium banks' decisions to borrow from the DW were not affected by individual bank characteristics as in the full sample period. However, in contrast to what we find in the entire crisis period, the volume of market outstanding ABCP and the size of the agency and GSE-backed mortgage pools are both negatively associated with medium banks' participation at the DW. Therefore, the tightening of credit markets prompted medium-sized banks to borrow from the DW in the pre-Lehman era. Moreover, while macroeconomic performance at the state level affected medium banks' decisions in the full sample period, it does not matter here.

Moving on to large banks, a few of the bank's characteristics match what we see in the full sample - bank size is not one of them. Among large banks, bigger institutions were more likely to borrow from the DW during the pre-Lehman period. Furthermore, unlike the full sample period, credit market conditions did not affect large banks' decisions at the DW.

We now turn to Table 5 which focuses on banks' participation at the TAF prior to the bankruptcy of Lehman Brothers. As previously mentioned, only the medium and large bank subpanels are shown because of the convergence issue in the small bank subpanel. Moreover, the federal funds rate is omitted due to collinearity.

Consistent with the full sample period, the significant variables are identical to those in the full sample results. However, the magnitudes of these variables' point estimates are about half in comparison to the full sample period.

As for large banks, throughout the crisis, we see that their size and credit market conditions affected their decisions to borrow from the TAF. However, during the first half of the crisis, these variables did not matter.

The results concerning the post-Lehman period are presented in Tables 6 and 7. The layout of the results is the same as in the full sample period and the pre-Lehman period. Table 6 shows the results regarding the DWTAF and the DW and Table 7 shows the results for the TAF. In the analysis, the variable spread is omitted because there is no change of it after the bankruptcy of Lehman Brothers.

Similar to what we find in the full sample period, bigger institutions across the size distribution of the banking sector were more likely to borrow from the DWTAF. However, in the second half of the crisis, the influence of size was stronger for small and medium banks in comparison to the full sample period. By comparison, the impact on large banks' decisions was smaller.

Focusing on small banks, the results in the post-Lehman sub-sample are similar to those in the full sample period. However, the point estimates of those significant individual bank characteristics are about two times as large in comparison to the full sample results. In other words, the impact of those characteristics was stronger in the second half of the crisis.

Moreover, the size of the agency and GSE-backed mortgage pools, which was not relevant in the full sample, was significant and positively associated with small banks' decisions to borrow from the DWTAF in the post-Lehman period. An expansion in the size of the mortgage pools means that there was higher demand for loans that were originated to distribute.

As for the role of local macroeconomic performance, these variables have the same signs as in the full sample period but higher point estimates. During the post-Lehman era, macroeconomic conditions were more important to small banks' participation decisions in the DWTAF.

Moving on to medium banks, the results are slightly different than those we found in the full sample period. Medium banks that were under a foreign entity were less likely to borrow from the DWTAF in the post-Lehman period, but not across the overall crisis period. Meanwhile, credit market variables did not impact medium banks' decisions to borrow from the DWTAF in the post-Lehman period.

State level macroeconomic conditions retains the same signs as in the full sample, but the magnitudes of the point estimates are higher in the post-Lehman era. This indicates that macroeconomic performance was more important to medium banks' decisions at the DWTAF during the second half of the crisis.

For large banks, their portfolio riskiness, which was a significant factor in the full sample period, was not relevant after the bankruptcy of Lehman Brothers. *In contrast, credit market conditions were the main factors. Notably, the expansion of credit markets stimulated the demand for loans that were originated to distribute.* Hence, increases in credit market activity led to a higher probability

to borrow from the DWTAF among large banks. Also, large banks were often associated with their own off-balance sheet vehicles, which could have potential ties to large banks' decisions.

Banks' decisions regarding the DW in the post-Lehman era are presented in Panel B of Table 6. The significant factors in small banks' results are identical to those in the DWTAF during the same period except for the credit market conditions. Here, the estimates of the amount of market outstanding ABCP and the size of the agency and GSE-backed mortgage pools were both positive and statistically significant. In contrast to the full sample, only the issuance of financial ABS was significant.

Furthermore, the state unemployment rate and GSP have the same signs as in the full sample results. But, the higher point estimates were higher in the second half of the crisis. This is consistent with what we find in the post-Lehman results for DWTAF.

Unlike the full sample period, medium banks' decisions to borrow from the DW in the second half of the crisis are only tied to state level macroeconomic conditions. For example, a lower GSP was associated with a higher probability for medium banks to borrow from the DW. The lower income level indicates a lower amount of overall deposit formation among banks in each state. Therefore, medium banks were more likely to turn to the DW for funds.

For large banks, size affected their decisions in different ways in comparison to the full sample period. Interestingly, in the post-Lehman period, smaller-sized institutions among large banks were more likely to borrow from the DW. Yet, other results are consistent with those for the DWTAF during the same period except for the performance of the credit market. Here, unlike in the DWTAF, the size of the agency and GSE-backed mortgage pools was not significant.

We now turn to Table 7 which contains the results for TAF participation during the post-Lehman period. For the post-Lehman period TAF results, the foreign dummy predicts failure perfectly for small and medium banks. Hence, it is dropped from both small and medium subpanel analysis.

Overall, size was a strong influencing factor in participation at the TAF in the post-Lehman era. The size of banks is positively correlated to banks' participation decisions in the TAF across all bank sizes as in the full sample period.

Small banks' results are consistent with the full sample period except for the influence of credit market conditions. Credit market conditions played a role in small banks' decisions to utilize the TAF through the entire financial crisis. However, they have no effect on small banks' decisions during the second half of the crisis.

Medium banks also have similar results as in the full sample. Yet, the role of state level macroeconomic indicators is different. During the post-Lehman era, better macroeconomic performance at the state level (i.e. a lower state unemployment rate and a higher GSP) resulted in a lower probability for medium banks to borrow from the TAF.

As for large banks, there is no significant factor influencing banks' participation in the TAF except for their size.

To summarize the univariate probit results succinctly, as noted by Berger et al., size impacted the decisions of banks to participate in the different lending programs. However, Berger et al. do not include credit market conditions in their analysis which would seem to be important as the loss of funding to banks played a role in the credit crunch during the recent crisis. In general, we find that a tight financial securitization environment led banks to borrow from the Federal Reserve over the full sample period.

Furthermore, local macroeconomic performance also affected small and medium banks' decisions in a vital way. In particular, for small and medium-sized institutions, poor macroeconomic performance (i.e. a higher unemployment rate and/or a lower GSP) at the state level tended to drive them to borrow from the DWTAF program.

As for the pre and post-Lehman periods, the main difference comes from the effects of credit market conditions. Credit market activity affected banks' borrowing behavior differently before and after the bankruptcy of Lehman Brothers. As an example, in the case of large banks in the pre-Lehman era, the issuance of financial ABS was negative and significant for their decisions to borrow from the DWTAF.

However, in the post-Lehman period, financial ABS was irrelevant. Instead, the amount of market outstanding ABCP and the size of the agency and GSE-backed mortgage pools were positively associated with large banks' decisions. In other words, in the first half of the crisis, when financial securitization tightened, large banks were more likely to borrow since they were not able to obtain funds through financial securitization. *Yet, in the latter half of the crisis, large banks borrowed more often from the DWTAF in order to lend to other business and individuals when there was more demand for loans that were originated to distribute.*

5.1.2 Results - Bivariate Probit

We next move to the bivariate probit analysis. In comparison to the univariate probit framework, the bivariate framework allows us to study a richer set of decision making: (i) do not participate in either lending program, (ii) borrow only from the DW, (iii) only borrow TAF funds, or (iv) borrow from both programs within the same quarter.

To begin, Table 8A shows participation rates at the different programs over the full sample. Across the entire size distribution of banks, less than 10% of banks borrowed from either program. This was particularly true for the smallest banks. In addition, less than 30% of medium-sized banks borrowed funds from the Federal Reserve, but over half of the large banks did. If a bank did borrow from one of the emergency lending programs, it was most likely to approach the DW – around 8.5% of banks obtained funds from the DW, but did not participate in the TAF program. While a smaller percentage of small banks solely used the DW in a given quarter, nearly 25% of medium and large banks did.

In terms of the TAF, it was mainly utilized by large banks – almost 20% of

large banks only borrowed from the TAF in a particular quarter while a bit more than 10% of large banks used both the DW and the TAF simultaneously. By comparison, less than 5% of medium-sized banks borrowed from both programs in the same quarter and less than 3% of medium banks only took advantage of the TAF.

Tables 8B and 8C break the rates down across the pre and post-Lehman periods. In the pre-Lehman era, less than 5% of banks borrowed from the Federal Reserve. Moreover, most large banks borrowed from the DW (above 25%) and only around 5% of them solely took advantage of the TAF in the pre-Lehman period. Around 10% borrowed from both sources. Medium sized banks were much more likely to borrow from the DW. The participation rates among small banks were very low, but if they did borrow, they were most likely (slightly over 3.5%) to seek funding at the DW.

As shown in Table 8C, participation rates in the post-Lehman period were generally higher across the board (small, medium, and large banks at the DW only, TAF only, and both the DW and the TAF). In particular, participation rates at the DW only among small banks surged. While over 97% of small banks did not borrow from either program in the pre-Lehman period, it dropped to just below 87% in the post-Lehman period. More than half of large banks did not participate at all in the first half of the crisis, but the fraction fell to nearly 1/3 in the second half.

Following the discussion in Section 2, it is clear that there was a concern about "stigma" from participating in the lending programs during the crisis. Were such concerns justified? Were banks that took advantage of the programs generally weaker, riskier institutions than others? Or, as argued by Bernanke (2010), did the lending programs help alleviate the loss of funding to banks from various structured credit vehicles such as ABCP conduits and issuers of asset-backed securities that took place during the crisis?

Rather than stating the results individually for a given bank size, we choose to focus on studying which variables were correlated with participation across the size distribution – this allows us to streamline the discussion and try to avoid repetition of the analysis using the univarite probit framework. To start, please see Tables 9, 10, and 11 where we present the marginal effects for the full sample period.

In terms of analyzing the role of stigma in participating in the different lending programs, we first recognize that across the board – small, medium, and large banks – the larger banks within each category were more likely to participate in at least one of the lending programs. That is, the coefficient estimate for GTA is negative and statistically significant in the decision not to borrow at all from the Federal Reserve during the crisis. While this evidence is consistent with the univariate probit analysis, it does go beyond our previous insights since we are able to study the decision not to borrow from *either* of the different programs in a given quarter rather than only looking at whether a bank did or did not utilize the DW or the TAF individually without looking at joint participation or total abstention.

There is also evidence that the concerns about stigma were rational. In

particular, the equity ratio is positively correlated with the decision not to participate for small banks. It is also negatively correlated with the decision to borrow from the DW only as is the Tier I ratio. Large banks with higher Tier I ratios were also more likely not to borrow at all.

Further, there are also some signs that the riskiness of a bank's portfolio due to holdings of real estate assets mattered – large banks with greater holdings of CRE were *less* likely *not* to participate in either program – in addition, small banks with more MBS were more likely to borrow exclusively from the DW. Thus, it appears that the various lending programs were important for promoting access to liquidity across weaker banks – consistent with the role of the Federal Reserve for promoting the stability of the banking system.

We turn to the role of credit market conditions. Much of the evidence indicates that access to the Federal Reserve's lending programs was important for alleviating a credit crunch which was associated with weaker funding to banks in the financial system. For example, the size of the agency and GSE-backed mortgage pools was positively correlated with the decision not to borrow at all from the Federal Reserve by medium and large banks.

Moreover, among medium-sized banks, the size of the mortgage pool was negatively correlated with the decision to only borrow from the DW (which medium-sized banks used much more than the TAF). Similarly, issuance of financial ABS was linked to the decision not to participate in either program by medium-sized and small banks. It is also negatively correlated with the decision to only borrow from the DW for the same set of banks.

However, the size of outstanding ABCP was positively correlated with the decision of large banks to only approach the DW. Yet, the majority of the evidence indicates that the different lending programs appeared to have been important for alleviating the *loss* of funding to banks rather than complementing the availability of various sources of credit.

We proceed to look at the effects of (conventional) monetary policy on participation in the various lending programs. We also study the effects of the primary credit spread. The target for the federal funds rate only seems to matter among medium-sized banks, but it has the wrong sign. In particular, the results indicate that higher levels of the target for the federal funds rate were negatively correlated with the decision not to borrow at all from the Federal Reserve. That is, higher levels of the funds rate were positively correlated with the decision to borrow from at least one lending program. Thus, at least over the full sample period, conventional policy had little impact in encouraging banks to participate in the Federal Reserve's unconventional lending facilities.

However, the decision to lower the spread at different points appears to have been important. Notably, the higher the spread, the more a large bank would be inclined not to borrow from either lending program. Nevertheless, the higher the spread, the larger the correlation with the decision to borrow from the DW only. We note that the point estimate for the spread in the marginal effects for participation at the DW only is around 50% larger than in the correlation not to participate at all. This likely reflects that the higher spread was really about the decision to borrow from the DW relative to obtaining TAF funds which were

auctioned off in larger amounts at relatively long maturities.

The effects of macroeconomic conditions somewhat vary across the size distribution. The higher the state unemployment rate, the greater the probability not to participate in either program among medium and small banks – this seems to reflect that the Federal Reserve's lending programs were important for supplying access to liquidity to banks so that they could issue more loans. Higher unemployment rates would be associated with less demand for loans and a lower willingness of banks to lend due to default risk. Yet, among small banks, the higher the unemployment rate, the more a bank would be inclined to only borrow from the DW. This likely indicates that inter-bank lending tended to decline when labor markets weakened.

The results for the largest banks reveal that the DW was important for both promoting stability of the banking system as a LOLR and helping to alleviate a general credit crunch. As in the case of small banks, a higher unemployment rate was positively correlated with the decision to borrow only from the DW. On the other hand, a large bank was more inclined to borrow from the DW when GDP was higher which would indicate that banks were more likely to borrow when the demand for loans at banks was higher. Hence, the DW served two roles – it promoted the stability of the banking system by helping alleviate dislocations in money markets and it also helped alleviate concerns about a credit crunch by providing more liquidity to the overall banking system.

We continue the discussion by focusing on the pre-Lehman period.[16] We first note that due to the limited number of observations for participation in either of the lending programs, the bivariate probit regressions for small banks did not converge. However, we can still say some things about medium and large banks.

First, in addition to the results for the full sample, we find that bigger banks within each size category not only were less likely not to borrow at all from the Federal Reserve, they were also more likely to only borrow from the DW. In comparison to the full sample, none of the macroeconomic indicators played a role in participation at the DW or the TAF prior to the failure of Lehman Brothers.

Nevertheless, some interesting findings emerge from the credit market variables. While the total amount of financial ABS did not affect participation by large banks at both the DW and the TAF across the crisis, it is negatively correlated with the decision to only borrow from the DW. Thus, there is some evidence that larger amounts of financial ABS appeared to encourage participation by large banks at the DW only.

In contrast to the large banks, issuance of ABCP encouraged medium-sized banks to participate in at least one of the federal reserve's lending programs. In particular, the coefficient estimate for ABCP is positively correlated with the decision to only borrow from the DW. Thus, the DW appeared to be viewed as important for banks to promote credit during the first half of the crisis.

Interestingly, among medium-sized banks, greater holdings of CRE were pos-

[16] The results are presented in Tables 12 and 13.

itively correlated with not borrowing at all from the Federal Reserve, suggesting that concerns about CRE in the initial stages of the crisis may not have been important.

We proceed to the findings for the post-Lehman period.[17] The findings for the Equity ratio and the Tier I ratio are largely similar to the full sample period. Though the effects of holdings of MBS did not change among small banks between the full sample and the post-Lehman period, it appears that problems from the housing sector evolved and were important for the largest banks after Lehman failed – large banks with larger holdings of MBS were more likely to borrow from at least one of the lending programs. They were also inclined to borrow from the DW only. Yet, both large and small banks regulated by the FDIC were more likely not to borrow at all from the Federal Reserve.

The impact of credit market funding to banks was much different post-Lehman. Notably, among small and large banks, the total amount of ABCP was negatively correlated with the decision not to borrow at all from the Federal Reserve and positively correlated with the decision to seek funds from the DW only. The same insights apply to financial ABS – thus, we see that the different lending programs adopted by the Federal Reserve played a role in alleviating the post-Lehman credit crunch.

It is also indiciated that changes in conventional monetary policy encouraged participation. As the Federal Reserve lowered the target for the federal funds rate after September 2008, both small and large banks were less likely not to borrow. In particular, they were more likely to approach the DW. Finally, macroeconomic performance played a larger role in the second half of the crisis. Across the entire size distribution, unemployment rates were negatively correlated with not borrowing from the Federal Reserve, suggesting that the Federal Reserve played an important role in promoting the stability of the banking system as the LOLR. In a similar manner, a higher GSP or GDP was negatively correlated with borrowing from only the DW post-Lehman.

5.1.3 Results - Heckman-Selection model (SUR)

The primary emphasis of our work is to go beyond previous research such as Berger et al. by studying maturity extension. Thus, unlike Berger et al., we proceed to present results for banks' decisions about the size of loans and the maturity of funds borrowed. In particular, we use a Heckman selection framework to take the participation decision into account when studying maturities and the amount of funds obtained. The first stage is a standard probit regression with time and regional fixed effects. The second stage is estimated in a SUR framework with credit market conditions and macroeconomic indicators.

The full sample period results are presented in Tables 17, 18, and 19 with respect to the DWTAF, the DW, and the TAF. The factors affecting banks' decisions regarding maturity requests and demand for funds are significantly

[17] Results are presented in Tables 14, 15, and 16.

different across the size distribution.

First, we focus on subpanel A1 in Table 17. Small banks that had less volatile earnings (i.e. a lower standard deviation of ROA) were more likely to borrow loans with shorter maturities. But, it did not affect the size of loans obtained. In contrast, small banks that were governed by the FDIC were more likely to borrow for a longer period of time. Yet, a bank's primary regulator was not important for DWTAF loan size either.

Meanwhile, credit market conditions affected small banks' decisions at the DWTAF not only regarding maturities but also the size of loans borrowed. At higher amounts of market outstanding of ABCP, small banks tended to borrow more and for a longer period of time suggesting maturity extension played an important role in the extension of credit during the crisis.

Interestingly, state-level macroeconomic indicators only affected maturity requests. In particular, the unemployment rate and GSP were significant and negatively associated with small banks' maturity requests at the DWTAF. That is, a higher unemployment rate and a lower GSP led small banks to borrow for shorter maturities. Since the loans were short-term, this is most likely a response to adjust for the temporary dislocations in money markets when macroeconomic conditions deteriorated.

Medium banks' maturity requests and demands for funds were correlated with individual bank characteristics. As in the case of small banks, bank characteristics primarily affected the maturity of DWTAF funds obtained. However, it is noteworthy that institutions with a higher equity ratio tended to borrow for longer maturities and larger amounts from the DWTAF. In comparison, medium banks that were part of a holding company were less likely to request funds for an extended period. As these banks may be supported by their holding companies, they would only need funds for a short period of time.

Furthermore, macroeconomic performance also played a role in medium banks' decisions at the DWTAF regarding maturity but not loan size. In contrast to small banks, medium banks were more likely to ask for longer maturities when the state unemployment rate was high.

We now move on to the large bank subpanel. Again, most of the results were only significant for large banks' maturity decisions. Notably, though size did not matter for maturities among small banks, it was positively correlated with longer maturities among large banks. In contrast, large banks that were regulated by the OCC tended to borrow for shorter maturities. Meanwhile, a lower federal funds rate led large banks to borrow for a longer period of time. However, interestingly, the narrowing of the spread actually led large banks to borrow less from the DWTAF. Hence, changes in monetary policy affected the maturity of funds borrowed but the spread appeared to be more tied to the size of loans.

Table 18 shows the results regarding DW loan sizes and maturities across the size distribution of banks. First, focusing on small banks, there are a number of different results in comparison to the DWTAF. In particular, in contrast to the DWTAF, the volatility of banks' earnings was insignificant to their decisions for loan size and maturity. Also, different from the DWTAF, small banks that were

part of a foreign company were prone to borrow for longer maturities.

There are also some results that are consistent with what we found at the DWTAF. A bank's primary regulator, credit market conditions, and macroeconomic performance had similar effects at the DW as at the DWTAF. The point estimates for these variables are similar as well. This is not surprising considering the large usage of the DW by small banks.

Furthermore, a lower federal funds rate led small banks to borrow for shorter maturities. Thus, the decisions to lower the federal funds rate over the course of the crisis did not really play a role for small banks to take advantage of maturity extension.

For medium banks' maturity requests and demands for funds, institutions with higher capital ratios (i.e. a higher equity ratio and/or Tier 1 ratio) were more likely to borrow for a larger amount and a longer maturity from the DW. In comparison, only the equity ratio was significant at the DWTAF. Moreover, medium banks that were regulated by the FDIC were more likely to borrow for an extended period. Lastly, the state unemployment rate has the same sign and similar point estimate at the DW for medium banks' maturity decisions as at the DWTAF.

As for large banks, there is no significant factor that affected their decisions regarding loan size at the DW. This may not be surprising because large banks were the largest participants at the TAF. As for their decisions regarding maturities, the only significant factor was earnings. Large banks with a lower ROE tended to borrow for a shorter period of time. But, this result is only significant in the regression that used the Tier 1 ratio. In contrast, banks' earnings did not affect large banks' maturity decisions at the DWTAF.

We now turn to Table 19 which contains the results for banks' borrowing behavior at the TAF. We first focus on the small bank subpanel. In contrast to the DW, small banks that were part of a listed company or themselves were listed were more likely to borrow for a longer maturity from the TAF. However, similar to the DW, individual bank characteristics had no effect on the size of loans.

Furthermore, credit market conditions had similar effects at the TAF as in the case of the DW. In particular, they impacted small banks' borrowing decisions for both the size of loans and maturities of funds obtained. At higher amounts of market outstanding ABCP, small banks tended to borrow for a larger amount and with a longer maturity. The point estimates here are more than ten times larger than at the DW. In other words, credit market conditions had a stronger impact on small banks' decisions at the TAF regarding loan sizes and maturities than at the DW. Moreover, when the size of the agency and GSE-backed mortgage pools was larger, small banks tended to borrow for a longer maturity from the TAF. But, the size of the agency and GSE-backed mortgage pools was not significant to the size of loans.

As for the role of macroeconomic performance, when the state unemployment rate was lower, small banks were more prone to borrow for longer maturities due to greater demand for loans.

Moving on to medium banks, the individual bank characteristics that af-

fected their decisions regarding the DW were irrelevant at the TAF. In contrast, medium banks that had a higher ROE were more inclined to borrow a larger loan. In medium banks' maturity decisions, macroeconomic performance played a role. When GSP was higher, they tended to borrow TAF funds for an extended period presumably because of higher demand for loans.

For large banks, similar to the DW, individual bank characteristics are only important for their maturity requests at the TAF. No significant factors impacted banks' decisions about TAF loan sizes. For example, institutions that had higher earnings (i.e. a higher ROE) were more inclined to borrow for longer maturities. However, large banks that were governed by the OCC were more likely to borrow for a shorter period of time. Credit market conditions and macroeconomic indicators were not significant for both the size of loans and maturities at the TAF.

The pre-Lehman regression results for the Heckman selection model are presented in Tables 20, 21, and 22 with respect to the DWTAF, the DW, and the TAF. Due to the shorter sample period, the issuance of financial ABS, GDP, and the national unemployment rate are omitted due to multicollinearity.

First, we start with Table 20 which includes results for the DWTAF before the bankruptcy of Lehman Brothers. There were only significant results presented regarding maturity decisions for DWTAF loans. We first focus on small banks. In comparison to the full crisis period, the factors that impacted small banks' demand for funds and maturity requests were different except for the role of macroeconomic performance.

During the pre-Lehman era, in contrast to the full sample period, earnings volatility, a bank's federal primary regulator, and credit market activity were not significant. Moreover, institutions that had a smaller share of MBS were more likely to borrow for a longer period of time in comparison to the full sample.

As for the influence of macroeconomic performance, the state unemployment rate was not significant in the pre-Lehman period in comparison to the full sample. However, GSP retained the same sign as in the full crisis period, but the point estimates were more than two times larger. This shows that GSP had a stronger impact on small banks' maturity requests at the DWTAF during the first half of the crisis.

Moving on to medium banks, as in the case of small banks, the DWTAF results are different in comparison to the full sample period except for the impact of macroeconomic performance. In the first half of the crisis, medium banks that had less volatile earnings (i.e. a smaller standard deviation of ROA) were more likely to borrow a larger amount of funds. Yet, a bank's earning volatility was irrelevant in the full sample period.

Moreover, the results for the equity ratio and holding company status were different in the pre-Lehman period as well. In the full sample period, the equity ratio was positively correlated with longer maturities and larger loan sizes. Also, a bank's holding company status was important to medium banks' maturity decisions throughout the entire crisis period. However, the equity ratio and holding company status were insignificant in the pre-Lehman era.

For the role of macroeconomic performance, the sign of the state unemployment rate remained the same as in the full sample period. But, in the pre-Lehman era, the point estimates were about two times larger than those found in the full crisis period. In other words, the influence of the unemployment rate on medium banks' maturity requests was stronger before the bankruptcy of Lehman Brothers than in the full sample.

For those factors influencing large banks' maturity requests regarding the DWTAF, there were only significant results when assessing them with their Tier 1 ratios. First, similar to the full sample, larger institutions were more likely to borrow DWTAF funds for longer maturities. Second, interestingly, during the pre-Lehman era, weaker banks (i.e. banks with a lower Tier 1 ratio, a higher share of CRE or a lower ROE) were actually more likely to borrow funds for a longer period of time. This seems to indicate that maturity may have been more important for the stability of large banks in the first half of the crisis than promoting the extension of credit.

In brief, for banks' maturity decisions at the DWTAF, the number of significant factors goes from six in the full sample period to two in the pre-Lehman era for small banks and from four to two for medium banks. Thus, among medium and small banks, (in terms of the number of variables), bank characteristics and overall economic conditions played a smaller role in maturity requests in the Federal Reserve's lending programs during the first half of the crisis than in the full sample. However, the opposite is true for the largest institutions. The number actually increases from 3 to 5 going from the full sample period to the pre-Lehman era.

As for banks' requests for funds at the DWTAF, there is a smaller number of factors that affected small and large banks in comparison to the full sample period. Notably, during the first half of the crisis, none of the variables EW significant in the regression for the size of loans for small banks while credit market activity is in the full crisis period.

For medium banks, earnings volatility was the sole factor that affected the size of loans during the pre-Lehman period while only the equity ratio mattered in the full sample. There are two significant factors that affected large banks during the full sample period but none in the first half of the crisis.

In sum, credit market activity and macroeconomic performance were not important to banks' requests for funds at the DWTAF in the first half of the crisis – this may reflect that the availability of funding to banks and overall economic performance in the U.S. were stronger during the pre-Lehman period. *However, across the full crisis period, both factors mattered.*

We now turn to Table 21 which focuses on the results regarding banks' demands for funds and maturity requests for DW loans. For small banks, in comparison to the full sample results, a bank's federal primary regulator, holding company status and the amount of market outstanding ABCP were not relevant in the pre-Lehman period.

Instead, when assessing small banks with their equity ratios, institutions that had a smaller proportion of MBS on their balance sheets tended to borrow for a longer period of time from the DW. Moreover, macroeconomic performance

was negatively associated with requests for longer maturity loans. In particular, a lower GSP led small banks to borrow for a longer maturity from the DW.

In the pre-Lehman DW results for medium banks, there were some similar results as those found in the full crisis period. As in the full sample, medium banks that had higher capital ratios tended to borrow for a larger loan amount and a longer maturity. The point estimates were similar to what we found in the full crisis period as well.

In contrast to what we found throughout the crisis, we see that among medium banks, those with less volatile earnings tended to borrow more from the DW. In the regression using Tier 1 ratios, institutions with a smaller share of MBS were more inclined to borrow for longer maturities. Furthermore, being part of a holding company prompted medium banks to borrow DW loans with longer maturities. These two findings are also different from the full sample results. However, earnings volatility, the share of MBS, and the bank's holding company status were insignificant to banks' decisions regarding the size of loans. Lastly, the impact of local macroeconomic performance was the same as in the full sample period but the point estimates were higher in the pre-Lehman era.

We now shift our attention to large banks. There were no significant results in the full sample period regarding large banks' loan requests about the size of loans and maturities at the DW. However, during the first half of the crisis, there were significant results for large banks' maturity decisions in the regression using the equity ratio. But, no significant results regarding loan sizes were found. Notably, smaller-sized institutions or those that were part of a listed company were more inclined to borrow for a longer period of time. Meanwhile, credit market activity also played a role in large banks' maturity requests. At higher amounts of market outstanding of ABCP, large banks tended to borrow for a longer period of time as well.

Going from the full sample to the pre-Lehman era, the number of significant factors to banks' maturity decisions at the DW changed. As in the analysis of the DWTAF, four factors impacted small banks but only two during the pre-Lehman era. As a consequence, a smaller number of bank characteristics and none of the credit market conditions affected small banks' maturity decisions. However, the number increases from three to four for medium banks and one to three for large banks. For medium and large banks, as in the number of significant variables, bank characteristics and economic performance have a stronger impact on their maturity decisions before the bankruptcy of Lehman Brothers in comparison to the full crisis period.

For the size of DW loans, credit market activity is significant for small banks in the full sample but no significant factor is found during the first half of the crisis. On the contrary, the number of factors for medium banks increases from one throughout the crisis period to two in the pre-Lehman period. Meanwhile, there is no relevant factor for large banks in both results. Hence, as a whole, the size of DW loans are not influenced by credit market activity or macroeconomic conditions during the pre-Lehman era.

Table 22 presents the pre-Lehman results regarding the TAF. Here, in addition to the previous variables that were dropped, the size of the agency and

GSE-backed mortgage pools omitted as well due to multicollinearity.

Starting with small banks, the factors that affected small banks' borrowing decisions regarding loan amounts and maturities were almost completely different from the full sample period. In particular, most factors only impacted banks' demand for funds but not maturity requests.

During the first half of the crisis, larger and stronger institutions (e.g. banks with a higher Tier 1 ratio, a smaller share of MBS, or higher and less volatile earnings) within the small bank category tended to borrow more from the TAF. Non-listed banks or those that were not part of a listed company were also more inclined to borrow for a larger loan amount. As for small banks' maturity requests, Tier 1 ratios were the only significant factor. Banks with a higher Tier 1 ratio tended to borrow for a longer period of time.

As for the role of credit market activity, the amounts of market outstanding ABCP affected both small banks' maturity decisions and the size of loans. However, in the pre-Lehman era, higher amounts of market outstanding ABCP only led small banks to borrow more from the TAF but not for a longer period of time.

Lower borrowing costs were one of the incentives for small banks to borrow a larger size of loan from the TAF in the pre-Lehman era. Nevertheless, though the lower federal funds rate led small banks to borrow more, the narrowing of the spread actually prompted small banks to borrow less. While the results for the federal funds rate are plausible - a lower federal funds rate led small banks to borrow more - the results for the spread are hard to understand. Yet, only a very small number of small banks actually participated at the TAF - especially in the first half of the crisis.

Turning to the pre-Lehman results for medium banks regarding the TAF, as opposed to the full sample, earnings did not impact their demand for funds from the TAF. However, medium banks that were regulated by the OCC tended to borrow more and for an extended period of time.

Additionally, the effect of macroeconomic performance is different in comparison to the full crisis period. In particular, a higher state unemployment rate led medium banks to borrow less from the TAF. As mentioned earlier, a higher state unemployment rate also led medium banks to borrow more from the DW. Our results appear to indicate that the TAF was more important for promoting the extension of credit while the DW was a way to alleviate strains in money markets.

Throughout the full crisis period, none of the explanatory variables were correlated with the size of loans for large banks. But, in the first half of the crisis, credit market conditions and cost incentives played a vital role in large banks' decisions regarding TAF loan sizes. For example, at higher amounts of market outstanding ABCP, large banks tended to borrow more from the TAF. A stronger credit market indicates that there was a higher demand for those loans that were originated to distribute. Furthermore, a lower cost of borrowing incentivized large banks to borrow more from the TAF during the pre-Lehman era.

Here, we reflect on comparing the results for the TAF across the different

phases of the crisis. Starting with banks' maturity decisions, first, only the Tier 1 ratio is significant among small banks in the pre-Lehman era while there are four in the full sample. In contrast to small banks, the number of significant factors for medium banks increases from one throughout the crisis period to two during the first half of the crisis. Large banks' maturity decisions at the TAF are affected by four factors in the full sample but none during the pre-Lehman era. Thus, as the number of explanatory variables generally declines in the pre-Lehman period relative to the full sample, credit market activity was not important to banks' maturity decisions during the pre-Lehman period.

In terms of the factors that mattered for the size of TAF loans, the number increases for all bank sizes in the first half of the crisis in comparison to the full sample period. Going from the full sample period to the pre-Lehman era, the number for small banks increases from one to eight. Medium banks' significant factors also increase from one to two. Lastly, the size of TAF loans large banks obtained are not correlated with any bank characteristics or economic conditions in the full sample. But, there are three significant factors to large banks' decisions during the first half of the crisis. Overall, banks' demand for funds at the TAF are impacted by a larger number of bank characteristics and overall economic performance in the pre-Lehman period in comparison to the full sample.

The post-Lehman Heckman results are presented in Tables 23, 24, and 25 with respect to the DWTAF, the DW, and the TAF. Variables spread, national unemployment rate, and GDP are dropped due to multicollinearity.

Table 23 contains the results for banks' decisions about the size of loans and maturities of funds borrowed in the second half of the crisis. Overall, individual bank characteristics and macroeconomic performance only affected banks' maturity decisions at the DWTAF. Meanwhile, credit market conditions impacted banks' decisions regarding both the size of loans and maturity of funds obtained from the DWTAF.

First, we look at the small bank subpanel. In the full sample and the pre-Lehman period, macroeconomic performance was important for small banks' maturity decisions. However, these decisions were also influenced by individual bank characteristics and credit market activity in the second half of the crisis. After Lehman Brothers' bankruptcy, macroeconomic performance was the sole factor that affected small banks' maturity decisions at the DWTAF. In particular, lower GSP led small banks to borrow from the DWTAF for a longer period of time.

Moving on to medium banks, significant results only appeared for their maturity decisions. There were several different results in comparison to the full sample period. First of all, larger-sized institutions were more likely to borrow funds for an extended period from the DWTAF. Secondly, when accessing medium banks with their Tier 1 ratios, we found that banks that had a lower Tier 1 ratio but with higher or more stable earnings tended to borrow for longer maturities. Lastly, medium banks that carried a higher share of MBS were more inclined to borrow for longer maturities as well.

There were also consistent results with the full sample period. Medium banks

that were part of a holding company or a foreign organization were more likely to borrow for a shorter period of time. The point estimates for both results are significantly higher in the first half of the crisis in comparison to the full sample.

In the post-Lehman era, credit market activity, which was insignificant in the full sample, played an important role in medium banks' borrowing decisions at the DWTAF. At a higher amount of market outstanding ABCP, medium banks tended to borrow more and for a longer period of time from the DWTAF.[18] Interestingly, an increase in the issuance of financial ABS actually prompted medium banks to borrow for shorter maturities. As for the role of macroeconomic performance at the state-level, a higher state unemployment rate led banks to borrow for a longer maturity, which is consistent with the full sample period.

During the post-Lehman era, large banks' borrowing decisions at the DWTAF regarding maturity of funds obtained were only affected by a bank's primary federal regulator. Compared to the full sample period, the size of banks and the cost incentives were no longer important in the second half of the crisis. But, banks that were regulated by the OCC were still more likely to borrow shorter term loans from the DWTAF as in the full sample.

In comparison to the full sample results, the number of significant factors to banks' maturity decisions at the DWTAF are different in the post-Lehman period. The number of factors that mattered to small banks changed from six throughout the crisis to only one during the post-Lehman era. None of the bank characteristics are important to small banks' maturity decisions in the post-Lehman period. However, (as the number of significant explanatory variables), medium banks' maturity decisions are susceptible to a bigger number of bank characteristics and overall economic conditions during the second half of the crisis. As for large banks, there are three factors in the full sample period but decreases to one after the bankruptcy of Lehman Brothers. Overall, credit market activity is only significant to medium banks' maturity decisions at the DWTAF.

