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ANALYSES AND STUDIES

Techno-Regulation in China: How are Bavarian Firms Faring Under the Social Credit System?

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The Bavarian Research Institute for Digital Transformation (bidt) contributes — in its capacity as an institute of the Bavarian Academy of Sciences and Humanities (BAdW) — to a better understanding of the developments and challenges of digital transformation. In so doing, it provides the foundations upon which society's digital future can be shaped responsibly for the common good.

With this study, the bidt aims to contribute to a better understanding of the Chinese Social Credit System and its repercussions for Bavarian companies. The insights and recommendations for actions gained are of immediate practical use in Bavaria's economy and politics. The study is part of the bidt-funded consortium project "Learning from the 'frontrunner'? A multidisciplinary analysis of the Chinese Social Credit System and its impact on Germany".

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Abstract

Since introduction of the Chinese Social Credit System (SCS) in 2014 – 2020, there have been concerns about the repercussions of this system on companies and individuals trading in China. In this study, we examine the Chinese SCS' impact on Bavarian companies. We investigate how large, medium, small and micro Bavarian companies active in China are being classified and assessed under the SCS. This publicly accessible system aims to rank specific business activities either as desirable, rewarding them (through red lists), or as undesirable, punishing them (through administrative penalties or blacklists).

Our analysis of 170 Bavarian companies in China shows that these firms, for the most part, feature on red (positive) lists. However, almost 9% of the companies are subject to negative entries in the system by way of an administrative penalty, which under certain circumstances may lead to inclusion on a blacklist. The positive entries relate mainly to tax matters, while contraventions to regulations in the areas of work safety, health and environment constitute the majority of negative entries. At regional level, though, there are significant differences regarding the implementation of the SCS by local authorities. We complement our analysis with findings from 10 in-depth interviews that provide insights into the experiences and perspectives of Bavarian companies based in China in the context of the SCS. Our evaluation feeds into recommendations for action, particularly regarding potential measures of support for Bavarian companies with Chinese subsidiaries.

Contents

Summary

This study evaluates how China's Social Credit System (SCS) affects Bavarian businesses. To our knowledge, it is the first attempt to systematically analyse the data recorded in the SCS on firms of a large region (Bavaria). The SCS is part of a broader push by the Chinese government under Xi Jinping to enforce rules and regulations, often referred to as establishing "rule by law". We analyse large, medium, small, and micro Bavarian firms in China and assess their classification in the system. The main classification mechanism involves lists rewarding (redlisting) or punishing (blacklisting) the behaviour of companies and individuals. Our assessment of 170 Bavarian firms present in China shows that, for the most part, these investors are included on redlists, however, nine per cent of them have negative records (administrative penalties) that may, under certain circumstances, lead to blacklisting. Positive listings largely relate to tax matters, whilst violations of rules and regulations in relation to health, safety and the natural environment constitute the main reasons for incurring administrative penalties. Relevant differences in the implementation of the SCS (by provincial authorities) exist. In Shanghai and Jiangsu, two provinces where a large number of Bavarian companies are present, local regulators in the areas of environmental protection, labour standards as well as health and safety are very active. In contrast, in Beijing and Guandgdong, where also a large number of Bavarian companies exist, regulators are much less active.

We complement our analysis with 10 in-depth semi-structured interviews with Bavarian firms of various sizes, sectors, and locations in China as well as one Beijing-based consultancy. These interviews provide insights into the perceptions and experiences of Bavarian investors with the system. Overall, larger firms tend to be better prepared and more knowledgeable than smaller ones, although negative records exist for both business types in the SCS. These lessons, among others, are reflected in our recommendations regarding support measures to Bavarian firms with Chinese subsidiaries.

Key Points

- There is significant variation in the application of the system with regard to the different provinces (provinces and provincial level municipalities) where Bavarian businesses are located. Regulators in some provinces are more active than others.
- 80% of assessed Bavarian businesses (136 out of 170) are included in positive redlists (mainly by tax authorities; a few are also included in redlists by customs authorities).
- Nearly nine percent (15 out of 170) have negative records (administrative penalties). However, none of these firms were found to be on a blacklist (which are more consequential than administrative penalties). Some of these firms are also included in positive redlists.
- With regards to administrative penalties, the most active authorities are environmental governmental agencies, labour rights, and (occupational) health and safety authorities.
- The current form of the SCS suggests that it is part of a broader effort by the Chinese government to enforce rules and regulations. This has positive effects such as reducing corruption and potentially a more level-playing field, since the SCS applies to Chinese firms as well.
- There are also perceived negative effects, such as the addition of a new layer of bureaucracy and a lack of information about the system and its evolution.
- Another challenge was the introduction of the SCS: Firms had not been informed by the Chinese authorities about the roll-out and its consequences;
- Removal of negative records is not easy despite firms swiftly complying once they incur administrative penalties. In principle, a negative record should disappear from the system once a given infringement is resolved. In reality, however, this does not (or at least not yet) appear to be the case.

1 Introduction

In the years 2014 to 2020, the Chinese Communist Party (CCP) implemented the first development phase of its Social Credit System (SCS) (State Council 2014) and its effects have already been felt both within and outside China. The system remains in flux, which requires businesses, individuals, and governments to regularly follow up on new developments. Given that firms doing business in China are automatically included in the SCS, it is essential for these actors to be aware of how they are being impacted by the system. This is even more important for smaller firms, which may not have the necessary China-expertise in-house. According to a recent report commissioned by the Bavarian Industry Association (vbw – Vereinigung der Bayerischen Wirtschaft e. V.), trade relations between Bavaria and China have intensified substantially over the past decade: between 2010 and 2017, China's share of overall outward FDI from Bavaria increased from 4% to 9%. After the United States, China now constitutes the second most important destination for Bavarian FDI (BIA 2020). Consequently, Bavarian firms may have already been substantially impacted by the introduction of the SCS. This development has been enhanced by the Covid-19 Pandemic, which has further cemented China's relevance as a trading partner.

