Management views about desired capital: 
The case of UK banks and building societies

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Received: 21st May, 2004

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ABSTRACT
KEYWORDS: banks, building societies, capital requirements

This paper presents the findings of a survey of UK banks and building societies undertaken to understand management’s reasons behind their decisions about capital. The survey shows that: (a) firms use different approaches to form their views about ‘desired’ capital; (b) the main factors explaining the level of a firm’s desired capital are financing the firm’s long-term business strategy and FSA’s capital requirements; (c) actual capital usually exceeds firms’ desired capital; (d) a change in a firm’s individual capital requirements is likely to lead to a change in its desired capital in the medium term. The paper reflects the authors’ views and not the corporate views of the FSA.

INTRODUCTION

This paper presents the findings of a survey of UK banks and building societies undertaken in the context of broader work on the determinants of their holdings of capital in excess of the FSA’s capital requirements (excess capital). The term ‘firm’ is used to refer to banks and building societies.

The aim of the survey was to understand the management reasoning behind the firm’s observed excess capital. Alfon et al.1 discussed the potential reasons to hold excess capital, providing the starting point for the survey.

This paper is structured as follows: it starts by describing the approach adopted for the survey, the sample of firms and the wider context of the survey are reviewed. The results obtained are then discussed in relation to desired capital, actual capital and reactions to changes potentially affecting capital and, finally, the conclusions are summarised.

APPROACH ADOPTED

Many factors affect decisions on capital at a point in time. To make the survey manageable, the discussions about the determinants of capital have been divided between:

—— ‘desired’ capital, that is, how much capital the firm desires to hold, given the regulatory capital requirement
—— ‘actual’ capital, that is how much capital the firm actually holds and how it differs from desired capital.

A short questionnaire, ten questions, that asked about these issues was put together (a
firms that took into account other requests for information from the FSA. These firms were then asked whether they would be willing to participate in the survey. Those firms that agreed to participate returned the completed questionnaire. The sample includes 13 large and medium-sized firms (eight banks and five building societies). A sample of this size may not be statistically representative but it should provide an indication of management perspectives.

CONTEXT OF THE SURVEY
It is useful to identify the main contextual elements that may have conditioned firms’ responses. First, within individual firms there are different views about capital. Marten.2 These could well result in different views about, for example, how much capital the firm ought to have. The authors have not sought to control for these different views. They asked for management’s views, which should represent the firm’s consensus of the different views on the subject.

Secondly, banks and building societies appear to have different objectives and therefore treat capital differently. For banks, capital would need to be remunerated at the going market rate. Building societies would want to manage their capital resources effectively for the benefit of their members but there is no market for pricing building society membership.

Thirdly, market conditions in banking are changing. So, for example, firms said that there is now more intense competition in product markets and that they would find it difficult to widen the margin between borrowing and lending to enhance the firm’s capital position.

DESIRE CAPITAL
How does management specify desired capital?
All 13 firms define desired capital in relation to the regulatory concept of risk-
weighted assets. There are, however, certain differences between firms: banks define desired capital in relation to different forms of Tier 1 capital. The discussions suggest possible explanations:

- equity markets focus on Tier 1 capital
- the complexity of the firm’s capital structure, where firms need to balance the costs of Tier 1 and Tier 2 capital, would mean that desired capital cannot be specified simply in terms of total capital
- other capital ratios set by the FSA depend on the amount of Tier 1 capital; for example, the amount of Tier 2 subordinated debt should not exceed 50 per cent of the amount of Tier 1 capital
- the perception that there is a more limited supply of Tier 1 capital than Tier 2 capital.

What is the level of desired capital?
Firms were asked for their current level of desired capital to set alongside observations of actual capital.

As shown in Figure 1, as at the end of 2002 most of the interviewed firms had more capital than their desired level, which in turn was more than the individual regulatory requirement. (The Figure is based on firm’s capital as at the end of 2002 or, if that was unavailable, as at the nearest subsequent date.) In particular, the interviewed firms held on average 18 per cent more capital than their declared ‘desired level’. However, the relationship between actual and desired capital may fluctuate over the cycle.

