1. Crowdfunding: an introduction

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1.1 DEFINITION, HISTORY AND SCALE

Crowdfunding can be defined as 'efforts by individual entrepreneurs or groups to fund their ventures by drawing small contributions from large groups of individuals over the internet without using standard financial intermediaries' (Mollick, 2014), or 'open calls, mostly through the Internet, for the provision of financial resources either in the form of donation or in exchange for the future product or some form of reward to support initiatives for specific purposes' (Belleflamme et al., 2014). Crowdfunding emerged as part of a recent movement where the general public, or 'the crowd', is invited to participate in the process of value creation traditionally conducted within more closed systems. Whereas crowdsourcing, its close relative, focuses on how the crowd may take an active part in a company's innovation process (Bughin et al., 2012; Ghezzi et al., 2018), crowdfunding provides a mechanism through which the general public can financially support nascent ideas and entrepreneurs, a role traditionally reserved to a select few, such as accredited equity investors and bankers.

In this sense, crowdfunding has led to a more distributed or collective nature of entrepreneurial finance and created new classes of investors, such as 'customer investors' (Aldrich, 2014). This allows entrepreneurs to engage with a greater number, and a more diverse set, of backers and investors all over the world (Nambisan, 2017). Some see crowdfunding 'democratizing' access to entrepreneurial finance for underrepresented minorities and entrepreneurs hailing from unfavourable geographic locations (Agrawal et al., 2011; Greenberg and Mollick, 2017).

As a phenomenon, crowdfunding has a long history in the areas of art, charity and political campaigns (Kuppuswamy and Bayus, 2018; Ordanini et al., 2011). Famous projects that were funded by small contributions from a large number of donors include the Statue of Liberty, some of Mozart's piano concertos, and the translation of Homer's *Iliad* from Greek to English (Kuppuswamy and Bayus, 2018; Short et al., 2017). The recent surge in crowdfunding activities draws from the emergence of Internet and particularly Web 2.0 facilitating interaction between users, which drastically reduces time and opportunity costs associated with soliciting small sums from a large number of contributors (Lambert and Schwienbacher, 2010). The first successful online crowdfunding campaign took place in 1997 when British rock band Marillion raised money from its fans for an overseas tour (Agrawal, 2018). The first online crowdfunding platform, ArtistShare, was launched in 2003, a website where musicians could seek donations from their fans to produce digital recordings. The success of ArtistShare inspired many other crowdfunding platforms to enter the markets, most prominent of them Indiegogo in 2008 and Kickstarter in 2009. The take-off of the crowdfunding industry was further facilitated by the financial crisis of 2008, leaving many entrepreneurs and new businesses searching for alternative sources of funding (Pelizzon et al., 2016).

The first crowdfunding activities were associated with arts, but since then a proliferation of new platforms have been formed that host campaigns for social causes, entrepreneurs and small businesses (Freedman and Nutting, 2015), and consumer lending which is now the largest market segment. There are more than 1250 platforms globally (Statista, 2018d), catering to varied audiences, such as large corporations, scientific research, real estate, social enterprises, personal causes and cultural enterprises.

Crowdfunding has grown from US$1 billion in 2011 to US$34 billion in 2018 (Massolution, 2015; Fundly, 2018). In the United Kingdom (UK) crowdfunding has grown year on year, from £0.31 billion in transactions in 2011 to £4.58 billion in 2016 (CAF, 2017). Crowdfunding is also growing fast in China – especially peer-to-peer (P2P) and reward crowdfunding – and some large platforms have emerged, although it remains less developed than in the West (Daxue Consulting, 2017). According to some estimates, crowdfunding has created 270000 jobs worldwide and added $65 billion to the global economy (CreditAngel, 2015). Currently the volume of the crowdfunding activity is similar to venture capital investments (UNDP, 2017), but as the crowdfunding industry is projected to grow to more than $300 billion in 2025, it is likely to surpass the volume angel and venture capital investment (Meyskens and Bird, 2015). In the UK equity crowdfunding accounted for 17 per cent of the total seed and early-stage equity market in 2016, up from just 0.3 per cent in 2011 (CAF, 2017).

1.2 HOW CROWDFUNDING WORKS: THE ACTORS ON A CROWDFUNDING SCENE

There are three central actors in crowdfunding: the fund-seeking entrepreneurs, the crowdfunders (that is, members of the general public providing the funds) and an intermediary, usually a crowdfunding platform bringing the project initiators and supporters together (Macht and Weatherston, 2015; Pelizzon et al., 2016). In addition, many crowdfunding platforms rely on a number of service providers, which may conduct financial due diligence or assessment of social or environmental outcomes (UNDP, 2017). In a similar vein, campaign creators (entrepreneurs) increasingly hire service providers to create campaign content and manage their campaigns (Agrawal, 2018).

