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The impact of differences between consumer- and creditor-purchased credit scores

Report to Congress



Consumer Financial
Protection Bureau

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Executive summary

A credit score is a numerical summary of a consumer's apparent creditworthiness, based on the consumer's credit report, and reflects the relative likelihood that the consumer will default on a credit obligation. Credit scores can have a significant impact on a consumer's financial life. Lenders rely on scores extensively in decision making, including the initial decisions of whether to lend and what loan terms to offer, for most types of credit, including mortgages, auto loans, and credit cards. Credit scores also influence the marketing offers that consumers receive, such as offers for credit cards. Further, credit scores affect account-management decisions, like raising or lowering credit limits or changing interest rates. A good credit score can mean access to a wide range of credit products at the better rates available in the market, while a bad credit score can lead to greatly reduced access to credit and much higher borrowing costs.

Lenders use credit scores that are produced by many different scoring models. The most widely used scores are the "FICO scores" sold by FICO (the brand used to identify the Fair Isaac Corporation). There are a number of FICO score models in use by lenders, and many other credit score models besides the FICO scores. Consumers can also purchase a wide range of credit scores. Some scores sold to consumers are used by lenders, but others, referred to as "educational scores," are either not used by lenders at all or are used only infrequently. It is important to note that many of the credit scores sold to lenders are not offered for sale to consumers.

The Dodd-Frank Wall Street Reform and Consumer Protection Act requires the Consumer Financial Protection Bureau (CFPB) to "conduct a study on the nature, range, and size of variations between the credit scores sold to creditors and those sold to consumers by consumer reporting agencies (CRAs) that compile and maintain files on consumers on a nationwide basis,... and whether such variations disadvantage consumers." Consumers can purchase scores from the CRAs in several ways. They can purchase scores when they request copies of their credit reports directly from the CRAs, or with their annual free credit file disclosure available through annualcreditreport.com. The CRAs or their marketing partners also sell scores as part of "credit monitoring" or "identify theft" products.

When a consumer purchases a score from a CRA, it is likely that the credit score that the consumer receives will not be the same score as that purchased and used by a lender to whom the consumer applies for a loan. This could occur if the score the consumer purchased is an educational score that is not used by lenders, but differences between the score a consumer buys and the score a lender buys can occur for other reasons as well. Since so many scores are in use in the marketplace, it could also be the case that the particular lender to which the consumer applies uses a different scoring model than the one purchased by the consumer, or that the CRA from which the consumer obtains a score is not the same CRA that the lender uses to obtain scores, or that the underlying data in the consumer's credit report changes significantly between the time the consumer purchases a score and the time the lender obtains a score for that consumer. It is also possible that a consumer and a lender could access different reports from the CRA, if they were to use different identifying information about the consumer. Any of these differences could lead to differences between the credit score a consumer sees and the credit score a lender uses to assess that consumer.

A consumer, unaware of the variety of credit scores available in the marketplace, may purchase a score believing it to be his or her “true” (or only) credit score, when in fact there is no such single score. Believing he or she had purchased a FICO score may lead to dissatisfaction upon learning otherwise. The consumer may be frustrated to learn that they cannot know exactly how a creditor will view them.

But the most significant adverse impact on a consumer from score differences would likely occur if the credit scores the consumer buys give a substantially different impression of his or her credit risk than credit scores that a lender would use. This could occur if there are substantial differences between the scores sold to consumers and those sold to lenders. In this scenario, some consumers may settle for less favorable terms or may forego applying for credit if the scores they purchase lead them to believe they will be viewed as poor credit risks, although the scores received by lenders would imply otherwise. Alternatively, a consumer who incorrectly expects to be considered a good credit risk may apply for loans for which he or she could not qualify, leading to disappointment, wasted effort, and unnecessary inquiries on a credit report, which could depress his or her score further.

This report provides context for understanding these issues by describing the industry as a whole, important industry players, and the complexity of the credit scoring process. It then examines the ways credit scores are obtained and used, and discusses how the differences between the scores provided to creditors and those provided to consumers could disadvantage consumers. Additionally, the report details a substantial data collection and analysis project being carried out by the CFPB that will help characterize the differences between the scores provided to consumers and those provided to creditors.

I. Credit reporting and credit scoring

In order to evaluate how credit scores affect consumers it is necessary to understand how the underlying data is compiled, how scores are created, and how they are used by lenders. This section provides background information on credit reporting and credit scoring. Subsequent sections describe the market for scores sold to lenders and how lenders use scores, and the market for scores sold to consumers.

A. Consumer reporting agencies and credit reports

Consumer reporting agencies are companies that gather, organize, standardize, and disseminate consumer information, especially credit-related information. In mandating this study, the Dodd-Frank Act refers specifically to scores provided by “consumer reporting agencies that compile and maintain files on consumers on a nationwide basis,”¹ also called “nationwide CRAs.” The three nationwide CRAs are TransUnion, Equifax, and Experian.² For the purposes of this study, these three firms are referred to as “the CRAs.”

Most consumers with a history of using credit products will have a file at each of the three CRAs. The CRAs collect, among other information, credit account information including the amount of a loan, the credit limit on a credit card, the balance on a credit card or other loan, and the payment status of the account; items sent for collection; and public records, such as judgments and bankruptcies.³ The CRAs compile the information into files about individual consumers. The CRAs also track requests, or “inquiries,” for a consumer’s credit data, and records of those requests are maintained in the consumer’s file.⁴ Consumer files are used to produce reports that the CRAs provide to creditors, insurance companies, potential employers, and other users. These reports are formally called “consumer reports” but are often referred to as “credit reports,” which is how they will be referred to throughout this report.⁵ The activities of CRAs, creditors, and others that provide

¹ Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, § 1078 (2010) (hereinafter the “Dodd-Frank Act”):

STUDY AND REPORT ON CREDIT SCORES.

(a) STUDY.—The Bureau shall conduct a study on the nature, range, and size of variations between the credit scores sold to creditors and those sold to consumers by consumer reporting agencies that compile and maintain files on consumers on a nationwide basis (as defined in section 603(p) of the Fair Credit Reporting Act; 15 U.S.C. 1681a(p)), and whether such variations disadvantage consumers.

(b) REPORT TO CONGRESS.—The Bureau shall submit a report to Congress on the results of the study conducted under subsection (a) not later than 1 year after the date of enactment of this Act.

