



IFRS 9 Stress Testing

Lessons learned
from the first round

JAYWING

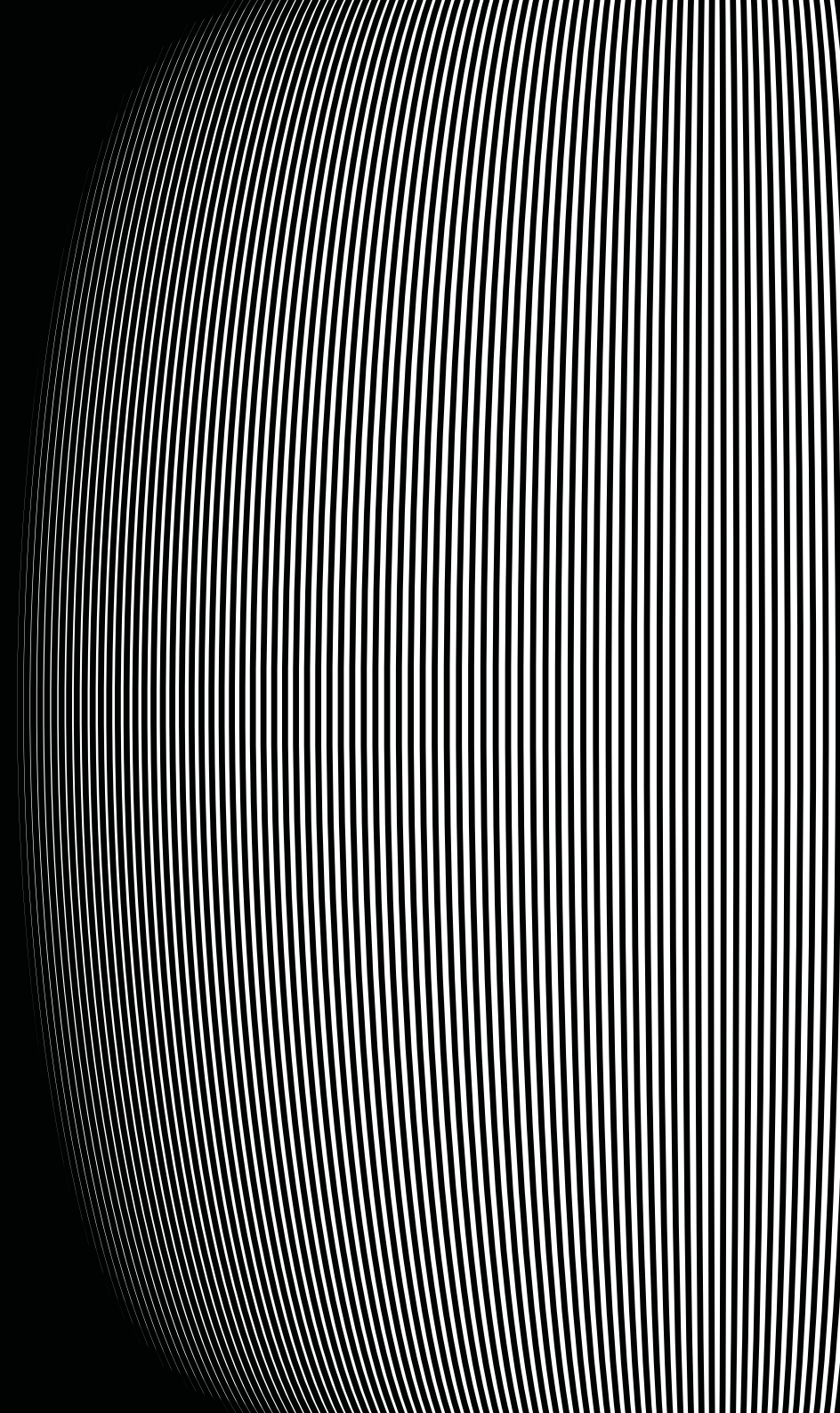
A brief introduction

The implementation of the IFRS 9 accounting standards for the estimation of Expected Credit Losses (ECLs) has introduced significant challenges for financial organisations, but also great integration opportunities.

Currently, a specific area of focus is the incorporation of IFRS 9 aspects within forecasting and stress testing.

