

Impact of Exchange Traded Derivatives on Credit: Empirical Evidence from Indian Commercial Banks.

Md Modabber Hossain Bhuiyan

Abstract

Existing literature show that derivative instruments usage by banks and financial institutions have a positive effect on risk management and resilience in dealing with financial and economic crises, however, the quantitative impact of Exchange Traded Derivative (ETD) instruments on credit is not yet investigated by others. Therefore, I estimate the impact of (ETD) instruments on the quantity of credit provided by commercial banks, based on the data of Indian commercial banks.

To do this, first I employ standard econometrics techniques, namely, Panel fixed effect (FE) Regression, 2SLS Instrumental Variable (IV), and Generalized Method of Moments (GMM) models to estimate the impact of any ETD usage on credit. The Panel FE Regression for overall sample shows that there is no statistically significant positive impact of ETD instrument usage on the quantity of credit provided. But when we consider the public and private banks separately, we see that for private bank samples the ETD instrument usage brings an increase in credit. Given the data we have, our chosen IVs are not statistically valid which motivates me to search for alternative methods, namely, GMM method. However, we find that the GMM model results are not stable across different levels of ETD usage.

I also investigate the impact of each ETD instrument (namely, Interest Rate Futures/Derivatives (IRFD), Currency Derivatives (CD), Options) on the credit amount provided. For this, I use the Panel FE Regression model due to not having a high level of correlation among those three derivative instruments. I find that IRFD, and Options have a positive impact on the credit amount provided under different situations. The CD instrument has the least positive impact on credit among all three ETD instruments.

Overall, our results suggest that the introduction of ETD instruments has a positive impact on the credit. Such findings have implications for any emerging economy like Indian one which may employ the ETD Market for increasing the efficiency in the banking industry. However, possible future research can be directed on the disaggregated credit of commercial banks.