What is the relationship between required and desired capital?
Two alternative ways of setting desired capital are considered here. First, a firm could specify its desired capital as an add-on to the capital requirement set by the regulators. Of course, the resulting level of capital would need to satisfy the various stakeholders such as bondholders. So, in this case, desired capital results from the sum of regulatory capital requirement and a buffer.

Alternatively, a firm could assess risks and impute a level of capital to the various businesses in a way that takes into account the existence of a regulatory capital requirement that must be exceeded at all times. Aggregating these levels of capital
would give the firm's desired level of capital. So, in this case, the buffer over capital requirement is a residual and desired capital is defined on its own. It is worth noting that this approach is not necessarily about 'economic capital', which typically refers to an approach to allocate a given level of capital resources to various businesses.

These two approaches to determining desired capital resemble the two interpretations of prudential regulation discussed in Milne: a hard-wired approach and an incentive approach. The first approach represents a situation where regulatory capital acts as a constraint for a firm’s decision. The second one represents a situation where regulatory capital affects banks' choices through the sanctions that arise from a breach of capital requirements. Milne's analysis explores this and suggests that a firm’s reaction to a change in capital requirements will depend on the probability of breaching the regulatory capital over the relevant planning horizon. If so, firms with excess capital may react more to a given change in capital requirements.

Nine of the 13 firms in the sample said that they form their views about desired capital by adding extra capital to the regulatory required level. Two of them acknowledged that they were in the process of shifting to the alternative approach of setting desired capital by assessing risks. (The other seven firms are presumably not changing how they determine their views about desired capital.) Small firms typically form their view about desired capital by adding to the regulatory capital. Large firms typically form their views about desired capital by assessing the risks. (These are three (of the four) large banks in the sample. The other large bank is one of those that said to be in the process of shifting to an assessment of risks. It is also worth noting that the fourth firm that forms its views about desired capital by assessing risks could be described as a 'new entrant' so history might also be an influencing factor.)

What are the determinants of desired capital?

Alfon et al. identified three main categories of possible determinants of capital holdings: regulatory intervention, market discipline and management explanations. (These three categories of possible explanations are not independent. For example, market discipline and the extent to which management can be replaced if it fails to perform will undoubtedly affect the management explanations.) Firms were asked to specify whether each potential determinant of desired capital was very important, important, not important or not relevant. (In the questionnaire, the 12 potential reasons were listed in alphabetic order to avoid a potential bias arising from a perception that they were ordered according to a predetermined view of their importance. Firms were also given the possibility of adding and scoring another potential reason(s) and none of them added other reasons.)

Regulatory intervention

All firms said that they regarded avoiding 'the consequences of a potential breach of regulatory capital' as very important. A survey by PricewaterhouseCoopers reports a similar result from a sample of internationally active banks in Europe. (Their survey focuses on Pillar 2 and asks, among other things, about the determinants of capital in excess of the minimum required amount. About 80 per cent of respondents identified avoiding a breach of capital requirements as very important or important.) In the subsequent discussion, firms identified various explanations for their answers such as a view that capital requirements are regarded as the absolute minimum and a perception that there would be direct consequences for the firm's senior management.
Market discipline

These potential determinants are related to the information asymmetries between a firm and those providing either funds or capital and to the role of competition.

Desired capital may be affected by management intentions to maintain the firm’s credit rating. (Twelve of the 13 firms in the sample have a credit rating. One building society was not rated.) Of the 13 firms in the sample, five regarded this as a very important factor in determining desired capital and seven ranked it as an important factor. This is particularly the case where the firm relies heavily on non-retail funding. It was also noted that where a firm’s strategy changes, its rating may not be consistent with the new strategy. More generally, rating agencies’ published methodologies emphasise that they take account of more than just the firm’s level of capital — a point acknowledged by other stakeholders. For example, Matten finds that the correlation between capital (measured as Tier 1 ratio) and banks’ ratings is very limited. He concludes that the most that can be ascertained in the case of one rating agency is that there may be a negative causality: high capital ratios do not seem to lead to high credit ratings but low capital ratios seem to lead to low credit ratings.

