Risk Integrated

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# Capital, Arbitrage and CRE Lending

## Introduction

New regulations are setting regulatory capital for commercial real estate lending according to bands of risk. For example the Bank of England is pursuing the "Slotting Approach" and in the US the American Council of Life Insurers (ACLI) is recommending setting risk-based-capital according to bands of Loan to Value (LTV) and trailing Debt Service Coverage Ratio (DSCR). These approaches are reasonable backward-looking portfolio-level proxies for risk, and on the face of it they seem to be a reasonable approach for aligning capital with the level of risk taken, but when used to define capital for future transactions they induce behavior which will create arbitrage opportunities.

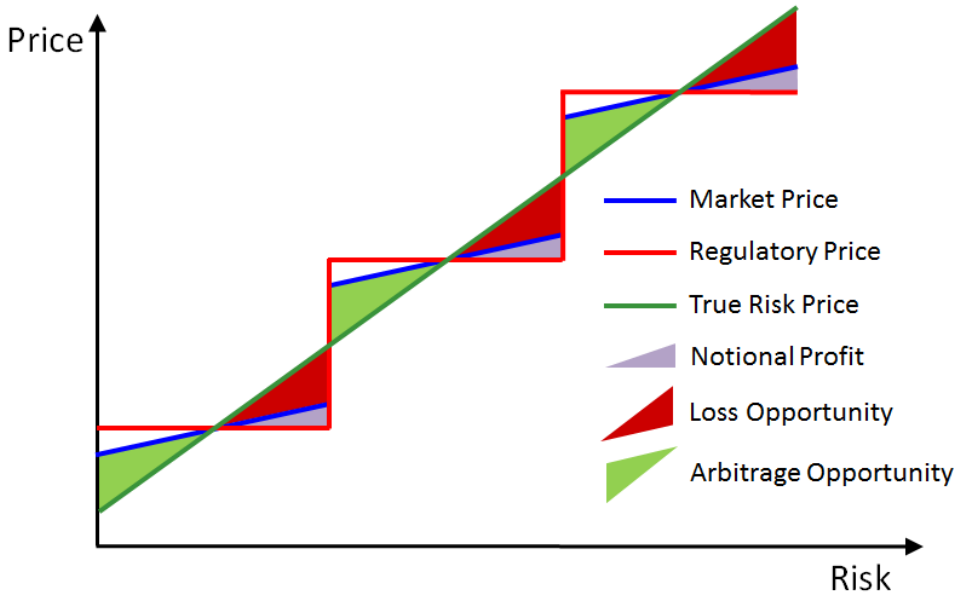
## Incentives

Under these capital regimes, the required capital for two different loans will be identical if they are assessed as being in the same band. For example the ACLI approach assesses the same capital for all deals with LTV between 55% and 75% and a DSCR[1] between 0.95 and 1.5, i.e., a deal with 55% LTV and 1.5 DSCR will have the same capital percentage as a deal with 75% LTV and 0.95 DSCR. For institutions that base their cost of funds on the regulatory capital, the measured price of risk will be constant within each band. However, customers and lenders recognize that there is some difference in risk and the more risky deals tend to have higher spreads. If the spread increases with risk, but the internal cost of capital does not, the natural incentive will be for lenders to seek out the most risky deals within each band because they will give the highest nominal return upon the fixed capital. For an institution basing their pricing on regulatory capital, this will lead to deals being done at the extreme edge of each band, and at that edge, allowing more risky structures[2]. Clearly if the funding cost is fixed, there would be a short-term incentive to do deals with 1.0 DSCR and 75% LTV rather than 1.5 DSCR and 55% LTV. There will also be more subtle

[1] Based on the previous year's NOI and assuming a standard 25 year amortization
[2] Assuming at least a partial correlation between increased risk and increased spreads

incentives within the details of each deal, e.g., to do deals with a few undiversified short leases rather than a similar deal but with long leases and many well diversified strong tenants[3].

