

CENTRAL PLANNING, LOCAL EXPERIMENTS

The complex implementation of China's Social Credit System

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MAIN FINDINGS AND CONCLUSIONS

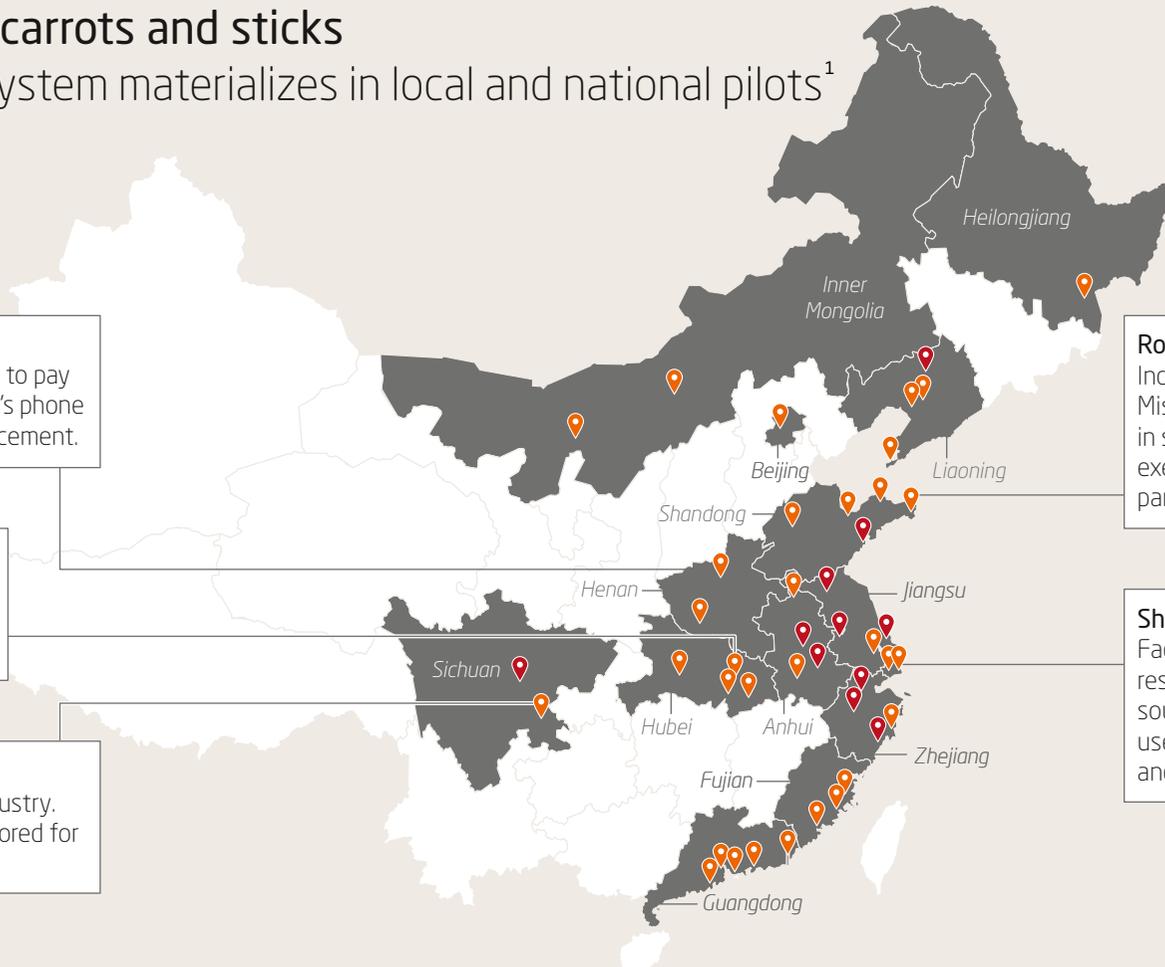
- **China's Social Credit System is an ambitious, information technology-driven initiative** through which the state seeks to create a central repository of data on natural and legal persons that can be used to monitor, assess, and change their actions through incentives of punishment and reward.
- **The Chinese government presents the Social Credit System as a cure-all solution to a multitude of disparate societal and economic problems** such as the lack of options to assess the financial creditworthiness of market participants, food security, and insufficient protection of intellectual property rights.
- **Neither party-state nor private media fundamentally question the need for the Social Credit System.** Social media coverage suggests that many citizens have yet to grasp what the Social Credit System is and what its implications in their daily lives may be.
- **Even if the full vision of the system is not realized, the scope of this project is massive** and will transform China's legal, social, and economic environment significantly.
- **Several social credit pilot projects are already operational, testing new approaches of collecting data and using it to sanction undesirable behavior on a limited scale.** These punishments offer unprecedented possibilities to surveil and steer the behavior of natural and legal persons and therefore would have far-reaching consequences if adopted nationwide.
- **National implementation is still at an early stage:** many of the measures put in place are establishing foundations for sharing information between different departments of government.
- **Media discussions of the information security and data privacy risks the system poses indicate a lack of consensus** on how these issues will be regulated at the provincial and national levels.
- **The relationship between government and commercial actors will be a key factor to watch:** Government agencies clearly depend on private companies' technological know-how to roll out such a large-scale system. Conflicts and rivalry between bureaucratic and commercial players, however, could delay or even derail its implementation.

Experimenting with carrots and sticks

China's Social Credit System materializes in local and national pilots¹



- Round 1 (August 2015)
- Round 2 (April 2016)



Zhengzhou (Henan):
Refusing to comply with a court order to pay debt results in dial tone of the person's phone to be changed to a "shaming" announcement.

Wuhan (Hubei):
Files for students over 18 recording misbehavior like cheating on exams, plagiarism, and unpaid tuition fees.

Luzhou (Sichuan):
Social Credit System for the liquor industry. Baijiu-producing companies are monitored for compliance with regulations.

Rongcheng (Shandong):
Individual scores and grades for residents. Misbehavior (littering, jaywalking) results in score deduction and punishment; exemplary behavior (caring for aged parents) in good ratings and benefits.

Shanghai:
Facial recognition app retrieves data on residents from 100+ government sources and assigns ratings. App is also used for ratings of local businesses and restaurants.

Selected measures applied nationwide or across multiple provinces

 Limits on so-called "high-end consumption" for individuals defying court orders to repay money and representatives of blacklisted companies: no high speed rail, no flights, no private schools for their children, etc.

 Renting apartments deposit-free if a background-check conducted through the Sesame Credit app is positive.

 Different classification and treatment of natural and legal persons for tax purposes, customs, etc. depending on their rating.

