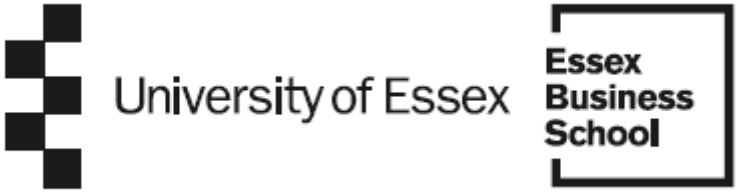

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Corporate governance with crowd investors in innovative entrepreneurial finance:

Nominee structure and coinvestment in equity crowdfunding

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Abstract

In innovative entrepreneurial finance markets, ventures raising funds target a set of heterogeneous "digital" investors using distinct governance mechanisms. We focus on the micro-functioning of equity crowdfunding (ECF) markets by investigating the differences in terms of agency issues and potential principal-principal conflicts arising from the coinvestment of angels or venture capitalists alongside crowd investors. The nominee governance structure, by allocating the same ownership and voting rights to all investors and aggregating them into a special purpose vehicle with the nominee company as sole legal owner, can reconcile such conflicts by mitigating agency and coordination problems. This structure enables angels and venture capital funds to exploit the wisdom of the crowd and crowd investors to free ride on the former's due diligence and monitoring. Using a platform governance lens, this paper evaluates the performance of nominee versus direct ownership structure. Based a large sample of 1,103 successful and unsuccessful initial campaigns on the three largest equity crowdfunding platforms in the UK (namely Seedrs, Crowdcube, and SyndicateRoom), we document that nominee firms exhibit better short run and long run performance. Our results hold inter-platform between crowdfunding platforms as well as intra-platform, as confirmed by a quasi-natural experiment when the nominee approach became an option for startups raising capital on the Crowdcube platform. Our findings offer valuable insights to platforms and policymakers who could channel tax incentives via nominee schemes.

JEL Classification: G240, M130
Keywords: Crowdfunding; Platforms; Digital finance; Innovative entrepreneurial finance.

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1. Introduction

FinTech involves the disruption of incumbents in existing financial markets by startups that avail of new technologies and (sometimes) big data to create new niche markets that challenge existing providers (Nambisan et al, 2019). Equity crowdfunding (ECF) is a prime example of disruption in entrepreneurial finance. In ECF, start-ups seek equity capital for investment, R&D, and to purchase equipment; investors provide funds in exchange for expected financial returns upon exit (Le Pendeven and Schwienbacher, 2021). The matching between entrepreneurs and investors is performed digitally by platforms. ECF platforms provide a new market model that matches the demand for capital by entrepreneurs with the supply of capital by a "crowd" that includes small investors. Although ECF has been widely studied (see, for example, Ahlers et al., 2015; Bruton et al., 2015; Drover et al., 2017; Lukkarinen et al., 2016), the corporate governance aspects of ECF have not been fully addressed yet. In this paper, we focus on the distinct corporate governance mechanisms and related issues on the two largest ECF platforms to advance a deeper understanding of crowdfunding investment contingencies (Dushnitsky and Fitza, 2018).

ECF was pioneered in the UK by Crowdcube in February 2011 and was closely followed by Seedrs in July 2012. These platforms historically have employed two types of governance mechanisms – direct and nominee ownership. Under the direct ownership structure – originally associated with Crowdcube – investors directly own shares in the venture they help to fund. By contrast, the Seedrs nominee ECF structure pools hundreds of crowd and accredited investors into a special purpose vehicle or nominee account. Typically, the ECF platform acts as nominee and, by implication, the sole legal owner but investors remain the beneficial owners. A third UK platform – SyndicateRoom - switched from direct ownership to an angel nominee governance

structure in late 2015 in response to feedback from high-growth business owners that managing shareholders might distract from running their businesses.[1]

The nominee structure has grown in prominence as angel and venture capital (VC) investors are attracted to both coinvestment ECF campaigns and to the nominee structure. On one hand, they can now diversify their portfolio risk by acting as passive investors in placing smaller amounts into more ECF campaigns relative to their investments in traditional entrepreneurial finance markets. On the other hand, investing on ECF platforms is also attractive to them because ECF fees are low relative to those charged by angel and VC syndicates.[2] The Crowdcube platform has also been permitted to run nominee campaigns since February 2015. These rapid changes in the governance and offering structures in equity crowdfunding raise the central conceptual question of this paper: *Which is the most appropriate governance structure for ECF firms?*

This paper makes two contributions to the extant literature. The first involves a new conceptualization of the corporate governance mechanisms in crowdfunding. In this setting, the role of the platforms as information intermediaries in matching entrepreneurs (demand for equity capital) and investors (supply of capital) for ECF campaigns and in monitoring the post-campaign ECF firm is a relevant yet neglected one. The agency issues in the crowdfunding process – and, more broadly, in digital finance markets targeting a large set of diversified investors - include "hidden information (adverse selection) and "hidden action (moral hazard) problems (Cumming et al., 2021b; Sewaid et al., 2021). In addition, coinvestment ECF campaigns can lead to potential principal-principal coordination problems between the crowd and professional investors. Consistent with this, the experiment by Kleinert et al. (2021) finds crowdfunding platforms have

[1] https://www.altfi.com/article/1493_syndicateroom_opts_for_nominee_structure
[2] This is one explanation for why (VC and BA) syndicates have not become the killer app of ECF, contrary to the Agrawal et al. (2016) interpretation.

different selection processes depending on whether they require co-investment. Hence, confronted with a variety of options, firms raising funds in equity crowdfunding can opt for different governance mechanisms to reduce such agency and coordination costs.

Specifically, our paper investigates the nominee structure as a digital ownership and governance solution for startups. This approach is interesting theoretically from an information asymmetry perspective. On one hand, it mitigates asymmetric information problems for investors by assigning all investors the same ownership, voting and preemption rights and obligations. This minimizes potential principal-principal conflicts between angels (accredited investors) and the crowd of small investors. On the other hand, once the initial campaign succeeds, the nominee governance structure prepares rapidly growing ECF firms for and expedites follow-on funding of various types (Signori and Vismara 2018). These include further ECF campaigns (Coakley et al. 2021a) or VC investments (Butticè et al. 2020; Roma et al., 2021). Overall, the nominee structure involves the platform playing a more active governance role on behalf of the ECF firm, helping it to scale up via follow-on funding , minimizing the administrative burden on the founder team, and ultimately preparing the ECF firm for a successful exit on which the platform earns carry.

The paper's second contribution to the literature is that it provides new insights into the short and long run performance of nominee account versus the direct ownership firms from a detailed analysis of a sample of 1,103 (successful and unsuccessful) ECF campaigns on Crowdcube, Seedrs and SyndicateRoom over the 2012-2018 period. Our inter-platform analysis compares the direct ownership campaigns on Crowdcube with the nominee campaigns on Seedrs. Moreover, we take advantage of a quasi-natural experiment when in 2015 startups were first permitted to run nominee campaigns on the Crowdcube platform. This unique setting resulting from the introduction of a choice between direct ownership and nominee campaigns within the

same platform facilitates an intra-platform analysis. In essence, this shift in Crowdcube offerings provides a unique quasi-natural experimental setting that provides greater validity on causal inferences than purely statistical adjustments (Shadish et al., 2002). This change in the functioning of one platform allows one to observe a "naturally occurring" variation in the specific factor of the direct versus nominee structure in the absence of confounding effects, as the other aspects of the functioning of these ECF platforms remain unchanged. Using this quasi-natural experiment, our paper extends the analysis of ECF platforms from a *static* comparison to a *dynamic* perspective (Dushnitsky et al., 2016). In particular, we complement previous evidence (e.g., Butticè et al., 2020) by producing intra-platform evidence that nominee campaigns are more likely to succeed, raise more funds, and are more likely enjoy overfunding relative to the direct ownership campaigns. They also establish that nominee campaigns on average enjoy greater long run success in terms of conducting seasoned equity crowdfunded offerings and numbers of such offerings. These results are robust to several checks for potential endogeneity issues.

The paper is organized as follows. Section 2 outlines equity crowdfunding innovations in the UK and discusses our hypotheses. Section 3 summarizes our research design, and Sections 4 and 5 discuss our empirical results and robustness tests, respectively. A final section concludes.

2. Equity crowdfunding innovation and hypotheses

2.1 Innovation and competition in ECF models in the UK

The UK has the most developed ECF market in the world (Estrin et al. 2018). Coakley and Lazos (2021) highlight that the ECF campaigns on the three main platforms in the UK (Seedrs,

Crowdcube, and SyndicateRoom) share many common features. They all employ posted (fixed) prices and not auction pricing, the all-or-nothing (AON) funding approach (Cumming et al., 2020), the first-come, first-served (FCFS) allocation mechanism (Hornuf and Schwienbacher, 2018), the same minimum investment of just £10 for crowd investors (the minimum investment on SyndicateRoom was £1k), and all permit overfunding beyond the initial target or goal. However, their governance structures differ sharply.

