Credit Default Swaps and Bank Regulatory Capital

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Summary

We compile a comprehensive dataset on US banks' credit derivatives positions and other financial information to examine the specific ways in which banks use credit default swaps (CDS) to reduce risk-weighted assets. We find they use CDS to shift assets from high-risk-weight categories, which consume more capital, to low-risk-weight categories. Some bank assets are in the zero-risk-weight category for which no capital is needed to support those assets. We find substantial increases in the zero-risk-weight assets relative to the total on-balance-sheet assets for CDS-using banks, while their assets in higher-risk-weight categories decrease. We find that the regulatory capital ratios for CDS-using banks are less sensitive to changes in levels of bank capital, suggesting CDS helps these banks manage capital ratios.

Bank managers' ultimate goals are to increase return on capital and profitability. We find that, while bank profitability increases with the risk-weighted asset ratio in general, such a positive relationship between bank risk-taking and profitability is weaker for CDS-using banks. This suggests that banks may be able to increase profitability without increasing measured risk when they can use CDS. We also find banks' returns on equity and returns on capital

decrease with the amount of capital-free assets, but banks' CDS positions attenuate this relationship. These findings indicate that, for CDS-using banks, the observed risks based on the reported risk-weighted assets may not adequately represent the banks' true risks. When banks can manage their obligations with CDS in accordance to capital regulations, their profitability is only weakly associated with reported risk.

We also find that the return on equity increases with the capital ratio for CDS-using banks, but not for banks that do not use CDS. This finding sheds light on the possible benefits banks gain from CDS use: CDS-using banks' capital raising can lead to a greater increase in the profit-earning assets, and therefore to a greater increase in bank profitability. This is consistent with our previous finding that CDS enables banks to use less capital to support the same or larger amounts of risky assets. Therefore, one interpretation of banks' incentives for using CDS in capital management is to maximise shareholder value.

Consistent with the view that banks have strong incentives to reduce their required regulatory capital, we show evidence that banks use CDS to manage their regulatory capital, in addition to their use of CDS for hedging. We present direct evidence of how banks' capital management incentives are affected by the regulatory forbearance afforded by CDS, which is of great concern to bank supervisors.