Congress Faces Critical Decision About Consumer Credit Legislation (The Fair Credit Reporting Act of 1970 and 1996)

By Joseph W. Duncan

Joseph W. Duncan is a Fellow at the Information Policy Institute, a former president of NABE, and was VP and Chief Economist of Dun & Bradstreet Corp. from 1981 to 1995

Consumers have been the one bright spot in an otherwise sluggish American economy. Much of their ability to drive economic growth stems from relatively broad access to affordable credit. Growth in the availability of credit is a result of sophisticated risk modeling techniques that, in turn, rely heavily on access to robust data contained in the national full-file credit reporting system. One law –the Fair Credit Reporting Act (FCRA)—has largely governed this system of data exchange since 1970. The preemptive status of the single amendment to this law—the inclusion of strengthened consumer protections in 1996—expires at the end of the year and is currently the subject of substantial attention from both federal and state lawmakers.

This article presents the findings of a recent study (Turner, 2003) designed to quantify the likely consequences of a failure to reauthorize the FCRA's strengthened preemptive provisions. Using existing state legislative proposals, it models the impact on the predictive power of commercial scoring models as well as credit card models from a variety of data restrictions. Further, the subsequent impact on both access to credit, and the price of credit are measured and appended with socio-demographic data. Finally, this article reports findings from an analysis of restrictions on two uses of credit scores—prescreened offers of credit and automated underwriting of consumer mortgage loans.

In 1968 Congress began hearings to regulate the use of personal information in the analysis of personal credit. The result of this inquiry was the enactment of the Fair Credit Reporting Act of 1970.

Since its enactment, the FCRA appears to have successfully addressed the concerns of consumers by providing a relatively uniform federal standard for ensuring the accuracy and security of the information contained in credit reports. Changes in 1996—largely directed at strengthening recourse for consumers—improved the Act substantially. Any attempts to modify this regulatory regime should be subject to rigorous scrutiny in light of the performance of the market for consumer credit over the last three decades, and the success of the Act in protecting the concerns of consumers. This issue is of key interest to business economists since the role of consumer credit has emerged as a crucial factor in the U.S. economy.

In this brief article we will review the role of consumer credit in the 2003 U.S. economy, including considerations such as the rise of credit scoring and the need for standards in credit information. Next, we will present a brief summary of the FCRA, including the characteristics of a full-file data system. Then we will outline the research approach of the Information Policy Institute as it developed models and analysis techniques to evaluate the impact of changes to the existing conditions of the FCRA. The empirical results of the research are summarized in this article but the full results are available in the report issued by the National Chamber Foundation of the U.S. Chamber of Commerce (Turner, 2003).

This article briefly reviews the issues of privacy and identity theft, which are often associated with the issue of reauthorizing the preemptions that are central to the current FCRA. Finally, we comment on the implications of Congressional action.

The Chairman of the Federal Reserve System, Alan Greenspan, recently emphasized the importance of this issue. At the House Financial Services hearing on April 30, 2003, a hearing on U.S. Monetary and Public Policy, he made the following points:

- The complexity and sophistication of modern credit markets makes it impossible for individual lenders to efficiently evaluate individual borrowers based on personal knowledge.
- Without the ability to rely on continuously updated credit evaluation systems based on shared information, it will be difficult to maintain current levels of credit availability.
- It is in consumers' interests to have credit information flowing in order to reduce uncertainty and keep interest rates low.

The Fair Credit Reporting Act in Context

The Maturation Of Consumer Credit And The FCRA

Consumer credit is vital to the modern American economy. People use credit to acquire goods and services, acquire assets that hold value (notably, autos and houses), and invest in income-generating possessions (especially, education). It smoothes consumption during cyclic periods of unemployment and reduces the effects of swings in the business cycle, thereby maintaining demand in the market. An efficient consumer credit market also smoothes consumption over the life-cycles of borrowers. For new small businesses, revolving consumer credit provides financial resources for entrepreneurial activity when business loans are more difficult to obtain.

By most accounts, the consumer credit marketplace in the United States is the envy of the world. In just thirty years, balkanized local credit card markets, characterized by high and largely undifferentiated prices on credit, very subjective application processes, and limited access, have evolved into a national consumer credit marketplace distinguished by dynamic competition among lenders and broad participation by most American consumers.

Early obstacles. Historically, credit providers have faced three problems. First, they lacked inexpensive access to sufficient information about the risk associated with a potential borrower. Second, they were often unable to effectively sanction those who violated their promise to pay. And third, they were unable to price loans to reflect the degree of credibility of a borrower's promise.

The first two problems were largely addressed by the emergence of national repositories of information on borrowers—the three national credit bureaus. During the 1960s, credit bureaus generally focused on a specific local area, only served one type of creditor (i.e., usually local banks or retailers), and often maintained unreliable information (Furletti, 2002). Localism and incomplete reporting complicated the ability to punish those with poorer credit ratings (or reward those with good ones), especially as Americans became more mobile. (The third problem required changes in the regulatory structure brought about by legislation and court rulings.)

