Smart Lenders Guide to a Downturn

After the initial shock and disruption of the pandemic, lenders are looking for ways to jumpstart a quick recovery and future-proof their lending for greater resiliency across their business. Prior to COVID-19 dominating headlines, artificial intelligence and digital transformation were hot topics for innovation in financial services. Now, these initiatives and the technology behind them can help lenders weather the current storm and prepare for the future ahead. Here are six ways smart lenders can leverage AI to navigate a downturn.

Chart a course to swift recovery

The U.S. economy is heading for its first recession in more than a decade. The expansion — the longest in U.S. history — drove consumer borrowing to a record $14 trillion, and lenders will have to cope in the coming years with the fallout in their portfolios and reassess who is most likely to repay their loans.

The key question becomes: How does one reassess while maximizing lending pools, minimizing charge-offs, and ensuring loans are offered without bias? Many lenders have explored new data sources and modeling techniques to drive lending performance, but those models were built on data from the just-ended expansion, a period when defaults were at record lows. As lenders look to rebuild their models, they need new technology to help them see more clearly, respond more quickly, and operate more efficiently in this uncertain environment.

Minimize Loan Risk
Pg 3

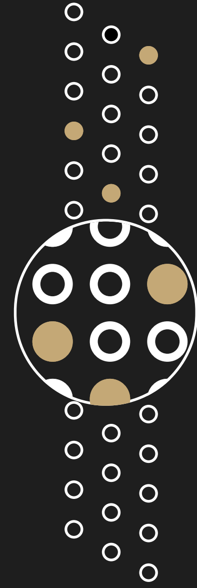
Better Borrower Pricing
Pg 4

Smarter Collections
Pg 5

Fair Lending
Pg 6

Advanced Monitoring
Pg 6

Automation and Efficiency
Pg 7



Minimize Loan Risk

The amount of risk a portfolio faces shifts daily, and that's not likely to change soon. Plus, the pool of potential and current borrowers are more difficult to assess. Artificial intelligence in underwriting helps lenders better stack-rank risk across borrowers and loan portfolios, enabling them to cherry-pick the best borrowers and better understand the loan risk of current borrowers. For example, Zest AI delivers a repayment risk score complete with score reasons for our clients' current books of business. This helps our clients understand why one group of customers is a safer bet right now and another is riskier — leading to smarter risk mitigation strategies.

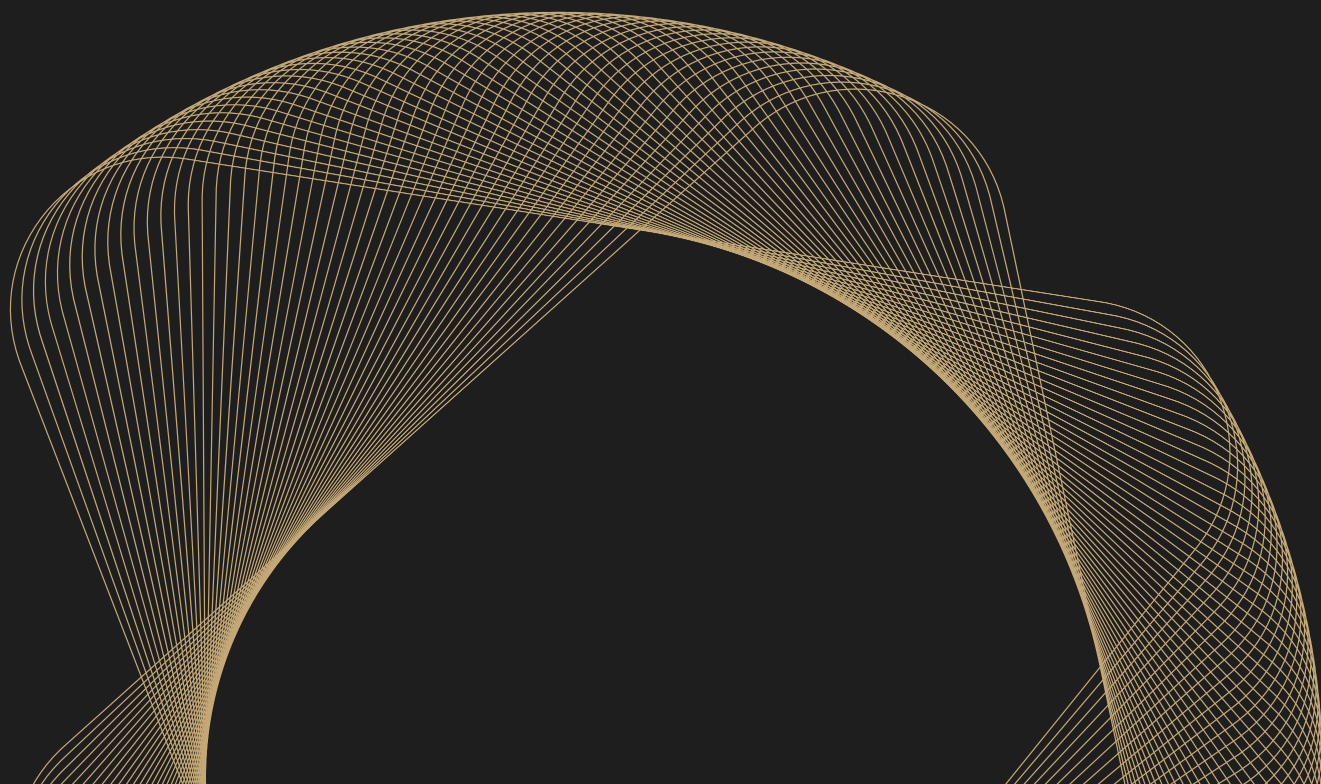
In a time when traditional credit risk data is less reliable, alternative data can help lenders control risk when combined with machine-learning (a particular kind of AI) and Zest software. Lenders can look beyond traditional credit scores to include a consumer's cash flow, installment loan history, call-center activity, length at current employer and residence, and monthly housing payments. Additional data paint a broader picture of a consumer's real credit health and risk of default beyond a single three-digit credit score. Being able to pinpoint how changes in this data affect the ability to repay a loan helps lenders price risk in a rapidly changing economy.

