

RESEARCH ARTICLE

Demystifying the proliferation of online peer-to-peer lending in Indonesia: Decoding fintech as a regulatory challenge

David Tan

Assistant Professor, Faculty of Law, Batam International University, Batam; School of Law, Pelita Harapan University, Tangerang; and The Dickson Poon School of Law, King's College London
Corresponding author: E-mail: david.tan@uib.ac.id

Abstract

This paper purports to study the enormous proliferation of fintech online peer-to-peer (P2P) lending in Indonesia, along with their risks and the prevailing regulations of fintech online P2P lending. This article also suggests a varied spectrum of regulatory actions for regulating online P2P lending as an approach to increase consumer protection and stimulate the growth of Indonesia's financial inclusion. It highlights the regulative risks and challenges of fintech online P2P lending in Indonesia and has discovered various spectra of regulatory responses that the Indonesian government can practise to regulate this potential industry. Solid recommendations were also given to regulators to better develop the present regulatory framework. This paper adds to the literature on the prevailing practice of online P2P lending by offering a legal outlook involving legal protection and the newly emerging fintech industry from an Indonesian context.

Keywords: peer-to-peer lending; P2P lending; crowdfunding; fintech; financial inclusion; financial regulation

1. Introduction

The past several years have noticed an unprecedented surge of a new variety of financial intermediaries and service providers, particularly online peer-to-peer (P2P) lending. Online P2P lending lately has been one of the most sought-after funding services in Indonesia. This designation applies to every practice of matching borrowers and lenders by the use of an online platform, expediting moneylending agreement that allows a person to transact and secure a loan undeviatingly from another person, leaving out the conventional financial institutions as the middleman.¹ P2P lending has democratized the capital market by enabling people (called the “crowd”) to bypass conventional banking roadblocks and allowing them to become clients and suppliers of their own financial products,² rendering provable data on borrowers, although a sizable proportion of information asymmetry does remain, inducing moneylenders to carry notable risk because loans are unsecured.³

There are plenty of reasons to explain the prolific spread of online P2P lending; however, the obvious one is the unbanked population. The conventional financial organization practices concerning loans demand loads of documentational requirements,

¹ Omarova (2020), p. 84.

² A financial technology business runs this platform, which allows anybody to invest and lend as an investor or borrow as a borrower. See Wong & Eng (2020), p. 620.

³ Xu & Xu (2020), p. 309; Caldieraro et al. (2018), pp. 45–6; Sangwan et al. (2020), p. 75.

creditworthiness screening, and a bank account. As a consequence, unbanked Indonesians in need of capital have to attempt financing channels outside of the banking sectors. In addition, Paulet and Mavoori (2019) highlight that fintech has reinvented the lending transaction by rendering liquidity to small and medium-sized businesses (SMEs) in times when conventional banks stood cautious on giving loans.⁴ It is self-evident that SMEs are critical to the national economy⁵ since crowdfunding and online P2P lending are seen by the government as promising methods for financing SMEs, as the development of SMEs eventually contributes to the country's long-term economic development.⁶ The strong financing needs have contributed to the development and success of a massive private lending market in Indonesia.

The Indonesian Ministry of Home Affairs' report entitled "Indonesia's Islands Recapitulation" asserts that the archipelagic nation is built up of approximately 17,491 islands.⁷ The tremendous number of islands in Indonesia made it notably challenging to scuffle toward modernity, omitting numerous residents in the rural area with insufficient access to banking and financial services. The idea of improving financial inclusion by digital technology is not without basis.⁸ According to a study, globally, there are nearly 1.1 billion unbanked adults—roughly two-thirds of all those without a bank account actually possess a mobile phone—a fantastic opportunity indeed to address the issue of financial inclusion.⁹ For countless Indonesians, going into the most proximal bank office can be a perilous trip, whereas more Indonesian people actually own smartphones than bank accounts, digital technology may be the answer. Of course, digital technology is not solely sufficient to boost financial inclusion. Nevertheless, owning a modest mobile phone can probably unlock access to mobile money accounts and other financial services. These technologies could assist in defeating obstacles that unbanked adults say restrict them from obtaining financial services.

Online P2P lending through fintech firms serves as a catalyzer for financial inclusion. It improves financial inclusion by eradicating obstacles like geography while additionally accommodating more market preferences for customers.¹⁰ Mobile phones could also reduce the necessity to travel long distances to a financial establishment. Demertzis et al. (2018), Lu (2018), Magnuson (2018), Chen et al. (2019), and Knewtson and Rosenbaum (2020) highlight that by reducing the cost of providing financial services and decreasing processing time, digital technology might improve their affordability and receptiveness.¹¹ The rapid growth of the online P2P lending industry has not only contributed to the financial markets with innovative products and services, but has also endangered borrowers and moneylenders to severe market breakdown. Policy-makers face regulatory challenges to uncover a parity between "satisfactory regulation for borrower and lender protection without overburdening the young and developing industry."¹² As

⁴ Paulet & Mavoori (2019), p. 20.

⁵ Lu (2018b), p. 342.

⁶ Wonglimpiyarat (2018), p. 102.

⁷ Indonesian Ministry of Home Affairs (2020).

⁸ Concerns about fintech's larger developmental impacts arise as a result of governance concerns. Fintech is marketed under the banners of financial inclusion and democratization of finance, especially those in developing countries. Others, on the other hand, see it as digital financialization, with finance increasingly permeating society and life, with potentially severe effects for inequality. Fintech's expansion of credit markets and acceleration of capital flows may jeopardize economic stability. On the other hand, its advancements may enhance risk pricing and technology utilized for financial market regulation and oversight. See Knight & Wójcik (2020), p. 1494.

⁹ Demirgüç-Kunt et al. (2018).

¹⁰ Individual investors, institutional investors, and government organizations from around the world can participate in online P2P lending services, which have no geographical limitations. See Lu, *supra* note 5, p. 323.

¹¹ Demertzis, Merler, & Wolff (2018), p. 158; Lu (2018c), p. 455; Magnuson (2018), pp. 1182–3; Chen, Wu, & Yang (2019), p. 2091; Knewtson & Rosenbaum (2020), p. 1050.

¹² Magee (2011), p. 151.

illustrated earlier, regulators ought to balance various considerations and trade-offs when choosing to take action. One is the degree of ambiguity circling the regulatory response considering policy-makers do not comprehend *ex ante* how a technology-driven financial innovation might emerge and which dangers it may face in the future.¹³

In addition to the broad reputation of P2P lending, the relevant Indonesian laws and regulations governing these online and private financing transactions have stayed under-explored. Hence, this study endeavours to fill this literature gap and provides a thorough analysis of Indonesian laws correlating to fintech vis-à-vis online P2P lending transactions. It will also provide valuable guidance for legal practitioners dealing with online P2P lending in Indonesia and researchers interested in Indonesian commercial law.

These notify the author's motivation for action research. While a well-documented and established amount of study focuses on financial services and the banking sector, barely a few academic researchers have examined fintech's online P2P lending business model from the regulatory viewpoint. The author tries to demystify the innovative disruption area and the increasingly widespread presence of digital platforms in the financial community while also endeavouring to shed more light on the emerging ecosystem from the legal viewpoint through action study.

The article progresses as follows. The second section reveals why online P2P lending has attained tremendous popularity in Indonesia's commercial environment. After introducing the online P2P lending market's background knowledge, this paper's remainder concentrates on the doctrinal analysis of legal rules concerning private lending transactions. The third section assesses provisions under the Indonesian Code of Civil Law regarding the private lending arrangement. Next, the fourth section considers the risks correlated with fintech online P2P lending, while the fifth section investigates the recent government regulation and various spectra of regulatory action for online P2P lending. The sixth section pays attention to the official interest rate cap, lending cap, and segregation of funds in online P2P lending. The seventh section reflects some illegal online moneylending practices that could constitute a criminal offence under Indonesian criminal law. Lastly, a conclusion summarizes some key takeaways and recommendations will be outlined.

2. The vast proliferation of online P2P lending in Indonesia: key drivers

Individuals and businesses traditionally encounter numerous complexities in raising funds from conventional business finance sources, such as banks. Nevertheless, banks are generally concerned about one's creditworthiness. Banks are also highly selective in picking their debtors. This matter makes banks reluctant to grant credit before they have a verified track record, steady cash flows, and a satisfactory amount of tangible assets they can employ as collateral.¹⁴ Additionally, banks frequently bypass the poorest portions of the population and seldom ignore Indonesia's enormous middle layer of "relatively underbanked" households—those who are income-earning households that are not wealthy but have spendable income—as well as the borderline underbanked and banked segments above and below those households.¹⁵

Among others, online P2P lending has been one of the booming fintech market sectors. P2P lending is also known as social lending, crowdlending, crowdfunding, or market-place lending (MPL).¹⁶ The term "loan-based crowdfunding" is generally used in the UK. The US Department of the Treasury utilizes the phrase "online marketplace lending" because online lending products and business models have presently evolved. The investor base

¹³ Minto, Voelkerling, & Wulff (2017), p. 430.

¹⁴ Humphries (2020), p. 218.

¹⁵ Stapleton (2013), p. 360.

¹⁶ Jagtiani & John (2018), p. 2.

has grown from individuals to institutional investors, hedge funds, and financial organizations. Ergo, it is no longer accurate to label it as a “peer-to-peer” market.¹⁷ As complicated as it may seem, online P2P lending is primarily one type of private loan created in the wake of innovations in information and technology. It is still an innovative means of financing that neglects traditional banking go-betweens by directly connecting the borrowers and lenders through online Internet portals, gradually biting away at the incumbents’ market share and profitability—consequently reconstructing the financial industry’s competitive models.¹⁸

As far as the different segments of fintech activities are concerned, alternative lending in Indonesia is dominated by P2P consumer loans, business lending, and crowdfunding. Although limited, the evidence presented by the Indonesian Financial Services Authority (OJK) implies that online P2P lending in Indonesia presently is still a predominantly domestic activity, with negligible cross-border outflows.¹⁹ Zavolokina, Dolata, and Schwabe (2016) view that the appearance of fintech is the outcome of three principal factors concurrently interacting and challenging the status quo at the same time.²⁰ Those three factors are organizations, people, and geographical locations (markets). Reflecting on Zavolokina, Dolata, and Schwabe’s factors, I elaborate further on this study.²¹ I enhance the before-mentioned dimensions and explain how they affect and stimulate the rise and widespread proliferation of online P2P lending in Indonesia.

Organization-wise, in every industry, it is frequently not the established firms, but the newcomers who are victorious in defying the old ways by going digital first.²² Still, financial services are much more stringently regulated—with the requirement for permits/licences. This has made it significantly more difficult for the rookie (fintech firms) to develop forward.²³ With more substantial Internet penetration, companies are reinventing their business model. Businesses now primarily concentrate on customer centricity, with the “customer” being at the heart of the operations. They tend to evade the structural formalities while thinking of a more effective method of attending to the needs of the customers.²⁴ This has been a big prospect window for new finance-related, customer-oriented services, particularly fintech. Besides, through diversification and funds disintermediation,²⁵ fintech online P2P lending newcomer entrance forms a more notable, more competitive, and more diverse credit market—disrupting the conventional banking.²⁶

We now dwell in a world of excellent remote connectivity. The growing coverage of Internet and mobile penetration in the Indonesian population is another reason why online P2P lending thrives in Indonesia. A survey by the Indonesian Internet Providers Association (APJII) reported that the number of Internet users in Indonesia had extended

¹⁷ US Department of the Treasury (2016), p. 5.

¹⁸ Minto, Voelkerling, & Wulff, *supra* note 13, pp. 431–2; You (2018), p. 86; Demertzis, Merler, & Wolff, *supra* note 11, pp. 158–9.