It is important to note that some fundraisers make a direct appeal to a specific audience via their own fundraising platform (for instance, their own website). This type of crowdfunding is called direct crowdfunding (Tomczak and Brem, 2013). The UK company Brewdog, which raised £35.5 million over several funding rounds, is widely regarded as one of the most successful examples of the use of this type of crowdfunding. However, most crowdfunding research focuses on indirect crowdfunding that takes place on an intermediary platform. Crowdfunding platforms belong to the class of two-sided platforms matching the two sides of the market, that is, the fundraisers and the funders (Belleflamme et al., 2015). There are more than 375 crowdfunding platforms in the United States (US) alone (Statista, 2018a). As discussed by Ciuchta, Santos, Jia and Yacus in Chapter 4 of this book, many of these platforms are financed by private equity, venture capital, corporate venture capital, individual corporations, or alliances between them. Most crowdfunding platforms do not charge membership fees, but instead finance their operations through transaction fees for successful campaigns, fees for additional services and interest on dedicated funds (Belleflamme et al., 2015).

Crowdfunding platforms operate under four major models. On donation-based platforms, backers contribute without expecting any return to support disaster relief, famine, health and other charity-related programmes (UNDP, 2017). Examples of donation-based platforms include JustGiving and GoFundMe. On reward-based crowdfunding platforms, backers are treated as early customers or 'prosumers' and receive a product reward or a token of appreciation, such as a thank-you note in return for their monetary contribution (Mollick, 2014). The prominent US platforms IndieGogo and Kickstarter fall into this category. On lending-based platforms (peer-to-peer lending or microfinance), such as Kiva and Proper.com and Funding Circle, backers offer loans to individuals and projects and their financial compensation takes the form of interest payments (Pelizzon et al., 2016). Peer-to-peer platforms specializing in property lending, invoice trading and debt-based securities (CAF, 2017) and different types of platform models[1] (FCA, 2018) have emerged in recent years. A relatively new, yet rapidly growing crowdfunding model, equity crowdfunding or crowdinvesting, allows backers to purchase equity of new firms or enter into some sort of profit-sharing agreement (Ahlers et al., 2015). Examples of equity crowdfunding platforms include Wefunder and Localstake, and in the UK Crowdcube and Seedrs. In contrast to equity-based and lending-based platforms, donation and reward-based platforms do not offer monetary incentives for backer participation. Of all crowdfunding models, equity-based crowdfunding transactions tend to be the most complex, both from a legal standpoint and in terms of uncertainties (Ahlers et al., 2015). In 2015, lending-based crowdfunding platforms accounted for the majority of total crowdfunding volume (74 per cent), followed by reward-based platforms (10 per cent), donation-based platforms (8 per cent) and equity-based platforms (8 per cent) (Massolution, 2015). It is important to note that while the US leads the overall crowdfunding, Europe and China pioneer equity crowdfunding because of their less restrictive policy environment (Dushnitsky et al., 2016; Lin, 2017; Pelizzon et al., 2016).

Why are individuals willing to back entrepreneurial projects on crowdfunding platforms? The motivations of the crowdfunding backers are likely to depend on the type of platform. While the backers on lending and equity-based platforms may participate for financial reasons, backers on reward and donation-based platforms have other motivations, such as furthering social causes, helping entrepreneurs to bring innovative products to the market, receiving product rewards, being part of the community and receiving recognition from their peers (Bretschneider and Leimeister, 2017; Cholakova and Clarysse, 2015; Gerber et al., 2012). While data on their demographic characteristics are scarce, statistics on Kickstarter and IndieGogo platforms demonstrate that backers tend to be young (millennials), and more often male than female (Art of the Kickstart, 2016). Approximately one-third of the backers are repeat backers on the Kickstarter platform (Statista, 2018c). But, as discussed further below, crowdfunding sites are now also attracting professional investors and corporations.

Who is raising funding on crowdfunding platforms? Business and entrepreneurship account for a majority of the crowdfunding market, 41.3 per cent, while social causes represent 18.9 per cent (Massolution, 2015). Relative to industry sectors, most crowdfunding campaigns completed in 2016 operated in film, technology, music and design sectors (Statista, 2018b). However, the importance of crowdfunding for individual industry sectors depends heavily on the type of crowdfunding model adopted. For instance, the first equity crowdfunding campaigns in the United States (since 2016) featured mobile app and Internet-related sectors, consumer gadgets, and beer and hospitality industries (CrowdCrux, 2018).

