

# HORIZON

BY JAYWING



## **The IFRS 9 impairment solution**

from the credit risk experts

# Horizon overview

Horizon is an advanced modelling tool that uses machine learning techniques to enable you to manage Expected Credit Loss modelling requirements quickly and easily.

Horizon encapsulates Jaywing's deep credit risk expertise, gained over the past 17 years, and more recently from working with leading lenders on implementing the requirements.

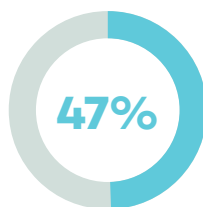
Jaywing's powerful modelling solution has been designed to address the challenges of IFRS 9 by automating critical components of the process of generating IFRS 9 compliant provision.

It does this by modelling the key components of Expected Credit Loss – Probability of Default (PD), Exposure at Default (EAD) and Loss Given Default (LGD) – in terms of their key drivers, including changes in credit strategy, account seasoning and macro-economic factors. Our proprietary approach ensures that these models are robust and intuitive.

Naturally, Horizon handles Stage Allocation – a key component of the new IFRS 9 standards – and combines all the relevant components to produce compliant provision numbers.

Horizon is designed to be pragmatic and works on portfolio-level summary data, since this is often the only form of data that is available historically. This means no bulky file transfers are required and no personally identifiable data needs to be transmitted to us. Crucially, our solution is designed with data security in mind – leveraging our extensive experience of handling sensitive data on behalf of our clients.

In addition, Jaywing can help you turn the challenge of IFRS 9 into a sustainable advantage, adding significant value beyond compliance by providing granular insight into portfolio dynamics and allowing scenario analysis and stress-testing.



In our recent IFRS 9 study, 47% said IFRS 9 compliance gives them an opportunity to improve the infrastructure and processes within their business

# How does Horizon Work?

## Advanced machine learning

Horizon is developed using advanced machine learning techniques to provide granular forecasts of PD, EAD and LGD to calculate life time Expected Credit Losses (ECL) – under different economic scenarios. This means that Jaywing's advanced machine learning algorithms develop models that are robust and intuitive.

## Intuitive models

Behind the scenes, Jaywing has built in a series of intuitive approaches to ensure the model behaves as you'd expect it to, e.g. probability of default should increase when unemployment rate increases. Doing this is important, since most of the time, you want models to be intuitive and not to do things that don't correspond with common sense. Elsewhere, your own choice of parameter settings is used to ensure the model is created in a way that meets expectations, based on your expert knowledge of the account portfolio.

Horizon then creates a model to those specifications ensuring it's not "over-fitted" – meaning the model will work well on new data and not just the data that was used to produce it. Traditionally some effort and expertise is required to achieve that, but Horizon makes this process easy to undertake.

## Common sense macro-economics

The models include common sense macro-economic sensitivities that allows users to make use of their business knowledge and produce the necessary models without requiring a background in statistics.

## A best practice EMV approach

Producing good Exogenous Maturity Vintage (EMV) models is more difficult

than it seems because the data is highly correlated in this modelling problem. Horizon's proprietary approach makes transformations to the input before modelling, in order to generate better results.

What's more, Horizon models the effect of economic factors directly rather than a more common two-stage process in which first exogenous is modelled and then a further model is produced to explain exogenous in terms of economic factors. This means that users can quickly create best-in-class EMV models without needing an extensive background in statistics and forecasting – they just need to bring along their business knowledge.

## Horizon manages all aspects of ECL modelling

Horizon models each component of Open Rate, Average Balance, PD, EAD and LGD, providing dynamic reporting for each of these components, and calculating Stage Assignment, Lifetime PD predictions, Expected Credit Loss and Provisions.

Modelling is based on your own data, coupled with a series of parameter settings that give you control over the way the models respond to economic factors. The outputs can be split by segment and into a range of economic scenarios, and the use of economic data means that the system can also be used in stress testing.

## Fully adjustable model parameters

This integrated approach to IFRS 9 compliance leverages fully adjustable model parameters, transparent and auditable modelling components and a user-friendly interface.

