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# Too Much Technology and Too Little Regulation? The Spectacular Demise of P2P Lending in China

<https://doi.org/10.1515/ael-2021-0056>

Published online November 9, 2021

**Abstract:** In this paper we trace the rapid growth and spectacular demise of on-line peer to peer lending in China. Drawing on a series of interviews conducted in China in 2017 and 2018, we follow the expansion of the sector from the establishment of the first major platform in 2007, through the introduction of limited regulation in 2015 in response to a series of platform failures to the final *de facto* closure of the whole sector by the regulator in 2019–20. However, contrary to claims that technology would reduce risk, the new platforms appear to have given rise to new risks by connecting dispersed borrowers and lenders whilst the regulator had decided to leave the sector to evolve without specific regulation. While there were hopes that P2P lending might increase flows of finance to the SMEs that are excluded from the formal banking system, ultimately too much of the activity on the P2P platforms was characterised by what we term ‘transactional ambiguity’ and ‘legal fluidity’: it occurred on the fringes of legality, often amounting to Ponzi schemes, fraud or unlicensed banking activity. In contrast to the banking sector, where their intermediation role ensures that banks are the focal point in the event of borrower default, and conventional moneylending, where moneylenders bear the risk of default, defaults and platform failures in the P2P sector distributed losses far and wide around the country, often to lenders who were not capable of bearing them. Whilst the central government did not formally stand behind the P2P sector (as it does with banks because of the systemic implications of their operations), the government could not help but become involved where P2P lending transmitted losses to lenders who were dispersed around the whole country. Ultimately, central government announced a wholesale reversal of policy that led to the sector effectively being closed down. The episode cautions against overly

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optimistic claims that technology can eradicate the risks of fraud and fundamental uncertainty inherent in lending, and reminds us that, without appropriate regulation and adequate internal controls, financial institutions will always operate in ways that result in instability.

**Keywords:** fintech, P2P lending, China, informality, regulation

**JEL Codes:** G18 – government policy and regulation, K22 – corporation and securities law, K42 – illegal behavior and the enforcement of law

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## 1 Introduction

Since its first peer to peer (P2P) lending platform was established in 2006, China has been at the forefront of the fintech revolution. Its P2P lending sector was the largest in the world in absolute terms by 2013, and its dramatic expansion from 2014 to 2017 meant that its nearest rivals by volume, the United States and the United Kingdom, ‘followed at a distance’ (Claessens, Frost, Turner, & Zhu, 2018, pp. 34 & 41).<sup>1</sup>

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1 Fintech credit volumes (USD, millions) were as follows

	2013	2016
China	5547	240,905
United Kingdom	906	6068
United States	3757	32,414
World	10,555	283,529

Source: Claessens, Frost, Turner, & Zhu, 2018, p. 49).

These developments were welcomed by commentators who viewed P2P lending as a way of channelling finance to SMEs and others who were excluded from lending by the formal sector which, in the case of China, consisted mainly of state-owned national banks. At the same time, it was becoming clear that the rapid growth of P2P platforms was facilitated by the regulatory vacuum in which they were allowed to operate, with the Chinese regulator apparently unaware, even in 2015, of how P2P platforms were operating.<sup>2</sup> A hands-off approach was also motivated by central government policies on financial inclusion<sup>3</sup> and innovation.<sup>4</sup> This laissez-faire attitude created two major problems from a regulatory perspective. First it allowed features we describe below as ‘transactional ambiguity’ and ‘legal fluidity’ to develop, resulting in a dangerous lack of clarity about the forms of transactions, the parties to them, and their legal implications. Second, it gave rise to a series of ill-understood risks for social and financial stability. Ultimately, as we detail in this paper, P2P lending in China suffered a spectacular demise as regulators belatedly caught up with the practices of the platforms and decided that the risks far outweighed the benefits, with the sector almost completely shut down between 2019 and 2021.

Economic relations in China continue to be more ‘informal’ than those in the West, with widespread reliance on *guanxi* to provide the trust that underpins business relations.<sup>5</sup> However, China is relying increasingly heavily on law as its economy develops (Chen, Deakin, Siems, & Wang, 2017). This is not to say that the shift has been painless: as a still mostly informal commercial sector comes up against more formal rules of various kinds, tensions and difficulties are emerging (Chen & Deakin, 2020). P2P lending shared many of the characteristics of the

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<sup>2</sup> See part three below.

<sup>3</sup> In 2013, the Third Plenary Session of the 18th Central Committee of the Communist Party of China (CPC) explicitly announced the initiative to develop financial inclusion. On December 31, 2015, the State Council of China issued its *Plan for Advancing the Development of Financial Inclusion (2016–2020)*, <https://pubdocs.worldbank.org/en/335801453407732220/ENGLISH-Advancing-Financial-Inclusion-in-China-Five-Year-Plan-2016-2020.pdf>.

<sup>4</sup> In particular the ‘Internet Plus’ policy announced by Li Keqiang ‘China unveils “Internet Plus” action plan to fuel growth’, *China Daily*, 4th July 2015, [http://www.chinadaily.com.cn/business/tech/2015-07/04/content\\_21181256.htm](http://www.chinadaily.com.cn/business/tech/2015-07/04/content_21181256.htm).

<sup>5</sup> *Guanxi* (关系) is the term commonly used to describe personal connections between individuals in Chinese societies; those connections may be based on marital, kinship or friendship relations, but also on social relations. *Guanxi* may support business where formal legal and institutional frameworks are lacking, but the term normally ‘does not carry negative connotations’ (Xin & Pearce, 1996). For a fuller historical and theoretical overview of *guanxi*, highlighting its contribution to ‘predictable patterns of behavioural outcomes, purposive and non-purposive’, see Bian (2018).

country's historic informal and flexible financing modes,<sup>6</sup> and was in many ways an outgrowth and continuation of them. This continuity provided Chinese P2P lending with much of its dynamism. However, the greater distance between lenders and borrowers, which is a core feature of P2P throughout the world, combined with ambiguity about the responsibilities of the platform, exposed lenders to risks of fraud and opportunism, which became increasingly apparent during the final years before the sector was closed down.

Our study is based on fieldwork we carried out in China between April 2017 and December 2018. In the course of visits to Chinese cities at the centre of the fintech boom, including Hangzhou, Shenzhen, Wenzhou, Shanghai and Beijing, we were able to speak to professionals involved in the sector, from executives in fintech companies, through lawyers and officials of internet finance trade bodies, to individuals with experience in financial regulation. The interviews were conducted in Chinese and immediately transcribed into English, with a handful of exceptions where the translation occurred after the interview had ended when the notes were written up. All quotations included in this article are either direct or ex post translations from the Chinese.<sup>7</sup>

Our interviews took place after the end of the golden age of wholly unregulated P2P lending, but before the central government crackdown which occurred in late 2019. They provide a flavour of the belief that P2P would democratise finance, and that fintech was providing a technological lubricant to the frictions that inevitably exist in China's large and well-developed informal lending sector, in many cases complementing but not replacing it. But they also reveal a nuanced understanding on the part of those involved, in particular of the borderline illegal nature of much of the activity, with some fintech platforms operating as shadow banks and disguising the nature of risks being run by lenders. They also show awareness on the part of industry insiders that the use of opaque technology was creating risks that were difficult for anyone to understand.

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<sup>6</sup> For example, Chinese P2P often operated in conjunction with interpersonal trust of the traditional kind in the 'online to offline' model. This involved combining data analytics with interpersonal modes of credit evaluation including face to face meetings with borrowers and the use of peer to peer monitoring within local communities. See Section 2.1, below.

<sup>7</sup> The anonymised interview transcripts have been lodged with the UK Data Archive and may be consulted there. See S. Deakin, D. Chen, A. Johnston and B. Wang, *Informal finance in China 2017–2018* [Data Collection, 2020]. Colchester, Essex: UK Data Service. 10.5255/UKDA-SN-853742 (<https://reshare.ukdataservice.ac.uk/853742/>). In the text below, when we cite from one of the transcripts, we refer to the profession or employment of the interviewee, the location in which the interview took place, and the date (month/year). We also use the formal indicator used to identify the relevant transcript (e.g. 'IFC.1') in the UK Data Archive. A full list of the interviews is contained in the Data Appendix, which also sets out the questionnaire used to guide the interviews.

The story we tell suggests that regulation and oversight should co-evolve with financial innovation; once it falls behind, it becomes difficult for the regulator to keep up with developments on the ground, which in turn ultimately calls for a much more drastic regulatory response. In the case of P2P lending in China, the regulator ultimately took steps to, in effect, close much of the sector down, because it had become clear that it threatened to distribute losses in ways which might endanger financial, social and – in turn – political stability.

The story is shaped to a large degree by its Chinese context, both in terms of the widely accepted culture of providing informal finance to businesses and households where formal banks are lacking, and in terms of the tolerant stance of the regulator in relation to those activities. Similarly, the severe response of the regulator to the materialisation of some of the risks inherent in P2P finance is distinctive. At the same time, our study has lessons beyond the Chinese context as a cautionary tale, particularly for less developed or middle income countries where P2P lending is being touted as a solution to financial exclusion. Unlike the UK, for example, where P2P lending has been extensively regulated as it has developed,<sup>8</sup>

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<sup>8</sup> For example, before 2014, the UK's approach had been relatively 'light touch', with P2P platforms overseen by the Office of Fair Trading (OFT) as part of its consumer credit remit. Whilst platforms had to pass a basic fitness test before they could be licensed, there was no ongoing supervision, with the OFT relying on information provided by third parties and reviews of compliance. Whilst the OFT could issue guidance, revoke licences, impose conduct requirements sanctioned by fine and bring proceedings, regulation had to be made by central government (HM Treasury/BIS, 'A new approach to financial regulation: transferring consumer credit regulation to the Financial Conduct Authority', March 2013 at 9–10). However, ongoing concerns about the resourcing of the OFT, as well as its limited rule-making and enforcement power, led to reform to put P2P regulation on a more comprehensive footing. From April 2014, P2P platforms were required to be authorised by the Financial Conduct Authority (FCA) under the Financial Services and Markets Act 2000. FCA authorisation was conditional upon P2P platforms having adequate resources and a suitable business model. Once authorised, P2P platforms would be regulated on an ongoing basis by the FCA, which laid down new rules for 'loan-based crowdfunding platforms' in March 2014 (FCA, 2014). Platforms were required to comply with the relevant parts of the FCA Handbook, including the FCA Principles and Conduct of Business Sourcebook (COBS). Rules introduced by the FCA to regulate P2P platforms included: provisions to protect client money; the imposition of a financial resources requirement that platforms hold certain levels of financial resources available (this approach treated P2P platforms similarly to banks in terms of capital requirements, although the level of resources required is much lower: an example given in IPRU(INV) 12.2.8G shows that £3 bn of loaned funds would require the platform to have financial resources of £1.9 m); and restrictions on promotion of investments. From 2016, in addition to giving a tax advantage to P2P lending by allowing loans to be held in a tax-free ISA, the FCA made advising on P2P agreements a regulated activity and simplified client money arrangements (FCA, *FCA Handbook changes regarding the segregation of client money on loan-based crowdfunding platforms, the Innovative Finance ISA, and the regulated activity of advising on peer-to-peer agreements*, Policy Statement, PS16/8, March 2016).

those countries tend to lack the extensive regulatory infrastructure necessary to govern the risks inherent in P2P lending (e.g. Estache & Wren-Lewis, 2009 p. 733).

The paper is structured as follows. In the second part we briefly survey informal finance and the opportunity it presents in terms of providing credit to households and SMEs that cannot access bank finance. We then canvass some of the benefits and risks that arise where existing forms of informal finance are supplemented by algorithmic decision making of the kind associated with machine learning. This technology may reduce some of the frictions in financial systems, allowing for a scaling up of operations. But it also gives rise to a range of new risks, including algorithmic and platform failure, and creates scope for opportunism and fraud. After that we address the difficult question of whether P2P lending poses a threat to financial stability, beginning with the theoretical distinction between moneylending, banking and shadow banking. We then examine the rather inconsistent advice of policymakers as to where P2P lending fits into that three-fold categorisation, ultimately concluding that P2P lending can take such a wide range of forms that it is impossible definitively either to categorise it or to conclude whether it creates systemic risk.

In the third part, we look at the evolution of China's financial system between 2007 and 2015, focusing on how the arriviste P2P lending sector interacted with long-standing and deeply socially embedded networks of informal finance. Rather than stand alone, P2P lending in many cases was an outgrowth of existing lending institutions. During this period of rapid growth, huge numbers of lenders and borrowers were connected, facilitated by platforms' access to vast amounts of personal data. At the same time, many of the participants in the industry were aware of the borderline illegality of some of the practices concerned. Building on the analysis in the second part, we highlight the 'transactional ambiguity' and 'legal fluidity' arising out of the opacity of the operations of many platforms, so that, in some cases at least, what was described as P2P lending probably amounted to unlicensed banking or shadow banking. At that time, neither international policy makers nor Chinese regulators had a clear understanding of the risks being created by the P2P lending sector in China.

In the fourth part, we examine the regulatory interventions that occurred between 2016 and 2019 and their impact on the sector. As we carried out our interviews, it was clear that many participants in the industry took the view that regulation threatened the future survival of the industry in its current form. Some interviewees told us that the regulation went much further than they had expected, and was correspondingly more disruptive to the industry. Ultimately, these measures were too late to prevent frauds, and the uncertainties they created may even have encouraged borrowers to default in the hope that platforms would not be able to sue them.

In part five we look at the even more drastic measures taken by the Chinese regulator, in effect closing down most of the sector since 2019. The platforms which survived either converted into licensed online micro-lenders or third party platforms that facilitated lending by formal financial institutions to geographically dispersed borrowers. Even the latter faced restrictions, with platforms required to finance part of the loans themselves and their client banks also facing limitations as the regulator sought to prevent regional banks from using technology to escape geographical restrictions on their operations, potentially spreading systemic risks.

Part six provides a concluding assessment.

## 2 Informal Finance and Technology: Opportunities, Risks and Uncertainty

In this section, we begin by giving an overview of the potential opportunities that fintech, and P2P lending in particular, potentially provides, in terms of access to finance, risk management and reduction of costs. After that, we explore the new risks to which it may give rise, including algorithmic and platform failure, and the increased scope for opportunism and fraud. Finally, we explore the extent to which P2P lending poses a threat to financial stability. Beginning with the distinction between moneylending, banking and shadow banking, we then examine the rather inconsistent advice of policymakers as to how P2P lending should be categorised. Ultimately, we conclude that P2P lending can (and in China, did) take such a wide range of forms as to make it impossible to draw a definitive conclusion as to whether it gives rise to systemic risk.