How does the crowdfunding process proceed? Entrepreneurs initiate their crowdfunding campaigns by uploading a video pitch and/or other audio-visual materials on to the crowdfunding platform. They often use email and social media campaigns, as well as press releases, to draw the attention of potential backers. Various signalling and communication strategies used in campaign pitches are found to boost the chances of a crowdfunding campaign getting funded (Belleflamme et al., 2014; Mollick, 2014). In addition to financial support, many backers provide feedback and advice to entrepreneurs related to their campaigns (Gerber et al., 2012; Lin et al., 2014). There is some empirical evidence that most of the successful crowdfunded projects on Kickstarter remain ongoing ventures (Mollick and Kuppuswamy, 2014), and that a significant portion of equity crowdfunded firms go on to raise further capital (Signori and Vismara, 2018). However, while most crowdfunded campaigns make a well-intended effort to live up to their campaign promises, many campaign rewards are delivered late, or they do not meet the expectations of the backers on reward-based platforms (Mollick and Kuppuswamy, 2014; Mollick, 2014).

Governments undoubtedly play a critical role in the crowdfunding landscape. Regulators and politicians worldwide have recognized the potential of crowdfunding for allowing more individuals to engage as producers, consumers and investors in the economy without the backing of high net worth individuals and institutions (Cholakova and Clarysse, 2015; Gerber et al., 2012). However, the crowdfunding process may also expose the backers to the irresponsible or deliberate criminal behaviour of the project creator. It is thus not surprising that many governments have gone to great lengths to improve conditions for crowdfunding (Belleflamme et al., 2015; Ganatra, 2015), and have created legislation to protect the backers. The nature of the regulations depends on the type of the crowdfunding platform (UNDP, 2017). Equity crowdfunding investments are typically monitored by national securities exchange commissions. For instance, the Startups Act (JOBS Act) in 2012 and its subsequent provisional approval by the Securities and Exchange Commission in 2013 made equity crowdfunding in the United States a legal alternative for early-stage equity investments and a viable tool for raising seed capital (Cholakova and Clarysse, 2015). Lending-based platforms follow banking regulation, whereas the reward-based platforms fall under the purview of consumer protection legislation (Ganatra, 2015; Moores, 2015). Despite these legislative efforts, the general consensus seems to be that crowdfunding remains lightly regulated.

Finally, it is important to consider crowdfunding's role in the wider entrepreneurial finance landscape. Research on this topic is scarce, and a certain level of controversy remains over whether crowdfunding complements or competes with other sources of entrepreneurial finance. Some suggest that receiving equity crowdfunding and along with it a 'crowd of shareholders' might deter subsequent investment from accredited investors (Babich et al., 2018). However, it also seems likely that crowdfunding enables entrepreneurs to raise smaller sums at earlier stages of their development, especially when venture capitalists, business angels and banks show decreasing interest in screening smaller deals and funding nascent ventures (Clark, 2014; Mason et al., 2016; Schwienbacher and Larralde, 2012; Tomczak and Brem, 2013). Some anecdotal evidence and empirical work suggest that reward-based crowdfunding campaigns might be used by entrepreneurs to demonstrate their market potential, and that a successful crowdfunding campaign may help to attract venture capital funding (Belleflamme et al., 2015; Roma et al., 2017). Crowdfunding is also likely to enable ventures that are not of interest to venture capitalists, angel investors and banks, and suffering from decreasing public subsidies directed to their areas, to raise funding. These would include creative industries (Bao and Huang, 2017), social campaigns (Boslet, 2015; Lehner, 2013) and geographically distant ventures (Agrawal et al., 2011).

1.3 CROWDFUNDING: A CRITIQUE

The early proponents of crowdfunding claimed that it would democratize access to finance, reducing funding constraints by enabling entrepreneurs who were excluded from institutional sources of finance to attract funding for their projects, providing new investment opportunities for people with even relatively modest amounts of discretionary wealth,[2] particularly in an era of low interest rates, and facilitating not-for-profit projects to raise funding from investors with philanthropic motives. As Greenberg (Chapter 11 in this book) comments, 'the advent of crowdfunding brought great optimism about the technology's capacity to facilitate profound and beneficial economic and social change, including with respect to disparities in access to entrepreneurial financing'. Certainly, there is a much greater diversity of entrepreneurs and businesses that raise finance from crowdfunding platforms compared with those that are financed by traditional funding sources (banks, business angels, venture capital funds). However, as research on crowdfunding has increased in volume, so this narrative has become qualified in several important respects.

