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Intervention in Systemic Banking Crises
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Intervention in Systemic Banking Crises – Summary

The consequences of systemic banking crises are severe as can be seen from the long recessions that often follow them. Governments and central banks intervene during banking crises to preserve financial stability and limit output losses. This thesis investigates how effective intervention measures are and what can be done to detect problems in the banking sector early. The common theme of all chapters is the problems related to undercapitalized banks. In the first two chapters, I analyze the effects of intervention measures targeted at distressed banks from the macro and micro perspective. Then I take a closer look at forbearance, one of the key problems characteristic for undercapitalized banks, asking whether it can be predicted from observable indicators at bank and country level. Finally, I compare two approaches for evaluating bank resilience, a stress test and a market implied measure of capital shortfall.

In Chapter 2, I analyze recessions related to systemic banking crises. Banks that continue to operate under regulatory forbearance despite being undercapitalized do not perform their intermediation role well. They are likely to turn into zombie banks that ration credit to new borrowers but continue to renew loans to insolvent borrowers to delay recognition of losses. Such behavior leads to inefficient allocation of resources and manifests itself in longer recessions. I find that recapitalizing distressed banks considerably mitigates these problems. It reduces the expected recession duration by almost a half. Other measures such as liquidity support, guarantees on bank liabilities, monetary and fiscal policy, which do not address the undercapitalization problem of banks directly, seem to be less effective.

In Chapter 3, I focus on the effects of bank recapitalizations at bank level. I find that after a distressed bank is recapitalized, it increases lending, attracts more deposits and is able to borrow more on the interbank market. It also cleans up its balance sheet, which is visible in a temporary increase in provisions for loan losses. However, these effects are only present if the recapitalization amount is large enough. Banks that receive a small recapitalization relative to their capital shortfall respond differently. They reduce lending and shrink assets presumably to improve their capital ratio. At the same time they experience an outflow of deposits and borrow less on the interbank market. These results suggest recapitalizations need to be large enough in order to achieve their desired effects.

In Chapter 4, I look at forbearance, a practice of extending or renewing loans to borrowers in distress. Forbearing on some borrowers can be economically justified. However, if it is extensive, which is often the case in banking crises, its purpose is likely to be to delay recognition of losses or gamble for resurrection. Because it is at the discretion of banks whether to forbear a loan or not, the extent of forbearance is difficult to measure. I use the outcomes of the asset quality review performed by the ECB in 2014 to construct measures of forbearance. The results, which show that adverse macroeconomic conditions, lax bank supervision and indicators of bank weakness predict the extent of forbearance across banks, point at the importance of the quality of bank supervision and sufficient capitalization of banks to prevent forbearance from becoming widespread.

In Chapter 5, I compare two approaches for assessing bank vulnerability to severe shocks. Stress tests conducted by central banks typically specify an adverse macroeconomic scenario, under which the losses on different asset classes are estimated. The losses are then aggregated and the

total impact on bank capital is computed. In contrast measures based on bank stock returns, such as SRISK, derive information about the expected loss of capital in a stress scenario from past stock returns. The comparison of the outcomes of the ECB/EBA 2014 stress test with SRISK shows that while the variation in losses across banks in the ECB/EBA stress test can be explained by macroeconomic conditions, bank balance sheet variables and market measures, the losses implied by SRISK are largely driven by the initial leverage ratio, which points at a possible large bias in favor of weakly capitalized banks and against banks with high initial capital. The advantage of measures based on market data is that they can be computed on a continuous basis but, as this analysis shows, they may miss on some very important risks.

This thesis shows that leaving banks undercapitalized can result in disastrous outcomes and that recapitalizations are effective. The need for bank recapitalizations from public funds can be reduced if regulators are able to force banks to issue equity on the market before their losses become too large. Identifying drivers of forbearance could help to detect problems in the banking sector early. Stress tests are also a crucial tool to assess bank vulnerability. It is important to check how stress tests and other measures of bank risk perform as them may have critical shortcomings. Carefully analyzing intervention measures and approaches for monitoring risk, can contribute to preventing the next crisis or to a better response when it occurs.