

Competition and Regulation of Crowdfunding Platforms: A Two-sided Market Approach

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Abstract: The present paper analyzes competition in the crowdfunding market in the light of the theory of two-sided markets, with the objective to understand the strategies used by platforms in this nascent industry. It also discusses the experience of policymakers in selected countries in trying to address concerns related to information asymmetries in this new environment.

Key words: crowdfunding, entrepreneurship, two-sided markets, internet platforms.

Crowdfunding is an alternative way to finance new ventures by matching early-stage entrepreneurs (or project owners)¹ and potential investors (or contributors)² over the internet. This new funding model has been rapidly growing over the last few years. In 2014, US\$16.2 billion were transacted in crowdfunding platforms, a 500% increase over the US\$2.7 billion transaction volume observed in 2012 (see Figure 1). The number of dedicated platforms jumped from 200 in 2009 to 1,250 in 2014 worldwide, according to the consulting firm Massolution (see Figure 2).

The rapid growth of crowdfunding has attracted the attention of governments, regulators and the media over the last few years. On the one hand, the fundraising model is seen as a manner to boost economy through

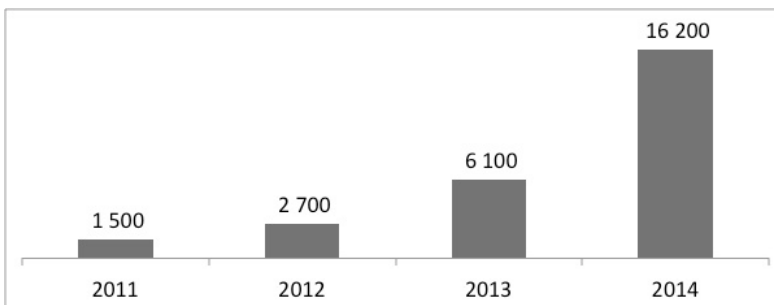
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¹ The paper will refer to project owners.

² The paper will refer to contributors in general, and to investors when treating lending and equity-based crowdfunding.

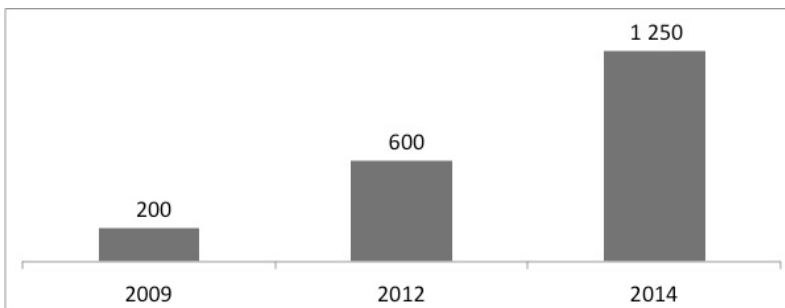
entrepreneurship by providing capital to individuals and firms lacking access to other sources³. Indeed, research suggests that fundraising over the internet alleviates the lack of access to traditional capital sources (KIM & HANN, 2014). On the other hand, policymakers report concerns regarding the combination of information asymmetries between project owners and contributors and the lack of experience of the latter⁴.

Figure 1 - Volume of transactions in crowdfunding platforms since 2011 in million dollars



Sources: Massolution 2013 Crowdfunding Market: Software and Solutions Report; Crowdfunding Industry Reports of 2013 and 2015; www.crowdsourcing.org/research

Figure 2 - Number of crowdfunding platforms worldwide



Sources: Massolution 2013 Crowdfunding Market: Software and Solutions Report; Crowdfunding Industry Reports of 2013 and 2015; www.crowdsourcing.org/research

³ See, for example, "Commission roadmap to meet the long-term financing needs of the European economy" on March 27, 2014 at europa.eu/rapid/press-release_IP-14-320_en.htm.

⁴ See, for example, "The FCA's regulatory approach to crowdfunding over the Internet, and the promotion of non readily realisable securities by other media – Feedback to CP13/13 and final rules" on March 2014 at <http://tinyurl.com/pcr8rn2>.

The extent to which this market will play a more central role in financing new ventures will depend highly on the crowdfunding platforms' capacity to attract enough project owners and contributors, and to address information asymmetries concerns. These challenges evoke questions about the competition environment in the crowdfunding industry, and the regulatory framework platforms need to comply with. This paper has a twofold objective of analyzing the crowdfunding platforms competition in the light of the theory of two-sided markets, and to study how policymakers approach this new industry, particularly regarding information asymmetries.

