

CREDIT REPORTING SYSTEMS AROUND THE GLOBE: THE STATE OF THE ART IN PUBLIC AND PRIVATE CREDIT REGISTRIES

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I. Introduction

The best predictor of future behavior is past behavior. This basic tenet of psychology explains the power of information contained in credit information registries, which provide detailed information on borrowers' past loan performance. A country may have a credit registry operated by the public or private sector, or both. The data registries contain is a critical input for credit evaluation and portfolio management by financial institutions in most developed economies and many developing ones. Despite their central role in credit markets, little information exists on these registries, or on other related aspects of a nation's credit reporting system, such as the legal and regulatory framework for credit reporting and availability and use of value-added services such as credit scoring.

This paper presents the results of original surveys conducted by the World Bank on credit reporting systems worldwide, between July 1999 and May 2000. The research originally focused on Latin America, where survey information was obtained on virtually all publicly (government) operated credit registries as well as from the largest private credit registries in most nations. The study was later expanded to include countries in other regions of the world including Eastern and Western Europe, Africa and Asia, but coverage of these regions is less complete.¹ Still, the research results provide the first detailed empirical data on the worldwide state of credit reporting, and allows for some initial comparisons between regions.

The paper is organized as follows. Section II is a brief literature review and definition of terms, Section III describes the survey methodology and sample characteristics, Section IV analyzes the growth of credit reporting internationally and regionally, Section V describes how public credit registries function, Section VI compares private and public registries, Section VII provides information from the survey of Latin American banks and Section VIII offers concluding remarks.

¹ We hope to collect additional information on the credit reporting systems in these regions in the summer of 2000, which will be included in a later version of this paper.

II. Literature Review

Economic theorists have long been convinced of the importance of information in credit markets. Jaffee & Russell (76) and Stiglitz & Weiss (81) demonstrated that because credit markets involve a transaction which occurs over time, asymmetric information between the borrower and lender poses problems of adverse selection and moral hazard and makes it impossible for the price of the loan or interest rate to play a market-clearing function. As a result, credit is rationed and some potential borrowers are denied loans. The more severe the problem of asymmetric information is in a credit market, the greater the rationing which is likely to occur. Lenders and “good” borrowers who pay their loans on time have an incentive to overcome the problem of asymmetric information.

One way that lenders can improve their knowledge of borrowers is through their direct observations of clients over time. Diamond (91), Petersen & Rajan (94), Berger & Udell (95), and Peek & Rosengren (95) all have written about the importance of information developed over the course of a banking relationship. Proprietary borrower data collected by lenders has several limitations, however, including the limited scope of the information (only from one’s own institution), coverage of the population (limited to one’s own clients) and the time and cost required for its development. From the borrower’s perspective there is another drawback to the information developed with a lender; if not shared with other lenders it can be used to capture rents from high quality borrowers if they cannot otherwise distinguish themselves from lower quality clients.

Credit information registries, known commonly as credit bureaus in the U.S. and Canada, can reduce the extent of asymmetric information by making a borrower’s credit history available to potential lenders. Lenders armed with this data can avoid making loans to high risk individuals, with poor repayment histories, defaults or bankruptcies. Once a lender makes a loan, the borrower knows that their performance will be reported to the credit registry. The information contained in a credit registry becomes part of the borrower’s “reputation collateral”; late payments or defaults reduce the value of this “collateral” providing an additional incentive for timely repayment.

Despite the abundant theoretical literature in economics on the role of information in credit markets alluded to above, there has been very little attention paid to the institutional

aspects of this issue. There is virtually no source of comparable information on the status of credit information registries, in Latin America or elsewhere in the world. As a result, this research project developed a series of on-line surveys to provide empirical data on this topic. Before reviewing the survey methodology and sample characteristics in Section III, we will briefly define the key terms to be used in the paper, which may not be familiar to all readers.

The term “credit information registry”, as used in this paper, refers to a database of information on borrowers in a financial system. Information in these registries is available for individual consumers and/or firms. The core of this data is a borrower’s past payment history. The data available may be only negative (information on late payments, defaults and other irregularities) or may also contain positive information such as debts outstanding even if the credits and loans have always been paid on schedule. Registries may also contain other types of information, including basic personal information such as address and age, as well as information from court records or other public or government sources, which could have a bearing on creditworthiness. Credit registries operated by governments, (usually by bank supervisors), are referred to in the paper as “public” credit registries. Those registries operated outside government, even if they are non-profit institutions, are referred to as “private” credit registries.

“Credit reporting system” will be used to describe the broader institutional framework for credit reporting in an economy, including the following: (i) the public credit registry, if one exists; (ii) private credit registries, if they exist, including those run by private firms, chambers of commerce, banking associations, and any other organized data on borrower performance available in the economy; (iii) the legal framework for credit reporting; (iv) the legal framework for privacy, as it relates to this activity; (v) the regulatory framework for credit reporting; (vi) the characteristics of other pertinent borrower data available in the economy, such as data from court records, utility payments, employment status, etc.; (vii) the use of credit data in the economy, by financial intermediaries and others, for example the use of credit scoring or use of credit data in creating digital signatures; and (viii) the cultural context for credit reporting, including for example, the society’s view on privacy and the importance accorded to “reputation collateral”. “Credit scoring” refers to the use of a statistical model to analyze data from registries, and from other available sources, to make a credit decision.

III. Survey Methodology & Sample

The data analyzed in this paper was collected via three on-line internet surveys, copies of which can be found in the Appendix.² The first to be circulated was a survey of public credit registries worldwide, in July and August, 1999. The survey was sent to 81 countries, to the attention of the Bank Superintendent or Director of Banking Supervision, typically located in the Central Bank. We received responses from 59 countries, of which 34 indicated that they operated a credit registry. Although information was requested from authorities throughout the world, the project prioritized data from Latin America, since our original project design focused on the region. Phone calls were made to bank supervisors or superintendents in virtually all Latin American countries to prompt their response, resulting in almost full coverage of the region. Of the 59 responses, 25 were from Latin America, including 17 of the 34 nations with public registries. Coverage of Western Europe was also high, with 12 of the fifteen EU members responding, including all seven EU countries with public credit registries.³ A more limited response was received from other regions. The response rate to the public registry survey was 65.4% overall. See Table 1 for a detailed list of countries who were sent surveys, and those which responded.

The second survey, initiated in September, 1999, focused on private credit registries. We identified firms to be included in this survey sample from a variety of sources. Authorities responding to the earlier survey of public credit registries were asked to provide the names of all credit registries they had knowledge of in their country. The World Bank had also developed a list of private registries in Latin America as a result of organizing, in conjunction with the Argentine Central Bank, the December, 1997 Workshop on the Role of Timely and Reliable Credit Information in the Development of Stable Financial Markets, held in Buenos Aires. Finally, names were obtained from the First International Consumer Credit Reporting World Conference, held in Rome in October, 1998. Emphasis was placed on getting the main credit registries in Latin America to respond. (In the summer of 2000, the author plans to re-circulate this survey, to increase the response rate in Eastern and Western Europe and Asia.)

² Gwendolyn Alexander, Ph.D. Candidate in the Department of Economics, University of Maryland, College Park, was Research Assistant to the project and provided support in all phases of the survey process.

³ The following EU member countries have a public credit registry: Austria, Belgium, France, Germany, Italy, Portugal and Spain.