The SCS is a novel regulatory scheme aimed at increasing transparency and tackling the country's shortcomings in regulatory enforcement, strengthening trustworthiness in society, and reinforcing the implementation of Chinese laws and regulations. In addition to addressing distrust across different administrative, commercial, societal, and legislative levels (State Council 2014) as well as a historically fragmented credit landscape (Zhang et al. 2019), the SCS reflects broader steps taken by the Chinese government in advancing legal and regulatory reforms. The 19th National Congress mentioned the formation of a 'Central Leading Group on Comprehensive Law-Based Governance' (Xinhua Net 2017) that has since been expanded into a Central Committee in a 2018 proposal on further deepening reforms for party and state institutions (Central Committee 2018). This comes on the back of a decades-long push for a stronger role of legal provisions in governance, which has traditionally seen weak implementation and enforcement within China. Originating from Deng Xiaoping's initial call during the 3rd Plenary Session of the 11th Central Committee in 1978 for the development and strengthening of legal systems, the concept of 'law-based governance' was first mentioned by Jiang Zemin in the 15th National Congress in 1997.[i] It has since been incorporated as a guiding tenet of Chinese governance (Xinhua Net 2020b) and it is important to situate the SCS as a key function of Xi Jinping's governance strategy. Most recently, the development of the SCS has been reiterated and emphasised as an integral part of governance reforms in the 'Outline for the Development of a Law-Based Society (2020-2025)', making explicit reference to the role of the SCS in 'building up law-abiding and creditworthiness records of citizens and organisations' (Xinhua Net 2020a).

Closing in on the first developmental phase, this is an opportune moment to evaluate how the system works, and how it affects Bavarian firms. In this study, we evaluate how Bavarian businesses with a presence in China are categorised within the system. We first provide a brief overview of the workings of the SCS, clarify its (potential) impact on foreign businesses, and outline the existing non-commercial support mechanisms available to Bavarian firms active in China. Thereafter, we study the entire sample of the 170 Bavarian investors present in China that we have identified, in order to assess the make-up of Bavarian FDI (size of firms, industrial sectors, and location) and how they have been ranked under the SCS. We then conducted interviews with representatives of a sample of these firms, including different sectors, sizes, and locations in China, to better understand the consequences of the system for Bavarian companies. On that basis, we provide policy recommendations to support business activities in China in the context of the SCS.

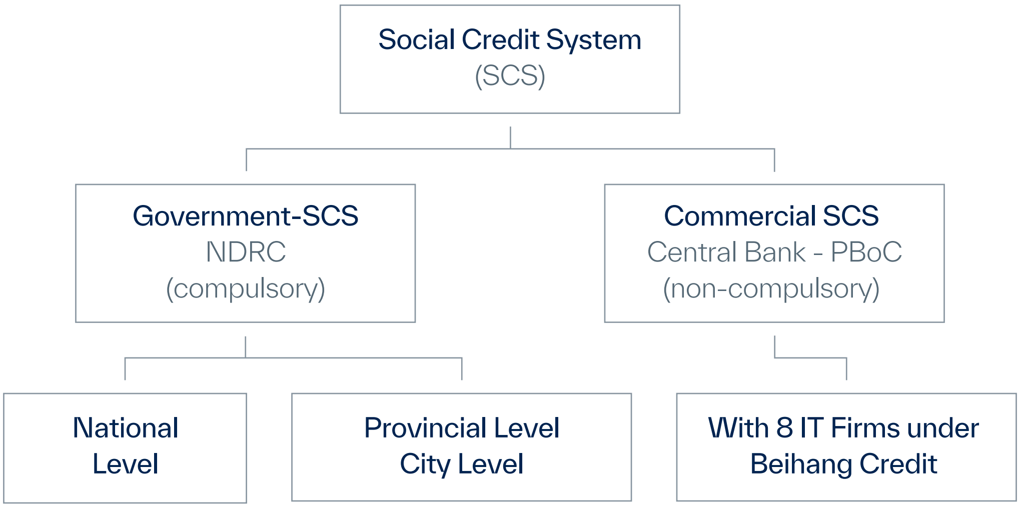
2 China's SCS: What is it?

The SCS is a complex regulatory instrument managed at national, provincial, city as well as commercial levels. Emerging as a response to traditional laggardness in legal, regulatory, and compliance domains (Creemers 2018), the SCS is primarily enforced and implemented through redlists and blacklists. These lists are created and managed by regulatory authorities, such as environmental or tax authorities, as well as the courts, which have developed the most common blacklist, that of 'dishonest debtors' (also referred to as laolai), for individuals and firms that fail to comply with court judgments (see e.g., Ahmed 2019; Liu 2019; Engelmann et al. 2019). Once an individual or a firm is redlisted or blacklisted, it may be subject to what is known as the joint punishment (in the case of blacklists) or joint reward mechanism (for redlists). They operate based on memoranda of understanding (MoUs) between different branches of the bureaucracy – if an individual or a firm is listed, a peer regulator can either punish or reward them accordingly. It is in this way that regulators and courts (mostly at the provincial-level) decide what type of behaviour is to be punished or rewarded. Besides blacklists and redlists, there are other public records in the system. A first step within the SCS process is a watchlist, indicating to firms that they are 'on the radar' of regulators, and should be more aware of compliance measures. The second list contains a record of existing administrative penalties. This record may have fewer consequences or implications than a blacklist, but in some cases (not all regulators operate in the same way), previous records of administrative punishments may lead to a 'downgrade' to a blacklist. The second list is relevant because while no individual Bavarian company has been blacklisted yet, 15 of them, or nearly 9% of the total, have administrative penalty records.

