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### *Information Sharing in Credit Markets: The European Experience*

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*Information Sharing in Credit Markets: The European Experience*

**Tullio Jappelli\* and Marco Pagano \***

**Abstract**

We describe the operation of credit bureaus and public credit registers in Europe and extract potential lessons for upgrading credit registers in other countries. The evidence that we report is based on questionnaires directed to private credit bureaus and central banks, on direct interviews and on official sources. The European experience highlights a set of important issues. First, European privacy protection laws affect greatly the amount and type of information shared between lenders. Second, credit bureaus tend to originate from local lenders. Third, in Europe as elsewhere there are powerful forces pushing towards consolidation of the credit bureaus industry. While this process reflects the “natural monopoly” feature of the industry, its pace has been accelerated by technological factors and, especially within Europe, by the increasing international integration of capital markets. Three annexes complete the paper, reporting detailed descriptions of private credit bureaus activity in European countries, the main features of European public credit registers, and privacy protection restrictions to the activity of credit bureaus and public credit registers in Europe.

**JEL classification:** D82, G21, G28

**Keywords:** information sharing, credit markets

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## ***1. Introduction***

When lenders screen loan applicants and price loans to them, they need information to evaluate their credit worthiness. This information can originate from three sources. First, it may be already in possession of the bank, which has acquired it over the course of a long-standing relationship with that specific customer. Second, the bank may seek the information directly, by interviewing the applicant, visiting his or her business before granting the loan or gathering data from public records. If the bank operates on a large scale, it can use statistical risk management techniques to process the data it already owns or has collected in order to take decisions about loan granting and pricing. A third way to get information on a credit seeker is to obtain it from lenders who have already patronized that individual. Getting information from other lenders will generally require a reciprocal obligation to provide one's own information. In other words, it requires an information sharing arrangement between lenders.

The arrangement that rules the exchange of credit information between lenders can be voluntary or imposed by a public authority. When it occurs spontaneously, the exchange of information is effected by information brokers, known as *credit bureaus*. They operate on the principle of reciprocity, collecting, filing and distributing the information supplied voluntarily by their members. In several European countries a great deal of informational exchange also occurs via *public credit registers*. These are generally managed by central banks, with compulsory reporting of data on borrowers, which are then processed and returned to lenders.

In this paper, we describe the operation of credit bureaus and public credit registers in Europe and extract potential lessons for upgrading credit registers in other countries. The evidence that we report is based on questionnaires directed to private credit bureaus and central banks, on direct interviews and on official sources.

The paper is divided in three substantive sections. In Section 2 we describe the main features of European credit bureaus. Section 3 extends the analysis to public credit registers, and explains in which respects they differ from private credit bureaus. Both sections document that borrowers' coverage and the type of data exchanged vary considerably over time and between European countries. Section 4 highlights some lessons that can be drawn from the European experience for the effective design of information sharing institutions. First, European privacy protection laws affect greatly the amount and type of information shared between lenders. Second, credit bureaus have a tendency to originate spontaneously from local lenders. Third, in Europe as elsewhere there are powerful forces pushing towards consolidation of the credit bureaus industry. While this process reflects the "natural monopoly" feature of the industry, its pace has been accelerated also by technological factors and, especially within Europe, by the increasing international integration of national capital markets.

Three annexes complete the paper, reporting detailed descriptions of the operation private credit bureaus in European countries (Annex 1), the main features of European public credit registers, and privacy protection restrictions to the activity of credit bureaus and public credit registers in Europe (Annex 3). The questionnaires sent to private credit bureaus and central banks and used to elicit the information reported in this paper are reported in Annex 4 and Annex 5, respectively.

## *2. Private information sharing arrangements in Europe*

In many European countries, lenders (banks, finance companies, credit card companies, retailers, suppliers extending trade credit) routinely share information on the creditworthiness of their borrowers through credit bureaus. These are information brokers, in some cases created and owned by the lenders themselves and in others operated independently for profit by a third party. Lenders supply the bureau with data about their customers. The bureau collates this information with data from other sources (courts, public registers, tax authorities, etc.) and compiles a file on each borrower. The lenders that contributed data can later obtain a return flow of consolidated data about a credit applicant by requesting a “credit report” from the bureau. Nowadays this two-way flow of data between lenders and the bureau is effected electronically.

In several European countries also government authorities take an active role in fostering the exchange of information between lenders, creating public credit registers (PCRs), which operate in many respects like credit bureaus. Sections 2 and 3, respectively, describe the main features of private credit bureaus and public credit registers in Europe.

### *2.1. Consumer credit and small business*

The voluntary exchange of information between lenders distinguishes a credit bureau from other agencies that collect and process valuable information from public sources and private investigators. Credit bureaus often do collect and process such data, but this is not their distinguishing characteristic.

Lenders who provide their private information to credit bureaus are granted access to the common database insofar as the data provided are timely and accurate. Credit bureaus are exposed to a potential conflict of interest, especially when they are owned by the lenders themselves: a lender may want to exploit the information provided by other lenders without disclosing his own. This explains why sanctions are invariably threatened to any credit granter who fails to supply data or provides inaccurate information. Sanctions range from fines to loss of membership and hence denial of access to the bureau’s files. In other words, credit bureaus are based on the principle of reciprocity, which is generally stated in the contractual agreement between the bureau and credit grantors. Most credit grantors do supply their information regularly, particularly those that have accounts receivable on tape.

In Europe arrangements of this type are found both in the household credit market and in business lending, in varying degrees and with different institutional features. The consumer credit market and that for small business loans are characterized by a large number of applicants whose typical loan size is not large enough to warrant individual assessment. In these markets, screening can benefit greatly from statistical analysis of applicants’ characteristics and credit histories as predictors of repayment, and such analysis is feasible precisely because of the large number of standard loans. Credit bureaus, which pool data from many lenders and for several years, own the ideal database for estimating statistical models of risk management, which explains why credit bureaus generally originated precisely in the

consumer credit market. They are now increasingly active in the small business and trade credit markets as well.

A credit bureau can issue several kinds of credit report, depending on the information gathered, the type of credit application (consumer credit, house mortgage, small business loan, etc.) and, most importantly, the amount of detail requested by the lender. Reports range from simple statements of past defaults or arrears – *black* or *negative* data – to detailed reports on the applicant's assets and liabilities, guarantees, debt maturity structure, pattern of repayments, employment and family history – *white* or *positive* data. Naturally the price of a credit report depends on the amount of detail. In Europe, the prices for basic credit reports are currently quite low, averaging about 1 dollar in the United Kingdom and 2 dollars in Italy.

### INSERT FIGURE 1

Figure 1 gives an example of an individual credit file for a small company. The file is reproduced with explicit authorization from CRIF, the largest credit bureau in Italy. The credit bureau collects and reports to bureau's members detailed positive and negative information. The Italian privacy law sets some limits to the operation of credit bureaus. Data can be requested to CRIF by the members of the credit bureau when the business or the individual has applied for credit, when the company (or the individual) is currently engaged in a credit relation with the member institution, and when the company (or the individual) has regularly authorized to transfer his file to CRIF and approved future data treatment by CRIF. As we shall see in Section 4.1, similar rules apply in most European countries. The credit report is organized at three different levels of detail, so that potential lenders can move from the overall picture to a more detailed account of the company's credit history.

The first-level information (Panel A in Figure 1) report provides aggregate information about the indebtedness of the company. In the example, the company applied for 3 installment loans, currently has 2 installment loans, and has paid off 1 installment loan. The summary report displays also other data: number of financial institutions that reported data on the subject (5 in the example), number of financial institutions that reported that the subject has arrears or has defaulted (none in the example), and the presence of other negative events (for instance if the subject has been classified as non-performing or has defaulted).

The second-level report (Panel B) provides aggregate data on specific types of loans (installment loans in the example). The report contains both positive information, such as amount of monthly installments, as well as negative, such as installment in arrears. The third stage report provides disaggregate information on individual loans (Panel C). The information is very detailed, showing for each individual loans the installments paid, installments due, and the presence of guarantees. Note also the sequence of zero in the right part of the report, showing the insolvency profile in the 12 months prior to the last update. The number on the far right indicates that the firm has not paid 1 installment as of the last update. The sequence of 0 before the 1 shows that in the 11 months before the last update there was no insolvency. The third stage report shows also detailed information on loan applications not concluded or under review by one or more of the credit bureau members (Panel D). The example shows that in April of 1999 the company is seeking credit from three different sources. Two loan applications have already been turned down, while another one is under review. The credit

report contains also cross-references to the individual files that the bureaus has recorded in the names of the guarantors.

Most credit bureaus also use statistical models to produce and sell a variety of credit scoring services, by which they rate borrowers according to characteristics and credit history. Such scores were initially developed by credit grantors mainly for deciding on applications. Where positive information is also available, the models are now intensively used also to promote financial instruments, price loans, and set and manage credit limits.

To gather more information about their operations around the world, we sent a questionnaire (reported in Annex 4) to credit bureaus in the main European countries. For some countries we obtained information from direct interviews, Internet or official publications. The data obtained are reported in Table 1 which displays, by country, the year in which credit bureaus were first established, the type of information exchanged (black or white), the number of borrowers covered and of credit reports issued by credit bureaus.

### **INSERT TABLE 1**

The table shows that in some European countries lenders exchange a massive amount of negative and positive information in the consumer credit market: the United Kingdom, Germany, Sweden and Switzerland have the highest number of credit reports per person, and lenders have exchanged information for decades. Credit bureaus have also operated for several decades in Finland and the Netherlands, but on a smaller scale. In Italy credit bureaus are a relatively new phenomenon, but have taken on growing importance in recent years. In some countries, like Portugal, Greece and Turkey, credit bureaus are in their infancy, either non-existent or operating on a small scale.

The questionnaires also gather information on the ownership structure of the bureaus. With the exception of the United Kingdom, in Europe credit bureaus are typically incorporated as private companies, whose shares are owned by a consortium of lenders. Only in two countries (Finland and Belgium) credit bureaus are operated or licensed by government agencies. With the process of cross-border acquisitions of local credit bureaus, especially by multinational United States vendors, the industry is becoming increasingly profit-oriented.

## *2.2. Corporate Loans*

The information needed to assess the creditworthiness of medium-sized and large corporations is by its very nature more complex and less standardized than for households. Therefore for these business loans credit bureaus generally take a more active role in the production of information, collating credit market data received from lenders and suppliers together with balance sheet data and information from the company itself and from public sources about shareholders and managers. The positive component of a credit report for a company is typically much larger than for an individual, and the nature of the credit bureaus in this market segment is different. Rather than provide standard credit reports and statistical risk management, here credit bureau become rating agencies, gathering and processing information from a variety of sources, including lenders and suppliers.

This very active role in the production, processing, and marketing of information may explain why the credit agencies that treat corporate loans are typically profit-oriented businesses, not lenders' cooperative arrangements. The largest of these agencies worldwide is Dun & Bradstreet (D&B) with branches in all major European countries. Formed in 1933 through the merger of two credit reporting agencies (R. G. Dun & Co., formed in 1841, and the Bradstreet Company), today D&B maintains a global database that covers 48 million businesses. It provides a wide range of services, from the assessment of credit risk and suppliers' reliability to the management of credit and accounts receivable. A standard D&B business information report (available on-line via the Internet) contains payment history, financial condition, business history, management experience, details on lines of business, parent company and subsidiaries, public records, etc.

### ***3. Public information sharing arrangements***

All European countries have public registers for real estate collateral (mortgages) to protect the seniority rights of collateralized creditors, and bankruptcy information is publicly disseminated to alert present creditors and potential new lenders.<sup>1</sup> These can be considered as basic forms of publicly enforced information sharing. But in several countries government authorities have taken a much more active role in fostering the exchange of information between lenders, creating formal public credit registers (PCRs), which operate in many respects like credit bureaus.