When looking at the factors that were significant for the size of DWTAF loans, only credit market activity is important for small banks in the full sample but none during the second half of the crisis. However, the number remains the same for medium banks. Lastly, for large banks, the size of DWTAF loans is unaffected by bank characteristics and overall economic performance in the post-Lehman era. But, there are two relevant factors for large banks' requests for DWTAF funds in the full crisis period. In general, the size of DWTAF loans are barely influenced by credit market activity after Lehman Brothers' bankruptcy.

Table 24 presents the results about DW loan sizes and maturities after the bankruptcy of Lehman Brothers. The results for small banks' decisions significantly differ from what we found in the full sample. In particular, individual bank characteristics primarily affected small banks' maturity decisions in the

[18] The effect of market outstanding ABCP on maturity is only significant in the regression with Tier 1 ratio.

post-Lehman period. Although size did not matter to small banks in the full sample period, it was important to their maturity decisions in the post-Lehman era. Larger institutions were more likely to borrow for a longer maturity. Also, weaker small banks (e.g. banks with lower capital ratios or a higher share of CRE/MBS) tended to borrow loans for an extended period. Furthermore, unlike the full sample results, institutions that were part of a holding company or a listed organization were more inclined to borrow longer maturities from the DW during the post-Lehman period.

Similar to the full sample period, in the second half of the crisis, credit market activity affected not only the size of loans but the maturities of funds borrowed from the DW. A higher amount of market outstanding ABCP or an increase in the size of the agency and GSE-backed mortgage pools led small banks to borrow longer maturities from the DW.

We now turn our attention to small banks' decisions about DW loan sizes. In contrast to the full sample and the pre-Lehman period, the size of agency and GSE-backed mortgage pools and the issuance of financial ABS were negatively associated with DW loan amounts in the second half of the crisis.

State-level macroeconomic performance played a role in small banks' decisions regarding DW loan sizes and maturities. At higher GSP, small banks tended to borrow more but with a shorter maturity which is most likely due to greater demand for loans. These results are consistent with what we found in the full sample period. However, in the full sample results, macroeconomic performance only mattered for maturity.

For medium banks, as in the case of small banks, most of the results are different from those found in the full sample period. There were only significant results presented regarding medium banks' maturity decisions at the DW during the post-Lehman period. None of the factors we examined mattered for the DW loan sizes. In the second half of the crisis, interestingly, medium banks that had a lower share of CRE were more likely to borrow for shorter maturities.

As for the effect of macroeconomic performance, the state unemployment rate influenced medium banks' maturity decisions at the DW after the bankruptcy of Lehman Brothers. This result is consistent with both the full sample period and the pre-Lehman period. A higher state unemployment rate prompted medium banks to borrow for longer maturities from the DW. The point estimate found in the post-Lehman period was similar to the full sample but only about half of the pre-Lehman one.

Moving on to the large bank subpanel, compared to the full sample period, there were a number of new results at the DW in the post-Lehman era. In addition, these results are different from those found in the first half of the crisis. First of all, in the first half of the crisis, smaller-sized institutions were the ones that tended to borrow for longer maturities. Instead, after the bankruptcy of Lehman Brothers, larger institutions were more inclined to borrow for longer maturities. Also, in contrast to the full sample period, when accessing large banks with their equity ratios, larger institutions tended to borrow for a larger amount as well. Unlike the case of small banks, stronger large banks (i.e. banks with higher capital ratios or a lower share of MBS) were more likely to borrow

for an extended period of time. Meanwhile, banks with a higher ROE were prone to borrow more from the DW post-Lehman while a bank's earning only affected their maturity decisions in the full sample period.

Being part of a holding company prompted large banks to borrow for a shorter maturity and a smaller amount.[19] A bank's primary federal regulator, which is insignificant in the full sample period and the pre-Lehman era, also affected maturity decisions at the DW. Specifically, in the second half of the crisis, larger banks that were governed by the FDIC or the OCC tended to borrow funds for longer maturities.

As for the role of credit market activity, a higher amount of market outstanding ABCP prompted banks to borrow for longer maturities in the first half of the crisis. However, in the post-Lehman era, a tighter credit market (i.e. a lower amount of market outstanding ABCP, a smaller size of agency and GSE-backed mortgage pools, or a lower issuance of financial ABS) actually led banks not only to borrow for a longer maturity but also for a larger loan amount from the DW.[20]

Banks' maturity decisions at the DW are mostly influenced by more factors during the post-Lehman period than in the full sample period. First, the number of factors impacted small banks' maturity decisions at the DW increased from four in the full sample to ten in the post-Lehman era. Medium banks are impacted by three significant factors, but only one of them is common across both sample. Similar to small banks, the number mattered for large banks' maturity decisions increased from one to ten as well. Essentially, after the bankruptcy of Lehman Brothers, banks' maturity decisions at the DW are sensitive to a larger number of bank characteristics and overall economic conditions in the post-Lehman period in comparison to the full sample.

In comparison to the full crisis period, the number of explanatory variables which were significant for the size of DW loans increases after the bankruptcy of Lehman Brothers. In particular, small banks' decisions are impacted by a larger number of overall economic conditions in the post-Lehman period. Meanwhile, for large banks, bank characteristics and credit market activity played a stronger role for the size of DW loans in the second half of the crisis. In contrast to small and large banks, only the capital ratios mattered for medium banks throughout the crisis period but none during the post-Lehman era. In essence, credit market conditions are the main influencing factor to the size of DW loans in the second half of the crisis.

Table 25 contains the post-Lehman period results regarding the size of loans and maturity of funds borrowed from the TAF. Starting with the small bank subpanel, the results are consistent with what we found in the full sample period. However, in the second half of the crisis, when accessing small banks' maturity decisions with their Tier 1 ratios, institutions with a smaller share of MBS were more likely to borrow for a longer maturity. Aside from this, whether a small bank was part of a listed company or itself was listed has the same effects

[19] The effect of the size of loans was only siginificant in the regression using the equity ratio.

[20] The effect of issuance of financial ABS on DW loan sizes is only significant in the regression that used the equity ratio.

on TAF loan sizes and maturities as in the full sample period but the point estimates were about 1.5 times larger.

As for the role of credit market activity, the amount of market outstanding ABCP retained the same sign as in the full crisis period. The point estimates are slightly higher in the post-Lehman period. However, unlike in the full sample period, the size of the agency and GSE-backed mortgage pools were irrelevant to small banks' maturity decisions at the TAF in the second half of the crisis. Furthermore, a higher state unemployment rate led small banks to borrow for a longer maturity, which is similar to the results found in the full sample period. The point estimate for the state unemployment rate was similar to the full sample results as well.

Turning to the TAF results for medium banks after the bankruptcy of Lehman Brothers, the results are almost identical to the full sample period. However, the sole influencing factor in the second half of the crisis is macroeconomic performance. In the full sample period, bank earnings also played a role. But in the post-Lehman era, earnings were insignificant. The impact of macroeconomic performance in the post-Lehman period at the TAF was consistent with what we found in the full sample. A higher GSP led medium banks to borrow funds for an extended period of time from the TAF. Furthermore, the point estimates are similar across both samples.

Moving on to large banks' results at the TAF in the post-Lehman period, there were only significant factors impacting large bank's maturity decisions - the size of loans was unaffected, as in the full sample period. Individual bank characteristics had the same signs and similar point estimates as in the full crisis period. For example, large banks that had higher earnings (i.e., a higher ROE) tended to borrow for longer maturities. Moreover, banks that were regulated by the OCC were more likely to borrow for shorter maturities as in the full crisis period.

Credit market conditions, which were not significant in the full sample period, were important to large banks' maturity decisions in the second half of the crisis. At a higher amounts of market outstanding ABCP, large banks were more likely to borrow TAF funds for an extended period of time. This is likely due to the increase demand for loans that were originated to distribute.

Overall, around the same number of factors affected banks' maturity decisions at the TAF in the second half of the crisis and in the full sample period. Small and medium banks' maturity decisions at the TAF were susceptible to similar factors across both periods. Three out of the four factors that mattered to small banks' maturity decisions at the TAF are the same in both phases. And, state-level macroeconomic performance is significant for medium banks in both results. As for large banks, there are 4 impacting factors in the full sample period but it was reduced to 3 after the bankruptcy of Lehman Brothers. Credit market activity is only relevant to large banks in the second half of the crisis.

Similar to banks' maturity decisions, the size of loans was affected by a similar number of factors in both periods. Small banks were only influenced by credit market activity throughout the crisis period and during the post-Lehman period. Medium banks were impacted by their earnings in the full sample but

not in the second half of the crisis. None of the explanatory variables were correlated with the size of TAF loans for large banks in both results. Roughly, the size of TAF loans are not affected by any bank characteristics or overall economic conditions in the post-Lehman era.

5.2 Results for Bank Lending

For the lending analysis, we use a SUR model to analyze the effect of the DWTAF program on banks' lending behavior, especially the impact of overnight fund availability and maturity extension. As mentioned in the methodology section, we break down a bank's lending activities to different loan categories: total loans, RRE loans, CRE loans, C&I loans, LT loans, ST loans, consumer loans, and other loans. Overall, there are two sets of regressions in the lending analysis. First, we exclude banks' outside funding sources such as repo funding, federal funds purchased, TARP funds, etc. Later, we proceed to include them.

Our analysis begins by looking at pooled regressions with all of the banks that borrowed from the DWTAF program. Aside from that, due to the small number of observations of large banks, we combine the medium bank subpanel with the large bank subpanel. Hence, there are three panel regressions in the lending analysis - the pooled regression, the small bank subpanel regression, and the combined medium and large bank subpanel regression. Similar to the bank participation analysis, these regressions are with respect to the DWTAF, the DW, and the TAF separately. From this perspective, our analysis is somewhat richer than Berger et al. who focus exclusively on the effects of DWTAF loans over an entire quarter. In doing so, we can examine how the transmission channels of the DW and TAF policies may have been different. We also look at sub-samples (the pre and post-Lehman period) as in the participation analysis as well.

As a benchmark, we note that upon controlling for other funding sources, Berger et. al find that an additional dollar in DWTAF funds over an entire quarter led to an increase in total lending by approximately 31 cents for small banks. Since they look at average loan balances over a quarter, this would be equivalent to an increase in one dollar of DWTAF loans with a 90 day maturity. By comparison, for banks with GTA at over $1 billion, the number is as high as 61 cents.

5.2.1 Lending results without other funding sources

The analysis of lending in the absence of other funding sources begins in Table 26 where we look at a pooled sample across all banks over the entire crisis period that borrowed from the DWTAF. In terms of total loans by banks, our initial results do not indicate that maturity extension was important. In fact, we only find that an increase in one dollar of loans at the overnight maturity was associated with an increase in total loans by 9.5 cents. Again, Berger et al. look at the effects of loan balances over an entire quarter so they cannot distinguish

between the effects of overnight funding from longer-term loans. Similarly, for the LT category, the increase was only around 7.4 cents.

However, when we break the analysis down to only look at DW loans, maturity extension is correlated with an increase in lending across four different categories. Hence, it is important to also look at the effects of DW loans and TAF loans on an individual basis. For example, in the total loan category, an overnight loan with an increase in balance of one-dollar was associated with an increase in loans by around 12.5 cents.

The coefficient on the interactive variable of loan size with maturity suggests that if the loan was extended to 10 days, the figure would increase to nearly 16 cents. For a 90 day loan as reported in Berger et al., an increase in the size of a DW loan by one-dollar would be associated with an increase in lending by around 43 cents. We also find that maturity extension enhanced lending in the RRE, LT, and consumer loans categories. Yet, in terms of the TAF, the preliminary results do not show that extending the maturities was relevant.

The analysis proceeds by looking at the impact of DWTAF loans across the size distribution of the banking sector. To begin, Table 27 looks at lending by the smallest banks in the system. Here, in contrast to the full sample where maturity extension of DW funds promoted lending across a large number of categories, we only find that maturity extension promoted lending by small banks in the LT loan category – but, the point estimate is slightly higher than in the full sample results. Again, maturity extension of TAF loans does not seem to matter.

Table 28 considers the medium and large banks subpanel. Here, again, in comparison to the full sample where DW funds promoted lending across numerous categories, we only observe that maturity extension was correlated with an increase in lending in the RRE category for DW loans. In terms of the TAF, we now find that extending maturities increased RRE and LT loans which is different than the full cross-section of banks where maturity extension was not associated with an increase in any form of lending.

Next, we study the role of DWTAF loans for lending by banks across the different phases of the financial crisis. For example, Table 29 presents results for the pooled sample of all bank sizes in the first half of the crisis. In terms of DWTAF loans, maturity extension was associated with an increase in lending for RRE and LT loans which is in stark contrast to the full sample period where maturity extension of DWTAF funds was unimportant in every category.

Breaking the results down to look at the DW only, we find that an increase in *overnight* loans for *total* loans was nearly 31 cents for every dollar prior to the failure of Lehman Brothers - the same number obtained by Berger et al. for a 90 day DWTAF loan by a *small* bank over the entire crisis period - but the maturity does not seem to be important.

Yet, maturity extension of DW loans was correlated with increased lending for RRE and LT loans. Nevertheless, maturity extension of DW funds was significant across the full cross-section of banks in four different categories (total, RRE, LT, and consumer loans) in the full sample period. Maturity extension at the TAF is not correlated with increased lending.

Table 30 narrows the analysis down to look at lending by small banks. Similar to the full cross-section of banks, maturity extension of DWTAF funds was correlated with increased RRE and LT loans. For the RRE category, the point estimate is higher in the pooled sample of banks but it is higher for small banks in the LT loan category. The results for the DW category are close to the analysis of DWTAF loans. Again, maturity extension is positively correlated with an increase in RRE and LT loans with point estimates that are about the same as at the DWTAF. Yet, here too, maturity extension of TAF funds does not appear to be important in any of the lending categories.

Table 31 turns to the medium and large bank sample. For such banks, neither the availability of DWTAF funds or their maturity was correlated with increased lending in any category across the full sample period. However, overnight funding from the DW was associated with higher total lending and LT loans while maturity extension mattered for RRE activity across the entire crisis. Nevertheless, maturity extension was important for RRE loans at *both* the DWTAF and the DW in the period before the failure of Lehman Brothers. In addition, the coefficient estimate for maturity extension at the DW in the first half of the crisis is nearly four times higher than in the full sample period. *Thus, the role of maturity extension of the DW for RRE lending appears to have been more important in the initial stages of the crisis.*

Interestingly, though, an increase in overnight borrowing by medium and large banks was associated with an increase in LT loans by nearly 56 cents which was twice as high as in the full sample. The coefficient estimate for the interactive term of loan size with maturity is not significant in any of the regressions for the TAF.

In terms of comparing the results during the pre-Lehman period to the full sample, our results for the full sample indicated that maturity extension at the DW promoted lending across a relatively large number of categories: total loans, RRE, LT, and consumer loans. However, in the first half of the crisis, the impact of maturity extension is generally limited to the RRE and LT categories. We do not find any significant evidence for maturity extension from the TAF prior to the failure of Lehman Brothers.

We proceed to look at the impact of DWTAF funds in the second half of the crisis, following the bankruptcy of Lehman Brothers. The analysis starts with Table 32. We observe that an increase in overnight lending from the DWTAF and the DW is correlated with an increase in Total Loans, RRE, C&I, and LT loans, in the second half of the crisis but not prior to the failure of Lehman Brothers. Yet, in the pre-Lehman phase, maturity extension at the DWTAF was correlated with higher RRE and LT activity but not post-Lehman.

In terms of the DW only, the coefficient for the variable representing the role of maturity extension was only significant for the C&I category in the latter phases of the crisis, but mattered at conventional levels in the first half of the crisis, potentially reflecting a decrease in the willingness to lend after the failure of Lehman Brothers. Here, though, we observe that maturity extension at the TAF promoted total lending by banks whereas it had no impact prior to October 2008.

Table 33 looks at the results for small banks. Similar to the full sample, overnight lending promoted lending in four categories: Total Loans, RRE, C&I, and LT loans but the point estimates are somewhat smaller for small banks than the pooled sample. Here, too, maturity extension at the DW only seems to matter for C&I loans and the point estimate is essentially the same as in Table 32. Maturity extension at the TAF is correlated with an increase in total loans, with the same point estimate as the full sample.

Table 34 presents the analysis for medium and large banks. Maturity extension is not correlated with an increase in any category of lending at either the DWTAF or the DW alone. Further, the availability of overnight DWTAF funds only seemed to matter for ST loans. By comparison, the availability of overnight DW loans appears to have promoted TL, RRE, and LT loans. The point estimates for the coefficient of overnight DW funds are generally higher for medium and large banks than small banks, suggesting that the availability of DW loans may have been more important for the extension of credit by larger banks than smaller ones. Maturities at the TAF only seem to matter for LT loans rather than total loans in the full cross-section of banks.

Before moving on to the analysis that accounts for banks' other funding sources, we briefly offer a description of our results over the different phases of the crisis. Notably, prior to the failure of Lehman Brothers, the availability of overnight DW funds promoted total lending but maturity extension mattered for the RRE and LT categories.

Breaking the analysis down to look at activity across the size distribution, we find that this effect was mainly concentrated among medium and large banks. By comparison, in the second half of the crisis, overnight DW funding played a small role in promoting total loans, RRE, C&I, and LT loans indicating that the role of the DW for lending was potentially large in scope after the failure of Lehman Brothers. Nevertheless, these observations are generally confined to small banks. Maturity extension at the DW was only effective in promoting C&I lending post-Lehman whereas it was associated with increased in RRE and LT lending pre-Lehman.

In comparison to activity prior to October 2008, maturity extension at the TAF promoted RRE and LT lending by medium and large banks. Therefore, it appears that the transmission channels for the DWTAF policies varied across the size distribution of the banking sector.[21] Moreover, they also varied across the different phases of the financial crisis. However, we still need to investigate whether our insights are robust to accounting for other sources of bank funding than the DWTAF.

5.2.2 Lending results with other funding sources

Finally, we look at the availability of DWTAF funds where we control for other funding sources. The analysis begins in Table 35. When including other sources

[21] Ghossoub and Reed (2015) develop a micro-founded framework for the existence of financial intermediaries where banks differ in size to show how the effects of conventional monetary policy vary across the size distribution.

of funding for banks in the pooled sample across the entire crisis period, we do not find that DWTAF borrowing promoted any category of lending – nor did maturity extension appear to matter. This mirrors our previous results which did not control for other sources of funding among banks.

However, the same inference does not occur when looking at the role of the DW. To begin, an increase in overnight borrowing of one dollar is associated with an increase in total lending by nearly 8 cents. Further, an additional day led to an increase by .27 cents, implying that a 10 day loan would lead to an increase in lending by nearly 11 cents. In order to compare to the results in Berger et al, a 90 day loan would increase total lending by approximately 32 cents which is nearly identical to what they report. Again, each additional day would be correlated with nearly .3 cents.

While maturity extension did not seem to matter for C&I loans, it is correlated with an increase in LT loans. Here, a loan with an overnight maturity led to nearly 9.5 cents in additional lending for every dollar. But, the point estimate for maturity extension is somewhat higher than total loans – an additional day is correlated with an increase in LT loans by .4 cents. Thus, if the maturity was for 10 days, a dollar's worth of DW funding would be associated with an increase by nearly 4 cents. Obviously, a 90 day loan would be associated with an increase in LT loans by around 45 cents. So, the effects of the maturity extension program may have been more important for LT loans than total loans. We do not find any significant results when looking at the TAF although it does matter for the largest banks as we describe below.

Table 36 considers the results for small banks. Here, overnight DW funds promoted total lending and C&I lending, but maturity extension only appears to have been important for LT loans where an increase in maturity by one day would increase LT loans by .47 cents which is somewhat higher than in the full sample of banks. None of the coefficients for TAF funding are correlated with an increase in lending for small banks.

We proceed to consider the role of DWTAF funds among medium and large banks where we control for other funding sources in Table 37. Neither the availability of DWTAF funds or DW funds is correlated with an increase in any loan category. However, the coefficient estimate representing the effects of maturity extension shows that extending the maturity of a DW loan by one day was associated with an increase in RRE lending by .43 cents. Thus, a 30 day would be associated with an increase by nearly 13 cents and a 90 day loan by nearly 40 cents. In this regard, the maturity extension program was important for promoting mortgage financing during the crisis – but only among relatively large banks.

In contrast to the previous subsection, we now observe that maturity extension at the TAF was positively correlated with an increase in lending for RRE and LT loans. An increase in maturity of a TAF loan by one day was correlated with an increase in RRE lending by around .2 cents but the point estimate for LT loans is much higher at .74 cents.

Next, in Table 38, we study the impact of DWTAF funds in the first half of the crisis. In the pooled sample, we find that overnight borrowing at the

DWTAF was negatively correlated with RRE loans but maturity extension would drive up the propensity to lend by .3 cents. However, for LT loans, the coefficient estimate for maturity extension at the DWTAF was very high – at 1.03 cents. Thus, a 30 day DWTAF loan would be associated with an increase in LT loans by nearly 31 cents. Similar insights apply to the DW for the LT loan category.

In comparison to the DWTAF category, overnight borrowing at the DW was positively correlated with an increase in both total loans and ST loans. An increase in a dollar's worth of overnight DW funds was associated with an increase by nearly one quarter in both loan categories. As in the case of the DWTAF funds, maturity extension had a point estimate at slightly above 1 cent for LT loans. TAF funding was not correlated with increased lending activity prior to the bankruptcy of Lehman Brothers.

Table 39 looks at activity by small banks in the first half of the crisis. In terms of overnight DWTAF funds, the coefficient estimate for size alone is negative in both the RRE and LT loan categories. However, in terms of total loans, an increase in a dollar's worth of overnight DWTAF funds was associated with an increase in total lending around 24 cents. In terms of the role of maturity extension at the DWTAF, the propensity to lend was relatively high for the LT loan category at around 1 and one-third cents.

We now focus on the impact of DW funds for small banks. In particular, for total loans, overnight funding was associated with an increase by nearly 31 cents. By comparison, the number for ST loans was 26 cents. As in the case of DWTAF funds, maturity extension only appears to have been relevant for LT loans with an increase in one dollar's worth of funding by one day increasing LT lending by 1.26 cents. Thus, a thirty day loan would be correlated with an increase in LT lending by nearly 12 cents. By comparison, maturity extension at the TAF was negatively correlated with RRE lending.

Table 40 considers the results for medium and large banks. In terms of maturity extension of DWTAF funds, the only coefficient that is significant is the regression of RRE loans where the marginal propensity to lend by extending the maturity is approximately 1 and 1/3 cents. This stands in stark contrast to the evidence for small banks where the effects of maturity extension mainly promoted LT lending. Moreover, the quantitative impact of extending maturities was bigger among the larger banks than small banks.

In terms of the analysis for the DW only, an increase in a dollar's worth of overnight funding was associated with an increase in LT loans by nearly 53 cents. The coefficient was not significant in any of the other lending categories. However, for RRE lending, an increase in the maturity of a dollar's worth of DW funds was associated with an increase in RRE lending by over one and a half cents. Thus, an increase in DW funding by one dollar at a 30 day maturity appears to have increased lending by over 45 cents. Again, in the small bank category, maturity extension mainly promoted LT loans – thus, there is more evidence that the transmission mechanism for maturity extension varied in significant ways across the size distribution of banks. None of the coefficients for TAF funds were significant in the first half of the crisis.

Table 41 turns to the second half of the crisis. To begin, note from Table 38 that the availability of overnight funds did not matter for any of the loan categories at the DWTAF in the pre-Lehman period. But, maturity extension seems to have been important for LT loans. By comparison, the coefficient estimate for overnight funding in terms of total loans, C&I loans, and LT loans is positive and statistically significant. Yet, maturity extension does not seem to have mattered.

In terms of the DW individually, the coefficient estimate in the first half was positive and significant among total loans and ST loans, but it was negative in the RRE category. Maturity extension was positively correlated with RRE and LT loans. By comparison, in the second half, overnight funding promoted total loans, RRE loans, C&I loans, and LT loans – the coefficient estimate for consumer loans was negative. Maturity extension only appeared to matter for C&I loans with an increase in a dollar's worth of DW funds by one day translating to an increase in C&I loans by .17 cents. Thus, a 30 day loan would be associated with an increases of approximately 12 cents.

The analysis for small banks in the post-Lehman period is available in Table 42. Overnight DWTAF funding was positively correlated with an increase in total loans, C&I loans, and LT loans which is the same as the full cross section of banks though the point estimates are generally higher for small banks. The coefficient for maturity extension is not significant.

Again, when looking at DW activity only, overnight funding is correlated with an increase in lending for the same categories of loans but the point estimates are somewhat higher. However, in comparison to the DWTAF, maturity extension is associated with higher C&I lending with a point estimate at nearly .2 cents. For example, a 10 day loan would translate in over 9 cents of additional C&I lending for every additional dollar of DW funds. A 30 day loan would be associated with nearly 13 cents of additional C&I lending. From this perspective, there would be a slightly higher increase in C&I lending by small banks due to maturity extension than among the entire cross-section of banks in the post-Lehman phase of the crisis.

In terms of the availability of TAF funds for small banks, such loans were associated with an increase in C&I loans and LT loans – in the full sample, it was only correlated with C&I lending. Maturity extension was important for total lending – a 28 day TAF loan was correlated with an increase in total loans by over 9 cents for every additional dollar of funding – similarly, an 84 day loan would be associated with around 28 cents of additional lending for every additional dollar of TAF funds.

Finally, we look at lending activity among medium and large-sized banks in Table 43. In the pre-Lehman period, maturity extension at the DW only promoted RRE lending with a coefficient estimate for maturity extension of around 1.5 cents. Moreover, the availability of overnight DW funds generated an increase in nearly 53 cents of LT loans for every additional dollar of DW funds. The TAF did not appear to lead to an increase in lending in any category.

By comparison, in the second half of the crisis, an increase in overnight DW funds was correlated with an increase in RRE lending by nearly 6.3 cents. In

contrast to the pre-Lehman era, maturity extension does not appear to matter for any category of loans by such banks.

However, maturities at the TAF were associated with an increase in both RRE lending and LT lending. In the RRE category, an increase in a dollar's worth of 28 day loans would increase RRE lending by only 5 cents. By comparison, an 84 day increase would increase RRE lending by over 15 cents. In terms of C&I lending, an increase in a dollar's worth of an 84 day loan would generate an increase in C&I lending by nearly 33 cents.

At this point, it is useful to summarize where the availability of funds and maturity extension promoted lending activity. To do so, we list the coefficient estimates corresponding to overnight maturity of DW loans, maturity extension of DW funds, and maturity extension of TAF funds across the size distribution at various points during the crisis in Tables 44 - 49. Each entry is listed in number of cents.

To begin, Table 44 presents the results for overnight funding from the DW for small banks. Across the full sample period, we observe that overnight financing promoted lending in four different categories: Total Loans, RRE, C&I, and ST loans. However, in two categories, the effects of overnight financing are actually negative. Over the entire crisis, the largest effects of overnight funding are observed for Total Loans where slightly over 8 cents of lending occurs for every dollar of overnight loans.

As might be expected, the largest impact occurs in the pre-Lehman period where the propensity to lend is much higher at around 30.5 cents for every dollar. Yet, the number is negative for RRE and LT loans. In the post-Lehman period, the largest result takes place for LT loans but it's only about one-third of the size for Total Loans prior to the failure of Lehman Brothers.

Table 45 considers how the availability of overnight DW funds affects lending by medium and large banks. Here, in comparison to small banks, the scope for increased lending is smaller than among the small banks. First, the propensities to lend are generally very weak and limited to RRE where the average propensity is around 6.3 cents post-Lehman. Yet, in the LT category prior to October 2008, every dollar's worth of DW funds is associated with nearly 53 cents of LT loans.

Next, Table 46 considers the role of maturity extension of the DW for lending by small banks. We find that the impact of maturity extension for these banks is rather limited – primarily impacting RRE and LT lending. The largest impact was observed for the LT loan category where extending the maturity of one-dollar of DW funds by one day would translate to around 1 penny of additional lending. Post - Lehman – only C&I loans were affected and the impact was rather small.

By comparison, Table 47 presents the results for medium and large banks. Here, maturity extension only promoted RRE lending but the impact was pretty strong. In the pre-Lehman phase of the crisis, an additional 1 and 1/2 cents of RRE lending would take place for a one-dollar increase in lending which was extended by one day. However, there was no effect from maturity extension of the DW after Lehman Brothers' bankruptcy.

We proceed to look at the role of maturity extension of TAF funds for small

banks in Table 48. There is only one category where this seemed to matter and it was in the second half of the crisis. Here, maturity extension increased the propensity to lend by .33 cents. The limited role was likely due to the fact that only a small number of small banks participated in the TAF program.

Table 49 shows the impact on medium and large banks. The effects are pretty limited – maturity extension only seemed to matter for the RRE and LT loan categories. Moreover, it only appears to be relevant in the second half of the crisis. Further, the impact looks rather weak – extending the maturity for RRE loans was only associated with increase in RRE lending by less than .2 cents though it is higher for LT loans at .75 cents.

We conclude by summarizing where each program was most effective across the size distribution of the banking system. For small banks, in the first half of the crisis, over 30 cents worth of DW funds were allocated to total loans for every dollar. In the second half of the crisis, the effects moved such that the impact was strongest in LT loans category. For medium and large banks, the propensity to lend was very high prior to the failure of Lehman Brothers at over 50 cents for every dollar's worth of overnight DW funds.

In terms of maturity extension at the DW, the largest impact took place among small banks – over one penny of additional loans was observed for an additional dollar's worth of term DW funds which were extended by one day. By comparison, the effects were stronger among medium and large banks – over one and a half cents were extended in the RRE loan category.

As for maturity extension at the TAF, the effects were confined to the larger banks in the system. But, the effects were weaker than at the DW – less than one cent of additional funding would take place in the LT loan category during the second half of the crisis. By comparison, the effects were twice as strong in the RRE category prior to Lehman Brothers' bankruptcy.

In sum, the scope for maturity extension was generally limited – the main areas where it was effective were in the RRE and LT loan categories. In contrast, overnight financing played a strong role in promoting total lending by small banks and LT lending by larger banks – yet, both mechanisms were only impactful in the first half of the crisis.

6 Conclusions

During the recent financial crisis, the Federal Reserve extended maturities of Discount Window (DW) loans and created the Term Auction Facility (TAF) to promote lending behavior in the banking sector. If another financial crisis occurs, such policies may be used again. Thus, it is important to understand why banks may be inclined to take advantage of these unconventional policies and how they might affect banking activity.

To address these significant issues, this paper has two objectives. First, we study the different factors that affected banks' decisions to utilize the DWTAF program and the maturities of loans obtained. Specifically, we separate the

maturities and loan amounts to differentiate the effects of fund availability from maturity extension. Our findings indicate that within the small bank category, smaller and stronger institutions were more likely not to borrow from either the DW or the TAF. Thus, weaker small banks mainly took advantage of the Federal Reserve's lending programs. Comparatively, large banks that were bigger and had a higher proportion of commercial real estate (CRE) loans were more likely to use both the DW and the TAF simultaneously. As a result, the determinants of participation varied significantly across the size distribution of the banking sector.

We also show that they varied across different phases of the financial crisis. In terms of maturities of funds borrowed, small banks with less volatile earnings were more likely to borrow for longer periods of time. Meanwhile, within large banks, banks that were bigger tended to borrow for longer maturities.

The second part of the analysis addresses the effect of maturity extension on promoting the availability of credit. Notably, maturity extension of DW loans promoted long-term (LT) lending by small banks in the banking sector, but this was generally limited to the time before the failure of Lehman Brothers. Finally, maturity extension of the TAF promoted residential real estate (RRE) lending by medium and large banks but the effects were also stronger in the first half of the crisis.

