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**Credit information systems: theoretical and
comparative analysis**

(Reliability test of synthetic [indicators](#) tracing the attractiveness of the Law: "[Getting Credit](#)")

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¹ The findings, interpretations, and conclusions expressed here are those of the author and do not necessarily reflect the views of the “Attractivité économique du Droit - Economic Attractiveness of Law” program, neither his partners.

Executive Summary

According to the World Bank, very little is done in France to facilitate the access of entrepreneurs to bank credit: the "Getting Credit" indicator estimating private and public measures to reduce the risks of lenders (including the legal protection of creditors' rights in case of bankruptcy and the credit information system) ranks France among the outsiders (115th place out of the 155 countries which have been ranked). In addition to the legislation highly unfavourable to the creditors in case of bankruptcy, the disclosure of credit information seems to be almost non-existent. In these conditions the 85% credit to GDP ratio that one observes in France at the moment remains to a large extent unexplained.

This report has two main objectives. We first look for evidence concerning the impact of the credit information system to the credit market development. Then we examine in what degree existing indicators (and particularly those published by the World Bank) reflect the real situation with a credit information disclosure in France.

The analysis of the theoretical literature on the impact of the credit information sharing between lenders allows to conclude that such a system results in an increase in supply of financing, a decrease in defaults, and a better monitoring of the risk taken by the financial system as a whole. However, the existence of databases with information on the borrowers (regardless of whether it is 'positive' or 'negative') is not devoid of risks. This is the reason why a specific regulation in this field is necessary. It often includes legal limitations as well as a specific supervision of some types of data.

Empirical studies, comparing the effectiveness of different information-sharing patterns, are still inconclusive as to the superiority of a single information-sharing mechanism. Therefore, there isn't just a single solution: the configuration of the credit information system should be established as a function of the legal, institutional and economic factors.

However, the conclusions and recommendations based on the empirical results should be made with great precaution. Given the considerable diversity of credit information systems but also the lack of a unique method enabling their clear measurement, the comparison of the results is rather delicate. A detailed analysis of existing indicators (and in particular of the indicator 'Getting Credit' published by the World Bank in 'Doing Business' reports) reveals that these are still only trials for quantification of rather complex and highly heterogeneous systems, which call for some reservations. In this sense, the rating established by the World Bank gives only a very partial image of the real situation.

Our estimation being itself a first trial of a more detailed assessment of the credit information system in France, taking into account the biases of the other indicators, leads us conclude that it is not possible, as the Doing Business report does, to place France among the worst countries in the world in terms of availability of the credit-related information about the companies.

The first section of the report contains a brief review of theoretical studies in the matter of credit information sharing, as an instrument reducing risks within an imperfect information environment².

In the second section, we take up the problems of the optimal configuration of a credit information system. Should it be limited to the negative data/blacklists or should it also include other, positive data about borrowers? What credit information systems (based on private credit registries or on public ones) ensure the best service from the social point of view?

Criticism of the existing approach and methods of calculation of the indicators from the methodological point of view is presented in the third section of the report. A particular attention is given to the indicator "Getting Credit" constructed by the World Bank.

In the fourth section, we analyze the credit information system in France, in the context of the presented theoretical evidence. We propose a wider approach as compared to the one retained in "Getting Credit" calculation. A detailed analysis of the credit information system in France enables us to highlight a systematic under-estimation of its status at the international level. Our analysis proves the existence of an efficient system, associating the transparency of companies and the high level of protection of individual data. We thus propose a correction of the existing estimations.

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I. Theoretical debate: is the credit information sharing necessary?

A. *Insufficiency of voluntary disclosure of information*

The credit relationship (as well as other external financing relationship, including issuing securities on financial markets and inter-enterprise loans), is a long standing commitment. It implies an assessment of the present and future behaviour of the borrower. In a world of imperfect information, the availability of information on potential borrower's capacity to repay a loan and on its financial discipline are key variables in risk analysis and the decision for credit grants.

The theoretical analyses of the 70s – 80s (Jaffee and Russell [1976], Stiglitz and Weiss [1981]) demonstrate that the difficulties for the lenders to differentiate ex-ante the risks of projects to finance end up in a phenomenon of quantitative credit rationing. Credit is refused to certain loan applicants even though they need funds and are willing to pay the price asked for. More generally speaking, when transparency of the credit market players is not complete and the reinforcement mechanisms of loan contracts are not perfect (which give rise to moral hazards), a few holders of potentially profitable investment projects do not manage to obtain their financing. Theoretical and empirical studies (among which one can cite Gertler and Gilchrist [1994], Calomiris and Hubbard [1988] Beck et al. [2002] Fazzari et al. [1988], [2000], Hubbard et al. [1995], Almeida et al. [2002]) show that companies are concerned by this problem in different degrees. The size, own funds, liquid assets that can be pledged as securities, as well as the age of the company are factors which facilitate their access to loans. Small newly created businesses are the first to suffer from this lack of transparency.

Under these conditions, the companies can be interested to communicate the information about them to potential lenders³ (in the case of financial markets financing – to the general public). Firms which publish complete information on their activity are therefore better perceived by their creditors and, therefore, can obtain more favourable financial terms.

The optimal decision to communicate (or not) the information is taken by the firm, taking into account the behaviour of these competitors, creditors and customers, whose reactions are influenced by the informational signal sent by the firm (Van de Wiele [2002]). In other words, the decision to publish strategic information is costly. These costs are related to the publication itself, but also to the potential reaction of shareholders, competitors and employees, which can, in principle, decrease future profits of the company⁴. Owing to this fact, the strategy of transparency is not automatically optimal for all firms⁵. Depending on the models, the optimal strategy may consist in partial disclosure of information (Wagenhofer [1990], Feltham and Xie [1992]) or closure of information (Ponssard [1979], Novshek and Sonnenschein [1982], Clarke [1983], Gal-Or [1985]). The consideration of the possibility of publishing wrong information, wherein the verification of it is costly, also has an impact on the decision to publish the information or not to publish it (Gigler [1994]). Thus, theoretical analyses demonstrate that it is difficult to attain the optimal level in corporate terms of disclosure of information on a voluntary basis.

³ We may note that regulations in the area of privacy protection requiring an explicit consent from the person or the company to transfer the information about them to other organizations makes such a system of disclosure of information comparable to voluntary disclosure.

⁴ Thus, for example in the case of small-sized enterprises dependent on a restricted number of clients such information may be used as an instrument of pressure in negotiations on prices and can therefore decrease their profits.

⁵ Grossman (1981), Milgrom (1981) demonstrate that in the absence of signalling costs, the optimal decision of the firm is always to publish all the information. However, up to Verrecchia (1983) this result is not confirmed empirically (as all firms do not disclose their accounts to the general public), which would imply the existence of significant signalling costs.

Banks, as holders of accounts, have at their disposal a considerable amount of information on the activity of their customers. In order to grant loans, they necessarily verify the information furnished by potential borrowers. By this way they acquire an expertise in information management. By their size and portfolio, they are better placed to solve agency problems than individual agents and, so are better placed for analyzing and managing risks (Fama [1985], Diamond [1984], Allen and Gale [1999]).

However, a customer can use services of several banks⁶, each one of them has at his disposal only partial information on the activity of the potential borrower, except in the technique of syndicated credit. This is all the more true in the cases of small banks, of weakly concentrated or underdeveloped banking systems. The strictly private nature of the information on the borrower, being fundamental for the competitive advantage of banks, can thus curb the granting of loans. In fact, it renders difficult a fair risks' assessment by the lender and pushes it to exercise extreme caution.

In such a situation, as demonstrated by Jappelli and Pagano [2000], the cooperation among lenders in the matter of information-sharing (through the creation of common databases or credit bureaus) has a positive effect on credits' distribution. By reducing informational asymmetries, it limits overdebtedness arising from excessive borrowing from multiple lenders. The sharing of information between lenders⁷ allow for better control of systemic risks.

B. Information-sharing among lenders and decrease in agency costs

The analysis of the existing theoretical and empirical works makes it possible to put out six categories of risks in the external financing relationship to be limited by the sharing of information among lenders.

1. *Ex-ante moral hazard*: the borrowers may find it more favourable not to communicate the entirety of the information to potential lenders, **especially when** this information is negative.

The sharing of the information on past defaults then becomes a necessary step for reducing this type of moral hazard. It reduces credit rationing and increases the supply of credit at the macro-economic level. More generally it reduces the risks taken by the banking system as a whole, which justifies public intervention.

2. *Ex-post moral hazard*: the borrower client who is able to repay his debt can declare default of payment or make the choice of entering into a more risky activity than the one presented to the lender. According to Diamond [1989], the public credit registry can incite the borrowers to choose projects which have been notified by the bank. In the theoretical models of Padilla and Pagano [2000], Vercammen, [1995], Klein [1992], the sharing of negative information on past defaults has a disciplinary effect on the borrowers. The sharing might impel them to realize sufficient efforts to ensure smooth operation of their projects and reimbursement of the loans. Miller [2000] uses the notion of 'reputation collateral': when the borrower is aware of the fact that the negative data on his defaults of payment will be known by all the lenders, he has enough incentive to put in sufficient efforts for honouring his debts.
3. *Adverse selection*: the uninformed lender is less confident with an unknown enterprise (new) rather than with a long-time client independently of the anticipated profitability of the

⁶ As Ongena and Smith (1998) demonstrate, multiple banking relations are frequent in a number of countries and in particular for big enterprises. In some countries the number of banks used by an enterprise is relatively low (less than 3 in the United Kingdom, Norway and Sweden, 3-4 in Ireland, Hungary, Poland, and the Netherlands, Switzerland and Finland). It is more important in other countries (more than 10 in Italy, France, Spain, Portugal and Belgium)

⁷ Banks is used in more general sense, as financial intermediaries.

project to be financed. Pagano and Jappelli's [1993] model shows that the exchange of information on the characteristics of the borrowers allows to reduce this phenomenon.

4. *Hold-up and informational rents of the banks*: by building up client loyalty 'by force' (by imposing withdrawal costs, by limiting loans to new clients), banks impose additional costs on their clients⁸ thereby assuring themselves an economically unjustified revenue (informational rent).

