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# China's Online Peer-to-Peer (P2P) Lending Platforms

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## 2.1 Introduction: China and Information & Communication Technologies

When China leapfrogged to wireless communication technologies from its traditional landline technologies, it was making a fundamental move towards cultivating its digital connection with the expanding digital global economy. E-commerce has now become a central element in economic growth in several countries, including China, and in the expansion of world trade. China's adoption of advanced technologies has paid off in certain aspects, and it is now the largest online market in the world and a prominent player in e-commerce. iResearch, a Chinese consulting firm, reported that e-commerce sales in the country grew 21.2% in 2015 to 16.2 trillion yuan (Xinhuanet 2016a). China has 688 million online users in 2015, of which 620 million (90%) used mobile phones to go online (China Internet Network Information Center 2016), and it has one of the highest mobile phone penetration rates for smartphones,

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which are increasingly becoming a dominant access mode to the Internet, spelling an even greater growth potential for e-commerce. The adoption of advanced technology and involvement in the e-commerce era have also bred home-grown e-commerce participants such as Alibaba, JD.com Inc., and Tencent Holdings which have become well-established names in the international online industry.

The development of e-commerce is not confined to Chinese urban locations. Rural authorities reportedly have been helping farmers embark on online trade to sell their agricultural produce and create local job opportunities for rural villagers so that they do not have to look for employment in faraway cities and be separated from their families (Larson 2014; Wang and Shi 2016; Xinhuanet 2016a; Lui 2016). The Chinese government recognises that engaging rural areas in e-commerce could provide a potential means of alleviating poverty for the farmers. In 2016, it sought to assist the development of rural economies by striking an agreement with one of the country's biggest online trading platforms, Alibaba, to officially roll out the implementation of e-commerce in more than 300 rural areas (Xinhuanet 2016b). This project aims to help farmers optimise their agricultural sales and improve logistics, and to support their online entrepreneurial activities. It has major ramifications both for people earning their livings in rural areas and for consumers in those areas. Online shoppers from rural areas are no longer disadvantaged by limited product choices, inflated prices and shoddy quality from widely dispersed or remotely located traditional bricks-and-mortar stores. E-commerce and wireless technology have enabled them to shop for better quality items at more reasonable prices and make choices from a wider variety of products. The integration of rural businesses into the digital economy also extends a competitive retail market structure from the cities to the rural areas that have been traditionally characterised by a less competitive (or non-competitive) market structure. The potential of rural participation in e-commerce has become progressively more significant over the years; online sales agencies report that their online sales in rural areas have been growing more rapidly than in urban areas (Jing 2014). The intention of Chinese mobile carriers (China Mobile, China Telecom and China Unicom) to aggressively compete for the rural market for their wireless business segment and the proliferation of cheaper handsets produced by domestic smartphone manufacturers such as

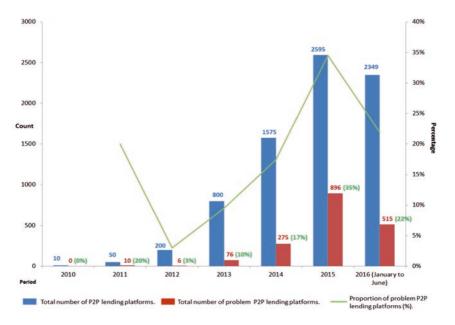
Coolpad, Lenovo and ZOPO (Woo 2015) suggest further accelerated growth in online sales to rural areas. If carefully crafted by government support and policies, the integration of rural businesses into the digital economy may produce a meaningful urban-rural partnership that promotes greater equity in income distribution.

Prior to the availability of wireless communication technologies, China had been struggling with costly landline installation in an attempt to provide expansive telecommunication coverage to support economic development, particularly in rural areas. This cost barrier has actually turned out to be the greatest advantage for China in technology adoption. Areas without landline telecommunication coverage, or those disadvantaged by outdated landline telecommunication technologies in need of replacement, can now leapfrog to the latest wireless communication technologies, which are cheaper to install. The adoption of latest wireless technologies by these relative latecomers to the Information & Communication Technologies (ICT) revolution has actually transformed retail markets, opening up unprecedented opportunities for its national and domestic companies, as overseas businesses yearn for a slice of the growing online Chinese market. Despite China's rapid growth in e-commerce, there have been disconcerting developments in the trajectory of this growth. The electronic trading landscape has brought about changes in content delivery methods, new and innovative business models, and new digital intermediaries which have left the Chinese government striving to keep pace by introducing and reforming legislation and regulations to safeguard the interests of consumers, investors and the economy (particularly against unscrupulous and/or illegal operators and fraudsters). One of these areas is the online peer-to-peer (P2P) lending platforms operated by unregulated online intermediaries, which bypass and undermine the country's central financial system.

### 2.2 China's Online P2P Lending Industry

China's online P2P lending industry first emerged in 2007 and grew at a frenetic speed between 2012 and 2015. This industry has been operating in the shadow of the banking industry since its emergence. The lack of

market entrance thresholds, sound regulations and regulatory oversight led to an unreined and rapid proliferation of online P2P lending platforms. The majority of these platforms operate on a standalone basis and hence are not affiliated to any authorised banks or financial entities, and they themselves are not considered as financial entities sanctioned by financial regulators. Figure 2.1 shows the increasing number of online P2P lending platforms between 2010 and 2015. The yearly growth rate in online P2P lending platforms was about 400% in 2012 and again in 2013, 197% in 2014 and 165% in 2015. Although there has been no verifiable data on the amount of online P2P loans, reports have estimated it to be between US\$20 and US\$40 billion in 2014 (Deer et al. 2015) and surging to at least US\$150 billion in 2015 (Zhang 2015) with optimistic annual growth predictions of US\$83 billion per year (Bloomberg News 2014). However, the number of new platform entrants to this



**Fig. 2.1** Total number of online P2P lending platforms, total number of problem online P2P lending platforms, and the proportion of problem platforms (as a percentage of total online P2P lending platforms). (Source: www.yingcanzixun.com and www.wdzj.com, 2017)

industry started to taper in 2016 when the Chinese government introduced tight laws and rules for regulating online P2P lending platforms. This was evident by the 80.4% decrease in the number of new online P2P platforms entering the industry between January and June 2016, as compared to the same period in 2015 (Wang 2016a).

A disconcerting development in the online P2P lending industry has been the increasing number of 'problem platforms' over the years as shown in Fig. 2.1, 3% of the online P2P lending platforms were in trouble in 2012, 10% in 2013, 17% in 2014 and 35% in 2015. Their problematic nature can be attributed to their lack of experience in managing such businesses, their mismanagement and/or their fraudulent practices. The Chinese government has only recently begun proactively purging and deterring these problem platforms from entering the online P2P lending industry. These constraints will be discussed later in this chapter.