#### *3.1. Main features of European public credit registers*

The Committee of Governors of the European Central Banks defines a Public Credit Register as "an information system designed to provide commercial banks, central banks and other banking supervisory authorities with information on the whole banking system regarding the indebtedness of firms and individuals, vis-à-vis the whole banking system".<sup>2</sup> European PCRs are managed by central banks (except in Finland, where it is contracted out to a private company). Access to the PCR is granted only to authorized central bank staff (mainly for surveillance reasons and under tight confidentiality rules) and to the reporting financial institutions.<sup>3</sup> This creates a two-way flow of data between credit grantors and the PCR, much as in the case of private credit bureaus.

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<sup>1</sup> In most European countries, public registers also exist for unpaid IOUs and tax liens.

<sup>2</sup> Definition derived from the report on Banking Supervisory Sub-Committee of the former Committee of Governors of the central banks of the member states of the EEC "Central Credit Registers in the Community Countries", October 1992.

<sup>3</sup> In Finland not only financial institutions but also the general public can access the PCR. In Greece a database on large loans is collected for supervisory reasons by the central bank, but this information is not made available externally.

To understand how this two-way flow of information takes place, consider the most common case. The first flow is from participating institutions to the PCR: at a regular frequency, each of them supplies data on individual loans granted. The PCR consolidates data on loans granted to the same borrower by each bank so as to obtain his total indebtedness. The return flow of information can take one of two forms. For borrowers on which it has reported loan data, a bank is automatically informed of their total indebtedness. For new credit applicants, the bank can obtain the same type of information only upon request.<sup>4</sup>

Figure 2 gives an example of what banks can learn from a PCR. The file is constructed on the basis of the rules of the Italian PCR, one of the largest and most complete public datasets on individual loans. Panel A in Figure 2 is the report on a new applicant that has applied in writing for a loan and is not in the file of the bank.

### INSERT FIGURE 2

The report contains information on the number of lenders with which the applicant has credit relations and on the standing of its loans. The PCR reports aggregate indebtedness (by broad categories of loans) and guarantees. In Italy the crucial distinction is between *credit granted* and *credit used*. Credit granted is the amount of credit that has been authorized and granted, net of past repayments (if any). Credit used automatically exceeds credit granted when there is an overdraft, for instance if the borrower has not paid one installment of a fixed maturity loan. In the example the company has outstanding fixed maturity loans for 550 million lire, but credit used is 600 million lire, implying that there is an overdraft with respect to the system of 50 million lire.

Even though the PCR does not report histories of individual loans, it offers a complete picture of aggregate overdrafts. The reason is that only positive values of overdrafts are reported, so that the total of all overdrafts does not correspond to the difference between *total credit used* (1,685 million lire) and *total credit granted* (1,710 million lire), which is actually negative in the example. The reason is that for self-liquidating debt the company has used only 100 million lire out of the 200 million granted.

In case of a borrower that is already indebted with the bank, the PCR automatically sends the borrower's aggregate position with respect to the entire banking system. The information is similar as in the report for a new applicant, as shown by Panel B of Figure 2. Note, however, that the lower panel reports the position of the *group*, rather than of the *bank*. The two would be the same only if the bank was not part of a conglomerate, so that the information contained in the report can be used by conglomerates to check the aggregate exposure with respect to single borrowers. In the example the company has drawn 5,273 millions out of a total credit granted of 7,439. However, it has overdrafts for 152 million lire (110 in fixed maturity loans, 37 in callable loans and 5 in personal guarantees).

The item *protracted overdraft* defines overdrafts for periods of over 6 months (for instance, an installment is due for over 6 months). The final stage of insolvency is *non-performing loans*. In Italy these are at the discretion of the bank and indicate loans that are

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<sup>4</sup> Austria is an exception, since its banks receive data on all borrowers, even if they have not lent to them nor received a credit application from them.

considered to be non-recoverable by the bank's managers. In case the PCR reports an insolvency that exceeds the reporting threshold, all banks with which the borrower has relations are quickly alerted and immediate actions are usually taken, such as closure of lines of credit or debt restructuring.

Table 2 sets forth the main characteristics of PCRs in Europe, based on a questionnaire submitted to the central banks and on public national sources (the questionnaire is reported in Annex 5). Seven European countries operate a PCR (Austria, Belgium, France, Germany, Italy, Spain and Portugal). The oldest registers are in Germany (1934), Finland (1961) and Italy (1964). The European PCRs share several common features: compulsory participation, confidentiality, privacy protection, a reporting threshold for loan information, and a computer-intensive technology.

## INSERT TABLE 2

Participation is *compulsory* for all financial institutions under the supervision of the central bank, and sometimes it extends to finance companies, credit card companies, and insurance companies. The rules governing a PCR are rigidly imposed by regulation, rather than contracted among participants as in credit bureaus. The compulsory nature of participation is the key difference with respect to private credit bureaus. A consequence of this compulsory nature is that PCRs have universal coverage of the financial institutions of a given country. By contrast, credit bureaus are less complete in coverage of financial institutions but offer details on individual loans and merge credit data with other data from other sources, such as courts, public leasing and property registers, tax authorities, etc.

PCRs invariably operate under the principles of *confidentiality* for participating institutions and *privacy protection* for individual borrowers. Participating institutions are assured that the data they provide will be disseminated only in aggregate form, only to other credit institutions and for the purpose of credit granting. Individual borrowers are entitled by privacy protection laws to inspect and correct their files in the PCR.

Though universal in their coverage of lending institutions, PCRs do not collect data on all loans. Data are reported only above a specified *threshold value*. Despite its large variation across European countries, in most countries the threshold is sufficiently high as to cut off data on household lending and in some countries even on small business loans. A further reason why PCRs do not convey information on household indebtedness is that finance and credit card companies, which major suppliers of household credit, are generally outside the supervision of the central bank and therefore exempted from reporting duties. In two countries where also household credit is covered (Belgium and France), this is done via a separate, specialized PCR, which reports only negative information.

Currently, European PCRs rely very heavily on *computer intensive technology*, sophisticated software and direct electronic connections to manage the two-way flow of information from and to participating institutions. This explains why they require a modest amount of labor, between 10 and 60 employees as of 1990 (10 in the Belgian PCR for households, 30 in the Belgian PCR for companies, about 60 in France, about 10 in the Spanish PCR).

An accessory, but nevertheless important, function of PCRs is their use for supervisory purposes by the central bank. Their data can always be accessed in full detail for banking surveillance. In European countries, the PCR provides the statistical basis to provide supervisory authorities with an up-to-date overview of large borrowers' or banks' exposures. The data of the PCR can be crucial in case of imminent insolvency by borrowers, insofar as it allows the supervisory authorities need to assess the overall exposure of banks' or of that of an individual bank to a particular borrower or borrowers in a particular country.<sup>5</sup> In some countries that do not feature a PCR, data on bank loans are nevertheless collected for the exclusive use of supervising authorities.<sup>6</sup> The surveillance role of PCRs explains also why in some countries the information to be reported is not limited to credit data. For instance, German banks must reports the equity stakes they own in their borrowers' capital when these exceed 25 percent.

Table 2 shows that the types of data that lenders must report to the PCR vary considerably across countries. For instance, in Italy lenders are required to report data on defaults, arrears, loan exposure, and guarantees. In Germany, only loan exposure and guarantees are reported. In Belgium, only defaults and arrears.

The main differences between European PCRs concerns the reporting threshold, the type of information collected, the design of the memory system. Even though PCRs invariably specify a *reporting threshold*, this varies considerably across countries. At one extreme, in Germany and Austria the threshold is so high that these PCRs focus effectively on very large borrowers. This interest for the behavior of large borrowers is confirmed by the fact that the German PCR consolidates loans by company groups, not only individual borrowers. This is an increasing concern also in other countries, such as Italy, whose industrial sector is dominated by groups, controlled by a financial holding, even in the sector of small and medium size firms. At the other extreme, in Portugal the low reporting threshold implies that the Portuguese PCR effectively covers also loans to many households. This also happens in Belgium and France, owing to the existence of PCRs specialized in consumer debt.

Clearly, the higher the threshold set by regulators, the fewer the borrowers covered and the credit reports issued, as we see in Table 2. The threshold also demarcates the segment in which private credit bureaus operate without competition from the PCR: above the threshold, credit bureaus have to take into account that lenders can also turn to the public register's reports.

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<sup>5</sup> European Banking Directives mandate banks to disclose once a year large exposures exceeding a specified percentage of the lending institution's liable capital. This has been enforced in EU countries by national regulations: for instance in Germany lenders are required to report exposures above 10% (after January 1, 1999, previously 15%). However, given the large liable capital of the major German banks, this "large exposure clause" is rarely triggered: German banks file virtually no large exposure reports.

<sup>6</sup> For instance, in Greece, where a PCR as defined in this paper does not exist, banks must still report loans, arrears and defaulted loans in excess of Greek Dracmas (GRD) 1 billion (about USD 3.3 million) to the Bank of Greece for supervisory purposes. All banks established in Greece, including branches of foreign banks, file the report to the Supervision Department every 6 months. The reports include credit lines used, collateral and non-performing loans. The system can aggregate loans per debtor, but the information can be used only as a prudential supervision tool and cannot be transmitted in any way to the banks or any other party.

Another important difference concerns *the type of information collected*. In several cases, both positive and negative information is collected about firms, with the exception of Germany and Austria, where only positive information (loan data) is reported. In Portugal only negative information is collected (on defaults and arrears). The only two household credit registers (Belgium and France) collect only negative information.

The detailed description of the individual country experiences also brings out interesting distinctive national features in the *design of the memory of the system*. As we report in the Appendix, in Belgium, the memory of the household PCR is proportional to borrowers' misconduct: defaults are kept a longer time than arrears in the database, which witnesses the disciplinary role of the PCR. In all cases, the PCR eventually "forgets": this feature may reflect a concern to offer a "second chance" to defaulting debtors, which may be justified not only on equity grounds but also for economic efficiency. A PCR with infinite memory would eliminate all incentives that defaulted debtors may still have to undertake new projects or even take regular employment, and ex ante would make people extremely wary of taking any debt, for fear of defaulting.

In Italy, the design of the memory of the PCR is equally interesting, but for a totally different reason. The system provides each lender with a complete picture of its existing borrowers (irrespective of the dates of their loans), but only one-year information on new credit applicants. This reflects a concern that by giving access to information about their respective borrowers, PCRs may foster excessive competition between lenders. The system memory allows lenders to monitor their own borrowers, but at the same time discourages them from using the PCR's data as a tool to penetrate other banks' market areas.

### *3.2. Towards a European public credit register?*

The growing integration of national credit markets within the European Union poses several problems to European PCRs. As of mid-1999, PCRs are strongly if not exclusively oriented to their respective domestic markets. For instance, Italian banks are required to report to the Italian PCR loans made by their foreign branches. But these loans are not reported to the host-country PCRs. Similarly, Italian companies can borrow abroad without being reported to the Italian PCR. The integration of capital markets thus implies that PCRs are losing the capacity to provide full, accurate and reliable information on the overall indebtedness of a company.

The efforts made by the EU commission in the past to set up an international credit reporting system have not met with success so far owing to the differences between systems which are already in place in the individual countries and the fact that countries without a central credit register are unwilling to set up a credit reporting system at the national level. As a first step towards closer cooperation, existing PCRs therefore agreed on a cross-border exchange of information on the indebtedness of borrowers in specific cases. However, to this date such information can be used only for prudential purposes. To enable commercial banks to obtain information on their customers' borrowing abroad, PCRs currently plan to extend existing cooperation and in the future provide commercial banks with access to the information stored at other PCRs.

