Journal of Financial Stability 9 (2013) 747–758

Contents lists available at ScienceDirect

Journal of Financial Stability

journal homepage: www.elsevier.com/locate/jfstabil

Did the commercial paper funding facility prevent a Great Depression style money market meltdown?

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ARTICLE INFO

Article history:
Received 29 May 2011
Received in revised form 23 April 2012
Accepted 25 April 2012
Available online 11 May 2012

JEL classification:
E44
E50
N12

Keywords:
Great Depression
Commercial paper
Financial frictions
Credit rationing

ABSTRACT

This paper analyzes how risk premiums altered the use of commercial paper relative to bank loans during the recent financial crisis. Consistent with the theoretical and empirical literature on how surges in risk premiums can induce plunges in under-collateralized credit or credit funded with noninsured sources, results indicate that a spike in risk premiums induced a plunge in commercial paper use during the recent crisis. This paper also finds that Federal Reserve interventions in the money market helped prevent the commercial paper market from melting down to the extent seen during the early 1930s.

1. Introduction

The volume of U.S. commercial paper surged during the structured finance boom of the mid-2000s, when many risky investments were funded by asset-backed commercial paper (ABCP, Fig. 1), but then fell sharply following the cessation of redemptions at some subprime-mortgage exposed hedge funds in August 2007 and the collapse of Lehman Brothers in the fall of 2008. This weakness seriously spilled over into non-asset backed commercial paper in the last half of 2008, threatening the ability of commercial paper to fund general economic activity.

Theoretical models of financial frictions imply that credit will shift from risky to safer borrowers if economic factors increase default risk or increase the cost of loanable funds via increasing liquidity risk premiums (e.g., Bernanke and Blinder, 1988; Bernanke and Gertler, 1989; Bernanke et al., 1996; Jaffee and Russell, 1976; Keeton, 1979; Lang and Nakamura, 1995; Stiglitz and Weiss, 1981). Earlier empirical studies find that the composition business credit shifted toward safer credits in periods of tighter monetary policy or heightened risk. These studies date back to Jaffee and Modigliani (1969), who analyze the composition of bank business loans, and extend to papers, such as Kashyap et al. (1993), who analyze the relative use of commercial paper and bank loans. Such shifts and negative feedbacks between asset prices and debt contraction can arise during "Minsky moments" owing to the vulnerability of financial firms and the financial system to liquidity risk as stressed earlier by Minsky (1974, 1992, inter alia) and more recently by Adrian and Shin (2009a,b, 2010), Gorton and Metrick (2012), and Schleifer and Vishny (2010).

Consistent with these theories, the relative use of non-asset backed commercial paper versus bank business loans[2] fell as risk

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[1] I thank Danielle DiMartino, Steen Ejerskov, Gustavo Suarez, the editor Iftekhar Hasan, and an anonymous referee for suggestions, David Luttrell for research assistance, and seminar participants at the European Central Bank, the 2009 Bank of Canada – Simon Fraser University Conference on Financial Market Stability, the 2009 Federal Reserve's "Day-Ahead (of the ASSA meetings)" conference, the Swiss National Bank, and the 2012 Swiss Society for Financial Markets Research conference. The views expressed are those of the author's and are not necessarily those of the Federal Reserve Bank of Dallas or the Federal Reserve System.

[2] Unlike "security" loans to many hedge funds, commercial and industrial loans are not collateralized by securities.

