

PEER-TO-PEER LENDING:

Structures, risks and regulation

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In this paper we outline the key characteristics of peer-to-peer (P2P) lending, the risks involved and alternative approaches to regulating P2P platforms. We argue that P2P lending is an example of how modern technology enables the integration of a range of economic functions, including market operator, financial services provider and credit broker. This removes the basis for separate legislative treatment of financial products and credit, and existing regulatory distinctions between different types of financial service providers. Arguably, a new approach to market regulation is warranted which is more consistent with emerging institutional arrangements. An earlier version of this paper was presented at the 21st Melbourne Money and Finance Conference.

Peer-to-peer (P2P) lending involves the matching of borrowers and investors via an online platform with the P2P operator managing the repayment obligations of borrowers, acting as an agent for investors. P2P lending is a fast growing industry globally, both in terms of number of operators and loan volumes. The US and the UK have the most-established P2P lending markets. UK-based Zopa is recognised as the first P2P operator launched in 2005 while US-based Lending Club (launched in 2007) is the world's largest P2P operator, having funded over US\$20.6 billion worth of loans by June 2016. The Australian P2P lending industry has been slower to develop but now includes P2P operators such as RateSetter, MoneyPlace, SocietyOne, ThinCats and True Pillars.

P2P lending is similar to other platform-based markets which enable buyers and sellers of heterogeneous goods and services to trade, with prices being determined ultimately by demand and supply and, in the short run, by auction processes or fixed-price offers. Examples include accommodation services (AirBnB or Hotels.com), transport (Uber), new and second-hand goods (EBay, Gumtree and GraysWine Online), all of which have been made feasible by modern digital technology.²

There are, however, some important differences. First, P2P operators provide quality assessment of the product (loan) being offered, which is a form of financial advice.³ Second, P2P operators manage (over several years) the subsequent physical delivery to the purchaser (investor) of the obligations (interest and principal repayments) of the vendor (borrower), creating a principal-agent relationship.⁴ Third, P2P operators provide purchasers with account management (financial) services (Investor Directed Portfolio Services – IDPS)⁵ enabling purchasing (and possibly subsequent resale) and custody of products (loan assets), and receipt (and possible reinvestment in new products, storage, or withdrawal) of cash receipts from products owned.

Development of regulation of P2P platforms in Australia has recognised all of these features (ASIC 2016) but has arguably focused on account management and investment facilitation, which is a feature of both managed investment schemes (MIS) and IDPS (such as operated by stockbrokers). In the absence of suitable legislation, which reflects all of the features outlined above, regulation of P2P operators has defaulted to compliance with MIS regulatory requirements.

We argue that this is not ideal and that P2P platforms (and associated services) are an example of a more general integration of the provision of a number of economic functions made possible by 'fintech'.⁶ This warrants reassessment of the current legislative framework which is based on treating those functions as being provided separately by separate entities, as was the case under older technology. Specifically, we argue that P2P platforms combine the functions of

a market (exchange) operator and a provider of financial services (individual account and trading facilitation), as exemplified by stockbrokers (market participants). It is particularly important that fintech can enable direct access to the market by end-users (without the need for a broker or a designated market participant) and integrated provision of those functions listed above. This removes the case for a regulatory structure based on a distinction between market operators and financial services providers (market participants) which is a special case of non-integrated provision resulting from old technology.

ASIC (2013) notes that its Regulatory Guide 172 regarding market operator licences will be reviewed in total in 'due course'. We suggest that this needs to be undertaken in the context of the now (or emerging) feasible integration of market operation and associated services (such as IDPS or IPO bookbuilds for new security issuers) due to fintech, to recognise that separate specialised treatment of market operators is no longer appropriate (but may be a special case of a more general approach). As part of that more general review, P2P regulation could be shifted from the MIS category (which itself may be a subset of the more general approach) to a new 'omnibus' regulatory model.

We first outline the key features of P2P lending, then consider risk characteristics which give rise to regulatory concerns before examining the options for regulation.

Structures: Key characteristics of P2P lending

The focus of P2P operators has predominantly been personal and small business loan markets, but it is expanding into an increasing number of different loan markets such as trade credit and mortgages. P2P lending is often thought of as connecting retail investors and borrowers, but has evolved such that on some platforms the majority of investor funds come from institutional investors. This has led to the term 'marketplace lending' also being used to describe P2P lending.