As all EU countries have not met the legal requirements for this exchange of information, and since technical and organizational procedures have not been solved, it is not possible to say when this cooperation will become effective. In the longer run, it is quite possible that national PCRs will be gradually displaced by the growth of private, transnational private credit bureaus. Since only seven EU countries have PCRs and even they have found it difficult to agree on a common set of rules, this outcome seems more likely.<sup>7</sup>

#### *4. What can we learn from the European experience?*

In this section we try to extract from the European experience with credit information systems some lessons of general value, some of which may be helpful to countries still in the process of designing their own systems. However, we do not have the pretense of being exhaustive in highlighting the “lessons” that can be drawn from the recent European experience in this area.

##### *4.1. Privacy protection can limit the exchange of information*

An important element that has historically affected the development of credit bureaus in Europe and elsewhere is the degree of privacy protection accorded to prospective borrowers. The activities of credit bureaus are regulated almost everywhere so as to prevent violation of privacy. Privacy laws contemplate a wide range of consumer guarantees, such as limits on the access to files by potential users, bans on white information, compulsory elimination of individual files after a set time, bans on gathering certain kinds of information (race, religion, political views, etc.) and right to access, check and correct one’s own file.<sup>8</sup>

As far as access limits are concerned, there can be several levels of privacy protection. In a low-protection regime, anyone can access all debtors’ data regardless of the purpose of investigation. In intermediate cases, data can be accessed only for admissible purposes, for instance for the granting of credit, regardless of the consumer consent. In a high-protection regime, there can be the further requirement of the borrower’s explicit consent before accessing his file. This principle is enshrined in the legislation of several European countries and in the Directive 95/46 of the European Parliament on “the protection of individuals with regard to the processing of personal data and on the free movement of such data”.

The EU directive imposes significant restrictions on data collection, processing, dissemination and storage activities, not only within Europe, but also throughout the world if the data originate in a member state or concern a European national. Europe was the site of the first national privacy legislation, beginning with Sweden in 1973, and today virtually all European countries have broad privacy or data protection statutes. With the data protection

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<sup>7</sup> In fact, it may be already occurring: in October 1998, the main Italian credit bureau (CRIF) announced a link-up with other European credit bureaus.

<sup>8</sup> Cate (1998), who contrasts in great detail the European and US experiences in terms of privacy protection.

directive, which has taken effect on October 5, 1998, data protection law has become significantly stronger.

The directive requires each of the EU member states to enact laws governing the “processing of personal data”, which the directive defines as “any operation or set of operations”, whether or not automated, including but not limited to “collection, recording, organization, storage, adaptation or alteration, retrieval, consultation, use, disclosure by transmission, dissemination or otherwise making available, alignment or combination, blocking, erasure or destruction.” Personal data are defined equally broadly as “any information relating to an identified or identifiable natural person.”

Personal data may be used only for the legitimate purposes for which they were collected, and kept in a form that does not permit identification of individuals longer than is necessary for that purpose. Personal data may be processed only with the consent of the data subject, when legally required, or to protect the public interest. The directive requires member states to enact laws guaranteeing individuals access to, and the opportunity to correct, processed information about them. At a minimum, those laws must permit data subjects to obtain, on request, confirmation of the existence of personal data relating to them, communication to them of such data in an intelligible form, an indication of their source, and general information on their use. National laws under the directive must also permit data subjects to correct, erase or block the transfer of inaccurate or incomplete data. Data processors must also inform persons from whom they intend to collect data. Finally, member states must enact laws prohibiting the transfer of personal data to non-member states that fail to ensure an adequate level of protection. Because of the difficulty of separating data collected within Europe from data collected elsewhere, the directive effectively requires multinational businesses to conform their data processing activities to European law.

It is important to notice that the EU directive creates a minimum common standard of privacy protection but in no way prevents individual EU countries from imposing more stringent provisions limiting the activity of credit bureaus and that of PCRs. This indeed is the case in several EU countries. As shown by the detailed description of the privacy protection regimes contained in Annex 3, in some countries (such as the United Kingdom) the EU Directive, when implemented, will set more stringent requirements than the actual regime. For instance, the Directive will introduce new, specific requirements for the processing of personal data (among them, consent and the requisite that the processing is necessary for specific, identified purposes). In other countries (such as Denmark, Finland, and France) the impact of the Directive will be less important, because these countries already follow privacy protection provisions that are at least as strict as the EU Directive.

One of the clearest example is France, where the privacy protection regime is so strict that it has effectively banned private credit bureaus out of existence, as witnessed by the empty line for France in Table 1. In France, not only people must be informed and express their consent in writing every time data about them are inserted in a database, but such consent must also be expressed in writing again each time a credit report is issued!

In Denmark and Finland, the legal regime is more stringent than the EU directive for different reasons: credit bureaus can only operate under public permission (in Finland only one bureaus is licensed) and they can collect and report only negative information (in Denmark

their data must satisfy also several additional restrictions). This contributes to explain the relatively low coverage of the population in these two countries: only bad risks are covered.

Other countries, such as Belgium, Germany, Italy and Spain are essentially in line with the EU directive, in that they require written consent for personal data treatment and entitle individuals with the right of inspection and correction. In these countries, lenders routinely obtain written consent by requiring credit seekers to sign standard forms as a prerequisite for access to credit.

The United Kingdom has instead traditionally set a lower standard of privacy protection than that now required by the EU directive, in that no prior written consent was required to collect information about actual or potential credit seekers. This may contribute to explain the comparatively high level of activity of British credit bureaus documented in Table 1 (which however is also accounted for by the lack of a PCR in the United Kingdom).

The United Kingdom's traditional regime resembles that of the United States, where in fact privacy protection is milder than in the EU directive. In the United States the Fair Credit Reporting Act of 1970, amended in 1996, states that credit reporting agencies may distribute individual credit reports either with the consumer's authority or for a legitimate business need in connection with a business transaction that is initiated by the consumer, or to review an account to determine whether the consumer continues to meet the terms of the account. Credit reporting agencies must follow reasonable procedures to assure maximum possible accuracy and correct errors on request. The act also prohibits dissemination of adverse information (such as bankruptcy) that is more than seven years old. One of the crucial differences between European and United States privacy laws is therefore the explicit consent of the debtor that is required in Europe to issue a credit report. As a result of the more stringent requirements of the EU Directive, American multinationals with operations in Europe fear that they will be unable to move data gathered in the EU to the United States.

#### *4.2. Information sharing originates from local lenders*

Fear of competition can inhibit information sharing. When lenders agree to supply data to a credit bureau they lose the monopoly power attached to exclusive customer information, unless they are well protected by other barriers to entry. So lenders' incentives to pool information are greatest when local credit markets are segmented by regulation. To see this most clearly, consider the hypothetical case of a country where most lending were provided by a single bank: such an institution would already have most of the credit data it might need at its disposal, and would be very reluctant to share its enormous database neither with any small existing lender, nor (a fortiori) with a potential entrant. Conversely, this explains why there has been a tendency for credit bureau to emerge spontaneously as associations of local, relatively small-sized lenders. These lenders have great benefits from receiving data from other banks, and don't pay the costs of increased competition in their markets.

Comparing the history of credit bureaus in European countries with that of the United States supports this argument. In the United States, the rules on branching traditionally limited competition between banks in different States, and as early as the 1920s lenders extensively

shared black as well as white information. Conversely, in Europe, where banks are free to compete nationwide, credit bureaus developed later and on a smaller scale. In the United Kingdom, banks were reluctant to share information with finance companies, whose customers are more concentrated geographically. Similarly, in Italy large banks with nationwide coverage were initially hesitant to join CRIF, Italy's main credit bureau at present. Small and medium-sized banks in Northeast Italy established CRIF in 1990. These banks had little to fear from one another's competition due to their highly localized market. Later, nationwide banks began to join, estimating that the benefits of membership would outweigh the cost of heightened competition.

#### *4.3. Forces pushing towards the consolidation of European credit bureaus*

Our questionnaires also elicit qualitative information on the structure and evolution of the credit bureau industry that is not reported in Table 1. Several European countries have just one large credit bureau (Austria, Denmark, Germany, Finland, and Ireland). In the United Kingdom competition is limited to two large vendors. This process of concentration is relatively recent. For instance, the United Kingdom began with 4 credit bureaus, then merging into two larger entities. This reflects economies of scale (the larger the credit bureau, the more complete and accurate its information), as well as recent advances in information technology and the elimination of barriers between local credit markets. In the early 1990s concentration began to extend beyond national boundaries: the top three US-based multinational bureaus (Equifax, Experian and Trans Union) acquired national credit bureaus throughout Europe (in Britain, Spain, Portugal, Germany and Italy). The European market is therefore evolving rapidly, essentially because of three convergent forces: technology, deregulation of the underlying credit markets, and growing integration of the national economies.

Technological improvement in the fields of telecommunications and information technology has two effects. First, it creates new distribution channels for credit bureaus products. Second, it reduces production costs due to the economies of scale typical of information technologies. This process parallels what we observe in the banking and financial industry, where the tendency is towards centralization of central services and data processing. It also parallels what has already taken place in the United States in the credit bureaus industry in the 1970s and 1980s. In the United States the industry began with hundreds of local credit bureaus, progressively merging into 3 large entities.

Germany and the United Kingdom are two good examples of these developments. In the early 1990s Bundes Schufa (the main German credit bureau) centralized the structures from the regional Schufa companies in a single center. Another example is Experian in the United Kingdom: the data center in Nottingham serves the credit bureaus that the company has in the United Kingdom and in other countries, like Italy.

Competition within the industry and technical progress are quickly producing a new system of European credit bureaus. The market has already developed from a system of regional credit bureaus to one of national systems. One can expect that in the next 5 to 10 years there will be a continental system of credit bureaus, with perhaps two or three large credit bureaus operating at the European level, just as in the US.

This process is not due merely to technological developments, however. The removal of national boundaries in credit markets and the growth of international trade within the European Union have also played a role. The European Banking Directives have opened national credit markets to competition from banks established in other member states, creating a level playing field for banking institutions of the whole Union. At the same time, the trade flows within the Union have greatly increased in the wake of the implementation of the internal market Directives. It is now increasingly common for firms to have their main product market in other countries of the European Union. This creates an increasing demand by banks and by firms for information on the solvency of actual and potential customers located abroad, and therefore faces national credit bureaus with the challenge of uncovering credit data from foreign sources.

Some large credit bureaus are attempting to solve the problem by buying out existing bureaus in other countries or by establishing their branches there. Others are trying to create a web of transnational alliances in order to resist this wave of consolidation. For instance, in October 1998, the main Italian credit bureau (CRIF) announced a link-up with other European credit bureaus. Its hope is that by creating two-way flow of information across independent national credit bureaus, these will be able to provide the same services of truly multinational entities without surrendering their independence. It is still to be seen if this strategy will be sufficient to deflect the competitive threat of truly multinational credit bureaus.

The process of consolidation in the industry will accelerate if deregulation in the consumer credit market will increase the volume of lending in Europe. In addition, the lifting of some of the more restrictive data protection national regulations will encourage the entry of foreign credit bureaus. As explained above, the EU directive sets a minimum, not a maximum level of protection within Europe. Entry may also be enhanced to the extent that deregulation and competition in the telecommunication industry reduces the cost of internet access for households, which is likely to be the main vehicle for the future development of the consumer credit industry in Europe.

## **5. Conclusions**

In many European countries lenders communicate data concerning their customers' creditworthiness to one another or can access databases that help them assess credit applicants. However, the type, quality, and quantity of data available vary greatly, and so do the information-sharing mechanisms. Often lenders agree to exchange of information spontaneously, via information brokers such as credit bureaus. In other cases they are obliged to do so by the authorities via public credit registers.

