

## **Closing Remarks: Social Credit, Big Data Management and Governance— New Possibilities, New Realities**

International Conference: *International Symposium on Rule of Law & Social Credit Systems*. Held at the KoGuan Law School, Shanghai Jiao Tong University, Shanghai, People's Republic of China<sup>1</sup>

[Larry Catá Backer](#) (W. Richard and Mary Eshelman Faculty Scholar Professor of Law and International Affairs, Pennsylvania State University Professor)

September 23, 2017.

I have been tasked with the great responsibility of helping to close this excellent conference by offering a brief summary of its proceedings. My closing remarks must start with a heartfelt thanks to Shaoming Zhu for her brilliant work in helping to put this conference together; we miss her presence here today. Great thanks as well to Duoqi Xu,<sup>2</sup> Zhiwei Tong,<sup>3</sup> and Ping Sun<sup>4</sup> whose extraordinary and collaborative work have also shaped this profoundly important event.

Great thanks as well to those institutions without whose support and guidance none of this would have been possible. Among these we include the Shanghai Reform and Development Commission, and the Shanghai Public Credit Information Service Center, whose guidance is deeply appreciated. We extend warm thanks as well to those institutions which made the conference possible: the Shanghai Jiao Tong University KoGuan School of Law, East China University of Political Science and Law School of Economic Law, Shanghai Law Academy Research Center for Banking Law Practice, Shanghai Jiao Tong University Research Center for Internet Law Innovation, East China University of Political Science and Law Research Center for Rule of Law, The Intellectual Property Office of Tencent Holdings Limited, and the Foundation for Law and International Affairs.

Many thanks as well for the support of Ruiying Zhao<sup>5</sup> and Weigong Ji<sup>6</sup> and for their gracious and warm welcome that opened the Conference. Director Zhao reminded us of the importance of the implementation of a credit system in society as a matter of national policy. Crucial to that policy is appropriate implementation. She reminded us of the role of Shanghai in this important initiative and of the important work that remains to be done. Dean Ji reminded us of the fundamental importance of credit in a

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<sup>1</sup> Some explanatory footnotes added to this edited text of the remarks.

<sup>2</sup> Professor, Shanghai Jiao Tong University KoGuan School of Law; Director, Shanghai Jiao Tong University Research Center for Internet Law Innovation.

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market society. That requires innovation of traditional markers of credit and the development of its productive forces within the national conditions of China. That requires a further development of trust, and sincerity, that is already deeply embedded in Chinese culture to meet the current stage of China's historical development in harmony with global developments.

Over the course of a day intense discussion and presentation, a group of extraordinary academics, graduate students, officials, and experts have come together to share perspectives, insights, and the fruits of research around some of the most pressing issues of the day, issues that have lent their name to the conference itself: *Rule of Law and Social Credit Systems*. The issues touch on some of the most important innovations in governance of this generation. While these were grounded in the specific programs of social credit, they also pointed to the even more important innovations of *big data management*—from its purpose, to the potential for routinized decision-making in complex algorithms (also spoken of as artificial intelligence or machine learning). I offer my reflections on the more significant insights produced during the course of an intense day of discussion. The written remarks that follow will include more specific observation.

Today we had a chance to consider developments, opportunities and challenges around a broad scope of issues that touch on the construction, implementation and operation of deeply integrated and coherent systems of social credit, and more generally on big data management. We were fortunate to build a space where key elements were able to come together in an academic setting to share their views and opinions and to state their positions. We started with the status quo and then moved to considerations of the future. Our panels examined the global context on which social credit and ratings governance systems are developing, then on to the thorny challenges of the interplay of social credit and rating systems with governance and in the global market economy, and ended with the issues around personal data protection and the rise of the “informational person.”