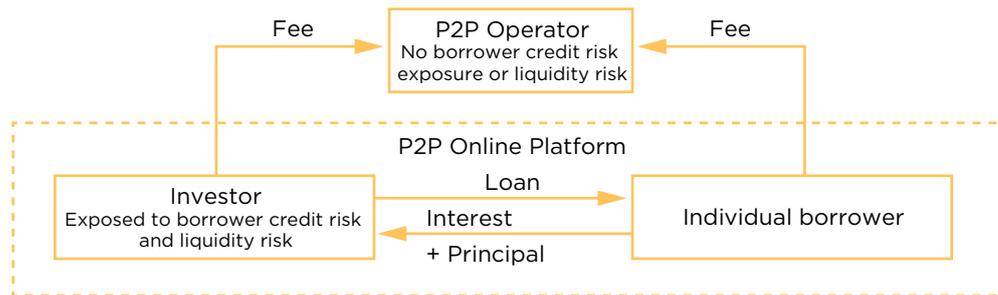
The attraction for borrowers is the potential to access credit (if rejected by traditional lenders) and/or the possibility of receiving more attractive interest rates. While traditional intermediaries can use risk-based pricing and 'new' forms of credit-relevant information (such as social media), their limited use of these has been one factor providing growth opportunities for P2P platforms. Investors are attracted by access to different asset classes with risk-return characteristics that may appear superior to traditional investment options. Personal loans, for example, have traditionally been the domain of banks and credit unions. P2P lending allows investors to directly invest in this asset class and potentially benefit from any associated yield premiums.

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P2P lending is an innovation that uses new techniques to overcome financial frictions such as information asymmetry and transactional costs. Ultimately, long-run viability will depend upon whether new technology and techniques for assessing (and managing) borrowers and matching them with investors reduced operating costs and/or better risk assessment than traditional intermediation. It will also depend upon the interest of investors in the risk-return features offered and the compatibility of outcomes with investor expectations.

The P2P operator uses the online platform to directly match borrowers and investors rather than acting as a traditional financial intermediary (see Figure 1). The P2P operator will perform a proprietary credit assessment of potential borrowers. If deemed creditworthy, their loan request will be anonymously listed on the platform, together with risk-related information, for investors to fund. Investors select the loans or type of loans based on their individual risk appetite. Investors are either forced or highly recommended to invest in smaller fractions of multiple loans rather than being exposed to the risk of investing in a single loan. Once (if) the loan has been fully funded the borrower is granted the loan. The P2P operator will perform ex post monitoring and management of borrowers on behalf of investors.

Figure 1: Basic P2P lending model



P2P operators do not typically invest any of their own capital into loans on their platform and thus are not exposed to the credit risk despite being responsible for the credit assessment of borrowers. The main source of revenue for P2P operators is borrower transaction fees from matching loans on their platforms.⁷ This creates a principal-agent problem as P2P operators have a short-run incentive to maximise loan volume, which could influence the stringency of their credit assessments. Competition between P2P operators for borrower listings could also have similar effects.

However, the long-term viability of P2P operators depends ultimately on meeting investor expectations, providing a long-run reputational incentive to maintain the integrity of the credit assessment process. But potential reputational spillovers mean that operational failures or poor performance of 'fly by night', or incompetent, operators can pose reputational risks for other industry members. Thus, some method of imposing minimum quality standards on entrants is important for existing operators as well as for consumer protection.⁸

Murphy (2016) defines two different types of P2P lending operating models in use around the world. The first is the *Active P2P Lending Model* that enables investors to directly select loans from those listed. Investors see information arguably related to the anonymous applicant's creditworthiness, such as annual income, home ownership status and the purpose of the loan.

This model contrasts with the *Passive P2P Lending Model* whereby investors select their desired risk category and loan maturity and the P2P operator will match them to a set of loan applications which meet these criteria. Investors are only aware of the average characteristics of categories of borrowers rather than the specific characteristics of the borrowers they have financed. Arguably, passive model operators are exposed to a greater reputational risk from investments not meeting an investor's reasonable expectations. Thus passive model operators implement a provision fund discussed below.