TABLE 1

DISTRIBUTION OF ACCOUNT BALANCES BY INTEREST RATE

	Interest Rate Tier				
Year	< 5.5 %	5.5-10.99 %	11—16.49 %	16.5 -17.99 %	18% and over
1990		6		20	73
2002	15	31	25	3	26

Lenders need this information because unlike collateralized loans, the promise to pay is not backed by a particular asset (such as a home or automobile) that can be repossessed in the event that a borrower defaults. Likewise, sellers of goods or services in a credit-based transaction only receive from the buyer a promise to pay rather than full payment at the time of purchase. Merchants who accept credit and lenders that issue credit must therefore know that the promise to pay is credible.

Consequently, credit grantors must be able assess the risk involved in accepting this promise. A poor system of assessing credit worthiness can result in no offers of credit or in the extension of less credit at non-competitive prices (interest rates) to both the credit worthy and the credit risky.

The emergence of risk-based pricing. The ability to extend credit at prices that accurately reflect the risk associated with the individual borrower is a relatively new phenomenon. A number of factors have made it easier for lenders to do this. These factors include the adoption of credit scoring techniques, advances in data technology, as well as changes in the regulatory environment. Together, these changes have made it possible for lenders to get a fairly detailed picture of how well a potential borrower has repaid the loans. Access to a borrower's credit history permits lenders to either deny or set the terms and price of a loan based on past behavior.

In 1990, as reported by Barron and Staten, almost seventy-three percent of all accounts had interest rates above eighteen percent, twenty percent had rates of between 16.5 to 18 percent, and only six percent had a rate below 16.5 percent (Barron and Staten, 2003, p. 31). By collecting recent data from a number of issuers of credit cards, we have updated the work on the distribution of interest rates to show the distribution in 2002.

Our respondents account for over a $100 billion in outstanding balances, or about twenty percent of the total MasterCard and VISA outstandings and account for over half (or about 153 million of the 281 million) of all active MasterCard and VISA accounts.[1] Table 1 shows interest rates today to be more widely dispersed—and lower overall—than they were in 1990. For example, today, only twenty-six percent of balances are at interest rates of eighteen percent or above while fifteen percent

[1]Derived from "Outstanding" figure of $523.21 billion (Nilson Report, 2002, pp.6 and 7).

of balances are at interest rates under 5.5 percent. These figures contrast with those in 1990, when only six percent of interest rates were below 6.5 percent and ninety-three percent were above 16.5 percent.

Risk-based pricing has also enabled the development of a mature secondary market in consumer debt. Credit card, educational and mortgage debts are bundled according to risk profiles and sold in secondary markets. The sale of securitized loans provides additional capital, which is used to extend more loans to more consumers, beginning the cycle anew. The development of a market in securitized pools of credit has made capital more readily available and the extension of credit to consumers a more economically attractive line of business.[2]

Trends in Consumer Credit Access and Use

The recent history of the credit system can be thought of as the evolution of increasingly successful methods of reducing the risk premium caused by hidden information and moral hazard. But because of the progress described above—dramatic improvements in the ability to assess the risk of a loan and to sanction delinquent borrowers—the 1990s stand in stark contrast to earlier periods. Two consequences have been greater access to credit for all consumers and the extension of credit to traditionally underserved segments.

But even though outstanding credit increased, debt burdens (what must be devoted to interest and principal payments to remain current) remained relatively constant (see Figure 1.)

By the end of 2002, the total burden was less than fourteen percent of disposable income. It has fluctuated between 11.8 percent and 14.4 percent for the last twenty years, reaching relative highs in economic booms, as during the mid/late-1980s and late 1990s, and relative lows in recessions, as during the early/mid 1980s and early 1990s. While debt-service burdens as a share of personal disposable income have remained stable, mortgage payments have come to account for a larger share of the burden in recent years.

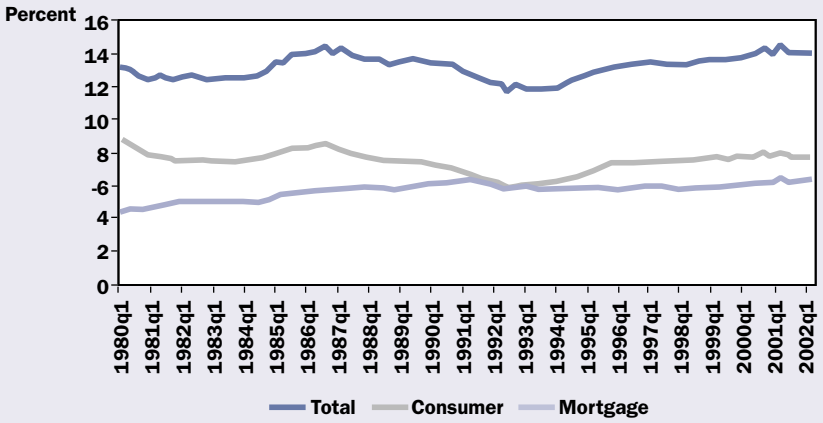
And while average household debt levels have increased since 1992 (Federal Reserve Board, Updated May 26, 2003),[3] there are reasons to believe that the most significant shift across the distribution of the uses of credit results from growing access to homeownership.[4] Changes in the distribution of the debt-service burden suggest that rising homeownership and the rolling in of high-interest consumer debt into low-interest home equity-backed debt have been driving this growth. Figure 2 shows the distribution of debt by purpose; note that real estate related debt—home purchases, home improvements, and real-estate investment—as a share of total debt grew between 1989 and 1992. It is significant that the distribution of debt has not changed significantly in the last decade.