Under these conditions, the exchange of complete information on the characteristics of the borrowers seems beneficial from the corporate point of view (Padilla and Pagano [1997]). It allows to increase the credit supply and to reduce costs for some borrowers (generally of good quality). The lenders also benefit from it: by lending to good quality customers, they increase their profits.

5. *The reduction of overdebtedness* (following loans from several lenders, Ongena and Smith [1998]). According to Jappelli and Pagano [2000], the sharing of information on the entirety of credits (or credit lines) granted to each borrower makes it possible to reduce the problem by better monitoring borrowers' risk-taking. According to Brown and Zehnder [2005], when the borrowers can change lenders for every loan, the absence of credit registries can end up in the collapse of the credit market. An experimental study reveals that the public credit registry with positive and negative information can prevent it.
6. *Systemic risk*: the availability of information on the quality of the borrowers not only reduces risks at the micro-economic level, but also is a mean of control of the risk-taking by the totality of the lenders. The availability of information on credit risks to the bank superintendent (through a public credit registry) therefore allow a better monitoring of systemic risks.

C. Problems related to the existence of common files

However, the theoretical and empirical studies show that the creation of common databases, containing information on the borrowers, can also have negative consequences on the functioning of the credit market.

1. The loss of informational advantage of 'relationship banks'.

The creation of common files, with complete information on the borrowers, by reducing 'hold-up' problems, is at the same time unfavourable to the relationship banking. In fact, this creation makes the banks lose their informational advantage. When relationships between banks and their clients are repeated and when a change of bank proves to be costly for the client, the client must keep up a good reputation with its bank, which acts as an incentive to maintain proper payment discipline. As Brown and Zehnder [2005] demonstrate, when credit relationships between the banks and the borrowers are repeated, the functioning of the loan market may prove to be satisfactory even without any credit registry (in their model, they refer to the public credit registry). The repeatability of relationships between the lender and the borrower can therefore be seen as a "contract" (in the economic analysis of the contract) impelling the borrowers to realize a sufficient effort to repay its debts (Boot and Thakor [1994]).

Thus, the need of credit bureaus in the case of systems having a strong presence of the so-called relationship banks is controversial. First, the 'reputation' effect may prove to be sufficient enough for disciplining the borrowers. Second, as empirical studies point out, on certain segments of the credit market (and in particular for small and medium enterprises which are not in a position to bear

⁸ A change of bank (in favour of the one which would offer better services) is therefore associated with costs for the borrower. In some cases the client is therefore forced to remain with his old bank even though others offer better conditions.

signalling costs necessary to raise financing from other sources), the existence of relationship banks can improve their access to external finance (Petersen and Rajan [1994], Elsas and Krahenen [1998]).

The demand and supply of the services of credit bureaus may be insufficient for such bureaus to come up spontaneously. Given the fact, that information sharing remains beneficial from the point of view of reduction of systemic risks, a public intervention in monitoring of risks at the macro-economic level can be necessary.

2. The 'free rider' problem

This problem is particularly important in the presence of a sharing of positive information: some lenders may find it less costly to use the information collected by others rather than putting in any specific efforts (Petersen and Rajan [1994]).

As Jappelli and Pagano [2000-a] point out, the fair pricing for the use of information (according to the amount of information that the bank provides to the common database), but also a freedom of choice as to the type of information to be shared can reduce this phenomenon.

3. The expertise of the lender in the matter of risk assessment is no longer necessary

Theoretical works (Jappelli and Pagano [2000-b], Ramakrishnan and Thakor [1984], Millon and Thakor [1985]) demonstrate that the existence of common credit registries, as well as the presence of enterprises which are specialized in the production of information (such as rating agencies) may have a negative influence on the activity of the lenders in the matter of risk assessment. Thus, an easily available 'positive' database reduces the incitement of the lenders to search for information on the borrowers and, in fine, to develop their own information expertise.

We may note that the rating services offered by credit registries (private or public), as well as by other enterprises, compete with the bank's own risk assessment. The enterprises specialized in the collection of information, and having at their disposal a considerable sample of firms, logically develop their own information expertise, in the same way that the lenders do. These activities can also be complementary. The empirical study of Miller [2000], centred on banks and credit bureaus in Latin America, shows that banks are often unsatisfied with the quality of information offered by credit bureaus. Therefore, some monitoring effort remains necessary. We should also note that outsourcing of information expertise by the lenders is a point related to the configuration of the banking industry. Its impact on the granting of credit to the economy remains to be proved.

The solution that is often proposed consists in limiting public files to the negative information or blacklists, by leaving the search and establishment of prices for positive information to the private sector.

4. Errors in the data

Reputation (built through relations between the customer and its bank or through information from private or public credit registries) plays a determining role in the credit relationship. This observation raises the problem related to the processing of errors in the data. Miller's [2000] study demonstrates that the lenders, as consumers of credit bureaus information, often convey their inaccuracy. Hunt [2002] in the study, conducted for credit bureaus specializing in household credit in the United States, demonstrates that the market incitation to realize a sufficient effort to control errors is insufficient, which makes necessary the public regulation in this field.

Legislation often protects the individual by allowing him the access to all the data about him and the possibility of rectification of the errors that might have crept in. However, the errors in files and

the difficulties in correcting them (particularly when the information circulates among several credit bureaus) may create obstacles to getting credit (as well as to access to some other services) in the case of certain borrowers, owing to an ‘undeserved’ bad reputation.

5. Privacy protection

The disclosure of information on borrowers, especially when it is not voluntary, necessarily raises the problem of privacy and therefore of individual freedom. Even though economical studies reveal that sharing of financial information can be favourable to the development of credit, the same information can be used for other purposes. In particular, it can reinforce exclusion of some categories of the population from certain rights, which can be harmful from the social point of view. Therefore, specific regulation for financial information flows, in particular, when it concerns individuals, becomes imperative. This regulation does exist (for details on the regulation in force in European countries, refer to Jappelli and Pagano [2000]). However we should notice that its enforcement largely depends on the general effectiveness of institutions. Thus, in the case of developing countries, wherein institutions are often weak, the problem related to the respect of privacy becomes more complex.

Conclusion:

Theoretical analyses show that some types of risks which appear in the external financing relations cannot be dealt with between the lender and the borrower at the individual level. The theoretical studies demonstrate that the sharing of credit information between the lenders (at least for the so-called ‘negative’ information) is a better solution. It increases the supply of financing, reduces default rates being at the same time a powerful instrument of systemic risk supervision.

In order to define an optimal configuration of an information sharing mechanism at the interbank level, it nevertheless seems necessary to take account of **the configuration of the banking and financial system of each country**. If the banking system is weakly concentrated and long term relations between the borrowers and their bankers do not exist, the sharing of positive and negative information at the interbank level is necessary to ensure the functioning of the credit market. In the opposite situation, if the banks enjoy sustainable relations with their clients, the necessity to maintain one’s reputation can replace the negative file and information-sharing among banks does not significantly reduce credit risks for the bank. Some level of sharing of financial information is however necessary because it prevents excessive risk-taking by the totality of lenders and therefore reduce systemic risks.

However, the disclosure of information on the borrowers (regardless of whether it is positive or negative) is not devoid of difficulties. Among them, we can cite the loss of the informational advantage of the bank in its relationship with its clientele (particularly dangerous in the case of financing of small-sized enterprises), but also problems related to reliability of data and protection of individual freedom which can be harmful to certain borrowers. This makes necessary a specific regulation: legal limitations and a specific supervision of the flows of certain types of data are widely used as instruments of it.

II. Which configuration of the credit information system?

The empirical studies focused on credit information systems’ design reveal a great diversity of their organization in the world (refer to the Doing Business reports [2004], [2005], [2006], Miller [2000], [2003], Jappelli and Pagano [2000] [2002], Love and Mylenko [2003], Estrella [2000]). These differences are explained by a considerable number of factors among which we can distinguish legal and institutional factors (the legal traditions of the country, the effectiveness of its courts in

affairs of debts recovery, the level of protection of the creditors' rights, the rule of law), cultural traditions (religion), but also macro-economic factors (growth and/or level of the GDP or the national revenue).

We first put out the existing differences in approaches and then look for the evidence about the 'optimal' configuration of credit information system.

A. Absence of a unique definition.

Miller [2000], [2003] introduces the notion of 'credit reporting system' as the general institutional framework facilitating the credit reporting in the economy. It includes 7 elements:

1. **Credit registries**⁹: these are databases on the borrowers (enterprises and/or households). They contain the information about past and present loans of each borrower contracted from all lenders and constituting its credit history. The data available may be only **negative** (defaults and late payments), but also **positive** (and include for example the total indebtedness). The registries may contain other information related to creditworthiness (the address, size, staff, strength, courts procedures, etc.) delivered by courts or other publicly available databases. We distinguish between
 - The public credit registry (managed by the Government or the Central Bank)
 - Private credit registries or credit bureaus (databases with information related to the creditworthiness managed by private firms, chambers of commerce, bank associations, other profit or non-profit institutions)¹⁰
2. The legal framework for credit reporting.
3. The legal framework for privacy protection.
4. The regulatory framework related to credit reporting.
5. Other information available in a given economy on the quality of the borrowers (court records, etc.).
6. The use of credit reports in the economy (in particular, the use of rating and scoring methods by the lenders).
7. The cultural context: the society's point of view on the sharing of private information, the importance of 'reputation collateral', etc.