There is another, commercial, arm of the SCS operated by China's large technology firms and overseen by the People's Bank of China (PBoC) under Baihang Credit – the first licensee to run a national consumer credit service. China's large tech firms, especially Alibaba and Tencent run their own credit reporting systems (Zhima Credit and Tencent Credit respectively, see Figure 1). These services are voluntary, unlike the government-run SCS, which is obligatory.

Although the consumer credit landscape represents a significant aspect of the SCS (see Chen/Grossklags 2020 for a comprehensive review), it is not the focus of this paper since it is voluntary and mostly affects individuals. In this study, we examine the impact of the government-run SCS, which is mainly run by China's provinces and aggregated at the central level (Liu 2019), affecting both individuals and businesses, with our emphasis being on the latter. The government-run SCS also operates at lower administrative levels with numerous pilot programs. These

Figure 1: China's Social Credit System: A System of Systems



Source: Authors' own elaboration

city-pilots often run on points-based mechanisms, giving positive scores for volunteering or other activities considered desirable and negative scores for infringements such as traffic violations. However, these pilots are highly localised and (in the Chinese context) of very small scale (Tsai/Wang/Lin 2021). Initial accounts of SCS as a national scoring system (Chin/Wong 2016; Hvistendahl 2017) included an amalgamation of both the city and commercial level. We now know that instead of a scoring system, redlists and blacklists are how the SCS is being implemented at national and provincial levels (Ahmed 2019; Engelmann et al. 2019). Both lists are publicly available and maintained based on information provided from different parts of the public administration and judiciary.

What does the SCS do?

The SCS strengthens specific laws and regulations based on current policy-priorities by local governments. Some of these priorities are defined and shaped by broader campaigns by the central government. The SCS aims to "prioritize and focus scarce resources towards the most problematic market participants" (Herrmann/Kinzius 2020, 1). This approach enables a certain degree of flexibility since policy-priorities change over time. The system focuses on "conduct that already violates pre-existing rules and requirements in the state's thicket of laws and regulations" (Dai 2020, 39). Essentially, what the system does is placing specific existing rules on steroids, substantially increasing their bite. Once they become linked to the SCS, besides punishment for infringement (or rewards for compliance), a bureaucracy-wide "joint-punishment mechanism" (or joint-rewards mechanism) may kick in, depending on whether MoUs have been established amongst different administrative branches to this effect.

Why was it established?

The SCS builds upon a proto-regulatory state established in China during the 1990s as part of its liberalisation and economic modernisation efforts (Pearson 2005; Lardy 2014; Lavenex/Serrano/Büthe 2021). Despite putting in place something resembling a regulatory state, China failed to establish "the actual functioning of an independent regulatory structure" (Hsueh 2011, 16). In reality, local and central governments often made use of regulations to further political and developmental goals, the Chinese Communist Party (CCP) inhibited the creation of strong autonomous regulators, and independent regulators had to compete with powerful supra-regulatory bodies such as the National Development and Reform Commission (NDRC) (Hsueh 2011; Pearson 2015). Furthermore, the lack of an independent judiciary (from the CCP) further weakened the effectiveness of China's embryonic regulatory structures. At the same time, the Chinese government recognised the need to strengthen the rule by law (rather than the rule of law) given recurring large-scale corruption coupled with labour, environmental, and food scandals. The SCS is an attempt to synthesise a toolbox of different technologies (e.g. database management, information technologies, surveillance, credit scoring) into a comprehensive technological and regulatory governance apparatus.

Why does it matter for (Bavarian) businesses?

All firms registered in China are included in the SCS and assigned a unique 18-digit identification number. This means that Bavarian firms doing business in China are automatically part of the system, and are bound to existing compliance measures. Foreign nationals who are part of the top management of these firms are also included in the SCS as a company's legal representative. Individuals also have a publicly accessible record, but the range of accessibility differs across the fragmented landscape of credit information platforms. Both individuals and companies can be rewarded (redlisted) or punished (blacklisted, or incur administrative penalties for less severe offences) in the system, or (as in most cases) have not done anything to warrant an inclusion into either list.

3 What kind of support is available to Bavarian firms?

In Bavaria, there are few non-commercial entities that provide advice on the SCS. While a variety of consultancies and law firms offer basic information, e.g., Ecovis, KPMG, New Horizons, Rödl & Partner (KPMG 2020; WZR 2019), the only non-commercial entities providing support for navigating the SCS we have identified include the German regional Chambers of Industry and Commerce, the German Chamber of Foreign Commerce in China and the European Union Chamber of Commerce in China. Some of the regional Chambers of Industry and Commerce and the Chamber of Foreign Commerce additionally offer webinars for companies (CIC Hamburg et. al. 2020), but most of them refer to a document produced by the Chamber of Foreign Commerce: *Practical Guide to China's Social Credit System* (CFCC 2019). The guide, as well as reports that cite it, lays out the mechanism of the SCS, the intention behind it, the bifurcation into individual and corporate SCS, the different levels and elements of the system (redlists/blacklists, rewards/punishments, databases) as well as an overview of the current (fragmented) state of the system (CFCC 2019; CIC Hamburg et. al. 2020; ECCC 2019). In addition, the guide and the other reports provide an outlook on the potential future developments of the system (CFCC 2019; ECCC 2019).

