

PEER-TO-PEER LENDING. SOCIAL MARKETPLACE, CROWDFUNDING OR FINANCE 2.0?

Authors: Sotir Ivanov¹, Zlatko Zlatkov²,

¹ Industrial Business Department at UNWE-Sofia, BULGARIA, sotir_93@abv.bg

² Industrial Business Department at UNWE-Sofia, BULGARIA, zhlatkov@gmail.com

Abstract

With each passing year the peer-to-peer lending becomes more popular. The increased numbers of users and provided loans through the P2P platforms led us to write this paper to clarify what peer-to-peer lending is and what are the benefits and the flaws of using such platforms. Are they just peer-to-peer or they have evolved in something more complexed with the participation of more “players” like institutional investors, banks and venture capital funds? We shall examine the connections between peer-to-peer lending and other widely discussed terms, such as crowdfunding, social marketplace and finance 2.0. As a conclusion we will give our prediction about the mutual future of technologies and lending.

Keywords: *peer-to-peer lending, finance 2.0, crowdfunding, investment, social, marketplace*

At the height of the financial crisis, small and medium-sized enterprises have been in a very difficult position to access the funds they need to grow. But in those years the game has rapidly changed. The new players on the market of consumer and business lending are stepping into the space mainly reserved for the banks using innovative business models, often taking advantage of new technologies and different sources of capital. Such fast-growing model in the recent years is the peer-to-peer lending.

Peer-to-peer finance has received growing attention over the last years, not only because of its disruptive nature and its disintermediation of nearly all major banking functions, but also because of its rapid expansion and widening range of services. This growth is driven by the widespread use of the Internet, continuous innovations by start-up companies and increasing financial regulation of traditional banks. The financial risk from peer-to-peer financial transactions are borne by all participants and involves nearly all major risk types present in traditional financial intermediation: credit risk, interest rate risk, market risk, liquidity risk, foreign exchange risk and operational risk.

Peer-to-peer lending has experienced significant growth over the last several years. It has grown to a multibillion market over the last 13 years, currently shows off an exponential growth curve. The significant increase of the peer-to-peer equity investing and peer-to-peer

foreign exchange markets brings the beginning of the more mature peer-based investment market despite the mixed start more than a decade ago.

Peer-to-peer lending can be defined as “platforms that facilitate financial services via direct, one-to-one contracts between a single recipient and one or multiple providers”, based on the British Peer-to-Peer Finance Association’s definition of peer-to-peer lending. Oftentimes the term “social” is included in order to refer to the underlying aspect of a social network, or the term “crowdfunding” is used in order to refer to the aspect of a decentralised crowd.¹

The term “peer-to-peer” describes the interaction between two parties without the need for a central intermediary. The term originated in the field of computer networking, to describe a network where any one computer can act as either a client or a server to other computers on the network without having to connect to a centralised server. The Internet is itself a P2P network.²

There are four main categories which the advantages of P2P lending platforms can be grouped into: 1) higher rates of return than the available bank deposits offers along with relatively low fees for borrowers; 2) granting credit to some groups of borrowers unable to access bank lending; 3) an understanding that P2P lending is more responsible and of greater social value than conventional banking; and last but not least 4) the importance of the financial and technical innovations which improve the quality and speed of service to both borrowers and lenders.

There are four main types of peer-to-peer lending: First, peer-to-peer lending related to the direct loan provision by multiple lenders to consumers and small and medium-sized enterprises. Second, peer-to-peer equity market where the equity capital of start-ups and small and medium-sized enterprises is traded by investors. Third, peer-to-peer foreign exchange platforms where individuals and corporations are able to buy, sell, and exchange online currencies directly. Fourth, peer-to-peer foreign exchange hedging refers to corporations directly contracting foreign exchange futures in order to hedge against currency risk.

Since the inception of UK start-up Zopa in 2005, the peer-to-peer lending market has expanded dramatically. The amount of loans has increased from approx. EUR 29 million at the end of 2006 (Moeninghoff and Wieandt, 2012) to approx. EUR 23.8 billion at the end of 2015, according to Transparency Market Research. That is an annual growth rate of more than 100%. Despite its rapid growth, the peer-to-peer lending market accounts only for approx. 0.06% of the current global consumer credit market which in total is approx. EUR 42.3 trillion (Finaccord, 2016).