The private registry survey was sent to 138 firms and organizations. Included in the list were chambers of commerce known to operate credit registries, usually based on retail credit data, banking associations with registries of loan data provided by their members and, of course, independent private firms or associations which collect credit data.⁴ Fifty-two firms responded to the survey internationally, including 30 based in Latin America and the Caribbean, seven each in Eastern and Western Europe and five from Asia-Pacific, making for an overall response rate of 37%. See Table 2 for a list of countries where private credit registries were contacted for the survey.

The public and private credit information registry surveys were developed in parallel to facilitate comparisons of the data. Both surveys had the following organization:

Section I – Contact information

Section II – Basic information about the organization of the registry

Section III – Description of data collected by the registry

Section IV – Description of how data is disseminated

Section V⁵ - Attention to consumers, legal and public policy issues

The third survey focused on the use of credit data by financial institutions and was circulated only in Latin America. The institutions were selected from the 1998-99 and 1999-2000 editions of the *Latin Banking Guide & Directory*, published by Latin Finance magazine. The top banks in each country were selected, defined as those institutions which cumulatively represented at least 75% of a nation's banking assets. The survey was conducted in May 2000 and was sent to the Director of Credit Operations or Risk Manager of 172 banks and financial institutions in 27 countries throughout Latin America and the Caribbean. Thus far we have received responses from 43 institutions in 17 countries, distributed as follows: Argentina (5), Aruba (1), Bolivia (1), Brazil (4), Chile (1), Colombia (4), Dominican Republic (3), Ecuador (2), El Salvador (2), Guatemala (1), Guyana (2), Haiti (1), Honduras (4), Mexico (4), Peru (2),

⁴ The 138 firms which were sent the private registry survey were distributed between regions as follows: Africa (4), East Asia and the Pacific (19), Eastern Europe (21), Western Europe (37), Latin America and the Caribbean (31), North America (9), and Middle East/Northern Africa (17).

⁵ Section V in the private credit bureau survey was on consumer attention, legal and public policy issues; in the public registry survey, the same type of data was collected in Section VII, "Accuracy of Database Information – Attention to Consumers" and in Section VIII, "Policy Issues". In addition, the public registry survey asked about the use of the data in supervision of financial institutions and the resources which had been devoted to the registry. The private registry survey finished with Section VI, which asked the respondents' views of the credit information industry in their country.

Trinidad & Tobago (3), and Venezuela (3). The response rate to the bank survey was 25% overall.

The survey of financial institutions focused on the use of credit registry data by financial institutions, including their view of the relative value and importance such data has in lending decisions. The institutions were also asked to describe the data which they provide to credit registries and to give their opinion regarding relevant public policies, including the adequacy of the legal framework for credit reporting in their country. Data from this survey will be presented in Section VII.

IV. The Growth of Credit Reporting Worldwide

The credit reporting industry is growing worldwide, spurred by technological innovation and the liberalization of financial markets. Macroeconomic forces, both positive and negative, have also encouraged the development of credit reporting. On the positive side, the relative stabilization of previously volatile economies, such as Argentina, Brazil and Chile in Latin America, and corresponding reduction of interest rates – especially evident in Chile – has created opportunities for term finance which didn't exist before. When most lending is very short term – 30 to 90 days – the data in a credit registry is less important than a firm's cash flow or person's liquidity; but when terms grow to many months or years, data on past behavior becomes a more important indicator of likely repayment. At the same time, economic crises which have roots in financial sector distress, have also encouraged some nations to establish or fortify credit registries. One of the causes of the 1994 Mexican "tequila crisis" was the nonperformance of many loans in the banking sector. As a result, the Mexican government encouraged the development of a private sector credit bureau, which was established in 1995.

The survey results document the growth of credit reporting internationally, with significant recent expansion in both public and private sector credit registries. In the survey of private registries, approximately half of the sample (25 of 50 respondents) began operating a registry since 1989. This same pattern was observed in the Latin American sub-sample, where 14 of 30 firms began their credit registry since 1989. Eastern Europe, not surprisingly, reported the most new credit reporting firms, with all seven registries having been established since 1992.

Western Europe has also experienced recent growth in private sector registries, with new firms established in the 1990s in Germany, Austria and Spain. There are no doubt other examples of new investments in Western Europe which our survey missed. In the United States, where credit reporting is almost exclusively handled by private registries, the 1990s have been a period of consolidation in the industry. Since the mid 1980s, the number of independent credit bureaus has fallen dramatically, from approximately 2,000 to only 400 today⁶. The U.S. consumer reporting industry is dominated by the “Big Three” bureaus: Equifax, Experian and Trans Union, which purchase and unify data from the remaining independent bureaus, in addition to collecting information directly. Dun & Bradstreet maintains its dominance of the U.S. small business credit reporting market.

Mergers and acquisitions are also changing the face of credit reporting in other nations – among our survey sample, thirteen firms reported that a foreign firm had purchased interest in their company, ten since 1994. Equifax has been the most active foreign investor in Latin America, while Experian, based in London, has been more active in Europe. Trans Union’s international strategy appears to be based on looking at opportunities in specific markets – the firm is dominant in Mexico and South Africa, for example.

There has also been a renewed interest in public credit registries worldwide. Of the 56 countries responding to the survey, 30 reported having a public credit registry including 17 nations in Latin America and the Caribbean and 7 nations in the European Union.⁷ Public credit registers have their genesis in Europe. Germany established the first PCR in 1934, followed by France in 1946, Italy and Spain in 1962 and Belgium in 1967. Before 1968, only two other nations in our survey had established PCRs: Turkey in 1951 and Mexico in 1964. While a handful of nations added PCRs in the 1970s and 80s, the expansion of this policy internationally has occurred in the last decade and appears to have been focused in Latin America.

In our survey, twelve nations reported that they had established a PCR since 1989 and nine of these were in Latin America: Brazil (1997), Ecuador (1997), Guatemala (1996), Costa Rica (1995), Dominican Republic (1994), El Salvador (1994), Argentina (1991), Colombia (1990) and Bolivia (1989). As a result, Latin America now appears to be the region with the

⁶ Figures provided by the Associated Credit Bureaus, the U.S. credit reporting industry association based in Washington, D.C..

⁷ Jappelli and Pagano (1999) present the results of a separate survey on public credit registries completed in 1998. They report that of 46 countries responding to their survey, 19 had a public credit registry, and most of the registries established over the last two decades have been concentrated in Latin America. Page 20.

greatest incidence of public credit registries. (See figure 1.) While all of the largest nations in the region operate a PCR, they are notably absent from small island economies in the Caribbean; only Haiti and the Dominican Republic responded that they operate public credit registries. None of the small, English-speaking countries has a PCR (Aruba, Barbados, Bermuda, Cayman Islands, Guyana, Trinidad & Tobago) nor does Panama or Puerto Rico which have economies closely tied to the United States.⁸

It is worth noting that the public credit registry phenomenon may be spreading to other regions, such as Asia, Eastern Europe and Africa. The following countries from these regions reported that they are actively considering creating a PCR: Croatia, the Czech Republic, Hong Kong, India, Singapore, South Africa and Tanzania. We hope to extend the survey of public credit registries in the next few months to include more nations from these regions.