Jappelli and Pagano [2002] give another definition of **private credit bureaus**

"...information brokers that in some cases are set up 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 contribute data can later obtain a return flow of consolidated data about a credit applicant by requesting a "credit report" from the bureau.(...) **It is the exchange of information between lenders that distinguishes a credit bureau from other agencies that collect and process valuable information from public sources and private investigators.**"

⁹ "The term "**credit information registry**"... refers to a database of information on borrowers in a financial system. Information in these registries is available for individual consumers and/or firms. The core of this data is a borrower's past payment history. The data available may be only negative (information on late payments, defaults and other irregularities) or may also contain positive information such as debts outstanding even if the credits and loans have always been paid on schedule. Registries may also contain other types of information, including basic personal information such as address and age, as well as information from court records or other public or government sources, which could have a bearing on creditworthiness. ", Miller (2000), p.4

¹⁰ Rating agencies, the databases publicly available databases containing companies' accounting and other reports (as an example, we can cite the database www.verif.fr constructed by Dun&Bradstreet in France) but also ratings and information available from credit insurers (COFACE has set up and manages one of the biggest databases on companies (45 millions companies worldwide, 4.5 million companies in France, 8.2 million offices)) seem to correspond to this wider definition and should be included in the 'credit reporting system' .

We observe that this definition excludes some companies offering information on creditworthiness. In this sense, the definition retained by the authors can be qualified as narrow.

The ‘Doing Business’ reports of the World Bank [2004], [2005], [2006] seem to adhere to the logic of the broad definition given by Miller [2000], [2003], by proposing four sub-indices in the ‘Getting Credit’ leaflet.

1. Strength of legal rights index¹¹
2. Depth of credit information index¹²
3. Public credit registry¹³ coverage
4. Private credit bureau¹⁴ coverage

However, the definitions of the private credit bureau of Doing Business and Miller [2000] are not identical. In particular, the companies whose main objective is not to facilitate the exchange of information between lenders are excluded from the definition of Doing Business. The definition of private credit bureau retained in the reports is therefore closer to the narrow definition of Jappelli and Pagano [2000], [2002]. We then note that the sub-indicators 2 and 4 of the ‘Getting credit’ indicator describe the credit information system in its narrow sense. In some cases (and particularly in the case of France) the use of such ‘narrow’ indicators gives an incomplete estimation of credit information system.

Giving the lack of unified approach to define the credit information, we once again note that the comparison of existing systems and of their economic role is quite delicate.

B. Regulation of credit reporting. Public credit registries or private credit bureaus?

As demonstrate Kaufmann and Vishwanath [1999], the public intervention of the disclosure of the data about borrowers should not be limited to the development of information standards (like accounting standards). In situations wherein economic agents are not encouraged to voluntarily publish their information, in order to attain the optimal level of transparency (note that this level does not necessarily imply complete transparency) the public authorities must implement and reinforce regulations in this field. The necessity to monitor risks taken by the financial system at the macro-economic level given the public good character of the monetary system is one of the reasons of the implementation of a public credit registry. In order to reduce costs of the device, the minimum threshold level for the credits to be declared to the public registry can be established.

As we have seen in the previous section, when competition between banks is weak and relationship banks are dominant, banks are not always favourable to the sharing of their information. First, as Bouckaert and Degryse [2001], banks are encouraged to share their information only if the general level of information asymmetries is relatively low. Second, on a concentrated banking market, a given bank is already in possession of a relatively important part of the information through its own clientele. Thus, the appearance of credit bureaus (private) centralizing the information from several lenders is more likely in an environment characterized by a great number of small lenders and therefore, a low concentration of the credit market (Hunt [2002]). Furthermore, the introduction of

¹¹For more detail refer to <http://www.doingbusiness.org/Methodology/GettingCredit.aspx>

¹² This index measures rules affecting the scope, availability and quality of credit information available through either public or private bureaus

¹³ "A **public credit registry is defined** as a database managed by the public sector, usually by the central bank or the superintendent of banks, that collects information on the creditworthiness of borrowers (persons or businesses) in the financial system and makes it available to financial institutions.", Doing Business (2006) p.83 available at <http://www.doingbusiness.org/Methodology/GettingCredit.aspx>

¹⁴ "A **private credit bureau is defined** as a private firm or non-profit organization that maintains a database on the creditworthiness of borrowers (persons or businesses) in the financial system and facilitates the exchange of credit information among banks and financial institutions. Credit investigative bureaus and credit reporting firms that do not directly facilitate information exchange between financial institutions are not considered". Doing Business (2006) p.83 <http://www.doingbusiness.org/Methodology/GettingCredit.aspx>

public agencies, with mandatory sharing of certain information, can be seen as a mechanism of reinforcement of competition on the credit market, in the same manner as antitrust laws.

As we have mentioned in section I, problems related to the privacy protection as well as the existence of negative effects owing to the existence of errors, are other arguments in favour to the regulation of the circulation of credit data. **Thus, justifications of the existence of public files containing financial information are not exclusively economic.** The use and free resale of credit information data can be harmful to individual freedom, especially when the latter are fraudulently used.

Thus, the relative freedom of circulation of private data (which characterizes for example the American market) could be risky. Given the important computerization of this field, the circulation of it is difficult to control. As an example we can cite a case concerning the embezzlement of credit files of the company ChoicePoint (today purchased by LexisNexis) in 2005 in US. One of the people whose personal data had been fraudulently used had said in an interview: "I do not know the company ChoicePoint and I never gave it any information about myself ". We can see that the individual is unable to control the information circulation (which however directly concerns him).

This is the reason why a regulation (more or less restrictive) in the field of protection of individual data exists in every country. The optimal level of control should then be defined by taking into account, on the one hand, the positive effects that disclosure of information can have on the development of credit market and, on the other hand, the possible risks of a wide dissemination and fraudulent use of private data.

Note that the presence of regulations does not automatically signify their enforcement. The quality of institutions in the matter of law enforcement differs with the level of development of the country. Thus the organization of the credit information system should be adapted to the institutional context. The decrease in the number of agents holding information of a private nature and the ban on the circulation of some types of information are the instruments to reduce the risk of fraud. Thus, the implementation of a public registry system (with restricted access) appears to be better suited in the case of countries with low ability of control of private firms (this is often the case of developing countries). In countries with more effective rule of law (developed countries), private bureaus can operate without excessive risks.

The issue of the degree of public intervention in the credit information system however remains strongly debated.

We should first note that the implementation of a single public registry reduces social cost of information collection: as the information sought by private credit bureaus concerns the same set of borrowers, there is always a risk of multiplication of costs.

Jappelli and Pagano's [2000-2002] study, based on the questioning of the Central Banks of 46 countries, the existence of any information sharing device (with positive or negative information, publicly or privately owned) helps to reduce the credit default level and to increase the credit in an economy. At the same time authors do not find any significant difference between these types of organization (at least at the macroeconomic level). The authors show that the public registry can take the place of the private credit registries when the latter do not appear spontaneously.

Miller [2000] emphasizes the fact that private and public credit registries are not substitutes, but rather complementary elements of the credit information system. The study reveals some of shortcomings in the information offered by public credit registries (absence of historical data, weak distribution) which leave space for private players.

The study of the efficiency of the public registries of Powell et al [2004] conducted for Argentina, Brazil and Mexico (countries with a strong presence of private credit bureaus and where public

registries exist as well) nevertheless demonstrates that the presence of a public credit registry improves access to credit and reduces banking risks, which also confirms their complementary roles.

Love and Mylenko [2003] compare data on the presence of private or public credit registries in a sample of countries with the perception by the firms of their financial constraints as well as the level of their bank indebtedness. By referring to the sample of 5,000 firms coming from 51 countries, the study demonstrates that only the presence of private credit registries (broadly defined) has a positive effect on the development of credit. On one hand, in countries where private credit bureaus exist, entrepreneurs feel less financially constrained. We also observe a higher rate of their bank indebtedness. The existence of the public registry seems to have very little impact on the credit: it however improves the access to credit for new firms (in line with the adverse selection's reduction thesis), even if its overall impact remains weakly significant. Thus, according to the authors, private credit registries are more efficient for facilitating the access of the firms to external finance, whereas the banking supervision remains the main function of public registries. The analysis however does not establish any causality among the variables. The authors acknowledge that the obtained evidence is insufficient to assess the role of the public credit registry as an element of the credit development policy.

It is important to notify that the definitions of credit information systems retained in the cited papers are not identical, which make delicate direct comparisons of obtained empirical results.

- The analysis of Love and Mylenko [2003] demonstrating the best efficiency of private credit bureaus face to public registries is based on the broad definition of private credit bureau (close to that of Miller [2000], [2003]).
- The empirical results of Jappelli and Pagano [2000] [2002], which do not demonstrate any significant differences in the efficiency of private and public credit bureaus at the aggregate level (the impact on credit being positive for both), are based on the narrow definition of private credit bureaus and therefore exclude some sources of information that are likely to 'make the difference'.

The 'Doing Business' reports of the World Bank, in the part devoted to the ease of getting credit ('Getting Credit' indicator) take a slightly different point of view. By proposing coverage indicators by public and private credit registries, the reports seem to share the logic of complementarity of both elements¹⁵ (we may once again note that the private system is taken into account in its narrow sense). However, a reading of the report allows us to perceive the choice made in favour of private arrangements. As the 2004 report upholds: "private bureaus collect information from a more extensive range sources, such as trade creditors, retailers, courts, and other public records. They distribute longer historical data and more types of data, have fewer restrictions on access, and provide such other services as credit scoring, monitoring of borrowers, fraud detection, and sometimes even debt collection"¹⁶. The 2006 report emphasizes the fact that "public registries are less effective than private bureaus in most countries."¹⁷ In comparison, the intervention of the public sector would be a sign of distribution of basic information¹⁸. The justifications of such a preference however remain to a large extent unexplained. On one hand, a direct comparison of coverage rates between private credit bureaus and the public credit registry is difficult to interpret¹⁹. On the other

¹⁵ A discussion with the authors of the report was able to confirm this logic, but there still remains a gap between what has been stated and the modes of calculating the indicators.

¹⁶ "Doing Business" [2004], p. 59.

¹⁷ "Doing Business" [2006], p. 37.

¹⁸ World Bank Report , *Improving Credit Information, Bank Regulation and Supervision: on the role and design of public credit registries*, G. Majnoni, M. Miller, N. Mylenko and A. Powell, June 2004, especially p. 14.

¹⁹ A direct comparison between coverage rates cannot constitute such a justification, refer to the part IV

hand, empirical studies, which are based on the same definitions, do not demonstrate better efficiency of private bureaus (at least at the macro-economic level).