### 2.1 Opportunities

The United Nations Sustainable Development Goals highlight the importance of increasing ‘the access of small-scale industrial and other enterprises, in particular in developing countries, to financial services, including affordable credit, and their integration into value chains and markets’.<sup>9</sup> Small and medium-size enterprises (SMEs) are important to development because the vast majority of firms around the world (over 95%) fall into this category. In low and middle income countries, over 50% of the workforce is employed in companies with fewer than 100 employees (Ayyagari, Demircuc-Kunt, & Maksimovic, 2011). SMEs in these

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<sup>9</sup> United Nations, Department of Economic and Social Affairs, *Strategic Development Goals*, Target 9.3.



countries report significantly higher barriers to growth than larger firms (Beck, Demirguc-Kunt, Laeven, & Maksimovic, 2006). Limited access to finance is the second-most cited obstacle after lack of a stable electricity supply (World Economic Forum, 2015).

The causes of the SME funding gap are in principle well-known (Beck et al., 2006). Information asymmetries limit the capacity of the formal sector (banks and other financial institutions) to lend to SMEs. Smaller firms often lack audited accounts or a verifiable trading history. They are also less likely to be able to provide collateral. Smaller loan sizes increase the costs of processing SME loans. Understanding SMEs often requires additional time and expertise on the part of lenders. In some contexts, regulation adds to costs by imposing stricter capital requirements for banks that lend to the SME sector.<sup>10</sup>

Many solutions to the funding gap have been proposed and implemented by governments, agencies and international organisations. These include government guarantees, direct government lending, state support for SME-orientated banks, and infrastructural support for credit bureaux and other information intermediaries. Despite these initiatives, the problem remains. According to the IFC, there is a ‘funding gap’ of \$5 trillion for SMEs in developing countries, equivalent to an average 19% of GDP in these countries (International Finance Corporation, 2017).

In many emerging markets, informal systems of finance continue to predominate and to fill this gap. Informal finance has been defined as consisting of ‘contracts or agreements conducted without reference or recourse to the legal system to exchange cash in the present for promises of cash in the future’ (Schreiner, 2001). Another definition refers to ‘financial transactions outside the regulation of a monetary authority’ (Passas, Hsu, & Li, 2012), whilst others highlight that informal finance is ‘based on reputation and relationship rather than relying on anonymous interaction between a client and a formal financial institution’ (Zhang, 2008). Examples of informal finance include rotating savings and credit associations, money-guards, hire-purchase stores, money-lenders, pawn shops, trade finance, cheque cashing, and loans between family and friends (Schreiner, 2001). On occasion, informal finance shades into illegality. Money-lenders may take advantage of the vulnerability of their borrowers, charging prohibitive interest rates and engaging in predatory lending. Moneylenders may

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**10** We discuss the role of banks in creating ‘bank money’ in part 2.3 below, something which is a public good; at the same time, however, the lending decisions of banks which result in these limitations on access to finance are strongly influenced by the (shareholder primacy) corporate governance system in which they are embedded: see for example Butzbach, Rotondo, and Desiato (2018).

also, especially where they get into financial difficulties because of defaults by borrowers, operate Ponzi schemes, using newly raised money to discharge existing liabilities; they may defraud customers or make misrepresentations as to the nature of the contract; and they may even operate as unlicensed banks, engaging in maturity transformation by borrowing short and lending long, perhaps backed by inadequate equity capital, or failing to comply with the relevant regulatory regime in some other way.

Informal finance has a long history in established industrial economies such as the UK, which has oscillated between providing alternatives to the informal sector and seeking to control it.<sup>11</sup> Informal finance is virtually ubiquitous, in some form or other, in low and middle-income countries. More recently, its role in China's rapid economic growth since late 1970s and the move away from a planned economy has attracted particular attention. In large parts of China, in particular rural areas and certain highly entrepreneurial urban centres, such as the city of Wenzhou, informal finance was the dominant way in which private sector firms accessed credit throughout this period (Chen & Deakin, 2020). Business loans were typically made with little or no contractual documentation and without collateral, underpinned by networks of trust, with an important role

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**11** The UK has a long tradition of self-help through mutual associations in the form of friendly societies and building societies, and commercial informal lending by pawnbrokers and moneylenders. The state's approach to the latter has oscillated between providing alternatives, in the form of savings banks, and regulating existing commercial providers of informal finance. For example, the Moneylenders Act 1927 was intended to reduce the number of moneylenders, capping interest at 48% per annum (beyond that was presumed to be 'harsh and unconscionable', with the onus on the lender to prove that it was not), and imposing expensive and restrictive licensing on moneylenders (Fearon, 2015, pp. 449–452). However, enforcement was limited, allowing evasion, as well as the operation of unlicensed pawnbrokers, which were often the only place the poor could go with their low quality collateral (Horne, 1947; Lobban, 2010). With the explosion of consumer lending from the 1950s, the law became more permissive. The Consumer Credit Act of 1974 relied on borrowers deciding whether the interest rate was excessive. It required disclosure by the lender of Annual Percentage Rate (APR) and other terms of the loan and imposed a cooling off period. However, it fully abolished usury limits, with the result that the rates on consumer loans could reach 45% while those for small short-term doorstep loans could reach 1000%, although the typical range in the 1990s was 75–175% (Packman, 2014, p. 39; Trumbull, 2008, p. 8). Since then various attempts to impose interest rate ceilings have been rejected, including on the basis that it would 'see large swathes of low-income households turn to illegal lenders instead' (Packman, 2014, p. 42). This ultimately opened the door to 'regularisation' of payday lending by the UK state (Rowlingson, Appleyard, & Gardner, 2016, p. 528), a policy which was in many ways the complement to its policy of restricting access to social security. At the same time, survey evidence suggests that borrowers value the anonymity and autonomy provided by payday lending, as well as the absence of pressure to borrow more than they require (Ibid, pp. 531–5).

played by mutual guarantees within and between groups defined by family ties and repeat trading.<sup>12</sup>

Over the last decade, the rise of fintech, and peer-to-peer (P2P) lending in particular, has had a huge impact on the debate over informal finance and its social effects. Fintech can be broadly defined to include all forms of the use of digital technologies to deliver financial services. The combination of information technology with the internet is driving entirely new forms of financial service provision, including online lending, crowdfunding, electronic payment systems, and digital money (Arner, Barberis, & Buckley, 2015). Some of these new services are likely to be particularly helpful to SMEs, and there was a growing belief – at least until the Chinese crackdown described in this article – that fintech had the potential to improve access to finance across the developing world without widespread social costs.

As one species of fintech, P2P lending is an innovative form of online provision of credit, which has the potential to aid SMEs and individuals who lack access to the formal banking system. In its purest, disintermediated form, sometimes called ‘market place lending’, a P2P platform connects individual borrowers and lenders directly, without assuming credit risk itself. In return for a fee, the P2P platform provides a credit risk assessment to the lender, generated by an algorithm on the basis of the data to which the platform has access. In variants of this model, platforms begin to act more like banks or, since they are not formally recognised as such, ‘shadow banks’. For example, they may lend from their own capital base, and so take on all or part of the risks themselves (‘balance sheet lending’), or pool deposits or investments prior to lending them on, acting like issuers of securities.

Whatever its exact transactional form, the essence of P2P lending is the use of digital technologies to govern the risks and reduce the costs associated with more traditional forms of lending, including, in particular, assessing the risk of default on the part of an individual borrower. P2P platforms attempt to govern default risk, not by taking collateral from borrowers, or by drawing on local knowledge, but by using data analytics to assess credit risk, drawing on proprietary algorithms which increasingly make use of machine learning. This marks a significant break with the practice of commercial banks in the past, which had large specially trained staff to assess credit risk, and often detailed knowledge of local conditions and borrowers (Kregel, 2010, p. 10). The new approach may help SME borrowers to access finance where they have stable cash flows but lack collateral of the kind which banks would demand. In addition, reliance on algorithms to determine creditworthiness

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<sup>12</sup> Hu, Ma, and Zhang (2017) discuss the continuing influence of informal financial institutions, especially through the persistence of Confucian norms including ‘morality, integrity, trust and kinship solidarity’, from the Qing dynasty on post-opening up patterns of informal finance.

may also reduce the formalities and hence costs of applying for loans. These lower costs may, in turn, give P2P platforms competitive advantages over traditional banks. Reliance on data analytics may reduce overhead costs, with no branches and few personnel directly involved in lending decisions, although it was also quite common during the Chinese boom to combine data analytics with more conventional, interpersonal modes of credit assessment such as face to face meetings with borrowers and the use of peer monitoring within local communities, the so-called online to offline (or ‘O2O’) model.<sup>13</sup> Moreover, as they are not funded with insured or regulated deposits, and as they do not normally offer investors liquidity (and so do not engage in maturity transformation), they tend not to be regulated as stringently as banks, resulting in lower compliance costs. For example, during the boom years, the Chinese regulator neither imposed mandatory capital requirements on P2P platforms nor required them to undergo continuous supervision. For all of these reasons, platforms can generally offer loans at more competitive rates, and tolerate a higher level of risk, than mainstream banks, so expanding credit to SMEs. They may also be more flexible than traditional banks in dealing with credit losses of SMEs (ACCA, 2015), and, as a number of our interviewees suggested, may be able to continue lending to SMEs in the event of central bank tightening of monetary policy.<sup>14</sup>

## 2.2 Risks for Lenders

Along with the opportunities presented by P2P lending come a number of risks for lenders. This is because, despite the appearance of disintermediation, the platform continues to exercise a significant influence on outcomes for lenders. As (Kregel & Savona, 2020, p. 7) put it, ‘since there is no financial intermediary between the borrower and lender, due diligence of commercial and investment activities as well as regulation of the borrowers tends to disappear as risks are taken on by the lenders.’ Those who lend via P2P platforms are highly vulnerable because they become counterparties to a moneylending transaction, yet lack information and

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<sup>13</sup> A number of our interviewees described this model to us. It appears to have relied on significant personnel on the ground. A Fintech Company Executive told us in 2017 that they used ‘local partners to pay visits to farms and interview the farmers and their families’ and also ‘do telephone interviews to confirm the information ... Then [we] use our [own] model to assess risk, to do further analysis’ (IFC.5, Finance Company Executive, Shenzhen, September 2017). Another told us that ‘More P2P platforms are moving to O2O because they realise that they can’t manage risks fully online’ (IFC.6, Risk Expert, Hangzhou, September 2017).

<sup>14</sup> IFC.9, Judge, Wenzhou, September 2017; IFC.24, Judge, Hangzhou, December 2018.

expertise, making them dependent upon the integrity of the P2P platform and its methods of risk assessment.

This vulnerability takes a number of forms. First, lenders have to rely on the ratings issued by the platform and hence the validity of its data analytic models. In the case of China, robust national level data protection laws were lacking during the period of P2P lending's rapid rise. As a result, large amounts of financial and behavioural data were available to platforms regardless of privacy or data protection concerns, either because they generated it in other parts of their businesses or because they purchased it from a third party. This gave platforms access to copious data with which to train their algorithms to identify which borrowers posed a higher default risk. However, the use of machine learning does not eliminate default risk: platforms (and therefore lenders) which rely heavily on opaque algorithms engaged in 'deep learning' remain exposed to the risk that the data analytics will not predict the future accurately. In particular, being 'based on insights from past decisions', algorithms tend to 'scale the past' but to 'freeze the future' because they 'cannot adapt to unforeseen circumstances' (Hildebrandt, 2021). The widespread use of algorithms to make lending decisions may in itself make past data (which was largely the product of conventional bank lending) a less reliable guide to future default rates. Relatedly, lender inexperience may lead to herding as lenders are swayed by opinions voiced on the platform or fail to understand the risks of platform finance, and especially where responsibility lies in the event of default. Inexperienced lenders may fail to ensure adequate diversification of their loan portfolios and may fail to account for illiquidity as there is generally no secondary market for P2P loans (Kirby & Worner, 2014, p. 40). Without regulation, it is not clear that platforms would provide advice on these matters to lenders as a matter of course.

Second, the P2P platform will normally seek to maximise the volume of lending in order to increase its fee income, and since it does not bear the risk of default, the result may be a decline in loan quality.<sup>15</sup> There is also a risk of borrower fraud as few platforms carry out identity checks on largely anonymous borrowers (Kirby & Worner, 2014, p. 26). Lenders may also suffer from a decline in loan quality across the P2P sector as a whole: with borrowers potentially able to borrow from multiple platforms, and to use the money borrowed either for consumption or to finance positions in assets, there can be no guarantee for lenders that the loans

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<sup>15</sup> As Nemoto, Storey, and Huang note (2019, p. 2) note: 'P2P platforms receive revenue in proportion to the loan volume originated. They therefore face financial incentives to maximize loan origination even at the expense of credit standards. They also rate borrowers' credit themselves, despite not being exposed to the direct financial consequences of defaults.'

they make are sustainable in the sense of being serviceable out of the future income streams of the borrower.

Third, where the P2P platform originates a portfolio of loans, it may distribute the better quality ones to favoured lenders, or retain them for itself, whilst passing on lower quality loans to less favoured lenders.

Fourth, and highlighting the continuing influence of the P2P platform on outcomes, notwithstanding the form of disintermediation, lenders will remain dependent on the platform for ex post enforcement; indeed, the lender will normally not even know the identity of the borrower, who may also be geographically remote. This leaves lenders especially vulnerable to platform failure, or, less dramatically, a failure on the part of the platform to expend resources on pursuing defaulting borrowers with sufficient vigour.

## 2.3 Risks to Financial Stability

Beyond risks to lenders, a further critical question for policymakers is whether P2P lending poses a risk to the stability of the financial system. This question was discussed – albeit inconclusively – at length by global policymakers during the rise and fall of Chinese P2P lending, but before we examine that debate, we offer some theoretical perspectives on moneylending, banking and financial stability.

### 2.3.1 Banking versus Moneylending versus Shadow Banking

The seminal work of Minsky (2008) insisted on the importance of regulating the banking sector because otherwise it would develop in ways that undermined the stability of the financial system. Yet, Minsky (2008, p. 256) was also adamant that

Banking is not money lending; to lend, a money lender must have money. The fundamental banking activity is accepting, that is, guaranteeing that some party is creditworthy.