² Federal Trade Commission, 75 Fed. Reg. 9726, at n.2 (Mar. 3, 2010) (online at www.ftc.gov/os/2010/02/100223facta.pdf).

³ For a detailed summary of the data compiled by the CRAs, see Robert B. Avery, et. al., An Overview of Consumer Data and Credit Reporting, Federal Reserve Bulletin, at 47-73 (Feb. 2003) (online at www.federalreserve.gov/pubs/bulletin/2003/0203lead.pdf).

⁴ Requests from the consumer for copies of the report, as well as requests for the purposes of marketing firm offers of credit, are not included in consumer reports that are provided to creditors and other users and are not factored into consumers’ credit scores. Such requests are typically referred to as “soft” inquiries.

⁵ This report will use the term “credit report” to refer to both the consumer reports, 15 U.S.C. § 1681a(d), purchased by users, such as lenders, and to the documents obtained or purchased by consumers who wish to see the

data to the CRAs (often referred to as “data furnishers”), and users of credit reports are governed by the Fair Credit Reporting Act (FCRA), which is concerned with, among other things, the “accuracy and fairness of credit reporting.”⁶

Each of the three CRAs may have somewhat different information in a particular consumer’s file for a variety of reasons: not all data furnishers provide data to all CRAs; data furnishers may provide information to the different CRAs on different schedules; and a CRA will only have records of inquiries that it, not the other CRAs, received. In addition, the process of matching consumer information received from a data furnisher to consumer files is a complex one, and consumers’ address and name changes make tracking particularly difficult.⁷ These matching issues also may lead to differences among the consumer’s files at the CRAs, as each CRA has its own matching process and logic.⁸

B. Credit scores

Credit reports can contain a great deal of detailed information, especially for consumers with extensive credit histories. Credit scores take that information and turn it into a single numerical summary.⁹ FICO developed the first credit scores for use by lenders in the 1950s. Since then, and especially since the 1980s, versions of the “FICO score” and various other scoring models have been adopted for use by credit card issuers, auto lenders, mortgage companies, and other types of lenders. Credit scores permit lenders to standardize, centralize, and automate underwriting processes.

The CRAs generate scores from the data in the credit files in their records and provide those scores to creditors. Other credit scoring entities, such as some large lenders, use data from one or more of the three CRAs, sometimes in combination with other data the lender itself may collect, to generate their own credit scores. Credit scores “rank order” consumers by predicted credit risk. That is, a score shows whether a consumer is more or less likely to repay a debt *relative* to other consumers. The absolute probability that a consumer will not pay a debt will depend on the type of credit product, broader economic conditions, and a wide range of other factors.

information contained in a consumer report that a lender might obtain. The Fair Credit Reporting Act refers to the latter documents as “disclosures to consumers.” 15 U.S.C. § 1681g.

⁶ 15 U.S.C. § 1681a.

⁷ For example, a consumer who has recently married, moved, and changed her name may have two reports about her at a CRA that have not yet been combined. Depending on the information the consumer and lender use to request the score or report, they may obtain credit scores that differ based on their use of different reports.

⁸ Federal Trade Commission, Report to Congress under Sections 318 and 319 of the Fair and Accurate Credit Transactions Act of 2003, at 35-55 (Dec. 2004) (online at www.ftc.gov/reports/facta/041209factarpt.pdf).

⁹ There are also lending-decision models that incorporate data beyond that on the credit report, such as income data from an application. These types of models may also generate a numerical score, but this is different from a “credit score” as the term is used here. There are also other users of credit reports besides lenders, and some of these users employ scoring models. Some employers and landlords use credit report information when making hiring and rental decisions, and many automobile and homeowners insurance companies use credit-based insurance scores in underwriting and rating, except where prohibited by state law. While these uses of credit reports and scores have serious implications for consumers, an examination of how scores are used in these contexts and whether those scores differ from credit scores sold to consumers is beyond the scope of this report.

To generate a score, the CRA or the lender applies a mathematical algorithm, or “scoring model,” to the information in the credit report being used.¹⁰ As part of this process, it is first necessary to create summaries of various aspects of the information in the report, because detailed information about the consumer’s credit accounts cannot be fed directly into a scoring model. For example, records of individual accounts are used to determine characteristics such as the age of the oldest credit account, the number of accounts 60 days past due or worse in the last two years, or the ratio of total balances on credit cards to total credit limits. The summary variables that are generated from the raw data are referred to variously as “credit attributes,” “credit variables,” or “roll-ups.” Each of the CRAs has hundreds of attributes that have been created at various times for various purposes, but a typical scoring algorithm uses far fewer.

The primary factors that affect credit scores include:

- payment history, including late payments and collection items;
- balances, available credit, and the percentage of existing credit lines being utilized;
- negative public records such as bankruptcy, judgments, and liens;
- length of the credit history and the mix of credit types; and
- evidence of taking on new debt, such as new accounts or inquiries.

When credit scores are designed and sold to predict payment behavior on a wide range of credit products, they are referred to as “generic” scores. When they are designed to predict performance on a specific type of credit, such as automobile loans, they are referred to as “industry” scores. Some lenders, especially larger lenders, receive credit reports from a CRA and calculate scores themselves using models developed to predict the performance of their own population of customers. These are called “custom” scores.

There are numerous generic and industry scoring models in use at the three CRAs. Some were developed by the CRAs themselves, while others were developed by third-party scoring companies, such as FICO. In addition, there are numerous custom scores in use by various individual lenders. A credit scoring model that is better at predicting future payment behavior by consumers conveys a competitive advantage to a lender, and therefore a score developer, so credit scoring models are highly valuable, closely guarded intellectual property.

II. Credit scores in the marketplace

Credit scores are ubiquitous in the consumer credit marketplace. Lenders use them to determine not only whether to grant credit but also what amount of credit to provide and on what terms. Because CRAs can deliver credit reports and scores almost instantly upon request, the use of credit scores and automated underwriting make possible the granting of “instant” credit in venues where obtaining credit could be an important part of a consumer’s purchase decision, such as at an auto dealer or a department store. Incorporating the use of credit scores enabled the government-sponsored enterprises, Fannie Mae and Freddie Mac, to introduce automated underwriting systems

¹⁰ A description of how scoring models are developed is available in the Appendix.

that enabled loan officers and other mortgage originators to streamline the mortgage underwriting process.