First, the crowd has preferences and biases. It is clear that some types of projects are less attractive than others to the crowd. For example, consumer-based products and services work well on rewards-based crowdfunding platforms because the nature of their activities means that appropriate 'rewards' – such as a product or an experience – can be offered. However, science and technology projects are difficult to work on such platforms because their activities do not lend themselves to 'rewards'. But even on donation-based platforms there are variations in the response of the crowd to different types of projects. Specifically, environmental projects fare worse than campaigns in other categories (Calic and Mosakowski, 2016; Hörisch, 2015). Bannerman (2013) discusses how the ability of cultural projects to raise funding is dictated by public taste. This prompts Tosatto et al. (Chapter 10 in this book) to observe in the context of the cultural sector that although 'crowdfunding liberates creatives from the oppressive and controlling hand of existing CCI [creative and cultural industry] gatekeepers . . . in moving the funding decision to the crowd, creatives merely exchange one master for another'. The consequence, they suggest, may be 'a cultural "race to the bottom" where every successful CCI crowdfunding project resembles one another'. Indeed, consolidation in numbers of crowdfunding platforms (CAF, 2017), as a result of fewer new entrants and more exits of previously active platforms, is increasing the dominance of a small number of platforms. This trend is linked at least in part to rising costs associated with increased regulation, prompting a shake-out of smaller platforms.

Second, entrepreneurs differ in their ability to access the crowd. This has a number of dimensions. Entrepreneurs often need to have raised initial finance to get their project off the ground before coming to a platform. Typically this comes from the entrepreneur's own financial resources and their family and friends. However, by no means everyone has access to sources of initial finance. Entrepreneurs are also likely to need to attract one or more investors before going to the crowd. Once on the platform early traction is important, with funding success linked to raising finance early in the campaign (Vulkan et al., 2016; Vismara, 2016). These early investors, in turn, send out signals to potential follow-on investors. The sensitivity of crowdfunders to the signals from funding campaigns means that the entrepreneur's social capital plays a critical role in their success (Polzin et al., 2017). Entrepreneurs therefore need to be visible on social media and have social contacts. Indeed, it is now well established that financing success is associated with entrepreneurs who are active on external social platforms such as Facebook and Twitter, and generate projects that have created social buzz, as indicated by many shares and likes, high engagement on social networks, and many online reviews (Bi et al., 2017; Thies et al., 2014; Mollick, 2014; Zheng et al., 2014; Kuppuswamy and Bayus, 2018; Colombo et al., 2015).

The entrepreneur's human capital also matters. The evidence from equity crowdfunding platforms is that the team's operational capabilities and its commitment to the venture, despite attractive outside options, signals an attractive investment (Bernstein et al., 2017) as investors favour projects with entrepreneurs who understand the product, market and business model based on experience (Estrin et al., 2018). Entrepreneurs therefore need to signal competence and trustworthiness. Other studies indicate that teams with pronounced human capital in the form of management degrees or similar certifications (Ahlers et al., 2015), and extensive social capital (Vismara, 2016), are attractive to investors. They also need strong communication abilities and presentation skills.

Third is the question of who is funded on crowdfunding platforms. Does crowdfunding enable traditionally underrepresented groups to gain access to early-stage finance? In terms of gender, the majority of funders are male, although there is variation by type of platform, with the gender balance more equal on donation sites. Nevertheless, gender diversity is higher on crowdfunding platforms than for other financial sources (Vismara et al., 2017), with robust evidence that women perform better than men in crowdfunding even after controlling for differences in funding goals and observable founder and product characteristics (see Greenberg, Chapter 11 in this book). For example, the lack of gender discrimination in P2P lending is reported in several studies (e.g., Barasinska and Schäfer, 2014; Duarte et al., 2012; Pope and Sydnor, 2011). Indeed, women-led projects seem to be more successful in raising finance than those led by men, although in volume terms projects led by men attract most of the funding. Donation and reward platforms have the highest levels of female participation as both funders and fundraisers, while the lowest is on equity platforms (CAF, 2017). The academic literature on race and crowdfunding is, relative to the academic literature on gender and crowdfunding, less developed. What research does exist, however, suggests that in the US African Americans are less likely than observably similar white founders to successfully raise funds on Kickstarter (Pope and Sydnor, 2011; Rhue and Clark, 2016; Younkin and Kuppuswamy, 2017). There is some evidence of homophily effects. Vismara et al. (2017) report that females are more likely to invest in female-led ventures. However, this is not supported by other studies: for example, Mohammadi and Shafi (2017) find that women are more likely to invest in male-led businesses. In terms of demographics, UK evidence indicates that over-55-year-olds dominate all categories of crowdfunding platforms except equity, and their share is increasing, except on equity platforms (CAF, 2017). The majority of funders on all types of platforms are well educated, but there is participation across all income levels (CAF, 2017).