This distinction requires some unpacking. In legal terms, a moneylender becomes the creditor of the borrower, with the moneylender transferring to the borrower cash or a bank deposit in return for the borrower's promise to repay on specific terms, perhaps backed by some kind of security. Unlike a bank, the moneylender cannot lend out more than it has in its 'box'; where the money lender lends out its own money, and borrowers default, that is an end to the matter. The money lender may become insolvent, but losses are not spread more widely, and so there are no

concerns about contagion. On the other hand, if the money lender lends out money borrowed from elsewhere,<sup>16</sup> whether partners, family or a bank, and the borrower defaults, the money lender may become insolvent, which may in turn impose losses on the moneylender's creditors. The money lender's creditors ought to have protected themselves, so that, even if the moneylender has borrowed from a systemically important bank, there should not be any systemic stability implications from its failure. However, it is worth noting that creditors of a money lender are likely to be very attentive to any hint of insolvency on the part of the money lender. Once a creditor detects a sign of weakness, it may withdraw or refuse to roll over its lending, which may in turn, if other creditors do the same, create a 'run' on the moneylender.<sup>17</sup>

The law conceptualises the bank-depositor relationship very differently. The bank borrows money from the depositor, giving the depositor a promise to repay money on demand, an IOU that itself can circulate within the banking system as 'bank money'; with many IOUs in circulation, any loss of assets can render the bank unable to pay its liabilities and therefore insolvent, leaving its creditors without recourse. Indeed, even a rumour of insolvency or significant loss of assets may trigger a 'run' on the bank as depositors seek to convert their IOUs into cash or bank deposits elsewhere. Hence the state steps in with guarantee schemes that guarantee one class of bank creditors (its depositors) that the state will ensure that they receive what they are owed by the bank, or at least a large proportion of it (Gorton, 2010, pp. 3–4, 13–20).

Moreover, as Biondi (2018, p. 8) puts it, 'lending ... is enabled by the bank capacity or privilege to generate money'. Banks can effectively generate money by giving their borrowers an IOU, that is, a promise to pay on demand simply in return for a borrower's promise to repay; the bank will do this where it believes that the borrower is creditworthy, as Minsky pointed out. The IOUs that the banks issue to their borrowers can circulate as 'bank money' in the same way as the IOUs issued to their depositors. Thus the bank creates 'bank money' in its capacity both as deposit taker and as lender.

Through this ability to create 'bank money', banks can, in principle, lend without limit, their IOUs moving from one bank account to another, and from bank to bank, before they are settled (netted) between banks through transfers of

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**16** If the moneylender does borrow the money that it lends, then it is easy for it to go a step further and engage in maturity transformation, borrowing short and lending long, which is one hallmark of banking or shadow banking, discussed further below.

**17** This happened on a large scale in 2008 when lenders withdrew their lending to US money market funds, which are essentially giant, short-term moneylenders (albeit also incorporating certain aspects of shadow banking, discussed further below).

reserves (base money). In practice, the composition of their balance sheets is highly regulated in order to head off liquidity and solvency risks (Admati & Hellwig, 2013, p. 96). If borrowers default, the bank may become illiquid in the sense of being unable to redeem – as promised – its IOUs for cash or central bank reserves, or, at a further extreme, insolvent. In this situation, the bank has to sell off assets (from its loan book) in order to obtain the necessary cash or central bank reserves. In normal circumstances, this can be avoided because banks lend surplus reserves to each other. However, this also creates interdependence, so once there are doubts about the solvency of a bank, interbank lending freezes and banks that are perceived as weaker suffer from illiquidity. This in turn creates a risk of systemic instability (Biondi & Zhou, 2018), particularly if banks hold fire sales of assets, which mark down the price of assets across the economy. In order to prevent illiquidity turning into systemic crisis, central banks act as a lender of last resort, giving banks access to the discount window, lending cash (in reality, central bank reserves) to them with their assets (loans) acting as collateral. This is done in order to prevent a vicious circle of bank runs, fire sales and defaults leading to insolvency of other banks and a systemic crisis (e.g. Gorton, 2010, p. 161; Thornton, 2008).

There are further risks associated with banking that do not arise with money-lending. The lending activities of banks have macroeconomic effects because they increase the money supply as IOUs are issued, and decrease it as they are redeemed. This can generate asset price inflation or deflation and alter the availability of finance for businesses and households, which in turn can impact on the ability of borrowers to repay or refinance their loans.

This short account highlights how banking poses systemic risks that are lacking from moneylending. The default of a borrower might threaten the solvency of the moneylender, but has no wider social implications. In return for the extensive support they receive from the state in the form of deposit guarantees and the discount window, banks face regulation designed to ensure financial stability by controlling how much risk they take; money lenders in contrast tend to face a much simpler regime designed to protect borrowers against excessive interest rates and to ensure the good character of moneylenders through licensing.

A third category of financial institution has come into the spotlight since the Global Financial Crisis of 2008: shadow banking. The Financial Stability Board (FSB 2017c) defines shadow banking as ‘credit intermediation involving entities and activities outside the regular banking system’. Vives (2016, p. 16) elaborates:

Shadow banks perform functions of banks (maturity, credit and liquidity transformation) but mostly in an unregulated way and, in principle, without the umbrella of the lender of last resort or public sector guarantees ... Shadow banking decomposes the retail-deposit-funded



and hold-to-maturity lending, conducted by traditional banks, into a more complex whole-sale-funded securitization-based lending process. Shadow banking includes shadow asset banks performing maturity and liquidity transformation (e.g., special investment vehicles and conduits investing in asset-backed securities and financed by commercial paper and repos) and shadow liability banks (e.g., money market funds that invest in commercial papers and repos).

Similarly, Biondi (2018, pp. 16–17) explains that shadow banking expands the monetary base: it ‘grants deposit-like facilities to gather short-term funding for its lending purposes’ and ‘may both lend to financial institutions, and securitise their assets in order to make them transferable through liquidation or collateralisation’; it generates ‘short-term money-equivalent liabilities and entitlements – through unregulated banking’.

So where does P2P lending fit into this three way classification? Does it simply provide a platform to facilitate moneylending, matching those willing to lend their money to those who want to borrow from them? Or does it involve a platform taking deposits from the public and then loaning them out to borrowers that choose to use the platform? Is that banking? Or shadow banking if it is unregulated and unguaranteed?

### 2.3.2 Policy Debates About Systemic Stability Implications of P2P Lending

Before China’s dramatic actions in 2019 to close down its P2P sector, regulators generally took the view that P2P lending did not threaten the stability of financial systems. Essentially this was because, while growing rapidly, the P2P market was still very small in most countries (Kirby & Worner, 2014, pp. 33–47). By 2017, just three countries – China, the US and the UK – were hosting 98.3% of global activity, the vast majority of it (86%) in China. Although P2P lending was rising across all regions of the world, it had neither replaced incumbent financial institutions nor gained systemic importance (Bazarbash & Beaton, 2020, pp. 10–11).

Systemic effects were generally viewed as likely to be limited for a variety of reasons. First, P2P lending amounted to only a fraction of the credit in most countries. Second, there was no secondary market, so loans were illiquid. Third, cross-border transactions were rare. Fourth, P2P platforms in most jurisdictions had limited connections with banks and other systemically important financial institutions. However, a note of caution was already being sounded: some platforms were beginning to offer whole loan investments to financial institutions, such as banks, hedge funds and pension funds, leading to more connections between formal and informal financial sectors, and potentially increasing the lending capacity of the P2P sector. It was pointed out that this could potentially lead to a decline in loan quality, and a spreading of default risk around the

financial system because of the interconnectedness of financial institutions (Kirby & Worner, 2014, p. 43).

This caution would be especially justified where the lender which accessed the platform was itself a bank engaged in credit intermediation, taking deposits from customers, and trying to source borrowers through the P2P platform. The FSB's assumption that 'any leverage in the end-investor base is likely to be comparatively small' (FSB, 2017b, p. 25) would be called into question if these end-investors were retail banks. At the same time, because the lending activities of banks were heavily regulated, policy makers believed that it should not matter if they engaged in credit intermediation between depositors and borrowers to which they were introduced by P2P platforms, since the latter were essentially doing little more than providing brokerage services.

Nor did regulators consider P2P lending to be part of the shadow banking sector. The FSB's (2017c) report on shadow banking makes no mention of P2P lending, whilst the FSB's (2017b) report on 'Fintech Credit' discusses the risks associated with P2P lending but again without referring to shadow banking. It appears that, in the FSB's view, standard P2P lending fell outside of the scope of shadow banking because it did not involve 'intermediation'. While banks and shadow banks stand between lenders and borrowers, the P2P platform acts to bring about a direct relationship between lender and borrower. Without intermediation, there is no borrowing short to lend long, and hence is no maturity mismatch; any defaults will only impact on the lender.

It is, however, possible to see P2P lending as having aspects of shadow banking. One reason for doing so is the wide range of different business models deployed by P2P lenders. The FSB's (2017b, pp. 11–16) analysis highlights the pure intermediary role played by platforms in the 'traditional' model, which is indeed far removed from banking, but also notes the 'balance sheet lending' model, which may rely on 'capital sources such as debt, equity and securitisations to fund originations', and clearly falls within the FSB definition of shadow banking because in this case the platform is acting as a credit intermediary. At the same time, the FSB (2017b, p. 25) felt able to conclude that 'most P2P lending platforms are not leveraged like banks' and that the P2P model generally 'does not entail bank-like liquidity risks' as 'investments and loans are typically duration-matched, and investors are unable to liquidate their investments before loan expiration.' Whilst P2P posed a variety of other risks for lenders such as operational risks and quality of credit assessment, these were far removed from the systemic risks associated with banking and shadow banking. Any stability implications of P2P lending would arise, not through the operation of the platforms themselves, but through:

potential deterioration of lending standards, increased procyclicality of credit provision, and a disorderly impact on traditional banks, for example through revenue erosion or additional risk-taking. FinTech credit also may pose challenges for regulators in relation to the regulatory perimeter and monitoring of credit activity (FSB, 2017b, p. 30).

For the FSB, then, there was a need for regulatory oversight of credit levels and quality, but not for the kind of far-reaching macroprudential regulation imposed on banks.

Another reason advanced for including P2P lending in the ‘shadow banking’ category is that the sector provides credit. Guofeng Sun, who has been the Director General of the Research Institute of the People’s Bank of China since 2016, explained in 2019 that ‘traditional shadow banking pertains to credit creation activities undertaken by non-bank financial institutions’, which entails that ‘non-bank financial institutions act as credit intermediaries. The amount of credit increases, but the quantity of money is unchanged, as credit is created by adjusting the distribution of money’ (Sun, 2019, pp. 5–6). Sun includes P2P among the channels of ‘traditional shadow banking’, highlighting that it is ‘frequently vulnerable to fraud and default’ (Ibid, p. 12). His analysis argues that P2P contributes to the risks associated with ‘China’s shadow banking system’, namely ‘increasing leverage, exaggerating procyclicality, and facilitating the propagation of systemic risk’.

Whilst it is clear that increasing leverage may exaggerate procyclicality and lead to macroeconomic instability, it does not necessarily follow that P2P lending creates systemic risk. Sun’s highly critical analysis of P2P lending can however be explained by the ‘transactional ambiguity’ and ‘legal fluidity’ that, as we will now see, characterised the Chinese sector during its boom years.

### 3 The Rapid Rise of P2P in China: 2007–2015

China’s first online lending platform, CreditEase (YiXin) was launched in 2006, and the sector grew rapidly from after the launch of Paipaidai, overtaking the US and the UK in terms of size by 2014 at the latest (Hsu & Li, 2020; Huang, 2018). The new P2P lenders entered a financial system dominated by the ‘big four’ dominant state-owned banks with national operations, but also including regional and local banks and informal lenders operating at local level.<sup>18</sup>

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<sup>18</sup> The ‘big four’ state-owned banks in China are the Industrial & Commercial Bank of China (中国工商银行), the China Construction Bank (中国建设银行), the Bank of China (中国银行), and the Agricultural Bank of China (中国农业银行). In 2006, they were being restructured, but the ‘big four’ state-owned banks still accounted for almost 60% of banking system assets. The rest of the banking sector was divided between smaller Chinese banks, of which there were 123 in 2004.

The Chinese financial system is widely described as operating on the basis of ‘financial repression’ (Yu & Shen, 2019, p. 47), referring to interest rates being held artificially low so that favoured borrowers have access to cheap finance.<sup>19</sup> The goal of the financial repression policy is to channel savings towards strategic sectors such as large manufacturers, infrastructure and real estate developers and local governments. Klein and Pettis (2020) estimate that the resultant wealth transfer amounted to around five percent of Chinese GDP each year between 2000 and 2013 when interest rate liberalization began.<sup>20</sup> This ‘financial repression’ policy is effective in freeing up savings for investment and driving increases in GDP (a key political indicator) but without driving up inflation because it operates by suppressing domestic demand (Pettis, 2013). The policy did not deter savers, with the savings rate estimated at an average of 37% of GDP between 1978 and 1995 (World Bank, 1997, p. 4), and it increased even further between 2000 and 2010, hitting an extraordinary level of 51% of GDP in 2010 before falling back to 44% in 2019.<sup>21</sup>

With interest rates paid on deposits set at ‘extraordinarily low levels, especially relative to growth’ (Klein & Pettis, 2020, p. 112), savers were faced with the invidious choice of leaving their savings as bank deposits, subsidising the banks and favoured borrowers who were able to access finance (Ibid), or taking the risk of channelling their savings through the informal finance sector (Grassman & Mckinnon, 1981, p. 366). Borrowers who are closed out of the mainstream finance system, on the other hand, had no choice but to borrow from the informal sector.

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Eleven were joint stock commercial banks partially owned by governments and SOEs, financing small SOEs and SMEs with partly private ownership, accounting for 15% of total bank assets, and the remainder were city commercial banks, accounting for about 5% of total bank assets, lending to SMEs and local residents and confined to their municipalities. Around 35,000 rural credit cooperatives and 1,000 urban credit cooperatives made up a further 10% (but declining) of total bank assets in 2004. The balance of bank assets with the remainder held by foreign banks (1.5%) and the remainder with three policy-lending banks (Garcia-Herrero, Gavila, & Santabarbara, 2006; Podpiera, 2006, Appendix 2). In 2003, informal finance was estimated to amount to somewhere between RMB 740.5 bn and RMB 950 bn, accounting for 6.96% of GDP and 5.92% of total loans, playing a crucial role in rural areas (Jiang, 2009).

**19** ‘Financial repression’ may have a pejorative ring to it, but it is the term used in, for example, an IMF working paper (Jafarov, Maino, & Pani, 2020) to describe ‘direct government intervention that alters the equilibrium reached in the financial sector, it usually aims at providing cheap loans to companies and governments, reducing their burden of repayments by lowering returns to savers below the rate that otherwise would prevail.’

**20** In 2013, the floor on interest rates put in place by the People’s Bank of China was removed, but the ceiling still remains, effectively capping returns to lenders.