Online P2P lending platforms are intermediaries and not financial institutions. They should act as agents (or intermediaries) by providing such online services as matching lenders directly with borrowers, assessing borrowers' creditworthiness and collaterals and collecting information on borrowers and lenders. They are essentially platforms offering financial services, and their main sources of revenue should generally come from registration and service fees charged to potential borrowers for posting, matching and processing their loan requests on the platforms' websites. Due to a lack of legislative clarity and proper regulatory supervision, many of these online P2P lending platforms have been taking on a role beyond the scope of an agent or intermediary (People's Bank of China Institute of Finance 2015; Lingyi 2016). Although there were no explicit rules and regulations that directly governed P2P behaviour prior to July 2015, the raising of funds from the public, capital pooling and the provision of guarantees on investment returns by unqualified and unauthorised entities or individuals are all activities deemed illegal and punishable as criminal acts, according to State Council Act [1998, No. 247] issued in July 1998 (The State Council of the People's Republic of China 1998), CBRC's announcement [1999, No. 41] in 1999 (CBRC 1999), and The Supreme People's Court of the People's Republic of China in its interpretation [2010, No. 18] on illegal fundraising and financial fraud

in November 2010 (The Supreme People's Court of the People's Republic of China 2010). In spite of these legislative and regulatory constraints, many P2P platforms were offering a range of high-yielding investments such as insurance and wealth management products, raising funds for private interests (other than investment projects promised by the platforms) and making illicit gains through illegal profit arbitrage by exploiting the interest spread between the high lending interest rates to borrowers and lower investment return rates to lenders. Because these wayward P2P platforms have operated largely in the shadows and without transparency, any culpable behaviour running afoul of these laws has only tended to become obvious to the public and government when they have started to fail or collapse and become problem platforms.

One of the reasons behind the phenomenal increase in the number of online P2P lending platforms has been their exceedingly low business start-up costs. The cost of purchasing an online website template for setting up an online P2P lending website can be less than 1000 yuan (US\$156) (Wangdaizhongxin 2014). However, off-the-shelf software with do-it-yourself (DIY) open-source content is vulnerable to hacking and cyberattacks (Wang 2015). Many of the online P2P lending platforms are standalone business operations and have lacked the experience, resources or setup to secure data and operation against cyberattacks (People's Bank of China Institute of Finance 2015).

Another reason for the rapid influx of entrants into the online P2P lending industry is that business entrants can easily set up an online P2P lending business with a minimum registered capital of 30,000 yuan (US\$4700). Unlike the constraints on banks and financing companies, there were no specific laws or regulations pertaining to an online P2P lending platform's legal identity, role and business entry requirements prior to July 2015 (Huang and Deng 2015). For example, the China Banking Regulatory Commission (CBRC) establishes minimum registered capital requirements for financial entities under its jurisdiction; the minimum registered capital for an automobile financing company is 500 million yuan (US\$78 million) and for a financing guarantee company five million yuan (about US\$730,000). However, there was no such requirement for online P2P lending platforms. Furthermore, the industry classification code also failed to clearly define the nature of a P2P

business or the scope of its business operations. With no clear specification and requirements, the online P2P lending platforms largely registered their businesses under the industry classification of investment advisory and information technology development companies (outside the immediate jurisdiction of the CBRC) for which the minimum registered capital is 30,000 yuan (US\$4700). Moreover, the description of the nature of business provided by a platform when registering its business could turn out to be markedly different from its actual online P2P lending operations (People's Bank of China Institute of Finance 2015). It has been estimated that fewer than 10% of all online P2P lending platforms had registered capital of more than 50 million yuan (Yue 2015).

Many platforms are also highly geared in leverage as they usually have limited registered capital, relative to aggregate loans. Currently, a significant number of the biggest lending platforms have started their business operation at initial leverage capacity much larger than their registered capital. For example, 'renrendai.com' started with registered capital of one million yuan in 2013 and handled, on average, loans sized up to 80 times its registered capital in the same year. It subsequently increased its registered capital size to 100 million yuan in 2014 as a result of its business expansion (Sheng and Ng 2016). As there is no regulatory stipulation on the maximum leverage for online P2P lending platforms, some of them are operating at leverage ratios ranging between 10 and 20 times their asset values (Barreto 2016) which even exceeds CBRC's allowable maximum leverage ratio of 10 times the asset value for a financing guarantee company. The high leverage business practices of online P2P lending platforms pose a systemic threat to the liquidity of this financial segment.

A major inadequacy in the online P2P lending industry is that these platforms do not have access to the central bank's information database (nor support from credit information bureaus) to prudently access the credit risk of borrowers. In early 2013, Shanghai Credit Information Services Co., Ltd (a subsidiary of the Credit Reference Center, which is affiliated with the People's Bank of China) established a unified national personal credit information system known as the Network Financial Credit System (NFCS) for the P2P industry. This system was developed independently from the central bank's credit information database, and

the two systems are not interconnected. The NFCS is designed to collect and share information on borrowing and lending undertaken over P2P platforms, including basic user particulars, loan application information and loan provision and repayment information. Membership of the NFCS is voluntary and free of charge for P2P platforms and offers them the opportunity to upload information that they are willing to share with other members. In January 2015, about one-fourth of online P2P lending platforms signed up for membership of NFCS. However, the scope of information in this system remains limited, as members are more willing to upload information on their blacklisted default borrowers than on all their borrowers and lenders (Twenty-first Century Business Herald 2015; People's Bank of China Institute of Finance 2015).

## 2.3 Borrowers of Online P2P Lending Platforms

There are two types of borrowers who traditionally find it hard to obtain financing support from the traditional Chinese banks: firstly, private individuals who are consumers in need of short-term funds for events like medical emergencies, auspicious celebrations such as weddings, or car or property purchases; and secondly, private small and medium enterprises (SMEs) seeking funds for working capital and business finance. The Chinese banking system has traditionally preferred lending to big players such as state-owned enterprises and public-owned enterprises, rather than such borrowers (Fong 2011; Chong et al. 2013; Wonglimpiyarat 2015). Prior to the emergence of online P2P lending platforms as alternative sources of financing, these borrowers generally relied on informal sources of financing such as family, friends and illegal credit entities, many of which charged borrowers exorbitant interest rates.

Online P2P lending websites offered accessible credit and loans for private individuals and SMEs, as compared to borrowing from the traditional banking channel. Thus, borrowers of online P2P lending platforms have tended to be those excluded by the state-dominated banks. SMEs may also find themselves excluded by smaller Chinese city banks because their loan size is too small for such banks to provide. For example, the

average loan size issued to SMEs by a comparatively small Chinese private bank such as Minsheng Bank was 52,000 yuan (US\$8125) in 2013, and a 1600 yuan (US\$250) short-term loan sought by an SME would be well below its threshold (People's Bank of China Institute of Finance 2015). On the other hand, this SME would be able to borrow such a small loan through the online P2P platforms. However, borrowers generally have to pay higher interest rates on loans obtained through online P2P lending than on loans from traditional banks because of these enterprises' lower credit standing. The average borrowing interest rate charged by online P2P lending platforms was about 18% in 2015 (Chen and Ye 2016) whereas the banks' rates are normally 8.34% for an SME with relatively good credit standing. However, not all SMEs are able to enjoy this seemingly lower borrowing interest rate from the banks. SMEs generally borrow from the banks at a variable interest rate higher than the benchmark interest rate by between 20% and 40% (Ba 2013). For example, if the benchmark interest is 5%, an SME may be borrowing at the variable rate of 6.5% (30% higher). The SME may also be required by the lending bank to engage a non-banking financial company as a guarantor for the loan, which commonly involves a payment of guarantor fee by the SME, ranging between 2% and 3% of the bank's loan interest rate (Wang 2016b). In addition, the same bank may also require the SME to lodge a security deposit, ranging between 10% and 20% of the loan value, in an escrow account, meaning that only 80% to 90% of the loans are actually accessible to the SME while it has to pay interest on the entire loan amount (Ba 2013; Li and Zhong 2014; Xu 2015; Wang 2016c). These requirements increase the borrowing costs for the SME, possibly to an amount equivalent to the borrowing rate charged by online P2P lending platforms (Xinhuanet 2014). Indeed, the aggregate borrowing cost for a bank loan could be even higher in situations if the financial guarantee company charges additional fees such as loan consultation fees and/or loan assessment fees.