In this paper, we have systematically documented private and public information-sharing arrangements in Europe. We have also attempted to draw from the European experience some lessons that may be of some use to countries in the process of developing their credit information systems. One lesson is that privacy protection laws can greatly limit the amount and the type of information shared between lenders. A second important insight is that credit bureaus are more needed and more frequently created where lending is localized, rather than provided by institutions with nationwide coverage.

Lastly, we have argued that powerful forces are pushing towards consolidation of the credit bureaus industry. While these forces are partly inherent in the industry's technology, in Europe they are compounded by the increasing financial and output market integration of the region. This is posing a competitive threat to the private credit bureaus that so far prospered within national boundaries and is gradually reducing the usefulness of the public credit registers of each State. The course of events will impose them either to consolidate or else to establish interconnections between their databases. This may entail considerable transition costs, which for PCRs are likely to be compounded by political attrition. This suggests that countries that are just designing their credit information systems are well advised to make their design compatible for future integration with those of their main commercial partners.

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## **FIGURE 1**

### **EXAMPLE OF A CREDIT REPORT ISSUED BY A CREDIT BUREAU**

#### **(CRIF – Centrale Rischio Finanziaria)**

Data on a company or on an individual can be requested to CRIF by the members of the credit bureau when the following conditions are met:

1. The company or the individual has applied for credit or when the company or the individual is currently engaged in a credit relation with the member institution.
2. The company or the individual has regularly authorized to transfer his file to CRIF and approved future data treatment by CRIF.

It follows that a member of the CRIF credit bureau can access CRIF data only:

1. To control and forecast insolvency.
2. After complying with Law 675/96 (the Italian Privacy Law).

CRIF credit reports are organized in three different levels of detail. They allow CRIF members to study the credit history of the individual or the company in successive steps. The first stage provides aggregate information about the debt situation of the subject on which the request for credit report has been filed. The second stage report provides aggregate data on specific types of loans (for instance, installment loans). The third stage report provides disaggregate information on individual loans.

## FIGURE 1 - continued

### PANEL A: First Stage Information (General Summary)

Tax ID	002138975601	VAT ID	002138975601		
NAME	ROSSI SNC				
ADDRESS	VIA FASSI,20				
ZIP CODE	41012				
CITY	CARPI				
PROVINCE	MODENA				
COUNTRY	ITALY				
----- Operation stage -----					
	RC/IS	RF	RN	AC	EA/ES
_ INSTALLMENTS	:	3			2   1
_ NON INSTALLMENTS	:				
_ CARDS	:				
Number of institutions reporting data				:5	
Of which report non-performing loans				:	
Of which report defaults				:	
Negative events on the subject				:	

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The first part of this report gives basic information about the credit applicant: Tax ID, VAT ID, and the legal address. The second part of the report summarizes the credit history of the firm. In particular, one can read the number of loans in the credit bureau file. Each loan is classified by operation stage and type of loan.

The operation stage of the loan are classified as: application (*RC*), under review (*IS*), denied (*RF*), withdrawn (*RN*), active (*AC*), extinguished (*ES*), extinguished before terms (*EA*).

The types of loans recorded by CRIF are classified in 3 sections:

1. *Installment loans* (for instance, personal loans, mortgage loans, and leasing).
2. *Non installment loans* (for instance, lines of credit, and factoring).
3. *Cards* (for instance, revolving credit, and credit cards).

In the example the company has applied for 3 installment loans, currently has 2 installment loans, and 1 installment loan has been paid off. The summary report contains also other information: number of financial institutions that have reported data on the subject (5 in the example), number of financial institutions that report that the subject has arrears or has defaulted (none in the example), and the presence of other negative events (such as if the subject has been classified as non performing or defaulted). From the summary report the client can access the second information level for the section on which he is interested (installment, non-installments, and cards).

## FIGURE 1 - continued

### PANEL B: Second Stage Information (Section on Installment Loans)

-----<< SUMMARY SECTION ON INSTALMENT LOANS >>-----				
<< Number of operations considered 2 >>				
Monthly installments		R + C : 3.000		G :
Residual installments		R + C : 60.000		G :
Installments due and not paid		R + C : 1.000		G :
-----<< LIST OF OPERATIONS >>-----				
S	Type of loan	Operation stage	Role	Loan granted
_	LS	AC	R	05 /08 / 1998
_	LA	AC	R	01 /06 / 1998
_	MG	ES	R	01 /02 / 1986
_ List of not completed operations				

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This example of second stage credit report shows summary information on installment loans. The first part under the title “Summary section on installment loans” reports aggregate values relative to total installment loans granted. The values are

- *Amount of monthly installments.* This shows the total monthly burden of the debtor for current installment loans. The amount is divided between installments in which the firm appears as applicant (*R+C*) and installments for loans in which the firm is a guarantor (*G*). In the example the firm has total monthly obligations for installment loans, as direct applicant (*R*), of 3 million lire.
- *Amount of residual installments.* This shows the residual debt on current installment loans. The residual debt is shown separately for the case in which the firm is the direct applicant (*R+C*) or the guarantor (*G*). In the example the firm has a residual debt of 60 million lire as direct applicant (*R*).
- *Amount of installment in arrears.* This shows the total amount of unpaid installments on all installment loans (either on current installment loans or on extinguished installment loans). The amount is shown separately for arrears in which the firm appears as applicant (*R+C*) and arrears in which the firm is a guarantor (*G*). In the example the firm has total arrears, as direct applicant (*R*), of 1 million lire.

The second part of the report (under the title “List of Operations”) reports the type of loans granted (current loans or extinguished loans) and some information on each of these loans. In the example there is information on 3 loans:

- Instrumental leasing (*loan type LS*); the loan is not extinguished (*operation stage AC*); the firm has applied for the loan (*role R*); the loan was granted on 05/08/1998.
- Car leasing (*loan type LA*); the loan is not extinguished (*operation stage AC*); the firm has applied for the loan (*role R*); the loan was granted on 01/06/1998.
- Aided loan (*loan type MG*), the loan is extinguished (*operation stage ES*); the firm had applied for the loan (*role R*); the loan was granted on 01/02/1986.

By clicking *S* next to each operation (*LS*, *LA*, *LG*) one can access information about each single loan. Clicking *S* next to “List of not concluded operations” one can further access information on current applications, withdrawal from credit by the firm and loan denials by members of the credit bureaus.

## FIGURE 1 - continued

### PANEL C: Third Stage Information (Details on Single Operations)

-- N. 001		Current Operation out of 003 -	
Role	R	!Number of residual installments	11
Operation stage	AC	!Amount of residual installments	11.000
Type of loan	LS	!Last payment	05/02/1999
Starting on	05/08/1998	!N. of installment due and unpaid	1
Ending on	05/02/2000	!Amount due and unpaid	1.000
Last update	08/04/1999	!-----	
Payment	AD	!Max 1 For 1	00000000001
Personal / real guarantees	/	!State	
N. of inst. and period	18 M	!Role and CRIF links	
1 installment due	1.000	!G	300002635
Monthly installment	1.000	!	

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The report contains details on the first loan of the second stage report. In the example:

- *Role*: indicates if the firm has applied for credit or if the firm was a guarantor. In the example it has applied directly (*R*).
- *Operation stage*: indicates the stage of the operation. In the example the loan is active (*AC*).
- *Starting on* and *Ending on* indicate the day of start and end of the operation.
- *Last update*: indicates the day of the last update of the information contained in the report.
- *Payment*: indicates how the firm will pay the installments to the financial institutions. In this case payment is by order through the checking account (*AD*).
- *Personal / real guarantees* indicates if the firm has provided real or personal guarantees for the loan. In this case there are none.
- *N° of installment and period*: indicates the total number of installments and when they are due. In the example there are 18 monthly (*M*) installments.
- *1 installment due*: indicates the amount of the next due installment as of the last update. In the example the installment is 1 million lire.
- *Monthly installment*: indicates the value of the average monthly installment. In the example it is 1 million lire.
- *Number of residual installments*: indicates the number of installments as of the last update. In the example the number of residual installments is 11.
- *Amount of residual installments*: indicates the total amount of the residual installments due. In the example it is 11 million lire.
- *Last payment*: indicates the day of the last payment. In the example it was 05/02/1999.
- *Number of installments due and unpaid*: indicates the total number of installments due and unpaid. In the example there is 1 installment due and unpaid.
- *Amount due and unpaid*: indicates the amount of the installment due and unpaid. In the example it is 1 million lire.
- *Max...For ...*: the number next to “Max” indicates the maximum number of insolvency that has been notified during the life of the contract. The number next to “For” indicates for how many months the firm was insolvent. In the example the maximum number of insolvency is 1, and the number of months is 1.

- The 12 numbers that follow Max / For show the insolvency profile in the last 12 months. The number on the far right indicates that the firm has not paid 1 installment as of the last update. The sequence of 0 before the 1 shows that in the 11 months before the last update there was no insolvency.
- *State*: refers to the state of the loan process (under judicial dispute, non-performing, defaulted). In the example this does not apply.

The last part of the report under the title “*Role and CRIF links*” shows the ID of subjects that have participated in various ways to the loan operation (form instance, guarantors). The example shows that a guarantor (*G*) is present in the operation. The third stage reports for the other two loan types (non-installment, cards) shown in the second stage report contain similar information.

## PANEL D: Third Stage Information (Details on Operations not Concluded)

--<< Summary of installment section / Operations not concluded >>

Type	Stage	Role	Date	Inst.	Prd.	Amount.	Other	Role
MI	RC	R	29/04/1999	120	M	100.000	600003470	G
LI	RF	R	18/04/1999	120	M	150.000	600003470	G
MI	RF	R	01/04/1999	120	M	200.000	600003470	G

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The third stage report shows details on operations non concluded (under approval, firm withdrawn, or credit denial). It is available separately for installment loans, non installment loans, and cards. For each operation it is indicated:

- *Type*: Type of loan.
- *Stage*: indicates the stage of the loan: under approval, withdrawn, denied. In the example the first operation is under approval (*RC*), and the other two have been denied (*RF*).
- *Role*: if the subject is involved as applicant or as guarantor. In the example in all three operations the firm has applied for credit directly (*R*).
- *Date*: refers to the date of the loan application. In the example the firm has made three applications in April of 1999.
- *Inst.* : the number of installment loans in the loan application. In the example it is 120 for each loan.
- *Prd*: indicates when the installments are due. In the example they are due each month (*M*).
- *Amount*: indicates the amount of the application. In the example the firm has applied for three loans of 100 millions, 150 millions, and 200 millions.
- *Other*: indicates the presence of other subjects in the operation. In the example the same subject appears in all 3 operations (the CRIF ID is 600003470).
- *Role*: indicates in what capacity other subjects are involved in the operation. In the example the subject is a guarantor (*G*) in all 3 operations.

**FIGURE 2**  
**EXAMPLE OF A CREDIT REPORT BY A PUBLIC CREDIT REGISTER**

**PANEL A: Report a new credit applicant**

ID	
Name	Rossi Inc.
Period	07-1999
Number of lenders	6
New lenders in the period	1
Lenders not giving information in the period	0

	Lender			System		
	Granted	Used	Over draft	Granted	Used	Over draft
Self-liquidating debt	0	0	0	200	100	0
Fixed maturity loans	0	0	0	550	600	50
Callable loans	0	0	0	160	180	20
Personal guarantees	0	0	0	800	805	5
Protracted overdrafts	0	0	0	0	0	0
Non-performing loans	0	0	0	0	0	0
<b>Total</b>				1710	1685	75
Borrowers' guarantees	0	0	0	300	300	0

In the upper panel, the *period* refers to April 1999 (the Italian PCR collects information on a monthly basis). The *number of lenders* is the number of financial institutions reporting information (6 in the example). *New lenders in the period* is the number of lenders that have reported information in July 1999 (1 in the example). *Lenders not giving information in the period* is the number of lenders that do not report information in July 1999 (0 in the example), for instance because the company has repaid its debt or because the loan granted falls below the reporting threshold (150 million lire).