**21** See ‘Gross domestic savings (% of GDP) – China’ <https://data.worldbank.org/indicator/NY.GDS.TOTL.ZS?locations=CN>.

Hence, the informal sector had been bringing these two groups together since the beginning of reform and opening up; however, as Pettis emphasises, it was a sector with ‘very high transaction costs and limited liquidity’, so of limited use for investors of limited means who might need to access their savings quickly (Pettis, 2013). When P2P lending arrived on the scene, it held out the prospect of financial democracy (Yu & Shen, 2019 pp. 47–8), lowering the costs of bringing together lenders and borrowers, as well as the possibility of scaling up informal finance businesses by allowing them to transcend the physical limits of existing risk assessment processes.

With regulators taking a hands-off approach to the sector from 2007 until 2015, and with state-owned banks primarily lending to state-owned enterprises and other favoured borrowers, it is unsurprising that P2P finance – and lending to SMEs in particular – boomed in China.

First, it satisfied the large unmet demand for bank credit resulting from the dominance of the formal sector by state-owned banks. These mostly lend to state-owned enterprises and other large firms. A World Bank survey of 2700 Chinese firms between 2011 and 13 found that more than 20% ranked access to finance as their biggest obstacle, only 6% used bank finance for working capital and 5% for investments (World Bank, 2013a). Survey data showed that among manufacturing firms, only 25.3% of firms had access to a bank loan/line of credit, whilst only 4.5% of investment and 6.4% of total working capital was bank-financed (22.1% of firms reported using banks to finance working capital). While only 2.9% of manufacturing firms reported access to finance as a major restraint, 22.4% identified it as their biggest obstacle; 89.6% of investment was financed internally (World Bank, 2013b). In 2017, the World Bank (2017) identified a financing gap (that is, a shortfall of existing supply to meet potential demand) for Micro, Small and Medium Enterprises in China of 17% of GDP.

The lack of finance available through the formal sector was an issue recognised by our interviewees, for example:

The internet financing sector is an important part of the country’s multilayer capital market, because the main problem of the current financial system is the limited capital access for the SMEs. For many banks, costs spent on SME customers can be hardly economically justified. Thus they have few incentives to provide loans to the SMEs. Very often their loan decisions are made in response to the governments’ policy directions and/or imperatives, causing many rent seeking opportunities. This is not an efficient resource allocation mechanism. Internet financing ... is more efficient than the conventional banking sector for the SMEs and therefore beneficial for economic growth.<sup>22</sup>

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<sup>22</sup> IFC.16, Fintech Company CEO, Beijing, October 2017.

Similarly:

The agricultural loans market is worth 1000 billion RMB. 71.6% of farmers are not getting finance of any kind. This is because banks don't lend to them, as they can't offer collateral. Banks offer small loans, but lengthy procedures. That's why most farmers don't access finance.<sup>23</sup>

And:

There is an 80–20 divide: 20% get 80% of the finance. At the apex of the pyramid are 0.33 million people who are served by the Big 4 banks and SOEs [state-owned enterprises], who also service larger companies. Below them, a segment of 200 million people who do have a credit history and so can access some finance. Below that are 50% have no access to credit at all.<sup>24</sup>

Second, P2P platforms were able to leverage the high level of internet infrastructure investment and an internet penetration rate of over 50% in 2016. Moreover, people were willing to use the internet to make payments: in 2016, the number of mobile payment users approached 358 million people, an increase of over 60% from the year before (CINIC, 2017). The willingness of the Chinese population to embrace mobile payments was highlighted by our interviewees, who emphasised that 'people are willing to try something new'<sup>25</sup> and noted that the central bank had played a key role in putting in place regulations to support the development of the sector whilst controlling systemic risk and avoiding monopoly.<sup>26</sup>

In addition to driving the spread of mobile payments, and perhaps more importantly from the perspective of P2P finance, this widespread internet usage has made available abundant data for analysis in various fintech applications. Chinese internet companies such as Baidu, Alibaba and Tencent have been able to leverage data from online sales and messaging services to support increasingly personalised e-commerce platforms, payment tools and wealth management services. The emergence of these internet giants is attributable in large part to the combination of a massive domestic retail market and the government policy of maintaining a closed digital economy which has filtered out overseas competition. In 2017, the Chinese tech giants were exploiting economies of scale to create merged 'consumption ecosystems' across financial and non-financial activities, at the same time as investing in next-generation technologies such as artificial intelligence and blockchain (McKinsey, 2017).

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<sup>23</sup> IFC.5, Fintech Company Executive, Shenzhen, September 2017.

<sup>24</sup> IFC.6, Risk Expert, Hangzhou, September 2017.

<sup>25</sup> IFC.21, Fintech Company Executive, Shenzhen, January 2018.

<sup>26</sup> IFC.10, Official of Loan Registration Bureau, Wenzhou, September 2017.

China did not have a national law on data protection before 2018, although there were some local level protections. Hence, one group of interviewees reported ‘a big problem with companies stealing and/or selling on data’. Apart from the absence of regulation, they noted that ‘There is a high demand for reliable data. Less than half the population has a credit record and official data sources are not well established.’<sup>27</sup> However, they also highlighted the introduction of new laws at the end of 2016, requiring customer consent and the use of rankings rather than original data.<sup>28</sup> Another group of interviewees emphasised that Alipay sold data gathered through its Huabei business to third parties.<sup>29</sup> They acknowledged that the absence of data protection rules in China had contributed to the fast growth of fintech in China, and that current proposals for regulation had to balance data protection against the need for data to flow to fintech platforms to enable them to control risk and ultimately offer better services. In late 2020, China proposed a comprehensive data protection law which was largely inspired by the EU’s General Data Protection Regulation (GDPR),<sup>30</sup> and which would require subject consent in most cases of third party transmission. This would have impacted heavily on China’s P2P sector if it had not already been effectively closed down by the 2019 regulatory crackdown on P2P lending that we discuss in part five. We return to the proposed data protection laws at the end of part five, as well as the increased competition law regulation facing the Chinese tech giants in 2021.

Third, and crucially, other country-specific features combined with latent demand and data generation from widespread and daily internet usage to drive the rapid growth of the Chinese P2P sector. Principal among these was the lack of a clear regulatory framework for P2P. Until recently, and in contrast to the position in countries with systems of financial regulation which have developed over several decades, such as the USA or the UK, there was no requirement for platforms to register with financial regulators, and, more generally, no specific regulatory regime with which they had to comply. In the early stages of the sector’s growth, most platforms were set up as standalone enterprises, often as technology consultancies, with minimal working capital (Shen, 2015).

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**27** IFC.3, Fintech Company Executives, Shenzhen, September 2017.

**28** Ibid.

**29** IFC.21, Fintech Company Executives, Shenzhen, January 2018. Alibaba Group Holding created Alipay in 2004 to facilitate trust in the early days of e-commerce, and it was spun off in 2011 to a company now known as Ant Financial. Alipay allows users of the app to make digital payments, not only for goods on the Alibaba platform, but also elsewhere online and in physical stores. In many ways its functionality is similar to that of Paypal or Google Pay. Huabei is a consumer credit product launched by Ant Financial in 2015, and links with Alipay to turn it into a mobile and online credit card.

**30** Regulation (EU) 2016/679, OJ L 119, 04.05.2016.

The transactional model used by many platforms at this point was opaque to the point of being borderline illegal. Many of these ‘black boxes’ therefore possessed the twin features which we term ‘transactional ambiguity’ and ‘legal fluidity’ in the sense that there was no factual or legal clarity as to the type of transaction, the parties to the transaction or the legal implications of the arrangement. This could be viewed as a form of ‘regulatory arbitrage’, in which ‘various regulatory dimensions overlap, thereby creating structural opportunities for managers and financial engineers to get the best of all possible worlds for themselves’ (Friedrich & Thiemann, 2021, pp. 83–4). Here, platforms were able to escape pre-existing regulation on, for example, deposit-taking by failing clearly to communicate the legal consequences of their activities to lenders, borrowers or regulators. As we saw above in our discussion of shadow banking, the fluidity of different categories of providers of finance, when combined with technology, can lead to a range of uncertain risks for those involved, as well as for the financial system and wider society; a similar analysis has been offered of debt collection mechanisms that circumvent the actual purpose of the law (Stănescu & Bogdan, 2021).

By 2014, it was understood that a range of legal models was available to P2P platforms. According to an IOSCO definition of platform lending (Kirby & Worner, 2014, p. 19), where a platform acts as a pure information intermediary, it does not become a party to the transaction, and the contract comes into existence on the basis of the relationship between the lender and the borrower. In contrast, as the IOSCO paper also noted, the dominant model in China was for platforms to offer investors ‘guarantees’ of payment of interest and repayment of principal, backed by a combination of the platform’s own funds, or by a third-party financial institution or ‘guarantee company’, about which little information was provided. This arguably crossed the line into shadow banking.<sup>31</sup> It gradually became clear that, in China at least, this range of legal models gave rise to opportunism on the part of platforms, which exploited ‘transactional ambiguity’ to create ‘legal fluidity’. For example, there is some evidence that lenders were misled by the nature of the ‘guarantee’ they thought they were receiving, and that unfair and discriminatory practices were common, ranging from unfair or misleading lending terms through predatory credit decisions to outright fraud (Shen, 2015).

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<sup>31</sup> Where the P2P platform offers third party guarantees, this makes the P2P platform more dependent on the financial institution which acts as a guarantor, and also potentially exposes the guarantor to very large losses, in turn potentially creating systemic risk. This combination of P2P platform and financial institution guarantor should arguably be considered as shadow banking rather than simply an enhanced form of P2P lending since they ‘mimic banking activity outside the bank law and regulations... especially by connecting monetary and non-monetary financial institutions to each other’ (Biondi, 2018).



Platforms also commonly used their own cash reserves to make loans, potentially giving rise to conflicts of interest, given their superior knowledge of the risk profile of borrowers. In addition, it was common for platforms to originate loans themselves, with the result that there was no direct contractual relationship between lenders and borrowers, but rather a series of bilateral relationships with the platform contracting separately with each party, giving rise to significant platform risk. This certainly crossed the line into shadow banking, and may even have simply been unlicensed and therefore illegal banking. At the same time, however, it also appears to have been common practice for platforms to reimburse investors for their losses, whether or not they were under a legal obligation to do so. The online and anonymous nature of P2P lending does not appear to have allowed it to escape the power of existing social norms and expectations, in this regard at least.

The more secure and legally watertight pure information intermediary model appears to have had limited attractiveness in the Chinese context during the period of P2P's rapid expansion. As one of our interviewees, a fintech company executive, put it:

Any internet financing vehicle that just profits from serving as an information intermediary for lenders and borrowers is doomed. Do you know why? Because most profit will be pocketed by the underwriters, micro-credit companies and lenders, but risk is solely born by you. For example, if I as an underwriter introduce a loan business of 10 billion Yuan to you (an information intermediary), I can pocket the profit derived from the interest rate difference of 10% ( $20 - 10\% = 10\%$ ) and share the profit of one billion Yuan with you. However, I retain the full control over this one billion Yuan and may use all these one billion Yuan on stock or housing investment, or even gambling. When default occurs, I have no money left (to compensate the investors) and you become solely responsible for it. You cannot just tell people that I was the underwriter and consequently you will collapse. It is why I think internet financing is essentially a new form of credit provision.<sup>32</sup>

For this interviewee, the risks of being associated with potentially illegal activity outweighed the benefits. They further noted that, having declined an invitation to invest in an internet finance company in 2010, they 'missed the opportunity of seeing a start-up with a registered capital of RMB 5–20 million growing to a company generating RMB one billion or more in annual revenue'.<sup>33</sup> But this was in 2011, the 'boom year'<sup>34</sup> of Chinese internet investing.

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<sup>32</sup> IFC.13, Fintech Company Executive, Shenzhen, September 2017.

<sup>33</sup> Ibid.

<sup>34</sup> Ibid.

A related view was that of an interviewee who saw the profitability of platforms as intrinsically linked to the informality of the prevailing business model, and for that reason doubted its long-term sustainability:

The main reason for the rapid growth of so many internet financing companies over recent years lies in their insufficient risk control. The equation is simple: the profit for any internet financing company always equals investment return minus the cost of reserved capital minus the promised return to customers and other operational costs. But many of them promised such unrealistically high returns while their operational efficiency is so low. This gives rise to inadequate risk control which in turn increases non-performing assets. The result of the equation becomes negative. At the beginning, they may use their contributed capital to make up such losses; but in the longer term, such practices will become unsustainable.<sup>35</sup>

The legal informality of many platforms' business models also provided opportunities for arbitrage between high rates charged to borrowers and low rates paid to lenders, and practices which clearly amount to shadow banking, as the following description highlights:

Many people think [a well-known platform company] is an information intermediary where capital supplies from lenders match demands from borrowers. But no. It is not just an intermediary that discloses information and integrates the needs of lenders and borrowers. In fact, it is a legal person that has more than 10,000 employees working below the online platform to promote its business in the street. After finding new customers, these agents will match the needs between lenders and suppliers, package them into different investment products and sell them to other investors. By doing this, they will make a profit from the different interest rates offered by the lenders and borrowers respectively. It serves a big creditor. In other words, if it has 100 million Yuan in the account and issues loans to 10,000 people, it consolidates its creditor rights from these 10,000 borrowers and sells these rights to many other lenders. The annualized interest rate offered to the borrowers is 30% and the one offered to the lenders is 10%. The profit derived from such difference is used to cover the associated risk.<sup>36</sup>

In short, a focus on Chinese P2P lending which explains its extraordinary growth in terms of its ability to meet demand left unfulfilled by the formal sector, while taking advantage of high levels of investment in and usage of internet-based technologies, while not misleading, is incomplete. Legal ambiguity and transactional fluidity provided opportunities for business models to emerge which were both innovative and highly risky. Over-rapid expansion of the sector potentially left ill-informed and inexperienced lenders unprotected against – and unprepared for – the risks of default. One interviewee highlighted his belief that Chinese investors were not mature enough,

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35 IFC.16, Fintech Company CEO, Beijing, October 2017.