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Appendix

May 31, 2018

Figure 1: Average DWTAF loan balance

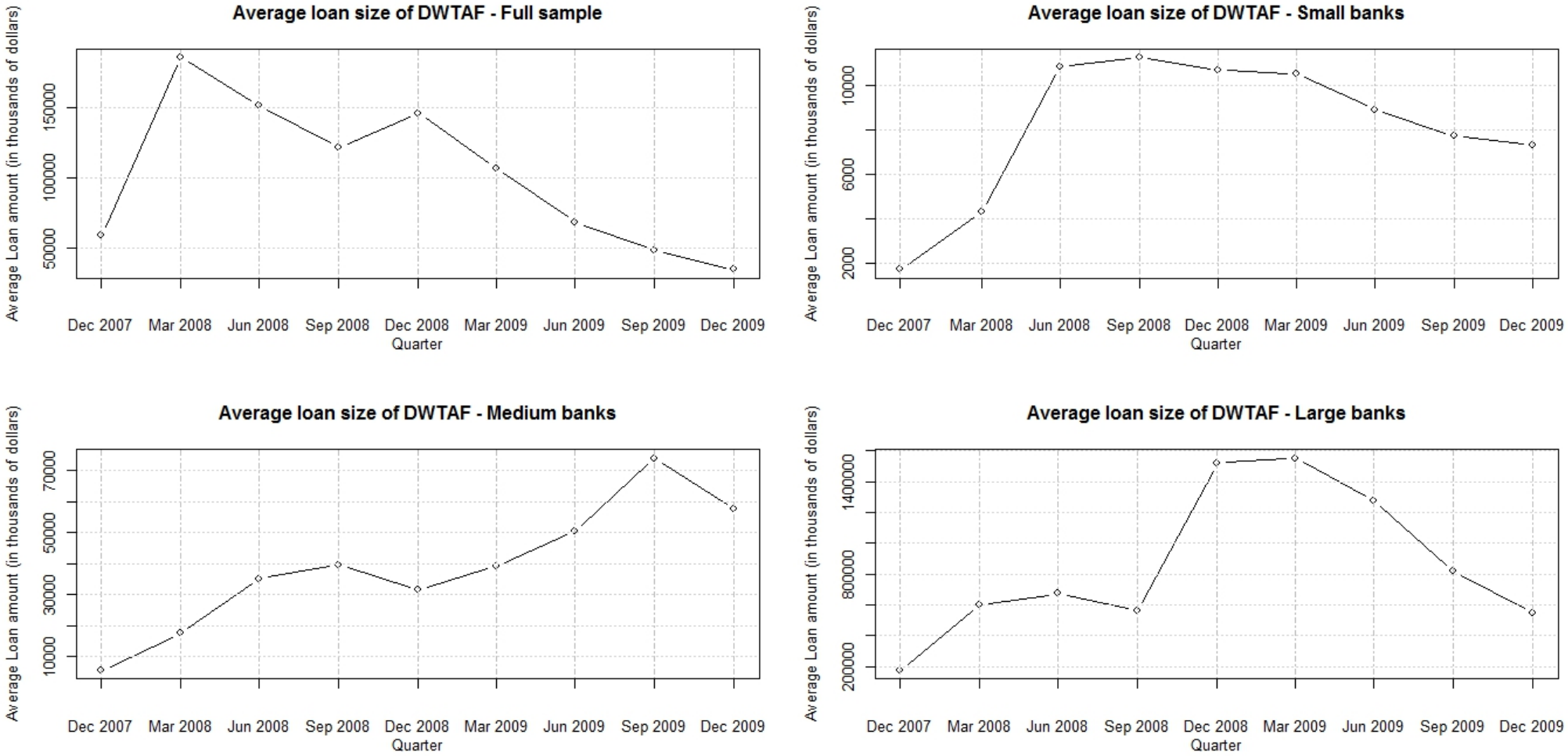

Figure 2: Number of banks that borrowed from DWTAF

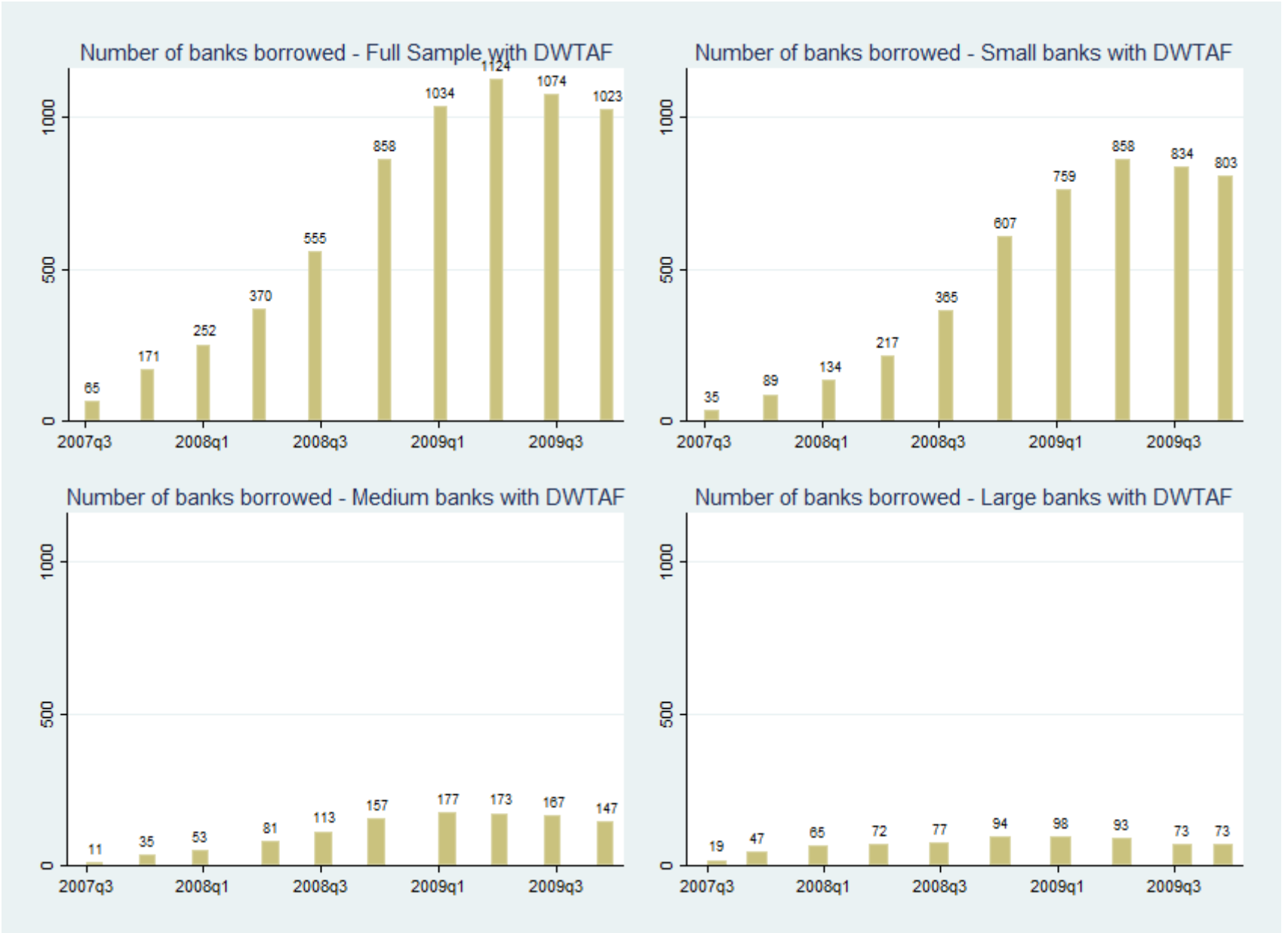

Figure 3: Average DW loan balance

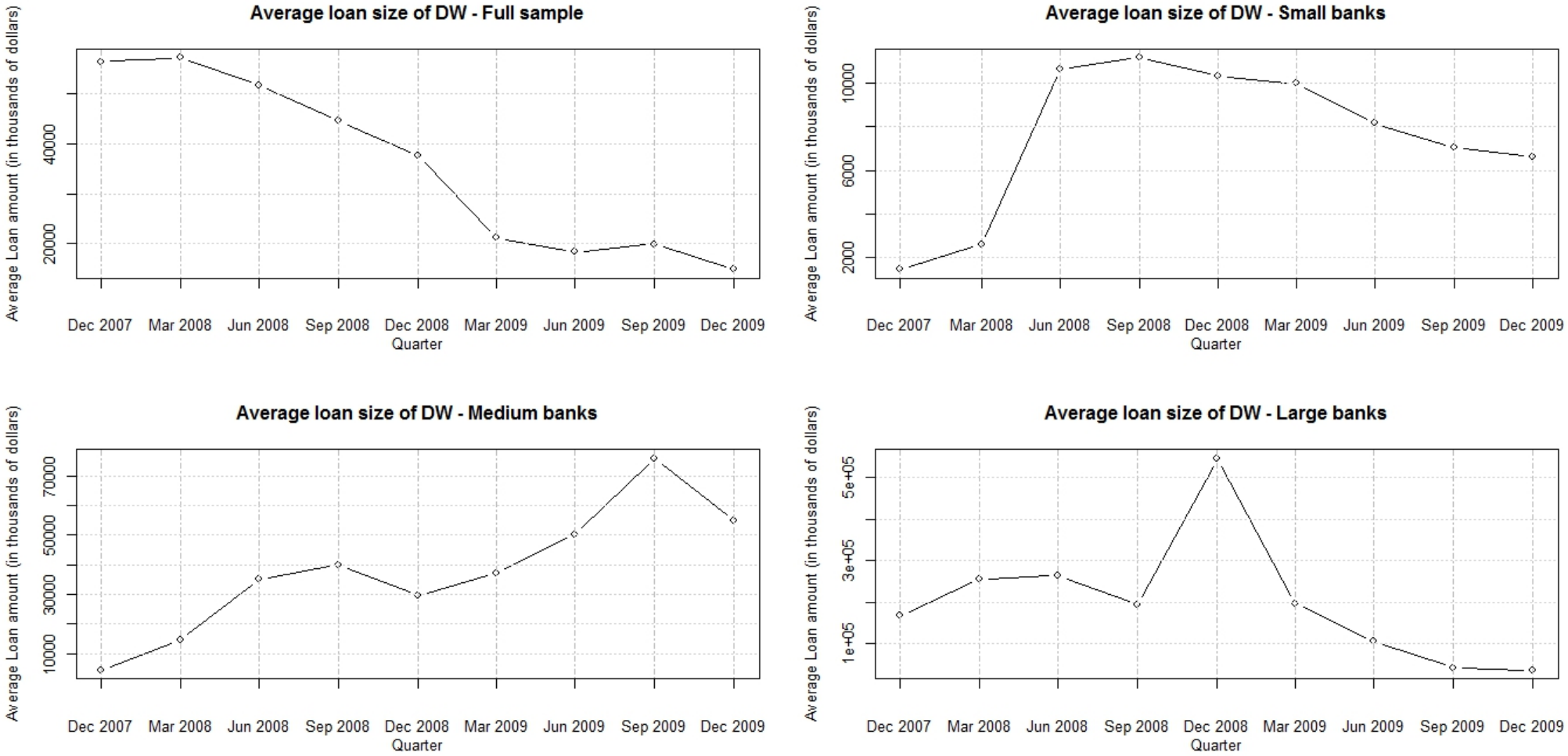

Figure 4: Number of banks that borrowed from DW

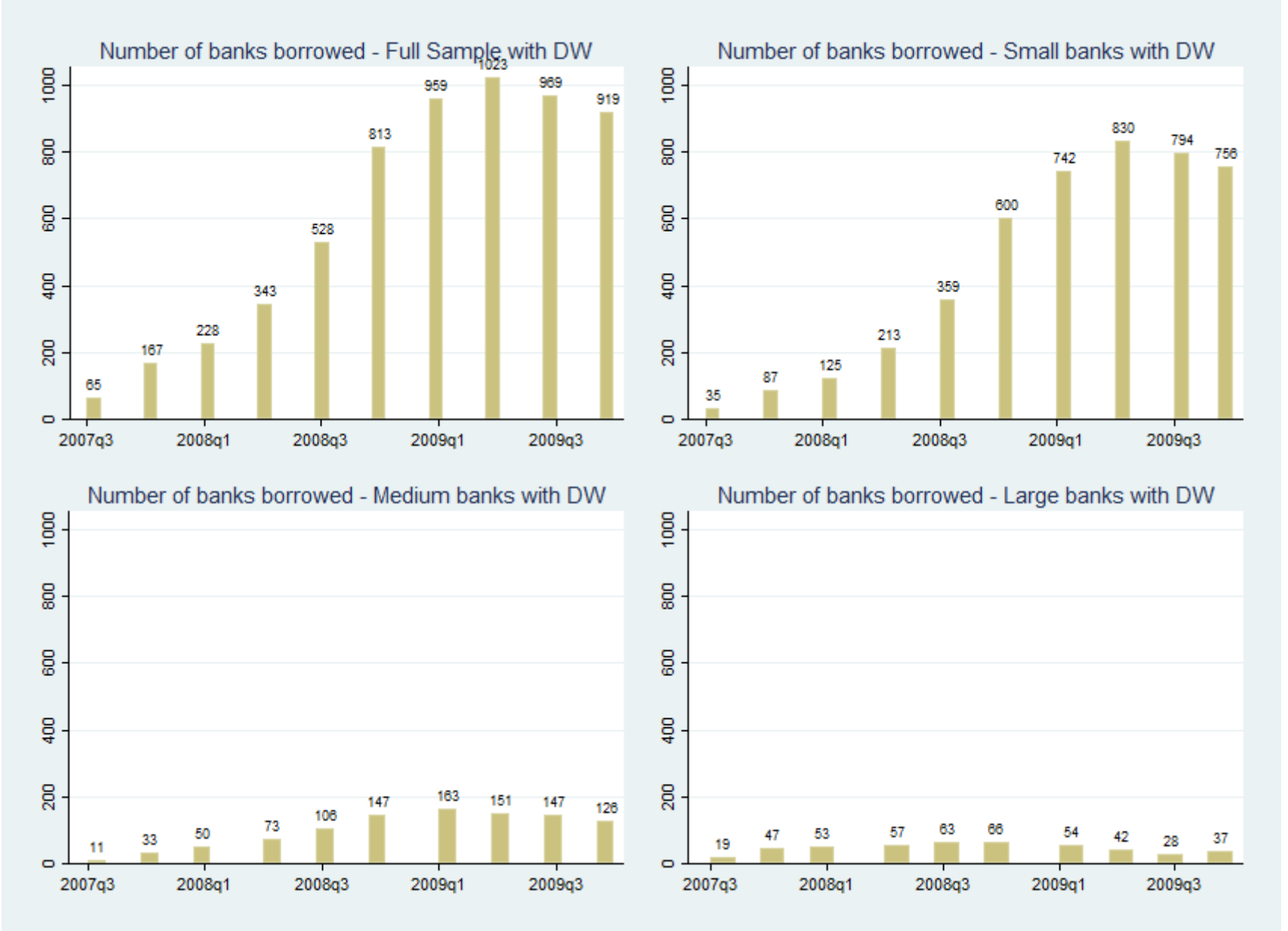

Figure 5: Cumulative maturity density distribution of DWTAF

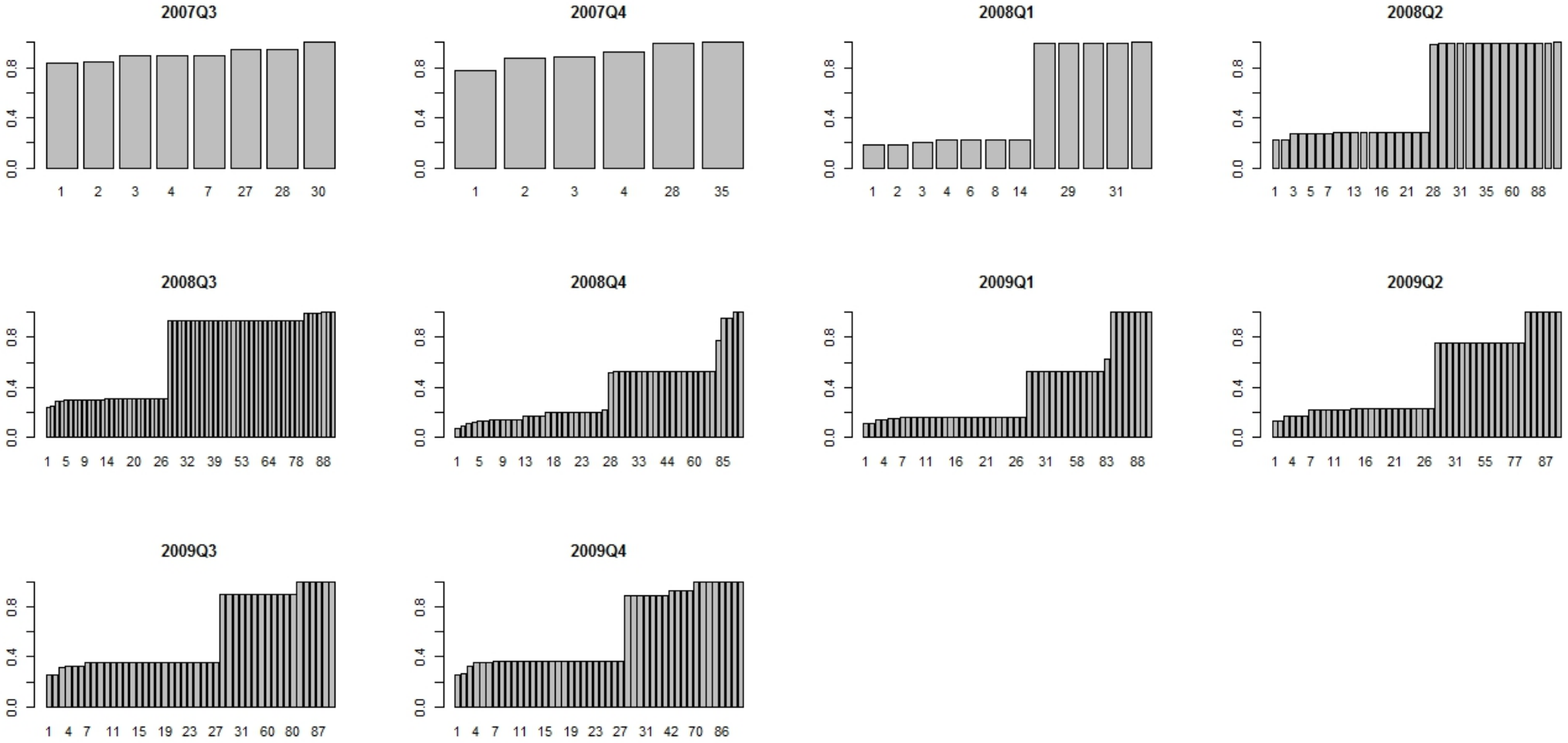

Figure 6: Cumulative maturity density distribution of DW

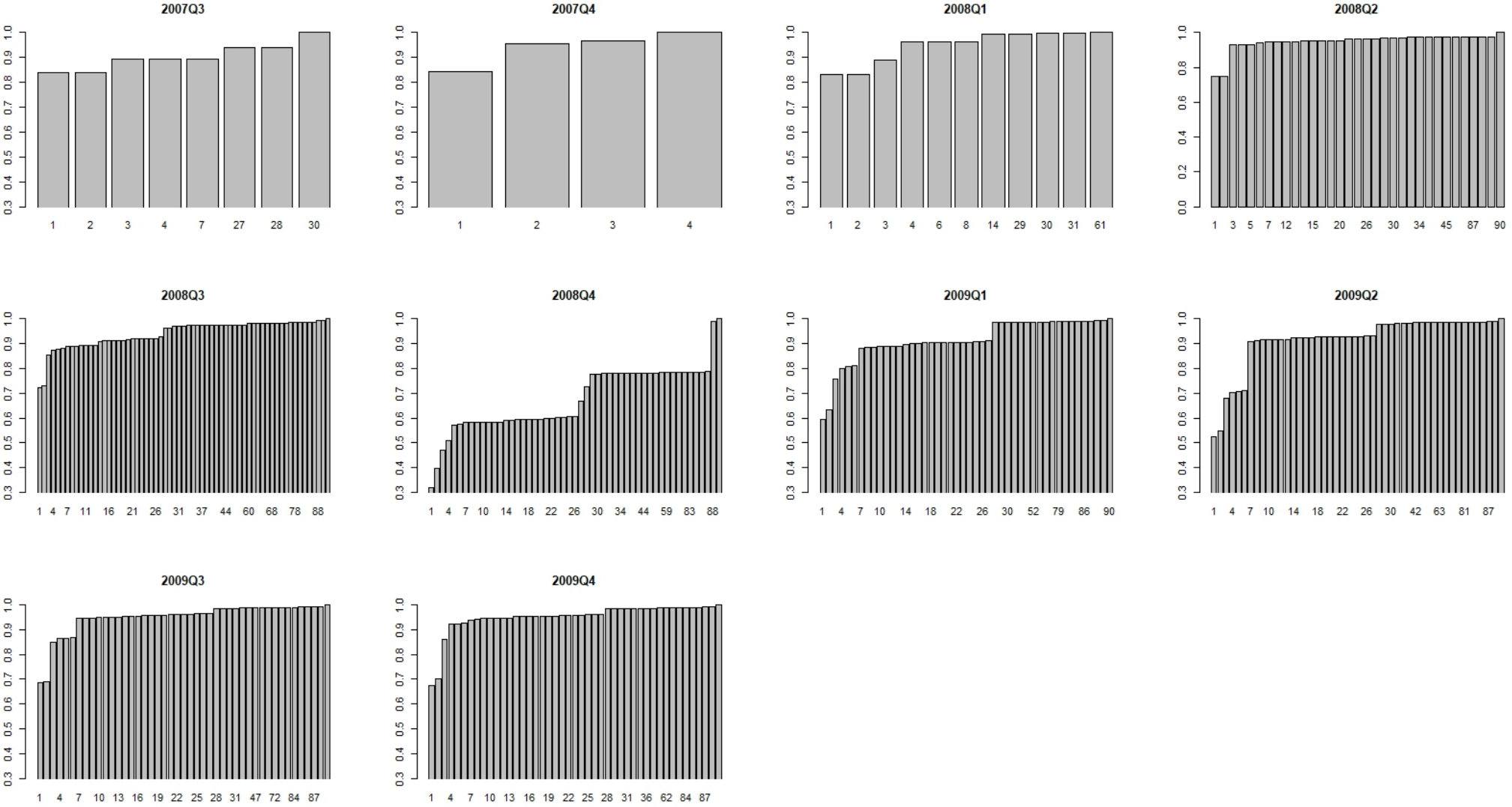

Table 1: Summary Statistics

Variable	Definition	Obs	Mean	Std. Dev.
DWTAF variables:				
dw_mat	average maturity of DW loans within the quarter	77935	.394	4.139
dw_time	number of times the institution approached the window	77935	.268	2.688
taf_mat	average maturity of TAF loans within the quarter	77935	.516	5.433
taf_time	number of times received funds form TAF program	77935	.028	.313
dwtaf_mat	average maturity of DWTAF loans within the quarter	77935	.78	6.164
dwtaf_time	number of times received funds form DWTAF program	77935	.296	2.74
w_tafmat	transaction weighted average term maturity of TAF	77935	.516	5.45
w_dwmat	transaction weighted average maturity of DW	77935	.407	4.255
w_dwtaf_mat	transaction weighted average maturity of DWTAF	77935	.814	6.36
dw_sum	(change of) total DW balance normalized by lagged GTA	77935	.001	.11
dw_mean	(change of) average DW balance normalized by lagged GTA	77935	0	.005
taf_sum	(change of) total TAF balance normalized by lagged GTA	77935	0	.014
taf_mean	(change of) average TAF balance normalized by lagged GTA	77935	0	.004
dwtaf_sum	(change of) total DWTAF balance normalized by lagged GTA	77935	.001	.11
dwtaf_mean	(change of) average DWTAF normalized by lagged GTA	77935	0	.005
Banks' characteristic variables:				
log_gta	log of gross total asset	77935	12.113	1.258
gta	lag of gross total asset	77935	1722819.467	31736693.388
equity ratio	equity capital ratio, equity capital as a portion of GTA	77935	.106	.038
tier1 ratio	Tier 1 capital normalized by risk-weighted assets	77935	.148	.089
totalrat	Total capital normalized by risk-weighted assets	77935	.157	.096
roe	rate of return on equity	77935	.032	1.733
roa	rate of return on asset	77935	.004	.01
stdroa	standard deviation of return of asset, calculated with past 12 quarter	77935	.005	.005
port_cre	commercial real estate loans normalized by lagged GTA	77935	.003	.013
port_mbs	mortgage-backed securities normalized by lagged GTA	77935	.066	.086
allow_rat	allowance for loans and leases divided by GTA	77935	.01	.006
loans	change of total loans normalized by lagged GTA	77891	.01	.062
st_loans	change of short-term loans normalized by lagged GTA	77891	.001	.044
lt_loans	change of long-term loans normalized by lagged GTA	77891	.01	.051
ci_loans	change of commercial and industry loans normalized by lagged GTA	77891	.001	.027

cre	change of commercial real estate loans normalized by lagged GTA	77891	0	.007
RRE	change of residential real estate loans normalized by lagged GTA	77891	.004	.026
con_loans	change of consumer-loans normalized by lagged GTA	77891	0	.013
other_loans	change of other-loans normalized by lagged GTA	77891	0	.005
cash	change of cash normalized by lagged GTA	77891	.004	.033
securities	change of securities normalized by lagged GTA	77891	.003	.032
coredep	change of core deposit normalized by lagged GTA	77891	.015	.079
fed_funds	change of federal funds purchased normalized by lagged GTA	77891	0	.017
repos	change of repurchased agreements normalized by lagged GTA	77891	0	.009
other_hot	change of other hot money normalized by lagged GTA	77891	.002	.028
fhlb	change of Federal Home Loan Bank borrowing normalized by lagged GTA	77891	.001	.021
tarp	change of TARP balance normalized by lagged GTA	71037	0	.006
Dummy variables:				
bhc	whether belonged to a bank holding company	77935	.705	.456
listed	whether the holding company or institution itself traded publicly	77935	.128	.334
foreign	whether the institution belonged to a foreign company	77935	.006	.08
fed	Federal Reserve as its primary federal regulator	77935	.142	.349
occ	OCC as its primary federal regulator	77935	.184	.388
fdic	FDIC as its primary federal regulator	77935	.672	.469
Market and Macro variables:				
fedfunds	realized Federal Funds rate at certain quarter	77935	2.005	1.991
pricredit	Primary credit rate	77935	2.514	2.151
spread	difference between Federal funds rate and primary credit rate	77935	.51	.241
fi_abs	log of issues of asset-backed securities; total financial assets	77935	-8.303	9.808
abcp_out	log of Asset-backed Commercial Paper Outstanding; seasonally adjusted;	77935	13.467	.3
mortgage	log of Agency-and GSE-backed mortgage pools; total mortgages; asset	77935	13.069	.4
gdp	log of state GDP; millions of dollars	77935	12.576	.942
gdp_US	log of national level GDP	77935	16.496	.016
ur	statewise unemployment rate, seasonally adjusted	77935	6.539	2.368
ur_US	national level unemployment rate	77935	6.943	2.13

Table 2: Regression : Subpanel with Macro, Market Controls and Census region FEs

	Panel A: Dummy = 1 if the bank used DWTAF during the quarter						Panel B: Dummy = 1 if the bank used DW during the quarter					
	Subpanel A1: Small bank		Subpanel A2: Medium bank		Subpanel A3: Large bank		Subpanel B1: Small bank		Subpanel B2: Medium bank		Subpanel B3: Large bank	
log_gta	0.0358***	0.0325***	0.0881**	0.0861**	0.1142***	0.1070***	0.0336***	0.0304***	0.0569	0.0553	0.0224	0.0187
	(18.61)	(15.57)	(2.78)	(2.79)	(4.71)	(4.40)	(17.97)	(15.01)	(1.92)	(1.86)	(1.12)	(0.93)
equity ratio	-0.2564***		-0.3285		-0.5892		-0.2677***		-0.2495		-1.2551*	
	(-5.28)		(-0.83)		(-0.90)		(-5.56)		(-0.69)		(-2.00)	
tier1 ratio		-0.2116***		-0.3751		-1.5020*		-0.2116***		-0.2336		-1.1351*
		(-6.31)		(-0.98)		(-2.56)		(-6.33)		(-0.72)		(-2.25)
stdroa	0.0794	0.0181	-0.1180	-0.0961	-0.1787	0.5469	0.1196	0.0531	-0.5651	-0.5788	-1.5185	-2.3948
	(0.29)	(0.07)	(-0.06)	(-0.05)	(-0.04)	(0.12)	(0.44)	(0.20)	(-0.32)	(-0.33)	(-0.31)	(-0.50)
port_cre	0.1503	0.1297	-0.2581	-0.2494	5.3503	6.4978*	0.1594	0.1387	-1.0592	-1.0557	2.0857	2.7002
	(1.71)	(1.50)	(-0.27)	(-0.26)	(1.65)	(2.18)	(1.85)	(1.65)	(-1.21)	(-1.20)	(0.77)	(0.97)
port_mbs	0.0273	0.0554**	0.1738	0.2084	0.1044	0.1729	0.0273	0.0557**	0.1388	0.1631	0.1330	0.2833
	(1.60)	(3.15)	(1.03)	(1.25)	(0.27)	(0.47)	(1.65)	(3.24)	(0.93)	(1.10)	(0.39)	(0.83)
roe	0.0007	0.0008	0.0178	0.0188	-0.3569	-0.2863	0.0006	0.0007	0.0114	0.0113	-0.1864	-0.1852
	(1.59)	(1.21)	(1.19)	(1.25)	(-1.51)	(-1.26)	(1.58)	(1.32)	(0.85)	(0.84)	(-0.99)	(-1.01)
bhc	0.0010	0.0017	0.0118	0.0156	0.1298	0.1619	0.0014	0.0022	0.0427	0.0451	0.1376	0.1778
	(0.28)	(0.50)	(0.31)	(0.41)	(1.16)	(1.47)	(0.43)	(0.66)	(1.18)	(1.25)	(1.41)	(1.82)
listed	0.0112*	0.0100*	-0.0231	-0.0277	-0.0780	-0.1167	0.0116**	0.0104*	-0.0264	-0.0292	-0.0867	-0.1210
	(2.45)	(2.26)	(-0.69)	(-0.83)	(-0.87)	(-1.30)	(2.58)	(2.39)	(-0.84)	(-0.92)	(-1.15)	(-1.57)
foreign	-0.0409	-0.0333	-0.0973	-0.1038	-0.0797	-0.0435	-0.0372	-0.0301	-0.0657	-0.0719	0.0113	0.0056
	(-1.52)	(-1.26)	(-0.85)	(-0.93)	(-0.84)	(-0.42)	(-1.41)	(-1.17)	(-0.61)	(-0.68)	(0.15)	(0.07)
occ	-0.0079	-0.0069	0.0189	0.0203	-0.0983	-0.1186	-0.0069	-0.0060	0.0258	0.0267	-0.1272	-0.1369*
	(-1.63)	(-1.46)	(0.45)	(0.48)	(-1.21)	(-1.48)	(-1.46)	(-1.29)	(0.64)	(0.66)	(-1.82)	(-1.98)
fdic	-0.0131**	-0.0128**	-0.0320	-0.0308	-0.1279	-0.1328	-0.0125**	-0.0122**	-0.0259	-0.0250	-0.1864*	-0.1856*
	(-3.27)	(-3.29)	(-0.91)	(-0.88)	(-1.43)	(-1.51)	(-3.19)	(-3.20)	(-0.77)	(-0.74)	(-2.36)	(-2.37)
abcp_out	0.0070	0.0067	0.4507	0.4526	0.2293	0.2978	0.0151	0.0146	0.4032	0.4048	0.9146*	0.9539*
	(0.87)	(0.84)	(1.89)	(1.92)	(0.48)	(0.63)	(1.85)	(1.82)	(1.81)	(1.80)	(2.26)	(2.40)
mortgage	0.0030	0.0034	0.0478	0.0477	-0.0723	-0.0646	0.0043	0.0047	0.0225	0.0224	-0.0732	-0.0756
	(0.74)	(0.85)	(0.95)	(0.95)	(-0.69)	(-0.61)	(1.03)	(1.15)	(0.47)	(0.46)	(-0.84)	(-0.87)
fi_abs	-0.0008***	-0.0007***	-0.0084***	-0.0084***	-0.0148***	-0.0151***	-0.0008***	-0.0008***	-0.0079***	-0.0079***	-0.0193***	-0.0193***
	(-3.40)	(-3.30)	(-3.57)	(-3.67)	(-3.33)	(-3.38)	(-3.53)	(-3.42)	(-3.64)	(-3.51)	(-4.87)	(-5.06)
fedfunds	-0.0192***	-0.0186***	-0.1007***	-0.1006***	-0.0762*	-0.0790*	-0.0193***	-0.0187***	-0.0867***	-0.0866***	-0.0626	-0.0624

	(-10.71)	(-10.54)	(-4.77)	(-5.02)	(-1.96)	(-2.04)	(-10.79)	(-10.62)	(-4.79)	(-4.50)	(-1.87)	(-1.87)
spread	0.0051	0.0058	0.0231	0.0235	-0.0385	-0.0369	0.0059	0.0065*	0.0188	0.0192	0.1187	0.1124
	(1.71)	(1.95)	(0.46)	(0.46)	(-0.41)	(-0.39)	(1.95)	(2.20)	(0.39)	(0.40)	(1.41)	(1.36)
ur	0.0059***	0.0059***	0.0297*	0.0299*			0.0060***	0.0060***	0.0211	0.0213		
	(5.02)	(5.08)	(2.50)	(2.55)			(5.18)	(5.24)	(1.94)	(1.93)		
gdp	-0.0093***	-0.0092***	-0.0476*	-0.0484*			-0.0091***	-0.0089***	-0.0375*	-0.0380*		
	(-4.08)	(-4.08)	(-2.45)	(-2.52)			(-4.05)	(-4.05)	(-2.08)	(-2.07)		
ur_US			0.0173	0.0182	-0.0534	-0.0358			0.0154	0.0161	0.0705	0.0803
			(0.49)	(0.52)	(-0.75)	(-0.51)			(0.47)	(0.49)	(1.14)	(1.32)
gdp_US			1.4614	1.5120	-4.3382	-3.4284			0.9542	0.9844	9.2213*	9.5648*
			(0.71)	(0.73)	(-0.97)	(-0.77)			(0.50)	(0.52)	(2.17)	(2.30)
Regions FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	59787	59787	3871	3871	1262	1262	59787	59787	3871	3871	1262	1262
pseudo R^2	0.192	0.195	0.149	0.149	0.177	0.183	0.187	0.190	0.135	0.136	0.089	0.087

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

*dregion9 omitted due to collinearity.

Table 3: Regression : Subpanel with Macro, Market Controls and Census region FEs (Continued)

	Panel C: Dummy = 1 if the bank used TAF during the quarter					
	Subpanel C1: Small bank		Subpanel C2: Medium bank		Subpanel C3: Large bank	
	(1)	(2)	(1)	(2)	(1)	(2)
log_gta	0.0025***	0.0023***	0.0454	0.0447*	0.1136***	0.1081***
	(5.65)	(4.85)		(2.32)	(5.31)	(4.75)
equity ratio	0.0012		-0.1207		-0.0252	
	(0.20)				(-0.04)	
tier1 ratio		-0.0056		-0.3562		-1.4050
		(-1.25)		(-1.54)		(-1.72)
stdroa	-0.0790*	-0.0783*	-0.0862	-0.1337	1.2265	2.9026
	(-2.07)	(-2.10)		(-0.15)	(0.28)	(0.68)
port_cre	-0.0270	-0.0271	0.1644	0.1681	7.3007	7.4261
	(-1.54)	(-1.57)		(0.34)	(1.85)	(1.90)
port_mbs	-0.0009	-0.0004	-0.0070	0.0113	0.2217	0.2336
	(-0.34)	(-0.15)		(0.15)	(0.61)	(0.67)
roe	0.0008*	0.0008*	0.0106	0.0126	-0.1045	-0.0142
	(2.54)	(2.43)		(0.84)	(-0.55)	(-0.08)
bhc	-0.0004	-0.0004	-0.0332	-0.0305	0.0269	0.0382
	(-1.02)	(-1.05)		(-1.47)	(0.24)	(0.36)
listed	-0.0004	-0.0004	0.0125	0.0088	-0.0101	-0.0286
	(-0.78)	(-0.80)		(0.51)	(-0.11)	(-0.30)
foreign	NA	NA	NA	NA	-0.1878	-0.1484
					(-1.74)	(-1.37)
occ	-0.0007	-0.0006	-0.0092	-0.0077	-0.0176	-0.0292
	(-0.94)	(-0.91)		(-0.36)	(-0.22)	(-0.37)
fdic	0.0003	0.0002	0.0077	0.0084	0.0295	0.0323
	(0.45)	(0.39)		(0.49)	(0.35)	(0.38)
abcp_out	-0.0003	-0.0003	-0.1259	-0.1163	-2.2549***	-2.1858***
	(-0.30)	(-0.35)		(-0.98)	(-4.73)	(-4.48)
mortgage	0.0014*	0.0013*	-0.0178	-0.0162	-0.3708***	-0.3579**
	(2.38)	(2.31)		(-0.61)	(-3.44)	(-3.29)
fi_abs	0.0036***	0.0035***	-0.0306	-0.0285	-0.2126*	-0.2083*
	(3.57)	(3.48)		(-1.25)	(-2.49)	(-2.45)
fedfunds	-0.0031***	-0.0030***	-0.0032	-0.0039	0.0263	0.0199
	(-4.03)	(-3.86)		(-0.29)	(0.48)	(0.36)
spread	-0.0023**	-0.0022**	-0.0234	-0.0230	-0.4815***	-0.4792***
	(-3.07)	(-3.04)		(-0.79)	(-4.08)	(-4.01)
ur	0.0001	0.0001	0.0131	0.0125		
	(0.38)	(0.39)		(1.84)		
gdp	-0.0005	-0.0005	-0.0257	-0.0255*		
	(-1.80)	(-1.88)		(-2.20)		
ur_US			-0.0277	-0.0253	-0.4021***	-0.3848***
				(-1.25)	(-5.90)	(-5.46)
gdp_US			-1.1544	-1.0788	-22.7379***	-21.7469***
				(-1.01)	(-5.92)	(-5.44)
Regions FEs	Yes	Yes	Yes	Yes	Yes	Yes
N	53337	53337	3406	3406	1138	1138
pseudo R^2	0.200	0.201	0.127	0.133	0.242	0.249

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 4: Regression : Subpanel with Macro, Market Controls and Census region FEs – Pre-Lehman period (07Q3-08Q3)

	Panel A: Dummy = 1 if the bank used DWTAF during the quarter						Panel B: Dummy = 1 if the bank used DW during the quarter					
	Subpanel A1: Small bank		Subpanel A2: Medium bank		Subpanel A3: Large bank		Subpanel B1: Small bank		Subpanel B2: Medium bank		Subpanel B3: Large bank	
log_gta	0.0118***	0.0113***	0.0629*	0.0614*	0.1519***	0.1379***	0.0112***	0.0107***	0.0526	0.0517	0.1051***	0.0956***
	(9.23)	(7.92)	(2.20)	(2.16)	(4.85)	(4.38)	(8.83)	(7.56)	(1.92)	(1.88)	(3.71)	(3.33)
equity ratio	-0.0926**		-0.2081		-1.2602		-0.0931**		-0.1260		-1.5832*	
	(-2.61)		(-0.82)		(-1.50)		(-2.62)		(-0.58)		(-1.99)	
tier1 ratio		-0.0476*		-0.1458		-1.6758		-0.0493*		-0.0684		-1.5998
		(-2.03)		(-0.67)		(-1.71)		(-2.11)		(-0.37)		(-1.82)
stdroa	-0.5695	-0.6462	1.0373	0.8513	-1.6978	-0.9107	-0.5664	-0.6401	0.7963	0.6156	0.5118	0.4323
	(-1.68)	(-1.81)	(0.77)	(0.64)	(-0.13)	(-0.07)	(-1.64)	(-1.77)	(0.64)	(0.50)	(0.04)	(0.04)
port_cre	0.0402	0.0359	-0.7422	-0.7377	3.3752	4.7944	0.0411	0.0367	-2.0323	-2.0173	3.5445	4.7521
	(0.80)	(0.72)	(-0.77)	(-0.78)	(0.76)	(1.06)	(0.82)	(0.74)	(-1.83)	(-1.83)	(0.87)	(1.16)
port_mbs	0.0148	0.0234*	-0.0950	-0.0745	0.0331	0.2391	0.0163	0.0251*	-0.0772	-0.0661	0.0741	0.3251
	(1.46)	(2.19)	(-0.64)	(-0.50)	(0.07)	(0.51)	(1.62)	(2.35)	(-0.55)	(-0.47)	(0.16)	(0.73)
roe	0.0021	0.0051	0.0403	0.0409	-0.9105	-0.7881	0.0006	0.0034	0.0080	0.0068	-0.6372	-0.5174
	(0.19)	(0.43)	(0.59)	(0.59)	(-1.82)	(-1.62)	(0.05)	(0.28)	(0.14)	(0.12)	(-1.36)	(-1.14)
bhc	0.0019	0.0023	0.0324	0.0353	0.2501	0.2930*	0.0021	0.0025	0.0259	0.0274	0.1805	0.2285
	(0.91)	(1.09)	(1.01)	(1.10)	(1.86)	(2.18)	(1.00)	(1.19)	(0.85)	(0.90)	(1.42)	(1.77)
listed	0.0028	0.0026	-0.0331	-0.0356	-0.1587	-0.2003*	0.0027	0.0025	-0.0283	-0.0295	-0.1424	-0.1863
	(1.02)	(0.93)	(-1.12)	(-1.20)	(-1.60)	(-2.01)	(0.99)	(0.89)	(-1.00)	(-1.04)	(-1.43)	(-1.82)
foreign	-0.0228*	-0.0221*	0.0480	0.0425	0.0353	0.0645	-0.0222*	-0.0214*	0.0579	0.0540	0.1468	0.1614
	(-2.16)	(-2.13)	(0.58)	(0.53)	(0.30)	(0.50)	(-2.12)	(-2.07)	(0.73)	(0.69)	(1.37)	(1.35)
occ	-0.0060	-0.0058	0.0188	0.0205	-0.1775	-0.2007*	-0.0059	-0.0057	0.0205	0.0215	-0.2470**	-0.2660**
	(-1.95)	(-1.88)	(0.53)	(0.57)	(-1.79)	(-2.02)	(-1.94)	(-1.87)	(0.59)	(0.62)	(-2.69)	(-2.88)
fdic	-0.0052*	-0.0051*	-0.0119	-0.0105	-0.2596*	-0.2629*	-0.0055*	-0.0054*	-0.0100	-0.0091	-0.3266**	-0.3257**
	(-2.08)	(-2.04)	(-0.39)	(-0.34)	(-2.48)	(-2.51)	(-2.25)	(-2.20)	(-0.34)	(-0.31)	(-3.29)	(-3.29)
abcp_out	-0.2845***	-0.2895***	-1.2527*	-1.2691*	2.1467	1.9248	-0.3000***	-0.3040***	-1.5510**	-1.5668**	0.1199	-0.1232
	(-5.50)	(-5.56)	(-2.05)	(-2.09)	(1.12)	(1.02)	(-5.79)	(-5.84)	(-2.64)	(-2.68)	(0.06)	(-0.06)
mortgage	-0.0095**	-0.0092**	-0.0364	-0.0368	-0.2784	-0.2499	-0.0079*	-0.0077*	-0.0678*	-0.0686*	-0.1064	-0.0800
	(-2.78)	(-2.64)	(-1.03)	(-1.04)	(-1.89)	(-1.72)	(-2.29)	(-2.17)	(-2.02)	(-2.04)	(-0.81)	(-0.62)
fi_abs	0.0017***	0.0017***	0.0058	0.0060	-0.0338*	-0.0314*	0.0018***	0.0019***	0.0080	0.0081	-0.0153	-0.0126
	(4.08)	(4.18)	(1.20)	(1.23)	(-2.18)	(-2.05)	(4.44)	(4.53)	(1.74)	(1.77)	(-0.95)	(-0.80)
fedfunds	0.0095***	0.0096***	0.0237	0.0246	-0.1196	-0.1170	0.0100***	0.0102***	0.0460	0.0468	-0.0054	-0.0024

	(3.86)	(3.93)	(0.82)	(0.86)	(-1.21)	(-1.19)	(4.06)	(4.12)	(1.63)	(1.68)	(-0.05)	(-0.02)
ur	0.0032**	0.0033**	0.0297*	0.0299*			0.0033**	0.0033**	0.0166	0.0165		
	(2.72)	(2.73)	(1.99)	(2.01)			(2.78)	(2.79)	(1.14)	(1.14)		
gdp	-0.0050***	-0.0049***	-0.0259	-0.0264			-0.0048***	-0.0047***	-0.0171	-0.0172		
	(-3.56)	(-3.50)	(-1.45)	(-1.49)			(-3.43)	(-3.38)	(-0.97)	(-0.98)		
Regions FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	30717	30717	1897	1897	629	629	30717	30717	1897	1897	629	629
pseudo R^2	0.157	0.157	0.140	0.139	0.242	0.243	0.153	0.152	0.137	0.137	0.193	0.190

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

*spread, ur_US, gdp_US, dregion9 omitted due to collinearity.