Under the excellent moderation skills of Haiding Xie,<sup>7</sup> *Panel 1* considered “Social Credit Legislation: The Status Quo and the Future.” The panelists<sup>8</sup> provided a context for the discussion in the emerging development of social credit and its regulation, especially in Shanghai. They touched on the central challenge of social credit, the means by which society can be moved to more ethical conduct. They reminded us of the importance of connecting remedial consequences with the conduct failures that reduce social credit. Social credit black lists have become both important as a method and now present challenges

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<sup>7</sup> Editor & Deputy Director, Chinese Journal of Law.

<sup>8</sup> Peixin Luo, Deputy Director, Legislative Affairs Office of Shanghai Municipal People's Government (presenting “The Governance of Credit and the Protection of Rights and Interests (Chinese));” Zhen Zhang, Deputy Director, Office of Finance and Economic Committee, Shanghai Municipal People's Congress (presenting “The Principal Rules of the Construction of Social Governance and the Market Economy — An Analysis of the Shanghai Municipal Social Credit Regulations (Chinese));” and Flora Sapio, Board Member, Foundation for Law and International Affairs; Research Fellow, Australia National University (presenting “A Commentary on the Shanghai Social Credit Regulations (English)”). Ping Sun (Associate Research Fellow, East China University of Political Science and Law Research Center for Rule of Law) provided commentary.

of their own. They reminded us of the fundamental difference between credit and social credit and of the transformative role of a regulatory framework for building social credit. They noted the different role of social and official forces in relation to each—that is to credit regimes, social credit regimes and big data management structures. They explored the relation between social credit and big data management. The examples of offered that illustrated advertising ethical conduct also pointed to the ways that social credit was intimately connected with the development of social productive forces in the conduct of everyday life. The regulation combines traditional approaches but in a new way, the big data management way. The systematization of the processes that transform credit from a judgement of conduct to a regulatory device then characterizes social credit as a means of regulation not directly through law but through the evaluation of conduct in the shadow of law.

Sheng Chen<sup>9</sup> provided excellent moderation of the *second panel*. That panel considered “The System and Practice of Credit in Global Context.” The panelists<sup>10</sup> noted the complexities of social credit when considered at the global level. Focusing on key points of social credit construction and its intimate connection to big data management, panelists illustrated the application of these approaches in broad global context. They examined the way that the challenges posed by pragmatic concerns also tend to shape the form and determines the pace of social credit development. The panel provided an excellent overview of the credit and credit rating system in the United States, and its relation to initiatives like social credit and like big data management. The object was to provide a comparative platform for considering the unique features of the Shanghai initiatives and also to suggest points of convergence and divergence. The specific object was to use private sovereign credit rating enterprises as a platform for comparison of form and function. The panel also considered the challenge of data in cyberspace, exploring the issues of the nature of credit security in cyber space, the value of a multidimensional approach to data protection, and the possibilities of establishing contingency plans for emergencies, like breaches. The panel then considered issues of robustness of on line loan platforms. China has a long way to go in online lending. Only about a decade old in China. Their promotion and reform raise issues of overall integrity of the system itself and are a worthy subject of social credit reform.

Zhiwei Tong<sup>11</sup> used his considerable skills to moderate the *third Panel*—“The Social Credit System and Global Governance.” The panelists<sup>12</sup> considered some of the pragmatic issues of designing

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<sup>9</sup> Director, Shanghai Law Academy Research Center for Banking Law Practice.

<sup>10</sup> Xiaofeng Zhao, Deputy Director, Information Center of the Shanghai Development and Reform Commission (presenting “The Development, Operation, and Practice of the Social Credit System in Shanghai (Chinese);” Keren Wang, FLIA Scholar; Penn State University PhD Candidate (presenting “The System and Practice of the US Credit System (Chinese);” Zhengjun Nie, Chief Privacy Officer, Ant Financial Services Group (“The Credit Rating System and Operation of Ant Financial Services (Chinese);” and Pengfeng Shi, Co-founder, wdzj.com (presenting “Case Analysis on the Problematic Online Loan Platform (Chinese)).”

<sup>11</sup> Professor, East China University of Political Science and Law; Director, China University of Political Science and Law Research Center for Rule of Law.

