

Sharpen competitive edge by integrating IFRS9 models into stress testing within a scalable cloud infrastructure.

#### Abstract

For many institutions, stress testing is a process that is used to demonstrate that they are sufficiently capitalised to withstand a range of financial and operational stress scenarios. However, with a carefully designed model architecture stress testing can become key to informing commercial decisions leading to a sharpened competitive edge.

In all system designs it is important to take advantage of existing components. Today, all firms have a de facto forecasting model – the IFRS9 model. This model already has scenario analysis integrated and can estimate the probability of default and loss given default over a contract's life to support the calculation of expected credit losses over a time horizon predicted by the estimate remaining life of the contract. With thoughtful design consideration from a commercial viewpoint the IFRS9 model can become an integral part of stress testing with improved commercial decision-making as a result. One reason why stress testing models currently have limited impact on the commercial decision-making process is because of the time required to set up and run a scenario. Manual processing, where results are handed from one system to another, is also a common hindrance to use the stress testing model in commercial decisions such as product design, which often requires a rapid decision process. Recent changes in the geopolitical landscape also exemplifies the need of an effective scenario analysis process. We now have the option to implement stress testing models in a cloud environment which offers access to advanced high performance computing clusters in a scalable environment. This opens the possibility to use the stress testing model to forecast profitability and risk adjusted return on capital on new products and product mixes under a range of scenarios in a seamless way.

This paper discusses design considerations to deploy stress testing models successfully in a cloud environment with the view to delivering maximum value for internal and external stakeholders.

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