Why The Secondary Market Needs AI-Enabled Accuracy

Mortgage lenders and insurers are embracing AI. Here's why secondary markets will want to share in the benefits.

TRUE

Introduction

Mortgage lenders are using AI to enhance data quality and remove origination bottlenecks. Mortgage insurance providers are using AI to improve confidence in underwriting decisions and pricing. This report explores how the same technology can also help the Mortgage Secondary Market by improving the quality and speed of loan reviews, and by building trust in lending data.

There is no denying that artificial intelligence (AI) is rapidly becoming embedded into our working lives. How tasks are performed, or even what business outcomes are possible, is being fundamentally altered as smart systems are adopted and businesses explore ways to fully exploit their capabilities and maximize return on investment (ROI).

AI-enabled automation is set to be a driving force in how industries evolve and companies compete. In fact, this change is well underway and nowhere is this more evident than in the mortgage industry.

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A New Era of AI-Enabled Automation

Automation has been the name of the game among mortgage lenders for at least the last 15 years. In truth, progress has been slower than hoped, with loan origination systems (LOSs) underwhelming in terms of the levels of automation achieved in practice compared to what was envisaged when LOSs were first promoted.

The blocker to progress has been the challenge getting to the data within borrowers' documents that is critical to underwriting. Although data extraction and verification by humans is prone to errors, lenders will not trust any technology that is not markedly better than familiar and trusted methods. AI has now matured to the point where it can effectively and reliably take on this most fundamental of tasks – the process of converting borrowers' documents into data and then contextually reviewing that data to verify its accuracy.

This next-generation AI consistently outperforms human teams across measures of accuracy, data completeness, and speed. The result is "lending intelligence" – a clean and trusted data resource that can optimize many tasks and processes throughout the lending industry.

As lending intelligence is integrated into more and more lending tasks, mortgage origination is evolving into an end-to-end automated process, sometimes described as "touchless automation." Lenders are discovering that not only does lending intelligence unlock hoped-for LOS productivity gains, but it can also be flexibly deployed to improve customer experience, inform product development, and support business model improvements that increase resilience and elasticity in response to volume cycles.

Lending intelligence is also being used by the majority of US mortgage insurers. Underwriters apply a similar process of automated and contextual document and data analysis to verify the accuracy of the information used to determine underwriting agreements and to set pricing.

The breath of use cases for AI across mortgage origination and insurance means that these industry players have made the greatest strides with AI so far. As the evidence for the benefits of this category of AI become clear, the secondary market is awakening to the possibilities of AI-backed data quality and data automation.

Why the Secondary Market Really Comes First

The secondary mortgage market is indispensable in boosting liquidity for primary mortgage lenders, facilitating a continuous influx of capital for new loan originations. It is ultimately the investors in this market that create the demand for data quality (accuracy and completeness) in loan origination since they do not want to carry the risk of poor lending decisions made by a third party.

Investors' intolerance of errors has driven the design and application of multi-stage quality control (QC) processes in lending businesses. As loans are manufactured, the layers of QC help to prevent loan officers from making mistakes at the outset while also ensuring there are multiple opportunities to identify and correct any errors that creep in – an inevitable reality in even the best human-led processes.

Given the high cost of errors, it makes sense that secondary market investors are interested in the possibilities for AI to go beyond traditional QC to improve accuracy, mitigate risk and enhance performance. Originators are acting in response, introducing AI into loan manufacturing and educating investors about the benefits.

The Loan Journey to the Secondary Market

Most mortgage lenders sell their loans on the secondary market, whether that is direct to the “Agencies” (Fannie Mae, Freddie Mac, Ginnie Mae) or through an aggregator (Chase Bank, Amerihome, etc). There are a variety of ways that lenders can package up and sell these loans, but the core of every secondary market relationship is verification that the loans being sold are of a certain quality, the collateral is solid (in this case, the home), and that the borrowers can repay the loan.

Every relationship between a lender and an investor operates through what is called a “Master Loan Purchase Agreement,” or MLPA, which clearly spells out the rules the lender must follow when selling loans to the investor. This agreement governs loan data and document accuracy, along with validations of key data points related to the Ability to Repay and the Qualified Mortgage rules.

When lenders deliver loans to investors through an MLPA, the onus is on them to ensure they meet its minimum requirements. The data needs to be accurate, the supporting documents must be present and legible, and the loan needs to be a performing loan in that the borrower can make the required minimum payments. If an investor’s review identifies any defects with the loan upon delivery they may choose not to purchase it. If defects are identified after the loan sale (which may be years later), the MLPA will typically require the lender to repurchase the loan.