In the early years, Crowdcube and Seedrs attracted mainly small investors and thus seemed to conform well with the pure ECF model (Vismara 2018) of a two-sided platform (Evans and Schmalansee, 2016) involving the startup and the crowd of investors. This pure ECF model has evolved in several directions in response to issues that ECF raises so that the UK has now a highly diverse ECF ecosystem in terms of distinct ECF platform types and governance structures. While Seedrs maintained its nominee structure over our 2012-2018 sample period, Crowdcube has permitted nominee in addition to direct ownership campaigns since February 2015. SyndicateRoom abandoned its initial direct ownership for a nominee structure in x 2015 partly a response to demands from its investors who were accustomed to operating in syndicates with nominee structures (Aggrawal et al. 2016). These developments indicate that a platform-level analysis of governance structure – whilst valid for the Seedrs platform – fails to capture recent developments on both Crowdcube and SyndicateRoom.

2.2 Literature and hypothesis development

ECF can fruitfully be analyzed within an asymmetric information framework by focusing on the different governance mechanisms used to raise funds. Although there are clear commonalities across mechanisms (e.g. targeting a set of diversified investors and interacting with them ex-post),

there are significant differences in terms of agency issues (both hidden information and hidden actions). The overarching hypothesis tested in this paper is that nominee ECF firms outperform direct ownership ECF firms both in the short and long run. The underlying rationale for this is that the nominee approach is ideally suited to coinvestment initial ECF campaigns in the short run because it has the structure to deal with the principal-principal agency and coordination problems arising from large numbers of heterogeneous investors (Walthoff-Borm et al. (2018a). In the long run, it provides an ongoing governance structure for ECF firms that helps to facilitate follow-on funding (Butticè et al. 2020; Coakley et al. 2021a) and to deal with potential conflicts of interest around these and/or, ultimately, exit decisions.

Short run performance

Startups and ventures seeking ECF funds over our sample period faced a sharp governance choice between the Crowdcube direct ownership and the Seedrs and SyndicateRoom nominee models. Some studies have already compared startups raising funds on Crowdcube and Seedrs along similar lines for the early part of our sample (2012-2015. Walthoff-Borm et al. (2018a) find that ECF firms financed through the Seedrs nominee structure make smaller losses.

We posit that the nominee structure has a positive impact on the short run performance relating to initial ECF campaign outcomes. While both direct ownership and nominee structures allow startups and ventures to attract first-time small investors or "ordinary Americans" (quoting Obama), the nominee approach enjoys two significant advantages over direct ownership based on the role of platform as active intermediary with its nominee structure. First, a firm with a nominee governance structure encourages and enables the crowd and traditional institutional (and other accredited) investors like angels and venture capitalists to invest in its campaign (Wang et al. 2019).

By assigning the same ownership, voting and preemption rights to all ECF investors – small and large – the nominee structure minimizes the potential for principal-principal conflicts and associated agency costs between diverse types of shareholders. It also minimizes coordination and related administrative costs for startups as the platform as nominee manages the arm's length relationship between the shareholders and the venture founder team through electronic voting and updates and online meetings (Butticè et al. 2020).

Second, nominee campaigns by attracting diverse groups of shareholders generate the indirect network externalities that apply in multisided platforms. On one hand, traditional institutional investors can take advantage of the wisdom of the crowd (Mollick and Nanda 2015; Polzin et al. 2018) which was not available prior to the rise of crowdfunding platforms. Note that angel, VC and other professional investors typically are already familiar with the nominee structure in angel or VC syndicates. Moreover, nominee ECF campaigns enable them to invest without having to pay the typically high syndicate fees (carry). On the other, crowd investors view institutional investments as certification effects involving costly signals that encourage them to invest also and/or contribute more funds (Wang et al. 2019). Other studies have also documented the importance of small investors for the success of crowdfunding campaigns (Bapna, 2019; Bernstein et al., 2017; Vismara, 2018).

Two of our proxies for short run performance relate to initial ECF campaign success. The first (H1A) is defined in terms of the probability of the ECF firm reaching its funding goal. Recall that this is a necessary condition for receiving funds under the AON (All or Nothing) system and has been used in many studies for ECF firms (e.g. Ahlers et al. 2015, Vismara 2016).

H1A. A firm running a nominee initial ECF campaign is more likely to reach or exceed its target capital than one involving a corresponding direct ownership campaign.

Firms with nominee ECF campaigns provide the opportunity for angels and venture capitalists to reduce the risks of their investments by diversifying their funds across startups and ventures rather than making fewer large lottery-like investments to pick the next Uber or Tesla. This increases the number of individual ECF campaigns they invest in and this certification effect in turn leads to more crowd investors in these coinvestment campaigns. This increases both the total *Amount* of funds a startup raises and, in turn, this also increases the probability of overfunding. These considerations lead to the following hypotheses:

H1B. A firm running a nominee initial ECF campaign is more likely to raise more capital than one involving a corresponding direct ownership campaign

H1C. A firm running a nominee initial ECF campaign is more likely to exceed its target capital (be overfunded) than one involving a corresponding direct ownership campaign.

As more angels and traditional entrepreneurial finance investors became involved in the funding of ECF campaigns, equity crowdfunding in the UK has evolved from pure equity crowdfunding (Vismara 2016) to the coinvestment model, one version of which was pioneered by SyndicateRoom. This implies that firms running nominee initial campaigns on both Seedrs and SyndicateRoom should enjoy greater success in the latter years (defined as the 2016-2018 period) of our sample due to the rise of coinvestment campaigns. Wang et al. (2109) in their study of Seedrs campaigns find that the crowd and angels play a crucial role in the funding of small and large campaigns, respectively. In addition, the crowd plays a key complementary role in the funding of large campaigns. This leads to the following hypothesis:

H2. Firms running nominee initial ECF campaigns on Seedrs and SyndicateRoom are more likely to enjoy superior short run performance in the post-2016 sample period.

Long run ECF campaign performance

Long run performance relates to the post-initial campaign performance of those ECF firms that enjoyed a successful initial ECF campaign. The typical ECF firm is young and will thus require follow-on funding to scale and grow. In the post-initial campaign context, the platform qua nominee can play a role akin to that of a lead investor as in VC funds or BA syndicates because it can act as a blockholder with a holding equal to the share of equity capital offered by the startup.[3] Here the nominee structure acts as a certification effect (signaling device) for both existing and new investors. This idea is supported by the Coakley et al. (2021a) study of seasoned (follow-on) equity crowdfunded campaigns (SECOs). Their results show that the Seedrs nominee model and SyndicateRoom coinvestment model dominate the direct ownership model in terms of the probability of conducting a successful first SECO campaign.

H3A. Nominee ECF firms are more likely to conduct SECOs than direct ownership ECF firms.

More generally, Butticè et al. (2020) find that a successful initial ECF campaign also facilitates the attraction of VC financing (see Signori and Vismara 2018 also) and that this is particularly the case for campaigns with a nominee structure as this lowers the chances of agency conflicts with follow-on investors. Walthoff-Borm et al. (2018a) find that nominee ECF firms make smaller losses than their direct ownership counterparts. Moreover, since ECF firms may fail due

[3] See Edman and Holderness (2017) for a recent overview of the voice and exit roles of blockholders.

to a lack of further outside equity to scale and grow their business, the ability of nominee firms to attract both further ECF rounds or VC funding leads to the following hypothesis:

H3B. Nominee ECF firms are less likely to fail than direct ownership ECF firms.

3. Research design

This section outlines the data sample, defines the variables, and explains the methodology employed in this study. Table A1 gives detailed variable definitions.

3.1 Sample and variables

Sample. We purchased the data from TAB UK – formerly Crowdsurfer – on 1,103 (successful and unsuccessful) initial ECF campaigns over the 2012-2018 period in the UK.[4] TAB was a data hosting and processing firm founded in 2012 in Cambridge with a strong focus on alternative finance. It was acquired by Thomson Reuters and added to its Eikon App Studio.[5] Our dataset was augmented with firm-level data gathered from the UK Companies House which is a government agency website that makes available basic information about all quoted and unquoted UK firms. It has been deployed in other ECF studies such as Signori and Vismara (2018) and Walthoff-Borm et al. (2018a).

When studying the inter-platform effect of the nominee ownership approach, Crowdcube nominee campaigns are removed to compare shareholder structures across platforms. In other words, we study the differences between the Seedrs and SyndicateRoom nominee against

[4] Follow-on offerings - the same venture uses an ECF platform to issue additional equity - are removed to avoid endogeneity that may arise from the association initial campaign signals and first follow-on success.
[5] See https://www.financedigest.com/thomson-reuters-adds-alternative-finance-intelligence-to-eikon-with-tab-dashboard.html

Crowdcube direct ownership approaches. While Crowdcube pioneered the direct ownership approach, it also began to offer nominee campaigns in February 2015 and was the first UK platform to offer this choice. This offers the possibility of studying the intra-platform effect of nominee ownership on the Crowdcube platform as a quasi-natural experiment.

Dependent variables. This paper employs two sets of dependent variables to measure the performance of ECF offerings, one for the initial campaign or short run performance and the other for performance in the long run.