Ten out of the 13 firms interviewed regarded peer pressure as, at least, an important determinant of desired capital. Of these, six were banks and four were building societies. For most of the large firms, peer pressure was an important factor. The subsequent discussions suggest that, broadly speaking, responses represent firms’ perception about how providers of capital and funds will make their decisions. Another possible determinant of desired capital was firms’ desire to access markets that rely heavily on the credit risk of counterparties. For example, a bank’s participation in over-the-counter markets to hedge risks or trade on its own account may be affected by its capitalisation. This determinant was generally regarded as at least important: eight out of the 13 firms interviewed regarded it as very important or important. Firms made few specific comments in the discussions however. From the discussions, the authors believe that this may be because:

- access to capital markets is related to credit ratings; if so, views about accessing markets will be subsumed within the views about ratings
- of existing views about a sector (eg building societies); at the margin, these views would make a firm’s decision about (desired) capital less relevant.

Finally, capital was not regarded as the means of addressing the information asymmetries between firms and providers of capital and funds. This suggests that other means of addressing these information asymmetries, such as disclosures and covenants could be more effective than extra capital. (One firm said this had been an issue for them in the past and that as a result their target Tier 1 capital had been 75 basis points higher than at the time of the survey.)

Management explanations

These refer to determinants of desired capital related to management’s behaviour as an agent of shareholders (or members of a building society).

Unsurprisingly, financing the firm’s long-term strategy was regarded as the most important determinant of desired capital. Of the 13 firms in the sample, six regarded this as very important and six as an important factor. Small firms are more likely to see this as very important than large firms. The discussions suggest that the importance of financing the long-term strategy arises from the market’s expectation that the firm should be able to finance
its expected growth from retained earnings. Related influences, which may vary from firm to firm, are the importance of maintaining a degree of operational flexibility and the extent of pre-funding future acquisitions. Although banks have access to equity markets to raise capital their views are very similar to those of building societies, which do not.

Funding the business was also regarded as an important determinant of desired capital. Of the 13 firms in the sample, five regarded this as very important and seven as an important factor. From the discussions, it is understood that these views are related to the firm's strategy and its overall approach to funding the business. For example, a firm's reliance on non-retail deposits appears to be a factor affecting desired capital: in the short term, the issue is one of costs; in the medium to long term, firms want to develop a range of funding options that would support their strategies.

Maintaining a cushion against the effect of an economic downturn and reflecting the risks to the business were also regarded as important influences on the level of desired capital. Somewhat oddly, large firms tend to regard these as more important than small firms. Few specific comments were made during the discussions about these issues. One possibility is that firms regard both of them as pre-conditions for their long-term strategy because a failure to take these into account might result in the firm's demise. This explanation, if correct, suggests that firms aim to offset the procyclicality of capital — at least a point in time. Limiting procyclicality effectively, however, would also require that capital changes over time as suggested in Burio et al. \(^7\)

Another potential determinant of desired capital was a possible trade-off between holding capital on one hand, and investment in improving risk management and internal systems and controls on the other hand. This trade-off is not simple: markets reward banks for better risk management but also for being well capitalised. Of the 13 firms in the sample, nine regarded this trade-off as, at least, an important factor. Large firms are likely to view the trade-off as more important than small firms. In the discussions with firms, specific examples of this trade-off were sought but they were limited.

**ACTUAL CAPITAL**

The survey addressed two issues about firms' actual capital: the difference between desired and actual capital and the identification of the main reasons for that difference.