 Restricted access to public procurement, government land, social media platforms, and subsidies for black-listed enterprises

Source: Information compiled from www.chinacredit.gov.cn

1. A versatile tool for steering behavior: understanding China's Social Credit System

In 2014, the Chinese government announced detailed plans to create a Social Credit System (社会信用体系) that is meant to reward behavior the government considers financially, economically, and socio-politically responsible while also sanctioning non-compliance with its policies.² Although the system is inspired by financial credit scoring systems in other countries, it surpasses these in at least three ways:

- 1) the broader scope of which criteria are evaluated for credit rating purposes,
- 2) the spectrum and efficient enforcement of punishments and restrictions imposed as a result of non-compliant behavior,
- 3) the growing use of digital sensors and devices that can continually collect and assess behavioral data in real time.

In the financial sector, credit scoring systems usually reduce transaction costs for loans or online payment services and hold market participants accountable to rules and regulations. However, the scope of the Chinese Social Credit System is by no means limited to financial measures of creditworthiness. The aim is to create a central repository of information on natural and legal persons that the state can use to monitor, assess, and ultimately change their actions through behavioral nudges using incentives of punishment and reward. It is based on a combination of traditional sources of data such as financial, criminal, and government records, along with digital sources including data collected by Internet of Things-enabled sensors and personal information that individuals provide to websites and mobile phone applications.

Years of social credit policy planning and refinement signify that the Chinese government has embarked on a pathbreaking course to comprehensively regulate, rate, and steer the behavior of individuals and companies.³ As currently envisioned, it is a wide-reaching project that touches on almost all aspects of everyday life. Social credit scoring will not only affect Chinese citizens and companies but will likely also impact foreigners living and working in China as well as have consequences for foreign companies operating in the country.⁴ In addition, the provision of social credit scoring services from commercial players such as Alibaba and Tencent, who are simultaneously expanding their global reach, raises questions regarding

the extent to which the Social Credit System will collect and use data generated outside of China's borders. Finally, if considered successful, China's Social Credit System may eventually even become a model for other countries in the future.

Despite the anticipated pervasive social and economic impacts, many open questions remain regarding the scope of the system and how it will function when completed. This uncertainty poses a challenge to taking the necessary steps to adapt to the new environment the system will create in China. Individual iterations of the system are currently in the pilot testing phase and are either run by provincial or city governments, or by private companies hailing from the information technology, credit, and insurance sectors. One prominent example is Sesame Credit, a non-mandatory credit scoring pilot run by Alibaba's spin-off company Ant Financial Services Group.^{5,6} While the private schemes are more publicly visible and form an important aspect of the broader Social Credit System, the Chinese government's plans cover much more ground.⁷

In order to offer insight into what this system may look like in the future and provide a basis for adapting to it, this study examines the current state of implementation in two steps. First, it will analyze the vision behind the Social Credit System as it is presented in official media as well as how it is discussed in news media and social media in China. Systematic examinations of the range of views that Chinese regulators, scholars, and citizens have expressed regarding the Social Credit System are still largely absent from both domestic and foreign analyses of this new development. Secondly, this study will offer an assessment of the actual state of implementation of the system as of late 2017 based on policy documents, official government websites, reports, and concrete examples of how the Social Credit System is currently being put into action.

By analyzing both what is currently happening on the ground and how Chinese news and social media sources talk about it, we provide answers to questions of what shape China's Social Credit System may take, and which problems its designers and implementers argue have yet to be solved.

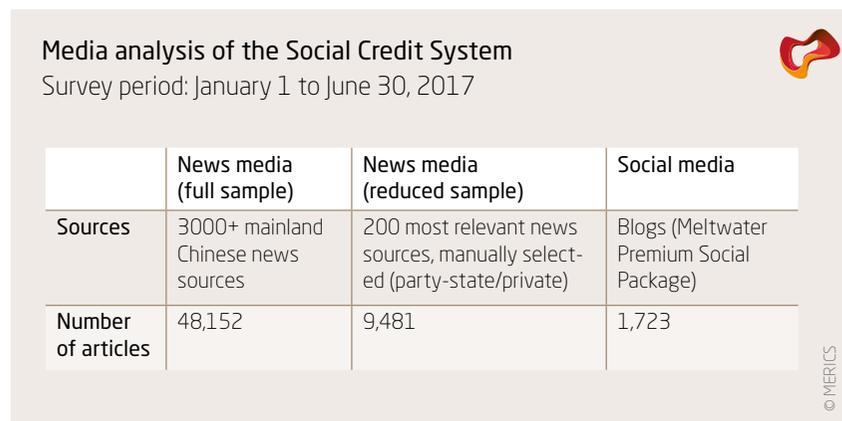
The Social Credit System is a wide-reaching project that touches on almost all aspects of everyday life

2. Credit rating “plus”: China goes much further than other countries

To understand the overarching vision behind the Social Credit System, the scope of issues the Chinese government hopes to solve with it, as well as the roadblocks identified as remaining unresolved in the implementation process, we analyzed official media discussions of the system occurring in the six-month-period from January 1 to June 30, 2017, which we accessed through data-scraping software from the media intelligence company Meltwater (cf. Figure 1).

In addition, we scraped social media such as blogs, forums, and bulletin board services (BBS) for non-official discussions of the Social Credit System. The number of hits for the Social Credit System on social media was low (under 2000 hits for the first half of 2017), and a significant proportion of hits consisted of re-posted news articles. One notable exception is the debate on how Sesame Credit scores are calculated and user-suggested strategies for how to raise one’s score. Regulator- and platform-enforced social media censorship as well as self-censorship cannot be excluded as reasons or at least partial explanations for the low number of posts on this potentially sensitive subject.

Figure 1



However, the existence of a small number of fundamentally critical posts combined with the fact that the overall number, including neutral and affirmative posts, is low suggests that thus far, the Social Credit System is not receiving much attention among Chinese citizens. Social media coverage suggests that many users have yet to grasp what the Social Credit System is and what its implications in their daily lives may be.

2.1 THE GOVERNMENT’S VIEW: SOCIAL CREDIT AS A CURE-ALL FOR SOCIAL AND ECONOMIC PROBLEMS

The Chinese government considers the Social Credit System an important tool to steer China’s economy and to govern society (社会治理). In Chinese news media, “social credit” (社会信用) has become an omnipresent political buzzword used by central and provincial government agencies just as much as by financial institutions or public universities. Media debates strongly confirm that the Social Credit System is not seen as merely a way to assess financial trustworthiness. Rather, it is presented as a future cure-all for China’s current social and governance problems and meant to solve a disparate range of long-standing issues including, but not limited to, insufficient ways to assess the creditworthiness of market participants, corruption, fraud, and consumer protection issues (cf. Figure 2). Increasing delegation of compliance auditing tasks to information systems and digital sensors underpins much of the vision of the Social Credit System, and is of a piece with the Chinese government’s portrayal of big data-driven technological monitoring as providing objective, irrefutable measures of reality.