The legal traditions and, in particular, the differences between Civil Law and Common Law legal systems, also seem to influence the choice in favour of a public or private registry model (or else the adoption of the 'mixed' model or both the system types coexist). According to Djankov et al. [2005], the presence of public registries is favourable to credit development for poor French Civil Law countries. As generally the French Civil Law imposes more important privacy protection, but offers a weaker level of protection of creditors' rights (La Porta et al. [1998]), public registries, which are often exhaustive and better monitored, seem to be adapted to the legal system of French Civil Law

"The choice²⁰ between common and civil law approaches to solving economic problems is a matter of comparative advantage of alternative strategies of corporate control and not just of the absolute advantage of common law solutions", Djankov et al. [2005], p.22

We may note that this study, conducted on 129 countries, does not demonstrate the superiority of a model with respect to the other: both are favourable to credit.

Thus, the 'optimal' solutions concerning the organisation of the credit information system are dependent on the legal traditions. For the Common Law countries, the policy of strong creditor's rights seems to be as effective as the reinforcement of the credit information system is for Civil Law countries²¹. Therefore, the legal tradition is not a fatality: well functioning public credit registries can compensate for the insufficiencies of creditors' rights protection.

To summarize, the existing scientific evidence does not give us a unique conclusion as for the superiority of a public or private device as a basic element of the credit information system. Even though at the individual level, the presence of private enterprises on the credit information market seems to be favourable to the reduction of financial constraints, as well as to the development of bank financing, this relationship is not confirmed at the macro-economic level. The taking into account of the specificities of the countries (such as the effectiveness of their institutions, or their legal tradition) let us suppose the existence of two models. Their effectiveness is comparable and, in all cases, the superiority of each model remains to be demonstrated. The first is based on privately managed information flows, weaker privacy protection associated with highly protected creditors' rights. The other is based on the existence of public registries, containing a wide range of credit data, a highly supervised information flow, but more restricted creditors' rights. The "mixed" model associating public and private credit registries, being the most widely present in the world (Love et Mylenko [2003]), also seems to be a worthwhile solution.

C. What is the impact of the positive files? Are negative files sufficient?

If we refer to the theoretical models (Padilla and Pagano [2000]), the level of borrowers' effort is close to the social optimum if the files contain negative and positive information. The system, with only negative information finally implies excessive cost for the borrowers. In this theoretical configuration, the presence of certain positive information could be socially beneficial.

Insofar as the empirical studies are concerned, Powell et al. [2004], while analyzing the public credit registries of three big Latin American countries (Argentina, Brazil and Mexico, all the three

²⁰ We may note that the term "choice of legal traditions" is not very appropriate: legal tradition is much rather an exogenous element for any reform than an adjustment variable. It is impossible to change legal tradition (in any case we have never seen it in practice), even though it is entirely possible to reform laws

²¹ We will see the status of credit information in France in the ensuing portion and the fundamental role that the information available through public databases plays.

having private and public registries), demonstrate that the inclusion of positive information in the public registry's database improves the access to credit for enterprises.

However, the empirical estimations carried out by Jappelli and Pagano [2002] do not demonstrate that the existence of positive files (as compared to the sole existence of files with negative information) in public or private registries significantly improves the credit/GDP ratio.

Faced with contrasting empirical evidence, more considerable costs related to the implementation of positive files have to be added (the number of incidents being always lower than the number of credits, it implies a more cumbersome management of the positive database). We may also recall that the cited empirical studies do not take into consideration the problem related to the flow of sensitive information (in particular when it involves household-borrowers), which necessitates specific supervision.

The report of the French National Commission on Data Protection²²(Commission Nationale Informatiques et Libertés) indicates that the putting in place of databases containing the positive files on households, besides considerable management costs, is associated with increase in risks. The Commission notifies in particular risks of exclusion, the consequences of files' embezzlement difficult to manage for a household and the danger of a generalized supervision. Faced with these risks, very scanty information is available concerning potential impact of a positive file on the increase in bank competition, on credit development or on the reduction of overdebtedness. These uncertainties have justified in France the position unfavourable to positive files on households (cf. part IV).

Conclusion

The analysed essentially empirical evidence, comparing the effectiveness of the various information-sharing models, seems to be insufficient to conclude as to the superiority of a unique information-sharing mechanism. Therefore a single solution does not exist: the configuration of the credit information system should be established depending on the legal, institutional and economic factors. The legal tradition (common law/civil law), creditors' rights, the effectiveness of the institutions in law enforcing (often aggregated under the notion of 'Rule of Law'), but also privacy protection laws should be taken into consideration, in the same way as the level of economic development of the country and specificities of the national financial system (the concentration of the credit market, the dominance of relational/transactional banks, etc.)

III. Problems related to the assessment of the credit information system

Though the utility of an enhanced transparency of the credit market seems to have been demonstrated at the theoretical level, the empirical demonstration of the impact of the various devices aimed at increasing transparency encounters an additional difficulty related to the impossibility to obtain a unified and quantified estimation of it²³.

As we saw in parts I and II, the design of credit information systems considerably differ from one country to another.

²² CNIL [2005] 'Problems posed by files regrouping information of the financial situation of individuals with regard to the Law of 6 January 1978 (files known as 'positive centres')'. Working group Summary Report presided by Mr Philippe Nogrix examined in plenary session on 18 January 2005.

²³ Besides, the differences in the empirical results that we spoke about in the previous section can be due to the absence of a single measure ...

- First, the purposes of creation of information disclosure mechanisms are not always the same. We note their role in bank supervision, but also as an instrument to increase the credit market transparency as well as the reinforcement of banking competition.
- The configuration of these mechanisms is also not homogeneous. The files can be implemented and managed by public authorities, or by private players (independent enterprises or the lenders themselves), mixed systems (or a semi-public agency) also exist.
- The range of information that the databases contain is also highly heterogeneous: certain files are limited to the ‘black’ information; others also include positive data, collect other information from other sources (including for some of them a detailed financial analysis, rating and recommendations for lenders). Some databases are specialized in information on the credit information on companies (specializations depending on the sector or type of activity also exist), others – in information on households. Specializations by the geographical zones are also existent in a number of countries (USA heading the list).
- The legal framework governing access to this information also differs: from access that is justifiable by any professional ends (USA) to access strictly regulated and limited to the banking sector (France). Regulations in the matter of privacy protection, but also in the matter of monitoring the accuracy of information, which may be disseminated with or without the authorization of the concerned party, is also far from being homogeneous. Even in the case of European countries wherein the homogenization of legislation has gone to the farthest extent in the world, one observes significant differences (refer to Jappelli and Pagano [2000-b]).
- One must also note the existence of other devices that help lenders in collecting information on the enterprises and thereby facilitate calculation of risks (professional associations, chambers of commerce, specific programs of help in new business creation). These institutions are logically a part of the system facilitating the getting credit for entrepreneurs. Given the fact that their configuration and modes of action vary extremely from one country to another, the estimation of their impact on the facility of obtaining financing from credit organizations (which can be very important for newly created businesses) is quite difficult. For this reason these organizations (which may be public, para-public or private) are often excluded from the existing estimations that describe the system facilitating the getting credit in a given country.

Thus, faced with such heterogeneity of devices aimed to facilitate the getting credit, the construction of a single indicator becomes highly complex: several elements, often difficult to compare, must be taken into account. The absence of objective statistics (concerning for instance the number of firms operating on the market, their market coverage, etc.) makes necessary the use of subjective evaluation. The estimations available on the status of information-sharing systems are thus constructed from questioning. The Central Banks are the first to be questioned on the status of public files. Other market players (private enterprises, rating agencies) are also questioned²⁴.

The known biases for recourse to questionnaires and a relatively high cost of verification of the given responses (especially in the case of a cross country comparisons), the missing data and the absence of a unique list of questions make difficult the comparison of responses.

To illustrate this point we can compare two studies. The first, Powell et al’s [2004], analyze public credit registries in Argentina, Brazil and Mexico and gives a detailed description of the Mexican public credit registry (by giving lots of details on its functioning, which reveals its great effectiveness), but does not publish any information on the number of registered files (the authors could not probably obtain this information from the Central Bank of Mexico or the latter did

²⁴ We may note that, in questionnaires, the countries having a concentrated information market (such as the American market wherein the three big credit bureaus are dominant) will have more chances of getting reliable evaluations than others wherein the information market is managed by small-sized enterprises known in specialized circles, but not necessarily by the general public.

not wish to communicate it to them). The second study, realized by World Bank (Doing Business [2006]) deducts from this a coverage rate of 0 for the public credit registry in Mexico (which is unlikely giving the qualitative description given by Powell et al [2004]). This illustrates rather well the difficulties related to the interpretation (and to the quantification) of these qualitative data and which are often still incomplete²⁵. Similar problems concern the figures on France, but we will get back to this in the part IV.

Giving this evidence, the ambition of the World Bank to provide a universal quantitative indicator of the status of the credit information system ('Getting Credit') calls for some reservations. Considering a wide publication of the obtained figures and the reputation of the institution which publishes them, we feel that it is important to examine more in detail its calculation methods. We then use it as a basis of comparison with respect to our own estimations.

We distinguish 4 main biases in the construction of the indicator 'Getting Credit'.

1. *Definitions*. The retained definition of private credit bureau excludes (for reasons which were not clarified by the authors of the report²⁶) the firms operating on the market for credit information whose services are not exclusively reserved to lenders (rating agencies, credit insurers, other companies proposing financial information and analysis and scoring services, etc.) The definition that has been given in the 'Doing Business' 2004, 2005 and 2006 reports also does not take into consideration the databases on the managers of companies and excludes all the other organizations that are likely to facilitate the granting of credit. Owing to this, the obtained estimation of the coverage should be interpreted as an estimation of **narrowly defined** credit information system.
2. *Method of calculation*. The calculation of the coverage ratios ('Coverage' sub-indicators) of the 'Getting Credit' indicator is highly biased towards households credit.