What are the factors which contribute to the development of public credit registries in some countries and not in others? Tullio Jappelli and Marco Pagano discuss this question in their 1999 paper, "Information Sharing, Lending and Defaults: Cross Country Evidence". They state that "the establishment of public registries has largely been motivated by the 'substitution' role"⁹. Using a database they assembled on credit information in 46 countries, they indicate that private registries only existed in 30% of countries with a public registry prior to its establishment, whereas they existed in 65% of countries without a public registry. Jappelli and Pagano further suggest that in countries with a legal system based on Napoleonic code, where creditor rights receive less protection, public registries are more likely to evolve. This second finding is consistent with our research results, which indicate a relationship between civil code legal systems and public registries. Our survey results, however, cast doubt upon the idea that public registries are formed in response to an absence of credit reporting by the private sector. Through our surveys, we found that many Latin American nations established their PCR after the private sector registry, including the following cases: Argentina, Brazil, Chile, Colombia, Ecuador, El Salvador, Guatemala, Peru and Uruguay. Even in Germany, where the first public registry was established, a private sector registry predated it by decades.

Although public registries may be established in some countries to compensate for the lack (or weaknesses) of a private credit reporting industry, what emerges from our survey results

⁸ The Netherlands Antilles also reported that they do not operate a PCR.

⁹ Jappelli and Pagano (1999), page 29.

are the significant differences between the public and private registries. Rather than being simple substitutes, they seem to be complementary parts of a nation's credit reporting system.

V. Public Credit Registries

What is a public credit registry?

Public credit registries (PCRs) the world over share a basic framework, in terms of their institutional arrangements, the type of data which is collected and typical policies regarding distribution of credit data to participating financial institutions. Most PCRs are operated by the Central Bank or Bank Supervisor and financial institutions *they supervise* are compelled to participate by means of a law or resolution. As a result, the greatest source of data for most PCRs is the commercial banking sector. Institutions are required to report on a regular basis, typically monthly, and usually on both their commercial and consumer borrowers. In most cases, information is requested on borrowers regardless of their standing – not only negative data is collected on late payments or defaults, but also positive information on credit exposure in good or normal conditions. This information is used as part of the supervision process, as well as distributed back to the financial institutions who provided the data. Access to data is typically limited, based on the concept of reciprocity, so only institutions who provide data have access, and they are seldom charged. In response to confidentiality concerns from reporting institutions, the total credit exposure for a borrower is often aggregated, and the names of the lending institutions are omitted, before being distributed. In many countries, the PCR data functions as a kind of negative list or enforcement device, since data on defaults or late payments are erased once they have been paid. Also, many nations only distribute current data, such as data for the previous month, so the PCR does not offer a historical record on a borrower's credit behavior.

Although PCRs share many common characteristics as described above, there are also important differences, especially relating to the specifics of information that is collected and the rules on distribution and disclosure. Based on our survey results, these differences are not surprising, as countries have tended to develop their public credit registries independently, with no direct input from PCRs existing in other countries.¹⁰ Moreover, even in Western Europe

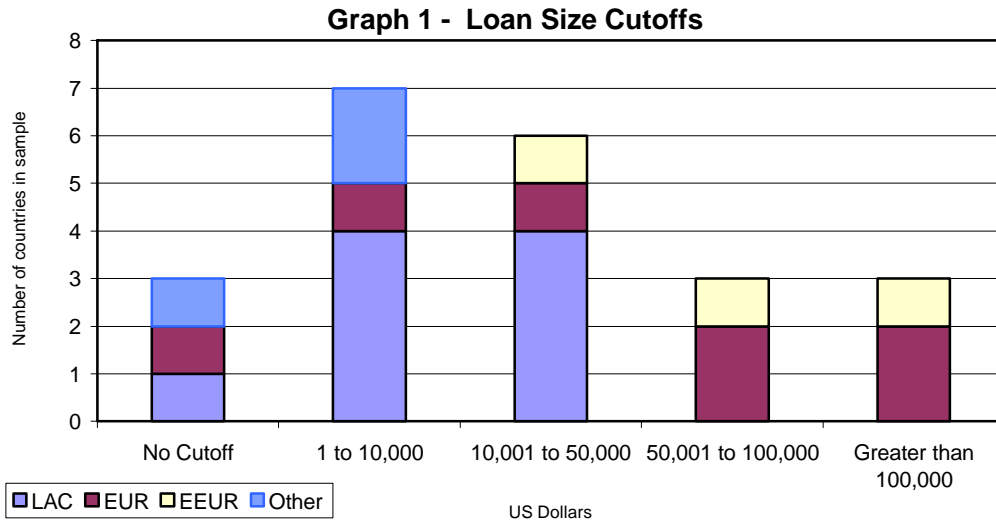
¹⁰ Only seven nations stated having received assistance from another country's Central Bank or Bank Superintendent regarding PCR policy, including: Austria (from Germany); Colombia (from Spain); Costa Rica and the Dominican

where public credit registries have the longest tradition and regularly meet in a formal EU Working Group, there remain significant differences between the models followed by France, Germany, Italy and Spain. Tables in the Appendix to this paper present detailed results of the survey of public credit registries, providing for the first time an opportunity for an in-depth international comparison and analysis of this policy.

There are several key characteristics which vary between PCRs and which can greatly affect the role and impact that the public registry will have in the financial sector. The remainder of this section will focus on the following two critical issues: (a) limitations on data which is collected and distributed, including whether there is a minimum amount for inclusion in the database, whether positive and/or negative data is collected and distributed, whether reciprocity is required for accessing the data and the amount of historical data that is made available to lenders; and (b) the nature of the rating policy.

Limitations on PCR Data

The most common exclusion on data provided to the PCRs was for loans below a minimum amount. Nineteen of the thirty countries with PCRs have set a minimum loan size and only collect information on loans in excess of this amount. These minimum loan sizes vary greatly by country and region, as can be seen in Graph 1. Germany is by far the country with the highest minimum amount: 3 million DM or about US\$1.6 million. Other countries with high minimum loan amounts (presented in US dollar equivalents) are Austria (US\$ 390,000), Bahrain (US\$ 133,000), Italy (US\$ 83,000) and France (US\$ 82,000). The highest loan threshold in Latin



America is Brazil's, which at R\$ 50,000 is equivalent to approximately US\$ 26,000. Following Brazil in Latin America are Mexico (US\$ 21,500), Uruguay (US\$ 18,000) and Colombia (US\$ 11,900). What is more noteworthy about Latin America is the large number of countries – nine – with no minimum loan size. In these nations, every loan, no matter how small, must be reported to the public credit registry.

One possible explanation for such different loan sizes could be different primary objectives of PCRs. The survey asked what was the most important reason for starting a PCR and the most common answers were: (a) to assist in bank supervision (42%); and (b) to improve the quality of credit data available to the financial sector (44%). It would be reasonable to assume that PCRs which were established primarily for supplementing bank supervision would have a higher minimum loan cutoff, since very small loans have little impact on system solvency or risk. At the same time, if the goal is to improve the quality of available credit data, supervisors might opt for a low minimum loan size, or even none at all. To some extent, the survey results support this analysis. Of the ten PCRs which reported a minimum loan size in excess of US\$ 10,000.00, six indicated that banking supervision was their primary objective and one more indicated that it was to assist in loan provisioning; only two indicated that their main goal was to increase the availability of credit data. The results are more muddled, however, when analyzing the objectives of PCRs with no minimum loan size. Eleven countries have no minimum loan size and Argentina has a minimum loan cutoff of only \$50; of these twelve countries, seven indicated they had established the PCR to assist with bank supervision and five indicated that improving credit data was the primary goal.

