Methodology note on calculating capital pressures

Introduction

In November 2012 the interim Financial Policy Committee recommended that the FSA takes action to ensure that the capital of UK banks and building societies reflects a proper valuation of their assets, a realistic assessment of future conduct costs and prudent calculation of risk weights. Where such action revealed that capital buffers needed to be strengthened to absorb losses and sustain credit availability in the event of stress, the FSA should ensure that firms either raise capital or take steps to restructure their business and balance sheets in ways that do not hinder lending to the real economy.

In responding to the recommendation the FSA undertook analysis to assess incremental capital requirements to reflect a proper valuation of assets, a realistic assessment of future conduct costs and prudent calculation of risk weights. We describe below the methodologies followed in making these assessments. The exercise covered large institutions, firms with significant portfolios of higher-risk loans and firms that calculated risk weights using model-based approaches. The forward-looking data for this exercise was taken from supplementary capital reports received from firms on a best endeavour basis.

Proper valuation of assets

Valuation assessments were made across a number of the largest and riskiest banking book loan portfolios on firms' balance sheets. Assets included were: UK commercial real estate loans; portfolios in vulnerable euro-area periphery countries; plus other material portfolios identified as potentially having significant embedded expected loss not commensurate with expected revenue. A "base testing" approach was adopted, assessing expected future losses over a three-year period using data provided by firms - this goes beyond the usual deduction from capital where one year modelled expected loss exceeds accounting provisions. The approach considered both the adequacy of provision coverage for defaulted loans, and the expected losses that were likely to emerge over a three-year period. The analysis did not constitute a stress test but was inherently conservative as it gave no credit for future income that firms were likely to generate from these portfolios. In making the assessment, risk-weighted assets were held constant and no allowance was made for reduced requirements following the crystallisation of additional losses and the consequent reduction in exposures. Although this is a conservative approach, we do not believe it results in materially over-stated risk-weighted assets.

Additionally, given the size of firms' UK retail mortgage portfolios and elevated levels of forbearance, a review of the adequacy of firms' provisions for forborne loans was also undertaken.

In aggregate, £1.3 trillion of assets were reviewed, representing approximately 50% of firms' gross banking book loans and advances and covering - in the FSA's judgement - the significant areas of potential valuation uncertainty in firms' balance sheets.

The assessment of UK CRE assets covered approximately £125bn in gross loans across the UK banks and building societies, and considered the adequacy of provision coverage of impaired assets, the migration of forborne assets to default, portfolio loss rates and firms' own loss forecasts. Based on these factors a judgement was made on the expected losses that could emerge over three years in excess of existing provisions at December 2012.

A similar approach was also taken for significant portfolios in the euro-area periphery countries and other portfolios identified as being vulnerable to losses greater than provisions.

Forbearance practices, if not managed effectively, have the potential to suppress underlying losses. The FSA had previously issued guidance regarding good and poor practices across the UK retail mortgage industry. The adequacy of provisions held in respect of forborne retail mortgage loans was re-examined as part of this exercise. The analysis was conducted at a detailed level, with data split by LTV band and arrears status for each firm. The risk exists that firms may not reflect the additional credit risk attached to accounts in forbearance and therefore may not provide a complete picture of the credit risk profile within portfolios. In addition, to the extent that loans subject to forbearance arrangements have not been separated from the general up-to-date pool for the purposes of impairment assessment, the impact of this additional credit risk may not be fully reflected in a firm's impairment calculation.

In addition to the banking book assessment, the FSA also considered the trading book. For some time, the FSA/PRA has asked firms to report a prudent valuation adjustment (PVA) that adjusts the accounting valuation for assets and liabilities held at fair value on firms' balance sheets to comply with regulatory valuation standards that place greater emphasis on the inherent uncertainty around the value at which positions could be exited. As part of this exercise, the FSA conducted a high-level review of a sample of firms' policies and procedures in respect of determining the PVA. Adjustments were applied to compensate for methodological weaknesses thereby seeking to address the extent to which these assets' accounting valuations are overstated relative to a more prudent valuation approach. Further work is being undertaken by the PRA and internationally, and this adjustment was an interim measure while we wait for the conclusions of more detailed studies.

In aggregate, having taken into account capital deductions made for regulatory expected loss, adjustments totalling £30bn were believed appropriate to reflect the concerns identified across both

banking book loans and fair-valued positions. Approximately a third of these arose from UK CRE, which was the largest single item.

Realistic assessment of future conduct costs

The FSA examined the potential future costs that firms might incur over a three year period as a result of fines around the setting of the London Interbank Offered Rate (LIBOR) and redress payments linked to the mis-selling of payment protection insurance (PPI) and interest rate swaps.

The estimates for PPI redress costs were based on an assessment of future pay-out amounts based on historic experience and trends. Associated administrative costs were also considered. Interest rate swap redress rates were estimated based on details of product sales, including the product type, the sophistication of customers and costs to remediate mis-sales by product category.

Provisions already held by firms were taken into account in arriving at an estimate of around £10bn for costs not yet provided for.

Prudent calculation of risk weights

Risk weights applied to corporate and institutional loans, and UK mortgages were examined as these represent the majority (approximately 70%) of assets for which firms use models to determine risk weights in the banking book. The general methodology followed was to apply floors to firms' internal risk estimates at a portfolio level. These floors were informed by the FSA's existing concerns on where firms face challenges in meeting the Basel standards and similar measures introduced by other jurisdictions. This top-down approach was used for the purposes of this exercise and is not an indication of how the PRA might seek to apply floors on an ongoing basis, should it in future consider doing so.

For UK mortgages, the FSA calculated the impact of a risk weight floor to reflect that these loans will always carry some risk, even if recent loan losses have been low, and are subject to potential amplification mechanisms such as collateral 'fire-sales'. For the purpose of this exercise, given risks to the financial system from the international macroeconomic environment, the FSA set a risk weight floor on residential mortgages of 15%. This is also broadly consistent with floors set on residential mortgage exposures by other jurisdictions. The impact on aggregate risk-weighted assets is £33bn.

For corporate and institutional loans, the FSA calculated the impact of a floor to the minimum loss that firms should expect to suffer in the event of a borrower defaulting on a loan (i.e. 'loss given default'). For banks that do not model this loss given default, the Basel framework mandates a floor of 45% for

senior uncollateralised exposures. This was applied to all banks, through a top-down proxy applied to LGD bands as reported in the FSA regulatory returns, rather than on a portfolio by portfolio basis, resulting in an increase of risk-weighted assets of £137bn.

Trading book risk weights were not assessed as part of this exercise. The PRA will extend its examination of trading book risk weightings through the use of further hypothetical portfolio exercises. A Basel-led trading book review will determine the long-term framework for trading book capital requirements.

In aggregate, it was estimated that the above two adjustments would increase the firms' risk-weighted assets by around £170bn. At a capital ratio of 7% of risk-weighted assets, in line with the framework adopted by the FPC, this would equate to an increased core equity Tier 1 capital requirement of around £12bn. This was in addition to the impact of previously introduced sovereign risk loss given default floors and UK CRE slotting.

Aggregate Impact on firms' resilience

Applying the judgements made under the three areas above to firms' current capital positions would reduce aggregate capital levels by around £50bn.

Some firms, even after the adjustments described above, had capital ratios in excess of the FPC's recommended 7% of risk-weighted assets using Basel III definitions; for those that did not, the aggregate capital shortfall at the end of 2012 was around £25bn.