pwc

Insurance Results Projector

A PwC Product

Data Analytics solution for insurance companies to predict claims incurred

Content

Your challenge

For industrial companies, order books and known acquisition as well as production costs make it possible to estimate reliable profit forecasts. In contrast, the estimation of the underwriting result for insurers is much more complex due to the estimation uncertainty.

This is essentially caused by the insurance company's assumption of the random risk as a component of the underwriting risk.

One reason for the uncertainty in estimating future risks is that influencing factors such as natural catastrophes are difficult to grasp. Therefore, property and casualty insurance companies face a particular challenge in forecasting claims expenses.

60%
of insurance companies fear a shortage of qualified staff*

40%
of insurance companies want to digitalise their processes*

39%
of insurance companies try to increase cost efficiency*

Your challenge

P&C insurance companies require forward-looking underwriting for the following occasions:

Valuation of portfolios in the context of purchase and sale decisions

Back-testing to determine the quality of historically estimated underwriting results

Risk management and controlling

German GAAP requirements, for example the forecast as part of the annual

Underwriting/Pricing

Many company resources are often involved in making such predictions. Ultimately, the validity of the prediction remains questionable in some cases. In addition, the reduction of the processing effort through the use of modern IT applications seems to have failed so far.

This is because, despite the advancing digitalisation, insurance companies have to determine numerous variables and assumptions for the forecast of underwriting results. Therefore, in addition to the prediction of the insurance result, a risk analysis should be carried out in particular with regard to the expenses for insurance claims.

Our solution: Insurance Results Projector

With the Insurance Results Projector we handle the estimation of underwriting results for you.

The data analytics solution for insurance companies estimates future profits from portfolios of property and casualty insurance contracts based on historical data.

- This is made with the help of a Monte Carlo simulation (predictive analytics). Expected values are determined here.
- In addition, a risk assessment is carried out at the same time with regard to the expenses for insurance claims.
- This prediction can be made for both insurance and reinsurance contracts and is carried out on the basis of previously formed homogeneous portfolios.

For the prediction, we already extract the required data from your accounting system and make the necessary assumptions for the prediction in consultation with you. The Insurance Results Projector prepares the results graphically and we make them available to you for further processing in your company via a cloud solution.

Product features

High-quality, portfolio-based prediction of underwriting results, taking into account your actual historical claims data (projection)

Probability-weighted assessment and risk evaluation of the estimated expenses for outstanding claims

End-to-end service: From data procurement and definition of assumptions to graphical preparation of the results

Spotlight:
Estimation of claims incurred

The estimation of claims expenses is done in 4 steps:

1 First, we extract your actual historical loss frequencies and amounts separately for each portfolio from your accounting system and import them into the Insurance Results Projector. Based on the assumptions determined by our industry experts, the data is then normalised to today's conditions by the Insurance Results Projector (indexation).

