

MONITORING LOAN PRICING FOR FAIR LENDING COMPLIANCE



Huntington.
Fleet.
Long Beach.

What do these names have in common? Many compliance officers would respond "settlement agreement." Huntington Mortgage Company, Fleet Mortgage Corporation, and Long Beach Mortgage Company are just a few of the mortgage lenders that have agreed to costly settlement agreements after being charged by federal regulators with discriminating in the pricing of mortgages. While much attention has been targeted at determining whether discrimination occurs in the underwriting process, regulators, and the public alike, are increasingly concerned about perceived disparities in the pricing of mortgages. Given the recent

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publicity and inquiry into the pricing practices of subprime lenders, we can only expect that mortgage lenders' pricing behavior will continue to receive increased scrutiny.

What exactly is the price of a loan in the eyes of regulators? Is your company at risk for discriminatory pricing? Should your company consider a price monitoring system? This article will address these and other issues to help you appraise your institution's fair lending compliance risks and options with respect to compliance monitoring.

LESSONS LEARNED FROM PRICING-RELATED FAIR LENDING ACTIONS

The first two major federal fair lending cases focused primarily on discriminatory practices in the loan underwriting process. However, since that time, we have seen a number of prominent investigations and settlement agreements

INSIDE:

An analysis of two major federal fair lending cases on discriminatory practices in the loan underwriting process and subsequent investigations and settlement agreements involving discriminatory pricing by lenders.

involving alleged discriminatory pricing by lenders. The allegations of the Department of Justice and the terms of the resulting consent decrees and settlement agreements provide valuable lessons on (1) the types of practices considered by regulators to be in violation of the Fair Housing Act and the Equal Credit Opportunity Act, (2) the methods employed by regulators to test for potential discriminatory conduct, and (3) the types of compliance management practices the regulators consider appropriate to manage fair lending risks. The following sections summarize some of the lessons learned from the major fair lending cases pursued during the past decade.

Federal bank regulators are vigorously enforcing the fair lending laws in the area of loan pricing.

It was just six years ago that the DOJ announced settlements with Blackpipe State Bank and the First National Bank of Vicksburg. These complaints were noteworthy as they were the first cases brought by the DOJ formally charging violations of the ECOA and the FH Act based on alleged discrimination in the terms and conditions of loans charged minority borrowers relative to “similarly situated” white borrowers. Since that time, the federal government has brought formal actions against at least six other lenders alleging discriminatory loan pricing.²

In testing for discriminatory pricing of mortgage products, regulators primarily focus on disparities in the frequency and amount of overages.

An overage occurs when the total points (or up-front fees) charged to a borrower for a specific mortgage product exceed the corresponding minimum or base amount of points (or fees) required by the lender. Overages occur within a sales environment that permits loan officers discretion in negotiating the terms and conditions of a loan with the borrower. In fact, lenders frequently use overages to provide incentives for loan officers to originate more profitable (i.e., higher priced) loans. For example, many lenders will pay loan officers a certain percentage of any excess fees they collect over and above the minimum or base amount of fees specified on the lender’s daily rate sheet.

In the last four major fair lending cases involving allegations of discriminatory mortgage loan pricing, regulators and the DOJ have based their allegations on evidence of statistically significant disparities in the frequency and/or amount of overages charged different classes of borrowers.³ We believe this consistent focus on overages by the regulatory enforcement agencies provides valuable guidance to

mortgage lenders concerning the type of testing they may wish to implement in their own fair lending compliance risk management programs. We will turn to this topic in more detail later in this article.⁴

Fair lending settlements typically require lenders to implement ongoing monitoring of discretionary loan pricing.

In the major fair lending settlements involving allegations of discriminatory mortgage loan pricing, a key remedial action required by the federal government is the development and implementation of a mortgage loan price monitoring system. While several settlement agreements contain general provisions about such monitoring systems, those involving Fleet Mortgage Corporation and Long Beach Mortgage Company are particularly informative examples.

In its formal complaint the DOJ alleged that Fleet charged overages more often to African-American and Hispanic borrowers than to similarly situated white borrowers at two of its branch offices in New York and New Jersey. As part of its settlement agreement with the DOJ, Fleet agreed to implement various policies and procedures to ensure that discretionary loan pricing was carried out in a nondiscriminatory manner — including the following:⁵

- a well-documented overage policy that permits loan officers to quote mortgage loan prices “incorporating an overage up to a total of 2.00 points in the form of premium discount points or premium interest rates on certain loan products”;⁶
- a fair lending policy and objective that “the frequency and magnitude of permissible overages to minority and women borrowers do not differ materially from the frequency and magnitude of overages to nonminority and male borrowers, respectively”;
- tracking, on at least a quarterly basis, the frequency and magnitude of overages companywide, for individual branch offices and for individual loan officers; and
- taking appropriate corrective action against individual branch managers and/or loan officers when a “material variance” is detected from Fleet’s fair lending policy and objective. These actions include fair lending counseling, suspension of overage privileges, and increased frequency of monitoring.

A monitoring and compliance system similar to Fleet’s was required in the settlement agreement for Long Beach Mortgage Company. In particular, Long Beach was directed to develop and implement a statistical model to monitor

retail mortgage loan prices on a quarterly basis. A noteworthy requirement in this agreement was that

“Nothing in this agreement shall be interpreted to require [Long Beach], in analyzing the results from its retail monitoring system, to compare retail mortgage loans to wholesale mortgage loans or otherwise to compare prices paid by borrowers who are not similarly situated.”⁸

These requirements, and the court’s acceptance of them, indicate that retail loan price monitoring should be channel-specific and should be based on a comparison of similarly situated protected and nonprotected class borrowers — a topic that we will explore in more detail later in this article.

Regulators believe lenders are responsible for the prices charged by independent third-party originators (TPOs).

In several recent high-profile fair lending cases, regulators have expanded the scope of their enforcement actions to include alleged fair lending violations based on the pricing activities of the lender’s independent TPOs. For example, Delta Funding Corporation, a New York-based home equity lender with a substantial wholesale lending business, reached a settlement agreement March 30, 2000, with the DOJ, the Federal Trade Commission, and the U.S.