These mortgage buybacks, also known as putbacks, are anathema to lenders. Forced repurchases represent a huge financial risk: HousingWire has reported that independent mortgage banks are facing a surge of loan-repurchase requests from Fannie Mae and Freddie Mac, with an aggressive approach being taken even with minor underwriting defects[1].

Post-Closing: The Last Line of Defense

For years, lenders have relied on the expertise and keen eyes in their post-closing departments to conduct QC reviews that ensure every loan being sold on the secondary market meets the rigorous demands set forth by the MLPA. This same department is also responsible for communicating with the investor on how to address errors that have been identified after the loan has been delivered so that the investor can purchase the loan with confidence.

Post-closing is often known as the “last line of defense” when it comes to loan quality and the surety of salability on the secondary market. The post-closing QC task of reviewing each loan to identify errors is often a long and tedious process, but it is critical. In a perfect world, all errors would be identified and corrected before the loan is delivered to the investor, but that is not always the case; even the most experienced and thorough underwriters make mistakes.

1. https://www.housingwire.com/articles/agency-loan-repurchase-strategy-sparks-pushback/

The Unavoidable Challenge of Borrowers' Documents

AI has pervaded the financial services sector due to its ability to streamline processes, enhance accuracy, and improve decision-making. The mortgage industry seeks similar business outcomes, but the category of AI that can deliver the combination of data accuracy and error resolution needed for mortgage lending is one that has only recently emerged.

All AI solutions run on data and the financial industry is awash with data. Indeed, it is the sheer volume and complexity of that data that makes AI the perfect tool. AI models are adept at finding patterns in oceans of data and resolving that into insights and actions that businesses want. The problem in the mortgage industry is the type of data it is forced to use.

Unlike the digital, structured data available in most areas of financial services, mortgage lenders still work in a world of documents. Before any loan can be manufactured, lenders have to read pages of unstructured data contained in every borrowers' package of documents, extract what's relevant, and input it into the structured data systems that are used to manufacture loans.

The range and volume of documents is part of the reason why mortgage origination is a time-consuming and costly process. Borrowers' documents include bank statements, paystubs, W-2 earnings and tax statements, personal identification, property appraisals, and more. Every single page needs to be categorized, read and the relevant data turned from unstructured to structured.

This is intrinsic to underwriting: verifiable information contained in the documents is what qualifies the loan calculation and decision. The potential for mistakes to be made in the conversion of documents into data, and the need for data accuracy and completeness at the point of close, is why QC happens multiple times throughout the manufacturing process.

Inside the AI Mind's Eye

AI takes multiple forms, each one specializing in specific forms of data and tasks. However, by combining different AI capabilities, the scope of what's possible can be expanded. Optical character recognition (OCR) technology, itself a form of AI, can be greatly enhanced with machine learning (ML) models that are trained to process documents.

Operating as a single AI system, this combination of OCR and ML is capable of outperforming humans at making sense of documents across measures of speed, accuracy, and completeness.

TRUE has built the only platform that combines these AI systems and then adds training that is entirely focused on the data sources that matter to lenders: borrowers' documents. This task-specific approach improves the confidence of the AI system as it processes documents. It also allows the TRUE platform to assess documents and data contextually, improving accuracy when classifying document types and identifying the correct data to extract. This combination of AI and training means that the TRUE Platform can completely automate documents-to-data conversion and verification tasks.

TRUE solutions also employ the contextual analytics capabilities of AI to go beyond classification and extraction. It offers a human-like ability to compare data across multiple sources, mimicking routine yet sophisticated tasks, such as stare-and-compare analyses of income and spending, but with accuracy rates that easily exceed 95 percent compared with 80-85 percent in human-only processes.

How Lenders use AI to Prepare for the Secondary Market

By leveraging the TRUE Platform, mortgage lenders can ensure that their loans have the necessary documentation and calculations to qualify for delivery on the secondary market. Moving these tasks to solutions backed by AI takes the stress off the post-closing last line of defense and spreads it across the multiple stages of QC across loan life cycle. The result is that at the post-closing stage, the risk of inaccuracies, non-compliance, non-salability, or buybacks is reduced to an absolute minimum.

When QC is backed by AI, lenders gain measurable confidence in their ability to meet the demands of the risk-averse secondary market. With the AI platform creating a permanent association between data and the source documents, defects such as incorrect documents, expired versions, underwriting calculation errors, and appraisal inaccuracies become easy to trace and correct. AI's ability to drive accuracy and enhance compliance makes it a valuable tool for preparing for the secondary market and greatly reducing the risk and cost of errors.