In the lower panel, *Lender* refers to the bank that is requesting information on the Rossi company, while *System* refers to the aggregate position of the company relative to all participating institutions. The report classifies loans in *Self-liquidating debt*, *Fixed maturity loans* and *Callable loans*, and also gives information on *Personal guarantees*. *Protracted overdrafts* are overdrafts for a period of over 6 months (for instance, the borrower has not paid on installment for over 6 months). *Non-performing loans* are at the discretion of the bank and indicate loans that are considered to be non-recoverable. These last two items are reported regardless of loan category.

The columns of the table distinguish between *Credit granted* and *Credit used*. *Overdraft* is the difference between the two if positive. A positive value signals that the borrower has not met his obligations (for instance, has not paid one installment of fixed maturity loans, or has exceeded his line of credit). In the example Rossi Inc. has fixed maturity loans for 550 million lire, but has used 600 million lire. This implies an overdraft of 50 million lire with at least one lender (a situation in which Rossi Inc. has overdrafts with more than one lender would be indistinguishable). The total overdraft is the sum of the corresponding column. It does not correspond to the difference between total credit used (1685) and total credit granted (1710). In fact, for self-liquidating debt the borrower has used only 100 million lire out of the 200 granted.

## FIGURE 2 – Continued

### PANEL B: Return information on an existing borrower

ID	
Name	Bianchi Inc.
Period	07-1999
Number of lenders	8
New lenders in the period	0
Lenders not giving information in the period	0

	Group			System		
	Granted	Used	Over draft	Granted	Used	Over draft
Self-liquidating debt	0	0	0	3100	1324	0
Fixed maturity loans	777	887	110	777	887	110
Callable loans	0	0	0	2300	1795	37
Personal guarantees	0	0	0	1262	1267	5
Protracted overdrafts	0	0	0	0	0	0
Non-performing loans	0	0	0	0	0	0
<b>Total</b>				7439	5273	152
Borrowers' guarantees	0	0	0	238	400	0

This credit report provides an example of the flow of return information that the Italian PCR sends monthly to each lender for each of its clients. The information is similar as in the report for a new applicant. However, there are two important differences. First, the lower panel reports the position of the *Group*, rather than of the *Bank*. The two would be the same only if the bank was not part of a group. Second, the first three columns of the lower panel are not blank, i.e. the group has extended fixed maturity loans for 777 million lire to Bianchi Inc. The aggregate values in the *System* include also the group, so that the same amount of fixed maturity loans are reported also in the last three columns of the lower panel. In the example Bianchi Inc. has used credit for 5273 million lire out of a total granted of 7439 million lire. However, it has overdrafts for 152 million lire (110 million in fixed maturity loans, 37 in callable loans and 5 in personal guarantees).

**TABLE 1**  
**Private Credit Bureaus in Europe**

Figures about credit bureaus are based on a questionnaire sent to the main credit bureaus in each country, whose names are not reported for reasons of confidentiality. When two or more credit bureaus responded for the same country, the information was merged as follows. The starting date refers to the oldest credit bureau in the country. In France, Greece and Turkey no credit bureau is reported to operate in 1998. The type of information shared refers to the 1990s and is defined as “black” (B) if it refers to defaults and arrears, and “white” (W) if it also includes other information, such as debt exposure. Coverage refers to the number of households for which the largest credit bureaus interviewed in that country have data. This approximately measures the coverage of the whole industry in the country, either because the credit bureau interviewed is the dominant one or because the coverage of the main national credit bureaus tends to coincide. Credit reports are the number of credit reports issued by all the credit bureaus in the country (if available); otherwise, by the credit bureaus responding in that country.

<b>Country</b>	<b>Starting Date</b>	<b>Type of Information Shared</b>	<b>Coverage, Level / Percent of Population (year)</b>	<b>Credit Reports, Level / Percent of Population (year)</b>
Austria	N./A.	B-W	N./A.	N./A.
Belgium	1987	B	0.8 / 7.9 (1998)	10.6 / 104.8 (1998)
Denmark	1971	B	0.2 / 4.7 (1996)	2.6 / 50.3 (1996)
Finland	1961	B	0.2 / 4.3 (1990)	3.5 / 70.2 (1990)
France	None			
Germany	1927	B-W	48.0 / 59.1 (1996)	48.0 / 59.1 (1996)
Greece	None			
Ireland	1963	B-W	2.8 / 78.6 (1996)	0.8 / 22.5 (1996)
Italy	1990	B-W	9.5 / 16.6 (1997)	2.6 / 4.6 (1996)
Netherlands	1965	B-W	5.0 / 32.7 (1996)	9.8 / 64.1 (1996)
Norway	1987	B	N./A.	0.5 / 12 (1990)
Portugal	1996	B-W	N./A.	N./A.
Spain	1994	B	N./A.	N./A.
Sweden	1890s	B-W	6.0 / 68.6 (1996)	2.2 / 26.0 (1990)
Switzerland	1945	B-W	0.5 / 7.6 (1997)	1.7 / 24.1 (1997)
Turkey	none			
United Kingdom	1960s	B-W	N./A.	60.0 / 104.8 (1989)

**TABLE 2****Public Credit Registers in Europe**

Figures about public credit registers are based on a questionnaire sent to central banks. The data reported to the register are defaulted loans (D), arrears (A), total loan exposure (L) and guarantees (G). The exchange rates used to convert the minimum reporting threshold into dollars are those of September 1, 1998.

<b>Country</b>	<b>Starting Date</b>	<b>Number of Subjects Covered</b>	<b>Credit Reports Issued</b>	<b>Minimum Reporting Threshold (US\$)</b>	<b>Data Reported by Participating Institutions</b>	<b>Return Flow to Participating Institutions</b>
Austria	1986	58,111 (1999)	11,901 (1999)	430,700	L, G	L, G
Belgium	1985	360,000 households (1997), 400,000 firms (1990)	3,550,000 for households (1997)	223 for households, 27,950 for firms	D, A for firms D, A, L for households	D, A for firms D, A, L for households
Finland	1961	213,000 (1991)	3,500,000 (1990)	0	D, A	D, A
France	1989 for households, 1984 for firms	370,000 (1990)	5,400,000 (1990)	118,293 (1990)	D, A for households, L, G, undrawn credit facilities for firms	D, A for households, L, G, undrawn credit facilities for firms
Germany	1934	1,200,000	1,800,000	1,699,800	L, G	L, G
Italy	1964	2,200,000 (1994), 6,536,914 (1998)	1,400,000 (1994)	86,010 (all non-performing and insolvent loans)	D, A, L, G	D, A, L, G
Portugal	1977	2,400,000	N/A	5	D, A, G	D, A, G
Spain	1983	4,600,000 (1991)	758,000 (1997)	6,720 for residents, 336,000 for non-residents	D, A, L, G, region, sector and currency risk	D, A, L, G, region, sector and currency risk

**TABLE 3****Characteristics of Public Credit Registers in Europe**

<b>Country</b>	<b>Participating institutions</b>	<b>Access by participating institutions</b>	<b>Sanctions and fees</b>
Austria	Financial institutions, insurance, leasing and factoring companies and their foreign subsidiaries	Fixed intervals and upon request.  Unrestricted access.	Civil and criminal sanctions.  No fees.
Belgium	National credit institutions and their foreign subsidiaries	Fixed intervals and upon request. Access to data about own borrowers and new credit applicants.	Administrative and criminal sanctions.  Fees exist.
France	National credit institutions and foreign branches; leasing and factoring companies	Fixed intervals and upon request. Access to data about own borrowers and new credit applicants.	Administrative, civil and criminal sanctions.  Fees for statistical consultation via Minitel.
Germany	National credit institutions and their foreign subsidiaries; national insurance companies	Fixed intervals and upon request. Access to data about own borrowers and new credit applicants.	Administrative, civil and criminal sanctions.  No fees.
Italy	National credit institutions and their foreign subsidiaries, national branches of foreign banks	Fixed intervals and upon request. Access to data about own borrowers and new credit applicants.	Administrative sanctions.  Fees for data requests about new credit applicants.
Portugal	National credit institutions and national branches of foreign banks; leasing, factoring and credit card companies	Fixed intervals and upon request. Access to data about own borrowers and new credit applicants.	Administrative and criminal sanctions.  No fees.
Spain	National credit institutions and national branches of foreign banks; leasing and factoring companies	Fixed intervals and upon request. Access to data about own borrowers and new credit applicants.	Administrative sanctions.  No fees.

## **ANNEX 1**

### **Description of Private Credit Bureaus in Europe**

Here we describe the main features of European credit bureaus - in particular, the type of information collected and the main companies operating in each country.

#### **Austria**

The largest credit bureau in the Austrian market is KSV, which manages both positive and negative information.

#### **Belgium**

The UPC-BVK Association offers credit bureaus services managing a database of negative information only.

#### **Denmark**

The credit bureau activity is mainly carried out by RKI, which started operating in 1971. It provides information on consumers and business and manage a database on negative information deriving mainly from each member entity and the official Danish Gazette and from the Central Register of Business Enterprises and Establishments. No public credit registry exists in Denmark.

#### **Finland**

Finland features a unique example of a public credit register that is managed by a private institution (Suomen Asiakastieto, or Finska). Finska, established in 1961, operates under permission defined in the legislation. The first credit register was established in Finland at the beginning of the century. Currently, Finska is a credit information agency owned by Finnish industry and commerce (over 1,000 owners). It offers basic credit reports based only on negative information (defaulted debt or arrears). Financial intermediaries are not required to supply data to Finska.

#### **France**

Until a few years ago there was a credit bureaus with only negative information managed by the French Association of Financial Companies. Today, there is only the Banque de France that manages databases for consumers and firms containing only negative information.

## **Germany**

The credit bureau leader in Germany is Bundes Schufa, established in 1927. Schufa is owned by a consortium of lenders, and manages both positive and negative information. There are two forms voluntary participation: one supplies both positive and negative information; the other gives and receives only negative information. The negative data are those on delinquencies, which are notified to all credit bureaus members having credit relations with the borrower. Positive data are those on credit outstanding.

When a new credit is granted, the institution reports the size of the credit, the amount disbursed and the maturity. The data feedback involves a report to all participating institutions with which the consumer has outstanding loans when the credit is initiated. Subsequently, if repayment is regular, no further report is made either by the lender or by Schufa to its members. This is typical of European credit bureaus reporting positive information, and as a result the amount of positive information is not as detailed as in the US, where banks and financial institutions report to the credit bureaus their entire account receivables, which contains also all payment records. In the last two years both Experian and Informa - which serves mail orders companies - have tried to set up a credit bureau in Germany.

## **Greece**

Greece is lagging behind other European countries in terms of information sharing arrangements. Currently there is a financial database of few selected items of borrowers conduct, with emphasis on entrepreneurs facing liquidity problems, arrears, court orders against enterprises, companies under liquidation, etc. The system is operated by a private firm under the aegis of the Greek Banks' Association for the benefits of its members. In the future, the Association plans to establish a comprehensive centralization system for credit cards and consumer credits, the output of which will be distributed to the member banks.

## **Ireland**

The credit bureau absorbing over 100% of the consumer credit market and about 80% of the business market is the Irish Credit Bureau (ICB), in operation since 1963. The ICB manages both positive and negative information. It is owned by a group of banks and is a company run for profit.