Crowdfunding platforms may be categorized as a two-sided market for it intermediates two groups of economic agents (project owners and contributors) that generate network effects on each other: project owners benefit from using a platform that attracts the greatest number of contributors potentially interested in their proposition, and potential contributors profit from using a platform with the highest number of propositions due to the greater probability of finding projects fitting their preferences. Another important characteristic of crowdfunding platforms as a two-sided market is the asymmetric price structure, where project owners often subsidize platforms with a fraction of the amount they receive during the campaign while contributors are subsidized.

The paper is organized as follows. The next Section describes the general features of crowdfunding, highlighting their characteristics as a two-sided market. It also describes how platforms resolve the "chicken and egg" problem, typical on two-sided markets. The following Section details price and non-price strategies in the crowdfunding industry, focusing on differentiation. Then, the paper describes policymakers' concerns regarding information asymmetries arising in this market, and overviews solutions adopted by selected countries. The last Section brings our concluding remarks.

■ Crowdfunding platforms as two-sided markets

Crowdfunding definitions and characteristics

Crowdfunding can be defined as "an open call through the internet for the provision of financial resources either in form of donation or in exchange for

some form of reward and/or voting rights in order to support initiatives for specific purposes" (BELLEFLAMME, LAMBERT & SCHWIENBACHER, 2014). Crowdfunding platforms are categorized in four main models, according to contributors' payoffs.

Donation-based crowdfunding facilitates private contributions to public goods, and contributions are based on altruism (BURTCH, GHOSE & WATTAL, 2013). One example of donation-based crowdfunding platforms is DonorsChoose, which hosts propositions from education institutions requesting financial support for students' materials and activities.

In the reward-based model, contributors can obtain "community benefits" (BELLEFLAMME *et al.*, 2014) in exchange for their financial participation. Compensations include advanced copies of products, preferential prizes, and appreciation tokens. Kickstarter, Indiegogo and RocketHub are three examples of reward-based crowdfunding platforms.

In lending-based crowdfunding, also referred to as peer-to-peer lending or social lending, investors supply funds to individuals, groups or small companies, expecting to be reimbursed after a given period, with or without interest. Investors in for-profit platforms like Prosper, RateSetter and Zopa are repaid with interest while those in pro-social lending-based platforms supporting businesses in developing countries (e.g., Kiva) only receive the main amount lent. It may be surprising that individuals agree to lend money and receive the repayment without interest, but this model attracts investors motivated by warm glow rather than by profit maximization, as shown by ALLISON, McKENNY & SHORT, 2013; and CHEMIN & DE LAAT, 2013.

Actually, pro-social lending-based platforms rely on a different business model compared to the for-profit platforms. Instead of receiving propositions from project owners, they establish partnerships with Microfinance Institutions (MFIs) in developing countries, and it belongs to the MFIs to select project owners, to subscribe them to the platforms, and to intermediate the transactions. Project owners receive loans from MFIs and pay them interest rates, which can be much higher than those of loans in developed countries⁵. It is important to highlight that pro-social lending-based platforms are not submitted to regulatory framework scrutiny.

⁵ Information taken from Kiva's website at <http://tinyurl.com/kivainterestrates> (last access on August 16th, 2015).

Finally, in equity-based crowdfunding, investors become stakeholders and receive dividends according to the companies' performance and their own investment in it. Anaxago, AngellList, and Crowdcube are examples of equity-based crowdfunding platforms.

While payoffs offered to contributors are distinct under each model, the process of subscribing to a platform is often similar. On the project owners' side, an individual subscribes to a given platform and describes her idea, the expected outcomes, and the payoffs for contributors. She also defines the financial objective and the campaign duration ⁶, two features that cannot be altered once the project is open to the public. The project undergoes a verification process, which is more or less strict depending on the crowdfunding model: donation and reward-based platforms establish very low entry barriers to project owners, lending and equity-based platforms perform due diligence to comply with regulation and to mitigate risks.

On the contributors' side, an individual subscribes to a given platform and chooses the projects she wants to support. In donation and reward-based crowdfunding, they are often invited by the project owner. In lending and equity-based models, more prone to speculation given the potential financial gains, regulators require platforms to obtain personal documents from participants.