Fourth, crowdfunding platforms have not eliminated the effects of geography. Various commentators, such as Thomas Friedman (2005), have predicted that information and communication technologies would produce a 'flat world' in which resources, such as finance, could flow unimpeded across space. Yet even though crowdfunding platforms eliminate the friction of distance, connecting entrepreneurs and investors regardless of location, home bias – in which funders of projects are disproportionately concentrated in near proximity to the location of projects – is a persistent feature of crowdfunding. This is evident in both lending and equity platforms (Mingfeng and Viswanathan, 2016; Günther et al., 2017). Research by Agrawal et al. (2011, 2015) finds that local funders are more likely to contribute larger amounts, and earlier. There are several explanations for this home bias effect. Early funders are likely to have personal connections to the entrepreneur and hence likely to be in close geographical proximity to each other. More generally, funding outcomes are shaped by the local nature of social networks and community identity considerations. The nature of the product or service can also favour local investing, particularly where the project is focused on a local market.

Even though there is home bias in investing, crowdfunding nevertheless has the potential to impact on local economic development by facilitating the flow of finance to places (for example, 'rustbelt' regions, remote regions, rural areas) that are neglected by traditional lenders and investors. But it also has the potential to impact negatively on places by enabling an outflow of investment from less economically prosperous areas to more economically prosperous cities and regions. There is very limited evidence on this topic. However, in the UK it has been shown that in the case of P2P lending to both consumers and business, lenders are more geographically concentrated than borrowers: specifically, London has a higher share of lenders than borrowers, whereas most other regions have higher shares of borrowers than lenders (CAF, 2017), suggesting that these forms of crowdfunding are producing some geographical redistribution of wealth. However, equity crowdfunding platforms have the opposite effect, with London having a higher shares of investee businesses than investors, suggesting that their effect is to attract wealth from other regions for investment in London-based businesses (CAF, 2017), and hence mirroring the geographies of venture capital investment (Mason and Pierrakis, 2013) and business angel investing (Harrison et al., 2010).

Another issue concerns whether crowdfunding enables entrepreneurs to access the wisdom of the crowd. Do they contribute expertise or are they simply providing 'dumb money'? Certainly, most investors do not have expertise to advise or mentor the entrepreneurs that they back, and do not have the motivation to get involved because of the small amounts that they are investing. However, crowdfunding platforms do offer to entrepreneurs the opportunity to engage with external audiences to receive feedback and insight into the firm's products and business model, test demand, build brand awareness and make advance sales. But there are downsides to this engagement. First, entrepreneurs are often unprepared for the flood of feedback from these audiences. Second, it is time-consuming to maintain positive social engagement (Hui et al., 2014). Third, social engagement is likely to generate conflicting or even erroneous advice from audience members. Moreover, the increasing use of automated lending, particularly on P2P platforms in which software is used to allocate the funds of lenders based on their specified lending criteria with the available investments (CAF, 2017), is removing the direct connection between the investor and the investee business.

An emerging concern is that it is no longer just the crowd who are participating on crowdfunding platforms. Financial institutions are becoming increasingly involved on both debt and equity crowdfunding platforms which, as Salomon (Chapter 13 in this book) notes, is 'crowdinvesting without a crowd'. P2P platforms are attracting investment from traditional banks, mutual funds, pension funds, hedge funds and asset management firms (CAF, 2017). For example, the peer-to-peer lender Funding Circle now secures most of its funding from institutions (*Financial Times*, 2018a). Some French banks have launched their own crowdfunding platforms, others have developed affiliations with existing platforms, while yet others have acquired existing platforms (Attuel-Mendès, 2017). Professional investors, including venture capital (VC) funds, corporate finance houses and business angels, also have a growing presence on equity crowdfunding websites (*Financial Times*, 2017b) for example, co-investing alongside individual investors.

At least one major crowdfunding platform, Syndicate Room, only features deals that have attracted backing from professional investors (*Financial Times*, 2017b). Large corporations are also recognizing the benefits of working with crowdfunding platforms. For example, General Electric, toymaker Hasbro and brewer Anheuser-Busch have worked with Indiegogo to aid their product development. GE Appliances successfully crowdfunded Opal, an ice maker, and Paragon, a cooking device. The benefits from this collaboration include a significant shortening of the time taken to go from concept to production (just four months) and a reduction in upfront costs compared with a traditional product roll-out (one-twentieth of what would be expected) (*Financial Times*, 2017c). Chinese Internet giants (for example, Alibaba) have entered the equity crowdfunding industry by setting up their own crowdinvesting platforms that serve the various needs of these firms. Meanwhile, Zopa, the world's oldest P2P lender, is expanding into traditional banking. This is seen as a way for Zopa to broaden its funding base with 'sticky' retail deposits, with the motivation for the move interpreted as a response to anticipated regulatory crackdown on crowdfunding (*Financial Times*, 2018b).