Hence, online P2P lending platforms may turn out to be a less costly alternative source of financing for borrowers who need a short-term loan but do not have the creditworthiness to borrow from banks. Borrowing through an online platform may be cheaper than loans taken from other private lending channels which charge an average interest rate of around

23%. However, borrowers from online P2P lending platforms and other private lending sources still have to exercise vigilance in these shadow segments because online P2P lending platforms have been known to charge interest rates as high as 30%, and other private lending channels as high as 50%. Interest rates on P2P loans are not dictated by the credit standing of the borrowers, because of a lack of information on their credit history, but this is largely based on the duration of the loan. The problem of asymmetric information in these informal financial systems has resulted in online P2P platforms providing guarantee services to their investors by promising them a guaranteed rate of returns on the funds loaned via the platforms (Li et al. 2016).

Loans obtained by borrowers through these online P2P platforms are largely unsecured short-term loans, ranging from one day to three years, and generally do not require upfront collateral (Huang and Deng 2015; Li et al. 2016). SMEs are increasingly turning to online P2P lending platforms for working capital and business financing, not only because of the relative ease of access to credit or loans, but also because of the normally short processing time for loan approval (as short as one or two days) through this source of borrowing. SMEs have lamented the long processing periods involved in their application for a bank loan, which generally translates into high transaction cost of borrowing or opportunity cost for them. Banks have often taken two to three months to process a loan application from an SME and then ultimately rejected it, resulting in lost business opportunities for the applicant. Not surprisingly, such long processing times do not make the banks the priority source for these enterprises seeking funds.

On the other hand, the banks are also restricted by their yearly loan quotas, set for the purpose of ensuring that excessive credit is not created within the economy. A substantial proportion of these loan quotas traditionally has been allocated to the banks' preferred customers (state-owned and public-owned enterprises), leaving limited funds for loan extension to SMEs. The Chinese government and its regulator CBRC have long recognised that SMEs play an important role in China's economic growth and make a substantial contribution to employment and productivity. In 2015, there were more than 20 million registered SMEs in China, providing more than 80% of urban employment. These formal SMEs earned

64.5% of the total profit attained by all industrial enterprises and contributed 49.2% of fiscal and tax revenue (Ministry of Industry and Information Technology 2016). The Chinese government has also acknowledged that these SMEs continuously face bottlenecks and obstacles in seeking finances from the traditional banking channels. The government's persistent encouragement to its banks to increase the extension of loans to SMEs and the CBRC's explicit guidelines on banks' minimum loan size to SMEs have resulted in an annual increase of 14% in the number of SMEs successfully borrowing from banks in 2013. However, the proportion of this lending to SMEs in 2013 was only 22.5% of the aggregate loans for business financing in the banking system (CBRC 2013). Although this proportion increased to 24% in 2014 (PYMNTS 2015), banks have remained cautious in lending to SMEs.

The obstacles, bottlenecks and costs of obtaining a bank loan have kept SMEs away from the banks; a survey of SMEs in 2014 (China Household Finance Survey 2014) showed that 48.4% of SMEs already held the perception that they would not be successful in obtaining loans from the banks. Some of the main reasons given by SMEs for being pessimistic about obtaining loans were 'not familiar with credit or loan officer', 'no one is willing to be my loan guarantor', and 'unable to provide collateral for obtaining loan'.

Borrowers seeking funds through online P2P lending platforms can register online with them. Because online P2P borrowings are largely informal activities (although there are fully registered banks branching out with web-based, short-term lending services), these platforms do not have access to the central bank's credit information database (credit information bureau) to prudently assess the credit risk of potential borrowers. The platforms assess the borrowers' credit standings based on documents furnished by borrowers themselves rather than archived information from a central database or independent sources. The ratings used to assess the creditworthiness of potential borrowers are not the same as the ratings used by an external credit rating agency and also vary between different online P2P lending platforms in the industry. The credit assessment undertaken by a platform on a borrower and the requested loan amount are posted on the platform's website for lenders' bidding. Lenders are addressed as investors on many P2P lending websites and the lending

transactions are marketed as investment by these sites, some of which use free gifts and cash giveaways to further attract lenders. If there are competing bids from lenders for the same listed loan request on a platform, the bid with the lowest interest rate will be the winning bid and a loan contract is then established between the borrower and lender through the platform. If there is not enough bidding from lenders to reach the targeted loan amount within a prescribed time limit, the borrower fails in his or her request for a loan. Many platforms also adopt capital pooling, via which lenders may bid for part of the requested loan amount, resulting in a borrower's loan comprised of funds from several lenders, maybe even with varying terms of investment maturity, which requires prudent practices on the part of these platforms in managing liquidity and its risk. Liquidity shortages and mismanagement of liquidity positions can trigger the collapse of a highly leveraged platform.

### 2.4 Lenders (Investors) of Online P2P Lending Platforms

Lenders (investors) are attracted by the higher rates of return on investment promised by the online P2P lending platforms and also by the greater flexibility of pre-mature withdrawal of funds generally allowed by these platforms, as compared to banks. In addition, these lenders can invest as little as 50 yuan (US\$7.80) through these platforms, whereas banks' wealth management product generally requires a minimum investment amount of 50,000 yuan (Huang and Deng 2015). About twothirds of the online P2P lenders are small investors who invest less than 10,000 yuan (US\$1560) (Yingcanzixun and Wangdaizhijia 2015, 2016). Some lenders have even resorted to cash advances on their personal credit cards for online P2P lending, in order to accrue arbitrage profits (Guangzhou Daily 2015). Credit cards may require the balance to be repaid in full after a grace period of 30 to 50 days during which finance (including interest) charges do not accrue on purchases. Some credit cardholders seek to take advantage of this interest-free grace period by obtaining funding to invest in lending transactions of shorter or matching period durations at online P2P lending platform, thereby earning

high returns at zero borrowing interest rates during the grace period granted by their credit card issuing banks. The intended investment strategy of the cardholders is that when the short-term loan (made through the online P2P lending platform) is due, they will receive payment from their borrowers to pay off the amount advanced from the credit card within the grace period. However, the CBRC banking regulations stipulate that credit card borrowings must be solely for consumption purposes, not for production and investment (CBRC 2012). Because these cardholders have used third-party payment platforms (to avoid detection of unauthorised use of borrowings on their credit card) to transfer cash advances taken on their credit card to the online P2P lending platforms, it is difficult for credit card issuing banks and the banking regulator to monitor and identify credit card borrowings used for non-consumption purposes (in this case, lending to a borrower via online P2P platforms) because there is no distinct business classification code identifying online P2P lending platforms from other registered general businesses (Guangzhou Daily 2015, April 8). What these cardholders are looking for is a quick and easy return and they usually do not realise the high risks involved in such an investment strategy. Both parties to the online P2P borrowing and lending transactions might have poor quality standing as borrowers and lenders. If the borrower defaults on loan repayment, the investor (lender) will be left in the cold, having to pay the high-interest rate charged by the credit card company on the amount owed (Guangzhou Daily 2015, April 8). For example, the average interest rate on credit cards in 2015 was about 18% which is higher than the average interest rate of 13% investors expect to receive from investing through online P2P lending platforms if there is prompt payment and no foul play. This has repercussions on both the credit cardholders and the credit card issuing banks in the formal financial system. The risk could even be further intensified for lenders who unknowingly lend their money to online P2P websites that operate 'Ponzi schemes' in which funds obtained from new investors are used to pay off existing investors in a continuously growing, and ultimately unsustainable, pyramid type of structure. Ezubao, an online P2P lending website founded in 2014, was reportedly China's biggest Ponzi scheme operator (Xinhuanet 2016c). It had 207 physical outlets in China giving an impression of operating a genuine business and