¹⁹ OJK (2021).

²⁰ Zavolokina, Dolata, & Schwabe (2016), p. 5.

²¹ *Ibid.*, pp. 7–8.

²² Das et al. (2016), p. 13.

²³ These permits or licences may be expensive to get since they frequently cost huge amounts of money in capital, amongst many other constraints. See Harris (2021), p. 178.

²⁴ Románova & Kudinska (2016), p. 28.

²⁵ The word disintermediation refers to the breaking-up of conventional financial relationships by circumventing intermediation. Notwithstanding all of fintech’s innovation and potential disruption, intermediation is expected to stay as an important aspect of the finance industry. The majority of today’s financial innovations perform the essential functions of financial intermediation, but in newer and more accessible ways for both businesses and consumers. The reality that finances and financial services are becoming more customer-centric gives the impression that financial transactions are becoming more direct. See Minto, Voelkerling, & Wulff, *supra* note 13, pp. 447–8.

²⁶ Chen, Wu, & Yang, *supra* note 11, pp. 2064–5.

to 196 million people in 2020, with the country's Internet penetration rate momentarily equalling 73.7%.²⁷ With that being stated, the Indonesian younger generation (the millennials) are proportionately allotted more critical functions in the Indonesian economy. Moreover, millennials are anticipated to entirely reconstruct the industry, business, customer demographics, behaviours, and expectations. Besides, the even-younger generation will engage in an ecosystem of plentiful remote connectivity per se. All of the preceding make up a digital clientele, exceptionally technically skilled, that can expedite the acceptance and business disruption of fintech²⁸—clients who, according to the study by Vallée and Zeng (2019), were explicitly targeted by online P2P lending.²⁹ Such a novel means of conducting business has been designed by personalities who grew up with the Internet, and who have then entirely quit hitting physical branches and ATM networks versus services rendered wholly online and through applications. Stapleton (2013) opined that most of the low- to middle-income part of the Indonesian demographic also constitutes a bare minimum clientele that lacks collateral,³⁰ is deficient in diversification when it comes to their sources of earnings, and lacks clarity in their financial statements. Consequently, they are excluded from conventional banking and lending services.³¹

Similar to China, the underdevelopment of Indonesia's economic infrastructure, such as the traditional banking sector, credit market, and law enforcement system, is one major potential driver that possibly leaves space for the fast expansion of online P2P lending.³² Geographically speaking, Indonesia is composed of approximately 17,491 islands—most of which are isolated. The secluded location of tiny islands demoralizes banks from spreading out and rendering necessary financial services. Buckley and Webster (2016) suggest that it is simply not sensible for most brick-and-mortar banks to endure the fixed costs of establishing branches in rural areas where interest and population density are still faint. The geographic heterogeneity and mass population assume the inherent barriers for extensive financial inclusion.³³ Still, Indonesia has accomplished meaningful progression towards financial inclusion to encompass unbanked people who had previously been refused access due to their seclusion from financial organizations.³⁴ Notwithstanding all of it, due to Indonesia's massive rural society that is spread over numerous islands, now there is still an enormous business potential for fintech to expand in Indonesia.³⁵

Moreover, due to stringent checks over the interest rate paid on deposits by conventional banks, Indonesian investors are more allured to online moneylending, allowing greater yields from significantly higher interest rates.³⁶ Joined by the desire for a wider inclusive financial system in Indonesia,³⁷ online P2P lending in Indonesia is estimated to

²⁷ APJII (2020).

²⁸ Lu (2017), p. 274.

²⁹ Vallée & Zeng (2019), p. 1973.

³⁰ Since online P2P lending does not require collateral, the borrowers' net worth is unimportant for loan decisions. See Wong & Eng, *supra* note 2, p. 618.

³¹ Huang (2018), p. 68; Stapleton, *supra* note 15, p. 377.

³² Jiang et al. (2021), p. 87.

³³ Buckley & Webster (2016), p. 152.

³⁴ Babu (2016), p. 36.

³⁵ Azali (2016), p. 365; Stapleton, *supra* note 15, pp. 377–8.

³⁶ In a conventional valuation approach with banks, the policy rate tunes the bank deposit rate, which transmits to the bank lending rate, which shapes capital investment as well as the economy. On the other hand, the cost and benefit of engaging in the platform, the risks involved, as well as the market thickness, are the factors that affect the P2P lending rate and return on online P2P lending. See Wong & Eng, *supra* note 2, p. 620.

³⁷ Inclusive finance involves the provision of high-quality, low-cost financial services to anyone who is not adequately served by traditional banks or other financial institutions. Inclusive finance has become more of a global focus. It allows clients who were previously unserved to obtain economic self-determination, reduces wealth disparity, and promotes job creation. As a result, inclusive finance offers enormous socioeconomic benefits. See Chen (2016), p. 236.

expand across the nation. The platform's credit funds are accumulated by running a pool of funds entrusted by a group of investors through a joint investment plan. The platforms usually do so by repackaging investors' capitals and marketing them to the borrowers as credits.³⁸

We need fintech, and we need it now. The shortage of financial inclusion deepens poverty and later grows into a bottleneck in economic progression, considering admittance to essential financial services encourages people to nourish their education, financial plans, and also begin their own personal business.³⁹ Assisting start-ups to engage in creative pursuits results in the creation of jobs, positive social benefits, and increased national competitiveness.⁴⁰ Numerous researchers have established that financial inclusion has assisted in decreasing poverty and raising the standard of living in rural regions by extending financial services to the unprivileged and borderline population.⁴¹ At the outset, and operating beneath the government's radar, fintech's online P2P lending start-ups not only guarantee more nimble financial services, but are also favoured by a greater yet particularly ignored clientele: retail and low-end customers. Simply put, they give better service for cheaper costs.

Overall, fintech has appeared as a consequence of shifting global drivers of the value chain, which has managed to reveal flaws in the prevailing business models of banks in order to highlight sectors in which adjustments are required and to support inspiring the adoption of such business models for future development.⁴² Fintech start-ups are already defying numerous modules of the conventional banking models universally, resulting in broader banking access, expedience, cost-cutting, efficacy, but also safety value.⁴³ Meanwhile, research by Gupta and Xia (2018) purports that the adoption of fintech in Indonesia is slow and steady but has tremendous growth potential.⁴⁴

3. Online P2P lending agreement from the Indonesian Code of Civil Law's perspective

The purpose of the legal regime is to promote tools that aid societies to cope with factors of socioeconomic change, such as fintech. Such tools appear from the administration of a fintech legal regime and especially from its synergy with commercial rules and business practices. They present scope for mitigating the dislocating impacts of fintech and intervening in the opportunity-creating and protective roles of law. Such mediation can occur from the possibilities for legislators to take into consideration legislative goals in promulgating law or business solutions that react to various public-interest concerns.⁴⁵ At the moment, there is still no particular statute concerning online P2P lending in Indonesia, although, by law, online P2P lending is considered to be a private moneylending agreement that falls within the realm of private law, particularly the Indonesian Code of Civil Law (BW).

A loan contract is a moneylending agreement between a borrower and one or more moneylenders, which records joint commitments about moneylending matters. In Indonesia, notwithstanding the vast amount of money committed in private lending, all moneylending activities typically form a contractual bond between a creditor and a

³⁸ Huang, *supra* note 31, p. 71.

³⁹ Baber (2020), p. 26; Demirgüç-Kunt et al., *supra* note 9, p. 1.

⁴⁰ Wonglimpiyarat, *supra* note 6, p. 104.

⁴¹ Burgess & Pande (2005), p. 793; Allen et al. (2013), p. 14; Brune et al. (2011), p. 24.

⁴² Anagnostopoulos (2018), p. 7; Thurber (2012); Goldstein, Jiang, & Karolyi (2019), p. 1658.

⁴³ Jagtiani & Lemieux (2018), p. 45; Anagnostopoulos, *supra* note 42, p. 21.

⁴⁴ Gupta & Xia (2018), p. 246.

⁴⁵ Xu & Xu, *supra* note 3, p. 320.

debtor. Hence, the lending parties ought to observe the stipulations under the Indonesian Code of Civil Law (BW). A legitimate private lending agreement, similar to any other agreement, involves fundamental elements specified in Article 1320 BW, including consensus, capacity, an ascertain (specific) object as the subject matter, and a legal cause. Nevertheless, the general matters governed by the general principles of contract law are not addressed here, while the concentration is centred on particular provisions overseeing loan agreements vis-à-vis online P2P agreements.

The codified BW has 1993 articles under four books, with the third book as the law of obligations—containing the fundamental postulates and rules that shall be complied with in all agreements concluded in Indonesia. After that, Articles 1457 to 1864 BW set out specific rules for particular kinds of agreements (innominate agreements) generally utilized in commercial practices. In particular, Article 1754 BW sets out rules for loans for consumption (loans of consumables). In this kind of agreement, the creditor transfers full property of the subject matter, and the debtor is under an obligation to return at the end of the loan objects of comparable kind and quantity. The preceding provision sets down fundamental requirements for formalities and contents of a loan agreement, legal rights and obligations of lending parties, and conditions that direct to a breach and related remedies. It should be perceived that such laws were essentially devised for contracts correlating to private lending, but they also apply to all moneylending agreements in Indonesia, including bank loans and online P2P lending.

The stipulation of Article 1765 BW provides for the right of the creditor to require interests on the loan. The debtor shall satisfy the interests at the prescribed time based on the agreement. The debtor shall return the principal in whole at the prescribed time. As a real contract, a moneylending agreement becomes valid at the moment when the lender makes the loan amount available. It suggests that the act of drafting and closing the loan contract does not ensure its effectiveness unless the lender provides the money for the borrower.⁴⁶

Due to the lack of a dedicated statute governing online P2P lending and crowdfunding in Indonesia, existing contract law and legislation will be applicable to these activities. Because online P2P lending is basically based on moneylending agreements, the Indonesian Code of Civil Law may be regarded as the legal foundation for such transactions. Despite these general laws, specific rules on online P2P lending are desperately needed to protect the rights and interests of consumers while also ensuring the continued growth of these activities in order to contribute to the growth and stability of Indonesia's financial system.⁴⁷

4. Risks associated with fintech online P2P lending

For legislators and regulators globally, there is the dilemma of keeping pace with the swift advances in how technology is utilized to manage, market, and process enormous quantities of data, money, and countless forms of financial market risk.⁴⁸ Notwithstanding the advantages of P2P lending, it also suggests principal concerns. Online P2P lending succumbs to every risk correlated with a conventional “brick-and-mortar” lending institution, including but not limited to: money laundering, lending fraud, illegal fundraising, identity theft, consumer privacy and data protection infringements, and terrorism funding. Online P2P lending may also make it possible for riskier borrowers who have been turned down by traditional banking institutions to secure a loan.⁴⁹ These risks are then coupled to and

⁴⁶ Budiono (2014), p. 45.

⁴⁷ Zhou, Arner, & Buckley (2015), p. 51–2.

⁴⁸ Sheridan (2018), p. 589.

⁴⁹ Agarwal & Chua (2020), p. 368; Barberis & Arner (2016), p. 84.

magnified by the ubiquity and anonymity of the Internet.⁵⁰ The key distinction would be that online P2P lending makes use of digital technology where participants are significantly larger in number and geographically dispersed. As a result, risk transmission might be faster and more widespread.⁵¹ The design for online P2P lending also possesses a diversity of problematical properties.