A major challenge for both model types is to set the interest rate on loans to efficiently equate the flow of loan demand and supply of funds (Murphy 2016). The first of three different approaches is to allow the borrower to set the maximum rate at which they are willing to borrow (above some risk-related, operator-determined, minimum rate) and for investors to then bid for the loans in an auction process. If there are sufficient bids to fully fund the loan by the auction closing date, the interest rate is set, if it is a uniform rate auction, at the highest successful bid. If it is a mixed rate auction, investors receive the rate that they bid and the borrower pays a weighted average of all the successful bids. If the loan is not fully funded by the auction closing date, the loan is withdrawn from the platform and investors can invest their funds in other loans. Only active P2P model operators use this method.

The second approach, used by some active and passive P2P operators, is to set a rate based on the proprietary risk grade assigned to the loan. This creates the risk of an excess supply of funds (and rapid funding of the borrower) or a deficient supply of funds (and non-funding of the borrower). In an active model, that can occur at the individual borrower level while, in a *passive* model, the operator will need to determine some way (such as by adjusting interest rates) to equilibrate aggregate demand and supply for the particular risk category.

The final approach used by P2P operators is to operate a market similar to a stock market order book. Based on their level of risk and the maturity of the requested loan, borrowers receive an indicative estimate of the interest rate they could receive in the market. The borrower sets a maximum rate at which they are willing to borrow. Investors also see the indicative market rate

for the different investment options and set the minimum rate at which they will invest. The P2P operator then matches investors and borrowers whose bid and offer interest rates are compatible (and which generate the required level of funding) to originate loans. This method is currently used only by passive P2P model operators.

Both active and passive model types either force or strongly recommend that investors implement diversification. However, investors have less control over their level of diversification under a passive model as the P2P operator selects the number of borrowers funded by an investor. Passive model operators counteract this potentially higher risk for investors by typically implementing a reserve fund in an attempt to cover any potential capital losses investors may experience. Borrowers pay a fee into the fund when applying for the loan and the fund is designed to grow to exceed the expected default rate on the platform such that investors at least receive a return of their capital. Thus investors' exposure to borrower default risk is reduced.

Risks of P2P lending

P2P lending involves a range of risks for poorly informed participants, which regulators are rightly concerned about.

Default risk and poorly informed investors

P2P operators are providing access to asset classes to which investors have previously had limited, if any, exposure. Investors may not understand the true nature of the risks of P2P lending and rely, to some degree, on the integrity, accuracy and consistency of the P2P operator's risk assessment. To help alleviate concerns, P2P operators publicly release details and risk characteristics of all loans on their platform. Such transparency decreases the level of informational asymmetry between the investor and P2P operator.

Investors must also assess the appropriateness of the credit spreads provided across the risk spectrum of borrowers. P2P operators use risk-based pricing and investors can, in principle, use the publicly available information to assess the consistency of a P2P operator's risk assessment with their own.

Even if investors understand the risk, the issue remains of what rate of return they should expect. Intuitively, a P2P investment is approximately equivalent to holding both equity and deposits in a depository institution specialising in the same type of loans.⁹ Consequently, the required return of P2P investors should be similar to the weighted average cost of funds of a similar depository institution. This highlights the fact that long-run viability of P2P operators will depend upon comparative operating cost and risk assessment abilities.

Financial advice

P2P operators perform a function equivalent to a credit rating agency when they provide risk grades of potential borrowers. This is a form of financial advice to potential investors and raises the issues of the quality of such advice and the potential for conflicted remuneration arrangements. Further potential advice-related risks arise if the marketing of P2P investment opportunities involves relationships with financial advisers.

Investment illiquidity

The maturity matching of borrowers and investors makes P2P investments largely illiquid. There is the potential for P2P operators to develop secondary markets and many P2P operators do provide such a facility. Asymmetric information should not be an impediment to secondary markets given publication of borrower characteristics and repayment performance of loans. In such circumstances, investors wishing to sell loans have no superior information to potential purchasers, thus alleviating the adverse selection problem that can otherwise impede market development.

Agency risk

Investors face the risk that a P2P operator may cease operations due to unprofitability of the business model or operational events such as failure of the platform software, even though borrowers are not in default. In that case, the problem arises of how the management of ongoing borrower repayments and their transmission to investors is to be handled. While transfer of the 'loan book' and investor accounts to another operator is one possibility under the direction of an administrator or liquidator, this would most likely involve significant losses to investors.

