

QUALCO

WhitePaper

# Credit Portfolio Restructuring: A Modelling Approach

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ANALYTICS

## INTRODUCTION

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“In the world of analytics, day-to-day portfolio management processes are sometimes dismissed as mere operational issues. In truth, operational processes expose the critical points where analytics can contribute to better decision making.”

Panayis Fourniotis Pavlatos, Intelligent Decisions Director, Qualco

Identifying optimal debt restructuring/repayment solutions on a customer by customer basis is preoccupying creditors across Europe – and is the subject of extensive analytical debate. Once those decisions are made, however, each eligible customer must go through the chosen process.

This paper pinpoints the stages and decision points at which analytics can contribute further to the customer journey.

The general idea is to obtain as much data as possible, at whatever level of detail is available,

and to focus on getting the essential information right before expending effort on obtaining secondary information.

The restructuring process is the single most important process that can be applied to a contemporary credit portfolio. It is the **gateway to successful customer rehabilitation.**



## SPEED READ: THE RESTRUCTURING PROCESS

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A typical restructuring process consists of the following stages. Each of these stages contains a number of steps, at any of which the process may fail. Models can provide feedback at every decision point to maximise the long-term benefit for both the customer and the creditor.

**Identify and Contact:** Customers who need to be excluded because of business or regulatory constraints are removed, and attempts are made to contact the rest.

**Apply:** As much information as necessary is elicited to determine whether an optimal repayment solution exists, and to propose it.

**Approve:** a formal review of each customer's circumstances is carried out, to verify that the information recovered earlier is valid. The customer signs up to the agreement.

**Implement:** the restructured account is set up in the portfolio management systems, and each customer's repayment journey is monitored.



# IDENTIFY AND CONTACT

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The first stage in the process is to identify the right pool of people to target and make contact with them.

**Identify the initial pool of customers eligible:** *Process outcome models* will help prioritise which customers to target and contribute to cash flow estimates. Probability of default models can also help identify performing customers at risk of default, for proactive treatment.

**Source communication details:** If not available, organisations need to decide whether it is worth attempting to retrieve them, and which method to use (public data, skip tracing, white data).

**A *Probability to skip trace successfully* model** will be useful in judging whether the cost is worthwhile for any particular customer. Similar models can prioritise other contact recovery channels.

**Make contact with the customer:** *Contactability models* can help decide how to vary and how long to continue the contact attempts before escalating to some other process. A ***“best time to call” (BTTC) model*** will distinguish between customers that are likely to be reachable at different times of day, while a classic ***contactability model*** will estimate the probability of contacting a customer over a longer period of time. It is important models can distinguish between reasons for not being able to contact the customer as this will define further actions.

## APPLY

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After establishing contact, organisations can verify and enrich the data available, obtain an updated **income and expenditure (I&E) statement**, and build trust.

In most cases, the I&E statement is the first opportunity to review the customer's circumstances since credit was granted and will largely determine the solutions offered. A ***Probability to complete I&E call model*** can be used for prioritisation, or to decide which I&E calls should be outsourced.

Once eligibility is determined, the system must return **risk-adjusted net present value estimates** to the agent talking to the customer in near real-time. Tight online integration between operations and analytics systems is essential.

Securing customer agreement can take some time. Modelling can help determine the amount and nature of effort to expend, delivering an optimal sequence of actions and their timings. Models help decide which approach to adopt for individual customers, and when to stop expending resources.

While it may seem safe to follow established practices for all customers, organisations that take this approach miss the chance of finding better solutions for specific groups. Using models to test alternative treatments minimises the risk, quantifying the results and ensuring new approaches are only applied to customers when they are appropriate and effective. This raises performance and improves customer experience.



# APPROVE

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After agreeing to a solution, the customer may need to produce supporting documentation, for example to validate the I&E statement. If this changes the proposed solution, the results of models applied earlier on in the process will need to be recomputed.

This stage can take time to complete, but is well worth that investment. Collecting, validating and archiving these documents results in rich and reliable data.

It is critical to have a back office system that integrates seamlessly with the rest of the operations, aids digitization of relevant information, and provides effective, analytics facilities.

Once information is obtained, business rules should allow the organisation to input I&E data and approve automatically.

The customer then needs to sign the agreement. A surprising number fail at this point. Some simply require nudging in the right direction, using the same modelling approach as that taken in securing initial agreement. The rest, aside from bureaucratic obstacles or changes in the customers' circumstances, can be assumed to be strategic defaulters.

Given the decision to be taken (to litigate or not), organisations should pay close attention to the model's performance at this stage. Continuous monitoring raises the quality of the model and improves the outcomes.



## IMPLEMENT

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Once the customer has signed the application, the agreement needs to be set up in the system. Either an *in-place agreement* sets up new repayment terms for the existing account, or a *credit facility modification* is needed to enshrine new terms.

Keeping track of the account is critical to ensure the wealth of information arising from the restructuring process can be of use in future models. Unlike traditional monitoring of a new credit facility, an agreement carries the baggage of every interaction with the customer to date.

The wealth of data available helps proactively handle situations where the solution turns out not to be viable, customer circumstances change or customers change their minds.

However, this requires periodic customer reviews, I&E statement updates, and clear business rules on the redirection of customers to other processes. As well as ensuring failed agreements can be dealt with individually, this data means we can examine what went wrong, refining the models.

**Probability of default (PD) models** are very effective at predicting the likelihood that a customer will stop honouring the agreement over the next few months, and they improve the longer a customer's behaviour is observed.

That said, in some situations, having appropriate business rule automation in place is more important than predicting future behaviour. If an updated I&E statement indicates that a plan has become non-viable, a model will have nothing further to add.





# CONCLUSION

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The restructuring process is the single most important process that can be applied to a contemporary credit portfolio. It is the **gateway to successful customer rehabilitation**.

The process itself is simple, linear, and uniform across portfolio segments. Its implementation details, however, can be complicated, especially when they come into conflict with established practices and systems. As with any other analytics-supported process, **predictive modelling, business logic and operational response go hand in hand**. None of them are capable of optimising a portfolio's performance on their own.

Modelling elevates the organisation's performance, automating decision-making and creating consistency and clarity of purpose. Advanced analytics deliver actionable predictions with a measurable impact, making human effort more cost-effective by focusing it on the things that systems and analytics cannot deliver alone.

Restructuring is an integral part of the customer rehabilitation process. No matter the obstacles, an effective analytic approach improves the outcomes for creditors and customers.

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QUALCO Data-Driven Decisions Engine platform operationalises portfolio modelling and drives strategy optimisation. Built on a combination of flexible data warehousing technologies, state-of-the-art infrastructure, and advanced data mining and machine learning techniques, QUALCO Data-Driven Decisions Engine, gives you the opportunity to effectively bring predictive insights to your daily operational processes.

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