There are several good reasons for establishing a minimum loan size cutoff for a PCR. First, if banking supervision is the primary goal of the PCR, then information on very small loans is not likely to be of significance. Second, by including all loans, or virtually all loans, the number of loans in the registry is likely to balloon. Consider, for example, that Germany, one of the largest economies in the world, collects information from 5,200 institutions for its PCR, but because of the high loan cutoff of over US\$ 1.5 million, only includes records on 96,000 consumers and 170,000 firms. Argentina, by comparison, collects data from only 150 banks, but with a minimum loan size of US\$ 50, includes over 4.5 million consumers and 117,000 firms in its public registry. The greater amount of data complicates management of the PCR and analysis of the data. Data on small loans is also more likely to include errors, reducing the overall quality of the information in the registry, as the following example demonstrates.

In one Latin American country, banks had aggressively marketed credit cards and had sent pre-approved cards to customers with the first year's fee waived. Many customers destroyed the cards, never having used them, and then found later that they were being identified as delinquent by the sponsoring banks when they failed to pay the card fee the following year. After complaints, the banks recognized this problem and at least one institution asked to be able to suspend reporting to the PCR on its smallest loans in order to not introduce errors into the system. When told this was not possible, the bank decided to rate all small loans as performing until it could clean its own records, introducing further confusion into the public registry data.

Another reason for establishing a minimum loan size for the public registry is to provide a clear market niche where private registries can develop. The amount of historical data which public registries make available on an on-going basis also affects the private market for credit information. In most instances, historical data is not made available to financial institutions via the PCR. For fourteen of 25 countries reporting, only the current month of data is available to lenders; another three reported that they provided up to one year of information and three more stated that they provided up to two years of information. In the total sample, only five nations provided a historical record beyond two years to financial institutions. In Latin America the tendency to provide only current data was even more pronounced, with nine of fourteen countries providing only the current month, and only one nation, Uruguay, providing more than 2 years of data.

Although public registries are not distributing historical data, they are collecting it. In slightly more than half of the PCRs in the survey, (16/29), PCR data is preserved for more than 10 years. Only about twenty percent of PCRs (6/29) state that they destroy the data after two years or less. These same patterns are observed in the Latin America PCR sub-sample of 16 nations, where approximately half report maintaining data more than 10 years (9/16) and only three state that they discard the data after two years or less. The complete picture of a borrower's behavior afforded by PCRs is diminished, however, by a common policy of eliminating delinquent credits from the files once they have been resolved. Approximately one-half of PCRs (16/29) eliminate outstanding debts from a borrower's files once they have been repaid, including 10 of the 16 Latin American PCRs responding to the survey. Those PCRs which do not erase cancelled debts typically preserve the information for an extended period of time – 5 years or more - and approximately 25% of PCRs surveyed indicated negative data was never destroyed.

One of the objectives of public credit registries is to provide a database for supervisors to analyze a financial institution's credit portfolio, either the entire portfolio or a significant segment of the portfolio. PCRs thus typically compel institutions to provide information about their entire universe of borrowers, be they consumer or commercial clients, including those in good standing as well as those with some kind of irregularity, late payment or default. Of the countries sampled who operate a PCR, a significant majority (23 of 30) collect both positive and negative data on borrowers and all but two collect data on both firms and individuals.¹¹ The completeness of the record of bank borrowing which PCRs can amass is unique in many developing nations, and even in some European nations, where institutions are reluctant to share positive information on their better clients and may voluntarily only provide partial reports, primarily of negative information, to private credit information registries. Sharing positive borrower data to create credit histories is more common in Canada and the U.S., where banks and other lenders routinely report on all or nearly all their consumer clients, even those in good standing.

¹¹ Surprisingly, six countries report receiving only positive data, which is unusual given the natural interest supervisors would have in knowing the bad credit risks; these respondents may have misunderstood the question and also be receiving negative data. Only Germany reported receiving purely negative data. In Latin America, Uruguay reported having only positive data, while all other countries in the region indicated they collected both positive and negative information on borrowers. Only Turkey and the Slovak Republic limit data collected to firms.

Only rarely are either private or public sector users of PCR data charged for accessing the information. Six nations reported charging private sector users: Argentina, Brazil, and Paraguay in Latin America and Belgium and France in the EU¹². Only Belgium and Paraguay also stated that they charged public sector users of the data.

The Rating Policy

Approximately two-thirds of public registries (21 of 30) include a rating that is assigned to either loans or to borrowers. In all cases but one (Haiti), the rating is assigned by the reporting financial institution, according to written guidelines. Typically there are five or six categories for these ratings, which indicate the level of performance from good standing to default. In many countries these ratings are related to provisioning requirements. Moreover, ratings between institutions for the same borrower are often scrutinized by supervisors to detect cases where default risk may be understated.

The requirement that a rating be assigned on a regular basis to all loans or borrowers can create some potentially undesirable consequences. First, by requiring a broad rating classification – no more than 6 different categories – the supervisor may be undermining the development of independent borrower ratings by institutions. Credit scoring programs can provide much greater levels of distinction between potential borrowers but may be less likely to be adopted if there is a system wide rating system. Small financial institutions, in particular, may decide to rely on larger institutions to do the risk management and simply adopt their ratings for common clients. The tendency to rely on the ratings from a PCR would likely be even greater if ratings were linked to provisioning requirements, since banks might decide that greater discrimination between risk categories is not useful if not reflected in provisioning.

Another problem with ratings, if they are communicated back to the financial system, is that they may exacerbate swings in the market. Most PCRs use ratings to identify problem borrowers across institutions and often require that the rating for a borrower be uniform or nearly uniform across the system. This means that if a borrower has a problem in one institution and his rating is lowered, then all other institutions where he does business must also lower the rating – providing incentives for all the institutions, not only the affected one, to revoke credit. For the same reason, banks may be reluctant to accurately rate their borrowers, since downgrading a

¹² Chile reported that they charged a fee for borrowers wishing to access their own information, but no fee for

customer could have severe consequences. Finally, if ratings are provided by the PCR, they may further implicate the supervisors if there is a bank failure. If a borrower appeared in the PCR as a good credit risk, but was in fact defaulting, bank shareholders might be able to try to hold the PCR, Central Bank or supervisors liable in contributing to their poor portfolio with erroneous information. They could also use the PCR as a cover, indicating that if the Central Bank didn't know about a borrower's tenuous position, how could they.

