

# BEST WORLD PRACTICES IN CREDIT REPORTING AND DATA PROTECTION: LESSONS FOR CHINA<sup>1</sup>

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China has experienced tremendous growth of its consumer credit segment in the past ten years. One of the most pressing questions is how it will be possible to preserve a healthy credit market. Credit reporting systems, which are highly sophisticated in the industrialized countries, are a crucial part of credit markets. However, there is no international consensus on the best practices for the regulation of credit reporting. For China, this question is very important. The adoption of inadequate data protection standards may create problems in credit reporting or it may interfere with the EU trade relations. This paper reviews the progress in credit reporting in China as well as its legal foundations. The Chinese case is discussed in the context of a review of credit reporting regulation in 10 countries. Standards set by international organisations such as the EU, OECD and UN are included. The U.S. approach as well as the EU approach to credit reporting regulation are contrasted. Based upon this background and the historical experience in industrialized countries, paths for legal reform in China are discussed.

*Key Words:* Information sharing, credit markets, regulation  
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## 1. INTRODUCTION

China is one of the fastest growing economies on earth. The accession to the WTO just marks one further historical step of the increasing global importance of China. The Chinese society and economy is transformed with increasing speed, hence the Chinese have to manage carefully the economic transition. One of the most important ingredients into a booming economy is a healthy consumer credit market. Here, the Asian nations quickly seem to catch up, Asian thrift turns into spending, which will increase the relevance of consumer spending for the overall economy. There are many pressing questions for the Chinese government among those, the regulation of the consumer credit market is one of them.

The establishment of a national "social credit system" and its regulation is of utmost importance, before foreign competition in financial services will enter the market in 2006. Additionally, the question of data protection and privacy will become more pressing, as China evolves into an economy, increasingly dependent on information technology.

A fast and unregulated growth of the consumer credit market will certainly bear risks. China has a relatively weak and instable banking system, no firm legal tradition of the rule of law and weak courts that could help to enforce new laws. Additionally, its domestic banks are burdened with corporate debt and hope to find relief through lending to consumers. Chinese, on the other hand, are thrifty and used to save which is reflected in one of the highest saving rates in the world. This is quite a contrast to an indebted society such as that of the U.S.

Credit reporting is a necessary ingredient, but by no means a sufficient condition for a healthy credit market. In other industrialized countries, consumer protection, bankruptcy laws, creditor rights and consumer education is also part of the regulation. This must be emphasized, since on many occasions, the impression is evoked that credit reporting is the solution to all kinds of problems (as will be discussed later). China has a credit reporting industry that is local and in its infancy. And only in two cities local regulations exist that are rudimentary but the first step in the right direction.

The current paper is concerned with consumer credit reporting and hence excludes business reporting (commercial reporting). It discusses extensively regulation, since there is currently no international consensus on what the best practices are for the regulation of credit reporting. For China, this question is of utmost importance, since the adoption of presumably inadequate data protection standards may interfere with EU trade relations. Europe tries to protect the privacy of data on its citizens by requiring "adequacy" of data protection in countries that do not belong to the European Union.

This paper reviews the progress in credit reporting in China as well as its legal foundations and possible reforms. It discusses the Chinese case in the context of a global review of credit reporting systems and their regulation in 10 other countries. This includes the standards set by international agreements such as the OECD Guidelines, the UN Principles for Privacy and the EU Data Protection Directive. Based upon this background and the historical experience in the industrialized countries, paths for legal reform in China are discussed. Sound policy advice can only be given by referring to experience in different countries - not only the U.S. - and by taking the international trends into account. Countries have made their experiences with this regulation embarking on "learning curves" in some instances.

Newcomers in this field can learn from their experience. The intention is to inform Chinese policymakers about international developments and the situation in other countries. Chinese scholars are currently looking at laws in the U.S., Europe and Japan for role models in privacy. Much of the academic writing so far has concentrated on piracy of intellectual property or online privacy and surveillance. Here, I concentrate on regulations for financial privacy, or narrower for data protection in credit reporting.

Although this paper uncompromisingly states that the Chinese Administration has to find its own approach, the comparison with other models in privacy regulation might be helpful. To better understand the approaches in the EU as well as in the U.S., I refer to the historical background. The comparative analysis of both regimes reveal some interesting insights. Although Europe is usually seen as an example of regulatory burden and the U.S. as the lighter regime, a closer look shows that in credit reporting, the opposite may be the case. I discuss the advantages and disadvantages of both regimes.

## 2. CONSUMER CREDIT MARKETS

### 2.1. Trends in Consumer Credit

In the following, I briefly discuss the extent of consumer credit in European countries, the U.S. and China. The goal here is to understand the composition of consumer credit across different nations as well as the most important trends. Methodologically, China should more be compared with the transformation states of the former Soviet Union than with highly developed nations such as the U.S. However, there is mainly a lack of data on transformation states, I included them, where possible. Consumer credit as percentage of GDP over the past years are displayed in the Figure 1 below.

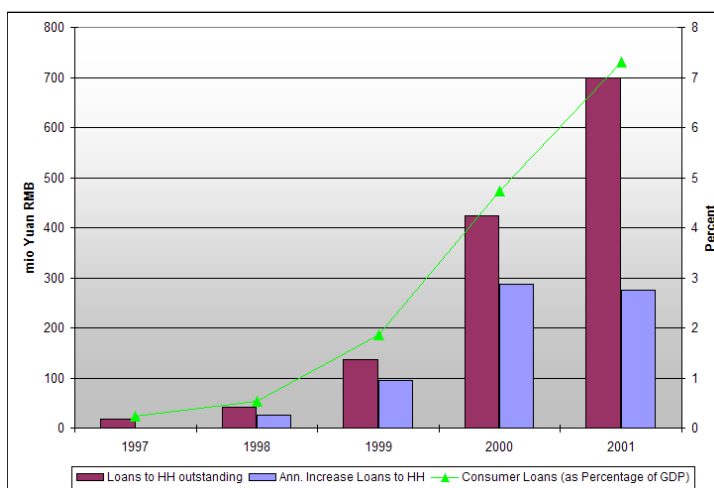
**FIG. 1** Consumer Credit as Percentage of GDP

Country	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Austria	na	na	na	na	na	na	na	na	9.1	8.4	11.7	12.3	11.8
Belgium	5.3	5.4	5.4	5.5	4.7	4.8	4.7	4.7	5	5.2	5.1	5.2	5.2
Germany	10.8	10.5	10.7	11.3	11.2	11.2	11.1	11	11.3	11.1	11	10.8	10.6
Denmark	na	9.1	8.1	7.2	6.6	6.5	6.5	6.6	7	7.2	7.1	7.7	6.5
Spain	9.7	9.1	8.4	8	7	6.6	6.5	6.5	7.7	8.4	8.4	9.6	7.5
Greece	0.8	0.7	0.7	0.8	1	1.8	2.2	2.2	2.8	3.4	4.5	6	6.9
France	5.3	5	5.2	5.4	6.1	6	6.3	6.5	7	7.5	7.9	8	7.8
Finland	na	na	na	4.6	3.9	3.4	3.1	3.1	2.9	2.5	2.3	2.3	2.3
Italy	3.2	3.2	2.8	2.2	2.1	1.8	1.9	2.4	2.6	2.8	3.1	3.4	3.6
Ireland	na	na	na	na	na	na	na	na	5.7	6.6	7.7	7.5	8.1
Netherlands	2.9	3	3.4	3.6	3.6	3.5	3.5	3.4	2.9	3	3.5	3.1	3.4
Portugal	na	na	na	na	na	na	5.8	5.4	6.1	6.3	7.1	6.5	6.1
Sweden	27.7	22.9	21	14.8	13.3	12	11.9	10.8	10.8	11.3	12.1	11.4	10.6
UK	11	10.8	11.4	10.2	10.9	12.9	12.1	11.7	13.5	12.9	12	12.4	13.9
US	18.1	17.8	15.2	14.3	16.7	19.5	19	16.4	17.3	15.1	13.4	13.1	15.7
Japan	na	85.5	74.8	57.3	52	52.6	84	77.7	65.3	45.7	64.3	47.2	46.6
Czech Rep.	na	na	na	na	na	na	na	0.3	1	1.5	1.6	1.4	2.3
Hungary	na	na	na	na	na	na	na	1.6	1.8	2.5	3.1	3.6	4.2
Latvia	na	na	na	na	na	na	na	na	na	0.3	0.3	0.4	0.6
Lithuania	na	na	Na	na	na	na	na	na	na	0.2	0.2	0.2	0.3
Malta	0.1	0	0	0.1	0.2	0.4	0.6	0.5	0.6	0.6	0.5	0.5	0.4
China	na	na	Na	na	na	na	na	0.2	0.5	1.8	4.7	7.3	na

Source: ECRI (2002), Fan and He (2002) and UN Statistics, numbers for China include housing loans.

For all countries - and China is no exception here - it holds that there are variations in the composition of lending, but in general the bulk of household debt is in the form of mortgages. Especially countries with a relative strong GDP growth in the 1990s witnessed an increased growth in consumer credit. The accession states, probably a more adequate comparison for China, reveal high growth rates from a very low level on. Stronger credit growth can be attributed to stronger GDP growth, monetary policy, but also deregulation and increasing competition among creditors. Additionally, the development of national data bases, electronic payment systems and point-of-sale techniques facilitate such growth. Household loans include mortgages and consumer credit (auto loans, education loans and other loans). Numbers have been calculated from Fan and He (2002), see Figure 2.

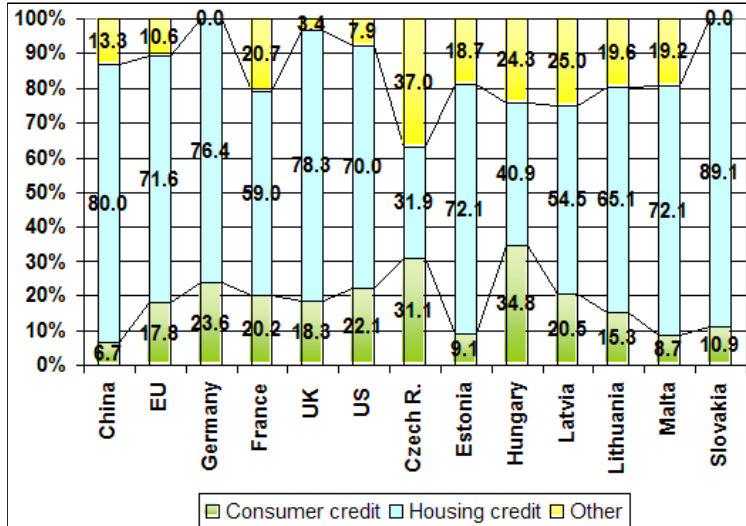
**FIG. 2** Growth of Loans to Households in China



In Europe, Denmark, the Netherlands and UK have large proportions of mortgages, whereas consumer credit is higher in Hungary, the Czech Republic and Germany compared to other countries. Mortgages currently account for roughly 80 percent of total household loans in China. This large share is due to the fact that in 1998, the Chinese Administration started to reform the urban housing system. In the aftermath of this reform, demand for mortgages increased rapidly (Fan and He 2002: 13). These differences in the composition of lending for selected countries are provided in the Figure 3 below. Foreign banks will enter the consumer finance segment on December 11, 2006. Currently, there are a number of partnerships of domestic banks with foreign counterparts. Consumer finance in China is still very underdeveloped and will remain so until there is a national credit reporting system in effect and a comprehensive electronic payment system. Additionally, also interest rates are still regulated in China. Due to this very early stage of development, there are no statistics on bankruptcies, defaults or the household debt-service burden.<sup>3</sup> In the increasing lending lies the problem that has already hit other Asian economies: rising default rates and bankruptcies. Moreover, loans for automobiles are also quickly growing, in 2001 they accounted for 6.2 percent of total loans, the

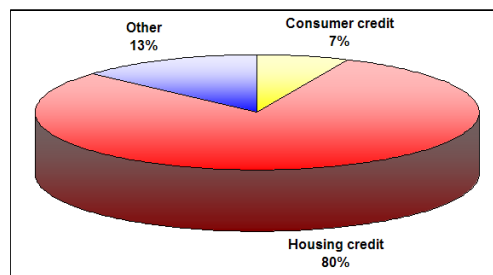
<sup>3</sup>The household debt-service burden is the ratio of minimum and interest payments by private households to their disposable income.

**FIG. 3** International Comparison of Household Credit Composition



largest single category. This segment of the market is actively developing, only recently China allowed auto financing companies to enter its market. 13.3 percent of the loans to households went to loans with varying purposes. Education loans, on the other hand, are currently of minor importance. These loans account for 0.5 percent of total loans.

**FIG. 4** Loans to Households in China (2001)



The quick adoption of credit cards by Asian consumers coupled with underdeveloped credit reporting systems led to relatively high default rates in South Korea (Bailey, Chun and Wong 2003). The authors report that from 2000 until 2002, delinquent accounts "quadrupled to 11.2% of total debt, and the write-off rate reached 9.6%." In the U.S., charge-off rates in the same period were a seasonally adjusted 4.55% (2000) and rose to 5.13% (2002). However, the delinquency ratio for overall retail loans is only half of that in the U.S.

The Korean consumers quickly abandoned their financial conservatism. The "credit card bubble" and spending has also been driven by "banks and other lenders looking for new business. Non-banks, including arms of such chaebol as LG and

Samsung, have been especially aggressive, issuing cards to youngsters and even offering them in the street." (Economist 2002) From 2000 until 2002, the number of cards per user has went up from an estimated 1.8 to 4. The growth has happened without a full-fledged system of credit checks in operation. With the strong rise in debt levels, the sensitivity to a rise in interest rates will increase. In South Korea domestic household demand is already playing a much bigger role in driving growth, relative to the export sector. Hong Kong also experiences quick growth of consumer credit and increasing rates of consumers being reported as delinquent. The numbers are given in Table1.

TABLE 1  
Consumers Being Reported Delinquent in Hong Kong

Subject	1998	1999	2000	2001
Consumers reported delinquent (CRD)	15.573	42.473	13.685	17.149
Growth rate of CRD	55.60	-56.28	-4.92	56.15
Delinquent records reported	26.946	23.947	58.145	69.208
Mean record reported per person	1.73	3.13	4.25	4.04

As reported by Bailey, Chun and Wong (2003), "in Hong Kong, where banks share only negative credit information, average bankrupts owe 42 times their monthly income in unsecured debt, compared with 21 times in the United States, where banks supply all available information." Only recently Hong Kong changed its information sharing regime, which I discuss further below. Also in other markets, credit cards receivables are rising with double-digit growth rates, for instance, in Thailand, India, Singapore or Malaysia. Moreover, also the growth trends in consumer credit are similar. "In 2002, consumer credit in Thailand (other than housing finance) rose by 40% in 2002 while in Indonesia consumer credit expanded by 37%." (The Banker 2003: 10)

In summary, China is comparable with the Eastern European transformation states in its fast growth from a very low level. There are also no special characteristics concerning the distribution of its credit, mortgages constitute the bulk of lending just as in the transformation states and the industrialized nations. This growth, however, can be accompanied by negative effects of increasing consumer bankruptcies if no credit reporting system is in place. Moreover, if the lending reaches a discernible size to GDP, there are several macroeconomic effects that Chinese leaders should be aware of. This will be discussed in the following.



