Banking on the average - a new way to regulate banks (17/02/09)

Hans Gersbach, Professor of Macroeconomics, Innovation and Policy at ETH Zurich proposes a new set of rules governing banks' capital requirements that will curb excessive risk-taking.

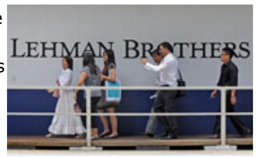
'The crisis now upon us has highlighted the deficiencies of the current regulatory framework, so it is necessary to do some radical rethinking on how to regulate banks and other financial institutions.'

There is ample evidence that banking crises are costly and it seems that the current crisis be the most costly ever. Accordingly, the fundamental options available for regulating the banking sector and preventing a future collapse of the system are a major focus of attention in both public and academic discussions.

Why regulate?

Any reform of capital regulation has to put its cards on the table. There are at least three rationales for imposing capital requirements (for a thorough analysis and discussion, see Hellwig 2008).

- Equity capital can act as a buffer against negative shocks, and hence against the risk of insolvency.
- Equity capital requirements can be justified as a tool for curbing excessive risk-taking by bank managers.
- Capital requirements might be used to allow supervisory intervention before the onset of bankruptcy.



Unfortunately, standard capital regulation cannot serve all three purposes. In particular, the first rationale stands in contradiction to the imposition of strict capital requirements based on the second or third rationale. Strictly enforcing capital requirements in each period makes it impossible to use bank equity as a buffer and may even increase a bank's insolvency risk by forcing it to sell assets when a crisis causes market prices to fall significantly below the value they would have under normal market conditions. In addition, risk-sensitive bank equity capital, the key principle of Basel II, amplifies pro-cyclicality of banking and induces many banks to cut lending back during a crisis. This is undesirable. As pointed out by Hellwig (2008), the key question for capital regulation is therefore how banks should adjust their assets and liabilities when losses have caused a decline in equity capital. Our proposal provides an answer.

A proposal

To permit banks to use their equity as a buffer while at the same time allowing for supervisory intervention and limiting excessive risk-taking, I propose a new way of determining capital requirements. The suggestion involves the following rules:

- Capital requirements are determined at the beginning of the calendar year and they should depend on the actual level of aggregate bank equity in relation to aggregate assets, or equivalently, individual bank equity should be based on average equity in the banking industry. During the calendar year, bank equity can be used as a buffer for negative shocks.
- Bank equity rules are given as follows:[i]

First, if average bank equity is relatively high, banks need high equity as well. Second, suppose that a negative macroeconomic shock or a steep decline in real estate prices has eaten into the equity of banks, so that average and individual bank equity is relatively low at the end of a calendar year. Then banks would be asked to recapitalize in the following year so as to build up their equity and have a new buffer at their disposal. It will be left to the banks how they adjust their balance sheets in order to satisfy the new capital requirements.[ii]

- A bank that is unable to recapitalize itself within a given time-frame may face liquidation, or if such actions threaten the entire financial system, it will be recapitalized and restructured.
- The whole scheme might be complemented by upward and downward adjustments of capital requirements, depending on whether a particular bank holds a high-risk or low-risk portfolio.
- In addition, capital requirements for large international banks may be based on the average equity capital in the group consisting of such financial institutions.
- If the number of banks in a country is extremely small, the country may use an international average of bank equity capital in countries that are good matches.[iii]

There are different institutional designs to implement this proposal. One possibility could be that national regulators execute the scheme, but there is international coordination on rules on how banks need to recapitalize themselves in case bank equity has declined. Moreover, a separate regime for large, internationally active banks is needed.

A brief assessment

The scheme can fulfil the three purposes of capital requirements. First, as the standard rationale suggests, forcing banks to have sufficient equity within a particular time-frame reduces excessive risk-taking. The scheme further curbs excessive risk-taking, as banks will face higher recapitalization requirements the next year if they behave less prudently than other banks.

Second, the scheme allows banks to use their equity as a buffer against credit losses or market downturns in a particular calendar year, coupled with the need to increase equity in a specific time-frame. To illustrate this, let us consider two scenarios. Suppose first that a bank is suffering losses during the calendar year, while other banks fare well. Then, the equity of the bank under consideration will be allowed to decline, but the bank faces requirements for a large recapitalization in the following calendar year, as average bank equity is high. Second, suppose that all banks are hit by a similar negative shock, such as a decline of GDP growth, a sharp dropping of real estate prices or an interest rate hike. All banks face demands for increasing their equity in the next period, after having been allowed to live for a short time with a drop in their equity. However, as average bank equity has declined as well, recapitalization requirements will be lower. In such circumstances, large and immediate recapitalization requirements, or even risk-sensitive capital requirements as implemented by Basel II, could trigger a systemic crisis, as many banks are forced to sell assets or need to reduce lending.

The scheme may have additional advantages. In particular, it may promote competition of banks to have a high level of equity, as no bank would like to be below average if such information is reported publicly. It is likely, however, that such reporting alone would not suffice to induce high bank equity levels. Furthermore, the proposed scheme will require international coordination in order to internalize positive and negative spillovers that would occur if countries independently decided on capital regulation and crisis management. However, the scheme may reinforce the positive effects of systems competition, as a country may want to have higher average bank equity than other countries.

Like any proposal to determine bank capital, it will require a careful fine-tuning with other branches of regulation of financial institutions, in particular with deposit insurance schemes, bankruptcy codes and competition laws. The current crisis has forcefully illustrated that governments will protect depositors in the case of a system-wide collapse. Thus, it might be useful to combine the proposed equity capital regulation with an explicit deposit insurance scheme.
Finally, the principle of banking on the average could also be applied to other ways that have been proposed to reduce systemic risk. Of course, like other regulatory approaches, banking on average is no panacea, as systemic risks have no perfect remedy.

Conclusions

The crisis now upon us has highlighted the deficiencies of the current regulatory framework, so it is necessary to do some radical rethinking on how to regulate banks and other financial institutions. Using actual average bank equity capital to determine the regulatory capital of an individual bank is an avenue well worth exploring.

Footnotes

[i] A complete description of the rules is available upon request. The individual capital requirement for a given bank can be described as a function of the current average equity and of this bank's current equity.

[ii] One might also consider using different time-frames for different banks to stagger the adjustments of balance sheets of banks in such circumstances.

[iii] If a country with a very small number of banks applied the scheme using the national average, a bank's choices today would have a major impact on the average equity capital in the future and hence on the capital requirements of the bank under consideration. This could lead to more risk-taking.

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