Advanced Finance

Group Work: Lending Game

Stage 1 Results

Profits

Recall that for each loan application, your fintech is in competition with two other fintechs (i.e., two other teams), which have different information than yours. The identity of the two fintechs you compete with are different for each loan application. For example, if your team has information about 'social1', then for each loan application one of your competitor has information about 'social2' and the other has information about 'social3'. Because several teams of students have the dataset with the variable 'social2', for each loan application we drew randomly one of these teams and picked this team to be one of your competitors. Similarly, several teams have the dataset with 'social3', so for each loan application we drew randomly one of these teams and picked this team to be your second competitor.

The outcome of the market is in the dataset Result_Stage1_xx.csv. It contains the 100,000 loan applications. The variables in the dataset are:

- id: Loan application id.

- own: The interest rate you offered on this loan application.

- competingX: The competing offer of your competitor who has information 'socialX'.

- competingY: The competing offer of your competitor who has information 'socialY'.

- borrowertype: The type of the borrower: type 0, type 1, type 2 or type 3, as explained in the guidelines of the game.

- accepted: =1 if your offered is accepted by the loan applicant; =0 if it is not.

- default: =1 if the borrower defaults on the loan; =0 if the borrower repays the loan.

- profit: Your profit on this loan. Missing (i.e., equal to zero) if your offer is not accepted. Equal to your interest rate times €10,000 if your offer is accepted and the loan is repaid. Equal to negative €10,000 if your offer is accepted and the loan is not repaid.

The following table shows the total profit of each team. As you certainly realized while working on stage 1, the game is very challenging and it is difficult (but not impossible) to be profitable. So don't worry if you made losses, even large ones! Whatever happened in stage 1, your objective should now to do better in stage 2.

Team	Profit
WeLend	13,252,801 €
No-Beta-Tech	5,289,920 €
Lehman Bruder	4,960,258 €
KMAT	4,748,000 €
H2CA Lending	1,979,612 €
BCKL	–1,195,467 €
PYCE Loans	–1,217,340 €
Team BDGT	–2,873,528 €
Statlending Inkc	–4,493,300 €
ARCA	–5,190,800 €
VN2R	–6,434,530 €
Gekko's Loan	–7,483,594 €
Pineapple	–18,342,357 €
Paylater	–26,541,402 €
MALT	–28,776,724 €
BKR	–39,245,464 €
MRS Capital	–67,000,137 €
The Loan Wolves	–69,751,852 €
FLPHV	–95,084,752 €

Stage 2

As explained in the guidelines of the game, your objective is now to review—and improve—your strategy. You should leverage the information in the result file Result_Stage1_xx.csv, which includes not your profit as well as the interest rates offered by your competitors, to analyze why you have been successful in the first stage, or why not. The new batch of loan applications are in the file LoanApplications_Stage2_xx.csv. The detailed instructions for stage 2 are in the guidelines of the game. The deliverable for stage 2 (offers on the second batch of applications + three-page report) is due on May 8 at 24:00 by email at hombert@hec.fr. Good luck!