## 2.2. Consumer Confidence, Debt and Spending

The following section addresses the question how confidence, credit and consumption are intertwined. I argue that increasing indebtedness of consumers is a sign for their positive expectations about future development on the job markets. However, the increasing indebtedness of households has macroeconomic implications, it increases the interest-rate sensitivity of households.

Since the 1980s, borrowing by households has increased remarkably in a number of countries. This increasing indebtedness (measured in the growth of debt in relation to growth in income) has important macroeconomic implications. As Debelle (2004) explains, although households are less liquidity constrained, the household sector will become more sensitive to movements in interest rates, movements in housing prices and income shocks arising from unemployment. If some of these factors are coupled such as a rise in unemployment and interest rates, the effects are amplified. In the OECD countries, decreasing interest rates have offset the increasing household indebtedness somewhat, for this reason no larger share of income is devoted to debt service payments. This must not conceal the fact that in some countries "(...) service ratios are currently close to the highest levels of the past few decades, despite the fall in interest rates." (Debelle 2004: 57) This is especially the case for the U.S. As discussed above, the major part of lending is mortgages and fluctuations in interest rates will particularly affect countries with variable mortgages rates.

Probably more important than averages of debt across households might be the distribution of debt among them. However, there is virtually no internationally comparable data available. For the effects to occur, the population affected by unemployment must overlap with those that borrow. On the microeconomic level, "(f)inancial institutions generally set a limit on the amount of disposable income that a household can use to service its loan, thereby restricting the maximum amount it can borrow." (Debelle 2004: 55) This is an important control of credit risk. Information sharing facilitates this assessment.

Growth in consumer credit is strongly associated with future consumption as some studies show (Antzoulatos 1996 and Ludvigson 1999). For instance, Antzoulatos (1996) finds for the U.S. that according to latest developments in the theory, there are non-linear dynamics in the consumption behavior, which are characterized by occasional surges. He finds strong support for the hypothesis that rising consumer debt signals such surges. The adequate prediction of consumption is of special importance for the U.S., were private consumption is the biggest contributor to Gross National Product with approximately 66%. This figure is lower for other countries in the OECD ranging from approximately 55% for Japan to 63% for Italy. In China, consumer spending accounts for less than half of the GDP. The linkage of consumer credit and future spending in growth is certainly based upon the household's expectation of future income streams. As evidence for the U.S. shows, consumer sentiment indices should be combined with other conventional macroeconomic data for prediction (income, consumption and financial indicators). As Bram and Ludvigson (1998) find, the predictive power of the U.S. Conference Board Consumer Confidence Index stems among other sources from asking consumers about their job prospects in the area where they live: the surge in consumer confidence is largely driven by questions concerning these prospects. Therefore, there is a relation of job prospects, increasing confidence and increasing spending,

partially financed by credit. Altogether it can be stated that rising confidence in job prospects fuel demand for credit and increase real demand for goods and services. However, household debt-service is also a burden which at the same time reduces consumption based upon current income.

One of the most important subjects for policymakers in the field is that increasing borrowing (relative to income) leads to repayment difficulties and financial problems. For the U.S., variations in bankruptcy rates are mainly predictable through four variables: (1) supply of consumer credit (annual change in the number of bankcard accounts); (2) household debt-to-income ratio; (3) conditions at the job market; and (4) interest rate levels (Paquin and Weiss 1998). The prediction of credit risk is never perfect. There are also events that are unexpected in someone's' live and that can contribute to bankruptcy or default, such as illness, unemployment or divorce.

In summary, the growth in consumer credit is a sign of a country that industrializes. Rising consumer debt must not per se have negative effects. Instead it is a sign of increased consumer spending and a surge in consumption. This usually goes hand in hand with better prospects on the job market. If consumers anticipate higher wages and higher job security, they are more inclined to afford costlier durable goods. Although bankruptcies depend on several factors such as employment or interest rate levels, risk prediction is never perfect. Unexpected live events such as divorce or illness can also lead to bankruptcy.

### **2.3. Goals and Limits of Information Sharing: Theory**

The past decades have brought a wealth of theoretical models on asymmetric information problems, where two market participants interacted based upon different available information sets. Such models are reviewed in the present section. The major intention is to understand how market results are affected by asymmetric information and which screening methods have developed in the past to cope with asymmetries. Information sharing is one of the mechanism with which information asymmetries can be reduced.

The first generation of credit market models mainly concentrated on credit rationing, its permanent existence in the equilibrium and its consistency with profit-maximization of lenders (Jaffee and Modigliani 1969, Stiglitz and Weiss 1981, 1983). The models were mainly concerned with asymmetric information in credit markets where firms seek to find finance.

In the second generation of models, various authors introduced mechanisms with which these problems could be mitigated accounting for monitoring, screening and the termination of contracts (Such 1985, Dell'Araccia 2001, Dell'Araccia, Friedman and Marquez 1999, Marquez 2002). These works provided some interesting insights into market solutions to information asymmetries, but did not account for the possibility of information sharing among lenders. Although the separation lines might be blurred sometimes, the third generation, the one relevant for the present analysis, consists of information sharing games. In general, these models work with more intuitive assumptions, for instance, they endogenize information sharing and explicitly account for the role of the credit bureau.

Already Millon and Thakor (1985) provided a theoretical rationale for the existence of credit rating agencies in capital markets, however, Pagano and Jappelli

(1991, 1993) were the first ones to introduce information sharing into the theory of consumer credit markets.<sup>4</sup> In their paper, the authors find that information sharing and the membership in a credit reporting system are more advantageous the greater the number of loans, the higher the geographical mobility, the lower the system's operating costs and the greater the number of participants.

They further state that when good credit risks are priced out of the market through adverse selection, information sharing also expands the volume of lending. However, the case can also be made with only a fraction of banks participating in the reporting system. Then, the gain from information sharing is a fraction of the benefits if all banks joined. Network effects show that the benefit from joining the system rises with the number of participants. The authors are not only able to formalize the increase in benefits from more participants (a positive network externality on the demand-side), but also to illustrate the tendency for the system to encompass the whole market, "(...) non-members derive a net benefit from joining and incumbents have an incentive to let outsiders join." (Pagano and Jappelli 1993: 1701). Therefore, the credit bureau is a natural monopoly.

In Padilla and Pagano (1997), information sharing has two effects for banks: (1) in the first period it reduces information asymmetries, adverse selection and moral hazard and hence increases profits; and (2) in the second period it stimulates harsher competition and therefore lowers interest rates. "Depending on the balance between these factors, banks may have the incentive to pool their private information with competitors or keep their information privately." (Padilla and Pagano 1997: 206). For permanent existence, membership fees as well as the costs for verifying information have to be below a critical level. The authors also find that in information sharing environments, interest and default rates are lower, volume of lending may increase and there is a Pareto improvement, since banks not only increase their own profits, but also raise the customer's welfare along with their own.

The 1997 model is later modified by the authors (Padilla and Pagano 2000). In the newer version of it, they stress the disciplinary effect and its intensity which depends on the type of information exchanged by lenders. The authors present the following results: 1. the model indicates that sharing default information increases the borrowers' incentive to perform, whereas fuller information sharing (about the borrowers' character) weakens this incentive; 2. interest as well as default rates are the lowest if only defaults are disclosed, moreover, 3. data exchange induces banks to lend in situations where they would not lend under complete information.<sup>5</sup> It is stated that when banks share all information, the adverse selection problem is eliminated but so is the disciplinary effect (Padilla and Pagano 2000: 1953).

Vercammen (1995) is one of the few authors who explicitly discusses the role of a regulator. The author also analyzes the welfare consequences of reputation effects in credit markets with moral hazard and adverse selection. Making payments that are due provides borrowers with future benefits, such as better conditions and lower interest rates for future borrowing, if lenders condition them on the credit history. However, one of the major questions is how the reputation effects can be supported over time. In this model, reputation effects arise endogenously. There is

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<sup>4</sup>Even after a decade of research in this field, the majority of models is concerned with commercial lending.

<sup>5</sup>This somewhat awkward result is model immanently coherent and based upon the fact that the highest level of effort is reached under the sharing of default information only (Padilla and Pagano: 1974).

an extra effort that is induced by the reputation system on the side of the borrower to lower the probability of default. The author states that reputation effects are especially strong when informational asymmetries are severe, hence they vanish with decreasing adverse selection. The author indicates that there might be a role for policy to endorse these reputation effects: "The logic is that, as a lender collects an increasing amount of information about the borrower in the form of longer credit histories, her distribution of beliefs will become increasingly precise for each borrower she interacts with. Therefore, new information in the form of whether the borrower defaulted or paid in the previous period will cause less of a shift in this distribution." (Vercammen 1995: 471 - 472).

If it is possible that reputation effects diminish over time as the credit reports lengthen, it may be asked what the optimal amount of time is that information should be stored to sustain reputation effects: "The optimal credit history restriction should therefore also depend on the relative weight that low and high-quality borrowers receive from the social planner." (Vercammen 1995: 473). While short histories do not set any incentive to built up a good history, long ones diminish asymmetries and lead to a decrease in adverse selection that in turn diminishes the feasibility of the reputation system. The author makes the case for a certain degree of asymmetric information that is warranted to sustain the reputation effects. This is done by restricting credit bureaus from selling information that is older than a specific time period. Borrowers will have a continuous incentive, because there is the possibility of future benefits that may be reaped.

A new strand of the literature models the microeconomics of privacy (for an extended literature review see Jentzsch *forthcoming*). These are game theoretic works that formalize the incentives of information disclosure by consumers or the wealth effects of different property rights regimes.

In Kahn, McAndrews and Roberds (2000), for instance, the first best outcome is a cooperative game, where a consumer, a company and a telemarketing firm freely negotiate about information disclosure. However, transaction costs lead to an increased importance of to whom the rights to personal information should be assigned. One important insight is that flexible contracting and negotiations reduce inefficiencies in information sharing, although in some circumstances the consumer must be compensated for the use of information.

In Taylor (2003) personal privacy is studied in the context of a competitive product market. The question to be answered is why firms tend to aggressively accumulate excessive amounts of data. This paper focuses on quantity discrimination in an environment with unobservable data accumulation by firms. The latter points to the problem that competitive pressure leads to a divergence between the marginal private benefit of information acquisition and the marginal social benefit. The author shows that under certain conditions, the policy of acquiring information and selling the good to the qualified ones dominates other solutions such as totally abandoning the market. In the equilibrium, firms post the lowest prices that are consistent with zero economic profit. However, the low price - in an environment where information collection levels are not contractible - is an incentive to acquire excessive amounts of information about the applicants. The author states that consumers would be better off *ex ante*, if firms post higher prices and collected less information. Moreover, an aggravating factor is that this already inefficient violation of privacy is exacerbated by firms that have the opportunity to sell customer information. To preserve their privacy, consumers demand inefficiently low levels

of output.

Bandulet and Morasch (2003) work with a signalling model. They ask the question how a consumer's control over information release interacts with a monopolist's strategic price-discrimination, whereby the monopolist may misuse the data to gain a larger share of the total surplus. The authors list positive and negative effects of information revelation: personalization may enhance the value of a product, however, at the same time, rent-shifting is possible. As known, first-degree price discrimination leaves the consumer with zero surplus. Two scenarios are considered: in the first consumers have different tastes, but an identical willingness to pay, that is they have identical valuations for the perfectly personalized good. Here, a prospective buyer will provide full disclosure if the monopolist can credibly commit to the maximum price. If this commitment is not possible then the consumer will reveal just some information. This strategy is often chosen to avoid a complete extraction of surplus by the company.

In the second scenario, consumers can be separated into high and low value ones. The latter ones value the good lower than the other type and therefore have an interest in being distinguishable from them to obtain lower prices. This case is far more complicated since high-value customers have an incentive to mimic low-value ones to obtain these lower prices. Without price commitment, there exists only a pooling equilibrium, since the disclosure of information is less attractive for the high-value consumers. The optimal amount of information disclosed is modeled as a function of the given uniform willingness to pay for a perfectly personalized product. The case is different if the monopolist is able to commit in advance to some maximum price. Now, it is a screening game where the monopolist offers a menu of prices as a function of the amount of information disclosed. In this setting a pure strategy separating equilibrium exists where types with a high willingness to pay get a personalized product at a relatively high price while low valuation consumers provide no information and obtain a standardized but much cheaper product.

Other contributions have emphasized the regulatory side and the effects of data protection restrictions in credit markets. Some of these microeconomic works show that incomplete information sets reduce the precision of scoring models that are used by banks and credit registries (Avery et al. 2000; Bostic and Calem 2003). Other authors discuss the historical development and competition and the evolution of regulation of credit reporting is based (Hunt 2002, Jentzsch 2003). What about the empirical evidence? Compared to the rich and well developed body of theoretical models, empirical research on privacy and credit reporting related issues is still very limited. However, the existing work can be separated into macroeconomic and microeconomic approaches. The first strand tests the economic effects of credit bureau activities in credit markets (Galindo and Miller 2001, Jappelli and Pagano 2000). These works find positive effects of credit reporting: access to credit is expanded, since information sharing has most of the positive effects derived from the models. In addition, information sharing is positively correlated with borrower mobility, their heterogeneity and the size of the credit market, confirming the theoretical results (Pagano and Jappelli 1993: 1693, 1714).

Altogether the theoretical literature can explain how information sharing arises endogenously and which benefits are associated with it. These automated reputation systems become more beneficial the more participants enter the system. For banks, these system have two effects: an increase in profits due to the disciplinary

effects on borrowers, but at the same time an increase in competition. Competitors now may access the same information and try to compete for the most profitable borrowers. The microeconomic models of privacy, on the other hand, can answer questions concerning information disclosure and the firms' incentive to accumulate information.

### 3. REGULATORY REGIMES IN THE U.S. AND EUROPE

In the following, I discuss the most important differences in the regulation of privacy and credit reporting in the U.S. and in Europe. In order to better understand these differences I also refer to the historical development of these approaches. The major goal of this section here is to give an overview of important aspects, although details have been discussed more in-depth in Jentzsch (forthcoming). I contrast the U.S. and Europe, because policymakers are usually looking at both regions to find advise on regulation.