First, the information provided by borrowers generally is not verified and, if the data are validated, they usually prove fallacious due to the gathering of data by online self-reporting forms,⁵² which might be susceptible to lax screening.⁵³ The participants in this sector often possess less information available for the public to collect and analyze, as well as a poorer ability to recognize and bear financial risks.⁵⁴ Consequently, moneylenders using the platforms encounter a problem ascertaining a borrower's actual creditworthiness (generally known as "information asymmetry").⁵⁵ According to Emekter et al. (2014), Zhu (2018), and Hidajat (2019), information asymmetry in the online P2P platform is essentially the result of online anonymity—that is, the lender does not know the borrower's creditworthiness as well as the borrower does; therefore, there is a shortage of data disclosure that can decrease credit quality.⁵⁶ Credit rating and publicly released assessments of historical records help to mitigate the online P2P lending platform's asymmetric information problem.⁵⁷ Tracing the borrowers' creditworthiness will be even more complex if they begin utilizing multiple alternative online P2P lending platforms.⁵⁸

Second, the credit ratings (if any) indicated by the platforms may not precisely predict how credits will behave because platforms have an inadequate amount of historical loan-performance data, suggesting that online P2P platforms are simply operating as an entirely informational intermediary, and consequently it can include default risks to crudely informed lenders.⁵⁹ Succinctly, the borrowers' credit ratings cannot reliably determine their default rate, nor is their credit score the best possible indicator of *ex ante* default propensity.⁶⁰ This argument is supported by Wu and Zhang's study in 2021, which demonstrated that borrowers' initial credit ratings had no relevance on their probability to default.⁶¹ Ge et al. (2017) even recommend using both standard/hard information and non-standard/soft information to predict and prevent default in online P2P lending.⁶²

⁵⁰ Xu & Xu, *supra* note 3, p. 308; Chaffee & Rapp (2012), p. 505; Ferretti (2018), pp. 476–7.

⁵¹ Hua & Huang (2020), p. 329.

⁵² Vallée & Zeng, *supra* note 29, p. 1945.

⁵³ Goldstein, Jiang, & Karolyi, *supra* note 42, p. 1659.

⁵⁴ Wang, Shen, & Huang (2016), p. 282.

⁵⁵ Banks have long played a key role in decreasing information asymmetry since they are regarded as possessing the technical ability and experience to assess borrowers' creditworthiness and allocate capital appropriately. Transaction costs are minimized in the P2P online lending market by cutting costly intermediaries, but as non-financial specialists dominate this pseudonymous online loan market-place, information asymmetries get more and more severe. According to a certain study, the disclosure of the borrower's soft information can serve to minimize the threats of information asymmetry. See Tao, Dong, & Lin (2017), p. 426.

⁵⁶ Emekter et al. (2014), p. 55; Zhu (2018), p. 5; Hidajat (2019), p. 277.

⁵⁷ Wong & Eng, *supra* note 2, p. 620.

⁵⁸ Xu & Xu, *supra* note 3, pp. 309–10; Gupta & Xia, *supra* note 44, p. 221; Minto, Voelkerling, & Wulff, *supra* note 13, pp. 439–40.

⁵⁹ Huang, *supra* note 31, p. 72; Xu & Xu, *supra* note 3, p. 310.

⁶⁰ Zhao et al. (2021), p. 101408.

⁶¹ Wu & Zhang (2021), p. 101730.

⁶² Borrowers' information is classified into two categories: standard "hard" information (objective information) and non-standard "soft" information (subjective information). The former, such as credit score, debt-to-income ratio, and yearly income, immediately represents borrowers' financial condition or creditworthiness, whereas the latter has no direct association with borrowers' financial standing or creditworthiness. Borrowers generally disclose soft information voluntarily, such as a photograph of the borrower, the identities of his acquaintances on the P2P platform, or even the highest interest rate the borrower is prepared to pay, while soft information itself is not directly tied to a borrower's creditworthiness, but it may be a helpful addition to the evaluation process—

Third, the returns on the loans that the platforms sell to personal lenders are entirely based on repayment by the borrowers and are not secured by any collateral or backed by any third party.⁶³ Some years ago, Magee (2011) wrote that as online P2P loans are unsecured, there is little to stimulate borrowers' repayment other than flawed credit ratings, consequently revealing broad avenues for misuse of the online P2P lending platforms.⁶⁴ In addition, because the loans were unsecured, there was no further resort for moneylenders if collections attempts were unsuccessful.⁶⁵ Hence, online P2P lending platforms should strictly observe the borrowers' capacity to service their unsecured loan and how the borrowers utilize these extra funds that they acquired.⁶⁶

Fourth, in case of non-payment by borrowers, lenders rely on the online P2P lending platforms and their appointee to settle on the defaulted loan, which the platforms are terrible at doing. The lenders using such platforms have no self-reliant ways of seeking collection on outstanding loans. Magee (2011) asserts that numerous moneylenders were not content with the platform's initial attempt to collect from borrowers on defaulted loans.⁶⁷ Research by Maggio and Yao (2021) highlighted that fintech borrowers are more inclined to default than non-fintech borrowers with somewhat comparable characteristics; consequently, fintech loans are significantly more prone to failure.⁶⁸ Moreover, online P2P lending means more loan production. Such increments in leverage as a systemic event usually convey higher risk for every participant in the financial and real economies, and could inflate systemic frangibility in the face of shocks or crises.⁶⁹

Fifth, private lenders' loans are significantly less liquid than those of several other investment schemes because numerous loans are for three- to five-year duration. Besides, some platforms prohibit the sale and transfer of loans to a different person than to lenders at that particular platform. A significant constraint distinguished by Paech (2016) was the disappointing transferability of these loans. Lenders understood that it might be tough to find secondary acquirers should they choose to divest considering that selling a bunch of mutual private obligations to a secondary acquirer was anything but fail-safe.⁷⁰ Potential secondary acquirers remained unsure of the relevant instrument's content—that is, the precise economic and legal value. The next barrier to transferability involves the method of the transfer itself. It was tricky to determine whether the seller (lender) was authorized to dispose of the associated rights and whether these were clear of encumbrances. Moreover, some jurisdictions prescribe transfer that can only be achieved with the other party's permission.

Sixth, a high degree of scepticism remains as to what would happen *ex ante* if a platform became insolvent, discontinued operation, failed to cash out (liquidity risk), lost contact, had police intervention, or had platform closedown. These company risks happen if the P2P platform ceases operations.⁷¹ Until now, no rules in Indonesia have been implemented concerning how to report, manage complaints, or settle conflicts. Neither is there an

particularly for borrowers with inadequate or unappealing hard information. Soft information is usually gathered throughout the screening procedure for larger clientele. Unfortunately, since this procedure requires a lot of time, it is frequently omitted when assessing smaller customers. Furthermore, the non-standard information is self-reported by borrowers and is hard to verify. See Iyer et al. (2015), p. 5; Ge et al. (2017), pp. 402–3; Agarwal & Chua, *supra* note 49, p. 369.

⁶³ Sangwan et al., *supra* note 3, p. 75; Caldieraro et al., *supra* note 3, p. 46; Magnuson, *supra* note 11, pp. 1202–3.

⁶⁴ Magee, *supra* note 12, p. 167.

⁶⁵ *Ibid.*, p. 152.

⁶⁶ Tao, Dong, & Lin, *supra* note 55, p. 438.

⁶⁷ *Ibid.*

⁶⁸ Maggio & Yao (2021), p. 4568.

⁶⁹ Xu & Xu, *supra* note 3, p. 310; Adam & Guettler (2015), pp. 204–5; Jiang et al., *supra* note 32, p. 89.

⁷⁰ Paech (2016), p. 615.

⁷¹ Didenko (2018), p. 345; You, *supra* note 18, p. 96; Xu & Xu, *supra* note 3, p. 309.

implication under the measures that additional supplemental guidance will be made to discuss this concern. On top of that, fintech firms, due to their size and business design, are more exposed to adverse economic shocks than big financial businesses, and those shocks are more inclined to reach other companies in the industry.⁷²

Seventh, because models of online P2P lending and the regulatory system correlated to them remain to be developed, a considerable degree of ambiguity exists as to how P2P lending will grow in the future. This inquiry grows particularly relevant in the setting of modern decentralized technologies (such as decentralized P2P networks) that are especially challenging to regulate.⁷³ Magnuson (2018) opined that fintech regulation would necessitate being as flexible and versatile as the fintech industry itself.⁷⁴ This is unusually right in current settings, where innovation is quicker, and the global propagation of that technology is significantly faster. In such conditions, regulators can oftentimes struggle to keep up.⁷⁵

Besides, regulators have also recognized that online P2P lending generates new loan risks. By eliminating the substantial nexus between the clients and the bank, it was expected that competition would grow because borrowers would possess a way to gain a larger pool of lenders with the removal of geographical boundaries. In fact, in numerous ways, small actors may have higher motivations and capacities to engage in unreasonable risk-taking behaviour than large, more established institutions. Online P2P lending platforms may also present methods for individuals and companies to transact with one another, with the platforms themselves not bearing any of the emerging transaction risks. This offloading of risk to third parties suggests the plausibility that crowdfunding firms and P2P lending platforms will promote extremely risky behaviour.⁷⁶ This offloading of risk is what Anthony Kalamar labels as “sharewashing.”⁷⁷

5. Regulatory challenges and the spectrum of regulatory action for online P2P lending

The confines of regulatory boundaries are inextricably linked to the innovation process. Fintech innovation enhances efficiency but potentially increases risk. We can only substantially overcome the issues brought on by fintech innovation and sustain the steady growth of the financial industry by balancing the two aspects of fintech innovation, while properly harmonizing innovation and regulation.⁷⁸ Financial regulations are seen as limits or guidelines imposed by governments through central banks as well as other institutions in order to keep the finance system healthy, promote fair and proper loan issuance, and increase social welfare.⁷⁹ Several reports have been written discussing regulatory roadblocks to innovation; most concentrate on fintech and regulatory assistance for innovation. Many financial institutions and fintech firms are disheartened from innovation and entrepreneurship first by the cost and time of registering and obeying regulations, and second by the likely consequences if they do not. This is particularly troublesome for

⁷² Magnuson, *supra* note 11, p. 1172.

⁷³ Didenko, *supra* note 71, pp. 320, 325–6.

⁷⁴ Magnuson, *supra* note 11, p. 1190.

⁷⁵ Fenwick, Kaal, & Vermeulen (2017), pp. 567–8.

⁷⁶ Xu & Xu, *supra* note 3, p. 310; Magnuson, *supra* note 11, p. 1203.

⁷⁷ Anthony Kalamar coined the terminology “sharewashing” in 2013 to criticize so-called sharing economy companies that have transferred obligation and risk to employees and customers under the pretext of the deceptive label “sharing economy.” See Lobel (2016), p. 105; Yu & Shen (2019), p. 43.

⁷⁸ Zhou & Chen (2021), p. 101577.