Short-term performance. Three dependent variables are used to proxy short-term success. The first is a success dummy (*Success_d*) that takes value 1 for successful campaigns and 0 otherwise. The second is the (logged) total amount (£k) of funds (*Amount*) raised by the end of the initial campaign. The final one is an overfunding dummy (*Overfunding_d*) which takes value 1 if the amount raised exceeds the initial goal and 0 otherwise.[6]

Long run performance. Three dependent variables are used to proxy for this. The first is a dummy variable (*SECO_d*) that takes value 1 if a firm has conducted at least one SECO and 0 otherwise. The second is the total number of SECOs (*SECO_nos*) conducted. The last dependent variable is a failure dummy (*Fail_d*) takes the value 1 if the firm has defaulted, or is in liquidation, or in administration and 0 if it still operates. Signori and Vismara (2018) and Hornuf et al. (2018) follow a similar approach.

[6] Hellmann et al. (2019) and Rossi et al. (2021) reveal that female entrepreneurs ask for less by setting lower target for their offerings. Thus, while their campaigns may be more likely to reach the target, they are less likely to raise more capital. We employ these dependent variables to reduce the likelihood that our results are driven by fundraising strategies.

Variables of interest. Our study employs two sets of variables of interest to study the effect of nominee ownership at the inter- and intra-platform levels. First, we identify the *Nominee* variable. This is a binary variable that takes value 1 for nominee campaigns and 0 for direct. This is how Seedrs has functioned since its inception. Second, the quasi-experiment consists of Crowdcube introducing the nominee option from February 2015. Thus, we use the *PostFeb15* dummy variable that takes value 1 for offerings conducted after February 2015, zero otherwise. The use of this change in the functioning of one platform as a quasi-experimental setting is motivated by the opportunity to observe a "naturally occurring" variation in the specific factor of the direct versus nominee structure. This happens in the absence of confounding effects, as the other aspects of the functioning of these ECF platforms remained unchanged. While there might be other differences among these two platforms (Vismara, 2016; Walthoff-Borm et al, 2018a), research has not identified other differential changes to their functioning over this period (Butticè et al., 2020; Coakley et al., 2021b).

Control variables. To account for unobserved heterogeneity, a set of control variables is used that has been shown to affect ECF outcomes. The length (in days) of a campaign (*Duration*) and the pre-campaign value of the venture (*Pre-money valuation*) are added as control variables to our regressions, as in Vismara (2016) among others.[7] Vulkan et al. (2016) study equity crowdfunding dynamics from Seedrs campaigns and their findings reveal a negative relation between funding goal (*Goal*) and the likelihood of success and so *Goal* is used as a control variable. Signori and Vismara (2018) focus on firm failure and follow-on (seasoned) equity crowdfunding offerings. Their study includes firms that conducted campaigns on Crowdcube and documents in their first

[7] Duration is not used in the short term performance tests to avoid endogeneity issues. It is not known ex ante and entrepreneurs may stop the campaign if they wish to (Vismara 2018).

step Heckman procedure that the amount of equity offered (*Equity*) negatively affects campaign success. Therefore, *Equity* is also used as a control variable.

Younger firms and those with younger average team ages are more likely to conduct successful campaigns. Ralcheva and Roosenboom (2020) study forecasting success in ECF and provide evidence in support of this. Thus, *Firm age* and (management) *Team age* are employed as control variables. Ahlers et al. (2015) employ data from the Australian equity crowdfunding platform ASSOB and focus on which signals might be effective in reducing information asymmetry and so increase the likelihood of success. Their findings reveal that – among others – larger management team sizes may act as effective signals and increase the likelihood of success for an ECF campaign. Coakley et al. (2022) focus on human capital and their results suggest that teams in which at least one member holds a doctorate title (*Advanced degree*) are more likely to conduct successful offerings. Therefore, *Advanced degree* is included as a control variable. A *Diversification* (number of 4-digit codes for a venture) and year dummies are added to our regressions as in Signori and Vismara (2018). Finally, industry dummies based on NACE Rev. 2 main section, as in Butticè et al. (2020), are also added.

3.2 Methodology

Our study consists of two parts focusing on the effect of nominee ownership on short and long-term performance. This section describes first the method employed to investigate short-term performance at the inter- and intra-platform levels. The methods employed for both are designed to confront potential endogeneity issues and these are discussed below. We also conduct further robustness checks in Section 5 for endogeneity relating to the nominee approach choice.

Inter-platform short-term performance. To study the effect of inter-platform nominee ownership on ECF short-term outcomes, we compare Seedrs nominee with Crowdcube direct offerings and SyndicateRoom nominee with Crowdcube direct campaigns. Due diligence may differ across platforms which in turn may affect campaign outcomes (Rossi et al, 2019; Coakley et al. 2021b, Cumming et al, 2021a). As a result, there may be differences in startup intrinsic value across platforms. We deal with this potential endogeneity issue by constructing a sub-sample in which nominee and direct offerings share similar characteristics in an effort to isolate the effect of nominee on campaign outcomes. This reduces the likelihood that our results may be driven by the possibility that higher-quality startups underpin a specific corporate governance scheme due to more thorough due diligence being undertaken by a platform.

We employ the coarsened exact matching method to construct a subsample in which nominee ventures share similar characteristics to direct ventures. The advantage of this method is that it belongs to a class of monotonic imbalance bounding methods. It bounds the error in estimating the average treatment effect and that regarding model dependence. Thus, it may result in better balance compared to other matching methods (Iacus et al, 2011). It has been employed in other studies as in Kuhn and Teodorescu (2021) and Mahieu et al. (2019). We follow Walthoff-Borm et al. (2018b) in employing matching criteria that have been shown to affect campaign success and can be viewed as quality signals. Nominee campaign firms are matched with direct ownership campaign firms according to firm age, pre-money valuation and industry group.[8]

Our method using matched samples can be summarized by the following equations,

[8] In unreported results we add equity and goal in the set of matching criteria and results remain qualitatively similar. Results are available upon request. We also check whether the likelihood our results are driven by generic platform effects in Tables 7a and 7b. They proxy nominee at campaign level by assigning the value 1 for Seedrs and Crowdcube nominee, zero otherwise. The implication of this study does not change in this case either.

Seedrs nominee vs Crowdcube direct campaigns

$$Success\_d = \alpha_1 + B_1 Sdrs\_Nominee + \Gamma_1 Controls + \varepsilon_1 \quad (1)$$

$$Ln(Amount) = \alpha_2 + B_2 Sdrs\_Nominee + \Gamma_2 Controls + \varepsilon_2 \quad (2)$$

$$Overfunding\_d = \alpha_3 + B_3 Sdrs\_Nominee + \Gamma_3 Controls + \varepsilon_3 \quad (3)$$

SyndicateRoom nominee vs Crowdcube direct campaigns

$$Success\_d = \alpha_4 + B_4\, SR\_Nominee + \Gamma_4 Controls + \varepsilon_4 \quad (4)$$

$$Ln(Amount) = \alpha_5 + B_5 SR\_Nominee + \Gamma_5 Controls + \varepsilon_5 \quad (5)$$

$$Overfunding\_d = \alpha_6 + B_6 SR\_Nominee + \Gamma_6 Controls + \varepsilon_6 \quad (6)$$

where *Nominee (SR_Nominee)* is the nominee dummy employed for the inter-platform comparison between Seedrs and Crowdcube direct and *Controls* is the vector of control variables employed in this study. Equations (1), (3), (4) and (6) are estimated using a probit model and (2) and (5) using OLS on the matched sample the coarsened exact method yields.[9]

Intra-platform short-term performance. To study short term performance within a platform, we focus on Crowdcube campaigns. Such a study may be susceptible to platform selection bias as it is possible that some entrepreneurs may be more likely to choose Crowdcube over Seedrs. Evidence in Cumming et al. (2019) suggests that entrepreneurs seem to prefer a platform in which same industry startups have already sought to raise capital. Others argue that some entrepreneurs may be more likely to choose nominee due to the advantages it may offer in the post campaign life of ventures (Coakley et al, 2021b). Entrepreneurs may observe the success of prior nominee offerings and may opt for that scheme to increase their likelihood of raising ECF funds.[10]

[9] Shipman et al. (2017) focus on propensity score matching method and argue that design choices may affect the estimation of treatment effects. Although we deploy the coarsened method, Table B1 checks the sensitivity of our results when one employs the full sample without matching. Results remain qualitatively similar.
[10] Indeed Crowdcube nominee offerings exhibit an average success rate of 90%.

Therefore, we follow a similar approach to Cumming et al. (2019) to account for this type of endogeneity and employ the 2-stage Heckman method.

The first step employs a Crowdcube dummy ($Crowdcube\_d$) as dependent variable from a sample of initial Crowdcube and Seedrs – successful and unsuccessful – campaigns. The exclusion variable – not used in the second step – is the platform preference variable ($Platform\_pref$) measured as the number of Crowdcube campaigns over the number of Seedrs campaigns in the same industry over the 12 months prior to each observation. The use of this variable seeks to capture any selection bias towards Crowdcube.