This shift in the composition of debt towards real estate is also visible in changes in the value of debt by categories. The median value of mortgages and home equity loans grew by twenty-six percent (in constant dollars) from 1992 to 2001. The median value of credit card debts grew by more than fifty percent for the same period. (See Figure 3.) Unlike the latter, the former grew on top of a substantial base, and the additional debt on mortgages constitutes a larger share of average household income than does the increased debt from credit cards.

Those who argue that consumers

FIGURE 1

HOUSEHOLD DEBT-SERVICE BURDEN AS A SHARE OF PERSONAL DISPOSABLE INCOME (1980-2002)



Source: Federal Reserve Board, Updated May 26, 2003.
Note: The Federal Reserve does warn that the data are derived from aggregates using estimation techniques that may limit the reliability of the figures, but it notes that the value of the measure lies in offering some understanding of the changes in the debt-service burden by type over time. See *www.federalreserve.gov// Releases/housedebt/about.htm.*

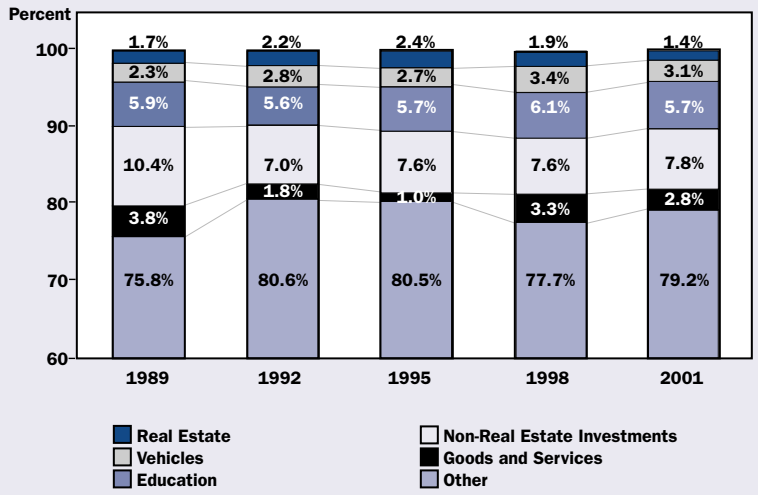
[2]Revolving credit backed securities as a share of total revolving credit grew from 5.7 percent in 1989 to 56.8 percent in 2003. Source: Federal Reserve, Federal Reserve Statistical Release, Consumer Credit, Table G. 19. *www.federalreserve.gov/releases/g19/hist/cc_hist_r.html.*

[3]In the period between 1968 and 1992, personal savings as a share of disposable income reached a trough of 7.3 percent in 1987. In 1992, it held at 8.7 percent falling to 7.1percent in the next year. By decade's end, it had fallen to 2.8 percent.

[4]Moreover, the impact of homeownership on consumption patterns appears to be wider than merely assets in residence (Case, Quigley and Shiller, 2001).

FIGURE 2

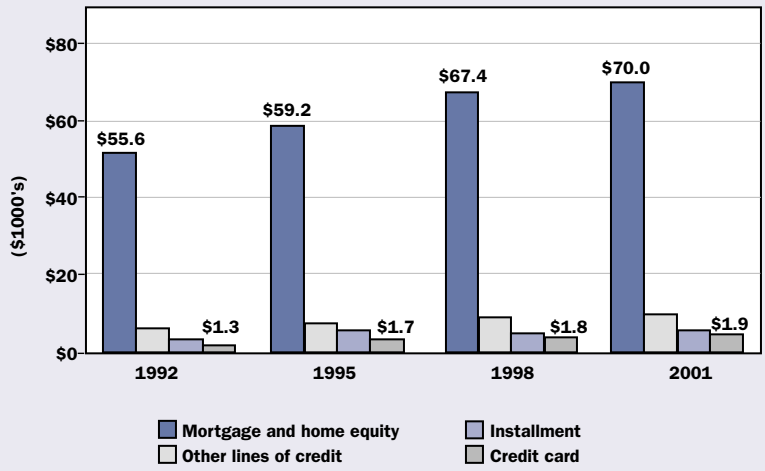
DISTRIBUTION OF HOUSEHOLD DEBT (BY PURPOSE, 1989-2001)



Calculated from Surveys of Consumer Finance, various years.