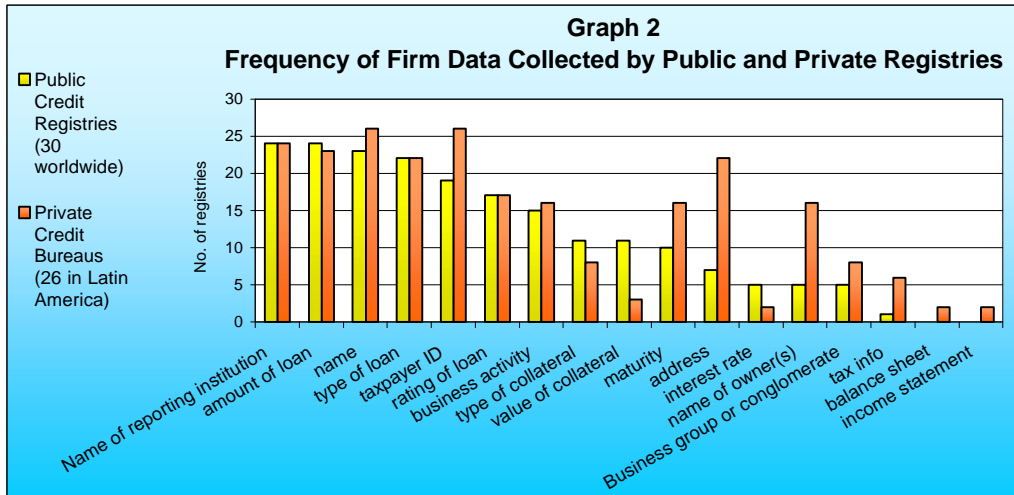
VI. Comparing Public and Private Credit Information Registries

What consumer credit information is collected?

The basic consumer information collected by virtually all credit registries is limited to a few key items. Only two pieces of consumer data – the name of the borrower and the amount of their loan(s) – were collected by 90% or more of both the public and private credit registries. The name of the reporting institution was the next most common consumer data collected – by 87% of private registries and 97% of public ones.¹³ The only other piece of consumer information which was collected by more than 80% of both public and private registries was type of loan. In two basic information categories, address of the individual and their taxpayer identification number, private registries reported much higher levels of coverage than did public ones: 87% of private registries had address information compared to 41% of public registries and regarding taxpayer IDs, the figures were 82% of the private sample vs. 66% of the public sample. In general, the private credit registries reported collecting a broader spectrum of information than did public registries, including data on business ownership(38% vs. 25%), personal financial data (31% vs. 3%), other types of personal information such as marital or employment status (56% vs. 16%) and tax information (21% vs. 3%). The public registries were more likely than their private counterparts to collect information on the collateral used to secure a loan (50% vs. 36% for type of collateral and 44% vs. 15% for value of collateral) and on the credit rating (69% vs. 56%).

allowed consultations by financial institutions.

¹³ It is remarkable that only 87% of the private registries collect the name of the reporting institution. It would appear that this data must always be available; it may be that those firms responding negatively were answering this question as though it pertained to distribution of data.



What commercial credit information is collected?

The data collected on commercial loans was similar, in large part, to that collected for consumers. There was, however, more divergence between public and private registries concerning the “core” data collected. The data collected by 90% or more of the private registries was: name of the firm, address of the firm and tax identification number. The data collected by 90% or more of the public registries was: name of the firm, name of the reporting institution, amount of the loan and type of the loan. As was the case for consumer data, public registries were more likely to gather data on collateral and on the rating of the loan. Private registries were more likely to gather more detailed data on the business, including name of the business owner(s), data on the business group or conglomerate, balance sheet and income statement data and tax information. Graph 2 above shows graphically the difference in consumer credit information collected by private and public registries.

The different objectives of the public and private registries are evident in the different types of information they collect. A main goal of public registries is to provide bank supervisors with information on the risk of an institution’s credit portfolio – data useful for this task includes the institution’s exposure to individual borrowers (amount of loans), loan ratings and the value of collateral backing loans. Lenders, interested in determining a consumer or firm’s creditworthiness, are interested in other information, including address (which is often highly correlated with payment behavior), tax identification number (to ensure that you are following the correct person’s credit history) and, for commercial credits, the name of the business owner, since their credit history is highly indicative of firm behavior for small firms. Public entities may

also be discouraged from collecting more detailed or personal data on consumers or firms due to political or privacy considerations; governments may feel this would be overstepping their bounds, even if legally possible. Private registries, which operate under less public scrutiny, may not be so limited.

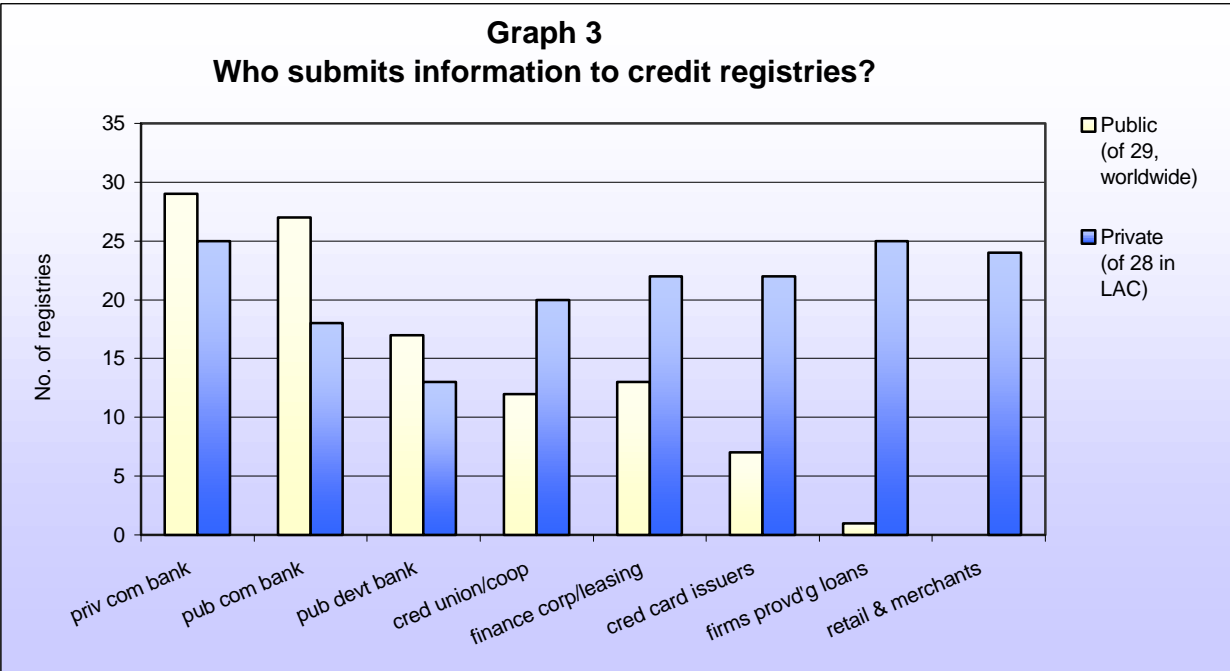
There are also some notable differences by region. For example, Eastern Europeans do not ask for personal information or tax information. No Asian registries include a rating and Western and Eastern European registries seldom have data on collateral. Information on business ownership was common in both Eastern and Western European data but not in data from Latin America or Asia. The taxpayer identification number was not collected in Asia or Western Europe but is collected in Latin America and Eastern Europe. For commercial credit, only Latin America had many registries reporting loan ratings. Asian firms collect very little private data or information about the business group.