Department of Housing and Urban Development. Among other things, Delta was charged with violating the FH Act and the ECOA as a result of approving and funding loans for which a statistical analysis revealed significant disparities in the average broker fees paid by African-American females relative to similarly situated white males.

It is interesting to note that the United States did not claim that Delta, itself, charged discriminatory prices:

“The United States does not claim that Delta discriminated in charging borrowers disparate fees that were set by Delta, but rather in acceding to the discretionary prices that were charged by mortgage brokers for the loans made by Delta.”

This claim reaffirms the position regulators first expressed in 1996 in *United States v. Long Beach Mortgage Company* and subsequently expressed in 1998 in *State of New York vs. The Roslyn Savings Bank*. In the former case the DOJ found Long Beach responsible for alleged pricing disparities in brokered loans because

“... [A] lender is responsible for discriminatory loan prices in the entirety of its lending operations ... [While] wholesale loans were generated through independent third-party mortgage brokers, the Bank

HARD LESSONS

- ☛ Federal bank regulators are vigorously enforcing the fair lending laws in the area of loan pricing.
- ☛ In testing for discriminatory pricing of mortgage products, regulators primarily focus on disparities in the frequency and amount of overages.
- ☛ Fair lending settlements typically require lenders to implement ongoing monitoring of discretionary loan pricing.
- ☛ Regulators believe lenders are responsible for the prices charged by independent third-party originators.
- ☛ Regulators do not believe that risk-based pricing, *per se*, violates fair lending laws.
- ☛ Fair lending settlements are expensive and damaging to a lender’s reputation.

retained the right to determine whether to grant the loan and to set the terms and conditions of financing, and any resulting credit was extended by and in the name of the Bank.”⁹

Based on this “theory” of liability, regulators expect — but so far have not required — lenders to ensure that their wholesale lending operations do not permit broker pricing that may violate fair lending laws. Specifically, in both the Long Beach and Delta cases, the DOJ required that the lender “... reject the broker’s proposal or make a counteroffer when it believes the broker’s proposed compensation and costs are not permitted under the fair lending laws.”¹⁰

In addition to citing wholesale mortgage lenders for allegedly discriminatory TPO pricing practices, regulators are also turning their attention to such practices in the consumer loan marketplace. For example, on November 18, 1999, the Federal Reserve Board entered into a written agreement with Foxdale Bank to remedy alleged violations

of the fair lending laws in its indirect automobile lending business. Although no details were provided, the agreement alleges that Foxdale Bank purchased loans from retailers where borrowers "received more onerous loan terms on a prohibited basis than other similarly situated borrowers."¹¹ As part of the written agreement, Foxdale agreed to implement those compliance management improvements necessary to prohibit such disparities in the future.

Although lenders clearly expect to be held accountable for the actions of their in-house loan officers, many would vigorously argue that it is inappropriate for them to be held accountable for the actions of independent TPOs (e.g., mortgage brokers). Besides questionable legal theories of liability,¹² there are serious concerns about the validity and interpretation of the statistical tests upon which these allegations are based. In fact, according to two Federal Reserve economists, Stanley D. Longhofer and Paul S. Calem, there are two main arguments against the statistical validity of broker loan price testing:¹³

It is entirely possible that any wholesale pricing disparities discovered in a lender's portfolio arise not from the discriminatory behavior of individual brokers, but from the particular mix of brokers doing business with the lender.

For example, suppose Broker A is located in a higher cost area or provides more services to his clients (e.g., credit counseling). Because of this higher cost structure, he charges all clients a 3.00-point fee. Also suppose that Broker B is located in a lower cost area or provides minimal services to her clients. Because of this lower cost structure, she charges all clients a 1.00-point fee. Now, if a majority of minority borrowers tend to be located closer to Broker A or prefer the additional services offered by Broker A, while a majority of white borrowers tend to be located closer to Broker B or prefer the streamlined services offered by Broker B, an analysis of the lender's portfolio will show that its minority borrowers are charged greater fees or points than its white borrowers — even though each broker prices consistently to all his/her clients.¹⁴ In this case it is arguable that the resulting pricing patterns are of the type that the fair lending laws were meant to prevent.

It is virtually impossible to perform a valid statistical test of an individual broker's pricing behavior based on the originations of only one lender.

Because a typical broker deals with multiple lenders, regulators will only be testing a portion of a broker's overall loan volume when they examine just one lender. Further, the loans being examined may not be an accurate representation

of the broker's overall pricing behavior because the broker may refer certain types of loans to particular lenders based on their comparative product offerings.

Despite the protestations of lenders and lawyers over inappropriate liability and invalid statistical tests, the regulatory enforcement agencies do not appear to be backing off their examination and enforcement activities in this area.

Regulators do not believe that risk-based pricing, *per se*, violates fair lending laws.

Long Beach Mortgage Company, which operated in the subprime market, was accused by the DOJ of discriminating in the pricing of residential mortgage loans based on race, national origin, gender, and age from January 1991 through June 1994. Although Long Beach employed a risk-based pricing system, this was not deemed to be a source of discrimination by the DOJ. In fact, according to the DOJ,

"The United States does not claim that the Bank discriminated in charging borrowers a risk-related premium, but rather in the additional discretionary amounts that were charged by its loan officer employees and its wholesale brokers."¹⁵

However, risk-based pricing must be carefully and consistently applied. According to the settlement agreement with Long Beach:

"[Long Beach] relies in part upon risk-based pricing in the pricing of its mortgage loans. Insofar as [Long Beach] desires to continue to utilize risk-based pricing, [it] shall use its best efforts to place mortgage loan applicants in appropriate risk classifications based on objective credit and risk-related criteria."¹⁶

Lenders should ensure that risk-based pricing guidelines are clearly established and consistently applied. Any exceptions to pricing guidelines should be fully documented and periodically reviewed to ensure compliance with fair lending laws.¹⁷

Fair lending settlements are expensive and damaging to a lender's reputation.