Social Credit has become an omnipresent political buzzword in China

Figure 2

The wide-ranging goals of China's social credit system according to Chinese media reports



Creating a 'culture of integrity'	Solving economic problems	Improving governance
Restoring 'social trust' and honesty in Chinese society	Boosting market efficiency and economic growth	Increasing government credibility
Rewarding good behavior, punishing the untrustworthy	Anti-counterfeiting, better IPR protection	Improving information exchange within bureaucracy
Citizens' moral education (based on integrity as a traditional Chinese value)	Strengthening food and drug safety	Protecting private data (by regulating authorized access)
Educated online behavior ('Internet integrity')	Consumer protection	Fighting corruption
	Improving customs services and inspections	Boosting the 'soft power' of pilot zones, FTZ, etc.

Source: news reports retrieved through Meltwater

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By design, China's Social Credit System mixes economic criteria with non-economic behavioral criteria to evaluate individuals, companies, and other organizations. The system's declared goal, according to government documents, is to "improve the integrity awareness and creditworthiness" (提高全社会的诚信意识和信用水平)⁸ of Chinese people and ultimately create a trust-based economy and society. In line with this, policy plans focus both on financial credit information (征信)⁹ on

the one hand and integrity, or trustworthiness on a moral level (诚信) on the other, though occasionally the two are not explicitly differentiated from one another.

While financial credit does factor into the system and the government wants to create a professional, world-class credit service industry, it is mentioned much less frequently both in government plans and in media reports than moral integrity.¹⁰

The main policy document, the State Council's *Plan for Establishing a Social Credit System (2014-2020)*, along with subsequent provincial and sectoral policy plans, distinguish between four "key areas" for building integrity: government, commerce, society, and legal institutions. Government officials, private individuals, companies, and other legal entities are all to be held accountable for their conduct. In addition, "creating confidence in the law" (司法公信) is presented as a precondition for creating a functioning Social Credit System in the other domains.¹¹

2.2 FAVORABLE NEWS MEDIA REPORTS: BOOSTING TRUST AND INTEGRITY THROUGH TECHNOLOGY

Chinese news media most frequently frame social credit as a means of building integrity in society and in government affairs. Integrity in commerce and confidence in the law receive less attention, suggesting that the Social Credit System is presented first and foremost as a tool for governing and reforming society at present.

"Integrity in government affairs" is most often mentioned in conjunction with "ensuring corruption-free, transparent government" and "holding government officials accountable" to set an example for other sectors of society. News media often present this as the bedrock principle underlying the engineering of a more trustworthy society. Similarly, "creating confidence in the law" is presented as a precondition for a functioning credit system in the other arenas.

In terms of economic governance, the Social Credit System is treated as a catch-all solution for solving market efficiency problems and fighting economic crime. It is regularly mentioned as a solution at the end of articles on various current economic problems, such as product counterfeiting, food and drug safety violations, disrespect of market regulations, etc.

With regards to the societal component, the Social Credit System is regularly associated with the creation of a "culture of integrity" (诚信文化) or the restoration of "social trust" (社会诚信). The declared goal in official media comments on the system is one of transforming society – which is portrayed as flawed and plagued by untrustworthy elements – for the better.

The declared goal of the system is one of transforming society for the better

Among the many problems linked to the diagnosis of a lack of trust in society, food security is commonly identified as the most pressing issue, particularly in private media. Low-quality or contaminated food can severely harm consumers' health. Therefore, unlike for other industries, where consumers' choices will often help eliminate inferior products, market self-regulation does not work here. Instead, as Chinese media argue, 'black sheep' can only be eliminated by building a "comprehensive Social Credit System."¹²

The same logic of presenting the Social Credit System as an effort to improve consumer protection in China also underlies the creation of a national-level information platform with explicit reference to the main government plan that promises to "protect consumers' rights" (保护消费者合法权益) and provide consumers with "authoritative" and "trustworthy" information about goods, manufacturers, and companies.

The analysis of news articles in the first half of 2017 shows that for now, discussions around the Social Credit System remain domestically focused. A possible international extension or even the potential of the Social Credit System to serve as an international model is not mentioned in media articles, in contrast to related domains such as the e-payment sector where China has recently been styling itself as a frontrunner and a model for others to emulate. This supports the view that authorities are not yet confident enough to promote the Social Credit System as an innovative "Chinese model" of governance. They are far more concerned with making the new system work and legitimizing it domestically at this point.

2.3 MEDIA CRITICISM: EITHER CONSTRUCTIVE OR TARGETED AT COMMERCIAL PROVIDERS

Neither official nor private media fundamentally question the need for the Social Credit System. While most reporting is neutral or affirmative, some news and social media comments go into more detail to point out problems such as lack of cooperation and disconnected "data islands" (信息孤岛) across different bureaucratic entities, self-interest of commercial actors involved in setting up the system, inconsistent quality of data collected, lack of uniform data formatting standards, corruption in local government, and even concerns such as privacy infringements and inadequate protection of trade secrets and personal data.

However, criticism is focused on issues that can be technologically solved. It does not fundamentally question the need for and the legitimacy of the Social Credit System as a means of making moral judgments that will materially affect

citizens' social opportunities. Criticism most often concentrates on commercial social credit companies, rather than on the state-run pilots or the system as a whole. In the following section, we introduce some of the points of criticism that are often mentioned in media reports:

Government infrastructure is seen as lagging behind

One commonly mentioned implementation hurdle is insufficient data exchange between different bureaucracies. Media reports have identified lack of cooperation and the subsequent prevalence of "data islands" as a major problem. The central government presents itself as the most reliable point for collecting information and making sure that all social credit data networks are interconnected and centrally accessible through a single government platform.¹³

However, local government is treated both as part of the problem and of the solution. Corruption in government means that government organs themselves need to be integrated into and evaluated by the Social Credit System. At the same time, all government bureaus are expected to be trailblazers who will be the first to make use of credit information, for instance in public procurement or when deciding who will receive subsidies and preferential policies.

Current types of data collected are deemed inappropriate for assessing creditworthiness

A common concern voiced in news media is that the data privately-run (social) credit providers are collecting is insufficient, inconsistent, or unhelpful for assessing financial creditworthiness. For instance, one article points out that it is not uncommon to find that different commercial credit institutions will issue widely diverging ratings to the same person given the disparate data sets and methods drawn upon in evaluation. This problem, according to media reports, is exacerbated by the fact that some government agencies and companies are collecting but not sharing their data with one another, thus creating useless "data islands."¹⁴

Government officials in the banking sector have voiced concern in the media that the mixing of economic and non-economic criteria (as in commercial pilots such as Sesame Credit) is unhelpful in assessing financial credit risks.¹⁵ While the system will still record both types of data, financial regulators have argued that the two need to be clearly separated. Banks may also be wary of the competition that fintech and its related rating and loan-granting systems present, fueling their skepticism of these loosely-regulated alternatives.