⁷⁹ Yang (2021), p. 2.

fintech start-ups that need to finish registration before they have appropriately grown and road-tested their business design.⁸⁰

Consequently, the myriad of benefits of online P2P lending is rivalled with numerous risks for borrowers, lenders, lending platforms, and society. A solid regulatory framework on a par with conventional lending's regulatory system is required to mitigate these risks. Speaking of the financial industry, our prior experiences have shown us that we tend to learn lessons the hard way. Sometimes we may say that the emerging online P2P industry is kept stifled by overregulation,⁸¹ although, conventionally, underregulated financial service industries develop rapidly until they succumb to climactic crash.⁸² According to Yang's study, financial innovation regulations were said to have had an impact on fintech's performance, and that these regulations have had a detrimental impact on firm performance, particularly for businesses with budgetary constraints participating in online P2P platforms. Furthermore, the findings indicate that financial innovation regulations tend to favour the commercial operation of P2P platforms with good operational performance, reducing traditional banks' customer base.⁸³ Ergo, due to the sensitive nature of financial products, an increased degree of regulatory intervention and scrutiny is necessary when offering financial services to the public. In fact, most start-ups have to be regulated in order to have a stronger basis for launch.⁸⁴

Surpassing everything, Lu asserts that any fintech ventures that are anticipated to create systemic risks⁸⁵ should be strictly observed at the macro-prudential level.⁸⁶ Further, financial innovation also produces more complexity.⁸⁷ Many parts of fintech's inner workings are still unclear. Queries about risks arise as a result of this lack of comprehension.⁸⁸ The financial plug-in of technological waves is greater, wider, and much more disruptive than ever before, with unpredictable ramifications for the financial industry.⁸⁹ In short, there is new potential for innovation and growth, as well as new challenges, notably for policy-makers and regulatory bodies.⁹⁰

At the same time, there are currently no serious indications of a similar rise in the government's power to regulate the technologically augmented process of fintech. Government officials remain tightly restrained inside their jurisdictional domes, restricted in their movements by their pre-fintech regulatory orders and toolkits, and urged to satisfy the booming demands on their resources and human capital. Yet, the necessity to promote and support disruptive innovation in order to improve financial inclusion and boost economic growth has recently become a significant challenge for regulators.⁹¹ Without the corresponding scaling-up of the government's capability to modulate financial issues, the more opaque and complicated tech-driven financial practice is bound to be considerably more exposed to frequent and potentially destructive shocks.⁹² One way to regulate fintech

⁸⁰ Treleaven (2015), p. 8.

⁸¹ Verstein (2011), p. 513; Douglas (2016), p. 64.

⁸² Chaffee & Rapp, *supra* note 50, p. 530.

⁸³ Yang, *supra* note 79, p. 3.

⁸⁴ Harris, *supra* note 23, p. 178.

⁸⁵ The phrase "systemic risk" describes the probability that economic shocks in one portion of a financial system would cause shocks in other parts of the system. See Levitin (2011), p. 444; Yuan & Xu (2020), p. 278.

⁸⁶ Lu (2018a), p. 30.

⁸⁷ Loo (2018), p. 278; Judge (2012), pp. 660–1.

⁸⁸ Odinet (2018), p. 857.

⁸⁹ Chiu (2016), p. 66.

⁹⁰ Zetzsche et al. (2017), p. 38.

⁹¹ *Ibid.*

⁹² Omarova, *supra* note 1, p. 33.

would be to clearly orient the rules toward objectives or purposes in regulations (also known as objective-based regulation).⁹³

Fintech, like any novel financial, technological, and legal actuality, is naturally disruptive for any system of law. It does not fit smoothly into the current regulative structure and confronts the regulators to devise a suitable response in numerous circumstances. If nothing is done to regulate fintech, the unequal playing field will linger—meaning that authorized and licenced intermediaries will lose business, compliance will steadily deteriorate, and the roles of enforcement bodies will be diminished as their mandates become too narrow. Potential systemic risk may grow unnoticed, unchecked, and unmanaged—and, in the long run, the next global recession may possibly be caused by fintech instead of authorized and licenced financial institutions.⁹⁴ The sufficiency and timeliness of the so-called legal response ascertain not only the feasibility of the fintech explication, but also its possible influence and potential to commit to actual social development. Quite frequently, though, regulatory feedback to financial innovation is obscure, erratic, or arrives too late.⁹⁵

The fintech industry and online P2P lending in Indonesia are not yet explicitly ruled in any Indonesian law. To date, just the Indonesia Financial Services Authority Regulations and the Bank of Indonesia Regulations (PBI) regulate the fintech industry's technicalities. Law No. 21/2011 concerning the OJK declares that the OJK is empowered to regulate and oversee all activities in the financial service sector, including fintech. Law No. 6/2009 concerning Bank Indonesia (BI) asserts that the central bank also has the authority to manage fintech, primarily digital transactions. This is because BI possesses control over matters such as payments systems and financial transactions, including digital payments, payment gateways, and e-money.⁹⁶

Kharisma (2020) explains that the prevailing situation in which there is no law in Indonesia concerning fintech has formed a legal vacuum (*rechtsvacuum*). Aggravation by poor regulation by the government has pointed to legal complications for fintech in Indonesia.⁹⁷ Yet, to escape this predicament, Indonesia urgently needs to set up new laws through legislation. However, the author opposes this based on the fact that the conceptualization of fintech is nothing but a piece of the financial services that we already comprehended that appears novel and fast-growing because of our insufficient understanding due to new phenomena appearing.⁹⁸ Besides, the dynamic and volatile nature of fintech stresses the timeliness of such a legal response—one that we cannot deliver by a time-consuming and rigorous parliamentary method, bearing in mind that even regulative responses may already be too late for fintech.⁹⁹ Moreover, Law No. 21/2011 concerning the OJK declares that the OJK is empowered to govern and oversee all practices in the financial service sector—and the OJK has been doing so since 2011 after they obtained attribution of authority for that matter from statutory commands.

High regulatory standards in Indonesia have guaranteed the foundation of brick-and-mortar banking institutions that is hinged on security and information protection, which is a vital precondition for the application of financial technologies.¹⁰⁰ Governmental and commercial regulators are entrusted with battling fraud and ensuring that customers of

⁹³ Unlike principles-based regulation, objectives-based regulation assesses not only whether actors are operating in accordance with underlying rules, but also whether their conduct achieves a set objective. See Brummer (2015), pp. 1039–40.

⁹⁴ Zetzsche et al. (2018), p. 436.

⁹⁵ Didenko, *supra* note 71, p. 315.

⁹⁶ Kharisma (2020), p. 322.

⁹⁷ *Ibid.*

⁹⁸ Anagnostopoulos, *supra* note 42, p. 9.

⁹⁹ Didenko, *supra* note 71, p. 344.

¹⁰⁰ Románova & Kudinska, *supra* note 24, pp. 31–2.

financial services are guarded against unfair and unlawful exploits that could deprive them of money, rights, or both. In addition to securing integrity in individual transactions, regulators safeguard financial stability. For economies to remain healthy, regulators support financial firms' stability, the (rational) valuation of markets, and overall market confidence. Market integrity depends on the presence of several critical regulatory hallmarks. First, it demands extensive rules that target and address risks to private actors and the overall market. Strong anti-fraud protections deter bad actors from abusing others, just as safety and soundness actions are implemented to prevent undercapitalized and under-resourced firms from threatening markets' stability. All the while, enforcement presents a reliable warning of punishment when rules are disregarded.

Ergo, the challenge is to devise a regulatory atmosphere that is adaptable enough to adjust for brand-new key innovations to markets and, at the corresponding time, can generate regulatory certainty for each market participant.¹⁰¹ Round-table talks have also shown that it also pushes regulators to rethink technology usage by reformulating the regulatory policy structure. From this viewpoint, policy-makers endeavour to design a regulatory climate that promotes new, attractive, and socially profitable financial practices. Besides applying risk-sensitive oversight, regulators are assigned to advise themselves of the potential advantages of financial innovation for market function and consumers. Regulators are also expected to exercise discretionary administrative and enforcement authorities to promote new technologies and industries that enhance the market's quality, competition, and heterogeneity.¹⁰²

A final, but frequently ignored, objective can be termed "rules simplicity." That is, regulators endeavour to craft rules that are simple to comprehend, predict, and implement. Normatively, rule simplicity indicates that regulatory dictates should achieve a refined expression level to present certainty, durability, and predictability. Greater simplicity in such regulation can reduce entry barriers into financial marketplaces, thereby encouraging competition and diminishing the demand for costly legal and financial counsel. Fintech ventures need to assess their businesses versus accepted practices and relevant rules, regulations, and legislation, across all areas and borders on which they run or base their ventures. In other words, fintech ventures have to appraise whether their innovative products or services require licences or approvals from the appropriate officials. Nevertheless, when confronted with regulatory uncertainties, extravagantly high compliance costs may constrain many fintech enterprises to retreat from the market.¹⁰³

Indeed, there is much to be learned from China in regulating online P2P lending because, much like China, Indonesia also faces nearly the same predicament and employed roughly the same approach initially. At first, China's policy-makers took a *laissez-faire* stance to this expanding and rising business from 2006 to 2015.¹⁰⁴ The Chinese authorities hesitated to accept the sharing economy phenomena and deployed existing legal instruments to these new innovations.¹⁰⁵ As a result, several bad practices occurred and numerous cities have banned the use of some sharing economy platforms—including online P2P

¹⁰¹ Ringe & Ruof (2020), p. 605.

¹⁰² Brummer & Yadav (2019), pp. 246–7.

¹⁰³ Ng & Kwok (2017), p. 426.

¹⁰⁴ Perhaps the Chinese authorities' more lenient stance toward fintech relates to the issue of undersupply of financial services. The government's key policy has been to create financial inclusivity, with the goal of delivering market-based and economically sustainable financial services to marginalized businesses and individuals. However, building inclusive finance is challenging and policy-makers are likely to regard the Internet as a tool for facilitating inclusive financing. See Wang, Shen, & Huang, *supra* note 54, p. 284.

¹⁰⁵ Regrettably, the Chinese authorities first chose a lax approach, believing that its subtle involvement in the sector would be enough to support the quick growth of thriving P2P lending operations. Rather, P2P platforms become a fertile ground for reckless lending and fraudulent practices as a result of this strategy. See He & Li (2021), p. 101853.

lending.¹⁰⁶ This predicament also occurs similarly in Indonesia. As a result, the notion of leaving online P2P lending free from government regulation is no longer feasible. This is because a collapsing informal banking industry has the potential of causing civil disorder.¹⁰⁷

In 2015, however, belated regulatory reforms in China showed that the government was beginning to strengthen regulations on fintech companies. The official definition of fintech companies has gotten increasingly specific as the authorities have steadily established a greater and more comprehensive knowledge of fintech.¹⁰⁸ As a result of this change, more specialized government entities are now involved in policy-making and policy implementation in this field. The expanded regulatory ensemble displays a more powerful and well-connected execution capability.¹⁰⁹

At that time, when the government implemented a new regulation for online P2P lending, the sector almost collapsed and potentially became a significant cause of socioeconomic risks.¹¹⁰ China's financial regulators eventually implemented tight controls on online P2P lending in the form of compulsory rules.¹¹¹ Ever since, the Chinese online P2P lending market has shrunk dramatically.¹¹² Surviving online P2P lending platforms then evolved into a sort of alternative to banks, allowing the former to eat into the latter's market share.¹¹³ Yet, we cannot deny that the Chinese governments, on the other hand, certainly play a significant role in the development of financial markets. Government intervention shows deep connections with performance metrics in the online P2P lending industry throughout its expansion stage, according to Jiang et al. (2021). This finding could be beneficial to other emerging economies seeking to regulate their fintech industry.¹¹⁴

China has become one of the world's biggest digital financial services marketplaces, as well as one of the most influential digital finance authorities.¹¹⁵ Right now, China is at the forefront of fintech regulatory developments, signalling a significant shift in where regulatory norms may originate—potentially challenging the dominance of the UK and the US in terms of financial regulation in this sector. This reactive¹¹⁶ Chinese model might serve

¹⁰⁶ The Chinese online P2P lending industry was bombarded with a wide assortment of platform-related complications during this regulation-free period, spanning from cash shortages, fraud, and runaway to platform closure, suspension, and liquidation. Investors and consumer protection issues arose in the P2P lending industry, which posed a threat to the whole financial system. Following investor and consumer outcry, officials reversed their position on online P2P lending oversight and imposed market conduct in 2015, with Chinese officials announcing the very first formal regulatory document defining P2P lending companies as “information intermediaries” rather than financial institutions. See Yu & Shen, *supra* note 77, pp. 49–50.

¹⁰⁷ Barberis & Arner, *supra* note 49, p. 79.