Compensatory damages can be in the millions. Long Beach agreed to put \$3 million in a settlement fund. Fleet agreed to \$4 million. Delta's settlement reached \$12 million. Beyond the compensatory relief and the litigation expenses, however, is the incalculable damage to a lender's reputation. Clearly, lenders should assess regularly whether their loan pricing policies, procedures, and/or practices put the company at risk for potential violations of fair lending laws and regulations. If such an assessment reveals the presence of

compliance risk, the lender should consult with legal counsel and consider implementing a loan price monitoring system to assist in managing that risk.

KNOWING WHEN THE COMPANY IS AT RISK

During the risk-assessment phase, it makes sense to review the same issues that would capture the attention of the fair lending enforcement agencies. Based on this strategy, a compliance officer can ask several questions based on guidance provided in the *Interagency Fair Lending Examination Procedures*¹⁸ and the specific policies, procedures, and/or practices cited by the regulatory agencies in the formal fair lending cases discussed previously. A representative set of such questions follows:

- Does your company have a formal nondiscriminatory pricing policy that is communicated to all company personnel and TPOs?
- Does your company provide loan officers and/or TPOs discretion to vary pricing across borrowers?
- Is loan officer or TPO compensation tied in any way to loan pricing (e.g., overages or yield spread premiums)?
- Are pricing guidelines in place, and are they sufficiently documented?
- Do your loan officers and/or TPOs receive formal training on fair lending laws and regulations and how they impact loan pricing practices?
- Is the company receiving complaints about loan terms and conditions from actual or potential borrowers?

The answers to these questions do not, by themselves, determine whether pricing disparities exist of the type frequently associated with fair lending problems; however, they may suggest an environment where such problematic disparities can arise and, therefore, trigger further in-depth review by banking examiners or enforcement officials. In general, if your company permits loan originators the discretion to negotiate different prices for the same product to different borrowers and ties the originator's compensation to this price, there may be significant compliance risk. Such risk tends to be lessened, but not eliminated, by effective compliance management programs that

- attempt to prevent noncompliance through communication of company compliance policies and regular fair lending training;
- monitor and detect potential compliance policy violations through appropriate testing; and

- enforce company compliance policies through appropriate corrective actions.

ACTIONS TO TAKE IF FOUND TO BE AT RISK

After assessing the company's degree of fair lending risk in the area of loan pricing, the compliance officer and company need to decide if it should implement regular self-testing, what measure of loan price should be monitored, and how loan prices should be tested.

Should your company implement regular self-testing through a loan price monitoring system?

There is no hard-and-fast rule about performing regular fair lending compliance self-testing. Many lenders do it; others do not. There are three primary factors to be considered.

(1) Regulators may look favorably upon lenders who implement effective self-testing programs.

Some regulators say enforcement activities and civil money penalties will likely be lessened for lenders who, despite their good faith efforts at compliance monitoring, are found to be in violation of the fair lending laws. For example:

"Self-testing and corrective actions do not expunge or extinguish legal liability for the violations of law, insulate a lender from private suits, or eliminate the primary regulatory agency's obligation to make the referrals required by law. However, they will be considered as a substantial mitigating factor by the primary regulatory agencies when contemplating possible enforcement actions. In addition, HUD and DOJ will consider as a substantial mitigating factor an institution's self-identification and self-correction when determining whether they will seek additional penalties or other relief under the FH Act and the ECOA."¹⁹

(2) The results of such self-testing — while beneficial — may not be privileged.

According to Regulation B, the implementing regulation of the ECOA, the self-testing privilege does not apply to "loan and application files or other business records related to credit transactions, and information derived from such files and records, even if it has been aggregated, summarized, or reorganized to facilitate analysis."²⁰ While such systems can be very useful in highlighting areas of potential

fair lending concern, and, in fact, could result in a streamlined fair lending examination if disclosed to and validated by your examiners,²¹ you should be aware that the results of these systems may also be used against you in a legal proceeding or investigation. Be sure to consult with regulatory counsel about the most appropriate way to structure the monitoring work if you choose to self-test.

(3) If applied to the pricing of TPOs, such a system may diminish any legal liability defenses that a company would assert if sued under the ECOA and/or the FH Act for disparate treatment related to TPO pricing.

By monitoring the pricing of independent originators, your company may be viewed as exerting a degree of control consistent with an agency relationship — thereby increasing your liability exposure.

If you choose to perform self-testing through a loan price monitoring system, you must be prepared to implement appropriate corrective actions if compliance violations are detected. For example, in the area of loan pricing, such corrective actions may involve borrower restitution, loan officer fair lending training/counseling, imposition of overage caps, suspension of overage compensation, and/or termination of the loan originator.

What measure of loan price should be monitored?

If you decide to implement a self-testing program, you will need to choose a specific measure of loan price to compare across similarly situated protected and nonprotected class borrowers. The available options include average note rate, annual percentage rate, and overage. While a detailed comparative discussion of all three measures is beyond the scope of this article, we note that the first two price measures have been cited by the fair lending enforcement agencies primarily in actions involving non-mortgage consumer loans.²² Overages, on the other hand, have been the basis for at least four mortgage-related fair lending cases:

- *U.S. vs. Long Beach Mortgage Company,*
- *U.S. vs. Huntington Mortgage Company,*
- *U.S. vs. Fleet Mortgage Corporation, and*
- *State of New York vs. The Roslyn Savings Bank.*

While we note that monitoring systems can be developed for any of the three price measures, for illustrative purposes we will focus only on overages.

WHAT ARE OVERAGES AND HOW ARE THEY TYPICALLY CALCULATED?

In general, overages are defined as the fees paid by a borrower in excess of the minimum amount required by the lender for a particular loan product, interest rate, and lock period.²³ Many lenders permit overages as a way to increase company revenue and to provide additional incentive-based compensation to loan originators. The examples on pages 37 and 38 demonstrate how overages may arise in loan price negotiations and how they are typically calculated.