Neither official nor private media fundamentally question the need for the Social Credit System

There may be ways to cheat the system

By and large, both news and social media are so far avoiding discussions about the potential for cheating or “gaming” the Social Credit System to artificially produce high scores. There is limited discussion of how to digitally manipulate one’s records, how state and private credit score providers will prevent such attempts at fraud, and what the punishments will be for these offenses.

However, one investigative article on Sina Weibo claims that there are data black markets through which Alipay users pay hackers who promise to raise their Sesame Credit scores. Users provide their Alipay usernames and passwords, and the hackers change the “binding data” that serves to identify users in their profiles, for example upgrading the information to falsely reflect that a user possesses several houses, an expensive car, or a degree from an elite university. The hacker interviewed in the article claims to have made millions of RMB in a few months’ time from these orders, even though this method has not been proven to raise Sesame Credit scores by more than a few points.¹⁶

This type of fraud poses information security risks given that users cannot guarantee that their Alipay login credentials will not be resold or implicated in identity theft once they have handed them over. As the Social Credit System unfolds, it is likely that additional methods of data forgery will arise.

Commercial providers are criticized for privacy infringements

Considering the troves of highly sensitive personal data the system will collect, information security would presumably be regulators’ chief priority. Yet privacy and personal information protection are issues that come up only on the margins in news media, with quotes from government officials and industry representatives describing both as ongoing concerns in establishing a Social Credit System. These are consistently referenced as two separate problems: privacy (隐私) involves who can access what information about users, and personal information protection (个人信息保护) relates to the illegal resale of data that could enable blackmail, identity theft, and extortion of social credit users.

News media is critical of private companies having access to too much of citizens’ personal data, but to date has not suggested that the government is guilty of this kind of pervasive access. Articles that touch upon privacy concerns tend to omit considerations of to whom individuals’ privacy would be lost, whether they be peers, the state, private companies, or hackers.¹⁷ In contrast, discussions of privacy in social media frequently imply that users of, for example, Sesame Credit,

run the risk of Ant Financial (and, by extension, Alibaba) accessing more of their personal data than is required for the purpose of credit scoring.

Although most social media references to social credit primarily touch upon questions of how users can raise their scores within commercial products such as Sesame Credit, there is a limited and rich subset of discussions around issues of privacy, personal data protection, and overreach of the system’s data gathering. In general, the handful of social media posts addressing privacy concerns in the Social Credit System are more critical of the technology companies providing scores than they are of state-run social credit issuers. At the moment, this may simply reflect that more citizens are familiar with and regularly use the commercial social credit apps than the smaller, local government social credit services. However, this absence of critical comments about government agencies’ potential for information abuse may just as well be due to censorship or self-censorship.

On question-and-answer platforms,¹⁸ online bulletin boards, and web forums, two rare types of netizens are particularly vocal in critiquing the Social Credit System. The first category includes a smattering of individuals who have negative experiences with commercially-provided social credit applications and subsequently feel their privacy has been compromised. The second group comprises self-identified information technology professionals and scholars. They complain about the opacity of private companies’ scoring algorithms, users’ inability to access the data companies have stored on them, the absence of credit repair mechanisms, and a lack of transparency around which third parties can access individuals’ personal data and for which purposes.

A few social media users have pointed to the fact that laws addressing some of the problems they have identified do exist, such as protections against credit rating organizations sharing personal data with a third party without first obtaining the data subject’s consent. However, they also note that these laws are hardly enforced. Users within both groups have repeated the recommendation that only “large, trustworthy, law-abiding organizations” should be entrusted with handling personal data. This opinion lends support to the government line that when it comes to massive personal data collection, the state is more likely to protect the public good than private companies are.¹⁹

In conclusion, the way in which official media talk about the Social Credit System speaks to the fact that the Chinese government is determined to establish this system and views it as essential both for a functioning trust-based economy and to solve a variety of social ills. At the same time, the discussion in both official and social media suggests that the translation of the vision into practice is in flux, and that the Chinese government still has a number of issues to resolve.

So far, there is only limited discussion of how to digitally manipulate one’s records

The question therefore is not if the system will take root, but what it will look like when it fully arrives. The implementation process from 2014 to 2017 provides vital clues as to what the system will look like in practice.

3. The state of implementation: creating a framework, experimenting with pilots

The Social Credit System is a massive and complex project that will require many different government agencies to coordinate their work practices with one another. At the national level, the government has issued plans for division of labor until 2020 covering twelve main areas subdivided into 84 sub-areas of responsibility, all of which are major policy projects requiring a high degree of synchronization.²⁰

The current implementation process can roughly be divided into two tracks: one, creating an overall nationwide framework for assessing both financial credit and moral integrity (new laws and regulations, institutionalizing basic structures for cooperation, setting common standards) and, two, experimenting with provincial, sectoral, and commercial pilots.

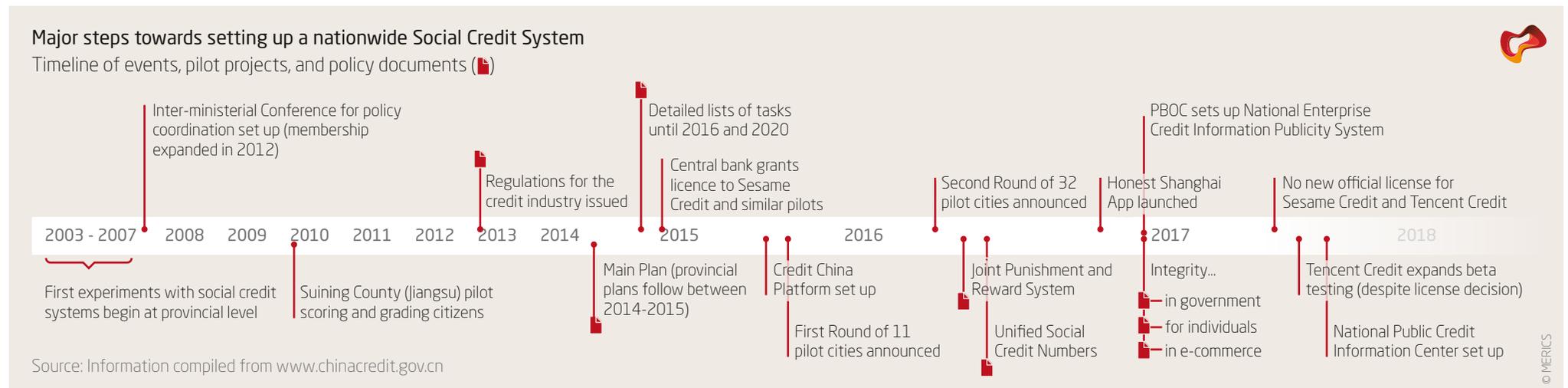
3.1 THE CENTRAL GOVERNMENT'S FOCUS: FACILITATING COOPERATION AND ENFORCING BLACKLISTS

Currently, implementation at the national level centers on ensuring cooperation between different government bureaucracies as well as publicly sanctioning individuals and companies that have been blacklisted for failing to comply with relevant laws and court orders.