## Key benefits

- ✓ User-friendly hosted platform undertaking all aspects of IFRS 9 modelling, reporting and execution
- ✓ Configurable solution – adjust key model parameters to ensure outputs are suitable and apply your own segments and scenarios
- ✓ Transparency around all model components – allowing them to be sense checked and ratified
- ✓ Downloadable charts and tables – all key outputs provided as charts and tables for incorporation into your management reports
- ✓ Validate existing models or assess the impact of provisions
- ✓ Deep industry knowledge and expertise delivered through a secure, hosted site
- ✓ Models can be constantly refreshed, so you can ensure they're always up-to-date and never degrade
- ✓ Create best practice EMV models without a background in statistics

# Find out more

To keep on top of the forthcoming deadlines and to find out how you can get a better understanding of your portfolio, contact us today: **Email [risk@jaywing.com](mailto:risk@jaywing.com), call our risk experts on 0333 370 6600, or visit [risk.jaywing.com](http://risk.jaywing.com)**

## About Jaywing

Jaywing employs more than 600 people in the UK, France and Australia. We pride ourselves on our data security procedures and processes.

In addition to working with clients on successfully implementing IFRS 9, we are the specialists of choice working with the British Banking Association to run their IFRS 9 training. We are proud to be at the heart of industry development working together to support a stable financial services sector and helping to support fairer customer outcomes.

In addition to IFRS 9, we have significant experience helping clients through regulatory change projects and in achieving regulatory approval. Our credit risk modelling specialists combine the highest level of expertise with the ability to communicate effectively with your business and technical teams.

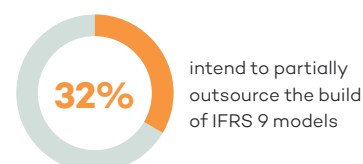
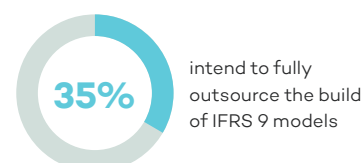
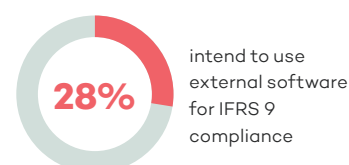
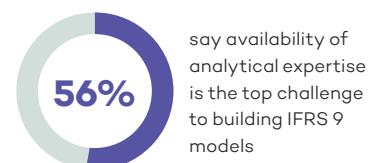
## Bespoke consultancy services

In our recent IFRS 9 research study\*, 56% of lenders said a lack of analytical expertise is the top challenge to building IFRS 9 compliant models. That's why, in addition to our software solution, we also offer bespoke consultancy services for organisations who would like a more in-depth and tailored solution.

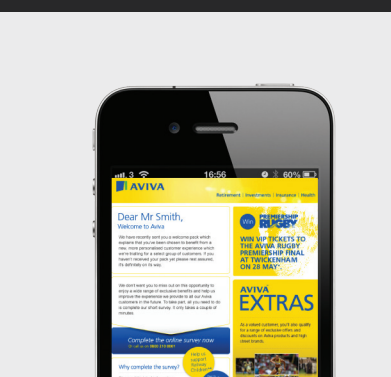
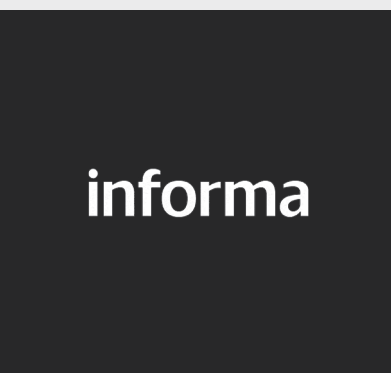
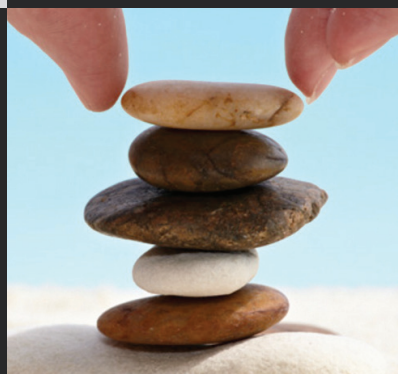
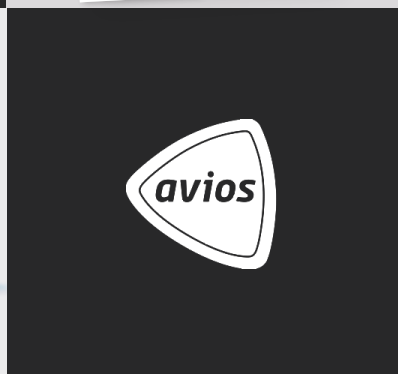
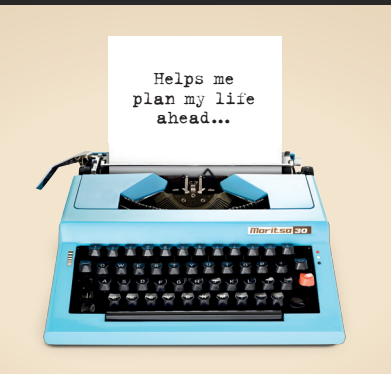
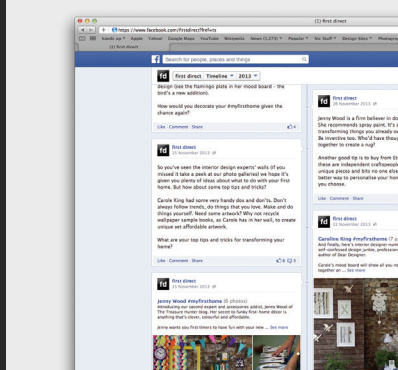
Jaywing specialises in the expected credit loss modelling and impairment elements of IFRS 9 and can work with you on a consultancy basis to build and deliver a comprehensive approach to address the changes.