Measurement Issues To Consider

In addition to standard origination fees, lenders frequently require loan officers to collect other types of administrative fees from all borrowers — such as document preparation fees and underwriting fees. Furthermore, certain borrowers may be levied other fees based on the specific features of their loan application.

- Rate relock fee. If the borrower relocks his/her interest rate prior to closing, the lender typically charges a fee.
- Escrow waiver fee. If the borrower satisfies specific requirements and elects not to have taxes and insurance payments paid through an escrow account, the lender typically charges a fee to reflect the lower servicing value of the loan.

In each of these cases the loan officer generally has the ability to either charge these fees directly to the borrower or “waive” these fees and collect them indirectly through overage. For example, a loan officer may agree to waive a \$175 underwriting fee — yet recoups the fee indirectly through a \$175 overage. In such a case, the \$175 “overage” would not represent a true overage because it merely covers another fee for which the borrower was not directly charged.

It is important when comparing overages across loans to ensure that overages are as “pure” as possible. That is, they should not reflect a pricing strategy that recoups legitimate borrower fees in an indirect fashion.

How Should Loan Prices Be Tested for Fair Lending Compliance?

Types of Statistical Tests for Discriminatory Treatment in Pricing

After you have ensured a consistent and accurate calculation of loan-level overages, the next step is to design the

type of comparative overage testing that will be performed on the protected and nonprotected class borrowers. Based on our review of regulatory enforcement actions alleging disparate treatment in pricing and published articles by banking regulatory agency economists, it appears that lenders should monitor the frequency and average amount of overages being charged to each protected and nonprotected class group to which it originates mortgage loans.²⁴

The frequency of overages charged to a particular group is equal to the number of loans on which an overage was levied divided by the total number of loans originated to that group. For example, if 100 loans were originated to Hispanic borrowers and 75 of those loans were charged overages, the lender has a Hispanic overage frequency equal to 75 percent (= 75/100). Alternatively, the average amount

of overages (expressed as a percentage of the loan amount) is typically based only on those loans on which an overage is levied. For example, suppose that the average overage amount for Hispanic borrowers in the example above was equal to 2.25 percent. We would interpret this number as follows: Of those 75 Hispanic loans on which overages were levied, the average overage amount was equal to 2.25 percent of the borrower's loan amount.

Apparently, this two-pronged summary overage measure has evolved over time. For example, in one of the earliest mortgage-related fair lending actions based on disparate treatment in pricing, the DOJ accused Huntington Mortgage Company of charging minority borrowers average overage amounts (0.86 point) that were significantly greater than average overage amounts charged to white borrowers (0.07

Example 1: Negotiating Extra Discount Points

Consider a borrower who requests a price quote from a loan officer for the following loan product:

loan amount = \$100,000
 product = 30-year conventional fixed rate
 note rate = 8 percent
 lock period = 60 days

Typically, the lender's minimum required fees for this particular product, interest rate, and lock period are contained on its daily rate sheet, which is rarely shared with the customer. Suppose that the rate sheet on this day specifies the following minimum required fees:

required discount points = 1.00 point
 required origination fee = 1.00 point

In this case the 8 percent interest rate represents a below-market rate;²⁶ consequently, the lender requires an additional payment of 1 percent of the loan amount (= \$1,000) to grant such a rate. In general, the greater the number of discount points the borrower is willing to pay (within limits), the lower the interest rate the borrower can obtain on the loan.

Now suppose, in this example, that the loan officer provides the following price quote to the borrower:

quoted discount points = 2.50 points
 quoted origination fee = 0.00 point

In this pricing strategy, the loan officer is "waiving" the origination fee but requires the borrower to pay 2.50 discount points (= \$2,500) to obtain the 8 percent interest rate — a full 1.50 points higher than stated on the lender's rate sheet. If the customer agrees to this price quote, we would calculate the overage on this loan as follows:

overage = (quoted origination fee – required origination fee) + (quoted discount points – required discount points)

$$\begin{aligned} &= (0.00 \text{ point} - 1.00 \text{ point}) + (2.50 \text{ points} - 1.00 \text{ point}) \\ &= 0.50 \text{ points} \end{aligned}$$

Even though the loan officer collected 1.50 *discount* points more than the minimum required by the lender, 1.00 point will be used to cover the loan's required origination fee — thereby leaving a 0.50 point overage (= \$500). Because the loan officer was able to negotiate a more favorable deal for the lender than that stated on the rate sheet (i.e., the loan officer collected a total of 2.50 points when the lender only required 2.00 total points), the lender and the loan officer will typically share the extra one-half point overage.

Example 2: Negotiating Overpar Interest Rates

Consider a borrower who is interested in the following loan product:

loan amount = \$100,000
product = 30-year FHA fixed rate
lock period = 60 days

The customer also tells the loan officer that he may have difficulty in covering all of the closing costs associated with such a loan.

According to the lender's rate sheet for this product on this day, the market interest rate is 9 percent. However, if the customer is willing to accept an overpar (or above-market) interest rate, the lender will "rebate" a specific percentage of the loan amount at closing. For example, with an interest rate of 11 percent, the lender's required fees are

required discount points = -2.00 points (maximum)
required origination fee = 1.00 point (minimum)

That is, in return for an overpar interest rate of 11 percent, the lender may *pay* up to a maximum of 2 percent of the loan amount (= \$2,000) in up-front cash to cover some of the borrower's closing costs. In general, the higher the interest rate the borrower is willing to accept, the greater the amount of lender-paid credits available for closing costs.²⁷

Since the customer does not see the lender's rate sheet, suppose that the loan officer provides the following price quote:

note rate = 11 percent
quoted discount points = -1.00 point
quoted origination fee = 1.00 point