<sup>12</sup> Larry Catá Backer, W. Richard and Mary Eshelman Faculty Scholar and Professor of Law and International Affairs, Pennsylvania State University; Board Member, Foundation for Law and International Affairs and Coalition for Peace / Ethics (presenting “Measuring, Assessment and Reward: Are there Social Credit Systems in the West? (English);” Flora Sapio, Board Member, Foundation for Law and International Affairs; Research Fellow, Australia National University

and operating a social credit system from abstract theory to the most pragmatic implementation at the local level. The systemic qualities of social credit as a regulatory framework includes a number of challenges that produce some complexity—these challenges also point to the intimate connection between social credit as a governance initiative and big data management as a regulatory device. The panel concluded that despite the work that remains to be done in fleshing out these initiatives, none of the identified challenges were conceptually insurmountable. Even when social credit is viewed as essential techniques for implementing policies, it remains a powerful tool for fashioning substantive norms by the very way in which it is implemented and operated. The panel considered the character of social credit and big data management as forms of regulation and also as new styles of law making that implied a new style of rule of law parameters. Also considered were the personality of these initiatives as norm generating and techniques of asserting management power within European traditions. The ideological basis of European style social credit and big data management, for example, is embedded in the constitutional traditions of the Member States and the EU itself. These core values are best understood as emerging from historical principles borne out of practice—centering on reputation and trust. Thus, there is a resonance with current Chinese initiatives. There are problems, of course. The first is one of cooperation among multiple systems in different states. Cooperation tends to be based on principle of reciprocity (direct exchange, indirect exchange, and portability). The development of private metrics and indicators by enterprises and non-governmental organizations (NGOs) was also considered. These added a layer of complexity producing conditions in which states and enterprises based compliance on the values chosen by the private entity responsible for data harvesting. These then appeared to assume as de facto role as regulator of state and enterprise behavior. Moreover much of the data central to Western social credit and big data management systems is derived from data produced by other NGOs. Lastly, the discussion of the role of the Chinese procuratorate in social credit systems was enlightening. It is possible that these officials might appear to play a role in legal supervisors and in enforcement. This role might focus on enforcement against fraud and criminality, and in this role connect big data management and social credit's focus on integrity and sincerity to government initiatives against corruption.

The fourth panel, “Social Credit and the Market Economy,” was moderated in marvelous style by Xiling Jia.<sup>13</sup> The panelists<sup>14</sup> considered in more detail come of the more challenging issues in data driven

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(presenting “Social Credit Systems in a Globalizing Perspective — European variants of social credit, and the rejuvenation of a normative order for globalization (English);” and Tao Zhang, Assistant Procurator, People’s Procuratorate of Tongzhou District, Nantong City Presenting “A Study on the Role of the People’s Procuratorate in the Construction of Social Credit System — Taking Tongzhou District of Nantong City as an Example (Chinese).” Able commentary was provided by Ling Hu, Associate Professor & Associate Dean, Shanghai University of Finance and Economics.

<sup>13</sup> Associate Professor & Director of Teaching and Research Center of Financial Law, East China University of Politics and Law School of Economic Law.

<sup>14</sup> Haitian Lu, Professor & Associate Head, School of Accounting and Finance, Hong Kong Polytechnic University; Director, the Center for Economic Sustainability and Entrepreneurial Finance (CESEF) at the Hong Kong Polytechnic University (presenting “The Value of Corporate Credit: Evidence from the Corporate Bond Market (Chinese);” Lei Zhao, Associate Research Fellow, Chinese Academy of Social Sciences Law Institute (presenting “Commercial Credit in the Big Data Era (Chinese);” and Jihong Zhang, Associate Professor, School of Law, Shanghai University of International Business and Economics (presenting “The Problems and Regulatory Logic of Individual Credit Checks in the Big Data