Crowdfunding platforms may operate under the "fixed funding" model (also referred to as "all or nothing") or the "flexible funding" ("keep what you raise"). The former implies that project owners only have access to the capital raised conditional on reaching the financing threshold within the campaign duration, while the latter allows project owners to be financed even if they do not reach the financing goal. As noted by AGRAWAL, CATALINI & GOLDFARB (2013), the fixed funding model resembles the provision point mechanism used to avoid free riding in the private provision of public goods (see, for example, BAGNOLI & LIPMAN, 1989), and may be preferred to increase support to projects. However, flexible funding may work as a differentiation strategy, as we will see in the next Section.

⁶ Platforms usually define the limits of duration project owners can propose.

Two-sided market characteristics on crowdfunding platforms

It may be worthy to note that the first initiatives considered as "funded by the crowd" were held outside crowdfunding platforms, on the project owners' websites ⁷. As the market develops, however, it has become clear that the use of dedicated platforms provide more efficiency by reducing transaction costs with the provision of payment systems, promotional tools, and other services, and by mitigating information asymmetries between project owners and contributors by publicizing information about the project.

The business model followed by crowdfunding platforms holds similarities with other internet-based firms connecting two distinct groups of users that generate network effects on each other, i.e., the utility of one group increases (positive indirect network effect) or decreases (negative indirect network effect) with the number of participants of the other group. Examples of online two-sided market platforms are marketplaces that connect buyers and sellers (e.g., eBay); home sharing services that link homeowners and visitors (e.g., AirBnB); and ridesharing services that connect drivers and passengers (e.g., BlaBlaCar).

On crowdfunding platforms, positive cross-group network effects arise from the benefit that project owners extract from a greater number of contributors or investors participating on the same platform, for they increase their chances to fund their proposition. Likewise, a greater number of projects on a given platform increases the probability contributors have of finding projects that match their preferences.

Within-group positive network effects arise on the contributors' side once more participants increase the odds of projects reaching their goals, and thus of each investor obtaining their payoffs. On the project owner's side, negative within-group network effects arise from the competition for the attention of contributors (LY & MASON, 2012). In contrast, some projects may attract outstanding financial support and create spillover effects that benefit other project owners (DOSHI, 2014).

The inter-dependence of demand on both sides results in the "chicken and egg" problem, where platforms need to decide which side to bring first

⁷ For example, UK rock band Marillion reports having collected \$60,000 on a campaign held on their websites in 1997 to finance their American tour (www.bbc.com/news/entertainment-arts-23881382). BELLEFLAMME, LAMBERT & SCHWIENBACHER (2013) document other 44 cases where the project owners organized the fundraising activities on their own websites.

(see, for example, EVANS & SCHMALENSSEE, 2010) in order to generate critical mass. Crowdfunding platforms tend to bring the project owner first with strategies that include fee exemption and partnerships with institutions and associations that encourage their members to join. For example Sundance Film Festival annually invites the selected films to collect a part of their funds through Kickstarter ⁸.

The contributors' side comes on board in distinct fashions, depending on the funding model. In reward-based crowdfunding, for example, project owners invite their friends and family to join the platform and to contribute with the project (MOLLICK, 2014; AGRAWAL, CATALINI & GOLDFARB, 2015). In lending and equity-based crowdfunding, bringing contributors on board depends more on the promotional efforts of the platform ⁹.

■ Platform competition in the crowdfunding market

Price strategy, single homing and multi homing in crowdfunding

Two-sided markets are characterized by asymmetric prices (ROCHET & TIROLE, 2003) to allow the coordination of both sides, and to account for distinct demand elasticities on each side. Internet platforms often subsidize one side of the market while charging the other side. For example, ridesharing service BlaBlaCar subsidizes the driver side while charging the passenger side ¹⁰. Users may join and use the platform for free, only paying when transactions successfully occur ¹¹.

⁸ Sundance Festival states that it has been encouraging filmmakers to use Kickstarter since 2011, through its "ArtistService", a structure aimed at helping filmmakers to deal with financial and administrative tasks on this industry. Sundance also hosts "Kickstarter Schools": sessions held in Park City (UT), New York and Los Angeles where the crowdfunding platform explains their service to filmmakers. Information taken from the website www.sundance.org/programs/artist-services (last access on August 3rd, 2015).