Most of the private registries responding to the survey collect information on both consumer and commercial loans. Of the 45 firms responding to these questions, only 9 were dedicated exclusively to either commercial or consumer credit; 7 of these 9 firms reported that they collected only commercial credit data. The other 36 firms stated that they collected both types of credit information. The dual focus of private credit registries internationally may come as a surprise to those familiar with the U.S. credit reporting industry, where the lines between these businesses are sharply drawn. There are several probable reasons for the different industry structures, beginning with the first-mover advantage gained by Dun & Bradstreet in the U.S. market. Dun & Bradstreet is the oldest credit reporting firm in the U.S., established over 150 years ago, has such a dominant position in the U.S. market for business credit information that other credit reporting firms have largely decided not to enter this business line. There are other factors, however, which may also contribute to the separation of consumer and credit data in the U.S. and its combination in other markets. The core of the data collected by D&B is inter-firm credit information, provided on a regular basis by thousands of U.S. corporations, not information from banks. For the most part, banks are not reporting their commercial credit data to credit registries. One of the reasons for this reluctance is that much of the commercial credit market is secured credits which are registered through the UCC 9 filing system; banks are afraid that once they provide a registry with basic information about their commercial loans, competitors could fully investigate the terms and conditions through the collateral registries and

cherry-pick their better customers. In many developing nations, by way of contrast, only a small segment of the business credit market is secured, due to the lack of an appropriate and efficient legal, judicial and institutional framework. As a result, banks in these countries do not have the same fear of sharing information on their commercial clients.

It should also be noted that the collection of a broad range of business data in developing countries is likely harder due to irregular business practices, including tax evasion. For the same reason, there is less confidence in the reliability of basic firm information such as balance sheets so loans are based on owner’s wealth to even greater extent than in the US, blurring the difference between the consumer and small business markets.

Public and private registries both collect information from banks. The sources of information are much more diverse, however, for the private registries. Of the forty-five firms which provided information regarding the source of their credit data, 37 stated that it came from commercial banks. The same number of firms reported receiving data on trade credit and 36 received information from retail merchants. By comparison, the only common sources of credit data for more than 50% of the public sample were commercial banks and development banks. Fewer than one-third of PCRs had information on credit card debts and only one had trade credits.



A majority of the private registries (30 of 45 responding to the question) indicated that they received data from “most of the largest banks” in their country. Only a very few registries indicated that their data came from a restricted group of credit providers or membership – typically these cases were registries focusing on retail credit information and not on bank data.¹⁴

Data distributed by credit registries

Virtually all of the PCRs in our sample (27/30) distribute some at least some of the credit data they collect.¹⁵ The most common recipients of PCR data are financial institutions which provide the data (24/30) and the Central Bank and Bank Supervisor (18/30). Private registries have a broader range of clients for their data, including other private businesses (38% of private vs. 16% of public) and other private credit information providers (51% of private vs. 10% of public). Twenty-two percent of the private registries also indicated that they provided data to the public registry in their country. Private registries were also twice as likely to provide borrowers with access to their own information; only one-third of public registries offered this important service compared with nearly two-thirds of the private registries. Other public sector entities which could be interested in credit data such as that contained in the credit registries are more likely to have access from private registries than public ones: 33% of private registries indicated that tax authorities had access to their records compared with only 7% of public registries, similar figures for other federal government authorities were 17% of public vs. 29% of private and for state or municipal authorities, 10% of public vs. 44% of private.

Access to data in public registries is often limited on the grounds of *reciprocity*. Twenty-three nations stated that only those financial institutions which contributed data to the PCR had access; exceptions to this rule were Argentina, Austria, and Ecuador which allowed other private lenders access to the data.¹⁶ This is in stark comparison to private registries, where 60% of the sampled firms stated that they did not require lenders or others to provide data in order to have

¹⁴ Although nine firms answered yes to question 3.5, stating that they received data from only a limited group of credit providers, the follow-up answer to the question indicated that several had misinterpreted the question, so that only 4 of the 9 responses seem to indicate a true case of restricted data.

¹⁵ Guatemala, Nicaragua and Indonesia are the only nations which reported that they have no distribution of PCR data.

¹⁶ France reported that only *public* financial institutions were exempt from the reciprocity rule and could receive some data, even if they had not provided information to the PCR.

some access. In terms of access, Argentina is by far the most open, providing some PCR data to the general public via the internet as well as via CD-Roms.

Financial institutions which have access to data in the PCR typically see only a restricted portion of the total database. For example, approximately half of the PCRs surveyed (16/30) reported that they did not identify which financial institution(s) provided the data when it is distributed. The most common format used for presenting PCR data to financial institutions aggregates all the borrower's loans (11/19) so there is only one entry per person or firm, rather than separate entries for each outstanding loan or for each lender which reported. Private registries, on the other hand, are most likely to provide detailed information on *each line* of credit a borrower has with each reporting institution (56% of the private sample). Another 8% of the private sample aggregate information for each institution where a borrower has credit and only 23% aggregate all credits across the financial system, as is common with PCRs. Other restrictions on access to public data include requiring a borrower's authorization before their data can be accessed (8/16), limiting access to borrowers who are already clients of the financial institution (7/16), limiting access to large borrowers (4/16), commercial clients (4/16) or to borrowers in bad standing (2/16).

The PCR data which is most commonly distributed to financial institutions includes the amount of loans or debt outstanding for a borrower (22/22), the rating or classification of the borrower or loan (16/22), information on collateral (8/22) and other guarantees (9/22) and information on the borrower's involvement in firms or other loans (8/22). Only six PCRs provide any data on loan maturities and only one country (Lithuania) provides interest rate information. A similar question was not asked for private registries since they typically sell all the data they collect in some form or another.

PCR data is usually distributed to financial institutions in electronic format via modems or dedicated phone lines (11/26) or via computer disks or CD-Roms (7/11). In Latin America, the most common format was modems or phone lines (7/14), followed by written documents (4/14) and computer disks / CDs (3/14). Only one nation, Lithuania, reported that the internet was their most common vehicle for distributing PCR data to financial institutions. In the private sector, electronic connection is a must and 83% of the sampled private registries indicated they had the capacity to serve real time, on-line spot consultations of their database.

Data Accuracy, Consumer Attention and Legal Issues

Public and private registries have different approaches for maximizing the accuracy of their data. The data in public registries is required to be provided by law or regulation, so governments have a legal basis for demanding that inaccuracies be remedied or missing data be made available. If banks fail to comply, PCRs have sanctions which they impose, the most common being penalty fees, followed by supervisory actions. Most public registries report using these sanctions on a limited basis; only five countries indicated that they had sanctioned 25 or more institutions in the last year: four of these were in Latin America and one in Asia.¹⁷ The vast majority, 75%, stated that they had sanctioned no more than ten financial institutions in the past year.

Private registries, which rely on the voluntary provision of data, also rely on the reporting institutions to voluntarily review and correct erroneous data. Approximately 70% of private registries stated that they routinely notified the reporting institution and asked for review when they had a data problem – surprisingly, nearly 30% indicated this was not standard practice. Another incentive employed by approximately 30% of the private survey sample was to temporarily suspend access to the credit registry for institutions with recurrent data problems.

There are other measures which both public and private registries take to ensure and improve their data quality, including seeking input from the borrowers listed in the registry and analyzing the data to identify abnormalities. A majority of the private firms in the survey (25 of 43 responding) stated that they provided consumers with a free copy of their credit report, as part of their strategy to identify incorrect data. Fewer firms (20 of 43) indicated that they did simple statistical checks, such as comparing debt amounts month-to-month, and only 15 of the same sample of firms stated that they applied more rigorous computer modeling techniques to identify data problems. When asked about the most common source of inaccurate data, both public registries and private credit reporting firms ranked problems in the data provided by financial institutions first, followed by errors resulting from mismatching of credit data.