The consequences of these developments remain to be seen. The participation of institutional investors in the funding process can give retail investors a positive signal about the creditworthiness and repayment ability of borrowers (Lin et al., 2017). Similarly, the involvement of professional investors, such as venture capital firms and business angels, plays an important role in legitimating deal sourcing and the start-up evaluation process and leveraging the fundraising (Salomon, 2018). However, there is evidence of a shift towards 'growth stage' rather than smaller 'seed stage' investments on UK equity crowdfunding platforms, which is consistent with the preference of institutional investors such as venture capital funds for such businesses (*Financial Times*, 2017b). More generally, the entry of big institutional investors may cause crowding-out effects for small investors (Lin et al., 2017).

A final concern is the level of risk that investors are exposed to on crowdfunding platforms. This has three dimensions. First is the lack of regulation, especially on reward crowdfunding platforms. Equity crowdfunding platforms have greater regulation, although this varies between countries (see Tenca and Franzoni, Chapter 12 in this book). Regulators in several countries are increasingly expressing concerns that crowdfunding platforms are giving a misleading or unrealistically optimistic impression of the investment while attracting retail customers with little experience of investing. The UK's Financial Conduct Authority (FCA) has raised concerns that some investors are overexposed to P2P lending, putting more than 10 per cent of their net investible wealth and retirement savings into P2P lending (FCA, 2018).

Second is that crowdfunding platforms lack governance mechanisms. The consequence of enabling entrepreneurial ventures to raise finance from numerous individuals, each making small financial investments, is that there is no incentive for anyone to pay for the costs of monitoring risk. It also means that there are no mechanisms in place that address the problems associated with moral hazard, adverse selection and overall shirking that arise from the lack of alignment of goals and the difficulties created by asymmetric information that occur when ownership and control are separated (for example, investment instruments, independent boards, chief executive officer dismissals, and direct and active monitoring of the entrepreneur). The most obvious risk to investors is fraud. There have been cases of fraudulent crowdfunding platforms (for example, in China where the P2P crowdfunding has been 'routinely described by analysts and investors as the "wild west" of online lending'; *Financial*

Times, 2017d[3]) in which investors have lost their money. These issues are being addressed by tighter regulation (*Financial Times*, 2017d, 2018c). At the individual project scale the evidence suggests that although fraud occurs, it is rare (Mollick, 2014). However, Hainz (2018) raises the concern that the fact that we observe a limited amount of fraud in crowdfunding may be due to the low incentive to detect them in the first place. Since funders contribute only small amounts and so are unable to coordinate their efforts to detect frauds, this may result in the true dimension of the problem being underestimated.

Third, and of greater concern, is the risk of adverse selection: that entrepreneurs will fail to deliver the projects. This may be a particular risk on crowdfunding platforms if – as has been suggested – they are dominated by projects that have been rejected by conventional financiers or have been discouraged from seeking finance from these sources. However, investors may lack the skills to do their own due diligence. More significantly, because of the small investments that investors are making, they have no economic incentive to undertake due diligence. Indeed, most investors are reported to spend less than 20 minutes per week on selecting investments (CAF, 2017). This is likely to encourage herding behaviour. In the absence of information about a venture, an investor often looks at the actions of other investors as a way of making their decision (see Dushnitsky and Zunino, Chapter 3 in this book). Meanwhile, automated lending removes the possibility of doing personal due diligence. Concern has also been expressed that investors on equity crowdfunding platforms are paying a much higher price for the shares that they buy in start-ups than professional investors do, and receive B-class shares that have no voting rights or contractual protection against dilution (*Financial Times*, 2017c, 2018d).

There is very little evidence on the financial outcomes of businesses that have raised debt or equity finance from crowdfunding platforms. One recent study in the UK by AltFi Data and law firm Nabarro found that one in five companies that raised money on equity crowdfunding platforms between 2011 and 2013 had gone bankrupt (*Financial Times*, 2017b). However, such concerns may be irrelevant. Townsend and Hunt (Chapter 6 in this book) argue that the dominant ethos of crowdfunding is shared commitment rather than investment. Backers are not motivated by financial return even on lending and equity platforms. They suggest that crowdfunding is not a diffuse version of traditional debt and equity markets, but is an entirely different model of funding. However, such attitudes may vary by type of investor and type of investment. For example, the different motivations of investors in film projects and theatre projects have been highlighted, with investors in film being investment-focused whereas theatre investors are motivated by their general passion for the theatre and 'first night experiences' (*Financial Times*, 2017e).

A further emerging concern about the risk to investors is that the vast majority of crowdfunding platforms have been established since the Global Financial Crisis and so have not been through a full economic cycle. The UK's Financial Conduct Authority has commented that 'it is important to recognise that the sector is still relatively new and has not been through a full economic cycle. When economic conditions tighten, losses on loans and investments may increase' (FCA, 2018). This is a particular issue for P2P platforms, where the concern is that a rise in interest rates could trigger a spate of defaults on loans. These concerns prompted Lord Adair Turner, the chairman of the UK's former financial regulation body, the Financial Services Authority, to predict that 'the losses which will emerge from peer-to-peer lending over the next five to ten years will make the bankers look like lending geniuses' (*Financial Times*, 2016).