## **Italy**

CRIF manages both positive and negative information for consumers and small business. Large banks with nationwide coverage were initially hesitant to join CRIF, Italy's main credit bureau at present. CRIF was established in 1990 by small and medium-sized banks in Emilia-Romagna and the Northeast, which had little to fear from one another's competition due to their highly localized market. Later, nationwide banks began to join, estimating that the benefits of membership would outweigh the cost of heightened competition. Today CRIF covers about 90% of Italian consumer credit and personal loan transactions and 10% of the business sector. In the early 1990s Experian launched another consumer credit bureau.

## **Netherlands**

Established in 1965, BKR is the nation's only credit bureau managing both positive and negative information. It is owned by a group of banks and finance houses and covers 100% of the domestic consumer credit market.

## **Portugal**

ASNEF-Equifax (a joint venture active in Spain between the association of Spanish financial institutions and Equifax) and ASFAC (association of Portuguese financial institutions) work together to manage a consumer credit report in Portugal. Both positive and negative information is collected.

## **Spain**

Currently the main credit bureau is the joint venture of ASNEF-Equifax, created in 1994 and handling only negative information. Experian and Trans Union, both US-based multinationals, have recently started two other initiatives.

## **Sweden**

There are two private credit bureaus in operation (Soliditet AB and UC). Both manage positive and negative information and issue reports for consumers and commercial reports for the business community.

Credit bureaus in Sweden have particularly good data sources. Credit bureaus can access many sources of data with a particularly high degree of accuracy: they can access district courts, county administrations, county division policy commissions, the Central Bureau of Statistics, the central data base for citizens, the national tax board, the national social insurance board, 3 central offices for composition and bankruptcy procedures and 3,500 bank offices. The total population over age 16 is covered in the database of the credit bureaus.

## **Switzerland**

Established in 1945, ZEK offers credit bureaus in Switzerland managing positive and negative information in the consumer credit sector. Since 1972 ZEK has been equipped with modern information technology. It is a non-profit organization run by a consortium of lenders and collects data from over 80 financial institutions specialized in consumer credit and leasing (institutions not dealing with consumer credit cannot be members).

## **Turkey**

In January of 1997 Experian has signed a technical partnership agreement with Kredit Kait Burosu (KKB) to establish the country first credit bureau. KKB was formed in 1995 by a consortium of Turkish banks to provide effective risk measurement and management as economic growth fueled consumer credit activity. Under the agreement the Turkish bureau will be managed locally by KKB.

## **United Kingdom**

In the United Kingdom the credit bureaus industry is well developed. Until 10 years ago there were 4 credit bureaus; today there are only 2 left. Both are part of multinational corporations based in the United States. Both Experian (ex-CCN) and Equifax manage positive and negative information. Equifax is the result of the acquisition of two companies: GRATTAN (credit reference division) and UAPT Infolink.

In the United Kingdom credit bureaus draw data from voters' registers, county judgments, and obtain bankruptcy details, demographic variables and default data from their members. They typically collect negative information, although a limited amount of white information on arrears and payment habits is collected.

## ANNEX 2

### Description of Public Credit Registers in Europe

Here we describe the institutional characteristics of European Public Credit Registers - in particular, the type of information collected, the minimum reporting threshold, and the number of credit reports issued.

#### Austria

The Austrian PCR, established in 1986 and operated by the Central Bank, in early 1998 covered more than 55,000 borrowers from about 1,600 lenders. All credit institutions, finance companies and insurance companies in Austria are required to report to the Central Bank loans in excess of Austrian Schillings 5 millions. Defaults are not reported, so the PCR only contains positive information.

As the other European PCRs, the Austrian PCR aggregates these data and returns them to the participating credit institutions, but in contrast to other PCRs each credit institutions is not restricted to receiving data about its own borrowers or credit applicants. They have access to the entire database. In 1997 the number of reports to credit institutions was over 10,000.

#### Belgium

Belgium has two public credit registers, one for firms and one for individuals. The PCR for firms contains positive and negative information, while that for individuals contains only negative information. We describe them in turn.

The Central Office for Credits to Enterprises has been in operation since 1967.<sup>9</sup> The management of credit-recording activity is given to the National Bank of Belgium. The reporting obligation is imposed on all credit institutions established in Belgium, and can be extended by royal decree to other financial institutions and to certain categories of insurance companies. In the case of credit granted to non-residents, there is a simplified reporting procedure whereby only credit granted must be reported.

The Central Office for Credits to Enterprises records for each debtor data about credit above 1 million Belgian Francs (BF), listing both the amounts granted and the amount drawn. The credit is described according to the type of credit (granted or drawn), the form of credit and the currency in which the credit was granted or drawn. For credit granted to a non-resident by a branch of a participating credit institution located abroad, the reporting threshold is 100 million BF. There is no requirement to report transactions to the Belgian State, to international institutions, and consumer credit and mortgage loans granted to individuals (the latter being recorded in the Central Office for Credits to Private Individuals).

After sending the information, participants are informed by an acknowledgment of receipt. Participating credit institutions may consult the data collected in two ways: (i) by

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<sup>9</sup> Its activities are currently regulated by Title VI of the law of 22 March 1993 on the status and supervision of credit institutions. Detailed rules on supplying of information and consultation are set out in the Royal Decree of 12 December 1994.

subscribing to the “automatic return”, a system periodically supplying credit institutions with a full credit position report about all the debtors of the institutions supplying data to the Central Office; (ii) by inquiring about the credit position of one or more debtors.

The Central Office for Credit to Private Individuals was established in 1985. It records defaults concerning installment contracts (sale, loan and personal installment loans). Since 1991, it also records consumer credit and leasing, and since 1992 mortgages. The register has four features: it reports only negative information, it has limited “memory”, it requires preliminary consultation by consumer credit grantors, and allows consumers to inspect and correct erroneous data.

Negative information must be reported on amount, number and due date of installments, amount of arrears, date of cancellation and due amount, date and amount of repayments. Arrears are defined as either three unpaid amounts, or payments that for three months have not been effected completely. Lenders must also report to the register all reimbursements. Before granting consumer credit it is *compulsory* to consult the register, while for mortgages it is optional. When a request is filed, the report by the Central Office will contain all the information concerning the person's identity and the loan contracts registered in his name (without mentioning the lenders' identities).

The PCR “memory” is designed in a very interesting fashion: borrowers who redeem their debt disappear more quickly from the register than borrowers for whom a repayment commitment continues to exist. In fact, in case of repayment of arrears the information is automatically removed after one year; in case of repayment of defaults it is removed only after 2 years. Irrespective of the type and status of the obligation, the database does not keep any registration for more than 10 years. So “punishment” is stricter for more serious misconduct (defaults are pushed more than arrears), but eventually there is forgiveness for everybody.

## France

Like Belgium, France has two distinct PCRs, one for firms - with both positive and negative information - and another for individual - with negative information only.

Reporting to the French PCR for firms (Central des Risques, part of the Direction des Entreprises of the Banque de France) has been compulsory since 1984 for all financial institutions operating in French territory, including leasing and factoring companies. Data on corporate groups are not reported. In contrast with other European PCRs, the French PCR for firms integrates the information received from credit institutions, with other information about firms and their managers, drawn from legal announcement bulletins, courts, and the financial press. The PCR had 1,3 million firms and 700,000 managers on file in 1990.

Participating institutions must report monthly credit drawn above French Francs (FF) 680,000. The threshold applies to credit extended by a single branch rather than by the bank as a whole. The choice to apply the threshold to the branch rather than to the bank as a whole is warranted by the tendency of French firms to seek credit from only one branch of the same bank. Reported loans are classified according to maturity and guarantees.

The Banque de France also keeps a PCR for individuals, which is a national file of personal loan delinquencies. All credit and financial institutions must report monthly delinquencies on installment purchase credit, leasing, personal loans, credit lines and overdrafts. Delinquencies are defined as follows. For installment loans they occur if the amount overdue exceeds the last installment due by three times. For credit without a regular repayment schedule, delinquency occurs if the debt is overdue for more than 90 days. For all other credit,

delinquency occurs when the lender starts a legal action. When repayment is made, the item is deleted from the file.

## **Germany**

The German PCR was established in 1934. According to section 14 of the Banking Act, all credit institutions in Germany, their branches and subsidiaries abroad, insurance companies, risk capital investment companies, own account dealers and factoring enterprises (after 1988), domestic and foreign credit institutions subordinated to a domestic parent credit institution (after 1995) are required to report data quarterly to the Deutsche Bundesbank. Data must be provided only for borrowers whose indebtedness exceeded Deutsche Mark (DM) 3 million (DM 1 million from 1948 to 1993) during the three calendar years before the reporting date. Other financial institutions are required to report only if they are controlled by an institution that is required to report. The report must only indicate the indebtedness (including short-term inter-bank lending and exposure to public credit institutions) at the end of the quarter. No information on collateral and non-performing loans must be provided. Banks must also report any holdings of more than 25% of their borrowers' equity.

Currently the PCR records 1,200,000 borrowers, of which 304,000 are active. In 1997 it issued 1,800,000 notifications to credit institutions. On the basis of the reports submitted on loans above DM 3 million, the PCR computes the total indebtedness of each borrower. Two or more persons or corporations are consolidated to form a single borrower unit if one can exercise a dominant influence on the other(s). This is the case for companies belonging to the same group or of majority owned enterprises. If a borrower has raised loans for DM 3 million or more from several lenders, the PCR is required to notify the lenders with exposure to this borrower. In order to maintain bank secrecy, the notifications to lenders contain only data on the total indebtedness of the borrower and the number of lenders involved, and not the names of other institutions that have extended credit to the same borrower. The notification is broken down by type of indebtedness (on-balance-sheet and off-balance-sheet transactions, derivatives, guarantees for derivatives, leasing/factoring claims, mortgage loans., publicly guaranteed loans, inter-bank lending).

Lenders who have reported loans of 3 DM million or more to foreign borrowers receive an additional list showing the number of lenders which have been reported exposure to debtors in the country concerned and the total amount of exposure. The aggregation of the indebtedness of all reportable borrowers of a particular country yields the total indebtedness of that country to German lenders and their foreign subsidiaries, making assessment of country risk more transparent.

Since January of 1998 participating institutions also have the option to obtain information on the level of debt of a potential borrower prior to granting the loan via an advance inquiry at the PCR if the envisaged loan amounts to 3 DM million or more and if the customer agrees to the inquiry.

## **Italy**

The Italian PCR (Centrale dei Rischi) was established in 1962 and became operative in 1964.<sup>10</sup> In several respects, the Italian PCR is the most complete and accurate service of this

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<sup>10</sup> It is currently regulated by Law 385 of September 1993 and by the directives of the Bank of Italy.

kind in Europe. Currently the PCR has almost 7 million records, and issues more than 12 million reports per year. Participation is compulsory for commercial banks and other financial institutions under the supervision of the Bank of Italy and for branches of foreign banks operating in Italy.

Currently all loans in the following categories must be reported if: (i) credit granted or effectively used by the borrower in each month exceeds Italian Lire (LIT) 150 million; (ii) the value of guarantees exceeds LIT 150 million; (iii) the loan is non-performing, regardless of the amount. Information must also be provided on maturities and guarantees.<sup>11</sup> Participating institutions are required to submit information monthly.

The PCR provides two types of return information flows. First, each month the PCR provides each credit institution with information on each reported customer's aggregate position versus the whole banking system, distinguishing performing and non-performing loans. This information is complete, in the sense that all the outstanding loans are reported, regardless of when they were granted. The PCR also reports on a regular basis the indebtedness of persons acting as guarantors of the borrower, as well as aggregate statistics about loans by category, geographical location, sector of activity of the debtors. This flow of information, which is supplied at no cost, allows banks to monitor clients' indebtedness over time, and also to evaluate its own position relative to other banks and to the economy.

