III. CONSUMER REGISTRIES IN THE UNITED STATES

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1. Structure of the market

In the U.S. credit information is inexpensively available about almost every individual, and business except for the smallest ones. Unlike in some other countries, where credit registries record credit of any kind (over a certain limit), for historical reasons,[6] the U.S. credit reporting market is sharply divided between business and consumer registries. The largest information broker of business credit information is Dunn and Bradstreet Corporation which commands 90 percent of that market and it is also a multinational company with operations all over the world. Its closest competitor is Experian's business credit bureau, another international player. In addition, there are industry groups that collect and distribute credit information about firms.

The structure of the *consumer* credit information market is different. Even though there are about a thousand consumer credit reporting agencies,[7] the credit information market is dominated by three private credit registries: Experian, Equifax and TransUnion. The Big Three have files on over 90 percent of the adult population.[8] The three are of the same size and their data largely overlap. In most cases, they provide the same information and even their methodology of calculating aggregate scores from the files is the same. In fact, the only reason to have three of them rather than one is to insure competition in service delivery. The credit bureaus gather full records of every loan transaction. They run a full reporting system and their files are not restricted to negative information only.

[6] In the business credit information market, Dunn and Bradstreet has enjoyed a strong first mover advantage and new entrants preferred to limit themselves to the consumer market. Moreover, the separation of the two types of information is not difficult except for small businesses where personal and business investments and property cannot be clearly separated. In the U.S., banks historically have been reluctant to share their small business data with other banks and therefore, until recently, removing this gray zone from registries (Miller 2003 p. 45-46).

[7] We use the term 'credit reporting agency,' credit bureau,' and 'credit registry' interchangeably.

[8] According to a 1997 survey, there were 1000 companies in the business employing 22,000 people. The small, local credit reporting companies mostly either license or sell their data to the Big Three.

Consumer credit bureaus are part of a larger group of "consumer reporting agencies."[9] The other agencies provide information about specific individuals for market transactions other than lending and borrowing money, although they often complement their data with credit scores.

Companies that compile reports on consumers for other than credit have been designated by Congress as "nationwide specialty consumer reporting agencies." These agencies compile reports about:

- Medical conditions (for example, the Medical Information Bureau (MIB) report see http://www.mib.com – their main source of information is medical insurance applications
- Residential or tenant history and evictions (for example, the Unlawful Detainer (UD) Registry see http://www.residentscreening.com – their main source of information is court records on eviction cases
- Check writing history (for example ChexSystems, see http://www.chexsystems.com – their main source of information is banks
- Employment background checks (e.g. The Work Number, see http://www.theworknumber.com – their main source of information is employers
- Homeowner and auto insurance claims (for example, Comprehensive Loss Underwriting Exchange or CLUE reports) – their main source of information is insurance companies
- Criminal records and civil suits – their main source of information is court and police records

All of these together are regulated under the Fair Credit Reporting Act (FCRA) and overseen by the Federal Trade Commission (FTC). Unlike the credit bureaus, most of the "nationwide specialty consumer reporting agencies" collect and report negative information only. Many of these reporting agencies use credit data from the Big Three. Some agencies, but not the credit bureaus, do offer "investigative" consumer reports that include "information on a consumer's character, general reputation, personal characteristics, mode of living. Investigative reports are obtained through personal interviews with neighbors, friends, or associates of the consumer reported on or with others with whom he is acquainted or who

[9] Here is the legal definition from the Fair Credit Reporting Act 2006: "The term "consumer reporting agency" means any person which, for monetary fees, dues, or on a cooperative nonprofit basis, regularly engages in whole or in part in the practice of assembling or evaluating consumer credit information or other information on consumers for the purpose of furnishing consumer reports to third parties, and which uses any means or facility of interstate commerce for the purpose of preparing or furnishing consumer reports. " The umbrella organization of consumer reporting agencies is the Consumer Data Industry Association http://www.cdiaonline.org. They claim 300 members.

may have knowledge concerning any such items of information" (FCRA 2006 § 603(e)) in addition to culling various databases and registries. Investigative reports, however, cannot contain factual credit information.

2. The information stored by the Big Three

2.1. The credit file

In 2004, the Big Three each kept files on about 210 million individuals and 1.5 billion credit accounts (Avery et al 2004). They generate over 1 billion credit reports annually, mostly for lenders, employers and insurers. Consumers receive only about 16 million reports a year. They collect information from lenders of all kind: commercial banks, mortgage companies, credit card companies, retail stores with installment programs or store issued credit cards, large manufacturers of consumer durables, such car companies, that supply their own program of purchase loans or large employers who lend money to their employees etc. Lenders participate in reporting on a voluntary basis without financial compensation. The bureaus also gather information from collection agencies, utility companies, medical insurers, governmental agencies, court records, third party intermediaries etc. These contributions are also voluntary or, as in the case of government agencies and court records, they are provided under rules of public disclosure. The data on credit are gathered monthly and it takes one to seven days to update the files. Reporters submit data on-line or on CD-ROM. The bureaus use a standard format for data transfer, but because reporting is entirely voluntary, (i.e. no state or federal law requires them to report data or to use a certain format) completeness and frequency often vary. Each bureau receives over 2 billion items of information each month.

The credit records compiled by the Big Three include four sections. There is a section containing personal information, such as one's name (including the various ways it has been misspelled), current and past addresses and the type of the buildings where one has lived (apartment building vs. single family home), the name of current and past employers, date of birth, and spouse's name.

Then there is a section covering the person's credit history. It consists of the name of the lender, the time when the account was opened, the type of credit extended, the status of the account (open or closed) and whether payments were made on time, the detailed payment history, and the credit limit or the amount borrowed. It also may include information about utility payments and medical bills. These last two usually appear only as negative information, although some utility companies report like lenders and furnish positive data as well.

In the next part, there is a history of inquiries. This is further subdivided into two categories. First there are the inquiries that involve various applications where the request for information was made with the knowledge and consent of the person of the record. For instance, when one decides to apply for a mortgage, the bank requests a credit report to see whether to lend to the applicant and if so, what terms the lender can offer. The name and address of inquiring bank as well as the date of the inquiry is displayed in this category regardless of whether the inquiry is followed up by an actual transaction. In the next category, those inquiries can be found that happened without the person's authorization. The law permits anyone with a "permissible purpose"[10] to obtain information about anyone without the knowledge of the person. The most common inquiries of this type are the ones by lenders and insurers pre-screening potential clients. Prescreening is followed by "pre-approved offers." Another common inquiry not initiated by the individual is when lenders who have an open account with the person review the general financial situation of their client. These inquiries are reported only to the subject of the record and they are not part of the credit report.