In this pricing strategy, the loan officer quotes the 11 percent overpar interest rate but agrees to pay only 1 percent of the loan amount toward the borrower's closing costs — 1.00 point less than the maximum the lender would be willing to offer. If the customer agrees to this price quote, we would calculate the overage on this loan as follows:

$$\begin{aligned} \text{overage} &= (\text{quoted origination fee} - \text{required origination fee}) + (\text{quoted discount points} - \text{required discount points}) \\ &= (1.00 \text{ point} - 1.00 \text{ point}) + (-1.00 \text{ point} - (-2.00 \text{ points})) \\ &= 1.00 \text{ point} \end{aligned}$$

Even though the loan officer agreed to pay 1 percent of the loan amount toward the borrower's closing costs, the lender's rate sheet permitted up to a 2 percent lender credit; consequently, the loan officer earned an additional 1.00 point (= \$1,000) for the company. Because the loan officer was able to negotiate a more favorable deal for the lender than that stated on the rate sheet, the lender and loan officer will typically share the 1.00-point overage.

point). Based on our review of the government's complaint and additional data presented in Courchane and Nickerson (1997), it appears that the single summary overage measure the DOJ presented as the basis for its complaint was calculated by simply averaging the overage amounts — both positive and zero — across all members of each group.²⁸

In subsequent pricing-related actions the DOJ evidently began to develop its two-pronged test — separating overall overage differences across groups into that portion due to disparities in the frequency of overages charged both groups (regardless of the actual amount charged) and that portion due to disparities in the average amount of overage charged to members of each group that actually paid overages. For

example, in the DOJ's 1996 Complaints against Fleet Mortgage Corporation and Long Beach Mortgage Company, it alleged that the average price differences observed between protected and nonprotected class groups were driven by differences in the frequency of overages charged to the two groups.

Disaggregating overall price differences into frequency and amount components — while consistent with known regulatory practices — can also provide useful information to a lender. For example, if there are observed price differences between two groups, it can be helpful from a corrective action standpoint to know whether the price differences are driven by one group receiving overages more frequently

than the other or because those borrowers who are charged overages in one group are charged higher amounts, on average, than the same borrowers in the other group. Additionally, there may be situations where there are no overall price differences between two groups — yet there exists disparate treatment in either the frequency or amount of overage. For example, if a lender charges African-American borrowers overages more frequently than white borrowers, yet charges African American borrowers smaller average amounts as compared to whites, technically there exists potentially disparate treatment in pricing (an overage frequency disparity) even though the overall average price charged to the two groups does not differ.

*The Challenge of Comparing
"Similarly Situated" Borrowers*

To be more specific about these tests and their inherent challenges, suppose a mortgage lender's counsel sent us 1999 origination data from a specific metropolitan statistical area (MSA) and asked us to determine whether overages were charged in a nondiscriminatory manner. A quick summary of the pricing data by Home Mortgage Disclosure Act demographic identifiers leads to the following table.²⁹ For simplicity, we will focus only on overage amount comparisons — although the following discussion applies equally to comparisons of overage frequencies.

<i>Borrower Classification</i>	<i>Average Overage Amount</i>
Protected Class	1.50%
Nonprotected Class	0.50%

We calculate that in this MSA protected class (PC) borrowers were charged average overage amounts three times as large as nonprotected class (NPC) borrowers. Furthermore, standard statistical tests confirm that this average overage amount disparity is statistically significant, that is, unlikely due to random chance. Our initial reaction in the face of such a large, statistically significant pricing disparity might be to conclude that NPC borrowers were receiving preferential pricing while PC borrowers were being treated in a discriminatory fashion. However, there is a significant complicating factor.

Discriminatory pricing of the type with which the fair lending laws are concerned is based on price differentials between "similarly situated" borrowers or unexplained price differences between differently situated borrowers. In the example above, no fair lending problem would exist if such price differences could be explained by legitimate cost- or risk-based factors that differ between the two bor-

rrower groups — for example, the borrowers with the greater average overages required additional efforts by loan officers to clear up blemishes in their credit reports. However, if such differences do not exist, or if there still exists a nonnegligible price difference even after controlling for these factors, the remaining unexplained price difference typically is associated with discriminatory behavior — unless the lender can offer a legitimate explanation.

Controlling These Legitimate Factors

In a traditional examination approach based on a comparative file review process, the examiners select a sample of originated loans and attempt to find "matches" that consist of a pair of similarly situated PC and NPC borrowers who received different prices that cannot be explained away by legitimate factors. While this approach has a long history in regulatory examinations, there are a number of limitations with such an approach for self-assessment purposes:

- Because it is based on a manual review of a sample of loans, it is best suited for small-volume lenders. For large-volume lenders, a statistically valid sample may require the manual review of hundreds of loan files. Because this is a labor-intensive process, it becomes increasingly expensive as a lender's volume, geographic footprint, and product offerings grow.
- Whether a pair of borrowers is "similarly situated" is a judgmental decision, which can differ across analysts or differ for a specific analyst over time. There are numerous factors that can result in legitimate price differences across borrowers; consequently, it is nearly impossible to find two borrowers who are truly similarly situated. Frequently, the analyst will use his or her judgment to assess whether the observed differences in two borrowers' loan application profiles are significant enough to render them differently situated or to justify the magnitude of the observed price difference. Unfortunately, due to the lack of specific criteria, different analysts may come to different conclusions about the same pair of files (e.g., does a \$20,000 difference in loan amount justify an overage difference of 0.35 point?). Further, due to the complexity of individual loan files, it would not be uncommon for an analyst to view the same pair of files differently at two points in time.
- It is virtually impossible to conclude that the "matches" that arise from a manual comparative file review represent a statistically valid pattern or practice of pricing discrimination as opposed to random occurrences where one borrower is inexplicably charged more than another.

In a comparative file review process, the analyst traditionally searches for a PC borrower who is charged more than a similarly situated NPC borrower. However, if the analyst searches further, he or she would also likely find PC borrowers who are charged less than similarly situated NPC borrowers. Because these matches are neither investigated nor accounted for in the analysis, there is no statistical basis for the analysts to conclude that a pattern or practice of pricing discrimination exists.

We believe that the manual comparative file review process — while limited — works relatively well for small-volume lenders or for targeted reviews of relatively small-volume originating units (e.g., a specific branch office or loan officer). However, even under these circumstances, one must review the results with the limitations noted above in mind.