Companies are informed about the data collected, the potential consequences they may face as well as existing mechanisms to improve records or file complaints (CFCC 2019). Some information on how to behave in order to achieve a positive and prevent a negative score is given in the form of basic 'to-do' lists for companies, such as regularly checking one's social credit score and those of business partners, as well as staying up to date with regulations (CFCC 2019, CIC Hamburg et. al. 2020). The 2019 report of the European Union Chamber of Commerce in China provides a detailed overview of the requirements of the different ratings and outlines how the government gains possession of company data. This currently happens mainly through actively transferred data and government inspections, but in the future is likely to function based on obligatory real-time monitoring (i.e., data transmission), third-party data inputs, and video surveillance (ECCC 2019).

Lastly, businesses can access all collected information about them on two publicly accessible websites (the National Enterprise Credit Information Publicity System[ii] and Credit China[iii]) (CFCC 2019, CIC et. al. 2020). All sources of information emphasise the importance of checking local databases. The German Chamber of Foreign Commerce recommends a three-step procedure: a self-assessment of company data provided to government authorities, research of the national databases, and comparison with locally collected SCS data (CFCC 2019). Regular exchange with government authorities is also recommended (ECCC 2019). The regional chambers and the national chamber of commerce provide some specific advice and support, such as an Excel template for entering company data, links to several local databases, important blacklisting agencies and other (sub-)databases (CFCC 2019). The European Union Chamber of Commerce (ECCC 2019) presents two exemplary cases for illustration of company ratings and sanctions.

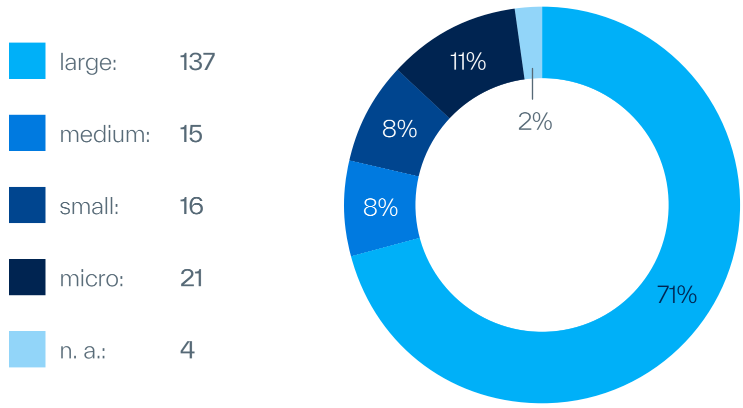
These existing works and recommendations encourage companies to search for their SCS record, and guide them in doing so. However, to our knowledge no public organisation (or private entity, such as a consulting firm) has conducted a full evaluation of the status of firms in the SCS or assessed how Bavarian (or German) businesses are categorised in the system, let alone businesses from any other large region or major economy. We attempt to fill this gap with a focus on identifying potential patterns in the underlying data. Our study on how the SCS affects Bavarian firms is based on the public records of all Bavarian companies in the national SCS database (↗ https://www.creditchina.gov.cn). We analyse all records in terms of how company size (measured by turnover and number of employees), sector, and location affect the likelihood of being rewarded (redlists) or punished (blacklists) in the SCS. Finally, we complement these findings with insights from 10 in-depth semi structured interviews with representatives from businesses in our sample.

4 Bavarian Enterprises and the Chinese Social Credit System

Bavarian businesses active in China by size and by sector

We collected data on the number, size, and industrial sectors of Bavarian companies active in China from the Orbis database provided by Bureau van Dijk, which contains a comprehensive dataset of German enterprises recorded in the National Trade Register.[iv] On this basis we identified 193 Bavarian enterprises with subsidiaries in China (Figure 2). Based on the EUROSTAT definition[v], most of them (71%) are large businesses (over 250 employees

Figure 2: Bavarian enterprises in China by size and rankings in SCS



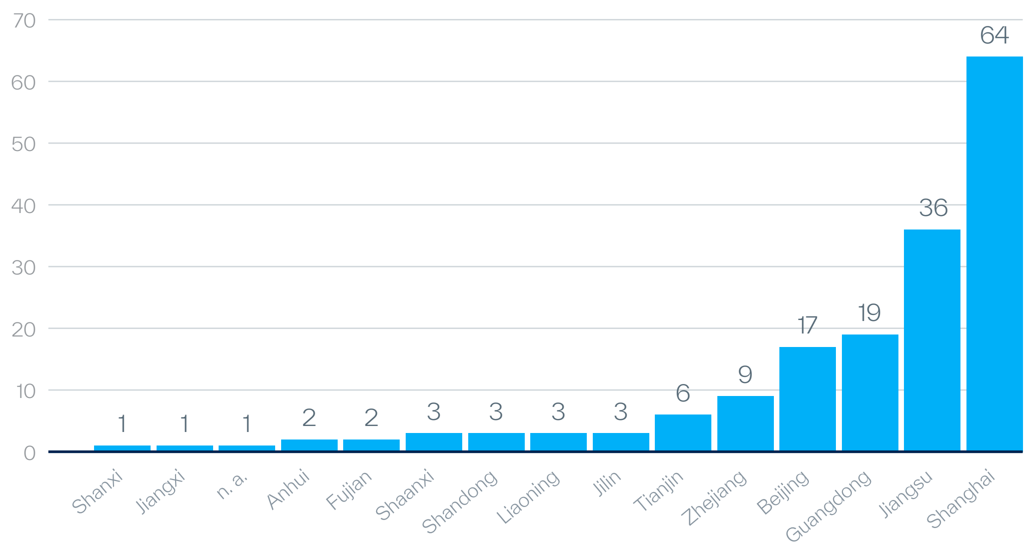
Source: Authors' own elaboration based on data from Bureau van Dijk (2021) – Orbis and Markus Databases and 50 million turnover); surprisingly, the second largest category are micro firms (less than 10 employees and less than 2 million turnover, 11%).[vi] The medium (less than 250 employees and less than 50 million turnover) and small categories (less than 50 employees and less than 10 million turnover) each account for 8% of the total.[vii]

Using the European NACE Rev. 2 score to identify economic sectors, we find that Bavarian firms in China are concentrated in three main sectors: i) manufacturing (94 out of 193, 49%); ii) professional, scientific and technical activities (44 out of 193, 23%); and, iii) financial and insurance activities (24 out of 193, 12%).

