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Accuracy in Credit Reporting

MICHAEL E. STATEN AND FRED H. CATE

The accuracy of consumer credit reports was among the most prominent issues in the congressional debate over amending the Fair Credit Reporting Act (FCRA) during the summer of 2003. This came as no surprise to observers of the credit reporting industry and its evolution since the original FCRA was passed in 1970.[1] One of the primary impetuses for passage of the FCRA was to enhance accuracy in credit report content. The act explicitly requires credit bureaus to follow "reasonable procedures to assure maximum possible accuracy" of the information in their credit reports.[2] This language reflects the fact that a hallmark of the U.S. reporting system is its reliance on voluntary reporting from thousands of furnishers of credit-related information. The voluntary nature of the reporting process makes it particularly sensitive to the costs imposed by regulatory and legislative mandates. The legislative balancing act undertaken in crafting the original FCRA was intended to foster accurate reports without discouraging reporting. Consequently, since implementation of the act in 1971, accuracy in credit reporting has been a perennial issue, but Congress has been notably cautious about imposing new requirements on

1. Fair Credit Reporting Act of 1970, P.L. 91-508, 84 Stat. 1114 (codified at 15 U.S.C. 1681 1681t).

2. 15 U.S.C. 1681e(b).

either credit bureaus or data furnishers without a clear indication of a problem that required legislative intervention.[3]

During the summer of 2003, testimony before Congress juxtaposed contrasting views of how well the U.S. credit reporting system is performing. Consumer advocacy groups cited credit report inaccuracies in calling for legislation that would impose new procedures and legal liability on both credit bureaus and furnishers of credit report information. In making their case, these groups correctly pointed out that an inaccurate depiction of a consumer's credit history not only can trigger a rejection of a loan application, but with advent of risk-based pricing can also lead to overpricing loans for which the borrower is approved. Moreover, borrowers may not realize that the interest rate or fees they pay may be inflated due to inaccurate information from the borrower's credit report. One advocacy group asserted that inaccuracies in credit reports could cause at least 8 million Americans to be miscategorized as subprime risks, and pay tens of thousands of dollars in excess interest payments over the term of a thirty-year mortgage loan (Brobeck, 2003).

In contrast to assertions of widespread problems in credit files, congressional testimony also documented that the United States has become the world leader in competitive consumer and mortgage credit markets. In 2001, 75 percent of U.S. households participated in the consumer credit markets and held some type of debt. Sixty-eight percent of all U.S. households owned their homes, and nearly two-thirds of these homeowners has some type of mortgage loan. About 72 percent of all households owned at least one general-purpose credit card (for example, Visa, MasterCard, Discover, American Express) (Durkin, 2002, p. 202). The average U.S. consumer-borrower had 10.4 credit accounts (Avery and others, 2003, p. 51). By comparison, European consumers have access to one-third less credit, as a percentage of gross domestic product, than do American consumers (Cate and others, 2003, p. 12). Compared to the vast majority of other countries, U.S. creditors have managed to extend substantially more credit per capita much further down the income spectrum, at the same time maintaining relatively low delinquency rates. In the second quarter of 2000, only 2.8 percent of all mortgage holders in the United States were delinquent more than thirty days.[4] Only 4.6 percent of all credit card borrowers were more than thirty days delinquent on their accounts.[5] In short, Americans enjoy the remarkable

3. See, for example, Consumer Credit Reporting Reform Act of 1996, enacted as title II, subtitle D, chap. 1 of the Omnibus Consolidated Appropriations Act for fiscal year 1997, P.L. 104-208, 104 Cong. 2 sess. 2401-2422 (September 30, 1996) (codified at 15 U.S.C. 1681-1681t). The legislative history of the 1996 amendments is documented in Seidel (1998).

4. Authors' calculations using TrenData, an aggregated credit report database product of TransUnion, LLC.

5. Authors' calculations using TrenData.

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combination of: 1) widespread access to credit across the age and income spectrum, 2) relatively low interest rates on secured loans (for example, home mortgages, home equity lines of credit, automobile loans), 3) exceptionally broad access to open-end, unsecured credit card products, and 4) relatively low default rates across all types of loans. It seems highly improbable that all of this could be accomplished if the underlying credit reporting system were fraught with serious errors.

To help resolve the conflicting information concerning accuracy, Congress directed the U.S. General Accounting Office (GAO) to undertake a review during 2003 of available studies and databases to determine the frequency, type, and cause of credit report errors. The GAO concluded that "the lack of comprehensive information regarding the accuracy of consumer credit reports inhibits any meaningful discussion of what more could or should be done to improve credit report accuracy" (GAO, 2003, p. 17). In the Fair and Accurate Credit Transactions Act of 2003 Congress continued its cautious approach to new credit reporting requirements. But at the same time, Congress signaled its growing interest in measuring and ensuring the accuracy of credit reports. Specifically, Congress directed the Federal Trade Commission (FTC) to undertake a long-term study of credit reporting accuracy.[6]

In this chapter we survey the available evidence on credit file quality and attempt to assess the strengths and weaknesses of the system as it functions today, as well as identify any changes over time. We conclude by addressing the challenges to the regulatory framework presented by recent credit market developments such as risk-based pricing, and offer some observations about proposed solutions.

What Is an Accurate Credit Report?

A review of various reports and studies that examine credit report accuracy suggests that at the heart of the conflicting assessments of how the U.S. credit reporting industry is doing under FCRA are fundamental differences in the interpretation of accuracy. Accuracy is a stated goal of the reporting system, but exactly what does that mean?

The FCRA itself is not clear on this point. It states that consumer-reporting agencies must "follow reasonable procedures to assure maximum possible accuracy."[7] Accuracy is not defined, nor is it clear what we should expect about the quality of credit files once the upper limits of reasonable procedures are reached.

6. Fair and Accurate Credit Transactions Act of 2003, P.L. 108-159, 117 Stat. 1952, 319 (codified at 15 U.S.C. 1681-1681t).

7. 15 U.S.C. 1681e(b).

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In its 2003 report to Congress on credit report accuracy, the GAO found that the "available literature and the credit reporting industry strongly disagree about the frequency of errors in consumer credit reports, and lack a common definition for 'inaccuracy'" (GAO, 2003, Highlights).

During congressional testimony in 1991, the president of Consumer Data Industry Association (CDIA)—the credit reporting industry's primary trade association—offered a useful insight that provides a metric for assessing accuracy. He remarked that "the mission of the consumer reporting industry is to serve as an objective third-party provider of information to the companies and consumers involved in credit transactions. Our members are libraries that make it possible for credit grantors to provide consumers with the opportunities they seek" (Kurth, 1991). Ultimately, this general statement may be the key to judging the accuracy of files. The question of how well the reporting system is performing turns on the issue of whether credit files contain sufficient information to allow creditors and other authorized users to assess the eligibility of consumers for the services they seek.

Files can contain factual errors (for example, misspelled name; incorrect old address; misspelled current street, and so on), but still be accurate representations of a consumer's credit history. Conversely, files can be factually correct but not provide an accurate representation of a consumer's credit history because of missing accounts, accounts listed as open but that are long inactive, or old derogatory information that has been rolled off the file. And files may—in fact, almost always—contain stale or outdated information (for example, outstanding balances that are thirty to sixty days old, and so on). Most stale information was accurate at the time it was submitted, but with continued activity on an account (charge activity, payments), the information can become outdated very quickly.

Further reflection suggests that the degree of accuracy of a credit file is entirely dependent on the purpose to which the information will be put. All the information in a file may be factually correct, but the file might be missing key pieces of information about a consumer's past or current credit experience that are important for predicting the consumer's future behavior, rendering the file of little value. Arguably, for millions of consumers in the United States, conventional credit files are missing entire categories of relevant information, such as a history of rent or utility payments. For these people, the files are not accurate representations of the existing information that is helpful for predicting future payment risk.