The second step employs data – from a sample of Crowdcube initial – successful and unsuccessful – campaigns using a Generalized Structural method. This consists of four models. The first employs the nominee approach as the dependent variable and uses the *Pr(Nominee)* mimicking variable as an instrument. This variable is calculated as the number of prior nominee campaigns conducted in the same year over the number of all prior offerings conducted on Crowdcube.[11] The rest employ *Success_d, Ln(Amount)* and *Overfunding_d* as dependent variables. Our method can be summarized by the following equations in which eq. (7) is the first step of Heckman method and the rest are the second step regressions

$$Crowdcube\_d = \alpha_7 + \beta_7 Platform\_pref + \Gamma_7 Controls + \varepsilon_7 \quad (7)$$

$$Cr\_Nominee\_d = \alpha_8 + \Pr(Nominee) + \Gamma_8 Control + \delta_8 Inv.Mills + \varepsilon_8 \quad (8)$$

$$Success\_d = \alpha_{10} + B_{10} Cr\_Nominee + \Gamma_{10} Controls + \delta_{10} Inv.Mills + \varepsilon_{10} \quad (9)$$

$$Ln(Amount) = \alpha_{11} + B_{11} Cr\_Nominee + \Gamma_{11} Controls + \delta_{11} Inv.Mills + \varepsilon_{11} \quad (10)$$

$$Overfunding\_d = \alpha_{12} + B_{12} Cr\_Nominee + \Gamma_{12} Controls + \delta_{12} Inv.Mills + \varepsilon_{12} \quad (11)$$

[11] In unreported results, we vary the observation windows and results remain qualitatively similar.

where *Cr_Nominee* is a dummy employed for Crowdcube nominee campaigns and zero for direct, *Controls* is the vector of control variables and $Inv.Mills$ is the inverse Mill's ratio. Eqns. (7), (8), (9) and (11) are estimated employing the probit model and (10) using OLS.

Long run campaign performance. For post-initial campaign success, we study the effect of the nominee approach on the likelihood of conducting a first SECO, the number of successful SECOs, and the likelihood of firm failure. SECOs are observed only for those firms that conduct initial campaigns. Thus, we follow a similar approach as in Signori and Vismara (2018) and Coakley et al. (2021a) by employing the Heckman method to confront sample selection bias. The first step in Equation (12) employs data from initial Crowdcube, Seedrs and SyndicateRoom – both successful and unsuccessful – campaigns in which a success dummy (*Success_d*) is the dependent variable and competing offerings ($Competing\_offs$) is the instrumental variable. The latter is defined as the number of live competing offerings on the public launch date on the same platform (Vismara, 2018) and spans the period from January 2012 to December 2018.

$$Success\_d = a_{13} + \beta_{13} Competing\_offs + \Gamma_{13} Controls + \varepsilon_{13} \quad (12)$$

The logic is that, with only a limited number of investors and many investment options, their distribution across projects may become thin. Hence, many projects, including good ones, might remain unfunded. The number of competing offerings on the day of the initial ECF offering is unlikely to impact the success of an eventual follow-on offering that takes place at a later stage. This instrument therefore satisfies the exclusion restriction (Roberts and Whited, 2012) in that competing offerings are unlikely directly to affect the outcome variables that refer to SECOs.[12]

[12]We can assume that our instruments are not weak since the F-statistics on the joint significance of instruments in the first stage are higher than the Stock et al. (2002) recommended value.

The second step Heckman regressions outlined in in Equations (13) – (18) employ data from successful initial campaigns augmented by the related Inverse Mills ratio ($Inv.Mills\_p$) in each case.

Seedrs nominee vs Crowdcube direct

$$SECO\_d = \alpha_{14} + B_{14}Sdrs\_Nominee + \Gamma_{14}Controls + \delta_{14}Inv.Mills\_p + \varepsilon_{14} \quad (13)$$

$$SECO\_nos = \alpha_{15} + B_{15}Sdrs\_Nominee + \Gamma_{15}Controls + \delta_{15}Inv.Mills\_p + \varepsilon_{15} \quad (14)$$

$$Failure\_d = \alpha_{16} + B_{16}Sdrs\_Nominee + \Gamma_{16}Controls + \delta_{16}Inv.Mills\_p + \varepsilon_{16} \quad (15)$$

SyndicateRoom nominee vs Crowdcube direct

$$SECO\_d = \alpha_{17} + B_{17}SR\_Nominee + \Gamma_{17}Controls + \delta_{17}Inv.Mills\_p + \varepsilon_{17} \quad (16)$$

$$SECO\_nos = \alpha_{18} + B_{18}SR\_Nominee + \Gamma_{18}Controls + \delta_{18}Inv.Mills\_p + \varepsilon_{18} \quad (17)$$

$$Failure\_d = \alpha_{19} + B_{19}SR\_Nominee + \Gamma_{19}Controls + \delta_{19}Inv.Mills\_p + \varepsilon_{19} \quad (18)$$

Equations (13), (15), (16) and (18) are estimated via a probit model and equations (14) and (17) via the zero-inflated negative binomial method.[13]

4. Empirical results

4.1 Descriptive statistics

Table 1 reports the results from an equality of means test between initial nominee and direct ownership ECF campaigns that were successful over the period from January 2012 to December 2018. Panel A (B) reports the results from a comparison between Seedrs nominee and Crowdcube direct (SyndicateRoom and Crowdcube direct) ownership campaigns whereas Panel C report the

[13] In unreported results we also employ the Cox and Weibull hazard model that takes into account time to fail and the results remain qualitatively similar to the probit results.

results for differences between post February 2015 nominee and direct ownership campaigns on the Crowdcube platform.

[Table 1 around here]

Results in Panel A suggest that the nominee campaigns do not exhibit any significant differences from direct ownership campaigns across *Amount* and *Overfunding*. Nominee campaigns are conducted by smaller teams which highlights the role of human capital in ECF (Kleinert et al., 2020; Lukkarinen et al., 2016; Piva and Rossi-Lamastra, 2018). Nominee campaigns also issue a significantly smaller proportion of *Equity* at the 1% level. This may reflect the startup quality of firms that employ the nominee approach to raise equity. Lower equity could be interpreted as an effective signal from the founders (Ahlers et al, 2015; Vismara 2016) and high-quality signalers underpin effective signals (Spence 1973).

Panel B results report significant differences between SyndicateRoom nominee and Crowdcube direct initial campaigns Nominee campaigns are more likely to raise more capital and be overfunded. The difference coefficients are significant at the 5% level or lower. They attract fewer funders that is likely due to the higher minimum amount investors can pledge on SyndicateRoom. Founder teams exhibit significant differences as well. Nominee offerings are conducted by larger and more educated teams.

Results in Panel C show that there are significant differences between direct and post February 2015 nominee offerings conducted on Crowdcube. Nominee campaigns raise more capital (£k) and attract more funders. The difference coefficients are significant at the 1% level. Firms that opt for the nominee approach to raise capital via ECF issue significantly less equity and have larger teams. Nominee startups also set a significantly higher target capital amount (£k).

4.2 Multivariate analysis

This section discusses the results of the multivariate analysis. The first part focuses on campaign short run performance at both the inter- and intra-platform levels whereas the second analyses long run performance.

Inter-platform nominee effect on short-term performance

Any inter-platform study must confront potential selection bias. One platform may attract higher quality startups via, for instance, more thorough due diligence. Extant findings suggest that due diligence differs across platforms and this may affect campaign outcomes (Cumming et al., 2021). A natural question for our study then is whether the nominee effect is driving our results or whether it is the outcome of higher quality startups. To confront this potential selection bias in studying the nominee effect at the inter-platform level, the coarsened exact matching method is employed so that nominee and direct offering startups share similar characteristics or exhibit similar quality as outlined in the methodology Subsection 3.2.

Table 2 reports the results of the effect of a nominee dummy on short run performance at the inter-platform level using the matched sample. The Model (1) to (3) columns in Table 2a report the coefficients on a Seedrs nominee dummy (*Sdrs_Nominee*) relative to Crowdcube direct campaigns where the dependent variables are proxies for short run performance - a Success dummy and an Overfunding dummy in probit regressions (1) and (3), respectively, and Amount raised (£k) in the OLS regression (2).

[Table 2a around here]

The Model (1) and (3) results suggest a positive association between *Sdrs_Nominee* and the Success and Overfunding measures of short run performance. The coefficients are significantly positive at the 1% level or lower, lending support to H1A and H1C that nominee campaigns enjoy

a higher probability of reaching and exceeding their target capital, respectively. Model (2) results also suggest that Seedrs nominee campaigns raise more capital albeit the coefficient is significant at the 10% level. A plausible explanation may be that nominee signals investor protection and thus attracts more investors - both large and small – and thus more funds. As such, it may be an effective signal that reduces information asymmetry and improves short run performance.

The Model (4) to (6) columns in Table 2b report the coefficients on a SyndicateRoom nominee dummy (SR_Nominee) relative to Crowdcube direct campaigns using the matched sample and the same proxies of short run performance as those in Table 2a.

[Table 2b around here]

The Model (4), (5) and (6) findings reveal that SyndicateRoom Nominee offerings are more likely to be successful, raise more capital, and to be overfunded as the relevant coefficients are positive and significant at the 1% level in all three cases. They raise on average £376k more than Crowdcube campaigns. This is also likely due to the presence of both lead investors and other professional investors who may act as certification effects (Ralcheva and Roosenboom, 2016). This in turn may attract follow-on pledges while an offering is live (Vismara, 2018). Overall our results suggest that nominee campaigns are more likely to enjoy better short term performance compared to their direct ownership counterparts.