**What are the potential determinants of the difference between desired and actual capital?**

Ten of the 13 firms in the sample said that actual capital usually exceeds their desired capital. The approaches to determining desired capital mentioned earlier might affect the difference between desired and actual capital. For firms determining views about desired capital by assessing risks the difference between actual and desired capital is smaller than for firms determining their views by adding capital to the capital requirement. On average, the difference is 1.2 and 2.6 percentage points, respectively. (It is not possible to establish the direction of causality. It is not known whether firms that have a limited amount of capital choose to form their views about desired capital by assessing the risks or whether the approach to assessing the risks affects the quantum of capital.) In addition, firms were asked to rank various factors for the difference between desired and actual capital. Adjustment costs, inertia, and economic shocks were discussed. (Two of the eight banks did not answer this question.)
Adjustment costs
Nine of the 11 firms said that the main reason for holding more than the desired level of capital was the cost of adjusting the level of capital for example, reducing their capital and then increasing it when required. Banks pointed out that this included the indirect costs arising from movements in share price when equity capital is issued. The responses seem to support the view that adjustment costs, including these indirect costs, make it costly for firms to adjust smoothly the level of equity capital. Banks also explained that as a result of these adjustment costs actual capital may exceed desired capital for a period if there are opportunities to raise capital before it is required by the business. These cases will, however, be limited as capital markets expect firms to finance growth through retained profits.

Building societies, in particular the small ones, also responded that the cost of adjusting the level of actual capital by raising extra capital presumably, Tier 2 - at short notice was extremely expensive. This may also reflect certain costs associated with raising capital that are independent of the amount raised.

Differences are found in the importance of the cost of raising extra capital between firms. For example, firms setting the level of desired capital by adding to capital requirements tend to regard the costs of capital as not important.

Economic shocks
‘Unexpected events in the economy affecting all firms’ was rated as (at least) important by four out of the six banks — three of these were large banks. This suggests that they hold extra capital to reduce the likelihood of either changing the business in a material way or raising capital when economic conditions are less than ideal. Four out of the five building societies in the sample thought this was not an important determinant of the difference between actual and desired capital. It is also found that economic shocks are more likely to be an important influence for firms that form views about desired capital by assessing risks.

Inertia
Firms were also asked whether historical legacy affected the actual level of capital, ie whether previous levels of capital were an influence on the current level held. Four out of six banks rated this as either not important or not relevant. This included three of the largest four banks in the sample. The responses are consistent with banks needing to remunerate capital at the going market rate and, therefore, have reduced incentives to hold excessive amounts of capital over a protracted period of time.

Two building societies rated historical legacy as an important factor. The other three thought that it was not an important factor and made references to business strategies that used excess capital for the benefit of their members.

REACTIONS TO CHANGES
POTENTIALLY AFFECTING CAPITAL
Views about the likely response to an unexpected reduction in capital, a ratings downgrade and changes in capital requirements were explored.

What would be the stakeholders’ likely reaction to an unexpected reduction in a firm’s actual capital?
Firms were asked to rank the likelihood of different reactions of stakeholders to an unexpected reduction in actual capital. Figures 2 and 3 show the responses. (One bank did not answer this question and another one did not say whether it would affect the share price.)
Banks thought that the most likely reaction from an unexpected reduction in actual capital would be a review of their rating. The majority of firms explained that the extent of the rating agencies’ reaction would depend on the cause and materiality of the unexpected reduction. For example:

- a one-off event would be less likely to lead to a review of ratings if the event does not alter expectations of future profits; in this case, the event may result in a limited increase in funding costs
- if other firms in the industry were similarly affected, a revision of ratings was regarded as more likely and the overall impact would be wider than an increase in the cost of funding.

More banks than building societies in the sample thought that changes in the credit rating were, at least, a likely reaction. The discussion suggested that this difference may be diminishing over time: building societies saw credit ratings as increasing in importance. As a result, two of the building societies now rated on the basis of

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**Figure 2** Reaction to an unexpected reduction in actual capital (Number of banks)

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**Figure 3** Reaction to an unexpected reduction in actual capital (Number of building societies)

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public data were in the process of obtaining a solicited rating.