Bavarian businesses active in China by location

Out of the 193 companies, we were only able to identify the Chinese names for 170 of them. Therefore, the remaining analysis focuses on these 170 companies, for which we have searched in the SCS.[viii] Like the majority of foreign firms present in China, most Bavarian enterprises are located in Shanghai, followed by the neighbouring province of Jiangsu, and then by Guangdong, Beijing, Zhejiang and Tianjin (see Figure 3),[ix] – all economically well-developed provinces. We also found some firms in other less common provinces such as Anhui, Jilin, Liaoning, Shaanxi, and Shandong. As we establish below, location appears to be an important predictor of both, redlisting and blacklisting, with some provinces being much more active in using the SCS to reward or punish firms.

Figure 3: Bavarian firms in China by location



Source: Authors' own elaboration based on data from Bureau van Dijk (2021) – Orbis and Markus Databases

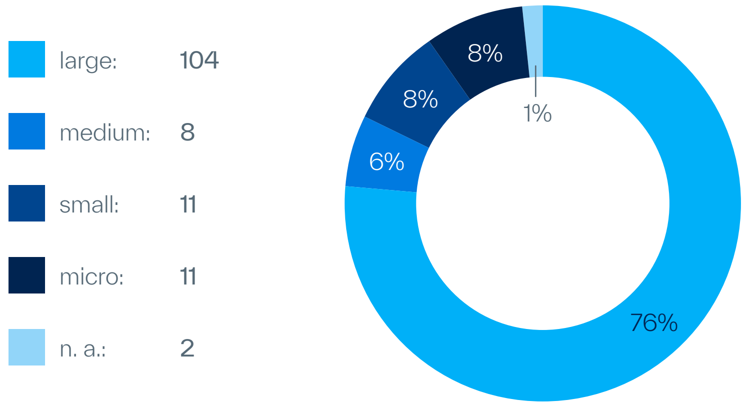
Positive and negative listings of Bavarian firms in the Chinese Social Credit System – redlists and administrative penalties

Positive listings

The majority of Bavarian firms in China's SCS feature on positive lists. Out of the 170 Chinese subsidiaries of Bavarian enterprises, we identified 136 on redlists, almost exclusively for being a "Class A taxpayer", whilst eight of them have additionally been listed on the redlist of the customs authority. Figure 4 shows the distribution of these firms by size. The majority of the positive entries have been recorded in Shanghai (48 firms) and Jiangsu (31 firms), followed by Guangdong and Beijing (13 firms each) and Zhejiang (8 firms). This distribution somewhat reflects their geographic presence, since most Bavarian firms are present in Shanghai and Jiangsu. The inclusion of Bavarian firms on redlists started in 2012, with just one firm being listed, and increased to 73 entries by 2019.[x] The sectoral distribution of firms on the positive lists reflects the overall sectoral distribution of Bavarian firms in China, with the majority being in the manufacturing sector (73 firms, 54%), followed by professional, scientific and technical activities (33 firms, 24%) and financial and insurance activities (12 firms, 9%).

Micro firms and medium-sized firms are slightly underrepresented in redlists compared to their overall numbers amongst Bavarian businesses in China (micro firms have an 8% share of total redlistings and medium-sized ones have a 6% share of redlistings). Small companies' share of redlistings (8%) is equal to their share amongst Bavarian businesses in China. On the other hand, large firms are overrepresented (76% of redlistings). It is possible that micro firms find it more challenging to develop close relations with local authorities, and tax authorities in particular, that might earn the company a spot on a redlist. It may also be that the authorities care less about these firms given their smaller contributions to tax revenues and employment. This may also explain the noticeable presence of large firms on redlists (104 out of 136).

Figure 4: Bavarian businesses on redlists (positive) by size



Source: Authors' own elaboration based on data obtained from the Credit China website

Overall, Bavarian firms are more often rewarded than punished: 80% of them are redlisted (136 out of 170) whereas only 9% (15 out of 170) have a negative record (administrative penalty) as we show below.