⁹ For example, French equity-based MovieAngels offered a €100 bonus to participants that successfully bring two new investors to the platform during some months of 2015. Information taken from <http://www.movies-angels.com/parrainage> (last access on August 3rd, 2015).

¹⁰ Information taken from BlaBlaCar's website at <https://www.blablacar.co.uk/faq> (last access on August 16th, 2015).

¹¹ Unsuccessful transactions do not include cancellations, which may actually be charged.

Crowdfunding operates under a similar model, exempting contributors from service fees ¹² while charging project owners a percentage (from 2% to 20% on examined platforms) of the total amount collected by successful transactions (i.e., only if the project owner succeeds to raise enough capital under the fixed funding model, or when the campaign ends under the flexible funding model). In equity-based crowdfunding, platforms may charge fixed fees for due diligence.

Because they pay nothing to join, contributors tend to multi home. The multi homing behavior can arise across models, if contributors have different motivations to participate on distinct projects, or within models, if they aim at diversifying portfolio. Contributors will only single home if they have a strong preference for a given platform.

Project owners tend to single home due to the logic of "one shot" short term projects. They choose platforms that better suit their project, and once the campaigns end, they may restart a different project in a new platform. Single homing also enables the project to profit from social interaction. As cumulative investments may attract more investors in several models (see, for example, AGRAWAL *et al.*, 2015), project owners may have the interest in concentrating all the potential demand in only one platform to stimulate social interaction mechanisms like observational learning and word of mouth (see, for example, BURTCH, GHOSE & WATTAL, 2014). Furthermore, multi homing would not come without costs of learning and adapting to the alternative platform (ROSON, 2005). Project owners will only multi home if they infer there are different groups of potential investors connected to distinct platforms (for example, in different countries).

Platform differentiation in the crowdfunding market

On two-sided markets, each side may care not only about the number of participants of the other side, but also about their quality (FILISTRUCCHI & KLEIN, 2015). This characteristic allows for the platforms to differentiate themselves by selecting features that will attract certain types of users.

For example, on the project owners' side, the decision regarding which type of crowdfunding model to use depends on project features like capital

¹² Transaction fees referring to payment systems (e.g. credit card, PayPal etc.) are paid separately from the service fee charged directly by the platform.

requirement and sector of activity. BELLEFLAMME *et al.* (2014) model the choice of a project owner between reward and equity-based crowdfunding, and find that the former may be a more suitable option for projects with lower capital requirements and in a larger sector while projects demanding a higher level of capital in niche sectors would benefit from the latter.

On the contributors' side, motivations to join the platforms differ across crowdfunding models. BURTCH *et al.* (2013) find that in donation-based crowdfunding, the main motivation is altruism. In reward-based crowdfunding, the main drivers are social connections (MOLLICK, 2014; AGRAWAL *et al.*, 2015), participation on a project and access to exclusive rewards¹³. In lending and equity-based crowdfunding, monetary gains¹⁴ stimulate the investors to participate¹⁵.

It is possible to infer that competition happens within each crowdfunding model (donation, reward, lending or equity), for the motivation of project owners and contributors are distinct. Platforms may choose if they will operate under one crowdfunding model (donation, reward, lending or equity) or more than one. Hybrid platforms are not the norm, in general, each platform dedicates to one category, even if they are operated by the same firm. In France, for instance, KissKissBankBank (reward-based) founders also created HelloMerci (pro-social lending-based), and Lendopolis (lending-based platform focused on small and midsize business).

Within each crowdfunding model, platforms choose whether they will dedicate to one niche or they will accept multiple project categories. French reward-based crowdfunding is dominated by three multi-category platforms (KissKissBankBank, MyMajorCompany, and Ulule) while a multitude of specialized platforms dedicate to niches. As examples, we can mention Touscoprod (cinema and videos), Dartagnans (cultural heritage), Fundovino (wine), Miimosa (food and agriculture), and Farandol (family and childhood).

In lending-based crowdfunding, categorization is simpler – platforms accept consumers' requests (e.g., loans for debt consolidation, education,

¹³ As in the survey "Retrato do Financiamento Coletivo no Brasil" by Brazilian crowdfunding platform Catarse at <http://pesquisa.catarse.me> (last access on August 13th, 2015).

¹⁴ Except pro-social lending-based crowdfunding, where contributions are motivated by warm glow, as previously mentioned.