FIGURE 3

MEDIAN VALUE OF DEBT FOR FAMILIES HOLDING DEBT (BY TYPE, IN 2001 DOLLARS)



Source: Statistical Abstract of the United States, various years.

are overextended often cite the growth in the average balance on credit cards. Average balances have grown considerably, and the spread of credit cards has contributed to the relative growth of revolving debt as a share of total outstanding consumer credit

Much of this growth may be the substitution of revolving debt for non-revolving debt. It is not simply that credit card debt and other forms of revolving credit have grown significantly in the aggregate when compared to non-revolving credit, but also that non-revolving debt has fallen from its mid/late-1980s peak (in absolute terms). (See Figure 4.) Focusing on credit card debt as evidence of growing overextension paints a partial picture.

The past few decades have been characterized by rising debt as a result of spreading homeownership and the substitution of revolving debt for the non-revolving type. Judgments about the size of debt burden should keep this larger picture in mind. But within these changes are other, perhaps more significant shifts in the distribution and uses of credit.

Rise of Credit Scoring

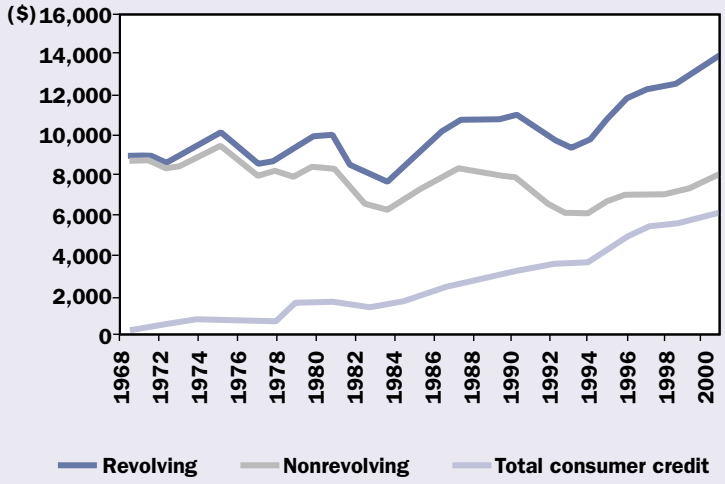
Behind the shifts in the distribution and patterning of consumer credit has been the development and implementation of sophisticated credit scoring models made possible by the current full-file credit reporting system. Lenders use credit-scoring models to allocate credit and manage risk on an on-going basis. These models are also key to the efficient operation of secondary markets and the ability to link American consumers to the broader capital market. Removing or modifying the FCRA's strengthened pre-emption provisions would seriously undermine the quality of scoring models and reduce the many benefits that have been produced by this rapidly developing technology.

The Development Of Scoring Models

Credit scoring models use the wealth of information contained in the consumer's credit file to predict the likelihood of repayment. Unlike manual underwriting systems—where it is difficult, if not impossible to avoid the introduction of subtle biases—scoring models provide an objective, empirically-based method of assessing credit risk. *While difficult to quantify, the development of scoring models has undoubtedly played a critical role in extending credit to segments of the market that have been historically underserved.*

FIGURE 4

CONSUMER CREDIT OUTSTANDING PER HOUSEHOLD (1996 CONSTANT DOLLARS, 1968-2000)



Source: Federal Reserve, Bureau of the Census.

Credit scoring was introduced in 1987 with the development of generic scoring models designed to rank consumers according to their expected risk. Credit scoring rapidly spread throughout the credit card sector and is now being used for a variety of purposes, ranging from initial underwriting, to on-going servicing, to the prescreening of credit offers.

An early study by Chandler and Parker (1989) examined the predictive power of scoring models based on detailed information drawn from credit bureau reports. As part of their analysis, the authors developed a series of hypothetical scoring models using data that ranged from the simple information contained in a standard application—household income, age, ownership status, years at current job, and so on—to increasingly detailed information drawn from the consumers' credit files.

Chandler and Parker found that models based on the full range of credit data did a significantly better job of predicting card performance than models based on "applications" data alone. In fact, they found that omitting the applications data actually improved their models' predictive power for credit cards and revolving retail debt. More importantly, Chandler and Parker found that models based on the full range of credit data had significantly higher predictive power than models based on less complete information on the consumer's credit profile.

Extension to Mortgage Markets

While the use of credit scoring spread rapidly among credit card issues, mortgage lenders took longer to adopt the technology. In 1996, Freddie Mac recommended that credit scores be used as part of the manual underwriting process. Before then, assessments were based on the underwriter's assessment of the detailed information contained in a consumer's credit files. By the end of the following year, the vast majority of mortgage issuers were using credit scores to assist in underwriting loans.

At the same time, Fannie Mae, Freddie Mac, and a number of other major lenders and mortgage insurers began to use automated underwriting systems (AUS) as an alternative to manual review. These models combine information on the consumer's credit score with other factors traditionally used in mortgage underwriting—for example, the property's appraised value, the size of the down payment, and the relationship between the borrower's income and the monthly costs of carrying the mortgage as well as other debt.