governance. Thus the panelists put big data management at the center of discussion. The intersections of big data, creditworthiness and trustworthiness formed the basis of key aspects of the presentations. The valuation of corporate credit served as a framing element of the panel. Related to that was the role of big data in commercial credit settings. These could usefully be set against the issues of big data in the context of the problems and regulatory logic of individual credit, especially in the specific context of individual credit checks in this so-called “Big Data Era.” The panel considered what builds trust? Need theory and empirical evidence. Three legs of trust: market forces, laws and regulations and culture. The empirical study of the factors that go into trustworthiness added a valuable social science perspective, suggesting that conflict (litigation) was a critically important factor. The study uncovered the building blocks of trust in shaping loan contracts and the positive role of public debt holders in constraining managers. The panel also considered the character of trustworthiness as distinguished from creditworthiness. Creditworthiness is threatened by fraud. And that fraud is especially difficult in the context of individual fraud against consumers. And courts tend to be leery of awarding economic compensation. Entry barrier to protect personal information is essential.

Our last panel, “Personal Data Protection in the Social Credit System,” was presided by the excellent moderator Duoqi Xu.<sup>15</sup> The panelists<sup>16</sup> spoke to the relationship between social credit and data protection. The issue goes to the management of the power of states and others to harvest and use data. If information is power, it is also a commodity that can be hoarded, borrowed, alienated and exploited. Panelists spoke to the relationship between social credit and data protection. The issue goes to the management of the power of states and others to harvest and use data. Most interesting was the consideration of the effects of data collection, which appears to have converted the real person into an abstraction (the aggregate of data) and turned the aggregate of data into the person (the “informational person”). The characteristics of this informational person threw light on the way that the data reconstituted person might produce challenges for policy objectives through social credit. To perfect the protection of law based on the theory of the informational person a number of reforms must be considered. These include restriction of collection, specificity in collection and use, control of assessment and limitations on use. The bottom line must be the protection of human dignity. These notions touch on the way in which credit rating agencies in China approach their compliance and risk management objectives in the context

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Era (Chinese)).” Perceptive commentary was provided by Mingshen Zhang, Director, Legal Office of People’s Bank of China.

<sup>15</sup> Professor, Shanghai Jiao Tong University KoGuan School of Law; Director, Shanghai Jiao Tong University Research Center for Internet Law Innovation.

<sup>16</sup> Manuel Delmestro, Professor of Comparative and EU Law at Furen University, Taiwan (presenting “Protecting Personal Information in the EU: a Preliminary Overview (English);” Xiaoye Bao, Lecturer, Shanghai Normal University Business School (presenting “Study on the Legal Matters of the Application of Governmental Big Data (Chinese);” and Ping Sun, Associate Research Fellow, East China University of Political Science and Law Research Center for Rule of Law (presenting “The Informational Person and Social Credits: The Dilemma of Legislation on Data Protection and its Solutions for China (Chinese)).” Additional remarks were presented by *Vilna Zhang* (Senior in house Counsel, Tencent Credit Bureau Co., Ltd.) and insightful commentary was provided by Na Peng, Manager of Credit Regulatory Affairs, Experian Business Information Consulting (Beijing) Co., Ltd).

of an information commodity business. The panel dug deep on these efforts in light of the rise of a social credit milieu in China. Compliance, of course, brings us back to where we started—with the fundamental relationship between the governance effects of social credit and big data management institutions and the government's emphasis of the further development of rule of law structures. Thus, it appears necessary for the integrity of these systems themselves that their ultimate management must be connected to law (perhaps now transformed into strictures of compliance and standard setting) and by law to the core policy of the state.

It was with these considerations that we ended the day. Yet that ending of our work here might better be understood as merely the beginning of our labors. We come away from the Conference with a tremendous amount of insight from which to draw inspiration—and data—for further work. I thank you on behalf of the conference organizers for contributions that individually and in the aggregate has substantially advanced knowledge in the field, and indeed can serve as a profoundly important set of ideas that themselves drive the field in new and exciting directions. Social credit is as important in the West as it will be in China. In many ways, it represents the future. I am pleased to have been part of this group of important actors who will likely drive that future.

Thank you.