Starting from 2018 the Prudential Regulation Authority (PRA) expects stress testing submissions, whether in the form of Concurrent Stress Test (CST) for the biggest UK organisations or as part of individual firms' yearly Internal Capital Adequacy Assessment Process (ICAAP), to be done on an IFRS 9 basis.

In this short guide, we explore the main challenges that financial institutions are now facing as a result, and summarise the lessons learned from the first round of the CST conducted under the new accounting standards, as highlighted in the results published by the Bank of England (BOE) in December 2018.



BOE 2018 CST results

Capital Impact of IFRS 9

The stress testing assessment performed as part of the CST (or within the ICAAP) focuses specifically on the impact of a stress scenario on a bank's P&L and balance sheet and the evolution of its capital position over the forecasting horizon, with particular emphasis on capital buffers through time.

In December 2018 the BOE published the results of the first round of CST conducted under the IFRS 9 accounting standards. As expected, although aggregate credit impairments over the five years of the stress resulted similar to the 2017 CST, at over £140 billion, due to the introduction of IFRS 9 the timing of the recognition of impairments has changed, with around 80% of impairments recognised in the first two years of the stress, compared with around 64% in the 2017 Annual Cyclical Scenario (ACS).

The early recognition of impairments could have a significant impact on the capital demand placed on banks, as the Financial Policy Committee (FPC) and Prudential Regulation Committee (PRC) set capital buffers for individual banks based on the impact of the stress at the lowest point, so that they remain above their minimum capital requirement ('hurdle rate').

BOE 2018 CST results

Capital Impact of IFRS 9

This lowest point is exaggerated under IFRS 9, as the aggregate Common Equity Tier 1 (CET1) falls more sharply in the early part of the stress.

Based on this, higher capital buffers would be imposed potentially as a result of IFRS 9, which seems counterintuitive, as the allocation of earlier provision under the new standards should provide financial institutions with more resilience in the event of stress, which is the very reason why IFRS 9 was introduced in the first place.

In the 2018 CST and most likely moving forward, the BOE will take into account the higher IFRS 9 provisions accumulated earlier in the stress through downward adjustments to each bank's hurdle rate at the peak of the stress.

Additionally, alongside the introduction of IFRS 9, Transitional Arrangements (TA) have been put in place under EU law to offer banks temporary capital relief as they adapt to the new standard. These arrangements allow banks to 'add back' to CET1 capital a specified percentage of 'new' provisions made due to the adoption of IFRS 9 but will be gradually phased out between now and 2022.

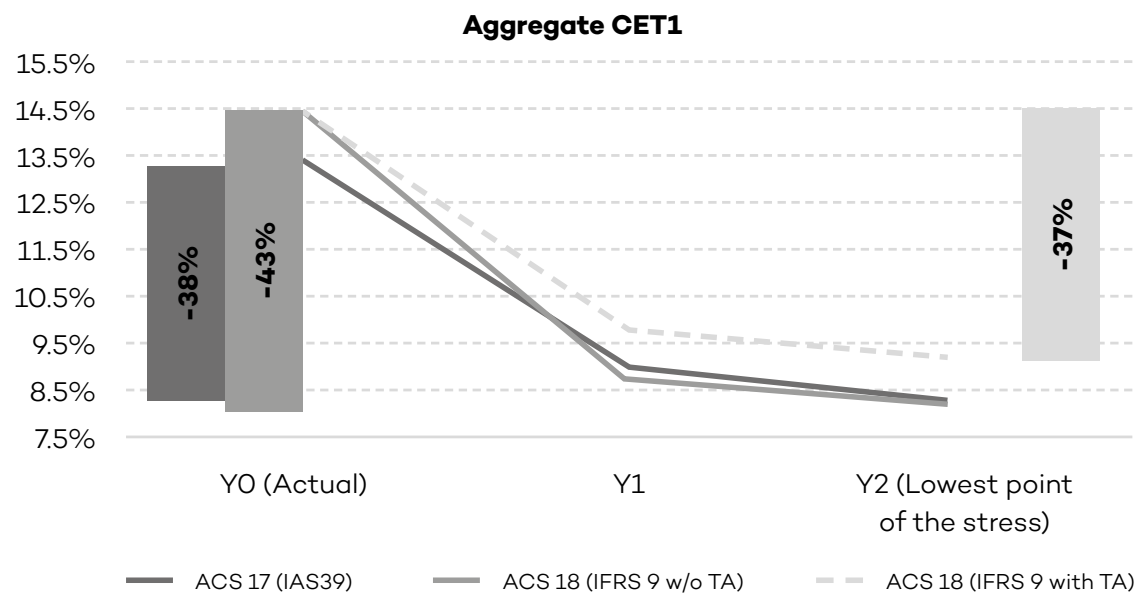
This is an area in continuous evolution that financial institutions should be monitoring closely over the coming months, to make sure they understand the impacts and comply with the requirements.