¹⁰⁸ For instance, the Guidelines on Promoting the Healthy Development of Internet Finance identify online P2P lending as lending activities between individuals via an online platform regulated and supervised by the Chinese Banking and Regulatory Commission (CBRC) as well as the PRC Contract Law, the General Principles of the Civil Law of the PRC, and relevant judiciary's interpretations established by the Supreme People's Court. A platform that offers online P2P lending information intermediary services must only act as an informational intermediary and provide information services, instead of loan improvement services or illicit fundraising for the platform itself. See Jiang et al., *supra* note 32, p. 101.

¹⁰⁹ Wang (2021), p. 779.

¹¹⁰ The number of operating platforms has dropped dramatically after authorities unveiled the regulatory framework. Because the sector attracted a huge number of participants, the collapse of P2Ps was unfortunate and had a catastrophic impact on society. As a result, public sentiment, as measured from news accounts, became extremely volatile in 2017 and 2018. See Hua & Huang, *supra* note 51, p. 329.

¹¹¹ Gao et al. (2020), p. 100940.

¹¹² Ding, Kavuri, & Milne (2021), p. 138.

¹¹³ Yang, *supra* note 79, p. 15.

¹¹⁴ Jiang et al., *supra* note 32, p. 100.

¹¹⁵ Zhou, Arner, & Buckley (2018), p. 45.

¹¹⁶ Scholars analyzing the potential of creating considerable regulatory structural reform clearly differentiate between two major forms of change when it comes to regulatory reactions to fintech companies: namely,

as a template for other developing nations (like Indonesia) with comparable levels of financial infrastructure and a demand for comprehensive market reform.¹¹⁷ Ergo, the Indonesian government also should follow with more regulation akin to what the Chinese government has done.

Here, we realize that regulatory ambiguity in this new industry is a major issue for disruptors, since it may jeopardize a fintech company's edge, or perhaps existence, in the near future.¹¹⁸ Due to the ambiguity surrounding whether or not online P2P lending would be allowed or prohibited, borrowers' desire to repay can plummet and many lenders may even lose faith.¹¹⁹ Ergo, a regulation must be set in place and fintech companies that provide innovative financial services must demonstrate that their business models, operations, and services comply with regulatory standards.¹²⁰ The introduction of much-needed regulations and larger regulatory regimes that handle present and new risks from this technological innovation will surely improve P2P lending.¹²¹ The very first precept in regulating fintech, according to Hua and Huang (2020), is that all financial activities must be regulated. The second takeaway is that new regulatory system must be developed to respond to the *de facto* universal banking business model. The third takeaway is that in order to oversee and manage financial risks, governments must employ innovative policy instruments—particularly with huge digital platforms like fintech, where the propagation of risks is unparalleled in terms of speed and breadth. Finally, authorities must strike a balance in both innovation and stability.¹²² A lesson learned from China's experiences is that, regardless of the fact that Chinese regulatory intervention of online P2P lending began late,¹²³ it has quickly evolved from a *laissez-faire* setting to a fast-growing regulated one, leading to substantial disruption and probable collapse.¹²⁴

The Indonesian government and other regulators worldwide have utilized numerous spectra of approaches on fintech vis-à-vis online P2P lending. The first is to regulate fintech and online P2P lending as a more "formal" method. After that, informal regulatory approaches can be executed to enhance the former approach. Informal approaches are

proactive and reactive. Fintech is receiving a lot of regulatory attention in nations that took a more proactive stance. When it comes to proactive regulatory reactions, some critics say that in order to support disruptive new technological innovation, law-making and regulatory design have to become more proactive, dynamic, and responsive. In addition, proactive governments participate in what could be described as regulatory guidance. Furthermore, proactive governments have created a so-called regulatory sandbox to explore the prospects of fintech. Some, who agree with the previous viewpoint, argue that regulatory sandboxes are a sign of a change away from conventional regulatory techniques and an effort to embrace ideas of proactive, dynamic, and responsive regulation in the context of fintech. On the contrary, when it comes to reactive regulatory responses, countries refrain from taking any action against fintech, or usually they implement incomplete or fragmented fintech regulations. They may also create institutions that provide specific protections against specific types of fintech firms. However, there seems to be little readiness to truly embrace the technology and its regulatory ramifications. There is also no holistic framework in place to oversee fintech. See Tsai (2019), p. 1109; Fenwick, McCahery, & Vermeulen (2018), p. 108.

¹¹⁷ Barberis & Arner, *supra* note 49, p. 94.

¹¹⁸ It really is plausible that a lack of government oversight—or, perhaps, regulatory ambiguity—has kept participants out of the sector because of the ambiguities surrounding current and future regulations. See Fong (2015), p. 257.

¹¹⁹ Gao et al., *supra* note 111, p. 100940.

¹²⁰ Leong et al. (2017), p. 95.

¹²¹ Tritto, He, & Junaedi (2020), p. 19.

¹²² Hua & Huang, *supra* note 51, p. 331.

¹²³ Regulation and governance are not without flaws. Regulation frequently falls behind the pace of financial innovation. Depending primarily on regulation would result in excessive restriction, stifle financial innovation, and impair efficiency. Bernstein, Posner, and Peltzman, for instance, are proponents of the theory of private interests. They value the role of the market and feel that it serves as a corrective mechanism, and that market discipline is a much more efficient mechanism than government interference. See Bu, Li, & Wu (2021), p. 17.

¹²⁴ Hsu, Li, & Bao (2021), p. 537.

required because formal rulemaking is excessively time-consuming, given disruptive technology innovation's exponential nature. The pace of innovation makes it plausible to produce a new product to market during formal rulemaking in the current regulatory infrastructure. New regulations concerning innovation could be antiquated before they are finalized. An apparent answer to this regulatory predicament might be to embrace an unusual mode of policy experimentation.¹²⁵ This approach is also named lean regulation, which might be defined as regulators and fintech co-operating to deploy iterative regulations through experiments.¹²⁶ This section describes the regulatory approaches for facing online P2P lending from a wide array of informal regulatory responses besides the formal ones, such as pilots, monitoring, and informal guidance.

The government may propose a series of regulations drawn to regulate the nation's financial markets. Nevertheless, promulgating regulation may not answer the changing and unpredictable matters of P2P lending from time to time. One way to approach this deficiency is through trials such as pilots, in which regulators can sketch or supervise tests concerning new regulations, examine results, and then tailor rulemaking to its utmost efficient and practical design. These tests present a mechanism to promote financial innovation as well as safeguard market integrity. Well-designed pilots equip regulators with the means to obtain data on the possible outcomes of particular regulations. Such information can be crucial for policy-makers to scrutinize risks, firms' capacity, and responses. Outfitted with closer real-world insight, regulators are well situated to draft rules that promote beneficial innovations in a manner that preserves market safety and soundness. Pilot programmes progress further along the regulatory frontier that they permit for more experimentation and innovation. They also generate added legal certainty throughout the period in which they are in effect. In short, pilots can at the slightest suggest an empirical foundation on which to design discrete rules, even if the before-mentioned rules are not in themselves the experiment's subject.

A more rational response if any risks are recognized that are not yet satisfactorily addressed by prevailing regulation may be to observe the practice or sector in question. Hence, installing a monitoring scheme to trace any risks, even if insignificant, will help policy-makers better understand the industry in question and its development along with its attendant risks. This will benefit them in the future to decide whether regulatory response may be suitable or even required. However, despite fintech's characterization displaying more substantial risks, or its business design or practices being so novel and innovative that they fall partly, mostly, or entirely beyond the regulatory margin, policy-makers and legislators may prefer to forbear from inducting a regulatory response and instead install a monitoring policy first to comprehend the industry and its risks better. Based on the routine monitoring results, they may then choose to take action at a later stage. Monitoring is crucial when fintech is believed to be potentially disruptive.¹²⁷

One way to arbitrate the intricate equilibrium between the static rules and dynamic economy is informality. Regulators can advise their opinions or expectations of market actors without inevitably running complete regulatory or procedural rulemaking. As such, their guidance does not certainly compel authorities to forbid or condone any particular activity permanently. Regulators can propose a mechanism of aiding innovation or strengthening market integrity through direct and straightforward dialogue with market actors. By presenting guidance or exercising ad hoc responses such as delivering speeches and focus group discussions, regulators can take measures to shore up market integrity by flagging sectors of potential concern or future regulation. Such a regulatory response allows fintech firms to innovate healthily insofar as they can correctly identify what sort

¹²⁵ Fenwick, Kaal, & Vermeulen, *supra* note 75, p. 575.

¹²⁶ Treleaven, *supra* note 80, p. 10.

¹²⁷ Minto, Voelkerling, & Wulff, *supra* note 13, p. 451.

of regulative burden they might encounter. This sort of informal response may be initiated on a case-by-case basis and thus essentially recognizes the evolving nature of innovation. Furthermore, Professor Zhou Zhongfei advocated managing fintech risk by the transformation of the financial regulative design simultaneously with the utilization of experimental and adaptive regulation.¹²⁸

The first concern that policy-makers must contemplate when they consider a regulatory response is the temporal dimension. At what stage of a particular fintech sector's evolution should policy-makers consider taking action? Exerting action as long as the business in question is still in its infancy and, thus, merely a niche market has its merits. An early regulative response will eradicate possible regulatory ambiguity from fintech's point of view since they will understand early on what regulatory provisions they ought to satisfy and do not have to bother about abruptly meeting a regulatory prerequisite later on in their products' or business models' life-cycle when their method of conducting business has become rooted. Demertzis et al. (2018) also support that arranging high standards early to shield fintech customers will be necessary for the business, as well as supporting and encouraging financial literacy.¹²⁹ Once the industry in question has developed, policy-makers may encounter notable opposition in taking the sector inside the regulatory border and inflicting new provisions. Finally, making the regulations right at an early stage of market growth creates an opening to develop a steady and cost-efficient financial system. On the contrary, a delayed response could result in Indonesia losing out to foreign contestants and misses a chance to establish solid financial intermediation in Indonesia. On the other hand, policy-makers should bear in mind that implementing regulatory provisions for a nascent business may serve as a barrier to entry and obstruct that particular market's growth.

In addition to regulators having to determine when to adapt the regulatory structure, it is essential to recognize what form this intervention strategy should take. Much like the subject of timing, the issue of the formal and informal regulative action comprises trade-offs that the regulator has to consider against each other thoughtfully. This suggests that the regulator will need to balance the trade-offs entailed in any legal action.¹³⁰ Proactive strategies are crucially required to mitigate extreme risks incurred in the online P2P lending market while not endangering this young industry's financial technology innovation. One thing is for sure: we desire innovation—however, Fenwick et al. (2017) warn us that innovation barriers are sometimes not the outcome of technological constraints, but human decisions.¹³¹ The law and other regulations can usually obstruct or otherwise restrict business exploitation of, and public access to, modern technology. Still, as disruptive technologies appear more regularly and faster, discussions around the before-mentioned regulatory confinements on new technologies are more constraining. Last but not least, while creating regulations, the authorities must consider the best strategy to assure compliance, since regulations without clear statements on legal and financial penalties for infractions of the provisions might have a low cost of violation—which might not be enough to deter further infractions.¹³²

An efficient regulatory scheme could lessen systemic risk. Future crises are unpredictable. The principal point is that the regulatory system can grow into a helpful ally for financial steadiness in the fintech era. Disregarding the regulatory system can lead to missed opportunities to overcome common risks in the short term and build new dangers in the long run. It is essential to recognize the stakes, concentrating on the possibilities and

¹²⁸ Yuan & Xu, *supra* note 85, p. 285.

¹²⁹ Demertzis, Merler, & Wolff, *supra* note 11, p. 163.