**How would firms respond to a rating downgrade?**

A separate question asked firms to rank the likelihood of reactions to a rating downgrade. The focus is on the following reactions: changes in desired capital, in capital held and in risk-weighted assets (as a proxy for changing the business), in the short term and in the medium term. (A distinction is made between a decision to change interest rates and fees of existing business leading to higher profits (if competitive pressures allow for such a decision) and an increase in capital -- other things being equal and a decision to pull out or sell some business leading to a reduction in risk-weighted assets. The first is covered under a change in actual capital. The second one is referred to as a change in the business or in the firm’s portfolio of activity.) Figures 4, 5, and 6 show the responses. (One firm did not answer this question and another one did not provide an answer on the effect on desired and actual capital.)

Most of banks’ reactions to a downgrade would arise in the medium term in line with the comments made by rating agen-
cies and equity analyst. Banks also saw the consequences of a change in rating as varying, depending on the initial rating. For example, they explained that a downgrade from AA to A would be different from the consequences of a downgrade below A. The latter would matter, in particular, for derivatives business. The subsequent discussion also confirmed that those banks that rely heavily on wholesale funding were more sensitive to changes in the rating than those that did not.

Rating agencies and equity analysts commented that banks’ reaction to a downgrade would vary. In their experience it was not obvious ex ante whether a bank would raise extra capital, change the business or both. The choice would depend on the underlying causes that lead to the downgrade. Given banks’ preference to access capital markets as a last resort, it seems more likely, however, that they will choose to restructure the business to release capital. The Economist suggests an example of this course of action: the decision of a German bank to sell part of its Austrian subsidiary to improve its capital position.

All except one of the building societies were rated. Most of them (and especially the small societies in the sample) did not appear, however, to be very sensitive to changes to their rating — presumably because most of their funding came from retail deposits.

What would firms’ likely reactions be to changes in capital requirements?

A firm can respond in a variety of ways. The focus was to understand if there is an order of preference between changing capital and changing the business.

The authors asked separately about changes in the FSA’s individual capital requirement and about the changes in the relative amounts of capital required for specific transactions (e.g., the potential
Figure 7: Reaction to changes in individual capital requirements — change in desired capital (Number of firms)

- Change by the same proportion in the short and medium term
- No change in the short term and change in the medium term by a larger proportion
- Change in the short term and medium term by a smaller proportion
- No change in the short and medium term

(a) Banks (b) Building Societies

Figure 8: Reaction to changes in individual capital requirements — change in actual capital (Number of firms)

- Change by the same proportion of less in the short term and remain at that level
- No change in the short term and different changes in the medium term
- No change in the short and medium term

(a) Banks (b) Building Societies

Figure 9: Reaction to changes in individual capital requirements — change in risk-weighted assets (Number of firms)

- No change in the short and medium term
- Change by the same proportion

(a) Banks (b) Building Societies

changes in regulatory risk-weights from the implementation of Basel II. In each case, firms were asked about the effect on desired capital, capital held and risk-weighted assets (as a proxy for changing the business) in the short term and in the medium term. Figures 7, 8 and 9 show the responses:

- half of the banks said they would change desired capital in the same direction in the medium term; most building societies said they would change the desired capital in the same proportion in the short term
- changes in actual capital are more likely in building societies than banks
- firms are unlikely to change the business.

The responses about desired capital shed further light on how firms determine desired capital. It suggests that even if desired capital is determined by adding a buffer to capital requirements, changes in capital requirements will not necessarily change desired capital. The responses are also consistent with the econometric evidence from Ediz et al. They find that banks are more likely to adjust their capital ratios by boosting their capital rather than by significantly relying on asset substitution.