In 2014 solely in the United States is estimated that P2P lending generated more than USD 8.9 billion in loans, and received more than USD 1.32 billion in venture capital investments. There is a notable interest in these P2P platforms by individual borrowers, investors, companies and regulators and it’s increasing. According to a Fitch report, P2P is

¹ Moeninghoff, Sebastian C. and Wieandt, Axel, The Future of Peer-to-Peer Finance (May 20, 2012). *Zeitschrift für Betriebswirtschaftliche Forschung*, August/September 2013, p. 466-487. Available at SSRN: <https://ssrn.com/abstract=2439088>

² Milne, Alistair and Parboteeah, Paul, The Business Models and Economics of Peer-to-Peer Lending (May 5, 2016). ECRI Research Report, 2016, No 17. Available at SSRN: <https://ssrn.com/abstract=2763682>

expected to grow to USD 114 billion in lending, conservatively, in the medium term (Fitch Ratings (2014); Wall Street Journal, August 14, 2014).

PWC (2015) projects that P2P lending could grow by 2025 to capture 10% of the USD 800 billion US market for revolving consumer debt and 4% of the USD 1.4 trillion of non-revolving consumer debt held by US financial institutions. Moldow (2015) projects global P2P lending to rise to USD 1 trillion by 2025, on the assumption that it captures 10% of consumer and other lending markets. Morgan Stanley Research (2015) projects that P2P lending will capture 10% of US lending by 2020 and reach a stock of USD 150-490 billion globally.³

Roots of the Peer-to-peer lending (P2P) could be found in the idea of socially-connected finance, but more importantly its success could be associated with the innovations and technological progress, in the opinion of Einav, Jenkins, and Levin (2013), noted that technology extends further the access to credit. “Technological advances have facilitated (a) the collecting, scoring, and disseminating of credit qualifications for a pool of prospective borrowers on an online platform, (b) the real-time reporting supply of lending bids, which allows investors to diversify across loans and to spread borrower risk across investors, and (c) the online servicing, monitoring, and credit history reporting of loan performance.”⁴

Every model of a P2P platform has fundamental functions which are common for all types of peer-to-peer lending platforms. First, a database of prospective borrowers is set up. Then, most platforms predominantly offer them term loans with a period from 3 to 5 years. Borrower applicants have to provide mandatory information including the loan amount request, maturity choice, purpose for loan, income, employment, and other debt, as well as any other information that is requested by the platform. In most of the cases borrowers must upload documentation verifying income and employment. On some platforms, borrowers can pool into a networked group to enhance signalling. In the end, platforms determine and arrange loan applicants' credit scores, either directly, via a credit score range profiling, or by placing applicants in risk grades using proprietary scoring involving credit scores.

Facing a platform filled with risk-evaluated loans based on credit score system or similar and the provided information, the lenders are able to browse and filter applicants. Investors can choose to allocate their funds either independently, within investment groups, or algorithmically. Most of the platforms don't allow a single lender to fund an entire loan for any prospective borrower, but rather diversify across borrowers while observing the trends, the rates of return and the possibility of repayment (or default), something similar to investing in the stock market.

Most P2P platforms do offer some liquidity services, for example Funding Circle in the UK allows its business customers to repay loans early, with their automated bidding re-investing funds in new loan applications. Most platforms, for example Zopa Classic, also allow investors to sell loans they hold for a fee. The Estonian Iuvo Group offers 100% buy-

³ Milne, Alistair and Parboteeah, Paul, *The Business Models and Economics of Peer-to-Peer Lending* (May 5, 2016). ECRI Research Report, 2016, No 17. Available at SSRN: <https://ssrn.com/abstract=2763682>

⁴ Morse, Adair, *Peer-to-Peer Crowdfunding: Information and the Potential for Disruption in Consumer Lending* (January 17, 2015). Available at SSRN: <https://ssrn.com/abstract=2551272>

back guarantee through its credit originators (non-banking financial institution), for example, in case of default. P2P platforms, however, are at a competitive disadvantage relative to banks in providing such liquidity services, as they do not have access to money market funding or to central bank liquidity.⁵

