Stigma in Financial Markets:

Evidence from liquidity auctions and discount window borrowing during the crisis

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* My views do not necessarily represent those of the Federal Reserve or its Board of Governors

Summary

Objectives:

1. Document and quantify the extent of stigma in discount window borrowing

2. Study the causes and consequences of stigma

Summary

1. Measuring and quantifying stigma:

   Borrowing under Term Auction Facility (TAF) and discount window (DW) are close substitutes

   When TAF bid > DW rate, borrowers are willing to pay to avoid using the DW

Summary

Measuring and quantifying stigma:

Lower bound on bank i's stigma premium:

$$Stigma\ Spread_{it} = Highest\ TAF\ bid_{it} - DW\ rate_t$$

$$\text{if } Highest\ TAF\ bid_{it} > DW\ rate_t$$

Summary

Three main regressions:

1. Predict the incidence of stigma

$$\Pr(\textit{Stigma Spread}_{it} > 0)$$
$$= F(\textit{Bank characteristics}_{it},\ \textit{Market conditions}_{t})$$

Summary

Three main regressions:

2. Predict the magnitude of stigma

$$Stigma\ Spread_{it} =$$
$$\alpha Bank\ characteristics_{it} + \beta\ Market\ conditions_{t} + \varepsilon_{it}$$

Summary

Three main regressions:

3. Evaluate the market reaction to stigma

$$Stock\ return_{it} =$$

$$\alpha \sum_{\tau=-3}^{3} I(Discount\ Window\ Borrowing_{i,t-\tau} > 0)$$

$$+Fixed\ Effects + \varepsilon$$

Comments

1. Additional exercises to put findings in perspective:

1.1 Compare estimates of the stigma premium based on the TAF/discount window borrowing with those based on interbank rates

1.2 Compare the cost of avoiding DW with the cost of using the DW?

Comments

2. Explore alternative specifications:

2.1 Measures of bank quality (or market perception of quality) are missing from the RHS. Do they belong in there?

2.2 Is there useful information in

(TAF rate – DW rate)

when TAF rate< DW rate?

Comments

2. Specifications:

2.3 Where possible, use continuous variables in the RHS, e.g., instead of a dummy variable for banks that bid above the DW rate at the previous auction, include its magnitude

2.4 Instead of log(assets) and log(collateral pledged) in the same regression, include log(assets) and the collateral/assets ratio

Comments

2. Specifications:

2.5 The minimum bid amount in TAF implies that TAF is not perfect substitute for discount window borrowing for small banks. How to disentangle from the size effect found in the regressions?

Comments

3. Perhaps for future research:

3.1 What is the source of stigma?

3.2 Was the market right in stigmatizing?
Assess the long-term performance of firms that faced stigma