The last section on the credit record includes information culled from public datasets such as court or police records and can contain liens, bankruptcy, arrests, delinquent child support payments, garnishment of wages, foreclosures etc.[11] The Big Three reports civil court judgments only when there was a monetary judgment against the person.

2.2. The bureau's credit score

The Big Three also generates and sells credit bureau scores. In fact, these scores are central because most lenders look at these scores exclusively and ignore the rest of the report altogether. The scores until recently were called the Fair Isaac Co. or FICO scores.[12] All three bureaus bought the same technology from FICO, but scoring was developed separately for

[10] See below for more detailed discussion.
[11] Much of the public record information is now available on the internet through search programs like peoplelookup.com where, for a fee, one can obtain a wealth of private information about anyone, including their criminal record, property ownership, names and addresses of their neighbors, civil judgments, residential history, satellite images of their neighborhood and their street etc.
[12] The main statistical tool in all three cases is the logistic regression that predicts non-payment by using a set of predictors (see below). But there are multiple ways of handling missing data, other data problems (see further below) and accounting for "thin files" (i.e. files having very few transactions or covering only a short time period).

each bureau, so scores can vary within a narrow range across bureaus depending on discrepancies in the datasets and small differences in the technology.[13] The FICO score is a statistical score designed to summarize the credit history information in an account. The score is between 300 and 850 and a high number means the person is likely to be a good borrower in the future. Almost half (48%) of the population has scores over 700. A credit score over 620 is considered a sufficient score and under this value lending is referred to as "sub prime." The exact calculation of the credit score is proprietary secret, but FICO discloses the following information. Their score is based on:

Payment History (35 %)

- Account payment information on specific types of accounts (credit cards, retail accounts, installment loans, finance company accounts, mortgage, etc.)
- Presence of adverse public records (bankruptcy, judgments, suits, liens, wage attachments, etc.), collection items, and/or delinquency (past due items)
- Severity of delinquency (how long past due)
- Amount past due on delinquent accounts or collection items
- Time since (recency of) past due items (delinquency), adverse public records (if any), or collection items (if any)
- Number of past due items on file
- Number of accounts paid as agreed

Amounts Owed (30%)

- Amount owing on accounts
- Amount owing on specific types of accounts
- Lack of a specific type of balance, in some cases
- Number of accounts with balances
- Proportion of credit lines used (proportion of balances to total credit limits on certain types of revolving accounts)
- Proportion of installment loan amounts still owing (proportion of balance to original loan amount on certain types of installment loans)

Length of Credit History (15%)

- Time since accounts opened

[13] A study of by the Consumer Federation of America found that credit scores from the Big Three can vary in ways that can matter substantially to individual customers. They claim that " one out of every three files (31%) had a range of 50 points or greater, and one out of twenty reports had a range of 100 points or greater (5%). The average range between high and low scores was 43 points (median range was 36). Because lenders use cutoff thresholds, small differences can translate into substantial losses (or gains) for customers.

• Time since accounts opened, by specific type of account

• Time since account activity

New Credit (10%)

• Number of recently opened accounts, and proportion of accounts that are recently opened, by type of account

• Number of recent credit inquiries

• Time since recent account opening(s), by type of account

• Time since credit inquiry(s)

• Re-establishment of positive credit history following past payment problems

Types of Credit Used (10%)

• Number of (presence, prevalence, and recent information on) various types of accounts (credit cards, retail accounts, installment loans, mortgage, consumer finance accounts, etc.)

Recently, the Big Three introduced a new score they developed together. The VantageScore was built by pooling the data from the Big Three and creating a single statistical algorithm. Yet, while the weights will be identical, if the applicant's file is not uniform across bureaus, the final score may differ slightly. The VantageScore, which ranges from 501 to 990 with a national average of 736, is constructed as follows:

Payment History (32%)

• timeliness of payment and default

Credit Utilization (23%)

• Proportion of credit available that is used

Balances (15%):

• The total of current and delinquent account balances

Depth of Credit (13%)

• The length of credit history and the mix of credit types

Recent Credit (10%)

• The number of recently opened credit accounts and credit inquiries

Available Credit (7%)

• The total amount of credit available.

Neither the FICO score nor the VantageScore contains sociological variables, not even income or homeownership, only data credit behavior.[14] One aspect of these credit scores that has proven to be controversial is the use of inquiries as part of the score. Prescreening

[14] This kind of score is called the "behavior score." Banks in Hungary use "generic scores" which includes sociological characteristics.

inquiries are not used in the calculations, nor are those generated by periodic reviews by current creditors with whom the person has an open account.[15] But the other inquiries, where the subject of the account was actively involved, are included in the credit score. In general, having a large number of inquiries counts against the person on the theory that any inquiry not resulting in credit extended should count as a rejection. Everything else being equal, a person who was denied credit should be a worse prospect than one who always gets the loan he applies for.

Consumer advocates had pointed out that the argument is based on the false premise that inquiry without credit is always the result of a negative decision by the lender. They had argued that customers often search for the best rates available looking at multiple options until they choose one rejecting competing offers. In those cases, it is the client who rejects the lender and not the other way around, and the score punishes people for "rate shopping." FICO claims that its score addresses this problem by counting mortgage and car loan inquiries in a concentrated period as a single inquiry.

The predictive accuracy of credit scores is very hard to establish. Because the technology is proprietary, no peer reviewed test of FICO scores is available. Most statistical analyses are from FICO itself. Lenders often use their own credit scoring models, which includes credit bureau information or even the credit bureau score but additionally, they make use of information provided by the applicant on the application form.

Until recently, the credit score was not disclosed to the borrower unless he was denied credit. This meant that consumers with good test scores could not use their high scores bargaining for better grades. In 2001, the state of California passed legislation that made it mandatory for lenders to disclose credit scores regardless of the outcome of the application. This opened a floodgate and now anyone can buy his credit score for about $10 from any of the Big Three.

2.3. Information deleted

Information does not stay on record forever and, it is periodically deleted from the credit registry according to the following rules.

[15] Debt, especially mortgage debt, is often bought and sold. Even though debt is sold bundled in a portfolio, the buyer of the debt usually requests a credit report on some of the debtors before making the purchase. This is inquiry is also omitted from the credit score and so are not credit related inquiries.