generating a sense of trust among investors through its extensive physical business presence. The minimum investment amount accepted from lenders by Ezubao was as low as one yuan (about US\$0.16) with no restriction on early fund withdrawal. Its promised rates of investment returns to lenders were between 9% and 14.6% higher than the 2% rate of interest earned on bank deposits or the 6% earned on offline wealth management products (Bloomberg News 2015; Walker 2016). It also embarked on an aggressive advertising campaign to recruit investors. Unbeknownst to the 900,000 investors who took up more than 50 billion yuan (US\$7.8 billion) within a one-and-a-half year of the platform's establishment, senior management was pocketing lenders' money to fund an extravagant lifestyle instead of putting these funds into investment projects specified on the company's website as generating returns to the investors. Ninety-five per cent of investment projects posted by this platform were non-existent. Esudai is another online P2P platform being investigated by the Chinese government, following the Ezubao saga. This platform was founded in 2010 and allegedly raised about seven billion yuan (US\$1.09 billion) from 330,000 investors. On 3 August, 2016, the local police department in Huizhou, Guangdong Province, announced it had arrested the founder for illegal business operation, unlawfully accepting deposits of 26 million yuan (US\$4 million) from the public and making an illicit gain of four million yuan between January 2014 and May 2016 (Yan 2016).

### 2.5 Problem Platforms

The unreined and rapid proliferation of online P2P lending platforms due to the absence of market entrance thresholds, regulations and regulatory oversight has primarily resulted in three types of problem platforms: fraudsters using online P2P lending platforms to fleece investors of their money, errant individuals or businesses establishing online P2P lending platforms to source funds for internal financing, and genuine online P2P lending platforms that are simply inexperienced in risk management and liquidity management. These problem platforms under financial stress or engaged in fraudulent practices are becoming a significant threat to the

development of this fledgling industry. The banking regulator, CBRC, raised its concerns over the potential risk posed by wayward and failed online P2P lending platforms in its notice issued on 16 September, 2011, to financial institutions under its jurisdiction (banking regulatory bureaus, policy banks, state-owned banks, joint-stock commercial bank and postal saving banks). It cautioned them to take precautionary measures and implement risk management strategies to prevent P2P lending risk from spreading into the formal banking sector (CBRC 2011). In this notice, the banking regulator attributed the ease of P2P lending platforms engaging in illegal financial activities such as unauthorised acceptance of savings from the public, granting of loans and illegal fundraising activities to the low market entrance threshold and the lack of sound external supervision. It highlighted the lack of clarity surrounding online P2P lending platforms' identity and role, and their jurisdictional framework. In addition, it called attention to the business risk associated with P2P lending, citing the weak IT security setup of P2P lending platforms and their inability to access a reliable credit information system for risk management and control. It also cautioned that wayward P2P lending platforms can inflict harm onto society and the formal banking system through criminal activities such as deception and money laundering, and the misrepresentation of their partnership alliances with sanctioned banking institutions. Furthermore, it stressed the high credit risk and low loan quality associated with the P2P lending business model, based on evidence from foreign countries. Lastly, the CBRC alerted its financial institutions to the potential risk of P2P lending inflating property prices. In retrospect, the CBRC's notice can be seen as a premonition of forthcoming trouble associated with problem platforms in the online P2P lending industry.

Along with the rapid growth of online P2P lending platforms between 2012 and 2015, the number of problem platforms and failed platforms naturally increased over the subsequent period. It has been reported that the average business lifespan of problem platforms are about eight months (Xinhuanet 2016c). A survey conducted in February 2016 by Lingyi Research Institute (Lingyi 2016) found that 30% of these problematic platforms had a business lifespan of less than 100 days, at least 50% of them less than 300 days and 20% more than a year. In addition, a major-

ity of problem platforms were of small to medium size. Forty-nine per cent of the problem platforms had registered capital of less than ten million yuan (US\$1.6 million) and 84% had less than 50 million yuan (US\$7.8 million) (Xinhuanet 2016d). Although the number of new online P2P lending platforms in the first half of 2016 shows a decline (due to the active introduction by the government in 2016 of regulations and guidelines for tighter supervision), the percentage of problem platforms identified during this six-month period is already more than half of what occurred throughout 2015.

According to Yingcanzixun and Wangdaizhijia (2015, 2016), there were several reasons for failed platforms:

- business closure or demise/bankruptcy of the platform (8% of total number of platforms in 2014, 15% in 2015 and 43% in the period between January and February 2016);
- difficulty in withdrawing funds at prematurity or maturity (44% of total number of platforms in 2014, 29% in 2015 and 14% of firms in the period between January and February 2016 were exposed to these problems);
- management or staff absconding with investors' funds (46% of total number of platforms in 2014, 55% in 2015 and 42% in the period between January and February 2016 had these problems).

Figure 2.2 shows the average losses suffered by an investor who had been exposed to problem platforms in 2014, 2015 and the first two months of 2016. The average loss per investor as a result of problem platforms was about 91,818 yuan in 2014, 49,213 yuan in 2015 and 25,938 yuan between January and February 2016 (Ma 2016), respectively. The total losses caused by these failed platforms constituted about 5% of the aggregate loan amount brokered through online P2P lending platforms in 2014 and 3% in 2015. The percentage of investors who suffered losses as a result of these platforms was about 5% of total investors in online P2P lending platforms in 2014 and 2% in 2015 (Ma 2016).

Figure 2.3 shows that the number of lenders (investors) and borrowers has quadrupled in growth every year since 2013 at an average ratio of two lenders for every borrower. Despite this growth, the average amount of

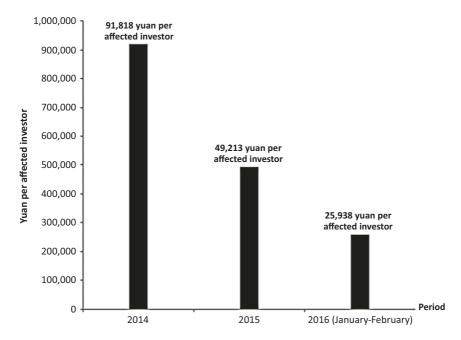
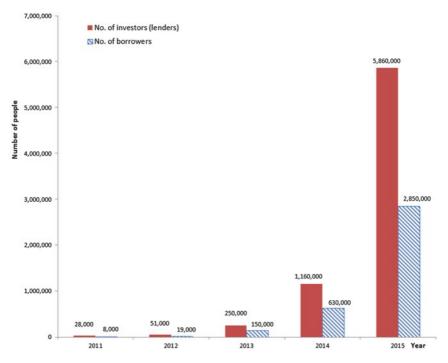