36 IFC.13, Fintech Company Executive, Shenzhen, September 2017.

always presum[ing] that the state and/or governments will serve a last resort to provide sufficient protection against their potential investment risks. In the case of any default incidents, the administrative departments are expected to use coercive measures to force the financing companies to compensate the investors.<sup>37</sup>

Yet we were also told that, even as late as 2015, the China Banking Regulatory Commission (CBRC) had had little knowledge of what P2P firms were doing and could not regulate them very easily.<sup>38</sup>

The rapid and complex evolution of P2P lending in China posed a conundrum for regulators, who appear to have prioritised allowing innovation to facilitate greater access for SMEs to credit on the one hand (in line with the ‘internet plus’ and financial inclusion policies), at the expense of giving rise to the risks associated not only with unregulated moneylending, but also with unlicensed banking and shadow banking activity. Many platforms had moved far beyond the role of pure information intermediary, matching lenders to borrowers. Platforms had begun originating loans to borrowers and then matching those loans to lenders from whom deposits had been taken. With such a variety of business models, it was arguable (although apparently far from clear to regulators) that platforms were taking on risks more akin to those associated with the banking and shadow banking sectors (discussed in the second part above), including maturity transformation, liquidity risk and leverage. If this were the case, the unregulated P2P sector had the potential to create an enormous systemic crisis. Yet, as we saw above, even in 2017, the Financial Stability Board (FSB, 2017a, p. 40) was not issuing clear guidance, noting that P2P lending had ‘a mix of both positive and negative implications for financial stability’, although it did hint at a potential risk to systemic resilience where ‘platforms are funded in large part by the banking sector’. The evidence we have referred to above highlights that many platforms had their liabilities guaranteed, although it was far from clear which entities were providing the guarantees and how commonly guarantees were being given to lenders. Hence, at this point, the Chinese regulator lacked information about exactly who was bearing the risks associated with P2P lending and whether this posed a threat to social or systemic stability, and it was not receiving clear signals from the FSB or elsewhere as to the risks it was running with its booming P2P sector.

As it turned out, and as is so often the case, the real and immediate risk to investors from this financial innovation was old-fashioned fraud. When the Ezu-bao platform, which had been run as a massive Ponzi scheme, failed in December 2015, leaving nearly one million investors with unsecured losses exceeding RMB 50

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<sup>37</sup> IFC.16, Fintech Company CEO, Beijing, October 2017.

<sup>38</sup> IFC.25, Official of Loan Registration Bureau, Wenzhou, December 2018.

billion, and triggering street protests by thousands of victims, a regulatory response did not take long to materialise.<sup>39</sup> The chairman admitted at his trial that Ezubao had fabricated projects to raise money from investors, and the company relied on slick marketing and deceptive endorsements which created the impression that it was government-endorsed (Albrecht, Baldwin, Morales, & Scott, 2017). In response to the collapse of Ezubao, and as the FSB (2017c) commented, ‘China has been active in issuing a number of rules and guidelines to ensure domestic FinTech credit activity is captured.’ It is to the introduction of that regulatory regime that we now turn.

## 4 Peak P2P and the Onset of Regulation: 2016–2019

Although estimates vary, it is generally understood that China was, for some time, the world’s largest market for P2P lending. A report by the Association of Chartered Certified Accountants (ACCA, 2015), estimated that the volume of P2P lending in China in 2014 was almost RMB 253 bn (about US\$40 bn),<sup>40</sup> contrasting with, for example, P2P lending to SMEs and consumers in the UK of over £1.2 bn in 2014 (about US\$2 bn) (Gray, Rau, Wardrop, & Zhang, 2015, p. 36).<sup>41</sup> By 2017, annual lending volumes peaked at RMB 2804.85 bn (US\$415 bn),<sup>42</sup> and in 2018 the Chinese P2P lending sector was reported to have outstanding loans of RMB 1.49 trn (about US\$218 bn).<sup>43</sup> An FCO (2016) report cites a figure of 3600 new platforms set up in

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**39** X. Zhou, ‘China’s HK\$59 billion online Ponzi scheme: who started it, how did it happen and now what?’, *South China Morning Post*, 1st February 2016 (<https://www.scmp.com/news/china/money-wealth/article/1908096/chinas-hk59-billion-online-ponzi-scheme-who-started-it-how>).

**40** For reference, this was 0.4% of China’s GDP in 2014 (US\$10.48 trillion), whilst it was 0.2% of the assets of Chinese commercial banks in 2014 (RMB 134.8 trillion or US\$21.67 trillion): KPMG (2020).

**41** For reference, this was 0.06% of the UK’s GDP in 2014 (£1.996 trn), whilst it was 0.053% of the assets of UK commercial banks in 2014 (UK banking sector had loan assets of £2.225 trn against the UK private sector).

**42** 网贷之家, 2017年P2P行业年报简报: 问题平台数持续降低 [Wangdai Zhijia, 2017 annual P2P industry bulletin: number of problematic platforms continues to decline] <https://www.wdzj.com/news/yc/1714657.html>.

**43** South China Morning Post, ‘China comes up with 10 measures to tackle risks from troubled P2P lending sector’, 12th August 2018. For reference, this was 2.08% of China’s GDP in 2018 (USD 13.89 trillion), whilst it was 0.7% of the assets of Chinese commercial banks in 2018 (RMB 210 trillion or USD 16.15 trillion): KPMG (2020). In mid-2016 and at the beginning of 2018, the ratio of new P2P loans to new bank loans in China amounted to nearly 40%: Claessens, Frost, Turner, & Zhu, 2018, p. 41.

China between 2011 and 2015, and a 17-fold increase in the number of P2P investors over the same period.

During this time, Chinese P2P appeared to be meeting needs which could not be met either by the formal sector or by traditional, pre-existing forms of informal, network-based finance. In 2015, P2P interest rates, at around 10%, were above the SHIBOR (Shanghai Interbank Offered Rate) rate of around 5%, suggesting that they were providing online investors with an abnormal rate of return to reflect higher risks, but below the normal rate of around 20% for informal private lending at that time (Guo et al., 2017). ACCA (2015) estimated that between 20 and 40% of Chinese P2P lending in 2015 was to business borrowers, mostly small and micro businesses, a significantly higher proportion of the total than in developed countries at that point. One of the earliest P2P lenders, Paipaidai, was set up in 2007; by 2015 it reported over 1,200,000 active members (borrowers and lenders), 42% of whom were business borrowers. An ACCA survey of Paipaidai members found that nearly 60% had no prior borrowing history, and that among the reasons given for using a P2P platform to borrow were the straightforward process and the desire to acquire a positive online credit rating (ACCA, 2015).

At the same time, it was also clear that, behind this booming sector, there were widespread problems and that Ezubao had been just the tip of the iceberg. Anecdotal, individuals were able to borrow increasing amounts from different platforms in order to pay off earlier loans, with delinquency on earlier loans not affecting the ability of the individual to borrow from elsewhere. Many of the credit guarantee companies (which were used by 78 of the top 100 platforms by outstanding loan amount) were exposed to default and shut down, with chains of guarantees among non-financial firms leading to contagion (Hsu & Li, 2020, Ch. 3).<sup>44</sup> There was also a wide variety of other questionable practices, including failures of risk management; platforms lending their own funds to borrowers; high levels of lending to riskier sectors such as real estate and mining; bundling of existing loans to investors ('originate to distribute'); and fraud (Hsu & Li, 2020, Ch. 3).

As for regulation, until 2015, policy guidance from the Chinese Central Bank was intended to encourage the growth of fintech while setting a 'moderately loose' regulatory framework.<sup>45</sup> From April 2016, P2P platforms were required to deposit customers' funds with a commercial bank or other financial institution

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<sup>44</sup> As a result many P2P platforms turned to insurance companies for stronger protection against default risk.

<sup>45</sup> 2015 Guideline on the Administration of Recordation and Registration of Online Lending Information Intermediary Institutions and 2015 Guideline on Custodian Business for Online Lending Funds.

(mitigating operation risk).<sup>46</sup> The regulatory regime became more intensive from August 2016 with the adoption of the *Interim measures for the administration of the business activities of online lending information intermediary institutions* ('Interim Measures').<sup>47</sup> These designated the China Banking Regulatory Commission ('CBRC', now the China Banking and Insurance Regulatory Commission or 'CBIRC') as the lead regulatory body for online lending, responsible for developing rules for supervision and administration of the business activities of platforms, as well as regulating business conduct. The Interim Measures also conferred powers on provincial regulators to oversee the registration of platforms and on a sectoral body, run by the central bank, the National Internet Finance Association, to set and oversee industry-level standards. The Interim Measures prohibited platforms from accepting deposits and offering guarantees in respect of principal or interest. They also put a cap on the amounts which could be lent by a platform via a single loan (RMB 200,000 for a natural person, RMB 1,000,000 for a legal entity) or series of loans across different platforms (RMB 1,000,000 for a natural person, RMB 5,000,000 for a legal entity). Perhaps most interestingly, they introduced a requirement that platforms register with the local financial regulatory authority and seek a telecommunications permit from the competent communications agency. This registration requirement applied to existing platforms as well as new ones, but the requirements were confusing and constantly changing, making it impossible in practice for platforms to register. This raised serious doubts about the intentions of the regulator and the continued viability of P2P platforms, as a number of our interviewees told us.

A year later, in August 2017, the CBRC issued a set of guidelines,<sup>48</sup> requiring platforms to give lenders prior information concerning borrowers, including the platform's risk assessment for the loan in question. In August 2018, a regulatory checklist was adopted by the Internet Lending Financial Risk Management Working Leadership Group and CBIRC, requiring regulators to raise 108 queries with P2P platforms, with the aim of confining platforms more clearly to an information-intermediary role: this sought to suppress shadow banking practices

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**46** General Office of the State Council, Notice on Issuing the Implementation Plan for Special Rectification on Risks in Internet Finance (国务院办公厅关于印发互联网金融风险专项整治工作实施方案的通知 available at: <http://www.lawinfochina.com/Display.aspx?lib=law&Cgid=282015&EncodingName=big5>).

**47** Interim Measures for the Administration of the Business Activities of Online Lending Information Intermediary Institutions (网络借贷信息中介机构业务活动管理暂行办法 available at: [http://www.pkulaw.cn/fulltext\\_form.aspx?Db=chl&Gid=278756](http://www.pkulaw.cn/fulltext_form.aspx?Db=chl&Gid=278756)).

**48** CBRC, *Guidelines for the Disclosure of Information on the Business Activities of Online Lending Information Intermediary Institutions* (available at [http://www.cbrc.gov.cn/chinese/home/docDOC\\_ReadView/D934AAE7E05849D185CD497936D767CF.html](http://www.cbrc.gov.cn/chinese/home/docDOC_ReadView/D934AAE7E05849D185CD497936D767CF.html) (in English)).

previously widespread in the sector including pooling funds, guaranteeing returns and issuing wealth management products.<sup>49</sup>

These were major changes which aimed to eliminate fraudulent and poor business practices. More specifically, they aimed to prevent P2P platforms from accepting deposits from the public, potentially crossing the line into acting as unauthorised banks or even operating as Ponzi schemes, relying on newly invested funds to discharge obligations to earlier investors.

Our interviewees were virtually unanimous in predicting that the introduction of these regulations between 2015 and 2017 would have a major impact on the sector. They expected it to reduce the number of platforms and also affect the capacity of the sector to provide credit and liquidity to businesses. For example, in April 2017, one fintech company executive thought the recently introduced caps on the size of loans would be ‘devastating for many P2P vehicles’, especially those which made large loans to, for example, property developers.<sup>50</sup> That executive questioned the ‘one size fits all’ policy, wondering whether loan size was a good proxy for risk, given differences in risk and liquidity between tier one cities and, for example, Inner Mongolia. The result would be that it would be illegal to lend to many property development companies, which would accordingly face much higher rates from loan sharks, he claimed.<sup>51</sup>

Those predictions turned out to be correct, with the number of platforms falling from a 2011 peak of over 3,000, and more than 1,000 as recently as 2015, to a few hundred in 2018.<sup>52</sup> A Shenzhen lawyer told us that there had been 2,000 P2P companies in Shenzhen before regulation, whilst by early 2018 this had fallen to as few as 300.<sup>53</sup>

Another common theme in our interviews was the ‘rough and oversimplified’ regulatory approach, as ‘regulators making policies don’t really understand practice’.<sup>54</sup> As noted above, registration requirements were simultaneously vague

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<sup>49</sup> See *Checklist for regulatory compliance of internet lending information intermediaries* (网络借贷信息中介机构合规检查问题清, available at: <https://static.hurbao.com/article/2018-10-18/NAV0042/20181018164924220.pdf>); for further discussion see also ‘China Is Said to Start Fresh Round of Checks on P2P Lenders’, *Bloomberg News*, 20th August 2018 <https://www.bloomberg.com/news/articles/2018-08-20/china-is-said-to-start-another-round-of-checks-on-online-lenders>).

<sup>50</sup> IFC.13, Fintech Company Executive, Shenzhen, September 2017.

<sup>51</sup> Ibid.

<sup>52</sup> C. Pei, ‘Deadline for recording and registration comes close, the final kilometer of 10 years of the P2P industry’, *Phoenix Weekly*, 5th April 2018, available at: <http://www.ifengweekly.com/detil.php?id=5612> (in Chinese).

<sup>53</sup> IFC.18, Lawyer, Shenzhen, January 2018.

<sup>54</sup> Ibid.

and complex, apparently requiring approval from ‘seven different government departments’ in Shenzhen, and the story was similar in other places too. Shenzhen’s registration regime required that

more than 20% of P2P platforms’ staff must be IT staff and platforms must hold deposits with banks that have subsidiaries in Shenzhen, i.e., big banks, but big banks are not interested in playing this role. Small banks are ruled out by subsidiary requirement [that is the requirement to hold deposits with a bank with a Shenzhen subsidiary]. Even platforms trying to meet criteria cannot find banks which will take their deposits.<sup>55</sup>

Another group of interviewees also highlighted that, before the introduction of rules requiring P2P platforms to deposit client funds at a custodian bank as a precondition for registration, small banks could be used for holding funds and they charged ‘relatively low fees around 100–200 thousand yuan per year’.<sup>56</sup> With smaller banks excluded by the rules from playing this role, ‘big banks are eligible but not very interested, the result is that they charge around 1–2 million yuan per year’.<sup>57</sup> Another interviewee highlighted that, on the one hand, there were very low limits on lending which caused problems for existing platforms, whilst, on the other hand, there was still no minimum capital requirement for platforms, making it ‘hard to filter out those poorly operating P2P firms because there is no threshold so anyone can enter the industry’.<sup>58</sup>

The trend towards stricter regulation was criticised by some of our interviewees on the grounds that it represented a reversal of the original policy of encouraging fintech companies to lend to SMEs. One interviewee questioned

the government’s reluctance to impose effective supervision onto the P2P lending sector from the very beginning. To a certain extent, the central government adopted a *laissez-faire* governance style with minimum intervention to encourage the sector’s growth. Even after early signs of defaults had emerged, the state was still unwilling to take effective actions to interfere with and regularize the sector.<sup>59</sup>

The interviewee also questioned the decision to cap interest rates or promised rates of return at 24% (above that level the rate would not be legally enforceable); this decision led to significant market restructuring, leading many smaller platforms to close down or to refocus on consumer lending.

