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The interbank market during a crisis

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Abstract

The autumn of 1998 provides a setting in which to test the performance of the interbank market during a potential financial crisis. This period witnessed Russia's effective default on its sovereign bonds and the near collapse of the hedge fund Long-Term Capital Management. Despite these negative shocks to bank capital and increased uncertainty in financial markets, the federal funds market still effectively channeled liquidity to those institutions in need at rates consistent with Federal Reserve intentions. Further, risk premiums on overnight lending were largely unaffected and lending volumes increased, suggesting that the federal funds market performed well during this period.

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1. Introduction

Interbank markets play at least two crucial roles in modern financial systems. First and foremost, it is in such markets that central banks actively intervene to guide their policy interest rates. Second, well functioning interbank markets effectively channel liquidity from institutions with a surplus of funds to those in need, allowing for more efficient financial intermediation. Thus, policymakers have an interest in having a financial system with a well functioning and robust interbank market, that is, one in which the central bank can achieve its desired rate of interest and one that allows institutions to efficiently trade liquidity.

This paper examines whether the federal funds market was sufficiently robust to achieve both of these policy objectives during the autumn of 1998.[1] This period

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[1] For a good discussion of the events surrounding the autumn of 1998, see Committee on the Global Financial System (1999).

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witnessed two major disruptions in financial markets. First, on August 17, Russia effectively defaulted on its sovereign debt. Shortly thereafter, on September 23, a private sector rescue of the hedge fund Long-Term Capital Management (LTCM) was facilitated by the Federal Reserve. Thus, the autumn of 1998 offers the most recent opportunity to examine the behavior of financial markets in a period where banks were conceivably exposed to large losses. Further, this period is also one where there was a large flight to both quality and liquidity. [2] It is precisely in such an environment that one might expect interbank markets not to function normally. That is, institutions might be expected to prefer the safety and liquidity of US government bills and bonds to the potentially risky investment of lending, especially unsecured, to another financial institution that may have been severely and adversely affected by the ongoing financial turmoil.

Although the events of late 1998 may not have been as severe as earlier US banking troubles, they suggest that the crisis was perceived by policymakers to be quite severe. First, there was the extraordinary central bank facilitation of the resolution of a non-bank institution. Second, the period witnessed three cuts in the Fed's target funds rate, including a rare instance of a cut between FOMC meetings. These events suggest that, at the time, the central bank itself was convinced that a significant risk of market breakdown existed.

Thus, the autumn of 1998 is a useful period to examine the federal funds market. To do so, we use unique data that identify all individual federal funds transactions made during 1998. From these data, the paper presents four main empirical results. First, the Federal Reserve was able to implement its desired interest rate policy. Interbank interest rates, in general, did not stray far from their intended level, although there is evidence of rate overshooting during July and August. Interest rate variability was largely unaffected as the crisis events materialized, although variability rose markedly following the Fed's intermeeting interest rate cut on October 15. Second, aggregate volume in the federal funds market was actually higher during the second half of 1998 than during the first. Volume was especially high shortly after the resolution of LTCM. Third, credit spreads in the interbank market did not behave in a way consistent with financial uncertainty. Spreads paid by institutions were often narrower during the crisis period. Finally, the interbank market seemingly allowed individual institutions to achieve their desired level of liquidity. Banks generally borrowed at least as much during the crisis period as before, although there is evidence that borrowing increased by more at safer institutions.

These findings suggest that the US federal funds market was robust to serious disruption and continued to allocate liquidity well during the financial crisis of 1998. Concerns that this market would fail as institutions sought safer investments during a period of greater uncertainty therefore seem to be at odds with events. The remainder of the paper is organized as follows. Section 2 reviews the literature that discusses the potential for interbank market failure. Section 3 describes the data used in this paper.

[2] Corporate bond spreads over government securities widened dramatically, as did the "off-the-run/on-the-run" spread in government bonds. See Bank for International Settlements (1999).