This supports the view that SyndicateRoom nominee campaigns are perhaps more comparable to a syndicated VC fund in which very large amounts are invested. Our results are also broadly consistent with existing studies that focus on investor protection and capital raised in which there is evidence of a positive association. La Porta et al. (1997) and Demirguc-Kunt and Maksimovic (1998) establish that firms find it more difficult to raise equity capital in countries

where legal protections for minority shareholders are not strong. Since the platform as nominee as acts as the legal owner of just 10-15% of startup equity, it would be treated as a minority shareholder in a takeover. In the latter context, the nominee negotiates as a blockholder on behalf of all shareholders and the shareholder agreement provides protection for all ECF investors alike.

Finally, in an effort to address imbalance issues in our matched samples, we calculate the L1 statistic in unreported results. It was introduced in Iacus et al. (2008) and is considered to be a comprehensive measure of global imbalance. Its values lie between 0 and 1. Values close to 0 indicate perfect balance whereas the opposite holds for values close to 1. Our results suggest that coarsened exact method reduces the imbalance in both Tables 2a and 2b yielding lower L1 values. This indicates that the positive effect of nominee on short term performance may be robust across different levels of imbalance.

The role of accredited investors in short term performance

Table 3 reports the results of the effect of a nominee dummy on short-term performance at the inter-platform level using Models (1) – (6) by taking into account the growing presence of accredited investors in the post-2016 period. It follows the popular diff-in-diff approach.[14] It has the advantage of comparing variation between treated and control groups as one moves from one period to another. The next test compares nominee against direct performance when the ECF market evolves from one with a low presence of professional investors to one where they enjoy a considerable presence. Model (1) to (3) results are for the Seedrs nominee (*Sdrs_Nominee*) coefficients versus Crowdcube direct campaigns whereas those of Models (4) to (6) are for the SyndicateRoom nominee (*SR_Nominee)* coinvestment coefficients versus Crowdcube direct

[14] We remove the post February 2015 variable to avoid any correlation issues with the post 2016 variable.

campaigns. The variables of interests are the interaction terms Sdrs_*Nominee*Post2016 and SR_Nominee*Post 2016.*

[Table 3 around here]

The new Model (1) and (3) results suggest that the growing presence of accredited investors in ECF campaigns may be driving Seedrs nominee outperformance. The *Nominee*Post2016* interaction term is positive and significant at the 1% level in Models (1) and (3) supporting H2. By contrast, the corresponding *Sdrs_Nominee* coefficients are significantly negative, suggesting that Seedrs' pre-2016 campaign overwhelming dependence on the crowd - pure ECF - hindered short run performance. In other words, Seedrs nominee offerings outperform in the post 2016 period when the involvement of accredited investors increased significantly (Zhang et al, 2018). Model (4) to (6) results lend support to outperformance by SyndicateRoom nominee campaigns as well. The coefficients on the *SR_Nominee*Post2016* interaction term are positive and significant in all cases. Note in this case that the coefficients on *SR_Nominee* are also positive and significant in Models (1) and (3), consistent with SyndicateRoom running coinvestment campaigns from the outset.

Intra-platform nominee effect on short-term performance

Findings in Cumming et al. (2019) reveal that some entrepreneurs may be more likely to select a platform if ventures that belong to the same industry group have sought to issue equity on this platform in the last 12 months. They also present evidence that shareholder structure choice from ventures that conducted campaigns in the last 12 months matters in the respective future decisions of entrepreneurs. Their results suggest that if more ventures have chosen to issue A-shares in the past, this increases the likelihood of other ventures issuing A-shares in the future for their campaigns.

This subsection investigates the effect on the short term performance of nominee versus direct ownership campaigns when one takes into account platform and shareholder structure selection. The first Heckman step accounts for selection between Crowdcube and Seedrs with the platform preference variable whereas the second step accounts for shareholder structure – nominee in our case – selection using the Pr (Nominee) variable in the multivariate analysis. Another reason entrepreneurs may opt for nominee could be its high success rate.[15] Entrepreneurs may think their offerings will be more likely to succeed via a nominee scheme.

Table 4 reports the impact of a nominee campaign dummy (*Cr_Nominee*) on several measures of short run performance from a sample of Crowdcube offerings only.

[Table 4 around here]

Model (7) results are from the Heckman first step approach. The dependent variable is a Crowdcube dummy (*Crowdcube_d*) from a sample of Crowdcube and Seedrs initial campaigns. The other columns report the second stage Heckman results for a sample of Crowdcube campaigns which include both direct ownership and nominee account campaigns. The model (7) results suggest that the introduction of nominee campaigns by Crowdcube in February 2015 might have shifted entrepreneur decisions to conduct such campaigns on Crowdcube as opposed to on Seedrs. The coefficient on the *PostFebruary2015* dummy is positive and significant at the 5% level suggesting that additional nominee campaigns are conducted on Crowdcube after February 2015 compared to Seedrs. The *Platform preference* coefficient is positive and significant at the 1% level as in Cumming et al. (2019). This suggests that entrepreneurs are more likely to choose a platform where firms from the same industry conducted initial campaigns in the last 12 months.

[15] Crowdcube nominee offerings exhibit an average success rate of 90%.

Model (8) results show the impact of choosing a *Cr_Nominee* campaign according to prior outcomes. The *Pr(Nominee)* instrumental variable is positive and significant at the 1% level suggesting that prior shareholder structure choice along with its success may affect the entrepreneur's decision satisfying the relevance criterion. This together with its predetermined nature (average of past values of other firms) that satisfies exogeneity, justifies our choice of *Pr (Nominee)* as a valid instrument. The Model (9) to (11) results give the impact of nominee campaigns (*Cr_Nominee*) on short run performance. Coefficients are positive and significant at the 1% level, indicating that Crowdcube nominee account campaigns perform better in the short run. They are more likely to reach their target, raise more capital and exceed their initial target. These results support H1A – H1C for the sample of nominee campaigns on the Crowdcube platform since February 2015.

The *Inverse Mills ratio* coefficient is significant and negative for *Amount* and *Oversubscription*. Certo et al. (2016) argue that the significance of this ratio on its own does not indicate sample selection bias. The independent variable in the first stage must be a significant predictor and errors between the first and second step must be correlated as well. Since the *Cr_Nominee* dummy is the opposite of the Crowdcube dummy, one can argue it is a significant predictor of our dependent variable in the first step. Errors are correlated as well. Therefore a significant and negative *Inverse Mills ratio* indicates that, if we do not confront platform selection bias with Heckman, our results may be biased upwards.

Nominee structure and long run performance

This subsection studies the effect of a nominee campaign dummy on various measures of long-run (post-initial campaign) success that focus on follow-on or seasoned equity crowdfunded offerings (SECOs) on the same platform. The reason for this is that SECOs offer a readily available follow-

on funding source whereas injections of VC and other funds are more infrequent. Results are summarized in Table 5.

[Table 5 around here]

The model (12) column reports the results of the Heckman first-stage probit model in which a success dummy (*Success_d*) is the dependent variable from a sample of initial – successful and unsuccessful – Crowdcube, Seedrs and SyndicateRoom campaigns over the 2012-2018 period. These results suggest that the higher the number of competing offerings (*Ln(1+competing offerings))* on a platform, the less likely a campaign is to succeed as in Signori and Vismara (2018).

The other columns report the second stage results. Models (13) to (15) employ a sample of successful Crowdcube direct and Seedrs nominee campaigns whereas Models (16) to (18) use data from a sample of successful SyndicateRoom nominee and Crowdcube direct offerings to study the effect of angel nominee campaigns. The Model (13) probit results suggest that the (initial campaign) nominee dummy (*Sdrs_Nominee*) significantly increases the probability of conducting a first SECO. The Model (14) zero-inflated negative binomial results indicate the *Sdrs_Nominee* also significantly increases the probability of conducting multiple SECOs. The coefficients in both cases are significant at the 1% level. Both models lend support to H3A that ventures choosing nominee follow-on offerings are more likely to be successful. Finally, the Model (15) probit results indicate the *Sdrs_Nominee* coefficient is negative but insignificant at conventional levels. Thus, while it is weakly consistent with H3B, it does not offer direct support for it.

Similar findings are documented for the SyndicateRoom nominee SECOs as the Model (16) and (17) results indicate a significantly (at the 1% level) positive effect on a successful SECO and multiple SECOs, respectively. It is also worth noting though that the *SR_Nominee* coefficients are considerably larger than those for *Sdrs_Nominee* highlighting the importance of accredited

investors. This is consistent with Butticè et al. (2020) in which professional investors may opt for the nominee structure since it can increase the likelihood of startups raising capital from venture capital funds in the future.

In summary, our findings highlight the importance of the nominee approach for long run post-initial ECF campaign performance. They reveal that firms conducting nominee account initial campaigns are more likely to conduct a first SECO than their Crowdcube direct ownership counterparts. They are also more likely to conduct multiple successful SECOs. This is important as, increasingly, SECOs are the main source of follow-on funding for ECF firms (British Business Banks 2019). It is also consistent with the argument of the Seedrs co-founder Jeff Lynn that the nominee approach makes it easier for startups to raise further capital.[16]

5. Robustness tests

This section reports on the robustness test results or whether selection or treatment effects are driving our results in two dimensions. First, we take into account observed and unobserved factors that may affect entrepreneur choice between ECF and Angel and VC financing. Second we account for the likelihood of a platform with a specific shareholder structure selecting higher quality startups. Thus, we proxy nominee at an offering level to test whether the platform or nominee campaign effect is driving our results.