The PRA continues to seek consultation with the industry to establish the best way forward, in particular to determine the "additional IFRS 9 impact" when comparable IAS39 figures will be no longer available.

BOE 2018 CST results

Capital Impact of IFRS 9

The following chart illustrates the more significant drop of the aggregate CET1 ratio under IFRS 9 than under International Accounting Standard 39 (IAS39) in 2018 CST in the early part of the stress, and the capital relief provided by the EU TA, which aligns the CET1 drop to a value comparable to IAS39.



The significant impact of IFRS 9

With the introduction of IFRS 9, banks have had to adopt a completely new approach to impairment modelling, incorporating forward looking expectations of the economy in the estimation of ECLs. This has been a significant ask on financial institutions and has led to a radical change of direction, especially for smaller organisations with little resources and/or limited loss experience.

At the same time, the new wave of models has also introduced the need for additional governance and controls, and is having wider consequences for financial institutions, who now face the challenge of considering the additional impairment charges - or at the very least their different distribution over time compared to IAS39 - in their strategic planning, due to the impact of provision timing on profit and loss.

A specific challenge that firms are currently facing is related to the incorporation of the new IFRS 9 concepts within forecasting and stress testing, which opens a series of questions, especially as in many organisations IFRS 9 and stress testing models are still largely separated.

In the following sections we address two of the main challenges identified, the estimation of 'stage' movements through time under stress and the incorporation of macroeconomic information throughout the forecast.

Staging & forecasting

The main change under IFRS 9 is the need to determine at each reporting date which accounts have experienced a Significant Increase in Credit Risk (SICR) since origination. These accounts constitute the 'Stage 2' population and need to be allocated provisions calculated on a lifetime basis as opposed to a 12 months horizon.

The determination of the proportion of the book moving to Stage 2 due to significant PD movements is generally done comparing the lifetime PD of an account at reporting date with the residual portion of its origination lifetime PD and determining if the change is greater than a certain threshold, which will vary by product and organisation as each firm will have developed a specific approach within its expertise and business context.

Different levels of sophistications will have been adopted depending on portfolio size, resources available and wider business considerations, but every component of the Staging estimation has required a certain amount of effort as concepts such as SICR, lifetime PD, forward looking PD, etc. were unknown before.

Staging & forecasting

The calculation of the staging distribution and the allocation of lifetime ECLs to accounts in Stage 2 applies both to the current book position at reporting date and to the forecast of the book composition and impaired balances for future years, introducing the need for financial organisations to produce forward looking curves for the typical constituting elements of portfolio losses (PD, EAD, LGD) not only at reporting time, but also starting from each point of the forecast. This adds yet further complexities, particularly under stress, given the various moving parts that must be considered.

In a downturn the stock in Stage 2 will increase and attract higher provisions in the form of lifetime ECLs, but the estimation of this quantity is far from straightforward. Typically accounts move across different risk levels over time due to worsening of condition that can be due to idiosyncratic elements - personal circumstances - or to a deteriorating economic landscape.

This held true also under IAS39, but IFRS 9 has introduced two additional complications:

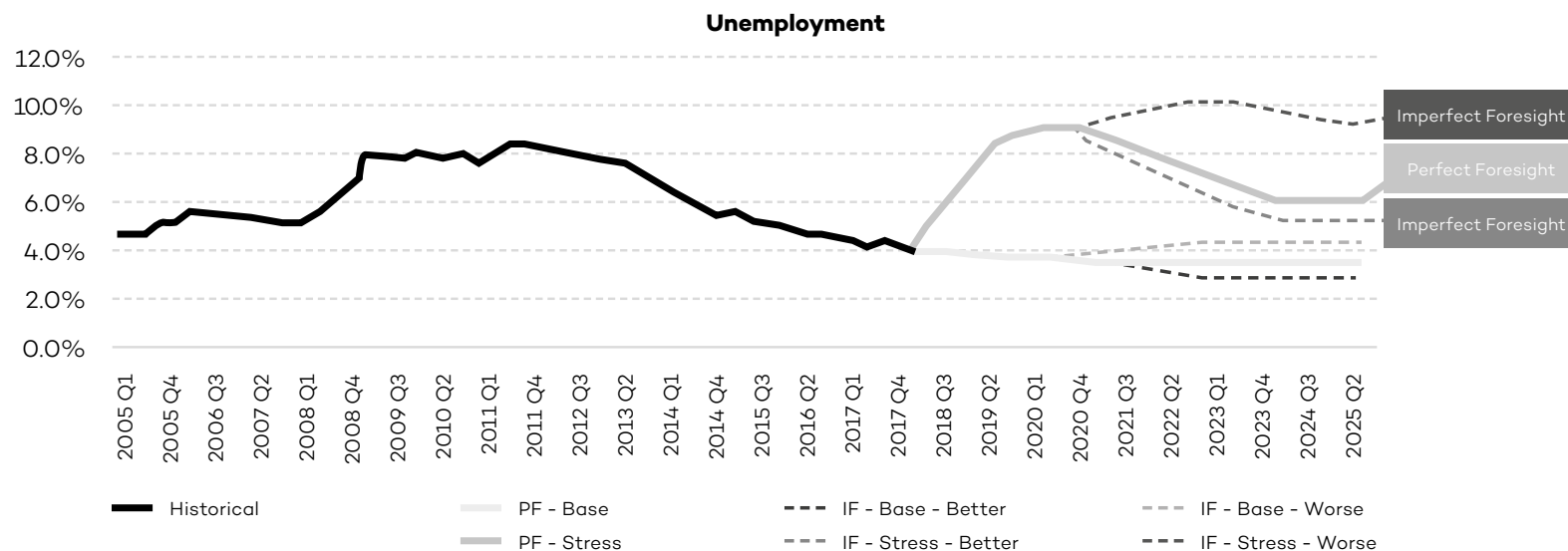
- Having to consider expectations on future economic conditions not only at future assessment points - as in 'traditional' IAS39 forecasting - but also from each of those future assessment points forward.
- Having to know where an exposure has come from (e.g. its origination PD), where it has been (for Stage 2 cure periods) as well as where it is at each observation point of the forecast, effectively creating the requirement to estimate a full history of PDs.

The trade-off between accurate predictions and a proportionate level of complexity is a fine balancing act in this area.

Incorporating future economic information

A direct consequence of the structure of IFRS 9 calculations is that when building forward looking curves from each future forecast point, a reassessment of the 'likely economic view forward' can potentially be embedded in the predictions. This aspect is known in the industry as "perfect (or imperfect) foresight" of the economy.

Under "perfect foresight" the future path of the economic variables is known at reporting date and remains the same throughout the forecast. Under "imperfect foresight" the likely evolution of macroeconomic variables is expected to be reviewed at each forecast point (or at some relevant future points, such as the peak of a recession), as that would represent the 'live' forward looking view of the economy at that point in time.



In March 2018 the PRA provided guidance for the CST stating that “perfect foresight and a single scenario should be applied”. No specific guidance was published by the PRA in 2018 for how scenarios should be treated under ICAAP, but indications to individual institutions was to apply perfect foresight.

Incorporating future economic information

The application of perfect foresight determines an increase in provisions in early years and a later recovery, even before the actual peak of the stress, as the loss model 'foresee' the future and the lifetime curves adjust accordingly. Given this, imperfect foresight of the economy seems a more realistic approach, as the future movements of the economic variables would be learnt only gradually.

However, the significant complications have so far kept organisations away from attempting to implement an imperfect foresight framework. Moreover, within CST or ICAAP the Bank of England provides one perfect foresight stress scenario and the application of imperfect foresight would leave room for subjectivities across individual banks and affect comparability of results.

For simplicity, perfect foresight is the current choice, but the discussion remains open, for two main reasons:

- 1. Perfect foresight delivers unrealistic results given the front-loading of provisions in early years, therefore removing or limiting management's ability to use forecasting to develop and test future business plans.**
- 2. The PRA's decision to adopt perfect foresight may be temporary and firms want to plan ahead for it/when that changes and the PRA requests an imperfect foresight stress test.**

The benefits of integration

IFRS 9 has introduced several significant challenges, but hopefully the need for integration will encourage firms to revisit some outdated frameworks in terms of data management, modelling structure/approach and governance practice.