Complicating the goal of achieving a higher degree of accuracy in credit files are reasons that we may want to and often do compromise accuracy in the files. Our legal and regulatory system has intentionally limited the reporting of old derogatory information as part of a consumer's credit profile. Specifically, old

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derogatory information (for example, delinquencies, charge-offs, repossessions, collection activity) cannot be reported after seven years (ten years for personal bankruptcy). So some degree of inaccuracy is mandatory under the FCRA.

So it seems that the accuracy of a given credit file is partly dependent on each of the following: what is in the file; what is missing from the file; and the use to which the information will be put. Credit file "quality" may be a better term for assessing how well the FCRA performs in facilitating opportunities for consumers, where quality refers to the predictive value of information contained in the file. The significance of these distinctions will become apparent in the following sections, which examine how the FCRA is structured to promote accuracy, and assess the law's effectiveness.

FCRA and Production of Accurate Credit Files

To understand how the regulatory approach adopted in the FCRA promotes the assembly of credit files that are both accurate and relevant within a voluntary reporting system, it is helpful to think of credit reporting as a problem of information production. For example, in the context of loan decisions, creditors (and consequently credit bureaus) wish to acquire better information about borrowers so long as the extra value (from better risk assessment) exceeds the extra cost.

Constraints that affect any system for producing credit history information (voluntary or compulsory) include the following:

Accuracy is costly. That is, the cost of producing a credit file rises with the level of accuracy (for example, factual accuracy of contents; frequency of data updates; completeness of the consumer's current credit usage profile; depth of historical detail; inclusion of all relevant information useful for assessing credit risk).

The consumer is in the best position to know when a credit file is accurate and complete, across all trade lines. But, the consumer also has an incentive to portray his or her credit history more favorably in order to obtain credit (the problem of moral hazard). So, creditors must verify the credit history from an independent source.

By specializing in central storage of credit histories, a credit bureau can produce accurate reports at lower cost than individual lenders. A centralized data warehouse is less expensive to operate compared to a system in which each potential creditor contacts other creditors with each new application, duplicating each other's storage efforts. Bulk transmittal to a bureau of one month's credit experience for all its accounts is cheaper for a creditor than making and responding to multiple calls on behalf of its customers who are making applications elsewhere.

The market will reward the production of accurate files. A credit bureau's customers will pay more for accurate reports (or buy them more frequently), and pay less as accuracy declines. Self-interest on the part of wealth maximizing

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credit bureaus in a competitive reporting environment creates a powerful force for improving the quality of files.[8]

An important problem hinders the construction of accurate credit histories under any system. Neither the credit bureau nor the purchaser of a credit report (the credit grantor) can easily judge the accuracy of a consumer's credit file. The creditor only knows its own experience with a customer. The bureau only knows what creditors tell it. Mistakes can be made by either party in data transmittal and file assembly. The consumer knows his or her complete credit history, but has some incentive to misrepresent it out of self-interest.

Given the extensive, voluntary reporting system that had already evolved in the United States in the absence of federal regulation, two fundamentally different regulatory avenues were available for incorporating into the FCRA, the preventive approach and remedial approach. By taking the preventive approach, Congress could have authorized specific and mandatory procedures (either directly within the language of the FCRA or indirectly by granting rule-writing authority to a federal agency such as the FTC) for submitting, verifying, matching, and reinvestigating information on the credit files. In essence, the regulators would stipulate how to run the credit reporting process. Alternatively, the FCRA adopted a remedial approach, which harnessed the incentives for producing accurate reports inherent in a competitive credit reporting market, but also established an error detection and correction mechanism initiated by the consumer. Consumers would be permitted (and encouraged) to monitor their own files, and to dispute items perceived to be incorrect.

The preventive and remedial approaches differ in their impact on the costs of producing accurate credit files. Arguably, the FCRA incorporates the least costly means of using the comparative advantage in the production process of each of the system's participants to improve the accuracy of the end product.

An analogy to other industries illustrates the difference. Manufacturers of complex consumer goods such as automobiles, computers, and electronic equipment face similar quality control problems. For these items, it is expensive for both producers and consumers to detect all errors or defects before purchase. Many potential defects are either so easy to spot or have such serious implications for the end user (and the manufacturer's brand reputation) that the manufacturer invests in processes to detect them before the item is sold. But, with complex goods, some defects will remain. Of course, the customer who purchases and uses a new computer will inspect it on an ongoing basis after the sale.

8. Competitive market forces give the bureaus an incentive to improve the quality of information that is predictive of risk. This gives focus to their efforts and affects the resulting content of the file. So, for example, bureaus will not devote effort to update information contained in credit files that creditors once found helpful but no longer utilize (for instance, place of employment). The quality of the file for assessing borrower risk does not suffer, even as some of the information contained in the file becomes outdated.

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So, instead of going to the expense of inspecting the computer for all defects twice (once by the producer on the assembly line and once by the consumer as it is used), computer manufacturers shift some of the inspection duties onto the consumer, and promise to repair or replace defective products. The product warranty effectively designates the consumer as a quality-control inspector. Consequently, the manufacturer incurs lower costs of production (relative to more rigorous inspection on the assembly line), the product price is lower, customers incur lower search costs before purchase since they have the assurance that they can return defective merchandise, and everyone enjoys greater gains from trade.[9]

The remedial approach taken by the FCRA resembles the extension of a product warranty (although for credit reports the law mandates the warranty). As noted above, the consumer is the only person who knows the true credit history that the credit file attempts to describe. Essentially, the FCRA designates the consumer as the quality-control inspector with the authority to mandate reinvestigation (and alert potential purchasers) of credit information when errors are detected. By doing so, it places the responsibility for monitoring file accuracy on the party who can determine accuracy at the lowest cost.[10]

It would be incorrect to conclude that the FCRA's remedial approach leaves the credit bureau with no incentive to prevent errors. Although there is no explicit dollar fine imposed when a consumer detects an error, the mandatory reverification process is costly for both bureaus and creditors.[11] Like the automaker that must reimburse dealers for warranty work to repair defective

9. For a more detailed discussion of how the transaction costs associated with measuring quality influence the organization of markets, see Barzel (1982).

10. It is clear from thirty years of commentary on the FCRA that the FTC recognizes the important role and responsibility that consumers play in facilitating the system's production of accurate credit reports. For example, see Noonan (1991).

11. All parties share in the costs of preventing and detecting reporting errors. The remedial approach imposes some additional costs on the consumer as well, most notably in the event that an erroneous credit report leads to rejection for credit, insurance, or employment. The FCRA, as amended in 2003, gives consumers the opportunity to avoid the higher cost of rejection by obtaining one free copy of their credit report each year and purchasing additional copies of their credit report, at any time, as a preventive measure. The 1996 FCRA amendments placed a ceiling of $8 on the price bureaus could charge consumers for a copy of their credit report. Responding to swelling consumer interest in detecting fraud and preserving the integrity of their credit files, by 2002 all three of the major U.S. repositories (Equifax, Experian, and TransUnion) had begun offering services to consumers who wish to monitor their credit files on a regular basis. Consumers who place a lower value on the content of the file (perhaps because they do not anticipate a transaction that would require a credit report) can choose not to incur the cost of checking their file. For all consumers, the FCRA mandates a "quality alert" notice in the form of an adverse-action notice sent to consumers whenever information in the credit report has contributed to a negative decision on an application for credit, insurance, apartment rental, or other credit-related products. This provides additional impetus to check the file. The FCRA also explicitly recognizes that some types of errors may be more costly to the consumer than others. For example, while the FCRA applies a strictly remedial approach to reports used for credit or insurance applications, it incorporates a

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vehicles, both creditors and the bureaus would like to reduce the costs they will be required to incur if a consumer finds an error. They will invest in reporting and updating procedures that eliminate most errors. Bureaus have an additional, powerful incentive to invest in procedures that eliminate problems in matching new information to files: the creditors are their customers and they pay for accuracy. A bureau with a reputation for file errors will suffer lost sales in a competitive market for credit reports as creditors shift their business to vendors that establish a reputation for greater reliability.