One result will be that, within a band, the market price charged will vary less than the risk-cost. The arbitrage opportunity is illustrated below. If for a moment we assume that risk is one dimensional, we can visualize the capital charge increasing in steps as the risk increases. If pricing exactly followed the cost of regulatory capital the "regulatory price" would also increase in steps, but in reality some variation in risk will be recognized and the market price will increase with sloping steps. The result is a series of positive and negative gaps between the regulatory price and the market price and between the market price and the risk price. The gap between the regulatory price and the market price is the notional profit relative to the cost of regulatory capital. The gap between the market price and the risk price will be the economic loss for those who select deals based on their notional profit, but for those who select deals based on their true risk, the gap between the market price and the risk price is the arbitrage opportunity.




[3] Given that the capital charge assumes a standard 25 year amortization, there is also a potential to do more risky, higher margin, deals by allowing them to be interest-only.

**Exploiting the Arbitrage**

For unwise institutions who tend to view and price their risk according to the regulatory capital, the consequence will be a concentration of the more risky deals priced just above the average for the band, i.e., a portfolio that is more risky than expected and is underpriced for the risk. This problem of adverse selection will be exacerbated if the institution is competing against an institution who has a more risk-sensitive regulatory regime, e.g., a bank with their capital measured according to Advanced Basel III.

Wise institutions will seek out the less risky deals within each band and price them just below the average price for the band. By pricing just below the average they will win the deal, but still have a price that is greater than the actual risk cost. The result is a portfolio of loans that have high margins but relatively low-risk. In seeking out loans that are low-risk loans compared with their regulatory capital, the obvious choice is to move away from the risky extreme of the bands, e.g., towards lower LTV and higher DSCR but another possibility is to seek deals that appear to be high-risk according to their LTV and DSCR, but which are actually low-risk due to the tenant mix, cross-collateralization, guarantors or a financing structure that is less risky than a plain-vanilla 25-year mortgage. Risk Integrated's paper "The Broken Link between DSCR, LTV and Risk" illustrates the wide range of actual risks that a deal can have despite having a fixed LTV and DSCR.

The main problem with this strategy is that in the short term, from the outside, the lenders at wiser institutions appear to be doing deals with low spreads given the regulatory capital[4]. The wisdom of this strategy only becomes widely apparent as the badly selected loans at other institutions start to default, e.g., at the next downturn. There are two solutions to this: the first is to have a long-term view, long-term compensation and a strong sense of purpose. The second is to have a strong reporting and analytical capability, and thereby be able to identify and demonstrate that the deals have less risk than their regulatory capital seem to indicate.

Even though the amount of regulatory capital is fixed, it may be possible to reduce the cost of that capital by showing investors the actual quality of the portfolio.

[4] At the low-risk end of each band the market price is higher than the actual risk, but also the regulatory capital cost is higher than the actual risk. In the arbitrage situation the regulatory charge looks higher than the market price, so from the outside, wise institutions seem to be doing deals with spreads lower than would be expected given the regulatory capital.

Alternatively if the CRE lending group is part of a large institution with a fixed total cost of capital, it may be possible to argue for internal pricing that is less than the blunt regulatory capital. One approach would be to reduce the amount of capital charged internally[5], another approach would be to reduce the hurdle rate for the expected return on capital[6], and the third approach would be to break away from pricing relative to capital and instead use a standard such as CAPM[7].

Given the games that are likely to be induced by the new regulatory capital regimes, institutions will need a strong proprietary view of the true risk and return if they are to end up on the profitable side of the trade.

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[5] Typically institutions have a mix of businesses some of which have less economic risk than indicated by the regulatory capital and some have more risk than indicated by the regulatory capital so it becomes possible to have the total capital remain constant, but for pricing and profitability measurement, internally assign capital according to the actual risk, e.g., according to the economic capital. However, the difference between regulatory capital and risk is different for each deal, so it would not be appropriate for an institution to apply a blanket reduction in internal capital for the whole portfolio, it would need to be a deal-by-deal difference.

[6] Again, this would need to be a deal-by-deal change in hurdle rate.

[7] The Capital Asset Pricing Model (CAPM) is one of the approaches that prices assets according to the external market and the risk relative to that market. In this case the institution would hold capital according to the regulatory regime, but would price relative to the CAPM price for each deal.