



BOOK SUMMARY

Fair Lending Compliance Intelligence and Implications for Credit Risk Management

A Wiley and SAS Business Series book
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Introduction

In the new Wiley and SAS Business Series book *Fair Lending Compliance Intelligence and Implications for Credit Risk Management*, authors Clark Abrahams and Mingyuan Zhang illustrate the nature and importance of the interdependency between HMDA/fair lending compliance and credit risk management. The book (hereafter referred to as Fair Lending Compliance) also demonstrates the need for developing proper risk measurement and continuous feedback mechanisms to ensure fair lending compliance and accurate credit risk evaluation. In particular, *Fair Lending Compliance* addresses the following questions:

1. How can financial institutions meet their key fair lending/HMDA challenges while enhancing credit, compliance and financial performance?
2. How can lenders create intelligence for fast and thorough detection and control of potential compliance and risk exposures in transparent fashion?
3. How can various statistical modeling techniques be applied within a business context?
4. How are compliance performance and risk management related, and how can they be balanced to advantage at the enterprise level?
5. Why are model validation and life cycle management critical, and how they can be addressed?

Fair Lending Compliance explores the connection between fair lending compliance and credit risk management in a unique way. The book discusses the importance of balancing credit and compliance risk to improve compliance performance without sacrificing credit quality, and it explores the nature of alternative models aimed at promoting credit access. The goal of *Fair Lending Compliance* is to help financial institutions develop a more effective risk management and compliance program to meet regulatory risk compliance requirements while growing revenue opportunities.

Key objectives

Bridging the gap between fair lending compliance & credit risk management

In recent years, the banking industry has seen a convergence of risk management and regulatory compliance. Over the past decade, regulatory compliance examinations have adopted more of a risk-based examination approach, especially for larger and more complex enterprises. Hence, it is important to make new connections between compliance and credit risk management that bring to light new possibilities for improving current practices.

Understanding the connection between credit access and credit risk is the key to developing a new generation of models and processes that preserve safe and sound lending while promoting inclusiveness in the credit market.¹ There are laws and regulations in place that are aimed at ensuring — and monitoring — fair access to credit². Those laws and regulations spell out specific protected classes of consumers whose class membership cannot be considered a factor in the lending process. Financial institutions have fair lending programs that are designed to help avoid any violations of those laws and regulations. The main thrust of a fair lending compliance program is to find and fix problems associated with credit access³ and to effectively communicate performance to stakeholders in order to avoid, or correct, any misperceptions about the institution's lending performance. Regulators also conduct periodic safety and soundness exams to review bank underwriting standards, among other things. Lenders have credit policies that spell out those standards, which reflect the institution's actual loan default experience and best judgment to ensure profitable, safe and sound lending.

Fair Lending Compliance explores the connection between fair lending compliance and credit risk management in new ways and sufficient detail to allow a broader audience the opportunity to consider how prudent lending and fair and equal access to credit “hang together.” The book identifies and compares some of the key parallels between the worlds of compliance and credit risk management, as well as the key elements of hybrid credit models, fair lending testing and credit scoring, relative to analytical frameworks. Various solutions are explored and described to help lenders profitably meet their regulatory and risk management guidelines. The book describes some development methodologies for achieving proper risk measurement and creating feedback mechanisms for continuous monitoring that will help to ensure fair banking compliance and accurate credit risk evaluation.

¹ Dugan, John C., OCC Comptroller, discussed the interplay between fair credit access and credit risk management. See *Remarks for the OCC Workshop on Credit Scoring Model Validation in February 3, 2006*, page 7.

² For example, Regulation B—Equal Credit Opportunity Act, the Fair Housing Act, Regulation C—Home Mortgage Disclosure Act, and Regulation BB—Community Reinvestment Act.

³ The term credit access is used in the broadest sense here to include pricing, marketing, steering, and redlining in addition to the actual granting of a loan (approve/decline decision).

Maximizing return on fair lending compliance

Traditionally, there has not been much attention given to making business cases for compliance risk management. This is due primarily to a couple of factors. First, compliance solutions tended to cover the bare minimum to meet the legal or regulatory requirement. Second, the requirement had to be met, so there could be little debate over whether or not to spend money to avoid a violation of law. Today, the landscape has changed. Fair lending is no longer just a compliance issue. It has a significant impact on various aspects of an institution's business growth and operations. In particular, it will evolve to more directly affect an institution's marketing strategies and revenue generating opportunities, largely through the evolution of a new generation of credit risk models and multi-level customer segmentation strategies. These models and strategies will not only pertain to customers and the parameters of the financial transaction—they will span external factors in the macroeconomic, community-based, sociological and cultural realms.