However, notwithstanding the oft-repeated goal of error-free reports, the reality of matching over 2 billion trade line updates, 2 million public record items, and an average of 1.2 million changes of household address, from 30,000 different furnishers, to the proper consumer files each month is that the resulting files will still contain some errors, although the bureau will not know their location.[12] At some achieved degree of accuracy, it becomes cheaper to correct the error the consumer finds, rather than adopt procedures that would scrutinize every item in every file in an attempt to detect potential errors prior to release. By assigning consumers the legal role of quality inspector, the FCRA reinforces the financial incentive for bureaus to invest in accurate reporting and prevent those errors for which it has a comparative advantage. But for the law to require bureaus to eliminate those errors entirely—that is, to rely exclusively on the preventive approach—would make the system substantially more expensive to maintain and operate, with negative implications for the price and availability of credit and related products. The FCRA's reliance on the remedial approach instead of the more expensive preventive approach is yet another example of the careful balance struck in the statute in the interest of expanding consumer credit opportunities.

Efforts to Measure How Effectively the FCRA Promotes File Quality

As noted above, credit file errors have concerned policymakers and consumers for the past thirty years. Yet, reliable measures of credit file accuracy are surprisingly scarce. Simple barometers of the performance of the credit reporting system can be misleading. For example, the number of complaints received by the FTC involving consumer reporting agencies (that is, credit bureaus) grew from 1,300 in 1997 to nearly 12,000 in 2002 (GAO, 2003, pp. 15–16). However,

more preventive approach if a report is requested by a potential employer. If a report for delivery to an employer has any (negative) public record items, the FCRA requires the credit bureau to notify the consumer that such information is being reported, or to take extra steps to ensure the accuracy of the information before reporting it.

12. Consumer Data Industry Association, letter to the National Center for State Courts, April 18, 2002, on file with the authors.

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the FTC has stated that it could not determine how many complaints involved alleged errors in reports (versus other issues such as CRA conduct). And, the FTC staff has cautioned that it should not be inferred that an increased volume of complaints indicates a rise in errors, since the former could be due to greater consumer awareness of the FTC's role with respect to credit reporting and rising general awareness of the existence and importance of credit reporting and scoring.

At the request of Congress, the GAO undertook a review during 2003 of available studies and databases to determine the frequency, type, and cause of credit report errors. It concluded that "the lack of comprehensive information regarding the accuracy of consumer credit reports inhibits any meaningful discussion of what more could or should be done to improve credit report accuracy. Available studies suggest that accuracy could be a problem, but no study has been performed that is representative of the universe of credit reports" (GAO, 2003, p. 17). After reviewing the available evidence, we agree.

Inaccuracies can turn up in credit files in many ways. At the risk of oversimplifying, consider two categories of file inaccuracies or errors. Errors of commission consist of items or events included in the file that should not be there (for example, accounts and public record items that do not belong to the borrower, or delinquencies that never occurred). For most consumers, errors in credit reports probably connote an image of errors of commission. This is especially true for victims of mismatched files, or identity theft. In contrast, errors of omission are items or events associated with the consumer that do not appear in the file, for instance, existing but unreported accounts, missing balances or credit limits, and records of prior payment history on accounts, both positive and negative. Both types of errors reduce file accuracy, and may or may not reduce a file's quality in terms of its value for assessing risk.

Most of the limited evidence available on credit file accuracy that is statistically representative consists of studies of file inconsistencies. Such studies pose fewer obstacles for researchers because they do not require the consumer's participation. It is much easier to identify information in a single credit file that is either missing or inconsistent with other information in the file, or is inconsistent with a credit file on the same consumer from another bureau, than it is to determine whether a specific item in the file is correct. A review of available data from both types of studies follows.

Federal Reserve Board—Findings

A 2003 report from the research staff at the Federal Reserve Board examined a large, nationally representative random sample of individual credit reports supplied by one of the three major credit repositories (Avery, Calem, and Canner, 2003). The study's purpose was to assess the suitability of credit bureau data as a source of detailed and timely information, at the regional or national level, on

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consumer debt status, loan payment behavior, and overall credit quality. Specifically, the researchers examined the detailed (anonymous) credit files for a nationally representative sample of 248,000 consumers as of June 1999. Each record contained approximately 350 variables that described credit usage and performance. In total, the sample contained information on 2.58 million accounts, from more than 23,000 furnishers of information. The authors note that the sample is somewhat dated, so that the findings may not reflect current circumstances.

This type of analysis generally cannot identify whether any particular item in a file is erroneous, such as a delinquency appearing on an account that does not belong to the borrower. However, it is quite effective in identifying patterns of missing data and inconsistencies in the files.

The authors concluded that "although credit reporting company data are extensive, they are not complete. First, information on some credit accounts held by individuals is not reported. Some small retail, mortgage, and finance companies and some government agencies do not report to the credit reporting companies. Loans extended by individuals, employers, insurance companies, and foreign entities typically are not reported. Second, complete information is not always provided for each account reported. Sometimes creditors do not report or update information on the credit accounts of borrowers who consistently make their required payments as scheduled. Credit limits established on revolving accounts are sometimes not reported. Creditors may not notify the credit reporting company when an account is closed or undergoes other material changes" (Avery, Calem, and Canner, 2003, p. 50).[13] They also noted that credit report information is perishable—some pieces of information (for instance, outstanding balance on revolving credit card accounts) become outdated the day after the information is sent to the credit bureau. All of these issues make credit files merely an approximation of the borrower's credit profile. Avery, Calem, and Canner (2003) note issues of particular concern, which are discussed below.

MISSING CREDIT LIMITS. About one-third of the open revolving accounts in the sample were missing information on the account's credit limit. Consequently, about 70 percent of all consumers in the sample had a missing credit limit on one or more of their revolving accounts. Missing credit limits are a con-

13. We note here that although U.S. credit reports do not always reflect all past and current credit obligations for consumers, the United States is a world leader in the reporting of accounts that are not delinquent. Failure to report so-called positive credit information (that is, accounts in good standing, or accounts that were paid as agreed and closed) is the norm overseas. Indeed, several jurisdictions (for instance, France, Australia, Hong Kong) prohibit the reporting of positive credit information in the name of protecting consumer privacy. Research has demonstrated that positive information significantly improves the predictive power of risk scoring models, effectively giving the borrower an opportunity to demonstrate responsible payment behavior, and giving lenders a means of estimating the borrower's total debt usage. For more details see Barron and Staten (2003).

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cern because the credit limit on a revolving account is used to calculate revolving account utilization (how much of an available credit line the consumer has utilized), which is an important determinant of overall credit score. A higher utilization rate correlates to higher risk. On accounts missing the credit limit, creditors will typically substitute the highest previous balance (if available) in place of the actual account limit. This typically will overstate utilization and, therefore, overstate risk.

Further analysis showed that the missing limits were mostly attributable to a small group of creditors (12 percent of all creditors accounted for 74 percent of all missing limits) who reported limits on fewer than 5 percent of their accounts (that is, they were apparently routine nonreporters of limits). The authors also found that, for the most part, the nonreporting of limits affected prime and subprime consumers equally. There was no strong evidence of discriminatory underreporting on subprime accounts (to shield them from competition). However, there was a small group of creditors (5 percent of all creditors in the analysis), all of whom specialized in subprime lending (more than 50 percent of their accounts), who reported credit limits more selectively, reporting 77 percent of limits for prime customers versus 40 percent for subprime customers. Avery, Calem, and Canner (2003) note that their findings on missing limits are especially sensitive to the period in which the sample was drawn (June 1999). In the late 1990s several large credit card issuers had stopped reporting account limits for competitive reasons.[14] Pressure from credit bureaus and the banking regulators substantially reduced the problem, so that by 2003, industry officials were reporting that credit limits were missing on only about 13 percent of accounts (Avery, Calem, and Canner, 2003, p. 73).