The second type of return information consists of data on potential borrowers. For a fee, each bank can request information on a credit applicant whom it never extended credit to in the past. Considering the confidentiality of the database, banks can only ask information for an admissible purpose, i.e. the granting of credit and evaluation of credit risk. In such cases, the information that is released only concerns loans granted in the previous 12 months (i.e., in the data that are made available to banks there are 12 monthly files, and each month the oldest file is deleted). Thus, the information that banks can obtain for new borrowers is far less complete than that available for their existing clients. Each inquiry on the part of single banks is recorded in the PCR files.

Banks and other financial intermediaries must provide accurate data. They are required to check the return information flow from the PCR and are required to notify mistakes or inaccuracies. In case of a mistake in reporting data, banks are required to send back information for the previous 12 months; all banks are notified of these corrections. The Bank of Italy does not correct the data, but samples regularly its archive in order to detect anomalous reports; the anomalies are then reported to the banks for further checking.

The PCR serves also an important prudential role in the supervision of banking activity, in the conduct of monetary policy and in the monitoring of the allocation of credit. To this purpose, the Bank of Italy can access all data stored in the PCR beyond the 12-months limit set to banks.

## **Portugal**

The Portuguese PCR was established in 1977 and is operated by the Central Bank.<sup>12</sup> In early 1999 it covered 2.4 million borrowers. All credit institutions, finance and leasing companies and credit card companies in Portugal are required to report monthly to the Central

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<sup>11</sup> The largest commercial banks have also agreed to provide data on the loan rates charged on each individual loan or line of credit. These data cannot be reported to participating institutions under any circumstance.

<sup>12</sup> It was created by Decreto-Lei n. 47909 of 7/9/1967, later modified by Circular Serie A n. 191 of 24/11/1988.

Bank defaulted loans and arrears in excess of Portuguese Escudos 1,000. Information on guarantees on these loans also must be reported. Interbank loans are not reported. Thus, the Portuguese PCR contains mainly negative information.

The PCR aggregates data on defaults and arrears at a monthly frequency and returns to each bank the aggregate position of their respective customers. Banks can also request data on new credit applicants, but in this case the information is limited to the most recent aggregate data on that particular applicant, and prior authorization of the borrower is required. No information is made available concerning the location where loans were extended or on originating lenders. Data cannot be transmitted to third parties. Misreporting is a criminal offence, while other misconduct are sanctioned with exclusion of further access of the PCR.

## Spain

The Spanish PCR, established in 1963, is similar to the Italian one and is managed by the Bank of Spain.<sup>13</sup> Under current regulation, all credit institutions, deposit insurance funds, savings banks, cooperative banks, specialized credit institutions and mutual guarantee companies must report direct and indirect credit exposures to the Bank of Spain (interbank lending is excluded). The direct exposures include risks arising from loans granted by the reporting institution or credit extended to it, from financial leasing and fixed-income securities held by the institution, excluding securities issued by the central government. Indirect exposures include risks incurred by the institution as guarantor of directly granted credit as well as guarantees received as security for guarantee given. At the end of 1998, the number of institutions required to supply data to the PCR were 425. The specific reports required by the institutions were 758,000.

Each month, institutions must report information on borrowers about credit drawn, maturity, guarantees, arrears, defaults, identification, sector, economic activity, province, judicial insolvency situations, suspension of payments, bankruptcy, moratorium or insolvency. For resident borrowers, information must be reported when the loan is above Pesetas (PTA) 1 million for activities in Spain (PTA 10 million for activities in other countries). If the borrower is a local authority, a foundation, a semi-public enterprise or company owned or connected to a local authority, all credit must be reported. For non-resident borrowers, information must be reported when the loan is above PTA 50 million or greater for activities in Spain. Risk arising from shares or participation must also be reported when the book value is equal or greater than PTA 1 million.

The PCR supplies three types of information to the reporting institutions. First, each reporting institution receives the aggregated information on its own borrowers with all the data available, except for the origin of the operation. The information is broken down in: written-off debts, bad debts, and other debts. Second, all reporting institutions receive monthly aggregate statistics by sector, class of loans, province, etc. on borrowers of the whole system. Thirdly, upon request, credit institutions can obtain data on their new credit applicants. For this purpose, the institution must previously obtain an authorization signed by the beneficiary.

Circulation of the data is restricted to the participating institutions, local banks and the Inspectorate of the Bank of Spain responsible for supervision. The Inspectorate maintains a computerized archive (the so-called mini-central credit register) with files of case histories of borrowers with a significant loan exposure.

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<sup>13</sup> Currently the PCR is regulated by Circular 3/1995, modifying Circular 18/1983.

## **ANNEX 3**

### **Privacy Protection Restrictions to the Activity of Credit Bureaus and Public Credit Registers**

The first part of this Annex provides information about the protection that in each country privacy protection laws afford to borrowers and therefore about the corresponding restrictions it imposes on the activity of credit bureaus and PCRs. The second part describes the implementation stage of the EU Directive on privacy, and compares the new regime with the one prior to implementation. Unless otherwise specified, the information below refers to the legal regime as of the time of writing.

#### **Austria**

The Austrian privacy law, enacted in 1978, insures the anonymity of borrowers and lenders, granting to each borrower the right to receive information about his/her own data.

#### **Belgium**

Privacy protection laws grant individuals the right to access information recorded in their name by the Central Office and to rectify incorrect data (as long as he can prove that the information is wrong). The consumer is informed in writing when his name is entered for the first time in the register, and is entitled to inspect and correct the file. In case of rectification or removal of information, the register must inform all lenders who previously received incorrect information. Information can also be supplied to the Banking and Financial Commission of Belgium for supervisory functions and to foreign central credit risk offices under the terms laid down by agreements on the exchange of information concluded with the National Bank of Belgium.

#### **Denmark**

The Private Register Act of 1979, as amended in 1988 regulates privacy protection. Privacy provisions are strict: (1) credit bureaus must obtain a license (20 agencies have it); (2) they are entitled to register and distribute only data relevant to assess the financial situation of business and individuals for a period not exceeding the last 5 years; (2) the debtor must be notified and is entitled to details about the actual listings at any time; (3) only clients of the bureaus can access the data; (4) information can be collected only if the claim is in excess of Dkr 1,000 (approximately US \$140) and the debtor has signed an admission of debt (or legal action has been taken). In addition, the 1988 amendment states that only summary data on indebtedness can be distributed only when the data originate from the Danish Official Gazette, or concern debt in excess of Dkr 1,000 to a single creditor, or court action has been taken against the debtor. These rules are considerably stricter than the EU Directive.

## **Finland**

The Finnish legal regime allows only one credit bureau, which operates under permission defined in the legislation. The operation of the bureau is limited to reporting payment difficulties (negative information only).

## **France**

In France the growth of credit bureaus has been drastically limited by concerns for privacy. Privacy protection laws concerning individuals are stricter in France than elsewhere. The 1978 Law Informatique and Liberté (“law on information, files and personal rights”) grants individuals the right to interrogate any institution maintaining an electronic or automated file on him. It also requires that the subject investigated receives advance notification each time that his or her name appears in a database, and he/she should provide written consent before a credit report can be issued. Furthermore, once the investigation is made, the report must be submitted to him and he might dispute it and even raise a case against the investigator if he believes that the report is not true.

Restrictions apply also to the PCR operated by the Banque de France. Borrowers are informed that a record in their name is kept in the PCR and are told orally the content of their file. The purpose of this provision is to protect individuals against access by unauthorized parties. In particular, loan contracts must contain a clause notifying the borrower of the existence of the file. The bank must inform the customer whenever a delinquency is reported to the Banque de France. The law also prohibits use of this information by third parties.

## **Germany**

In Germany privacy protection is regulated by the Federal Data Protection Act of 1990. The processing and use of personal data is admissible only with written consent of the person concerned. When consent is obtained, the person must be informed of the purpose of storage and is entitled to obtain the information and to correct it. Storage of information by private bodies is admissible in accordance with the purpose of a contract or a quasi-contractual fiduciary relation with the person concerned. As credit bureaus do in other European countries, the bureau Schufa solves confidentiality problems by issuing a special form that people are asked to sign when applying for a loan. The form releases Schufa from the secrecy requirement about consumers’ data.

## **Italy**

In Italy privacy protection is regulated by the Law 675 of 1996, effective since May 1997. Those who intend to carry out personal data processing must inform the subject in advance and obtain his/her written consent for processing, transmitting and disseminating his personal data. The law indicates some cases in which the consent is not necessary. The main cases are: (1) data collected and retained according to EU rules; (2) data required to fulfil legal obligations; (3) data coming from public registers; (4) data relating the execution of economic activities. The law also gives the right to verify and correct the data upon request.

## **Netherlands**

The current Dutch law in force since 1989 applies solely to situations involving the creation of a “personal data file”, though processing of personal data may take place without the creation of such a file.

## **Portugal**

Borrowers are entitled to access and correct all information in their names. Misreporting by lenders to credit bureaus is a criminal offence.

## **Spain**

The 1992 Law gives individuals the right to access personal data, and states that the individual authorization is needed for any data request about an individual that is not in the file of the institution that requests it. In addition, a borrower may request information kept on him by the PCR. In case of inaccuracies, the borrower can ask for correction and the PCR must notify third parties of the corrections.

## **Sweden**

In Sweden a legitimate reason to request a report must exist. What is unique about Sweden is that credit bureaus have the possibility of collecting and filing data on income taxes paid to the government.

## **Switzerland**

Current privacy laws in Switzerland establish the right for the consumer to know what type of data is in the credit bureaus files. At the moment the consumer does not need to be notified. In the future Switzerland is thinking of adopting rules similar to the EU Directive, so that credit bureaus will have to notify the consumer that a record on him exists.

## **United Kingdom**

The relevant British laws are the Consumer Credit Act of 1974 and the Data Protection Act of 1984. Any private individual is entitled to apply in writing for a copy of the information in the file of the credit bureau. If information is not correct, the credit bureau must correct it. The situation in the United Kingdom prior to the introduction of the EU Directive was similar to that of the United States (no prior individual consent was required). Information on financial standing can be collected, as long as the credit bureau has a license.

## Implementation of the EU Directive into Member States' National Law

The deadline for implementation of the EU Directive 95/46 was 24 October 1998 but not all Member States respected this term. The status of implementation of the Directive in individual Member States is illustrated in Table 4. In all countries in which the Directive has not already been implemented in domestic law (Denmark, the Netherlands, Spain, France, Germany, Luxembourg, and Ireland), laws on the protection of personal data were in any case in force. On the other hand, Austria, Belgium, Portugal, the United Kingdom, and Sweden all had legislation for the protection of personal data and supervisory authorities to oversee this protection *before* the Directive.

Implementation of the Directive in Austria, Belgium, Portugal, the United Kingdom, and Sweden countries thus involved an adaptation of existing legislation through amendments or modifications of the provisions already in force. Though the fundamental principles behind the Directive (access, opposition, and information) are all reflected in these five countries' legislation, their legislators made use of the room for maneuver provided by the Directive and there are thus significant differences between the laws of each country.

With respect to the processing of personal data, all five countries provide that processing can occur only with the consent of the interested person or on the basis of certain specific pre-conditions (in keeping with the principle established by articles 7 and 8 of the Directive). Belgian law distinguishes between personal data for which the individual must have provided consent "without a doubt" and "sensitive" data for which consent must be provided in writing. The other countries' legislation does not, however, mention written consent, in line with articles 7 and 8.

British legislation refers to *explicit consent* in the case of sensitive data and simply to *consent* for personal data in general; the use of the term "explicit" suggests that consent should be absolutely clear, covering (in appropriate cases) specific details of the data processing, the particular type of data to be processed, the purposes of the processing, and any special aspects of the processing which may affect the individual (e.g., disclosures of data). Thus, in the United Kingdom the level of detail appropriate to a consent will vary after the adoption of the EU Directive: while implied consent will be appropriate in certain cases, in other cases anything less than written consent will not suffice. Portuguese legislation is similar, referring in these cases to "express consent" and "consent".

