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Thawing frozen capital markets and backdoor bailouts: Evidence from the Fed's liquidity programs

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journal homepage: [www.elsevier.com/locate/jbf](http://www.elsevier.com/locate/jbf)Thawing frozen capital markets and backdoor bailouts: Evidence from the Fed's liquidity programs<sup>☆</sup>Jean Helwege<sup>b</sup>, Nicole M. Boyson<sup>a</sup>, Jan Jindra<sup>c,\*</sup><sup>a</sup> Northeastern University, Boston, MA02186, USA<sup>b</sup> University of California, Riverside, CA92508, USA<sup>c</sup> Securities and Exchange Commission, 44 Montgomery Street, San Francisco, CA94104, USA

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## ABSTRACT

During the subprime crisis, the Federal Reserve introduced several emergency liquidity programs as supplements to the discount window (DW): TAF, PDCF, and TSLF. Using data on loans to large commercial banks and primary dealers, we find that the programs were used by relatively few institutions and thus provided limited relief to banks that relied on short-term debt markets. Although usage increased after Lehman's bankruptcy, most commercial banks avoided the DW and TAF. We also find that the programs were more often used by failed European banks than by healthy US banks, likely because these loans are expensive relative to private market funds. Our results also show that usage of PDCF and TSLF programs, while higher, was more often used by primary dealers in weaker financial position.

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"...in September [2008], after 13 months of market stress, the financial system essentially seized up and we had a system-wide crisis. Our markets were frozen, banks had pulled back very substantially from interbank lending."

(Testimony of Hank Paulson, Treasury Secretary, to the House Committee on Financial Services on November 18, 2008.)

To provide support to banks during the subprime crisis, the Federal Reserve (Fed) introduced three new loan facilities: the Primary Dealer Credit Facility (PDCF), the Term Securities Lending Facility (TSLF) and the Term Auction Facility (TAF).<sup>1</sup> Together with its discount window (DW) program, these new facilities were in-

tended to expand the Fed's lender of last resort (LOLR) role in a time of extreme market stress. The PDCF and TSLF were created to allow Fed loans for primary dealers, who would otherwise have had to fend for themselves in the subprime crisis. The TAF and TSLF were structured to minimize the effects of stigma, which the Fed had viewed as the main impediment to greater DW borrowing in previous downturns (Madigan and Nelson (2002)).<sup>2</sup>

Extant research on DW stigma suggests that it is the reason for the historically low usage of DW loans but since the names of DW loan recipients are kept secret, it is not obvious how a healthy bank would be stigmatized by accepting a Fed loan. Perhaps the answer lies in the tendency for DW loans to be given to banks that subsequently fail, despite Bagehot (1873) dictum to lend freely in a crisis to *sound* banks against good collateral. Fed data reveal that hundreds of failing banks received DW loans for more than a year during the 1920s. Similar practices were followed in the late 1980s when 530 banks repeatedly rolled over DW loans before being shut down by the FDIC (Schwartz, 1992). Price (2012) adds the too-big-to-fail (TBTF) examples of Continental Illinois in 1984 and Penn Central in 1970 as further evidence that DW loans typically go to unhealthy banks. Boyd and Gertler (1994) describe the discount window as "a favorite tool used over the last decade to keep

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<sup>1</sup> See Tables A.1–A.4 in the appendix for details on the Fed emergency facilities.

<sup>2</sup> See Peristiani (1998), Furfine (2001, 2003), and Armantier, Ghysels, Sarkar and Shrader (2011) for empirical studies of DW stigma.

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