5.1 Selection between ECF and other types of finance

This study so far accounts for platform and shareholder structure selection within a platform. It does not account however for selection between other forms of equity finance and ECF. Existing

[16] See Benefits of our nominee structure | Seedrs Help Center

evidence suggest that entrepreneurs may select a specific type of finance according to their needs. Walthoff-Brom et al. (2018) test whether pecking order theory holds and argue that ECF may be last resort for entrepreneurs. In another study Blaseg et al. (2021) present some evidence that entrepreneurs may opt for ECF if they have been unsuccessful at securing professional investor equity finance first. By contrast another strand argues that ECF may be among the first choices for entrepreneurs because it might be deployed to test their startup products (Estrin et al, 2018). Stevenson et al. (2021) interview entrepreneurs and argue that some of them may be inclined to select ECF over other forms of financing such as angels and VC funds because ECF may be a better funding fit.

The next test checks the sensitivity of our results by taking into account selection between professional investor equity finance and ECF. It augments our sample with data from Beauhurst on UK firms that raised capital from angels and VCs. We conduct the following two tests. The inter-platform test uses the Heckman method in which the first step employs an ECF dummy as dependent variable that takes value 1 for startups that conducted ECF campaigns, zero for startups that raised capital from Angels and VCs. The instrumental variable *Pr(ECF)* is calculated as the number of ECF offerings over all offerings – ECF and those from Angels and VCs – prior to each campaign. The second step follows a similar procedure as in Tables 2a and 2b The only difference is we add the Inverse Mills ratio evaluated from the first Heckman step.

The results are summarized in Tables 6a and 6b for Seedrs and SyndicateRoom nominee respectively.

[Tables 6a and 6b around here]

The implication of our study does not change in this case either. Nominee offerings are more likely to reach their target, to be overfunded and to raise more capital. Nominee coefficients are positive and significant at the 10% level or better except in two cases. The latter include *Overfunding_d* in Model (4) in Table 6a and *Amount* in Model (3) in Table 6b. The *Pr(ECF)* coefficient is positive and significant at 1% level indicating that it may be a valid instrument.

5.2 Platform versus nominee campaign effect

Nominee is proxied at platform level except for when we focus on Crowdcube nominee offerings. One may argue that our design possibly captures platform effects – such as due diligence – rather than the nominee effect itself at campaign level. Selection may be present in this case. A platform may conduct more thorough due diligence and select higher quality startups. The next robustness accounts for this type of selection and proxies Nominee at an offering level. Nominee takes value 1 for Crowdcube nominee and Seedrs offerings, zero for Crowdcube direct. We deploy the unmatched and matched sample the coarsened exact matching method returns. The matching criteria are similar to those used in Table 2a. Results are presented in Tables 7a and 7b for the unmatched and matched samples, respectively.

[Tables 7a and 7b around here]

The implication of this study does not change in this case either. Nominee offerings outperform their counterparts in the short run. All coefficients are positive and significant at the 10% level or lower in all cases except for model (3) in Table 7a for Overfunding.

6. Discussion and conclusion

Using a large dataset of 1,103 (successful and unsuccessful) initial campaigns on UK equity crowdfunding platforms, this paper investigates the inter-platform effect of different corporate governance structures. These rapid changes in the governance and offering structures in equity crowdfunding allows one to address the question of which is the most appropriate governance structure for ECF firms. We find that nominee initial ECF campaigns are more likely to succeed, to be oversubscribed, and to raise more funds relative to direct campaigns. In the long-term, firms conducting nominee account initial campaigns are more likely to conduct a first SECO than their Crowdcube direct ownership counterparts. They are also more likely to conduct multiple successful SECOs. This is important as, increasingly, SECOs are the main source of follow-on funding for ECF firms during their growth phase.

This study contributes to the academic literature on innovative entrepreneurial finance in several ways. Equity crowdfunding raises unique agency cost challenges, some of which are beginning to be studied (Bollaert et al., 2021). This paper focuses on an important innovation implemented by the Seedrs platform from its establishment in 2012 and adopted by the other two large UK platforms in later years. This involved the introduction of nominee ownership ECF campaigns accompanied by a novel governance mechanism operated by the platform as nominee resolving post-initial campaign agency conflicts, monitoring the startup and coordinating large numbers of dispersed shareholders through electronic voting. This new approach has similarities with that of VC fund and BA syndicates. Relatedly, Agrawal et al. (2016) raise the question of whether BA syndicates may become the killer app of equity crowdfunding on the basis that syndicated equity deals on AngelList have rapidly overtaken non-syndicated deals since their introduction in June 2013. Thus, they are implicitly counterposing direct ownership or pure ECF campaigns and VC and BA deals.

Our study introduces new layers in the analysis of information asymmetries and incentives in the context of digital finance, typically focused on the entrepreneurial or on the investment side. Using a platform governance lens, we interpret the nominee structure as a digital governance solution to the potential presence of agency issues and principal-principal conflicts, especially for coinvestment campaigns where accredited investors invest alongside the crowd. The nominee approach averts principal-principal conflicts by enfranchising crowd investors with the same ownership, voting and preemption rights as accredited investors. The platform plays an active digital corporate governance role as a potential blockholder vis-à-vis the entrepreneur and in readying the startup for follow-on funding rounds and, eventually, for an exit. Finally, it should be noted that a Seedrs innovation – providing the first on-platform secondary marketplace for trading a selection of their ECF shares since July 2017 – has also mitigated information asymmetry issues for these shares (see Lukkarinen and Schwienbacher (2023) for an analysis of the first secondary crowdfunding marketplace established in Finland in 2014).

Our study has implications for policy and for practice. Policy makers are interested in creating a framework that leads to a robust and sustainable ECF market. Investors react to tax incentives and allocate more investments – around 23.6% - to firms under the UK's generous tax incentive scheme known as the SEIS (Seed Enterprise Investment Scheme) for seed stage funding rounds. This however may make the crowd less smart by decreasing its incentives for screening (Chen et al, 2018). Policy makers and platforms could find ways to incentivise SEIS firms to pitch their campaigns via the nominee scheme. The platform acting as a blockholder along with its concern to protect its reputational capital could offset the lower screening propensity of the crowd. This in turn could filter out low-quality startups.

This study could also prove valuable for market participants. Specifically, our findings offer practical implications for entrepreneurs and investors. On one side, entrepreneurs will gain insights into the corporate governance mechanisms of different crowdfunding platforms and their effect on the short or long term viability of their firms. On the other side, we focus on the capacity of the nominee campaigns for attracting diverse groups of shareholders and generating the indirect network externalities that apply in multisided platforms. Traditional institutional investors can invest without having to pay the typically high syndicate fees (carry) typical of private equity. Crowd investors view institutional investments as certification effects involving costly signals and can free ride on their due diligence.

As with any study, ours comes with limitations. We focus only on the effect of the nominee ownership relative to the direct ownership structure. However, due to a lack of data, we are unable to study what exact types of investors each structure attracts. There is an exchange of information between the experienced angel (accredited) and inexperienced crowd investors and this improves the overall efficiency of the ECF market (Wang et al, 2019). Professional investors may act as mentors for entrepreneurs which can be beneficial for the growth of a startup. By contrast, inexperienced investors lack the sophistication to monitor startups. However, they may also be attracted by equivalent ownership and voting rights and so may be more likely to choose nominee campaigns. A study that focuses on the association between nominee and investor types could be an interesting topic for future research.

References

Agrawal, A., Catalini, C., & Goldfarb, A., 2016. Are syndicates the killer app of equity crowdfunding? California Management Review 58, 111-124.

Ahlers, G.K., Cumming, D., Günther, C., & Schweizer, D., 2015. Signaling in equity crowdfunding. Entrepreneurship Theory and Practice 39, 955–980.

Bapna, S., 2019. Complementarity of signals in early-stage equity investment decisions: Evidence from a randomized field experiment. Management Science 65, 933-952.

Bernstein, S., Korteweg, A., & Laws, K., 2017. Attracting Early-Stage Investors: Evidence from a Randomized Field Experiment. Journal of Finance 72, 509-538.

Blaseg, D., Cumming, D., Koetter, M., 2021. Equity crowdfunding: High or low quality entrepreneurs? Entrepreneurship Theory & Practice, 45, 505-530.

Bollaert, H., Lopez-de-Silanes, F., Schwienbacher, A., 2021. Fintech and access to finance. Journal of Corporate Finance 68, 101941. https://doi.org/10.1016/j.jcorpfin.2021.101941.

British Business Bank, 2019. The Small Business Equity Tracker Report. Available on https://www.britishpatientcapital.co.uk/wp-content/uploads/2020/09/SmallBusiness-Equity-Tracker-2019-tagged.pdf.

Butticè, V., Di Pietro, F., & Tenca, F. (2020). Is equity crowdfunding always good? Deal structure and the attraction of venture capital investors. Journal of Corporate Finance 65, 101 - 773.

Certo, S.T., Busenbark, J.R., Woo, H.S., & Semadeni, M., 2016. Sample selection bias and Heckman models in strategic management research. Strategic Management Journal 37, 2639-2657.

Chen, W., Lin, M., Zhang, B., Lower taxes smarter crowd? The impact of tax incentives on equity crowdfunding. eLibrary SSRN.

