Keywords: market risk premium, weighted average cost of capital (WACC), cost of equity, global financial crisis.

'ADJUSTING THE MARKET RISK PREMIUM TO REFLECT THE GLOBAL FINANCIAL CRISIS' — A REJOINDER

This rejoinder addresses the comments by Martin Hall in his response to our paper. We do not see the matters raised in his response as leading to a 'fundamental (and presently insurmountable) mismatch' between a short-term view and a long-term view. We believe it is incorrect to assume that the MRP is constant over time and that the long term does not reflect the series of short terms that it comprises.

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Our detailed response to the comments on our paper follows the same five headings as used by Hall. As a general rule, we have not repeated the comments so this should be read in conjunction with Hall's paper (pp. 11–14).

The paper has an underlying inconsistency

Hall suggests that there is a fundamental inconsistency when using short-term data to estimate a long-term parameter. First, we note that there is nothing in the Capital Asset Pricing Model, or in its practical application, that defines the forward market risk premium (MRP) to be either long term or stable. Second, the long term is just a series of short terms. Our paper suggests transitioning a short-term view of the MRP to a long-term average, thereby reflecting consistency across time, rather than creating an inconsistency as Hall suggests. Unless he would argue that all investments have an infinite horizon, the shorter-term view is important to decision making.

The difference between the MRP derived from our recommended method and the long-term average will depend upon the assumed reversion period and the decision horizon of interest. There is nothing to suggest that an MRP is stable over time so considering the short run is essential, particularly for short-to-medium decision horizons. Most regulatory regimes, for example, involve use of a weighted average cost of capital for setting revenue or price caps over a five-year period and many asset and personal investment decisions are for the short or medium term.

It materially overstates the size of the MRP shift

Our paper makes it clear that the one-year view of the MRP derived from the implied volatility on one-year options on the market index is not constant over time, just as the historical record does not show constancy. As noted, we recommend a reversion to the mean and, further, we only recommend use of this approach in 'unusual economic circumstances' such as those currently being experienced.

Clearly there is a challenge in defining the length of a reversion period because there is no well-developed theory to guide the choice. Consequently a pragmatic approach is required. However, not making an adjustment for medium-term investment horizons is probably more incorrect than the relatively ad hoc nature of our selection of the reversion period. This is particularly the case under circumstances in which the cost of equity derived using the long-term average works out to be lower than the cost of debt, which makes no sense. This can occur for low beta assets. By way of example, the current debt spread on seven-year BBB-rated bonds is around 380 basis points. Use of a MRP of 6 per cent when the beta is less than 0.63 per cent will lead to an equity risk premium below the cost of debt.

The example in the Hall response shows that use of a constant MRP of 6.95 per cent will provide an equivalent present value of cash flows to a profile of MRPs declining from 10 per cent to 6 per cent over four years, and remaining at that level until the end of the life of a 20–year project. Hall argues that the 6.95 per cent is still in the 6 to 7 per cent range for MRPs and could, we assume, be ignored, i.e. using 6 per cent not 6.95 per cent is not material. Using 6 per cent instead of 6.95 per cent gives an error of approximately 7 per cent in the example. If the life of the project were five years, or we were considering a five-year regulatory period, the 'error' would be 22 per cent in the example. The constant MRP that would provide an equivalent answer to the profile of MRPs is 8.4 per cent.

It makes an inappropriate comparison with debt spreads

The key point we make in our paper is that we would expect the risk spreads (premiums) on both debt and equity to behave similarly, i.e. if the risk premium on debt rises, then we would also expect the risk premium on equity to rise. Otherwise, investment strategies would change to take advantage of the mismatch. Our interest is in the relative behaviour of debt and equity risk spreads. As Hall correctly points out, comparing a seven-year MRP to a seven-year debt spread would not change the relative behaviour of the risk spreads, just the level (for a given glide or decline path).

The apparent statement that the GFC affected debt risk spreads more than equity risk spreads is not substantiated by Hall and appears quite at odds with the dramatic decline in equity values.

It fails to consider other factors influencing the markets relied upon by the authors

Hall's comment cites four factors affecting debt spreads which he suggests that we 'missed' thereby leading to a 'material' overstatement of our assessment of the MRP. This may or may not be the case, however, our interest would be in the extent of any such overstatement and guidance as to how to make such an adjustment. Our purpose is to provide a practical way of reflecting the 'high' levels of market volatility in the MRP. We look forward to a quantification of the impact of our omissions or to an alternative and more robust method of making an adjustment to the cost of equity to reflect this risk.

It is inconsistent between use of historic[al] volatility and implied volatility

Our analysis of implied volatility data prior to the GFC provided an average volatility of 14 per cent. This is consistent with the historical estimate of volatility for the market index derived from January 1980 using an annualised 90-day rolling estimate. Consequently, we do not see the inconsistency that Hall asserts.

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Conclusion

In summary, we do not see the 'fundamental (and presently insurmountable) mismatch' that Hall sees between the short-term and the long-term MRP. As we have noted, the long term is made up of a series of short terms. Our pragmatic approach to reflecting unusual short-term effects, such as the GFC and its aftermath, in a longer term view leads to consistency between the short and long term rather than the alleged mismatch. We encourage valuers to be wary of using 6 per cent as a MRP for equity when spot debt spreads are well above the historical experience, as is currently the case for BBB-rated debt. ■