

# EMBEDDING FUTURE FLOOD RISK INTO FINANCIAL RISK MANAGEMENT.



## The challenge for financial institutions

Financial institutions are increasingly aware that the physical impacts of climate change can create financial risks. As flood risk changes, properties, businesses and other assets within their portfolios could experience greater damage and operational disruption, potentially affecting asset values and increasing financial losses.

To embed future flood risk into financial risk practices, organisations need to assess how flooding could affect their portfolios under different climate scenarios and translate this into potential financial impacts. This can support regulatory stress testing, climate-related disclosures and strategic planning.

But translating future flood risk into financial risk is not straightforward. Financial institutions require granular, reliable flood data across a range of future climate scenarios. They also need a practical way to integrate this information into their existing financial risk frameworks. Without sufficiently detailed and reliable flood data, financial institutions may over- or underestimate potential losses, affecting the information used for provisioning, capital assessments and disclosures.

## Why Forvis Mazars chose JBA

To overcome these challenges, Forvis Mazars partnered with JBA Risk Management to bring globally consistent, high-resolution climate change flood hazard data into its climate scenario analysis.

Derived from internationally recognised climate projections and JBA's high-resolution Global Flood Maps, the data shows how flood depths could change at individual locations under multiple future climate scenarios and time horizons. Comparing these projections with baseline flood depths helps identify where flooding could become more or less severe.

This combination of detailed, location-specific data and consistent global coverage enables Forvis Mazars to assess flood risk at building level across large global portfolios.

Delivered through JBA's online services, the data also integrates into Forvis Mazars' physical risk modelling framework, providing on-demand access to detailed, location-specific flood hazard information.

## IN BRIEF

**forvis  
mazars**

### Partner

Forvis Mazars

### Platform

CliMate: Forvis Mazars' proprietary web tool for end-to-end climate scenario analysis.

### JBA contribution

High-resolution global climate change flood hazard data.

### Coverage

Forvis Mazars' framework provides global coverage, with property-level estimates of potential flood-related financial impacts.

### Use cases

Climate scenario analysis.

International Financial Reporting Standard (IFRS) 9 / Local Generally Accepted Accounting Principles (GAAP).

Internal Capital Adequacy Assessment Process (ICAAP).

Task Force on Climate-related Financial Disclosures (TCFD) / IFRS S2.

### Status

Forvis Mazars' climate scenario analysis framework is now live.



***Forvis Mazars' collaboration with JBA helps address the challenge of translating complex data into actionable, quantified losses for enhanced decision-making and climate risk management.***

**Pierre-Alexandre Germont** – Group Climate Risk Lead, Forvis Mazars.

### How the solution works

Forvis Mazars has developed a proprietary end-to-end climate scenario analysis framework that combines JBA's flood data with its financial modelling.

JBA's climate change flood data provides projected flood depths at individual property locations under different climate scenarios and time horizons. This is then combined with vulnerability information to estimate the potential physical damage to a property or other asset (Figure 1).

The framework combines these damage estimates with the likelihood of different flood events to estimate Average Annual Losses (AAL) and assesses how changes in asset value could affect key credit risk measures, including:

- Probability of Default (PD)
- Loss Given Default (LGD)

These measures feed into the calculation of the climate-stressed Expected Credit Loss (ECL), helping financial institutions understand how their expected losses could change as flood risk changes.

The framework supports analysis across different Representative Concentration Pathway (RCP) and Shared Socioeconomic Pathway (SSP) scenarios, extending to 2080. By exploring a range of plausible climate futures, financial institutions gain better insight into how their financial risk could change. This can inform credit risk management, provisioning, credit decisions and climate-related reporting.