The U.S. and Europe follow different regulatory philosophies that are based upon their historical experience. In the U.S., the understanding of privacy is rooted in the colonial times, when the British Crown gave broad discretion to search homes of private citizens for discovering violations of British custom laws ("writs of assistance"). The protection against unreasonable "searches and seizures" was later codified in the Fourth Amendment to the Constitution, where the primary intent was to protect the individual from unlawful interference by a central government.

In Europe, on the other hand, privacy is regarded as human right. This is partially based upon the background that in World War II., the Nazi regime perverted the use of data collected in the public and private sector to find and pursue Jews, not only in Germany, but also in France and the Netherlands (Samuelson 2000). This shaped the European consciousness for privacy and non-discrimination. It is reflected in the European Convention for the Protection of Human Rights and Fundamental Freedoms of 1950, which had a direct influence on the Convention for the Protection of Individuals with regard to Automatic Processing of Personal Data of 1981 (Council of Europe Convention), the first legally binding international instrument in data protection. Some basic principles for the fair and lawful collection and processing of personal data are enshrined in the convention.<sup>6</sup>

The U.S. pursues a sectoral and fragmented approach which stands in stark contrast to the EU. In the U.S., different acts are directed at the public sector and the private sector and in the private sector only some industries are regulated. Financial privacy is a good example of this: The public sector is covered by the Right to Financial Privacy Act of 1978 and credit reporting agencies in the private sector are covered by the Fair Credit Reporting Act (FCRA) of 1970, which was later revised. Banks and other financial institutions are covered by the Gramm-Leach-Bliley Act of 1999 (GLBA), employers who use credit information are covered by the Consumer Reporting Employment Clarification Act of 1998.

In Europe, privacy and data protection acts are applied to the public and private sector. Within the private sector, data protection acts are in most cases applied to all industries, this means they are comprehensive. This creates a regime, where the same data protection principles hold for all companies across industries. Some

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<sup>6</sup>The signatories of the convention established a "free information zone" in guaranteeing the free flow of information among the states that signed the convention. By 2002, the Convention entered into force in 27 European states.

countries enact guidelines that further specify the regulations for a specific industry such as credit reporting.

Due to these specific features, the regulatory oversight also differs. The FCRA is enforced by the Federal Trade Commission, the GLBA by several functional regulators such as the Federal Reserve Board and the Comptroller of the Currency. There is no general data protection oversight and no single governmental department in charge for privacy topics. Instead of drafting different acts with different authorities, European countries established independent data protection authorities that are in charge for the enforcement of the principles. Moreover, they register data controllers and provide individuals with access to the list of these firms. They serve as organizational back-up for individuals in litigation against private sector companies or the government.

One of the most important differences is certainly the enactment of property rights to information. "Property rights to information" are bundles of rights that pertain to the good owned, such as the rights to possession, usage or destruction of the good. Also included are the transformation, transfer or exclusion of others from usage. The more property rights are granted to the individual, the higher is privacy, because the individual can increasingly control how information is used and disseminated.

In the U.S., the party who collects the information is primarily seen as the owner of the data. The economic argument behind this is that the data collector adds value to the data by collecting and processing it. Only in cases, where the data subject has the right to opt-out, further processing can be blocked. The collection and processing of personal information is not seen as privacy infringement per se that needs legitimation, but rather as necessary part of economic life. This is different in the European states. Here, in many cases, the prior consent of the data subject has to be secured before the data is collected (opt-in regime). This separation, however, is not always clear. There are cases in Europe, where the European data subject cannot avoid the dissemination of personal data and there are cases where the American individuals can opt-in.

Additionally, the U.S. places greater emphasis on self-regulation. This means that the private sector introduces privacy policies that can be enforced under Art. 5 of the Federal Trade Commission Act or that industry associations release codes of conduct to which their members adhere. Self-regulation is regarded with some suspicion in Europe. One of the more legal arguments is that norm-evolution is the realm of legislators and not private sector organizations. A second one is that this approach will only afford minimum protection to the individual.

Apart from these general points, there are a number legal requirements in credit reporting and data protection that differ. I cannot discuss them in detail here, since the author has done this somewhere else (Jentzsch forthcoming). These differences range from rights granted to the individual to the obligations mandated to those who process information. Also, how long information should be stored and for what information the individual should give his/her consent is subject to variation across countries. The level of detail in the regulations also differ such as when a controller has to respond to the individual.

Lastly, there is a great difference in the extra-territorial character of data protection regimes in Europe and the U.S. Third countries that do not belong to the EU only receive personal data exports if they provide an "adequate level of protection." This finding is determined by the EU Commission and it is binding for all 15 member states. So far, the EU has assigned this status to Argentina, Canada,

Switzerland, Hungary and the U.S. Safe Harbor Principles. The effect of this decision is that information can flow from the 15 EU-members (soon to be 25) and three European Economic Area (EEA) members to the third country without any further safeguards being necessary.<sup>7</sup> This clause has been enacted to avoid loopholes in the protection, where data processors could export data for processing to countries with a lower standard of protection.

There are no similar provisions in the U.S. In fact, the implementation of the European Data Protection Directive and the extra-territorial Art. 25 led to a major dispute between the U.S. and Europe. This dispute ended in 2000 with the implementation of safe harbor. Under this agreement, U.S. firms that export data on natural persons from Europe to America have to make sure that certain minimum data protection principles are in effect. Data controllers in the U.S. already start to move some of their expensive operations to countries without data protection laws. It is reported that the credit reporting agencies Equifax, TransUnion and Experian relocate dispute processing operations to Jamaica, the Philippines and India (Hendricks 2003: 103).<sup>8</sup>

In this section, I contrasted the most important differences between the U.S. and European approach to privacy. I argued that - based upon the different historical cultures of privacy - the U.S. pursues a narrow approach directed at specific industries, while the EU pursues a comprehensive approach. This is also reflected in the different supervisory authorities in charge for data protection in credit reporting. I have also argued that both regimes differ in terms of the assignment of property rights and the trust in self-regulation. Also a number of legal requirements are different, this is discussed further below and more comprehensively in Jentzsch (forthcoming). Next, I discuss the first steps, China has taken in terms of data protection.

#### 4. DATA PROTECTION AND CREDIT REPORTING IN CHINA

So far, China does not have a law on data protection. It has been involved in the APEC discussions of the regulation of electronic commerce and it has introduced some first regulations for credit reporting. In the following, I describe what already exists in China. Source for privacy clauses are the Constitution, banking laws, regulations by the administration and possible Supreme Court decisions. Additionally, international agreements have to be included as China's importance in the world economy grows.

Privacy in the Western sense of "data protection," it has been argued, is a somewhat alien concept to Chinese, because it is a product of liberal Western thinking which is deeply rooted in the valuation of human rights (Tang 2004: 4). However, China is already altering its stance on human rights, it amended its Constitution with a clause on the protection of human rights by the government, moreover, it signed more than 21 human rights conventions (BBC 2004).

Privacy concerns of citizens seem to change quickly with the increasing distribution of personal data. There have been occasions, where Chinese hesitated: their privacy concerns seemed to have been an obstacle for a quick and efficient

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<sup>7</sup>Norway, Liechtenstein and Iceland are in the EEA.

<sup>8</sup>Arguments by the industry state that they hold their affiliates to the same standards as in their domestic offices. Even if this is the case, it is a basic fact that domestic U.S. laws cannot be enforced in these countries.



census in 2000. They were less cooperative in answering the questions compared to former censuses. Chinese had very little privacy under the planned economy, but increasingly want to keep certain facts about their lives secret (Electronic Privacy Information Center 2001: 126).

The cultural differences stem from many sources: The long tradition of ranking the collective above the individual, the control by government and administration in keeping records on citizens and even the crowded environment of living.<sup>9</sup> A further reason is the secrecy of the government that subverted any "right to know" of citizens about documents on them. This also changes. Currently the country prepares a freedom of information act (Economist 2003).

Another aspect might be the vague Chinese terminology. In Chinese, there is only a word for "shameful secret," which has a negative connotation, because it involves socially unacceptable behavior, the public exposure would very likely damage the concerned person's reputation (Fu-Tomlinson 2002).<sup>10</sup> The distinction to the term for personal matters is not clear. Additionally, also the term personal data is not very precisely defined. China also has a relatively weak legal tradition, because lawyers and most commercial law was abolished during the cultural revolution. The Chinese traditionally rejected the formal legal system and favored an approach of unwritten and internalized norms (Nishitateno 1983: 180, Perkins 1994: 34).

Altogether, there is no general data protection law and no authority in charge for such matters. Instead, there is an incoherent (and scattered) legal basis. There are only limited clauses in the Constitution of the PRC that provide some basic rights, but not an explicit "right to privacy" as this is acknowledged in constitutions around the world. Art. 38 describes the inviolability of the citizen's personal dignity, which includes that libel and false accusations are forbidden by any means. Arts. 37 and 39 provide the protection of freedom of the person and residence. Closer to Western constitutional protections is Art. 40 that states the privacy of correspondence and the exceptions in cases of criminal investigation or public security. At the moment, China provides only a minimum of privacy protection. Apart from the aforementioned sources, there are a number of other laws that provide rudimentary protection in special cases, see Table 2.

Privacy clauses also exist in acts directed at the banking industry. For instance, the Provisional Regulations Relating to Bank Management state in Art. 47 that the information about the savings of a person shall not be disclosed. In the Law of the People's Republic of China on Commercial Banks of 1995, there is the obligation to bank secrecy. Under Chapter III, Art. 29, a commercial bank must provide specific depositor protections, apart from the principles of voluntary deposit and free withdrawal, it must also keep the confidentiality of individual deposits. This applies to all banks, also the foreign ones. However, some cities go a step further. There are regulations by Administrative Municipalities of fast growing communities such as Shanghai, Shenzhen and Beijing, but these regulations will be described in more detail in the next section.

The Supreme People's Court in China has not clarified the meaning of privacy so far. This is at odds with the observation that the court has several times referred

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<sup>9</sup>This remark stems from a presentation by students Chiu, Lee and Ming in 2003, which is not available anymore.

<sup>10</sup>The author notes that most of the privacy cases in the past false accusations of unacceptable behaviour or unjust exposure.

TABLE 2  
Existing Privacy Clauses in Chinese Law

Year	Form	Title
1979	Law	General Principles of Criminal Law, Arts. 145, 149
1986	Law	Postal Law of the People's Republic of China, Art. 6
1986	Law	General Principles of Civil Law, Arts. 99, 100, 101
1986	Law	Practicing Physician Law
1991	Law	Law on the Protection of Minors, Art. 42
1996	Law	Law on Lawyers, Art. 23
1997	Law	Personal Data (Privacy) Ordinance, Hong Kong

to it and concluded that there in fact exists such a protection: "Consequently it is unclear whether the Civil Law protects personal data as a matter of privacy." (Fu-Tomlinson 2002: 37)

Compared to the Western nations, this picture is one of considerable uncertainty. In European countries and the United States, Supreme Courts have ruled several times on this subject matter and therefore clarified the term. One of the most famous decisions is that of the Supreme Court in Germany. In its decision concerning the census in Germany (BVerfGE 65, 1, 15.12.1983). The court acknowledged for the first time, that there is a fundamental right (Grundrecht) for "informational self-determination." (Bundesverfassungsgericht 2004) By law, the individual is entitled to decide upon disclosure and use of his or her personal data. Restrictions of the right of informational self-determination are only admissible in cases where there is a higher ranking public interest. For instance, in cases of negative information sharing among creditors this interest exists as a public interest in the general stability of the banking system. This ranks superior to the individual's interest in not having the negative data disclosed.

To complete the picture, I also briefly describe China's international obligations. China has already made the first steps to signing international agreements concerning human rights. For instance, in 1997 the country signed the *International Covenant on Economic, Social and Cultural Rights* (ICESCR). This includes the right of individuals to self-determination and to join trade unions. This contract was ratified in June 2001. In 1998, China signed the *International Covenant on Civil and Political Rights* (ICCPR). In the latter, Art. 17 provides that "No one shall be subjected to arbitrary or unlawful interference with his privacy, family, home or correspondence, nor to unlawful attacks on his honour and reputation. (...) Everyone has the right to the protection of the law against such interference or attacks."

The status of ratification of different contracts by China is published by the United Nations High Commissioner for Human Rights (2003). These contracts are legal cornerstones of the UN human rights policy. With the ratification of international contracts, China has decided to grant privacy and non-discrimination. Thus for now the exact legal status of privacy in China is unclear, but the administration is determined to change this. Chinese scholars look abroad for possible role models

of privacy laws. And Hong Kong has already adopted a European style regime.

Altogether, China is at the beginning of the regulation of data protection. There is no data protection law thus far and there is no national law on credit reporting. Privacy has not been an important element of the court's decisions and hence it is not really defined, although the constitution provides a clause. From the different international contracts that China has signed, one may derive that there is a true intention to further increase the protection of this fundamental right of citizens. Next, I turn to the individual initiatives and the political economy of regulation in China.

#### 4.1. The Emergence of the Credit Reporting System in China

In this section, I describe how the Chinese authorities work to establish a credit reporting system in their country and the political economy of credit reporting. In the past, the Chinese have made good progress in establishing such a system, the direction seems to be clear now, but at the moment, the country lacks the crucial regulations it needs. There are several initiatives on the federal and local level. Private credit reporting agencies in China have thus far been subject to local regulation and there was some restriction of market access. In the past, some authorities worked to collect the information themselves, but eventually it is clear that the PBOC (approved by the National People's Congress and the State Council establishes the Credit Information System Bureau as credit reporting regulator (Wan 2004). This will be discussed in more detail below.

Credit reporting is a field of intense lobbying in the industrialized countries. Usually the banking sector, credit reporting firms and consumer groups have a stake in how credit reporting should be conducted and regulated.<sup>11</sup> There are consumer associations (such as the Electronic Privacy Information Center) as well as research institutions financed by the industry (Information Policy Institute and Credit Research Center). Both sides lobby for their interests, additionally, the industry usually sponsors "independent studies" to underline its arguments. In Western countries the political process usually works as follows. After a bill is drafted in one of the ministries, it is proposed by one of the delegates in the parliament. During constant public discussion, the bill is revised until it is enacted by a vote of the parliament. In public hearings in the parliament all sides that are affected can state their position. In the following, I describe which institutions are involved in building up the credit reporting system in China.

The State Council is the highest executive and administrative organ in China. Under the State Council, there are different commissions and ministries (such as those for justice, finance, commerce and the information industry). Other organizations under the Council are the People's Bank of China and institutions such as the China Banking Regulation Committee (CBRC). The latter was officially launched in April 2003 to take over the role of supervision from the PBOC. The goal was to improve the efficiency of bank supervision and to have the PBOC focused on the macro-economic and currency policy.