Fig. 2.2 Average amount of loss (in yuan) suffered by each affected investor of failed online P2P lending platforms. (Source: Ma (2016))

loan per investor (transacted through the online P2P lending platform) decreased annually by about 50% and 23% in 2014 and 2015 respectively suggesting either that investors have become more cautious and are lending less or that investors with less private savings are turning to these platforms for higher rates of return on investment. Correspondingly, the amount of loan per borrower has also decreased annually by about 43% and 15% in 2014 and 2015, respectively. Although there has been a decrease in lending and borrowing amounts over online P2P lending platforms, as well as a decrease in average loss per investor suffered in 2015 compared to 2014, the average loss suffered per investor in the first two months of 2016 was 25,938 yuan, already about 53% of the average amount suffered by each investor in the whole of 2015. The magnitude of this loss is largely attributed to the demise of Ezubao, China's biggest online P2P lending platform. As there is no official information on the actual extent of loan default and bad debts accumulated within this



**Fig. 2.3** Number of investors (lenders) and borrowers of online P2P lending platforms between 2011 and 2015. (Source: www.yingcanzixun.com and www.wdzj.com)

shadow industry, because the online P2P lending platforms, unlike registered financial institutions are not obligated to disclose any business information or performance figures (Lingyi 2016), the number of affected investors and their average losses may become higher as more platforms collapse or as more problem platforms are uncovered.

In terms of investors recovering their investment funds through the legal process, it has been observed that only 2% of such cases pursued through China's court system succeeded in getting a full restitution of the investment amount (Economic Information Daily 2016). Eighty per cent of the affected investors were unsuccessful in getting any form of restitution through the courts and suffered total losses. Those who were awarded partial restitution were generally able to claw back less than 40% of their investment (Economic Information Daily 2016). The risk of

investing through online P2P lending platforms appears to be inordinately high.

## 2.6 Financial Literacy of the Investors (Lenders)

A global survey on financial literacy across 148 countries conducted by Standard & Poor's Rating Services in 2014 found that only 28% of adults in China are financially literate (Klapper et al. 2015). This means that approximately one in four adults possess an understanding of basic financial concepts, while three in four do not. Individuals lacking in financial literacy skills can incur high debt, illiquidity, bankruptcy and mortgage defaults which can become a significant burden and potentially a financial disaster to their livelihoods (Klapper et al. 2015). In the Chinese online P2P lending segment, borrowers with low creditworthiness and low financial literacy pose a big risk to investors (lenders) in the absence of a reliable credit information system that is capable of detecting such borrowers. Lenders may also be unaware that their investment is being handled by inexperienced management because their investment platforms either did not provide this important background information or falsified it on their websites. Reportedly only 23% of the problem platforms in 2016 revealed information about their founders, and a majority did not have a finance background (Xinhuanet 2016d).

A borrower can also obtain loans from multiple standalone platforms without being detected, as these platforms do not share information with one another. The investors (lenders) of online P2P lending platforms, on the other hand, are generally blinded by the high rates of return promised by the online P2P lending platforms and their ignorance of the high risk associated with such platforms and types of borrowers within this informal financial system. These investors tend to employ a herd-mentality investment strategy, in which individuals mimic the actions (rational or irrational) of a large group, even though many of these platforms do not have financially sound business models. The company operating the online P2P lending platform does not lend its own money and the entire lending risk is shifted to the investors. In addition, many online P2P

lending platforms breached the laws by providing false guarantees of investment yields and/or misrepresenting the risk to their investors. Investing in P2P lending platforms is likened to walking on a landmine, as investors with low financial literacy may unwittingly invest in fraudulent or problematic platforms.

## 2.7 Initiatives and Precautions for Self-regulation

In the absence of a sound regulatory and legislative framework to protect investors of online P2P lending platforms, a number of professional peak bodies have taken the initiative in establishing self-regulatory measures for the industry (Dong 2016) since 2013. They include the China Guarantee Association, the China Association of Microfinance and the Shanghai Online Lending Industry Enterprises Alliance (Huang and Deng 2015). In addition, initiatives have been undertaken at the local government level to prevent unsound practices and illegal activity in the industry (Huaxia 2016). For example, the registration of Internet-based finance platforms has been halted in Shenzhen and Shanghai, and Beijing's local authorities have also suspended the registration of 'investment' businesses ahead of further scrutiny. In Chongqing, a public notice was issued designed to minimise the risk associated with standalone online lending, particularly focusing on online P2P lending and investment. There has also been much online discussion among observers and commentators on how to identify existing or potential problem platforms. There have even been suggestions that platforms promising above 18% investment returns are likely to be problem platforms (http://bbs. wdzj.com/thread-841765-1-1.html; http://www.p2peye.com/thread-806644-1-1.html). Observers and commentators have identified the following characteristics as indicators of existing or potential problem platforms (Huaxia 2016; Xinhuanet 2016d):

#### Platform website

A problem online P2P platforms tend to have is poor attention to detail and presentation, such as texts peppered with inconsistencies,

errors in expressions and poor command of Chinese language, which serve as a warning signal that the platform lacks professionalism and credibility and is potentially a problem platform. In addition, problem platforms generally lack clarity and transparency in the information on their webpage. Founders and senior company executives in smart business suits or attire may be featured on a platform's website, but little or no information is provided on the background of these individuals. Even if there is information provided on their work experience or education, it would bring into question their financial ability and experience. Information and announcements posted on these platforms' websites are often fake or misleading, such as fictitious contact details or guarantees to investors of investment returns, which is in breach of regulations.

### • Unusual behaviour of platform

Problem platforms may be making relentless requests to investors for short-term lending and/or accepting small investments. Alternatively, they may stop requesting investments for a long period of time citing platform re-structuring as the reason for their inactivity. There may also be a sudden huge hike in investment yield or the promise of expensive gifts to entice lenders.

### · High number of defaults on repayment of loans

Another sign of a problem platform is a long delay in honouring cash withdrawal (the average time for a cash withdrawal transaction through a healthy platform is two days) or pre-mature redemption of investment on loans that the online P2P lending platform helped facilitate.

Although the above indicators are offered with the laudable aim of cautioning investors, they are insufficient in themselves for the purpose of self-regulation within the fledgling online P2P lending industry in a country whose population has a low financial literacy rate. The well-meaning intention behind these suggestions can be counterproductive if genuine online P2P lending platforms are unfairly shunned by investors, or if overly cautious investors press for the withdrawal of their funds at the slightest hint of negative rumours. Such scenarios can lead to more platform collapse, thereby generating further instability in this informal financial system.

### 2.8 Laws and Regulations

The online P2P lending industry has functioned with little or no effective formal or explicit regulation for approximately nine years since 2007, and without a formally appointed regulator until 18 July, 2015. The rapid growth of the online P2P industry has certainly not been matched by the speed in the development of an overarching national regulatory framework and the appointment of a prudential regulatory body for the industry. Zhang (2015) and Jingu (2016) attributed the lag in this development to financial regulators' need for more time to observe and understand the characteristics of this new mode of financing before promulgating an effective solution. On the other hand, Li et al. (2016) ascribe the delay in identifying a formal regulator to 'regulatory aversion' (p. 170) in that no one institution is seriously committed to cleaning up the distortion and disorder in the industry.