Coakley, J., Lazos, A., 2021. New developments in equity crowdfunding: A review. Review of Corporate Finance 1, 341-405. http://dx.doi.org/10.1561/114.00000008.

Coakley, Jerry and Cumming, Douglas J. and Lazos, Aristogenis and Vismara, Silvio, Enfranchising the Crowd: Nominee Account Equity Crowdfunding (April 9, 2021). Center for Financial Studies Working Paper No. 664, 2021, Available at SSRN: https://ssrn.com/abstract=3969371 or http://dx.doi.org/10.2139/ssrn.3969371

Coakley, J., Lazos, A., Linares-Zegarra 2021a. Seasoned equity crowdfunded offerings. Journal of Corporate Finance, 101880. https://doi.org/10.1016/j.jcorpfin.2020.101880.

Coakley, J., Lazos, A., Linares-Zegarra, J., 2021b. Strategic entrepreneurial choice between competing crowdfunding platforms. Forthcoming at Journal of Technology Transfer.

Coakley, J., Lazos, A., Linares-Zegarra 2022. Equity crowdfunding founder teams: campaign success and venture failure. British Journal of Management 33, 286 – 305.

Coakley, J., Cumming, D. Lazos, A., Vismara, S., 2022a.

Cumming, D.J., Meoli, M., Vismara, S., 2019. Investors' choices between cash and voting rights: Evidence from dual-class equity crowdfunding. Research Policy 48, 103740. https://doi.org/10.1016/j.respol.2019.01.014

Cumming, D., Leboeuf, G., Schwienbacher, A., 2020. Crowdfunding models: Keep It - All vs. All - Or - Nothing. Financial Management 49, 331-360.

Cumming, D.J., Johan, S.A., Zhang, Y. 2021a. The role of due diligence in crowdfunding platforms. Journal of Banking & Finance, 108:105 - 661.

Cumming, D.J., Vanacker, T., Zahra, S.A., 2021b. Equity Crowdfunding and Governance: Toward an Integrative Model and Research Agenda. Academy of Management Perspectives 35, 69–95. https://doi.org/10.5465/amp.2017.0208

Demirguc-Kunt, A., Maksimovic,V., 1998. Law, Finance, and Firm Growth, Journal of Finance 53, 2107-2138.

Drover, W., Busenitz, L., Matusik, S., Townsend, D., Anglin, A., Dushnitsky, G., 2017. A review and road map of entrepreneurial equity financing research: venture capital, corporate venture capital, angel investment, crowdfunding, and accelerators. Journal of Management, 43(6), 1820-1853.

Dushnitsky, G., Guerini, M., Piva, E., Rossi-Lamastra, C., 2016. Crowdfunding in Europe: Determinants of Platform Creation across Countries. California Management Review, 58(2): 44–71.

Edmans, A., Holderness, C.G., 2017. Blockholders: A Survey of Theory and Evidence. The Handbook of the Economics of Corporate Governance 1, 541-636.

Estrin, S., Gozman, D., Khavul, S., The evolution and adoption of equity crowdfunding: entrepreneur and investor entry into a new market. Small Business Economics 51, 425 – 439.

Evans, D. S., and Schmalensee, R. 2016. Matchmakers: The New Economics of Multisided Platforms. Boston: Harvard Business Review Press.

Hellmann, T. F., Mostipan, I., & Vulkan, N., 2019. Be careful what you ask for: Fundraising strategies in equity crowdfunding. SSRN eLibrary

Hornuf, L., Schmitt, M., & Stenzhorn, E., 2018. Equity crowdfunding in Germany and the UK: follow-up funding and firm survival. Corporate Governance International Review 26, 331-354.

Hornuf, L, Schwienbacher, A, 2018. Market mechanisms and funding dynamics in equity crowdfunding. Journal of Corporate Finance 50, 556 – 574.

Hornuf, L., Schwienbacher, A., 2016. Crowdinvesting: Angel investing for the masses? Handbook od research on business angels. 381 – 398.

Iacus, S. M., King, G. & G Porro. G., 2008. Matching for Causal Inference Without Balance Checking. Available at http://gking.harvard.edu/files/abs/cem-abs.shtml

Iacus, S.M., King, G., & Porro, G., 2011. Causal inference without balance checking: coarsened exact matching. Unpublished manuscript. Available at https://gking.harvard.edu/files/political_analysis-2011-iacus-pan_mpr013.pdf

Kleinert, S., Volkmann, C., & Grünhagen, M. 2020. Third-party signals in equity crowdfunding: The role of prior financing. Small Business Economics 54, 341-365.

Kleinert, S., Bafera, J., Urbig, D., & Volkmann, C. K., 2021. Access Denied: How Equity Crowdfunding Platforms Use Quality Signals to Select New Ventures. Entrepreneurship Theory and Practice, forthcoming doi.org/10.1177/10422587211011945.

Kuhn, J. M., & Teodorescu. M.H.M. 2021. "The Track One Pilot Program: Who Benefits from Prioritized Patent Examination?" Strategic Entrepreneurship Journal 15, 185–208.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. 1997 Legal Determinants of External Finance, Journal of Finance 52, 1131-1150.

Le Pendeven, B., & Schwienbacher, A., 2021. Equity Crowdfunding: The Influence of Perceived Innovativeness on Campaign Success. British Journal of Management, forthcoming: https://doi.org/10.1111/1467-8551.12585.

Lukkarinen, A., Teich, J. E., Wallenius, H., & Wallenius, J., 2016. Success drivers of online equity crowdfunding campaigns. Decision Support Systems 87, 26–38.

Lukkarinen, A., & Schwienbacher, A., 2023. Secondary market listings in equity crowdfunding: The missing link? Research Policy, 104648.

Mahieu, J., Melillo, F., & Reichstein, T., & Thompson. P. 2019. "Shooting Stars? Uncertainty in Hiring Entrepreneurs." Strategic Entrepreneurship Journal, 1–42.

Mollick, E. R., & Nanda, R. (2015). Wisdom or madness? Comparing crowds with expert evaluation in funding the arts. Management Science. doi:10.1287/mnsc.2015.2207.

Nambisan, S., Wright, M., Feldman, M., 2019. The digital transformation of innovation and entrepreneurship: Progress, challenges and key themes. Research Policy, 48 (8), 103773.

Piva, E., & Rossi-Lamastra, C., 2018. Human capital signals and entrepreneurs‟ success in equity crowdfunding. Small Business Economics 51, 667-686.

Polzin, F., & Toxopeus, H., Stam, E., 2018. The wisdom of the crowd in funding: information heterogeneity and social networks of crowdfunders. Small Business Economics 50, 251–273.

Ralcheva, A., Roosenboom, P., 2020. Forecasting success in equity crowdfunding. Small Business Economics 55, 39-56.

Roberts, M.R., Whited, T.M., 2013. Endogeneity in empirical corporate finance. In: Handbook of the Economics of Finance. Elsevier, 493–572 (Vol. 2).

Roma, P., Vasi, M., Kolympiris, c., 2021. On the signaling effect of reward-based crowdfunding: (When) do later stage venture capitalists rely more on the crowd than their peers? Research Policy, 50 (6), 104267.

Rossi, A., & Vismara, S., Meoli, 2019. Voting rights delivery in investment-based crowdfunding: a cross-platform analysis. Journal of Industrial and Business Economics 46, 251–281.

Rossi, A. Vanacker, T., Vismara, S., 2021. Equity Crowdfunding: New Evidence from US and UK Markets, Review of Corporate Finance, 1(3-4), 407–453.

Sewaid, A., Garcia-Cestona, M., Silaghi, F. 2021. Resolving information asymmetries in financing new product development: The case of reward-based crowdfunding. Research Policy, 50 (10), 104345.

Signori, A., Vismara, S., 2018. Does success bring success? The post-offering lives of equity-crowdfunded firms. Journal of Corporate Finance 50, 575-591.

Shipman, J. E., Swanquist, Q. T., Whited, R. L. 2017. Propensity score matching in accounting research. The Accounting Review 92, 213–244.

Spence, M., 1973. Job market signaling. Quarterly Journal of Economics 87, 355-374.

Stevenson, R., McMahon, S.R., Letwin, C., & Ciuchta, M.P., 2021. Entrepreneur fund seeking: toward a theory of funding fit in the era of equity crowdfunding. Forthcoming at Small Business Economics

Stock, J.H., Wright, J.H. and Yogo, M., 2002. A survey of weak instruments and weak identification in generalized method of moments. Journal of Business & Economic Statistics 20, 518-529.

Vismara, S. 2016. Equity retention and social network theory in equity crowdfunding. Small Business Economics 46, 579–590.

Vismara, S., 2018. Information cascades among investors in equity crowdfunding. Entrepreneurship Theory and Practice 42, 467-497

Vismara, S., 2019. Sustainability in equity crowdfunding. Technological Forecasting and Social Change 141, 98-106.

Vulkan, N., Åstebro, T., Sierra, M.F., 2016. Equity crowdfunding: a new phenomena. Journal of Business Venturing Insights 5, 37–49.

Walthoff-Borm, X., Vanacker, T. R., & Collewaert, V. 2018a. Equity crowdfunding, shareholder structures, and firm performance. Corporate Governance: An International Review 26, 314-330.