Others recognised the challenge facing the government in balancing innovation against consumer protection and market stability, and thought that, whilst the

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55 Ibid.

56 IFC.19, Fintech Company Executive, Shenzhen, January 2018.

57 Ibid.

58 IFC.20, Lawyer, Shenzhen, January 2018.

59 IFC.17, Fintech Company Executive, Beijing, October 2017.



government talked about reducing shadow banking, it was aware that this sector was useful for SMEs. They expressed a belief that the regulation could drive out the bad companies, and that one hundred would be able to service the needs of the whole country.<sup>60</sup>

Interviewees highlighted that reliance on licensed commercial banks for custodianship heightened the potential systemic risk of platform failures. Whilst some denied that P2P lending was sufficiently integrated with the traditional financial system to pose a threat to the stability of the system, others thought that the interconnectedness of platforms with traditional banks and financial institutions was providing additional security for some lenders at the cost of increasing the risk of a system-wide failure in the event of a default of one or a number of larger guarantors:

In P2P, the issue is now the complexity of the chains or networks of companies in which P2P platforms are embedded. The issue is only partly about information asymmetry, it is also about trust. You need to build and maintain trust in platforms and in the model. That is why P2P firms are retreating from the pipeline model where customers get to choose borrowers. They are becoming more like banks themselves and working closely with existing banks. But there are weak links in these chains. Often insurance companies don't understand the sector very well. Banks are in a better position generally.<sup>61</sup>

The uncertainties associated with this system of regulation seriously undermined the viability of the P2P sector, but it limped on for a couple more years, with platform failures becoming increasingly common. In 2017, it was estimated that 'problematic platforms' (that is, platforms which had recorded at least one of termination of operation, failure to cash out, cheating, loss of contact, police interference or platform shutdown) could account for over a third of the sector (Guo et al., 2017). In 2018, it was reported that 243 platforms had gone bust between June and August, leading to widespread street protests. With growing numbers of platforms defaulting on their payments to lenders, China's four largest asset management companies or bad banks,<sup>62</sup> which were founded two decades earlier to bail out the four biggest state-owned commercial banks, were ordered by the China Banking and Insurance Regulatory Commission (CBIRC) to intervene. The scope of that intervention is not entirely clear: it was variously reported that they were ordered to purchase non-performing loans from the sector in order to quell social unrest (Hsu & Li, 2020, Ch. 3); that P2P platforms were ordered to cooperate with traditional banks, and were permitted to take over platforms that had good

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<sup>60</sup> IFC.19, Finance Company Executives, Shenzhen, January 2018.

<sup>61</sup> IFC.6, Risk Expert, Hangzhou, September 2017.

<sup>62</sup> Huarong, Cinda, Orient Asset Management, and Great Wall.

underlying assets;<sup>63</sup> and that it was not clear whether ‘the bad banks will use their own balance sheets to acquire distressed P2P loans or play a more limited role by providing asset custody, valuation, and intermediary services to aid the disposal of P2P loans’.<sup>64</sup>

As we will see next, the explosion of protests and interventions in response led to the decision on the part of regulators simply to close down the whole sector.

## 5 The Final Curtain for P2P Lending: 2019–2020

In the face of the complexities of the regulation discussed in the previous section, the number of P2P platforms had fallen to a few hundred by late 2019.<sup>65</sup> Similarly, there was a dramatic decline in annual lending volumes from its 2017 peak of RMB 2804.85 bn (US\$415 bn) in 2017 to slightly below RMB 1800 bn in 2018 (US\$272.5 bn).<sup>66</sup> 2019 saw a further decline in annual lending to RMB 964.91 bn (US\$ 139.7 bn).<sup>67</sup> This represented a fall in lending volumes to around one-third of their 2017 levels (though the volume of lending was still very substantially greater than in either the US or the UK, the countries outside of China with the largest P2P lending volumes). However, the sector declined further still, and in November 2020, the final remaining P2P platforms were shut down.<sup>68</sup>

What brought about this rapid disappearance of a once booming sector? The introduction of regulation, discussed in the previous section, which was supposed to confine platforms to a pure information intermediary role, may have caused the sector to shrink considerably, but still did not prevent the further wave of failures that occurred in late 2018. Local governments launched closer inspections of

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**63** X. Yu, ‘China regulator orders bailout of peer-to-peer lenders by managers of distressed assets’, *South China Morning Post*, 17th August 2018 (<https://www.scmp.com/business/china-business/article/2160085/chinas-regulator-orders-bailout-peer-peer-lenders-managers>).

**64** G. Wildau, ‘China orders bad-loan managers to help failing P2P lenders’, *Financial Times*, 17th August 2018, <https://www.ft.com/content/aa5ef0b0-a1e7-11e8-85da-eeb7a9ce36e4>.

**65** N. Xu, ‘China shut down all P2P platforms by mid-Nov’, *Asia Times*, 30th November 2020 <https://asiatimes.com/2020/11/china-shut-down-all-p2p-platforms-by-mid-nov/>.

**66** Frost & Sullivan, 中国 P2P 借贷行业市场研究报告 [Chinese P2P lending industry market research report], April 2019 at 11–12.

**67** 清华大学金融科技研究院, P2P 网贷行业 2019 年年报 (简版) [Tsinghua University Fintech Research Institute, P2P lending industry 2019 summary report] (<https://www.weiyangx.com/347574.html>).

**68** N. Xu, ‘China shut down all P2P platforms by mid-Nov’, *Asia Times*, 30th November 2020 (available online at: <https://asiatimes.com/2020/11/china-shut-down-all-p2p-platforms-by-mid-nov/>).

local sites, finding very poor asset quality and misconduct, whilst provincial level governments in Hunan, Shandong, Henan and Chongqing imposed blanket bans on the sector for failure to comply (although these provinces had very few platforms in the first place).<sup>69</sup> At the same time, top-tier platforms such as Ai Qianjin, Weidaiwang, Tuandaiwang, Hongling Chuangtuo and Xiaoni Capital imploded.

In April 2019, a new pilot registration programme was leaked to the media.<sup>70</sup> According to the pilot programme, platforms would be registered and categorized as national or regional platforms. In order to register as a national platform, a platform was required to have a minimum paid-up capital of RMB 500 m; for a regional platform, the threshold was RMB 50 m. The pilot registration programme required national platforms to hold general risk reserves equal to 3% of the lending made through their firm and set aside an amount equivalent to 6% of each borrowing as a loan-loss provision for lenders. The ratios for regional platforms were 1 and 3%, respectively. The programme also introduced investment caps for individual lenders, with an upper limit of RMB 200,000 per platform and a cap of RMB 500,000 for overall investment across different platforms. However, it appears that regulators subsequently ‘made several revisions of draft requirements for the registration pilot program regarding P2P sites’ risk provisions, deposits, shareholder qualifications and others.’<sup>71</sup> It gradually became clear that regulators wanted to put an end to the sector. The financial news website, Caixin Global,<sup>72</sup> reported:

In recent years, regulators have encouraged P2P platforms to either leave the industry or remodel themselves into licensed microlending companies or consumer financing firms which make their own loans rather than acting as intermediaries.

But it is not easy to obtain the necessary licenses. No former P2P platform has yet received a microlending license except for those who already held such a license themselves or through their related companies, sources with the knowledge of the matter said.

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**69** Y. Wu, H. Wu, Y. Hu and W. Han, ‘In Depth: Is China’s Once-Booming P2P Sector Facing a Dead End?’, *Caixin Global*, 2nd December 2019 (available at: <https://www.caixinglobal.com/2019-12-02/in-depth-is-chinas-once-booming-p2p-sector-facing-a-dead-end-101489322.html>).

**70** The Pilot Programme for the Registration of Online Lending Information Intermediaries. This document was widely circulated online, but never officially published. See Yiling Caijing, ‘Important News-Pilot Programme for P2P Registration’, 8th April 2019 (available at <http://bank.jrj.com.cn/2019/04/09164427354891.shtml>).

**71** *Caixin Global*, 2nd December 2019.

**72** Caixin Global is the English language outlet of the Chinese media group Caixin Media (财新传媒), which is a private company with its headquarters in Beijing.

A platform head told Caixin that they were ‘constantly asked to submit supplementary application materials,’ and that certain requirements must be met in terms of investment capital, shareholder qualifications and more. There is no clear timetable for the application process, the person said.<sup>73</sup>

Police launched operations against a number of platforms in 2019. Lufax Holding Ltd, one of the largest P2P lending platforms, and backed by Ping An Insurance, disclosed that it had won regulatory approval to set up a consumer finance business. Li Junfeng, director of inclusive finance at CBIRC said that ‘the main goal is winding down, and the main direction is (for P2P sites) to exit’.<sup>74</sup>

The demise of the sector was widely reported as being driven by the regulatory crackdown. In November 2020, the chief legal counsel of CBIRC, Liu Fushou, said that the number of people borrowing from P2P platforms had declined for 28 consecutive months. He added that China would support ‘reasonable innovation’ in the financial sector, but risks had to be controlled and all financial activities had to be brought under unified regulation.<sup>75</sup> An editorial in *Caixin Global* emphasised that P2P had been imported into China but had ‘differentiated itself’ after entering the country so that ‘such firms rapidly morphed into credit intermediaries, setting up funding pools, running self-financing and insurance programs, and promising to guarantee principal and interest, and maturity mismatches. In some cases, they spread false publicity and made up borrowers.’<sup>76</sup> The article claimed that it had been well known between 2012 and 2015 that many platforms were acting like commercial banks, illegally accepting public deposits and committing fundraising fraud, all of which were already covered by law.<sup>77</sup> In response, the State Council emphasised the need to improve risk prevention, detection, early warning and disposal. Hidden risks should be investigated and systemic risk would not be tolerated. All financial businesses would be required to be licensed.<sup>78</sup> Guo Shuqing, the chairman of CBIRC revealed that in August 2020 RMB 800 bn of funds from

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73 Y Hu and Y Guo, ‘China’s Revamp of Peer-to-Peer Lending Slows to a Crawl’, *Caixin Global*, 27th April 2020 <https://www.caixinglobal.com/2020-04-27/chinas-revamp-of-peer-to-peer-lending-slows-to-a-crawl-101547803.html>.

74 <https://www.caixinglobal.com/2019-12-02/in-depth-is-chinas-once-booming-p2p-sector-facing-a-dead-end-101489322.html>.

75 H Yue and D Jia, ‘China’s four-Year Crackdown Leaves Just Three P2P Lenders Standing’, *Caixin Global*, 7th November 2020.

76 ‘Editorial: P2P Lending Might Have Disappeared, But the Risks Exposed by Its Collapse Haven’t’, *Caixin Global*, 7th December 2020 (available online at: <https://www.caixinglobal.com/2020-12-07/editorial-p2p-lending-might-have-disappeared-but-the-risks-exposed-by-its-collapse-havent-101636499.html>).

77 Ibid.

78 Ibid.

lenders had not been recovered. By the end of February 2021, it was reported that Chinese police had recovered more than 80 billion in assets relating to P2P lending, and that the CBIRC had said it would ban new P2P business and urge related companies to draft repayment plans. Some former P2P platforms had either transformed into licensed online microlenders or third party platforms (loan-facilitating institutions) which help financial institutions to issue loans (a process which had already begun by 2019).<sup>79</sup> In March 2021, Guo Shuqing stated that fintech companies were expected to meet capital adequacy requirements within a maximum of two years, with microlenders, consumer finance firms and banks operated by internet platforms all required to have adequate capital like other financial institutions.<sup>80</sup>

Whilst this regulatory response was drastic, the opacity of the business models being adopted by many P2P platforms left little other option than to close them down. Determining which platforms were operating as Ponzi schemes or unlicensed or shadow banks, and so posing a threat to social stability (even if not necessarily financial stability) was simply too time-consuming and too fraught with political risk. Even those platforms that converted to become third party platforms are facing a difficult future as the Chinese regulator continues to flex its muscles, asserting control over the freedom of internet intermediaries to connect regional banks with borrowers. The reason for this is that these new arrangements go far beyond simple money lending; rather, they represent a new and enormous expansion of the (shadow) banking sector. In particular, the platforms are enabling regional banks to circumvent regulatory limits on the geographical scope of their lending, potentially transmitting the financial instability risks identified by Minsky across the whole country. In addition, these regional banks, which tend to be majority controlled by local governments, pose a threat to the oligopoly of the big four, state-owned, national banks.

That regulators would no longer tolerate third party platforms connecting regional banks with nationally dispersed customers became abundantly clear when Ant Financial's proposed November 2020 IPO was, according to reports in Western media, cancelled on the orders of Xi Jinping on 3rd November 2020, following a speech by controlling shareholder, Jack Ma, that was viewed as critical

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<sup>79</sup> Y Hu and Z Tang, 'Chinese Police Snatch Back 80 Billion Yuan From Disgraced P2P Platforms', *Caixin Global*, 27th February 2021; see also Y Gao, S-H Yu, M Chen, Y-C Shiue, 'A 2020 perspective on "The Performance of the P2P finance industry in China"' (2020) 40 *Electronic Research and Applications* 100940.

<sup>80</sup> <https://www.reuters.com/article/us-china-finance-technology/chinese-fintech-platforms-expected-to-meet-capital-requirements-within-two-years-regulator-idUSKBN2AU09G>.

of the Chinese leader and regulatory authorities.<sup>81</sup> Chinese media reports focused more heavily on regulatory concerns, Ant Financial's monopoly position and the potential for financial contagion.<sup>82</sup> Ant Financial is the largest player in the online lending market, with over 500 m customers in the year to June 2020, with outstanding loans of RMB 2.2 tn in June 2020.<sup>83</sup> Its two subsidiaries Ant Small (Huabei) Microloans and Ant Shangcheng Microloans (Jiebei) partnered with regional banks, recommending borrowers to them on the basis of its algorithms, which were able to draw on enormous amounts of data from Ant's and Alibaba's other businesses along with data from hundreds of other collectors and providers.<sup>84</sup> This business filled the gap once occupied by P2P lenders, with Ant able to leverage enormous economies of scale and one hundred provincial banks underwriting the lending. Demand from consumers for borrowing further increased with the pandemic. But with Ant coming under political pressure and reducing loans made through its Huabei and Jiebei businesses, borrowers were forced to turn to other platforms that charge higher rates because they lack Ant's economies of scale, as well as its systems for identifying and managing risk.<sup>85</sup> It was later announced that, from January 2022, regulation would limit internet lending by those provincial banks to half their loan book, and would prohibit them from lending in excess of 25% of their tier one capital through a single fintech platform.<sup>86</sup> This is expected to force Ant to work more closely with bigger banks because 64% of the total tier one capital in China is held by the 10 largest banks.<sup>87</sup>

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**81** See J. Yang and L. Wei, 'China's President Xi Jinping Personally Scuttled Jack Ma's Ant IPO', Wall Street Journal, 12th November 2020 (<https://www.wsj.com/amp/articles/china-president-xi-jinping-halted-jack-ma-ant-ipo-11605203556>); the Wall Street Journal later reported that in addition to concerns about risk to the financial system and Ma's criticism, there was also concern about the opaque ownership structure of Ant Financial and the identity of likely beneficiaries of the IPO: see L. Wei, 'China Blocked Jack Ma's Ant IPO After Investigation Revealed Likely Beneficiaries', Wall Street Journal, 16th February 2021 (<https://www.wsj.com/articles/china-blocked-jack-ma-ant-ipo-after-an-investigation-revealed-who-stood-to-gain-11613491292>).