The Council as well as the ministries are in charge for enforcing the policies of the Communist Party of China. Moreover, all laws and regulations adopted by the

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<sup>11</sup>For the U.S. (and other countries), these positions are usually publicly accessible. One example is the House Committee on Financial Services in the U.S. (<http://financialservices.house.gov/hearings.asp>)

National People's Congress (NPC) are to be enforced by the administration. The State Council can also take on the leadership in submitting proposals and managing the economy. Sometimes, the other organizations in the Council can submit proposals. For instance, the Sciences and Technology Department of the People's Bank of China also worked on the draft law on the individual credit information system. Moreover, also the State Economic and Trade Commission is a participant in the project.

In 2002, the State Council instructed the People's Bank of China to take the leadership in forming a task force for developing a credit information system with data on individuals and firms. I will describe the progress in this field in more detail below. By 2003, the task force had completed a draft regulation which dealt with the administration of the system and the technical standards. The explanation is that there is no experience in this regard and that the Central Bank should take the lead in the construction of such a system (Li 2003: 4).

But there are other interesting developments in regards to regulation. In 2002, the Legal Affairs Commission of the Standing Committee of China's National People's Congress began to discuss the first draft of the PRC Civil Code. By that time, the code had nine parts, among them some directed towards property, personal rights, contracting or torts. Some of the parts were completely formulated anew. The drafted code stated for the first time that individuals should have the right to privacy and credit as well as protection of name and reputation.<sup>12</sup> At the moment the right to privacy is not protected by the General Principles of Civil Law.

Early press articles hinted that there will be law on credit reporting. In 2001, the State Council set up the "Group for Enterprise and Personal Credit Investigation." This was a cooperation of "16 ministries and state commissions including the People's Bank of China, the State Administration of Industry and Commerce and the State Taxation Administration." (Xu 2002) The group had already a draft proposal and it issued a report on the purpose of legislation. Next, the the topic was said to be put back on the table in 2003: "The new law will fill in many blanks that exist in China's current credit investigation process. Some delicate issues like the definition of privacy, the legitimate collection and disclosure of personal information and a company's personal information management procedures will be written into the law." (Xu 2002). The law has not been enacted yet and credit reporting regulations drafted by the PBOC might surface first.

On the national level, the administration discusses plans to set-up a Credit System Regulatory Commission to speed up the establishment of a nation-wide credit system (Xiao 2004). In the past, a number of agencies were interested in becoming the supervisory authority, but as main regulator the PBOC emerged.<sup>13</sup>

The PBOC is the driving force for building a nation-wide system to cover individual borrowers and corporations nationwide. The PBOC established the Credit

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<sup>12</sup>It is unclear, why there should be a constitutional "right to credit." The author is not aware of any constitution granting such as right.

<sup>13</sup>The National Office of Rectification and Standardization of Market Economy Order (Ministry of Commerce) is currently the transitional authority, but it appears that also others are willing to take this function, such as the Ministry of Public Security, State Administration for Industry and Commerce or the State Development and Reform Commission. Some of them are also drafting their own plans for a credit system

Information System Bureau as a regulator as mentioned above. The main intention is to build up a unique national database with positive and negative information with just a small number of public agencies being involved (Wan 2004). In 2002, the sub-database of enterprise credit data already went into operation. By that time, the PBOC had reviewed four pressing areas: the legislation, the mechanism, an implementation plan as well as the standards of the system.<sup>14</sup> The Table 3 below shows some of the major steps to establish the Chinese credit reporting system.

TABLE 3  
Landmark Steps for Credit Reporting in China

Year	Title
2001	State Council sets up the "Group for Enterprise and Personal Credit Investigation"
2002	State Council instructs PBOC to take the leadership in the establishment the credit information system
2002	PBOC publishes report "The Enterprise and Individual Credit System"
2002	PBOC starts national database for enterprises
2003	Establishment of the Credit Information System Bureau at the PBOC
2004	Supreme People's Court announces court-operated database for borrowers subject to asset seizure orders
2005	PBOC starts national database for consumer reporting

By 2004 major progress was made when the PBOC introduced the first centralized national consumer credit data base for mortgages and consumer loans. The government was especially supporting the sharing of negative information about bad borrowers among the participating banks, but also allowed the sharing of positive information. This database went into operation in 2005. For the trial period, the PBOC selected 15 commercial banks: four big state banks (Industrial and Commercial Bank of China, the Bank of China, the China Construction Bank and the Agricultural Bank of China), 12 national shareholding banks and city commercial banks (Bei 2004). They are located in seven cities and providences, Beijing, Chongqing, Shenzhen (Guangdong Province), Xi'an (Shaanxi Province), Nanning, Mianyang and Huzhou.

The participants will collect information on personal loans, credit cards and loan guarantees. Newspaper articles reported that along with these data, also "details from the country's income tax system and criminal records as well as gas, electric and phone bill payment records (...)" (Morbin 2004) are recorded. For the beginning, the data base will only be accessible for commercial banks: "'The database is only for use as an internal platform because China does not have any laws or regulations on public use of credit services,' said Wan Cunzhi, the deputy chief of the Credit Services Bureau of the PBOC." (Collier 2004: 3). The technical platform already is in operation - even earlier than the industry expected (Morbin

<sup>14</sup>The report which discussed these topics is entitled "The Enterprise and Individual Credit System." To the knowledge of the author, there is no translation of the document.

2004), however, the country still lacks the regulations. In 2004, a group of scholars started to do research for a draft of a data protection law, to be submitted to China's State Council for analysis before passing it along to the National People's Congress. The draft of the law is said to be finalized by the end of 2005. As stated above, the first nationwide regulations might be drafted by the PBOC.

In summary, the Chinese have made a faster progress in establishing their credit reporting system as expected by many. There is a first national database in operation and there are several firms that already operate in the market, although they are mainly local. For the country it is of utmost importance to establish national credit reporting regulations that live up to international standards. This is not to say that there are no regulations at all. In the next sections, I discuss the status quo of regulations in China.

## 4.2. Existing Regulations in China

In the following, I intent to answer two questions. The first one is what the current state of regulation is in China. As we will see, only two cities have introduced measures for credit reporting. The second question is how the credit reporting industry is established in China. For the latter, I keep track of the companies that have been established in the major cities. Companies that conduct credit reporting in China are sometimes backed by the government and they are mainly local.

Credit reporting originated in Great Britain, where the first information sharing among local retailers was recorded in 1803. Merchants in London shared negative information and data on personal characteristics of borrowers. In the 19. Century, credit reporting spread throughout the Western world. However, it especially expanded with the introduction of installment loans and credit cards in the 20. Century. In the course of this development, creditors also started to share positive data. Credit reporting primarily remained locally or regionally concentrated until national financial service providers started to demand national service (Jentzsch *forthcoming*). With the introduction of mainframe computers and technology that increased storage and processing capacities, the large-scale coverage of the population became feasible. Public discussion arose concerning the regulation of such systems.

The development of credit reporting in China is at its beginning, but it follows the above development lines. Currently it is somewhat chaotic, local and only rudimentarily regulated, however, this quickly changes. The idea of automated reputation systems is still somewhat new to Chinese, but the lack of technical expertise is decreased quickly. In the past, there were only a few companies that provided services such as business reporting, they began to operate in the first half of the 1990s. Before the advent of techniques such as credit reporting and scoring, credit lending was decided based upon application information, for instance. Some banks have already introduced credit scoring models as they are sold by Western firms. In 2004 an estimated 500 so-called "credit management firms" were said to be in the market (Xiao 2004). High hopes are put into the development of such systems. They stimulate demand, enlarge credit volume, foster economic growth and strengthen the control of credit risk (Ren 2002).

Credit reporting is only one ingredient of many for healthy consumer credit markets. Based upon the past experience in industrialized countries, there are more

issues that demand attention. Credit markets are characterized by asymmetric information, therefore, a number of information problems have been subject to regulation in the countries of the European Union and in the U.S. For instance, through disclosure laws it is mandated which information must be given to the consumer who applies for credit. This is a central element of the Truth in Lending Act in the U.S. and the Directive for Consumer Credit in the EU. Moreover, these acts also state how interest rates must be calculated to facilitate price comparisons for consumers. There are also a number of non-governmental organizations that provide consumer education and counselling to avoid situations of overindebtedness. And lastly, a number of laws clarify the process of bankruptcy and which assets are exempted from it. For the creditor it is of great importance to know which procedures will help to regain at least some funds after the consumer defaulted. Most of these laws are lacking in China. The implications for credit reporting as solution of the informational asymmetry between credit and borrower will be discussed in more detail in section 6.

Some important features should be emphasized: First, no data protection law exists and only two special economic zones have enacted regulations. Secondly, the first credit registries were founded only in 2000, many of them received governmental backing. Thirdly, it seems like the Chinese administration has not yet decided which way to go, either to expand the public credit registry located at the PBOC or to allow a private industry. The registry at the PBOC for which the statistical department in the PBOC is the responsible institution is called "Bank Credit Register and Consultation System" and has been in operation since 1999. There are approximately 4 million companies stored, but no individuals. Especially finance corporations and credit unions as well as other banks provide positive and negative data to the public credit registry.

TABLE 4  
Existing Credit Reporting Regulations in China

Year	Title
2001	Administrative Measures of Shenzhen Municipality on Individual Credit Information Collection and Credit Rank Evaluation
2002	Code of Practice on Consumer Credit Data, revised in June of 2003
2003	Trial Administrative Measures of the Shanghai Municipal Government on Personal Credit Ratings
2004	Regulations of the Shanghai Municipal Government on Publication of Information

Fourthly, it is not so clear which information should be collected, although it appears that some pilot systems collect positive as well as negative information. In the following, I provide an account of the initiatives in consumer credit reporting in China. I also briefly describe the regulations, which will be discussed in greater in section 4.3. Table 4 gives an overview of regulations that currently exist in China.

#### *4.2.1. Shenzhen*

The city that faces Hong Kong was the first one to regulate the credit reporting business. The local legislation is intended to strengthen the system and to protect the credibility of consumers. The Legal Affairs Bureau of Shenzhen worked together with the local branch of the PBOC over two years to draft those regulations. According to the China Daily (2001) credit reporting agencies and credit rating firms have to get the approval of the municipal government and the Shenzhen branch of the PBOC, additionally, they have to comply to further commercial and administrative registration procedures. Individual entrepreneurs, on the other hand, are not allowed to open such services.

China Daily (2001) reports that four categories of information are collected: (1) personal identifiers such as name, sex, birth, career and education; (2) credit information and payment behavior information; (3) tax payment and insurance records; and (4) public record information such as records of civil and criminal records. It is required to get the consent of the person to collect this information to avoid infringements on privacy. Other sources include public security, court, taxation and social security as well as welfare sources (People Daily 2002). This regulation is seen as a milestone in the development of a Chinese credit reporting system.

The Guangdong Province exercises the jurisdiction over Shenzhen City and plans to build a province-wide credit information system. This system is intended to cover other major centers such as the Pearl River Delta in Guangdong. Other projects are also under way in Shantou (Guangdong) and throughout Shandong, where the provincial administration of industry and commerce is preparing to launch an on-line database of company credit ratings by the end of 2003. Shenzhen introduced its "Administrative Measures of Shenzhen Municipality on Individual Credit Information Collection and Credit Rating" in 2001. The overall comparison is discussed in Section 4.3.

#### *4.2.2. Shanghai*

As a special economic zone and leading industrialized center, Shanghai serves as one of the laboratories of new state-wide measures. Hence it was one of the first places in China to introduce a credit reporting system as well as the regulation of it. In 1999, the Shanghai Branch of the PBOC initiated the Shanghai Credit Information Services Co. Ltd. (SCIS) as a trial and possible blueprint for a nation-wide system. Publicly approved, the company went into operation in June 1999. The set-up of the system was completed two years later. "Beijing and Shenzhen were also being considered for the pilot project, according to experts. But they were not chosen because the market conditions in the two cities were not considered to be mature enough for such a test." (Zou 2004).

15 local commercial banks participated in the project. SCIS is gathering the following information: overdrafts, "total volume of private loans, the purposes for which the loans were obtained, overdraft records on credit cards, unapproved overdrafts and fraudulent dealings." (China.org 2003a).

In the meantime the bandwagon effects appears to work, that is more and more companies enter the system. Several Universities have registered their students with their education loans. In 2001, the Shanghai branch of China Unicom and Shanghai Mobile entered the system to also have their subscribers recorded. Behind



this development was the need to control the unpaid mobile phone bills, that had "reached over 15 billion yuan (\$1.81 billion), which means that 5 percent of mobile phone bills (were) unpaid." (Tao 2001). Newspaper articles appeared stating that consumers that delayed the payment of their telecommunication bills could not get loans from commercial banks.<sup>15</sup>

It was planned to have a 3-5 year trial period after which the service could be expanded to other parts of the country. The Shanghai Branch of the PBOC has already publicly stated that the system is well-functioning (Shanghai Municipality 2003). Estimates on how many people are recorded and how many inquiries are made are given in Table 5.

TABLE 5  
Credit Reporting Activity in Shanghai

Year	2000	2001	2002	2003	2004
Residents stored	2.0	2.4	n.a.	3.7	n.a.
No. of inquiries	300	n.a.	n.a.	4.800	100.000

In the first eight months, the data base had already collected 2 million records. By 2003, the company had collected 3.7 million residents out of a total of 16 million inhabitants of Shanghai (numbers for 2002 and 2004 are not available). According to SCIS, approximately 1 million Chinese have already requested their own report at one of three outlets that are located in different banks in Shanghai. This is a relatively high demand considered that the service had just been introduced.

The company is controlled by a steering committee comprised of the Shanghai PBOC, the representatives of the 15 member banks and the Shanghai Information Center under the Ministry of Information Industry. An official from the PBOC is quoted with the remark that the PBOC had required local commercial banks to submit credit data to the credit registry and asked local lenders to request records before offering loans to individuals. This might have increased the pressure on somewhat wary banks to enter the system. Altogether, the Municipality seems to be satisfied with the system: "The non-performing loan ratio was reduced to 4.52 percent in banks in Shanghai at the end of last year, down 2.15 percentage points from the beginning of last year. It was also the first time that the average NPL ratio was cut to below five percent in Shanghai's banking industry." (Shanghai Municipality 2003).

Shanghai and Shenzhen are the forerunner in regulating credit reporting. The "Trial Administrative Measures on Collection of Personal Credit Information" were introduced in December 2003 and went into effect in January 2004. The major intention was to regulate the business of credit ratings and to protect the privacy of the individuals recorded in the system. Credit information, positive and negative, can be collected without consent and hence knowledge of the data subject. Other personal data unrelated to creditworthiness is prohibited to be collected. Moreover, agencies are not allowed to obtain information by illegal methods. I will analyze the regulations in further detail below.

<sup>15</sup>We discuss problems related to the centralization of databases further below.