In recent years, a number of Internet enabled peer-to-peer marketplaces have emerged to facilitate the short-term rental of goods. Examples include Getaround, Turo and Drivy (which enable car owners to supply their vehicles as short-term rentals), Airbnb and onefinestay (which allows consumers to rent their living space to others for short periods), FatLama (which facilitates the peer-to-peer rental of household items) and KitSplit (which allows professional photographers to rent equipment to each other). These are specific examples of a much broader array of new platforms which facilitate market-based trade between private individuals for a variety of assets and services, from urban transportation (Didi Chuxing, Lyft, Uber), dining (VizEat, Kitchit, EatWith) and inter-city transit (BlaBlaCar) to labour (TaskRabbit, Handy, Thumbtack), local delivery (Instacart, Postmates, Doordash), and loans (Lending Club, Funding Circle), collectively sometimes referred to as creating a new “sharing economy”.⁶

This kind of marketplaces can be distinguish from the earlier Internet-based secondary marketplaces like eBay because they are mainly focused on facilitating and providing short-term rentals or services instead of occasional resale under which asset ownership is transferred; peer-to-peer rental marketplaces actually change the way of investing in assets that are traditionally a source of dedicated supply for an individual. The trade they facilitate differ from traditional short-term rental services like hotels or rent a car and in general is between individuals (peer-to-peer) rather than between a rental service company and an individual.

In case when there is a free access to sufficient liquid peer-to-peer rental markets, owners of goods can supply for a short period their underutilised assets to others who may prefer to rent them rather than buying these assets. P2P platforms provide a choice for both sides, simply because there is a possibility that the owner doesn't want to sell his assets as a result of his higher income levels at the current moment, or by reason of that the average levels or income are too low. In the same way, the expectation of future resale created by secondary markets, might make consumers more willing to invest in asset ownership. The introduction of peer-to-peer rental markets will lead the value of some assets to change in time.

So peer-to-peer lending can be an easier way for both sides (individual to individual) to establish a more reasonable and choice providing communication, in order for those sides to have a larger flexibility when investing in assets. On the other hand, a big part of today's markets are fast credits and loans, which original idea is to help out the side that prefers to own assets instead of rent them. The source of profits in this case for the creditors is there interest rate and all kinds of transaction and etc. costs. For example, microcredit interest costs still remain higher than those of commercial banks, largely owing to transaction costs

⁵ Milne, Alistair and Parboteeah, Paul, The Business Models and Economics of Peer-to-Peer Lending (May 5, 2016). ECRI Research Report, 2016, No 17. Available at SSRN: <https://ssrn.com/abstract=2763682>

⁶ Fraiberger, Samuel P. and Sundararajan, Arun, Peer-to-Peer Rental Markets in the Sharing Economy (September 2017). NYU Stern School of Business Research Paper (First version March 2015; current version September 2017). Available at SSRN: <https://ssrn.com/abstract=2574337>

relative to small loan sizes, despite of the significant funds, invested for lowering these costs by improving the risk management. The rise of Web 2.0 more than a decade ago which the peer-to-peer lending is primarily based on apparently could lead to reduction of these transactional and interest costs.

The term Web 2.0 is believed to have been coined by Dale Dougherty and then popularised by Tim O'Reilly (Lenrevie, Lévy & Lindon, 2006). It stands for a generation of social media that allows users to jointly create and manipulate content.⁷

There is a big similarity between peer-to-peer lending and Web 2.0, as both of them are rather innovative in their respective fields and witness a higher growth than it was expected. Also they are both based on mutual and social exchanges between people instead of centrally controlled communications and relationships.

The peer-to-peer lending consists of diverse websites of microcredit (Kiva, Wokai), social investing (MicroPlace) as well as small loans at market rates (Prosper, Zopa, Lending Club), and even lending between friends and family members (Virgin Money).⁸

The new Internet technologies have led to multiple innovations, such as crowdsourcing or new eco-system platforms. Web 2.0 is often called “social technology”. This technology includes blogs, interactivity between lenders and buyers, peers’ reviews, comments, peers communities, chats and live online communication. So in fact technologies like these have reduced transaction costs in a various ways: automating the procurement process and reducing heavy paperwork; interoperability and multi-user communications; auctions to get best prices; collaborative planning and design.

It is now possible for every company or individual to reach its customers or other individuals and institutions via set of web-based platforms, thus bypassing the intermediators such as brokers and banks. The relative low cost of Internet technology makes small transactions feasible. However, borrowers in P2P platforms are facing information asymmetry. The information that most microfinance and P2P platforms gave out is not sufficient for deep risk assessment. Sometimes the credit score system is just not enough.

As we are talking about financial platforms, the term “Finance 2.0”, borrowed from the term Web 2.0, is often used to describe web- and technology-based financial services. It has been driven to a large extent by financial start-ups.

