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Deposit insurance, bank regulation, and financial system risks

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Abstract

Empirical evidence is presented to show that in modern times banks can hedge liquidity shocks but could not do so prior to FDIC insurance. However, the government's limitations in properly pricing FDIC insurance are leading to many current examples of moral hazard. A model is presented to show that if insurance premiums are set to be "actuarially fair," incentives for banks to take excessive systematic risks remain. Motivated by empirical evidence that money market mutual funds also can hedge liquidity shocks, I consider an alternative government insurance system that mitigates distortions to risk-taking yet preserves liquidity hedging and information synergies.

JEL classification: G21; G22; G28

Keywords: Deposit insurance; Banking regulation

1. Introduction

The primary function of many financial contracts is to transfer risks from one set of individuals or institutions to another. Financial intermediaries and markets offer these contracts in the form of derivatives and other securities. In recent decades, information technology has driven financial innovations that greatly expand the opportunities for allocating risks. Along with the private sector, the federal government has been a long-time

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provider of insurance contracts that shift risk from private entities to taxpayers. The government's role as an insurer continues to be large despite the private financial developments that might be expected to supplant it.

This paper considers how the largest federal insurance program, deposit insurance, influences financial system risks. I focus on how the presence of this insurance changes the investment decisions of individuals, banks, and firms. While a government deposit guarantee may produce risk-sharing benefits, I argue that the current methods for pricing this guarantee and for regulating banks are leading to new forms of moral hazard that kill off efficient private financial innovations. Moral hazard is created because insurance mispricing and capital regulations have the effect of subsidizing systematic risks. I then explore the possibility that an alternative form of government insurance would reduce this moral hazard.

As a starting point, I present empirical evidence on how deposit insurance has influenced banks' ability to hedge liquidity risks. In particular, I re-examine the question of why banks appear to have an advantage in offering the off-balance sheet services of loan commitments and lines of credit. My evidence relates to recent research by Kashyap et al. (2002) (hereafter referred to as KRS) who present a model that explains why it is efficient for banks to simultaneously provide liquidity to borrowing firms in the form of loan commitments and to depositors in the form of demandable deposits. They show that under particular conditions, the coexistence of commitments to future lending and commitments to allow future withdraws of deposits creates an economy of scale that conserves on the amount of costly liquid assets that are needed to support these commitments. Using recent banking and financial market data, Gatev and Strahan (2006) (hereafter, referred to as GS) present empirical evidence that supports KRS's prediction of synergies in loan commitments and deposit taking.

I add to this research by showing that prior to the establishment of the Federal Deposit Insurance Corporation (FDIC), banks did not embody the synergy proposed by KRS. I do this by replicating some of the tests carried out by GS but using pre-FDIC data. My results cast doubt on the notion that banks efficiently provide liquidity due to their inherent financial structure. Rather, their ability to specialize in liquidity provision appears to be linked to the federal safety net provided by deposit insurance. Furthermore, I show that even in modern times, there may be financial institutions other than banks that can serve as conduits of liquidity to borrowers.

If the FDIC's backing is critical for banks' role in hedging liquidity risks, a natural question is whether the current system of deposit insurance and bank regulation is the best arrangement for providing liquidity or whether an alternative institutional structure would be better. To answer this, I begin by noting that it is difficult for a government to properly evaluate and price financial risks, particularly default risks that vary systematically over the business cycle. This makes it hard for a government to set insurance premiums without distorting banks' cost of financing. There is a natural tendency for governments to subsidize deposit insurance and require too little bank capital, even under risk-based capital standards such as Basel II.[1] The inefficiencies from this subsidization have been magnified due to recent U.S. legislation that expanded financial services firms' access to insured deposit financing. Moral hazard has been exacerbated and risk-reducing private financial innovations have been stifled.

[1]See Basel Committee on Banking Supervision (2004).