In less than a decade, automated underwriting has become the norm. In 1996, only twenty-five percent of all mortgage lenders used AUS. By 2002, over ninety percent had adopted the technology, with seventy-five percent of new production underwritten through AUS (Management Analysis, 2003). In the process, automated underwriting has virtually transformed the mortgage market, reducing the time and costs required to originate loans and, at the same time, significantly improving the industry's ability to monitor and manage credit risk.

Consumer Benefits

The introduction of credit scoring and automated underwriting into the mortgage market has generated enormous benefits for consumers. Before the advent of automated underwriting, approving a loan application took nearly three weeks. In 2002, over seventy-five percent of all loan applications received approval in two to three minutes (Management Analysis, 2003). Such efficiencies have enabled the industry to handle the massive refinancing waves that have occurred within the last few years. In 2002, for example, some 10 million borrowers refinanced their existing mortgages, taking advantage of the lowest interest rates in more than three decades, while another 6.4 million sold their existing homes (Greenspan, 2003). As a result of this unprecedented activity, the Federal Reserve estimates that

homeowners were able to extract some $700 billion of accumulated equity from their homes—a massive infusion of funds that has played a critical role in shoring up an otherwise anemic economy.[5]

The introduction of automated underwriting into the mortgage market has also significantly reduced the cost of closing a loan, making homeownership more accessible to families with income and wealth constraints. *A recent survey by Fannie Mae found that lenders who integrated automated underwriting at point of sale reduced their origination costs by about $1,500 per loan (Davis, 2001). Applied to the 12.5 million sales of new and existing homes in 2002, this would produce savings of $18.75 billion.*

Finally, automated underwriting has undoubtedly opened doors to families previously underserved by the mortgage market. In the past, manual underwriters were forced to weigh the various strengths and weaknesses of an individual's loan application in making their lending decision—an inherently subjective process that made the system vulnerable to bias, however unintended. In contrast, automated underwriting provides an objective, performance-based tool for assessing these kinds of trade-offs in a way that treats every applicant the same. In 2000, for example, one commonly used automated underwriting program increased the share of "accepts" by thirty-six percentage points for all affordable loans, and by twenty-nine percentage points to the subset of minority borrowers. Such objectivity is particularly important for families who do not precisely meet each individual underwriting guideline.

[5]$200 billion came from cash-out refinancings, $350 billion came from homes that turned over, and $130 billion was drawn from a net increase in home equity loans (Greenspan, 2003).

IPI Research Approach

Methodology

Building on an earlier generation of research on credit reporting, we constructed a case study based on six commercial scoring models in use today. We modeled four different scenarios describing what might happen to the quality and quantity of information contained in consumer credit reports if the FCRA's strengthened preemptive provisions were allowed to expire or were modified. While these scenarios do not attempt to mimic a single specific legislative proposal, they incorporate restrictions that have actually been proposed and that are judged to be a likely action at key state or local levels. We then examined what would happen to the performance of the commercial scoring models under each of the different scenarios and measured the impact this would have on the availability and the cost of credit. Finally, we examined some consequences for consumers, both in the aggregate and according to various socio-demographic attributes.

Defining scenarios. Based on our analysis of pending state legislation, removal of the strengthened preemptive provisions would trigger a flood of legislative initiatives at both state and local levels. If enacted, many of these initiatives would restrict both the quality and quantity of information included in consumers' credit reports. In our analysis, we classified these proposed initiatives into two broad categories:

- The first type of initiative would result in changes that reduce the quantity of data reported (increasing the liability of data furnishers, for example, might lead to a reduction in reporting rates). This corresponds to the heading, "Reductions in the Number of Data Furnishers" at the top of Tables 2 and 3.
- The second type of initiative would have a direct effect on the quality of data reported (for instance, eliminating the reporting of thirty-day delinquencies). This corresponds to the heading, "Restrictions of the Type of Data Reported" at the top of Tables 2 and 3.

The four scenarios selected for our analysis represent specific exam-

TABLE 2

SCENARIOS

Criteria	Reductions in the Number of Data Furnishers		Restrictions to the Type of Data Reported	
	Scenario A	Scenario B	Scenario C "Moderate"	Scenario D "Severe"
Limitations on Reporting of Delinquent Accounts			Purge trades with 30- or 60-day delinquencies	Purge trades with 30-, 60-, or 90-day delinquencies
Limitations on Reporting of Paid Public Record Items			Purge at 3 years	Purge when paid
Limitations on Reporting of All Adverse Information			Purge All Adverse Information at 5 years	Purge All Adverse Information at 4 years
Limitations on Use of Inquiries in Models			All 30 day clustered inquiries count as one	Purge all but one inquiry less than 60 days
Reduction of Trade-line Availability	Two Data Aggregators Stop Reporting	8 Major Credit Issuers Stop Reporting		