Focus 1: Getting different actors to share their data

A large number of bureaucracies are involved in setting up the Social Credit System on the government side. The key to making the Social Credit System work is ensuring proper flow and accessibility of information. One of the greatest roadblocks is getting these different actors to work together to make sure that an individual or entity who has defaulted (or stood out positively) in one area will also be punished (or rewarded) in others.²¹ A study on the development of the Social Credit System conducted by Qianhai Credit and the Liaowang Institute (a think tank under the Xinhua news agency) has noted that reduplication of efforts is inevitable, and might impede the progress of the system's establishment if government and private organizations fail to adequately consult with one another and share data.²² To address this lack of coordination, several mechanisms are currently being put into place.

Figure 3



First, in 2007, the Chinese government set up the *Interministerial Conference on Social Credit System Construction* (社会信用体系建设部际联席会议) as a coordinating body.²³ Headed by the NDRC and the PBOC, it now consists of 46 party and government organs, including players such as the Ministry of Finance and the State Administration for Industry and Commerce on the one hand, and the Ministry of Public Security and the Central Propaganda Department on the other.

In addition, the Chinese government is currently introducing the Unified Social Credit Number System (统一社会信用代码制度) as a basic prerequisite for different ministries to be able to exchange information with one another. In the past, different bureaucracies used different number schemes to identify legal entities. These are now gradually being replaced by a unified 18-digit number to identify natural and legal persons across different bureaucracies and to store all social credit related information on them under a unified number. This step will lay the groundwork for social credit ratings to double as a form of identity, following citizens and companies through multiple aspects of their daily lives as well across different cities and provinces.

Finally, the actual number of actors involved in establishing the Social Credit System is larger than just the members of the Interministerial Conference, as it includes all ministries to some extent, all local governments, industry associations, and commercial players. Therefore, to solve the problem of cooperation, different government and non-government actors have also been signing joint memoranda (联合备忘录) and memoranda of cooperation (合作备忘录) focused on how to report data and which punishments to mete out for (social) credit offenders.

Focus 2: Punishment for credit offenders and awards for high scorers

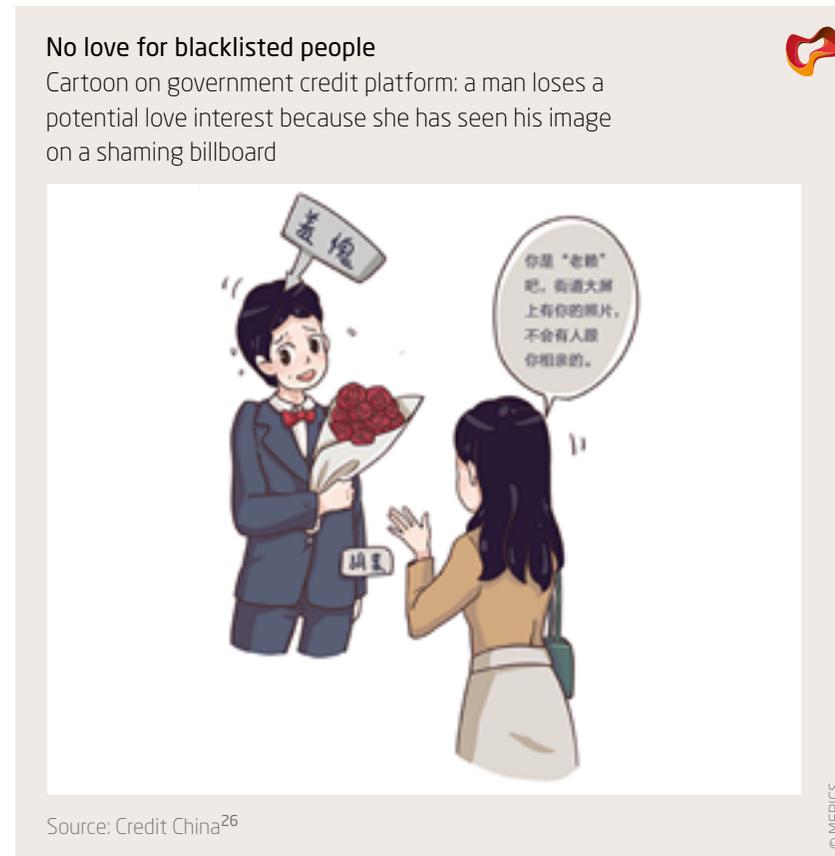
While the Social Credit System is still under construction, blacklists of non-compliant individuals and legal entities (and “red lists” for outstanding companies and individuals) form the core of the current stage of implementation. The main focus is on punishing offenders on the blacklists (黑名单), though some measures for rewarding those on red lists (红名单) have also been passed.

At present, individuals are primarily blacklisted for resisting court orders while companies are blacklisted for breaking existing laws and regulations in a number of areas. The number of offenses resulting in individuals being blacklisted and punished is constantly expanding as ministries and departments come up with additional sectoral regulations for rewards and punishments.²⁴

By design of the system, sanctions for loss of creditworthiness have a serious impact on the subject’s ability to lead a normal life or pursue their business. For instance, legal representatives of companies that have been blacklisted are no longer allowed to hold a leading position in another company for a number of years or to send their children to private schools.²⁵

In addition to the punishments, blacklisting also has reputational costs, as Chinese government agencies are already making these lists publicly available through their databases as well as through major news websites. Naming and shaming through the wide publication of the names, photos, state ID numbers, and in some cases even home addresses of blacklisted persons, is an integral part of this system.

Figure 4



The government has set up two central platforms to make information widely available to the public through a centralized system and to allow queries on black-listed legal and natural persons. The first is Credit China (信用中国网), a website offering information on the Social Credit System and queries for information on blacklisted persons. The Second is the National Enterprise Credit Information Publicity System (国家企业信用信息公示系统), which is specifically for companies and allows users to look up information on the company's license, where it is registered, and if it has been blacklisted or listed for irregularities. Naming and shaming is not only seen as unproblematic by Chinese government authorities, but is actually celebrated. For example, several cartoons published on the central government's Credit China platform explain that having one's face and ID number revealed will create social pressure and shame both individuals and companies into adopting more compliant behavior (see Figure 4).