According to some articles in the press, also local government administration offices participate in the effort. Responsible for the regulations is the Shanghai Municipal government. The enforcement, on the other hand, is the responsibility of the Shanghai Municipal Office of Credit Information Collection Administration and the Branch of the PBOC. Thus far, Beijing has only measures on company information, which I do not evaluate.

#### *4.2.3. Beijing*

Other cities follow the example of Shanghai, while the public-private intermingling remains a characteristic feature of these efforts. Moreover, public bodies also seem to strive for a role in credit reporting apart from drafting regulations. The Beijing Credit Bureau Co. (BCB) started its operations in July 2002 as the second municipal-level credit management services agency. It provides credit records on individuals as well as enterprises. Four local companies have invested in the credit bureau. The chairman of the company was also the director of the State-owned Assets Management Co. The general manager of the company is cited with the words that the bureau eventually should emerge as independent agency like Standard and Poor's (China Daily 2002). According to that source, the information will be initially collected from government departments, including customs, taxation bureau, financial bureaux, commerce and industry regulatory authorities and judicial departments.

In September 2003, 21 major banks and the Banking Association in Beijing (BBA) agreed to set up a credit record system starting in October 2004. This system is supposed to be a database of credit-active consumers. The database started with the collection of automobile loans, because these loans have increased dramatically and they involve higher risk.

It is planned that members share information on car loans, bank cards, housing loans and individual loans free of charge and on a monthly basis (China Daily 2003). The organizers planned to give access to the database before June 2004. Also the local telecommunications companies cooperate with banks to collect data on individuals that delay their payments of telecommunications charges.

But there are also other initiatives. For instance, in March 2002, Beijing's Municipal Industry and Commerce Bureau launched databases of enterprises and natural persons with bad credit records. Four months later, the Beijing Credit Management Co., Ltd., began operations with plans to issue ratings based on bank, tax authority, customs, industry and commerce information. In 2002, the city had already built a database of firms for credit inquiries. According to the People's Daily (2002), "the credit warning system has collected bad credit information of 414 enterprises and 60 individuals." The data stems from 15 administrative and law enforcement departments. Another registry that has started to operate in 2002, Shaanxi Credit Bureau Corporation ("SCB") which has the eager plan to become the nation's first national private credit bureau. According to the company's press release it could secure all the necessary business operation permits, such as Chinese Business Registration Certificate, the Chinese Tax Bureau Certificate and the People's Bank of China Certificate. The company issues credit cards and builds up credit reports upon this basis. Therefore, the business model is one of a credit reporting bureau owned by a credit card company.

#### 4.2.4. Hong Kong

Hong Kong is one of the most advanced cities in the region in terms of credit reporting. It has no public credit registry, but private credit registries that operate in the city. At the beginning of 2003, the Hong Kong Association of Banks (HKAB) and the Privacy Commissioner for Personal Data decided to agree on the sharing of positive data, which had not been the case up to that point. However, as already discussed, the increasing delinquencies and bankruptcies also convinced privacy advocates that positive information provides a clearer picture of the credit risk.

There are several credit reporting agencies in the market in Hong Kong, some which conduct both (commercial and consumer reporting) and some that only specialize in one of the two fields.

One of the main companies in Hong Kong was the Credit Information Services Limited (CIS) established in 1982 by twelve finance houses that had incurred losses in lending. Initially, these companies collected purchase and leasing information (TransUnion 2004). In 1985 the company expanded its databases to also collect negative information on individuals. In the following, credit cards companies as well as other banks joined the sharing mechanism. The company changed its structure in 1999. TransUnion, one of the three largest credit reporting agencies in the U.S., became majority shareholder together with minority shares that are held by local institutions. This move as well as the participation of the major banks was supported by the Hong Kong Monetary Authority (HKMA). At the same time, the Authority urged the bureau to cooperate with the Privacy Commissioner (Carse 1999). In 2002, the company already issued 10 million consumer credit reports: "By the end of 2002, our database size had grown to more than two million records contributed by nearly 90 members." (TransUnion 2004). In January 2003, the company name was officially changed to TransUnion Information Services Ltd.

Hong Kong is by no means the most developed regulatory system. The city is a Special Administrative Region over which China has resumed sovereignty in July 1997. In the "Basic Law" of the Hong Kong Special Administrative Region, constitutional privacy protections are granted.<sup>16</sup> Art. 29 protects the homes and premises of Hong Kong residents and Art. 30 provides privacy of communications. Of course, the protection of privacy can be restricted in cases of criminal investigations and in the interest of public security.<sup>17</sup>

TABLE 6  
Hong Kong's Credit Reporting Regulations

Year	Title
1995	Personal Data (Privacy) Ordinance
1998	Code of Practice on Consumer Credit Data
2002	Amendment to Code of Practice on Consumer Credit Data
2002	Amendment to Code of Practice on Consumer Credit Data
2003	Revision of the Code of Practice on Consumer Credit Data

<sup>16</sup>The laws of Hong Kong were incorporated into the Chinese legal system.

<sup>17</sup>This holds for all modern privacy and data protection laws.

The 1995 enactment of Hong Kong's Personal Data (Privacy) Ordinance in 1995 marks a major step. Three years later, the Office of the Privacy Commissioner issued a Code for Consumer Credit Data. Due to the increasing delinquency rates I described above, this code was revised in 2003 and took effect in June of the same year. The Table 6 gives an overview of regulations in Hong Kong. The Electronic Privacy Information Center (2001) reports that the Hong Kong Law Reform Commission conducted a comparative international survey over six years to derive recommendations for legislation: "The statutory provisions adopt features of a variety of existing data protection laws and the Draft version of the EU Directive is also reflected in several provisions." Other sources have stated that the law primarily is based upon the EU Data Protection Directive.

The above section showed that the major cities in China are regulating credit reporting in varying ways. The first city on mainland China to introduce regulations was Shenzhen, the second Shanghai. Beijing does not have any measures thus far. Hong Kong, on the other hand, adopted a regime that resembles that of the EU with some British influence. The different regulations will sooner or later hamper the national development of a credit market. Besides this effect is the observation that consumers are granted different levels of protection in different cities. In the following, I contrast China with the U.S. and the EU to facilitate a review of the regulations and to open the discussion for regulatory paths that could be taken by China.

### 4.3. Contrasts with the U.S. and EU Regulations

In this section, I contrast the regulation as it currently exists in China with that of the U.S., Europe and transformation states. The major purpose is to find out how China compares internally and internationally. Second, I try to answer the question as to whether there are any implications for regulatory reform that can be derived from the experience in other countries. For this purpose, I explain the structure of Table 7, which is used to evaluate the regimes in China, the U.S., the EU and a number of other countries.

TABLE 7  
Evaluation of Credit Reporting Regimes

Field	Category	No. of Indicators
1.	Legal Design (not rated)	-
2.	Supervisory Authority	8
3.	Property Rights to Information	9
4.	Obligations of Credit Bureaus	9
5.	Transborder Data Flows	5
6.	Tasks for Information Furnishers	7
7.	Sanctions	2

There are seven fields displayed in the Table 7. The first is "Legal Design." This field is meant to provide an overview of the legal design of the privacy regimes

around the world. The first question that one might wish to ask is: What is the nature of the documents that codify the regime? For example, is privacy constitutionally protected? What sorts of legislation speaks to privacy issues? Is there an industry code of conduct? Are there any guidelines for the credit reporting industry? It is clear that there is a pyramid: at the highest level, there is the constitutional protection of privacy, the second highest is the legal protection by a law, followed by codes of conduct. On the lowest level, there are guidelines which are sometimes even voluntary. This information does not enter the index, it is only for the purpose of overview and for getting an impression of the importance, countries assign to privacy.

TABLE 8  
The Legal Design of Privacy in 100 Countries

Legal Design	No. of Countries
Privacy Clause in Constitution	80
General Data Protection Act	35
Banking Act	96
Credit Reporting Act	7
Public Codes of Conduct	6
Industry Guidelines	22

Table 8 shows that many of the 100 surveyed countries 80 have a constitutional provision on privacy. Additionally, there are 35 countries that have a data protection act and that do not regulate credit reporting with an extra law. 7 Countries follow the latter approach. Some countries such as the U.S., UK and France also provide guidelines for the industry.

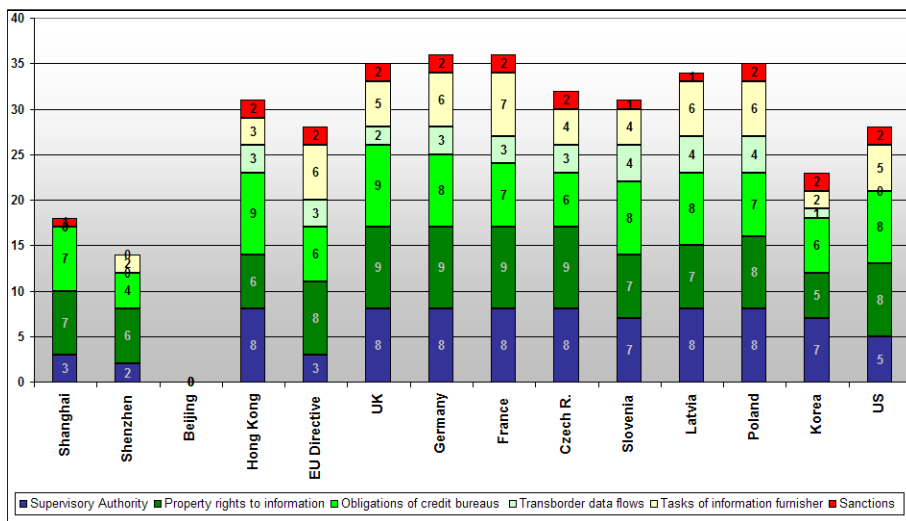
China has, as noted, no national data protection law, not even one that is directed at the credit reporting industry. Therefore, on the federal level, China would receive no points at all. This is one of the most striking differences: the U.S., Europe and the displayed transformation states Czech Republic, Slovakia, Latvia and Poland all have laws. The latter countries have adopted the European model. Since I am still interested in how Chinese regulations compare internationally, China is represented by Shanghai, Shenzhen, Beijing and Hong Kong. The latter is the most advanced regime, Hong Kong has the most developed financial sector and it has been influenced by the English legislation and the European one. The global overview shows that the EU has successfully exported its regime all over the world: 24 nations adopted laws inspired by or based upon the EU Data Protection Directive. These countries are EU members, but also accession states in Eastern Europe and some other nations in Latin America.<sup>18</sup>

One of the most important questions is as to whether there is a supervisory authority and which competence it has. This authority is the power that enforces the regulations and puts the teeth into them by pursuing breaches and infringements.

<sup>18</sup>The demanding extraterritorial principle is certainly the main reason for this trend. Any country that does not provide "adequate standards" could potentially be drawn into lengthy negotiations with the European Commission.

Here, I ask as to whether there exists an authority that oversees the private sector and the public sector (in case of a public credit registry, for instance). Additionally, I ask if the authority has the power to oversee credit reporting.<sup>19</sup> The tasks of the authority are of equal importance. Does it hear complaints? Can it investigate cases or to audit data controllers? Is there a list of data controllers administered by the authority? These are all instruments for enforcement, without them it will be difficult to change the behavior of market participants.

**FIG. 5** Comparison of Chinese Credit Reporting Regulations



When we compare China internationally (Figure 5), we see that only Hong Kong provides as much power to the authority as European countries. Shanghai and Shenzhen have furnished their authority with very limited powers. There is no competence for audits, registration of data controllers or for investigations. And only in Shanghai, the authority hears complaints from consumers. Beijing has no regulation in effect by now - Therefore, there are only "zeros".

If one compares Europe and the U.S., the latter grants no right for administering a list of data controllers, no oversight over the public sector and no competence to conduct audits. The latter is the right to enter the premises of data controllers and to check their data operations.

As explained, property rights determine ownership and use of data. The basic question behind this is: How much privacy is granted to the individual? The more rights are assigned to the individual the higher is privacy, because the individual can increasingly control the uses of the data. This area is one of the most controversial ones, since it eventually determines the information owner. Information has many characteristics that do not fit the typical description of a private good (for instance, it is non-excludable and non-rival in consumption). This generates problems, which

<sup>19</sup>In European regimes, credit reporting falls under the "private sector." However, one might think of regulatory regimes, where there is no general regulatory supervision, but only one in charge for a specific industry. This is exactly the case in Shanghai and Shenzhen.

I have discussed in greater detail elsewhere (see Jentzsch forthcoming). Under the header "property rights," I included opt-in (consent), the right to access the data, to have it correct, to have false information deleted, the right to block information in cases of dispute, the right to know to whom information is disclosed, the right to stop marketing as well as special protections for sensitive information<sup>20</sup> and for the use of historical data.<sup>21</sup> Here, the overall sum of rights granted is closer to the international level, although, in detail, the regulations differ. For instance, in Shanghai the sensitive information of consumers is protected, but this is not the case in Shenzhen and Hong Kong. Differences in this field show that consumers are granted a level of protection that varies from city to city. This discrimination based upon the place of living is not really justifiable, it should be irrelevant for consumer protection.

TABLE 9  
Comparison of Chinese Regulations with other Countries

Category	SH	SE	BE	HK	US	UK	G	FR	C	SL	LT	FI	KR	SI
SA	3	2	0	8	5	8	8	8	8	7	8	8	7	0
PR	7	6	0	6	8	9	9	9	9	7	7	9	5	0
OB	7	4	0	9	8	9	8	7	6	8	8	7	6	0
TDF	0	0	0	3	0	2	3	3	3	4	4	3	1	0
IF	0	2	0	3	5	5	6	7	4	4	6	6	2	0
SC	1	0	0	2	2	2	2	2	2	1	1	2	2	0
Total	18	14	0	31	28	35	36	36	32	31	34	35	23	0

The comparison is made in the Table 9.<sup>22</sup> Additionally, European countries provide individuals with the right to have false information deleted (which is important for credit reporting), to block information in cases of dispute and to stop marketing uses. Why is the definition of property rights so important? The more precise property rights are defined, the less externalities will emerge. If property rights are clearly assigned to one or the other transaction party, trading becomes easier and less costly, because there are no negotiations to whom the information belongs. The set-up of contract terms and their enforcement will be easier.

The next field provides information about the obligations of credit bureaus. Why is this area important? The peculiarities of information markets and unregulated competition in such markets leads to an ever increasing sale of highly personal information to more and more interested parties. Moreover, competition pressures might lead to a divergence in the use of data compared to what it originally was

<sup>20</sup>These are political beliefs, trade union membership, religious belief, medical information, colour of skin or sexual preferences.

<sup>21</sup>This is the erasure of bankruptcy or other information after certain time periods.