BALANCE INFORMATION SIGNIFICANTLY OUT OF DATE. One of the useful dimensions of a comprehensive credit report is that it allows calculation of a borrower's total outstanding debt. This requires accurate and up-to-date information on outstanding balances. Three-quarters of all accounts in the sample reported balances without ambiguities, that is, the accounts were listed as open and updated within two months of the sampling date, or the account was reported as closed and had a zero balance at time of last reporting. An additional 18 percent of accounts were dormant, that is, last reported more than two months earlier and showing no outstanding balance. Consequently, creditors could determine balance unambiguously on 92 percent of accounts. However, 8 percent of all accounts showed positive balances but had no recent reporting of activity (last report was more than two months prior to sample date). And, these balances accounted for more than 25 percent of total balance dollars (many of these were

14. Lisa Fickenscher, "Credit Bureaus Move against Lenders That Withhold Info," *American Banker*, December 30, 1999, p. 1; Heather Timmons, "Putting Borrowers in a Bind: Fearful of Competition, Lenders Won't Divulge Credit Records," *BusinessWeek*, March 20, 2000, p. 110.

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mortgages). In addition, nearly 60 percent of all accounts that indicated a major derogatory item at last reporting were among these 8 percent of accounts for which the actual balance was questionable. The analysis by Avery, Calem, and Canner (2003) indicates that many of the nonderogatory accounts (especially mortgages and installment loans) in this group were likely closed or sold to other companies, but were not reported as such. Recognizing this problem, the credit repositories have developed stale account rules that will reset balances to zero and mark an account closed under certain conditions. However, accounts with a major derogatory and an outstanding balance listed as the last reported status can have a significant negative impact on consumers applying for credit.

NEGATIVE-ONLY REPORTING. About 1-2 percent of all accounts were reported by creditors who only report negative information. These creditors do not report accounts in good standing. This is common in many other countries, and remarkably low, by comparison, in the United States. Negative-only reporting poses two problems: 1) because some consumer accounts and balances are not reported, it masks overindebtedness problems that may develop into payment problems, leading to erroneously positive risk assessment for some borrowers, and 2) some consumers miss out on the positive effects on creditworthiness of well-handled accounts, because their accounts in good standing are not reported.

NONREPORTING OF MINOR DELINQUENCY. About 11 percent of all accounts are reported by creditors who do not report delinquencies of less than 120 days. An additional 12 percent of all accounts were reported by creditors that do not report delinquencies of less than sixty days. In other words, there is a significant amount of underreporting of delinquency in the system, even though data on payment problems have been shown to be the most predictive factor in scoring models.[15] As a consequence, the credit scores of many borrowers are higher (better) than they would otherwise be.

INCONSISTENT REPORTING OF PUBLIC RECORDS, COLLECTION AGENCY ACCOUNTS, AND INQUIRIES. For consumers with derogatory public record information or collection agency activity in their files, about 40 percent have more than one such record. Analysis suggests that for many of these consumers, the multiple listings are associated with the same episode (for example, one record posted when collection action initiated, another record posted when account paid.) To the extent the creditor risk assessment tools count these flags as separate incidents when they are actually not, it could erroneously penalize consumers. But, there were no codes in the data to allow a creditor to distinguish multiple

15. For more detail on the relative weighting of credit report variables in determining a borrower's credit score, and the potential impact of scores on loan interest rates, see the Fair Isaac and Company website at www.myfico.com.

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events associated with the same incident from multiple incidents. The same was generally true of multiple inquiries in a credit file: creditors failed to provide the appropriate code for their inquiry in 98 percent of the inquiry records. Consequently, a creditor examining multiple inquiries in a credit file would not be able to determine if multiple inquiries reflected shopping around for the best loan to finance a single purchase, or applications for multiple loans. The first interpretation would have much less impact on risk assessment than the second.

Discussion

The problems identified in the FRB report involve credit file information that is missing, clearly outdated, or ambiguous. Systematic correction of the data shortcomings in each of these categories (if it were feasible) would unambiguously improve the performance of risk models by providing a more accurate picture of each borrower's credit profile. Interestingly, the authors note that the resulting improvement in clarity would not unambiguously help consumers. It would help some consumers and harm others. For example, some consumers with unreported accounts in good standing are harmed by not getting credit for building a good credit record. Others are helped because creditors do not see the full extent of their indebtedness. Similarly, more complete reporting of revolving account limits helps those whose balances are well below limits and harms those with balances at or near the limits.

Most of these problems stem from nonreporting in a voluntary reporting system, or from the failure of data furnishers to use available codes to clarify the information being reported. Avery, Calem, and Canner (2003) suggest that creditors and the credit repositories could jointly develop better codes and reporting protocols for public records and inquiries and encourage their use. The repositories could also expand and refine their stale account rules and flag the accounts from creditors that are no longer reporting information. These steps would clean up some of the ambiguities in the data. In the meantime, most of these problems are well known to creditors and require them to modify the models and rules they use to make decisions.[16]

Consumers could eliminate many of these problems by taking a more active role in reviewing their files. But, vigilant consumers will not correct all of the problems. The authors observe that if consumers did take a more active role, they would introduce their own bias into the error correction process, stemming from their own self-interest. That is, those consumers who find problems in

16. For example, mortgage lenders now commonly require a consolidated credit report on borrowers that merges information from all three of the major repositories. This reduces the risk posed by data missing from a single repository's file. Regarding ambiguous creditor inquiries, Fair Isaac has indicated that it modified its FICO risk scoring algorithm to recognize multiple inquiries from the same type of lender within a short time period as related to a single transaction (for instance, multiple inquiries from auto dealers or auto finance companies.)

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their files for which correction will help them will likely report them. Those for whom corrections would harm them likely will not. Missing information, ambiguous information, and outright incorrect data would remain in files whenever resolution would identify the consumer as higher risk.

Consumer Federation of America Study—Findings

A second recent study was sponsored by the Consumer Federation of America (2002) (CFA) and jointly conducted with the National Credit Reporting Association. The CFA report resembles the Federal Reserve Study in that it identifies and tabulates discrepancies and inconsistencies in credit reports, but it adds a new dimension by comparing reports for each consumer across all three repositories. The study focuses on the magnitude of differences in consumer credit scores across repository files. Given the pervasive use of credit scoring across all segments of the consumer loan industry, including mortgage lending, large differences in scores based on variance in file content can have serious implications for consumers. Of course, the problem stems from the variance in content of the underlying credit files and not the scoring models *per se*. Differences in content across files have always existed to some degree, and mortgage decisions in the days before scoring had to take them into account just as they do now. Nevertheless, critics of automated underwriting in mortgage lending worry that the acceleration of the underwriting process that credit scoring has made possible may be causing some lenders to give short shrift to investigation of differences in credit scores for an applicant, especially in regard to the pricing of the loan.

To determine the frequency with which file discrepancies across the repositories generated relatively large differences in credit scores, the CFA report undertook a manual review of a sample of 1,704 combined credit files for consumers who had applied for mortgages during June 2002. The sample was drawn from the archives of three credit reporting agencies (not the three major credit repositories) that collectively served consumers in twenty-two states. The combined files (which consolidate separate credit reports from each of the three major repositories) had been requested by mortgage lenders, along with calculated FICO risk scores from each repository, in conjunction with mortgage applications.[17] The CFA study also conducted a more intensive review of a 10 percent random sample of the combined credit files supplied by one of the participating agencies (a total of fifty-one files). As was the case with the FRB study, the CFA approach cannot identify whether information is correct or incorrect. It can identify inconsistencies and missing data. The CFA sample is not a representa-

17. A FICO credit score is a widely used statistical risk-scoring product sold by Fair Isaac. In drawing the sample, the report states that the participating agencies took "consecutive archived files dating from June 17 to June 20, 2002" (CFA Report, 2002, p. 15). One agency that served multiple time zones selected every second file generated over the four-day period to ensure representation of consumers across all regions.