¹⁷ Argentina, Bolivia, Brazil, the Dominican Republic and Indonesia indicated they had sanctioned more than 25 institutions over the past year.

Most of the private registries surveyed had policies in place to deal with consumers. Of the 43 firms, which responded to the question on how they dealt with consumer complaints, 30 had a customer relations department, 23 handled complaints over the phone and 18 had an established protocol for correcting information. Only eight firms, however, indicated that they had a toll-free telephone number to take complaints or provide information. Evidently, these policies are working, since 42 of 44 firms stated that it took them less than two weeks, on average, to evaluate and correct, if necessary, erroneous data discovered by consumers. It would be interesting to check this rosy self-assessment against information from consumers groups or government agencies, since the ability of consumers to quickly rectify incorrect data has long been a bone of contention in the U.S. and other developed countries. For example, complaints about problems in one's credit report continue to be one of the most common issues brought before the Federal Trade Commission.

Public credit registries are much less well equipped to deal with consumer complaints or to provide other consumer attention. Only half of the public credit registries indicated they had any policies in place to attend to consumers. Only six registries indicated they had a telephone number for taking complaints or an established protocol for correcting information and only two allowed consumers to place any comments on their records regarding disputed data. Together with the fact that most public registries do not even allow borrowers access to their records, the lack of attention to consumers, and lack of opportunities to easily correct data, are troubling issues which deserve greater consideration by authorities operating PCRs.

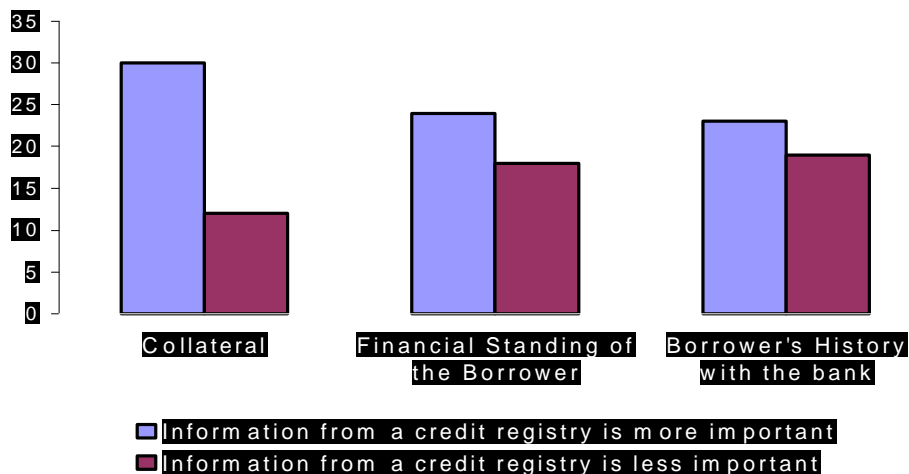
VII. The Lenders' View of Credit Reporting: The Experiences of Latin American Banks

Forty-three banks responded to the survey on their use of credit information. The vast majority of banks – 84% - indicated that they used registry data for evaluating consumer loans, an even higher percentage - 93% indicated they used such data for commercial loans and 100% of banks responding indicated they used registry data in mortgage lending. Approximately twice as many banks considered private credit registries to be their main source of external credit data compared with those favoring public registries (17 vs. 9). Unfortunately, a large portion of the sample, 17 banks, did not respond to the questions regarding whether a public or private registry was their main source of data.

Eighty-eight percent of banks responding to the survey stated that the kind of data that they typically receive from credit registries are credit histories containing both positive and negative data. Given that they have both positive and negative data available to them, it is interesting that most banks (76%) stated that if they found any negative information on a person or firm in a registry, that would disqualify them from receiving credit. This indicates that many banks still lack more sophisticated credit analysis tools to evaluate borrowers. It may also indicate that the positive data is rather limited compared to the negative, and thus a fuller picture of a borrower's credit history does not emerge allowing for more subtle distinctions between borrowers. A surprising 40% of banks indicated that they are using bureau scores, obtained directly from the credit registries, however, 28% of banks were not familiar with such products. Even more banks, 65%, are using in-house credit scoring programs to evaluate borrowers.

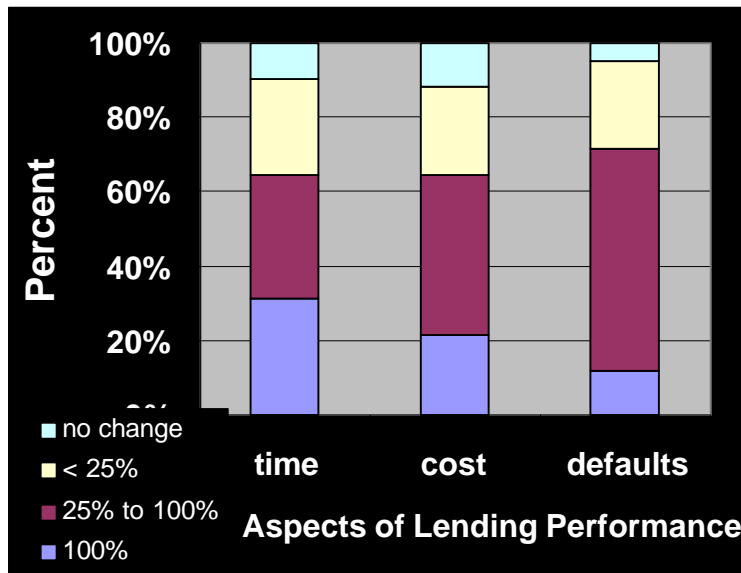
Probably the most interesting part of the survey of financial institutions was their assessment of the importance of credit reporting information to their business operations. Graph 4 below compares the bankers' assessments of the relative importance of data from credit registries with collateral used to secure a loan, with personal financial data of the borrower, such as wealth or income, and with data the bank might have on a borrower from previous banking accounts, such as checking or payroll services. In each category, bankers indicated that they viewed credit information as relatively more important in their credit review process. This response was particularly strong in the case of collateral, where twice as many banks indicated credit registry data was more important than collateral, than those reporting in favor of collateral.