Aligning stress testing and IFRS 9 models when possible is a natural step toward eliminating complexities arising from using different models to estimate similar metrics. This in the long run should improve transparency and consistency of results, giving more confidence to the regulators and indirectly to the public.

For more information, you can get in touch by emailing risk@jaywing.com or calling 0333 370 6600.

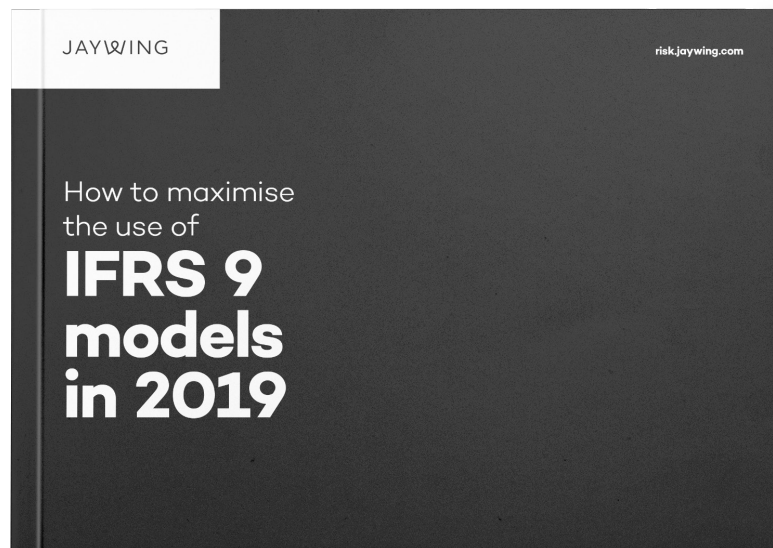
Our current work within stress testing

At Jaywing, we've worked with a number of firms who are already maximising the benefits of integrating IFRS 9 and stress testing, using similar model structures and even the same economic response models. This approach is clearly the way forward to developing the most efficient and understandable modelling framework.

We have also been working with clients of different sizes to produce loss forecasting under IFRS 9 that can be used within ICAAP and stress testing and we regularly host IFRS 9 round table events where we discuss the implications of the new accounting standards on different aspects for financial institutions, with forecasting and integration within ICAAP and stress testing being currently a significant area of focus given the ever-increasing regulatory requirements.

You may also like

IFRS 9 Stress Testing - Lessons learned from the first round



Download our UK Consumer Credit Stress Testing and IFRS 9 guide today from risk.jaywing.com

More about Jaywing

Jaywing's team of risk and data science specialists is now more than 70 strong and we have almost 20 years' experience helping many of the UK's lenders with data and analytics projects in risk and marketing.

Through our industry-leading expertise and trusted partnership approach, Jaywing has held many long-standing (10 years+), large-scale relationships with some of the UK's leading financial services organisations. We have a wealth of experience in the financial services sector, working within both consumer and commercial portfolios, and our team of experts have developed industry leading ways of using data, analytics and systems to help our clients to manage credit and fraud risk to meet the ever-increasing regulatory demands.

Our expertise encompasses: banking regulation such as IFRS 9, Stress Testing, Capital Management and IRB; and risk strategy including operational decisions, pricing and collections optimisation. We have recently added Artificial Intelligence to our skillsets and have a suite of machine learning and AI products to add to our existing risk product suite.

We have supported over 25 lenders in the UK with risk projects including Lloyds Banking Group, Royal Bank of Scotland, Nationwide, Secure Trust Bank, Shawbrook Bank, Paragon Bank and Coventry, Skipton, West Bromwich, Newcastle and Nottingham Building Societies.



Sonia Caverzan

Senior Consultant at Jaywing



Sonia has over 13 years' experience in analytics, working across a variety of fields, including; macroeconomic analysis (for scenario analysis and asset allocation) and multiple aspects of credit risk (scorecard build, Capital and Impairment, stress testing and IFRS 9).

Since joining Jaywing in 2015, Sonia has managed a number of stress testing and IFRS 9 projects. Sonia is not just a statistical technical specialist, she also understands the full infrastructure framework and technical implementation issues of strategic modelling work. She has worked across both finance and marketing sectors, developing and implementing decision science solutions.

Sonia has an MSc in Economics & Finance and a Masters in Quantitative Finance. She is often asked by UK Finance to run stress testing training sessions for its risk members.

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