2 The Insurance Results Projector graphically prepares the normalised loss frequencies and the average loss amounts. Our industry experts now determine the probability distribution for these two variables.
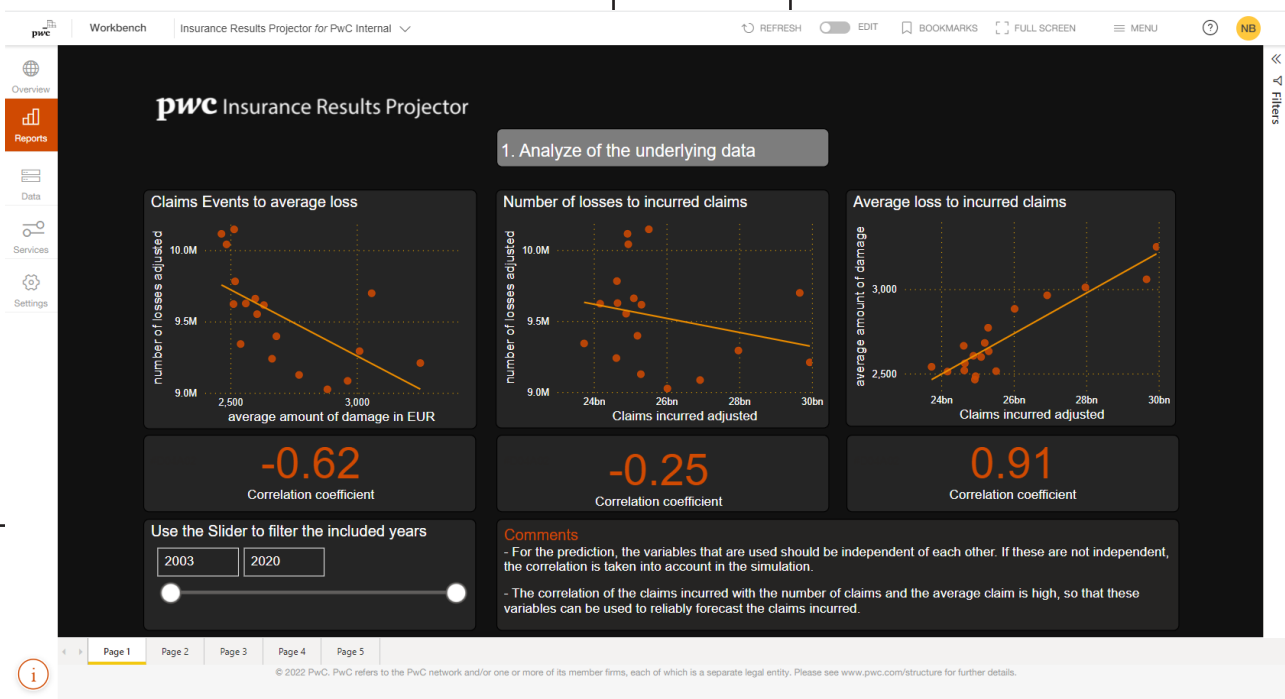
3 On the basis of the determined probability distribution of the variables "loss frequency" and "average loss amount", the loss expenses are now estimated by a Monte Carlo simulation (predictive analytics). This takes particular account of the random risk as a component of the underwriting risk.

4 The position of the projected claims incurred in the historical probability distribution thus allows a final risk assessment to be made with regard to the amount of the loss expenses.

Best practices and use case

Analytical audit procedures

PwC is the market leader in Germany in the field of annual audits of insurance companies. For this reason, we have ourselves already successfully applied the Insurance Results Projector in the context of numerous annual audits and further optimised it through our own experience.

With the help of the Insurance Results Projector, we are in a position to make an independent estimate of the profit for future financial years in relation to the underwriting P&L itself. As a result, this makes it much easier to check the plausibility of the accountant's forecast report.

Further use cases

Furthermore, the Insurance Results Projector can be used to determine expected values in relation to the main P&L items. By comparing these expected values with the values actually posted, conclusions can be drawn about the correctness, completeness and appropriateness of the accounting within the framework of analytical audit procedures.

Overall, the Insurance Results Projector can be used not only in auditing, but also, for example, in internal auditing or as an overarching management control within the framework of the internal control system. Its use can contribute significantly to the digitalisation and standardisation of your processes.

FAQ

Answers to the most frequently asked questions

What is a portfolio?

A portfolio is a homogeneous group of insurance contracts. As the simplest method, insurance contracts can be clustered based on the line of business. Depending on the business activity, other criteria such as geographical components may be useful for portfolio formation.

What data history is necessary for predicting actuarial results?

The necessary historical data should be available at the level of the portfolios formed for at least the last 10 – 20 years.

What data is necessary for the prediction?

The underwriting P&Ls of the portfolios formed as well as the number of contracts and the number of claims for the above-mentioned history are required.

Which assumptions are necessary for the calculations?

In addition to the portfolio-related annual price increase rate of the data history, assumptions must be made with regard to the premium increase and the percentage acquisition commission. Our industry experts will do this in consultation with you.

Can the prediction also be made with different assumptions?

Our pricing models include a calculation with alternative assumptions for each portfolio as standard. In addition, it is possible to adjust certain assumptions (e.g. expected premium growth) in the interactive result report.

What is predictive analytics?

Predictive analytics is the determination of future results (here: insurance results) based on historical data, statistical methods and machine learning.

Visit our PwC Store! Here you will find more information and current prices for the Insurance Results Projector.

Reduce your workload when preparing predictions. Contact us!

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