The discussion with firms revealed that the reaction would be conditioned by various factors:

- many firms in the sample had not experienced a recent change in individual capital requirements so there was no direct experience behind their responses
- if the change in the individual capital requirement was perceived as permanent, a reaction was more likely and may be more intense
- most stakeholders do not observe the
change in the firm’s individual capital requirement.

Reflecting these influences, firms made some additional comments:

- Capital should be enough to insulate the business from the need to make rapid adjustments
- Banks will only raise fresh equity as a last resort
- The scope for changing the business, other than the rate of growth of the business, may be limited.

Firms were also asked how the changes in regulatory risk-weights arising from the implementation of Basel II (Pillar 1) would affect capital requirements. This is different from the previous question in that these changes may affect the relative costs of products in different ways potentially leading to portfolio effects. (Portfolio effects mean that firms will change the types of assets eg more mortgages and less unsecured loans. These effects may also arise from a change in individual capital requirements. The difference is between an overall change in capital requirements and changes in the specific capital requirement for different products.)

From the questionnaire and the discussions, it is understood that six firms out of the 13 take the view that the new Pillars 1 requirements would result in a reduction in the amount of capital that they need to support the current business. All of them said that the effect of this overall reduction in capital requirements would be to reduce desired and actual capital in the medium term. This was obviously qualified by comments about a view of the relevant stakeholders that less capital was required. (Of the remaining seven firms, three suggested that the capital requirement will not change but one of them was expressing a judgment about the combined effect of Pillars 1 and 2. Four other firms did not express a clear view on the subject.) Five of the firms also said that the overall reduction in their capital requirements would affect the distribution of assets in the medium term but it was not clear how the change may materialise. It was noted that growth strategies could be affected if products are priced more accurately and, as a result, price competition is more intense.

CONCLUSIONS

The main factors explaining a firm’s level of desired capital are the requirement for financing the firm’s long-term business strategy and the FSA’s capital requirements. Firms, in particular those more dependent on non-retail funding, also regard their expectations in terms of ratings as important.

More than half of the firms in the sample set their desired capital in terms of Tier 1 capital ratios. Firms use two different approaches to form their views about desired capital: either adding to the capital requirement or assessing risks and imputing a level of capital to the various risks they face and then verifying that the result meets the capital requirement.

Actual capital usually exceeds firms’ desired capital. The main determinants of the positive difference between desired capital and actual capital are the costs of raising further equity capital, and protection against unexpected shocks in the economy and in the firm. The survey finds limited evidence to suggest that actual capital is determined by historical legacy.

For those firms that form their views about desired capital by assessing the risks, the difference between actual and desired capital is smaller than for firms that form their views about desired capital by adding to regulatory capital.

A change in a firm’s individual capital requirement is likely to lead to a change in desired capital in the medium term. Actual
capital of building societies is more likely to change in response to a change in capital requirements than the actual capital of banks. A change in regulatory risk-weights of different assets is likely to lead to changes in the distribution of business in the medium term.

Banking is a fluid business and there is always a risk that the views at a particular point in time captured by a survey may soon change. The changes in capital requirements and prudential regulation resulting from the implementation of the Basel II in the European Union might change the relative importance of the determinants of desired capital identified here.

Acknowledgment
This paper draws on the authors' paper 'What determines how much capital is held by UK banks and building societies'. The authors are grateful to Clive Briault, Malcolm Cook, Peter Edmonds, Nadege Genetay, James McGregor, Jesús Saurina, Sarah Smith and Andrew Sykes for their help and comments at different stages of the project; to the senior staff of the banks and building societies that took part in the qualitative analysis that underpins this analysis; to the senior staff of rating firms and equity analysts who gave their time; and to the authors' colleagues in FSA supervision who helped with the survey.

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References
(4) Alfons et al. (2004), op. cit.
(5) PricewaterhouseCoopers (2003) 'Basel... hopes and fears. A European banking view of the practical application of Pillar 2'.
(6) Matten (2001) op. cit.