Credit scores also facilitate “risk-based pricing” by lenders. When lenders use risk-based pricing, they offer applicants with poor credit histories less favorable terms than they offer to consumers with better credit histories. Risk based pricing allows some consumers with poor credit histories to obtain credit, but at higher cost than consumers with good credit histories. Various terms have proliferated – like prime, near-prime, sub-prime, and deep sub-prime – that represent groups of consumers whose credit scores occupy different points or “bands” along a spectrum of good to poor credit risk. In particular, FICO score “bands” within its range of 300 to 850 have become widely used shorthand to define groups of consumers by their risk characteristics. The particular numerical bands vary from lender to lender and over time; for example, “prime” borrowers who present low risks of default have at various times referred to consumers whose FICO scores were at or above 620 or 680.

A. Types of credit scores

1. FICO scores

As described above, FICO developed the first credit scores in the 1950s, and the FICO scores are still the most widely used generic scoring models. One industry observer estimates that FICO had over 90 percent of the market share in 2010 of scores sold to firms for use in credit-related decisions.¹¹

There are numerous FICO scoring models. Because of differences in the data at the three CRAs, FICO develops unique generic scoring models for use at each of the three CRAs.¹² There are also several different generations of generic FICO scores in use, and FICO develops industry models for credit cards, mortgages, and auto loans.

All scoring models FICO creates are built to generate scores that fall in the range 300 to 850. Different FICO scoring models, however, may produce minimum or maximum scores slightly above 300 or slightly below 850.

Fannie Mae and Freddie Mac, the government-sponsored enterprises that purchase and securitize a large portion of mortgages for the secondary mortgage market, require the use of FICO scores in the underwriting of mortgages that they will purchase.¹³ The Federal Housing Administration (FHA)

¹¹ The TowerGroup estimates that 9.9 billion scores were purchased, across the credit life cycle, in 2010. FICO states that it sold 9.2 billion scores for those same uses in 2010. These figures are from interviews with executive at TowerGroup and FICO. They exclude scores purchased for testing and development purposes.

¹² For example, BEACON is a FICO score used by Equifax, FICO® Risk Score, Classic by TransUnion, and Experian / Fair Isaac Risk Model by Experian. See FICO, FICO Score (online at www.fico.com/en/Products/Scoring/Pages/FICO-score.aspx) (accessed June 27, 2011).

¹³ For example, credit reports used in Fannie Mae’s automated underwriting system must contain specific versions of the FICO Score. See Fannie Mae, Credit Report Requirements in Desktop Underwriter (Mar. 25, 2009) (online at www.efanniemae.com/sf/technology/ou/du/pdf/ducreditscoremodel.pdf). Freddie Mac has similar requirements for various mortgage products. See, e.g., Freddie Mac, Requirements for Using FICO Scores for Manually Underwritten

has also required that mortgage lenders wishing to originate FHA-insured loans must use FICO scores.¹⁴ These requirements mean that, in the current mortgage market, most mortgages are underwritten using FICO scores.

2. Consumer reporting agency scores

The CRAs each have their own proprietary generic scoring models. These scoring models were originally developed to predict performance on credit obligations, but are currently sold primarily as “educational scores” for consumers.¹⁵ Examples of the proprietary generic scores sold by the CRAs are the following:

- Equifax: “Equifax Credit Score.” Produces scores in the range 280-850.¹⁶
- Experian: “Experian Plus Score.” Produces scores in the range 330-830.¹⁷
- TransUnion: “TransRisk New Account Score.” Produces scores in the range 300-850.¹⁸ This scoring model was developed to predict performance on new credit accounts, unlike the standard FICO score or the VantageScore, which were developed to predict risk on both new and existing accounts.

The CRAs also build custom scores for individual clients on a contract basis.

3. VantageScore

VantageScore LLC is a score development company established as a joint venture of the three CRAs. The VantageScore models generate generic scores. A basic difference between VantageScore’s models and the FICO models is that for each generation of VantageScore, the model is the same at each of the three CRAs. VantageScore builds its models using development databases that combine data from all three CRAs. If all data about a consumer were the same at each of the three CRAs, the VantageScore for that consumer would be the same no matter which CRA’s

Mortgages, Freddie Mac Bulletin, at 3, No. 2010-23 (Oct. 15, 2010) (online at www.freddiemac.com/sell/guide/bulletins/pdf/bl11023.pdf).

¹⁴ See, e.g., Department of Housing and Urban Development: Federal Housing Administration Mortgage and Loan Insurance Programs, at B-6 (2011) (online at www.hud.gov/offices/cfo/reports/2011/cjs/fha_fund_2011.pdf).

¹⁵ See, e.g., Equifax, Things You Should Know... (online at https://help.equifax.com/app/answers/detail/a_id/386) (“The Equifax Credit Score . . . is intended for your own educational use. There are numerous credit scores and models available in the marketplace and lenders may use a different score when evaluating your creditworthiness.”); Experian.com (online at www.experian.com) (“Experian Credit Score indicates your relative credit risk level for educational purposes and is not the score used by lenders.”).

¹⁶ Equifax, Equifax Credit Score: What Is the Equifax Credit Score? (online at https://help.equifax.com/app/answers/detail/a_id/242/noIntercept/1/kw/equifax%20credit%20score).

¹⁷ Experian, FAQ: What is a PLUS Score (online at www.nationalscore.com/FAQ.aspx).

¹⁸ CreditKarma, Get Your 100% Free Credit Score! (online at www.creditkarma.com/preview/score/).

credit report was used to provide the data. However, the scores may vary in the event that the information at the CRAs differs.¹⁹

There are currently two VantageScore models in use. The original VantageScore was released in March 2006; an update of the VantageScore model, VantageScore 2.0, became available for use in January 2011.²⁰ The VantageScore models produce scores on the range 501-990.

B. Uses of scores

Though the primary use of credit scores in credit markets is to make an initial lending decision, they are used throughout the credit life cycle.

1. Marketing

Scores are used in the pre-screening process to determine what credit offers, especially credit card offers, to send to consumers.