- Delinquencies (these are late payments of 30 – 180 days) can remain seven years from the date of the initial missed payment.
- Collection accounts remain seven years from the date of the initial missed payment that led to the collection. When a collection account is paid in full, it will be marked "paid collection" on the credit report but it still kept.
- Charged-off accounts remain seven years from the original delinquency date, even if payments are later made on the charged-off account.
- Closed accounts that are no longer available for further use with delinquencies remain seven years from the date they are reported closed, whether closed by the creditor or by the consumer. Positive closed accounts (accounts that owe money) remain for 10 years.
- Lost credit card will continue to be listed for two years from the date the card is reported lost if there are no delinquencies. Delinquent payments that occurred before the card was lost are reported for seven years.
- Chapters 7, 11, and 12 bankruptcies remain for 10 years from the filing date. Chapter 13 bankruptcies remain seven years from the filing date.[16] Accounts included in bankruptcy will remain seven years from the date they were reported as included in the bankruptcy.
- Child support judgments remain seven years from the date the judgment is filed.
- Civil and small claim judgments remain seven years from the date the judgment is filed.
- Unpaid tax liens remain 15 years from the filing date. Paid tax liens remain seven years from the paid date of the lien.
- Most inquiries listed on the credit report will remain for two years. All inquiries must remain for a minimum of one year from the date the inquiry was made.

There are certain types of information that can stay on the record indefinitely. Those include any applications for credit or life insurance or actual credit transactions involving more than $150,000 (i.e., most mortgages) and information about a job with a salary over $75,000.

[16] There are various ways of going bankrupt in the United States. Chapter 7 of the Bankruptcy Law requires the debtor to hand over all his non-exempt property to cover his debt and gets a fresh start even if the debt is more than the value of the forfeited property. Chapter 13 bankruptcy is a reorganization of the debt obligation, the payment is rescheduled, but the debtor must pay off the entire debt. Chapter 12 is similar to 13 but it is designed for family farmers, while Chapter 11 is almost exclusively used for corporate bankruptcy.

2.4. Data quality

The value of credit registry data depends on its quality. Data must be accurate, complete and timely, but quality comes at a cost born by both the lenders furnishing the information and the registry processing it. There are two types of errors one should worry about. The type I error, the false positive, occurs when a person who should not receive credit does because some negative information is missing from the registry. The type II error, the false negative, happens when bad information is mistakenly entered or good information is omitted and the person who should receive credit does not. Because creditors who provide information are more eager to punish bad borrowers then to reveal information about good ones which can result in the cherry-picking of their best customers by other lenders, and because lenders who use the information tend to worry more about default than opportunity cost, they try to avoid type I errors. Therefore, one would expect more erroneous reports of delinquencies than undue omissions of bad behavior. Yet banks often do not report minor lapses (often up to 90 days) in payment to keep existing clients who are profitable overall creating a greater danger of type I error *for others*.

Customers are more concerned about type II errors. Customers want to borrow and therefore do not mind if some of their missed payments stay out of their records but they are unhappy when false negative information gets in them. They have not just the incentive to spot errors but also they are the best qualified to do that. Customers are not part of the data reporting and processing system, therefore they must be drawn in through a mechanism that allows them to dispute bad credit information. The Consumer Credit Reporting Reform Act of 1996 required for the first time to give applicants if requested a copy of their own record after an adverse action. Since 2003, the Fair and Accurate Credit Transactions Act requires the bureaus to make one free credit report available to all consumers each year from each bureau, and they can be obtained from a single website for all three.[17] In fact, today the Big Three encourage people to check their credit records (which costs money after annual free report) and, for a fee, they offer monitoring services that warn people when something negative is posted on their account.[18] There is a formalized dispute process by which consumers can correct errors in their records. The registry, unless it judges the complaint frivolous, must

[17] In a cross-country survey, Miller (2003) found that 25 of 43 private bureaus offered free credit reports to consumers as a means of correcting errors.
[18] Since 2004, nationwide specialty consumer reporting agencies are also obliged to provide one free report annually.

investigate each claim by handing the complaint and any evidence supplied by the consumer to the party that furnished the disputed information usually within 5 days. The furnisher then must review the claim and the evidence and conduct its own investigation and report to the registry. The registry in turn sends a written report to the consumer with the details of the investigation and the changes in the record if any usually within 30 days of initiation of the complaint.[19] The registry then if requested by the consumer must notify recent recipients of the consumer's credit report about the changes. If the consumer is unsatisfied with the result, it can add a statement to the file disputing its accuracy.

Aggregate data presented in 1989 by the Associated Credit Bureaus[20] about its members show that consumers requested some 9 million credit reports, or about 2 percent of the 450 million reports generated annually at that time. They disputed about 3 million of those reports and about 2 million were altered in the verification process.[21]

Another study by a consumer advocate group (Cassady and Mierzwinski 2004) asked adults in 30 states to order their credit reports and complete a survey on the reports' accuracy.[22] Their key findings include:

- Twenty-five percent (25%) of the credit reports surveyed contained serious errors that could result in the denial of credit, such as false delinquencies or accounts that did not belong to the consumer;
- Fifty-four percent (54%) of the credit reports contained personal demographic information that was misspelled, long-outdated, belonged to a stranger, or was otherwise incorrect;
- Twenty-two percent (22%) of the credit reports listed the same mortgage or loan twice;
- Almost eight percent (8%) of the credit reports were missing major credit, loan, mortgage, or other consumer accounts that demonstrate the creditworthiness of the consumer;
- Thirty percent (30%) of the credit reports contained credit accounts that had been closed by the consumer but remained listed as open;
- Altogether, seventy-nine percent (79%) of the credit reports surveyed contained either serious errors or other mistakes of some kind.

[19] If the complaint is based on one's annual free inquiry disputes must be processed within 45 days. If one paid for the report that is the basis of the grievance, the agency must respond within 30 days.
[20] ACB is a trade association representing consumer reporting agencies, Now ACB is called the Consumer Data Industry Association http://www.cdiaonline.org .
[21] Some of these changes were the result of the routine updating of files with the most current information.
[22] The study may overestimate problems for reasons of self-selection into the sample and because it accepts the person's judgment about the veracity of the information.

A more recent study from 2005 by the Government Accounting Office (GAO 2005) found that 18% of those surveyed had disputed data on their records and 69% of those were subsequently corrected.