Nevertheless, the Chinese government does face a huge challenge in drafting rules to regulate online P2P lending. It does not want new laws to stifle the growth of this industry because of its importance as a source of financing to SMEs. In the UK, online P2P lending has become an alternative source of financing for SMEs (Milne and Parboteeah 2016), and it is seen as important for China to emulate this development, because P2P lenders are almost the only financial entity still willing to lend to SMEs in China. However, money borrowed through online P2P lending platform has been associated with shares and property speculation and investment in Chinese markets. A worrying trend has emerged, whereby people who have been unsuccessful in borrowing from traditional banks due to a lack of creditworthiness are turning to these platforms for the down payments on their homes and investment purchases. Online P2P lending platforms have been blamed for contributing to the stock market crash in 2015 and inflated housing prices over the years in major cities such as Beijing and Shanghai (Luo and Ganguly 2015; Walker 2016). Unrestricted debt-fuelled trading and an informal financial system that embraces unqualified borrowers can generate excessive credit and instability, with unmitigated negative spillover effects onto the formal financial and economic systems. The opacity of online P2P financial transactions

constitutes a major concern to the regulator of the formal banking system as P2P platforms are entities of the country's shadow banking system and do not register with local financial regulators. Therefore, they are not subjected to disclosure requirements on borrowers' information or rate of loan repayment default, which can be a breeding ground for bad debts and financial criminal activities (The Sydney Morning Herald 2015; People's Bank of China Institute of Finance 2015). The lack of a credible, systemic credit-sharing information system on the credit history of individuals and enterprises may further exacerbate the situation, as one can simultaneously and covertly borrow from different online P2P lending platforms.

The 'Guiding opinion on promoting the healthy development of Internet banking' jointly developed by ten high-level Chinese state authorities (including the central bank, regulators and supervisory bodies) was formally released on 18 July, 2015 (The People's Bank of China 2015). This document contains relatively comprehensive guidelines outlining clearer legal parameters that had been opaque in the past for the online P2P lending industry. It serves as a guide for developing detailed regulatory rules to be implemented in the future. In this document, the CBRC has been formally identified as the regulator of the online P2P lending platforms and responsible for establishing regulations for this industry. It explicitly specifies that online P2P lending platforms are simply information intermediaries and must not provide guarantee services nor engage in capital pooling. It also identifies the need for cooperation between traditional financial institutions and online lending companies in the establishment of information infrastructure, such as big data and credit information systems. The traditional banks are particularly cautious in dealing with small- and medium-lending platforms, a reflection of their traditional stance towards SMEs. These banks are likely to be more resistant to cooperating with standalone small and medium online P2P lending platforms which are not affiliated to their organisations. This resistance is reflected in the difficulty of small and medium platforms trying to fulfil one of the guidelines in the 'Guiding opinion on promoting the healthy development of Internet banking' which requires P2P platforms to appoint registered financial institutions as their fund custodian in which borrower and lender funds must be held in custodial

accounts. According to estimates by Yingcan in July 2016, only 2% of the 2400 operating online P2P platforms in the industry have actually abided by this guideline and formally linked up with banks as their fund custodian (Internet Finance 2016). One reason why P2P platforms have been slow in linking up with banks as their fund custodians was that the traditional big banks prefer to deal with large creditworthy P2P platforms. Small- and medium-sized platforms have to turn to the smaller financial institutions such as joint-stock banks and city commercial banks (largely originated from urban credit cooperatives) to set up this required business process. The findings of Chong, Lu and Ongena's (2013) study on the effect of different types of Chinese bank on credit constraints faced by SMEs suggest that city commercial banks and joint-stock banks are more oriented towards supporting SMEs than are the large traditional banks. However, appointing banks as fund custodians for online P2P lending businesses may serve to provide transparency in the flow of funds but does not guarantee the safety of investors' outlay. For example, a problem platform by the name of 'ahfex.com' (aka Hui Jing Suo) was charged for illegally accepting deposits from the public even though it had appointed Huishang Bank, a city commercial bank, to be its fund custodian (Zhong Jing She 2016).

Following the release of the 'Guiding opinion on promoting the healthy development of Internet banking' document that provides clarity on the identity and role of online eP2P lending platforms and designates a specific regulator for this industry, further new laws and regulations are emerging. The officially appointed regulator, CBRC, is currently establishing detailed regulations pertaining to the registration of P2P lending companies, third-party depositories and the management of P2P clients' money, as well as mandating product information registration and disclosure protocols. In August 2016, it released its rules for online lending intermediaries with explicit reference to P2P lending platforms, thus providing further clarity on their role (CBRC 2016). These rules generally align with the legal parameters set in guidelines released on 18 July, 2015. Online P2P lending platforms are banned from offering insurance, wealth management and other high-return, alternative-investment products and must limit themselves to online matchmaking services between lenders and borrowers. They are also prohibited from activities associated with providing guarantees for any loan that they facilitate, pooling investors' money to build their own capital reserve for in-house projects, and taking deposits or raising funds from the public. Loan limits are also established to prevent individuals from relentless borrowing through multiple standalone lending platforms. The rules stipulate that an individual can borrow a maximum of 200,000 yuan (US\$31,250) through any one P2P lending platform, and no more than an aggregate of 1 million yuan (US\$156,250) from different platforms. The limit for corporate borrowers is five times that imposed on individuals, namely 1 million yuan through a single platform, and 5 million yuan in aggregate from different platforms. Though the new regulations took effect immediately, CBRC allowed a grace period of 12 months for the platforms to adjust their practices.

In line with the CBRC's new rules, new legislation was also issued by The Supreme People's Court of the People's Republic of China to provide clearer constraints on P2P lending platforms' loan interest rates. In 1991, a Supreme People's Court of the People's Republic of China ruling permitted private lenders to issue loans at an interest rate higher than the banks' but not exceeding four times the interbank rate. Otherwise, the private lenders would not be able to pursue restitution from a defaulting borrower through the court for repayment of the portion of accrual interest above that limit (Huang and Deng 2015). This legislation was superseded in 2016 when the Supreme People's Court of the People's Republic of China explicitly identified the limit on loan interest rates as a percentage in a new law. Under the new law, the court will support lenders in pursuing repayment of loan capital and interest from default borrowers if the annual interest rate on the loan is below 24%. For annual loan interest rates exceeding 36%, the portion of this interest rate in excess of 36% is considered contractually ineffective by the court and borrowers may be able to pursue its reimbursement from the lender through the court.

The Chinese online P2P lending industry is entering a new era in 2016; the Chinese government wants stringent requirements and laws to be enacted and tight regulations and supervision to be enforced. The aim is to establish order in this industry before it is too late, particularly in purging illegal or errant platforms, or deterring such platforms from entering the industry. The industry is expected to experience an exodus of

unsustainable platforms as their business scope becomes narrower under the new rulings. By explicitly confining online P2P lending platforms to an intermediary role, this new regime will force the exit of platforms which are unable to cover their business costs and expenditure from revenue earned on intermediary services. The need to ensure continuing stability in the country's financial system and the healthy development of an alternative financing source for SMEs constitute significant impetus for cleaning up wayward and non-performing platforms. Additionally, concerted efforts, particularly from the Chinese government, are also crucial for establishing a sound framework and infrastructure that maintains and improves market integrity, including a comprehensive credit information system, shared by all financial institutions and entities, to enhance risk management and control, and a strong cooperation between online P2P lending businesses and financial institutions regardless of their respective sizes.