There is a huge interest in such online spaces and accordingly as of 2014, 80% of the investments made on the two largest P2P platforms Prosper and Lending Club are made from institutional investors (Financial Times, October 5, 2014). The increasing use of peer-to-peer finance by institutional investors indicates a gradual movement towards funded risk management, transforming peer-to-peer platforms into institution-to-peer platforms.⁹ That changes the term and gets its meaning closer to finance 2.0, instead of peer-to-peer. Here is where a new term and way of funding becomes extremely popular – crowdfunding.

⁷ Ashta, Arvind and Assadi, Djamchid, Do Social Cause and Social Technology Meet? Impact of Web 2.0 Technologies on Peer-to-Peer Lending Transactions (October 9, 2008). Cahiers du CEREN, Vol. 29, pp. 177-192, 2009. Available at SSRN: <https://ssrn.com/abstract=1281373>

⁸ Ibid.

⁹ Morse, Adair, Peer-to-Peer Crowdfunding: Information and the Potential for Disruption in Consumer Lending (January 17, 2015). Available at SSRN: <https://ssrn.com/abstract=2551272>

It takes a number of different forms, where the most popular has been the reward-based model where participants or investors, receive non-financial rewards or the actual end product in exchange for their “donation” to a project. The funds that have to be borrowed through a bank or other financial institution is gathered from a group of individuals, or “the crowd”. The model turns out to be very effective for two reasons. On one hand, the investors not only feel the satisfaction of receiving the desired reward but also receive satisfaction or social motivations which come with backing a project.

There are quite some other forms of crowdfunding that are growing pretty fast. For example, one of them is the equity crowdfunding – here investors get a small portion, small stakes in a young and privately owned company in return for their investment. Also, there is the peer-to-peer lending, where individuals lend small amount to businesses in return for a reasonable yield.

At the core concept of crowdfunding stays the idea that people in the crowd could know each other. Simply because the idea is not to receive only funds from that concept, it can be said that crowdfunding is the broader aspect of crowdsourcing. When people knowing each other, with crowdfunding there is a chance to find potential future clients or partners and give them the chance to participate from the very beginning which gives a certain value. Also a very important aspect is that there are feedback and potential solutions to problems, some interesting concepts and ideas for product or strategic development. In the case of crowdfunding, different individuals from the crowd could obtain voting rights in the business or participate in the strategic decision-making process. The entrepreneurs have access to a new pool of capital and ideas that can be used before proceeding with the final version of the project. It also gives investors the opportunity to feel part of the project from its very early stages.

However, while crowdfunding has been primarily used in creative industries and funding projects with more of a social aim, there are other forms, offering the option for a financial reward, which have also been growing fast. Crowdfunded lending to businesses actually has grown in recent years. Its original model and what it has evolved from is the more established model of peer-to-peer lending.

Peer-to-peer lending (crowdlending) is the household credit implementation of crowdfunding. In P2P, individuals post their borrowing needs and personal profiles on a P2P platform. Individual and institutional investors then can view and fund consumer loans through the platform.¹⁰

The other names of P2P crowdfunding include social finance, marketplace finance, and disintermediated finance. None of these terms alone can describe the whole nature of peer-to-peer lending. P2P is indeed a disintermediation of consumer finance using a social marketplace. Also, the social finance term reflects the idea of using Internet networks for obtaining the required information and thus improving the screening and the risk assessment for each loan (borrower).

Most peer-to-peer lending platforms predominantly address consumers as borrowers, but increasingly also target the self-employed and small and medium-sized enterprises. Also, several platforms specialising on the intermediation of corporate loans for small and medium-sized enterprises have emerged. Furthermore, some platforms offer long-term

¹⁰ Ibid.

peer-to-peer commercial and residential real estate financing, peer-to-peer equipment leasing, peer-to-peer loans secured by collateral, peer-to-peer student loans or short-term peer-to-peer payday loans. As we mentioned earlier, while peer-to-peer lending initially targeted predominantly private individuals, great numbers of investments are made by corporations and institutional investors.