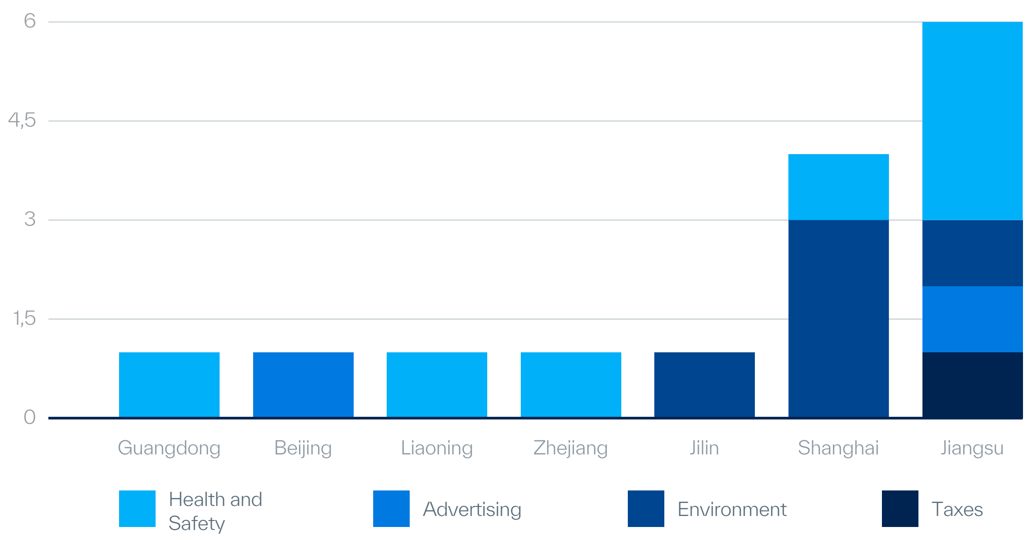
Negative listings / administrative penalties

We did not find any Bavarian business in China that is blacklisted; 15 companies, however, incurred administrative penalties in 2018 (3 firms), 2019 (9 firms) and 2020 (3 firms). The majority of these are large enterprises (13 firms) and two are micro enterprises (see Figure 5). None of the small and medium enterprises have incurred administrative penalties. Most penalties relate to environmental and health and safety issues, others to tax-related matters and illegal advertising.

Regarding sectoral distribution, by far the most negative records (administrative penalties) occurred in the manufacturing sector (10 out of 15), followed by professional, scientific and technical activities (2 out of 15). Only one firm in the financial sector had a negative record.

Interestingly, our evaluation of negative listings also uncovered substantial variation amongst provinces (see Figure 5). Regulators in Jiangsu province appear particularly active, followed by those in Shanghai. One reason may be Jiangsu and Shanghai being the provinces with the highest number of Bavarian firms (although there are more firms in Shanghai than in Jiangsu). That being said, other provinces such as Guangdong and Beijing, despite having large numbers of Bavarian firms, appear less active. Furthermore, regulators in Jiangsu appear particularly concerned about (occupational) health and safety matters, whereas those in Shanghai are mainly concerned with environmental protection. The data reflects important differences in the areas targeted by regulators and their dynamism, which means that the implementation of the SCS is less homogeneous than what is often assumed to be the case.

Figure 5: Type and number of firms' penalties by province



Source: Authors' own elaboration based on data obtained from the Credit China website

5 Perceptions of Bavarian Enterprises about the Chinese Social Credit System

We conducted ten interviews to understand how Bavarian firms in China perceive and understand the SCS. Our sample comprises 2 micro, 1 small, 5 medium, and 1 large Bavarian firm present in China (their global size may be larger).[xi] The firms are based in different provinces (4 in Shanghai, 2 in Jiangsu, 1 in Jilin, 1 in Liaoning, and 1 in Guangdong). We also carried out one interview with a senior analyst of a Beijing based consultancy specialising on the SCS. The interviews were semi-structured, i.e. we followed the same standard questionnaire for all interviewees (except for the consultancy in Beijing, since they provide specialized advice on the SCS) and expanded the questions on the basis of the interviewees' responses. The interviews were conducted online (due to the constraints of the Covid-19 pandemic) between 30 June and 3 August, 2021 (see Table 1 for an overview of interviewees).

Key insights obtained from the interviews

Most firms are well aware of the still fragmented state of the system,[xii] repeatedly referring to the interconnection between the corporate and individual SCS.[xiii] While larger firms have in-depth knowledge of the characteristics and potential consequences of the SCS, some employing dedicated teams that regularly audit SCS-relevant aspects of the business, medium, smaller and micro businesses are less well informed about the underlying mechanisms of the SCS.[xiv] They often struggle to understand its complexity and their awareness of the potential impact of positive and negative records is very limited.[xv] Some of them think that due to their small size they are not relevant enough to the authorities in China.[xvi]

Most companies regard the system as beneficial in terms of increasing transparency, levelling the playing field between international and Chinese companies, and reducing corruption.[xvii] At the same time, they perceive a potential threat to their competitiveness in the case of an abuse of the system by local authorities.[xviii] Some fear that the system leads to excessive control by the government and that the non-transparent (or little known) workings and mechanisms of the system could threaten the smooth operation of their business. A few participants consider that a degree of ambivalence in the system is intended/desired by Chinese authorities to ensure firms comply with existing rules and regulations, the sword of Damocles hanging over their head.[xix] Several interviewees emphasised the importance of Chinese and international firms being treated equally,[xx] some expressing explicit concern that this might not be the case.[xxi]

Firms generally are not aware of how a negative record (e.g., an administrative penalty) can be removed from the system.[xxii] They would thus benefit from dedicated support in the case of a negative listing. So far, it seems that the majority considers prevention to be the main remedy, i.e. ensuring compliance with general regulatory requirements for their business operations will prevent a record on a blacklist or an administrative penalty.[xxiii] Most firms have not (yet) knowingly experienced any major positive or negative consequences on their business operations by being redlisted, or incurring an administrative penalty.[xxiv] Instead, many of them emphasise the importance of having good contacts with local government authorities.[xxv] Most participants have seen an overall improvement in standards concerning the environment, fire, or work safety,[xxvi] but generally do not feel affected by this, since they had already implemented higher standards previously.[xxvii] Only few firms already use the SCS to check on potential business partners or suppliers. Most are considering it for future supplier and business relations.[xxviii] Some of them mentioned that their HR department may already consider it for potential hires, or could do so in future.[xxix]