In conclusion, while the measures implemented nationwide are still relatively basic, they lay down the groundwork for information gathering and sharing that could later be used to centrally store all kinds of data, including on a person's social network, online behavior and other data points currently only used in pilots.

Figure 5

NO UNIFORM STANDARDS FOR CREDIT REPAIR

Mechanisms of credit repair (修复) – the appeals process for disputing negative rating data and restoring one's score to good standing – and opportunities for forgiveness of previous infractions differ by province and sector. Lian Weiliang, a Deputy Director of the National Development and Reform Commission (NDRC) has listed the lack of measures for credit repair as one of four points for improvement in the Social Credit System, signaling regulators' awareness that the system must leave open avenues of redemption. At present, however, there are no uniform standards on credit repair for low social credit scores. Some province-level policies have suggested that volunteer work and donations to charity may serve as legitimate forms of reviving poor social credit ratings. However, policy documents have not yet addressed the problem of long-term reputational damage that comes along with being publicly shamed for what may be relatively minor infractions.

In addition, different government agencies are coordinating to come up with ways to punish social credit offenders. While currently these are only applied to companies breaking certain laws and people defying court orders, the circle of those affected by these punishments may expand in the future.

3.2 PILOT PROGRAMS: AMBITIOUS BETA-TESTING OF THE SYSTEM

In addition to measures put in place on a nationwide basis, the Chinese government is actively promoting pilot programs to test out new measures that, if successful, can then be implemented more widely. These pilots can be divided into two types: first, there are government-run local and sectoral pilots, i.e., experiments conducted in individual provinces, cities, or limited to certain policy areas or industries. Second, there are commercial pilots, which allow private companies to test non-mandatory credit scoring schemes. These pilots are the proving grounds for the Social Credit System, as they provide a bellwether for how the system may or may not progress.

Local and sectoral pilots: prototypes of nationwide measures

The majority of provinces have been forging ahead with credit information systems since 2015, and the policies they experiment with are expected to serve as potential prototypes of nationwide measures. Each province has set up leading small groups or interministerial conference systems mirroring the central government to coordinate policy making at the provincial level. Three provinces (Shaanxi, Hubei and Hebei) as well as the provincial-level city of Shanghai have passed regulations for how to handle social credit information. While national legislation is still under way, the NDRC announced in June 2017 that it has fast-tracked research into a legal framework and credit standards, which can then use the provincial regulations for reference.

As is the case with other Chinese policymaking procedures, social credit policy plans have also identified priority areas where the system is to be established and tried out first, with the aim of transferring experience gained when scaling the system up for implementation in other parts of the country. Priority areas are the sectors the Chinese government considers most pressing and where it sees the most urgent need to establish measures to assess market participants' trustworthiness and punish infractions. These include fields such as production, taxes, pricing, e-commerce, healthcare, education, and IPR.

Pilots provide a bellwether for how the system may or may not progress

The State Council has designated a total of 43 municipalities and districts to experiment with new ways to assess credibility and to punish behavior considered illegal or immoral. As provincial plans have progressed, locales have started experimenting with new ways to assess (social) credit and mete out punishments as well. These pilots are where more innovative and advanced developments are taking place, including those that have the greatest potential to violate the privacy or reputational rights of individuals.

For example, since November 2016, the Shanghai Municipal Government has been experimenting with a mobile phone application called Honest Shanghai (诚信上海).²⁷ Users can input their state ID number and within 24 hours they will receive one of three ratings (“very good,” “good,” or “bad”) based on government data collected on them. As participation is not mandatory, there are only rewards for individuals with good scores and no punishments for those with bad scores. However, this could change in the future if the scheme becomes mandatory.

Other local pilots, such as Rongcheng in Shandong, have gone further in assigning their residents a score of up to 1000 points, with deductions for infractions such as running a traffic light, and then assigning the person a grade from AAA to D. Depending on the grade, people receive preferential treatment or are burdened with additional requirements when interacting with government bureaucracies.²⁸

Some of the pilots test ways to punish people put on blacklists and socially shame them in ways that substantially affect their social and professional lives. For instance, Sanmen County in Zhejiang and Dengfeng County in Henan are testing a measure in which local courts cooperate with telecommunications companies to change the dial tones of individuals refusing to comply with a court order. In this pilot, the court provides telecommunications companies with lists of individuals who have refused to comply with court orders to repay money (including relatively small sums of a few thousand Chinese Yuan). If anybody tries to call them, they will receive a message informing them the person they are trying to reach has been blacklisted and urging the caller to persuade them to honor the court order. The first cases of such ringtones were tested in June of 2017.²⁹

Commercial pilots: advanced, but regulatory status remains unclear

Non-mandatory commercial pilots of credit rating schemes are where both the most innovative and most controversial measures are being tested. In order to attract more people, companies such as Ant Financial Services’ Sesame Credit offers rewards to users choosing to participate in their credit pilots, such as deposit-free rentals of umbrellas, e-bikes, and even cars.³⁰ Roughly modeled after FICO scores in the United States or Schufa scores in Germany, Sesame Credit gives users a credit score between 350 and 950, based on a number of criteria including online purchases, demographic details, timely bill payment, and social connections, even though their exact methods of calculating scores remain opaque.

The use of data about users’ online behavior, including their social networks, to generate scores to rate their creditworthiness has rightly been identified as having the potential to become a tool for totalitarian surveillance.

However, authorities have sent ambiguous signals about the future of these pilots. The People’s Bank of China decided not to grant official licenses to the eight private companies it originally gave permission to conduct social credit pilot testing in 2015, echoing the line of argumentation often found in news and social media that commercial players cannot be trusted. The three reasons the regulator provided for withholding licenses included all eight companies’ failure to adequately protect user privacy, over-collection of data deemed irrelevant to credit scoring, and “conflicts of interest” given that the companies provide e-commerce, fintech, and other services in competition with one another, a potential impediment to the centralized vision of social credit that would require these firms to share their proprietary data with one another.³¹ Thus, these pilots’ current status as well as their future fate remains unclear: Whether these private platforms will become integrated with the government-run side of the Social Credit System, allowed to continue operating independently or eventually be completely sidelined is an important open question regarding the future relations of state and private commercial actors in China.