Table 5: Regression : Subpanel with Macro, Market Controls and Census region FEs – Pre-Lehman period (continued)

	Panel C: Dummy = 1 if the bank used TAF during the quarter			
	Subpanel C2: Medium bank		Subpanel C3: Large bank	
	(1)	(2)	(1)	(2)
log_gta	0.0267	0.0260*	0.0728	0.0498
		(2.02)	(0.81)	
equity ratio	-0.2795		-0.2564	
			(-0.41)	
tier1 ratio		-0.2269		-2.8351
		(-1.08)		
stdroa	0.9519	0.7960	-3.3719	0.7038
		(1.01)	(-0.40)	
port_cre	0.2042	0.1728	3.0822	0.8416
		(0.77)	(0.66)	
port_mbs	-0.0672	-0.0439	0.3315	0.3500
		(-0.78)	(0.74)	
roe	0.0784	0.0946	-0.5732	-0.4080
		(1.96)	(-0.77)	
bhc	-0.0046	-0.0015	0.1145	0.0991
		(-0.10)	(0.71)	
listed	0.0105	0.0071	-0.0650	-0.0658
		(0.63)	(-0.63)	
foreign	0.0000	0.0000	-0.1439	-0.1013
			(-0.77)	
occ	-0.0031	-0.0014	0.0031	0.0016
		(-0.10)	(0.06)	
fdic	0.0082	0.0093	0.0277	0.0370
		(0.85)	(0.41)	
abcp_out	-4.4652	-4.4521	-52.3783	-41.3060
		(-1.58)	(-0.81)	
mortgage	0.1691	0.1707	1.6055	1.2746
		(1.59)	(0.81)	
fi_abs	0.3690	0.3665	4.4339	3.4808
		(1.52)	(0.81)	
ur	0.0106	0.0111		
		(1.77)		
gdp	-0.0103	-0.0110*		
		(-2.01)		
Regions FEs	Yes	Yes	Yes	Yes
N	1189	1189	505	505
pseudo R^2	0.194	0.191	0.302	0.338

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

*fedfund, spread, ur_US, gdp_US omitted due to collinearity.

Table 6: Regression : Subpanel with Macro, Market Controls and Census region FEs – Post-Lehman period (08Q4-09Q4)

	Panel A: Dummy = 1 if the bank used DWTAF during the quarter						Panel B: Dummy = 1 if the bank used DW during the quarter					
	Subpanel A1: Small bank		Subpanel A2: Medium bank		Subpanel A3: Large bank		Subpanel B1: Small bank		Subpanel B2: Medium bank		Subpanel B3: Large bank	
log_gta	0.0816***	0.0736***	0.1077*	0.1072*	0.0770**	0.0739*	0.0763***	0.0686***	0.0595	0.0577	-0.0516*	-0.0529*
	(20.18)	(17.56)	(2.46)	(2.47)	(2.64)	(2.57)	(19.32)	(16.75)	(1.41)	(1.38)	(-1.98)	(-2.05)
equity ratio	-0.5342***		-0.4456		-0.2555		-0.5638***		-0.4762		-1.4455	
	(-5.03)		(-0.75)		(-0.30)		(-5.41)		(-0.79)		(-1.87)	
tier1 ratio		-0.5163***		-0.7610		-1.2479		-0.5107***		-0.5479		-1.0084
		(-7.57)		(-1.35)		(-1.66)		(-7.55)		(-1.04)		(-1.61)
stdroa	0.4924	0.3718	-1.1772	-1.3280	1.3894	2.0523	0.5690	0.4362	-2.0967	-2.1653	-0.0827	-1.7664
	(0.82)	(0.56)	(-0.46)	(-0.50)	(0.29)	(0.44)	(0.95)	(0.68)	(-0.82)	(-0.82)	(-0.02)	(-0.38)
port_cre	0.3691	0.3231	0.5943	0.6711	5.8789	6.7956	0.3920	0.3461	0.0219	0.0457	-0.0346	0.3824
	(1.75)	(1.56)	(0.39)	(0.44)	(1.32)	(1.72)	(1.92)	(1.72)	(0.02)	(0.03)	(-0.01)	(0.11)
port_mbs	0.0465	0.1109**	0.4128	0.4618	0.1074	0.1340	0.0443	0.1086**	0.3261	0.3704	0.1583	0.2659
	(1.24)	(2.87)	(1.69)	(1.91)	(0.25)	(0.32)	(1.23)	(2.91)	(1.45)	(1.66)	(0.41)	(0.67)
roe	0.0017	0.0028	0.0140	0.0173	-0.2275	-0.1606	0.0016	0.0024	0.0100	0.0106	-0.0740	-0.1080
	(1.40)	(0.56)	(0.78)	(0.98)	(-0.97)	(-0.71)	(1.39)	(0.60)	(0.58)	(0.63)	(-0.39)	(-0.58)
bhc	-0.0012	-0.0001	-0.0207	-0.0163	0.0324	0.0592	-0.0001	0.0011	0.0521	0.0553	0.1214	0.1618
	(-0.16)	(-0.01)	(-0.37)	(-0.29)	(0.29)	(0.53)	(-0.01)	(0.15)	(0.99)	(1.05)	(1.25)	(1.68)
listed	0.0279**	0.0254*	-0.0083	-0.0159	-0.0057	-0.0420	0.0292**	0.0267**	-0.0211	-0.0262	-0.0517	-0.0879
	(2.73)	(2.54)	(-0.18)	(-0.34)	(-0.06)	(-0.42)	(2.92)	(2.73)	(-0.48)	(-0.59)	(-0.64)	(-1.09)
foreign	-0.0775	-0.0564	-0.3010*	-0.3078*	-0.1691	-0.1363	-0.0677	-0.0485	-0.2457	-0.2597	-0.1096	-0.1311
	(-1.24)	(-0.89)	(-2.12)	(-2.26)	(-1.38)	(-1.11)	(-1.11)	(-0.79)	(-1.78)	(-1.96)	(-0.98)	(-1.15)
occ	-0.0111	-0.0089	0.0157	0.0175	-0.0253	-0.0419	-0.0084	-0.0063	0.0305	0.0312	-0.0241	-0.0314
	(-1.01)	(-0.83)	(0.26)	(0.29)	(-0.28)	(-0.48)	(-0.78)	(-0.60)	(0.53)	(0.54)	(-0.32)	(-0.41)
fdic	-0.0274**	-0.0274**	-0.0490	-0.0483	-0.0163	-0.0169	-0.0250**	-0.0249**	-0.0374	-0.0368	-0.0747	-0.0745
	(-3.08)	(-3.15)	(-1.00)	(-0.99)	(-0.16)	(-0.17)	(-2.87)	(-2.92)	(-0.79)	(-0.78)	(-0.83)	(-0.83)
abcp_out	0.0382	0.0366	0.2964	0.2874	0.9925***	0.9729**	0.0536*	0.0516*	0.2409	0.2346	0.7983*	0.8239*
	(1.72)	(1.68)	(1.64)	(1.58)	(3.29)	(3.19)	(2.41)	(2.37)	(1.35)	(1.31)	(2.18)	(2.29)
mortgage	0.0411**	0.0412**	0.0141	0.0114	0.4245*	0.4269*	0.0434**	0.0434**	-0.0405	-0.0421	0.1464	0.1645
	(2.91)	(2.97)	(0.12)	(0.09)	(2.08)	(2.07)	(3.12)	(3.18)	(-0.33)	(-0.35)	(0.62)	(0.71)
fi_abs	0.0358	0.0362	-0.1837	-0.1837	0.7499	0.7778	0.0385	0.0385	-0.2657	-0.2664	0.9307	0.9793*
	(1.41)	(1.45)	(-0.85)	(-0.84)	(1.79)	(1.84)	(1.53)	(1.56)	(-1.23)	(-1.24)	(1.86)	(1.98)
fedfunds	-0.0529*	-0.0503*	0.0889	0.0869	-0.5758	-0.6245	-0.0487*	-0.0459*	0.1513	0.1500	-0.5286	-0.5897

	(-2.49)	(-2.40)	(0.50)	(0.49)	(-1.74)	(-1.87)	(-2.32)	(-2.23)	(0.87)	(0.86)	(-1.32)	(-1.48)
ur	0.0103***	0.0105***	0.0326*	0.0329*			0.0107***	0.0108***	0.0253	0.0254		
	(3.74)	(3.83)	(2.12)	(2.13)			(3.95)	(4.05)	(1.71)	(1.72)		
gdp	-0.0161**	-0.0161**	-0.0673*	-0.0680*			-0.0161**	-0.0160**	-0.0570*	-0.0573*		
	(-3.07)	(-3.13)	(-2.39)	(-2.44)			(-3.13)	(-3.18)	(-2.09)	(-2.11)		
Regions FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	29070	29070	1974	1974	633	633	29070	29070	1974	1974	633	633
pseudo R^2	0.122	0.127	0.064	0.066	0.102	0.110	0.118	0.123	0.062	0.062	0.101	0.095

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

*ur_US, gdp_US, and dregion9 omitted due to collinearity.

Table 7: Regression : Subpanel with Macro, Market Controls and Census region FEs – Post-Lehman period (continued)

	Panel C: Dummy = 1 if the bank used TAF during the quarter					
	Subpanel C1: Small bank		Subpanel C2: Medium bank		Subpanel C3: Large bank	
	(1)	(2)	(1)	(2)	(1)	(2)
log_gta	0.0072***	0.0065***	0.0641*	0.0665**	0.1250***	0.1225***
	(7.81)	(6.37)	(2.47)	(2.63)	(3.47)	(3.40)
equity ratio	0.0060		0.0107		0.4282	
	(0.32)		(0.04)		(0.44)	
tier1 ratio		-0.0222		-0.5330		-0.9441
		(-1.56)		(-1.57)		(-0.86)
stdroa	-0.2350*	-0.2418*	0.1361	-0.0231	2.6187	4.7020
	(-2.10)	(-2.18)	(0.09)	(-0.01)	(0.47)	(0.90)
port_cre	-0.0952	-0.0960*	-0.0760	-0.0452	9.0454	9.2654
	(-1.93)	(-1.97)	(-0.10)	(-0.06)	(1.65)	(1.73)
port_mbs	-0.0005	0.0015	0.0467	0.0579	0.1037	0.0949
	(-0.06)	(0.18)	(0.33)	(0.41)	(0.19)	(0.18)
roe	0.0022**	0.0021**	0.0086	0.0129	-0.0746	0.0198
	(2.74)	(2.62)	(0.60)	(0.70)	(-0.32)	(0.09)
bhc	-0.0014	-0.0014	-0.0687*	-0.0651*	-0.0432	-0.0368
	(-1.07)	(-1.12)	(-2.17)	(-2.05)	(-0.29)	(-0.25)
listed	-0.0010	-0.0010	0.0159	0.0102	0.0630	0.0490
	(-0.58)	(-0.62)	(0.52)	(0.34)	(0.48)	(0.37)
foreign	NA	NA	NA	NA	-0.1883	-0.1413
					(-1.17)	(-0.89)
occ	-0.0014	-0.0013	-0.0168	-0.0147	-0.0580	-0.0699
	(-0.67)	(-0.64)	(-0.42)	(-0.37)	(-0.55)	(-0.66)
fdic	0.0007	0.0005	0.0075	0.0090	0.0085	0.0101
	(0.44)	(0.34)	(0.24)	(0.29)	(0.07)	(0.09)
abcp_out	-0.0020	-0.0021	0.0540	0.0507	0.4483	0.4039
	(-0.61)	(-0.66)	(0.91)	(0.85)	(1.81)	(1.59)
mortgage	0.0020	0.0020	0.0083	0.0090	0.2288	0.2166
	(0.78)	(0.78)	(0.22)	(0.24)	(1.27)	(1.18)
fi_abs	0.0004	0.0007	-0.0593	-0.0565	-0.2804	-0.2937
	(0.10)	(0.16)	(-0.93)	(-0.90)	(-0.85)	(-0.88)
fedfunds	-0.0124**	-0.0119**	0.0521	0.0447	0.1377	0.1284
	(-2.66)	(-2.67)	(0.72)	(0.62)	(0.55)	(0.50)
ur	0.0002	0.0002	0.0207*	0.0202*		
	(0.45)	(0.48)	(2.27)	(2.24)		
gdp	-0.0013	-0.0014	-0.0424**	-0.0427**		
	(-1.55)	(-1.66)	(-2.62)	(-2.63)		
Regions FEs	Yes	Yes	Yes	Yes	Yes	Yes
N	28977	28977	1922	1922	633	633
pseudo R^2	0.145	0.147	0.079	0.085	0.194	0.196

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

*ur_US, gdp_US, and dregion9 omitted due to collinearity.

Table 8: Actual participation rate in DWTAF

A: Full sample				
	Pool	Small banks	Medium banks	Large banks
Both DW and TAF	0.007917	0.003763	0.036425	0.117274
DW only	0.084242	0.072140	0.221648	0.236133
TAF only	0.007686	0.002693	0.027125	0.184628
Neither	0.900155	0.921404	0.714802	0.461965
B: Pre-Lehman period				
	Pool	Small banks	Medium banks	Large banks
Both DW and TAF	0.003309	0.000684	0.013179	0.101749
DW only	0.036489	0.025979	0.128624	0.271860
TAF only	0.002406	0.000684	0.010543	0.062003
Neither	0.957796	0.972653	0.847654	0.564388
C: Post-Lehman period				
	Pool	Small banks	Medium banks	Large banks
Both DW and TAF	0.012754	0.007018	0.058764	0.132701
DW only	0.134356	0.120915	0.311044	0.200632
TAF only	0.013227	0.004816	0.043060	0.306477
Neither	0.839663	0.867251	0.587132	0.360190

Table 9: Bivariate Probit regression with Market, Macro controls and Census region FEs – Small banks subpanel (07Q4-09Q4)

Marginal Effect	d_dw = 1, d_taf = 1		d_dw = 1, d_taf = 0		d_dw = 0, d_taf = 1		d_dw = 0, d_taf = 0	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Probability	0.00058	0.00054	0.04803	0.04646	0.00076	0.00074	0.95063	0.95226
log_gta	0.0011***	0.0010***	0.0402***	0.0362***	0.0012***	0.0012***	-0.0426***	-0.0385***
	(5.44)	(4.85)	(18.35)	(15.57)	(4.59)	(4.21)	(-19.12)	(-16.12)
equity ratio	-0.0015		-0.3248***		0.0025		0.3239***	
	(-0.67)		(-5.71)		(0.69)		(5.64)	
tier1 ratio		-0.0033*		-0.2640***		-0.0016		0.2689***
		(-2.21)		(-6.83)		(-0.63)		(6.86)
stdroa	-0.0264	-0.0256	0.1821	0.1004	-0.0464*	-0.0457*	-0.1093	-0.0291
	(-1.86)	(-1.89)	(0.56)	(0.30)	(-2.00)	(-1.99)	(-0.33)	(-0.09)
port_cre	-0.0093	-0.0093	0.2117*	0.1861	-0.0187	-0.0189	-0.1837	-0.1578
	(-1.37)	(-1.42)	(2.01)	(1.80)	(-1.67)	(-1.70)	(-1.72)	(-1.51)
port_mbs	0.0000	0.0004	0.0339	0.0690***	-0.0005	-0.0004	-0.0335	-0.0690**
	(0.02)	(0.39)	(1.70)	(3.34)	(-0.31)	(-0.27)	(-1.63)	(-3.25)
roe	0.0003*	0.0002*	0.0006	0.0007	0.0004*	0.0004*	-0.0012*	-0.0013
	(2.30)	(2.23)	(0.98)	(0.82)	(2.22)	(2.13)	(-2.47)	(-1.72)
bhc (d)	-0.0001	-0.0001	0.0016	0.0025	-0.0002	-0.0003	-0.0013	-0.0022
	(-0.73)	(-0.75)	(0.41)	(0.65)	(-0.86)	(-0.95)	(-0.32)	(-0.55)
listed (d)	-0.0001	-0.0001	0.0161*	0.0144*	-0.0003	-0.0003	-0.0157*	-0.0140*
	(-0.37)	(-0.41)	(2.46)	(2.29)	(-1.16)	(-1.13)	(-2.38)	(-2.21)
foreign (d)	-0.0006***	-0.0006***	-0.0304*	-0.0258	-0.0008***	-0.0008***	0.0318*	0.0272
	(-4.45)	(-4.18)	(-2.15)	(-1.59)	(-4.04)	(-3.88)	(2.25)	(1.67)
occ (d)	-0.0002	-0.0002	-0.0075	-0.0064	-0.0003	-0.0003	0.0080	0.0069
	(-1.27)	(-1.20)	(-1.41)	(-1.23)	(-0.97)	(-0.95)	(1.50)	(1.31)
fdic (d)	-0.0000	-0.0000	-0.0161**	-0.0158**	0.0002	0.0001	0.0160**	0.0157**
	(-0.19)	(-0.24)	(-3.10)	(-3.11)	(0.53)	(0.48)	(3.03)	(3.05)
abcp_out	-0.0004	-0.0003	-0.0039	-0.0040	-0.0005	-0.0005	0.0048	0.0049
	(-1.03)	(-1.06)	(-0.40)	(-0.41)	(-0.92)	(-0.95)	(0.48)	(0.50)
mortgage	0.0004*	0.0004	-0.0068	-0.0060	0.0008*	0.0008*	0.0056	0.0048
	(1.96)	(1.94)	(-1.12)	(-1.01)	(2.23)	(2.18)	(0.92)	(0.82)
fi_abs	0.0010**	0.0010**	-0.0463***	-0.0450***	0.0024***	0.0024***	0.0429***	0.0417***
	(2.91)	(2.88)	(-5.82)	(-5.81)	(3.62)	(3.56)	(5.37)	(5.35)
fedfunds	-0.0011***	-0.0010***	0.0014	0.0015	-0.0018***	-0.0017***	0.0014	0.0012
	(-3.77)	(-3.85)	(0.30)	(0.32)	(-3.85)	(-3.74)	(0.29)	(0.27)
spread	-0.0007*	-0.0006*	0.0238***	0.0241***	-0.0014**	-0.0014**	-0.0217***	-0.0221***
	(-2.57)	(-2.54)	(6.42)	(6.61)	(-3.17)	(-3.12)	(-5.78)	(-5.98)
ur	0.0001	0.0001	0.0075***	0.0075***	-0.0000	-0.0000	-0.0075***	-0.0076***
	(1.12)	(1.17)	(5.44)	(5.51)	(-0.10)	(-0.08)	(-5.37)	(-5.44)
gdp	-0.0002*	-0.0002*	-0.0111***	-0.0109***	-0.0002	-0.0002	0.0115***	0.0114***
	(-2.33)	(-2.40)	(-4.13)	(-4.14)	(-1.41)	(-1.48)	(4.23)	(4.25)
Regions FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	53508	53508	53508	53508	53508	53508	53508	53508

Marginal effects; *t* statistics in parentheses

(d) for discrete change of dummy variable from 0 to 1

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

*dregion9 omitted due to collinearity.

Table 10: Bivariate Probit regression with Market, Macro controls and Census region FEs – Medium banks subpanel (07Q4-09Q4)

Marginal Effect	d_dw = 1, d_taf = 1		d_dw = 1, d_taf = 0		d_dw = 0, d_taf = 1		d_dw = 0, d_taf = 0	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Probability	0.01883	0.018120	0.23588	0.23645	001683	0.01613	0.72846	0.72922
log_gta	0.0209*	0.0205**	0.0430	0.0417	0.0170	0.0167*	-0.0809*	-0.0789*
	(1.96)	(2.66)	(1.36)	(1.37)	(1.61)	(2.30)	(-2.35)	(-2.37)
equity ratio	-0.0603		-0.2100		-0.0406		0.3109	
	(-1.11)		(-0.52)		(-0.64)		(0.82)	
tier1 ratio		-0.1439		-0.1197		-0.1340		0.3975
		(-1.80)		(-0.34)		(-1.52)		(1.08)
stdroa	-0.0155	-0.0299	-0.5529	-0.5514	0.0387	0.0218	0.5297	0.5595
	(-0.04)	(-0.08)	(-0.30)	(-0.30)	(0.11)	(0.06)	(0.28)	(0.29)
port_cre	0.0267	0.0323	-1.2294	-1.2300	0.1480	0.1484	1.0547	1.0493
	(0.14)	(0.15)	(-1.33)	(-1.35)	(0.67)	(0.72)	(1.12)	(1.13)
port_mbs	0.0047	0.0124	0.1313	0.1502	-0.0081	-0.0017	-0.1279	-0.1609
	(0.14)	(0.38)	(0.85)	(0.99)	(-0.25)	(-0.05)	(-0.75)	(-0.96)
roe	0.0045	0.0052	0.0066	0.0061	0.0040	0.0046	-0.0151	-0.0159
	(0.85)	(0.93)	(0.41)	(0.37)	(0.64)	(0.72)	(-1.09)	(-1.17)
bhc (d)	-0.0115	-0.0100	0.0538	0.0548	-0.0201	-0.0181	-0.0222	-0.0267
	(-1.11)	(-1.05)	(1.52)	(1.59)	(-1.32)	(-1.47)	(-0.53)	(-0.66)
listed (d)	0.0029	0.0013	-0.0330	-0.0345	0.0063	0.0047	0.0238	0.0284
	(0.39)	(0.19)	(-1.02)	(-1.07)	(0.77)	(0.64)	(0.67)	(0.80)
foreign (d)	-0.0237*	-0.0229**	-0.0546	-0.0610	-0.0222	-0.0212**	0.1005	0.1052
	(-1.99)	(-3.17)	(-0.57)	(-0.67)	(-1.64)	(-2.70)	(1.05)	(1.16)
occ (d)	-0.0020	-0.0014	0.0320	0.0324	-0.0047	-0.0041	-0.0254	-0.0269
	(-0.23)	(-0.17)	(0.72)	(0.73)	(-0.56)	(-0.52)	(-0.55)	(-0.59)
fdic (d)	0.0011	0.0015	-0.0310	-0.0304	0.0041	0.0042	0.0258	0.0247
	(0.15)	(0.21)	(-0.87)	(-0.86)	(0.56)	(0.63)	(0.68)	(0.66)
abcp_out	-0.0482	-0.0448	-0.0930	-0.0946	-0.0398	-0.0363	0.1811	0.1758
	(-0.94)	(-0.94)	(-0.37)	(-0.37)	(-0.82)	(-0.82)	(0.66)	(0.65)
mortgage	-0.0119	-0.0112	-0.1272*	-0.1279*	0.0005	0.0007	0.1386*	0.1383*
	(-0.98)	(-1.03)	(-1.98)	(-2.04)	(0.04)	(0.07)	(2.07)	(2.12)
fi_abs	-0.0234	-0.0222*	-0.2456***	-0.2467***	0.0004	0.0008	0.2686***	0.2680***
	(-1.66)	(-2.07)	(-3.94)	(-4.49)	(0.04)	(0.09)	(4.28)	(4.78)
fedfunds	0.0023	0.0019	0.0863*	0.0867*	-0.0061	-0.0062	-0.0825	-0.0824*
	(0.40)	(0.37)	(2.09)	(2.16)	(-0.91)	(-1.06)	(-1.96)	(-2.02)
spread	-0.0074	-0.0074	0.0346	0.0350	-0.0109	-0.0108	-0.0162	-0.0169
	(-0.63)	(-0.69)	(0.68)	(0.70)	(-0.85)	(-0.87)	(-0.30)	(-0.31)
ur	0.0059	0.0057*	0.0161	0.0164	0.0044	0.0043	-0.0265*	-0.0264*
	(1.71)	(2.09)	(1.42)	(1.48)	(1.36)	(1.64)	(-2.12)	(-2.16)
gdp	-0.0119	-0.0119*	-0.0270	-0.0274	-0.0094	-0.0094*	0.0482*	0.0487*
	(-1.90)	(-2.52)	(-1.41)	(-1.48)	(-1.55)	(-2.13)	(2.28)	(2.36)
ur_US	-0.0117	-0.0108	-0.0345	-0.0346	-0.0085	-0.0076	0.0546	0.0530
	(-1.26)	(-1.31)	(-0.95)	(-0.96)	(-1.01)	(-1.04)	(1.35)	(1.32)
gdp_US	-0.5863	-0.5517	-3.6675	-3.6672	-0.2349	-0.2116	4.4887	4.4304
	(-1.15)	(-1.23)	(-1.66)	(-1.69)	(-0.58)	(-0.56)	(1.87)	(1.87)
Regions FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	3498	3498	3498	3498	3498	3498	3498	3498

Marginal effects; *t* statistics in parentheses

(d) for discrete change of dummy variable from 0 to 1

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

*dregion9 omitted due to collinearity.

Table 11: Bivariate Probit regression with Market, Macro controls and Census region FEs – Large banks subpanel (07Q4-09Q4)

Marginal Effect	d_dw = 1, d_taf = 1		d_dw = 1, d_taf = 0		d_dw = 0, d_taf = 1		d_dw = 0, d_taf = 0	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Probability	0.10543	0.10228	0.25909	0.26350	0.16712	0.16741	0.46835	0.46681
log_gta	0.0450***	0.0416***	-0.0364	-0.0368	0.0685**	0.0665***	-0.0771***	-0.0713**
	(3.47)	(3.87)	(-1.67)	(-1.77)	(3.29)	(3.39)	(-3.36)	(-3.26)
equity ratio	-0.4098		-1.0452		0.3953		1.0597	
	(-1.23)		(-1.92)		(0.85)		(1.60)	
tier1 ratio		-0.8248*		-0.2927		-0.5708		1.6883*
		(-2.28)		(-0.61)		(-1.07)		(2.48)
stdroa	0.0239	0.3370	-1.5113	-3.0055	1.1409	2.5230	0.3465	0.1454
	(0.01)	(0.21)	(-0.34)	(-0.68)	(0.32)	(0.74)	(0.10)	(0.04)
port_cre	3.5774*	3.7676**	-0.5307	-0.0744	3.6958	3.6414	-6.7425*	-7.3345**
	(2.25)	(2.67)	(-0.17)	(-0.02)	(1.25)	(1.23)	(-2.45)	(-2.82)
port_mbs	0.1357	0.1845	0.0636	0.1802	0.0782	0.0437	-0.2776	-0.4084
	(0.79)	(1.11)	(0.21)	(0.59)	(0.27)	(0.18)	(-0.74)	(-1.19)
roe	-0.0925	-0.0605	-0.0958	-0.1399	-0.0145	0.0448	0.2028	0.1556
	(-1.23)	(-0.88)	(-0.55)	(-0.81)	(-0.10)	(0.31)	(1.30)	(1.06)
bhc (d)	0.0483	0.0598	0.0975	0.1236	-0.0216	-0.0225	-0.1243	-0.1608
	(1.24)	(1.80)	(1.34)	(1.76)	(-0.27)	(-0.28)	(-1.21)	(-1.66)
listed (d)	-0.0303	-0.0478	-0.0632	-0.0819	0.0197	0.0187	0.0738	0.1110
	(-0.67)	(-1.05)	(-0.90)	(-1.08)	(0.33)	(0.30)	(0.92)	(1.45)
foreign (d)	-0.0545	-0.0451	0.0889	0.0651	-0.1029*	-0.0844	0.0685	0.0644
	(-1.60)	(-1.29)	(1.08)	(0.77)	(-2.07)	(-1.57)	(0.86)	(0.74)
occ (d)	-0.0442	-0.0499	-0.0915	-0.0949	0.0264	0.0209	0.1093	0.1239
	(-1.17)	(-1.38)	(-1.62)	(-1.65)	(0.50)	(0.40)	(1.42)	(1.65)
fdic (d)	-0.0433	-0.0414	-0.1451*	-0.1472*	0.0723	0.0736	0.1161	0.1149
	(-1.16)	(-1.16)	(-2.39)	(-2.42)	(1.16)	(1.17)	(1.39)	(1.41)
abcp_out	-0.5403	-0.4923	1.6645*	1.6865*	-1.7310***	-1.7044***	0.6067	0.5102
	(-1.37)	(-0.76)	(2.51)	(2.54)	(-4.15)	(-4.39)	(0.95)	(0.84)
mortgage	-0.1499*	-0.1422*	0.1169	0.1134	-0.2249**	-0.2185**	0.2579*	0.2473*
	(-2.26)	(-2.33)	(1.17)	(1.16)	(-2.66)	(-2.73)	(2.07)	(2.01)
fi_abs	-0.0671	-0.0619	0.1111	0.1181	-0.1442*	-0.1454*	0.1003	0.0892
	(-1.16)	(-1.12)	(1.04)	(1.12)	(-2.14)	(-2.25)	(0.79)	(0.71)
fedfunds	-0.0210	-0.0252	-0.0896	-0.0938	0.0469	0.0448	0.0637	0.0743
	(-0.55)	(-0.73)	(-1.20)	(-1.27)	(1.15)	(1.19)	(0.72)	(0.84)
spread	-0.1473*	-0.1474*	0.2726**	0.2648**	-0.3378***	-0.3344***	0.2126	0.2169*
	(-2.09)	(-2.44)	(3.02)	(3.23)	(-3.52)	(-3.72)	(1.83)	(2.13)
ur_US	-0.1254*	-0.1146**	0.2203**	0.2219***	-0.2788***	-0.2717***	0.1839	0.1644
	(-2.48)	(-2.61)	(3.15)	(3.61)	(-4.25)	(-4.57)	(1.95)	(1.86)
gdp_US	-5.4502	-4.9111	16.6737**	16.6696***	-17.3746***	-16.8896***	6.1511	5.1311
	(-1.82)	(-0.79)	(2.66)	(4.28)	(-3.56)	(-4.58)	(1.01)	(0.91)
Regions FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	1138	1138	1138	1138	1138	1138	1138	1138

Marginal effects; *t* statistics in parentheses

(d) for discrete change of dummy variable from 0 to 1

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

*dregion9 omitted due to collinearity.

Table 12: Pre-Lehman period: Bivariate Probit regression with Market, Macro controls and Census region FEs – Medium banks subpanel (07Q4-08Q3)

Marginal Effect	d_dw = 1, d_taf = 1		d_dw = 1, d_taf = 0		d_dw = 0, d_taf = 1		d_dw = 0, d_taf = 0	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Probability	0.00030	0.00033	0.13965	0.13981	0.00005	0.00005	0.86000	0.85981
log_gta	0.0008***	0.0009	0.0681	0.0669***	0.0001	0.0001	-0.0691	-0.0679***
	(6.56)			(3.35)				(-3.35)
equity ratio	-0.0092		-0.1524		-0.0018		0.1634	
			(-0.55)		(-0.03)		(0.59)	
tier1 ratio		-0.0075		-0.0842		-0.0015		0.0933
				(-0.36)		(-0.03)		(0.39)
stdroa	0.0319	0.0277	0.9459	0.7309	0.0058	0.0054	-0.9836	-0.7641
			(0.62)	(0.48)	(0.20)	(0.27)	(-0.65)	(-0.50)
port_cre	0.0063	0.0055	-2.6987	-2.6795***	0.0025	0.0026	2.6898	2.6714***
	(0.15)	(0.03)		(-3.36)	(0.05)	(0.12)		(3.35)
port_mbs	-0.0022	-0.0017	-0.1335	-0.1198	-0.0004	-0.0003	0.1361	0.1218
	(-0.72)	(-0.04)	(-0.82)	(-0.70)	(-0.11)		(0.83)	(0.71)
roe	0.0033	0.0040	-0.0003	-0.0021	0.0007	0.0008	-0.0036	-0.0027
			(-0.00)	(-0.03)			(-0.05)	(-0.04)
bhc (d)	-0.0000	0.0001	0.0266	0.0281	-0.0000	-0.0000	-0.0265	-0.0281
	(-0.12)	(0.17)	(0.61)	(0.81)	(-0.40)	(-0.03)	(-0.79)	(-0.81)
listed (d)	0.0003	0.0001	-0.0389	-0.0403	0.0001	0.0001	0.0386	0.0401
			(-1.41)	(-1.33)			(1.39)	(1.32)
foreign (d)	-0.0005	-0.0005	0.0704	0.0640	-0.0001	-0.0001	-0.0698	-0.0634
			(0.56)	(0.52)			(-0.56)	(-0.52)
occ (d)	-0.0000	0.0000	0.0304	0.0316	-0.0000	-0.0000	-0.0303	-0.0316
	(-0.11)	(0.07)	(0.69)	(0.71)	(-0.49)	(-0.14)	(-0.69)	(-0.71)
fdic (d)	0.0002	0.0002	-0.0128	-0.0119	0.0000	0.0000	0.0126	0.0116
			(-0.35)	(-0.32)			(0.34)	(0.31)
abcp_out	-0.1478	-0.1537	14.3063***	14.6093*	-0.0359	-0.0402	-14.1226***	-14.4154*
		(-0.16)	(6.78)	(2.00)	(-0.18)		(-3.35)	(-2.48)
mortgage	0.0058	0.0061	-0.6414	-0.6534***	0.0014	0.0016	0.6341	0.6457***
		(0.45)		(-3.60)	(0.21)			(3.48)
fi_abs	0.0122	0.0126	-1.3152***	-1.3414**	0.0030	0.0034	1.3000***	1.3255**
			(-5.57)	(-3.02)	(0.17)		(5.32)	(2.85)
ur	0.0004	0.0004	0.0159	0.0158	0.0001	0.0001	-0.0163	-0.0162
			(1.00)	(0.95)			(-1.02)	(-0.97)
gdp	-0.0003	-0.0004	-0.0146	-0.0148	-0.0001	-0.0001	0.0150	0.0152
			(-0.75)	(-0.74)			(0.77)	(0.76)
Regions FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	1524	1524	1524	1524	1524	1524	1524	1524

Marginal effects; *t* statistics in parentheses

(d) for discrete change of dummy variable from 0 to 1

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

*fedfunds, spread, ur_US, gdp_US, dregion9 omitted due to collinearity.