Partly based on these limitations, some of the regulatory agencies — such as the Office of the Comptroller of the Currency, the Federal Reserve, and the DOJ — eschew manual comparative file review procedures for certain large-volume lenders and, instead, perform their examination of loan pricing using regression analysis.³⁰

Regression analysis is a statistically based procedure that is well suited to performing comparative file reviews. With regression analysis, the analyst employs a statistical model that — once developed — can assess whether there is a statistically significant pattern of PC borrowers paying overages more frequently, or in greater amounts, than NPC borrowers after controlling, in an automated and consistent manner, for the effects of differences in legitimate loan application characteristics. We believe the main features of this testing methodology are as follows:

- For most lenders today, the method can review all loan files and, therefore, permit more comprehensive compliance testing. Advances in loan origination technology and data quality now permit relatively easy electronic access to most, if not all, of the information needed to develop statistically valid regression models for compliance testing. Furthermore, because such information is usually available for the entirety of the lender's originations, it is just as easy to apply this method to all loan files rather than just a small sample. In fact, by having the ability to test easily all relevant loan files, regression analysis permits you to perform more comprehensive compliance testing — for example, a lender can test for compliance in all MSAs, branches, and loan officers for which sufficient loan volume exists.³¹
- It is a substantially less labor-intensive method that reduces compliance review time and lowers long-run

compliance management costs. While there can be significant up-front costs in building a compliance-monitoring system based on regression models, the technology and automated testing — when in place — should result in significantly lower long-run monitoring expenditures because it reduces the need for labor-intensive comparative file reviews.

- It is a more powerful method of detecting potential compliance violations. By simultaneously controlling for a multitude of loan application factors that can cause loan prices to differ legitimately across borrowers, the regression models remove the judgmental comparability review of loan files and replace it with a consistent and objective evaluation that is based on the statistical analysis of actual pricing practices on all loans originated during the period under study. For example, the regression model may indicate — based on the pricing of all originations — that loan officers typically charged about 0.125 point higher overage for each \$10,000 reduction in a borrower's loan amount. Therefore, unlike the comparative file review process, this method tells us that if two borrowers differ only in the size of their loans — with one being \$40,000 greater than the other — then overages should differ only by 0.50 points ($= 4 \times 0.125$). If the price difference is greater than 0.50 point, the model has identified an unexplained pricing difference that may contribute to a pattern or practice of pricing discrimination.

REGRESSION-BASED METHODS OF COMPARATIVE FILE REVIEW

To see how regression-based methods work, consider the overage example presented previously and add some summary information about each group's average loan application profile.³²

MSA: Gotham City

Borrower Classification	Average FICO Score	Average Overage Amount
Protected Class	650	1.50%
Nonprotected Class	690	0.50%

With the additional data, we have confirmed our suspicion that the two groups of borrowers are not similarly situated.

ated — at least with respect to this selected characteristic. Specifically, PC borrowers, relative to NPC borrowers, tend to have lower average credit quality. Further, interviews with the lender's loan officers reveal that their overage practices are guided by standard economic considerations. For example, because loan officers tend to spend more time with borrowers of lower credit quality to provide counseling services and to assist with addressing credit report problems, loan officers tend to seek greater overages on such loans to compensate for these additional services.

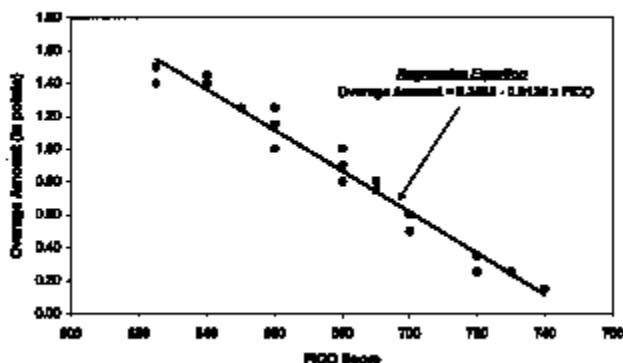
What this additional information demonstrates is that the observed price differences between the PC and NPC groups may be caused, in part or in whole, by legitimate overage practices being applied in a nondiscriminatory manner to differently situated borrowers. The primary question, however, is how much of the observed price difference is due to these underlying differences in loan application profiles? To see how regression analysis can assist us in answering this question, consider the diagram below:

In this diagram we show graphically, for all loans originated by this lender during this period, the relationship between the overage amount charged each borrower and his/her respective Fair Isaac & Company (FICO) score. Notice two features of the diagram:

- It is rare that one would find pairs of truly similarly situated borrowers with which one could test directly for disparate treatment. Such findings become even more unlikely the more loan application characteristics that are considered.
- Because finding pairs of truly similarly situated borrowers is so unlikely, we would like to determine how much the observed prices between differently situated

borrowers should legitimately differ. Clearly, in this example, this lender's loan officers charged borrowers with more difficult credit profiles higher overage amounts, on average, than borrowers with better credit profiles. By applying regression analysis to these data, we can actually quantify this relationship and use it to assess whether the observed differences in prices between differently situated borrowers are legitimate.

Relationship Between FICO Score and Overage Amount



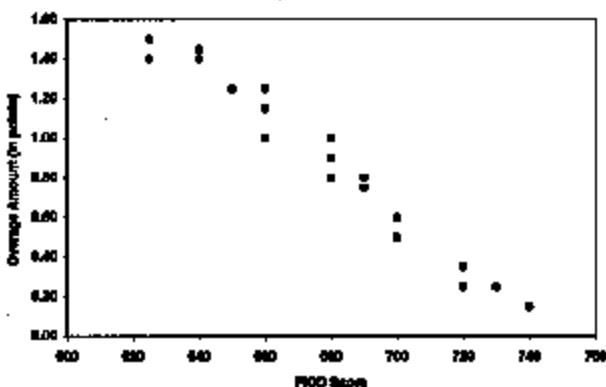
In this example, the regression procedure has quantified the underlying relationship between overage amounts and borrower credit quality with a mathematical equation. This equation represents the best indication of how the lender's loan officers treated all borrowers from a pricing perspective. The slope of this regression line is equal to -0.0125 and is interpreted as follows:

For every 10-point increase (decrease) in a borrower's FICO score, the lender's loan officers charged 0.125 point ($= 10 \times 0.0125$) less (greater) overage.