For instance, in 2013 Lending Club received USD 125 million dollar investment led by Google. Shortly thereafter, Lending Club announced that they had plans to launch a separate platform to make small business loans. Unlike the personal loans to business owners on the traditional Lending Club platform which are underwritten based on the characteristics of the owner, loans on the small business platform would be based on the characteristics of the firm.¹¹

Traditionally, small and medium-sized enterprises (SMEs) are facing much more difficulties in accessing credit than do larger businesses. Lending to small company is generally considered to be riskier and more costly because small firms have higher failure rates and are more vulnerable to downturns in the economy. Lending to small businesses is further complicated by their informational opacity. Most do not have the detailed financial statements and rarely have publicly traded equity so obtaining reliable information on the creditworthiness of small businesses is difficult. Because commercial banks typically provide small businesses many products other than loans, commercial banks are able to use information gathered about the business over a longer term to their advantage in assessing the creditworthiness of small businesses, but the provision of loans is at a higher cost.¹²

As outlined above, SMEs are increasingly turning to the alternative sources of funds from P2P, crowdfunding or similar platforms to finance their products and ideas. Such loans require less paperwork than traditional loans and they may be considered relatively attractive. However, in reality the higher rate paid on such loans made them more suitable for start-up companies which often has no access to bank financing.

Online Peer-to-Peer lending platforms claim to be beneficial for both borrowers and lenders by eliminating expensive intermediaries and reducing transaction costs. However, sometimes inexperienced lenders paid higher price (or even losing a lot of money) than they had expected. That's because the lenders operate in a pseudonymous online environment with potentially significant information asymmetries or their risk assessment models are not worthy enough or the borrowers' creditworthiness is not determined properly. On the other side, borrowers have to pay excessive interest costs due to higher failure rate, low level of creditworthiness, etc.

Despite all, there are a lot of positive effects, which are obviously coming out of using the peer-to-peer landing. There are a just few notes that entrepreneurs and investors have to take under consideration so they can be aware of their effect. On one hand, there are the different approaches towards investing, what methods investors should use when investing and when the right time to do so is. One important consideration is to measure the

¹¹ Mach, Traci and Carter, Courtney and Slattery, Cailin, Peer-to-Peer Lending to Small Businesses (January 9, 2014). FEDS Working Paper No. 2014-10. Available at SSRN: <https://ssrn.com/abstract=2390886>

¹² Ibid.

correlation between the period that the organisation has entered, according its lifecycle and the lifecycle of the economy.

No matter how we call it, the P2P lending and the technologies which is based on are the driving force of the evolution of the XXI-century financial sector. It is definitely social because of the participation of large groups of people and there is no doubt that is a marketplace as trading between individuals is fundamental for the whole crowdfunding sector.

What we expect in the next decade is that this evolution is about to change dramatically the banking sector which probably could lead to a human-free online banking with lower transaction costs.

Reference

1. Ashta, Arvind and Assadi, Djamchid, Do Social Cause and Social Technology Meet? Impact of Web 2.0 Technologies on Peer-to-Peer Lending Transactions (October 9, 2008). Cahiers du CEREN, Vol. 29, pp. 177-192, 2009. Available at SSRN: <https://ssrn.com/abstract=1281373>
2. Barasinska, Nataliya and Schaefer, Dorothea, Does Gender Affect Funding Success at the Peer-to-Peer Credit Markets? Evidence from the Largest German Lending Platform (December 2010). DIW Berlin Discussion Paper No. 1094. Available at SSRN: <https://ssrn.com/abstract=1738837>
3. Bholat, David and Atz, Ulrich, Peer-to-Peer Lending and Financial Innovation in the United Kingdom (April 29, 2016). Bank of England Working Paper No. 598. Available at SSRN: <https://ssrn.com/abstract=2774297>
4. Burtch, Gordon and Ghose, Anindya and Wattal, Sunil, Cultural Differences and Geography as Determinants of Online Pro-Social Lending (November 21, 2013). MIS Quarterly, Forthcoming; Fox School of Business Research Paper No. 14-021. Available at SSRN: <https://ssrn.com/abstract=2271298>
5. Einav, Liran and Jenkins, Mark and Levin, Jonathan, The Impact of Credit Scoring on Consumer Lending (June 18, 2013). RAND Journal of Economics, Vol. 44, No. 2, Summer 2013, pp. 249–274. Available at: <https://web.stanford.edu/~leinav/pubs/RAND2013.pdf>
6. Fenwick, Mark and McCahery, Joseph A. and Vermeulen, Erik P. M., Fintech and the Financing of Entrepreneurs: From Crowdfunding to Marketplace Lending (September 12, 2017). TILEC Discussion Paper No. 2017-25; ECGI - Law Working Paper No. 369/2017; Lex Research Topics in Corporate Law & Economics Working Paper No. 2017-3. Available at SSRN: <https://ssrn.com/abstract=2967891>
7. Fraiberger, Samuel P. and Sundararajan, Arun, Peer-to-Peer Rental Markets in the Sharing Economy (September 2017). NYU Stern School of Business Research Paper (First version March 2015; current version September 2017). Available at SSRN: <https://ssrn.com/abstract=2574337>
8. Freedman, Seth and Jin, Ginger Zhe, Do Social Networks Solve Information Problems for Peer-to-Peer Lending? Evidence from Prosper.com (November 14, 2008). NET Institute Working Paper No. 08-43; Indiana University, Bloomington: School of Public & Environmental Affairs Research Paper No. 2008-11-06. Available at SSRN: <https://ssrn.com/abstract=1936057>
9. Iyer, Rajkamal and Khwaja, Asim Ijaz and Luttmer, Erzo F. P. and Shue, Kelly, Screening in New Credit Markets: Can Individual Lenders Infer Borrower Creditworthiness in Peer-to-Peer Lending? (August 2009). AFA 2011 Denver Meetings Paper. Available at SSRN: <https://ssrn.com/abstract=1570115>