Table 13: Pre-Lehman period: Bivariate Probit regression with Market, Macro controls and Census region FEs – Large banks sub-panel (07Q4-08Q3)

Marginal Effect	d_dw = 1, d_taf = 1		d_dw = 1, d_taf = 0		d_dw = 0, d_taf = 1		d_dw = 0, d_taf = 0	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Probability	0.05550	0.04005	0.36221	0.37822	0.04786	0.03948	0.53443	0.54225
log_gta	0.0460	0.0306	0.0459	0.0505**	0.0259	0.0191	-0.1178***	-0.1002***
				(2.74)			(-5.04)	(-3.85)
equity ratio	-0.3275		-1.7804*		0.1230		1.9849*	
			(-2.15)		(0.51)		(2.33)	
tier1 ratio		-1.4714		-0.2345		-1.2888		2.9947
stdroa	-1.7515	0.3094	-0.0958	-2.4432	-1.3340	0.6929	3.1814	1.4409
	(-0.46)	(0.10)		(-0.20)	(-0.36)	(0.22)	(0.26)	(0.12)
port_cre	2.2305	1.0853	3.9563	6.3765	0.8886	-0.0996	-7.0754	-7.3623
		(0.78)	(0.97)	(1.51)	(0.62)	(-0.08)	(-1.56)	(-1.65)
port_mbs	0.1804**	0.2073	0.0351	0.3407	0.1321	0.1295	-0.3476	-0.6775
	(2.89)		(0.07)	(0.79)	(1.59)		(-0.70)	(-1.42)
roe	-0.3488	-0.2323	-0.2689	-0.2602	-0.2129	-0.1657	0.8305	0.6582
			(-0.63)	(-0.59)	(-1.90)		(1.95)	(1.55)
bhc (d)	0.0573	0.0469	0.1411	0.2026**	0.0315	0.0271	-0.2298*	-0.2765***
			(1.34)	(3.27)	(1.37)		(-1.99)	(-3.59)
listed (d)	-0.0559*	-0.0585	-0.1001	-0.1483	-0.0142	-0.0152	0.1702	0.2220*
	(-2.54)		(-1.04)	(-1.56)	(-0.35)	(-0.99)	(1.75)	(2.24)
foreign (d)	-0.0423	-0.0273	0.2837*	0.2679	-0.0529	-0.0412	-0.1885	-0.1994
			(2.33)	(1.95)			(-1.60)	(-1.47)
occ (d)	-0.0298	-0.0245	-0.2641**	-0.2876***	0.0338	0.0272	0.2602*	0.2849***
			(-3.11)	(-44.56)			(2.51)	(5.82)
fdic (d)	-0.0301	-0.0164	-0.3247**	-0.3368	0.0539	0.0530	0.3010**	0.3002
			(-3.18)				(2.81)	
abcp_out	-26.7748	-20.5618	26.2589	20.0613	-26.2512	-21.9612	26.7671	22.4618
	(-0.39)		(1.25)			(-0.47)	(1.76)	
mortgage	0.8115	0.6298	-0.9000	-0.7002	0.8176	0.6872	-0.7291	-0.6168
	(0.41)		(-0.91)	(-1.25)			(-0.95)	(-1.41)
fi_abs	2.2653	1.7309	-2.2420	-1.7236***	2.2253	1.8546	-2.2485	-1.8619
			(-1.27)	(-5.84)			(-1.65)	
Regions FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	505	505	505	505	505	505	505	505

Marginal effects; *t* statistics in parentheses. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

(d) for discrete change of dummy variable from 0 to 1

*fedfunds, spread, ur_US, gdp_US, dregion9 omitted due to collinearity.

Table 14: Post-Lehman period: Bivariate Probit regression with Market, Macro controls and Census region FEs – Small banks sub-panel (08Q4-09Q4)

Marginal Effect	d_dw = 1, d_taf = 1		d_dw = 1, d_taf = 0		d_dw = 0, d_taf = 1		d_dw = 0, d_taf = 0	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Probability	0.00236	0.00220	0.09747	0.09435	0.00219	0.00215	0.89798	0.90130
log_gta	0.0040***	0.0036***	0.0723***	0.0651***	0.0029***	0.0027***	-0.0792***	-0.0713***
	(6.72)	(5.88)	(18.62)	(16.16)	(5.83)	(5.21)	(-19.91)	(-17.28)
equity ratio	-0.0036		-0.5580***		0.0098		0.5518***	
	(-0.43)		(-5.45)		(1.00)		(5.29)	
tier1 ratio		-0.0143*		-0.4964***		-0.0050		0.5157***
		(-2.50)		(-7.51)		(-0.70)		(7.57)
stdroa	-0.0889	-0.0882	0.6637	0.5309	-0.1207*	-0.1217*	-0.4541	-0.3210
	(-1.75)	(-1.79)	(1.13)	(0.84)	(-2.06)	(-2.06)	(-0.76)	(-0.50)
port_cre	-0.0404	-0.0402	0.4338*	0.3876	-0.0581*	-0.0592*	-0.3352	-0.2882
	(-1.71)	(-1.78)	(2.15)	(1.95)	(-2.15)	(-2.17)	(-1.63)	(-1.43)
port_mbs	0.0007	0.0022	0.0444	0.1072**	-0.0003	-0.0000	-0.0449	-0.1093**
	(0.19)	(0.60)	(1.26)	(2.95)	(-0.06)	(-0.01)	(-1.22)	(-2.87)
roe	0.0009*	0.0008*	0.0008	0.0016	0.0010*	0.0010*	-0.0026*	-0.0033
	(2.48)	(2.48)	(0.59)	(0.39)	(2.36)	(2.26)	(-2.43)	(-0.87)
bhc (d)	-0.0005	-0.0005	0.0004	0.0016	-0.0006	-0.0007	0.0008	-0.0004
	(-0.86)	(-0.92)	(0.06)	(0.23)	(-0.91)	(-1.01)	(0.10)	(-0.05)
listed (d)	-0.0001	-0.0001	0.0318**	0.0290**	-0.0007	-0.0007	-0.0310**	-0.0282*
	(-0.14)	(-0.17)	(2.75)	(2.59)	(-1.12)	(-1.09)	(-2.64)	(-2.47)
foreign (d)	-0.0025***	-0.0023***	-0.0498	-0.0377	-0.0023***	-0.0023***	0.0546	0.0423
	(-5.17)	(-4.82)	(-1.43)	(-0.92)	(-4.85)	(-4.62)	(1.57)	(1.03)
occ (d)	-0.0007	-0.0006	-0.0078	-0.0059	-0.0006	-0.0006	0.0091	0.0071
	(-0.89)	(-0.82)	(-0.78)	(-0.60)	(-0.70)	(-0.67)	(0.89)	(0.70)
fdic (d)	-0.0002	-0.0002	-0.0261**	-0.0260**	0.0004	0.0004	0.0259**	0.0259**
	(-0.22)	(-0.31)	(-2.86)	(-2.91)	(0.54)	(0.45)	(2.77)	(2.83)
abcp_out	-0.0008	-0.0008	0.0539*	0.0520*	-0.0023	-0.0024	-0.0507*	-0.0488*
	(-0.60)	(-0.64)	(2.45)	(2.41)	(-1.34)	(-1.37)	(-2.30)	(-2.25)
mortgage	0.0013	0.0012	0.0426**	0.0427**	0.0005	0.0004	-0.0444**	-0.0444**
	(1.11)	(1.11)	(3.10)	(3.16)	(0.34)	(0.33)	(-3.21)	(-3.26)
fi_abs	0.0007	0.0008	0.0386	0.0386	-0.0001	-0.0000	-0.0392	-0.0393
	(0.37)	(0.42)	(1.56)	(1.59)	(-0.06)	(-0.02)	(-1.57)	(-1.60)
fedfunds	-0.0060**	-0.0056**	-0.0429*	-0.0405*	-0.0060*	-0.0059*	0.0549**	0.0520*
	(-2.77)	(-2.76)	(-2.07)	(-1.99)	(-2.50)	(-2.50)	(2.62)	(2.52)
ur	0.0002	0.0002	0.0105***	0.0106***	-0.0000	-0.0000	-0.0106***	-0.0108***
	(0.90)	(0.95)	(3.95)	(4.05)	(-0.11)	(-0.08)	(-3.89)	(-3.99)
gdp	-0.0007	-0.0007*	-0.0152**	-0.0152**	-0.0005	-0.0005	0.0164**	0.0164**
	(-1.89)	(-1.99)	(-3.02)	(-3.07)	(-1.08)	(-1.18)	(3.18)	(3.24)
Regions FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	29070	29070	29070	29070	29070	29070	29070	29070

Marginal effects; *t* statistics in parentheses

(d) for discrete change of dummy variable from 0 to 1

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

*dregion9 omitted due to collinearity.

Table 15: Post-Lehman period: Bivariate Probit regression with Market, Macro controls and Census region FEs – Medium banks subpanel (08Q4-09Q4)

Marginal Effect	d_dw = 1, d_taf = 1		d_dw = 1, d_taf = 0		d_dw = 0, d_taf = 1		d_dw = 0, d_taf = 0	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Probability	0.04069	0.03936	0.31869	0.31970	0.02813	0.02730	0.61249	0.61364
log_gta	0.0347**	0.0352**	0.0248	0.0225	0.0217*	0.0226*	-0.0812	-0.0803
	(2.68)	(2.84)	(0.65)	(0.59)	(2.12)	(2.30)	(-1.94)	(-1.93)
equity ratio	-0.0333		-0.4343		0.0361		0.4315	
	(-0.29)		(-0.74)		(0.30)		(0.81)	
tier1 ratio		-0.2710		-0.2817		-0.1594		0.7121
		(-1.79)		(-0.57)		(-1.34)		(1.37)
stdroa	-0.0616	-0.1267	-1.9742	-1.9912	0.2292	0.1753	1.8066	1.9427
	(-0.09)	(-0.18)	(-0.82)	(-0.81)	(0.38)	(0.29)	(0.75)	(0.77)
port_cre	0.0128	0.0316	0.0181	0.0262	0.0068	0.0195	-0.0377	-0.0772
	(0.03)	(0.09)	(0.01)	(0.02)	(0.02)	(0.06)	(-0.03)	(-0.06)
port_mbs	0.0491	0.0560	0.2788	0.3160	-0.0032	-0.0017	-0.3247	-0.3703
	(0.72)	(0.84)	(1.33)	(1.53)	(-0.06)	(-0.03)	(-1.47)	(-1.69)
roe	0.0046	0.0064	0.0052	0.0040	0.0026	0.0041	-0.0124	-0.0146
	(0.67)	(0.76)	(0.28)	(0.21)	(0.41)	(0.53)	(-0.80)	(-0.97)
bhc (d)	-0.0310	-0.0278	0.0810	0.0809	-0.0404*	-0.0373	-0.0096	-0.0158
	(-1.60)	(-1.46)	(1.84)	(1.84)	(-2.02)	(-1.93)	(-0.18)	(-0.30)
listed (d)	0.0061	0.0029	-0.0269	-0.0288	0.0082	0.0060	0.0126	0.0199
	(0.41)	(0.20)	(-0.67)	(-0.72)	(0.69)	(0.53)	(0.28)	(0.44)
foreign (d)	-0.0505***	-0.0493***	-0.1572	-0.1669*	-0.0357***	-0.0349***	0.2434**	0.2512**
	(-5.50)	(-5.51)	(-1.74)	(-1.99)	(-5.20)	(-5.09)	(2.69)	(2.99)
occ (d)	-0.0054	-0.0046	0.0360	0.0359	-0.0082	-0.0076	-0.0223	-0.0238
	(-0.30)	(-0.26)	(0.64)	(0.64)	(-0.62)	(-0.57)	(-0.38)	(-0.41)
fdic (d)	-0.0001	0.0006	-0.0374	-0.0376	0.0050	0.0053	0.0326	0.0317
	(-0.01)	(0.04)	(-0.86)	(-0.87)	(0.44)	(0.49)	(0.69)	(0.67)
abcp_out	0.0434	0.0407	0.1911	0.1874	0.0049	0.0044	-0.2395	-0.2325
	(1.37)	(1.30)	(1.17)	(1.14)	(0.19)	(0.18)	(-1.41)	(-1.37)
mortgage	0.0029	0.0028	-0.0490	-0.0503	0.0089	0.0088	0.0373	0.0388
	(0.14)	(0.14)	(-0.44)	(-0.45)	(0.55)	(0.56)	(0.32)	(0.34)
fi_abs	-0.0425	-0.0405	-0.2336	-0.2363	0.0016	0.0023	0.2745	0.2745
	(-1.20)	(-1.17)	(-1.20)	(-1.20)	(0.06)	(0.09)	(1.34)	(1.34)
fedfunds	0.0285	0.0250	0.1315	0.1336	0.0024	0.0003	-0.1623	-0.1590
	(0.78)	(0.70)	(0.82)	(0.84)	(0.08)	(0.01)	(-0.97)	(-0.95)
ur	0.0109*	0.0106*	0.0145	0.0149	0.0059	0.0057	-0.0313*	-0.0312*
	(2.39)	(2.38)	(1.09)	(1.11)	(1.70)	(1.70)	(-2.11)	(-2.10)
gdp	-0.0240**	-0.0238**	-0.0329	-0.0334	-0.0128*	-0.0129*	0.0696*	0.0700*
	(-2.87)	(-2.90)	(-1.35)	(-1.37)	(-2.09)	(-2.10)	(2.51)	(2.53)
Regions FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	1974	1974	1974	1974	1974	1974	1974	1974

Marginal effects; *t* statistics in parentheses

(d) for discrete change of dummy variable from 0 to 1

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

*ur_US, gdp_US, dregion9 omitted due to collinearity.

Table 16: Post-Lehman period: Bivariate Probit regression with Market, Macro controls and Census region FEs – Large banks sub-panel (08Q4-09Q4)

Marginal Effect	d_dw = 1, d_taf = 1		d_dw = 1, d_taf = 0		d_dw = 0, d_taf = 1		d_dw = 0, d_taf = 0	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Probability	0.13569	0.13416	0.17723	0.18022	0.30175	0.30344	0.38533	0.38218
log_gta	0.0165	0.0153	-0.0682***	-0.0684***	0.1085***	0.1071***	-0.0568*	-0.0540*
	(1.25)	(1.17)	(-3.31)	(-3.31)	(3.47)	(3.44)	(-2.15)	(-2.05)
equity ratio	-0.4957		-0.9490*		0.9243		0.5204	
	(-0.99)		(-1.98)		(1.32)		(0.60)	
tier1 ratio		-0.7313		-0.2727		-0.2166		1.2205
		(-1.56)		(-0.60)		(-0.28)		(1.37)
stdroa	0.7811	0.7097	-0.8737	-2.5052	1.8481	4.0416	-1.7555	-2.2460
	(0.36)	(0.34)	(-0.24)	(-0.70)	(0.37)	(0.85)	(-0.46)	(-0.62)
port_cre	2.8147	3.0769*	-2.8451	-2.6831	6.2364	6.2096	-6.2061	-6.6034*
	(1.64)	(2.00)	(-0.92)	(-0.83)	(1.34)	(1.32)	(-1.79)	(-2.07)
port_mbs	0.1018	0.1459	0.0568	0.1204	0.0028	-0.0482	-0.1615	-0.2182
	(0.42)	(0.60)	(0.21)	(0.44)	(0.01)	(-0.12)	(-0.37)	(-0.51)
roe	-0.0555	-0.0402	-0.0186	-0.0681	-0.0187	0.0615	0.0929	0.0468
	(-0.59)	(-0.46)	(-0.13)	(-0.48)	(-0.09)	(0.32)	(0.56)	(0.30)
bhc (d)	0.0392	0.0557	0.0742	0.0916	-0.0825	-0.0925	-0.0309	-0.0547
	(0.77)	(1.25)	(1.25)	(1.59)	(-0.67)	(-0.73)	(-0.25)	(-0.46)
listed (d)	-0.0018	-0.0217	-0.0506	-0.0684	0.0644	0.0707	-0.0120	0.0194
	(-0.03)	(-0.39)	(-0.78)	(-0.95)	(0.70)	(0.74)	(-0.12)	(0.20)
foreign (d)	-0.0854*	-0.0812*	-0.0165	-0.0387	-0.0925	-0.0547	0.1944	0.1746
	(-2.24)	(-2.10)	(-0.20)	(-0.49)	(-0.79)	(-0.44)	(1.75)	(1.53)
occ (d)	-0.0284	-0.0352	0.0043	0.0037	-0.0295	-0.0347	0.0536	0.0661
	(-0.60)	(-0.77)	(0.08)	(0.07)	(-0.37)	(-0.44)	(0.63)	(0.79)
fdic (d)	-0.0295	-0.0290	-0.0439	-0.0445	0.0380	0.0386	0.0355	0.0348
	(-0.58)	(-0.58)	(-0.74)	(-0.74)	(0.42)	(0.43)	(0.38)	(0.37)
abcp_out	0.4877**	0.4825**	0.3099	0.3393	-0.0392	-0.0776	-0.7584**	-0.7442**
	(2.76)	(2.76)	(1.36)	(1.50)	(-0.17)	(-0.33)	(-2.81)	(-2.73)
mortgage	0.1351	0.1385	0.0108	0.0244	0.0938	0.0787	-0.2397	-0.2416
	(1.17)	(1.21)	(0.07)	(0.17)	(0.58)	(0.48)	(-1.33)	(-1.34)
fi_abs	0.3174	0.3303	0.6123*	0.6459*	-0.5982*	-0.6253*	-0.3315	-0.3510
	(1.31)	(1.37)	(2.03)	(2.16)	(-2.04)	(-2.16)	(-0.84)	(-0.88)
fedfunds	-0.1869	-0.2138	-0.3409	-0.3734	0.3249	0.3429	0.2029	0.2443
	(-0.98)	(-1.11)	(-1.42)	(-1.57)	(1.41)	(1.52)	(0.68)	(0.79)
Regions FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	633	633	633	633	633	633	633	633

Marginal effects; *t* statistics in parentheses

(d) for discrete change of dummy variable from 0 to 1

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

*ur_US, gdp_US, dregion9 omitted due to collinearity.

Table 17: Heckman selection Model: Second stage (SUR) for weighted maturity and Average balance

Panel A:
Weighted Average maturity and Average Balance of DWTAF during the quarter

	Subpanel A1: Small bank				Subpanel A2: Medium bank				Subpanel A3: Large bank			
	(1) Mat	(1) Bal	(2) Mat	(2) Bal	(1) Mat	(1) Bal	(2) Mat	(2) bal	(1) Mat	(1) Bal	(2) Mat	(2) Bal
log_gta	1.3651	-0.0008	1.2221	-0.0009	3.7631	-0.0012	4.3439	-0.0011	5.5172**	-0.0020	5.2921**	-0.0015
	(0.71)	(-0.39)	(0.69)	(-0.49)	(1.21)	(-0.57)	(1.42)	(-0.50)	(3.08)	(-1.12)	(3.17)	(-0.92)
equity ratio	8.2260	0.0216			44.3247*	0.0273*			2.4240	0.0143		
	(0.51)	(1.28)			(2.47)	(2.17)			(0.09)	(0.56)		
tier1 ratio			-8.4500	0.0110			20.0462	0.0207			-58.1992	0.0415
			(-0.66)	(0.82)			(1.17)	(1.73)			(-1.45)	(1.05)
stdroa	-134.9953***	-0.0271	-122.9511**	-0.0184	-22.5145	-0.1030	-11.4264	-0.1017	31.2566	-0.0906	94.5623	-0.1076
	(-3.32)	(-0.64)	(-3.06)	(-0.44)	(-0.19)	(-1.23)	(-0.10)	(-1.21)	(0.19)	(-0.55)	(0.58)	(-0.67)
port_cre	-2.7414	0.0006	-5.1340	-0.0004	17.7696	0.0299	19.7344	0.0313	152.2014	-0.1212	164.1869	-0.1156
	(-0.14)	(0.03)	(-0.27)	(-0.02)	(0.27)	(0.64)	(0.30)	(0.68)	(1.11)	(-0.90)	(1.15)	(-0.83)
port_mbs	-6.0604	-0.0022	-5.6087	-0.0040	7.4724	-0.0020	4.7500	-0.0043	11.4538	-0.0067	10.0189	-0.0077
	(-1.91)	(-0.66)	(-1.40)	(-0.97)	(0.74)	(-0.28)	(0.45)	(-0.58)	(0.87)	(-0.52)	(0.78)	(-0.61)
roe	0.5390	0.0002	0.6651	0.0003	0.4537	-0.0013	0.8621	-0.0012	2.9544	0.0184*	6.7692	0.0160
	(1.06)	(0.38)	(1.31)	(0.48)	(0.26)	(-1.04)	(0.49)	(-0.97)	(0.32)	(2.04)	(0.78)	(1.88)
bhc	0.6364	-0.0005	0.5313	-0.0007	-6.7151***	0.0004	-6.7015***	0.0003	-2.1346	-0.0024	-1.7915	-0.0025
	(1.05)	(-0.85)	(0.88)	(-1.04)	(-3.52)	(0.31)	(-3.48)	(0.19)	(-0.51)	(-0.58)	(-0.41)	(-0.59)
listed	-0.7405	-0.0006	-0.7293	-0.0006	0.7976	-0.0005	0.8498	-0.0003	3.3144	0.0012	2.3169	0.0016
	(-0.82)	(-0.66)	(-0.84)	(-0.67)	(0.49)	(-0.40)	(0.50)	(-0.23)	(1.02)	(0.38)	(0.66)	(0.47)
foreign	8.5568	0.0004	9.1559*	0.0008	-13.5957*	-0.0014	-12.3080	-0.0005	-4.8989	-0.0003	-3.3289	-0.0011
	(1.81)	(0.07)	(2.00)	(0.18)	(-2.01)	(-0.30)	(-1.78)	(-0.10)	(-1.33)	(-0.09)	(-0.94)	(-0.33)
occ	0.6430	0.0004	0.6533	0.0004	-0.3606	0.0009	-0.4585	0.0008	-6.3121*	0.0020	-6.7971*	0.0020
	(0.69)	(0.38)	(0.72)	(0.38)	(-0.17)	(0.62)	(-0.22)	(0.53)	(-2.31)	(0.75)	(-2.39)	(0.71)
fdic	2.8035**	0.0012	2.7175**	0.0012	2.7362	0.0003	2.5463	0.0002	-4.5912	0.0032	-4.5005	0.0026
	(3.08)	(1.25)	(3.00)	(1.27)	(1.44)	(0.21)	(1.34)	(0.16)	(-1.42)	(1.01)	(-1.42)	(0.85)
abcp_out	8.3578**	0.0104***	8.2319**	0.0104***	-7.0341	0.0257	-5.9231	0.0255	47.0362	0.0257	49.6539	0.0240
	(3.25)	(3.90)	(3.20)	(3.89)	(-0.16)	(0.82)	(-0.13)	(0.81)	(1.00)	(0.56)	(1.05)	(0.52)
mortgage	1.1083	-0.0028	1.1001	-0.0029	4.5695	0.0031	4.9035	0.0031	12.4106	0.0197	12.8073	0.0195
	(0.48)	(-1.18)	(0.48)	(-1.23)	(0.44)	(0.42)	(0.47)	(0.42)	(1.07)	(1.73)	(1.10)	(1.72)
fi_abs	-0.0531	-0.0000	-0.0508	-0.0000	0.0859	-0.0001	0.0677	-0.0001	-0.8521	0.0001	-0.8599	0.0000
	(-0.39)	(-0.29)	(-0.37)	(-0.31)	(0.15)	(-0.25)	(0.12)	(-0.24)	(-1.59)	(0.12)	(-1.60)	(0.06)

fedfunds	-2.7000	0.0005	-2.6692	0.0007	-3.5705	-0.0018	-4.0759	-0.0018	-13.9564***	-0.0055	-14.0524***	-0.0058
	(-1.83)	(0.34)	(-1.82)	(0.43)	(-0.72)	(-0.51)	(-0.82)	(-0.52)	(-3.43)	(-1.38)	(-3.45)	(-1.44)
spread	-1.5297	-0.0033	-1.4732	-0.0033	1.9908	0.0015	1.9396	0.0015	18.8617	0.0237*	19.0626	0.0235*
	(-0.72)	(-1.49)	(-0.69)	(-1.51)	(0.20)	(0.22)	(0.20)	(0.21)	(1.69)	(2.18)	(1.71)	(2.15)
ur	-0.4326*	-0.0001	-0.4387*	-0.0001	2.1093***	0.0002	2.1861***	0.0003				
	(-2.14)	(-0.62)	(-2.18)	(-0.69)	(3.63)	(0.57)	(3.75)	(0.62)				
gdp	-0.9748**	0.0005	-0.9733**	0.0005	-1.2331	-0.0001	-1.2713	-0.0000				
	(-2.62)	(1.37)	(-2.62)	(1.37)	(-1.32)	(-0.10)	(-1.35)	(-0.05)				
ur_US					-4.5411	0.0015	-4.6021	0.0014	-4.2039	0.0004	-3.4432	-0.0004
					(-0.70)	(0.33)	(-0.70)	(0.31)	(-0.59)	(0.06)	(-0.48)	(-0.05)
gdp_US					-151.3385	0.2109	-141.0149	0.2115	-431.9159	0.1559	-389.1037	0.1123
					(-0.36)	(0.73)	(-0.34)	(0.73)	(-0.93)	(0.34)	(-0.84)	(0.25)
mills	2.3012	-0.0012	2.3014	-0.0018	2.1172	-0.0038	3.5442	-0.0038	21.6183	-0.0129	21.6226	-0.0106
	(0.42)	(-0.21)	(0.42)	(-0.31)	(0.15)	(-0.38)	(0.25)	(-0.39)	(1.80)	(-1.10)	(1.84)	(-0.92)
_cons	-123.4119*	-0.0970	-117.9030	-0.0922	2512.7224	-3.8551	2316.6584	-3.8639	6269.5319	-3.1401	5527.2844	-2.3992
	(-2.00)	(-1.52)	(-1.94)	(-1.46)	(0.33)	(-0.73)	(0.30)	(-0.73)	(0.75)	(-0.38)	(0.66)	(-0.29)
Regions FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	4698	4698	4698	4698	1103	1103	1103	1103	679	679	679	679
R^2	0.0370	0.0195	0.0366	0.0191	0.0943	0.0355	0.0890	0.0338	0.2360	0.0507	0.2352	0.0507

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

*dregion9 is omitted due to collinearity.

Table 18: Heckman selection Model: Second stage (SUR) for weighted maturity and Average balance (Continued)

Panel B:
Weighted Average maturity and Average Balance of DW during the quarter

	Subpanel B1: Small bank				Subpanel B2: Medium bank				Subpanel B3: Large bank			
	(1) Mat	(1) Bal	(2) Mat	(2) Bal	(1) Mat	(1) Bal	(2) Mat	(2) bal	(1) Mat	(1) Bal	(2) Mat	(2) Bal
log_gta	1.8568	0.0006	1.6321	0.0006	-0.5655	-0.0014	-0.2107	-0.0013	-0.5703	-0.0009	-0.3340	-0.0007
	(1.21)	(0.35)	(1.15)	(0.32)	(-0.34)	(-0.76)	(-0.13)	(-0.71)	(-0.93)	(-1.34)	(-0.60)	(-1.10)
equity ratio	-10.4251	0.0049			65.9273***	0.0284*			-9.0325	0.0098		
	(-0.73)	(0.29)			(5.66)	(2.25)			(-0.30)	(0.30)		
tier1 ratio			-20.8473	-0.0012			49.5764***	0.0237*			-23.5452	0.0120
			(-1.90)	(-0.09)			(4.83)	(2.14)			(-0.85)	(0.39)
stdroa	-64.1753	-0.0041	-57.3121	-0.0001	-67.3080	-0.0603	-73.6900	-0.0639	-50.1902	-0.0118	-93.8957	-0.0215
	(-1.87)	(-0.10)	(-1.70)	(-0.00)	(-0.78)	(-0.64)	(-0.84)	(-0.68)	(-0.50)	(-0.11)	(-0.87)	(-0.18)
port_cre	25.8121	0.0120	22.9933	0.0110	-86.6053	0.0558	-84.0953	0.0573	42.7517	-0.0039	81.7699	0.0028
	(1.56)	(0.61)	(1.42)	(0.57)	(-1.41)	(0.84)	(-1.36)	(0.86)	(0.65)	(-0.05)	(1.11)	(0.03)
port_mbs	-2.9785	-0.0013	-0.8394	-0.0014	4.0277	-0.0045	-1.3114	-0.0069	-2.9146	-0.0034	1.9641	-0.0025
	(-1.10)	(-0.41)	(-0.25)	(-0.34)	(0.57)	(-0.59)	(-0.18)	(-0.88)	(-0.46)	(-0.49)	(0.25)	(-0.29)
roe	0.3552	0.0001	0.4616	0.0002	-0.8502	-0.0015	-0.6928	-0.0015	-9.6971	0.0081	-12.3465*	0.0064
	(0.84)	(0.21)	(1.09)	(0.30)	(-0.72)	(-1.16)	(-0.58)	(-1.14)	(-1.88)	(1.43)	(-2.40)	(1.12)
bhc	1.0127	-0.0002	0.9800	-0.0003	-2.0236	0.0007	-2.3183	0.0005	-0.9675	-0.0025	1.6733	-0.0015
	(1.96)	(-0.36)	(1.89)	(-0.43)	(-1.28)	(0.39)	(-1.44)	(0.27)	(-0.30)	(-0.72)	(0.44)	(-0.37)
listed	-0.2968	-0.0001	-0.3345	-0.0001	-0.2167	-0.0006	0.2411	-0.0003	1.9677	0.0017	0.1788	0.0013
	(-0.38)	(-0.08)	(-0.45)	(-0.09)	(-0.18)	(-0.44)	(0.20)	(-0.24)	(0.90)	(0.70)	(0.07)	(0.43)
foreign	10.2150**	-0.0006	10.8307**	-0.0002	-7.2427	-0.0005	-4.9764	0.0005	-1.8877	-0.0007	-1.9460	-0.0009
	(2.62)	(-0.13)	(2.87)	(-0.03)	(-1.72)	(-0.10)	(-1.16)	(0.11)	(-1.17)	(-0.38)	(-1.22)	(-0.52)
occ	0.7218	0.0002	0.7882	0.0002	-2.1023	0.0013	-2.4021	0.0011	0.5999	0.0029	-1.2960	0.0022
	(0.94)	(0.24)	(1.05)	(0.25)	(-1.34)	(0.74)	(-1.52)	(0.65)	(0.21)	(0.93)	(-0.44)	(0.68)
fdic	2.0477**	0.0005	1.9835**	0.0004	2.8259*	0.0008	2.6444*	0.0007	-1.2564	0.0040	-3.7506	0.0027
	(2.70)	(0.51)	(2.63)	(0.49)	(2.14)	(0.54)	(2.01)	(0.50)	(-0.32)	(0.91)	(-0.97)	(0.63)
abcp_out	8.5852***	0.0068**	8.4556***	0.0067**	-7.6587	0.0117	-8.5874	0.0111	2.5539	0.0151	15.2759	0.0212
	(3.99)	(2.63)	(3.93)	(2.61)	(-0.24)	(0.34)	(-0.27)	(0.33)	(0.09)	(0.51)	(0.56)	(0.70)
mortgage	-0.2477	-0.0040	-0.1990	-0.0040	1.0642	-0.0023	1.1248	-0.0023	1.0871	-0.0001	-0.1140	-0.0009
	(-0.13)	(-1.71)	(-0.10)	(-1.72)	(0.15)	(-0.29)	(0.15)	(-0.29)	(0.20)	(-0.02)	(-0.02)	(-0.15)
fi_abs	-0.1694	-0.0001	-0.1641	-0.0001	0.2856	0.0001	0.2930	0.0001	-0.0402	0.0001	-0.3187	-0.0000
	(-1.48)	(-0.57)	(-1.44)	(-0.58)	(0.75)	(0.22)	(0.77)	(0.23)	(-0.09)	(0.21)	(-0.71)	(-0.10)

fedfunds	-2.5163*	0.0002	-2.5100*	0.0002	-1.2799	0.0005	-1.3300	0.0006	-1.6175	0.0002	-2.4009	-0.0003
	(-2.00)	(0.12)	(-2.00)	(0.14)	(-0.39)	(0.15)	(-0.41)	(0.16)	(-0.80)	(0.07)	(-1.19)	(-0.12)
spread	-0.0202	-0.0028	0.0801	-0.0028	-1.0738	-0.0024	-1.3184	-0.0025	4.5883	0.0070	5.9244	0.0078
	(-0.01)	(-1.28)	(0.04)	(-1.28)	(-0.15)	(-0.32)	(-0.19)	(-0.33)	(0.88)	(1.23)	(1.15)	(1.37)
ur	-0.2376	-0.0002	-0.2391	-0.0002	1.8771***	0.0003	1.9404***	0.0003				
	(-1.39)	(-0.93)	(-1.40)	(-0.97)	(4.47)	(0.60)	(4.60)	(0.63)				
gdp	-0.9252**	0.0005	-0.9254**	0.0005	-0.5445	-0.0001	-0.4365	-0.0000				
	(-2.95)	(1.45)	(-2.95)	(1.46)	(-0.82)	(-0.15)	(-0.65)	(-0.07)				
ur_US					-3.6689	0.0011	-3.9721	0.0009	-0.1366	0.0047	0.9004	0.0050
					(-0.80)	(0.21)	(-0.86)	(0.19)	(-0.04)	(1.27)	(0.26)	(1.34)
gdp_US					59.7325	0.2360	57.1251	0.2336	126.7882	0.3503	250.7118	0.4095
					(0.20)	(0.74)	(0.19)	(0.74)	(0.47)	(1.19)	(0.93)	(1.37)
mills	6.1003	0.0029	6.1906	0.0028	-7.5317	-0.0086	-7.6659	-0.0089	2.6261	-0.0105	10.1454	-0.0066
	(1.32)	(0.52)	(1.35)	(0.51)	(-0.81)	(-0.85)	(-0.82)	(-0.88)	(0.24)	(-0.86)	(0.92)	(-0.55)
_cons	-124.6489*	-0.0548	-119.3943*	-0.0516	-860.6707	-4.0016	-808.7774	-3.9548	-2128.2990	-5.9917	-4346.0547	-7.0523
	(-2.30)	(-0.84)	(-2.23)	(-0.81)	(-0.16)	(-0.69)	(-0.15)	(-0.68)	(-0.44)	(-1.13)	(-0.89)	(-1.32)
Region FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	4538	4538	4538	4538	999	999	999	999	446	446	446	446
R^2	0.0432	0.0177	0.0436	0.0175	0.1268	0.0283	0.1178	0.0277	0.0563	0.0554	0.0579	0.0514

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

*dregion9 is omitted due to collinearity.