Pilots test how to punish people put on blacklists in ways that affect their social and professional lives

4. The Social Credit System will fundamentally reshape China

The Social Credit System is a policy initiative that addresses several legitimate concerns about the current lack of unified standards and credit rating mechanisms in China, but it also has the potential to go far beyond what we see in other countries in terms of technology-backed societal control. China still struggles with many challenges regarding standardization and deployment of credit rating mechanisms. But even though many of the current policy measures and mechanisms established on a national level (such as the Unified Social Credit Numbers) are still very basic, they lay the groundwork for a system that can effectively steer the behavior of companies and individuals by making sure that defaulting in one area will be punished across as many other meaningful areas as possible.

Moreover, local, sectoral and commercial pilots experiment with ways to implement the technologically-driven vision for creating a system that combines economic and non-economic factors. Even if only some of the mechanisms currently tested in pilots are adopted nationwide with a functional infrastructure to share data between different ministries and local governments, this would result in a system that would grant the Chinese government massive powers over all natural and legal persons by ensuring that the costs of non-compliance with whatever policy it wishes to enforce are too high to bear.

As the system is taking shape, additional new regulations will be passed, reshaping the business environment in China. This will happen both on the national and provincial levels. Conditions and standards will likely vary across provinces for several years to come, requiring companies operating on the Chinese market to adjust to conditions in the specific jurisdictions where they operate.

Foreign stakeholders should familiarize themselves with the plans published by the Chinese government, keep track of new sectoral and provincial policy developments, and seek clarification from government organs about unclear regulations. While the system is still being set up, there may even be potential for foreign stakeholders to advise the Chinese government on “best practices” in areas including credit repair and data protection, and have an impact on implementation.

At present, the Chinese government has shown little interest in exporting its Social Credit System to other countries. This is despite the fact that privately owned Chinese mobile payment companies are extending their services outside of the country, providing the data-gathering foundations for spreading their scoring services abroad as well. Although the Chinese government may wish to

promote social credit overseas in the future, for the next few years the focus will be on trying to create a functional system domestically.

A new industry may emerge around raising credit ratings as well as (possibly) managing social credit scores. Indeed, by making low scorers’ names public through blacklists, the system enables firms and other actors to easily identify and target precisely those individuals and companies seeking a quick boost to their score, through legal and illegal means. However, authorities may come to see commercial credit rating services and their potential advisory services as competitors given the troves of personal data the former continuously gather from their user bases. Tensions between commercial social credit issuers and their state counterparts, along with regulators who may seek to uphold the latter while supporting the market for the former, will further complicate organic developments of the Social Credit System.

Even though protection of both individuals’ privacy and firms’ trade secrets are often juxtaposed in official media discussions, it seems unlikely that enforcement of data protection provisions will be up to EU standards in practice or that the business interests of foreign companies will play a major role in setting standards. The challenges of implementing better cybersecurity and data-sharing practices will grow in tandem with the interconnection of the disparate companies, government bureaus, and third-party services that will comprise the social credit system.

At present, bottom-up resistance to the policy initiative seems unlikely, in part because many people seem to agree that there needs to be greater accountability and trust in Chinese society. As more and more individuals’ and companies’ ratings take on meaningful consequences in everyday life and business affairs, however, citizens and companies are likely to make more vocal demands for clarification of the standards and criteria used to calculate credit scores.

It is more likely that the rivalry between government agencies and large commercial players, which is also reflected in the distrust displayed towards commercial players in official media, may ultimately rein in the unchecked developments of commercial social credit pilots. Private social credit issuers, and China’s tech giants in particular, are at an advantage in gathering massive amounts of granular data about citizens and in giving teeth to the blacklisting system by punishing users with low scores. Both of these features make these companies extremely valuable to the state. Yet these providers also rely on regulators leaving them the room to experiment, creating a symbiosis in state-firm relations that could be upset if policymakers clamp down on the pilot tests. As development of the Social Credit System unfolds, this will be the most important relationship to follow.