With respect to the information provided to the interested person, the indications contained in the Directive are reflected in the five countries' legislation in connection with the obligation to indicate the purpose of the data processing as well as the person responsible. Belgian law also expressly includes the interested person's right of opposition among the information which must be provided.

Another important area is the transfer of personal data to third countries. The text of the Directive requires an "adequate" level of protection in the third state for such transfers to occur, a criterion which was directly adopted in the four countries mentioned (e.g., some countries' legislation refers to the existence of codes of conduct in third countries as a factor to be considered in evaluating the adequacy of the level of protection). The United Kingdom's Data Protection Act provides that third countries are not non-Members of the EU but rather non-Members of the European Economic Space as defined in the Oporto Agreement of 1992 (in addition to EU Members, personal data may be transferred to Switzerland, Liechtenstein, Iceland, and Norway).

Though the legislation in all five countries provides for a notification obligation in connection with data processing, there are differences in the specific manner in which it has been enacted. For example, the Data Protection Act requires the maintenance of a register of persons who have given notification. With respect to exemptions, under Portuguese law the national supervisory authority authorizes notifications in simplified form, while in Belgium a royal decree established the cases in which notification may be provided (or not provided) in simplified form. In all cases, the common guiding criterion is set forth in article 18(2) of the Directive and restated in national legislation: the type of data processing involved must not prejudice the rights and/or freedoms of the interested person.

In light of the numerous differences in the implementation of the principles contained in the Directive n. 95/46, the EU issued a second Directive (97/66 of 15 December 1997), which entered into force on 24 October 1998. The purpose of this Directive is to harmonize the legislation of Member States in order to guarantee an equivalent level of protection of fundamental rights and freedoms, in particular the right to privacy in sensitive personal information. In fact, as provided in paragraph 2 of article 1, the provisions of this Directive integrate and supplement Directive 95/46 and, indeed, make use of the same definitions contained therein, with the addition of certain particular definitions referring to the telecommunications sector.

## Implementation of the EU Directive on Privacy Protection

Country	Status of implementation	Is the legislation implementing the Directive more restrictive than previous regulation?
Austria	With the approval and issuance of Law n. 165/99 ( <i>Bundesgesetz über den Schutz personenbezogener Daten</i> ), dated 17 August 1999, the Parliament transposed the Directive into domestic law.	YES
Belgium	Bill n. 1566/13-97/98 ( <i>Loi relative à la protection de la vie privée à l'égard des traitements de données à caractère personnel</i> ) to transpose the Directive into national law, revised following the issuance of an opinion by the Counsel of State, was submitted to Parliament in April 1998 and approved in December 1998.	YES, under previous legislation, explicit consent was not required for the processing of sensitive personal data.
Denmark	A bill (L-44), which amends existing legislation, was submitted to Parliament in October 1998.	NO, transposing legislation is not yet in force.
Finland	An ad hoc committee charged with the transposition of the Directive into domestic law ( <i>Henkilötietotoimikunta</i> ) completed its work in 1997, and a bill was submitted to Parliament in July 1998.	NO, transposing legislation is not yet in force. Currently the Office of the Data Protection Ombudsman, in connection with the Data Protection Board, has the right to take specific actions to protect the individuals right to privacy established in the Finnish Constitution.
France	A law governing has been in force since 1978 (which also instituted the <i>Commission Nationale de l'Informatique et des Libertés</i> ). A report ( <i>rapport Braibant</i> ) submitted to the Prime Minister in March 1998 stimulated parliamentary debate on the urgency of legislation.	NO, transposing legislation is not yet in force.
Germany	Two laws (dated 1978 and 1990) already govern this subject area. The Government re-submitted a bill on 8 April 1998. This bill was not, however, examined by the Parliament. The Parliament should begin the legislative procedure in November 1999.	YES, although transposing legislation is not yet in force. In fact the provisions of the law under consideration are more restrictive with respect to the concept of sensitive data.
Greece	The law on data protection (Law n. 2472/97 on the protection of individuals with regard to the processing of data of a personal nature) was ratified by the Greek Parliament on 26 March 1997 and published on 10 April 1997.	YES, because Greece had no previous legislation on this subject.
Ireland	Legislation necessary for the transposition of the Directive, which will include amendments to the 1988 law on data protection (Law n. 25 of 1988), is currently being drafted.	Transposing legislation is not yet in force.

## Implementation of the EU Directive on Privacy Protection

Country	Status of implementation	Is the legislation implementing the Directive more restrictive than previous regulation?
Italy	Implemented on 31 December 1996 with Law n. 675/96, <i>Tutela delle persone e di altri soggetti rispetto al trattamento dei dati personali</i> ). The Parliament later authorized the Government to issue regulations supplementing this law.	YES, because Italy had no previous legislation on this subject.
Luxembourg	A bill was drafted in 1997 but was subsequently withdrawn. The Government must present a new bill.	Transposing legislation is not yet in force.
Netherlands	The Government of the Netherlands has announced its intention to replace the current law on data protection, in force since July 1989, with an entirely new law on the same subject, in accordance with the provisions of the Directive. On 16 February 1998, a bill was submitted to Parliament to that end.	YES, although transposing legislation is not yet in force. Current law applies only to situations involving the creation of a "personal data file", though processing of personal data may take place without the creation of such a file. The transposing legislation is wider in scope.
Portugal	The Directive was introduced with Law n. 67/98, dated 26 October 1998 ( <i>Lei da Proteção de Dados Pessoais</i> ). In order to transpose the Directive into domestic law, the Constitution was Revised by Constitutional Law n. 1/97.	NO, because the Portuguese Constitution contains provisions on data protection which in certain cases are more restrictive than the Directive.
Spain	A preliminary bill amending the current legislation on data protection ( <i>Ley Orgánica 5/1992 of 29 October 1992, Regulación del tratamiento automatizado de los datos de carácter personal</i> ) was presented to the Parliament. Most of the provisions of the Directive have been already incorporated in the <i>Ley Orgánica</i> .	Transposing legislation not yet in force.
Sweden	Legislation on data protection (Law n. 204/98 of 29 April 1998, <i>Personuppgiftslag</i> ) was adopted by Parliament, with implementing regulation n. 1191/98 adopted on 3 September 1998.	YES. Previous Swedish legislation was concerned with individual files and thus did not incorporate the full range of definitions included in the Directive (e.g., current technology including relational databases and global data networks).
United Kingdom	The Data Protection Act was submitted to the Parliament on 14 January 1998 and approved on 16 July 1998 (Royal Assent was given on 16 July 1998). The Government has announced that the Act will be brought fully into force on 1 March 2000.	YES, because specific requirements are introduced for the fair and lawful processing of personal data; among them consent and the requisite that the processing is necessary for specific, identified purposes.

## ANNEX 4

### Questionnaire Directed to Private Credit Bureaus

#### Aim of the survey

This questionnaire is part of a research project that aims at understanding the characteristics of information sharing arrangements between lenders and comparing them across European countries.

#### Confidentiality

The researchers carrying out this project guarantee complete confidentiality in the use of the data collected in the survey. Data and results based on the survey will always be presented in tabular form and at a level of aggregation that will safeguard the confidentiality of individual banks.

**PLEASE ENCLOSE ANY PUBLISHED OR OFFICIAL MATERIAL THAT YOU FEEL WOULD BE RELEVANT TO UNDERSTAND THE OPERATION OF CREDIT BUREAUS IN YOUR COUNTRY.**

#### 1. DESCRIPTION OF YOUR CREDIT BUREAU

**Town where headquarters is located:** \_\_\_\_\_

**The credit bureau is owned by:**

- a group of banks
- a group of other financial intermediaries
- individual share-holders
- foreign-owned (majority stake foreign-owned)

**The credit bureau is**

- a company run for profit
- a cooperative enterprise or consortium of lenders
- a semi-public institution
- other (please indicate)

**Indicate who originally started the credit bureau:**

- private entrepreneurs
- consortium of lenders
- government agency
- other (please indicate)

**The credit bureau operates:**

- at multinational level
- at national level
- at regional or provincial level

## 2. SCALE OF OPERATIONS

	Personal sector	Business sector
Year started operating		
Number of records in your files in 1990		
Number of records in your files in 1998		
Credit reports issued in 1990		
Credit reports issued in 1998		
Credit reports issued in 1990 as % of all those issued in your country in that year		
Credit reports issued in 1998 as % of those issued in your country in that year		

If the credit bureaus started operating **after 1990**, please supply information on credit reports and number of records in the first year of the operation of the credit bureau.

## 3. SOURCES OF INFORMATION

Please rank the importance of the following as sources of information for your credit reports on a 1 to 3 increasing scale: 1 = not used or rather unimportant, 2 = important; 3 = crucially important.

	Personal sector	Business sector
Banks		
Other financial institutions		
Credit card companies		
Central Credit Register		
Public records		
Tax files		
Other: (please indicate)		

#### 4. DATA SUPPLIED BY LENDERS

Which type of data are provided by lenders to your credit bureau?

	Personal sector	Business sector
Defaulted loans		
Arrears		
Total loan exposure		
Characteristics of borrowers*		
Other: (please indicate)		

\* *For households:* employment status, marital status, age, income, assets, etc.; *for firms:* line of business, balance sheet data, personal information about directors, share-ownership structure, etc.)

#### 5. RECIPROCITY

Do you apply a principle of reciprocity with your clients (i.e., do you supply information only to those who supply it to you)?

YES

NO

If yes, is there an explicit agreement between you and lenders to exchange information?

YES

NO

What happens if lenders do not comply with the reciprocity agreement (i.e. supply late or incorrect information)?

#### 6. CREDIT BUREAUS IN YOUR COUNTRY

Please list the other main credit bureaus that operate in your country:

Please describe briefly the evolution of the credit bureau industry in the last 10 years in your country (growth and problems of the industry, process of concentration, etc.)

#### 7. PUBLIC CREDIT REGISTERS

Please indicate if a Public Credit Register exists in your country and, if so, how it affects your operations. (By a P.C.R. we mean a publicly managed database, which forcibly collects data about loans from banks to supply it under request from other banks.)

#### 8. PRIVACY LAWS

If laws protecting consumer privacy exist in your country, what do they require?

How do these laws affect the operation of your company?

## ANNEX 5

### Questionnaire Directed to Central Banks

This questionnaire is part of a research project that aims at understanding the characteristics of information sharing arrangements between lenders and comparing them across European countries. By **Public Credit Register** we mean a public database managed by the Central Bank or some other government institution, which forcibly collects information about loans from banks and makes it available under request from other banks via credit reports.

#### 1. MANAGEMENT OF THE PUBLIC CREDIT REGISTER (PCR)

Is the PCR operated by the Central Bank or by another Government agency (please indicate)?

#### 2. ACTIVITY

Year in which the PCR was established	
Number of subjects in the file of the PCR	
Number of credit reports issued by the PCR to banks and other lending institutions in 1998 (1997 if not available)	
Minimum reporting threshold (specify currency units)	
Lenders required to supply data (banks, finance companies, etc.)	
Is participation compulsory? (yes/no)	

#### 3. DATA REPORTED BY PARTICIPATING INSTITUTIONS TO THE PCR

Defaulted loans	
Arrears	
Total loan exposure	
Interest rates	
Other (please indicate)	

#### 4. ACCESS TO DATA IN THE PCR FILES

Government	
Participating financial institutions	
Private Credit Bureaus	
General public	
Other (please indicate)	

#### 5. PRIVATE CREDIT BUREAUS

Please list the names of the **private** credit bureaus that operate in your country.

#### 6. PRIVACY LAWS

Please mention if privacy laws exist and, if so, how they affect the operations of the PCR and of private credit bureaus (add pages if necessary).