<sup>22</sup>Abbreviations stand for countries and cities: SH = Shanghai, SE = Shenzhen, BE = Beijing, HK = Hong Kong, G = Germany, FR = France, C = Czech Republic, LT = Latvia, KR = South Korea, SI = Singapur, FI = Finland. Under category they stand for supervisory authority (SA), property rights (PR), obligations of credit bureaus (OB), transborder data flows (TDF), tasks of information furnishers (IF) and sanctions (SC).

intended for.<sup>23</sup> In the industrial countries, these problems led to the regulation of the industry. I ask if credit bureaus must register with the authority, if there has to be an explicit purpose of the data collection and if individuals have to be notified about the collection. Can data only be disclosed for specific purposes? Is there a minimum fee for disclosure? Are there any legal requirements for the accuracy of credit reports? Do they have to be up-to-date? All these legal requirements improve the quality of the data stored at credit bureaus. Dispute settlement is relatively expensive for credit reporting agencies, Therefore, they have an incentive to increase information quality to avoid disputes. Additionally, some countries regulate, when a credit bureau must react to consumer requests and set time limits for disputes with consumers, especially in the U.S.

As the Table 9 shows, in many European countries (inclusive the transformation states) and in the U.S., credit bureaus have far more obligations to observe under the law than in Shanghai and Shenzhen. With increasing development of the industry and the financial markets in China, the country could experience the same problems with credit reporting that appeared in the past in the other industrialized countries.

There is another important point related to this subject. In Europe, the legal term "data controller" encompasses every firm that collects and stores personal information. This includes the credit reporting agency and the information furnisher. Both have the same obligations. The U.S. law separates both. For some time, the information furnisher did not have legal obligations, which produced considerable problems in the system (a more detailed discussion is provided in Jentzsch *forthcoming*).

I also included cross-border data flows, although there are still negligible. For instance, I look for the following restrictions: export of personal data only with consent of the individual, export of personal data only with notification of authority, export of personal data completely forbidden, import of personal data completely forbidden and any extraterritorial clause in the law such as the European adequacy standard. Why is that important? With the increasing integration of economies worldwide, the transfer of personal information across borders will play a greater role. The free flow will be important for trade in goods and services, but it will also be important to preserve the rights of individuals in such a world. It is clear that the local regulations in the cities I mentioned do not provide for extraterritorial restrictions, except for the case of Hong Kong.

The next category is for the information furnisher (or the data controller under the European laws). This is usually, the retailer, bank, telecommunication company sending information to the credit reporting agency. Above, I have stated why these market participants have been regulated in the past. I asked the following questions: Does the law require the accuracy of reports? Does the furnisher inform the consumer about the disclosure to credit bureau? Is there any notification of the consumer in case of adverse action? For example, if the consumer has applied for credit and is turned down based upon the credit report, must the firm inform the individual about this? Further important points are the requirement to disclose information stored, the requirement to update the data and the requirement to report complete data. Here, I see a remarkable lack of any obligations under the Shanghai regulations, the Shenzhen regulations and also very little in Hong Kong.<sup>24</sup> Most of the European countries mandate more tasks, because the furnisher is also

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<sup>23</sup>Again, the details of these mechanisms have been discussed in Jentzsch (*forthcoming*).

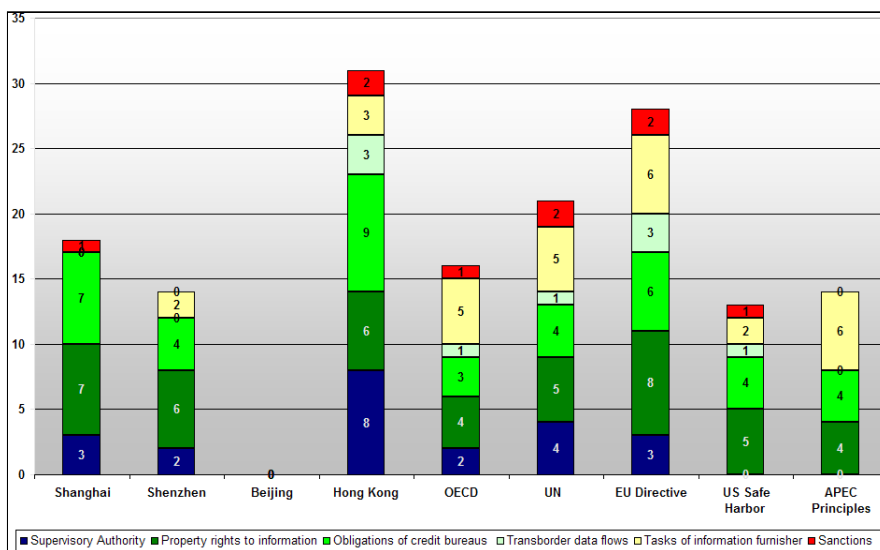
<sup>24</sup>One could speculate as to whether the U.S. law served as an example in this field.



data controller and hence has the same obligations as the credit bureau.

The last category is one of the most important ones. If there are no fees and sanctions for the breach of the law, it will have little or no effect on the parties it is supposed to regulate. Most of the European laws codify both: fines and imprisonment in severe cases. Shanghai regulations only include fines. Somewhat surprising, the Shenzhen regulations do not include fines or other sanctions. They only state that "notes of criticism" are published.

**FIG. 6** Comparison of Chinese Regulations with International Guidelines



In the above Figure 6, I also include some international guidelines and regulations such as the OECD guidelines as well as the UN Principles and the EU Data Protection Directive.<sup>25</sup> This is intended to enable a direct comparison.<sup>26</sup> The Figure shows that the regulations are closer to the OECD niveau than to the UN one and there are low compared to the EU Data Protection Directive. Of course, some of the international contracts just provide minimum standards, others are a frame for harmonization.

China needs a data protection law as it exists in the other industrialized countries. With such a law, it would be possible to standardize its regulations on the national level. There is no justification for granting varying protection to citizens based upon their place of living. Diverging credit reporting standards will also hamper a quick development of a national credit reporting system. Credit reporting companies that want to grow into national firms are then faced with regulatory regimes that differ from city to city. A national system of credit reporting is important for a more mobile society, where consumers might apply for credit in

<sup>25</sup>The full title of these agreements are: "OECD Guidelines on the Protection of Privacy and Transborder Flows of Personal Data" and the "UN Guidelines Concerning Computerized Personal Data Files"

<sup>26</sup>It is possible to also provide a comparison with the APEC principles as they are currently discussed, but they are not enacted yet, therefore I excluded them.

different cities. It reduces the possibilities for fraud and leads to a more efficiently functioning credit market.

China should revise its standards up to international standards and clarify some of the provisions in its regulations. Credit reporting is a network industry, regulating just one part of it (the credit reporting industry) is short-sighted and will sooner or later lead to problems. Therefore, it has to introduce also obligations for the furnishers of credit information and for the users. Additionally, the government must decide as to whether a private industry should be allowed or not. Currently some provisions are a sign of general public interference, for instance, in Shenzhen credit bureaus must submit their scoring models to the authority, which determines the fees a bureau might charge.<sup>27</sup>

In summary, one can argue that the U.S. pursues a narrower approach, targeted at the credit reporting industry, but this incomplete regulation as well as several other problems associated with the U.S. laws lead to a frequent revision of the laws and regulations. These revisions occurred more often in the U.S. than in European countries. For now, it cannot really be answered as to whether one of the regimes lead to better credit market results.<sup>28</sup> All that can be stated is that in the U.S. credit markets are broader. However, this might depend on several variables, not only the credit reporting system. The social acceptance of credit and indebtedness as well as monetary policy also play a role. The U.S. industry is certainly more innovative due to the pressure of competition, however, bankruptcy rates are higher than in the EU. The international overview showed that the U.S. regime is not fully accepted by the EU to provide an adequate standard. Additionally, many countries have already adopted EU data protection standards. Most of these laws also contain an extraterritorial clause. If China would decide to provide an approach of minimal protection of its consumers, and this would be regarded as inadequate by the EU Commission, this would certainly be a signal for all the other countries with extraterritorial clauses to also doubt the adequacy of protection. A further point to mention is that there is no sound academic evidence that data protection hampers economic growth, neither are there any case studies of this. In fact, data protection is a clear sign of an industrializing country, it is the outcome of economic growth and increasing wealth.

## 5. BENCHMARKING REGULATORY RESULTS

From the sections above one could derive that the European regulatory regime places higher burden on the industry by mandating more obligations and by granting more rights to data subjects compared to the U.S. In this section, I argue that this must not necessarily be the case. There are more laws and regulations applied to credit reporting in the U.S. than for instance in Germany and France. The regulations in the U.S. are more detailed and a rather adversary approach is employed by pursuing breaches through courts. In addition to this, one has to take the effects of the regimes on credit markets into account as well as the internationalization of data protection standards.

Apart from the content of regulations, which I have already discussed, regulatory stability itself is of value to firms. When laws and regulations frequently change,

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<sup>27</sup>This is, at least, how we understood the translation of the regulation of the Municipality.

<sup>28</sup>For answering this question, we first would have to define what the "better market result" is.

the industry has to keep up with this change. Usually new regulations also imply costs and legal insecurity. Table 10 below shows the comparison.

TABLE 10  
Legislative Changes in Four Selected Countries

Country	Enforcement Authorities	No. of Laws	No. of Changes	Av. Law Change p.a.	Regulations	Av. change of regs p.a.
1970	-	2003				
US	5	3	20	0.60	18	0.55
UK	2	3	2	0.06	22	0.66
FR	2	2	2	0.06	14	0.42
GER	1	1	5	0.15	0	0
1990	-	2000				
US	5	3	14	1.4	10	1
UK	2	3	1	0.1	15	1.5
FR	2	2	2	0.2	7	0.7
GER	1	1	3	0.3	0	0

On the federal level, there are at least 5 enforcement authorities in the U.S., two in UK, two in France and one in Germany. The number of laws is also higher in the U.S. in comparison to the European counterparts. Most striking is certainly, how often the relevant laws have changed in the past. In the period from 1970 - 2003 altogether 20 times, including minor but also major reforms. This compares with far lower numbers in the other credit reporting regimes. One reason for this is the more responsive legislative system in the U.S., but another is that the incomplete regulation of only one part of the system created problems that later had to be mended.

The Fair Credit Reporting Act of 1970 only regulated credit bureaus, not information furnishers. This loop-hole was closed with the Consumer Credit Reporting Reform Act of 1996. Although the furnishers now had obligations under this law, their privacy policies were still unregulated. A new act was applied, the Gramm-Leach-Bliley Act of 1999. In 2003, yet another act had to be introduced, the Fair and Accurate Credit Transactions Act of 2003. This law targeted identity theft and made some of the provisions permanent.<sup>29</sup> This frequent regulatory change has also been discussed for other fields such as the Truth in Lending Act which has been changed at least 21 times until 1998, in some years even twice (Durkin and Elliehausen 2003: 102). In Europe, on the other hand, laws for data protection and credit reporting are changed less frequently and only UK changed its regulations more often than the U.S. As stated, in Europe comprehensive laws apply.

The next important question is: Which regime constitutes less regulatory burden? This question is difficult to answer. From 1990 until 2003 approximately 20 lawsuits of greater importance for credit reporting had been filed in the U.S. These are further interpretations of the laws. This number includes a major lawsuit brought against Experian, Equifax and TransUnion in 2000, to force them to comply with the FCRA.<sup>30</sup> The result of these actions were far more detailed duties for credit reporting agencies. For instance, now the firms have to answer calls

<sup>29</sup>We do not discuss all the minor changes that happened in this timeframe.

<sup>30</sup>In this case, the agencies had to pay US-\$ 2.5 million in fines. They failed to maintain a

within  $3\frac{1}{2}$  minutes on average. Additionally, 90 percent of consumers who call the agency must be connected to personnel without getting a busy signal. Duties of such detail cannot be found in Europe. If I would have constructed the index differently to take these details into account, the U.S. might have reached a level beyond European laws in credit reporting. Same holds for the fixed time period for replying to the consumer (not regulated in France), and for dispute settlement time periods (not regulated in France and Germany). Therefore, there are less regulations in the U.S. in absolute terms, but those that exist are changed more often and become increasingly more detailed.

I have no numbers on court cases in UK and France, but for Germany I found 7 decisions concerning data protection and the activities of credit reporting agencies in the period 1990 - 2003. This involved crucial matters such as scoring methods, which information can be stored as well as who should be able to access files. Additionally, the data protection authorities in Germany publish reports in which they document recommendations and negotiations with Schufa and other credit reporting agencies. Both parties try to reach decisions in consent.

Despite these differences, one might argue that the most important factor is as to whether there is confidence in the credit reporting system and the information quality of credit reports. Thus far, there are no quantitative proxies with which it would be possible to approximate the confidence of consumers and banks in the credit reporting system. Credit reporting agencies do not provide any statistics on disputes, inaccuracies as well as how often they had to change the report after the consumer disputed it. Preliminary, it might be stated that there is a higher number of credit reports per person requested by U.S. consumers as compared to Germany and Great Britain (Jentzsch 2003a: 18).<sup>31</sup>

Many consumer requests are made for several reasons, also pure curiosity. In the U.S. however, it is in most cases because of adverse action (84%), fraud (11.5%) and only in 5% because of curiosity (Pratt 2003). This indicates that consumers mostly react if something is wrong with their financial matters. In many cases, consumers dispute account status, payment history and rating, the current balance or who the owner of the account is (General Accounting Office 2003: 7). Regulators should from the beginning on mandate that credit reporting agencies disclose this kind of information to them and they should publish aggregate statistics on inaccuracies and disputes. This could strengthen public awareness of this critical activity and set incentives for improving the quality of the information. As much as banks are monitored for the quality of their loan portfolio, credit reporting agencies should be monitored concerning the quality of the information in their databases.

Banks seem to be satisfied with the systems in many countries. Around 80% of the financial service providers asked by the World Bank find information good to very good (Miller 2002: 9), somewhat above 60% find timeliness important and over 90% the price.

How do the regulatory differences affect credit market outcomes? The question here is as to whether one regulatory regime produces better market results than another. These results could be measured in terms of access to credit, credit risk and competition intensity in the credit market.

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toll-free telephone number with accessible personnel and blocked millions of calls from consumers who wanted to discuss the possible errors in their credit reports.

<sup>31</sup>The higher coverage rate of the U.S. market by the bureaus could explain this observation.

Information sharing must expand credit markets, but this claim is not easily proven. The reason for this is the endogeneity inherent in this correlation. Information sharing is higher where credit markets are broader and vice versa. Only time-series analysis could shed some light here, but there is no long-term data on sales of credit reports in the market. Theoretically, asymmetric information leads to phenomena such as credit rationing and moral hazard. These effects can be reduced by guarantees and reputation systems such as credit reporting.