Bottom-up resistance to the policy initiative seems unlikely

- 1 | Anhui: Hefei 合肥, Wuhu 芜湖, Anqing 安庆, HuaiBei 淮北; Beijing: Haidian District 海淀区; Fujian: Fuzhou 福州, Xiamen 厦门, Putian 莆田; Heilongjiang: Suifenhe 绥芬河; Guangdong: Guangzhou 广州, Shenzhen 深圳, Zhuhai 珠海, Shantou 汕头, Huizhou 惠州; Henan: Zhengzhou 郑州, Nanyang 南阳; Hubei: Wuhan 武汉, Xianning 咸宁, Yichang 宜昌, Huangshi 黄石; Inner Mongolia: Hohhot 呼和浩特, Wuhai 乌海; Jiangsu: Nanjing 南京, Wuyi 无锡, Suqian 宿迁, Suzhou 苏州; Liaoning: Shenyang 沈阳, Dalian 大连, Anshan 鞍山, Liaoyang 辽阳; Shanghai: Pudong New District 浦东新区, Jiading District 嘉定区; Sichuan: Chengdu 成都, Luzhou 泸州; Zhejiang: Hangzhou 杭州, Wenzhou 温州, Yiwu 义乌, Taizhou 台州.
- 2 | Discussion of the Social Credit System concept can be traced as far back as the late 1990s, when a research group at the Chinese Academy of Social Sciences first began outlining the basic structure. The first provincial pilots were launched in the early twenty-first century.
- 3 | Meissner, Mirjam. China's Social Credit System: A big-data enabled approach to market regulation with broad implications for doing business in China, MERICS China Monitor Nr. 39, May 24, 2017. <https://www.merics.org/de/merics-analysen/china-monitor/merics-china-monitor-nr-39/>.
- 4 | Ibid.
- 5 | Alibaba is one of China's largest information technology firms, originally providing e-commerce platforms such as shopping sites Taobao and Tmall and more recently delving into the financial technology ("fintech") arena with wealth management products such as Yu'e Bao. Ant Financial is an Alibaba spin-off firm known for its market-dominating mobile payments application Alipay, which boasts over 600 million users in mainland China and which is available for Chinese citizens' use in Southeast Asia and parts of Europe as well. Sesame Credit is Ant Financial's social credit scoring service, and comes bundled with the Alipay app.
- 6 | Sesame Credit scores users based on data points such as online purchases and the behavior of people identified as their friends within Alipay, and has been reported on widely in English-language media due to the popular deposit waivers and consumer rewards it grants to high scorers. Such privately-run pilot schemes may continue to operate well past the experimental stage given the powerful network effects that have fueled their voluntary adoption. For more on Sesame Credit, see for example Cheang Ming, "FICO with Chinese characteristics: Nice rewards, but punishing penalties." March 16, 2017. <https://www.cnbc.com/2017/03/16/china-social-credit-system-ant-financials-sesame-credit-and-others-give-scores-that-go-beyond-fico.html>, last accessed December 5, 2017.
- 7 | For an overview of the different areas covered, see NDRC and PBOC, "Division of Tasks for the Social Credit System Construction Plan" (社会信用体系建设规划纲要 (2014-2020年) 任务分工). December 16, 2014, http://www.ndrc.gov.cn/gzdt/201501/t20150105_659408.html, last accessed October 30, 2017.
- 8 | "State Council Notice on Issuing the Plan for Establishing a Social Credit System" 国务院关于印发社会信用体系建设规划纲要 (2014-2020年) 的通知, issued June 14, 2014, http://www.gov.cn/zhengce/content/2014-06/27/content_8913.htm, last accessed September 27, 2017.
- 9 | Zhengxin 征信 is used to refer to systematized credit information collected and processed by professional credit rating agencies.
- 10 | There were 28 mentions of 征信 versus 144 mentions of 诚信 in the main plan, with similar numbers in provincial plans: ca. 2600 mentions of 征信 versus ca. 6400 mentions of 诚信 in the reduced Meltwater set.
- 11 | Since Xi has come to power, the Chinese government has highlighted the need to rule by law, a trend that is also reflected in the implementation process of the Social Credit System, which is meant to boost public confidence in China's legal system by creating a detailed legal framework and legal standards for assessing trustworthiness and punishing infractions. See State Council Notice on Issuing the Plan for Establishing a Social Credit System.
- 12 | See for example "Food safety regulation needs to be done together with society" (食品安全监管 不能离开社会共治), February 14, 2017 <http://bxsc.xfrb.com.cn/shipin角度/45031.html>, last accessed October 20, 2017.
- 13 | E.g. "PBOC official: credit platforms need to be few in number, but of high quality and strong" (中国央行官员: 征信平台要少而精、少而强), June 17, 2017, <http://finance.china.com.cn/roll/20170617/4252586.shtml>, accessed October 26, 2017.
- 14 | E.g. 谋破互金 "信息孤岛" 地方协会引入区块链建新型共享系统, January 12, 2017, <http://www.nbd.com.cn/articles/2017-01-12/1069615.html>, last accessed October 30, 2017.
- 15 | "Ant Financial Ups Travel Benefits for 'Creditworthy' Individuals," Caixin, June 7, 2017, <http://www.caixinglobal.com/2017-06-07/101099284.html>.
- 16 | "Uncovering the Secret of Sesame Credit: Losers Only Need 400 RMB to Become Elite Returnees" (揭秘芝麻分刷分: 丝变身海归精英, 只需400元), 零和 [Ling He], Sohu, 10 July 2017, http://www.sohu.com/a/155992905_380621, last accessed October 28, 2017.
- 17 | For instance, two journalists wrote a piece for Southern Weekly about the ease with which they could illegally purchase sensitive information about their colleagues, but avoided the conclusion that the data may have been sold by government officials. See 恐怖! 南都记者700元就买到同事行踪, 包括乘机、开房、上网吧等11项记录, December 12, 2016, http://epaper.oeeee.com/epaper/A/html/2016-12/12/content_103959.htm?from=timeline&isappinstalled=0&winzoom=1, last accessed December 5, 2017.
- 18 | Platforms where anyone can ask questions and receive answers from other users, similar to Quora or Yahoo Answers. The most prominent example in China is Zhihu.
- 19 | For example, one bulletin board service poster recounts an instance in which his privacy was violated, but concludes that "the only way to protect our privacy is to entrust it to large, reliable, law-abiding organizations and companies." <https://bbs.rong360.com/thread-186430-1.html#newspecial>.
- 20 | NDRC and PBOC, "Division of Tasks for the Social Credit System Construction Plan" (社会信用体系建设规划纲要 (2014-2020年) 任务分工). December 16, 2014, http://www.ndrc.gov.cn/gzdt/201501/t20150105_659408.html, last accessed October 30, 2017.
- 21 | A key slogan frequently cited to describe the system is "lose trust in one area, face restrictions everywhere" (一处失信, 处处受限).
- 22 | Top ten research reports on credit construction in 2016 (2016年信用建设领域十大研究报告 | 中评信用), October 19, 2017, <http://www.zuinow.com/n3912211.html>, last accessed December 5, 2017.
- 23 | "Notice from the General Office of the State Council on Establishing the System of Inter-ministerial Conferences on Social Credit System Construction" (国务院办公厅关于建立国务院社会信用体系建设部际联席会议制度的通知), April 18, 2007, http://www.gov.cn/gongbao/content/2007/content_632090.htm, last accessed October 30, 2017.

- 24 | Overview of existing Memoranda can be found here: <http://www.sxcredit.gov.cn/gj/93884.jhtml>.
- 25 | Memorandum of Understanding on cooperation in supervision and joint disciplinary action regarding untrustworthy companies (失信企业协同监管和联合惩戒合作备忘录), November 2015, http://gzcx.gov.cn/uploads/soft/151211/8_1708088611.pdf, last accessed October 30, 2017.
- 26 | A defaulter on a blind date missing out due to having lost his credibility (老赖”相亲“见光死” 莫因失信误终身) <http://www.creditchina.gov.cn/newsdetail/21755>, last accessed December 5, 2017.
- 27 | “What’s Your ‘Public Credit Score’? The Shanghai Government Can Tell You,” January 3, 2017, <http://www.npr.org/sections/parallels/2017/01/03/507983933/whats-your-public-credit-score-the-shanghai-government-can-tell-you>. “New App rates Shanghai citizen’s honesty,” November 14, 2016, <http://www.sixthtone.com/news/1554/new-app-rates-shanghai-citizens%20-honesty>, last accessed October 30, 2017.
- 28 | Kai Strittmatter, “Creating the honest man,” June 2, 2017, <http://international.sued-deutsche.de/post/161355280290/creating-the-honest-man>, last accessed November 27, 2017.
- 29 | Sanmen: 专属彩铃让老赖闻“声”丧胆, http://www.creditchina.gov.cn/home/zhuantizhuanlan/tujiexinyong/201709/t20170922_48518.html, last accessed November 27, 2017. Text of the message played: 你所拨打电话的机主已经被三门县人民法院纳入失信被执行人名单, 请督促其尽快履行生效法律文书确定的义务. Dengfeng: “Court Orders Phone Shaming for ‘Dishonest’ Debtors,” June 15, 2017, <http://www.sixthtone.com/news/1000340/court-orders-phone-shaming-for-dishonest-debtors>, last accessed November 27, 2017.
- 30 | Sesame Credit Website: <https://www.xin.xin>
- 31 | Lucy Hornby, “China changes tack on ‘social credit’ scheme plan,” July 5, 2017, <https://www.ft.com/content/f772a9ce-60c4-11e7-91a7-502f7ee26895>, last accessed October 30, 2017.

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