Graph 4
Importance of credit registry information relative to
other measures of creditworthiness

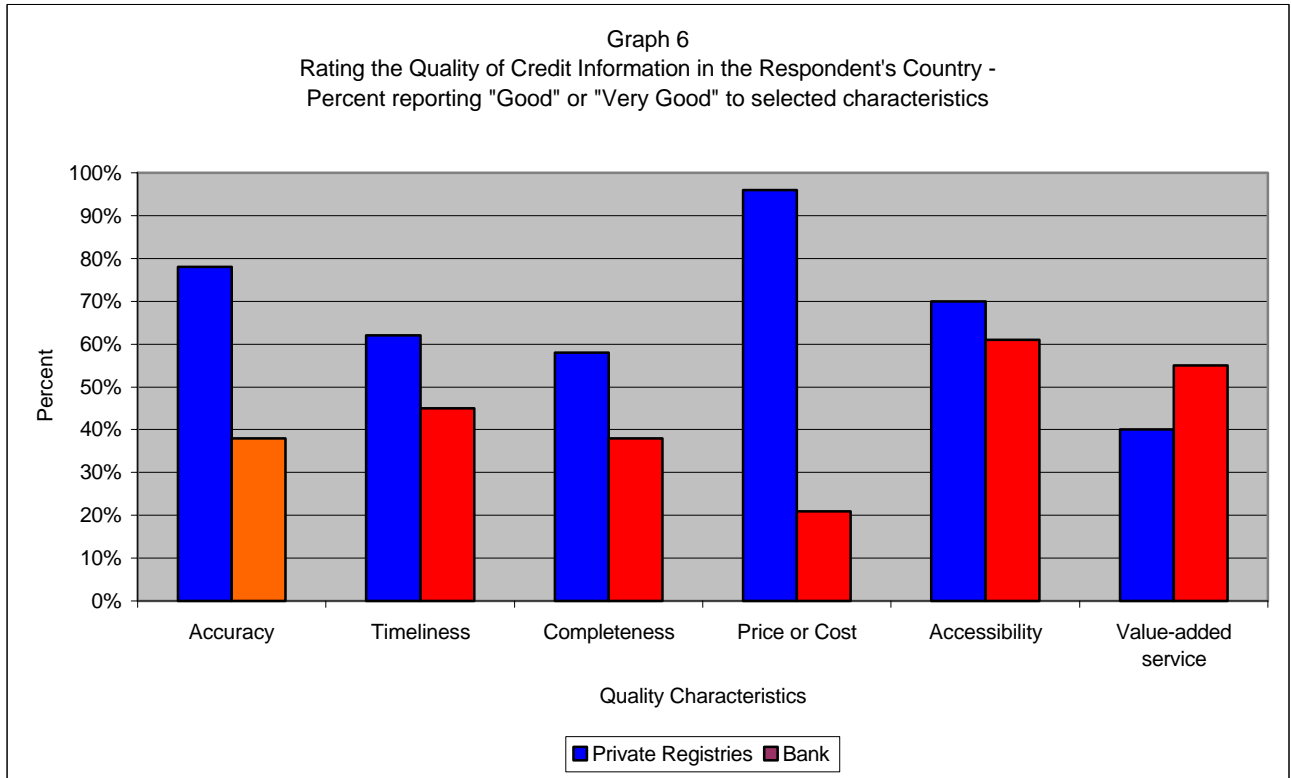


Another indication of the importance banks attach to credit information can be obtained through the response to questions as to the potential impact a lack of credit information would have on the time and cost of evaluating consumer loans, as well as the probable change in defaults. Graph 5 below shows that virtually all banks indicated that without information from credit registries, their performance would deteriorate. In the case of the time for loan processing, 31% indicated that it would more than double and another third indicated it would rise substantially – between 25% and 100%. As for cost, the results were similar, with over 60% of banks indicating an increase in cost of at least 25%. The strongest result, however, was the banks’ response to how a lack of credit information would affect defaults – approximately 70% of those sampled indicated it would increase defaults by 25% or more.

Graph 5
Impact of Credit Registry Information on
Bank Lending Performance



The bank survey and private credit registry survey both asked respondents to rate the quality of credit information available in their country. The results are presented in Graph 6.



Not surprisingly, the private bureaus gave themselves higher grades, in most cases, than did their bank clients. Whereas nearly 80% of the private bureaus rated the accuracy of information available as “good” or “very good”, less than 40% of the banks agreed. In terms of timeliness of the data, completeness and accessibility, the ratings were more similar. The greatest divergence was in rating the cost of information available – more than 90% of private registries felt that costs were good, whereas only 20% of banks agreed. Most banks indicated that the cost was “fair”, however a sizeable number (9 of 33) rated the cost as “poor”.

VIII. Public Policy Considerations

This paper has presented the results of survey data on public and private credit information registries worldwide, as well as the use and evaluation of credit information by financial institutions in Latin America. The following public policy considerations emerge:

With regard to public credit registries, it is clear that they are not a substitute for private sector registries, but rather, a complement. It also appears that in some cases, there is ambiguity as to whether the registry is to be primarily used to assist in supervision, or as a source of additional data for the financial sector. If supervision is the main objective, then a minimum loan size for inclusion in the PCR should be considered. Such a limit should be related to a determination of the size of loans at which systemic risk is likely to become a problem, and should probably be at least a multiple of per capita income in the country. Even if the PCR is established to improve data quality, a minimum loan amount for inclusion may be wise to limit the possibility of errors in the data. Further, especially if the minimum loan size is low, then steps should be taken to provide at least basic consumer attention so that errors can be detected and addressed without undue effort required on the part of consumers.

The distribution of borrower ratings by a PCR should also be reviewed carefully, to ensure that they are not encouraging swings in the credit market or discouraging the development of independent risk assessments by financial institutions.

Public or government owned banks should also be included in this issue, especially in nations where they represent a sizeable share of the banking industry. Public banks should be encouraged to report at least their negative information to both the public and private registries.

Policy makers should also review the legal and regulatory framework for credit reporting to determine if privacy laws, bank secrecy laws or other legal issues are impeding the development of private sector registries. The regulatory framework should provide a basis for consumer rights and protection and ensuring compliance with relevant laws.

A closer public – private dialogue could also be very beneficial in this sector. Lenders and private credit registries should be asked for their views as to the role of the public registry in the financial sector, as well as for needed legal and regulatory reform, as should consumer groups. Further, policy makers may want to consider how they might, together with interested private sector actors, educate the public as to the benefits of a responsibly managed credit reporting system, and of the trade-off between privacy and the cost and access to credit.

Bibliography

- [1] Allen N. Berger and Gregory F. Udell. "Relationship Lending and Lines of Credit in Small Firm Finance." *Journal of Business* 68, (July 1995): 351-381.
- [2] Douglas W. Diamond. "Monitoring and Reputation: The Choice between Bank Loans and Directly Placed Debt." *Journal of Political Economy* 99, No. 4 (1991): 689-721.
- [3] Dwight M. Jaffee and Thomas Russell. "Fairness, Credit Rationing, and Loan market Structure." University of California, Berkeley, Haas School of Business, October 1991.
- [4] Tullio Jappelli and Marco Pagano. "Information Sharing, Lending and Defaults: Cross-Country Evidence." CSEF Working Paper No. 22, 1999.
- [5] Joe Peek and Eric S. Rosengren. "Banks and the Availability of Small Business Loans." Federal Reserve Bank of Boston, Working Paper No. 95-1, January, 1995a.
- [6] Mitchell A. Peterson and Raghuram G. Rajan. "The Benefits of Lending Relationships: Evidence from Small Business Data." *The Journal of Finance* 49, No. 1 (March 1994): 3-37.
- [7] Joseph E. Stiglitz and Andrew Weiss. "Credit Rationing in Markets with Imperfect Information." *American Economic Review* 71, No. 3 (June 1981): 393-410.

Appendix

On-line Surveys of:

Public Credit Registries

Private Credit Registries

**Use of Credit Information by
Financial Institutions**

**Detailed Tables on the Operation of
Public Credit Registries
by Country**

Rating the Quality of Credit Information in the Respondent's Country -
Percent reporting "Good" or "Very Good" to selected characteristics