As can be observed in the U.S., households that have not been served or that have previously been underserved also gain access to credit. This is of special importance in developing countries. Credit reporting is an instrument to reduce delinquencies and defaults. This is one of the main reasons for South Korea or Hong Kong to introduce or reform these systems.

One of the major factors of credit reporting are the competition effects it has in the banking industry. Market entrants do not face an adversely selected pool of borrowers but can also compete for the profitable borrowers. From the efficiency point of view, information sharing reduces the time for loan approval especially for those categories of borrowers that are considered safe. This frees up resources for scrutinizing cases where the decision is not so clear. This is certainly one of the major benefits from information sharing: it increases profitability and productivity in the banking industry.

A further aspect is innovation. Here, it seems that the U.S. has a far more innovative industry than other countries. The three major credit reporting agencies TransUnion, Equifax and Experian are under intense competition pressure also by firms that develop scoring models, such as Fair Isaac. In some cases the consumer benefits from this innovation. Traditionally the agencies saw financial service providers and retailers as their primary customers, before they started to "discover" the consumer. This was after a move by Fair Isaac in 2002 to sell consumer direct products. Now, there are credit scores available to the consumer as well as score simulators and other new products. Innovation in products and services is less vital in markets where there is a dominant firm or a public credit registry. In France the credit registry is a non-profit organization, hence there is no competition at all.

In the past, policymakers did not have to consider international trends in legislation. This changes rapidly with the integration of world markets and the outsourcing activities of international firms. Therefore, for China it is of utmost importance to also consider the international implications of their data protection law. It might be crucial for outsourcing activities.<sup>32</sup>

Standards exhibit strong network externalities, their intrinsic value rises if more participants adopt them. This also holds for data protection standards, the more countries adopt similar standards the better for businesses and consumers. Therefore, from a realistic point of view, it is myopic to suggest China should not adopt adequate standards, such a suggestion neglects the current reality in international privacy legislation.

One of the most frequent arguments is that the European regime creates regulatory barriers (Kitchenman and Teixeira 1998) and that the "regulatory burden" created for companies would reduce foreign direct investment, deter foreign business flowing into the country and hamper economic growth (Balis, Johnson and

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<sup>32</sup>India is currently considering a safe harbor type of agreement that fulfills European data protection standards (Bennett 2004).

Turner, no date).<sup>33</sup> Firstly, data protection is an expression of economic growth, it is one of its outcomes. So far, there is no empirical evidence that data protection has repercussive effects on economic growth. Secondly, on several occasions the industry in China has stated that it wants regulation to have a legal basis upon which the activity can be lawfully conducted. The absence of legislation and the legal uncertainty in China is undermining the potential for building up a national credit reporting industry.

Secondly, public outcry over data exports to countries without adequate standards will hamper outsourcing. In the U.S., Equifax, TransUnion and Experian move or plan to move their dispute processing operations to countries with minimal data protection. Equifax already shifted dispute settlement to Jamaica (no privacy law), Experian and Trans Union were on the verge of outsourcing to the Philippines and India (Hendricks 2003: 103). Both of the latter two countries do not have privacy laws. This will be on the agenda of policymakers and the media.

The stricter laws in Europe are obviously no problem for international companies to operate there. In Jentzsch (2003a), it is shown that major U.S. credit reporting agencies have acquired many companies in Europe and even entered markets in Germany, one of the strictest data protection regimes in Europe. This means that the international companies complaining about extraterritorial EU standards already quietly operate under them in Europe.

## 6. PATHS FOR REGULATORY REFORM IN CHINA

China can learn from the historical experience with credit reporting in other countries. For the past decades, policymakers went through learning curves concerning the regulation of this activity. China does not have to repeat the trial-and-error legislation of other countries. Its legislators should act as quickly as possible, because the current situation hampers the establishment of a national industry of credit reporting. In the following, I discuss the aspects that I think are of major importance for China. This includes the questions as to whether China should adopt a comprehensive data protection or a specific credit reporting law or if business reporting and consumer credit reporting should be regulated in one law. The next question of interest is certainly as to whether there should be a private industry and an independent authority. Additionally, it is discussed which approaches might be followed in the question of opt-in versus opt-out and the centralization of databases.

### 6.1. Comprehensive Laws versus Industry-Specific Laws

I have already mentioned which problems are the typical companions of sectoral laws. There is a regulatory drag, once credit reporting agencies are regulated, also the information furnisher and record users have to be taken into account. Credit reporting is a network industry. Comprehensive laws have the advantage that they hold for the whole private sector and that there is generally only one enforcement authority. In the U.S., where a industry-specific law is in place, there are also many regulators in charge. Such an approach applied to China would increase the problem of coordination which is already hampering the establishment of unified

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<sup>33</sup>The paper stems from an industry-sponsored think tank financed by Experian, Equifax, TransUnion.

rules. Moreover, if consumers know what their rights are, no matter if they deal with insurance or telecommunication provider, they might be more inclined to disclose personal information. Industry-specific laws decrease transparency by creating a patchwork of acts applied to different sectors. From the transparency point of view and that of consumer protection, a comprehensive approach is preferable to the drafting of different acts with different authorities and different regulations.

Industry-specific laws, on the other hand, have the advantage to target one industry, hence they can be directed towards the problems that exist specifically in this one industry. Often, they involve far more detailed regulations. On many occasions it is argued that general laws can not cope with problems specific to a certain industry. This however, is not the case as the European experience shows. Additionally, regulatory guidelines can provide for further guidance in specific areas such as credit reporting.

## **6.2. Consumer Credit Reporting and Business Reporting**

It seems to be unclear as to whether reporting on businesses and on consumers should be regulated in one law. This, however, would be at odds with the international experience (see Jentzsch 2003b). Business reporting is conducted in an entirely different way than consumer credit reporting. It is the compilation of data from primarily public sources on firms mainly for extending trade credit for small and medium companies.

For firms, intellectual property rights are important as well as trade secrets. No data protection law should be applied to them. There is only one intersection of consumer and business reporting that is where the personal data of the business owner is concerned. This is the only intersection of both, there are no other similarities. Due to these differences in the mechanisms and processes of commercial reporting and consumer reporting, both should not be regulated in one law.

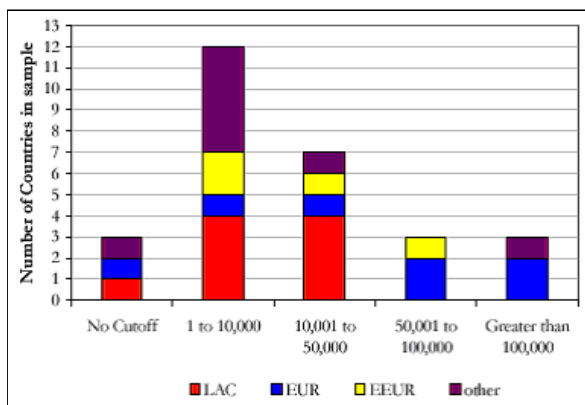
For business reporting, public sources should be as freely accessible as possible. In industrialized countries, there are a several laws that apply to business reporting, such as disclosure regulations and bank secrecy. But there is virtually no country that regulates business reporting with a law (again, for a detailed discussion see Jentzsch 2003b). In China, there are currently several governmental agencies that provide reports on firms that have applied for the service and that have paid a fee. In the industrialized countries, this activity is mainly done by private sector firms and independent credit agencies. The competition in these industries assure greater innovation.

## **6.3. Private Agencies or Public Registries?**

The World Bank reports that in the 110 countries of its sample, there are 53 countries that have a public credit registry and 52 that have private companies. 20 countries, primarily the more industrialized ones have both. Many countries regard their public credit registry as an instrument to monitor systemic risk. For instance, in Germany, the registry was set up in 1934 during the Great Depression, which revealed the dangers posed by incomplete information about borrowers. The German register (Evidenzzentrale) is administered by the central bank, Deutsche

Bundesbank. The exchange over it is based upon two acts and it is mandatory.<sup>34</sup> Therefore, the German central bankers do not regard their registry as a substitute to private registries. Due to the compulsory nature of reporting, the files of these registries are usually more complete. It depends on the threshold for reporting loans as to whether households are also part of the database. The worldwide average of cutoffs thresholds for loans that have to be reported is US-\$ 87.000 (World Bank 2004), the World Bank noted that this differs for the regions across the world (see Figure 7).

**FIG. 7** Loan Size Cutoffs



The rules on the collection of information (voluntary versus mandatory), the scope of information distribution (total indebtedness versus other data) and the access (open versus only specific institutions) varies with the specific scope of the registry (see World Bank 2004: 57 - 59).

It certainly depends on the reporting threshold as to whether public and private credit registries are substitutes. The literature is divided on this point. For instance, the World Bank (2002: 4) states: "Our survey results show that there are significant differences between the public and private registries. Rather than being simple substitutes, they seem to be complementary parts of a nation's credit reporting system." This is based upon the institutional focus (such as bank supervision function) and the cut-off threshold. In Europe, more countries have higher thresholds ranging from US-\$ 50.000 to US-\$ 100.000, that exclude the large majority of households. In Latin American, thresholds are in general lower and range from US-\$ 1 to US-\$ 50.000.

Jappelli and Pagano (2002: 2036) argue differently. They find that private and public credit reporting do not have a differential impact on the lending activity and on defaults. They state that in countries where private bureaus are absent, the establishment of a public one could be beneficial. According to the numbers above, private credit bureaus are established in 37% of the countries with a public registry. They are usually established where creditor rights are less protected and there is less respect for the law. If private credit reporting agencies already exist,

<sup>34</sup>Gesetz über das Kreditwesen (KWG), Federal Data Protection Act and the guideline Verordnung über die Erfassung, Bemessung, Gewichtung und Anzeige von Krediten im Bereich der Großkredit- und Millionenkreditvorschriften des Gesetzes über das Kreditwesen (GroMiKV)



the probability of a public registry establishment is lowered by 40%, as reported by the authors. Hence they conclude: "In summary, the historical experience is consistent with the hypothesis that the establishment of PCRs has been largely motivated by the 'substitution' role. First, they have often been created to make up for the lack of private credit bureaus. Where the market alone has not produced information sharing, governments have felt they had to take the initiative." Jappelli and Pagano (2002: 2039). Some thresholds are given in Figure 8.

**FIG. 8** European Credit Reporting Regimes

Country	Institutions			Information		Coverage Rates (%)	
	PCR Est.	Thresh. US-\$	PRCR	Pos.	Neg.	PCR <sup>1</sup>	PRCR <sup>2</sup>
Austria	1986	308.420	yes	x	x	9	308
Belgium	1967	22.030	yes		x	na	42
Denmark	-	-	yes	na	x	-	58
Germany	1934	1.321.800	yes	x	x	5	693
Greece	-	na	yes	na	x	-	86
Finland	-	-	yes	-	x	-	96
France	1946	22.971	-	-	x	12	-
Ireland	-	-	yes	x	x	-	730
Italy	1962	66.090	yes	x	x	55	416
Luxemburg	na	na	na	na	na	na	na
Netherlands	-	-	yes	x	x	-	530
Portugal	1978	44	yes	x	x	496	24
Spain	1962	5.287	yes	x	x	305	48
Sweden	-	-	yes	x	x	-	489
UK	-	-	yes	x	x	-	652
Bulgaria	1999	4.525	-	x	x	5	-
Czech Rep.	2002	na	yes	na	na	10	136
Croatia	na	na	-	na	na	na	na
Cyprus	na	na	na	na	na	na	na
Estonia	na	na	na	na	na	na	na
Hungary	-	-	yes	na	na	-	15
Latvia	-	-	-	-	-	-	-
Lithuania	1995	13.218	-	-	-	7	-
Malta	na	na	na	na	na	na	na
Poland	-	-	yes	na	na	-	543
Romania	2000	1.333.209	-	x	x	1	-
Slovakia	1997	na	-	na	na	2	-
Slovenia	1994	na	-	na	na	14	-
Turkey	1951	6.900	yes	x	x	7	204

As reported by the World Bank (2004: 65 - 66), in poorer countries, private and public credit registries are associated with more private credit and this effect seems to be larger for private bureaus. The effect of the public registry, however, can be expanded with broader rules on collection, distribution and access to information.

For monitoring systemic risks, public registries are certainly an adequate instrument when it comes to lending of higher amounts of loans. However, the reliance on such a registry for consumer reporting could create a public monopoly. Only a small number of countries have followed this approach: for example France and Finland.<sup>35</sup> The operation of a public registry does not per se exclude private credit bureaus if thresholds are set at a sufficiently high level. Some countries do not have a public registry at all, such as Australia, UK and the U.S. In the latter case, there is currently a project underway that assesses as to whether the information in the private registries can be used for public scrutiny of credit risk in the market.

It seems like some of the Chinese governmental agencies want to built their own systems. This is at odds with international experience in credit reporting. Usually, only the public registry at the central bank engages in this activity. An

<sup>35</sup>Finland has contracted this operation exclusively to a private bureau.

uncoordinated establishment of several databases in different governmental offices is an unnecessary duplication of efforts. Moreover, if regulators become engaged in an activity they are supposed to regulate, conflicts of interests may arise. The profit calculus seems to play a role in these efforts. Instead of focusing on profit motives, the government in China must focus on the long-term interest in creating healthy credit markets.

Databases that are important for business reporting (such as trade registers or court judgements) should be centralized and the access should be as cheap as possible (for further policy suggestions, see Jentzsch 2003b). Consumer credit reporting should be left to the registry at the central bank or the private industry in the market or to both in a complementary fashion.

#### **6.4. Centralized Data Protection Authority**

From the 100 countries in our sample, 30 have regular data protection officers and 7 countries have other institutional arrangements, which will be described below. All other countries have no institutional arrangement, these are mainly the least developed nations. All European Member States have data protection authorities, which are intended to give citizens an organizational back-up in cases of claims against data controllers. Moreover, the data protection officers can publish rules, codes of conduct, information material and even administer the "Freedom of Information Act" as is the case of Great Britain.

Chinese officials decide if they want to built up a central office that bundles competence in the field of data protection for the purpose of supervision. The staff of such an office is then exclusively dealing with privacy matters and citizens know which office to address. The office can register data controllers and be in contact with all parties concerned.

There are only a few countries that follow a different institutional path. These are primarily the countries where legislation is sectoral, unclear or currently on the verge of being introduced. In the U.S., several regulators are in charge together with the FTC, which was originally set-up as an anti-trust authority. Now, the office is also responsible for credit reporting and consumer protection. Israel has a Registrar of Databases that enforces data protection and that is located in the Ministry of Justice. In March 2003, the Japanese Diet enacted the Personal Information Protection Act, but this law is not in effect yet, it will be enforced by the State Minister in charge for it.

In Korea, there is no single office. For credit reporting, the Financial Supervision Services (DP Review Commission) and the Ministry of Finance and Economy is in charge. In Malaysia, it is the Central Bank and in Singapore the Monetary Authority of Singapore. In Thailand the Ministry of Finance (Financial Institutions Policy Group) in charge together with the Bank of Thailand.