1.4 THE CONTENTS OF THE BOOK AND FUTURE DIRECTIONS OF CROWDFUNDING RESEARCH

In this fourth volume of the Edward Elgar Publishing book series of Handbooks of Research on Venture Capital we focus on crowdfunding. Our aims are to provide a state-of-the-art knowledge of the field, and provide suggestions for future research directions. The book is divided into five parts: 'The Characteristics of Crowdfunding' (Chapters 2–3), 'Crowdfunding Platforms' (Chapters 4–6), 'The Crowdfunding Process' (Chapters 7–8), 'Specific Aspects of Crowdfunding' (Chapters 9–12) and 'The Future of Crowdfunding' (Chapter 13).

1.4.1 The Characteristics of Crowdfunding

The first contribution in Part I, Chapter 2, is by Claire Ingram Bogusz who discusses the multidisciplinary nature of crowdfunding research. In this chapter she examines the knowledge that we have on crowdfunding in fields such as entrepreneurial finance, entrepreneurship and information systems. In Chapter 3, Gary Dushnitsky and Diego Zunino provide a broad overview of our knowledge on crowdfunding, particularly bridging two important issues in contemporary crowdfunding research: the 'problem of riches', that is, crowdfunding has been popular across scholarly disciplines and knowledge is embedded in disciplinary silos; and the 'dearth of evidence' in crowdfunding research, that is, although there exist thousands of platforms, most studies analyse funding patterns using data from a single platform.

The authors of these chapters that comprise Part I propose several areas for future research, for example:

- We need a more nuanced understanding of the phenomenon, and as crowdfunding is a heterogenous and complex phenomenon, we also need knowledge on niche areas of funding and niche funding methods.
- There is a lot of empirical work within the field, and it is timely to synthesize our knowledge, and identify surprising or conflicting results in this knowledge.
- The theoretical frameworks used to understand crowdfunding need to be deepened, and new theoretical frameworks are required.
- There is a need to more strongly integrate our knowledge on crowdfunding with the broader literature in entrepreneurial finance.

1.4.2 Crowdfunding Platforms

Part II of the book focuses attention on crowdfunding platforms, the crowdfunders (the supply side), and the ventures searching for crowdfunding (the demand side). In Chapter 4, Michael Ciuchta, Roberto Santos, Peiyi Jia and Amy Yacus focus on crowdfunding platforms, addressing the issue of how crowdfunding platforms may create and capture value in solving particular problems for the crowdfunders and the ventures. In the following chapter (Chapter 5) Stefan Katzenmeier, David Bendig, Steffen Strese and Malte Brettel take a supply perspective on crowdfunding, providing a review of what is known about the characteristics of the crowdfunders, and explore what influences the decisions they make to invest in crowdfunding campaigns. In the final chapter in Part II, Chapter 6, David Townsend and Richard Hunt focus on the demand perspective of crowdfunding. In this chapter the authors examine the different options for early-stage financing, addressing the issue of crowdfunding as a democratizing power to resolve the funding gap that many young ventures experience.

Some of the suggestions for future research identified by the authors of the chapters in Part II are as follows:

- It is important that future research quantifies the different forms of value creation made by the crowdfunding platforms, and examines the sustainability of the platforms over time.
- A more nuanced understanding is required of the motives of crowdfunders across different types of crowdfunding.

- Crowdfunding might democratize the access to finance, but democratization comes at a cost – for example, as regards the agency risks – and there is a need to explore how these governance mechanisms are incorporated within the platforms and the costs of deploying such governance mechanisms.
- New methodological approaches could advance our knowledge significantly – for example, using machine learning, eye tracking and quasi-experiments – having the potential to provide further insights into decision influences of crowdfunders.

1.4.3 The Crowdfunding Process

Part III of the book synthesizes our knowledge on the crowdfunding process. In Chapter 7, Chandresh Baid and Thomas Allison ask the question: Why are some crowdfunding campaigns successful while others are not? In order to answer the question, the authors make use of signalling theory, communication and social capital to show how each of these theoretical lenses can help us to understand whether, and how, crowdfunding deals get done. Chapter 8 by Tom Vanacker, Silvio Vismara and Xavier Walthoff-Borm asks the question: What happens after a crowdfunding campaign? The authors argue that 'success' in the crowdfunding context is often defined as raising funds in a crowdfunding campaign, but although this is an important milestone, it only represents a beginning of building a viable business. This chapter reviews what is known about firms and projects after they have successfully raised funds (or failed to raise funds) on crowdfunding platforms.

