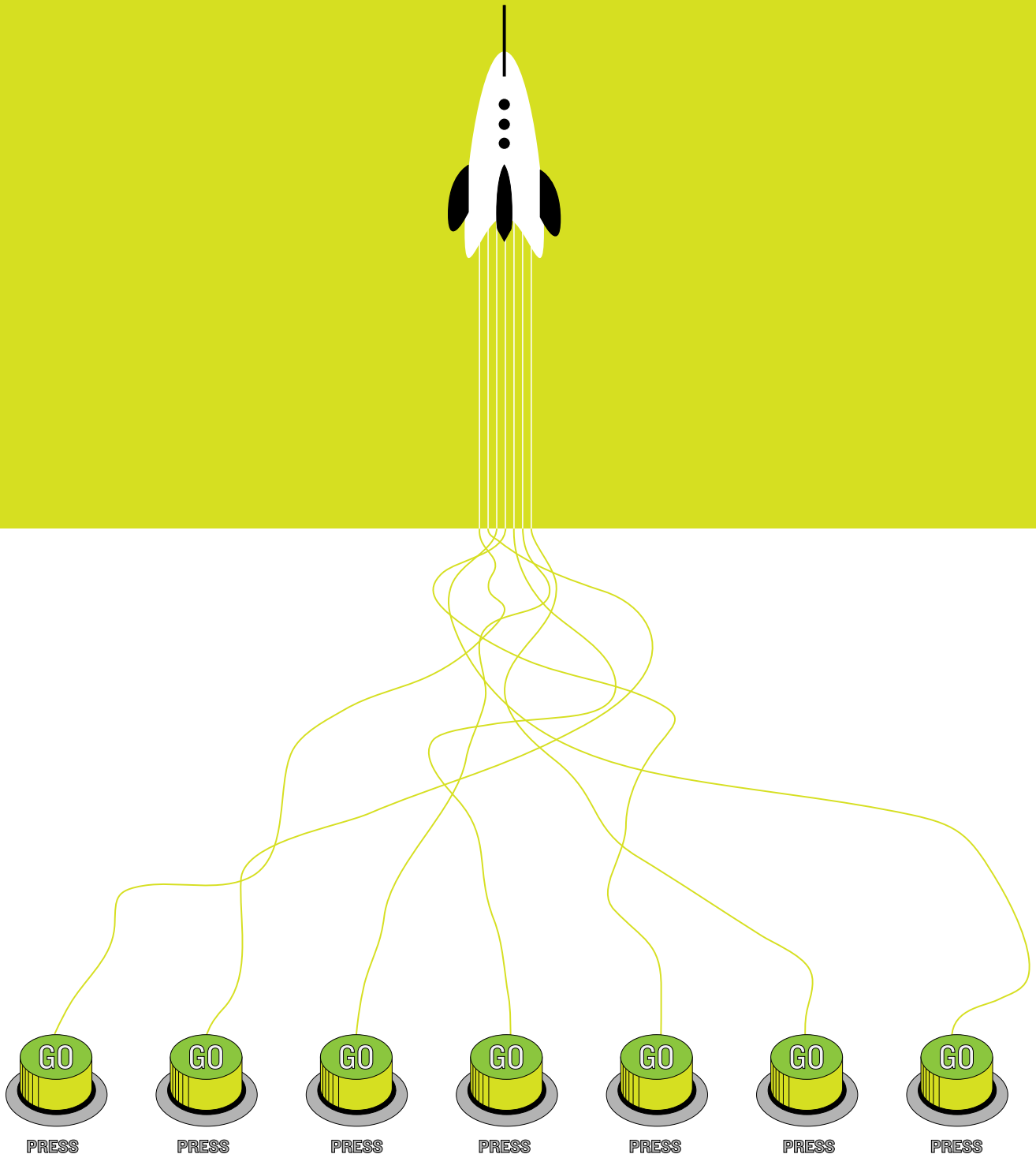


In recent years, the UK has become a leader in fostering an entirely novel mechanism for raising capital for small business enterprises. **Saul Estrin** and **Susanna Khavul** explain how 'equity crowdfunding' works – and the benefits that online financial marketplaces provide for large networks of investors and entrepreneurs.