Based upon the international experience, I can only suggest a clear labor division with an office in charge for data protection. Credit reporting as activity should not be conducted by a ministry for the reasons stated above. In China, this apparent lack of a single authority is hampering the development of a national credit reporting industry.

## 6.5. Opt-in versus Opt-out in Credit Reporting

The U.S. and Europe have many similarities in data protection, which also should be stressed. The differences are still large enough that both trading powers almost ran into a trade war in 1998 with the implementation of the EU Data Protection Directive. Especially the extraterritorial principle in the directive was subject of dispute. There are several aspects that the Chinese administration should take into account. The U.S. regime is less stringent in some ways, but the effect on a broader credit market is unclear due to many other variables influencing this relationship such as competition, bankruptcy rules, creditor rights, etc.

One of the major differences between U.S. and Europe is opt-in versus opt-out.<sup>36</sup> In the U.S., there is no opt-in in credit reporting, which means that banks can share information without asking the individual if they are allowed to do so. This holds for negative as well as for positive information. The consumer has no right to be informed about the information sharing, no opt-out and no right to know more than that the disclosures to the credit reporting agency are being made 'as permitted by law'." (Federal Trade Commission 2000a: 33667). On many occasions, Americans state that an opt-in regime would lead to harm or a complete breakdown of the credit reporting system. This is also believed by the Chairman of the FTC:

"The system works because, without anybody's consent, very sensitive information about a person's credit history is given to the credit reporting agencies. If consent were required, and consumers could decide - on a creditor-by-creditor basis - whether they wanted their information reported, the system would collapse." (Muris 2001)

This is in disregard of international experience, as the case of Germany and other countries shows. A "consent" clause in the law is usually accompanied by several exemptions that provide for many occasions where data can be collected (although with notification and hence knowledge of the data subject).

Germany has been an "opt-in regime" for positive information for decades. How is that possible? There is a simple clause integrated in all credit contracts that asks for the permission to share positive information. These 11 sentences - certainly not a major burden for the industry - fully inform the consumer about the data sharing.

If consumers are eager to get credit, they usually do not decline an offer, because of privacy preferences. In Germany, most borrowers comply by signing the clause (a translation of it is provided in Figure 9), in many cases they do not even read it! Of course, for negative information there is no need to ask the borrower for consent, since the stability of the banking system is the higher-ranking public interest compared to the borrower's right as to privacy in negative information (Sosna 2002: 22). Altogether, consumers usually opt-in in Germany. So what is the problem with opt-in versus opt-out?

A closer look at the interest groups endorsing opt-out might shed some light on the question. The industry is usually for opt-out and consumer groups are usually for opt-in. To the knowledge of the author there are only few works that use a scientific approach to show the difference between opt-in and opt-out. Bellman, Johnson

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<sup>36</sup>Opt-in relates to consent by the consumer that has to be obtained ex ante. In opt-out the consent is assumed until the consumer reacts and votes to opt-out. The burden is on the consumer in the latter regime.

**FIG. 9** The Schufa Clause

I herewith confirm my affirmation that the credit institute (*name of the institute*) transmits to the credit reporting agency (*name of credit reporting agency*) data about the application, opening and termination of this account. Independently from this, the credit institute (*name of the institute*) will also transmit data about contractual non-compliant behavior (for instance, fraud). According to the Federal Data Protection Act, this report may only occur according to the balancing of all concerned interests. Insofar, I also exempt the credit institute (*name of the institute*) from bank secrecy. The (*name of credit reporting agency*) stores and transfers the data to contract partners in the EU internal market, to provide them with the creditworthiness data on natural persons. Contractual partners of (*name of credit reporting agency*) are mainly credit institutes as well as credit card and leasing companies. Apart from this, the (*name of credit reporting agency*) also reports to retail, telecommunication and other companies that provide services and delivery based upon credit. The (*name of credit reporting agency*) only provides personal data if there is a trustworthy justified interest in the individual case. For locating debtors, their addresses are provided. When providing credit reports, the (*name of credit reporting agency*) may also report a score calculated upon its databases for the evaluation of risk by its contractual partner (scoring). I can access the personal data related to me stored at the (*name of credit reporting agency*). Further information about (*name of credit reporting agency*) reporting and scoring is given in a brochure available at the contractual partner of (*name of credit reporting agency*).  
(Translation by the author)

and Lohse (2001) show that the framing of the sentence and other measures<sup>37</sup> have an impact on participation rates (in marketing, for instance). The authors state: "Preferably, no data collection or use should occur until a definite answer has been received from the consumer." This is the opt-in regime. They explain that opt-in vs. opt-out will make substantial difference in terms of the number of people participating in activities such as cross-selling and marketing. This explains why the industry is for it and consumer groups are against it.

In Europe, opt-out is seen as a minimum standard. It is claimed that it is "difficult to see the advantage in stopping at the minimum standard of the opt-out, unless it is to placate backward-looking industry interests and to shore up business practices which with the advent of consensual marketing now belong firmly in the past. To portray the opt-out approach as a compromise between privacy protection and free enterprise is a gross distortion." (European Commission 2001a: 65). Also, it is emphasized that it is hard to imagine that any legislator would "sacrifice citizens' privacy in the name of free enterprise." Even in the U.S., there are more and more cases of opt-in regulations, mainly on the state level. On the federal level or for health information and employment records, also opt-in holds.

## 6.6. Centralization of Databases

So far, there are no models on the optimal amount of information sharing that could teach policymakers what measures to apply. Many countries prohibit the collection of variables such as race/color of skin, national origin, political and religious opinion or trade union membership. The collection of variables on educational background, marital status and gender is usually not forbidden by law. China could follow this path if it wants to avoid discrimination based upon such variables.

In general, commercial scoring models operate with 20 - 30 predictive variables. Due to the several unpredictable factors such as unemployment or divorce, risk prediction is never perfect. However, it is possible to separate households with chronic financial problems and bad credit management from those that experience

<sup>37</sup>These include in online environments the pre-set checking of a box, for instance (so called "default").

an unanticipated income shock. Avery, Calem and Canner (2004) show that the default probability is smaller when credit problems were isolated in the past instead of repayment problems that stretched over a year. It is exactly that chronic misuse or bad financial management of credit that should be scored and that should lead to higher prices for the individual.

Another field of controversy is the centralization of databases. In France, it is stated that a default on a telecommunication bill should not be used for declining consumer credit. I have already mentioned that in Shanghai the mobile firms have started to record their customers in 2001. Briefly after this, newspaper articles appeared stating that consumers that delayed the payment of their telecommunication bills could not get loans from commercial banks.

In Germany, there is the fear of a centralized database that correlates many different fields of the life of a person with one another (Unabhängiges Landeszentrum für Datenschutz Schleswig-Holstein 2003). Some of the Data Protection Authorities in Germany, including the Federal Data Protection Officer announced their concern that the credit reporting agencies develop into a centralized database that expands into many different spheres of the lives of people, such as housing and insurance. The detailed profiling would have "incalculable risks" for the individual, since it could lead to the case where somebody does not obtain an apartment, because of a single default on the mobile phone contract. In Germany, there has been an increasing demand by landlords for credit reports.<sup>38</sup> In the U.S. this is also perceived as problem: "Consumer access to credit, housing, insurance, basic utility services, and even employment is increasingly determined by centralized records of credit history and automated interpretations of those records." (Consumer Federation of America 2002: 2). The centralization of databases is usually justified on grounds of economic efficiency. It is true that the picture of the risk associated with the consumer will be more comprehensive the more fields are taken into account, but again 20-30 variables are usually enough for commercial models.

Chinese officials must be aware of the fact that centralizing databases leads to a correlation of everything with everything: credit with employment, insurance with telecommunications. Other countries have already made bad experiences with this. In March 2004, the finance ministry of South Korea publicly asked the credit reporting agencies to temporarily withhold credit records on people from the employers to facilitate the hiring of credit delinquents (Asian Pulse 2004). The authority even considered a one-year suspension, "to facilitate hiring of those who have been shut out of the job market because of small debts that they have incurred." Officials of the ministries are quoted with the words that if these people cannot find work they cannot pay off their debt, leading to a vicious cycle.

There are anecdotal cases from China: "Edison Zhang, a Shanghai University senior applying for a government job is a good example of this. Once, he was so worried that a missed monthly payment to Shanghai Telecom for his ADSL service could affect his credit rating, definitely disqualifying him from employment in the civil service." This could lead to cases where people that are unemployed and that search for jobs cut back on spending money for food just to avoid delaying a payment to the telecoms firm, which would lower their credit rating and their chance of finding a job.

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<sup>38</sup>It is not business practice in Germany to pull a credit report for employment purposes.

Even in the U.S., this subject has been regulated. There, credit reports were not only used for hiring but also for determination if the person should keep the job. As noted, the Consumer Reporting Employment Clarification Act of 1998 unambiguously states that no consumer record can be obtained for employment purposes unless the consumer has authorized this in writing. I emphasize that this is an opt-in regime. This creates considerable social pressure for the individual. Imagine a situation where the individual is in a job interview. If asked as to whether a report on the individual could be obtained by the potential employer, an individual would certainly feel the pressure to allow this due to not wanting to leave a bad impression.

Other examples of centralization abound. U.S. consumers complain that insurance firms increasingly use their credit records for determining premia or for accepting applications. Especially the adjustment of insurance rates based upon changing scores outraged consumers that had to pay more for insurance without having had a single accident. By 2003, 19 states had adopted new regulation of the so-called "insurance scoring." Therefore, centralization will sooner or later produce a repercussive reaction from the public.

In summary, Chinese legislators have to choose among a comprehensive approach as it is followed in the EU and the industry-specific one. This choice should be based upon the unbiased discussion of advantages as well as the disadvantages of both approaches. China should not try to regulate commercial reporting and consumer reporting in one law, virtually no countries does this. Moreover, the Chinese policymakers should discuss as to whether they want to allow a private credit reporting industry. It would be possible to set the threshold of the public registry high enough to allow for such an industry to develop. However, this industry must be regulated, otherwise China will experience the same problems as other countries in the past. A difficult decision is certainly as to whether different authorities should be in charge or one central one. In terms of efficiency of building up the system and in terms of coordination a central authority would certainly be helpful. Also opt-in versus opt-out must be debated as well as the centralization of databases. China must take the experience of other countries into account, before choosing a path here.

## 7. CONCLUSIONS

China experienced a tremendous growth in consumer credit that is likely to continue if not expand in the foreseeable future. This growth compares with other states in Eastern Europe that are currently going through the process of transformation and have double-digit growth rates. However, an unregulated growth of consumer credit bears risks such as a rise in defaults and bankruptcies. Credit reporting systems are one important part of the healthy expansion of the market, but they are by no means the only one as I have argued in this paper. Other nations enacted laws on consumer protection, bankruptcy procedures or provide consumer counseling.

In China, the credit reporting industry is in its infancy. Moreover, only two cities have so far regulated the activity of collecting, processing and distributing information on individual borrowers. There is no national law, although there are first initiatives to develop a data protection law or one on credit reporting. China

has to act as quickly as possible in this respect, before it fully opens its financial services market to competition in 2006.

In this paper, I have reviewed China's growth of consumer credit and I have compared it internationally. Moreover, I have analyzed the existing regulations on credit reporting in China as well as those in 10 other countries, among them European nations and the U.S. There is currently no consensus on what the best practices are in the regulation of credit reporting, however, China can certainly learn from the (historical) experience of other countries.

I have shown that in China, a multitude of actors are currently trying to develop either regulations or databases. These efforts must be bundled and two or three governmental agencies should take the lead in the development of data protection standards. A bundling of competence ensures that no unnecessary duplication of efforts occurs. China must decide if it wants to create a public monopoly in credit reporting with all its drawbacks such as slow innovation or if it allows private registries to enter the market for consumer reporting. Competition in credit reporting would lead to a quick expansion of databases and to higher innovation from which consumers also profit.

Of utmost importance is the development of a national data protection law. As of May 2004, only two cities (Shanghai and Shenzhen) have regulated the credit reporting industry. These regulations are a first step in the right direction, however, they are incomplete and only local. This means that consumers are afforded different levels of protection and credit reporting agencies would have to cope with different regulatory regimes in different cities. This is certainly not helpful for the future development of an integrated national consumer credit market.

Based upon the experience in the U.S. and in Europe, China must decide as to whether a comprehensive data protection law or an industry-specific law should be enacted. In this paper, I provided some evidence on the advantages and drawbacks of both approaches. Although a narrow act is designed specifically for the industry, it usually involves a higher regulatory burden due to being more detailed. Moreover, if this law is incomplete, that is if it does not mandate any obligations for the information furnishers and the credit report users, revisions and reforms will sooner or later be necessary as the case of the U.S. shows. A comprehensive act is more transparent, consumer have the same protection across all industries, including information furnishers and users. If more detailed regulations are necessary, they could be drafted in form of guidelines. This could be accompanied by an independent authority that is assigned with the competence to enforce the law. Data protection, I have argued, is not an obstacle to economic growth, it is one of the outcomes of increasing economic development. The majority of countries, of course, does not have a data protection law at all, but these are mainly the least developed nations such as those in Africa and the Middle East. Not having a law which serves as sound legal basis can - and in fact does - severely hamper the development of the credit reporting industry. This will have repercussive effects on the consumer credit market, where financial service providers depend on information about the indebtedness of borrowers.

Chinese policymakers must also take the international trends in the enactment of data protection laws into account. This paper also provided some evidence on this subject matter. There are more nations on earth that have adopted the European regime than the U.S. regime due to the extraterritorial provisions in the EU Data Protection Directive. If China does not enact an adequate level of protection, it might be drawn into lengthy negotiations not only with the European Union, but

with all the other nations (mainly in Latin America) that also have extraterritorial provisions in their laws.

Finally, China should avoid mistakes that have surfaced in other nations. It must assure that credit reporting agencies and the quality of the highly personal information stored in their databases are subject to prudent standards, since the banking industry depends on this information. Moreover, it should not allow an excessive use of the information for marketing purposes or an excessive use for other purposes unrelated to credit such as employment. The ongoing centralization of databases is a very controversial subject, also in the industrialized nations. As the experience of South Korea shows, the allowance of an excessive distribution for employment purposes can lead to the vicious circle where borrowers do not get jobs and hence cannot pay-off their debts.

Altogether, China needs a national credit reporting system based upon sound legal foundations. It has already made some great progress, but there is an urgent need for regulations. This paper contributed to the discussion by providing Chinese leaders with overview on how regulations can be design based upon the international experience. Apart from the focus on this subject, Chinese policymakers will certainly be aware that there are a number of other laws that are important for the sound development of the credit market.



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