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Has market discipline on banks improved after the Dodd–Frank Act?

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A B S T R A C T

We investigate whether or not market discipline on banking firms changed after the Dodd–Frank Wall Street Reform and Consumer Protection Act (DFA) of 2010. If market discipline is improved, we should see a lower discount for size on yield spreads, particularly for banks identified as too-big-to-fail (TBTF) or systemically important (SIFI). Using secondary market subordinated debt transactions we find that the size discount is reduced by 47% and TBTF discount is reduced by 94% after the DFA. The DFA has been effective in reducing, but not in eliminating the size and TBTF discounts on yield spreads. Market discipline of banks appears to have improved further after the rating criteria changes by Moody's.

1. Introduction

We investigate whether or not market discipline on banking firms changed after the Dodd–Frank Wall Street Reform and Consumer Protection Act[2] (DFA) of 2010. Using secondary market bond transactions, we investigate whether or not yield spreads levels (the difference between the yield to maturity of a risky bond and risk-free bond of similar maturity and other characteristics) and yield spread changes on subordinated notes and debentures (SNDs) increase for large banks in general, and too-big-to-fail banks in particular due to the passage of the DFA. In other words, we study if the size discount and more particularly the too-big-to-fail (TBTF) discount is removed or reduced from the yield spreads on SNDs issued by bank holding companies (BHCs) after the DFA was passed.

Flannery (2001) defines market monitoring as the ability of investors to understand a firm's risk and price the risk correctly in securities prices. Therefore, when firm risks increase, securities prices should fall and the yield spreads and cost of equity should increase. When the firm is a bank, market discipline aids bank regulators in identifying riskier banks and in taking appropriate regulatory actions to prevent excessive risk-taking. Market discipline for depository institutions is weak compared to industrial firms because the deposit liabilities of banks are federally guaranteed through the Federal Deposit Insurance Corporation (FDIC) up to $250,000 per account.[3] Because of deposit insurance, a large number of deposit holders have no incentive to monitor banks. However, if a bank fails, all uninsured liability holders bear the risk of capital loss and hence they should be monitoring banks.

Bradley and Shibut (2006) show that the proportion of core deposits to total liabilities has declined over time and the proportion of uninsured (managed) liabilities to total liabilities has increased for commercial banks in the US due to competition, particularly from money market mutual funds. Increases in uninsured liabilities should increase the market discipline on banks.

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[1] Tel.: +1 (662) 915 1103.
[2] http://www.sec.gov/about/laws/wallstreetreform-cpa.pdf.

[3] A temporary unlimited coverage for non-interest bearing transaction accounts is available from December 31, 2010 through December 31, 2012. See http://www.fdic.gov/deposit/deposits/insured/temporary.html for details.

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In particular, Bradley and Shibut (2006) find that between 1978 and 2005, the proportion of banks that had at least two-thirds of their funding from core deposits fell from 91% to 59%. However, market discipline declines when the federal government intervenes and bails out failing banks and uninsured liability holders do not suffer any capital loss, as happened during the subprime crisis. But, the intervention during the subprime crisis is not the first instance when market discipline on banks has been diminished because of government intervention. Flannery and Sorescu (1996) show that market discipline declined after the bailout of the Continental Illinois Bank in 1984, but was restored after the Federal Deposit Insurance Corporation Improvement Act (FDICIA), passed in 1991. Balasubramnian and Cyree (2011) find that market discipline on banks was reduced in 1998, in spite of FDICIA, after the Federal Reserve Bank of New York brokered a private-sector bailout of Long-Term Capital Management (LTCM), a non-banking financial institution.

The belief of widespread bailouts is particularly acute after the bailout of non-depository institutions such as a hedge fund (LTCM) in 1998, and an investment bank (Bear Sterns) or an insurer (AIG) in 2008. Balasubramnian and Cyree (2011) explain that the lack of risk sensitivity in yield spread changes on SNDs, in spite of the FDICIA, is due to the belief that bailouts will reach far beyond depository institutions, though the Fed did not directly bailout LTCM. Therefore, for market discipline to be effective there must be the market belief that uninsured creditors and shareholders will bear the losses in the event of failure.

The Dodd–Frank Wall Street Reform and Consumer Protection Act (DFA) was enacted on July 21, 2010 in an attempt to solve some of the problems that contributed to the financial crisis of 2007. Among the various major objectives, the DFA aims to end implicit guarantees, such as the too-big-to-fail (TBTF) policy. Ending federal government intervention to bail out large, complex, inter-connected firms is expected to restore and promote better market discipline. SNDs are good instruments to investigate the effects of the DFA. SNDs are uninsured debt, treated as Tier 2 capital securities with market-determined rates and sufficient trading volume. SNDs have been extensively examined in the past and we will be able to compare our results with prior research.

