Shadow Banking and Bank Capital Regulation

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Summary

This paper offers a model of optimal banking regulation in the presence of regulatory arbitrage in an unregulated shadow banking system. The paper offers two modelling contributions:

1. It first builds a theory of bank capital regulation on the simple premises that the shareholders of banks, unlike those of other firms, internalize only a fraction of the total costs induced by a default on their liabilities. This in turn stems from the specific role of bank liabilities as money. Default by a given bank affects not only the depositors of this bank, but also other agents in the economy willing to trade with them using deposits as media of exchange. This implies that the optimal leverage of banks is lower than the one that bank shareholders would find privately optimal.

2. The paper then introduces regulatory arbitrage by simply assuming that the regulator cannot monitor all the markets in which bank assets are refinanced with money-like liabilities. The small, but important, difference between the regulated markets and the unregulated ones is that banks cannot commit not to use their material information about their assets in the latter because they are more opaque.

In this environment, if capital requirements are tightened, banks substitute dollars raised through their balance sheets with dollars raised through the shadow banking sector. Because they transfer more risk per dollar raised by doing so, tightening capital requirements is overall counterproductive. It leads to an increase in the effective total leverage on loan portfolios. This implies that the optimal capital requirement for licensed banks is lower in the presence of a shadow banking system than it would be if capital regulation was perfectly enforced.

This paper is an attempt at taking the possibility of imperfect enforcement seriously in a model of bank regulation. The motivation is that the banking industry devotes important resources to regulatory arbitrage, and that it is difficult for supervisors to match these resources. This has been particularly evident in the years leading to the 2008 crisis. There is little evidence that enforcement and supervision have been much strengthened by financial reforms since then. Regulatory arbitrage is thus likely to remain an important dimension of banking, and realistic economic models of financial regulation should take this dimension into account.