2. Origination

Scores are used at the origination stage for all types of consumer credit. Scores are one factor used to determine whether to offer an applicant a mortgage, which specific types of mortgages the borrower can receive, and what interest rate, points, and fees the borrower will pay. Similarly, for auto loans, scores affect whether an applicant can obtain a loan, the maximum amount of the loan, the interest rate, and whether a co-signer will be required to qualify for the loan. For credit cards, scores can affect not only the decision of whether to offer credit, but also the interest rate, the credit limit, and the product features – such as fee or no-fee, rewards or no-rewards – that a consumer will be offered.

3. Account maintenance or account review

Credit card issuers periodically review their customers' credit reports and scores to decide whether to raise or lower credit limits and interest rates and whether to make special offers such as balance transfers. Other lenders also may use scores in their credit management processes, or to evaluate whether to cross-sell new products to existing customers.

¹⁹ For example, such variations may occur if a lender furnished account information about a consumer to one CRA but not to another.

²⁰ VantageScore, VantageScore 2.0 Now Available for Lender Use: Equifax, Experian, and TransUnion Implement New Scoring Model (Jan. 20, 2011) (online at www.vantagescore.com/docs/VantageScore2.0_Implementation_Release.01.20.11.pdf); VantageScore, Results from VantageScore Solutions Third Revalidation of the VantageScore Model Reflect a Trend Toward Continued Predictiveness, Consistency, Stability: Model Again Outperformed the Generic Credit Scoring Models of Three [CRAs]—Equifax, Experian and TransUnion (Oct. 16, 2007) (online at www.vantagescore.com/docs/vantagescore_press_release_101607.pdf).

4. Valuations of loan portfolios

Credit scores on individual borrowers are used by owners and buyers of loan portfolios, or of securities backed by such portfolios, and by rating agencies, to predict the likelihood and timing of the borrowers' loan repayments, and the future cash flows that are used to assess the portfolios' values.

III. Consumer credit score marketplace

Consumers can purchase credit scores in at least two ways. They can buy them as an add-on when obtaining a credit report from a CRA or certain other vendors, or they can receive them as part of a "credit monitoring" service. Some of the scores consumers can purchase in this way are used widely by creditors; others are not. In any case, if a consumer buys a score, it is quite likely that any particular lender that consumer approaches for a loan will use a different score, given the diversity of scores in use in the market.

In light of the important role of credit scores in consumer credit markets, there is a great deal of interest on the part of consumers in obtaining their credit reports and credit scores. The market for providing credit reports and scores has grown in recent years to more than \$1 billion in revenue, and sales to consumers make up roughly a quarter of the U.S. revenues of the CRAs and their affiliates.²¹

In addition to consumer credit score purchases, there are several circumstances in which a lender is required to provide a consumer with a score, as discussed further below. In these cases, the score comes from the lender using the score, and the score the consumer receives will likely be a score that was used by the lender.

A. Consumer purchases of credit scores

The FCRA entitles consumers to request and receive disclosures of their credit reports from a CRA at any time for a fee or, for free in certain circumstances, such as if they are victims of identity theft.²² In addition, the FCRA entitles consumers to obtain one free disclosure of their credit report in any given 12-month period from each of the three CRAs through a "central source." In compliance with the latter requirement, the CRAs have established a jointly-owned limited liability corporation, Central Source, which manages a toll-free number, mailing address, and website (annualcreditreport.com) through which consumers can receive their credit report disclosures. The Consumer Data Industry Association, a trade group representing the CRAs, estimates that approximately 30 million free credit reports are delivered annually through the central source. This number represents approximately 15.9 million individual consumers, as many consumers obtain reports from more than one CRA each year through the central source. Fourteen percent of one

²¹ These are CFPB estimates, based on industry interviews and analysis of public filings, including Experian, 2011 Annual Report: Growth Through Global Strength (online at www.experianplc.com/investor-centre/reports/investor-reports/~/_media/Files/E/Experian/pdf/investor/reports/2011/experian-ar-2011.pdf) and Equifax, 2010 Annual Report: Growth Through Innovation and Execution (online at www.equifax.com/shareholders/2011/equifax_2010_annual_report.pdf).

²² 15 U.S.C. § 1681g(d); see also 16 C.F.R. Pt. 698, App. E; 15 U.S.C. § 1681m(a) (effective July 21, 2011).

CRA's credit report deliveries through the central source resulted in the purchase of a credit score by a consumer.²³ If this rate is similar at the other two CRAs, an estimated 4.2 million score disclosures are made annually through the central source.

When consumers request their credit reports directly from a CRA or through the central source, the FCRA dictates that they have the option to purchase a credit score calculated using the credit report.²⁴ In this context the consumer receives credit scores based on scoring models chosen by the individual CRA. The scores sold by the CRAs to consumers through this channel may be educational scores.

In addition to these mandated credit score sales channels, consumers can purchase scores through services typically identified as "credit monitoring" or "identity theft protection." Many of the scores sold through these channels are educational scores. Affiliates of each of the three CRAs, as well as the CRAs' direct marketing partners, offer ongoing access to credit reports and accompanying credit scores through these programs. The CRA affiliates are able to obtain credit reports about consumers from the other CRAs for this purpose, so a consumer can obtain reports from all three companies through a single enrollment. Consumers generally obtain these services on a subscription basis by enrolling at the service provider's web site or via outbound telemarketing.²⁵ As an industry, credit monitoring services have grown rapidly with a reported 26 million active subscribers in 2010.²⁶ Consumers generally learn about the services from direct advertising on television and the Internet and through communications from lenders, such as credit card issuers.

The CRAs market, accept enrollments and payments for, and deliver services through their own company-branded consumer websites (Equifax.com, Experian.com, and TransUnion.com), as well as other specialty-purpose sites.²⁷ Some of the CRAs also sell the services at wholesale through third party marketing companies, which brand and resell the services separately.²⁸ Some companies sell

²³ Letter from John W. Blenke, Executive Vice President, Corporate General Counsel and Corporate Secretary, TransUnion, LLC, to Office of the Secretary, Federal Trade Commission (Dec. 4, 2009) (online at www.ftc.gov/os/comments/freeannualfilenprm/545091-01129.pdf).

²⁴ See 15 U.S.C. § 1681j (f)(1); 15 U.S.C. § 1681g(f). This provision mirrors a 2001 California law requiring consumer access to a credit score for a reasonable fee. Cal. Civil Code § 1785.15.1, 1785.15.2.