## APPENDIX:

### Panel Speaker summaries:

#### Panel 1:

*Peixin Luo* (Deputy Director, Legislative Affairs Office of Shanghai Municipal People's Government) presented "The Governance of Credit and the Protection of Rights and Interests (Chinese)." He touched on the central challenge of social credit, the means by which society can be moved to more ethical conduct. He spoke to the Shanghai Municipal Credit system. Critical was the methods of communicating standards to individuals. His examples of advertising ethical conduct pointed to the ways that social credit was intimately connected with the development of social productive forces in the conduct of everyday life. He noted the differences but also alignments between ethics and law. Social credit is meant to protect rights. The objectives are to enhance and encourage appropriate conduct while protecting the data and privacy of individuals. Implementation requires careful balancing of objectives elaborated under the constraints of regulation that effectively target identified conduct or practices that are selected for progressive modification. He reminded us of the importance of connecting remedial consequences with the conduct failures that reduce social credit. In addition, the management of disclosure and transparency also present sensitive issues, balancing confidentiality with the public purpose social credit as a communal endeavor.

*Zhen Zhang* (Deputy Director, Office of Finance and Economic Committee, Shanghai Municipal People's Congress) presented "The Principal Rules of the Construction of Social Governance and the Market Economy — An Analysis of the Shanghai Municipal Social Credit Regulations (Chinese)." First Shanghai Municipal Social Credit Regulation reinforces the differences between credit and *social* credit. The foundation of credit is trust in traditional meaning. In market economies, it acquires a more financial orientation tied to property. But now social credit adds the societal dimension. It is thus not merely an economic issue but is related to profound social changes even as the Chinese economy is itself transforming as it develops its socialist market principles. That change requires a movement to compatible methods of regulation. But it might also suggest the limits of social credit and the role of big data management. The role and some operational issues around "black lists" (lists of individuals or enterprises based on conduct data) was considered as well. Social credit is designed to address this transitioning issue as better molded to emerging governance realities. Key points—the construction of law is now deployed to the construction of the social order—and that construction includes business, social, and government integrity. He focused on the framework for social credit is information, second structures to apply information, protection of the integrity of information and protection for the credit system itself. His discussion of the tasks necessary for implementation usefully tied the principles for framework creation with its effective implementation.

*Flora Sapio* (Board Member, Foundation for Law and International Affairs; Research Fellow, Australia National University): “A Commentary on the Shanghai Social Credit Regulations (English).” The Shanghai regulations are an exceeding complex legislative project with substantial resonance both in China and globally. She started with a short history of the Shanghai Municipal regulation and emphasized its many goals. At legislative document aimed at setting the fundamental trajectory of what social credit can become as a framework for managing behavior. The definitions are both new yet also rely on historical practice going back at least a decade protecting certain rights and interests. The regulation combines traditional approaches but in a new way. The systematization of the processes that transform credit from a judgement of conduct to a regulatory device then characterizes social credit as a means of regulation not directly through law but through the evaluation of conduct in the shadow of law. Law serves to set the standard, but the regulatory environment is grounded in the reflexive relationship between the conduct of individuals and the judgement of the conduct summarized in ratings that then produce consequences to further the objectives of law. This relationship provides the seeds for the internationalization of social credit’s system based on the interplay between Law-regulation-standards-contracts. It thus lends itself to the needs of governance within any markets driven social economy.

*Ping Sun* (Associate Research Fellow, East China University of Political Science and Law Research Center for Rule of Law) provided excellent commentary. He noted the importance of aligning social credit and big data management with the long traditions of administrative law in China. He noted the issue of control that requires consideration—from the kinds of information collected to its use and the consequences that follow from assessing data generated by individuals. Beyond that the issue of transparency remains—the need to balance the needs to be transparent about the standards and conduct with the equally important policy of protecting individuals and individual privacy with respect to intimate information gathered for the useful purposes of managing social credit. At its limits, the creation of “black lists” of severely disciplined individuals who are outliers in ratings requires further thought.