In good times, machine learning and better analytics tools help lenders increase approvals without raising risk. But in uncertain times, those same optimization tools can help keep volume steady and lower the number of risky loans. When a lender needs to decrease their loan book, AI can help ensure the smaller pool isn't weighted with lower quality loans.

With most loan products, lenders rank their borrowers so less-risky borrowers get better rates than riskier borrowers. Traditionally, borrower riskiness and therefore their rates are determined by credit scores, but in unusual times like a pandemic, these scores become increasingly unreliable and can expose lenders to additional risk. Zest AI customers have found the wider range of data variables available in AI models predicts greater risk for some borrowers than their credit score suggests.

Conversely, it shows some borrowers aren't as risky as their scores indicate. Based on those insights, lenders are able to make micro-adjustments across credit tiers to make their portfolio safer and more profitable. Re-assessing and re-organizing borrower segments leaders to better pricing for new loans and better yield on current books of business. In an economic downturn, lenders can use their model to justify limiting lines of credit to borrowers identified as riskier, reducing the likelihood of bad loans.

Better Borrower Pricing

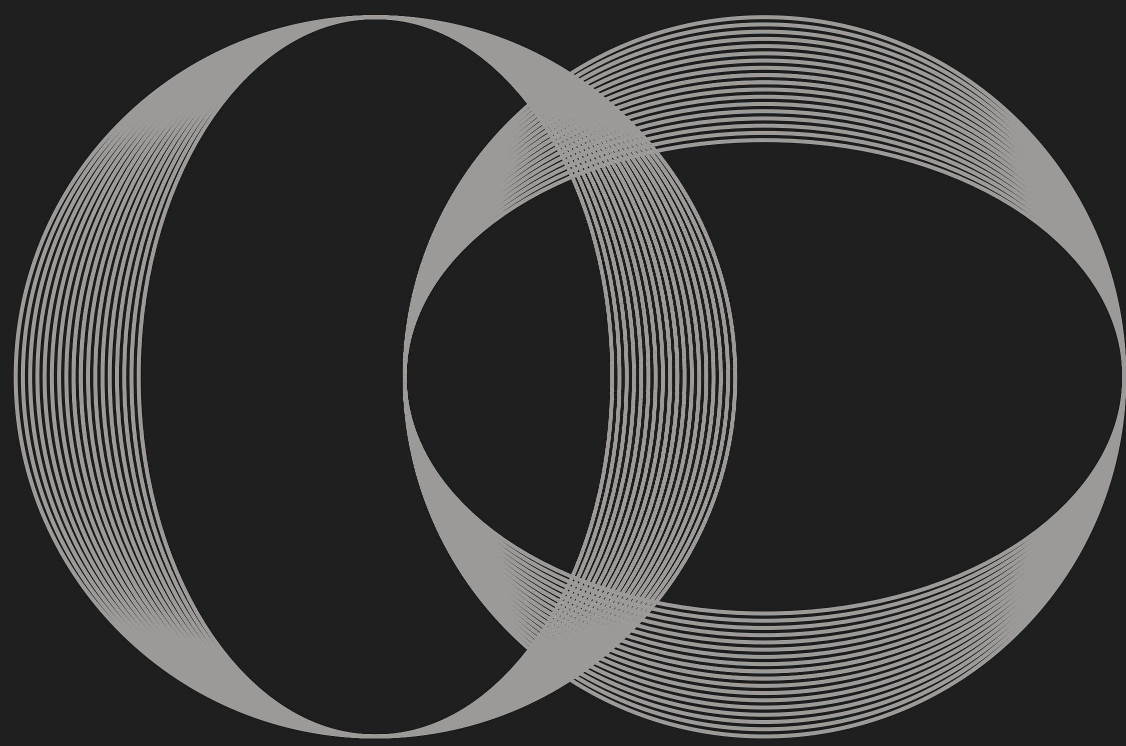


Smarter Collections Strategies

Rising unemployment and falling wages will make loan repayments difficult for many borrowers. The federal government will offer some support for loan modification and abatement programs, but the earlier lenders can spot a loan going bad the sooner they can work with borrowers to avoid default. Zest AI's analytics software can show when changes in a customer's finances are leading to concerns about their ability to repay. The challenge now is that delinquencies are being held off credit reports due to COVID-19 regulatory changes. Such a reporting change could foul up many lenders' logistic regression credit risk models. For example, in some models the number of delinquencies can comprise up to 30% of a new loan decision.

By contrast, a machine-learning model relies on hundreds of variables leading to greater model resiliency in the face of particular variable changes. In other words, a reporting change affecting delinquencies is likely to have less negative impact on a machine-learning model's ability to predict credit risk than a logistic regression model, given the broader, more diverse set of variables in the machine-learning model. When specific model variables differ from the historical data the model was trained on, performance can suffer. Zest AI models not only leverage a greater number of variables, reducing overreliance on any one particular variable, they also leverage trended data, like changes in account balances over time and credit-use rates exceeding credit limits, to help maintain strong performance.

Financial institutions can use those insights to install better mitigation strategies, including payment holidays, refinancing to lower rates, and restructuring new loans to decrease loan burdens and avoid defaults. Additionally, collections resources can be deployed more strategically against better segmented borrowers, saving high-cost methods for the most important loans. Zest AI provides the tools lenders need to be collaborative, rather than adversarial, with struggling borrowers.



Fair Lending