We can now use this regression equation, and its quantification of the effect of credit quality on price, to assess the pricing differences observed between PC and NPC borrowers in the Gotham City MSA (see chart page 42). For each borrower in our data set, we can use the estimated regression equation to predict the amount of overage that each borrower should have been charged — based on how the lender's loan officers priced to all borrowers during that period. We can then separate borrowers into PC and NPC groups and calculate the average predicted (or expected) overage amounts for each group.

In this example we see that the regression model predicts that PC borrowers are charged higher average overage

Relationship Between FICO Score and Overage Amount



amounts than NPC borrowers because PC borrowers have, on average, lower credit quality and, therefore, require more effort (and cost) for the loan officer to serve.

However, the model predicts that the extra efforts based on credit quality should only amount to a 0.50-point overage difference between the two groups. Clearly, this is less than the 1.00-point overage difference that actually exists. Furthermore, standard statistical tests show that the unexplained disparity for each group is statistically significant and, therefore, not due to random chance; hence, there

estimated effect of each factor is based on an objective, statistical analysis of the lender's actual pricing practices — rather than on the qualitative and subjective guesses about such effects that are the domain of manual comparative file reviews.

Statistically based loan price monitoring models are not, however, without their potential pitfalls. If an inexperienced modeler develops a regression model without a thorough understanding of the assumptions (statistical and economic) underlying the model, the conclusions obtained

based on such a model could be very misleading and likely statistically invalid. In fact, the OCC, concerned that some banks might be relying on poorly developed risk models, recently issued a bulletin devoted to the issue of model validation.³³ The OCC has cautioned in an Interpretive Bulletin that "one of the largest sources of model error arises in the use

of theoretical tools, most often statistical methods, by untrained modelers."

Although it received scant attention just a decade ago, regulators and the public today are increasingly concerned with potential discriminatory mortgage loan pricing. As a first step, compliance officers should determine whether their company is at risk for discriminatory pricing behavior. If so, they should consult with regulatory counsel and consider implementing a loan price monitoring system. While such monitoring systems can take many forms, regression-based methods are particularly powerful and favored by some regulators for large-volume lenders. These methods can easily accommodate a large number of loans and account for numerous factors that simultaneously affect pricing. A well-developed system based on regression techniques can accurately identify pricing disparities at various market levels so that a lender can target its corrective actions appropriately. ■

remains a 0.50-point overage difference between the two groups that cannot be explained by legitimate reasons. In this case, the lender should "drill down" into the loans originated within this MSA to ascertain the root causes of these unexplained pricing disparities and then take appropriate corrective actions.

We note that this example concentrates solely on MSA-level results. However, analyzing data at such an aggregate level can sometimes mask significant overage disparities that are present at more disaggregated organization levels — such as for individual branch offices or individual loan officers. Consequently, similar types of tests should be conducted at the branch and loan officer levels. These tests, combined with other analyses, will help identify the specific branches or loan officers whose pricing patterns are most consistent with potential fair lending violations. With these results, a company can take targeted corrective actions.

We would like to stress that this example is purely illustrative because it is based on only one type of factor that can cause legitimate price differences across borrowers — credit quality. In real-life situations, one can develop regression models that consider simultaneously several loan application characteristics that can be legitimately linked to pricing differences. The main strength of such models is their ability to estimate quantitatively how each of several factors affected individual loan pricing decisions during a particular time period. Furthermore, the

MSA: Gotham City

Borrower Classification	Average FICO Score	Observed Avg. Overage Amount	Expected Avg. Overage Amount	Unexplained Disparity
Protected Class	650	1.50%	1.22%	0.28%
Nonprotected Class	690	0.50%	0.72%	-0.22%

NOTES

¹ See *U.S. vs. Decatur Federal Savings and Loan Association* and *U.S. vs. Shawmut Mortgage Company*.

² See *U.S. vs. Huntington Mortgage Company* (1995), *U.S. vs. Security State Bank of Pecos* (1995), *U.S. vs. First National Bank of Gordon* (1996), *U.S. vs. Fleet Mortgage Corporation* (1996), *U.S. vs. Long Beach Mortgage Company* (1996), and *U.S. vs. Delta Funding Corporation* (2000). The Federal Reserve Board

also brought an enforcement action against Foxdale Bank in 1999 for allegedly purchasing consumer loans from auto dealers that charged certain protected class borrowers "more onerous loan terms" than other similarly situated borrowers. Furthermore, state banking regulators are also playing a role in fair lending enforcement. See, for example, *State of New York vs. The Roslyn Savings Bank* and *Delta Funding Corp.*'s settlement with the New York State attorney general — two cases involving, among other things, alleged discrimination in loan pricing.

³ See *U.S. vs. Long Beach Mortgage Company, U.S. vs. Huntington Mortgage Company, U.S. vs. Fleet Mortgage Corporation, and State of New York vs. The Roslyn Savings Bank*.

⁴ For nonmortgage lenders, regulators typically test for disparities in either loan interest rates or annual percentage rates. See Note 27 for more information.

⁵ See settlement agreements from *U.S. vs. Long Beach Mortgage Company, U.S. vs. Huntington Mortgage Company, U.S. vs. Fleet Mortgage Corporation, State of New York vs. The Roslyn Savings Bank, and U.S. vs. Delta Funding Corporation*.

⁶ See *U.S. vs. Fleet Mortgage Corporation*, settlement agreement, Exhibit A.

⁷ We note that Fleet's level of "permissible overages" (2.00 points) is twice the size of the overage cap contained in Huntington Mortgage Company's 1995 settlement agreement with the Department of Justice (1.00 point).