In addition to the possible reduction in the likelihood of a bailout due to the DFA, there are several other influences that are likely to increase yield spreads after the crisis. First, trust- preferred securities (TPS) are reclassified as non-Tier 1 capital through the DFA such that the reduction in SND yield spreads due to TPS will be reduced in the future.[4] Second, the bond rating agencies removed the possibility of a government bailout from the bond rating criteria and downgraded several banks after the DFA in 2011. Third, the general level of risk aversion of investors has increased after the subprime crisis. Hence, the possibility of the mispricing of risk is reduced and the risk sensitivity on bonds is likely to be higher than the pre-crisis period. In addition to the reduction in the TBTF discount in yield spreads, we expect markets to impound a higher premium for higher risk. Therefore, we should also observe increased magnitude and statistical significance of other default risk variables and find an increase in yield spread levels after the DFA.

The Federal Reserve Board started conducting stress tests (Supervisory Capital Assessment Program[5]) on 19 large US bank holding companies beginning in February 2009 and continues to do so to this day.[6] The stress tests for 19 large banks imply a special status for these banks. On November 04, 2011, 29 financial firms, including 17 European firms, eight US firms[7] and four Asian firms, are identified as systemically important financial institutions (SIFI) globally (G-SIFI or G-SIB) by the Financial Stability Board.[8] According to Basel III, SIFI banks could be subject to enhanced capital requirements[9] and resolution plans (e.g., a living will). Academics, regulators, and the financial services industry have been discussing systemically important financial institutions since at least early 2009. The SIFI designation also implies that these banks will not be allowed to fail. Thus, there remains a lot of skepticism about whether or not the DFA will help increase market discipline, particularly for large, interconnected bank holding companies. Our paper uses the secondary market bond trading data to investigate the market perception of TBTF problem before, during, and after the legislative process of the DFA.

While it is difficult to attribute the causality of reduction in the TBTF discount strictly to the DFA, our results show that the TBTF effect on SND yield spreads is reduced after the DFA. Although a significant size discount persists even after the DFA, size discount has been reduced by 47% after the DFA. The impact of the too-big-to-fail discount on yield spreads is reduced by 94% after the DFA. The TBTF discount of 187 basis points observed during the pre-DFA period has been reduced to 11 basis points after the DFA, an increase in yield spreads of 176 basis points, on average, for the TBTF factor. We find markets charge a premium for large banks identified as systemically important (SIFI) by the Financial Stability Board and for the TBTF banks after the credit rating criteria changes by Moody's. Our results indicate that market discipline on TBTF banks has improved after the DFA and possibly further improved after the rating criteria changes by Moody's.

Our results indicate that providing a special status to banks publicly through stress tests decreases market discipline as these banks still have a significant discount in yield spreads after the DFA. In summary, the Dodd–Frank Act has statistically and economically improved market discipline even on large banks. However, there are opportunities for further improvements in the market discipline of banks. Our results indicate that further improvements could have happened after the rating-criteria changes and the subsequent rating downgrades. We leave that question for future research.

The paper proceeds as follows. We review the literature and develop our hypotheses in Section 2. We describe our data sources and sample selection methods in Section 3. We analyze the empirical methods and our regression model in Section 4 and present the results in Section 5. We conclude in Section 6.

2. Theoretical background and hypotheses

The implicit guarantee of uninsured liability of banks, such as the too-big-to-fail (TBTF) policy, began in May, 1984 when regulatory agencies agreed to insure non-deposit liabilities of the

[4] Trust-preferred securities are debt-capital hybrids and the Federal Reserve Board approved them as Tier 1 capital in October, 1996. As the dividends paid are tax-deductible because of their structure, TPS has the lowest cost for Tier 1 capital. TPS are junior to SNDs and hence, TPS offer protection from default risk to SNDs. For more information on TPS, see Benston et al. (2003).

[5] http://www.federalreserve.gov/bankinforeg/bcreg20090424a1.pdf.

[6] The 19 firms, Bank of America Corporation, JP Morgan Chase & Co., Citigroup Inc., Wells Fargo & Company, The Goldman Sachs Group, Inc., Morgan Stanley, The Bank of New York Mellon Corporation, State Street Corporation, MetLife, PNC Financial, US Bancorp, Ally Financial (GMAC), Sun Trust, Capital One, BB&T, Regions Financial Corporation, American Express, Fifth Third Bancorp, and Key Bancorp, are included for Stress tests.

[7] The eight US banks in the SIFI list are Bank of America Corporation, JP Morgan Chase & Co., Citigroup Inc., Wells Fargo & Company, The Goldman Sachs Group, Morgan Stanley, The Bank of New York Mellon Corporation, and State Street Corporation.

[8] The Financial Stability Board was established in April, 2009 by G-20 countries to promote financial stability globally. Please see http://www.financialstabilityboard.org for details.

[9] http://www.bis.org/publ/bcbs189.pdf – Page 7.