One serious problem is “broken records.” Lenders report on accounts and not on individuals, but records represent individuals. Broken records are created when accounts are mismatched with persons. There are two types of broken records: the first is where information for a person is filed in two or more separate records, as if he were two or more people, and the second is when information about two or more persons are filed as if they belonged to the same person. Matching information with people is especially challenging in the U.S. because there is no national identity card or identification number and the only unique identifier is one’s Social Security Number issued for pension and tax purposes. Even though the cards until the 1980s explicitly prohibited their use as personal identification, today it is used for this purpose by credit bureaus along with many other institutions. Moreover, in the U.S., people move often and addresses and phone numbers change quickly. In a country of immigrants, names are constantly misspelled.[23] Furthermore, as providing data is voluntary, providers often ignore requests for using the standard format. Credit bureaus use complex algorithms to match incoming information with the proper record, but still about 5 to 10 % of the records are broken. The growing problem of identity theft will result in even more broken records.

In 2004, Avery et al. of the Federal Reserve Board conducted a study on data accuracy and its effect on access to credit using a sample of credit records of 301,000 individuals. They found the following common problems:

- Twenty-nine percent (29%) of the accounts were stale (i.e. active accounts with no updated information for more than 3 months)
- Almost three percent (2.7%) of the large creditors reported only negative information and failed to provide positive data
- Six percent (6 %) of large creditors do not report small delinquencies
- Some large lenders, such as Sallie Mae, the biggest provider of student loans, withholds information altogether from two of the three credit bureaus

[23] The credit report of the author from Experian lists nine variants of his name. His report from Experian is filed under a wrong name and his correct name is listed as “formerly known as.”

- Credit limits, an important piece of information,[24] were missing from 19% of revolving accounts affecting 46 % of individuals in the sample
- Data from collection agencies are reported inconsistently (sometimes a report is filed sometimes it is not) and collection information is often duplicated when collection claims are transferred from one agency to another creating multiple derogatory information for a single offense. Medical collections – one of the most common type -- are especially problematic
- The same problem of inconsistency and duplication was found for public record items (e.g., some tax liens are reported separately, others are consolidated into a single item and reported as such, yet others go unreported). 80 % of all lawsuit information in the sample came from only two states
- The inquiries initiated by the subject almost never indicated the type of loan the applicant sought, therefore, in 99 % of the cases it was impossible to distinguish "rate shopping" from rejections.

Overall, the authors found that the effect of these data problems is unlikely to be large for the entire population except for the effect of missing credit limits and the problems with collection information. One should add to this, that clients are penalized for rate shopping. The reason why the authors find little overall effect is because most people have several accounts and the effect of bad data on one is usually diluted by the others. But it is also because the overall effect (or the lack of it) is an average and it raises the credit score for some and lowers it for others.

One important point that must be kept in mind is what one may call the 'asymmetry of aggregation.' The asymmetry of aggregation means that consequences affect people at the individual level and banks at the aggregate level. Thus while clients care how the aggregate of their accounts influences their overall credit worthiness, banks care how the aggregate of their clients' creditworthiness influences their overall portfolio. In other words, if someone is overcharged for a loan because the record shows him less creditworthy than he is, it is little consolation for him that there is someone else whose record errs in the opposite direction. For the bank, however, undercharging some customers makes little difference overall, if other customers are willing to pay more than they should.

[24] Calculation of credit utilization depends on knowing the credit limit. If someone has a balance of $1000 on a credit card with a balance of $1000 will be judged differently than someone who has the same outstanding amount with a credit limit of $100,000.

The authors also observe, however, that the overall effect of bad data varies for different social groups. The ones that are most hurt by bad data are the young, the poor, the minorities and those with lower credit scores and thinner credit files (321).[25]

The existence of three bureaus gives some protection against some of the errors. If some information is missing from a registry it may find its way to another. Records broken in one database may be correct in the others. Yet the nature of reporting is such that errors tend to be consistent across registries. Moreover, while errors of omission (missing information) in one registry are easier to correct with data from the others, errors of commission (inclusion of incorrect information) are harder to rectify.

3. The use of the registry

The credit registry is used most frequently, but by no means exclusively, by lenders. Other heavy users of credit bureaus are insurance companies, employers and landlords, as well as electric utilities and cell phone companies.

3.1. Creditors

Creditors request credit reports for the following purposes:

- To screen applicants: they want to judge an actual application,
- To review existing clients: To check on the overall indebtedness and payment behavior of existing clients
- To appraise debt before purchase: debt (especially, mortgage) is often sold by the original creditor to get it off its balance sheet. This is done routinely even when the debt performs well, because this allows the seller to issue new loans. The buyer then may scrutinize the financial health of the debtor to assess the current riskiness of the loan.
- To pre-screen markets: to better target customers with ("pre-approved") credit offers.

Prescreening works in one of two ways: a creditor or insurer sets some criteria, like a minimum credit score, and asks a credit bureau for a list of people in the bureau's database who meet the criteria; or a creditor or insurer provides a list of potential customers to a credit

[25] In other words, because clients aggregate over accounts, clients with fewer accounts are less able to dilute the effect of a mistake on one account. But if they have a large portfolio of accounts, they are – to some extent – are protected by aggregation, the way banks are protected by aggregation of clients.

bureau and asks the company to identify people on the list who meet certain criteria. The pre-approved offer is then sent to everyone included in the inquiry. The actual offer is given only after the normal application process ran its course. If the lender or insurer decides against the loan or insurance in the light of new information that emerged from the application, it still tenders an offer but with terms so disadvantageous that no person would take it.

The special status of pre-approved credit offer inquiries is partially rooted in the voluntary nature of information sharing. To give an incentive for lenders to contribute to the registry, the Big Three allows the pre-screening of potential customers only to lenders who supply data to the bureau on their existing clients (Furletti 2002 p.9.).

3.2. Insurance companies

Since the late 1980s, insurance companies include credit bureau information in their calculations to establish insurance premiums. Currently, over 90 % of insurers employ credit history in their decision in some way. It is mostly used for automobile and home insurance. Somewhat surprisingly, insurance companies use the credit registry like lenders do. They request credit histories which are then processed through a scoring mechanism, called insurance scoring that is similar to credit scoring. In the case of the Big Three, the technology for insurance scoring just as for credit scores is provided by Fair, Isaac Co. The main difference between credit and insurance scores is the outcome of interest. While for credit scores credit histories are modeled to predict delinquencies, for insurance scores, the credit histories are used to calculate expected future insurance claims. Because insurance claims are not recorded by the credit bureaus, insurance companies must build their own data set matching credit history from the bureaus with insurance claims in their own data bases.

