

Bank Capital Requirements, Profitability, and Pricing

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1. Banks price off the overall cost of funds (equity plus deposits plus debt etc) which includes a target roe (cost of equity). (Verification: when deposit and/or debt interest rates change, bank loan rates change).
2. A higher capital requirement means more use of equity which, if the target roe doesn't change (and is higher than cost of deposits & debt - which it is) would increase the overall cost of funds. But,
3. Higher capital (lower leverage) should reduce the required return on equity of shareholders due to the lower risk of equity - and in the extreme MM (Modigliani-Miller) case of perfect markets, by sufficient to keep the overall cost of funds constant.
4. In a competitive banking system, the target roe of bank management should adjust to the now lower required return on equity. If, after higher capital requirements, bank management doesn't adjust it in that way (and thus operates off a higher cost of overall funds incorporating a constant target roe, and thus sets higher loan interest rates), other competitors will see an opportunity to price loans at a slightly lower rate and still achieve the shareholders' required return on equity or better. The forces of competition should drive target roe's down by the same amount as the required return of shareholders, keeping overall cost of funds constant and loan pricing constant.
5. Keeping loan pricing and thus roa near constant (it increases a little because there is less interest expense due to less deposit funding) with lower leverage reduces the actual roe the banks achieve (holding deposit/debt interest rates constant). But since the required return of shareholders has fallen equivalently (due to lower risk), this should have no effect on the market valuation of bank equity.

That's the theory - why might it not work that way. Most obviously, MM doesn't hold completely which is definitely the case - but then we need to ask why not (and does that

indicate particular market imperfections which warrant addressing by policy makers) and by how much (in order to determine how significant the implied costs of higher capital requirements might be). The relevant issues are:

1. Double taxation of dividends under a classical tax system (as in most of the rest of the world) gives a tax gain from leverage due to deductibility of interest expense at the corporate level - but dividend imputation removes most of any such effect in Australia.
2. There is an implicit subsidy in the cost of bank deposits/debt due to implicit government guarantees (and bank cost of debt/deposit funds not fully reflecting inherent risk) and the value of that subsidy increases with the degree of leverage. Hence banks don't want to reduce leverage - but their gain is at the expense of the taxpayer as provider of that free guarantee, so higher capital (lower leverage) involves a private - but not a social - cost.
3. Bank shareholders may not lower their required returns on equity to reflect the lower risk of equity. Possible - but then we need to question the whole rationale for relying on markets to discipline management, and efficient allocation of capital, and the case for free markets! Perhaps this could reflect the opaque nature of banks and the inability of shareholders to assess bank risk. Better disclosure might help, but only marginally I suspect - but this again weakens the case for reliance on market discipline.
4. Bank managers might be unwilling to lower the target roe (and thus eventually achieve lower actual roe) because their remuneration is based partly on roe achieved. This may well be so, but it implies a failing in bank remuneration policies - performance should be based on roe achieved relative to the required return of shareholders (EVA for example incorporates this, but my recent discussions with bankers suggests that this has fallen out of favour and replaced by "balanced scorecards").
5. There may be inadequate competition in banking such that bank management may be shielded from market pressure to lower target roe's. If higher capital requirements don't reduce actual roe's that would be a prima facie case of inadequate competition.
6. (A complication in all of this is that bank target roe's are based on the book value of equity, and shareholder required rates of return are based on market value of equity - but that

does not affect the argument other than requiring a scaling factor between the two).

So, it maybe that there are private (and maybe social) costs from requiring higher capital - but if so they reflect distortions in the financial system which should perhaps be rectified (and we should address), rather than using them as a rationale for opposing high capital requirements.