Panel 2:

*Xiaofeng Zhao* (Deputy Director, Information Center of the Shanghai Development and Reform Commission): “The Development, Operation, and Practice of the Social Credit System in Shanghai (Chinese).” Noted the complexities of social credit when considered at the global level. Focus on five key points of social credit construction. The challenges posed by pragmatic concerns also tend to shape the form and determines the pace of social credit development. Also noted were the transnational elements of these pragmatic concerns. He spoke to the way that the Shanghai government had been moving to enhance its approach to solving pragmatic issues of construction.

*Keren Wang* (FLIA Scholar; Penn State University PhD Candidate): “The System and Practice of the US Credit System (Chinese).” He provided an excellent overview of the credit and credit rating system in the United States. The object was to provide a



comparative platform for considering the unique features of the Shanghai initiatives and also to suggest points of convergence and divergence. He started with the concept of creditworthiness framed around the story of Adam Smith's visit to the Dutch Republic to borrow money, in which his request for \$1.5 was reduced to only several thousand. The issue was not personality but business creditworthiness. That distinction between honesty personal and creditworthiness in a business environment sets a template for designing social credit systems. The critical insight was the way that credit worthiness was bound up in the use of certain valued data sets to make a determination about the ability of the debtor to bear the debt and repay it. And that data (and the judgments were precisely tied to the character of the business for which money was to be loaned (in that case sovereign lending). This function in the West is now operated by enterprises in the private sector, though overall regulation (and monitoring) rests with states. He described the data gathered and their weighting in coming to decisions about sovereign creditworthiness. He then described the organization of credit rating agencies in the West as private firms subject to public regulation or oversight.

Zheng Bao Wen (Professor, Shanghai Jiao Tong University KoGuan School of Law). Cyber Security in the Internet. First what is the nature of credit security in cyber space. Second, the value of a multidimensional approach to data protection. Third, the possibilities of establishing contingency plans for emergencies, like breaches. The issue of enforcement generates peculiarities in cyberspace, especially in the context of credit. This is especially important as a global issue of identity theft and the construction of false persona that may harm the integrity of the system. Systemic integrity, then, plays an important part in the preservation of the robustness of the data collection and preservation aspects of social credit.

[*Zhengjun Nie* (Chief Privacy Officer, Ant Financial Services Group): "The Credit Rating System and Operation of Ant Financial Services (Chinese)."] could not attend.

*Pengfeng Shi* (Co-founder, wdzj.com): "Case Analysis on the Problematic Online Loan Platform (Chinese)." He considered issues of robustness of on line loan platforms. China has a long way to go in online lending. Only about a decade old in China. About two thirds of the platforms have come and gone. August 2016 was the peak 70% of platforms exited in normal procedures. But only a relative few are problematic. These have been the object of state action especially in cases of fraud. He described a few prominent cases of online lending fraud and its consequences. But a difficulty that arises is that each success in enforcement produces new methods of criminality. He described the way in which fraud can occur now by multiple below threshold loans from a large number of lenders. There are others. Social credit systems may help by providing disincentives to people who fail to pay their debts. That may reduce the aggregate costs of lending and thus make lending cheaper and more available. He cautioned that regulation should not inadvertently damage loan markets.

Panel 3:

*Larry Catá Backer* (W. Richard and Mary Eshelman Faculty Scholar and Professor of Law and International Affairs, Pennsylvania State University; Board Member, Foundation for Law and International Affairs): “Measuring, Assessment and Reward: Are there Social Credit Systems in the West? (English).” The presentation had two objectives. *The first* is to examine the challenges that social credit, ratings or assessment (big data management) systems pose for effective implementation. To that end, he first considered the difficulties of separating the role of social credit as a set of techniques and as a means of advancing ideological principles and objectives. It then considers social credit as a project of informatics. It then examines the control element of social credit systems, and ends with a consideration of social credit as governance. To understand the shaping of law today (and soft law as well) one must understand social credit. *The second* is to examine some aspects of Western rating and accountability systems to consider resonances with Chinese social credit. To that end he considered some of the ways in which Western efforts at social credit institutions have sought to meet these challenges. It considers the context of social credit systems in the West, and its operationalization, principally in the private sphere. It examines the use of social credit as a technique of governance and as a means of embedding international standards in domestic behavior.