Why do insurance companies use credit history rather than accident histories from the Motor Vehicle Registry (MVR), crime statistics or insurance claim history (the CLUE reports)?[26] The main reason is that statistical correlation between a person's credit history and future insurance claims appears to be higher than the correlation between his accident history and future claims. This seems puzzling and the insurance industry offered a series of possible reasons.

[26] There are a series of court cases where customers question the legality and logic of using credit information for setting prices in an area that seems completely unrelated to credit but so far with little success. In its latest, June 4, 2007, ruling the Supreme Court Safeco v. Burr decided that insurance companies do not even have to disclose if an applicant received a worse rate or was turned down because of his credit score.

One set of explanations speculates that the credit score captures certain personality traits that are related to insurance related behavior. They claim that people with good credit history are both more responsible and stable and as a result, they drive more cautiously and are more prudent in general. One must keep in mind, that insurance claims and actual accidents are not the same. There are accidents without claim, because people don't claim all accidents for various reasons, for instance, to keep their premiums down. These accidents are invisible to the insurance companies. Then there are claims without accident; these are false claims. The credit score predicts claims and not actual accidents, therefore, another possible explanation for the correlation is that people who don't pay their loans are the kind of people who cannot leave an accident unreported or who make false and therefore more numerous claims.

Another explanation points out the poor quality of alternative data sources. Studies show that Motor Vehicle Registries are inaccurate missing 10 to 20 percent of traffic violations (Hartwig 2003, p.8). F[27]F So the credit record – based on voluntary reporting – is thought to be more reliable than the records kept by the government bureaucracy (but see all the problems with data quality above).

Statistical studies on the predictive power of credit scores are unsophisticated (Kellison et al 2003, Wu and Guszcza 2003, Tillinghast-Towers Perrin 1997, Monaghan 2000, American Academic Actuaries 2002). They tend to show the correlation for group aggregates not for individuals.[28] This highly inflates correlation because a large portion of individual error is erased by the averages. In other cases, studies use enormous samples of individual cases to find statistically significant relationships but say nothing about goodness of fit statistics or the net contribution of credit history to overall prediction.[29]

3.3. Landlords

Landlords routinely check credit records of prospective renters. They want to know if the applicant who wants to rent their house or apartment is in good financial health and if he manages his finances reliably. A large indebtedness indicates that the tenant is already in financial difficulty and therefore he is more likely to fall behind on rent payments. Thus, delinquencies in servicing loans in the past may be a sign of delinquencies in paying rent in

[27] It is not clear how this fact was derived.
[28] For instance, they present the average loss ratios for credit score groups and correlate those averages with the midpoints of the groups.
[29] In a large enough sample, any correlation, no matter how small, can be shown to be significant.

the future. Finally, many landlords look at credit history as a measure of character and general reliability.

3.4. Employers

Employers are also heavy users of credit registries. The FCRA stipulates that they must receive written consent from the person involved. Employers often use credit histories to decide on new hires but they can inquire about current employees for any reason (but, again, only with their consent). An employer receives the standard credit report, except the date of birth is omitted.[30] At hiring, the credit history in certain cases is only one part of a more complex background check that may include the verification of educational credentials (not included in the credit file), employment history (only the name of the employer is included but not position) and even an investigation of civil and criminal judgments against the applicant and medical history (some of which may be part of the credit file). The employer, therefore, often uses multiple consumer reporting agencies, not just credit bureaus.

3.5. Other users

There are other users that the credit registries. Here we list only two: electric utilities and cell phone companies. Electric utilities and cell phone companies, like landlords, want to find out the reliability of potential customers and whether they are under financial pressure from creditors, which may jeopardize their ability to pay their bills promptly.[31] They request a credit report before they turn on the service.

The credit registry acts as a powerful disciplining device. It goes without saying that late payment, default on the loan or bankruptcy costs dearly in future loan applications. But a small delinquency on one account can generate punishment on other accounts by other lenders, forcing borrowers into a vicious cycle of debt. Because lenders can check on credit records of existing clients without their permission, skipping a few credit card payments will result not just in higher rates and penalties on the card in question, but on other cards by other lenders as well.[32]

[30] This is to prevent age discrimination.
[31] In fall of 2004, a large utility company in Texas, TXU, began to set rates on the basis of their clients' credit scores.
[32] The terms of fixed rate loans cannot be altered unilaterally. Credit card contracts, however, stipulate that rates can be changed by the bank on a 15 day notice for no reason.

But the use of credit information beyond lending makes not making payments on time even more dangerous. A bad credit record can ruin one's chances of getting a job, finding a decent apartment, getting certain services and will inevitably result in higher insurance premiums. In the U.S. the top three reasons for bankruptcy are losing one's job, falling sick and getting a divorce (Sullivan et al. 2000), so it is easy to see how one instance of misfortune can be amplified into a spiral of disasters.

4. Data privacy

Data privacy is regulated by the Fair Credit Reporting Act. First passed in 1970, and amended in 1996 and 2003, the FCRA is to protect the privacy of consumer report information and to guarantee the accuracy of consumer reporting. It describes the legitimate or "permissible purposes" for the use of credit registries.

- Data can be provided only
  - In connection with a credit transaction;
  - For employment purposes;
  - In connection with the underwriting of insurance;
  - In connection with determining eligibility for a license or other government benefit;
  - In connection with valuing or assessing the credit or prepayment risks associated with an existing credit obligation;
  - In connection with any legitimate business need related to any business transaction initiated by the consumer or to review an account to determine whether the consumer continues to meet the terms of the account.
  - In response to a court order;
  - In response to a request by the head of a child-support enforcement agency
  - In cases involving national security.

Within these boundaries, in essence, it is up to the credit bureau to decide who to give personal information and its only obligation is to disclose its action after the fact. There are two exceptions. One is that employers always must have written consent from future or current employees to receive their reports. The second exception has to do with another law, the Americans with Disabilities Act of 1990, that reinforced the confidentiality of personal medical information. Providing data from credit registries that reveal medical information also requires written consent. In practice many of these also involve prior consent. For instance, landlords routinely include a consent clause on rental applications that states that the landlord can request the applicant's credit report, but it is not strictly necessary if the landlord can prove that the person in question applied for a rental.

Further, the FCRA established the following measures for the protection of the consumers:

• Adverse action notification

Consumers must be told if information from the registry is used against them.

• Disclosure of one's own credit report to upon request.

Credit reporting agencies must give the subject of the record a copy of his record with proper identification. Everyone is entitled to one free report from each consumer reporting agency per year.