(*) COVERAGE =

= NUMBER OF FILES (on enterprises AND households)/ADULT POPULATION

We note that in any economy the number of firms is always lower than the number of adult people (in the case of France for an adult population of 48.5 million, there are 5.2 million enterprises²⁷). Therefore, credit registries managing the information on households have bigger databases than those that are specialized in enterprises. By taking up the French case once again, the exhaustive credit registry, covering the totality of enterprises, (therefore offering the maximum possible information on firms and thus on professional credit) gives a coverage ratio of 10.7% only.

Thus we can put out a problem related to interpretation of the obtained results (and ranking): the best ranks are granted to countries having at their disposal credit registries on households. However the purpose of the indicator 'Getting Credit' is to assess the ease to get credit by a business. It seems quite obvious that the impact of a database on firms on professional credit is far greater than that of a database including households. The choice of a mixed indicator is all the more difficult to interpret within the framework of the report on a doing and creating business. Though the facility of getting credit for a business comes within the scope of this logic, it appears difficult to clearly define the place of households' credit (even if both are favourable to the demand and the development of the financial sector). In this sense the explanatory power of an indicator mixing 'enterprises' and 'households' files is likely to be relatively weak.

²⁵ Furthermore, in the published data, we have never seen the option 'no data available (ND)' or 'does not wish to respond (NSP)'. Putting 0 in the place of 'ND' or 'NSP' is incorrect from a statistical point of view.

²⁶ As follows from the conference call of 21/2/2006 between the French Finance Minister and the World Bank

²⁷ This figure includes enterprises subjected to corporate tax (including enterprises that are inactive on the economic plane are not yet legally closed), but also individual and self-employed entrepreneurs and professional farm businesses.

One of the arguments in favour of maintaining the use of the formula (*) concerns statistical difficulties: in a number of countries it is impossible to dissociate firms from individuals in databases and therefore to properly take into account small individual enterprises²⁸. However, it is precisely this type of business which is of foremost concern of the 'Doing Business' report.

We must however note that this logic of a better statistical coverage of small individual enterprises is not present in the calculation of another "Getting Credit" sub-indicator, that of 'Creditors' rights': the 'reference case' denotes a medium-sized enterprise (100 employees). Other specificities of functioning of individual enterprises have not been taken into account. Note in particular personal wealth guarantees, being the most frequent case of the guarantees asked from individual entrepreneurs' to support their credit applications.

The report excludes other devices helping lenders carry out the estimation of risks, which are particularly important for the financing of newly created enterprises: professional unions, the chambers of commerce, specific funds whose objective is to facilitate the creation of businesses, which are not even mentioned. However, their impact in the facility of getting credit for new businesses is far from being negligible in some countries.

We should also note that the databases on enterprises and households are differently concerned by privacy protection laws: the rules concerning the disclosure of the information are generally less restrictive for the information on companies than for individual data. The mixing of both the files ends up in a wrong assessment of the impact of the privacy laws on the transparency of professional credit market. Note that this problem is also present in other studies. Thus, in Jappelli and Pagano [2005] we see that:

"For instance, France's strict privacy protection laws have prevented the development of private credit bureaus in that country". p.23.

But, the highly restrictive privacy protection law applies in France only to files on private individuals (by way of the Act n°78-17 of 6 January 1978 on Data Processing, Data Files and Individual Liberties).

3. Multiple accounting

When a competitive market of credit information exists, nothing excludes that the same borrower might be present in every operator's database (this is even more true if the resale of information among agents is possible). Therefore the calculation of the coverage ratios based on the summation of the files of all the databases ends up in an overestimation of coverage when competition exists. In this situation the country with public credit registry (with a single file per borrower) automatically obtains a lower rank *without the real status of the companies' credit information system being assessed*. In other words, if there is no explicit separation of functions between public and private credit registries made by the law, they collect the same type of information. In this case when the credit information is managed by the public sector, the number of files necessary for having an exhaustive database (benchmark) is less important.

As an example we can cite the American market, wherein the three main credit bureaus (Equifax, Experian, Trans-Union) display a complete coverage of all the household-borrowers (as Hunt [2002] points out). Even if, as in every country, there are people in USA who has no bank credits, the use of the formula (*) makes it possible to obtain a coverage ratio of 100%.

4. The mix of negative and positive files biases the estimation to databases with positive information.

²⁸ Cf. conference call of 21/2/2006, op.cit.

In every economy (apart from the bank crisis situation), the number of payment incidents is always lower than the number of credit contracts, therefore the coverage rate calculated according to the formula (*) is always higher for the systems having positive files. We may note that this preference for positive data can also be noticed through the 'Depth of Credit Information' indicator: it gives a better ranking to the countries wherein positive files exist.

But, as of today, scientific proofs are insufficient for upholding that the impact of the presence of positive files on credit (and especially for small newly created businesses) is significant. Given the risks of embezzlement of databases but also the considerable processing costs necessary for the implementation of positive files, the position taken in the 'Doing Business' calls for reservations.

Conclusion

Taking into account the diversity of credit information systems in the world, the existing quantitative estimations run into difficulties related to the absence of a single method of their measuring. Based on questionnaires, the existing estimations put out interesting but often incomplete information. We saw that the method used for the calculations of the 'Getting Credit' indicator of the World Bank calls for some critique. Given the 'youthfulness' of the method, but also the complex nature and the diversity of the systems to be evaluated, corrections and clarifications seem to be necessary. In the absence of a more rigorous method, it would be more judicious to suspend the calculation of a synthetic universal indicator (despite its immense appeal) and to rather proceed with comparisons per sub-groups of more homogeneous countries.

IV. French credit information system.²⁹

As we can observe from available studies, very little information is known about the status of the credit information system in France. In this section we propose a corrected estimation by taking into account criticisms presented in the previous section. We use a broader inventory of databases with the credit information in France which is likely to facilitate the risks evaluation for the lenders and thereby their decision for granting credit.

Going back to the existing estimations, we observe that Jappelli and Pagano's [2002] study, based on the questionnaires for the year 1990 mentions the absence of private credit bureaus in France (in the narrow definition). Insofar as public registries are concerned, the data reveal a very meagre size of the database (370,000 subjects, firms and individuals all put together) by referring to a questionnaire sent to the Banque de France. We however notice that the study takes into account the presence of enterprise and household files and the differences in the types of information registered on them. We see that the files are negative for the households and that the enterprise files also contain positive data (guarantees and total indebtedness).

Estrella [2000] gives more complete information: the survey in particular takes into account the existence of the FIBEN database managed by the Banque de France and gives an estimation of the coverage in % for firms and in % of the total credit for the economy. The study aims at carrying out a complete inventory of the existing sources of information in various countries. It brings out significant differences in the configurations of such systems at the national level and refrains from proposing a universal classification.

Yet another comparative study conducted by the World Bank in 1999-2000 (Miller [2000]) on a sample of countries takes into account only a single public database existing in France – the Centrale de Risques. Though the information on the data contained in is present (but incomplete),

²⁹ This part has been realized in collaboration with Louis du Merle, Doctor of Law at the University of Paris X-Nanterre.

other public and private databases has not been taken into account. The study does not mention any private database in France. Considering the wide definition of private credit registries retained in the study, this represents an omission which we retrieve in 'Doing Business' reports.

The figures published by the 'Doing Business' reports concerning the status of the credit information system in France are the following.

	DB'2004	DB'2005	DB'2006	OECD average (DB'2006)
Place of France in the general rating 'Doing Business'			44/155	
Place of France 'Getting Credit' rating			115/155	
Legal Rights Index	0	3	3	6.3
Credit Information Index		3	2	5
Public Registry Coverage	1.2	1.7	1.8	7.5
Private Registry Coverage	0	0	0	59

Source: 'Doing Business' 2004, 2005 and 2006 published by the World Bank

We may note that such a rank appears surprising on the face of a relatively high credit to GDP ratio in the economy (85% of the GDP by end 2005) as well as a high level of use of banking services by the population

We will therefore present a detailed estimation of the credit information system in France aimed at, among other things, correcting the omissions of existing studies.

A. The regulation of the flow of 'sensitive' personal information in France

As we can see from the analysis of US private credit bureaus specialized in information on households (Hunt [2002]), the extent of distribution of information can go far beyond the credit application:

"...role a credit bureau played in their successfully obtaining credit, insurance, or even employment. But when they are denied such things on the basis of information contained in a credit report, the credit bureau often gets the blame" p.14

We see that the availability of information on creditworthiness does not concern only the lenders. However, the benefit from it has been analyzed only in terms of reduction of bank risks and stimulation of the credit market. The effects of access to this information for the other agents are to say the least not studied enough, something that calls for very specific caution concerning the distribution of the data in the economy.

On the internal plane in France, the processing of personal data is regulated by the law relating to "data processing, files and liberties" on 6 January 1978³⁰. At that time it was one of the first countries to perceive the dangers that would arise for the liberties of citizens from the wide development of data processing and filing and, in consequence, to monitor the collection and processing of data³¹. Faced with technological changes, this law was modified, in accordance with the requirements of directive 95/46, by a law No. 2004-801 of 6 August 2004.

³⁰ Law no. 78-17 dated 6 January 1978 relating to data processing, files and liberties. Amended by the Act of 6 August 2004 relating to the protection of individuals with regard to the processing of personal data)

³¹ At the time of adoption of the law dated 6 January 1978, only Sweden and Hessen, from 1973 and 1970 respectively, possessed in Europe a legislation relating to computerized processing of nominative information; source: report recorded at the National Assembly on 9 January 2002 on the government bill relating to the protection of private individuals with respect to data processing operations of a personal nature, by Mr G. Gouzes.

The French regulation comes within the international scope on monitoring the flow of 'sensitive' personal information. We should note the OECD guidelines on the privacy protection and trans-frontier flows of data of a personal nature adopted on 23 September 1980 as well as the Convention of the European Council for the protection of people with respect to computerized processing of data of a personal nature adopted on 28 January 1981. We should especially emphasize directive 95/46/CE dated 24 October 1995 relating to the protection of private individuals with respect to processing of their personal data and to the free flow of these data. Finally the article 7 of the Charter of fundamental rights, proclaimed at the European Council of Nice on 7 December 2000, has consecrated the right for every person "...to the protection of its personal data. These data have to be processed loyally, with clearly defined ends and on the basis of the person's consent or in accordance with any other legitimate basis provided for by the law. Every person has the right to access and rectification of its data. The observance of these rules is subjected to the control of an independent authority".