Model accuracy is often a trade-off when meeting fair lending goals. Removing variables or risk predictors due to disparate impact results can compromise model performance and hamper progress toward lending objectives. By looking beyond traditional credit scoring, Zest AI models find better borrowers in every credit tier — from deep subprime to super-prime, through powerful, accurate predictions. As many lenders know, two borrowers with the same credit score can have very different risk profiles. Zest software lets financial institutions lower their loan losses by up to 30% without changing approval rates. When lenders try to achieve similar results with other methods, it can raise concerns of violating fair lending standards. Zest's fairness engine helps identify protected classes in applicant pools and uses that information to adjust models so they're less discriminatory while maintaining performance. In some cases, Zest users have been able to raise the percentage of borrowers from protected classes while simultaneously increasing the credit-risk quality of their portfolio.

Advanced Monitoring

Broad economic changes affect a loan portfolio daily, but lenders often can't see those changes until loans start going bad. Better monitoring can help. Zest AI's monitoring tools are sensitive to changing conditions standard models miss. Zest's tools can spot outliers within the voluminous data that are early signals of loan trouble. For instance, Zest AI last year alerted Turkey's Akbank that the character of its credit applicants had shifted enough that the model should be refitted for current market conditions. A standard model using simple monitoring tools like PSI or score distribution wouldn't have seen the changes. Within weeks, Zest and Akbank were able to add new data to the model, refit the model, validate it, and get it into production. Another Zest client saw lower risk scores for new applicants in early March and their AI monitors detected rising anomaly rates. Given the early warning, this lender was able to analyze specific changes in borrower characteristics to ensure their decisioning was still aligned with their risk policy and their portfolio health was unaffected.

Automation for Greater Responsiveness

Quickly evolving economic conditions require lenders to keep pace with new data, regulation, reporting, and underwriting workflows—whether that's greater scrutiny for new loans or lending and underwriting teams working remotely. Greater demand for flexibility can leave financial institutions in the lurch if they haven't begun to automate key processes. Risk modeling for underwriting traditionally has been a long arduous process when adapting to change or volatile conditions. Zest AI's automated risk management, analytics, and monitoring help lenders change their models as needed instead of wading into a six- to 12-month process.

With the right software, lenders can unlock significant efficiency in the model development and deployment cycle. For example, Zest AI offers explainability and auto-documentation features that drastically reduce the time required to explain and validate a model. Under certain conditions, Zest AI models can be produced in a single day.

Zest AI's software automatically produces the model risk management documentation needed for a lender's compliance team and regulators. It even maps to the specific regulator code when applicable. These back-end supports remove many of the stumbling blocks that make rolling out a new model time-consuming. Plus, with more powerful underwriting models, many manual loan decisions can be automated even when additional scrutiny is required by new regulation. This frees up underwriters to focus on higher-value tasks and work more efficiently even when they're remote.

In a time when workforces and resources are stretched thin, doing more with less and adapting quickly all the while is a bigger challenge for lenders than ever. While a recession will be painful, the right technology partner can help lenders make better decisions and ensure deserving people get the loans they need.

Our team of financial services and data science experts can help you work through what makes the most sense for your current situation and lending goals.