• Criminal liability for knowingly reporting erroneous information and obtaining information under false pretenses.

Obtaining a report by deception, called "pretexting," can also carry serious penalties.[33] Consumer reporting agencies are legally liable for *knowingly* reporting false information. Proving that the agency knew the information was wrong is very difficult, however.

• Process for disputing information.

There is a process set up to dispute information in one's file (see above). If the results of the process are not satisfactory to the person, he can add a statement to his file explaining the matter. While the information is in dispute with one of the credit bureaus the data must be submitted to any other credit registry with a note indicating the dispute.

• A schedule of deleting information.

In general, negative information that is more than 7 years old (10 years for bankruptcies) must be removed from the record. For details see above. This schedule can be overwritten by state laws. For instance, in California arrest records and misdemeanor information must be removed after seven years while FCRA allows them to stand indefinitely.

• Opting out from marketing lists

One can request to be removed from marketing lists. This stops unsolicited, pre-screened offers using credit registries as targeting device.

• Rights in case of identity theft.

[33] In 1989, a journalist from Business Week obtained the credit report of then Vice-President Dan Quayle under the pretext that he was offering him a job. The publisher of the paper was fined for $7,500 (Hunt 2005 p.28).

Identity theft is on the rise. A 2003 Federal Trade Commission study estimates that about 10 million Americans suffered identity theft in that year. Most were related to credit card theft of fraud (FTC 2003). FCRA specifies special rights for victims of identity theft. They can put a fraud alert on their accounts indicating that their record has been compromised by fraud. Certain states allow people to place a security freeze on their credit files. Security freeze prevents any reporting and it is intended to combat identity theft.

5. Laws regulating credit registries

The laws must balance the interest of three parties: the consumer, the lender and the credit bureau. Consumers who borrow are interested in getting credit (at desirable rates), being protected from unjust discrimination, predatory lending and collection, inaccurate derogatory information, and the abuse of their personal information. Lenders are interested in avoiding delinquent borrowers and finding new ones who pay properly, as well as receiving accurate and complete information in a timely manner from the credit bureaus. Credit bureaus that trade in information are interested in receiving accurate and complete data in a timely manner from the lenders. While borrowers depend on lenders, and vice versa, and lenders depend on the credit bureaus and vice versa, borrowers depend on the credit bureaus but credit bureaus do not depend on borrowers.

There are a series of federal laws that regulate the operation of credit registries. Here we list the most important ones.

The **Fair Credit Reporting Act** (FCRA) (codified at 15 U.S.C. § 1681 et seq.) is a law that regulates the collection, dissemination, and use of consumer credit information. This is the most important law. It has been altered significantly since 1970. The latest amendment was in 2003.

The **Fair and Accurate Credit Transactions Act of 2003** (**FACT Act** or **FACTA**, Pub.L. 108-159) was passed as an amendment to the Fair Credit Reporting Act, consumers can request and obtain a free credit report once every twelve months from each of the three nationwide consumer credit reporting companies (Equifax, Experian and TransUnion). In cooperation with the Federal Trade Commission, the three major credit reporting agencies set up the website www.annualcreditreport.com to provide free access to annual credit reports

The **Consumer Credit Reporting Reform Act of 1996** introduced a new information network requiring a notification system among credit bureaus in the event that inaccuracies occurred. It also explicitly permitted pre-screening.

The **Truth in Lending Act (TILA) of 1968** is designed to protect consumers in credit transactions by requiring clear disclosure of key terms of the lending arrangement and all costs. The statute is contained in title I of the Consumer Credit Protection Act, as amended (15 USC 1601 et seq.). The purpose of TILA is to promote the informed use of consumer credit by requiring disclosures about its terms and cost (Annual Percentage Rate or APR) and provides a means for fair and timely resolution of credit billing disputes.

The **Fair Credit Billing Act (FCBA) of 1986** is an amendment to the Truth in Lending Act (codified at 15 U.S.C. § 1601 et seq.). Its purpose is to protect consumers from unfair billing practices and to provide a mechanism for addressing billing errors in "open end" credit accounts, such as credit card or charge card accounts.HU[U

The **Fair Debt Collection Practices Act** (or **FDCPA**), 15 U.S.C. § 1692 et seq., is a United States statute added in 1978 as Title VIII of the Consumer Credit Protection Act. This prescribes the ways defaults can be handled and reported by collection agencies.

The **Equal Credit Opportunity Act (ECOA) of 1974** is a United States law that prescribes how creditors must evaluate loan applicants, and what information they may use to decide on credit applications. This limits the kind of information the credit registry may gather. ECOA also gave impetus for credit scoring because it effectively makes banks which use empirically derived and statistically sound (EDSS) methods, immune from discrimination suits.

The **Financial Services Modernization Act (or FSMA) of 1999** (Pub. L. No. 106-102, 113 Stat. 1338) erases the separation between the various branches of financial services. The FSMA for the first time since 1933 allows banks to engage in other activities such as investment brokering or insurance. The FSMA opened the gate to the creation of diverse financial services companies. This raised a series of issues about data protection.

The law among other things regulates the ways various branches of the same company can gather and store information and pass it from one unit engaged in one type of activity to another pursuing a different one. For instance, if a company is both a bank and an insurance company, data generated by lending can be sent to the insurance branch and can be used in insurance policy decisions. Moreover, credit registries like banks are financial service companies. Therefore, the FSMA is also relevant if a credit bureau company wants to diversify its activities or if it becomes a part of another company offering other services. The law mandates a written policy for each company that ensures the integrity and security of personal data.

FSMA requires financial institutions to provide each consumer at the beginning of their relationship and then annually with a privacy notice. The privacy notice must explain the information collected about the consumer, how the information is shared, used, and protected. The notice must also inform the consumer of his right to opt-out of the information being shared with unaffiliated parties. The unaffiliated parties receiving the nonpublic information must abide by the same terms described in the privacy notice.

The FSMA also protects against 'pretexting' i.e., obtaining personal information under false pretenses makes it punishable by law.

6. Federal Trade Commission

The main enforcer of these laws is the Federal Trade Commission (FTC). The FTC is a sprawling organization in charge of consumer protection and market competition.[34] In the consumer reporting area, it has four roles:

- it writes the rules of implementation for the laws,
- it oversees that the laws are followed and puts violators on notice and sues them if necessary,
- it conducts policy research relevant to its jurisdiction
- it educates consumers.