10. Iyer, Rajkamal and Khwaja, Asim Ijaz and Luttmer, Erzo F. P. and Shue, Kelly, Screening in New Credit Markets: Can Individual Lenders Infer Borrower Creditworthiness in Peer-to-Peer Lending? (August 2009). AFA 2011 Denver Meetings Paper. Available at SSRN: <https://ssrn.com/abstract=1570115>
11. Klafft, Michael, Online Peer-to-Peer Lending: A Lenders' Perspective (July 14, 2008). Proceedings of the International Conference on E-Learning, E-Business, Enterprise Information Systems, and E-Government, EEE 2008, H. R. Arabnia and A. Bahrami, eds., pp. 371-375, CSREA Press, Las Vegas 2008. Available at SSRN: <https://ssrn.com/abstract=1352352>
12. Lin, Mingfeng and Prabhala, Nagpurnanand and Viswanathan, Siva, Judging Borrowers by the Company They Keep: Friendship Networks and Information Asymmetry in Online Peer-to-Peer Lending (July 1, 2011). Western Finance Association 2009 Annual Meeting Paper. Available at SSRN: <https://ssrn.com/abstract=1355679>
13. Liu, De and Brass, Daniel and Lu, Yong and Chen, Dongyu, Friendships in Online Peer-to-Peer Lending: Pipes, Prisms, and Relational Herding (2015). MIS Quarterly, Vol. 39, No.3, pp.729-742. Available at SSRN: <https://ssrn.com/abstract=2251155>
14. Mach, Traci and Carter, Courtney and Slattery, Cailin, Peer-to-Peer Lending to Small Businesses (January 9, 2014). FEDS Working Paper No. 2014-10. Available at SSRN: <https://ssrn.com/abstract=2390886>
15. Milne, Alistair and Parboteeah, Paul, The Business Models and Economics of Peer-to-Peer Lending (May 5, 2016). ECRl Research Report, 2016, No 17. Available at SSRN: <https://ssrn.com/abstract=2763682>
16. Moenninghoff, Sebastian C. and Wieandt, Axel, The Future of Peer-to-Peer Finance (May 20, 2012). Zeitschrift für Betriebswirtschaftliche Forschung, August/September 2013, p. 466-487. Available at SSRN: <https://ssrn.com/abstract=2439088>
17. Morse, Adair, Peer-to-Peer Crowdfunding: Information and the Potential for Disruption in Consumer Lending (January 17, 2015). Available at SSRN: <https://ssrn.com/abstract=2551272>
18. Namvar, Ethan, An Introduction to Peer-to-Peer Loans as Investments (September 6, 2013). Journal of Investment Management First Quarter, 2014. Available at SSRN: <https://ssrn.com/abstract=2227181>
19. Pierrakis, Yannis and Collins, Liam, Crowdfunding: A New Innovative Model of Providing Funding to Projects and Businesses (May 05, 2013). Available at SSRN: <https://ssrn.com/abstract=2395226>
20. Wei, Zaiyan and Lin, Mingfeng, Market Mechanisms in Online Peer-to-Peer Lending (December 2017). Management Science, 63(12): 4236-4257. Available at SSRN: <https://ssrn.com/abstract=2328468>