*Flora Sapio* (Board Member, Foundation for Law and International Affairs; Research Fellow, Australia National University): “Social Credit Systems in a Globalizing Perspective — European variants of social credit, and the rejuvenation of a normative order for globalization (English).” Considered the character of social credit as norm and technique within European traditions. The ideological basis is embedded in the constitutional traditions of the Member states and the EU itself. Historical principles borne out of practice—centering on reputation and trust. The hanging man was a trope in Europe that symbolized the consequences for people who failed to pay their debts. The symbol conveyed the notion that the person was not to be trusted. Within the EU principles transformed into transparency, responsibility, and ethical behavior. But European social credit is fragmented among at least nine sub systems—NGOs, religion, industry standards, mass media, law enforcement, individual credit scores, KPIs, credit ratings. Most of these remain unregulated. For example, she looked at credit rating, especially before the debt crisis of 2008. Regulation introduced in 2 phases, first from 2009-2011 focused on registration and disclosure. Stage 2 2011- present, centered on financial regulation schemes. A similar analysis could be applied to the development of the management of consumer credit reporting. There are problems, of course. The first is one of cooperation among multiple systems in different states. Cooperation based on principle of reciprocity (direct exchange, indirect exchange, and portability). Last private metrics and indicators by NGOs was considered. Compliance by states and MNCs with the values chosen by the private entity responsible for data harvesting. De facto regulator of state behavior. Much of the data is derived from data produced by other NGOs.

*Tao Zhang* (Assistant Procurator, People’s Procuratorate of Tongzhou District, Nantong City): “A Study on the Role of the People’s Procuratorate in the Construction of Social

Credit System — Taking Tongzhou District of Nantong City as an Example (Chinese).” Discussed the role of the Chinese procuratorate in social credit and big data management systems. They serve as legal supervisors and in enforcement. Focused on enforcement against fraud and criminality. Social credit is useful not just for criminal compliance but also for crime prevention by making it more difficult for veiling criminal activity. Ling Hu (Associate Professor & Associate Dean, Shanghai University of Finance and Economics) provided excellent comments.

Panel 4:

*Haitian Lu* (Professor & Associate Head, School of Accounting and Finance, Hong Kong Polytechnic University; Director, the Center for Economic Sustainability and Entrepreneurial Finance (CESEF) at the Hong Kong Polytechnic University): “The Value of Corporate Credit: Evidence from the Corporate Bond Market (Chinese).” Started by looking at a country’s creditworthiness. 10 most reputable countries in the world and the drivers of their reputation. China ranked very low. The U.S. 28 and India higher than China. Data used: These were outcome based measures (blood donations and registered members of NGOs) and perception based measures: enterprise trustworthiness. What builds trust? Need theory and empirical evidence. Three legs of trust: market forces, laws and regulations and culture. The empirical study of the factors that go into trustworthiness added a valuable social science perspective, suggesting that conflict (litigation) was a critically important factor combination of legal penalty market forces and reputational loss, and value of social capital). The study uncovered the building blocks of trust in shaping loan contracts and the positive role of public debt holders in constraining managers.

*Lei Zhao* (Associate Research Fellow, Chinese Academy of Social Sciences Law Institute): “Commercial Credit in the Big Data Era (Chinese).” Institutions trying to use big data to enhance its economic value to institutions. This is becoming a common practice. Why set up such a high barrier to personal information credit reporting? Information is abused with some regularity. It is illegal but happens. There is an inefficiency of judicial relief. A study of court cases provided a helpful window on the forms of fraud or abuse that is most common. Critical here was damage to reputation—in a manner similar to that of the secondary effects of credit fraud in the US. Creditworthiness is threatened by fraud. And that fraud is especially difficult in the context of individual fraud against consumers. And courts tend to be leery of awarding economic compensation. Entry barrier to protect personal information. But courts have begun to be subject to greater accountability; judges punished for mistakes.