²⁵ Similar "credit monitoring" services are also sometimes provided to consumers for free when a financial or other service provider has experienced an information security breach that may expose their customers to a risk of identity theft. In these cases the affected company may notify the consumer of the breach and voluntarily offer the service for a period of time following the notice. The services sometimes include the provision of credit reports from one or more of the CRAs, and may or may not include credit scores. See, e.g., Shan Li, SEC Data Breach Is Revealed; Payroll Information for 4,000 Agency Workers Was Sent in an Unencrypted Email, *Los Angeles Times*, at B2 (May 19, 2011) (regarding an offering of 60 days of free credit monitoring); see generally Data Security and Breach Notification Act of 2011, S. 1207, 112th Congress (legislation introduced to require notice to consumers of data security breaches in certain circumstances).

²⁶ Javelin Strategy, 2010 Annual Identity Protection Services Scorecard (2010).

²⁷ For example, two leading credit monitoring sites, FreeCreditScore.com and FreeCreditReport.com, are owned and operated by Experian.

²⁸ The CFPB believes the largest such third-party marketing companies offering credit monitoring services include Affinion, Intersections, and Vertrue.

credit monitoring services through financial institutions, which offer the services to their credit card and banking customers, in some cases under the financial institutions' brand.

When a consumer obtains a credit report and accompanying credit score directly from a CRA, through the central source, or through a credit monitoring service, the particular credit score he or she receives depends on which scoring model the CRA marketing affiliate – or in some cases, the marketing partner – has chosen to make available to consumers. As all three of the nationwide CRAs have their own business units that provide analytic and credit score development services to lenders, it is not surprising that each CRA would consider providing scores based on their internally developed algorithms to consumers, thereby avoiding paying a licensing fee with each score sale to a third party such as the FICO. All three CRAs do provide scores based on their own scoring models or the scoring model developed by their three-way joint venture VantageScore. Equifax also offers for sale a FICO score with an Equifax credit report.

The landscape of service brands and websites has evolved rapidly and continues to change. Table 1 summarizes the current landscape of credit scores provided through some of the three CRAs' affiliated credit monitoring services and through services offered by major third-party marketers of credit monitoring services.

Table 1: Credit Monitoring Providers and Services

Monitoring Service Provider	Brand(s) and Web Address(es)	Consumer Credit Score(s) Offered
Equifax	www.equifax.com	Equifax Credit Score FICO Score
Experian	www.experian.com www.freecreditscore.com www.freecreditreport.com www.familysecure.com	Experian PLUS Score
TransUnion	www.transunion.com www.truecredit.com	VantageScore (previously, the TransRisk Score)
Affinion	www.privacyguard.com www.identitysecure.com (markets through web sites of various financial institutions)	CreditXpert Score
Intersections	(private label web sites for various financial institutions)	CreditXpert Score
Vertrue	www.privacymatters.com www.freescore.com www.creditdiagnosis.com www.creditadapter.com	VantageScore
FICO	www.myfico.com	FICO Scores

It is useful to note that FICO scores are currently available for purchase with respect to the credit reports of only two of the three CRAs: Equifax and TransUnion. At present, myfico.com is the only channel through which a consumer can directly purchase a FICO score on a TransUnion credit report, and until recently, myfico.com and Equifax.com were the only two channels through which consumers could purchase a FICO score on an Equifax credit report. One bank recently announced it was offering its customers their FICO scores based on Equifax credit files for a monthly fee.²⁹ FICO does not have a licensing agreement with Experian for providing FICO scores to consumers, so there is no service through which a consumer can purchase an Experian credit report with an accompanying FICO score.³⁰

The CreditXpert score that is sold through several services was developed by CreditXpert specifically for sale to consumers, rather than to creditors.³¹ It was not developed to predict performance on credit obligations, but rather to provide information about how a consumer will be scored by other models in the marketplace. CreditXpert also offers a suite of services that allow a consumer, or a lender working with a consumer to help the consumer qualify for a particular loan, to evaluate how different changes to the consumer's credit report would affect the consumer's credit score.

B. Mandatory provision of credit scores by lenders

The FCRA, as amended by the Dodd-Frank Act, requires lenders to provide consumers with credit scores in certain circumstances.³² These generally include when: (1) a lender provides credit based, in whole or in part, on a credit report or score using risk-based pricing; (2) a consumer applies for a mortgage loan; and (3) a lender denies or revokes credit, changes the terms of an existing credit arrangement, or refuses to grant credit in substantially the amount or on substantially the terms requested (adverse action). These instances of mandatory lender-provided scores provide a useful context for assessing the impact of the credit scores that consumers purchase.

1. Receiving a credit score in connection with risk-based pricing

Lenders often use the information in a credit report as a factor to grant materially less favorable loan terms to a consumer than the most favorable material terms available to a substantial proportion of consumers from or through that lender.³³ Lenders who engage in risk-based pricing to provide

²⁹ Ann Carrns, M&T Bank Offers Access to FICO Credit Score for a Fee, New York Times Bucks Blog (June 14, 2011) (online at <http://bucks.blogs.nytimes.com/2011/06/14/mt-bank-offers-access-to-fico-credit-score-for-a-fee/>).

³⁰ FICO and Experian do have agreements covering the sale of Experian credit reports with FICO scores to lenders.

³¹ See generally CreditXpert.com (online at www.creditxpert.com).

³² The Federal Reserve Board and the Federal Trade Commission have issued final rules implementing the changes to section 615(h) of the FCRA, 15 U.S.C. § 1681m(h), as amended by section 1100F of the Dodd-Frank Act. The following discussion and all citations concern these final rules. See Federal Reserve System & Federal Trade Commission, 76 Fed. Reg. 41602 (July 15, 2011) (final rules) (online at www.gpo.gov/fdsys/pkg/FR-2011-07-15/pdf/2011-17649.pdf) (this final rule will become effective thirty days after publication in the federal register); Federal Reserve System, 76 Fed. Reg. 41590 (July 15, 2011) (final rules) (online at www.gpo.gov/fdsys/pkg/FR-2011-07-15/pdf/2011-17585.pdf) (same).

³³ See, e.g., 12 C.F.R. § 222.72(a)(2) (for all lenders).

credit based on a credit report generally are required to provide either (1) a “risk-based pricing notice” – which, after July 21, 2011, will include a credit score – or, as an alternative, (2) a “credit score disclosure” to all applicants.³⁴ The specific requirements for each type of disclosure vary according to the type of credit. A credit score disclosure includes the consumer’s scores as well as information on how the consumer’s credit score compares with that of other consumers.