Risks for borrowers

Australian credit regulation imposes a number of constraints upon retail lenders. One is 'responsible lending' requirements imposing an obligation to assess the suitability of a loan given the borrower's personal circumstances. It is not clear how this accords with P2P lending involving many investors (lenders) and where the P2P operator in effect facilitates rather than makes the loan. Currently, P2P operators are required to hold an Australian Credit Licence given that facilitation role. Rejection of potential borrowers for whom a loan is unsuitable is one way of meeting responsible lending requirements, but arguably so is assigning a credit grade that reflects an assessment of the likelihood of default.

Another potential risk for borrowers arises from the nature of loan collection and default management policies.

Regulation of P2P lending

Regulators around the world have been developing regulatory responses to the new operating models in the P2P lending industry. The objectives are to ensure investors and borrowers are protected from fraud and mis-selling of products while not stifling potential benefits from financial innovation. In some jurisdictions, regulators have attempted to fit existing legislation to P2P lending, while others have implemented specific P2P lending. In this section, we consider how P2P lending overlaps with a range of specific extant regulatory arrangements and argue that it provides an informative example of how 'fintech' is making those arrangements less relevant. Arguably, a rewriting of legislation to facilitate new types of financing arrangements is required.

Despite both banks and P2P operators competing in loan markets and raising funds from retail investors, P2P operators do not come under bank regulations such as Basel III capital and liquidity requirements. This reflects the passing on of credit and liquidity risk to investors. Whether this gives P2P lending a regulatory cost advantage over depository institutions is unclear since, as outlined earlier, a P2P investment is broadly equivalent to a combined investment in bank equity, deposits and debt. The answer hinges, *inter alia*, on whether costs to banks of minimum capital (and other) regulations offset the benefits of explicit and implicit government guarantees, about which there are conflicting views.

Australia regulates P2P operators under a MIS framework (ASIC 2016). This existing legislation was not designed with P2P lending in mind but ASIC has required (in the absence of an obviously better legislative alternative) P2P operators to fit into this structure. Arguably this is the wrong model (although existing P2P operators appear comfortable with what has emerged). First, investors are not involved in a 'collective' investment where all have pro rata share in a common set of assets. Second, MIS do not, in principle, originate new securities, but enable investment in a diversified portfolio of existing securities. In practice, this has not always been the case, with MIS encompassing mortgage trusts, REITs, and agribusiness where assets (real or financial) have been originated and managed by the Responsible Entity (RE). Experience suggests that this is not necessarily an ideal approach, and the RE model seems more suited to schemes where investments take the form of purchases of existing securities with market-determined prices and with limited operational activities (which affect the value of the assets) being required of the manager. This is not the case for P2P lending.

Rather, P2P platforms are primary markets for new securities in which prices are determined, but where the P2P operator also acts similarly to investment banks or stockbrokers when they enable an IPO for listing on the stock market. The P2P operator completes the risk assessment and enables the distribution, however, they do not underwrite loans. On this interpretation, a critical issue is essentially what 'prospectus' requirements should be applied regarding the P2P operator acting as the agent for the individual issuer of the securities. Also on this interpretation, regulation should relate primarily to the information made publicly available about potential borrowers, and also subsequent loan performance as an indicator of the reliability of the agent (the P2P operator) in providing relevant *ex ante* information. However, the involvement of the P2P operator in managing the assets suggests that this is only part of the relevant approach, and minimum standards to limit the operational risk (e.g. of platform failure) would also seem relevant.

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The potential for P2P operators to develop secondary markets suggests that regulation as a 'market operator' might be even more appropriate. But here the distinction between financial products and credit facilities in Australian legislation creates complications. The *Corporations Act 2001* defines a financial market as a facility where acquiring and disposing of financial products regularly occurs. The *Act* generally excludes credit facilities from its definition of a financial product. If a P2P operator was considered to be providing or facilitating provision of a credit facility to borrowers, the operator would not appear to be running a financial market. From the investor perspective, their investment could be considered as a financial product. Thus operation of a secondary market matching buyers and sellers would appear to involve running a financial market but, if it were itself an intermediary acting as buyer and seller, arguably it would not be considered a market operator but instead would be acting as a market maker. The P2P operator would be providing a financial service rather than operating a market.¹⁰

While the loans issued on their platform do not sit on the P2P operator's balance sheet they play an important role in managing the assets, quite different to the activities of a traditional exchange. This structure makes the P2P platform somewhat comparable to a special purpose vehicle (SPV) used in securitisations, where securities are originated and placed into a structure that obtains funding from investors. However, there are a number of differences. Typically in a securitisation, the origination occurs separately to the ultimate investor funding (via warehouse or deposit funding). Also, in contrast to an SPV (where third-party insurance or guarantees may be incorporated), the P2P operator does not provide any implicit backing of loans and there are no equity tranches to help overcome information asymmetries or pre-payment risks. Nevertheless, there are apparent similarities between a P2P platform and a securitisation master-trust arrangement, which involves a number of separate securitisations in which investors have claims on different loan pools.