TABLE 3

IMPACT ON PREDICTIVE POWER: K-S STATISTICS

Criteria	Currrent Full File Reports	Reductions in the Number of Data Furnishers		Restrictions to the Type of Data Reported	
		Scenario A	Scenario B	Scenario C "Moderate"	Scenario D "Severe"
Generic #1	100	99.9	97.7	92.8	85.6
Generic #2	100	93.6	91.5	91.5	88.2
Generic #3	100	99.0	96.3	94.7	90.8
Generic #4	100	99.1	96.1	96.0	93.6
Card #1	100	99.8	96.7	93.7	90.3
Card #2	100	99.7	96.4	95.0	91.6

Note: K-S statistics for each model have been scaled to equal 100 for the full-file data. Values below 100 indicate that the model has experienced a loss of predictive power.

ples of what could happen under these two types of legislative actions (Table 2). Scenarios A and B represent the impact of legislation that imposes additional obligations and liabilities on data furnishers.

Scenario A assumes that two third-party data processors drop out of the system. These third-party data processors collect information primarily from credit card issuers. These card issuers vary by size and include large issuers as well as community banks and credit unions. Collectively, these lenders account for about 2.5 million total trade lines in our sample of 3.5 million credit files (each credit file contains an average of 9.3 trade lines), of which more than 315,000, or thirteen percent, were purged as a result of the data restrictions modeled in Scenario A.

In Scenario B, eight randomly selected major credit providers—who collectively account for more than 17.5 million trade lines in our sample of 3.5 million credit files—drop out of the system as a result of increased liability concerns. Unlike Scenario A, however, the data affected in Scenario B captures a broad swath of credit types, including revolving credit and non-revolving credit. Because the data captured in Scenario B is richer and more diverse than in Scenario A, the data restrictions modeled in Scenario B produce a twenty-one percent reduction in data furnished to the credit bureaus.

In short, Scenario A is homogeneous with respect to the type of loan affected (overwhelmingly credit card loans) but is varied in terms of firm size. Scenario B, by contrast, is homogeneous with respect to firm size (all data furnishers are major institutions) but is varied with respect to the type of data captured (credit card debt, auto loans, boat loans, personal loans, non-revolving credit, and mortgage loans). Both scenarios assume that all current, historic, and inactive trade lines provided by a data furnisher will be purged from the system once that furnisher drops out. These assumptions add extra uncertainty to the model because we do not know precisely how increased reporting liability will affect the behavior of different credit reporters.

Scenarios C and D consider restrictions on the kinds of information that can be included in the consumer's credit report. The "moderate" scenario (Scenario C) assumes that late payments can only be reported after ninety days; that all public record data must be purged after three years; that all negative information must be purged after five years; and that inquiries clustered within a thirty-day period count only once.

The more "severe" scenario (Scenario D) assumes that late payments can only be reported after 120 days; that all public record data pertaining to a late payment must be purged upon settlement of debt; that all adverse information (including bankruptcy) must be purged after four years; and that all inquiries must be counted as one if they are less than sixty days old.

Note that the results from these scenarios also apply to the case where similar restrictions are enacted at the federal level when more restrictive federal law preempts state legislation.

The models. Six commercially developed scoring models were used to conduct the simulations. Four are generic scoring models used by credit bureaus to rank consumers according to risk. The other two are proprietary scoring models developed by two financial institutions that are used to determine the terms and conditions of credit card offers.

One of the four commercial scoring models examined in this report was developed by Fair, Isaac and Company and used to generate the so-called "FICO score." TransUnion developed the other three models.

Three of the four commercial scoring models estimate the probability that a consumer will become seriously delinquent on an account (defined as ninety days or more past due) within a two-year period of time. The remaining model predicts the probability that the consumer will file for bankruptcy within the next twelve months.

While their objectives differ somewhat, each commercial scoring model uses information from the consumer's credit report to predict the probability of a negative event within a

certain period of time. Based on this assessment, each model assigns consumers a numeric credit score that reflects their predicted performance; with successively higher credit scores indicating successively lower risk. The range of scores across the different models is similar, but not identical.

While credit scores are used for a variety of purposes, commercial scoring models do not specifically generate an "accept" or "reject" decision. Even if the consumer's credit score was the only consideration, the individual credit issuer would have to determine the specific score—or cutoff—to be used in approving an application. In addition, many underwriting models—such as those employed in the mortgage industry—include other important factors that can potentially offset weak credit scores.

Analysis of the credit card models is also important. In contrast with the commercial scoring models, the credit card models examined in the analysis generate scores that are used to determine both the price and amount of credit offerings to consumers. Two financial institutions agreed to use their credit card models to conduct the simulations: GE Capital and JP Morgan Chase Manhattan. JP Morgan Chase Manhattan is a bankcard issuer—accounting for about almost five percent of all MasterCard and VISA accounts on a nationwide basis. GE Capital is a "private label" issuer, servicing large retailers such as The Gap and J.C. Penney.