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tive national sample of all borrowers, but for this sample of mortgage applicants it provides intriguing information on the differences in file content across the major repositories. The results included the following:

SCORE DIFFERENCES. Twenty-nine percent of consumers had a range of 50 points or more between their highest and lowest FICO scores. Five percent of consumers had a range in excess of 100 points.

FRAGMENTED AND MISMATCHED FILES. About 10 percent of borrowers had multiple files returned from a single repository. Some were attributable to credit accounts under the applicant's nickname that had not been matched with the applicant's other file. Others had a transposed Social Security number but had sufficient other information in common to determine it was the same person. Still others appeared to represent different people, with no common credit experience between them.

TYPES AND FREQUENCY OF INCONSISTENCIES. The in-depth review of fifty-one combined files quantified the inconsistencies that undoubtedly led to the variance in FICO scores. The report divided these into two categories, errors of omission and errors of commission:

The term *errors of omission* includes:

—One-third of combined files had a mortgage reported by one repository but not all.

—Two-thirds of files had an installment loan reported by one repository but not all.

—Seventy-eight percent had a revolving account reported by one repository but not all.

—Negative information was missing less often than positive information. This is not surprising, given the worldwide tendency of data furnishers to report negative information more readily than positive information. For example, 12 percent of combined files had a revolving account with late payments reported by one repository but not all. Eight percent had a revolving account with a charge-off reported by one repository but not all. Twenty percent of files had a medical account collection reported by one depository but not all. Twenty-five percent of files had some kind of collection omitted by one or more repositories.

These findings serve as a reminder of the voluntary nature of the credit reporting system in the United States. They also highlight the fact that the credit histories for most adults today (certainly all those over the age of forty who have been active in credit markets for the majority of their adult lives) still reflect the regional roots of the reporting industry. All credit bureaus evolved from local operations. The companies that eventually became the three major repositories had recognized regional strengths and weaknesses as recently as a decade ago, when even medium-size banks, retailers, mortgage companies, and

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other creditors would deal with one, but not all, of the repositories. Some of that reporting heritage remains in the credit files of older adults. Moreover, the lack of universal reporting persists today for many public record items, including collections associated with local doctors, hospitals, and other businesses that extend credit. The fact that such differences exist explains why mortgage lenders want combined reports from all three repositories, in order to catch missing information. In all likelihood, these differences will slowly fade over time as younger consumers obtain credit in an increasingly national market and the repositories devote resources to capturing public record items in all localities.

The term *errors of commission* was used in the CFA report when the repositories reported conflicting information on the same account. For example,

—43 percent of combined files had conflicting information across repositories about the number of times an account was thirty-plus days late. However, the authors do not report how many of these could be differences of only one instance, which could result from a delinquency in the most recent period that is reflected in one depository but not yet in another due to different reporting/loading timelines. The report mentions that this may have occurred in some instances, and notes that it also occurs on reports of older delinquencies, but does not provide details as to how often.[18]

—23 percent of files had conflicting information on the number of times an account had gone to ninety days late.[19]

—Account balances had inconsistencies on 82.4 percent of combined files. Inconsistencies on reported limits occurred in 96 percent of files. The authors of the CFA study admit that their view of credit limits is restricted by the software that was employed to review the reports, which lumps credit limit and high credit into one field.

Discussion

The CFA findings echo the central results from the FRB study: information about various elements of a consumer's credit experience is frequently missing from credit files, a fact that becomes even more apparent when credit file content is examined and compared across three repositories instead of just one. Notwithstanding the claim regarding errors of commission, the CFA study is unable to quantify how often reported information is erroneous.

18. Fair Isaac responded by noting that it recognizes the potential for differences in the number of reported delinquencies on the same account, so it does not include this in its models. It does include the number of different accounts on which the consumer has been delinquent. See St. John (2003).

19. This rate seems extraordinarily high, given that the nationally representative FRB study found that 85 percent of all accounts had no record of late payment at any time, and that only 8.7 percent of all accounts had ever experienced a delinquency of ninety or more days. It is all the more striking since the sample consists of mortgage applicants, who would tend to have better credit histories, on average, than the population of all borrowers. This may signal a problem with the sample.

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The CFA report begins with an implicit assumption that a consumer's credit report should look the same across all three repositories, and expresses alarm over the degree of inconsistency, and the resulting large variance in credit scores for some consumers. We would expect some inconsistencies, however, given the voluntary nature of reporting in the United States and the participation of 30,000 furnishers of information, many of whom report to only one or two repositories. Add to that the logistical differences in timing across the three repositories as to when information is received and posted to a file. The CFA report admits that some unknown number of the errors of commission likely reflect differences in timing of the updates posted at the repositories. Consequently, any assessment that tabulates errors based on finding inconsistencies across reports from the three repositories (as the CFA report does) will find plenty of supporting evidence.

Because of differences in file content across bureaus, a single consumer's credit score will differ depending upon which bureau file is used. Creditors have long known that the depth of credit files differed across the repositories, depending upon the geographic location of the consumer, and have adjusted their decisions to purchase credit reports accordingly. Of course, these potential differences are the primary reason why mortgage underwriting typically requires a consolidated report based on reports from all three repositories. Other types of lenders (credit card, auto) may still use only one or two reports, but may select the repository believed to have more comprehensive files in the geographic region where the consumer resides.

Perhaps the most interesting insight from the CFA study is the frequency of multiple (but different) files returned for a given consumer. This cuts to the heart of the repositories' biggest challenge: matching billions of pieces of incoming data (per month) to the correct file in order to create a comprehensive picture of a consumer's credit history. Obstacles abound. Application information sent with the initial account opening may contain variations of a consumer's name, and contain small but potentially vexing inconsistencies in the address.[20] Some will occasionally have errors in the applicant's Social Security number. Forty-two million Americans move each year and information with new addresses has to get properly matched to the preexisting file.

The repositories developed matching algorithms to handle these problems. A multiple or fragmented file was created when a repository could not achieve a

20. Jane Smith's name may be recorded in a variety of different ways on different accounts depending upon what she used at the time the account was opened (for instance, J. Smith, J. Q. Smith, Jane Q. Smith). Jane may have changed her name when she was married. She may have listed the same address on all of the accounts, but with slight differences (for instance, "123 Main," "123 Main Ave." "123 S. Main Ave." "123 Main, Apt. B"). If Jane is one of 6 million Americans who own vacation homes, she may have opened an account once on vacation and used the vacation home address.

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reliable match. Rather than discard new data (error of omission), or add it to an existing file without a reliable match (error of commission), the repository would open a new file with the new data. The fragmented file problem eventually led to consumer alarm about the accuracy of credit reports and a series of congressional hearings to deal with accuracy issue beginning in the late 1980s.[21] However, the repositories' primary customers, the major national credit grantors, were already applying market pressure for better solutions. Beginning in the late 1980s, the repositories' degree of success in solving these problems became an important source of competitive advantage as they competed for commercial customers.

Fragmented files created an acute operational problem for creditors when many credit card issuers began relying heavily on prescreened solicitations in their national marketing campaigns to obtain new cardholders.[22] After observing higher-than-expected delinquencies on new cardholders obtained through prescreened offers, creditors discovered that some of the credit reports used to generate the prescreened lists were incomplete. In these partial (or fragmented) files, a customer's credit history was split between two or more separate files. Consequently, neither file on the consumer reflected a full credit history. One file might pass a prescreen test, despite the presence of negative information in a separate file elsewhere in the database.