**82** G. Cross, 'Caixin Insight: What Blew Up the Ant Group IPO?', Caixin Global, 5th November 2020 (<https://www.caixinglobal.com/2020-11-05/caixin-insight-what-blew-up-the-ant-group-ipo-101623521.html>).

**83** S Yu and T Mitchell, 'China's clampdown on Jack Ma's Ant boosts rivals', *Financial Times*, 19th February 2021 (<https://www.ft.com/content/02ecd3cc-40ee-4712-ae9a-d9b41427d6e9>).

**84** To gain access to a wide range of data such as credit card payment records, facility bills, online shopping records, judicial decisions. [https://www.alibabagroup.com/cn/news/press\\_pdf/p150128.pdf](https://www.alibabagroup.com/cn/news/press_pdf/p150128.pdf).

**85** *ibid.*

**86** See E Yiu, 'China to tighten online lending rules from 2022 in additional measures to rein in fintech giants, pre-empt banking crisis', *South China Morning Post*, 22nd February 2021.

**87** See R McMorro and Y Yang, 'Jack Ma's Ant forced into arms of banks he once dubbed "pawnshops"', *Financial Times*, 3rd March 2021

At the same time, and as part of the effort to force regional banks back into geographical limits and to rein in their lending, they were prohibited from offering deposit products on third party online platforms, such as Alipay. Moreover, provincial banks would be required to carry out their own credit assessments rather than relying on third parties, even if they lacked expertise and experience in carrying out non-collateralised lending. Finally, online platforms would have to fund 30% of each loan they recommend to banks,<sup>88</sup> a requirement which, depending on how the rules are applied, might have the effect of transforming Ant from an ‘asset light’ tech intermediary into something much more like a bank.<sup>89</sup>

In addition, in January 2021, China published a draft data regulation which is expected to impact heavily on the business models of the tech firms that have positioned themselves as key intermediaries between nationally dispersed borrowers and provincial lenders. The draft regulations define credit information to include not only conventional data such as debt and repayment history, but also alternative data such as social network activity, messaging and so on. Credit reporting companies, which will include fintech businesses, would be required to collect as little information as possible and only what is necessary. They would also have to disclose scoring methods and inform users what data was used to evaluate their credit.<sup>90</sup> The law was passed by the China National People’s congress and was due to come into force from November 2021.<sup>91</sup> Finally, also in January 2021, the PBOC published draft rules allowing it to prevent abuse of a dominant position or even push for the break-up of companies such as Alipay on antitrust grounds.<sup>92</sup>

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**88** See CBIRC and People’s Bank of China, Interim Measures for the Administration of the Business Activities of Online Micro Lending, 2nd November, 2020, (网络小额贷款业务管理暂行办法(征求意见稿) available at: <http://money.people.com.cn/n1/2020/1102/c42877-31916053.html>).

**89** Financial Times, 3rd March 2021, above nxx.

**90** PBOC, 中国人民银行关于《征信业务管理办法(征求意见稿)》公开征求意见的通知 (<http://www.pbc.gov.cn/tiaofasi/144941/144979/3941920/4160598/index.html>); Y Zhang and M Luo, ‘Four Things to Know About China’s Big Changes to Data Collection Rules’, *Caixin Global*, 1st February 2021 (<https://www.caixinglobal.com/2021-02-01/four-things-to-know-about-chinas-big-changes-to-data-collection-rules-101658767.html>).

**91** J. Horwitz, ‘China passes new personal data privacy law, to take effect Nov. 1’, *Reuters*, 20th August 2021 (<https://www.reuters.com/world/china/china-passes-new-personal-data-privacy-law-take-effect-nov-1-2021-08-20/>).

**92** ‘China plans tougher antitrust rules for non-bank payments industry’, *Reuters*, 20th January 2021, <https://www.reuters.com/article/us-china-payment-cenbank-idUSKBN29P15T>.

## 6 Conclusions

The trajectory of P2P lending in China is a sobering one for those who see in fintech a pathway to financial inclusion and the democratisation of credit. Rapid technological change, when coupled with a regulatory vacuum, creates risks in the financial system which can easily spill over to the political one, triggering a regulatory backlash. Lenders are not only exposed to the risk of losses arising out of failure of the algorithms used by platforms to identify creditworthy borrowers; they also suffer losses from abuses on the part of the platforms, whether through simple opportunism or illegal activity, including unlicensed deposit-taking and credit intermediation, Ponzi activity, misrepresentation and fraud. The result is that lenders to P2P platforms are exposed to risks of loss akin to those imposed on bank depositors; but unlike bank depositors who receive a range of protections from the state, P2P lenders have no protection against these losses.

Some of these risks facing lenders may be mitigated where the platform offers its own or a third party guarantee. But from the perspective of a small lender, the legal position is often shrouded in uncertainty and it may be difficult to justify the costs of litigation to establish what it is. Linking platforms to guarantee institutions also creates the risk of contagion between the P2P sector and the wider financial system. Systemic risk becomes particularly acute where P2P platforms move beyond simply facilitating the provision of existing money from non-bank lenders to borrowers to becoming a conduit for banks to lend the money they have created to borrowers. In this scenario, an increased risk of financial instability will not be far behind, as the volume of money creation becomes coupled with increases in asset prices, and technology allows banks to gain access to a much wider and more geographically dispersed set of borrowers. Where banks or other financial institutions guarantee returns to lenders on P2P platforms, the use of the term ‘shadow banking’ becomes more clearly justified, and regulation becomes critical.

Moreover, the dramatic rise and fall of China’s online P2P lending sector highlights the challenge facing financial regulators around the world as they are confronted with technologically-driven innovation. If regulators adopt a *laissez-faire* approach and fintech platforms are allowed to develop without any, or an adequate, regulatory framework, their rapid proliferation makes it very difficult to identify the financial, political and – potentially – systemic risks to which their operations give rise. It may also be difficult to distinguish those which are operating as legitimate information intermediaries from those which are acting as illegal banks or Ponzi schemes.<sup>93</sup>

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<sup>93</sup> Thiemann and Tröger (2021, p. 237) argue that, when confronted with a financial innovation, supervisors should assess the economic function and inherent risk structure of the transaction,



At the same time, an overly strict approach to regulation risks stifling innovation. In the UK, the FCA has used a regulatory sandbox to achieve a balance between innovation and risk control.<sup>94</sup> The sandbox is ‘a “safe space” in which businesses can test innovative products, services, business models and delivery mechanisms without immediately incurring all the normal regulatory consequences of engaging in the activity in question’ (Financial Conduct Authority FCA, 2015). The Financial Conduct Authority FCA (2017) concluded that its trial with the sandbox had been a success, both reassuring investors and allowing for a number of risks to be identified. Firms were able to improve their risk management process, whilst the FCA could integrate their findings into broader regulatory work. More sceptical commentators, however, highlighted that what works on a small scale cannot be guaranteed work on a larger scale because of new risks, costs and constraints.<sup>95</sup> In 2017 and 2018, many of our interviewees were familiar with the FCA’s sandbox approach, and many thought it a good way of balancing competing concerns. However, there was also an awareness of the difficulties that would arise if the Chinese regulator sought to follow the UK approach. For example, two of our interviewees asked how the companies taking part would be selected and whether Chinese regulators are ‘capable of monitoring the experiment’.<sup>96</sup> Another highlighted:

Two obstacles to this – first, the regulator has no capacity because overloaded and operating the sandbox is obviously quite demanding. Second, the Chinese regulators tend to adopt an ex post regulatory approach, reacting after the event rather than adopting an ex ante preventative approach. For these reasons, they are afraid that they might incur admin liability for anything that goes wrong, which is a typical bureaucratic response. Therefore, the implementation of a sandbox approach will be difficult unless this is pushed from the top and the regulators have sufficient resources.<sup>97</sup>

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with a particular focus on tail risk, and regulate appropriately (with prudential requirements where there are links to the formal banking sector). As Thiemann and Tröger recognise (p. 247), and as the episode described in this article highlights, this poses a significant challenge to regulators, whose supervision must be comprehensive and continuous as they keep up with innovations and analyse their implications.

**94** It is worth noting in passing that China also championed a sandbox approach from the early 1980s, allowing joint ventures and wholly foreign-owned enterprises to operate under special regimes in specific regions of China (Biondi and Zhang, 2007, p. 700). Following the UK’s pioneering approach, sandboxes have been established by financial regulators around the world (Ringe and Ruof, 2020, p. 607).

**95** I. Kaminska, ‘The FCA wants to have its cake and eat it, sandbox edition’, FT Alphaville, 25th October 2017 <https://ftalphaville.ft.com/2017/10/25/2195224/the-fca-wants-to-have-its-cake-and-eat-it-sandbox-edition/>.

**96** IFC.22, Fintech Company Executives, Shenzhen, January 2018.

**97** IFC.20, Lawyer, Shenzhen, January 2018.

Whatever the difficulties facing regulators, our study shows that the regulation of fintech (and indeed all financial innovation) remains a work in progress. Regulation must strike a balance between widening access to finance and preventing financial, political and systemic risk. The importance of the regulator keeping ahead of the industry can be seen in jurisdictions such as the UK, where new rules have been introduced on a regular basis, in response to the development of a wider, more complex range of business models, as well as identification by the regulator of poor practice. In China, the regulator lagged behind and ultimately lost complete control of the sector; the regulations which followed were introduced at haste, and in the case of the requirement for platforms to convert to become third party platforms, connecting formal financial institutions (regional banks) with geographically dispersed borrowers, may have made things worse, by increasing the risk of a system-wide failure. When considering lessons to draw from the Chinese experience, policy makers in the developing world, and beyond, may be faced with the uncomfortable conclusion that financial innovation and market turbulence are two sides of the same coin.

**Research funding:** This work was funded by Economic and Social Research Council (Newton Fund) (ES/P004091/1, ‘Informal Finance in China: Risks, Potential and Transformation’).

## Data Appendix

### A List of Interviews

Transcript reference	Interviewee(s)	Mode	Date	Location
IFC1	Regulatory specialist	Interview	April 2017	Hangzhou
IFC2	Fintech company CEO	Interview	September 2017	Shenzhen
IFC3	Fintech company executives (12)	Focus group	September 2017	Shenzhen
IFC4	Internet finance association official	Interview	September 2017	Shenzhen
IFC5	Fintech company executives (3)	Interview	September 2017	Shenzhen
IFC6	Risk expert	Interview	September 2017	Hangzhou
IFC7	Judge	Interview	September 2017	Wenzhou
IFC8	Judges (3)	Interview	September 2017	Wenzhou
IFC9	Officials and judges (5)	Focus group	September 2017	Wenzhou
IFC10	Officials of loan registration bureau (2)	Interview	September 2017	Wenzhou

(continued)

Transcript reference	Interviewee(s)	Mode	Date	Location
IFC11	Fintech specialists (3)	Interview	September 2017	Beijing
IFC12	Fintech company executive	Interview	September 2017	Shenzhen
IFC13	Fintech company executive	Interview	September 2017	Shenzhen
IFC14	Fintech company executive	Interview	September 2017	Shenzhen
IFC15	Internet finance association officials (2)	Interview	October 2017	Shenzhen
IFC16	Fintech company CEO	Interview	October 2017	Beijing
IFC17	Fintech company executive	Interview	October 2017	Beijing
IFC18	Lawyer	Interview	January 2018	Shenzhen
IFC19	Fintech company executives (2)	Interview	January 2018	Shenzhen
IFC20	Lawyer	Interview	January 2018	Shenzhen
IFC21	Fintech company executives (2)	Interview	January 2018	Shenzhen
IFC22	Fintech company executives (2)	Interview	January 2018	Shenzhen
IFC23	Lawyer	Interview	January 2018	Shenzhen
IFC24	Judges (10)	Focus group	December 2018	Hangzhou
IFC25	Officials of loan registration bureau and a judge (3)	Interview	December 2018	Wenzhou
IFC26	Judges (3)	Interview	December 2018	Wenzhou
IFC27	Executives of a manufacturing company (2)	Interview	December 2018	Wenzhou

## B Questionnaire

### Context

This questionnaire is intended to provide a structure for interviews to be conducted in the context of a research project aiming to investigate the development and associated risk of informal financing in the Chinese mainland.

China's rapid economic growth in recent decades has been attributed to its reliance on informal contracting and trust-based relationships. This claim is a reflection of the absence in China of some of the more formal legal and regulatory institutions of the market economies of the global north. Although the claim that China lacks formal legal mechanisms of market governance may have been somewhat overstated, it is the case that informal finance, particularly in the form of trade credit, family lending and communal investing, has played a major role in supporting China's growth. The prevalence of informal finance constitutes a significance source of flexibility for China's economy given the limitations of the

formal sector, which remains dominated by state-owned banks lending largely to state-owned enterprises. Informal finance is also evolving quickly and is converging with the use of internet technologies to deliver finance (fintech) through such mechanisms as crowdfunding.

However, there is still limited understanding of the respective roles of informal, trust-based relations, and more formal, law-based and contract-based relations, in underpinning financial development, and economic growth, more generally in China. This an area where mainstream economists and law and finance scholars tend to take one type of position, in support of the extension of formal legal mechanisms of market governance, while development economists and China specialists, as well a minority of law and finance scholars, emphasise the importance of informal institutions in supporting China's rapid growth.

The intention here is to try to explore the phenomenon of informal finance in China, identify the risks and potential associated with it, and assess how regulation can best respond to the risks while not sacrificing the innovations and flexibility associated with it, particularly in the context of fintech. The theoretical premise of the research we are proposing to conduct is that formal and informal institutions are often intertwined and complementary, and that it may be a mistake to assume that as economic growth occurs, informal institutions necessarily give way to more formal ones. Moreover, we think that the potential for the formal and informal sectors to reinforce and magnify systemic risks has been underplayed in the literature and merits a deeper examination.