Some of the suggestions that the authors in Part III identify for future research are as follows:

- Seen from the perspective of the crowdfunding entrepreneurs, we still know very little about their decision-making and behaviour. For example, what drives their selection of one crowdfunding mode and platform over another? What is the behaviour of the crowdfunding entrepreneurs when interacting with potential crowdfunders? Future research on crowdfunding should seek to expand our understanding of the underlying mechanisms behind the decision-making and behaviours of fund seekers and funders.
- More detailed insight is required into the potential selection effects in crowdfunding. Are outcomes in the ventures primarily driven by selection effects or value-added effects? Crowdfunding may also bring extra-financial benefits to the venture, such as access to employees, increased media visibility and expertise. Exploring these impacts is also a research priority.

1.4.4 Specific Aspects of Crowdfunding

Part IV of the book focuses on some specific aspects of crowdfunding. In Chapter 9, Maija Renko, Todd Moss and Anna Lloyd discuss the emergence of crowdfunding as a promising financing option for non-profit and social ventures – ventures that have limited access to finance – reviewing the main ways in which these organizations participate in crowdfunding. The following chapter (Chapter 10) by Jann Tosatto, Joe Cox and Thang Nguyen takes a closer look at another sector: creative and cultural industries. The authors explore the drivers behind the growth of crowdfunding as a source of finance for ventures in the creative and cultural industries, and its impact. The focus of Chapter 11 is on the impact of crowdfunding as a solution to different kinds of inequality in access to finance (for example, gender, ethnicity, and geography). Jason Greenberg reviews the evidence on the extent to which groups that are marginalized in terms of access to finance from traditional sources – for example, on account of gender, race or location – are able to raise finance from the crowd. Finally, in Chapter 12, Francesca Tenca and Chiara Franzoni discuss the risks associated with crowdfunding, notably fraud, and the ways in which policy-makers have sought to address these challenges through regulation.

The authors of Part IV offer some suggestions for future research on these different aspects of crowdfunding:

- Most research focuses on large general crowdfunding platforms; future research needs to go beyond these widely used platforms, and give greater attention to platforms that specifically cater for the needs of non-profits and social ventures.
- There are many unexplored and underdeveloped research questions on crowdfunding that relate to ventures in the creative and cultural industries. For example, how do their campaigns differ from other types of ventures? Do the platforms undertake the same signalling and intermediation functions for the campaigns of ventures in the creative and cultural industries? And what influences the performance of the campaigns of such ventures?
- Few studies have focused on the negative side of crowdfunding, hence there are many research opportunities to add to our knowledge of risks and fraud in the crowdfunding process, how entrepreneurs and crowdfunders involved in crowdfunding campaigns could protect themselves from these risks and, more broadly, the distribution of risk and return in equity crowdfunding.

1.4.5 The Future of Crowdfunding

In Chapter 13, Victoriya Salomon explores the emerging trends in crowdfunding in the age of the 'FinTech Revolution', discussing the implications that these trends have for the main stakeholders in crowdfunding: the platforms, the crowdfunders and the ventures. She identifies the need for more research, for example, to better understand innovative forms of crowdfunding in the context of existing regulatory and institutional frameworks. Future research should also examine the issue of strategic partnerships and collaborations between fintechs and traditional financial players.

1.4.6 Summary

Crowdfunding has emerged in the past 15 years, quickly becoming a 'hot' topic for research which has generated considerable knowledge. Our aim for the book is to synthesize this knowledge. Many of the existing crowdfunding studies are rather descriptive, reflecting the fact that at the early stage of a research topic, before the phenomenon can be theorized, a detailed empirical understanding is required, and that such understanding will strengthen the validity and power of the concepts and theories that are developed (Ghoshal, 2005). The contributors to this book emphasize that crowdfunding is still an open field with many research opportunities. However, in order to take the next step in our knowledge development it is necessary to summarize, synthesize and consolidate the knowledge that we already have. We hope that this book will achieve this purpose.

NOTES

1. Three types of platform models have been identified by the FCA (2018): (a) the conduit platform in which the investor picks the investment opportunity (loan or security) and the platform administers the investment arrangements; (b) the pricing platform in which the platform sets the price but the investor picks the underlying loan; and (c) the discretionary platform in which the platform sets the price and chooses the investor's portfolio to generate a target rate of return.
2. For example, the chief executive officer of equity crowdfunding platform Seedrs said that it gives individuals the chance to buy shares in high growth firms at an early stage, 'a privilege once restricted to institutions and private equity firms' (*Financial Times*, 2017a).
3. In China many investors have lost money investing in P2P platforms, some of which were fraudulent Ponzi schemes, while others have closed down either because of liquidity problems resulting from high risk lending or because of tougher regulation (Bloomberg, 2018; Reuters, 2018). This has resulted in a decline from 6000 to less than 2000 P2P platforms (*Financial Times*, 2018c).

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