2. Receiving a credit score when obtaining a mortgage

Home mortgage originators are generally required to provide applicants with a credit score distributed by a CRA used “in connection with an application initiated by or sought by a consumer for a closed end loan or the establishment of an open end loan” secured by residential real property, along with an explanatory notice.³⁵ Mortgage applicants may also receive a risk-based pricing notice.³⁶

3. Receiving a credit score on an adverse action notice

Under amendments to the FCRA made by the Dodd-Frank Act that will become effective on July 21, 2011, when an applicant is denied a loan, or otherwise is subject to an adverse action, and the lender bases that adverse action in whole or in part on any information contained in a consumer report, the lender is generally required to provide an adverse action notice that includes, among other disclosures, a numerical credit score used by the lender in taking the adverse action.³⁷

Many of these credit score disclosure requirements represent recent amendments to the FCRA and related implementing regulations. Prior to January 2011, the only context in which lenders would have been required to provide a credit score to a consumer would have been when the consumer applied for a mortgage.³⁸ At the beginning of this year, the Board of Governors of the Federal Reserve System and the Federal Trade Commission finalized rules requiring lenders engaging in risk-based pricing to provide certain disclosures to consumers. At the lender’s option, those disclosures could include a credit score, and in certain cases, a distribution of credit scores or the key factors that adversely affected the consumer; however, they did not require them.³⁹ After the changes made by the Dodd-Frank Act go into effect on July 21, 2011, lenders who engage in risk-based pricing based on a credit report or score must generally provide credit scores to consumers to whom they extend credit, and they will also have to provide credit scores to consumers when taking an adverse

³⁴ See, e.g., 12 C.F.R. § 222.74(e)(ii) (for all lenders); 12 C.F.R. § 222.74(d)(ii) (for lenders who engage in risk-based pricing for a loan securing residential real property of between one and four units).

³⁵ 15 U.S.C. § 1681g(g)(1). These requirements were in place prior to the enactment of the Dodd-Frank Act and closely mirror a prior requirement in California law enacted effective July 1, 2001. Cal. Civ Code § 1785.15.2.

³⁶ 15 C.F.R. § 222.73(a)(1) and 15 C.F.R. § 222.74(d)(ii).

³⁷ 15 U.S.C. § 1681m(a).

³⁸ 15 U.S.C. § 1681g(g).

³⁹ Federal Reserve System & Federal Trade Commission, 75 Fed. Reg. 2724 (Jan. 15, 2010) (final rules) (online at www.ftc.gov/os/fedreg/2010/january/100115faircreditreporting.pdf).

action against them.⁴⁰ Consumers will then begin to see and receive many more credit scores than they had been exposed to previously.

IV. Analysis of potential harms to consumers

When a consumer purchases a credit score from a CRA, he or she will often receive a score that will not be the same score used by a lender to evaluate the consumer's creditworthiness. The complexities of the consumer reporting and credit scoring environment, the variety of scores in use in the marketplace, and the choices by the CRAs of which scores to sell to consumers provide some explanation for why this is the case. This section discusses possible adverse effects on consumers that could result from these differences, as well as a substantial data collection and analysis project being carried out by the CFPB that will help characterize the differences between the scores provided to consumers and those provided to creditors.

A. Potential adverse effects on consumers

How consumers could be negatively affected if the scores they obtain are different than the scores used by prospective lenders depends on why consumers obtain scores and what they do with the scores they purchase. It also depends on what they believe they are obtaining and what they believe they learn from scores.

There is little research available about why consumers purchase credit scores. The focus of the advertising from score marketers is on (1) planning ahead for a large purchase, such as a home or automobile,⁴¹ (2) improving consumers' credit scores, similar to the way individuals are encouraged to improve their fitness,⁴² (3) monitoring of consumers' financial health generally, and (4) alerting consumers to possible identity theft.

There is also little research about consumer understanding of credit scores. Earlier this year, VantageScore and the Consumer Federation of America released the results of a survey of a representative sample of 1,000 Americans who were asked a number of questions about credit scores.⁴³ Almost half of the consumers surveyed did not know that a credit score is designed to

⁴⁰ See 15 U.S.C. § 1681m(a).

⁴¹ "I watched my score for about eight months before buying a home. I was trying to bring my credit score up and also wanted to make sure I was aware of activity on my credit report." Creditscore.com, Customer Testimonial (online at www.creditscore.com) (accessed June 27, 2011).

⁴² See FICO, Take the FICO Fitness Challenge for 2011 (online at <http://ficoforums.myfico.com/t5/TAKE-THE-FICO-FITNESS-CHALLENGE/Take-the-FICO-Fitness-Challenge-for-2011/td-p/812042>) (showing over 600 posts by individuals during 2011 discussing how to improve their FICO score) (accessed June 27, 2011).

⁴³ Consumer Federation of America, New National Survey Reveals What Consumers Know and Don't Know About Changing Credit Score Marketplace (Feb. 28, 2011) (online at www.consumerfed.org/pdfs/Credit-Scores-Vantage-PR-2-28-11.pdf) (hereinafter "Consumer Federation of America Study"). The U.S. Government Accountability Office released a survey of consumers' knowledge of credit reports and credit scoring in March 2005. This survey found fairly good knowledge of basic information about credit reporting and scoring, but less knowledge of detailed questions, such as naming a number that fell in a typical scoring range. U.S. Government Accountability Office, Credit Reporting Literacy: Consumers Understood the Basics but Could Benefit from Targeted Educational Efforts (Mar. 2005) (online at www.gao.gov/new.items/d05223.pdf).

indicate the risk of not repaying a loan. However, 71 percent of those surveyed said that they knew that most Americans have more than one generic credit score. Nearly 60 percent were confused about the scale of credit scores,⁴⁴ and only 25 percent of those surveyed knew that scores are “available from numerous web-based sources, not just from FICO or the three main credit bureaus.”⁴⁵

A consumer, unaware of the variety of credit scores available in the marketplace, may purchase a score believing it to be his or her “true” (or only) credit score, when in fact there is no such single score. The scarcity of public educational tools to inform consumers of the differences among credit scores, the large combined market share and brand recognition of FICO scores, and the marketing practices of some credit score sellers, may all perpetuate such confusion. In these circumstances, the consumer would have spent money on a score or subscribed to a credit monitoring service that he or she otherwise might not have purchased. Believing he or she purchased a FICO score may lead to dissatisfaction upon learning otherwise. Most importantly, the consumer may be frustrated to learn that they cannot know exactly how a creditor will view them.