According to a recent Congressional testimony (June 13, 2007), the FTC reported that in "recent years" it fined the Big Three for nearly $3 million in civil penalties. Last year it sued ChoicePoint, one of the larger consumer reporting agencies for not properly screening who they sold information. ChoicePoint had to pay $10 million in penalties and another $5 million in consumer redress. The FTC also pursued several cases against lenders furnishing inaccurate data and users including two large phone companies, who failed to notify customers about adverse action they took on the basis of credit information (FTC 2007 pp.14-15).

Still, the U.S. Congress, now controlled by the Democrats, is dissatisfied with the results and its Committee on Financial Services is currently conducting hearings whether abuses in the system requires new legislation.

[34] All large mergers and acquisitions must be approved by the FTC.

7. The history of the American credit reporting system

Credit reporting in the US began in the 1840s. Lewis Tappan's Mercantile Agency, one of the first credit reporting agency in the world, founded in 1841 in New York, used local credit reporters whose job was to investigate each applicant for business loans by interviewing them and gathering information from their friends, neighbors, grocers and postmasters, people in everyday contact with the applicant (Foulke 1941; Norris 1978; Madison 1974; Madison 1975). The reporter, who often himself had the acquaintance of the applicant then wrote a report describing in detail the applicant's character, financial situation, past and present legal problems, business acumen and everything else that could shed light on his creditworthiness. The relationship between the reporter and the community was fraught with tensions. Many regarded reporters as snitches who, by trading in trust, broke trust in the community sowing seeds of fear and suspicion.

The information from the reporters was then compiled in regular bulletins by the agency and was sold to subscribers, who initially were exempt from being reported on, and who were also networked among each other, which created the problem that they would share the information they gleaned from the bulletins reducing the number of paying customers (Norris p.26.)

The first major consumer registry dates back to 1899 when the Retail Credit Co. began its operation. The fragmented nature of lending in the U.S. made the American credit market peculiar. On the one hand, credit was dispensed by various institutions from manufacturers and retailers to banks, thrifts and savings & loans societies. Historically, American banking itself has been very fragmented. The McFadden-Pepper Act of 1927 and the Banking Act of 1933, also referred to as the Second Glass-Steagall Act, banned interstate banking. These stayed in effect until 1994, when the Riegle-Neal Interstate and Branching Efficiency Act eased restrictions somewhat, but barriers are still formidable.

In the 1990s, a series a laws has reshaped the financial services industries, revamping its institutions including the credit registries. The Consumer Credit Reporting Reform Act of 1996 mandated that a protocol for credit bureaus to cooperate in correcting mistakes in files. It also required that credit bureaus communicate with data providers to correct inaccuracies. It also specified how different branches of the same financial services companies can communicate personal information about their clients.

Because lenders in the U.S. historically had been many and each had had only a small fraction of the market, there had been a considerable interest in information sharing. The successful creation of private credit bureaus depended partly on the fact that no large player could obstruct the pooling of information.

Furthermore, the American population has been exceptionally mobile and this mobility meant that local reputation could not be used to make borrowing decisions.

Until 1970, credit reporting was weakly regulated. Consumers, for instance, could be denied access to their files and reporting was strictly a matter between lenders and the bureau. Credit scores were a secret (except in case of adverse action) until recently.

From the beginning, lenders provided information on a voluntary basis. This system, however, began to show strains in the late 1990s when in certain areas concentration began to develop as a result of the Gramm-Leach-Bliley Financial Services Modernization Act of 1999 which to a great extent deregulated the financial sectors and opened up financial services to concentration acknowledging and accelerating already existing trends.

In the credit card market, a few large issuers began to dominate, and in 1999, some of them stopped sending information to the bureaus (Fickensher 1999). The bureaus responded by denying requests by these credit card companies for pre-screening files.

The breakdown in reporting in 1999 had a second source. Sub prime lenders, mostly dealing in mortgages also decided to hold back information. Sub prime lenders grant credit at a high interest to people with weak credit records. Customers who are forced to take these loans but pay the installments conscientiously, improve their credit rating over time and can switch to mainstream borrowers at better rates. Sub prime lenders, therefore stopped reporting to keep their good customers. Here Fannie Mae and Freddie Mac, the two federal mortgage giants that buy mortgages from the original lenders stepped in and declared that it was not going to do business with lenders who do not report to the credit registries.

The crisis in the end was averted but it revealed the fragility of the American system of credit reporting.

8. Lessons

8.1. Full reporting systems can cut non-payment and bankruptcy but increases lending which may have harmful effects

There is a large literature explaining the advantages of full reporting systems. Most of it presents sensible arguments for why credit registries should be beneficial. The general consensus of experts is that credit markets function better with full-record credit registries.

Yet empirical work on the actual effect of credit registries is scarce. In their country level analysis, Japelli and Pagano (1999) found that the longer credit registries have been in operation in a country the

a. higher is the consumer credit relative to the GNP, and
b. the lower the proportion of non-performing loans.[35]

There are several caveats to their analysis, which they themselves acknowledge. One of which is that the length of the presence of credit registries could be the consequence of various factors that could also drive credit behavior in each country. While they control for several such variables, they look at each country in a single time point.

In an individual level analysis, Barron and Staten (2003) found the same two effects: full system credit reporting increases lending and decreases default.

Caution is, however, in order. The two identified effects of credit registries can work against each other. While increasing the availability of credit can make access more democratic it also will bring more risky borrowers into the market. While within each group the presence of the credit registry may reduce default rates, overall, default rates may change little, because of the change in the composition of the borrower pool. In fact, Jappelli and Pagano found overall only a weak beneficial effect. Indeed, the seriousness of the recent problems in sub prime lending in the U.S. warns that credit expansion comes at a serious cost and that may offset some of the gains of the credit registry.

Full-reporting systems increase lending for good reasons, as well as bad reasons. The good reason is that lenders can better differentiate between borrowers and price loans better as well as they are able to lend to clients whose creditworthiness would remain hidden in the

[35] Although their statistical analysis does not find full-reporting systems to be superior to black lists.

absence of a system credit registry. Yet there are two bad reasons too. First, banks often overestimate the predictive value registries provide and become overconfident pushing loans more aggressively than they should. More importantly, full-reporting systems give people incentives to borrow even when they do not need a loan in order to build a good credit history, so that they have a good record when they do need a loan. Unnecessary borrowing is a side effect of the full-reporting system.

To limit the ill effects of credit expansion that results from a new credit bureau, it is important to discourage predatory lending.