Fair Lending Compliance emphasizes why a change in thinking is particularly necessary now and how to make business cases for compliance risk management. A lending institution needs to develop a proactive compliance program and evaluate its maturity periodically in order to develop strategies to address any compliance gaps and improve return on compliance. Changes in America's demographic and economic trends create both regulatory challenges and market opportunities for lending institutions. This book explains how institutions can effectively respond to changes in markets and regulations while embracing revenue potential. It also details new and improved risk measures for monitoring performance of enterprise compliance programs.

Capturing revenue opportunities in emerging markets with alternative credit risk management systems

Traditional credit analysis uses human judgment to evaluate creditworthiness, and the main drawbacks associated with the judgmental system are inefficiency and subjectivity. Over time, the judgmental system has been replaced by computerized statistical models, which represents a great advancement in many disciplines, including credit granting, loan portfolio management and compliance testing. To date, credit scoring models represent the most successful application of statistical modeling methods to assess consumer credit risk. Among the many benefits that credit scoring has brought is the hastening development of the secondary market for consumer loans, which has provided needed liquidity to lenders who are able to risk-rate, price and bundle loans for sale to investors in the capital market.

For a protected class of consumers, credit access is driven by the perceived credit risk profile of individual members of that group, relative to the institution's credit underwriting and pricing criteria, and by the lender's credit product marketing efforts and practices in different geographic areas within the franchise in general, and relative to the group in question. Factors such as decline rate disparities and disparities associated with the rate of "above threshold" loans for protected versus non-protected classes of consumers are used to identify potential problems associated with credit risk evaluation. Factors such as disparities in market share and market penetration are indicators of potential problems associated with product marketing. This is where risk is quantified and loan decision making is performed. It is also where consumer segmentation is performed and marketing strategies are developed and implemented. It is in this decision layer where art and science are used to address in the most appropriate way such things as incomplete information, missing data, new emerging populations, environmental socioeconomic changes and changes in both the risk and prevalence of various distinct consumer and small business borrower profiles.

That said, in certain instances it can prove advantageous to exercise more control over the historically data-driven models, rather than letting those models dictate the outcome. Both judgmental and credit scoring approaches bear some weaknesses and strengths. That presents a bit of a conundrum. Would you rather: 1) promote a less efficient, more subjective and less consistent judgmental loan approval processes; or 2) rely entirely on data-driven scoring models?

Fair Lending Compliance introduces an alternative modeling approach that can take advantage of the strengths associated with human judgment and computer models by means of a *hybrid approach*. An alternative loan underwriting model will support safe and sound lending while providing a more flexible process for qualifying creditworthy consumers, many of whom currently fall outside of the mainstream. The motivation for considering, and ultimately embracing, these new approaches lies beyond process improvement for granting credit to *mainstream* consumers, although the business case is compelling enough to justify it. The real thrust for the timing of this technological change is the change in the consumer population itself, and the dynamics surrounding it, on which the standard current models may not fully capitalize.

Consumer access to credit depends largely on point scoring models that have evolved over the past several decades. A major premise of credit scoring models is that past performance determines future outcomes. Most credit models were developed based on samples that did not include the un-banked population. This raises the question: "How can lenders qualify certain segments of the consumer population that have not historically been users of traditional credit, and hence do not have associated credit payment performance histories in credit bureau databases?"

These models implicitly assume that un-banked people have no significant differences in credit characteristics from their mainstream counterparts. This assumption is not necessarily well-founded and may hinder qualified consumers from accessing fair credit and meeting their financing needs. Credit market opportunities in emerging markets will be most heavily affected, and this will further increase exposure to fair lending compliance violations. *Fair Lending Compliance* demonstrates in detail how alternative data can be utilized in the hybrid model to help speed the process of *mainstreaming* financially responsible cash-paying consumers whose dreams of a better life, including homeownership, continue to elude them. The propagation of new alternative credit models throughout the financial system will afford better, and fairer, chances for all borrowers, greater revenue for lenders and deliver broader economic prosperity in communities across the nation.