¹⁵ See, for example, "Understanding Alternative Finance - The UK Alternative Finance Industry Report 2014" by Peter BAECK, Liam COLLINS & Bryan ZHANG for NESTA and University of Cambridge on November 2014 at <http://tinyurl.com/nestacf>.

and home improvement) and small and midsize businesses requests (e.g., loans for expansion and investment). Prosper is an example of a platform that takes both types of propositions, while Funding Circle is dedicated to businesses.

In equity-based crowdfunding, categorization does not seem to play a major role in differentiation, although some platforms may operate in niches, like the French-based MovieAngels ¹⁶, dedicated to equity-crowdfunding in the cinema. Equity-based crowdfunding platforms seem to rather rely on the market experience of their founders in entrepreneurship and finance to attract project owners.

In terms of geography, platforms choose the locations where they will operate either for strategic reasons, which is the case of donation and reward-based crowdfunding, or due to regulatory framework, which is the case of lending and equity-based crowdfunding. As examples of the two choices categories, we can mention Indiegogo (reward-based) and Seedrs (equity-based). The former operates in multiple countries and is available in several languages while the latter is focused on UK companies, and accepts investments from individuals based in European countries.

Platforms can use the "fixed funding" or the "flexible funding" characteristics to differentiate. Kickstarter and Indiegogo are considered two of the greatest reward-based crowdfunding platforms worldwide, competing in cultural and creative categories in several countries. Kickstarter only allows for the fixed funding while Indiegogo offers both options. The "flexible funding" is used by 95% of Indiegogo's projects (CUMMING, LEBOEUF & SCHWIENBACHER, 2014). This information suggests that project owners willing to present their ideas under categories offered by both platforms, in countries where both operate, may choose Indiegogo if they prefer the flexible funding.

Flexibility, however, does not come without a cost: fixed funding is seen as a quality signal by contributors and raises higher amounts of money (CUMMING *et al.*, 2014), thus project owners arbitrate between flexibility and increased potential contributions. Platforms, on their side, depend on the performance of project owners, and need to decide if they stimulate more contributions limiting the projects to the fixed funding model, or if

¹⁶ See <http://www.movies-angels.com/> (last access on August 3rd, 2015).

they offer differentiation, and attract a part of the market that is not served by the fixed funding model platforms.

Finally, some crowdfunding platforms differentiate through additional services that may be as interesting to participants as the financing itself. One type of service aims at reducing costs of the campaign setup. For instance, Australian reward-based crowdfunding platform Pozible partners with service providers offering selected project owners free videos to campaigns, free classes of coding, and coupons for hiring professional free-lancers in several industries. Similarly, UK equity-based Seedrs provides legal services to selected companies as well as a support for paperwork administration for tax-reduction application.

A second class of services aims at promoting selected projects via partnerships set with institutions, associations and media hubs that work as curators, advisors, or "certification" partners. In France, KissKissBankBank set a partnership with the bank La Banque Postal, which selects some projects on the platform and promotes them on its media channels. These projects also receive a financial contribution from the bank corresponding to half of the total objective.

When evaluating potential platforms to join, project owners may prefer to present projects on KissKissBankBank or Pozible rather than on their competitors if they estimate that they may gain access to additional promotional tools, additional finance support, or free services, respectively. A project owner chosen by La Banque Postale (or other partner) can equally advertise this "certification" for the product or service resulting from the crowdfunding campaign, increasing its reputation.

Curators and mentors can also increase the attractiveness of platforms on the contributor's side. Curators may work like a chancellor of project quality, reducing the search costs and uncertainty for contributors.

■ Regulation in the crowdfunding market

Two-sided markets impose interesting challenges to policymakers. Regulatory issues with the potential to harm social welfare in traditional markets like concentration and mergers do not necessarily lead to socially harmful situations in two-sided markets (CAILLAUD & JULLIEN, 2003; CHANDRA & COLLARD-WEXLER, 2008). However, in situations that are

specific to two-sided markets, like competitive bottlenecks (ARMSTRONG, 2006), platforms may abuse their market power (see, for example, HAUCAP & HEIMESHOFF, 2014).