8.2. Both type I and II errors must be of equal concern

Data accuracy is essential. Lenders are concerned with type I error (false positives) borrowers with type II error (false negatives). Credit registries are more beholden to lenders than to borrowers because they depend on lenders who are both the suppliers and users of their data. This dependence is even stronger, if, as in the U.S., lenders furnish data voluntarily and gratis. In any case, registries do not have the resources to verify the information they receive from the lenders. The proper balance of lender and borrower interests in data accuracy requires that the legislator tip the balance toward borrowers.

Annual free access to one's own credit report is one way to balance the two interests. The annual free report should include not just the raw information but any aggregate information (credit score) that the credit bureau produces. While annual free access is important, it is not enough because people cannot be expected to constantly monitor their credit record.[36] Therefore, the supplier of negative information should be obliged to notify (not just warn) borrowers that it deposited negative information onto his credit record. There must be a clearly defined process for borrowers to correct erroneous information.

[36] Any system that builds primarily on an informed, rational and diligent consumer of credit is doomed to failure in the foreseeable future in Hungary. Even in the U,S., with one of the longest history of consumer credit and education in personal finance, overall financial literacy is low and varies highly across social groups. (Durkin and Elliehausen 2002, Mandell 2002). A report by the non-partisan Government Accounting Office stated only less than 60 percent has ever seen his credit history and less than one third ever saw his credit score. It also found that most consumers understand the basics of credit reporting but they were unclear about how different factors can influence their credit score, that their credit report is often used by insurance companies and employers, and they knew little about the rules of dispute resolution (GAO 2006). While the system cannot rely on fully knowledgeable customers, nevertheless, it must be designed in a way that people should be able to act as informed, rational and diligent consumers if they are so inclined.

8.3. There should be a penalty for providing incomplete or false information and for not participating in data sharing

There are good reasons for mandating that lenders furnish data to the credit registry. If lenders can easily withdraw from the registry, it is very difficult to enforce data quality. In fact, when players are of uneven size, some holding a big share of the lending market and therefore a large portion of the credit information, creating a credit registry is very difficult because the large players will not be eager to give up information. Yet mandating is not the only way to avoid these problems. Participating as data provider to the registry can be voluntary, but incentives can be structured so that staying out has serious costs. For instance, those lenders who do not supply information could be paying a much higher price for retrieving information from the credit bureau.

The completely voluntary data provision in the U.S. enabled lenders to ignore the standard data format when supplying information. It produced uneven reporting and weaker data in areas strategically chosen by lenders. In some cases, it resulted in some lenders' flat-out refusal to provide any data. U.S. registries also have to use expansively the carrot of "pre-approved offers" to keep lenders on board.

8.4. Data quality must be monitored

The credit registry must be audited for data quality by the Bank Supervision or the National Bank. The report should be disclosed publicly. The absence of such monitoring is one of the weaknesses of the U.S. system.

The registry should also have regular discussions with data providers about data quality issues (as the Credit Reporting Reform Act of 1996 mandates in the U.S.).

8.5. The history of inquiries should be kept for the benefit of the borrower but should not be disclosed to lenders

The history of inquiries should not be used in credit decisions. The assumption that a large number of inquiries (and fewer loans on the record) means that a. the borrower was turned down by the lender, b. that he was turned down with good reason, is dubious and can discourage people from rate shopping and can trap them in another type of vicious cycle where the first couple of rejections locks him into a path of ever more likely subsequent rejections.

8.6. There should be clear rules about how long information stays on record

The credit registry must balance the need to punish bad borrowers and the need to reintegrate them into the credit economy by giving them a second chance. The value of keeping one's history beyond two years is minimal for the purposes of prediction. The only reason for holding onto information beyond two years is to sanction non-payment. The length of keeping information must aim at optimizing the two goals. There should be clear and strict rules about how long information should be kept on record. Because Hungary has no personal bankruptcy protection that is comparable to the one that exists in the U.S., data should not be kept longer than they are in the U.S.

The need for deleting information should apply not just to credit and inquiry history but also to personal information. The credit registry should not be in the business of keeping the residential or occupational history of an individual indefinitely (as it does, e.g., in Poland).

8.7. Principle of active consent of the borrower should be a strong precondition for releasing any information about him

Lenders should be able to check on credit files only with the active consent of the applicant. The same should apply when a lender wants to check the record of an existing client. If the lender wishes to review its borrower's record for any reason, it should get the borrower's written consent. The current practice in the U.S. that does not follow this rule allows one lender to punish a borrower, even if he is an exemplary client, for bad behavior on a loan extended by a different lender.

If the registry wishes to allow "pre-approved offers," and let lenders look into credit records without case-by-case prior consent, it should get the active consent of the borrower to participate in such a program. While in the U.S., one has to opt out of pre-approved offers inquiries, in Hungary, the program should run on an opt-in basis.

8.8. Principle of limited use

Credit information should be used strictly for credit purposes only. If non-lenders are allowed to use the credit registry, borrowers can fall into vicious cycles. In the U.S., non-payment on a loan can raise one's car and home insurance putting additional financial pressures on the borrower. That in turn can lead to more missed payments and eventually can jeopardize one's chances of getting a job or a rental resulting in further financial pressures.

8.9. Credit scores should be transparent

If the credit bureau wishes to issue a credit rating or score, it should explain how the score is arrived at so that anyone should be able to calculate his score for himself. The secrecy surrounding the various credit scores in the U.S. is harmful and unnecessary and its only possibly defensible function is to protect proprietary rights. It is harmful, because it undermines trust and prevents proper peer review of scoring. It is unnecessary even in the U.S., because the Big Three uses essentially the same model, and keeping it secret gives them no competitive advantage.

8.10. There should be strong penalties for obtaining unauthorized access to credit information

While credit registries should do whatever they can to prevent unauthorized access to personal data, the strong protection of the privacy rights of borrowers requires the deterrent effect of a strong criminal penalty just as it is in the U.S.

9. Final Comment

The U.S. system of consumer credit reporting, like all others, is based on the assumption that the consumer credit market is contained within the nation state. While this assumption may be robust in the case of the vast and highly developed U.S. consumer credit market, it is unlikely that the small, less developed Hungarian market facing pressures from EU integration will remain self-contained. In fact, Hungarian consumers are already borrowing abroad. The EU will have to develop a common approach to credit reporting and will have to implement a system that treats the entire EU as its market from which it must gather information. The question is not if but when and how.

For Hungarian consumers not having proper credit records will be a disadvantage when a centralized European credit reporting system will emerge. Moreover, it may take a very long time until a European institution emerges. Hungary cannot simply wait until that happens.

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