




*Globalisation and the limits on national
capital adequacy policies – a small country
perspective*

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**Ian Harrison, Special Adviser, Reserve Bank of
New Zealand**



The opinions expressed in this presentation are those of the author and do not necessarily reflect those of the Reserve Bank of New Zealand



The international financial crisis and bank capital adequacy

- A common regulatory response to the international crisis is to seek to improve banks' capital adequacy
- Capital adequacy can be enhanced by:
 - increasing the 'headline' capital adequacy ratio (say from 8 to 10 percent)
 - improving the quality of capital (tier one vs. tier two)
 - increasing risk weights for Basel II advanced banks
- New Zealand has taken significant steps on the last of these
 - average housing risk weights 30% vs. 20% for Australia; 10-15 % for UK
 - farm lending risk weights to be materially increased
 - tougher treatment of credit card lending



Is this the optimal policy response?

- The ‘conventional wisdom’; equity is expensive
- The theory: MM1 - equity is not expensive
- Socially optimal level of capital
- What about the real world where risk is poorly understood?
- What difference does small host country status make?
- What difference does the international financial crisis make?



The conventional ‘wisdom’

- There is a fixed required rate of return to equity capital
- An increase in equity due to regulation has to be paid for at the fixed rate
- This translates into an increase in borrowing costs

Thus :

If the required rate of return is 15% (8% above the risk free rate) and the tier one capital ratio is increased from 6 % to 9 % then the risk charge on a loan with a 100% risk weight increases from around 50 b.p. to 75 b.p.


- Are the stability benefits from higher capital worth the permanent increase in borrowing costs?



The theoretical answer : MM1 rules

MM1 (Modigliani –Miller proposition one) means that:

- Given certain assumptions (no tax, perfect competition, symmetric information, zero transactions and bankruptcy costs) then
- The value of a firm is determined solely by the value of its assets
- The split between equity and debt funding doesn't matter
- The marginal cost of debt and equity is the same –equity is not expensive



“The cost of equity is not a fixed number: its a function that depends both on the risk of a firm’s earning assets and the degree of leverage in the firm’s structure”

*Merton Miller ‘Do the M&M propositions apply to banks’
Journal of Banking and Finance (2004)*



Impact of a regulatory capital increase

- Equity capital is safer and the required return falls
- Deposits are safer and the deposit rate falls
- The weighted average costs of funds is unchanged
- There is no impact on the quantity or pricing of bank loans



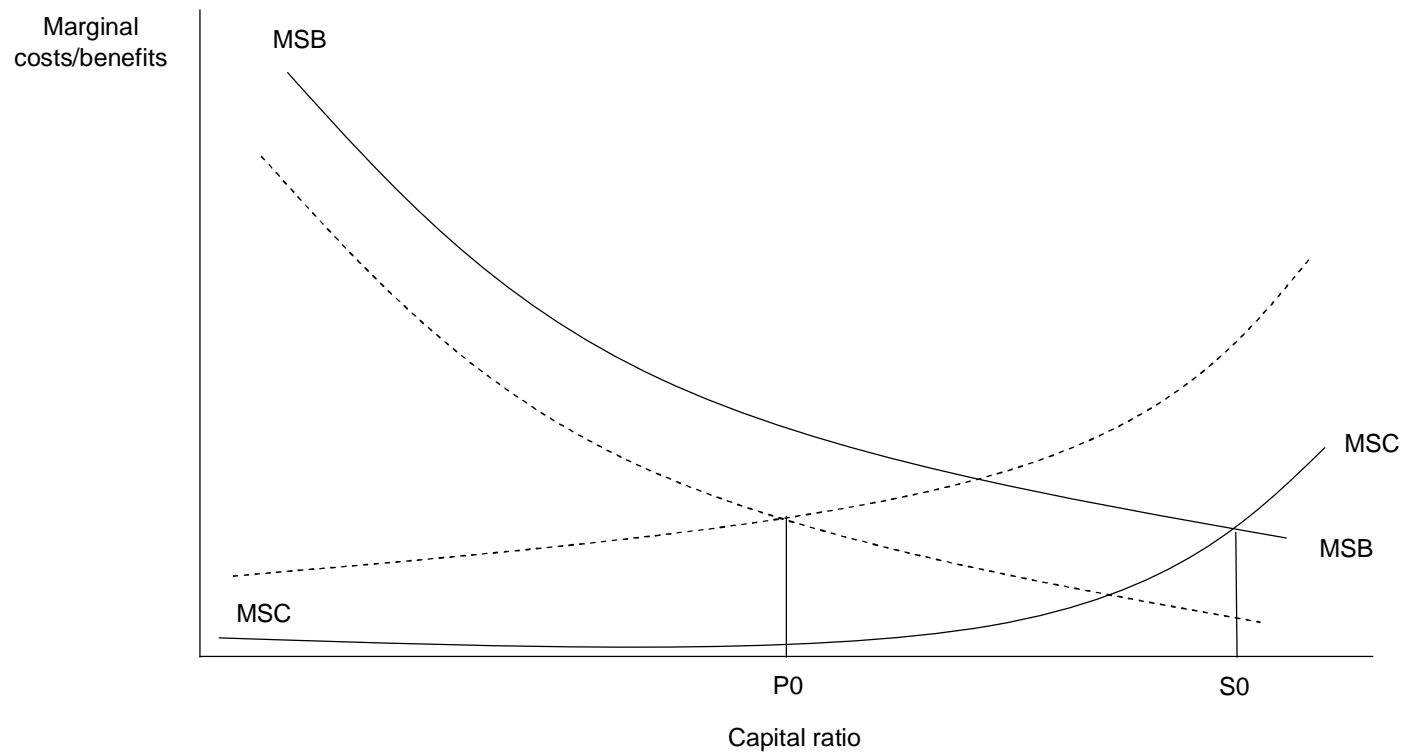
Socially optimal level of capital – closed economy case