Since requirements depend heavily on the kind of economic activity, there is no 'one fits all approach concerning support for firms.[xxx] Yet, companies of all sizes consider in-depth information about the system, especially when new regulations are implemented, as highly relevant for their business operations.[xxxi] Information was most commonly expected from the Industry and Foreign Trade Chamber, the Chamber of Foreign Trade in China, the European Chamber of Commerce in China, or the Association of the Bavarian Metal and Electrical Industry.[xxxii] Most companies would welcome some form of external monitoring of the system that would keep track of its evolution and the reasons for the various records in the SCS.[xxxiii] One firm suggested that a checklist could be provided by Bavarian authorities that would help them to conduct internal SCS-related audits;[xxxiv] another suggested that external/foreign monitoring activities (as deterrence), if brought to the attention of Chinese authorities, would help prevent abuse within the system that could harm foreign (Bavarian) firms.[xxxv] Another wished for events where lessons learned could be exchanged with companies of similar size.[xxxvi]

None of the firms interviewed received any support from Bavarian authorities in the context of the SCS. Large firms report having received helpful information both from experts (e.g., lawyers, consultancy firms) and information events from the Chamber of Foreign Trade in China as well as the German Association of the Automotive Industry or foreign consultancy companies. Most firms would consider dedicated support in the case of being recorded on a blacklist or incurring an administrative penalty as very helpful.[xxxvii]

Table 1: Overview of interviews by size and sector

No.	Sector	Company size European KMU (SME) definition	Size in China	No. of employees (in China)	Penalties and Redlists summarised	Province
1	Information and communication	large	medium	100-199	Environment (administrative penalty) + Class A taxpayer	Shanghai
2	Manufacturing	small	small	50-99	Class A taxpayer	Jiangsu
3	Professional, scientific and technical activities	large	medium	200-299	Class A taxpayer	Liaoning
4	Professional, scientific and technical activities	large	large	>250	Class A taxpayer	Jilin
5	Administrative and support service activities	large	medium	50-99		Shanghai
6	Professional, scientific and technical activities	small	micro	50<		Shanghai
7	Wholesale and retail trade; repair of motor vehicles and motorcycles	large	medium	100-199		Shanghai
8	Financial and insurance activities	large	micro	50<		Guangdong
9	Financial and insurance activities	large	medium	50<	Class A taxpayer	Jiangsu
10	Administrative and support service activities	micro	micro	50<		Peking

Source: Authors' own elaboration based on data from Orbis and Qichacha databases, Credit China, and the National Enterprise Credit Information Publicity System

6 Final remarks and policy recommendations

China's Social Credit System is still largely work in progress. Despite fears and concerns raised in the Western media, our evaluation suggests that at least when it comes to its corporate dimension, it is less high-tech and less centralised than what is often assumed. In addition, for the most part it focuses (at least when it comes to Bavarian investors) on the implementation of rules and regulations. That being said, there is a case of a large Bavarian firm being given an administrative punishment for using terms such as "excellent" or "national" in their advertising, which have more of a political connotation (these terms appear to be reserved to the party-state). Beyond this, we find that the implementation of the system is still patchy. It relies on databases from a large number of individual regulators at the local level, which are then aggregated under the Credit China database/website that is run by the National Development and Reform Commission (NDRC). The State Administration for Market Regulation (SAMR) also operates a similar database, the National Enterprise Credit Information Publicity System (NECIPS), but until now it is less comprehensive than Credit China. Around 60% of the information in local regulators' databases (e.g., rankings, administrative punishments, etc.) are included in the NDRC's Credit China database; for SAMR's NECIPS, the figure is considerably lower.[xxxviii]

Despite these shortcomings, we observe that in light of the weaknesses of its legal system, the current Chinese government appears serious about establishing strong legal and administrative frameworks ("law-based governance") in order to rein in past excesses and modernise the Chinese party-state. The SCS is a central part of this effort, and an evolving mode of techno-regulation that is to be taken seriously. Foreign firms present in China need to be prepared for it. Following the tradition of Chinese experimental governance (Heilmann 2018), pilots in provinces such as Sichuan (see Cyberspace Administration of China 2020) are already experimenting with new technologies such as big-data and algorithmic machine learning to prevent tempering with data records, ensure data safety and support and streamline market transactions. AI-driven techno-regulation is thus slowly becoming a reality. With the SCS, China is creating a novel type of regulatory state that relies less on autonomous regulators at arm's length from the government (as is the current model disseminated by the United States and the European Union), and more on comprehensive data gathering by the state and new tech-savvy stakeholders. In some areas (for example environmental and labour standards), the SCS may facilitate interactions between the Chinese and Euro-Atlantic regulatory models, because regulations converge, which in turn makes commercial exchanges smoother. However, this new type of regulatory model also creates frictions with American and European regulations in areas where values and mechanisms are less compatible (e.g., privacy), and thus it needs to be better understood to avoid foreign firms (such as the Bavarian firms in our study) being caught in the middle of potentially incompatible (or at best partially compatible) regulatory frameworks.

On the basis of our analysis of the SCS records of Bavarian firms in China as well as the insights obtained from interviews with a subset of these companies, we recommend Bavarian authorities to support local firms present in China by:

- Continuously monitoring the SCS, in keeping on top of the system's evolution in how companies are ranked, and which authorities are particularly active, as well as the types of regulations being enforced. All of these factors change continuously. External monitoring of the SCS may also deter Chinese authorities from abusing the system in a way that may negatively impact German and Bavarian businesses.

- Providing dedicated support to Bavarian firms with negative records in the SCS (blacklists or administrative penalties) to reduce the potential threat such listings pose to the competitiveness of a business. This seems particularly important for smaller companies that have limited expertise about the system and may be unaware that they have a negative record in the system.