The technologically disruptive nature of internet-based platforms on two-sided market also evokes questions about the impact of new business models on existing "brick and mortar" markets. Recently, the entry of transportation service Uber in several countries has motivated discussions about substitution and unfair competition with taxi services.¹⁷

Although crowdfunding has the potential to raise similar concerns, regulators have turned their attention to other issues. They are rather worried about information asymmetries between participants in the market, particularly on lending and equity-based crowdfunding. These are the models where project owners and investors are less likely to belong to the same social network, thus information asymmetries are more important than in models where social connections reinforce contracts, like the reward-based crowdfunding.

One potential problem is the combination of such information asymmetries arising between project owners and investors in lending and equity-based crowdfunding with the investors' lack of experience on the financial market. Most crowdfunding investors in these models consider themselves as "retail investors", according to a national survey ran in the UK¹⁸. Although internet-based platforms allow for a number of mechanisms that reduce the information asymmetries, as we will see further on, regulators tend to control lending and equity-based crowdfunding to mitigate such risks.

In the UK, a country where there were no special rules on the crowdfunding industry, a regulatory framework was created in 2014. One of the requirements is that platforms assess the investors' knowledge about the investment market and crowdfunding. Only participants demonstrating minimum understanding of the underlying mechanisms are able to invest. The knowledge may be assessed with an online questionnaire. The regulator also demands that, in their promotional material, platforms stress

¹⁷ See, for example, "Uber ordered to discontinue Pop service in Italy" by Stephanie KIRCHGAESSNER, *The Guardian*, on May 26th, 2015 at <http://gu.com/p/498gy/stw>.

¹⁸ "Understanding Alternative Finance - The UK Alternative Finance Industry Report 2014" by Peter BAECK, Liam COLLINS & Bryan ZHANG for NESTA and University of Cambridge, (November 2014). <http://tinyurl.com/nestacf>.

risk exposure as much as they underline the benefits of crowdfunding activities.

Another potential problem relates to the information asymmetries between the participants and platforms. Policymakers' concern is that platforms attract project owners and investors to participate and then leave the market. In 2011, UK lending-based crowdfunding Quakle closed overnight ¹⁹, leaving borrowers and lenders with losses. In the big picture, the damage was not important: the platform had not collected more than £20,000 from 30 loans, but the episode served to alert other competitors that the repetition of such situation could lead to the termination of the market itself.

After that, platforms operating in the UK lending-based crowdfunding market organized themselves around an association with the objective to set minimum standards to competitors in terms of credit risk, operational risk management, and transparency regarding customer information. The platform's membership to this association being conditional on complying with such requirements would serve as a signaling mechanism to project owners and investors, helping the participants to mitigate risks.

On the policymaker's side, the Financial Conduct Authority (FCA), which has regulated the crowdfunding market in the UK since 2014, now obliges platforms to register and license through the submission of a detailed business plan, and to secure financial resources to operations.

The UK case is an example of a country reinforcing regulatory framework on crowdfunding. In other countries, policymakers are trying to make regulation more flexible. In the US, for instance, the Security and Exchange Commission (SEC) recently approved the sections of the JOBS Act proposing the relaxation of some rules for equity-based crowdfunding, like the exemption of complying with some administrative requirements ²⁰. The idea is to incentivize businesses to search for alternative sources of capital through the internet.

The results of these changes are still unclear once rules were recently approved ²¹, but it will be interesting to investigate how they will impact

¹⁹ Information taken from "Quakle collapse serves as warning to peer-to-peer investors" by Rupert JONES, *The Guardian*, February 15th, 2014. <http://gu.com/p/3mypp/stw>

²⁰ See, for example, <http://wpo.st/KDDV0>

²¹ See <http://www.sec.gov/news/pressrelease/2015-49.html>

business creation, innovation, and public offerings. It will be equally interesting to analyze how each framework will better balance information asymmetries mitigation and development of two-sided markets.

How platforms use mechanisms to mitigate information asymmetries

The internet nature of crowdfunding platforms allows them to employ certain mechanisms to mitigate information asymmetry. One of them is the public display of information about the projects with real time update of its dynamics. Project pages show the projects' financial goal, the duration, the number of contributors having already participated, the number of interactions between participants (updates, comments, sharing on social network etc.) among other elements. They serve as signaling mechanisms, helping contributors to infer a projects' quality (MOLLICK, 2014; AHLERS, CUMMING, GÜNTHER & SCHWEIZER, 2015). They also drive social interactions, once contributors can observe the actions of their peers before making decisions, allowing observational learning and word of mouth to arise (see, for example, BURTCH *et al.*, 2014).