- Privately optimal level of capital driven by taxation, explicit or implicit deposit insurance, bankruptcy costs, preferred habitats
- Taxation and deposit insurance fall out as socially optimal capital drivers
- Preferred habitat effect likely to reduce over time

Conclusion

- The social cost of capital is low provided increases are moderate
- There may be some impact on loan pricing as implicit subsidies though guarantees are reduced

Socially and privately optimal levels of capital





Impact of 'real world' understanding of risk

- MM1 assumes risk is understood, correctly measured and priced independently of the regulatory measure of capital
- The fixed cost of capital model is embedded in bankers thinking and in some accountability and measurement structures
- When true risk is poorly understood the fall back can be to rules of thumb (such as ROE) and risk proxies such as regulatory capital
- These can drive behaviour and pricing in the short run even if they are eventually driven out by more efficient pricing

So

Regulation might have an impact on pricing, at least in the short term



New Zealand financial market connections to international risk markets

- Domestic financial institutions have weak connections to international equity and debt markets
- Corporates have weak connections to international bond markets
- Australian banks operating as subsidiaries dominate the banking sector

Thus

- Primary linkage to the international risk market is through banks' internal rules rather than through the market
- No direct access to equity markets
- The above makes impact of regulatory capital changes harder to predict
- Banks may have quantitative as well as price responses
- May have incentive and capacity to game



Impact of foreign ownership on host capital adequacies strategies

Game theoretic framework gives many possibilities

Example 1

- Host/home distress not strongly correlated
- High expectation of parental support for subsidiary
- Risk pricing driven by regulatory capital

Then

- Host supervisor has incentive to let local subsidiary understate risk
- Costs shifted to foreign government



Impact of the international financial crisis

- Less competition from domestic financial institutions
- Less competition from second tier foreign banks
- Big four Australian banks looking to conserve capital

Thus

- Australian banks better positioned to widen margins
- Have already done so
- Could a change in regulatory capital lead to further increases?



Financial crisis has made environment clearer

- Key shocks will be correlated
- The buck stops at the border – government insurance does not extend to overseas subsidiaries
- The New Zealand government has had to assume much of the tail risk associated with foreign banks operating in New Zealand
- If risk cannot be shifted capital adequacy (and capital on the ground) becomes more important



Conclusions

- Best host strategy to improve capital adequacy
- Still makes sense to rely on long run properties of capital markets to deliver efficient results
- Deleveraging process will involve scaling back of banks' return assumptions
- Small host country may have limited influence on those expectations
- Some risk that getting too far ahead of the international regulatory pack could encourage mispricing of risk in host markets
- The intellectual environment is improving – FSA analysis of capital now based around MM1
- Important that capital regulation is based on sound analysis