The topics and questions listed below should not be treated as exhaustive, however, and participants should feel free to raise any other relevant issues which are not explicitly mentioned below.

### **On the Legal and Regulatory Environments**

- Are the legal and regulatory frameworks for informal financing activities complete? Are these laws or regulations clear and consistent? Are they adapted to the needs of financing needs? Does the legislation evolve to meet the needs of the market, and to address defects in the legislation (such as lack of clarity, contradictions, provisions which have unintended effects)? What are the processes for legal development and do they function adequately?
- Do these laws and regulations allow businesses and financiers to conclude the transactions they want to conclude? Is the regulatory framework market friendly? In other words, are the regimes for tax, exchange control, competition, financial and securities market regulations and setting up and running a business unduly onerous, restrictive and/or difficult to comply with, or do they broadly support orderly market activity?

- Are the legal system and regulations appropriate and effective for upholding property rights and enforcing performance of obligations, or are there alternative or complementary means which are sometimes more effective?
- Do laws and regulations have an essentially protective function, or are they also used as an indirect means of achieving particular ends?

### On the Market Participants

- Is informal financing more readily available to business on reasonable market terms? Is the sector generally flexible and supportive to business in comparison to the conventional, state-dominated financing channels? Do financial institutions have the legal instruments they need (in particular the ability to take and enforce security) to be able to offer attractive terms to business?
- What can be used as collaterals in real lending practices? What are the most popular collaterals? To what extent have online shopping and trade credit lending (e.g. Alipay and Wechat) promoted informal financing?
- What are the impacts of shadow banking on the real estate sector, as well as the mainland stock and bond markets?
- How do the conventional, state-dominated financing channels respond to the development of informal financing, especially fintech? How do the state-owned/controlled perceive such challenges? What are their respective competitive advantages?
- Are judges competent, reliable and predictable to the emergent financing activities? Do the courts accordingly operate efficiently, diligently and without undue delays? Do administrative agencies operate efficiently, transparently and even handily? Are they helpful and supportive? If not, is this a problem?
- How are lawyers perceived, and what is expected of them? Are they seen primarily as helpful, obstructive or irrelevant?
- What are the main areas to be addressed to make the legal system more supportive of informal financing activity?

## References

- Admati, A., & Hellwig, M. (2013). *The bankers' new clothes*. Oxford: Princeton University Press.
- Albrecht, C., Baldwin, J. K., Morales, V., & Scott, S. D. (2017). Ezubao: A Chinese ponzi scheme with a twist. *Journal of Financial Crime*, 24(2), 256–259.
- Arner, D. W., Barberis, J., & Buckley, R. P. (2015). The evolution of fintech: A new post-crisis paradigm. *Georgetown Journal of International Law*, 47, 1271.

- Association of Chartered Certified Accountants (ACCA). (2015). *The rise of peer to peer lending in China, an overview and survey case study*. London: ACCA.
- Ayyagari, M., Demircuc-Kunt, A., & Maksimovic, V. (2011). Firm innovation in emerging markets: The role of finance, governance, and competition. *Journal of Financial and Quantitative Analysis*, 46, 545–580.
- Bazarbash, M., & Beaton, K. (2020). Filling the gap: Digital credit and financial inclusion. IMF Working Paper WP/20/150, August 2020.
- Beck, T., Demircuc-Kunt, A., Laeven, L., & Maksimovic, V. (2006). The determinants of financing obstacles. *Journal of International Money and Finance*, 25, 932–952.
- Bian, Y. (2018). The prevalence and the increasing significance of *Guanxi*. *The China Quarterly*, 235, 597–621.
- Biondi, Y. (2018). Banking, money and credit: A systemic perspective. *Accounting, Economics and Law: A Convivium*, 8(2), 20170047.
- Biondi, Y., & Zhang, Q. (2007). Accounting for the Chinese context: A comparative analysis of international and Chinese accounting standards focusing on business combinations. *Socio-Economic Review*, 5, 695–724.
- Biondi, Y., & Zhou, F. (2018). Interbank credit and the money manufacturing process. A systemic perspective on financial stability. *Journal of Economic Interaction and Coordination*, 14, 437–468.
- Butzbach, O., Rotondo, G., & Desiato, T. (2018). Can banks be owned? *Accounting, Economics and Law: A Convivium*, 10(1), 20170004.
- Chen, D., & Deakin, S. (2020). When formal finance meets the informal: The case of Wenzhou. *Journal of Banking Regulation*, 22, 1–11.
- Chen, D., Deakin, S., Siems, M., & Wang, B. (2017). Law, trust and institutional change in China: Evidence from qualitative fieldwork. *Journal of Corporate Law Studies*, 17, 257–290.
- China Internet Network Information Center (CNNIC). (2017). *Statistical report on internet development in China*. Beijing: China Internet Network Information Center. Retrieved from <https://cnnic.com.cn/IDR/ReportDownloads/201706/P020170608523740585924.pdf>.
- Claessens, S., Frost, J., Turner, G., & Zhu, F. (2018). Fintech credit markets around the world: Size, drivers and policy issues. *BIS Quarterly Review*, 29–49.
- Estache, A., & Wren-Lewis, L. (2009). Toward a theory of regulation for developing countries: Following Jean-Jacques Laffont's lead. *Journal of Economic Literature*, 47, 729–770.
- Fearon, P. (2015). A 'social evil': Liverpool Moneylenders 1920s–1940s. *Urban History*, 42, 440.
- Financial Conduct Authority (FCA). (2014). *The FCA's regulatory approach to crowdfunding over the internet, and the promotion of non-readily realisable securities by other media*. Policy Statement, PS14/4.
- Financial Conduct Authority (FCA). (2015). *Regulatory sandbox*. London: Financial Conduct Authority.
- Financial Conduct Authority (FCA). (2017). *Regulatory sandbox lessons learned report*. London: Financial Conduct Authority.
- Financial Stability Board (FSB). (2017a). Financial stability implications from FinTech: Supervisory and regulatory issues that merit authorities' attention. Basel: Financial Stability Board. Retrieved from <https://www.fsb.org/2017/06/financial-stability-implications-from-fintech/>.
- Financial Stability Board (FSB). (2017b). *FinTech credit: Market structure, business models and financial stability implications*. Basel: Financial Stability Board.

- Financial Stability Board (FSB). (2017c). *Assessment of shadow banking activities, risks and the adequacy of post-crisis policy tools to address financial stability concerns*. Basel: Financial Stability Board.
- Foreign and Commonwealth Office (FCO). (2016). *Financial services special report: China's fintech market*. London: HMSO.
- Friedrich, J., & Thiemann, M. (2021). The economic, legal and social dimension of regulatory arbitrage. *Accounting, Economics & Law: A Convivium*, 11(2), 81–90.
- Garcia-Herrero, A., Gavila, S., & Santabarbara, D. (2006). China's banking reform: An assessment of its evolution and possible impact. *CESifo Economics Studies*, 52, 304–363.
- Gorton, G. (2010). *Slapped by the invisible hand: The panic of 2007*. Oxford: Oxford University Press.
- Grassman, S., & Mckinnon, R. (1981). Financial repression and the liberalisation problem within less-developed countries. In Grassman, S., & Lundberg, E. (Eds.), *The world economic order* (pp. 365–386). London: Palgrave Macmillan.
- Gray, M., Rau, R., Wardrop, R., & Zhang, B. (2015). *Moving mainstream. The European alternative finance benchmarking report*. Cambridge: Cambridge Centre for Alternative Finance.
- Guo, F., Huang, Y., Shen, Y., & Wang, J. (2017). Can the internet revolutionise finance in China? In Song, L., Fang, C., Gaunart, R., Johnston, L., & Song, L. (Eds.), *China's new sources of economic growth: Reform, resources and climate change* (pp. 115–138). Canberra: ANU Press.
- Hildebrandt, M. (2021). Code-driven law: Freezing the future and scaling the past. In Markou, C., & Deakin, S. (Eds.), *Is law computable? Critical perspectives on law and artificial intelligence* (pp. 67–84). Oxford: Hart Forthcoming.
- Horne, H. O. (1947). *A history of savings banks*. Oxford: Oxford University Press.
- Hsu, S., & Li, J. (2020). *China's fintech explosion: Disruption, innovation, and survival*. New York: Columbia University Press.
- Huang, R. H. (2018). Online P2P lending and regulatory responses in China: Opportunities and challenges. *European Business Organization Law Review*, 19(1), 63–92.
- Hu, J., Ma, C., & Zhang, B. (2017). History, culture and the rise of informal finance in China. HKIMR Working Paper No 12/2017. Retrieved from [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2980540](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2980540).
- International Finance Corporation. (2017). MSME finance gap. Retrieved from <https://www.ifc.org/wps/wcm/connect/03522e90-a13d-4a02-87cd-9ee9a297b311/121264-WP-PUBLIC-MSMEReportFINAL.pdf?MOD=AJPERES&CVID=m5SwAQA>.
- Jafarov, E., Maino, R., & Pani, M. (2020). Financial repression is knocking at the door, again. Should we be concerned? IMF Working Paper WP/19/211.
- Jiang, S. (2009). The evolution of informal finance in China and its prospects. In Li, J., & Hsu, S. (Eds.), *Informal finance in China: American and Chinese perspectives* (pp. 12–38). Oxford: Oxford University Press.
- Kirby, E., & Worner, S. (2014). *Crowd-funding: An infant industry growing fast*. Madrid: IOSCO Research Department. SWP3/2014.
- Klein, M. C., & Pettis, M. (2020). *Trade wars are class wars: How rising inequality distorts the global economy and threatens international peace*. New Haven, CT: Yale University Press.
- KPMG. (2020). *Mainland China banking survey 2020*. Beijing: KPMG Huazhen LLP.
- Kregel, J. (2010). *No going back: Why we cannot restore glass-steagall's segregation of banking and finance (No. 107)*. Annandale-on-Hudson, New York: Public Policy Brief, Levy Economics Institute of Bard College.

- Kregel, J., & Savona, P. (2020). *The Impact of technological innovations on money and financial markets* (p. 150). New York: Annandale-on-Hudson: Levy Economics Institute of Bard College, No 150.
- Lobban, M. (2010). Consumer credit and debt. In Anderson, J. S., Cocks, R., Cornish, W., Lobban, M., Polden, P., & Smith, K. (Eds.), *The Oxford history of the laws of England: Volume XII: 1820–1914 private law* (pp. 834–876). Oxford: Oxford University Press.
- McKinsey (2017). *Digital China: Powering the economy to global competitiveness*. Washington, DC: McKinsey Global Institute.
- Minsky, H. (2008). *Stabilizing an unstable economy*. New York: McGraw-Hill.
- Nemoto, N., Storey, D. J., & Huang, B. (2019). Optimal regulation of P2P lending for small and medium-sized enterprises. ADBI Working Paper Series No912.
- Packman, C. (2014). *Payday lending: Global growth of the high cost credit market*. Oxford: Palgrave Pivot.
- Passas, N., Hsu, S., & Li, J. (2012). Development and legitimacy of Chinese informal finance. *The Pacific Review*, 25(4), 495–511.
- Pettis, M. (2013). *Avoiding the fall: China's economic restructuring*. Washington, D.C.: Brookings Institution Press.
- Podpiera, R. (2006). Progress in China's banking sector reform: Has bank behavior changed? IMF Working Paper WP/06/71.
- Ringe, W.-G., & Ruof, C. (2020). Regulating fintech in the EU: The case for a guided sandbox. *European Journal of Risk Regulation*, 11(3), 604–629.
- Rowlingson, K., Appleyard, L., & Gardner, J. (2016). Payday lending in the UK: The regul(ar)isation of a necessary evil? *Journal of Social Policy*, 45, 527.
- Schreiner, M. (2001). Informal finance and the design of microfinance. *Development in Practice*, 11, 637–640.
- Shen, W. (2015). Internet lending in China: Status quo, potential risks and regulatory options. *Computer Law & Security Review*, 31(6), 793–809.
- Stănescu, C.-G., & Bogdan, C. (2021). Regulatory arbitrage and non-judicial debt collection in central and Eastern Europe. *Accounting, Economics & Law: A Convivium*, 11(2), 119–160.
- Sun, G. (2019). China's shadow banking: Banks' shadow and traditional shadow banking. BIS Working Paper No 822.
- Thiemann, M., & Tröger, T. (2021). Detecting tail risks to preclude regulatory arbitrage. *Accounting, Economics & Law: A Convivium.*, 11(2), 233–270.
- Thornton, D. (2008). Walter Bagehot, the discount window, and TAF. Economic Synopses, Federal Reserve Bank of St. Louis No. 27.
- Trumbull, G. (2008). Consumer protection in French and British credit markets. Joint Center for Housing Studies, Harvard University Working Paper, UCC08-17.
- Vives, X. (2016). *Competition and stability in banking: The role of regulation and competition policy*. Princeton: Princeton University Press.
- World Bank. (1997). *China 2020: Development challenges in the new century*. New York: World Bank.
- World Bank. (2013a). *Country highlights: China 2012*. Washington, D.C.: World Bank. Retrieved from <http://documents1.worldbank.org/curated/en/588161468218407612/pdf/923660WP0count000PUBLIC00China02012.pdf>.
- World Bank. (2013b). *China country profile 2012*. Washington, D.C.: World Bank. Retrieved from <https://www.enterprisesurveys.org/content/dam/enterprisesurveys/documents/country-profiles/China-2012.pdf>.



- World Bank. (2017). *MSME finance gap. Assessment of the shortfalls and opportunities in financing micro, small and medium enterprises in emerging markets*. Washington, DC: World Bank. Retrieved from <https://www.ifc.org/wps/wcm/connect/03522e90-a13d-4a02-87cd-9ee9a297b311/121264-WP-PUBLIC-MSMEReportFINAL.pdf?MOD=AJPERES&CVID=m5SwaQA>.
- World Economic Forum. (2015). *The Future of fintech: A paradigm Shift in small business finance*. Geneva: WEF.
- Xin, K., & Pearce, J. (1996). *Guanxi: Connections as substitutes for formal institutional support*. *Academy of Management Journal*, 39(6), 1641–1658.
- Yu, T., & Shen, W. (2019). Funds sharing regulation in the context of the sharing economy: Understanding the logic of China's P2P lending regulation. *Computer Law & Security Review*, 35(1), 42–58.
- Zhang, G. (2008). The choice of formal or informal finance: Evidence from Chengdu, China. *China Economic Review*, 19(4), 659–678.