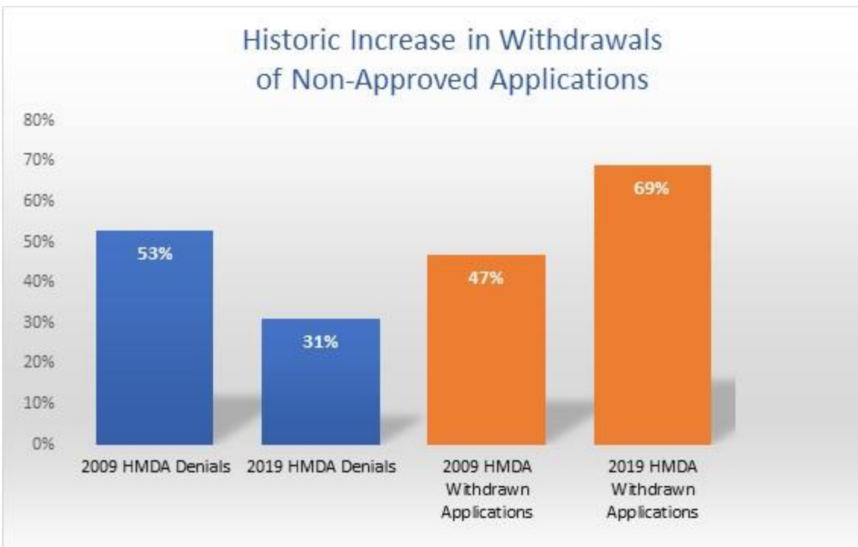
Aligning Fair Lending Testing with Why Consumers Withdraw their Mortgage Applications

Withdrawn applications reflect an increasing proportion of non-approved first-lien mortgage applications as denials have become relatively less numerous. A decade ago, based on 2009 HMDA data, denials comprised just over one-half of non-approved first-lien applications. Denials fell to less than one-third of non-approvals a decade later. Over the same timeframe, withdrawn applications increased from under one-half to over two-thirds of non-approvals.



As withdrawals become more numerous, understanding the reason(s) for these consumer decisions plays an increasingly important role in identifying potential Fair Lending risk. When residential mortgage lenders submit data for HMDA, regulators and the public can easily observe differences in the rate of loan approval across groups of consumers. A quick assessment can be made about whether there are differences in approval rates for consumers who are members of Prohibited Basis (PB) groups, as defined under the Equal Credit Opportunity Act (ECOA)/Fair Housing Act, and Non-PB (NPB) group members. Those focused on underwriting Fair Lending risk pay particular attention to two types of non-approved applications:

- Denials by credit and collateral underwriters based on the merits discovered through their underwriting processes; and
- Withdrawals by consumers prior to the underwriter’s approval / denial decision.

Comparisons across PB and NPB group member approval rates for any loan type (e.g., VA, Conventional, FHA, etc.) provide an incomplete picture of the extent to which outcomes may have been different. If, for example, Black applicants are denied more often than White, Non-Hispanic (WNH) applicants for a product, the disparity may be a result of underlying differences in attributes of consumer credit history or other topics that cannot be measured through HMDA data.

Regression-Based Modeling to Test for Denial-Related Fair Lending Risk

At ADI, when we want to make such assessments, we design and implement regression models to determine whether similarly situated PB and NPB consumers had differences in their regression-adjusted rates of approval or denial. We rely on both HMDA-reported and other data elements to make this determination. We align approval / denial regression modeling methods with underwriting guidelines used by our clients to predict the approval / denial outcome for all applicants. In other words, we include data elements in our modeling (e.g., debt-to-income ratios, credit scores, income, etc.) that correspond to key underwriting guidelines.

With a reasonably predictive modeling approach, we then test for regression-based differences in the PB/NPB probability of approval / denial and offer recommendations for follow-up, to address any identified Fair Lending concerns.

Designing Methods to Assess Withdrawal-Related Fair Lending Risk

But, what about withdrawals?

In 2019, 70 percent of HMDA reporters had a greater number of applications withdrawn by applicants than those denied by their underwriters. What factors motivate consumers to withdraw before they learn whether their application is approved? Why would a consumer make such a decision?

To be clear, the reason(s) for such decisions are often multi-faceted and not easily recorded by choosing items from a dropdown menu. This poses a challenge in measuring Fair Lending risk for withdrawn applications. Consistent with the design of our regression-based approach for denials, our goal is to design a regression-based method that is predictive of the approval / withdrawal dichotomy across applicants.

What are the possible reasons for a withdrawal and how can these reasons be used to inform Fair Lending modeling design?

Consumers may withdraw for a variety of reasons. For ease of exposition, let us assume that these reasons can be characterized as pricing or non-pricing.

- **Pricing:** A pricing-motivated withdrawal is one in which consumer Z chooses to originate a given loan with a different lender because the alternate lender offered more favorable pricing. Based on a review of data across several clients and discussions with lender compliance officials, a substantial proportion of withdrawals can be related to pricing.
- **Non-Pricing:** A non-pricing withdrawal is one in which, for example, consumer Z may withdraw when she decides to a) sell her home rather than refinance; b) cancel a purchase contract due to

a disappointing home inspection; or c) discontinue interactions with a loan officer or lender who is not helpful or providing poor service.