To counter higher than expected delinquencies among new cardholders, many national credit grantors began postscreening the applications received from the prescreened customers. That is, a full credit report was routinely purchased after receipt of the application to determine if the customer were indeed creditworthy. Because the application typically contained the cardholder's Social Security number and other identifying information, the various fragmented files were usually linked in response to the creditor's request. Having to postscreen raised the issuer's cost of acquiring new accounts. The value of an accurate prescreen rose further, as did the market pressure on the repositories to reduce fragmented files, when the FTC sharply limited postscreening in 1991.[23]

The credit reporting industry began adopting and expanding a series of procedures to improve the accuracy of files, including 1) development of new algorithms to improve file matching, 2) creation of a standardized reporting format to be used by creditors when supplying data to the bureaus, and 3) voluntary cooperation among the three major repositories to share information on correc-

21. See *Oversight Hearing on the Fair Credit Reporting Act*, hearings before the Subcommittee on Consumer Affairs and Coinage of the Committee on Banking, Finance, and Urban Affairs, U.S. House of Representatives, September 13, 1989.

22. In preparing a prescreened card offer, a creditor asks a credit bureau to provide a screened listing of candidates for credit offers who meet the creditor's specific standards for acceptable risk. Consumers that pass the screening test receive direct mail or telephone solicitations that invite them to apply for a preapproved card.

23. For more on creditor frustration with the fragmented file problem, see Daly (1991).

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tions.[24] By 1996, more than 95 percent of all data reported to bureaus was received in the standardized "Metro" format.[25] By 2003, over 99 percent of the total volume of 2 billion records reported per month were received in Metro 1 or Metro 2 format (GAO, 2003, pp. 12–13). However, given the CFA's finding that multiple files were returned on 10 percent of consumers in their sample, a problem with fragmented files still remains, despite the repositories' efforts.[26]

Actual Disputes as a Proxy for Errors of Commission—Findings

As the GAO report noted, statistically representative studies that quantify the frequency of errors of commission (that is, the inclusion of items in a credit file that do not belong to the consumer) are rare. In large part this is because they require 1) a sample of consumers representative of some larger population, 2) their cooperation in examining credit reports for discrepancies, 3) reinvestigation of alleged discrepancies to determine whether the items needed correction, and 4) the involvement of an independent arbiter to determine which of the corrected discrepancies are relevant to the credit-granting decision.

To our knowledge, no study has been conducted that incorporates all of the attributes listed above.[27] We are aware of only one study that approximates these conditions. In 1991 the credit reporting industry trade association, Associated Credit Bureaus (now known as Consumer Data Industry Association, or CDIA), commissioned Arthur Andersen and Company to conduct a Credit

24. For an extended discussion of nonlegislative, self-regulatory measures that had been implemented or were being discussed by the industry in 1991, see Spurgin (1991).

25. "Both the original (Metro) and the new Metro 2 formats are maintained by an industry committee of volunteers from each of the national credit reporting systems. This group meets on a regular basis to develop industrywide responses to questions from data furnishers and create new codes or fields as necessary" Pratt (2003, p. 17).

26. Keep in mind that these multiple files may be the legacy of less-efficient matching routines in the past. Even if matching algorithms today have significantly reduced the creation of new instances of fragmented files, some old fragments remain in the system. The only additional empirical evidence we have found on this point is that the frequency of multiple files in the CFA study was somewhat lower than what was reported in a study conducted by Visa U.S.A. of fragmented files based on 1995 data. That study examined the credit files of applicants who had been selected for credit card solicitations based on a prescreening process with the repositories and who had subsequently applied for the card. The study found that multiple files were returned on 9-14 percent of the applicants. See Visa USA (1997).

27. Two widely publicized studies conducted during the late 1990s by USPIRG (1998) and Consumers Union (2000) sought to identify the frequency of errors of commission. However, their samples were not representative (they sampled organization employees who verified the accuracy of the information in their own files). Moreover, the GAO noted that the studies counted any inaccuracy as an error, regardless of its potential impact, used varying definitions in identifying errors, occasionally provided obscure explanations of how they carried out their work, and did not consult with industry representatives for guidance or clarification on interpreting the data. See GAO (2003, p. 9).

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Report Reliability Study.[28] Rather than selecting a representative sample of all consumers and asking them to review their credit files, the Andersen study focused on a random sample of 15,703 consumers who had applied for and been denied credit during a sixty-day period in 1991. As required under FCRA, each of these consumers had received adverse action notices alerting them that they had been turned down based on information in their credit report and that they could request and review their credit report free of charge.

The Andersen study tracked the number of consumers who responded, and subsequently disputed information on the report. It found that 1,223 (7.7 percent) consumers requested a copy of their credit file. Of these consumers, 304 (2.5 percent) disputed information in the file. Reinvestigation was conducted as required by FCRA and the creditors were asked to reevaluate the original application based on the outcome of the reinvestigation. By the time the study was published, reinvestigation had been completed on 267 of the 304 cases, yielding thirty-six cases in which the original decision to deny credit was reversed based on the new information. Andersen concluded that "of all those consumers (1,223) who requested to review their file, the results of the study indicated that less than 3 percent of these consumers for which this study has been completed would have achieved a different credit decision than was originally rendered by the credit grantor after initial review of the information contained in the credit report."[29]

Further reflection indicates that 3 percent is likely an upper bound on the rate at which file errors caused an adverse credit decision, and that the actual percentage could be substantially lower. Only 7.7 percent of consumers who were denied credit bothered to request their credit report. There are at least two potential explanations for what appears to be a strikingly low incidence of follow-up to the denial. One explanation could be consumers' lack of awareness of credit reports, their importance in the credit-granting process, or that the reports could contain errors that would generate an adverse credit decision. Another explanation could be that many, if not most, customers turned down for credit were not surprised at the turndown because they were already aware of problems with their credit history that were likely reflected in their credit report. To whatever extent the latter statement characterizes a segment of the sample, it is clear that by focusing on consumers who respond to adverse action notices the study methodology was biased toward finding a higher error rate than that which characterized the entire population for two reasons: 1) those consumers who receive an adverse action notice are more likely to have data in their file that trigger a negative decision than those who do not receive notices, and 2) those consumers who requested their reports after a turndown were more likely

28. Arthur Andersen and Company, Credit Report Reliability Study (1992).
29. Arthur Andersen and Company (1992).

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to turn up errors than those who did not.[30] It should also be noted that the Andersen study was conducted at a time when risk-based pricing was in its infancy (and virtually nonexistent for mortgages), so that a study focused on recipients of adverse action notices would come closer to identifying the proportion of all consumers who had been penalized by credit report errors than would be the case today.

The Andersen study was based on the reporting system of a dozen years ago. We simply do not know how such a study would turn out today, and none has been conducted since. Contemporary evidence on the quality of credit reports is suggestive, but indirect. For example, the CDIA presented some related statistics during its testimony at FCRA Senate hearings in the summer of 2003 (Pratt, 2003). As part of its fraud assistance services, CDIA members provide credit reports to consumers who request them because they suspect they may be at risk or have already become victims of identification theft and fraud. CDIA members provide approximately 100,000 credit reports a month for this purpose. On average, they receive 10,000 follow-up contacts from recipients per month on their toll-free numbers. These contacts do not necessarily equate to disputes as the consumer may simply be calling with questions on a number of issues. In other words, in this group of people who inspect their credit reports because they have prior reason to be concerned about fraudulent activity, no more than 10 percent ended up disputing any items in the report.