Key analytic advances

Fair Lending Compliance describes some new analysis methodologies that can help lenders more effectively and efficiently manage credit and compliance risk while maximizing their shareholder returns. There are five key advances in the book:

Universal performance indicator (UPI). This is for creating a comprehensive view of compliance and credit risks at different geographic and organizational levels. Monitoring and managing fair lending risk exposure has become increasingly important for lending institutions as regulatory agencies continue to scrutinize fair lending practices and increase the standards. Moreover, the regulatory examiners themselves, who are evaluating fair lending across their institutions, also need more effective and accurate methods to quickly evaluate them and prioritize their efforts accordingly. The analytic framework is initiated with a universal performance indicator approach. The goal is to obtain a comprehensive picture of overall compliance performance. This entails the exploration of a large amount of data and identification of risk focal points. This new methodology can help institutions evaluate overall business practices in any context with a standardized UPI that simultaneously rank orders performance relative to all relevant factors.

Dynamic conditional process (DCP). This is designed for effective compliance testing and credit risk modeling by better utilizing data and emulating business reality. In the book, we show how DCP can help overcome some limitations inherent in traditional modeling, and how DCP dynamically categorizes lending decision-related factors and captures variation in policy thresholds among loan products, markets or programs. The book demonstrates how to create conditional and interaction structures in order to model the variant nature of decision factors in lending decisions, while minimizing the complexity of the model specification process and model maintenance. DCP can outperform competing modeling approaches by achieving a closer fit to business reality and using the data more efficiently. Finally, we discuss how DCP can be applied to monitoring and improving override processing to reduce associated compliance risk.

Risk evaluation & policy formulation system (REPFS). This represents an alternative credit risk model using either traditional or non-traditional credit information by taking the advantages of both statistical scoring models and judgmental and business criteria. An REPFS is a hybrid model that affords qualitative benefits while preserving quantitative-based decision making. This approach has particular applicability to emerging markets. We address the compliance implications for credit risk management relative to consumer loan products, with examples drawn from mortgage, auto, credit card and small business lending. Numerous examples spanning consumer and small business lending are included in this chapter.

Multi-layered segmentation (MLS). This is for developing integrated segmentation schemes to perform assessment for various segments, including neighborhood and under-banked lending/investment. Proper segmentation is the key to getting good results, to validating those results and to thoroughly and concisely explaining those results to all stakeholders. The multi-layered segmentation approach can be used for risk and revenue evaluation and to formulate credit risk management strategies. This approach affords a complete and deep understanding of the driving forces behind outcomes and how those outcomes stack up against a variety of norms (historical, regulatory, market, industry, societal, economic) and both near-term and strategic goals (business, consumer, community and local/state/federal government).

Credit and compliance optimization process (CCOP). This is for integrating credit and compliance objectives within the model validation process to achieve optimal business decisions and strategies. A credit and compliance optimization process (CCOP) is offered for consideration as a unifying concept. Model optimization and validation are approached from both credit risk and compliance risk perspectives using an integrated analysis methodology. This integrated methodology uses the hybrid approach to perform a more comprehensive model validation in an intuitive way. Override analysis results and the UPI concept are also integrated into this framework for compliance monitoring.

The integration of these approaches in lenders credit risk management and fair lending compliance programs will prove beneficial to all stakeholders, including lenders, borrowers, secondary market conduits, investors, and regulators. There are few endeavors more important than the quest to provide safer, fairer, and profitable access to capital for qualified individuals and businesses in order to improve the quality of lives and to foster sustainable economic growth and prosperity. In particular, UPI provides a single measure of all risk exposures for easy, fast and thorough analysis and deep understanding. DCP more closely captures business reality associated with lending to the un-banked, who lack sufficient amounts of credit history. REPFS provides alternative underwriting and pricing models that can be used to quantify and monitor credit risk for consumer and small business markets. MLS provides critical context for compliance assessment and credit evaluation at various levels. CCOP seeks to balance dual objectives relating to risk-based fair lending. The book presents these methodologies in a systematic way and comprehensive framework. Collectively, these advances can help lending institutions strengthen their internal controls for identifying, measuring, evaluating, and monitoring risk.

Who can benefit from this book?

Fair Lending Compliance was written to address the needs of several audiences, from corporate executives to corporate and divisional compliance staff, loan officers, credit risk managers and information technology (IT) professionals, as well as researchers, academics, regulators, lawyers, legislators and enforcement agencies at the federal and state government levels. In fact, this book can benefit all credit consumers, including entrepreneurs, because it provides them with the opportunity to develop a deeper understanding of loan evaluation processes and possible alternatives.



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