Equity crowdfunding can solve the persistent market failures in funding entrepreneurial ventures

Equity crowdfunding: a new model for financing entrepreneurship?

Entrepreneurship has long been recognised as an essential driver of economic growth and employment creation. In the UK, for example, small and medium-sized firms, of which there are roughly 5.4 million, employ a combined workforce of more than 10 million people and account for almost two thirds of the jobs created since 2008. Yet many small firms face a big problem: their inability to access the finance they need to survive and expand.

Successive UK governments have implemented tax schemes and other initiatives in support of entrepreneurial investment to enhance the supply of formal and informal venture capital. Yet because of the risks and despite government incentives, lack of funding remains a major constraint on new venture growth. Moreover, venture capital and angel investor markets, which are a source of private investment, have come under criticism for a lack of regional, gender and ethnic inclusiveness.

These problems apply to local small businesses as much as to high-tech entrepreneurs. The Greater London Authority, for example, identifies a serious equity gap for both start-ups and early stage companies. In sectors that are not capital-intensive, such as social media software, the sums are relatively small (between £250,000 and £1 million); but for capital-intensive high-tech start-ups, the gap can be as much as £10 million.

The promise of crowdfunding

In the past few years, the UK has been a leader in fostering an entirely novel mechanism for raising capital for entrepreneurs. Using entrepreneur and investor networks and supported by increasingly pervasive social media, 'crowdfunding' is a financial innovation that describes a suite of alternative financing tools that can transform the way new ventures are financed.

Until now, research attention has focused on donation and reward-type crowdfunding. On platforms like Kickstarter, artists and inventors raise money from social networks in exchange for rewards such as free tickets to their events or samples of their products.

At the end of 2011, there were 453 platforms globally, raising total funds of \$1.5 billion. By May 2013, there were around 1,000 platforms with estimated funds raised of \$5.1 billion (Massolution, 2013). The World Bank estimates that the world crowdfunding market will expand to \$93 billion by 2025 (Kshetri, 2015).

Of much greater significance for capital-starved entrepreneurs is 'equity crowdfunding'. This offers founders of new ventures an online social media marketplace where they can access a large number of investors who, in exchange for an ownership stake, provide finance for business opportunities they find attractive. Since around 2010, the UK has permitted equity crowdfunding along with 'light

touch' regulation to protect investors. Other Western economies – Australia, France, Ireland, the Netherlands and Switzerland – were also early movers with laws and regulations to support equity crowdfunding.

The United States followed in 2012 with the JOBS (Jumpstart Our Business Start-ups) Act, although the specific rules for investing became bogged down: the creation of nationwide market investments in crowdfunding was delayed until this year. Yet countries that started down the equity crowdfunding path early have seen remarkable growth.

Between 2011 and 2014, the UK's crowdfunding market, which is a world leader, grew from a few million to an estimated £1.73 billion. Likewise, equity crowdfunding investments saw a meteoric rise. For example, Crowdcube* – which is the largest UK equity crowdfunding platform with an estimated 80% market share – started in 2011: that year it raised £2.1 million and funded nine companies. In 2013, those numbers had increased to £10 million raised and 45 firms. Nearly five years after the company began, it has now passed the £100 million investment mark with more than 300 entrepreneurial ventures financed.

Unlike in reward-based crowdfunding, investments are not necessarily small and there are not necessarily large numbers of investors. Individual lead investments in pitches are routinely between £100,000

* <https://www.crowdcube.com/>

and £200,000; and depending on the model the equity crowdfunding platform follows, average investments are between £1,000 and £3,000, while minimum investments of £10 remain popular. The rapid pace of growth of UK equity crowdfunding platforms has provided them with plenty of experience in building two-sided networks of investors and entrepreneurs.