The most substantial harm would likely result if, after purchasing a score, a consumer has a different impression of his or her creditworthiness than a lender would. This could occur because the consumer obtains a different score than the lender, or because the consumer simply misunderstands the significance of the score he or she obtains. As discussed below, in a follow-up study, the CFPB will quantify the differences between the credit scores available to consumers and those used by creditors. This follow-up study will provide more information about the potential for harm; for now, this discussion focuses on the possible types of harm.

If a consumer obtains a score that makes the consumer believe that he or she is a better credit risk than lenders would determine, based on the scores lenders see, the consumer may apply for loans for which they will not be approved. This will waste the consumer’s time and, possibly, money. For example, the consumer may pay application fees for loans for which he does not qualify. It also has the potential to hurt the consumer’s credit score, as credit applications result in credit report inquiries, which generally have a negative effect on credit scores.

If, on the other hand, the consumer obtains a score that makes him or her believe he or she is a worse credit risk than lenders would believe, the consumer may apply to lenders that offer less favorable terms. The consumer may apply for or accept loans with higher interest rates, for lower amounts, or with otherwise worse terms than other loans for which the consumer would qualify. A lender may not have an incentive to clear up the consumer’s confusion. In addition, consumers who believe they are worse credit risks than they are may not seek out credit that they would benefit from and could qualify for, believing they would be denied or that the credit would be too costly.

Given the numerous scores in use by creditors, it is difficult for consumers to know exactly how they will be evaluated. Consumers might not know the actual score that a lender will use, or may not be able to obtain that score. This will not cause problems for consumers if the scores that they

⁴⁴ The question asked consumers what the best credit score was from a series of numerical choices and gave as an option the correct answer: “Depends on the scoring system.” Only 41 percent chose the correct answer. Consumer Federation of America Study, *supra* note 43.

⁴⁵ *Id.*

purchase give them very similar information as those used by creditors. Consumers may be harmed, however, if the scores they purchase give them different information. The potential extent of this harm will be assessed directly as part of the subsequent analysis described below.

B. Data analysis

The CFPB will obtain a substantial database in order to analyze further the nature, range, and size of variations between the credit scores sold to creditors and those sold to consumers by the CRAs. The results of this analysis will shed light on whether the potential harms described above could be occurring, and to what degree. The data will consist of credit reports and scores for 200,000 individuals from each of the three nationwide CRAs. Those data will allow for the assessment of credit score variations in detail both for the overall population of consumers and for sub-populations.

1. CRA data

Each of the CRAs has agreed to construct a random sample of 200,000 consumer reports from its database, in consultation with CFPB staff.⁴⁶ For each consumer report in each sample, the CRA will prepare a record containing the entire credit report for the individual, a set of the most commonly used credit attributes, and credit scores generated for each credit report. The credit scores will include the scores the CRA sells to consumers and several of the scores that are most widely sold to lenders by the CRA.⁴⁷ For each of the credit scores provided, the CRA will also provide the trade-name of the score and the four most important key factors that adversely affect the credit score of the consumer in the model used. These key factors are required to be delivered with credit scores provided with consumer credit file disclosures under the Fair Credit Reporting Act.⁴⁸

The CRA will remove all personally identifiable information, such as name, Social Security number or date of birth, from each record, and assign a new “Study ID” to each record. The CFPB will not receive any personally identifiable information. The Study ID will be generated specifically for the purpose of providing the data to the CFPB and will not identify the consumer in any way. The purpose of the Study ID will be to allow, if necessary, CFPB staff to identify particular records to the CRA, discuss and resolve any apparent problems in the database, for example.

These databases should allow a thorough analysis of differences between scores sold to consumers and scores sold to creditors. The detailed credit history information will make it possible to explore

⁴⁶ The sample will be constructed independently, and therefore will not consist of the same 200,000 individuals at each of the three CRAs. The sample of consumer files from each CRA will include files that have at least one trade line (the term used to describe a loan or credit relationship that has been reported to the consumer reporting agency); hence, they will not be representative of the CRA's entire consumer database, which includes consumer files containing no trade lines, such as files that consist only of an inquiry or a public record item.

⁴⁷ The specific scores that will be provided are the credit score the CRA provides to consumers when selling a credit score to a consumer after the consumer has requested a consumer file disclosure through AnnualCreditReport.com, the credit score the CRA has most frequently provided in its business(es) of selling credit reports and credit scores to consumers via its branded websites or via third-party direct marketing partners, a generic FICO score, a Vantage Score, a credit card industry FICO score, and an auto-finance industry FICO score.

⁴⁸ 15 U.S.C. § 1681(f)(1)(C).

whether differences in scores across models are more likely to affect consumers with different credit history features, and the databases will be large enough for analyses of even narrowly defined sub-samples.

2. Analysis

The purpose of the data analysis will be to determine with greater precision and understanding the nature, range, and size of variations between the credit scores most frequently sold to creditors and those most frequently sold to consumers. For ease of exposition, in this section the credit scores sold to consumers will be referred to as “consumer scores” and the credit scores sold to creditors will be referred to as “creditor scores.” There are a number of ways to characterize how similar consumer scores are to creditor scores, as identified below, each of which may be useful in further analyzing the issues discussed in this report. As a general matter, when comparing scores generated by two different scoring models, one can either compare the actual numerical scores or compare the consumer’s relative ranking in the credit risk distribution indicated by the score.

a) Absolute comparisons

Absolute comparisons – comparisons of the actual numerical scores – are most useful for comparing scoring models that use the same range, such as scores from two models that both use the FICO score range of roughly 300 to 850. Absolute comparisons would also be appropriate to evaluate how misinformed consumers would be if they compared two scores generated by models that use different ranges but the consumers did not know that fact – for example, in the case of a consumer comparing a FICO score with a VantageScore. The VantageScore range is 501 to 990.

