Comments on consultation: Reducing variation in credit risk-weighted assets – constraints on the use of internal model approaches

Danmarks Nationalbank appreciates the opportunity to comment on the Basel Committee on Banking Supervision consultative document "Reducing variation in credit risk-weighted assets – constraints on the use of internal model approaches".

The document contains a proposal to introduce floors on the model parameters that banks use in the IRB approaches. The Committee proposes applying floors to PD, LGD and CCF. Our comments are related to this proposal.

The Committee's proposal is motivated by the wish to reduce complexity, improve comparability and address excess variability in risk weighted assets.

Danmarks Nationalbank urges the Committee to take into account that for low-risk markets the model parameters may in fact show little variation and thus no excess variability between banks. They may be estimated with a high degree of certainty. In addition, in some markets structural factors may cause actual losses to be consistently low.

A case in point is that Danish mortgage banks show consistently low observed losses. Data analysis furthermore shows very limited variability in average LGDs between banks. The analysis is elaborated in the annex.

The LGDs on mortgage loans with identical LTVs depend on structural factors such as foreclosure rules, the efficiency of the title system etc. Foreclosure rules determine how easy and fast the lender can take ownership of the collateral. In some systems this takes less than six months...
resulting in a low LGD compared to systems where it can take several years. An efficient title system reduces the time and cost to claim the ownership of a mortgage in default. Furthermore, one can expect actual LGDs to correlate with LTVs. Introducing a LGD floor would fail to recognize that the potential losses on amortized loans with low remaining debt may indeed be close to zero. In 2015, the LTVs of 38 per cent of Danish mortgages were below 60 percent. The outstanding amount of these mortgages corresponds to 28 percent of the total outstanding amount for Danish mortgages.

Introducing “one-size-fits-all” parameter floors would ignore the high dependency of parameters on legislation, regulation and lending standards and practices. Actual PDs depend on the liability rules and social security systems. Systems with personal liability are characterized by low PDs compared to systems with no personal liability. A relatively generous social security system means house owners are more likely to continue to pay on their mortgages independently of social events. For Danish mortgages, such structural factors underpin a persistent low level of losses.

In order to illustrate the consequences of a LGD floor, simulations have been carried out on a mortgage bank’s loan portfolio using the LTV as risk parameter, cf. the annex. The simulation shows that in order to reach the suggested parameter floors, the bank would have to increase the LTV of the part of the portfolio below the floor by 17 percentage points. Taken to the aggregate level this would lead to an estimated increase in households’ debt-to-GDP ratio of 6 percentage points for Danish households. Thus, an unfortunate side effect of parameter floors for low risk institutions is an incentive to increase risk taking with adverse consequences for financial stability.

In conclusion we would propose that the introduction of model parameter floors are reconsidered by the Committee or that they are calibrated in a granular way to allow for low levels when duly justified by for example liability rules and the efficiency of the legal system. Risk weighted exposures should be determined by the actual risk whereas the aggregate level of capital is to be regulated by the capital requirements. Our concern is not the overall level of capital but the incentive to increase risk caused by the introduction of parameter floors.

Yours sincerely

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ANNEX: DATA ANALYSIS ON DANISH MORTGAGE BANKS

Variability in credit risk-weighted assets
The retail mortgage portfolios in the mortgage institutions are big and to a large extent harmonized in terms of credit risk due to the strict regulation of Danish mortgage institutions.

To assess the variation in parameter values between the mortgage institutions a simple principal component analysis has been carried out for the PDs, LGDs and Risk Weights (RW) for three Danish Mortgage Banks covering 85 per cent of the Danish mortgage market. In a principal component analysis, data are broken down into a number of uncorrelated components. If the data follows a uniform pattern, the first component will explain most of the data variance.

The principal component analysis reveals that for LGD, 95 per cent of the variance between the institutions is explained by the first principal component, thus supporting the hypothesis of low variability.

For PDs, 67 percent of the variance is explained by the first principal component and for Risk Weighted assets only a bit more than 50 percent of the variance is explained by the first principal component.

Historical losses on Danish mortgages
To illustrate the very low risk on mortgages subject to strict regulation chart 1 shows the actual losses in Danish mortgage banks from 1973 to 2014.

Actual losses are used in the IRB models to estimate the LGD. The maximum loss on retail mortgages from 1973 to 2014 was 1 percent in 1993 and 1994, cf. chart 1. The losses were easily absorbed by the capital in the mortgage institutions.
Risk simulation

For one of the mortgage banks' retail portfolio simulations have been carried out to assess by how much the portfolio risk has to be increased in order for the LGD to reach the floor of 10 percent. The loan-to-value (LTV) has been used as the risk parameter in two types of simulations. One where the average LTV for the whole retail portfolio has been increased until the floor of 10 percent for the LGD is reached. And another where only the LGDs for mortgage loans below the floor are increased to reach the floor. The first simulation results in an increase in the average LTV of 7.9 percentage points whereas the latter results in an average increase in LTV of 17 percentage points.

Applying the increase in LTV for the share of mortgage loans below the floor for the mortgage bank to the total of Danish houseowners' mortgage debt results in an increase in household gross debt-to-GDP of 6 percentage points. As Danish households already have a high level of gross debt a substantial increase would cause concerns in relation to financial stability.