1572-3089/$ – see front matter
http://dx.doi.org/10.1016/j.jfs.2012.04.002

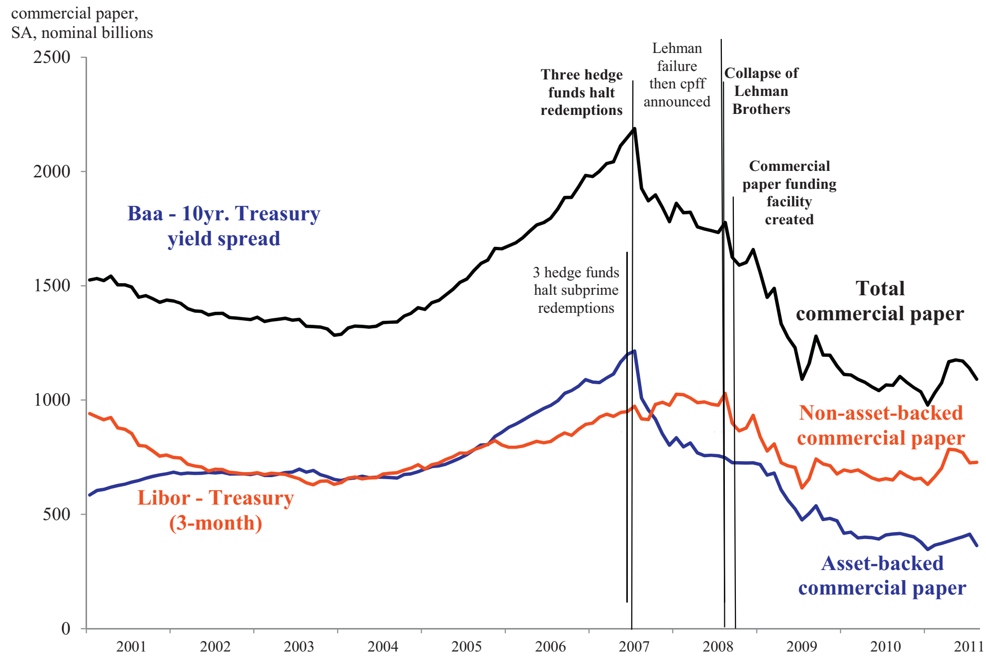

Fig. 1. The recent collapse in commercial paper concentrated in, but not limited to, declines in asset-backed commercial paper.

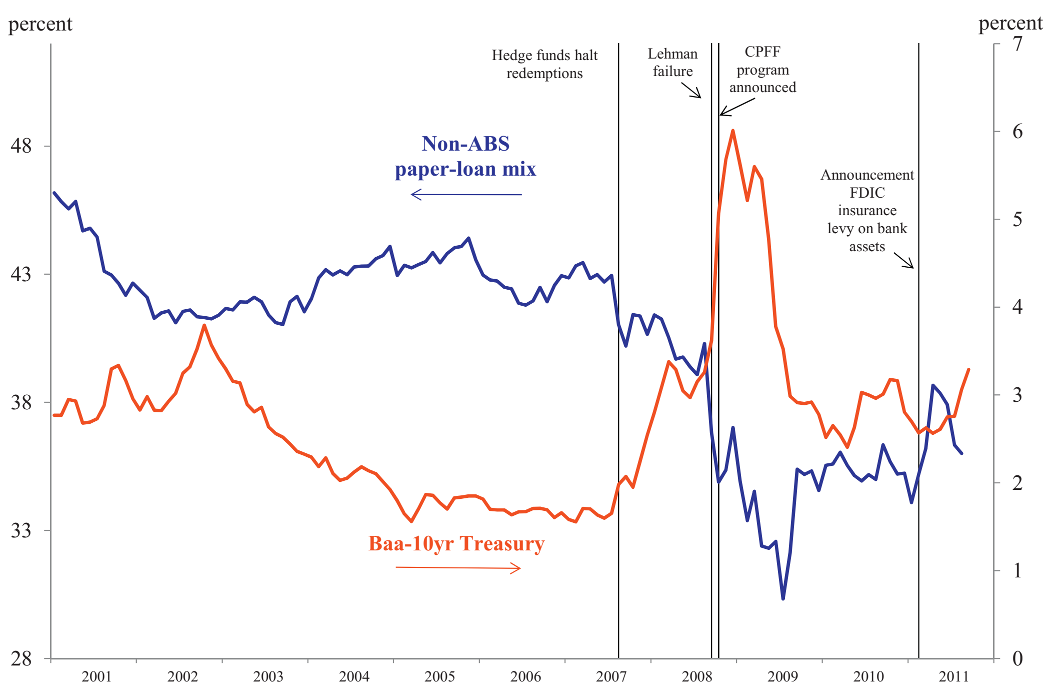

Fig. 2. Relative use of commercial paper usually varies inversely with corporate bond yield spread.

premiums plunged during 2008 (Fig. 2). To limit the impact of the financial crisis on the general economy, the Federal Reserve and Treasury took several steps to improve liquidity conditions in money markets and help stabilize the commercial paper market. Perhaps most prominent of these were the announcement of the Federal Reserve's commercial paper funding facility in October 2008. Under this facility, the Fed purchased A1/P1-rated commercial paper at a spread above the OIS rate, effectively capping liquidity risk premiums and reducing the "worst-case" risk that top-notch commercial paper issuers would not be able to rollover maturing paper. Shortly following this announcement, the commercial paper-Treasury bill spread fell back toward normal levels (Fig. 3). The Treasury also moved to guarantee money market mutual fund accounts against losses and the Federal Reserve also opened a never used money market funding facility to provide discount loans to money funds.

Consistent with recent events, the experience of the Great Depression indicates that security or wholesale-funded sources of external finance (e.g., commercial paper) are vulnerable to jumps in risk premiums during financial crises (Duca, forthcoming). When spreads between corporate and treasury bond yields jumped, real commercial paper outstanding fell 85 percent between July 1930