The absolute score differences can be evaluated in a number of ways, for example by reviewing the:

- average of the absolute value of the score differences;
- share of consumers whose two scores both fall in the same range of numerical scores; and
- share of consumers for whom the consumer score is greater than a creditor score by a certain amount, and, similarly, the share of consumers for whom the consumer score is less than the creditor score by a certain amount.

b) Relative comparisons

Relative comparisons could be made by first converting scores into measures of the relative credit-worthiness represented by the scores, for example determining each consumer’s percentile rank in the score distribution for each score. This would be most useful when comparing scores that come from scoring models that use different ranges, such as FICO scores and VantageScores. This type of comparison is most relevant when consumers understand what the score they obtain indicates about their relative riskiness.

Relative comparisons can be evaluated in ways analogous to the evaluation of absolute comparisons, for example, by reviewing the:

- average of the absolute value of the differences in ranking in the score distributions;
- share of consumers whose scores fall in the same percentile range of scores; and

- share of consumers for whom the rank of the consumer score is greater than the rank of the creditor score by a certain amount, and, similarly, the share of consumers for whom the consumer score is less than the creditor score by a certain amount.

c) Comparisons within score sub-groups

Any of the absolute or relative score comparisons described above can be made for sub-groups defined by score ranges: for example, the average absolute value of the difference between the consumer scores and the creditor scores for consumers whose consumer score is in the bottom ten percent of scores. Similarly the share of consumers whose consumer and creditor scores fell in a particular score range, or percentile range, could be calculated: for example, the share of consumers whose consumer scores are in the bottom 10 percent of consumer scores, as well as the bottom 10 percent of creditor scores, or the 10 percent to 20 percent range of creditor scores.

d) Comparisons within groups defined by credit history characteristics

Because the CFPB is obtaining detailed credit report data, comparisons will also be possible for sub-samples that are defined by particular credit history characteristics. For example, consumers with limited credit histories, or “thin files,” can be analyzed separately, to determine if they are more or less likely to have large differences between their consumer and creditor scores; and consumers with particularly “clean” histories can be analyzed separately.

V. Conclusion

Credit reports and scores play a central role in lenders’ decisions about whether and under what terms to extend credit to consumers. This fact explains, in part, why the business of providing credit reports and scores to consumers has grown to more than \$1 billion in revenue annually, accounting for roughly one-fourth of the U.S. revenues of the nationwide CRAs and their affiliates.

There are numerous credit scores that could be calculated for a consumer, using different scoring models or data from different CRAs, and each of those scores will change over time as the information in a consumer’s credit report evolves. Given this complexity, it is unlikely that a consumer will often be able to know the exact score that a particular lender will use to evaluate them.

This report explains why this complexity arises and the various ways that consumers obtain scores, and identifies ways in which differences between the scores consumers purchase and the scores that lenders receive could lead to potential consumer harm. In subsequent analysis the CFPB will obtain and analyze data that shed further light on differences in scores and the significance of related concerns.

Appendix: Credit score model development

New scoring models are constantly being developed, and each scoring model is unique. Firms develop new scoring models for a variety of business reasons, but the primary purpose is to produce a model that does a better job of predicting consumer behavior, as this can convey a competitive advantage on the lender using the model. Specific reasons why a firm may develop a new model include to:

- update the model, in case the relationships among particular credit attributes and credit performance have changed over time;
- incorporate new data elements that may be available;
- implement technological improvements in scoring methodologies; and
- build a model that predicts consumer behavior on a particular credit product, such as car loans or credit cards, or in particular geographic markets, or for a particular segment of prospective customers.

To build a generic credit scoring model, developers start with a sample of consumers whose credit reports can be observed for a period of time in the files of a CRA.⁴⁹ The developers collect the credit reports for those customers for two points in time, or “snapshots,” from archives maintained by the CRA. The period between the two snapshots is typically about two years, and is referred to as the “performance period.” The fundamental approach to model development is to construct a statistical model that uses the data available in the first snapshot to make predictions about consumers’ payment behavior during the performance period, which is captured in the second snapshot.⁵⁰ The resulting statistical model is used to construct a scoring model to predict the behavior of other consumers.

Developers must make a number of decisions when they are building a credit scoring model, all of which can create variations among credit scoring models. They must decide how to characterize payment behaviors as “good” or “bad.” A common approach is to call any payment that becomes 90 or more days past due “bad,” but there are different approaches that will produce different scoring models.⁵¹ These “good” and “bad” payment behaviors are the outcomes that the score developers attempt to predict. Model developers also must decide how to construct credit attributes.

⁴⁹ The process of building a custom scoring model is similar, although the performance data will typically come from the lender’s records of its own customers.

⁵⁰ For example, if at some point during the performance period a consumer were 90 days late on a payment, that information would be reflected in the data from the second snapshot.

⁵¹ Board of Governors of the Federal Reserve System, Report to the Congress on Credit Scoring and Its Effects on the Availability and Affordability of Credit: Submitted to the Congress Pursuant to Section 215 of the Fair and Accurate Credit Transactions Act of 2003, at 18-19 n.23 (Aug. 2007) (online at www.federalreserve.gov/boarddocs/rptcongress/creditscore/creditscore.pdf).

Score developers use the first snapshot of data to construct numerous credit attributes, like those described previously, that summarize the consumers' credit reports. These attributes are then used as predictors of "good" and "bad" outcomes. Using various statistical techniques, the developers identify credit attributes that are associated with "good" payment behavior, as well as credit attributes that are associated with "bad" payment behavior. These identified attributes are used to construct a statistical model of future payment behavior, the details of which will vary among developers due to the different decisions made during model development.

The final step in building a credit scoring model is to use the statistical model of payment behavior to construct a specific scoring algorithm that uses consumers' credit attributes as inputs to produce credit scores that fall in a certain numerical range, or scale. If the scoring model being developed is intended to replace an existing model with an established score range, the new model will likely be constructed to produce scores on the same scale. However, different score developers may well choose to develop scores that use entirely different scales.

Scoring models differ from each other depending on their purpose, construction, and data source. Specific causes of scoring model variances include differences in:

- underlying data used to develop the score, for example, because they were obtained from different CRAs or from different time periods;
- type of credit product for which the model was built;
- numerical range of credit scores produced;
- definitions of "good" and "bad" credit behavior; and,
- credit attributes used in the model, due to the numerous ways to summarize information in a credit report into credit attributes.