One central finding in crowdfunding is that, under some models, friends and family tend to be the first ones to allocate their support, thus revealing their private information on the project owner to "distant" contributors (AGRAWAL *et al.*, 2015).

Another important finding is that cumulative capital matters to consequent investors' decisions. In donation-based crowdfunding, cumulative capital tends to crowd out further support (BURTCH *et al.*, 2013), suggesting the altruistic behavior mentioned previously. In other models, the tendency is the opposite, and cumulative capital stimulates further support (see, for example, AGRAWAL *et al.*, 2015). In this case, it would be possible that investors engaged in "herd behavior", a potential source of adverse selection where investors care about the opinions of others rather than their own private information. It seems, however, that investors try to infer the reason for their peers' decisions by observing other characteristics of the propositions (ZHANG & LIU, 2012) rather than only its popularity.

The extent of the efficiency of mechanisms used by platforms to mitigate information asymmetries compared to those used by traditional markets (e.g., banks) remains an open question. While there is no empirical evidence on the matter, it is possible to obtain some insights comparing publicly available data from platforms and more traditional sources.

The UK may be a good example due to the fact that crowdfunding had no specific regulation until 2014. In 2013, default rates reported by Funding Circle, one of the main lending-based platforms in the country dedicated to business, were around 1.3% while the level reported in the same year by traditional sources in the country ranged between 0.15% and 2.6% (KIRBY & WORNER, 2014).

These elements suggest that platforms may be as efficient as traditional sources in mitigating information asymmetries and reducing risks. It is important to underline, however, that Funding Circle is one of the largest platforms in the UK-market, having survived and adapted, learning from mistakes from other platforms (as noted by KIRBY & WORNER, 2014). Furthermore, if compared to participants of several UK-based platforms²², Funding Circle's investors seem to be more sophisticated²³ than the general crowdfunding investor. It is equally important to highlight that project owners undergo a due diligence process that may be more strict than in other platforms.

KIRBY & WORNER (2014) note that the performance of platforms in other stages of their lifetime and with different criteria to accept propositions may be quite different. They mention the example of US-based platform Prosper, which reached a 30% default rate in the 2009, three years after starting operations.

These first insights show that further research is required to assess the extent to which intervention provides more (or less) efficiency, and what situations create unnecessarily high barriers to new entrants. It would be equally important to identify behaviors that may be harmful to social welfare, like collusion.

²² See, for example, "Understanding Alternative Finance - The UK Alternative Finance Industry Report 2014" by Peter BAECK, Liam COLLINS & Bryan ZHANG for NESTA and University of Cambridge (November 2014). <http://tinyurl.com/nestacf>

²³ The report "Banking on Each Other. Peer-to-Peer Lending to Business: Evidence From Funding Circle", by Yannis PIERRAKIS & Liam COLLINS (April 2013). <http://tinyurl.com/pdcdqss> suggests that investors have experience in the financing market

■ Conclusion

The present paper analyzed the crowdfunding platform in the light of the theory of two-sided markets, and studied policymakers' concerns regarding this new industry.

Crowdfunding platforms use asymmetric prices, subsidizing contributors or investors while charging project owners or entrepreneurs a percentage of successful transactions. Project owners and contributors generate indirect network effects on each other, with the particularity that they care not only about the number of participants on the other side of the market, but also about the quality of these participants.

This characteristic allows differentiation, and thus the co-existence of multiple platforms in the market. Platforms choose the crowdfunding model they will operate (donation, reward, lending, and equity), the project categories they will accept (e.g., arts, music, start-ups), the geography where they will operate, if they will accept fixed funding or flexible funding (or both), and eventually additional services. If there is a space for differentiation in several levels, the challenge for crowdfunding platforms will be to combine service features that attract enough users on one side with valuable characteristics for users on the other side, generating enough critical mass to maximize their profits.

An important concern on crowdfunding relates to information asymmetries combined with the investors' lack of experience. Platforms have been trying to address these issues by publishing information about projects in real time, and thus stimulating signaling and social interaction mechanisms (e.g., observational learning). On their side, policymakers are challenged to balance more strict rules that mitigate market failures, and more flexible rules that allow this new market to rise and develop.

This challenge is interpreted according to the existing framework in different countries. In both examples cited in this paper, UK-based policymakers chose to reinforce the existing rules while US-based policymakers tried to relax some obligations to stimulate the crowdfunding business model.

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