¹³⁰ Jagtiani & John, *supra* note 16, p. 5.

¹³¹ Fenwick, Kaal, & Vermeulen, *supra* note 75, p. 563.

¹³² Jiang et al., *supra* note 32, p. 90.

dangers displayed by fintech and helping to improve the stakes of efficient regulatory actions because policy-makers and regulators can add to regulatory deficiencies in an assortment of methods. Yet, we cannot be complacent. The government must, from time to time, assess whether current regulations and laws must be updated, or whether a new regulatory instrument is required. Furthermore, the relevant authority must develop itself on a regular basis by analyzing and changing relevant rules and regulations, as well as providing appropriate support to fintech start-ups.¹³³

6. The official interest rate cap, lending cap, and separation of funds for online P2P lending

Since online P2P lending has a higher inclination for default, there is greater reasonableness to quote their loans better because the interest rate they impose is more correlated with the credit failure probability.¹³⁴ Furthermore, to forbid online P2P lending's interest rate from becoming more marketized, the nationwide association for online P2P lending in Indonesia, the Indonesia fintech Lending Association known as AFPI (2020) has specified in their code of conduct that the interest rate for online P2P lending shall not exceed a flat rate of 0.8% per day.¹³⁵ This code of conduct acts as the interest rate ceiling for online P2P lending platforms in Indonesia. This is unusually worrying because until now, the Indonesian government (particularly the OJK as the sole monitoring institution that supervises the financial services industry) has not implemented a stringent set of interest rate regulations for private lending contracts via an online platform.

As online moneylending is naturally risky, the investors/lenders must be fitting for the investment. In principle, the investors/lender who engages in online lending should be accustomed to the Internet and possess investment risk awareness, risk identification ability, and experience of engaging in non-guaranteed financial product investment. To curb investors' susceptibility to the risk of online lending, Indonesian regulators have imposed lending caps. Conceptually, setting lending limits is not unexpected given that online lending is perceived as a kind of inclusive financial innovation that is intended to render small-value finance to a niche market like start-ups, individual consumers, and SMEs,¹³⁶ although there are fears that it may excessively restrain the number of credits from being given and eventually stifle online P2P lending's contribution to economic growth. Notwithstanding that, the OJK has declared the Regulation of the Indonesian Financial Services Authority Number 77/POJK.01/2016 concerning Information Technology-Based Moneylending Services. Currently, under Article 6 of the OJK Regulation Number 77/POJK.01/2016, the lending cap for online P2P lending is confined to IDR 2 billion (US\$137,257).

The author acknowledges the complexity in attaining a practicable equilibrium between market growth and investor protection yet believes that the lending limit is well justified under Indonesia's local conditions. First, the lending limit certainly helps mitigate the risks of online P2P lending, especially default risk and systemic risk. This is crucial in Indonesia, where the loans given out are not ensured by any collateral or guaranteed by any third party, along with the challenge to recollect on the defaulted loan. Second, a study by Tang (2019) reveals that online P2P lending platforms may bear a lower fixed cost of introducing loans than banks do and might consequently concentrate on giving smaller loans, which in return should not be hindered by the lending cap.¹³⁷

¹³³ Tsai, *supra* note 116, p. 1115.

¹³⁴ Maggio & Yao, *supra* note 68, p. 4569; Minto, Voelkerling, & Wulff, *supra* note 13, p. 461.

¹³⁵ AFPI (2020).

¹³⁶ Lu, *supra* note 11, p. 452; Huang, *supra* note 31, p. 67; Lu, *supra* note 28, p. 282; Barberis & Arner, *supra* note 49, p. 84.

¹³⁷ Tang (2019), p. 1924.

Moreover, in response to counter the outbreak of disrepute where an online P2P lending platform absconds with the investors' funds, it is best to oblige the online P2P lending platform to segregate its funds and the funds of lenders and borrowers, and elect a qualified banking financial establishment as the custodian of the funds of lenders and borrowers. The goal of this stipulation is to segregate the customers' fund, eschewing embezzlement, fraud, or misappropriation of the customers' funds.¹³⁸ Indeed, this custodian provision adds another element of cost, as opposed to the "low-cost" attribute of online P2P lending, and will eventually be burdened to the borrowers. This cost is, nonetheless, well justified as it can efficiently deter fraudulent practices. The proceeds will then go through custodian banks, making it less possible for platforms to run away with the client's funds.¹³⁹ In addition, designation as caretaker or custodian for online P2P lending platforms can eventually offer an interestingly new market possibility for "brick-and-mortar" banks whose regular revenue is from the spread between the deposit rate and the loan rate, which has been shrinking remarkably in recent years due to online P2P lending, enabling banks to operate a focal role in this emerging business¹⁴⁰ and supporting Tang's (2019) argument that online P2P lending can at the corresponding time supplement conventional banking rather than just disrupting them.¹⁴¹ A bank and a fintech company may actually collaborate to reach the middle ground that eventually leverages each other's skills to gain a competitive edge in the financial industry as it evolves around emerging technologies.¹⁴²

7. Illegal lending and borrowing practices that could constitute a criminal offence

Lending actors and their legal advisers should be cautious of particular illicit lending and financing exercises that may result in criminal offences under Indonesian laws. One of them is a licence requirement. Licences can be beneficial to regulators. Through their use, the government can manage who has access to the market and thoroughly scrutinize entry to allow only those who can reliably participate. Through this method, they can collect data on firms, their services and products, and what sorts of risks they pose. Such information allows a means to improve the effectiveness of rulemaking to oversee innovations. In other words, a rules-based licence can establish specific situations that the regulators desired under which a business may be conducted as a mechanism of mitigating risk.¹⁴³ Applying for a licence must also require substantial merit inspection. Therefore, it depicts a light-touch regulative strategy towards the founding of online P2P lending

¹³⁸ Huang, *supra* note 31, p. 70; You, *supra* note 18, p. 110.

¹³⁹ Jiang et al., *supra* note 32, p. 102.

¹⁴⁰ Huang, *supra* note 31, pp. 74–5; Humphries, *supra* note 14, pp. 236–7.

¹⁴¹ Tang, *supra* note 137, p. 1935.

¹⁴² During the last few years, the interaction between fintech and banks has shifted from being purely competitive to being more collaborative. Fintech was first perceived by banks as disruptive, capable of disintermediating fundamental financial services, causing them to lose consumers to these innovators. That perspective has changed drastically over time as banks have learned that collaborating with fintech may help them build their digital capabilities by taking advantage of their flexible approach and technological expertise. Simultaneously, fintech companies have learned that, even if they had a technological competitive edge, overtaking banks would not be an easy feat. Besides, fintech companies recognized the importance of collaborating with banks in order to survive, develop, and have exposure to a bigger customer base. See Carbó-Valverde, Cuadros-Solas, & Rodríguez-Fernández (2021), p. 180.

¹⁴³ According to anecdotal evidence, registered and regulated online P2P platforms repay investors' original capital upon closure, but unregulated and unregistered firms tend to vanish without making repayments to investors. See Jiang et al., *supra* note 32, p. 89.

platforms.¹⁴⁴ Holding a clearly defined regulative status from a licence or charter grants notable advantages in terms of legal certainty, while the significant downside of acquiring a licence is the added expense of operating a regulated business.¹⁴⁵ Besides, the Indonesian government also demands online P2P lending platforms to be registered and recorded with the OJK to guarantee transparency to the public.

Online moneylending practices without a licence and registration with the OJK are criminal offences in Indonesia. In 2020, three Chinese citizens were sentenced to 9 months and 15 days of imprisonment for conducting online P2P lending business activities without a licence and registration of their platform with the OJK.¹⁴⁶ They were all indicted for violating Article 62 paragraph (1) and Article 8 paragraph (1) of Law Number 8 of 1999 concerning Consumer Protection. The objective of these penalties is to penalize people who carry out unlawful moneylending business practices without a financial licence from the OJK, the sole financial services watchdog. Besides, online P2P lending platforms that operate as an intermediary by illegitimately absorbing deposits from the general public or make so in a disguised form without a financial licence will be regarded as shadow banking,¹⁴⁷ which will be subjected to criminal imprisonment of up to 15 years and/or a fine of up to IDR 200 billion (US\$13,725,700).

8. Conclusion and recommendations

In this short piece, I have endeavoured to limelight one of the myriad challenges confronting regulators as they grapple with managing the progressive nature of fintech. Regulation of fintech as a financial but, more notably, legal notion in Indonesia proposes a wide array of complexities, from construing the terminology itself to addressing the “holdout start-up” queries. Good fintech regulation is questionable without a designated overarching regulatory plan and a list of priorities serving as policy guides. While the regulatory action to fintech may vary, the challenges correlated with the widespread notion of “rule of law” seem globally relevant, despite the decided fintech policy.

As remarked upon earlier, Indonesia’s regulatory regime is dedicated to fostering the healthy growth of the online P2P lending activity to render an alternative funding source for entrepreneurship and innovation. At the same time, it shields investors from illicit and fraudulent practices. This is an issue of balance that demands handling with caution according to Indonesia’s local atmosphere. Regulators must also step aside from a scheme in which regulatory decision-making is only entrusted to politicians and bureaucrats. In a data-based regulatory condition, there is a distinct necessity for policies that are formed in lean, adaptable, and inclusive manners that include regulators, experts, start-ups and established firms, relevant associations, and the public.

To start with, the moneylending design practised by online P2P lending in Indonesia is governed by prevailing law concerning private lending, which is a civil matter. On the other hand, personal borrowers and lenders are still not guarded by a robust and solid online private lending policy. Regulatory bureaus should be authorized to apply their expertise to discover how current statutes and regulations should be implemented to online P2P lending and the possibility to promulgate new regulations based on their

¹⁴⁴ Huang, *supra* note 31, p. 73.

¹⁴⁵ Omarova, *supra* note 1, p. 38.

¹⁴⁶ *Public Prosecutor v. Duan Xiaoliang* (2020) District Court of North Jakarta, Docket Number: 524/Pid.Sus/2020/PN Jkt.Utr; *Public Prosecutor v. Li Zhaoyang* (2020) District Court of North Jakarta, Docket Number: 525/Pid.Sus/2020/PN Jkt.Utr; *Public Prosecutor v. Feng Qian* (2020) District Court of North Jakarta, Docket Number: 526/Pid.Sus/2020/PN Jkt.Utr.

¹⁴⁷ Loan intermediation that takes place outside of the regulated financial system is broadly referred to as shadow banking. See Allen & Gu (2021), p. 408.

present statutory mandates. With that being stated, however, online P2P lending remains a nascent enterprise. If our legislative and regulators respond too hastily, it may stifle its capability to develop in healthy and beneficial ways. After all, adaptability is necessary to organize an industry that proceeds to morph and reinvent itself. In the long term, the OJK may still be a suitable institution to monitor online P2P lending. Online P2P lending is not a latent or rigid notion, and the regulative regime will need to be ready to develop and grow along with it. The OJK may also experiment with a plethora of informal regulatory responses to investigate for likely prospective regulation.

To safeguard against systemic risks, the OJK ought to issue regulation concerning the official interest rate cap and lending cap. Producing a precisely established regulation will unquestionably enhance legal protection and legal certainty. The OJK must also develop a framework to regulate the potentiality of collaboration between online P2P lending and banking institutions on custodianship of the funds. This segregation will benefit the general public against embezzlement and render banks a new possibility to co-operate with the emerging fintech sector.