This is how a third player came to impose itself in the French credit information distribution system: the *French Data Protection Authority (Commission Nationale Informatique et Libertés, CNIL)*

Article 25-I-4° of the "Data processing and Liberties" law as modified by the 2004 law disposes:

"The following may be carried out after authorisation by the "Commission nationale de l'informatique et des libertés" (...) automatic processing which may, due to its nature, importance or purposes, exclude persons from the benefit of a right, a service or a contract in the absence of any legislative or regulatory provision;

Thus the creation of any new database containing financial information is subjected to the prior control of the CNIL, so far as these data processing operations are likely to exclude a person from the benefits of a credit contract³².

Special attention is given by CNIL to the respect of the announced purpose of use of personal data: constitution of any file is authorized only in the case wherein sufficient guarantees can be given concerning the use of this information. The respect of the principle of sectorization limiting the information flow to a given sector is thereby controlled. In the specific case of credit information, the access to personal information is limited to the financial sector (as the objective of their creation is the reduction of overdebtedness and credit defaults).

Note however that the privacy protection laws in France do not completely exclude the possibility of creation of a private database containing information on creditworthiness. Subjected to bank secret, the sharing of this information is possible with an explicit authorization from the concerned person³³. Insofar the French law is only laying down conditions that make necessary the consent of the parties and that value the respect of the requirements set down in chapter II of the "Data processing and Liberties" law.

It is important to note that **the cited regulation does not apply to companies, but only to physical persons**. Thus, the tight monitoring of data on creditworthiness, which is often held against France

³² Generally speaking the "Data processing and Liberties" law stipulates that "no decision giving rise to legal effects with respect to a person may be taken on the sole basis of a computerized processing of data meant for defining the profile of the concerned party ..." (also refer to the jurisprudence of the Council of State: for example, for a recent reminder of this principle: CE, Sect., 30 October 2001, Assoc. Française des sociétés financières (French Association of Financial Companies), Req. 204909, *Rec. Leb.*, p. ??). Thus, the collected data are only "information" meant for helping the lender in his final decision, whether credit is granted or not, and not decisional norms.

³³ "...the centralization of information covered by bank secrecy accessible to an indeterminate number of credit establishments, not linked among themselves by a risk community, makes the express collection of consent necessary, through a square to be ticked or any other means enabling to establish the express nature of the consent." (Deliberation of CNIL 2005-198 dated 8 September 2005 bearing on the refusal of authorization for implementation by the company Banque Accor of a computerized processing of data of a personal nature having the purpose of mutualization of detection of incoherences in credit applications)

(particularly in the studies on credit information systems as already cited), applies in reality only to information relating to private individuals. Though the databases with credit information on private individuals as well as some data on managers of enterprises are subjected to special rules, the flow of information on companies (and therefore, on professional credit) is not subjected to these rules and is therefore entirely free.

B. Information on enterprises

Financial information on enterprises in France is available via public and private sources. The existence of a unified and well structured accounting standard facilitates the reading of data by all the concerned parties (and even by non-specialists). Furthermore the information is available to a very wide and varied public including credit institutions, but also other enterprises (customers, competitors, trade creditors) and even potential employees.

Among **the public sources** (for a description, cf the **Appendix 1**) we must firstly refer to the database of the Commercial Court registries which contains the accounting reports of all the French companies registered in the Trade Register. The sending of information is mandatory, and breach of this obligation is liable to sanctions for enterprises. The information is publicly available, a point which marks a specificity of the French system: the accounting reports (balance sheet, income statements and annexes including the detailed debt statements) are open for consultation. This is so for all the French companies that are subjected to corporate tax irrespective of their size and their sector of activity. Given the mandatory nature of the disclosure of information, the database of the Court Registries (consultable via Minitel, Internet, by telephone and by e-mail) enjoys an exhaustive coverage of French enterprises.

If the database of the Commercial Court Registries offers 'general' accounting information to the general public, the system of the Central Bank of France (Banque de France) offers specific information for the use of the banking sector³⁴.

The Banque de France, in charge of the centralization of information relating to credit, ensures a public service mission³⁵. Being a third party to the bank-client relationship, the legislator has provided, in the terms of article L 511-33, paragraph 2, of the Monetary and Financial Code, that "*professional secrecy cannot be held against (...) the Banque de France*"³⁶.

Credit institutions are in charge of the collection of information and the bank regulation imposes to them the obligations of declaration. Regulation No. 86-09 dated 27 February 1986 relating to the centralization of risks provides that "*credit institutions declare to the Banque de France the facilities that they have granted to the clientele of corporate entities, as well as to natural persons who exercise a professional unsalaried activity.*"³⁷

³⁴ An exception is made in the case of FNCI (National File of Irregular Cheques) whose access is authorized to any company accepting cheques as payment via the RESIST system.

³⁵TC, 16 June 1997, No. 03054, Société La Fontaine de Mars SARL, published in the Leblon collection, the Tribunal des Conflits (Court arbitrating concurrence of jurisdiction between the administrative and judiciary courts in France) recalls that "the function of centralization of information or bank file of the companies that the Banque de France insures constitutes a public service administrative mission".

³⁶ Article L 511-33 of the CMF: "apart from the case where the law provides for it, professional secrecy can neither be opposed at the banking commission, nor at the Banque de France, nor with the legal authority acting within the scope of criminal actions".

³⁷ Regulation No. 86-09 dated 27 February 1986 of the Committee for banking and financial regulation, modified by regulations No. 95-03 dated 21 July 1995 and No. 98-05 dated 7 December 1998, article 1. Regulation No. 86-08 dated 27 February 1986 pertaining to centralization of payment incidents, modified by regulation No. 95-03 dated 21 July 1995 provides in its article 1 that "credit institutions which are paying agents of payment orders other than cheques [...] declare to the Banque de France the payment incidents that they have identified on any bank account whose holder exercises a professional unsalaried activity."

FIBEN - acronym for Fichier bancaire des entreprises (Bank file of enterprises) – was created in 1982³⁸. This data bank "*renders possible the assessment of the quality of a credit portfolio, to detect the most risky financings.*"³⁹ The utility of this databank arises from the considerable coverage but also from the diversity of the information included in. It contains descriptive data (name, legal status, company address, etc.), accounting and financial information (balance sheets and income statements, annexes, financial links, etc.), data on payment incidents as well as on legal procedures. Furthermore, for any enterprise included in FIBEN the Banque de France proposes a rating calculation. It gives elements of assessment of company's ability to repay debts. The 'Banque de France' rating is an important element for decision-taking in the matter of loans for credit institutions. As follows from interviews with professionals of the credit market in France, it can also facilitate access of the enterprises to other financings and in particular to inter-enterprise credit.

Besides the information on companies' ability to repay debts, FIBEN contains information on managers. A specific rating is established for the managers. It represents a 'negative' file on the creators of businesses available to credit institutions. Our interviews with professionals of the credit market in France have demonstrated that this information is very important for the analysis of applications for financing **of newly created businesses**.

Right from 1946⁴⁰ onwards, the Banque de France instituted a file, popularly known as "Centrale des Risques (Pool of Risks)" having a double purpose:

"...enable every bank to respond as widely as possible, but without excessive risk, to credit applications presented by a client and furnish to the officials in charge of monetary policy all information in the matter of credit which is likely to clarify their decisions."⁴¹

Today, being a part of the FIBEN information system, the Centrale des Risques lists the credit outstanding of all corporate entities independently of their legal status, and natural persons who exercise a professional unsalaried activity. The threshold for declaration of bank credits has moreover been lowered to 25,000€ from February 2006 onwards (76,000€ previously)⁴². The Centrale des Risques is therefore a positive database listing corporate credit outstanding. As confirmed by professionals of the banking sector, these data are of great interest as a tool facilitating the calculation of risks for the financing of 'old' medium and large enterprises. The data of the Centrale des Risques enable banks to evaluate in detail the situation of a client, but also to obtain a more general assessment of the loan market.

In the European perspective and faced with a heightened internationalization of the activity of companies and lenders, the need for evaluation of cross border risks was increased. The financial security law introduced a new paragraph in article L 144-1 of the Monetary and Financial Code according to which:

"...the Banque de France can communicate all or part of the information that it holds on the indebtedness of companies to another Central bank member of the European system of central banks, to other institutions in a Member State of the European Union in charge of a mission similar to the one entrusted to it in France and to credit and financial institutions installed in a Member State of the European Union, under condition of reciprocity".

This device therefore enables the implementation of an agreement signed on 20 February 2003 between seven central banks for setting in place a mechanism for centralization of banking risks at

³⁸Circular of the Banque de France No. 83-25 dated 3 February 1982.

³⁹Information note of the Banque de France No. 133.

⁴⁰Decision of the National Council of credit dated 7 March 1946 organizing centralization of bank risks.

⁴¹Information note of the Banque de France No.115.

⁴²Instruction of the banking and financial regulation committee dated 18 January 2006, No. 1-06, pertaining to the lowering of the threshold for declaration of risks, published in the official gazette of the Banque de France, February 2006.

the European level. The idea is to expand, to the European level, the network of collectors and receivers of information originating from the mechanism of centralization of banking risks.

In the information system on companies managed by the Banque de France we must also mention the company accounting reports databank which namely serves as a base for the constitution of the Centrale des Bilans (Pool of Balance Sheets), a positive database which contains accounting data for a representative sample of companies and that is utilizable for analytical studies.

The information system on companies of the Banque de France also includes a Centrale des Incidents de Paiement-Effets (Pool of Bills of Exchange Payment Incidents) which contains information on all the unpaid discounted notes. These data (negative) are particularly important for the functioning of the bills of exchange market in France but can also be used for constituting the credit history of a company.