It is not possible to attribute causality to a withdrawal decision in many cases. Loan officers may have little ability or incentive to gain insight into withdrawal reasons. And, because withdrawal reasons are not HMDA-reportable, a lender often has no incentive to pursue the reasons.

What steps can and should a lender take to assess whether it has a Fair Lending risk relative to PB group members who withdraw?

Often, we recommend an analytic approach that first focuses on pricing. We follow an analytic approach that begins with asking a fundamental question to diagnose the given data set:

> *Did applicants who withdrew have higher pricing than similarly situated applicants who pursued a loan through to an approval/denial decision?*

In recent Fair Lending underwriting analyses – where data availability has permitted a robust answer – we have found a strong association between regression-adjusted pricing and consumer decisions to withdraw. Consider the methods and findings from our Fair Lending assessment for Bank Q in 2019.

When compelling regression-based evidence supports a pricing-oriented focus to our underwriting analysis of Fair Lending risk associated with withdrawals, we proceed accordingly. The case study described below provides an overview of how that process plays out analytically.

On the other hand, when diagnostic testing does not support a pricing-oriented approach, we design and implement approaches suitably aligned to our best sense of why consumers withdrew applications. Here, our goal is to assess whether lender-influenced consequences (e.g., poor customer service and communication) may have occurred in a way that made PB group members less likely to complete the application process in a timely manner.

Case Study

Our Bank client originated roughly 1,500 Conventional refinance loans in 2019. Meanwhile, 1,100 applicants withdrew their Conventional refinance applications prior to the Bank underwriters reaching an approval or denial decision. Our diagnostic testing revealed that the 1,500 originated loans had APRs that ranged from 2.79 to 7.67 percent with a median of 3.91 percent. Using a range of available data elements such as loan term, market interest conditions, loan-to-value ratios, credit score, property type and others, our regression modeling accurately predicted 70 percent of the variation in consumer APRs. We used a nearly identical approach to predict pricing offers to the 1,100 applicants who withdrew and found similarly predictive relationships.

Next, we combined the two sets of loans and employed suitable regression techniques to assess the diagnostic question outlined above: *Did applicants who withdrew have higher pricing than similarly situated applicants who originated a loan in a given period?*

The diagnostic evidence was clear: Once we controlled for the factors mentioned above, we saw that, on average, the 1,100 consumers who withdrew had pricing offers 17 basis points higher than the 1,500 consumers who continued the process and refinanced their existing mortgages.

With this convincing association between loan pricing and consumer decisions to withdraw in hand, we asked the next – and most relevant – Fair Lending question: *Did PB group members have higher pricing offers than NPB group members seeking similar products?*

Our results:

- Across eight PB groups – defined by race, ethnicity, age, gender, and marital status – there were no differences in regression-adjusted pricing of withdrawn applications for Conventional refinances, using the industry-standard 95 percent confidence level and robust regression methods. We concluded that the Conventional refinance withdrawn applications did not pose a Fair Lending risk for the Bank associated with pricing offers.

- In the same year, the Bank also originated 1,300 VA-insured refinance loans, while 700 VA refinance applicants withdrew their applications. We conducted similar testing for this set of 2,000 records. Notably, we found that regression-adjusted pricing offers were five basis points higher for those who withdrew, than those who completed the refinance. This finding allowed us to conclude pricing was a key factor in the decision to withdraw for VA-insured refinance applicants.

- We also discovered that consumers 62 or older had significantly higher pricing than those under 62, other factors held constant. While some of the high-risk PB group members applications resulted in an approval, others resulted in a withdrawal. We identified two sets of high-risk records: a) PB group member loans; and b) withdrawn applications using steps linked to our regression modeling. In each set, regression-adjusted pricing was significantly higher than that for similarly situated NPB group members.

Key Points

1. There are many pricing and non-pricing reasons why consumers withdraw a mortgage application prior to an approval or denial decision from a lender. From both a Fair Lending and business development perspective, there may be strong benefits for lenders to further analyze and respond to these outcomes.

2. Increasingly, we have found a strong empirical association between loan pricing offers and withdrawal decisions. Consumers who withdraw have relatively less attractive pricing offers,[1] on average. Many non-pricing factors may prompt a consumer's decision to withdraw, as well.

3. When diagnostic testing points to pricing as a likely reason for PB applicants' decisions to withdraw, we design and implement a pricing-based approach to Fair Lending testing. Where we

[1] Pricing offers recorded in a Loan Origination System at the time of any withdrawal reflect information available to the consumer on which they made their decision to attrit from the application process. We recognize that lenders may have chosen to offer more favorable terms upon request to particular consumers to retain their business. That said, our regression-based solution addresses this by consistently incorporating pricing offers to consumers at the same point (i.e., when they decided to withdraw).

find through our full analysis that PB group members who withdrew did so because they had information suggesting they would have higher pricing than what was available from other lenders in their market for borrowers with similar qualifications, we recommend that our clients conduct CFRs that focus on pricing differences to identify legitimate reasons for the pricing differences or to confirm those difference and address the Fair Lending risk.

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ADI helps banks, mortgage lenders, and other clients address compliance needs related to Fair Lending, HMDA, BSA/AML, CRA, and other critical issues. We are driven by data and hard information on regulatory requirements, business processes and, where appropriate, our clients' customers. We are also careful to recognize the value of history and current perceptions that are important to our work. Finally, we strive to communicate effectively with our clients at the board, senior management, compliance officer and frontline employee level.