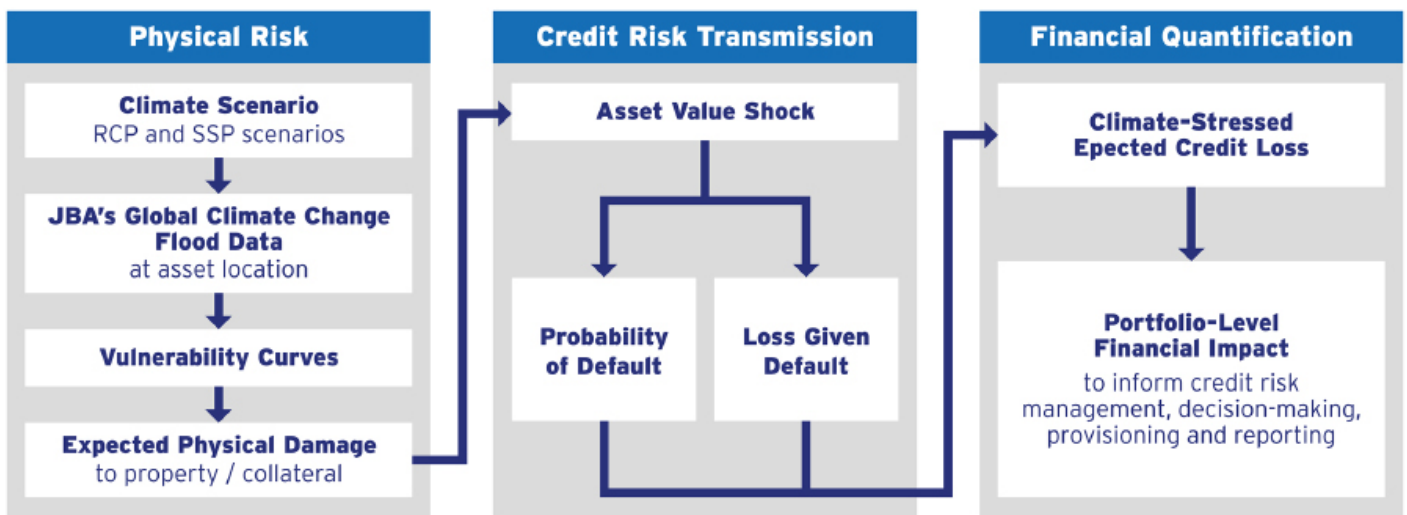


**Figure 1: How JBA's future flood hazard data fits into Forvis Mazars' climate scenario analysis framework to quantify financial impact.**

### From property-level flood risk to portfolio insight

Banks in Europe have used Forvis Mazars' solution to estimate potential flood-related losses associated with properties used as collateral for mortgages.

The framework takes a bottom-up approach, assessing the flood-related financial risk at an individual building or loan level before bringing the results together to provide a portfolio-level view of potential losses.

This detailed information can then support:

- IFRS 9 provisioning
- ICAAP
- Credit decision-making and risk appetite
- TCFD and IFRS S2 reporting and disclosures

Rather than treating physical climate risk as a standalone exercise, the approach connects property-level flood information with the credit risk measures and processes banks and regulators already use.



*Our partnership with Forvis Mazars brings together JBA's high-resolution flood data and their financial risk expertise to help financial institutions better understand the financial impacts of a changing climate. By translating detailed flood information into measures that banks already use to manage credit risk, we're helping make climate risk information more practical and actionable for financial decision-making.*

**Peter Brazil** – Business Development Manager, JBA Risk Management.

### Why this matters

Physical climate risk becomes more useful to financial institutions when it can be translated into the financial measures they already use to manage risk.

Combining JBA's global, property-level flood data with Forvis Mazars' financial modelling helps banks move from identifying where flood risk exists to understanding what it could mean for individual loans and wider portfolios.

This can support regulatory reporting and has a broader role in climate risk management. Better understanding of potential flood-related losses can inform risk appetite, provisioning, credit decisions and investment strategy.

### In summary

The partnership between Forvis Mazars and JBA Risk Management shows how property-level climate change flood data can be integrated and translated into financial risk for the financial services sector.

By analysing a range of plausible climate futures, financial institutions can explore how changes in flood risk could affect individual properties, loans and portfolios. This gives them a stronger basis for understanding and managing potential future financial risks.

As awareness of climate risks continues to grow, Forvis Mazars' **Climate risk management** approach provides a practical route from flood hazard to financial risk – helping financial institutions bring climate information into credit risk management, provisioning, decision-making and climate-related reporting and disclosures.

If you would like to learn more about JBA's Climate Change Flood Data and Climate Risk Analytics, contact us at [hello@jbarisk.com](mailto:hello@jbarisk.com).