Private files

Taking into account the facility of access to ‘gross’ accounting information offered by the Commercial Court Registries, the companies offering financial evaluation and analysis services are numerous. In addition to publicly available data, they propose a wide range of services: more extensive history, calculations of financial risks by scoring, sectoral studies and comparisons, deep financial analysis. Some of them complete the data through their own surveys (such as Dun&Bradstreet), yet others propose rating or credit-insurance services (COFACE).

As we saw from our contacts with professionals of the credit market in France, the data from credit insurers seem to have better credibility for lenders. We see here a solution to the problem of inaccuracy of data which arises in the case of private credit bureaus – the act of getting into a credit relationship (like the insurer does) encourages the latter to increase its specific effort of verification of the errors in the information (because errors can be the cause for direct losses).

The table in **Appendix 2** gives a general idea of the private enterprises offering credit information and financial analysis services in France. Given the large number of such of enterprises, but also the ongoing process of concentration on this market, the given list is far from being exhaustive. However, it is sufficient to conclude that today in France there is almost no company whose information is not available via the existing databases.

We may note that, as follows from theoretical studies (refer to part 1) but also as confirmed by companies active on the financial information market, this important transparency of firms is not a choice without risks. Thus, the availability of information on French companies is also a source of vulnerability in particular faced with hostile buyouts by foreign companies.

C. Information on to household credit: the choice of maximum caution

Though insofar as companies are concerned, France’s choice has been to offer maximum transparency, such a choice is far from being applied in the case of household credit. As we have specified above, the privacy protection regulation exercises a strong control of the flow of financial data concerning households. Faced with the lack of certainty on the economic impact of positive files on households (reduction of overdebtedness, development of credit) and taking into account the non-negligible risks that information flow entails, in France only files containing ‘negative’ information exist⁴³.

⁴³ Already in 1991, the Leron report proposed the creation of a file on the indebtedness of private individuals. The opposition of the National Council of credit got the better of this proposal. The latter was worried about the risks that the establishment of such a file entailed, namely the risk that it might become a tool for business prospecting and that of creating a standard for indebtedness below which consumers would be rejected by the bank market. Refer to CNIL (2005), op.cit.

In France, the Neiertz law No. 89-1010 dated 31 December 1989 on the overdebtedness of individuals authorize the implementation of such a file as a privileged instrument in the fight against overdebtedness. The legislator has instituted a national file listing the information on characterized payment incidents related to credits granted to individuals for non-professional needs. The Banque de France is in charge of the management of this file⁴⁴: it appeared as being the sole party capable to offer sufficient guarantees and enable an effective centralization of information.

The presentation of the existing files listing information on households can be found in **Appendix 1**. We should point out that the only file with credit information *stricto sensu* is the FICP, since the other files are related to cheques.

The discussion on the necessity to put in place of one or several positive files with the information on household's credit is still existent in France at the moment. The reflections carried out by various public institutions have revealed the reticence of different players of the credit market. According to a recent CNIL report [2005], family and consumer associations are in majority unfavourable for it because of privacy protection issues. The Advisory Committee of the National Council of Credit and Securities (CNCT) has also given a highly nuanced opinion on this device. For the latter,

"...the effect of exchange of information among the lenders on the credit offer remains ambiguous (...) The opinion of the Committee is that other factors as the increase in the consumers' purchasing power, the lower level of fear of unemployment and better confidence in the future prove to be decisive."⁴⁵

Among credit institutions, two opinions are expressed: on one side, credit institutions being present on national credit market for a long time have a highly unfavourable opinion about the sharing of positive credit information on households. Considering that it concerns a great number of loans of a relatively limited size (consumption credit), the methods of calculation of risks available today (the scoring) are sufficiently performant to get an accurate estimation for risks on this type of loans and a positive file does not seem to offer any extra service. On the other side, small players on the loan market as well as subsidiaries of foreign credit institutions are favourable to the introduction of a database with positive information on individual borrowers in France.

Thus, as notified in Babeau's [2006] report, the problematic of the implementation of one or several "credit pools" remains larger than the only problem of the fight against overdebtedness. It obviously includes the issue of reinforcement of competition on the national bank market. We may note that its effects remain to be assessed. For all this, after several months of debate, the advisory committee of the financial sector (which succeeded CNCT in 2005) confirmed in a note dated of 16 May 2006 that it **remained opposed to the implementation of a positive file**, while showing its willingness to delve deeper into the issue, particularly in collaboration with the CNIL, if this mission were to be entrusted to it by the public authorities.

Conclusion

In conclusion we may note that the French credit information system is characterized by an important role granted to public registries. The latter, completed by private sector companies offering financial analysis, rating or credit-insurance services, ensure a high degree of transparency of the French companies. This transparency, being favourable for the development of credit, is considered by some companies as a source of vulnerability.

⁴⁴Article L 333-4 of the Consumer Code.

⁴⁵Notice of the advisory committee on the creation of a positive file in France, July 2004. The Babeau (2006) report for the advisory committee of the financial sector, p. 33 also emphasizes that "As for the causes for the relatively weak distribution of credit for consumption in our country, there is obviously no unanimity in the diagnosis. A few privilege cultural factors, others favour macro-economic mechanisms, yet others mention the "restraint" that the regulation on usury and other regulations might constitute. Lastly, a few consider the absence of "positive" files as being the main obstacle to the distribution of credit for consumption in our country."

Insofar as household credit is concerned, on the face of the risks for individual freedom, the implementation of files is strictly regulated. The opinion as to the effects of the database with positive information on households in France remains rather inconclusive. Thus, only negative files (with exhaustive coverage, listing all the payment or reimbursement-related incidents) exist today proposing to the lenders an important service that enables them to avoid bad risks.

GENERAL CONCLUSION

Economic research on enterprises' credit demonstrates that the increasing transparency is beneficial for credit development: the availability of credit histories to lenders facilitates risks' evaluation and therefore limits credit rationing. Though one can suppose that the impact is similar for household credits, specific studies are confronted with additional difficulties: the benefits presumed for the credit market (reduction of credit rationing, reduction of overdebtedness, reinforcement of bank competition) are economic, but the risks that such disclosure would entail are of a different nature.

More generally speaking, the available studies do not make it possible to determine a unique 'optimal' mechanism of organization of the credit information system: the solutions are different depending on the economic, legal and institutional environment.

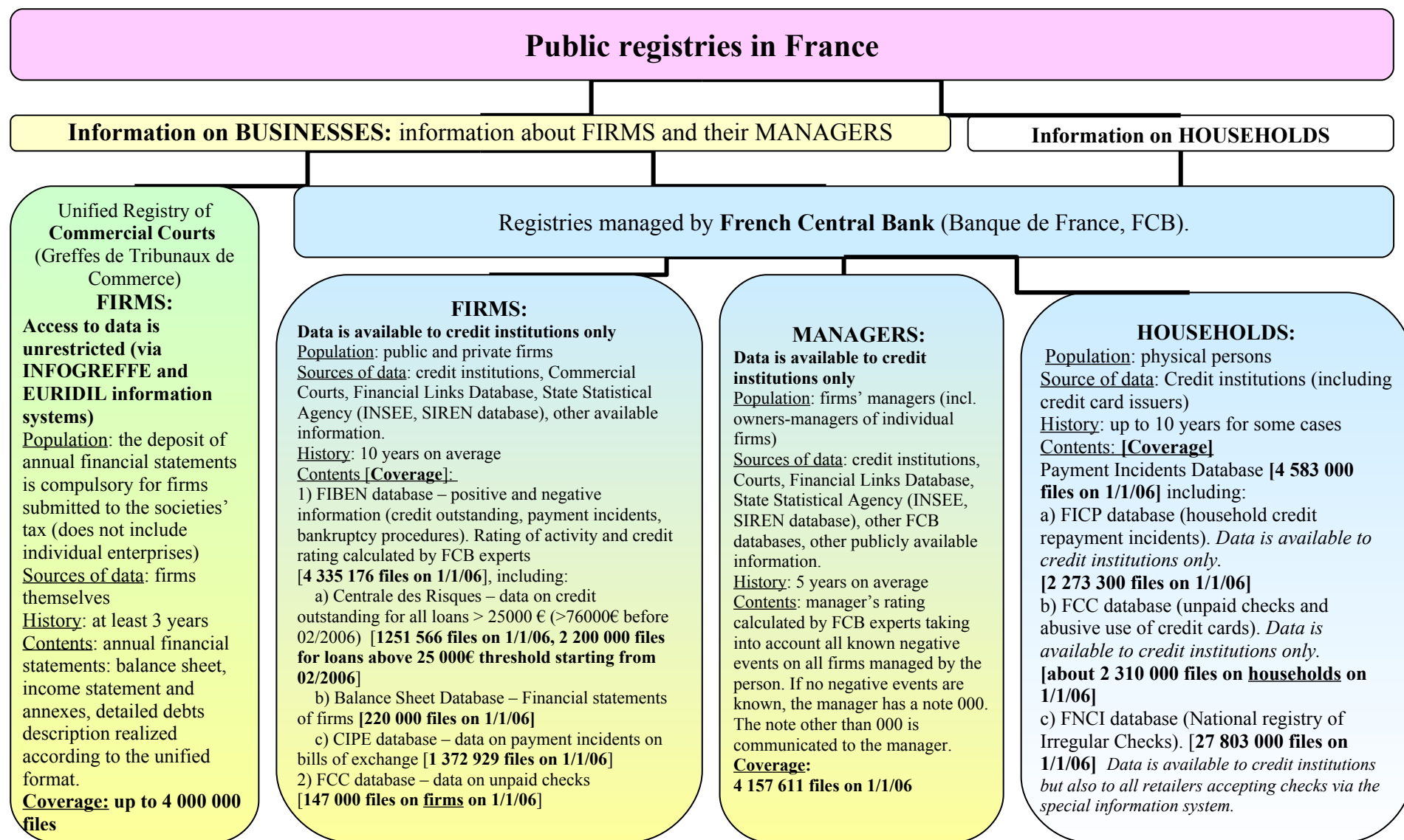
The review of empirical estimations on the availability of credit information in the world shows that most of them remain 'ad hoc' and are still highly incomplete. In particular, statistical processing is not without cautions and errors. **The sole indicator which claims to be able to give a general assessment of the credit information systems ('Getting Credit' of the World Bank) possesses a considerable number of biases that do not enable us to use it as a basis for international comparison.** It seems that it would be preferable to consider these estimations as 'trials' wherein improvements have to be provided for.