*Jihong Zhang* (Associate Professor, School of Law, Shanghai University of International Business and Economics): “The Problems and Regulatory Logic of Individual Credit Checks in the Big Data Era (Chinese).” Makes the distinction between credit and social credit. What does it mean? How does one gauge trust. The unofficial mechanics are diverse. Story of the old woman advertising services (providing lockers for items not permitted in the US Embassy) in connection with visa applications in Beijing. She

advertised that she was from Shandong province suggesting that this fact enhanced her trustworthiness. But what enhances trustworthiness? First commercial credibility. Trustworthiness is thus different from creditworthiness. Mistrust affects creditworthiness by affecting the cost of transactions. Lack of trust acts as a resistor to efficiency as we move from the age of contract to one of identity.

Mingshen Zhang (Director, Legal Office of People's Bank of China) provided quite useful comments.

Panel 5:

*Manuel Delmestro* (Professor of Comparative and EU Law at Furen University, Taiwan): “Protecting Personal Information in the EU: A Preliminary Overview (English).” Spoke to the relationship between social credit and data protection. The issue goes to the management of the power of states and others to harvest and use data. If information is power, it is also a commodity that can be hoarded, borrowed, alienated and exploited. Private information protection creates a barrier to mass passive data harvesting. A close examination of the EU approaches followed.

*Xiaoye Bao* (Lecturer, Shanghai Normal University Business School): “Study on the Legal Matters of the Application of Governmental Big Data (Chinese).” Identifying issues around the application of big data by government—collection and use, emphasis of selected data, private right of resistance to government requests for sharing data and government resistance to share its own data with the public. Another set of issues involved use of robots to scrape or mine data from web sites. Websites now developing countermeasures including question answering. User privacy always faces infringement problem. Need to embed good values in the construction of parameters for the protection and appropriate use of data by all parties.

*Ping Sun* (Associate Research Fellow, East China University of Political Science and Law Research Center for Rule of Law): “The Informational Person and Social Credits: The Dilemma of Legislation on Data Protection and its Solutions for China (Chinese).” Treatment divided into 2 periods. The first is 1999-2013 from small to big credits and 2014 on future directions. Aims of collecting information and use of personal data had been more general. Scope of personal credit information now much broader. Centralized in all fields—collection has substituted the decentralized and single field collection. Assessing has substituted recording, extensive use has substituted specific using. Data is not static but in its dynamic form has proven more useful in a variety of new areas. Thus the past and present of the informational person: information literatures or features to digital persons or person. Data collection has turned the real person into an abstraction (The aggregate of data) and turned the aggregate of data into the person (the “informational person”). He then considered the characteristics of this informational person. The dilemma grows when the informational person becomes the subject of security thinking. The effects on the traditional constitutional balancing of rights and duties us recast in ways that is difficult to preserve the traditional consideration of constitutional rights currently part of the legal system. To perfect the protection of law

based on the theory of the informational person a number of reforms must be considered. These include restriction of collection, specificity in collection and use, control of assessment and limitations on use. The bottom line must be the protection of human dignity.

*Vilna Zhang* (Senior in house Counsel, Tencent Credit Bureau Co., Ltd.) provided an additional view and more specific application of social credit and big data management from the perspective of the role of enterprises. She spoke on the way in which credit rating agencies in China approach their compliance and risk management objectives in the context of an information commodity business. She noted the intimate and regulatory role of government agencies with particular focus on the Bank of China. She tied the illustration of the issues to the broader discussion by the panel in light of the rise of a social credit milieu in China. Her discussion appeared to point to the role of compliance within the fundamental relationship between the governance effects of social credit and big data management institutions and their ultimate supervision through law (now transformed into strictures of compliance and standard setting) and by the state.

*Na Peng* (Manager of Credit Regulatory Affairs, Experian Business Information Consulting (Beijing) Co., Ltd) commentator