How equity crowdfunding platforms work

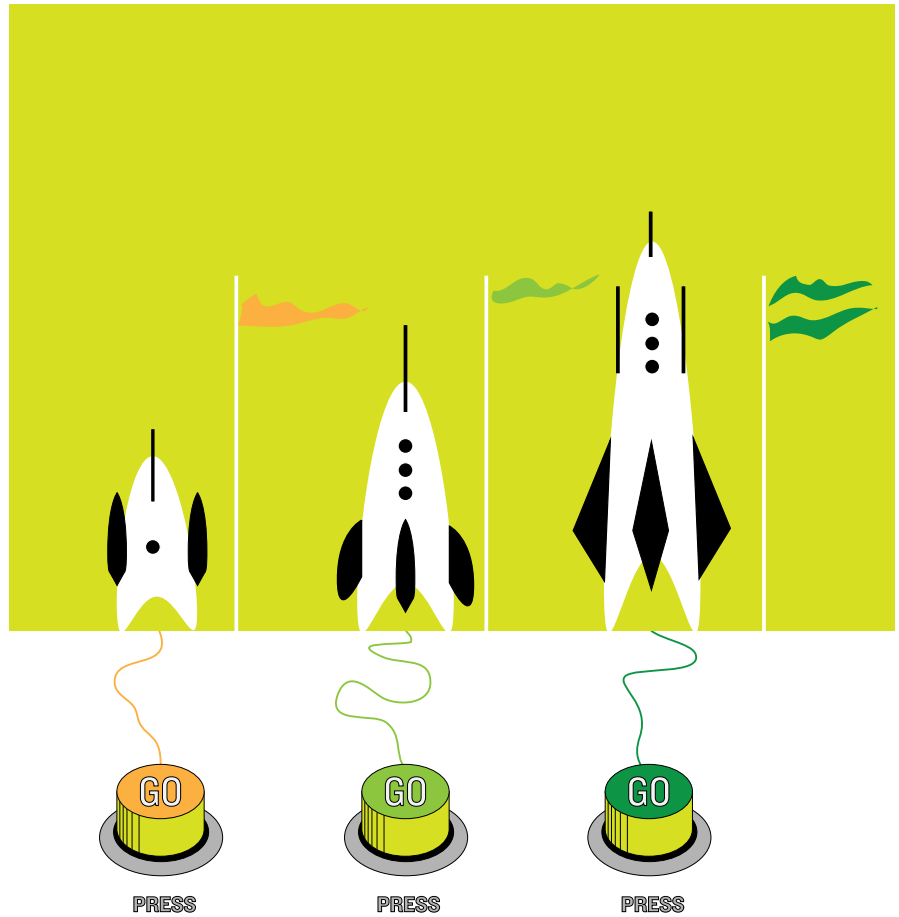
Despite rapid expansion in the UK under the gaze of a sympathetic financial regulator, observers continue to raise concerns about equity crowdfunding as a financial innovation. Does it represent a danger for investors because of poorly explained risks? Aren't investors likely to invest irrationally through herding within the crowd?

To begin to answer these questions, we have been working exclusively with Crowdcube over the last few years. We have developed a large dataset that is yielding powerful empirical evidence on how equity crowdfunding actually works, enabling us to draw out implications for entrepreneurs, investors and financial regulators.

Our analysis – which is based on 150,000 platform members, more than 7,000 entrepreneurs and 735 firms that have tried to raise funds on the platform – shows that this new virtual market serves as a robust source of alternative entrepreneurial finance. To be precise, we find that investment choices are significantly influenced by information about entrepreneurial quality and a venture's price for its equity. Furthermore, we find that it is the platform's architecture and the design of its processes that explain how equity crowdfunding is filling the equity gap (Estrin and Khavul, 2016).

So how exactly does it work? An equity crowdfunding platform has two networks: one of investors and one of entrepreneurs. Regulations require that both have to register. Investors on the platform include professional early stage investors, sector specialists, angels and venture capitalists, as well as potential small investors.

An offer to supply funds is only taken up if the pitch is successful. Thus, whether or not a project is funded is determined



through the platform's 'all or nothing' investment mechanism but is not under the control of the individual investors themselves.

Entrepreneurs seek funding by making pitches to the network of investors. To do so, entrepreneurs have to state a sum that they seek to raise, the amount requested and the number (proportion) of shares that they will offer in return for the investment. Thus, they are implicitly providing a valuation of their business.

On Crowdcube, but not necessarily all platforms, entrepreneurs can set a level of investment whereby successful investors will receive A shares (with voting rights) rather than B shares. They also have to provide financial information about the company, following a standard format, including information about themselves and their business experience and an explanation of their business idea. In addition, they must post a video of themselves outlining their pitch to potential investors.