The data. Our analysis is based on a data set constructed by TransUnion from the detailed credit reports of roughly 3.6 million, randomly selected consumers at two points in time: July 2000 and July 2002. This sample was drawn from their total data file covering virtually everyone in the United States with a credit card. Data for July 2000 were used to simulate what credit reports would look like under each of the four scenarios depicted in Table 2. These "hypothetical" credit files were then processed through the different scoring models to generate five different scores per model: one that was based on the consumers' original (full-file) record, and four that were based on the "hypothetical" credit files associated with each scenario. To protect the proprietary nature of the different scoring models, they were not specifically identified in the data file. Rather, they were simply identified as Generic Scoring Models 1 through 4 and Credit Card Models 1 and 2.

An extracted data set containing the various scores and the actual performance of each consumer (based on July 2002 data) was then sent to a major information service provider. The information service provider then merged the credit data with information on the consumer's race, ethnicity, gender, and household income. After the two data sets were merged, all information that could be used to identify the names or addresses of individual consumers was purged from the file in order to protect their privacy. Not a single credit file with personal identifying information was ever reviewed by an individual for purposes of this research.

Limitations of the analysis. In interpreting the results of our simulations, it is important to recognize that our findings are based on the current versions of existing scoring models. In the real world, however, regulatory changes of the magnitude examined here would undoubtedly force companies to re-estimate their scoring models—an exercise that would be both time-consuming and extremely costly. These re-estimated models would presumably do a somewhat better job of predicting performance than our simulations would suggest. As such, our simulations can be viewed as "worst case" scenarios.

To understand the potential impact of re-estimation, it is useful to compare the results of our simulations with results from a recent study by Barron and Staten (2003). Their results also suggest that a loss in the quality/quantity of data can have adverse effects on consumer lending. They simulated the impact of restricted credit information on the performance of scoring models and on the cost and availability of consumer credit. Credit records of roughly 300,000 randomly selected consumers were used to construct a generic scoring model predicting the probability that an account would experience a ninety-day delinquency over a two-year period of time. They began by using a large set of credit variables similar to those employed in many commercial applications. They then re-estimated their scoring model using fewer variables in order to mimic the reporting regimes in other countries: Australia, where only negatives are reported; and Latin America, where bureau data are restricted by type of lender (e.g., banks can only access information on the consumer's performance on other bank cards.)

The two approaches are complementary. Our simulations use actual credit models but do not show the impact of re-estimation, whereas Barron and Staten use simplified simulations of credit models that do show the impact of re-estimation. A comparison of the two sets of results shows that they are in fact very similar, implying that the improved performance available from model re-estimation is unlikely to have a significant effect on our overall conclusions.

However, as part of the Institute's ongoing research efforts, one of the three national credit bureaus has agreed to re-estimate one of its commercial scoring models to account for

the changes embodied in the four post-FCRA scenarios included in this analysis. This will enable comparison of the results that are presented in this report with those associated with a fully re-estimated scoring model. In addition, it will enable estimation of the compliance costs associated with the removal or modification of federal preemption, based on the costs associated with re-estimating the commercial scoring model for analytical purposes. The Institute will release the results from this analysis during the summer of 2003.

Basic Results of the Research

As described in the remainder of this section, the results of our simulations suggest that modification or removal of the strengthened preemptive provisions enacted in 1996 would have serious repercussions for consumers. While the precise effects differ across scenarios and scoring models, the basic patterns are the same. In general, reducing either the quantity or the quality of the data contained in credit reports will affect the credit scores of large numbers of consumers and reduce the predictive power of scoring models. As a result, the costs of credit would rise and acceptance rates would fall, particularly for minorities, the young, and lower-income families.

Impact on predictive power. The results in Table 3 show what could happen to each model's predictive power if the strengthened preemptive provisions were either modified or allowed to expire. Predictive power is captured by the model's Kolmogorov-Smirnov, or "K-S" statistic, a commonly used measure of a model's ability to distinguish between two different groups (in this case, performing and non-performing accounts, based on the absence or presence of one delinquency of ninety-days or more). To simplify the comparisons, the K-S statistics for each model have been scaled to equal one hundred when the model is based on the full-file estimates. As a result, the values that are presented for the different scenarios—which are all below one hundred—measure the relative predictive power that would occur under each of the four regimes, with the difference from one hundred showing the relative loss of predictive power.

As shown in Table 3, the predictive power of each model declines under each of the four scenarios. The impact tends to be relatively small for Scenario A, with most models showing a decline in K-S score of less than one percent, and larger for Scenario B, in which declines range from less than three percent to over eight percent. The degradation in predictive power in Scenario B exceeds that witnessed in Scenario A for two reasons. First, higher quantities of trade lines are purged in Scenario B (twenty-one percent) than Scenario A (thirteen percent). Second, the diversity of data types is considerably greater in Scenario B.