- Evaluating potential incompatibilities of China's evolving regulatory model under the SCS with German/European regulations to highlight areas which may pose problems for Bavarian firms operating under both regulatory regimes.

- Organising exchanges amongst Bavarian (and other German) firms to share common experiences with the system, good practices etc.

- Supporting the development of independent China expertise in Bavaria which will become more relevant given the growing importance of China for Bavarian (and German) firms as well as the rapid evolution of its alternative regulatory model.

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Endnotes

i Relevant information retrieved from National Congress archives which are available digitally from the People's Daily database, to be found at: ↗ http://cpc.people.com.cn/GB/64162/64168/index.html

ii To be found at: ↗ http://www.gsxt.gov.cn/corp-query-homepage.html

iii To be found at: ↗ https://creditchina.gov.cn

iv The Orbis database includes information on activity codes, trade descriptions, key financials, directors, shareholders, and subsidiaries, amongst other variables. The database allows for filtering the data to obtain information at country, state, and city level or by postcode (Bureau van Dijk 2021). Limiting our search to companies headquartered in Bavaria and operating subsidiaries in China (with an ownership of at least 40% to account for joint-ventures) resulted in 193 enterprises of various sizes and in a broad range of industrial sectors, albeit with 3 sectors (manufacturing, professional, scientific and technical activities, as well as financial and insurance activities) accounting for the bulk of Bavarian investments in China.

v ↗ https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Statistics_on_small_and_medium-sized_enterprises#SME_definition

vi There is a caveat to our measurement: we consider size based on employees and turnover on a global scale, based on data from the Orbis database, this appears to a large extent to reflect the size of these firms in China. However, we found some cases of large global firms which had relatively small operations in the Mainland. For this reason, when selecting our sample of firms for in-depth analysis, we considered, on the basis of Chinese sources, the size of their operations in China as well.

vii In some cases, we only had either the turnover or the number of employees available – we then determined the size of the company based on the one value given (thus using an "either or" instead of the strict "both … and" definition).

viii Of the excluded 23 companies, 7 were micro, 3 small, and 11 large companies; on 2 we had no further information. 9 of them were in financial and insurance activities, 8 in professional, scientific and technical activities and 1 in manufacturing.

ix By provinces we mean both provinces and provincial-level municipalities such as Beijing and Shanghai.

x 2020 saw a dramatic reduction of firms being recorded on redlists to 30 firms, possibly due to reductions in economic activity during the peaks of the Covid-19 pandemic.

xi As was explained in footnote 6, to have a more detailed measure, we considered the size of the operations of Bavarian firms in China, complementing the information from the Orbis database with data from Chinese sources.

xii "At the end of the day it is not one social credit system, but many, which are not connected among themselves, but where things are being transferred manually, if they are transferred" (interview 3).

xiii "I think that it hasn't been rolled out completely yet, but is only partly and prototypically in action" (interview 9).

xiv One interviewee's statement that the SCS "has been introduced in a lingering manner" (interview 1), is echoed by another interviewee saying that they only "knew that something is coming towards us" (interview 7), with information being "rudimentary" at the beginning (interview 7). One interviewee hypothesised that "it might be that something reaches the bigger companies, but not us – and we still have over 3,000 employees globally – I haven't received any information" (interview 7).

xv "You don't know whom you could ask. There are too many authorities loosely connected. It's not one authority responsible for it" (interview 4).

xvi The awareness of the potential impact of positive and negative records is very low amongst smaller firms: "I didn't know, honestly, that this is possible. That's why I have never asked [the Chinese managing director] anything like that" (interview 6). Some of them think that they are not relevant enough (interviews 5, 6, 9): "I just think, we are too small for it. I just believe, that is a bit too far away for us" (interview 5).

xvii "It could also be in our interest that black sheep are identified" (interview 4).

xviii "In the end, despite its transparency and the attempt to make it consistent, it still entails an element of arbitrariness and we will never understand completely why the Social Credit rating is exactly the way it is being shown to us" (interview 4).

xix "I think the real consequence and goal of the system is that one creates uncertainty in society" (interview 1).

xx Interviews 4, 6, 9, “It is important that you don’t apply double standards, when something like that exists – that Chinese and international companies are treated equally” (interview 6).

xxi “Maybe we benefit from it in the beginning because we have certain standards. But do we benefit at the end of day? – I have my doubts.” (interview 9).

xxii Interviews 1, 8, 9. “My name was saved there and, bam, I am eternalised there! But it seems that nobody is deleting this” (interview 1).

xxiii We actually only have to continue as we did before: We comply with everything, we pay attention” (interview 3).

xxiv Interviews 1, 2, 3, 4, 5, 8.

xxv Interviews 3, 6, 7.

xxvi Interviews 1, 2, 3, 4, 5, 7, 9.

xxvii Interviews 3, 4, 6, 7, 9.

xxviii Interviews 1, 2, 3, 7, 9.

xxix Interviews 4, 5.

xxx Interview 4.

xxxi Interviews 1, 2, 3, 4, 6, 7, 8, 9.

xxxii Interviews 3, 5, 7.

xxxiii Interviews 2, 4, 5, 8, 9. “Since this is so complex, if somebody then assures there is a monitoring from a neutral position and also makes sure that companies which do not have access to these ratings, won’t fall through the cracks, I think this is absolutely positive” (interview 4).

xxxiv Interview 1.

xxxv Interview 2.

xxxvi Interview 7.

xxxvii Interviews 4, 6, 7, 8, 9.

xxxviii Interview 10, Beijing/Munich, 17 June, 2021.

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