Additional information was supplied by one or more of CDIA's members in the form of summary statistics on credit reports delivered to subscribers to one of the "alert" services marketed by the repositories. As part of these services, consumers receive alert bulletins from the repository if their files indicate a certain triggering level of inquiry activity (indicating someone may have been applying for credit in their name) or had additional adverse information added to the file. On average, such fraud alerts resulted in about 180,000 credit files issued to subscribers a year over a two-year period. Subsequently, about 5 percent of consumers contacted the bureaus with a question or dispute. Apparently, the other 95 percent were not surprised by the information in their files.

The reporting industry estimates that approximately 16 million credit reports are issued to consumers a year. About 84 percent of these are free disclosures in response to consumers' requests following adverse action. Another 10 percent are provided in response to a fraud claim. Between 5 and 6 percent are sold to consumers who request them out of curiosity. Across all these issued reports,

30. To illustrate, if we made the extreme assumption that none of the reports contained errors that would have changed the credit decision for the 92.7 percent of consumers who did not request a credit report following their adverse action notice, then the incidence of erroneous credit decisions caused by credit report errors would fall to 0.2 percent, that is, two-tenths of 1 percent of all credit denials in the sample attributable to credit file errors. The true percentage likely falls somewhere between this figure and the Andersen study estimate.

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Table 10-1. *Dispute Resolution Results, CDIA Members, 2003*

Type of result based on dispute submitted	*Percentage*
Information verified as reported	46
Data modified per data furnisher's instructions[a]	27
Data deleted per data furnisher's direction	10.5
Data deleted due to expiration of the thirty-day reinvestigation period and no response received from data furnisher[b]	16

Source: Pratt (2003).

a. Note that data may have been modified due to an update of information, rather than a dispute about accuracy of the data as of the date originally reported.

b. It cannot be determined whether the data were accurate as of the date reported.

about 50 percent of the recipients call the bureaus' toll-free numbers with a question or dispute. This is a substantially higher contact rate than was found in the Arthur Andersen study a decade earlier. It is not possible to determine from the reported data whether this is due to heightened consumer awareness of the importance of credit reports, a greater demand for accelerated updates of information contained in the file (perhaps as a consequence of greater reliance on credit scoring in the mortgage granting process), a higher incidence of disputable items, or a combination of these and other factors. Table 10-1 reports the CDIA's industrywide breakdown of results of the dispute resolution process.

CDIA emphasizes that many times disputes evolve over information that was accurate at the time it was reported. In these cases, consumers who dispute an item are actually seeking to update the item. For example, to complete the qualification process for a mortgage loan the consumer may be seeking to update the information sooner than the regular thirty-day reporting cycle in order to document lower balances, closed accounts, or delinquencies that have been resolved. In other cases, a consumer may dispute an account that is not recognized because it has been inactive for several years, or has been sold to a creditor whose name the consumer does not recognize (common with mortgage loans and retail credit card accounts). Consequently, in table 10-1, the items that result in changes to the file do not necessarily reflect instances in which the data were inaccurate at the time initially reported. And, to repeat a point made earlier, not every change to information in the file involves an item that would have a material impact on the consumer's creditworthiness or credit score.

Discussion

Errors of commission do occur in credit reports, but the available evidence does not support a firm conclusion as to the frequency in current files. Available information suggests that such errors do not occur any more frequently today than a decade ago, but the evidence is limited. A statistically valid study demonstrated that in 1991 less than 3 percent of loan application denials were the

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result of erroneous information contained in credit reports. More recently, over the past two years, we know that for two groups of consumers who had reasons (other than adverse action from creditors) to believe there might be problems with their credit reports, and were given an opportunity to review their reports, only 5-10 percent of them made a follow-up contact with the bureau with a question or dispute. Since not every callback involved a dispute, and not every disputed and corrected item would have affected a consumer's qualification for a loan, these percentages seem at least roughly consistent with the 1991 results.

We also know that, in comparison with 1991, a significantly higher proportion of consumers who received credit reports in 2002 (approximately 50 percent) contacted the credit bureau with questions or to dispute information in the report. Of course, the higher contact rate does not necessarily imply a higher frequency of identified problems. Indeed, to the extent that education efforts on the part of the FTC, consumer groups, and the industry have been successful in encouraging consumers to do their part in quality control, we should expect a higher rate for both credit report requests and callbacks.

For those consumers that called to dispute items, we know that 46 percent of all disputes in 2002 were resolved with no change to the credit file. But for the remaining 54 percent of disputes, we do not know the proportion that arose from information being posted to the credit file that was inaccurate at the time of posting. In 37 percent of all disputes, we know that a change was made to the file as a result of the consumer's intervention, but in two-thirds of these cases the furnisher instructed the bureau to modify the data in the file (as opposed to delete items), suggesting that the change may simply have been an update rather than the correction of an initial error. Clearly, consumer intervention is improving file quality. But it is not clear whether this is due to accelerated posting of information versus correction of erroneously posted items.

Another (and more disturbing) point is that 16 percent of all disputes resulted in data being deleted from the file due to expiration of the mandatory thirty-day reinvestigation period under the FCRA. CDIA has testified that a common tactic of so-called credit repair clinics is to flood the bureaus with disputes on multiple items in a consumer's file, in hopes of getting items deleted because the dispute resolution process becomes overloaded and exceeds the allowed thirty days.[31] On the other hand, it is possible that some of these disputes are cleaning up old accounts for which the original creditor no longer

31. "Note that credit repair can have a deleterious effect on the completeness of a consumer's credit report and, thus where third-party file comparisons identify absences of data between files, this is in part attributable to credit repair. One of our members testified that more than 30 percent of all consumer disputes were generated by credit repair agencies, which commonly dispute accurate, derogatory information with the sole intention of having that information deleted from the file." Testimony of Stuart Pratt (2003, p. 4). In 1996, Congress took steps to criminalize credit repair tactics with the enactment of the Credit Services Organization Act, P.L. 90-321, 82 Stat.164.

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exists. The latter outcome is a positive development for file quality while the former outcome erodes file quality. The available data simply do not support an assessment of how often each is occurring.

Role of Consumers

Much of the FCRA's effectiveness hinges on consumer willingness to exercise the power to monitor their reports. Given the heightened consumer awareness of credit scoring (especially for mortgages), concerns over identity theft, and media focus on credit reporting, it seems likely that consumers would request their reports more often than was the case ten or fifteen years ago. In congressional hearings a decade ago, the credit reporting industry trade association (then known as Associated Credit Bureaus) testified that consumers in 1989 requested about 9 million credit reports a year (based on an underlying pool of approximately 150 million files on consumers). About 90 percent of these requests were free disclosures following adverse action taken on the basis of data in the report. The remaining 10 percent apparently stemmed from curiosity about the file. Bureaus received about 3 million requests (33 percent) for reverification a year.

By comparison, we saw above that as of 2002 about 16 million credit reports were issued to consumers annually (based on an underlying pool of approximately 200 million files on consumers). Of those reports, about 84 percent were free disclosures in response to consumer requests following adverse action, 10 percent were provided in response to a fraud claim, and between 5-6 percent were sold to consumers curious about their file. About 50 percent of report recipients contacted a bureau with a question or dispute.

Despite the increased public awareness of credit reports and scores, these numbers are strikingly similar. Between 1989 and 2002, the number of credit reports distributed to consumers, as a percent of total consumer credit files, rose only slightly from 6 to 8 percent.[32] But this seemingly low percentage of inspected files is somewhat misleading. Every application for credit creates an opportunity for detecting a serious error in the file. If the applicant was unexpectedly turned down, an error could well have been the culprit, and the mandatory adverse action notice would likely trigger a request from the consumer to see a report. The relatively small number of requests could simply be signaling that accepted applicants had feedback that there were no serious problems in their files, and that rejected applicants were well aware of their troubled payment history and did not need to see a credit report to confirm it. Thus the adverse action notice feature of the FCRA provides an ongoing monitoring and

32. Total requests for credit reports were spread across all three major repositories and some consumers undoubtedly requested reports from all three repositories. Consequently, the number of requests overstates to some degree the number of consumers who actually reviewed their files.