Table 19: Heckman selection Model: Second stage (SUR) for weighted maturity and Average balance (Continued)

Panel C: Weighted Average maturity and Average Balance of TAF during the quarter												
	Subpanel C1: Small bank				Subpanel C2: Medium bank				Subpanel C3: Large bank			
	(1) Mat	(1) Bal	(2) Mat	(2) Bal	(1) Mat	(1) Bal	(2) Mat	(2) bal	(1) Mat	(1) Bal	(2) Mat	(2) Bal
log_gta	-31.0954	-0.0287	-29.9292	-0.0281	13.3289	0.0491	25.5355	0.0571	1.6595	-0.0036	0.6687	-0.0028
	(-1.60)	(-0.98)	(-1.58)	(-0.99)	(0.28)	(1.37)	(0.54)	(1.59)	(0.53)	(-0.92)	(0.23)	(-0.75)
equity ratio	4.8873	0.0273			-171.1854	-0.1359			-6.2822	0.0141		
	(0.07)	(0.28)			(-0.99)	(-1.03)			(-0.18)	(0.32)		
tier1 ratio			81.1304	0.0735			-394.0564	-0.5596			-32.3170	0.1042
			(1.27)	(0.77)			(-0.96)	(-1.79)			(-0.47)	(1.19)
stdroa	241.9582	0.9086	265.9827	0.9276	-5.1293	-0.1990	-27.1314	-0.1414	497.6166	-0.0368	508.9528*	-0.1167
	(0.30)	(0.76)	(0.32)	(0.75)	(-0.01)	(-0.61)	(-0.06)	(-0.44)	(1.96)	(-0.11)	(2.03)	(-0.37)
port_cre	453.1255	0.2105	449.7896	0.2026	254.4960	0.0211	257.7461	0.0396	-117.9742	-0.2824	-199.2445	-0.1920
	(1.42)	(0.44)	(1.40)	(0.42)	(1.64)	(0.18)	(1.66)	(0.33)	(-0.45)	(-0.85)	(-0.78)	(-0.60)
port_mbs	-25.6398	-0.0130	-32.4421	-0.0199	2.7511	-0.0284	20.4113	-0.0059	29.1021	-0.0126	28.7674	-0.0147
	(-1.35)	(-0.45)	(-1.76)	(-0.72)	(0.06)	(-0.80)	(0.64)	(-0.25)	(1.36)	(-0.47)	(1.45)	(-0.59)
roe	3.6860	0.0239	3.0788	0.0225	33.7547	0.0319*	40.5553	0.0412*	46.9959***	0.0293	49.2787***	0.0235
	(0.18)	(0.78)	(0.15)	(0.73)	(1.71)	(2.12)	(1.85)	(2.46)	(3.30)	(1.63)	(3.63)	(1.37)
bhc	0.5672	-0.0066	0.7743	-0.0063	-29.4258	-0.0564	-39.4737	-0.0617	-4.4045	0.0006	-4.0976	-0.0004
	(0.12)	(-0.90)	(0.15)	(-0.83)	(-0.64)	(-1.60)	(-0.89)	(-1.82)	(-0.77)	(0.08)	(-0.71)	(-0.06)
listed	20.2046***	0.0097	20.1980***	0.0095	18.8271	0.0326	22.4655	0.0328	9.3370*	0.0003	9.0250	0.0013
	(3.50)	(1.11)	(3.46)	(1.08)	(0.68)	(1.54)	(0.90)	(1.73)	(2.02)	(0.05)	(1.94)	(0.23)
foreign	NA	NA	NA	NA	NA	NA	NA	NA	0.4930	0.0061	1.5910	0.0052
									(0.07)	(0.63)	(0.23)	(0.60)
occ	5.8268	0.0047	5.8980	0.0051	6.2908	-0.0105	4.4398	-0.0115	-11.5444***	-0.0006	-11.4475***	-0.0005
	(0.70)	(0.37)	(0.70)	(0.41)	(0.57)	(-1.25)	(0.43)	(-1.46)	(-3.60)	(-0.15)	(-3.54)	(-0.11)
fdic	0.5915	0.0025	1.1892	0.0034	-0.7405	0.0100	3.4463	0.0136	-4.5325	0.0010	-4.4974	0.0003
	(0.13)	(0.36)	(0.25)	(0.48)	(-0.06)	(1.06)	(0.26)	(1.33)	(-1.15)	(0.21)	(-1.12)	(0.07)
abcp_out	113.5161***	0.1382***	114.2783***	0.1388***	-58.9024	-0.1037	-84.3912	-0.1191	136.2379	0.1373	152.2011	0.1246
	(6.45)	(5.22)	(6.45)	(5.21)	(-0.33)	(-0.76)	(-0.48)	(-0.89)	(1.21)	(0.96)	(1.36)	(0.88)
mortgage	44.1825*	0.0315	44.2100*	0.0313	18.5931	0.0068	15.3919	0.0045	26.8900	0.0503	28.8616	0.0492
	(2.34)	(1.11)	(2.33)	(1.10)	(0.53)	(0.25)	(0.44)	(0.17)	(1.13)	(1.67)	(1.22)	(1.64)
fi_abs	25.9200	0.0280	25.8704	0.0279	7.0711	-0.0131	0.2249	-0.0170	0.5586	0.0144	2.8903	0.0124
	(0.72)	(0.52)	(0.71)	(0.51)	(0.17)	(-0.42)	(0.01)	(-0.56)	(0.03)	(0.66)	(0.17)	(0.58)

fedfunds	-24.5212	-0.0186	-24.6835	-0.0186	-22.2111	-0.0286	-23.9079	-0.0300*	-16.4278	-0.0129	-16.6013	-0.0125
	(-0.89)	(-0.45)	(-0.88)	(-0.44)	(-1.13)	(-1.91)	(-1.21)	(-1.98)	(-1.36)	(-0.84)	(-1.37)	(-0.82)
spread	22.2805	0.0614	21.8374	0.0608	9.6142	-0.0032	0.8198	-0.0091	40.3424	0.0479	43.1346	0.0464
	(0.97)	(1.78)	(0.94)	(1.74)	(0.25)	(-0.11)	(0.02)	(-0.30)	(1.62)	(1.51)	(1.72)	(1.46)
ur	-2.4861*	0.0029	-2.4660*	0.0029	0.2063	0.0003	0.0696	-0.0000				
	(-2.19)	(1.69)	(-2.17)	(1.70)	(0.13)	(0.22)	(0.04)	(-0.02)				
gdp	3.7263	0.0022	3.6423	0.0020	7.2054*	0.0010	7.0799*	0.0007				
	(1.35)	(0.54)	(1.32)	(0.49)	(2.31)	(0.44)	(2.27)	(0.30)				
ur_US					-17.6459	-0.0245	-20.3786	-0.0254	4.8516	0.0127	8.0247	0.0098
					(-0.71)	(-1.28)	(-0.83)	(-1.36)	(0.27)	(0.56)	(0.46)	(0.44)
gdp_US					-1687.7797	-1.5923	-2001.5937	-1.7813	-89.9448	0.6189	84.1084	0.4603
					(-0.97)	(-1.20)	(-1.16)	(-1.35)	(-0.09)	(0.47)	(0.08)	(0.36)
mills	-58.5084	-0.0343	-58.4509	-0.0348	60.0959	0.1438	92.4359	0.1648	7.3386	-0.0170	2.2688	-0.0133
	(-1.43)	(-0.56)	(-1.41)	(-0.56)	(0.48)	(1.50)	(0.74)	(1.72)	(0.46)	(-0.84)	(0.15)	(-0.68)
_cons	-1206.4660***	-1.5019***	-1241.0766***	-1.5185***	28286.0111	26.6350	33569.4343	29.8453	-728.3167	-12.5334	-3806.4776	-9.7648
	(-4.00)	(-3.31)	(-4.19)	(-3.41)	(0.92)	(1.13)	(1.10)	(1.28)	(-0.04)	(-0.52)	(-0.20)	(-0.41)
Region FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	386	386	386	386	246	246	246	246	381	381	381	381
R^2	0.2025	0.1608	0.2022	0.1610	0.2495	0.2147	0.2528	0.2176	0.3207	0.0899	0.3207	0.0912

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

*dregion9 is omitted due to collinearity.

Table 20: Pre-Lehman period: Heckman selection Model: Second stage (SUR) for weighted maturity and Average balance (07Q3-08Q3)

Panel A:
Weighted Average maturity and Average Balance of DWTAF during the quarter

	Subpanel A1: Small bank				Subpanel A2: Medium bank				Subpanel A3: Large bank			
	(1) Mat	(1) Bal	(2) Mat	(2) Bal	(1) Mat	(1) Bal	(2) Mat	(2) bal	(1) Mat	(1) Bal	(2) Mat	(2) Bal
log_gta	-14.6487	0.0109	-11.5249	0.0104	20.9235	-0.0030	21.9070	0.0002	3.4801	-0.0002	3.9196*	0.0004
	(-1.13)	(0.96)	(-0.92)	(0.96)	(1.30)	(-0.25)	(1.36)	(0.01)	(1.81)	(-0.13)	(2.11)	(0.28)
equity ratio	102.8111	-0.0672			6.8462	0.0459			-0.5907	-0.0012		
	(1.03)	(-0.77)			(0.15)	(1.30)			(-0.02)	(-0.06)		
tier1 ratio			32.4775	-0.0498			21.9958	0.0297			-84.7185*	-0.0172
			(0.62)	(-1.09)			(0.83)	(1.47)			(-2.27)	(-0.67)
stdroa	699.7806	-0.6487	639.8678	-0.6925	-52.3433	-0.5728*	-84.0144	-0.4832*	-353.5853	0.2108	-211.2776	0.2212
	(1.03)	(-1.10)	(0.85)	(-1.06)	(-0.15)	(-2.21)	(-0.27)	(-2.05)	(-1.11)	(0.97)	(-0.67)	(1.02)
port_cre	-80.2739	0.0495	-66.8932	0.0423	-134.3269	0.0138	-133.5711	-0.0134	189.8266	0.0860	264.7441*	0.1114
	(-1.24)	(0.88)	(-1.10)	(0.80)	(-0.63)	(0.08)	(-0.61)	(-0.08)	(1.75)	(1.16)	(2.25)	(1.38)
port_mbs	-43.8748**	0.0056	-47.9594*	0.0131	-53.8265	-0.0072	-57.1339*	-0.0162	4.9157	-0.0021	3.3894	-0.0016
	(-2.96)	(0.43)	(-2.05)	(0.64)	(-1.74)	(-0.31)	(-2.03)	(-0.76)	(0.42)	(-0.26)	(0.29)	(-0.20)
roe	19.8843	-0.0009	17.0516	0.0013	26.6434	0.0017	27.0534	0.0043	-32.7321	-0.0058	-36.8066*	-0.0094
	(1.74)	(-0.09)	(1.43)	(0.13)	(1.81)	(0.15)	(1.85)	(0.39)	(-1.83)	(-0.47)	(-2.13)	(-0.80)
bhc	-4.3635	0.0009	-4.3437	0.0009	10.4726	0.0018	10.8416	0.0026	4.0942	0.0006	6.2992	0.0021
	(-1.64)	(0.39)	(-1.45)	(0.36)	(1.45)	(0.34)	(1.38)	(0.44)	(0.83)	(0.18)	(1.18)	(0.57)
listed	-5.3100	0.0018	-4.4641	0.0015	-7.2776	-0.0006	-7.5152	-0.0014	0.5514	-0.0001	-1.2845	-0.0011
	(-1.46)	(0.58)	(-1.33)	(0.51)	(-1.05)	(-0.12)	(-1.01)	(-0.24)	(0.16)	(-0.04)	(-0.33)	(-0.41)
foreign	31.2681	-0.0199	24.6246	-0.0186	2.2680	-0.0040	1.6234	-0.0019	-5.9941*	-0.0024	-3.1813	-0.0019
	(1.10)	(-0.80)	(0.89)	(-0.77)	(0.22)	(-0.50)	(0.17)	(-0.27)	(-2.01)	(-1.19)	(-1.04)	(-0.91)
occ	8.8547	-0.0058	7.1838	-0.0056	2.5275	0.0014	2.2569	0.0016	-0.5359	0.0008	-2.5887	-0.0002
	(1.21)	(-0.91)	(1.02)	(-0.91)	(0.51)	(0.37)	(0.43)	(0.39)	(-0.17)	(0.36)	(-0.77)	(-0.09)
fdic	8.9811	-0.0041	7.7816	-0.0040	-3.5842	0.0015	-3.7243	0.0008	-3.8108	0.0013	-5.4461	0.0003
	(1.65)	(-0.85)	(1.46)	(-0.86)	(-0.89)	(0.51)	(-0.98)	(0.26)	(-0.92)	(0.48)	(-1.33)	(0.09)
abcp_out	-444.4235	0.6583	-339.1342	0.6686	652.4741	0.0066	686.6766	0.1065	-316.3233	-0.1160	-384.6903	-0.1698
	(-0.73)	(1.24)	(-0.54)	(1.22)	(1.02)	(0.01)	(1.04)	(0.21)	(-1.17)	(-0.63)	(-1.45)	(-0.93)
mortgage	547.5483	-0.6523	432.9735	-0.6600	-748.2812	0.0033	-786.6797	-0.1110	210.5141	0.0917	257.1921	0.1290
	(0.87)	(-1.19)	(0.67)	(-1.17)	(-1.04)	(0.01)	(-1.06)	(-0.20)	(0.97)	(0.62)	(1.20)	(0.87)
fedfunds	-174.6491	0.2039	-138.4618	0.2065	232.4727	-0.0019	244.3570	0.0336	-72.5057	-0.0290	-87.4012	-0.0411

	(-0.88)	(1.17)	(-0.68)	(1.16)	(1.03)	(-0.01)	(1.05)	(0.19)	(-1.03)	(-0.60)	(-1.25)	(-0.86)
spread	1081.1552	-1.3232	849.6744	-1.3396	-1540.0411	0.0075	-1617.5452	-0.2248	467.0748	0.1954	565.3790	0.2750
	(0.84)	(-1.18)	(0.65)	(-1.17)	(-1.05)	(0.01)	(-1.08)	(-0.20)	(1.02)	(0.62)	(1.25)	(0.89)
ur	0.7759	0.0005	0.8389	0.0005	4.2447***	0.0013	4.0900***	0.0013				
	(1.17)	(0.84)	(1.26)	(0.90)	(4.00)	(1.62)	(3.81)	(1.54)				
gdp	-2.2920**	-0.0011	-2.2634**	-0.0011	-0.4680	0.0006	-0.1520	0.0007				
	(-2.89)	(-1.57)	(-2.86)	(-1.58)	(-0.41)	(0.69)	(-0.13)	(0.83)				
mills	-51.0604	0.0382	-41.7660	0.0382	80.3368	-0.0035	83.4842	0.0075	13.5537	0.0004	18.7124*	0.0036
	(-1.18)	(1.02)	(-0.97)	(1.02)	(1.26)	(-0.07)	(1.28)	(0.15)	(1.47)	(0.06)	(1.97)	(0.56)
_cons	-904.0688	-0.4819	-866.6144	-0.5160	633.4508	-0.0994	654.3441	-0.0013	1454.6313	0.3636	1761.6941*	0.5914
	(-1.90)	(-1.16)	(-1.77)	(-1.21)	(0.66)	(-0.14)	(0.67)	(-0.00)	(1.62)	(0.59)	(1.98)	(0.97)
Region FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	840	840	840	840	289	289	289	289	274	274	274	274
R^2	0.1316	0.0618	0.1328	0.0608	0.2506	0.1393	0.2421	0.1243	0.2229	0.0387	0.2279	0.0403

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

*fi_abs, ur_US, gdp_US, and dregion9 are omitted due to collinearity.

Table 21: Pre-Lehman period: Heckman selection Model: Second stage (SUR) for weighted maturity and Average balance (continued)

Panel B: Weighted Average maturity and Average Balance of DW during the quarter												
	Subpanel B1: Small bank				Subpanel B2: Medium bank				Subpanel B3: Large bank			
	(1) Mat	(1) Bal	(2) Mat	(2) Bal	(1) Mat	(1) Bal	(2) Mat	(2) bal	(1) Mat	(1) Bal	(2) Mat	(2) Bal
log_gta	-16.2078	0.0127	-13.4199	0.0116	21.2961	-0.0050	22.7083	-0.0027	-4.2782*	-0.0004	-2.8024	-0.0003
	(-1.25)	(1.10)	(-1.08)	(1.06)	(1.53)	(-0.47)	(1.63)	(-0.25)	(-2.32)	(-0.21)	(-1.90)	(-0.23)
equity ratio	130.6689	-0.0782			33.0218	0.0466*			46.4351	-0.0160		
	(1.24)	(-0.84)			(1.08)	(2.01)			(1.38)	(-0.49)		
tier1 ratio			44.9835	-0.0576			48.2589**	0.0301*			9.0537	-0.0014
			(0.79)	(-1.14)			(3.08)	(2.52)			(0.32)	(-0.05)
stdroa	772.2276	-0.7582	754.3642	-0.7781	-243.4023	-0.5524*	-278.1372	-0.4571*	-271.9088	0.3433	-228.2473	0.3066
	(1.09)	(-1.22)	(0.96)	(-1.12)	(-0.78)	(-2.32)	(-0.96)	(-2.07)	(-1.25)	(1.64)	(-1.05)	(1.47)
port_cre	-78.8034	0.0730	-66.4802	0.0624	-924.1637	0.0638	-949.3290	-0.0021	-69.8666	0.0473	-25.6498	0.0437
	(-1.17)	(1.23)	(-1.06)	(1.12)	(-1.69)	(0.15)	(-1.72)	(-0.00)	(-0.76)	(0.53)	(-0.26)	(0.46)
port_mbs	-43.5393*	0.0120	-50.3132	0.0199	-52.4441	-0.0041	-58.8387*	-0.0116	-1.9647	0.0001	-4.5141	0.0020
	(-2.54)	(0.79)	(-1.90)	(0.85)	(-1.95)	(-0.20)	(-2.32)	(-0.60)	(-0.25)	(0.01)	(-0.53)	(0.24)
roe	17.4674	-0.0077	13.6921	-0.0052	7.4296	0.0024	7.1401	0.0044	14.3329	-0.0100	2.7847	-0.0087
	(1.49)	(-0.74)	(1.18)	(-0.50)	(0.58)	(0.24)	(0.55)	(0.45)	(0.94)	(-0.68)	(0.22)	(-0.73)
bhc	-4.7155	0.0016	-4.9245	0.0015	12.5278*	0.0021	12.5960*	0.0025	-6.2058	0.0016	-4.0128	0.0022
	(-1.60)	(0.62)	(-1.49)	(0.53)	(2.06)	(0.46)	(1.97)	(0.51)	(-1.51)	(0.41)	(-0.96)	(0.55)
listed	-5.2623	0.0026	-4.4783	0.0021	-9.4181	0.0004	-9.4286	-0.0001	7.8890*	-0.0008	6.2849	-0.0011
	(-1.41)	(0.80)	(-1.30)	(0.69)	(-1.44)	(0.08)	(-1.39)	(-0.02)	(2.43)	(-0.25)	(1.87)	(-0.35)
foreign	33.9041	-0.0246	28.2874	-0.0219	16.1885	-0.0044	16.3223	-0.0021	-4.9771	-0.0007	-2.5407	-0.0013
	(1.16)	(-0.96)	(1.00)	(-0.88)	(1.17)	(-0.42)	(1.25)	(-0.22)	(-1.67)	(-0.25)	(-0.97)	(-0.50)
occ	9.9531	-0.0067	8.4314	-0.0062	3.4660	0.0004	2.9977	0.0005	6.5220	0.0003	2.9989	0.0005
	(1.32)	(-1.01)	(1.16)	(-0.96)	(0.63)	(0.09)	(0.52)	(0.10)	(1.46)	(0.06)	(0.76)	(0.12)
fdic	10.0513	-0.0053	8.8702	-0.0050	-5.9714	0.0014	-6.3408	0.0008	7.2032	0.0005	2.5147	0.0007
	(1.64)	(-0.98)	(1.48)	(-0.95)	(-1.68)	(0.52)	(-1.84)	(0.30)	(1.24)	(0.09)	(0.52)	(0.16)
abcp_out	-503.6571	0.8809	-409.5037	0.8647	953.4308	0.0160	993.0163	0.0870	382.9656*	0.1496	268.4419	0.1597
	(-0.71)	(1.42)	(-0.57)	(1.35)	(1.48)	(0.03)	(1.51)	(0.17)	(2.00)	(0.81)	(1.57)	(0.97)
mortgage	614.6494	-0.8474	513.0792	-0.8282	-1076.8073	0.0144	-1124.1730	-0.0684	-283.2270	-0.1384	-210.5475	-0.1471
	(0.86)	(-1.35)	(0.70)	(-1.29)	(-1.48)	(0.03)	(-1.52)	(-0.12)	(-1.91)	(-0.97)	(-1.53)	(-1.11)
fedfunds	-195.7772	0.2661	-163.5949	0.2602	335.9328	-0.0050	350.6136	0.0208	88.9527	0.0458	66.5343	0.0485

	(-0.87)	(1.33)	(-0.71)	(1.28)	(1.47)	(-0.03)	(1.51)	(0.12)	(1.87)	(1.00)	(1.51)	(1.14)
spread	1216.4819	-1.7341	1010.5494	-1.6958	-2182.8778	0.0292	-2277.4002	-0.1377	-592.2314	-0.2861	-437.6258	-0.3041
	(0.83)	(-1.35)	(0.68)	(-1.29)	(-1.49)	(0.03)	(-1.52)	(-0.12)	(-1.90)	(-0.95)	(-1.53)	(-1.10)
ur	1.2134	0.0009	1.2863	0.0010	3.7351***	0.0013	3.5574**	0.0013				
	(1.81)	(1.59)	(1.91)	(1.65)	(3.38)	(1.54)	(3.16)	(1.52)				
gdp	-2.2705**	-0.0013	-2.2604**	-0.0013	-0.1923	0.0003	0.2061	0.0004				
	(-2.83)	(-1.78)	(-2.82)	(-1.80)	(-0.16)	(0.39)	(0.17)	(0.47)				
mills	-57.0130	0.0462	-48.9202	0.0445	95.2377	-0.0122	99.4880	-0.0042	-16.0797	0.0006	-7.4423	0.0005
	(-1.26)	(1.16)	(-1.08)	(1.12)	(1.57)	(-0.26)	(1.61)	(-0.09)	(-1.54)	(0.06)	(-0.85)	(0.06)
_cons	-964.8159	-0.9576*	-940.1849	-0.9773	859.1834	-0.3317	917.1188	-0.2440	-1373.2543	-0.1963	-807.1184	-0.2217
	(-1.75)	(-1.97)	(-1.61)	(-1.89)	(0.83)	(-0.42)	(0.87)	(-0.31)	(-1.84)	(-0.27)	(-1.30)	(-0.37)
Region FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	819	819	819	819	269	269	269	269	235	235	235	235
R^2	0.1254	0.0725	0.1268	0.0700	0.2707	0.1698	0.2581	0.1530	0.1207	0.0623	0.1157	0.0587

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

*fi_abs, ur_US, gdp_US, and dregion9 are omitted due to collinearity.

Table 22: Pre-Lehman period: Heckman selection Model: Second stage (SUR) for weighted maturity and Average balance (continued)

Panel C:
Weighted Average maturity and Average Balance of TAF during the quarter

	Subpanel C1: Small bank				Subpanel C2: Medium bank				Subpanel C3: Large bank			
	(1) Mat	(1) Bal	(2) Mat	(2) Bal	(1) Mat	(1) Bal	(2) Mat	(2) bal	(1) Mat	(1) Bal	(2) Mat	(2) Bal
log_gta	0.6261	1.1649*	1.8801	1.1338*	-28.4507	-0.1061	1.6166	-0.2235	-1.4241	0.0052	1.0165	0.0056
	(0.03)	(2.38)	(0.11)	(2.28)	(-0.22)	(-0.67)	(0.01)	(-1.24)	(-0.35)	(1.75)	(0.25)	(1.94)
equity ratio	204.5835	-0.7687			150.1134	1.2622			0.4301	0.0113		
	(1.17)	(-0.81)			(0.10)	(0.67)			(0.01)	(0.39)		
tier1 ratio			238.2011*	1.5432*			-252.1727	2.2645			-86.6043	-0.3478
			(2.34)	(2.40)			(-0.17)	(1.24)			(-0.29)	(-1.65)
stdroa	-780.7869	-63.3011**	496.5708	-57.8881*	905.5425	-3.1216	1945.0045	-5.8682	-845.3267	-0.3436	-824.5580	0.0467
	(-0.24)	(-2.78)	(0.23)	(-2.17)	(0.21)	(-0.59)	(0.46)	(-1.13)	(-1.30)	(-0.73)	(-1.22)	(0.10)
port_cre	264.2871	0.5608	-119.4944	-1.1650	25.5716	-0.7287	210.4517	-1.2142	-114.1648	0.3800*	-28.5497	0.2333
	(0.67)	(0.46)	(-0.37)	(-1.04)	(0.03)	(-0.66)	(0.25)	(-1.18)	(-0.46)	(2.10)	(-0.16)	(1.79)
port_mbs	-200.3695	-5.0650**	-357.5323	-4.6177**	123.4691	0.4979	65.0779	0.5133	7.9796	0.0407	26.2721	0.0515
	(-1.09)	(-2.98)	(-1.86)	(-2.62)	(0.36)	(1.18)	(0.26)	(1.69)	(0.26)	(1.81)	(0.66)	(1.80)
roe	1.1044	2.1928*	36.4813	2.4257*	-12.3530	-0.2103	86.6833	-0.6786	21.7510	-0.0325	0.1982	-0.0362
	(0.02)	(2.47)	(0.62)	(2.33)	(-0.04)	(-0.50)	(0.17)	(-1.09)	(0.52)	(-1.06)	(0.00)	(-1.19)
bhc	17.1924	-0.0793	44.6469	0.0118	-13.9810	-0.0082	-20.4179	0.0082	-10.9779	-0.0006	-6.1771	0.0023
	(0.54)	(-0.70)	(1.41)	(0.10)	(-0.39)	(-0.18)	(-0.80)	(0.26)	(-1.25)	(-0.09)	(-0.59)	(0.31)
listed	-14.3388	-0.5505*	-44.7637	-0.6108*	17.7918	-0.0013	32.8312	-0.0615	10.3352	-0.0018	6.9771	-0.0053
	(-0.35)	(-2.32)	(-1.15)	(-2.44)	(0.23)	(-0.01)	(0.44)	(-0.67)	(1.74)	(-0.41)	(0.94)	(-0.99)
foreign	NA	NA	NA	NA	NA	NA	NA	NA	7.8639	-0.0124	2.8305	-0.0116
									(0.78)	(-1.70)	(0.28)	(-1.63)
occ	NA	NA	NA	NA	33.3294***	0.0498***	32.4855***	0.0336**	2.4116	0.0037	2.2684	0.0032
					(3.76)	(4.55)	(3.38)	(2.84)	(0.74)	(1.56)	(0.69)	(1.38)
fdic	13.9718	0.2295	58.5612	0.3198	-4.1212	-0.0313	7.8444	-0.0870	-4.4238	0.0049	-3.1756	0.0078
	(0.27)	(1.38)	(1.17)	(1.73)	(-0.09)	(-0.58)	(0.13)	(-1.16)	(-0.93)	(1.43)	(-0.56)	(1.91)
abcp_out	7.9721	15.7732**	20.3794	14.1755*	392.6822	0.9730	203.3897	1.7669	69.8974	0.4437**	148.1517	0.4875***
	(0.44)	(2.59)	(1.12)	(2.41)	(0.66)	(1.33)	(0.23)	(1.65)	(0.37)	(3.25)	(0.76)	(3.48)
fedfunds	3.3116	-1.3496*	-4.4175	-1.2545*	-10.9423	-0.0022	-15.0354	0.0163	-1.8776	-0.0351*	-13.1442	-0.0424**
	(0.24)	(-2.52)	(-0.35)	(-2.40)	(-0.34)	(-0.05)	(-0.49)	(0.43)	(-0.09)	(-2.44)	(-0.59)	(-2.64)
spread	5.1930	0.6022*	5.0774	0.4883*	-26.2977	-0.0564	-39.0242	0.0151	-3.1074	0.0363	16.5026	0.0466

	(0.15)	(2.41)	(0.16)	(2.35)	(-0.65)	(-1.14)	(-0.59)	(0.18)	(-0.08)	(1.31)	(0.40)	(1.58)
ur	-6.7903	-0.0014	-10.3799	-0.0221	-7.3618***	-0.0049	-7.9317***	-0.0044				
	(-0.76)	(-0.05)	(-1.29)	(-0.79)	(-3.33)	(-1.80)	(-3.45)	(-1.55)				
gdp	-6.4293	-0.0241	-24.8797	-0.0772	4.1163	0.0219**	2.8285	0.0107				
	(-0.34)	(-0.41)	(-1.38)	(-1.22)	(0.66)	(2.85)	(0.48)	(1.48)				
mills	-5.7083	1.5943*	11.1216	1.5501*	-11.7545	-0.1373	37.6260	-0.3457	-4.5919	0.0251*	6.8950	0.0321*
	(-0.19)	(2.44)	(0.38)	(2.36)	(-0.06)	(-0.53)	(0.15)	(-1.10)	(-0.28)	(2.09)	(0.35)	(2.25)
_cons	NA	-229.0916*	NA	-206.7268*	-4861.6966	-11.6934	-2777.0895	-20.2587	-882.9581	-6.0565**	-1973.5600	-6.6222***
		(-2.57)		(-2.40)	(-0.81)	(-1.58)	(-0.30)	(-1.77)	(-0.34)	(-3.25)	(-0.74)	(-3.47)
Region FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	42	42	42	42	45	45	45	45	103	103	103	103
R^2	0.5744	0.3805	0.6054	0.2853	0.7013	0.5914	0.6989	0.5885	0.1952	0.3316	0.1956	0.3430

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

*fi_abs, mortgage, ur_US, gdp_US and dregion9 are omitted due to collinearity.

Table 23: Post-Lehman period: Heckman selection Model: Second stage (SUR) for weighted maturity and Average balance (07Q3-08Q3)

Panel A: Weighted Average maturity and Average Balance of DWTAF during the quarter												
	Subpanel A1: Small bank				Subpanel A2: Medium bank				Subpanel A3: Large bank			
	(1) Mat	(1) Bal	(2) Mat	(2) Bal	(1) Mat	(1) Bal	(2) Mat	(2) bal	(1) Mat	(1) Bal	(2) Mat	(2) Bal
log_gta	7.9892	-0.0058	7.1989	-0.0060	35.7872*	0.0157	41.0339**	0.0156	4.3176	-0.0006	3.8438	-0.0003
	(1.42)	(-0.97)	(1.37)	(-1.08)	(2.38)	(1.49)	(2.96)	(1.61)	(1.64)	(-0.22)	(1.59)	(-0.13)
eqrat	-31.2577	0.0551			-97.4126	-0.0557			27.0650	0.0025		
	(-0.82)	(1.37)			(-1.50)	(-1.22)			(0.71)	(0.06)		
tier1rat			-49.0243	0.0523			-265.0304**	-0.1042			17.3859	0.0396
			(-1.31)	(1.31)			(-2.63)	(-1.48)			(0.25)	(0.55)
stdroa	-91.1226	-0.0567	-88.0092	-0.0482	-275.4665	-0.1934	-381.7397*	-0.2213	105.0054	-0.0949	135.1672	-0.1209
	(-1.68)	(-0.98)	(-1.77)	(-0.91)	(-1.51)	(-1.51)	(-1.97)	(-1.63)	(0.47)	(-0.41)	(0.61)	(-0.53)
port_cre	28.6613	-0.0257	22.7504	-0.0262	84.6569	0.0771	123.6255	0.0856	-10.1902	-0.1042	-53.1458	-0.0602
	(0.89)	(-0.75)	(0.75)	(-0.82)	(0.88)	(1.15)	(1.26)	(1.25)	(-0.04)	(-0.39)	(-0.21)	(-0.23)
port_mbs	0.7583	-0.0044	6.2540	-0.0113	113.7712*	0.0532	145.1235**	0.0593	18.7369	-0.0058	13.4723	-0.0072
	(0.18)	(-0.98)	(0.79)	(-1.34)	(2.22)	(1.49)	(2.72)	(1.59)	(0.92)	(-0.28)	(0.68)	(-0.35)
roe	0.6649	0.0001	0.8539	0.0001	3.8797	0.0008	5.8487*	0.0012	11.5376	0.0153	14.5552	0.0124
	(1.25)	(0.18)	(1.57)	(0.11)	(1.53)	(0.43)	(2.17)	(0.62)	(0.93)	(1.19)	(1.33)	(1.10)
bhc	0.8416	-0.0003	0.8298	-0.0005	-21.0306***	-0.0053	-21.0021***	-0.0047	-7.5367	-0.0008	-8.1816	-0.0009
	(1.24)	(-0.46)	(1.24)	(-0.67)	(-3.47)	(-1.25)	(-4.04)	(-1.30)	(-1.32)	(-0.13)	(-1.41)	(-0.15)
listed	1.6227	-0.0021	1.4630	-0.0022	5.3115	0.0012	3.2354	0.0002	7.8108	0.0004	7.8502	0.0008
	(0.80)	(-0.96)	(0.76)	(-1.05)	(1.87)	(0.62)	(1.44)	(0.14)	(1.67)	(0.08)	(1.62)	(0.17)
foreign	3.4583	0.0037	5.8500	0.0033	-120.7758*	-0.0519	-136.6500**	-0.0519	-3.0352	0.0000	-0.9421	-0.0007
	(0.50)	(0.50)	(0.97)	(0.52)	(-2.36)	(-1.45)	(-2.86)	(-1.56)	(-0.38)	(0.00)	(-0.13)	(-0.09)
occ	-0.0621	0.0009	0.1144	0.0008	3.8646	0.0025	4.8707	0.0027	-9.7667**	-0.0004	-9.5346*	-0.0005
	(-0.05)	(0.74)	(0.10)	(0.71)	(1.22)	(1.15)	(1.54)	(1.21)	(-2.66)	(-0.10)	(-2.55)	(-0.12)
fdic	0.9628	0.0028	0.8539	0.0030	-9.4491	-0.0067	-11.4796	-0.0067	-4.0077	0.0004	-4.0508	-0.0002
	(0.53)	(1.43)	(0.45)	(1.51)	(-1.48)	(-1.50)	(-1.94)	(-1.61)	(-0.99)	(0.10)	(-1.00)	(-0.05)
abcp_out	9.4833	0.0063	9.1988	0.0062	57.1976	0.0566*	64.3327*	0.0552*	63.2584	0.0375	55.0693	0.0432
	(1.70)	(1.06)	(1.66)	(1.05)	(1.61)	(2.28)	(1.99)	(2.45)	(1.39)	(0.80)	(1.27)	(0.97)
mortgage	6.9256	-0.0062	6.9079	-0.0069	4.9992	0.0185	6.9247	0.0181	20.0498	0.0326	16.5308	0.0353
	(1.21)	(-1.03)	(1.19)	(-1.12)	(0.31)	(1.64)	(0.44)	(1.66)	(0.72)	(1.13)	(0.60)	(1.25)
fi_abs	4.8743	-0.0076	4.9497	-0.0081	-84.6406*	-0.0016	-91.5515**	-0.0014	1.5509	0.0398	-5.3018	0.0428

	(0.53)	(-0.78)	(0.54)	(-0.83)	(-2.44)	(-0.06)	(-2.73)	(-0.06)	(0.03)	(0.71)	(-0.10)	(0.77)
fedfunds	-9.6456	0.0102	-9.4947	0.0110	29.2274	-0.0173	26.7417	-0.0178	16.3792	0.0065	22.0381	0.0055
	(-1.05)	(1.04)	(-1.03)	(1.12)	(1.36)	(-1.15)	(1.24)	(-1.18)	(0.39)	(0.15)	(0.52)	(0.13)
ur	-0.3279	-0.0000	-0.3412	-0.0000	2.0286**	0.0002	2.1137**	0.0002				
	(-1.45)	(-0.01)	(-1.51)	(-0.04)	(2.88)	(0.32)	(3.01)	(0.33)				
gdp	-0.8429*	0.0008	-0.8414*	0.0008	-1.3515	-0.0002	-1.5387	-0.0003				
	(-1.99)	(1.77)	(-1.98)	(1.77)	(-1.12)	(-0.29)	(-1.28)	(-0.32)				
mills	21.0448	-0.0151	20.6641	-0.0173	174.1541*	0.0848	201.8568**	0.0845	7.1827	-0.0039	1.5864	-0.0014
	(1.35)	(-0.91)	(1.31)	(-1.03)	(2.09)	(1.45)	(2.63)	(1.57)	(0.29)	(-0.15)	(0.07)	(-0.06)
_cons	-249.0568*	-0.0331	-231.0659*	-0.0251	-2578.2496*	-1.2871	-2863.3827**	-1.2533	-1143.0980*	-0.3802	-1068.2108*	-0.4609
	(-2.11)	(-0.26)	(-2.06)	(-0.21)	(-2.34)	(-1.67)	(-2.90)	(-1.81)	(-2.48)	(-0.80)	(-2.52)	(-1.06)
Region FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	3858	3858	3858	3858	814	814	814	814	405	405	405	405
R^2	0.0296	0.0140	0.0288	0.0139	0.0939	0.0276	0.0951	0.0280	0.1966	0.0580	0.1957	0.0593

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

*ur_US, gdp_US, and dregion9 are omitted due to collinearity.