By outsourcing some or all of the stages of the project, you can be sure that the regulator's demands and timescales can be met, while at the same time helping your internal teams learn from the expertise of the Jaywing team.

**To find out more about our IFRS 9 consultancy services, please read some of our recent case studies on the following pages.**



\* Jaywing's IFRS 9 Confidence Report 2016



# Shawbrook Bank set to achieve value beyond IFRS 9 compliance

## **Then**

Shawbrook Bank wanted to build a comprehensive credit risk modelling programme to underpin credit management, impairment forecasting and capital requirements, including stress testing and ICAAP.

Crucially, they needed this fully-integrated approach to incorporate an IFRS 9 solution.

## **Now**

Following the successful completion of an extensive project design phase, detailed requirements and proposed methodologies were mapped out for each of the bank's five portfolios.

Jaywing went on to develop a suite of models to achieve Credit Grading and IFRS 9 objectives to ensure that the IFRS 9 guidelines are met well ahead of the implementation deadline on 1st January.

Jaywing's consultants are working in partnership with the bank in order to share their IFRS 9 experience and impairment forecasting knowledge with the bank's analysts throughout the engagement.

Jaywing will continue to work with Shawbrook Bank throughout IFRS 9 beyond the model build phase to ensure successful parallel run in 2017 and readiness for IFRS 9 go-live in 2018.

*"As a challenger bank, Shawbrook has a unique advantage of developing an integrated and streamlined credit grading and forward-looking forecasting system to enable consistent credit decisions, capital sufficiency assessment, IFRS 9 impairment forecast and business planning.*

*What made Jaywing stand apart is their partnership engagement approach, their practical experience in risk modelling and loss forecasting, their flexibility and adaptability, and ultimately their commitment to timely delivering the solutions within budget to help the bank achieve its strategies including IFRS 9 compliance. Jaywing is a valuable addition to the in-house analytic capacities."*

**Edward Huang, Head of Risk and Portfolio Analytics, Shawbrook Bank**



# How we helped Coventry Building Society with IFRS 9 compliance



## **Then**

In less than two years, on January 1st 2018, IFRS 9 will start to take effect. Although the deadline may seem far away, the reality is that the changes need to be in place at least a year before in order for them to reflect the impact on opening balances. This gives firms only one year to overhaul their systems.

That's why Coventry Building Society appointed Jaywing to ensure it meets the guidelines well ahead of the deadline.

*"Jaywing brings a wealth of IFRS 9 experience and combines excellent modelling credentials with extensive industry knowledge. Their development of high quality ECL models within tight timescales means that we are well placed to achieve IFRS 9 compliance within our project timescales."*

**John Lowe, Finance Director,  
Coventry Building Society**

## **Now**

Jaywing was tasked with developing prototype IFRS 9 models for one of the Society's key mortgage portfolios. The Society understood the benefits from a 'test and learn' prototype approach, considering the complexity associated with these forward-looking Expected Credit Loss (ECL) models.

Early insight of the IFRS 9 models has enabled the Society to understand the data and compliance requirements and provided assurance around the ability to implement the models onto their systems. Jaywing's approach was completely bespoke to Coventry Building Society, because every organisation has unique IFRS 9 and loss forecasting requirements as defined by their data, model and system infrastructure, as well as their business operations. Jaywing's consultants worked in partnership with the Society in order to share their IFRS 9 experience and loss forecasting knowledge with the Society's analysts throughout the engagement.

As a result of Jaywing's involvement, Coventry Building Society has been able to gain internal approval of their IFRS 9 design based on the prototype model, which was built within demanding timescales, thus enabling the project to progress to full model build.

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