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alert service, giving consumers a basic signal and the option to investigate further or not based on their own private information.

We expect that the number of reports requested by consumers will grow. There is ample evidence that a segment of the U.S. population is willing to pay for various alert services and enhanced disclosures of credit file characteristics and credit scores. All three of the major repositories offer an array of such products on their websites, some of which cost over $100 a year.[33]

Indeed, it seems that the repositories are increasingly recognizing product sales to consumers as an important source of revenue growth. That trend seems likely to accelerate, and is a positive development in terms of improving credit file quality. As bureaus compete and acquire hundreds of thousands (perhaps millions) of new consumer customers, they will revamp and upgrade their customer service operations. More importantly, the growing demand for dispute resolution from the growing number of informed consumers will require the repositories to develop new processes to minimize the costs of resolving disputes, and to prevent problem items from appearing in files. These actions in response to market incentives benefit the rest of us who choose not to subscribe to one of the alert services or inspect our own credit report.

Conclusions

Used broadly, as has been typical in the public debate over credit report accuracy, the term "credit report error" is not particularly helpful when evaluating how well the credit reporting system is meeting the goal of enhancing credit and economic opportunities for consumers. Certainly, the reporting industry bristles at the suggestion that information that is missing from a file should be counted as an error, since a credit bureau cannot report information that it never receives. The equating of missing information with error rankles all the more because the FCRA itself requires mandatory rolloff of older derogatory information that may still be predictive.

Moreover, greater file accuracy is valued only to the extent that it improves the ability of file users to assess borrower risk. Some missing information is important for assessing risk, but other missing information is irrelevant. The same can be said for information included in the file that was never correct, or that was once correct but is now out of date. Not all errors are equal, so equating accuracy to lack of errors is misleading.

We have seen that there are relatively few representative data on the frequency with which specific items contained and reported in a file are wrong. But, there is ample evidence that, detailed as they are, credit files do not represent an

33. A recent survey by Privacy and American Business along with Harris Interactive found that 33.4 million Americans have purchased a privacy product to avoid identity theft, check their credit report, or surf or shop online.

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exhaustive listing of all past credit experience for many borrowers. Yet, despite missing some elements of borrowers' past credit history, the credit files produced by the voluntary reporting system in the United States are among the most comprehensive produced by any reporting system globally. More importantly, U.S. credit files support risk assessment tools (for example, scoring models) that are able to rank borrowers according to likelihood of repayment with remarkable precision. The Federal Reserve Board study concluded that "[o]verall, research and creditor experience has consistently indicated that credit reporting company information, despite any limitations that it may have, generally provides an effective measure of the relative credit risk posed by prospective borrowers" (Avery, Calem, and Canner, 2003, p. 51).[34] The authors further observe that:

> Available evidence indicates that these data and the credit-scoring models derived from them have substantially improved the overall quality of credit decisions and have reduced the costs of such decisionmaking. Almost certainly, consumers would receive less credit and the price of the credit they received would be higher, if not for the information provided by credit reporting companies (Avery, Calem, and Canner, 2003, p. 70).

That said, it is also clear that there is room for improvement in making consumer credit reports more complete representations of each consumer's past and current credit experience. The problem, of course, is that steps to further reduce credit report errors or inconsistencies impose costs on the credit reporting system. For example, in 2003 Congress required national credit bureaus, upon request, to provide consumers with one free credit report annually. Similarly, proposals are circulating to require bureaus to ensure even better matching of new information to files and to mandate more detailed reinvestigation of disputed information. Each of these marginal steps is expensive. Each imposes new costs on consumers as well as businesses. Not all of these costs are obvious (for example, mandatory tougher matching criteria may result in more frequent turndowns on instant credit applications). And, depending upon where the regulatory burden is placed, these steps could lead to dropout by data furnishers, thus reducing the completeness and predictive value of credit reports.

Ultimately the consumer pays. How much accuracy are we willing to buy? Prescriptions involving more regulatory requirements on furnishers and bureaus are offered up easily by industry critics, but every one of them involves a trade-off—imposes a cost—that is rarely articulated. The FCRA is all about balancing these trade-offs. This chapter has not attempted to consider every complaint or proposal to change the FCRA, but is intended to highlight the fact that trade-offs are inherent in any reporting system, especially the U.S. system, which owes

34. See also Avery and others (1996).

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so much of its effectiveness to reliance on voluntary reporting and competitive incentives to innovate new products and risk management services.

The solutions to the file quality problems identified in both the FRB and the CFA studies that appear to offer the greatest promise for boosting quality with the least risk of creating new problems may be divided into two categories. The first and most important category would include measures to encourage greater consumer vigilance in examining their credit reports at all three of the major repositories. Despite the 1970 FCRA's elevation of the consumer to a prominent role in quality control (reinforced by the 1996 FCRA amendments), this seems to us to be the weak link in the current system's operation. As we have seen, comparatively few consumers access their credit reports and those that do tend to seek access only when making a major purchase requiring credit. This could reflect confidence that inspection of a report will reveal no surprises, but it may also reflect lack of awareness of the importance of the credit report and cost of errors. There are encouraging signs over the past several years that consumer awareness is growing, as judged by the success of online credit report and scoring products being marketed to consumers. Nevertheless, the consumer's inspection of his or her own report remains the most underutilized of all the existing tools for improving file quality.

Expanding consumer access to free credit reports alone is unlikely to be the most useful or cost-effective method of enhancing consumer vigilance, especially given how few consumers take advantage of their existing rights to access credit reports and dispute information contained in them. The fact is that consumers have always had an opportunity under FCRA to monitor their own reports on a regular basis. The cost of requesting a report, capped under the 1996 FCRA amendments, is dwarfed by the potential savings from detecting errors prior to applying for large loans like automobile and mortgage loans. With so much at stake in terms of the loan price, the notion that a $9 credit report (or even a $30 fee for disclosure and analysis of the borrower's credit score) would be an obstacle to a home purchase seems absurd. We suggest that the problem is more likely that consumers do not fully appreciate the financial implications of inaccurate or obsolete information in their credit file. Effective appeals to borrowers' self-interest can convey the importance of inspecting one's own credit report (for example, detect errors and pay a lower interest rate on loans). Coupled with an explanation of the substantial rights and opportunities of consumers to dispute inaccurate information, this approach seems more likely than the right to a free annual credit report to motivate consumers to request their report and find out what all the fuss is about. Facilitating online access and simpler dispute resolution mechanisms would also help. The point here is to highlight the importance of encouraging consumers to play the critical role that Congress envisioned for them in ensuring the accuracy of credit reports.

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The second category of promising approaches to improving credit report accuracy includes measures to enhance the quality, timeliness, and comprehensiveness of the information furnished to credit bureaus. These steps would not compel reporting, but would lower the cost of providing data, and explicitly raise the cost of withholding data. For example, the credit reporting industry and federal regulators could develop and urge furnishers to use less ambiguous codes in reporting public record information. Congress could amend the antitrust laws to allow the credit reporting industry trade association the flexibility to promote uniform reporting requirements and reciprocity agreements for all members, so as to more directly impose a cost on a furnisher who chooses to withhold data.

The current system under which furnishers voluntarily report information to competitive credit bureaus has proved extraordinarily successful and generated benefits for U.S. consumers, far greater than the benefits enjoyed by consumers in countries with less well developed or more restricted credit reporting systems. But the U.S. credit reporting system is sensitive to regulations that impose burdens on furnishers, increase their liability, create higher compliance costs, or otherwise raise the cost of participating in the system. By highlighting the trade-offs in regulating a voluntary reporting system, this chapter emphasizes that attempts to further enhance credit file quality must be examined closely to ensure that they do not do more harm than good by discouraging participation.

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