In practice on Crowdcube, only about 10% of the entrepreneurs seeking to make pitches are allowed to do so by the platform. Once accepted, a pitch is usually live on the Crowdcube platform for a fixed period, which started out as 60 days but is now a more rapid 30 days. During the pitch there is an exchange of information and data around the network – between investors as well as between entrepreneurs and investors. This is the process whereby the knowledge within the network (the 'crowd') is disseminated.

There are three possible outcomes to a pitch:

- First, it fails to accumulate the amount requested, in which case potential investors in this pitch as a group are not able to make an investment. This occurs in the majority of cases. Over five years on the Crowdcube platform, around 31% of pitches have been funded, but the share funded in 2015 rose above 50%.
- Second, the cumulated amount

invested exactly equals the amount requested, in which case the pitch is funded.

■ Third, the cumulative sum available for investment exceeds the amount requested. In this case, the entrepreneur receives the additional amount and the proportion of shares supplied is increased (from the entrepreneur's own holding) but not in proportion to the overfunding, thereby diluting the holding of all bidders.

Evidence on investor behaviour

So do investors follow the herd by stampeding into popular pitches and investing irrationally in equity crowdfunding? Analysis of the data from our unique proprietary dataset allows us to look at two aspects of investor behaviour: the supply of funds within a pitch and whether or not a pitch is funded through the crowdfunding process.

We find that information accumulates through the pitch process, with each incremental investment providing additional information, visible to all other potential investors, about how the pitch is currently evaluated. But the impact of other investors' actions does not generate unstable or explosive investment paths.

One pound invested on one day of the pitch generates an additional 51 pence in the subsequent day, and an additional 76 pence over five days. The lagged effects taper quickly, suggesting fairly rapid absorption of the incremental information driving the initial new investment – and since the sum of the lagged effects is less than unity, the impact of fresh investment is not unstable. As an alternative source of finance, equity crowdfunding appears to have operated in a stable and predictable manner through its period of early emergence. The crowd invests in a rational manner, and we see no evidence of a stampede effect from investors.

In terms of the likelihood that a pitch is successful in receiving funding, we find that easily available information in the public domain about the entrepreneur and the firm – such as the sector or location of the business or the gender of the entrepreneur – does not have a significant influence.

On the other hand, information that the entrepreneur is forced to reveal to be able to enter the pitch process – notably the price and number of shares on offer, setting the company valuation and the

current size and prospective future growth of the firm – does have a predictable and significant impact on pitch outcomes. For example, as the implicit valuation rises, the likelihood that a pitch will be funded declines.

A solution to market failure

In sum, we find that when entrepreneurs and investors exchange positive signals about themselves and their ventures on an equity crowdfunding platform, the effect is to increase the supply of funds and to increase the chances that a pitch will be funded. Moreover, this virtual market improves flows of information between investors and entrepreneurs, and it appears to reduce the biases and location limits on funding that are typical of traditional forms of early stage entrepreneurial finance.

We therefore suggest that the architecture of equity crowdfunding platforms such as Crowdcube is able to exploit the low transactions costs characteristic of its online environment and to bring increasing network effects to bear on investor decisions in early stage entrepreneurial finance.

Thus, by moving from the physical space to the digital space, equity crowdfunding engages larger networks of entrepreneurs and investors, creating an opportunity to solve the persistent market failures in funding entrepreneurial ventures. In the process, as equity crowdfunding offers an entry point for investors across demographics and geographies, it may also socialise entrepreneurial finance.

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Further reading

Saul Estrin and Susanna Khavul (2016) 'Equity Crowdfunding and the Socialization of Entrepreneurial Finance', Working Paper.

Nir Kshetri (2015) 'Success of Crowd-based Online Technology in Fundraising: An Institutional Perspective', *Journal of International Management* 21(2): 100-116.

Massolution (2013) '2013CF: The Crowdfunding Industry Report', Crowdsourcing.org (<http://www.crowdsourcing.org/editorial/2013cf-the-crowdfunding-industry-report/25107>).



Equity crowdfunding
reduces the biases
in traditional forms
of early stage
entrepreneurial
finance