Table 24: Post-Lehman period: Heckman selection Model: Second stage (SUR) for weighted maturity and Average balance (continued)

Panel B:
Weighted Average maturity and Average Balance of DW during the quarter

	Subpanel B1: Small bank				Subpanel B2: Medium bank				Subpanel B3: Large bank			
	(1) Mat	(1) Bal	(2) Mat	(2) Bal	(1) Mat	(1) Bal	(2) Mat	(2) bal	(1) Mat	(1) Bal	(2) Mat	(2) Bal
log_gta	15.8723***	-0.0056	14.9049***	-0.0049	6.2569	0.0079	8.6068	0.0077	6.3602*	0.0065*	6.0860*	0.0062
	(3.50)	(-0.97)	(3.51)	(-0.89)	(0.91)	(0.98)	(1.30)	(0.99)	(2.39)	(1.97)	(2.20)	(1.81)
eqrat	-113.6096***	0.0487			9.4252	-0.0508			165.6088*	0.1621		
	(-3.31)	(1.11)			(0.17)	(-0.77)			(2.10)	(1.66)		
tier1rat			-120.1354***	0.0421			-37.2359	-0.0543			110.9226*	0.1167
			(-3.74)	(1.02)			(-0.59)	(-0.74)			(2.00)	(1.70)
stdroa	57.7345	-0.0408	44.9408	-0.0300	-220.8970	-0.2522	-314.4055	-0.2638	-48.2861	-0.0760	125.0559	0.1162
	(1.21)	(-0.67)	(1.04)	(-0.54)	(-0.95)	(-0.93)	(-1.32)	(-0.95)	(-0.45)	(-0.57)	(0.90)	(0.67)
port_cre	101.6557***	-0.0244	94.1487***	-0.0200	-129.6714*	0.0115	-131.9983*	0.0124	60.7709	0.0611	21.8951	0.0199
	(3.64)	(-0.68)	(3.57)	(-0.59)	(-1.97)	(0.15)	(-2.02)	(0.16)	(0.78)	(0.64)	(0.27)	(0.20)
port_mbs	6.5111	-0.0052	21.3432**	-0.0103	35.2541	0.0331	48.0491	0.0378	-22.9424*	-0.0151	-34.2584*	-0.0250
	(1.90)	(-1.18)	(3.20)	(-1.21)	(1.07)	(0.86)	(1.29)	(0.87)	(-2.17)	(-1.15)	(-2.26)	(-1.33)
roe	0.7055	0.0000	0.9090*	0.0000	0.2382	-0.0000	0.8353	-0.0000	-1.5270	0.0130*	1.3241	0.0155*
	(1.67)	(0.06)	(2.12)	(0.01)	(0.15)	(-0.01)	(0.51)	(-0.01)	(-0.32)	(2.17)	(0.22)	(2.05)
bhc	1.3400*	0.0000	1.5299**	-0.0001	0.2383	0.0055	2.0681	0.0057	-14.5362*	-0.0148*	-17.5627*	-0.0178
	(2.46)	(0.01)	(2.83)	(-0.14)	(0.05)	(1.03)	(0.43)	(1.01)	(-2.45)	(-2.02)	(-2.25)	(-1.83)
listed	5.0948**	-0.0022	4.8885**	-0.0019	-0.7354	-0.0014	-1.2195	-0.0019	5.0158	0.0058	8.2590	0.0093
	(2.81)	(-0.93)	(2.82)	(-0.86)	(-0.54)	(-0.88)	(-0.77)	(-1.02)	(1.79)	(1.68)	(1.93)	(1.75)
foreign	-0.1762	0.0038	3.4762	0.0026	-37.7243	-0.0350	-47.4942	-0.0362	8.4573	0.0136	9.7819	0.0148
	(-0.03)	(0.56)	(0.74)	(0.43)	(-1.10)	(-0.88)	(-1.35)	(-0.89)	(1.45)	(1.89)	(1.41)	(1.73)
occ	-0.4950	0.0009	-0.0895	0.0007	1.6194	0.0054	2.7244	0.0054	6.4609**	0.0031	6.7891**	0.0036
	(-0.56)	(0.75)	(-0.11)	(0.62)	(0.43)	(1.24)	(0.72)	(1.24)	(2.88)	(1.13)	(2.78)	(1.18)
fdic	-1.9426	0.0023	-2.1980	0.0022	0.5789	-0.0039	-0.7656	-0.0038	10.1098*	0.0090	9.2726*	0.0080
	(-1.35)	(1.22)	(-1.49)	(1.16)	(0.14)	(-0.82)	(-0.19)	(-0.82)	(2.43)	(1.74)	(2.22)	(1.54)
abcp_out	10.7143*	-0.0068	10.4610*	-0.0066	10.1589	0.0328	16.8528	0.0321	-124.2061**	-0.1318*	-119.0999*	-0.1255*
	(2.26)	(-1.12)	(2.22)	(-1.09)	(0.42)	(1.15)	(0.72)	(1.18)	(-2.75)	(-2.36)	(-2.53)	(-2.15)
mortgage	10.4406*	-0.0145*	11.0458*	-0.0144*	-13.5825	0.0007	-13.9834	0.0005	-34.9858*	-0.0424*	-35.4552*	-0.0426*
	(2.15)	(-2.34)	(2.23)	(-2.28)	(-1.47)	(0.06)	(-1.51)	(0.05)	(-2.39)	(-2.34)	(-2.29)	(-2.22)
fi_abs	7.7266	-0.0208*	8.2217	-0.0207*	-47.9514	-0.0163	-57.7212	-0.0164	-153.5740**	-0.1422*	-149.4868*	-0.1369

	(1.03)	(-2.17)	(1.09)	(-2.15)	(-1.41)	(-0.41)	(-1.71)	(-0.42)	(-2.74)	(-2.05)	(-2.54)	(-1.88)
fedfunds	-11.6399	0.0223*	-12.0727	0.0219*	33.4706*	-0.0016	36.1825*	-0.0018	110.3669**	0.0947*	110.8595**	0.0947*
	(-1.55)	(2.32)	(-1.60)	(2.27)	(2.08)	(-0.09)	(2.26)	(-0.10)	(3.06)	(2.13)	(2.86)	(1.97)
ur	-0.0401	-0.0001	-0.0537	-0.0001	1.7764***	0.0002	1.8678***	0.0002				
	(-0.22)	(-0.26)	(-0.29)	(-0.26)	(3.72)	(0.37)	(3.90)	(0.37)				
gdp	-0.8191*	0.0009*	-0.8141*	0.0009*	-0.5205	-0.0002	-0.5138	-0.0002				
	(-2.40)	(1.99)	(-2.39)	(1.99)	(-0.65)	(-0.18)	(-0.63)	(-0.17)				
mills	46.8821***	-0.0152	48.1405***	-0.0143	49.8442	0.0645	71.4216	0.0644	-59.7495*	-0.0671*	-55.1729*	-0.0622
	(3.59)	(-0.91)	(3.63)	(-0.84)	(0.78)	(0.86)	(1.13)	(0.88)	(-2.27)	(-2.06)	(-2.08)	(-1.89)
_cons	-396.8174***	0.0668	-381.2952***	0.0537	-743.9062	-0.8230	-1005.2639	-0.8084	-33.5790	0.3172	-33.0188	0.3142
	(-3.70)	(0.49)	(-3.70)	(0.41)	(-0.91)	(-0.86)	(-1.27)	(-0.88)	(-0.24)	(1.85)	(-0.23)	(1.79)
Region FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	3719	3719	3719	3719	730	730	730	730	211	211	211	211
R^2	0.0459	0.0143	0.0461	0.0143	0.1176	0.0148	0.1123	0.0152	0.1172	0.0981	0.1131	0.0874

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

*ur_US, gdp_US, and dregion9 are omitted due to collinearity.

Table 25: Post-Lehman period: Heckman selection Model: Second stage (SUR) for weighted maturity and Average balance (continued)

Panel C:
Weighted Average maturity and Average Balance of TAF during the quarter

	Subpanel C1: Small bank				Subpanel C2: Medium bank				Subpanel C3: Large bank			
	(1) Mat	(1) Bal	(2) Mat	(2) Bal	(1) Mat	(1) Bal	(2) Mat	(2) bal	(1) Mat	(1) Bal	(2) Mat	(2) Bal
log_gta	-102.9576	-0.2165	-105.0475	-0.2264	-75.7070	0.0065	-13.8098	0.0265	-2.0940	-0.0048	-3.3986	-0.0028
	(-1.10)	(-1.55)	(-1.07)	(-1.55)	(-0.82)	(0.09)	(-0.17)	(0.43)	(-0.48)	(-0.85)	(-0.89)	(-0.57)
eqrat	-66.8257	-0.1622			-187.4050	0.0176			-11.5737	-0.0011		
	(-0.55)	(-0.90)			(-1.44)	(0.18)			(-0.23)	(-0.02)		
tier1rat			376.3407	0.7881			-59.8441	-0.3025			-8.2749	0.0891
			(1.09)	(1.53)			(-0.09)	(-0.57)			(-0.11)	(0.92)
stdroa	2624.4205	7.2585	3159.8670	8.5856	-190.5958	-0.0428	-38.3729	0.0555	535.1808	-0.0569	512.4042	-0.1161
	(0.84)	(1.56)	(0.85)	(1.55)	(-0.34)	(-0.10)	(-0.08)	(0.15)	(1.77)	(-0.14)	(1.71)	(-0.29)
port_cre	1341.0136	2.6859	1492.8784	3.0915	628.5780	-0.1555	378.6934	-0.2164	-499.2851	-0.4340	-633.1259	-0.2556
	(1.15)	(1.54)	(1.10)	(1.53)	(1.52)	(-0.50)	(1.10)	(-0.83)	(-1.31)	(-0.86)	(-1.78)	(-0.55)
port_mbs	-20.4064	0.0242	-50.6974*	-0.0383	19.5939	0.0099	29.8798	0.0173	39.2419	-0.0054	41.9866	-0.0088
	(-0.80)	(0.64)	(-2.54)	(-1.29)	(0.59)	(0.39)	(0.84)	(0.64)	(1.45)	(-0.15)	(1.68)	(-0.27)
roe	-18.9545	-0.0315	-23.4596	-0.0424	22.7853	0.0223	30.1165	0.0308	51.7168**	0.0283	52.7498***	0.0224
	(-0.53)	(-0.59)	(-0.60)	(-0.72)	(1.13)	(1.46)	(1.23)	(1.67)	(3.11)	(1.29)	(3.33)	(1.07)
bhc	12.7845	0.0258	15.4507	0.0327	89.8193	-0.0166	5.1364	-0.0409	-1.5436	0.0067	0.2019	0.0042
	(0.75)	(1.02)	(0.77)	(1.10)	(0.71)	(-0.17)	(0.05)	(-0.51)	(-0.18)	(0.59)	(0.02)	(0.38)
listed	29.4564*	0.0328	30.9152*	0.0365	-38.8942	0.0072	-2.4610	0.0157	8.0491	-0.0035	6.6123	-0.0010
	(2.28)	(1.71)	(2.12)	(1.69)	(-0.69)	(0.17)	(-0.06)	(0.49)	(1.08)	(-0.36)	(0.93)	(-0.11)
foreign	NA	NA	NA	NA	NA	NA	NA	NA	4.9552	0.0079	5.2199	0.0056
									(0.50)	(0.60)	(0.59)	(0.48)
occ	20.0228	0.0464	21.4788	0.0506	26.5683	-0.0054	9.3222	-0.0108	-16.3810***	-0.0006	-15.7828***	-0.0011
	(0.92)	(1.43)	(0.92)	(1.46)	(0.99)	(-0.26)	(0.43)	(-0.66)	(-3.69)	(-0.10)	(-3.60)	(-0.20)
fdic	-6.3032	-0.0171	-4.4492	-0.0136	-22.9195	-0.0021	-9.9498	0.0025	-7.7047	0.0010	-7.4963	0.0005
	(-0.55)	(-1.01)	(-0.43)	(-0.89)	(-1.18)	(-0.14)	(-0.54)	(0.18)	(-1.54)	(0.15)	(-1.48)	(0.08)
abcp_out	161.7948***	0.1887**	167.9746***	0.2040**	24.0034	0.0237	37.7710	0.0241	95.6127**	0.0605	89.6870**	0.0709
	(3.80)	(2.98)	(3.50)	(2.86)	(0.57)	(0.74)	(0.93)	(0.79)	(2.67)	(1.28)	(2.60)	(1.56)
mortgage	40.9671	-0.0369	37.3195	-0.0464	-33.8052	-0.0097	5.8121	0.0008	16.8488	0.0435	13.4168	0.0489
	(1.05)	(-0.64)	(0.88)	(-0.74)	(-0.52)	(-0.20)	(0.10)	(0.02)	(0.63)	(1.23)	(0.51)	(1.40)
fi_abs	75.9359	0.0386	70.6633	0.0273	0.3170	-0.0412	-40.3870	-0.0557	14.4687	0.0563	17.3064	0.0527

	(1.65)	(0.56)	(1.51)	(0.39)	(0.00)	(-0.61)	(-0.49)	(-0.90)	(0.28)	(0.82)	(0.33)	(0.77)
fedfunds	94.7662	0.3980	110.2676	0.4409	87.2334	0.0608	51.6398	0.0477	11.0741	0.0007	8.9854	0.0051
	(0.54)	(1.51)	(0.56)	(1.51)	(1.28)	(1.18)	(0.75)	(0.92)	(0.27)	(0.01)	(0.22)	(0.09)
ur	-2.9625*	0.0033	-2.9438*	0.0033	0.8412	0.0008	0.6432	0.0005				
	(-2.39)	(1.77)	(-2.39)	(1.80)	(0.44)	(0.58)	(0.33)	(0.35)				
gdp	4.7565	0.0019	4.6985	0.0017	7.4167*	0.0007	7.7675*	0.0003				
	(1.57)	(0.42)	(1.55)	(0.37)	(1.98)	(0.24)	(2.08)	(0.09)				
mills	-221.3088	-0.4548	-239.8145	-0.5062	-215.5471	0.0308	-19.4619	0.0901	-14.3175	-0.0260	-22.7958	-0.0149
	(-1.06)	(-1.46)	(-1.03)	(-1.47)	(-0.74)	(0.14)	(-0.08)	(0.48)	(-0.56)	(-0.77)	(-0.99)	(-0.49)
_cons	117.5957	2.1198	21.1800	2.0004	1528.3735	-0.9098	-943.3927	-1.5876	-1208.5203	-0.5098	-1014.2474	-0.8238
	(0.08)	(0.93)	(0.01)	(0.91)	(0.42)	(-0.33)	(-0.32)	(-0.72)	(-1.80)	(-0.58)	(-1.70)	(-1.05)
Region FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	344	344	344	344	201	201	201	201	278	278	278	278
R^2	0.1988	0.1673	0.1986	0.1675	0.2208	0.2125	0.2208	0.2160	0.3345	0.0886	0.3371	0.0891

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

*ur_US, gdp_US, and dregion9 are omitted due to collinearity.

Table 26: Lending: SUR for all loan categories with State fixed effect (without other funding sources)

	Panel A: Pool Regression							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Total_loans	RRE	CRE	C&I	LT_loans	ST_loans	Con_loans	Other_loans
dwtaf_mean	0.0950**	0.0172	0.0059	0.0308	0.0742*	0.0213	0.0064	0.0033
	(2.89)	(1.12)	(0.95)	(1.27)	(2.01)	(0.58)	(0.71)	(0.85)
dwtaf_mean × weighted_average	0.0007	0.0002	-0.0001	0.0002	-0.0003	0.0003	0.0001	-0.0000
	(0.70)	(0.47)	(-0.66)	(0.21)	(-0.26)	(0.30)	(0.49)	(-0.13)
_cons	-0.1475	-1.2122**	-0.1192	0.0638	9.3598***	1.3013	0.6611**	-0.0789
	(-0.16)	(-2.79)	(-0.69)	(0.09)	(9.02)	(1.26)	(2.62)	(-0.72)
N	64237	64237	64237	64237	64237	64237	64237	64237
R^2	0.0419	0.0166	0.0655	0.0098	0.0251	0.0159	0.0064	0.0017
dw_mean	0.1208***	0.0247	0.0043	0.0416	0.1025**	0.0229	0.0044	0.0049
	(3.49)	(1.53)	(0.66)	(1.64)	(2.65)	(0.59)	(0.47)	(1.20)
dw_mean × weighted_average	0.0034*	0.0014*	0.0001	0.0010	0.0042*	0.0005	0.0009*	-0.0001
	(2.37)	(2.08)	(0.25)	(0.90)	(2.56)	(0.32)	(2.31)	(-0.74)
_cons	-0.1059	-1.2031**	-0.1193	0.0760	9.3793***	1.3133	0.6653**	-0.0781
	(-0.11)	(-2.77)	(-0.69)	(0.11)	(9.04)	(1.27)	(2.64)	(-0.71)
N	64237	64237	64237	64237	64237	64237	64237	64237
R^2	0.0421	0.0168	0.0655	0.0099	0.0254	0.0159	0.0065	0.0017
taf_mean	-0.0367	-0.0051	0.0076	0.0980*	0.0936	0.0343	0.0017	-0.0022
	(-0.63)	(-0.19)	(0.71)	(2.27)	(1.46)	(0.53)	(0.10)	(-0.33)
taf_mean × weighted_average	0.0027	0.0004	-0.0003	-0.0013	-0.0010	0.0002	-0.0001	0.0001
	(1.90)	(0.60)	(-0.94)	(-1.19)	(-0.65)	(0.13)	(-0.31)	(0.73)
_cons	-1.3926	-1.8241***	-0.1304	0.0517	8.3352***	0.6190	0.4442	-0.0834
	(-1.47)	(-4.16)	(-0.75)	(0.07)	(7.96)	(0.59)	(1.69)	(-0.77)
N	57538	57538	57538	57538	57538	57538	57538	57538
R^2	0.0429	0.0210	0.0735	0.0087	0.0280	0.0142	0.0069	0.0020
Other funding sources	No	No	No	No	No	No	No	No
Bank Characteristic	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Market Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Macro Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 27: Lending: SUR for all loan categories with State fixed effect (without other funding sources)

	Panel B: Small banks subpanel							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Total_loans	RRE	CRE	C&I	LT_loans	ST_loans	Con_loans	Other_loans
dwtaf_mean	0.0832*	0.0161	0.0066	0.0209	0.0417	-0.0002	-0.0069	0.0001
	(2.27)	(0.92)	(0.94)	(0.76)	(1.01)	(-0.00)	(-0.93)	(0.02)
dwtaf_mean × weighted_average	0.0010	0.0001	-0.0001	0.0006	0.0015	0.0005	0.0003	0.0000
	(0.87)	(0.18)	(-0.37)	(0.77)	(1.16)	(0.42)	(1.48)	(0.36)
_cons	0.3519**	-0.1125	-0.0127	-0.0141	0.0149	0.4709***	0.0576*	0.0168
	(2.81)	(-1.89)	(-0.53)	(-0.15)	(0.11)	(3.30)	(2.27)	(1.16)
N	59311	59311	59311	59311	59311	59311	59311	59311
R^2	0.0399	0.0152	0.0657	0.0100	0.0236	0.0149	0.0052	0.0022
dw_mean	0.0935*	0.0152	0.0055	0.0373	0.0566	0.0037	-0.0056	0.0020
	(2.48)	(0.85)	(0.76)	(1.32)	(1.34)	(0.08)	(-0.73)	(0.47)
dw_mean × weighted_average	0.0026	0.0008	0.0001	0.0013	0.0047**	0.0010	0.0005	-0.0001
	(1.67)	(1.06)	(0.40)	(1.09)	(2.70)	(0.58)	(1.55)	(-0.44)
_cons	0.3553**	-0.1116	-0.0124	-0.0123	0.0194	0.4715***	0.0576*	0.0168
	(2.84)	(-1.88)	(-0.52)	(-0.13)	(0.14)	(3.30)	(2.27)	(1.16)
N	59311	59311	59311	59311	59311	59311	59311	59311
R^2	0.0399	0.0153	0.0658	0.0100	0.0238	0.0149	0.0052	0.0022
taf_mean	-0.0207	0.0150	0.0057	0.1192*	0.2161**	0.0231	-0.0101	-0.0035
	(-0.30)	(0.46)	(0.44)	(2.27)	(2.82)	(0.29)	(-0.72)	(-0.46)
taf_mean × weighted_average	0.0028	-0.0000	-0.0002	-0.0014	-0.0030	0.0001	0.0002	0.0001
	(1.67)	(-0.04)	(-0.48)	(-1.10)	(-1.59)	(0.05)	(0.69)	(0.74)
_cons	-0.2455	-0.2131**	-0.0056	-0.0130	-0.2779	0.2890	-0.0039	0.0165
	(-1.72)	(-3.11)	(-0.21)	(-0.12)	(-1.75)	(1.77)	(-0.14)	(1.03)
N	53076	53076	53076	53076	53076	53076	53076	53076
R^2	0.0402	0.0185	0.0734	0.0086	0.0257	0.0130	0.0057	0.0027
Other funding sources	No	No	No	No	No	No	No	No
Bank Characteristic	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Market Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Macro Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 28: Lending: SUR for all loan categories with State fixed effect (without other funding sources)

	Panel C: Medium and Large banks subpanel							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Total_loans	RRE	CRE	C&I	LT_loans	ST_loans	Con_loans	Other_loans
dwtaf_mean	0.1028	0.0037	0.0060	0.0419	0.1319	0.0817	0.0605	0.0175
	(1.32)	(0.13)	(0.52)	(0.95)	(1.54)	(1.36)	(1.20)	(1.52)
dwtaf_mean × weighted_average	0.0013	0.0006	-0.0002	-0.0004	-0.0031	-0.0005	-0.0011	-0.0004
	(0.57)	(0.77)	(-0.66)	(-0.30)	(-1.27)	(-0.28)	(-0.75)	(-1.14)
_cons	-6.0418	-2.3677	-1.5483**	-2.7294	4.9150	-0.0623	0.1227	0.2011
	(-1.72)	(-1.81)	(-2.98)	(-1.37)	(1.27)	(-0.02)	(0.05)	(0.39)
N	4926	4926	4926	4926	4926	4926	4926	4926
R^2	0.0980	0.0560	0.0749	0.0249	0.0407	0.0586	0.0154	0.0074
dw_mean	0.2192*	0.0473	0.0013	0.0396	0.2704**	0.0878	0.0609	0.0219
	(2.42)	(1.40)	(0.09)	(0.77)	(2.71)	(1.25)	(1.04)	(1.64)
dw_mean × weighted_average	0.0070	0.0044**	-0.0001	0.0003	0.0007	0.0001	0.0045	-0.0004
	(1.65)	(2.81)	(-0.13)	(0.14)	(0.16)	(0.04)	(1.63)	(-0.64)
_cons	-5.6231	-2.3004	-1.5613**	-2.6669	4.8510	0.0985	0.1036	0.2011
	(-1.61)	(-1.76)	(-3.01)	(-1.34)	(1.26)	(0.04)	(0.05)	(0.39)
N	4926	4926	4926	4926	4926	4926	4926	4926
R^2	0.0995	0.0592	0.0748	0.0249	0.0423	0.0584	0.0165	0.0075
taf_mean	-0.0987	-0.0660*	0.0163	0.0228	-0.2622*	0.0487	0.0245	0.0015
	(-0.85)	(-1.99)	(0.96)	(0.34)	(-2.10)	(0.56)	(0.32)	(0.09)
taf_mean × weighted_average	0.0044	0.0018*	-0.0006	-0.0001	0.0066*	0.0004	-0.0012	0.0000
	(1.50)	(2.15)	(-1.29)	(-0.08)	(2.09)	(0.17)	(-0.61)	(0.02)
_cons	-7.2439*	-2.7864**	-1.5690**	-3.0231	3.3809	0.2185	-0.0224	0.2936
	(-1.99)	(-2.68)	(-2.95)	(-1.46)	(0.86)	(0.08)	(-0.01)	(0.55)
N	4462	4462	4462	4462	4462	4462	4462	4462
R^2	0.1037	0.0998	0.0913	0.0256	0.0460	0.0586	0.0149	0.0079
Other funding sources	No	No	No	No	No	No	No	No
Bank Characteristic	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Market Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Macro Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 29: Pre-Lehman period: Lending: SUR for all loan categories with State fixed effect (without other funding sources)

	Panel A: Pool Regression							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Total_loans	RRE	CRE	C&I	LT_loans	ST_loans	Con_loans	Other_loans
dwtaf_mean	0.2198	-0.0785	-0.0038	-0.0413	-0.1550	0.0651	-0.0217	0.0047
	(1.96)	(-1.51)	(-0.19)	(-0.44)	(-1.37)	(0.51)	(-1.10)	(0.40)
dwtaf_mean × weighted_average	0.0017	0.0048***	0.0004	0.0006	0.0113***	-0.0001	0.0007	-0.0000
	(0.54)	(3.34)	(0.65)	(0.24)	(3.63)	(-0.03)	(1.37)	(-0.05)
_cons	0.7883*	0.4475**	-0.0324	0.1935	1.6395***	1.3341***	0.2135***	0.0085
	(2.30)	(2.81)	(-0.54)	(0.68)	(4.77)	(3.42)	(3.56)	(0.23)
N	32893	32893	32893	32893	32893	32893	32893	32893
R^2	0.0275	0.0147	0.0342	0.0147	0.0215	0.0119	0.0121	0.0019
dw_mean	0.3088**	-0.0519	-0.0017	-0.0395	-0.1315	0.1161	-0.0144	0.0063
	(2.70)	(-0.98)	(-0.08)	(-0.42)	(-1.14)	(0.89)	(-0.72)	(0.52)
dw_mean × weighted_average	0.0017	0.0047***	0.0003	0.0006	0.0112***	-0.0004	0.0007	-0.0002
	(0.58)	(3.35)	(0.64)	(0.23)	(3.69)	(-0.12)	(1.38)	(-0.48)
_cons	0.7950*	0.4490**	-0.0322	0.1935	1.6408***	1.3378***	0.2138***	0.0088
	(2.32)	(2.82)	(-0.53)	(0.68)	(4.77)	(3.43)	(3.56)	(0.24)
N	32893	32893	32893	32893	32893	32893	32893	32893
R^2	0.0277	0.0147	0.0342	0.0147	0.0216	0.0119	0.0121	0.0019
taf_mean	1.4740	-0.2161	-0.1241	-1.0083	-0.3743	-2.4438	0.0608	-0.0841
	(0.58)	(-0.19)	(-0.29)	(-0.47)	(-0.15)	(-0.85)	(0.14)	(-0.33)
taf_mean × weighted_average	-0.0561	0.0059	0.0042	0.0350	0.0142	0.0867	-0.0026	0.0038
	(-0.63)	(0.15)	(0.28)	(0.46)	(0.17)	(0.86)	(-0.17)	(0.43)
N	26194	26194	26194	26194	26194	26194	26194	26194
R^2	0.0257	0.0147	0.0398	0.0138	0.0211	0.0104	0.0126	0.0027
Other funding sources	No	No	No	No	No	No	No	No
Bank Characteristic	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Market Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Macro Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 30: Pre-Lehman period: Lending: SUR for all loan categories with State fixed effect (without other funding sources)

	Panel B: Small banks subpanel							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Total_loans	RRE	CRE	C&I	LT_loans	ST_loans	Con_loans	Other_loans
dwtaf_mean	0.3227*	-0.0842	-0.0173	-0.0636	-0.2478*	0.1334	-0.0237	0.0039
	(2.56)	(-1.42)	(-0.78)	(-0.60)	(-1.97)	(0.91)	(-1.14)	(0.30)
dwtaf_mean × weighted_average	-0.0008	0.0032*	0.0007	0.0013	0.0137***	-0.0006	0.0010	-0.0000
	(-0.25)	(2.08)	(1.20)	(0.48)	(4.15)	(-0.14)	(1.82)	(-0.01)
_cons	0.9692**	0.4592**	-0.0242	0.0365	1.1328***	1.2087**	0.2464***	0.0221
	(2.94)	(2.98)	(-0.42)	(0.13)	(3.45)	(3.15)	(4.52)	(0.65)
N	30485	30485	30485	30485	30485	30485	30485	30485
R^2	0.0297	0.0145	0.0348	0.0150	0.0243	0.0132	0.0095	0.0017
dw_mean	0.3609**	-0.0699	-0.0148	-0.0567	-0.2719*	0.1850	-0.0227	0.0042
	(2.81)	(-1.16)	(-0.65)	(-0.53)	(-2.13)	(1.24)	(-1.07)	(0.32)
dw_mean × weighted_average	-0.0010	0.0031*	0.0007	0.0012	0.0132***	-0.0009	0.0009	-0.0001
	(-0.32)	(2.04)	(1.18)	(0.46)	(4.10)	(-0.24)	(1.75)	(-0.35)
_cons	0.9692**	0.4595**	-0.0242	0.0368	1.1320***	1.2098**	0.2465***	0.0222
	(2.94)	(2.98)	(-0.42)	(0.13)	(3.45)	(3.15)	(4.52)	(0.66)
N	30485	30485	30485	30485	30485	30485	30485	30485
R^2	0.0297	0.0145	0.0348	0.0150	0.0242	0.0133	0.0095	0.0017
taf_mean	0.7686	-0.4619	0.2473	-1.7339	-3.0840	-2.9974	0.1835	-0.1850
	(0.21)	(-0.27)	(0.40)	(-0.54)	(-0.87)	(-0.70)	(0.31)	(-0.53)
taf_mean × weighted_average	-0.0199	0.0165	-0.0091	0.0612	0.1176	0.1115	-0.0062	0.0075
	(-0.15)	(0.27)	(-0.42)	(0.55)	(0.95)	(0.74)	(-0.30)	(0.62)
_cons	-28.6096***	-5.0632	-0.6760	2.2758	15.5802*	0.0000	-2.5288*	-1.0273
	(-3.78)	(-1.43)	(-0.51)	(0.45)	(2.09)	(.)	(-2.02)	(-1.40)
N	24250	24250	24250	24250	24250	24250	24250	24250
R^2	0.0280	0.0148	0.0400	0.0137	0.0242	0.0115	0.0094	0.0029
Other funding sources	No	No	No	No	No	No	No	No
Bank Characteristic	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Market Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Macro Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 31: Pre-Lehman period: Lending: SUR for all loan categories with State fixed effect (without other funding sources)

	Panel C: Medium and Large banks subpanel							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Total_loans	RRE	CRE	C&I	LT_loans	ST_loans	Con_loans	Other_loans
dwtaf_mean	-0.0262	-0.1325	0.0629	0.0045	0.4754	-0.3038	-0.0125	0.0117
	(-0.10)	(-1.28)	(1.43)	(0.03)	(1.68)	(-1.62)	(-0.18)	(0.29)
dwtaf_mean × weighted_average	0.0112	0.0138***	-0.0017	-0.0009	-0.0055	0.0064	-0.0007	-0.0000
	(1.29)	(3.88)	(-1.12)	(-0.15)	(-0.57)	(1.00)	(-0.30)	(-0.01)
_cons	1.2875	0.4291	-0.1360	0.2571	2.0739**	0.9129	-0.0650	-0.0577
	(1.85)	(1.50)	(-1.12)	(0.54)	(2.66)	(1.77)	(-0.34)	(-0.52)
N	2408	2408	2408	2408	2408	2408	2408	2408
R^2	0.0517	0.0685	0.0475	0.0285	0.0289	0.0307	0.0559	0.0131
dw_mean	0.1573	-0.0588	0.0598	0.0059	0.5591*	-0.2252	0.0091	0.0213
	(0.62)	(-0.56)	(1.34)	(0.03)	(1.97)	(-1.19)	(0.13)	(0.53)
dw_mean × weighted_average	0.0155	0.0156***	-0.0017	-0.0005	-0.0024	0.0077	0.0000	-0.0002
	(1.79)	(4.36)	(-1.13)	(-0.08)	(-0.25)	(1.19)	(0.01)	(-0.12)
_cons	1.3352	0.4646	-0.1338	0.2542	2.1232**	0.9000	-0.0681	-0.0552
	(1.92)	(1.62)	(-1.10)	(0.53)	(2.73)	(1.74)	(-0.36)	(-0.50)
N	2408	2408	2408	2408	2408	2408	2408	2408
R^2	0.0540	0.0716	0.0475	0.0284	0.0297	0.0303	0.0557	0.0132
taf_mean	0.3758	-0.6219	-0.3416	0.0077	1.2820	-2.4296	-0.0287	0.0742
	(0.11)	(-0.73)	(-0.57)	(0.00)	(0.35)	(-1.04)	(-0.03)	(0.14)
taf_mean × weighted_average	-0.0241	0.0202	0.0126	-0.0018	-0.0453	0.0734	-0.0012	-0.0023
	(-0.20)	(0.68)	(0.60)	(-0.02)	(-0.35)	(0.90)	(-0.04)	(-0.12)
_cons	7.9630	0.6313	-7.7931*	-3.7890	23.6306	44.0122**	-14.0581*	0.7400
	(0.36)	(0.12)	(-2.04)	(-0.25)	(1.00)	(2.95)	(-2.35)	(0.22)
N	1944	1944	1944	1944	1944	1944	1944	1944
R^2	0.0572	0.1457	0.0649	0.0325	0.0282	0.0361	0.0549	0.0137
Other funding sources	No	No	No	No	No	No	No	No
Bank Characteristic	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Market Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Macro Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 32: Post-Lehman period: Lending: SUR for all loan categories with State fixed effect (without other funding sources)

	Panel A: Pool Regression							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Total_loans	RRE	CRE	C&I	LT_loans	ST_loans	Con_loans	Other_loans
dwtaf_mean	0.0970***	0.0304*	0.0082	0.0572***	0.1162**	0.0305	0.0037	0.0030
	(3.44)	(2.24)	(1.38)	(4.20)	(3.07)	(1.01)	(0.32)	(0.76)
dwtaf_mean × weighted_average	0.0009	-0.0005	-0.0002	0.0001	-0.0021	0.0003	0.0000	0.0000
	(1.05)	(-1.16)	(-1.24)	(0.32)	(-1.84)	(0.35)	(0.04)	(0.28)
_cons	0.3146	-0.1577	-0.0650	-0.1105	-0.1575	-0.0352	0.1995*	-0.0078
	(1.47)	(-1.53)	(-1.44)	(-1.07)	(-0.55)	(-0.15)	(2.27)	(-0.26)
N	31344	31344	31344	31344	31344	31344	31344	31344
R^2	0.0652	0.0273	0.1214	0.0180	0.0375	0.0285	0.0123	0.0048
dw_mean	0.1298***	0.0409**	0.0065	0.0726***	0.1552***	0.0346	-0.0025	0.0049
	(4.33)	(2.84)	(1.03)	(5.02)	(3.86)	(1.07)	(-0.20)	(1.15)
dw_mean × weighted_average	0.0020	-0.0005	-0.0001	0.0016*	0.0005	-0.0003	0.0011	-0.0001
	(1.38)	(-0.74)	(-0.23)	(2.31)	(0.25)	(-0.17)	(1.90)	(-0.68)
_cons	0.3198	-0.1557	-0.0648	-0.1066	-0.1468	-0.0354	0.2000*	-0.0078
	(1.49)	(-1.52)	(-1.44)	(-1.03)	(-0.51)	(-0.15)	(2.28)	(-0.26)
N	31344	31344	31344	31344	31344	31344	31344	31344
R^2	0.0651	0.0274	0.1214	0.0186	0.0379	0.0284	0.0124	0.0048
taf_mean	-0.0455	0.0011	0.0087	0.0983***	0.0943	0.0280	0.0037	-0.0044
	(-0.97)	(0.05)	(0.89)	(4.36)	(1.51)	(0.56)	(0.19)	(-0.66)
taf_mean × weighted_average	0.0039***	0.0004	-0.0003	-0.0008	-0.0009	0.0008	-0.0003	0.0002
	(3.39)	(0.69)	(-1.16)	(-1.38)	(-0.55)	(0.64)	(-0.67)	(1.20)
_cons	0.3093	-0.1590	-0.0656	-0.1106	-0.1604	-0.0344	0.1984*	-0.0080
	(1.45)	(-1.55)	(-1.45)	(-1.07)	(-0.56)	(-0.15)	(2.26)	(-0.27)
N	31344	31344	31344	31344	31344	31344	31344	31344
R^2	0.0649	0.0272	0.1214	0.0181	0.0374	0.0286	0.0123	0.0048
Other funding sources	No	No	No	No	No	No	No	No
Bank Characteristic	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Market Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Macro Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 33: Post-Lehman period: Lending: SUR for all loan categories with State fixed effect (without other funding sources)