#### 2.9 Conclusion

China's fortuitous opportunity to leapfrog technology has created the pathway to adopt innovative business models and new digital intermediaries. A financial innovation, enabled by information technology, has spawned a new financial segment in this emerging market economy, and also offers an alternative method of borrowing money or financing for individuals and SMEs. However, the Chinese online P2P lending industry has operated in the shadow of the formal financial system with little or no effective formal or explicit regulation for approximately nine years since its emergence in 2007. The absence of market entrance thresholds, sound regulations and regulatory oversight has resulted in the growth of unruly online P2P lending and high loan repayment delinquencies, generating high risk in this shadow industry with potential spillover effect onto the formal financial system. In addition, the absence of a reliable credit information system for detecting participants of low creditworthiness and unreined borrowing behaviour can aggravate the risk in the fledgling online P2P lending industry.

In July 2015, concerted efforts were made by high-level Chinese state authorities to produce a clearer legal ambit for online P2P lending and the industry, setting out directions and guidelines for the development and enactment of new laws and regulations to ensure the healthy development of this new financial segment. Besides new laws and regulations that provide clarity for the industry, government support and cooperation among financial institutions and entities are important elements in building a reliable and secure infrastructure that is crucial for managing and controlling risk. China's online P2P lending platforms are not expected to replace traditional banking channels, but are financial intermediaries with a promising potential in addressing the financing vacuum long faced by SMEs. Moving the online P2P lending industry segment out of the shadows and making it more transparent is of crucial importance for nurturing an alternative financing source for SMEs and for promoting general economic development.

#### Reference

- Ba, S. S. (2013). Report on small and micro business financing: Chinese experience and Asian paths. Retrieved August 28, 2016 from http://www.chinamfi.net/kindeditor/attached/file/20141214/20141214164036\_5827.pdf
- Barreto, E. (2016, June 3). China needs to regulate online P2P lending quickly to protect sector: P2P CEO. Retrieved August 25, 2016 from http://www.reuters.com/article/us-china-ppdai-idUSKCN0YP1EK
- Bloomberg News. (2014, November 27). Going online to borrow down payments in China. Retrieved April 1, 2016 from http://www.bloomberg.com/news/articles/2014-11-26/big-in-china-online-loans-for-mortgage-down-payments
- Bloomberg News. (2015, July 1), Some Chinese are taking 22% margin loans to finance stock purchases. Retrieved April 1, 2016 from http://www.bloomberg.com/news/articles/2015-06-30/hidden-china-stock-debt-revealed-in-online-loans-at-22-interest
- Chen, L., & Ye, D. Z. (2016). China P2P network loan interest rate movement research. *International Finance Research*, 1, 83–96.
- China Banking Regulatory Commission. (1999). Circular on Issues Relevant to the Prohibition of Illegal Financial Institutions and Illegal Financial Operations [1999, No. 41].

- China Banking Regulatory Commission. (2011). Notice of the General Office of the China Banking Regulatory Commission on Risk Associated with P2P [2011, no. 254].
- China Banking Regulatory Commission. (2012). Circular on Issues Relevant to the Credit Card Business of Commercial Banks [2012, no. 60].
- China Banking Regulatory Commission. (2013). The CBRC issued guidelines on further enhancing financial services for small- and micro-sized enterprises. Retrieved August 28, 2016 from http://www.cbrc.gov.cn/EngdocView.do?do cID=FDA6DF57EFF74AE0989FE303C4186FAF
- China Banking Regulatory Commission. (2016). Interim measures for the management of online lending information intermediaries' activities [2016, no. 1].
- China Household Finance Survey. (2014). SMEs development report 2014. Retrieved August 28, 2016 from http://chfs.swufe.edu.cn/Areas/Admin/Scripts/ueditor/net/upload/file/20150310/6356159216708841294583469. pdf
- China Internet Network Information Center. (2016). Statistical report on internet development (January 2016). Retrieved October 22, 2016 from http://cnnic.com.cn/IDR/ReportDownloads/201604/P020160419390562421055.pdf
- Chong, T. T., Lu, L., & Ongena, S. (2013). Does banking competition alleviate or worsen credit constraints faced by small-and medium-sized enterprises? Evidence from China. *Journal of Banking & Finance*, 37(9), 3412–3424.
- Deer, L., Mi, J., & Yu, Y. (2015). The rise of the peer-to-peer lending in China: An overview and survey case study. The Association of Chartered Certified Accountants (ACCA). Retrieved August 28, 2016 from http://www.acca-global.com/content/dam/ACCA\_Global/Technical/manage/ea-china-p2p-lending.pdf
- Dong, X. M. (2016). *Internet financial risks and coping strategies analysis report*. Beijing: China Financial Publishing House.
- Economic Information Daily. (2016, March 11). Problem P2P platform on the increase: Investor's rights remains difficult. Retrieved October 13, 2016 from http://www.chinanews.com/fortune/2016/03-11/7792617.shtml
- Fong, M. (2011). Chinese SMEs and information technology adoption. *Issues in Informing Science and Information Technology*, 8, 313–322.
- Guangzhou Daily. (2015, April 8). Difficulty in curbing cash advance on credit card due to non-specific regulatory focus. Retrieved April 10, 2016 from http://finance.ce.cn/rolling/201504/08/t20150408\_5042328.shtml
- Huang, Z., & Deng, J. P. (2015). *P2P internet loan situation: Trends, supervision, case studies*. Beijing: China Economic Publishing House.

- Huaxia. (2016). 2015 problematic online loan platforms exceeding 896 in number. Four viewpoints in recognising absconding P2P. Retrieved April 17, 2016 from http://www.huaxia.com/tslj/flsj/jr/2016/02/4714825\_4.html
- Internet Finance. (2016, July 22). Of 2400 P2P platforms only 48 deposit funds into bank. Retrieved September 30, 2016 from http://fintech.xinhua08.com/a/20160722/1651113.shtml?f=arelated
- Jing, M. (2014, July 3). China's rural areas outpace cities in online. *Chinadaily*. Retrieved August 4, 2016 from http://europe.chinadaily.com.cn/business/2014-07/03/content 17640209.htm
- Jingu, T. (2016). Peer-to-peer lending on the rise in China: Developing regulations and infrastructure. Retrieved October 14, 2016 from http://china.ahk.de/gc-ticker/magazine/sharing-economy/gc-ticker-20161-cs4/
- Klapper, L., Lusardi, A. & van Oudheusden, P. (2015). Financial literacy around the world: Insights from the standard & poor's ratings services global financial literacy survey. Retrieved September 2, 2016 from http://gflec.org/wpcontent/uploads/2015/11/Finlit\_paper\_16\_F2\_singles.pdf
- Larson, C. (2014, February 14). E-Commerce gives a lift to China's rural farmers. Retrieved March 28, 2016 from http://www.bloomberg.com/news/articles/2014-02-13/e-commerce-gives-a-lift-to-chinas-rural-farmers
- Li, B., & Zhong, Q. S. (2014, October 10). Annual premium of 3,000,000 yuan on loan insurance for private enterprise boss. Retrieved October 2, 2016 from http://dz.jjckb.cn/www/pages/webpage2009/html/2014-10/10/content 96445.htm?div=-1
- Li, J., Hsu, S., Chen, Z., & Chen, Y. (2016). Risks of P2P lending platforms in China: Modeling failure using a Cox Hazard model. *The Chinese Economy*, 49, 161–172.
- Lingyi Research Institute. (2016). *China P2P lending service industry development report 2016*. Beijing: China Economic Publishing House.
- Lui, W. (2016, April 8). Half of farmers not interested in migrating to urban areas. Retrieved July 29, 2016 from http://www.chinadaily.com.cn/china/2016-04/08/content\_24386404.htm
- Luo, J., & Ganguly, R. (2015, July 19). China tightens grip on online lenders after stock plunge. *AFR Weekend*. Retrieved September 25, 2016 from: http://www.afr.com/markets/equity-markets/china-tightens-grip-on-online-lenders-after-stocks-plunge-20150718-gifia9
- Ma, C. (2016, January 13). Summary of problem P2P lending platforms. Retrieved on 2016 March 28 from http://www.wdzj.com
- Milne, A., & Parboteeah, P. (2016). *The business models and economics of peer-to-peer lending*. No. 17/May. Belgium: European Credit Research Institute