How the Secondary Market Can Use AI

It's not only originators that can benefit from integrating AI into routine processes. The same technology can be used by secondary market investors to review loan data and documents being supplied by lenders.

At present, investors typically review a sample of loans for defects. The percentage size of this sample is up to the investor, but it is simply not practical or cost effective for it to be anything more than 10 percent. This limitation is entirely eliminated by the AI in the TRUE Platform. It allows investors to review entire loan portfolios in roughly the same amount of time needed to manually review a small sample.

The exact time required depends on the number of loans in a portfolio, but with AI this is a task that's counted in hours rather than days. The ability to review entire pools of loans, quickly and affordably, could eventually lead to decreased costs and fees associated with selling loans on the secondary market. It also enables investors to improve their scoring of originators by providing greater clarity on the rate and nature of their loan defects.

Key Outcomes Throughout the Mortgage Journey

1

Operational Efficiency

AI can streamline operational processes, reduce costs and increase speed. AI-powered systems can handle large data sets quickly and accurately, leading to faster, more precise loan origination and underwriting processes.

2

Loan Document Verification

AI can automate the verification of loan documents, reducing human errors that could lead to non-compliant loans. For example, lenders can use AI to verify the borrower's income, assets, and employment, thereby ensuring that the borrower meets the necessary qualifications for the loan. For example, the TRUE Platform not only validates the data on the documents, but rules can be set to organize where these documents go in the loan stack and to ensure the right versions of documents end up in the delivery package that is sent to secondary market investors.

3

Risk Management

By accurately assessing credit risk, property value, and the likelihood of default, AI-backed systems can help mitigate the risks associated with mortgage-backed securities and improve the certainty of ROI.

4

Regulatory Compliance

AI's capacity to automate complex regulatory compliance tasks and ensure accurate interpretation and implementation of regulations protects investors from legal ramifications and promotes trust in the market.

The Future of AI in the Mortgage Market

In the current landscape, with nearly every mortgage loan sold on the secondary market being reviewed by human eyes, the criteria for that review varies based on investor requirements and inherent risk factors associated with different types of mortgage loan. This makes it very difficult to find a "one size fits all" review process.

As we have seen, although the advent of automated underwriting systems (AUS) has helped underwriters focus on key aspects of the loan file when reviewing the documentation, there is still a need for a second or third level of review before the loan leaves the lender, with possibly more reviews by the investor.

But what if that entire review process could be consolidated into a single, trusted report that negates the need for repeated manual reviews?

Devin Daly, Chief Revenue Officer at TRUE, worked in the mortgage industry for 16 years and spent most of that time running departments within secondary markets. He explained the challenge of human-led review processes:

> "Today, investors, mortgage insurance companies and third-party due diligence firms take a blob of loans from a lender and must recertify the data and documents. We realized that we have been trying to solve the wrong problem for our lenders and want to get to a future where, by certifying documents and data, these entities can rely on our certification.
>
> It's astonishing to think that investors could simply trust in a certification standard and buy a loan package without needing a further review, but that's the promise of AI-backed lending intelligence," Devin explains

While this future will require industry coordination and will likely take several years to achieve, lenders are already seeing how AI provides automated validations in the areas of income, employment and home value. **"It's really not too crazy to envision a totally automated loan validation that goes straight to an investor for purchase without an additional review being performed, and for that to happen in the foreseeable future,"** Devin adds.

Specialist AI for Lenders: Making the Right Choice

AI and automation are poised to revolutionize the mortgage industry. From improving compliance and QC to optimizing loan performance and expediting the loan process, AI-enabled automation brings measurable benefits that enhance efficiency and profitability for lenders, and customer experience for borrowers.

The challenge for buyers of technology is the bewildering array of vendors claiming AI enhancements as part of their solutions. The mortgage industry is unusual in its use of documents and data, making generic AI systems unsuitable for many loan manufacturing and QC tasks. For example, the “horizontal” OCR platforms offered by the major tech brands can present plausible yet flawed data, incapable of delivering the accuracy and completeness needed to automate lending processes.

Lenders and secondary market players should focus on “vertical” AI – systems that have been built specifically for lending tasks and with ML models trained using lending documents and data. This specialist category of AI, thoughtfully integrated into lending businesses and processes, is emerging as a source of significant competitive advantage in the evolving landscape of the mortgage industry.

If you are ready to transform your QC processes, now is the time to contact TRUE about lending intelligence and learn how it can bring a host of AI and automation improvements to your organization.

www.true.ai