To evade severe shocks to the online P2P lending industry, the measures asserted above must also provide transitional grace arrangements for the industry. Throughout the transition period, businesses engaging in online P2P lending practices need to readjust their business practices to the new regulatory regime. Many existing firms will probably either be discontinued or acquired by bigger adversaries. The increased compliance costs will also discourage new firms from penetrating the market. Consolidation of the industry will be inevitable. Nevertheless, the new regulatory regime's far-reaching outcomes can barely be evaluated in whole after the transitioning phase. As presented earlier, legal challenges persist as the fundamental barriers to efficient fintech regulation. The feasible prospect is to execute a mixture of formal and informal regulation through a practical regulatory strategy to balance the competing interests of fintech innovation, risk prevention, and financial stability in the imminent boom of Indonesia's fintech.

Acknowledgements. I wish to express my gratitude to the anonymous referees for their very thoughtful, invaluable, particularly detailed, and constructing comments and remarks and who took a keen interest in reviewing the earlier draft of this manuscript and in this way contributed materially to the development of the research paper. I would also like to thank the Editorial Office of the *Asian Journal of Law and Society*, especially Dr Haozhou Lin and Prof. Dr Duoqi Xu for their thorough editorial work. A research grant from the Batam International University supported some of the work for this paper (Grant Number: 284/LPPM/KP-UIB/XII/2021). This paper was also written as part of independent research conducted during study at the Dickson Poon School of Law, King's College London with funding from the British Government Chevening Scholarship. Any opinions expressed and policies advocated in this material are the author's and do not necessarily reflect the views of the Foreign, Commonwealth & Development Office (FCDO), the funder, and the institution with which the author is affiliated. The author reserves all remaining omissions and/or errors. The standard disclaimers apply.

For the convenience of international readers, the Indonesian currency (IDR) in this article is accompanied by a conversion into US dollars. The exchange rate between IDR and USD was 14,571.21:1 on 31 March 2021.

References

- Adam, Tim, & Andre Guettler (2015) "Pitfalls and Perils of Financial Innovation: The Use of CDS by Corporate Bond Funds." 55 *Journal of Banking & Finance* 204–14.
- AFPI (2020) "Pedoman Perilaku AFPI," <https://afpi.or.id/articles/detail/pedoman-perilaku-afpi> (accessed 31 March 2021).
- Agarwal, Sumit, & Yeow Hwee Chua (2020) "Fintech and Household Finance: A Review of the Empirical Literature." 10 *China Finance Review International* 361–76.
- Allen, Franklin, & Xian Gu (2021) "Shadow Banking in China Compared to Other Countries." 89 *Manchester School* 407–19.
- Allen, Franklin, Elena Carletti, Robert Cull, et al. (2013) "Resolving the African Financial Development Gap: Cross-Country Comparisons and a Within-Country Study of Kenya," in Sebastian Edwards, Simon Johnson,

- & David N Weil eds., *African Successes, Volume III: Mordernization and Development*, Chicago: University of Chicago Press, 13–62.
- Anagnostopoulos, Ioannis (2018) “Fintech and Regtech: Impact on Regulators and Banks.” 100 *Journal of Economics and Business* 7–25.
- APJII (2020) “Laporan Survei Internet APJII 2019–2020,” <https://apjii.or.id/survei> (accessed 31 March 2021).
- Azali, Kathleen (2016) “Cashless in Indonesia: Gelling Mobile e-Frictions?” 33 *Journal of Southeast Asian Economies* 364–86.
- Baber, Hasnan (2020) “Financial Inclusion and Fintech: A Comparative Study of Countries Following Islamic Finance and Conventional Finance.” 12 *Qualitative Research in Financial Markets* 24–42.
- Babu, A. V. Ajay (2016) “A Comparative Analysis of Best Practices of Mobile Banking in ASEAN Countries and India.” 10 *Area Studies* 21–38.
- Barberis, János, & Douglas W. Arner (2016) “Fintech in China: From Shadow Banking to P2P Lending,” in Paolo Tasca, Tomaso Aste, Lioriana Pelizzon, & Nicolas Perony, eds., *Banking Beyond Banks and Money*, Switzerland: Springer International Publishing, 69–96.
- Brummer, Chris (2015) “Disruptive Technology and Securities Regulation.” 84 *Fordham Law Review* 977–1052.
- Brummer, Chris, & Yesha Yadav (2019) “Fintech and the Innovation Trilemma.” 107 *Georgetown Law Journal* 235–307.
- Brune, Lasse, Xavier Giné, Jessica Goldberg, et al. (2011) “Commitments to Save: A Field Experiment in Rural Malawi,” <https://openknowledge.worldbank.org/bitstream/handle/10986/3510/WPS5748.pdf?sequence=1> (accessed 19 June 2022).
- Bu, Ya, Hui Li, & Xiaoqing Wu (2021) “Effective Regulations of Fintech Innovations: The Case of China.” 2021 *Economics of Innovation and New Technology* 1–19.
- Buckley, Ross P., & Sarah Webster (2016) “Fintech in Developing Countries: Charting New Customer Journeys.” 44 *Journal of Financial Transformation* 151–9.
- Budiono, Herlien (2014) *Ajaran Umum Hukum Perjanjian dan Penerapannya di Bidang Kenotariatan*, 4th edn, Bandung: Citra Aditya Bakti.
- Burgess, Robin, & Rohini Pande (2005) “Do Rural Banks Matter? Evidence from the Indian Social Banking Experiment.” 95 *American Economic Review* 780–95.
- Caldieraro, Fabio, Jonathan Zhang, Marcus Cunha Jr, et al. (2018) “Strategic Information Transmission in Peer-to-Peer Lending Markets.” 82 *Journal of Marketing* 42–63.
- Carbó-Valverde, Santiago, Pedro J. Cuadros-Solas, & Francisco Rodríguez-Fernández (2021) “Fintech and Banking: An Evolving Relationship,” in Timothy King, Francesco Saverio Stentella Lopes, Abhishek Srivastav, et al., eds., *Disruptive Technology in Banking and Finance: An International Perspective on Fintech*, Cham: Palgrave Macmillan, 161–94.
- Chaffee, Eric C., & Geoffrey C. Rapp (2012) “Regulating Online Peer-to-Peer Lending in the Aftermath of Dodd-Frank: In Search of an Evolving Regulatory Regime for an Evolving Industry.” 69 *Washington and Lee Law Review* 485–533.
- Chen, Long (2016) “From Fintech to Finlife: The Case of Fintech Development in China.” 9 *China Economic Journal* 225–39.
- Chen, Mark A., Qinxin Wu, & Baozhong Yang (2019) “How Valuable Is Fintech Innovation?” 32 *The Review of Financial Studies* 2062–106.
- Chiu, Iris H.-Y. (2016) “Fintech and Disruptive Business Models in Financial Products, Intermediation and Markets —Policy Implications for Financial Regulators.” 21 *Journal of Technology Law and Policy* 55–112.
- Das, Kaushik, Michael Gryseels, Priyanka Sudhi, et al. (2016) “Unlocking Indonesia’s Digital Opportunity,” https://www.mckinsey.com/~media/McKinsey/Locations/Asia/Indonesia/OurInsights/UnlockingIndonesiasdigitalopportunity/Unlocking_Indonesias_digital_opportunity.ashx (accessed 19 June 2022).
- Demertzis, Maria, Silvia Merler, & Guntram B. Wolff (2018) “Capital Markets Union and the Fintech Opportunity.” 4 *Journal of Financial Regulation* 157–65.
- Demirgüç-Kunt, Asli, Leora Klapper, Dorothe Singer, et al. (2018) “The Global Findex Database 2017: Measuring Financial Inclusion and the Fintech Revolution,” https://globalfindex.worldbank.org/sites/globalfindex/files/2018-04/2017%20Findex%20full%20report_0.pdf (accessed 19 June 2022).
- Didenko, Anton (2018) “Regulating Fintech: Lessons from Africa.” 19 *San Diego International Law Journal* 311–69.
- Ding, Chen, Anil S. Kavuri, & Alistair Milne (2021) “Lessons from the Rise and Fall of Chinese Peer-to-Peer Lending.” 22 *Journal of Banking Regulation* 133–43.
- Douglas, John L. (2016) “New Wine into Old Bottles: Fintech Meets the Bank Regulatory World.” 20 *North Carolina Banking Institute* 17–65.
- Emekter, Riza, Yanbin Tu, Benjamas Jirasakuldech, et al. (2014) “Evaluating Credit Risk and Loan Performance in Online Peer-to-Peer (P2P) Lending.” 47 *Applied Economics* 54–70.

- Fenwick, Mark D., Wulf A. Kaal, & Erik P. M. Vermeulen (2017) "Regulation Tomorrow: What Happens When Technology Is Faster than the Law?" 6 *American University Business Law Review* 561–94.
- Fenwick, Mark D., Joseph A. McCahery, & Erik P. M. Vermeulen (2018) "Fintech and the Financing of SMEs and Entrepreneurs: From Crowdfunding to Marketplace Lending," in Douglas Cumming & Lars Hornuf, eds., *The Economics of Crowdfunding: Startups, Portals and Investor Behavior*, Cham: Palgrave Macmillan, 103–30.
- Ferretti, Federico (2018) "Consumer Access to Capital in the Age of Fintech and Big Data: The Limits of EU Law." 25 *Maastricht Journal of European and Comparative Law* 476–99.
- Fong, Adrian (2015) "Regulation of Peer-to-Peer Lending in Hong Kong: State of Play." 9 *Law and Financial Markets Review* 251–9.
- Gao, Yu, Shih-Heng Yu, Ming Chen, et al. (2020) "A 2020 Perspective on 'The Performance of the P2P Finance Industry in China'." 40 *Electronic Commerce Research and Applications* 100940–1.
- Ge, Ruiyi, Juan Feng, Bin Gu, et al. (2017) "Predicting and Deterring Default with Social Media Information in Peer-to-Peer Lending." 34 *Journal of Management Information Systems* 401–24.
- Goldstein, Itay, Wei Jiang, & G. Andrew Karolyi (2019) "To Fintech and Beyond." 32 *The Review of Financial Studies* 1647–61.
- Gupta, Agrata, & Chun Xia (2018) "A Paradigm Shift in Banking: Unfolding Asia's Fintech Adventures," in William A. Barnett & Bruno S. Sergi, eds., *Banking and Finance Issues in Emerging Markets*, 25th edn, Bingley: Emerald Publishing Limited, 215–54.
- Harris, Jack Laurie (2021) "Bridging the Gap Between 'Fin' and 'Tech': The Role of Accelerator Networks in Emerging Fintech Entrepreneurial Ecosystems." 122 *Geoforum* 174–82.
- He, Qing, & Xiaoyang Li (2021) "The Failure of Chinese Peer-to-Peer Lending Platforms: Finance and Politics." 66 *Journal of Corporate Finance* 101852–78.
- Hidajat, Taofik (2019) "Unethical Practices Peer-to-Peer Lending in Indonesia." 27 *Journal of Financial Crime* 274–82.
- Hsu, Sara, Jianjun Li, & Hong Bao (2021) "P2P Lending in China: Role and Prospects for the Future." 89 *Manchester School* 526–40.
- Hua, Xiuping, & Yiping Huang (2020) "Understanding China's Fintech Sector: Development, Impacts and Risks." 27 *The European Journal of Finance* 321–33.
- Huang, Robin Hui (2018) "Online P2P Lending and Regulatory Responses in China: Opportunities and Challenges." 19 *European Business Organization Law Review* 63–92.
- Humphries, Brage (2020) "Funding the Future: Marketplace Lending Equity Crowdfunding, and Bank Lending." 24 *North Carolina Banking Institute* 217–38.
- Indonesian Ministry of Home Affairs (2020) "Indonesia's Islands Recapitulation," <https://ditjenbinaadwil.kemendagri.go.id/wp-content/uploads/2020/06/3.-DATA-REKAPITULASI-JUMLAH-PULAU-INDONESIA-YANG-DILAPORKAN-KE-PBB.pdf> (accessed 31 March 2021).
- Iyer, Rajkamal, Asim Ijaz Khwaja, Erzo F. P. Luttmer, et al. (2015) "Screening Peers Softly: Inferring the Quality of Small Borrowers." 62 *Management Science* 1–24.
- Jagtiani, Julapa, & Kose John (2018) "Fintech: The Impact on Consumers and Regulatory Responses." 100 *Journal of Economics and Business* 1–6.
- Jagtiani, Julapa, & Catharine Lemieux (2018) "Do Fintech Lenders Penetrate Areas That Are Underserved by Traditional Banks?" 100 *Journal of Economics and Business* 43–54.
- Jiang, Jinglin, Li Liao, Zhengwei Wang, et al. (2021) "Government Affiliation and Peer-to-Peer Lending Platforms in China." 62 *Journal of Empirical Finance* 87–106.
- Judge, Kathryn (2012) "Fragmentation Nodes: A Study in Financial Innovation, Complexity, and Systemic Risk." 64 *Stanford Law Review* 657–725.
- Kharisma, Dona Budi (2020) "Urgency of Financial Technology (Fintech) Laws in Indonesia." 63 *International Journal of Law and Management* 320–31.
- Knewton, Heather S., & Zachary A. Rosenbaum (2020) "Toward Understanding Fintech and Its Industry." 46 *Managerial Finance* 1043–60.
- Knight, Eric, & Dariusz Wójcik (2020) "Fintech, Economy and Space: Introduction to the Special Issue." 52 *Environment and Planning A: Economy and Space* 1490–7.
- Leong, Carmen, Barney Tan, Xiao Xiao, et al. (2017) "Nurturing a Fintech Ecosystem: The Case of a Youth Microloan Startup in China." 37 *International Journal of Information Management* 92–7.
- Levitin, Adam J. (2011) "In Defense of Bailouts." 99 *Georgetown Law Journal* 435–514.
- Lobel, Orly (2016) "The Law of the Platform." 101 *Minnesota Law Review* 87–166.
- Loo, Rory Van (2018) "Making Innovation More Competitive: The Case of Fintech." 65 *UCLA Law Review* 232–79.
- Lu, Lerong (2017) "Financial Technology and Challenger Banks in the UK: Gap Fillers or Real Challengers?" 32 *Journal of International Banking Law and Regulation* 273–82.
- Lu, Lerong (2018a) "How a Little Ant Challenges Giant Banks? The Rise of Ant Financial (Alipay)'s Fintech Empire and Relevant Regulatory Concerns." 28 *International Company and Commercial Law Review* 12–30.