As was the case with the quantity of scores affected, the greatest impact on predictive power appears to occur when there are restrictions to the kinds of negative data that can be contained in the consumer's credit report—as with Scenarios C and D. Under the "moderate" scenario, the models would lose five percent to over eight percent of their predictive power. Under the "severe scenario," the loss would range from under seven percent to over 14 percent, with the largest losses experienced by Commercial Model #1. By almost any yardstick, such changes would represent in a dramatic decline in the industry's ability to measure credit risk.

In general, the impact on the delinquency rate is lower under Scenarios A and B since the loss in the model's predictive power is not as severe as it is in the other cases. However, even under Scenario B, projected delinquencies would rise by as much as ten percent. Not surprisingly, the impact is considerably greater under Scenarios C and D. In the "moderate" scenario, serious delinquencies would rise by about forty-five percent, while in the "severe" scenario, the estimated increase would be over seventy percent. These are huge differences that would inevitably have dramatic repercussions on the overall cost of credit.

The pricing implications are admittedly complex, and will inevitably vary from issuer to issuer. However, some simple calculations suggest the likely magnitude of the effects. In 2001, the credit card industry sustained roughly $30 billion in charge-offs. If one assumes that a ten to seventy percent increase in serious delinquencies inevitably leads to a comparable increase in charge-offs—and that these additional costs will be passed through to consumers—the aggregate costs of credit cards could rise by as little as $3 billion under Scenario A, and as much as $21 billion per year under Scenario D. *For the average family, this would translate into an increased cost of between roughly $40 and $270 per year.*[6]

Conclusion: FCRA Preemption & Consumer Benefits, Identity Theft and Fraud

Credit Reporting System Yields Clear Benefits, Some Costs

We began this study by noting that the debates around FCRA "reauthorization" have been driven by rising fears of identity theft and a popular belief that the relatively free flow of personal data renders consumers more vulnerable. Opponents of

[6]Calculation is based on the number of families with credit cards in 2002.

FCRA renewal may grant much of what we have shown above. They may acknowledge that credit has become available to wider segments of the American population than ever before and that it has become available to Americans who have traditionally been underserved by credit markets-notably minority and low-income groups.

Consumers Are Generally Satisfied with Current System

Whether consumers are satisfied with the widening access to credit, and the price of credit, is of course a complicated matter. The answer is in many ways a plural one, made so by the extension of credit that comprises vast areas of consumption—from homes and education to travel, restaurants and books—by wider segments of the population. If behavior reveals preferences, consumers want access to greater credit and do, in fact, acquire more credit when it is approved and offered. In addition, homeownership certainly seems to meet the aspirations of many households. And it is unlikely that historically underserved populations, who now have greater access to home ownership, would want to see this greater access threatened.

However, surveys of credit card users paint a mixed picture. Work by Durkin (2000) indicates that majorities of consumers simultaneously believe that credit card companies make too much credit available,[7] that overspending is the fault of the consumer,[8] and yet also are satisfied in their dealings with credit card issuers, believing that they provide a useful service.[9] What has changed significantly is the satisfaction that consumers have in their dealings with credit card companies: whereas a majority reports being satisfied in 2000, in 1977 only seventeen percent did so.[10] Reducing access to credit as a means of preventing overextension, of course, risks reorienting policy towards the paternalistic practices of the past. But the fear of general overextension appears, if the survey results are right, to be a fear of other peoples' credit habits as opposed to self-evaluation for the majority of credit card users.

National Credit Reporting System Is Not Perfect, But Works Very Well

A final takeaway point from this report is that the national credit reporting system that has crystallized under the FCRA, particularly after the addition of the 1996 strengthened preemptive provisions, works exceedingly well. *The consumer and economic benefits, as documented and quantitatively demonstrated in this research, are pervasive and substantial.*

The national credit reporting system, as with the public telephone network and the national power grid, is an essential facility to the American economic infrastructure. None of these systems are perfect, yet all play a vital role in the day-to-day economic behavior of millions of consumers. New regulations have never prevented power outages or disruptions in phone service, nor are they likely to solve the systems maintenance issues in the national credit reporting system.

Given the vital economic role played by the national credit reporting system, the ubiquitous economic and consumer benefits evidenced by data from the past thirty years, and the overwhelming consumer satisfaction with the current system, *the results of this study imply that Congress should make permanent the FCRA's current strengthened preemptive provisions.* ■

[7]Durkin (2000) reports that sixty-eight percent 'strongly agree' and twenty percent 'agree somewhat' with the statement "Credit card companies make too much credit available to most people." Thomas Durkin, . p. 629

[8]Durkin (2000) reports that sixty-three percent 'strongly agree' and twenty-seven percent 'agree somewhat' with the statement "Overspending is the fault of consumers, not the credit card companies."

[9]Durkin (2000) reports that fifty-one percent 'strongly agree' and forty percent 'agree somewhat' with the statement "I am generally satisfied with my dealings with the credit card company." Forty-four percent 'strongly agree'and forty-eight percent 'agree somewhat' with the statement that "Credit card companies provide a useful service to consumers."

[10]That is, only seventeen percent strongly agreed with the statement that they were satisfied in their dealing with credit card companies.

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