⁸ See *U.S. vs. Long Beach Mortgage Company*, settlement agreement.

⁹ *Ibid.*

¹⁰ See *U.S. vs. Delta Funding Corporation*, settlement agreement, and *U.S. vs. Long Beach Mortgage Company*, settlement agreement.

¹¹ See written agreement by and between Foxdale Bank and Federal Reserve Bank of Chicago, November 18, 1999. There are also allegations that such disparities existed in Foxdale's direct lending business.

¹² For a legal perspective on this issue, see Sandler, Andrew L., Klubes, Benjamin B., and Wilson, Donna L. "Lenders and Third-Party Relationships: The Responsibilities and Liabilities," *ABA Bank Compliance*, January/February 1999, pp. 44-52.

¹³ See Longhofer, Stanley D., and Paul S. Calem. "Mortgage Brokers and Fair Lending." *Economic Commentary*, Federal Reserve Bank of Cleveland, May 15, 1999.

¹⁴ This example is similar to the MSA submarket problem that arises in the context of retail loan pricing analyses. In that case an MSA could show a statistically significant pricing disparity between protected and nonprotected class groups even though each retail branch and loan officer is pricing consistently to all borrowers. Such a disparity can be caused by a majority of minor-

ity borrowers being located in less competitive (higher-priced) areas of the MSA while the majority of nonminority borrowers are located in more competitive (lower-priced) areas.

¹⁵ *United States vs. Long Beach Mortgage Company*, settlement agreement.

¹⁶ *Ibid.*

¹⁷ For a more in-depth discussion of the risks of risk-based pricing, see Noto, Thomas J. "Reducing the Risk of Risk-Based Pricing." *ABA Bank Compliance*, July/August 1999, pp. 9-12.

¹⁸ The *Interagency Fair Lending Examination Procedures* were issued January 5, 1999, and represent a uniform risk-based set of procedures to be used by each of the federal banking regulatory agencies in their examinations for compliance with federal fair-lending laws.

¹⁹ *Interagency Policy Statement on Discrimination in Lending*, April 15, 1994.

²⁰ 12 CFR § 202.15. The self-test definition also does not include creditor reviews and evaluations of loan and application files, either with or without a statistical analysis (Equal Credit Opportunity: Final Rule, December 31, 1997).

²¹ See OCC Interpretive Bulletin 95-51: "Fair Lending: Self Assessments by National Banks."

²² See *United States vs. Security State Bank of Pecos, United States vs. First National Bank of Gordon*, and the written agreement between Foxdale Bank and the Federal Reserve Board. Annual percentage rate and average note rate may be better suited for comparing prices of nonmortgage consumer loans because such interest rates are relatively more stable than mortgage interest rates and there is generally not a rate-point trade-off to consider in the pricing of consumer loans. For a detailed discussion of the difficulties in using APR in mortgage-related loan pricing comparisons, see Longhofer, Stanley D. "Measuring Pricing Bias in Mortgages," *Economic Commentary*, Federal Reserve Bank of Cleveland, August 1, 1998.

²³ Depending on a lender's specific pricing strategies, one may also observe what are referred to as "underages." Underages arise when the fees paid by a borrower are *less* than the minimum amount required by the lender for that particular product, interest rate, and lock period. We note that part of the basis for the government's complaint against Fleet Mortgage Corporation relied on alleged disparities in the frequency with which underages were granted to protected and nonprotected class borrowers. If underages are prevalent for a lender, it may wish to monitor them in the same manner as described below for overages.

²⁴ In terms of regulatory enforcement actions, see *U.S. vs. Long Beach Mortgage Company, U.S. vs. Huntington Mortgage Company, U.S. vs. Fleet Mortgage Corporation, and State of New York vs. The Roslyn Savings Bank*. In terms of published articles by fair lending economists, see Courchane, M., and D. Nickerson, "Discrimination Resulting from Overage Practices." *Journal of*

Financial Services Research, Vol. 11, 1997, pp. 133–151, and Longhofer, Stanley D. “Measuring Pricing Bias in Mortgages,” *Economic Commentary*, Federal Reserve Bank of Cleveland, August 1, 1998. For nonmortgage consumer loan products, the typical test involves the comparison of average APRs or average note rates between protected and nonprotected class groups.

25 In practice, you may encounter loans with negligible overage amounts, such as \$10 or less. Because in the overage frequency calculation these overages count the same as those with substantially greater amounts, such as \$1,000, you may wish to consider implementing an alternative overage cutoff that is greater than zero (for example, \$50 or \$100 or, perhaps, an eighth of a point). This allows you to focus only on those loans whose overages are truly due to the intentional pricing strategies of loan officers — rather than from the effects of rounding or other benign factors. Of course, you should always consider whether implementing these alternative overage cutoffs may disproportionately affect certain protected or nonprotected class groups.

26 The “market rate” or “par rate” is considered to be that interest rate where zero up-front discount points are required by the lender.

27 From a practical standpoint, the extent of overpar pricing is limited by two factors: the higher the interest rate, the more difficult it will be for the borrower to qualify for the loan, and the higher the interest rate, the greater the likelihood of prepayment.

28 In fact, even though the underlying data presented in Courchane and Nickerson show that minority borrowers were charged overages almost three times the rate of white borrowers, the complaint does not mention such overage frequency calculations.

29 We note that in the presence of both an applicant and coapplicant, there are several ways to categorize the race of a loan. A common method is to use the FFIEC classification criteria.

30 See Courchane and Nickerson (1997) and Longhofer (1998).

31 Limited file reviews may still be necessary either to verify the accuracy of the electronic data or to investigate further those individual loans identified by the regression model as priced significantly different from other similarly situated borrowers. However, the scale of such reviews is substantially less than that required by the manual comparative file review process.

32 The following discussion and example of regression modeling are for illustrative purposes only. Actual development of regression models for loan price monitoring purposes involves more complex and highly technical considerations than presented here.

33 OCC Interpretive Bulletin 2000-16: “Risk Modeling: Model Validation.”

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