Yet another perspective in considering regulatory arrangements is to note that P2P operators play a role similar to credit rating agencies, assigning risk grades and receiving fees from potential borrowers. But whereas ratings agencies provide advice about financial products and are regulated because of potential influence on investor decisions, P2P operators provide advice about credit risk associated with provision of a credit facility, and thus may be more akin to a credit bureau, which is not treated as providing financial advice. Australian legislation treats financial products and credit separately and therefore is not well suited to dealing with situations such as P2P lending where the individuals are investing in a financial product which is simultaneously a credit facility.

Another important consideration is that P2P operators also provide individual managed accounts for investors, and enable end-user investors to interact directly with the market rather than through designated market participants. Because funds are required to be in place in an account on the platform prior to submitting demand for securities and ultimately investing in them, and because of the advances in digital information technologies, the traditional need for designated market participants to reduce transactions costs and settlement risks is removed.

Modern technology thus requires a rethink of the structure of capital markets regulation which involves distinctions and separate regulation based on institutional practices and arrangements emanating from older technology. P2P lending is special case of fintech developments creating the possible need for of a more general regulatory framework, including rethinking the separate legislative treatment of financial products and credit.

Currently, regulation of market operators is separate from regulation of market participants as financial services providers. That latter regulation encompasses concerns about operational risks and financial advice. What the P2P development shows is that, with modern technology, there is not necessarily any natural distinction between a market operator and a financial services provider. Indeed, there is no obvious reason why the one entity could not operate a market for particular securities, provide direct access for end-user investors and issuers of securities, provide managed accounts for investors which include provision of deposit-like facilities, and manage the flow of payments from securities issuers to holders of those securities.

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Conclusion

ASIC (2013) notes the case for updating market operator regulation and we argue that P2P lending provides a clear example of the need for this, to allow for the integrated provision of a market and a range of financial services. It is important to develop a regulatory structure more consistent with emerging institutional arrangements, which are potentially more efficient than traditional business models and which incorporate a different range of risk characteristics.

Acknowledgements

We are grateful to Martin Joy for valuable comments on regulatory issues and to several P2P operators for providing us with valuable insights. Any sins of omission or commission are our responsibility alone.

Notes

1. This paper is partly based on work undertaken for an Honours thesis in the Department of Finance, University of Melbourne and subsequently under a Kinsman Studentship.
2. Einav et al. (2015) analyse these types of peer-to-peer markets and discuss issues involved in their regulation. They note that in fast growing and evolving industries, regulations that appear sensible at an early stage may soon become unsuitable. On the other hand, in platform businesses where there may be significant network and scale economy effects, early stage regulation may be appropriate to influence emergence of a desirable industry structure and conduct.
3. Quality assessment of vendors or products (or purchasers) on other platform markets is typically via participant ratings.
4. Another principal-agent relationship is created when (some) platforms allocate investors' funds to loans meeting specified criteria (e.g. risk grade and or maturity).
5. A definition of IDPS and relevant regulation can be found in ASIC (2015).
6. Thus, whereas much discussion of financial innovation relates to potential for 'unbundling' of economic functions (such as in the case of securitisation enabling separation of origination and funding of loans), we note that it may also provide new opportunities for 'bundling'.
7. Some operators have introduced ongoing loan management fees charged to borrowers, rather than solely upfront fees. Thus they have a credit risk exposure due to revenue loss if borrowers default. In this case moral hazard concerns may be reduced.
8. That does, however, raise the potential for such requirements to act as a regulatory entry barrier to the benefit of traditional intermediaries or existing P2P operators.
9. There are obvious differences due to the illiquidity of the P2P investment, and the need for depository institutions to hold liquid assets to deal with depositor withdrawals.
10. ASIC has exempted certain organisations that offer market-type functionality from obtaining market licensing.

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