- Lu, Lerong (2018b) "Promoting SME Finance in the Context of the Fintech Revolution: A Case Study of the UK's Practice and Regulation." 33 *Banking & Finance Law Review* 317–43.
- Lu, Lerong (2018c) "Solving the SME Financing Puzzle in the UK: Has Online P2P Lending Got the Midas Touch?" 33 *Journal of International Banking Law and Regulation* 449–60.
- Magee, Jack R. (2011) "Peer-to-Peer Lending in the United States: Surviving after Dodd-Frank." 15 *North Carolina Banking Institute* 139–74.
- Maggio, Marco Di, & Vincent Yao (2021) "Fintech Borrowers: Lax Screening or Cream-Skimming?" 34 *The Review of Financial Studies* 4565–618.
- Magnuson, William (2018) "Regulating Fintech." 71 *Vanderbilt Law Review* 1167–226.
- Minto, Andrea, Moritz Voelkerling, & Melanie Wulff (2017) "Separating Apples from Oranges: Identifying Threats to Financial Stability Originating from Fintech." 12 *Capital Markets Law Journal* 428–65.
- Ng, Artie W., & Benny K. B. Kwok (2017) "Emergence of Fintech and Cybersecurity in a Global Financial Centre: Strategic Approach by a Regulator." 25 *Journal of Financial Regulation and Compliance* 422–34.
- Odinot, Christopher K. (2018) "Consumer Bitcredit and Fintech Lending." 69 *Alabama Law Review* 781–858.
- OJK (2021) "Fintech Lending Statistics for the Period of December 2020," <https://www.ojk.go.id/id/kanal/iknb/data-dan-statistik/fintech/Pages/-Statistik-Fintech-Lending-Periode-Desember-2020.aspx> (accessed 31 March 2021).
- Omarova, Saule T. (2020) "Technology v Technocracy: Fintech as a Regulatory Challenge." 6 *Journal of Financial Regulation* 75–124.
- Paech, Philipp (2016) "Securities, Intermediation and the Blockchain: An Inevitable Choice between Liquidity and Legal Certainty?" 21 *Uniform Law Review* 612–39.
- Paulet, Elisabeth, & Hareesh Mavoori (2019) "Conventional Banks and Fintechs: How Digitization Has Transformed Both Models." 41 *Journal of Business Strategy* 19–29.
- Ringe, Wolf-Georg, & Christopher Ruof (2020) "Regulating Fintech in the EU: The Case for a Guided Sandbox." 11 *European Journal of Risk Regulation* 604–29.
- Romānova, Inna, & Marina Kudinska (2016) "Banking and Fintech: A Challenge or Opportunity." 98 *Contemporary Studies in Economic and Financial Analysis* 21–35.
- Sangwan, Vikas, Harshita Puneet Prakash, & Shveta Singh (2020) "Financial Technology: A Review of Extant Literature." 37 *Studies in Economics and Finance* 71–88.
- Sheridan, Iain (2018) "Financial Technology and Global Capital Markets—the Impact of Pro-Enterprise Regulation and English Law." 13 *Capital Markets Law Journal* 587–99.
- Stapleton, Tim (2013) "Unlocking the Transformative Potential of Branchless Banking in Indonesia." 49 *Bulletin of Indonesian Economic Studies* 355–80.
- Tang, Huan (2019) "Peer-to-Peer Lenders versus Banks: Substitutes or Complements?" 32 *The Review of Financial Studies* 1900–38.
- Tao, Qizhi, Yizhe Dong, & Ziming Lin (2017) "Who Can Get Money? Evidence from the Chinese Peer-to-Peer Lending Platform." 19 *Information Systems Frontiers* 425–41.
- Thurber, Kenneth J. (2012) *Do Not Invent Buggy Whips*, 1st edn, Trumansburg, NY: Digital Systems Press.
- Truelsen, Philip (2015) "Financial Regulation of Fintech." 3 *The Journal of Financial Perspectives* 1–14.
- Tritto, Angela, Yujia He, & Victoria Amanda Junaedi (2020) "Governing the Gold Rush into Emerging Markets: A Case Study of Indonesia's Regulatory Responses to the Expansion of Chinese-Backed Online P2P Lending." 6 *Financial Innovation* 1–24.
- Tsai, Chang-hsien (2019) "To Regulate or Not to Regulate? A Comparison of Government Responses to Peer-to-Peer Lending Among the United States, China, and Taiwan." 87 *University of Cincinnati Law Review* 1077–122.
- US Department of the Treasury (2016) "Opportunities and Challenges in Online Marketplace Lending," <https://www.treasury.gov/connect/blog/Pages/Opportunities-and-Challenges-in-Online-Marketplace-Lending.aspx> (accessed 31 March 2021).
- Vallée, Boris, & Yao Zeng (2019) "Marketplace Lending: A New Banking Paradigm?" 32 *The Review of Financial Studies* 1939–82.
- Verstein, Andrew (2011) "The Misregulation of Person-to-Person Lending." 45 *UC Davis Law Review* 445–530.
- Wang, Jing (2021) "The Party Must Strengthen Its Leadership in Finance!: Digital Technologies and Financial Governance in China's Fintech Development." 247 *The China Quarterly* 773–92.
- Wang, Jingyi, Yan Shen, & Yiping Huang (2016) "Evaluating the Regulatory Scheme for Internet Finance in China: The Case of Peer-to-Peer Lending." 9 *China Economic Journal* 272–87.
- Wong, Chin-Yoong, & Yoke-Kee Eng (2020) "P2P Finance and the Effectiveness of Monetary Controls." 88 *Manchester School* 617–39.
- Wonglimpiyarat, Jarunee (2018) "Challenges and Dynamics of Fintech Crowd Funding: An Innovation System Approach." 29 *Journal of High Technology Management Research* 98–108.

- Wu, Yu, & Tong Zhang (2021) "Can Credit Ratings Predict Defaults in Peer-to-Peer Online Lending? Evidence from a Chinese Platform." 40 *Finance Research Letters* 101724–32.
- Xu, Donggen, & Dawei Xu (2020) "Concealed Risks of Fintech and Goal-Oriented Responsive Regulation: China's Background and Global Perspective." 7 *Asian Journal of Law and Society* 305–24.
- Yang, Minhua (2021) "Financial Innovation Regulations and Firm Performance: Evidence from Chinese Listed Firms." 2021 *Australian Economic Papers* 1–12.
- You, Chuanman (2018) "Recent Development of Fintech Regulation in China: A Focus on the New Regulatory Regime for the P2P Lending (Loan-Based Crowdfunding) Market." 13 *Capital Markets Law Journal* 85–115.
- Yu, Tao, & Wei Shen (2019) "Funds Sharing Regulation in the Context of the Sharing Economy: Understanding the Logic of China's P2P Lending Regulation." 35 *Computer Law and Security Review* 42–58.
- Yuan, Kang, & Duoqi Xu (2020) "Legal Governance on Fintech Risks: Effects and Lessons from China." 7 *Asian Journal of Law and Society* 275–304.
- Zavolokina, Liudmila, Mateusz Dolata, & Gerhard Schwabe (2016) "The Fintech Phenomenon: Antecedents of Financial Innovation Perceived by the Popular Press." 2 *Financial Innovation* 1–16.
- Zetsche, Dirk A., Ross P. Buckley, Janos N. Barberis, et al. (2017) "Regulating a Revolution: From Regulatory Sandboxes to Smart Regulation." 23 *Fordham Journal of Corporate & Financial Law* 31–103.
- Zetsche, Dirk A., Ross P. Buckley, Janos N. Barberis, et al. (2018) "From Fintech to TechFin: The Regulatory Challenges of Data-Driven Finance." 14 *NYU Journal of Law & Business* 393–446.
- Zhao, Chengguo, Meng Li, Jun Wang, et al. (2021) "The Mechanism of Credit Risk Contagion Among Internet P2P Lending Platforms Based on a SEIR Model with Time-Lag." 57 *Research in International Business and Finance* 101407–16.
- Zhou, Weihuan, Douglas W. Arner, & Ross P. Buckley (2015) "Regulation of Digital Financial Services in China: Last Mover Advantage?" 8 *Tsinghua China Law Review* 25–62.
- Zhou, Weihuan, Douglas W. Arner, & Ross P. Buckley (2018) "Regulating Fintech in China: From Permissive to Balanced," in David Lee Kuo Chuen & Robert Deng, eds., *Handbook of Blockchain, Digital Finance, and Inclusion*, Vol. 2, Cambridge: Elsevier Inc., 45–64.
- Zhou, Xi, & Shou Chen (2021) "Fintech Innovation Regulation Based on Reputation Theory with the Participation of New Media." 67 *Pacific Basin Finance Journal* 101565–78.
- Zhu, Zongyuan (2018) "Safety Promise, Moral Hazard and Financial Supervision: Evidence from Peer-to-Peer Lending." 27 *Finance Research Letters* 1–5.

Cite this article: Tan, David (2023). Demystifying the proliferation of online peer-to-peer lending in Indonesia: Decoding fintech as a regulatory challenge. *Asian Journal of Law and Society* 10, 376–400. <https://doi.org/10.1017/als.2022.21>