Our estimation, which itself is also a first trial of a more detailed assessment of the credit information system in France, taking into account the biases and omissions of other available indicators, leads us to conclude that it is not possible, as the Doing Business report does, to place France among the worst countries in the world in terms of availability of information on credit to companies (**see Appendix 3 for details**). On the contrary, the corrections that we are proposing to this estimation should allow it to considerably go up in this classification whose methodology, in any case, deserves a great deal of development⁴⁶.

Our position is more reserved insofar as information on households is concerned. This more nuanced judgement is explained by the still insufficient evidence relevant to the effects that a wider disclosure of data exercises on access to credit by individuals faced with the risks of such disclosure for individual liberty.

⁴⁶ For an overall criticism of the methodology adopted by Doing Business reports, refer to another working paper published under the aegis of the programme Economic Attractiveness of the Law: B. du Marais, "Measuring law? The methodological limitations of "Doing Business" reports," Working paper, AED 06- ???, May 2006.

Appendix 1. Public credit registries in France



Appendix 2. Private Bureaus in France

As the market for such information is highly competitive, we do not pretend to be exhaustive in this survey, the data represent a ‘minimum’ estimation)

Name of the registry	Population	Number of files	History	Contents	Information available to	Sources of Information
COFACE www.coface.fr	FIRMS	4 500 000 of French firms (8 200 000 including filials), 44 000 000 of firms in the world	5 years	Positive and negative data. Annual balance sheets, income statements and annexes. Information on managers, financial links, banking relations, official publications, press releases, Risk analysis, rating & scoring services, consulting, monitoring, credit insurance, factoring services, sectoral studies...	Access is payable but unrestricted. Any person, firm or credit institution can access to the data. Different subscription formulas are available.	Public and private sources
AGL et Dun &Bradstreet www.verif.fr	FIRMS	6 000 000	ND	Positive and negative data. Annual balance sheets and Income Statements. Information on managers and financial links. Official publications, Legal procedures (if any)	Access is payable but unrestricted. Any person, firm or credit institution can access to the data via Minitel or Internet.	The complete set of official sources (Courts, Statistical Agency, Professional Registries...), Private Sources: Dun & Bradstreet surveys data collected directly from enterprises
Optima Online www.manageo.fr	FIRMS registered in one of public registries (such registration is compulsory for all business in France, but different registries exist depending on the activity of the enterprise). All juridical forms, all types of property (private as public), including small individual business, artisans, liberal professions, agricultural enterprises. Closed firms still in the base for 5years.	More than 6 000 000	>5 years	Positive and negative data. Financial statements (Balance Sheet, Income Statement, Annexes), financial analysis ratios, information about enterprise’s managers and subsidiaries, scoring (failure probability), rating, competition, official publications, legal procedures (if any).	Access is payable but unrestricted. Any person, firm or credit institution can access to the data via telephone or Internet. Different subscription formulas are available.	The complete set of official sources (Courts, Statistical Agency (INSEE), Professional Registries...), private sources, own analysis

GIBMEDIA www.kbis-express.com www.bilan-bilans.com	FIRMS (registered in Registry of Commerce and Societies)	More than 4 000 000	>2 years	Positive and negative data. Financial statements (Balance Sheet, Income Statement, Annexes), financial analysis, information about managers, official publications, legal procedures (if any).	Access is payable but unrestricted. Any person, firm or credit institution can access to the data via Minitel or Internet.	The complete set of official sources (Courts, Statistical Agency, Professional Registries...), own analysis
INFOLINE SARL www.bilans.net	FIRMS (firms registered in Registry of Commerce and Societies)	4 000 000	>2years	Positive and negative data. Financial statements (Balance Sheet, Income Statement, Annexes), financial analysis, information about managers, official publications, legal procedures (if any).	Access is payable but unrestricted. Any person, firm or credit institution can access to the data via Minitel or Internet.	The complete set of official sources (Courts, Statistical Agency, Professional Registries...), own analysis, private sources
Groupe Newtech Interactive www.infobilan.fr	FIRMS (firms registered in Registry of Commerce and Societies)	4 000 000	2 years	Positive and negative data. Financial statements (Balance Sheet, Income Statement, Annexes), financial analysis, information about managers, official publications, legal procedures (if any) scoring (failure probability).	Access is payable but unrestricted. Any person, firm or credit institution can access to the data via Telephone, Minitel or Internet.	The complete set of official sources (Courts, Statistical Agency, Professional Registries...), Private sources, own analysis
S.VALLON ASSISTANCE CREDIT MANAGER www.anafinance.com www.cote-credit.com	FIRMS	2 600 000	5 years	Positive and negative data. Financial statements (Balance Sheet, Income Statement, Annexes), financial analysis and other analytics, official publications, legal procedures (if any) scoring (failure probability), daily information update – supervision services. Information about filials, managers, firms' banks.	Access is payable but unrestricted. Any person, firm or credit institution can access the data via Internet.	Official sources (Courts, Statistical Agency, Professional Registries...), own analysis

Appendix 3. Correction of the estimation of the World Bank concerning the status of the credit information system in France

A. Public Registry Coverage

Adult population: 48.5 millions

Number of firms (listed in official registries): 5.2 millions

Total coverage

	Firms	Managers	Households	Total
Simple sum (millions of files)	12,3	4,2	4,6	21,1
As a % of adults	25,4%	8,7%	9,5%	43.5%***
As a % of firms	236%	80%	88%	404%
Corrected for the 'multiple accounting'				
Number of files (millions)	4,5*	4,2	4,6	13,2
As a % of adults	9%	9%	9%	27%
As a % of firms	87%	80%**		

* Includes FIBEN database (as the most complete) and firms listed in FCC database

** note that 1 manager can manage one or more firms

*** If we introduce this estimation in total Getting Credit ranking (assuming that other countries' position does not change), France comes to the 3rd place in the World (after Portugal and Belgium). To compare, the estimation of DB (2006) with the coverage ratio of 1.8% keeps France on 42nd place.

Positive versus negative files

	Firms	Managers	Households	Total
Negative files (millions)	1,6*		4,6	6,2
Positive and negative files (millions)	10,8**	4,2	0	15

* Includes CIPE and FCC databases

** Includes Commercial Courts database, FIBEN database, Centrale des Risques and Balance Sheets databases

B. Private Bureau Coverage

All private firms sell positive and negative information

The estimation presented below can be considered as some 'bottom line' because the number of firms operating on the credit information market in France is relatively important and we cannot list them all.

	Firms and their managers*
Simple sum (millions)	34.8
As a % of adults	64%***
As a % of firms	598%
Corrected for the 'multiple' accounting	
As a % of adults	13%
As a % of firms	115%**

*The information of private bureaus systematically includes some data about managers

** The ratio slightly superior to 100% is due to the maintain in private databases of firms which have terminated their activity

*** Even this minimum estimation improves the ranking of French credit information system: it goes up from 70-155th place to 42nd place.

As we can see even this minimum estimation is sufficient to conclude that **the financial information about any French firm can be found on the market.**

C. Depth of credit Information Index.

The note of the World Bank seems not to reflect the real situation with credit information disclosure in France : some databases as well as some specificities of the organization of French system are not taken into account. By following 6 points used in the calculation of “Depth of Credit Information Index”, we can easily see that:

1. Positive and negative information is available on FIRMS through public and private databases. Only negative information is available for HOUSEHOLDS through publicly owned (French Central Bank) registries. [1]
 2. Firms and individuals are covered [1]
 3. Data from retailers, trade creditors or utilities as well as financial institutions are distributed. [1]
 - According to the French legislation (established in order to control risks of financial system) retailers are not allowed to offer credit. In order to do consumer credit they should pass by a contract with credit institution (this credit institution is submitted to Bank Law and so has to declare data to Public Credit Registry). So the credit **information from retailers** (for example on consumer credit payment incidents – FICP database) **IS included** in the public credit registry in France, but by the different way. Retailers benefit from the existence of FNCI database which permits them to verify in real time the checks they accept in payment.
 - Data (negative) from **trade creditors** are also available in Public Credit Registry via banks accepting trade credit bills for discount (CIPE database).
 - Data from **financial institutions** is also available
 - The only missing element is utilities providers, but no credit is distributed by this channel in France. Note that some of utilities providers have their own databases: for example automobile insurance companies manage a common file (AGIRA) which includes information on all physical persons for which the company has cancelled the insurance contract (because of important risk taking or nonpayment). According to the principle of ‘sectorization’, access to this information is restricted to insurance companies.
 4. More than 2 years of historical data is available for the majority of databases [1] (refer to the Appendix 1 and 2)
 5. Data on all loans above 1% of income per capita are recorded [1]
 - Data on all payment incidents (all amounts) AND on professional loans above 25 000 € (before 2006 76000€) is recorded and distributed to credit institutions by the Central Bank.
 - Balance sheets, income statements and annexes (including debt statement) of firms (all sizes) are available through Commercial Courts or private firms to any economic agent (firm, individual, credit institution...)
- Borrowers have the right to access their data by law [1]

As we can see the taking into account of the totality of described databases but also of some specificities of the organization of the financial system in France increases the note from 2/6 to 6/6

Depth of Credit Information Index, Correction

Features of Credit Information System	Indicator	Corrected
Credit Information Index	2	6
Are both individuals and firms listed in credit registry?	Yes	Yes
Are both positive and negative data distributed?	No	Yes
Does the registry collect credit information from financial institutions as well as retailers and utilities providers?	No	Yes
Are more than 2 years of historical credit information available for distribution?	No	Yes
Is data on all loans larger then 1% of income per capita recorded?	No	Yes
Is it guaranteed by law that borrowers can inspect their data?	Yes	Yes

This correction improves the ranking of French Credit Information System: from 80-100th place it goes up to 1-18th place.

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