	Panel B: Small banks subpanel							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Total_loans	RRE	CRE	C&I	LT_loans	ST_loans	Con_loans	Other_loans
dwtaf_mean	0.0931**	0.0321*	0.0121	0.0566***	0.1023*	0.0051	-0.0102	-0.0006
	(3.01)	(2.08)	(1.77)	(3.69)	(2.41)	(0.15)	(-1.22)	(-0.13)
dwtaf_mean × weighted_average	0.0010	-0.0004	-0.0003	0.0004	-0.0010	0.0005	0.0002	0.0000
	(1.06)	(-0.84)	(-1.27)	(0.80)	(-0.75)	(0.49)	(0.83)	(0.35)
_cons	0.1069	-0.1101	-0.0604	0.0210	-0.6733*	0.2615	0.0263	0.0056
	(0.50)	(-1.03)	(-1.27)	(0.20)	(-2.28)	(1.10)	(0.45)	(0.18)
N	28826	28826	28826	28826	28826	28826	28826	28826
R^2	0.0608	0.0247	0.1205	0.0161	0.0347	0.0254	0.0143	0.0084
dw_mean	0.1081***	0.0330*	0.0103	0.0739***	0.1270**	0.0118	-0.0095	0.0015
	(3.38)	(2.07)	(1.46)	(4.65)	(2.88)	(0.33)	(-1.10)	(0.32)
dw_mean × weighted_average	0.0017	-0.0005	-0.0001	0.0017*	0.0006	0.0000	0.0003	-0.0001
	(1.12)	(-0.61)	(-0.36)	(2.26)	(0.30)	(0.02)	(0.66)	(-0.38)
_cons	0.1146	-0.1081	-0.0597	0.0277	-0.6623*	0.2619	0.0258	0.0057
	(0.53)	(-1.01)	(-1.26)	(0.26)	(-2.25)	(1.10)	(0.44)	(0.19)
N	28826	28826	28826	28826	28826	28826	28826	28826
R^2	0.0605	0.0247	0.1204	0.0167	0.0349	0.0254	0.0143	0.0084
taf_mean	-0.0314	0.0167	0.0095	0.1291***	0.2202**	0.0044	-0.0117	-0.0054
	(-0.58)	(0.61)	(0.79)	(4.78)	(2.94)	(0.07)	(-0.79)	(-0.71)
taf_mean × weighted_average	0.0039**	0.0001	-0.0002	-0.0011	-0.0030	0.0010	0.0001	0.0002
	(2.93)	(0.19)	(-0.80)	(-1.65)	(-1.66)	(0.70)	(0.40)	(0.83)
_cons	0.1073	-0.1108	-0.0610	0.0191	-0.6775*	0.2631	0.0266	0.0057
	(0.50)	(-1.03)	(-1.28)	(0.18)	(-2.30)	(1.11)	(0.46)	(0.19)
N	28826	28826	28826	28826	28826	28826	28826	28826
R^2	0.0607	0.0247	0.1204	0.0166	0.0349	0.0255	0.0143	0.0085
Other funding sources	No	No	No	No	No	No	No	No
Bank Characteristic	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Market Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Macro Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 34: Post-Lehman period: Lending: SUR for all loan categories with State fixed effect (without other funding sources)

	Panel C: Medium and Large banks subpanel							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Total_loans	RRE	CRE	C&I	LT_loans	ST_loans	Con_loans	Other_loans
dwtaf_mean	0.0845	0.0112	-0.0034	0.0321	0.0695	0.1350*	0.0603	0.0148
	(1.08)	(0.44)	(-0.39)	(1.07)	(0.81)	(2.12)	(0.84)	(1.38)
dwtaf_mean × weighted_average	0.0011	-0.0003	0.0000	0.0001	-0.0021	-0.0018	-0.0010	-0.0002
	(0.50)	(-0.44)	(0.00)	(0.11)	(-0.87)	(-1.00)	(-0.51)	(-0.82)
_cons	-0.4112	-0.2715**	-0.0055	0.1146	0.8053**	-0.2885	0.0017	-0.0481
	(-1.53)	(-3.14)	(-0.18)	(1.12)	(2.74)	(-1.33)	(0.01)	(-1.30)
N	2518	2518	2518	2518	2518	2518	2518	2518
R^2	0.1175	0.0808	0.1772	0.0554	0.0721	0.0823	0.0211	0.0182
dw_mean	0.2164*	0.0698*	-0.0105	0.0364	0.2138*	0.1429	0.0580	0.0208
	(2.34)	(2.35)	(-1.02)	(1.03)	(2.11)	(1.91)	(0.68)	(1.64)
dw_mean × weighted_average	0.0028	-0.0010	0.0006	0.0014	-0.0011	-0.0012	0.0073	-0.0006
	(0.57)	(-0.65)	(1.06)	(0.73)	(-0.20)	(-0.30)	(1.64)	(-0.84)
_cons	-0.4159	-0.2663**	-0.0049	0.1121	0.8269**	-0.2908	0.0142	-0.0480
	(-1.55)	(-3.09)	(-0.16)	(1.09)	(2.82)	(-1.34)	(0.06)	(-1.31)
N	2518	2518	2518	2518	2518	2518	2518	2518
R^2	0.1186	0.0829	0.1775	0.0552	0.0738	0.0817	0.0228	0.0184
taf_mean	-0.1000	-0.0533	0.0135	0.0023	-0.2920*	0.0825	0.0290	-0.0053
	(-0.90)	(-1.49)	(1.10)	(0.05)	(-2.41)	(0.92)	(0.28)	(-0.35)
taf_mean × weighted_average	0.0048	0.0015	-0.0005	0.0003	0.0073*	-0.0003	-0.0013	0.0002
	(1.73)	(1.64)	(-1.71)	(0.33)	(2.42)	(-0.12)	(-0.50)	(0.58)
_cons	-0.4154	-0.2671**	-0.0071	0.1100	0.8249**	-0.2916	-0.0083	-0.0481
	(-1.54)	(-3.09)	(-0.24)	(1.07)	(2.81)	(-1.34)	(-0.03)	(-1.31)
N	2518	2518	2518	2518	2518	2518	2518	2518
R^2	0.1171	0.0818	0.1782	0.0544	0.0741	0.0813	0.0209	0.0176
Other funding sources	No	No	No	No	No	No	No	No
Bank Characteristic	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Market Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Macro Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 35: Lending: SUR for all loan categories with State fixed effect (with other funding sources)

	Panel A: Pool Regression with DWTAF fund usage							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Total_loans	RRE	CRE	C&I	LT_loans	ST_loans	Con_loans	Other_loans
dwtaf_mean	0.0566	-0.0002	0.0057	0.0151	0.0542	-0.0076	-0.0015	0.0033
	(1.83)	(-0.01)	(0.93)	(0.68)	(1.51)	(-0.22)	(-0.18)	(0.85)
dwtaf_mean × weighted_maturity	0.0007	0.0001	-0.0001	0.0007	-0.0001	0.0008	-0.0000	-0.0000
	(0.74)	(0.17)	(-0.65)	(1.07)	(-0.08)	(0.73)	(-0.08)	(-0.15)
_cons	0.2877	-1.0899**	-0.1249	1.2093	9.4981***	2.4117*	0.6973**	-0.0780
	(0.33)	(-2.65)	(-0.72)	(1.94)	(9.40)	(2.49)	(2.83)	(-0.71)
N	64237	64237	64237	64237	64237	64237	64237	64237
R^2	0.1585	0.1196	0.0656	0.1750	0.0757	0.1358	0.0527	0.0030
dw_mean	0.0790*	0.0009	0.0043	0.0468*	0.0904*	0.0093	-0.0100	0.0049
	(2.43)	(0.06)	(0.66)	(2.02)	(2.40)	(0.26)	(-1.09)	(1.20)
dw_mean × weighted_maturity	0.0027*	0.0008	0.0001	0.0018	0.0040*	0.0008	0.0005	-0.0001
	(2.01)	(1.31)	(0.25)	(1.85)	(2.56)	(0.54)	(1.36)	(-0.81)
_cons	0.3171	-1.0887**	-0.1250	1.2257*	9.5143***	2.4216*	0.6965**	-0.0773
	(0.36)	(-2.65)	(-0.72)	(1.97)	(9.41)	(2.50)	(2.83)	(-0.70)
N	64237	64237	64237	64237	64237	64237	64237	64237
R^2	0.1586	0.1196	0.0656	0.1751	0.0761	0.1358	0.0527	0.0030
taf_mean	-0.0460	-0.0017	0.0074	0.0481	0.0802	-0.0070	0.0085	-0.0020
	(-0.85)	(-0.07)	(0.70)	(1.23)	(1.28)	(-0.12)	(0.54)	(-0.30)
taf_mean × weighted_maturity	0.0024	-0.0000	-0.0002	0.0001	-0.0008	0.0011	-0.0005	0.0001
	(1.80)	(-0.00)	(-0.93)	(0.07)	(-0.51)	(0.72)	(-1.32)	(0.74)
_cons	-1.1928	-1.7120***	-0.1344	0.6054	8.2432***	1.1815	0.5288*	-0.0814
	(-1.34)	(-4.13)	(-0.77)	(0.94)	(8.06)	(1.20)	(2.07)	(-0.75)
N	57538	57538	57538	57538	57538	57538	57538	57538
R^2	0.1518	0.1276	0.0736	0.1799	0.0718	0.1343	0.0563	0.0039
Other funding sources	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank Characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Market Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Macro Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 36: Lending: SUR for all loan categories with State fixed effect (with other funding sources)

	Panel B: Small banks subpanel							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Total_loans	RRE	CRE	C&I	LT_loans	ST_loans	Con_loans	Other_loans
dwtaf_mean	0.0692*	0.0042	0.0064	0.0264	0.0379	-0.0063	-0.0086	0.0002
	(1.99)	(0.26)	(0.92)	(1.05)	(0.95)	(-0.16)	(-1.16)	(0.05)
dwtaf_mean × weighted_maturity	0.0005	-0.0004	-0.0001	0.0010	0.0013	0.0003	0.0003	0.0000
	(0.48)	(-0.85)	(-0.37)	(1.30)	(1.07)	(0.25)	(1.18)	(0.29)
_cons	0.2888*	-0.1459**	-0.0134	-0.0350	-0.0340	0.4162**	0.0534*	0.0164
	(2.44)	(-2.62)	(-0.56)	(-0.41)	(-0.25)	(3.13)	(2.12)	(1.14)
N	59311	59311	59311	59311	59311	59311	59311	59311
R^2	0.1410	0.1367	0.0660	0.1793	0.0719	0.1453	0.0191	0.0031
dw_mean	0.0806*	-0.0042	0.0054	0.0628*	0.0601	0.0083	-0.0082	0.0021
	(2.26)	(-0.25)	(0.75)	(2.44)	(1.46)	(0.21)	(-1.08)	(0.48)
dw_mean × weighted_maturity	0.0022	0.0002	0.0001	0.0020	0.0047**	0.0010	0.0004	-0.0001
	(1.50)	(0.23)	(0.42)	(1.91)	(2.79)	(0.63)	(1.31)	(-0.50)
_cons	0.2923*	-0.1456**	-0.0132	-0.0317	-0.0289	0.4176**	0.0533*	0.0163
	(2.47)	(-2.61)	(-0.55)	(-0.37)	(-0.21)	(3.14)	(2.12)	(1.13)
N	59311	59311	59311	59311	59311	59311	59311	59311
R^2	0.1411	0.1367	0.0660	0.1794	0.0721	0.1453	0.0191	0.0031
taf_mean	-0.0200	0.0286	0.0056	0.0841	0.2129**	0.0075	-0.0085	-0.0031
	(-0.31)	(0.93)	(0.44)	(1.77)	(2.84)	(0.10)	(-0.61)	(-0.41)
taf_mean × weighted_maturity	0.0022	-0.0010	-0.0002	-0.0002	-0.0031	0.0001	0.0001	0.0001
	(1.35)	(-1.34)	(-0.49)	(-0.19)	(-1.68)	(0.05)	(0.32)	(0.69)
_cons	-0.3872**	-0.2499***	-0.0067	-0.2166*	-0.3979*	0.0689	-0.0097	0.0155
	(-2.85)	(-3.91)	(-0.25)	(-2.19)	(-2.56)	(0.45)	(-0.34)	(0.97)
N	53076	53076	53076	53076	53076	53076	53076	53076
R^2	0.1315	0.1447	0.0735	0.1849	0.0664	0.1441	0.0199	0.0041
Other funding sources	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank Characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Market Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Macro Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 37: Lending: SUR for all loan categories with State fixed effect (with other funding sources)

	Panel C: Medium and Large banks subpanel							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Total_loans	RRE	CRE	C&I	LT_loans	ST_loans	Con_loans	Other_loans
dwtaf_mean	-0.0327	-0.0073	0.0058	-0.0292	0.0410	0.0551	0.0372	0.0158
	(-0.51)	(-0.25)	(0.50)	(-0.73)	(0.50)	(0.92)	(0.84)	(1.37)
dwtaf_mean × weighted_maturity	0.0028	0.0009	-0.0002	0.0007	-0.0018	0.0001	-0.0016	-0.0003
	(1.52)	(1.14)	(-0.66)	(0.59)	(-0.76)	(0.07)	(-1.24)	(-0.98)
_cons	-5.0059	-2.4807	-1.5254**	-2.6879	5.1605	-0.4710	1.7864	0.1817
	(-1.73)	(-1.91)	(-2.93)	(-1.49)	(1.40)	(-0.18)	(0.90)	(0.35)
N	4926	4926	4926	4926	4926	4926	4926	4926
R^2	0.3907	0.0769	0.0752	0.2019	0.1271	0.0773	0.2549	0.0134
dw_mean	0.0034	0.0414	0.0007	-0.0547	0.1508	0.0630	-0.0341	0.0212
	(0.05)	(1.24)	(0.05)	(-1.17)	(1.58)	(0.91)	(-0.66)	(1.58)
dw_mean × weighted_maturity	0.0035	0.0043**	-0.0001	-0.0006	-0.0007	-0.0001	0.0011	-0.0004
	(1.00)	(2.75)	(-0.13)	(-0.26)	(-0.16)	(-0.03)	(0.46)	(-0.67)
_cons	-4.7281	-2.4046	-1.5402**	-2.6676	5.0321	-0.2987	1.6514	0.1836
	(-1.64)	(-1.86)	(-2.97)	(-1.48)	(1.37)	(-0.11)	(0.83)	(0.36)
N	4926	4926	4926	4926	4926	4926	4926	4926
R^2	0.3905	0.0796	0.0752	0.2022	0.1275	0.0770	0.2547	0.0136
taf_mean	-0.1164	-0.0729*	0.0159	-0.0073	-0.2993*	0.0339	0.0795	-0.0006
	(-1.23)	(-2.23)	(0.94)	(-0.12)	(-2.51)	(0.40)	(1.20)	(-0.04)
taf_mean × weighted_maturity	0.0044	0.0021*	-0.0006	0.0005	0.0074*	0.0009	-0.0029	0.0001
	(1.84)	(2.55)	(-1.28)	(0.30)	(2.45)	(0.40)	(-1.71)	(0.19)
_cons	-5.7133	-2.9719**	-1.5529**	-2.9712	3.6471	-0.2940	2.3893	0.2469
	(-1.93)	(-2.90)	(-2.91)	(-1.58)	(0.97)	(-0.11)	(1.15)	(0.47)
N	4462	4462	4462	4462	4462	4462	4462	4462
R^2	0.4082	0.1273	0.0915	0.2071	0.1343	0.0792	0.2629	0.0153
Other funding sources	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank Characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Market Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Macro Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 38: Pre-Lehman period: Lending: SUR for all loan categories with State fixed effect (with other funding sources)

	Panel A: Pool Regression							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Total_loans	RRE	CRE	C&I	LT_loans	ST_loans	Con_loans	Other_loans
dwtaf_mean	0.1451	-0.1599***	-0.0039	0.0807	-0.1600	0.1322	-0.0233	0.0052
	(1.38)	(-3.35)	(-0.20)	(1.02)	(-1.47)	(1.17)	(-1.19)	(0.43)
dwtaf_mean × weighted_maturity	-0.0002	0.0030*	0.0004	0.0011	0.0103***	-0.0011	0.0006	-0.0001
	(-0.06)	(2.25)	(0.67)	(0.49)	(3.44)	(-0.34)	(1.20)	(-0.31)
_cons	0.6858*	0.3483*	-0.0331	0.3749	1.5145***	1.4138***	0.2071***	-0.0003
	(2.15)	(2.39)	(-0.55)	(1.55)	(4.55)	(4.10)	(3.47)	(-0.01)
N	32893	32893	32893	32893	32893	32893	32893	32893
R^2	0.1536	0.1742	0.0343	0.2877	0.0862	0.2299	0.0220	0.0045
dw_mean	0.2477*	-0.1320**	-0.0018	0.1238	-0.1227	0.2269*	-0.0150	0.0070
	(2.32)	(-2.71)	(-0.09)	(1.53)	(-1.10)	(1.97)	(-0.75)	(0.57)
dw_mean × weighted_maturity	0.0002	0.0031*	0.0003	0.0010	0.0102***	-0.0012	0.0006	-0.0002
	(0.05)	(2.42)	(0.65)	(0.47)	(3.48)	(-0.41)	(1.21)	(-0.77)
_cons	0.6927*	0.3492*	-0.0329	0.3782	1.5168***	1.4206***	0.2076***	-0.0000
	(2.17)	(2.40)	(-0.55)	(1.57)	(4.56)	(4.12)	(3.47)	(-0.00)
N	32893	32893	32893	32893	32893	32893	32893	32893
R^2	0.1538	0.1741	0.0343	0.2877	0.0862	0.2300	0.0220	0.0045
taf_mean	2.9960	0.6464	-0.1204	-0.4636	0.5542	-1.2211	0.1229	-0.0821
	(1.26)	(0.62)	(-0.28)	(-0.26)	(0.23)	(-0.49)	(0.28)	(-0.33)
taf_mean × weighted_maturity	-0.1144	-0.0291	0.0040	0.0194	-0.0197	0.0437	-0.0050	0.0038
	(-1.38)	(-0.79)	(0.27)	(0.31)	(-0.24)	(0.50)	(-0.33)	(0.43)
N	26194	26194	26194	26194	26194	26194	26194	26194
R^2	0.1390	0.1938	0.0398	0.3169	0.0735	0.2444	0.0218	0.0078
Other funding sources	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank Characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Market Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Macro Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 39: Pre-Lehman period: Lending: SUR for all loan categories with State fixed effect (with other funding sources)

	Panel B: Small banks subpanel							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Total_loans	RRE	CRE	C&I	LT_loans	ST_loans	Con_loans	Other_loans
dwtaf_mean	0.2407*	-0.1986***	-0.0177	0.0663	-0.2544*	0.1523	-0.0230	0.0032
	(2.02)	(-3.74)	(-0.80)	(0.74)	(-2.08)	(1.19)	(-1.11)	(0.25)
dwtaf_mean × weighted_maturity	-0.0020	0.0015	0.0007	0.0020	0.0133***	-0.0016	0.0010	-0.0001
	(-0.65)	(1.06)	(1.21)	(0.84)	(4.13)	(-0.48)	(1.78)	(-0.23)
_cons	0.9890**	0.3762**	-0.0239	0.3862	1.1448***	1.4703***	0.2514***	0.0157
	(3.19)	(2.71)	(-0.41)	(1.65)	(3.60)	(4.38)	(4.63)	(0.47)
N	30485	30485	30485	30485	30485	30485	30485	30485
R^2	0.1394	0.2042	0.0350	0.2940	0.0821	0.2464	0.0186	0.0039
dw_mean	0.3051*	-0.1727**	-0.0152	0.1176	-0.2582*	0.2600*	-0.0204	0.0039
	(2.52)	(-3.20)	(-0.67)	(1.29)	(-2.08)	(1.99)	(-0.97)	(0.30)
dw_mean × weighted_maturity	-0.0021	0.0016	0.0007	0.0017	0.0126***	-0.0019	0.0009	-0.0002
	(-0.70)	(1.15)	(1.19)	(0.73)	(4.04)	(-0.59)	(1.70)	(-0.58)
_cons	0.9899**	0.3772**	-0.0239	0.3872	1.1445***	1.4727***	0.2515***	0.0159
	(3.19)	(2.72)	(-0.41)	(1.65)	(3.59)	(4.39)	(4.63)	(0.47)
N	30485	30485	30485	30485	30485	30485	30485	30485
R^2	0.1394	0.2040	0.0350	0.2941	0.0820	0.2465	0.0186	0.0039
taf_mean	4.3680	2.7873	0.2616	-1.3179	-1.4919	0.6412	0.2836	-0.1817
	(1.25)	(1.81)	(0.42)	(-0.50)	(-0.43)	(0.17)	(0.48)	(-0.52)
taf_mean × weighted_maturity	-0.1529	-0.1062*	-0.0097	0.0510	0.0598	-0.0206	-0.0098	0.0073
	(-1.25)	(-1.97)	(-0.44)	(0.55)	(0.49)	(-0.16)	(-0.47)	(0.60)
_cons	-30.4902***	-2.8741	-0.6984	-5.0621	10.3564	0.0000	-2.7149*	-1.0681
	(-4.14)	(-0.89)	(-0.53)	(-1.08)	(1.44)	(.)	(-2.17)	(-1.46)
N	24250	24250	24250	24250	24250	24250	24250	24250
R^2	0.1215	0.2273	0.0400	0.3258	0.0674	0.2622	0.0173	0.0072
Other funding sources	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank Characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Market Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Macro Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 40: Pre-Lehman period: Lending: SUR for all loan categories with State fixed effect (with other funding sources)

	Panel C: Medium and Large banks subpanel							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Total_loans	RRE	CRE	C&I	LT_loans	ST_loans	Con_loans	Other_loans
dwtaf_mean	-0.0503	-0.1159	0.0642	0.0088	0.4745	-0.2497	-0.0438	0.0215
	(-0.25)	(-1.13)	(1.45)	(0.06)	(1.86)	(-1.35)	(-0.64)	(0.54)
dwtaf_mean × weighted_maturity	0.0054	0.0134***	-0.0017	-0.0050	-0.0101	0.0055	-0.0015	-0.0001
	(0.79)	(3.82)	(-1.11)	(-1.03)	(-1.16)	(0.87)	(-0.65)	(-0.07)
_cons	0.8222	0.3641	-0.1172	-0.0923	1.6611*	0.7143	-0.1465	-0.0750
	(1.50)	(1.28)	(-0.96)	(-0.23)	(2.36)	(1.40)	(-0.78)	(-0.68)
N	2408	2408	2408	2408	2408	2408	2408	2408
R^2	0.4127	0.0903	0.0492	0.3412	0.2100	0.0598	0.1017	0.0236
dw_mean	0.0890	-0.0403	0.0606	-0.0150	0.5286*	-0.1613	-0.0271	0.0328
	(0.44)	(-0.39)	(1.36)	(-0.10)	(2.05)	(-0.86)	(-0.40)	(0.82)
dw_mean × weighted_maturity	0.0108	0.0152***	-0.0017	-0.0045	-0.0064	0.0063	-0.0009	-0.0003
	(1.58)	(4.30)	(-1.11)	(-0.92)	(-0.73)	(0.99)	(-0.37)	(-0.23)
_cons	0.8434	0.4019	-0.1148	-0.1118	1.6912*	0.7080	-0.1566	-0.0712
	(1.54)	(1.42)	(-0.94)	(-0.28)	(2.40)	(1.39)	(-0.84)	(-0.65)
N	2408	2408	2408	2408	2408	2408	2408	2408
R^2	0.4141	0.0933	0.0492	0.3411	0.2104	0.0595	0.1008	0.0237
taf_mean	-0.7450	-0.4659	-0.3372	-0.6899	0.6347	-2.2233	-0.2113	0.1363
	(-0.28)	(-0.56)	(-0.56)	(-0.35)	(0.19)	(-0.97)	(-0.23)	(0.26)
taf_mean × weighted_maturity	0.0124	0.0149	0.0125	0.0228	-0.0239	0.0686	0.0040	-0.0040
	(0.13)	(0.51)	(0.60)	(0.33)	(-0.21)	(0.85)	(0.13)	(-0.22)
_cons	14.6546	-1.8642	-7.4735	-1.2809	25.8862	36.9098*	-11.9691*	-0.4811
	(0.87)	(-0.35)	(-1.95)	(-0.10)	(1.23)	(2.51)	(-2.05)	(-0.14)
N	1944	1944	1944	1944	1944	1944	1944	1944
R^2	0.4501	0.1837	0.0664	0.3590	0.2277	0.0719	0.1119	0.0292
Other funding sources	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank Characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Market Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Macro Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 41: Post-Lehman period: Lending: SUR for all loan categories with State fixed effect (with other funding sources)

	Panel A: Pool Regression							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Total_loans	RRE	CRE	C&I	LT_loans	ST_loans	Con_loans	Other_loans
dwtaf_mean	0.0611*	0.0192	0.0081	0.0517***	0.0908*	0.0182	-0.0079	0.0027
	(2.29)	(1.46)	(1.36)	(3.83)	(2.44)	(0.61)	(-0.73)	(0.67)
dwtaf_mean × weighted_maturity	0.0010	-0.0004	-0.0002	0.0002	-0.0019	0.0004	-0.0002	0.0000
	(1.24)	(-0.97)	(-1.23)	(0.49)	(-1.68)	(0.40)	(-0.63)	(0.34)
_cons	0.1831	-0.2063*	-0.0670	-0.1396	-0.2734	-0.1194	0.1620	-0.0099
	(0.90)	(-2.06)	(-1.49)	(-1.36)	(-0.97)	(-0.52)	(1.95)	(-0.33)
N	31344	31344	31344	31344	31344	31344	31344	31344
R^2	0.1639	0.0792	0.1217	0.0367	0.0728	0.0487	0.1165	0.0059
dw_mean	0.0867**	0.0309*	0.0066	0.0677***	0.1340***	0.0185	-0.0302**	0.0048
	(3.06)	(2.21)	(1.04)	(4.72)	(3.39)	(0.58)	(-2.59)	(1.14)
dw_mean × weighted_maturity	0.0019	-0.0005	-0.0001	0.0017*	0.0006	-0.0002	0.0008	-0.0001
	(1.36)	(-0.71)	(-0.23)	(2.44)	(0.29)	(-0.14)	(1.44)	(-0.68)
_cons	0.1866	-0.2045*	-0.0668	-0.1358	-0.2630	-0.1202	0.1606	-0.0098
	(0.92)	(-2.04)	(-1.48)	(-1.33)	(-0.93)	(-0.53)	(1.93)	(-0.32)
N	31344	31344	31344	31344	31344	31344	31344	31344
R^2	0.1638	0.0793	0.1216	0.0373	0.0731	0.0487	0.1166	0.0059
taf_mean	-0.0460	-0.0035	0.0085	0.0969***	0.0818	0.0340	0.0239	-0.0049
	(-1.04)	(-0.16)	(0.87)	(4.34)	(1.33)	(0.69)	(1.32)	(-0.74)
taf_mean × weighted_maturity	0.0034**	0.0004	-0.0003	-0.0008	-0.0008	0.0005	-0.0012**	0.0002
	(3.08)	(0.71)	(-1.14)	(-1.37)	(-0.53)	(0.40)	(-2.79)	(1.29)
_cons	0.1798	-0.2069*	-0.0676	-0.1395	-0.2750	-0.1176	0.1618	-0.0101
	(0.89)	(-2.07)	(-1.50)	(-1.36)	(-0.98)	(-0.52)	(1.95)	(-0.33)
N	31344	31344	31344	31344	31344	31344	31344	31344
R^2	0.1638	0.0791	0.1216	0.0370	0.0727	0.0488	0.1168	0.0059
Other funding sources	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank Characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Market Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Macro Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 42: Post-Lehman period: Lending: SUR for all loan categories with State fixed effect (with other funding sources)

	Panel B: Small banks subpanel							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Total_loans	RRE	CRE	C&I	LT_loans	ST_loans	Con_loans	Other_loans
dwtaf_mean	0.0781**	0.0261	0.0120	0.0555***	0.0897*	-0.0004	-0.0134	-0.0007
	(2.65)	(1.74)	(1.75)	(3.65)	(2.15)	(-0.01)	(-1.63)	(-0.17)
dwtaf_mean × weighted_maturity	0.0008	-0.0005	-0.0003	0.0004	-0.0011	0.0003	0.0001	0.0000
	(0.89)	(-1.06)	(-1.28)	(0.76)	(-0.87)	(0.29)	(0.46)	(0.36)
_cons	0.0370	-0.1417	-0.0625	0.0039	-0.7617**	0.2197	0.0259	0.0037
	(0.18)	(-1.36)	(-1.32)	(0.04)	(-2.63)	(0.93)	(0.45)	(0.12)
N	28826	28826	28826	28826	28826	28826	28826	28826
R^2	0.1458	0.0814	0.1207	0.0339	0.0729	0.0475	0.0427	0.0096
dw_mean	0.0925**	0.0263	0.0104	0.0730***	0.1164**	0.0001	-0.0163	0.0016
	(3.03)	(1.69)	(1.46)	(4.63)	(2.70)	(0.00)	(-1.90)	(0.35)
dw_mean × weighted_maturity	0.0019	-0.0004	-0.0001	0.0019*	0.0009	0.0002	0.0002	-0.0001
	(1.29)	(-0.50)	(-0.35)	(2.46)	(0.44)	(0.14)	(0.58)	(-0.38)
_cons	0.0438	-0.1400	-0.0618	0.0103	-0.7511**	0.2195	0.0249	0.0038
	(0.21)	(-1.35)	(-1.30)	(0.10)	(-2.60)	(0.93)	(0.43)	(0.13)
N	28826	28826	28826	28826	28826	28826	28826	28826
R^2	0.1458	0.0814	0.1207	0.0345	0.0731	0.0475	0.0427	0.0096
taf_mean	-0.0307	0.0181	0.0093	0.1306***	0.2176**	0.0188	-0.0060	-0.0059
	(-0.59)	(0.69)	(0.77)	(4.88)	(2.96)	(0.32)	(-0.41)	(-0.77)
taf_mean × weighted_maturity	0.0033**	-0.0001	-0.0002	-0.0012	-0.0034	0.0004	-0.0002	0.0002
	(2.63)	(-0.21)	(-0.80)	(-1.78)	(-1.89)	(0.24)	(-0.50)	(0.89)
_cons	0.0372	-0.1425	-0.0631	0.0020	-0.7656**	0.2208	0.0260	0.0039
	(0.18)	(-1.37)	(-1.33)	(0.02)	(-2.65)	(0.94)	(0.45)	(0.13)
N	28826	28826	28826	28826	28826	28826	28826	28826
R^2	0.1457	0.0814	0.1207	0.0344	0.0731	0.0476	0.0427	0.0096
Other funding sources	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank Characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Market Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Macro Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 43: Post-Lehman period: Lending: SUR for all loan categories with State fixed effect (with other funding sources)

	Panel C: Medium and Large banks subpanel							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Total_loans	RRE	CRE	C&I	LT_loans	ST_loans	Con_loans	Other_loans
dwtaf_mean	-0.0038	-0.0022	-0.0032	0.0056	0.0276	0.1031	0.0176	0.0131
	(-0.06)	(-0.09)	(-0.37)	(0.19)	(0.32)	(1.62)	(0.31)	(1.21)
dwtaf_mean × weighted_maturity	0.0020	0.0000	-0.0000	0.0005	-0.0015	-0.0012	-0.0013	-0.0002
	(1.06)	(0.05)	(-0.01)	(0.63)	(-0.62)	(-0.68)	(-0.78)	(-0.72)
_cons	-0.8844***	-0.3260***	-0.0054	0.0290	0.6418*	-0.3870	-0.3910*	-0.0515
	(-3.85)	(-3.81)	(-0.18)	(0.29)	(2.20)	(-1.78)	(-2.02)	(-1.39)
N	2518	2518	2518	2518	2518	2518	2518	2518
R^2	0.3612	0.1055	0.1778	0.0914	0.0914	0.0942	0.4052	0.0213
dw_mean	0.0313	0.0627*	-0.0104	0.0018	0.1544	0.1064	-0.1061	0.0189
	(0.39)	(2.12)	(-1.00)	(0.05)	(1.53)	(1.42)	(-1.59)	(1.48)
dw_mean × weighted_maturity	-0.0008	-0.0012	0.0006	0.0011	-0.0020	-0.0015	0.0030	-0.0006
	(-0.18)	(-0.78)	(1.03)	(0.61)	(-0.38)	(-0.38)	(0.87)	(-0.87)
_cons	-0.8992***	-0.3206***	-0.0048	0.0251	0.6628*	-0.3916	-0.3910*	-0.0516
	(-3.91)	(-3.75)	(-0.16)	(0.25)	(2.27)	(-1.80)	(-2.03)	(-1.40)
N	2518	2518	2518	2518	2518	2518	2518	2518
R^2	0.3606	0.1071	0.1781	0.0910	0.0922	0.0937	0.4056	0.0215
taf_mean	-0.0689	-0.0629	0.0137	-0.0061	-0.3022*	0.0683	0.1036	-0.0067
	(-0.73)	(-1.78)	(1.12)	(-0.15)	(-2.51)	(0.76)	(1.30)	(-0.44)
taf_mean × weighted_maturity	0.0037	0.0018*	-0.0005	0.0005	0.0075*	0.0001	-0.0035	0.0003
	(1.56)	(2.05)	(-1.72)	(0.50)	(2.50)	(0.04)	(-1.79)	(0.66)
_cons	-0.8825***	-0.3208***	-0.0067	0.0261	0.6629*	-0.3904	-0.3968*	-0.0518
	(-3.84)	(-3.75)	(-0.22)	(0.26)	(2.27)	(-1.80)	(-2.06)	(-1.40)
N	2518	2518	2518	2518	2518	2518	2518	2518
R^2	0.3616	0.1070	0.1788	0.0910	0.0937	0.0940	0.4058	0.0209
Other funding sources	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank Characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Market Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Macro Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 43. Quantitative Effects of Overnight Financing (DW, Small Banks)

	Total Loans	RRE	CRE	C&I	LT	ST	C-Loans
Full Sample	8.06	0	0	6.28	.47	0	0
Pre-Lehman	**30.5**	-.17	0	0	-25.8	26.0	0
Post-Lehman	9.25	0	0	7.49	11.6	0	0

Table 44. Quantitative Effects of Overnight Financing (DW, Medium and Large Banks)

	Total Loans	RRE	CRE	C&I	LT	ST	C-Loans
Full Sample	0	.43	0	0	0	0	0
Pre-Lehman	0	1.52	0	0	**52.9**	0	0
Post-Lehman	0	6.27	0	0	0	0	0

Table 45. Quantitative Effects of Maturity Extension (DW, Small Banks)

	Total Loans	RRE	CRE	C&I	LT	ST	C-Loans
Full Sample	0	0	0	0	.47	0	0
Pre-Lehman	0	.31	0	0	**1.26**	0	0
Post-Lehman	0	0	.17	0	0	0	0

Table 46. Quantitative Effects of Maturity Extension (DW, Medium and Large Banks)

	Total Loans	RRE	CRE	C&I	LT	ST	C-Loans
Full Sample	0	.43	0	0	0	0	0
Pre-Lehman	0	**1.52**	0	0	0	0	0
Post-Lehman	0	0	0	0	0	0	0

Table 47. Quantitative Effects of Maturity Extension (TAF, Small Banks)

	Total Loans	RRE	CRE	C&I	LT	ST	C-Loans
Full Sample	0	0	0	0	0	0	0
Pre-Lehman	0	-10.6	0	0	0	0	0
Post-Lehman	**.33**	0	0	0	0	0	0

Table 48. Quantitative Effects of Maturity Extension (TAF, Medium and Large Banks)

	Total Loans	RRE	CRE	C&I	LT	ST	C-Loans
Full Sample	0	.21	0	0	.74	0	0
Pre-Lehman	0	0	0	0	0	0	0
Post-Lehman	0	.18	0	0	**.75**	0	0