- (ECRI). Retrieved September 25, 2016 from https://www.ceps.eu/system/files/ECRI%20RR17%20P2P%20Lending.pdf
- Ministry of Industry and Information Technology. (2016, June 28). Ministry of industry and information technology on the issuance of SME Development Plan (2016–2020 years) notification. Ministry Regulation No. 223 [2016]. Retrieved September 30, 2016 from http://www.miit.gov.cn/n1146290/n4388791/c5081157/content.html
- People's Bank of China Institute of Finance. (2015). *New financial era*. Beijing: China CITIC Press.
- PYMNTS. (2015, March 9). China tell its banks to up SME lending. Retrieved August 28, 2016 from http://www.pymnts.com/news/b2b-payments/2015/china-tells-its-banks-to-up-sme-lending/
- Sheng, A., & Ng, C. S. (2016). Shadow banking in China: An opportunity for financial reform. Hoboken: Wiley.
- The People's Bank of China. (2015, July 18). 'Guiding opinion on promoting the healthy development of Internet banking' Order [2015] No. 221 of the People's Bank of China. Retrieved September 30, 2016 from http://www.pbc.gov.cn/goutongjiaoliu/113456/113469/2813898/index.html
- The State Council of the People's Republic of China. (1998). Measures for Clamping Down Illegal Financial Institutions and Illegal Financial Activities [1998, No. 247].
- The Supreme People's Court of the People's Republic of China. (2010). Interpretation on the Specific Application of Laws in the Trial of Criminal Cases of Illegal Fundraising [2010, No. 18].
- The Syndey Morning Herald. (2015, December 30). China's banking regulator cracks down on online payment and P2P lending firms. Retrieved September 25, 2016 from http://www.smh.com.au/business/chinas-banking-regulator-cracks-down-on-online-payment-and-p2p-lending-firms-20151229-gl-wa6w.html
- Twenty-first Century Business Herald. (2015, July 30). P2P connected to the central bank credit system to prevent "multi-loan" NFCS was resisted by a portion of enterprises. Retrieved October 7, 2016 from http://finance.ifeng. com/a/20140730/12825682 0.shtml
- Walker, B. (2016, April 20). China begins crackdown on P2P lenders by banning loans for down payments. Retrieved August 28, 2016 from http://www.nasdaq.com/article/china-begins-crackdown-on-p2p-lenders-by-banning-loans-for-down-payments-cm608792
- Wang, J. (2015, July 7). China's nascent P2P lending industry finds itself under assault by hackers. *Global Times*. Retrieved on October 6, 2016 from http://www.globaltimes.cn/content/930807.shtml

- Wang, S. C. (2016a). July increase of sixty-two P2P problem platforms: Internet finance has started "elimination race". Retrieved September 30, 2016 from http://fintech.xinhua08.com/a/20160718/1650428.shtml
- Wang, S. Y. (2016b, July 28). P2B online lending risks and countermeasures. Retrieved August 25, 2016 from http://theory.people.com.cn/n1/2016/0728/c83865-28591662-2.html
- Wang, Y. D. (2016c, May 19). Small loan guarantee insurance business development research. *Financial Economics*. Retrieved August 28, 2016 from http://202.119.108.161:93/modules/showContent.aspx?title=&Word=&DocGUID=f5e681825a884b84a25a83a3c3f9ea4a
- Wang, W., & Shi, X. (2016, March 4). Rural villages prosper from e-commerce boom. *China Daily*, pp. 5.
- Wangdaizhongxin. (2014, May 12). Revelation on the causes of network loan platform risk. Retrieved October 2, 2016 from http://www.wdzx.com/article-4149-1.html
- Wonglimpiyarat, J. (2015). Challenges of SMEs innovation and entrepreneurial financing. World Journal of Entrepreneurship, Management and Sustainable Development, 11(4), 295–311.
- Woo, R. (2015, Feb 12). Chinese mobile data usage to make great leap forward. Retrieved March 30, 2016 from http://www.reuters.com/article/us-chinatelecomunications-data-idUSKBN0LG0AL20150212
- Xinhuanet. (2014, October 10). Loan and insurance premium: A private enterprise boss 3 million insurance per year. Retrieved August 28, 2016 from http://news.xinhuanet.com/fortune/2014-10/10/c\_1112756875.htm
- Xinhuanet. (2016a, March 7). China Focus: Rural e-commerce helps farmers save during spring planting. Retrieved on March 28, 2016 from http://news.xinhuanet.com/english/2016-03/07/c\_135163963.htm
- Xinhuanet. (2016b, February 18). Alibaba expands e-commerce in rural China under government support. Retrieved March 28, 2016 from http://news.xinhuanet.com/english/2016-02/18/c\_135107411.htm
- Xinhuanet. (2016c, January 31). Ezubao: Fact-finding of illegal fund-raising case. Retrieved August 28, 2016 from http://news.xinhuanet.com/fortune/2016-01/31/c\_1117948306.htm
- Xinhuanet. (2016d, July 11). Some phenomena and suggestions of China P2P platforms. Retrieved October 2, 2016 from http://news.xinhuanet.com/finance/2016-07/11/c 129134957.htm
- Xu, L. J. (2015). Suggestions for science and technology SME. *Science and Technology Daily.* Retrieved August 28, 2016 from http://digitalpaper.stdaily.com/http\_www.kjrb.com/kjrb/html/2015-04/05/content\_298905. htm?div=-1

- Yan, J. (2016, August 4). Esudai shareholder arrested on suspicion of illegal fund-raising. Retrieved August 28, 2016 from http://news.xinhuanet.com/fortune/2016-08/04/c 129204168.htm
- Yingcanzixun and Wangdaizhijia. (2015). China internet lending industry 2014 report. Retrieved 2 April, 2016 from http://www.wdzj.com/
- Yingcanzixun and Wangdaizhijia. (2016). China internet lending industry 2015 report. Retrieved 2 April, 2016 from http://www.wdzj.com
- Yue, P. Y. (2015, August 31). Number of platforms with registered capital of not less than 50 million yuan: Less than 10 percent. Retrieved October 20, 2016 from http://www.wdzj.com/news/hangye/22747.html
- Zhang, E. (2015, April 26). Peer-to-peer lending friend or foe? Retrieved April 1, 2016 from http://www.telegraph.co.uk/sponsored/china-watch/business/11563107/peer-to-peer-lending-china.html
- Zhong Jing She. (2016, March 26). P2P Hui Jing Suo in alleged illegal fund-raising of more than 10 million: Responsible parties arrested. Retrieved September 30, 2016 from http://www.cngold.com.cn/zjs/20160326d1897n66388185.html