Walthoff-Borm, X., Schwienbacher, A., Vanacker, T., 2018b. Equity crowdfunding: First or last resort? Journal of Business Venturing 33, 513-533.

Wang, W., Mahmood, A., Sismeiro, C., Vulkan, N., 2019. The evolution of equity crowdfunding: Insights from co-investments of angels and the crowd. Research Policy 48, 1-11.

Table 1. Equality of means test between direct ownership and nominee firm campaigns

Table 1 presents the results from the equality of means test between successful nominee and co-investment nominee firm against direct ownership firm initial campaigns. Panel A (B) employs data on the Crowdcube and Seedrs (SyndicateRoom and Crowdcube) platforms over the period from January 2012 to December 2018. Panel C employs data from the Crowdcube platform only over the period from February 2015 to December 2018. The Direct (Nominee) column reports the mean value for the corresponding variable of direct (nominee) campaigns. The difference column reports the mean difference along with its statistical significance for an equality of means test. Significance levels are denoted as * for $p \leq 0.10$, ** for $p \leq 0.05$ and *** when $p \leq 0.01$. See Table A1 for variable definitions.

Panel A. Seedrs nominee vs Crowdcube direct campaigns

	Nominee	**Direct**	**Difference**
Amount (£k)	355	425	-70
Overfunding	0.89	0.89	0
PostFeb15	0.68	0.66	0.02
Funders	227	308	-81**
Advanced degree	0.04	0.06	-0.02
Team size	2.05	2.35	-0.3***
Equity (%)	10.7	15.6	-4.9***
Firm age (years)	2.8	2.9	-0.1
Goal (£k)	270	280	-10
Duration (days)	66.9	41.5	25.4***
Diversification	1.16	1.16	0
Team age (years)	39.2	41.9	-2.7***
Pre-money valuation (m)	2.5	3.1	-0.6

Panel B. SyndicateRoom nominee vs Crowdcube direct 39ampaigns

	Nominee	Direct	Difference	+
Amount (£k)	668	426	242***	
Overfunding	0.96	0.89	0.07**	
Funders	42	308	-265***	
Advanced degree	0.34	0.06	0.28***	
Team size	3.6	2.3	1.3***	
Equity (%)	16.6	15.6	1.0	
Firm age (years)	5.6	2.9	2.7***	
Goal (£k)	542	280	262***	
Duration (days)	50.5	41.5	10*	
Diversification	1.12	1.16	-0.04	
Team age (years)	49.3	41.9	7.4***	
Pre money valuation	3.4	3.1	0.3	

Panel C. Post-2015 Crowdcube nominee vs Crowdcube direct camapigns

	Nominee	Direct	Difference
Amount (£k)	838	425	413***
Overfunding	1	0.89	0.11**
Funders	554	308	246**
Advanced degree	0.02	0.06	-0.04
Team size	3.1	2.3	0.8***
Equity (%)	12.2	15.5	-3.3***
Firm age (years)	4.3	2.9	1.4***
Goal (£k)	596	280	316***
Duration (days)	38.9	41.5	-2.6
Diversification	1.1	1.16	-0.06
Team age (years)	44.7	41.9	2.8*
Pre money valuation	7.4	3.1	4.3*

Table 2a. Short run performance of Seedrs nominee vs Crowdcube direct ownership firms

Table 2a reports the results on whether the Sdrs_Nominee dummy affects short run performance when one employs the coarsened exact matching method to deal with potential selection bias. Seedrs nominee firms are matched with Crowdcube direct ownership firms according to firm age, pre money valuation and industry group. Models (1) and (3) report the coefficients of a probit method when a Success dummy and Overfunding dummy are employed as dependent variables, respectively. Model (2) reports the coefficients of an OLS method when total Amount (£k) is employed for dependent variable. Significance levels for marginal effects are denoted as * for p ≤ 0.10, ** for p ≤ 0.05 and *** when p ≤ 0.01. The sample spans the period from January 2012 to December 2018 from a sample of initial Crowdcube direct ownership and Seedrs nominee firms. See Table A1 for variable definitions.

	(1)	(2)	(3)
	Success_d	Amount	Overfunding_d
Sdrs_Nominee	0.37***	37.1*	0.16***
	(11.90)	(1.88)	(3.02)
Post February 2015	0.097	4.64	0.20**
	(0.25)	(0.06)	(2.38)
Ln (Funders)	1.73***	119.3***	1.75***
	(24.52)	(11.47)	(75.16)
Advanced degree	0.36***	20.2	0.53***
	(4.26)	(0.44)	(6.25)
Team size	0.028	6.11	-0.042
	(0.41)	(0.72)	(-0.64)
Equity	0.019***	14.7***	0.022
	(20.82)	(9.52)	(1.61)
Ln (Firm age)	0.059	10.6	0.070
	(0.48)	(1.07)	(1.46)
Ln (Goal)	-0.92***	3.36	-0.85**
	(-9.41)	(0.22)	(-2.28)
Diversification	-0.44**	-32.8*	-0.35***
	(-2.30)	(-1.69)	(-3.18)
Ln(Team age)	-0.50***	25.2	-0.068
	(-6.56)	(0.66)	(-0.19)
Pre money valuation	0.11	111.9***	0.062
	(1.56)	(24.13)	(0.68)
Year dummies	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes
Observations	832	831	811
R-squared		0.679	
Pseudo R-squared	0.634		0.576

Table 2b. Short run performance of SyndicateRoom nominee vs Crowdcube direct ownership firms

Table 2b reports the results on whether the SR_Nominee dummy affects short run performance when one employs the coarsened exact matching method to deal with potential selection bias. SyndicateRoom are matched with Crowdcube direct firms according to firm age, pre money valuation and industry group. Models (4) and (6) report the coefficients of a probit method when a Success dummy and Overfudning dummy are employed as dependent variables respectively. Model (2) reports the coefficients of an OLS method when total Amount (£k) is employed for dependent variable. Significance levels for marginal effects are denoted as * for p ≤ 0.10, ** for p ≤ 0.05 and *** when p ≤ 0.01. The sample spans the period from January 2012 to December 2018 from a sample of initial Crowdcube direct and SyndicateRoom nominee offerings. See Table A1 for variable definitions.

	(4)	(5)	(6)
	Success_d	Amount	Overfunding_d
SR_Nominee	4.60***	375.8***	4.88***
	(10.88)	(7.46)	(12.26)
Post February 2015	-2.28***	196.8	-3.19***
	(-3.01)	(1.53)	(-3.51)
Ln (Funders)	1.91***	191.2***	2.06***
	(9.67)	(13.01)	(12.98)
Advanced degree	0.19***	-43.7	-0.12
	(237.10)	(-0.86)	(-0.35)
Team size	0.037	25.1**	-0.050***
	(1.23)	(2.16)	(-158.00)
Equity	-0.00090	10.1***	0.0097
	(-0.04)	(4.21)	(0.58)
Ln (Firm age)	0.31***	31.6**	0.31***
	(3.83)	(2.03)	(3.18)
Ln (Goal)	-0.69***	138.2***	-0.79***
	(-12.24)	(4.19)	(-76.25)
Pre-money valuation	-0.17***	65.0***	-0.17***
	(-4.33)	(4.82)	(-56.21)
Diversification	-0.23	-26.0	-0.77
	(-1.57)	(-0.97)	(-1.44)
Ln (Team age)	0.21	59.5	0.19
	(0.36)	(0.86)	(0.45)
Year dummies	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes
Observations	456	506	456
R-squared		0.644	
Pseudo R-squared	0.656		0.612

Table 3. Post-2016 Short run performance of Nominee vs Crowdcube direct ownership firms

Table 3 reports the impact of a (Seedrs and SyndicateRoom) Nominee dummy variable on measures of short run performance to take into account the growing involvement of professional investors in the post-2016 period. Models (1) to (3) report the results for a (Seedrs) Nominee dummy variable whereas models (4) to (6) report them a co-investment (SyndicateRoom) Nominee dummy variable. Models (1), (3), (4) and (6) report the coefficients of a probit regression when a Success dummy and Overfunding are employed as dependent variables, respectively. Models (2) and (4) report the coefficients of an OLS method when the total Amount (£k) is employed as the dependent variable. Significance levels for marginal effects are denoted as * for p ≤ 0.10, ** for p ≤ 0.05 and *** for p ≤ 0.01. The sample spans the period from January 2012 to December 2018 from a sample of initial Crowdcube direct, Seedrs and SyndicateRoom firmss. See Table A1 for variable definitions.

	(1)	(2)	(3)	(4)	(5)	(6)
	Success_d	Amount	Overfunding_d	Success_d	Amount	Overfunding_d
Sdrs_Nominee	-1.07***	19.9	-1.17***			
	(-23.85)	(0.96)	(-16.98)			
SR_Nominee				2.88***	198.1	3.88***
				(13.06)	(2.39)	(16.07)
Sdrs_Nominee*Post2016	1.98***	133.6	2.16***			
	(13.31)	(4.61)	(686.57)			
SR_Nominee*Post2016				1.43***	203.4**	1.22***
				(10.20)	(30.80)	(30.57)
Post2016	-1.66***	-296.7*	-1.55***	-1.75***	-182.4	-1.41***
	(-20.88)	(-8.29)	(-8.95)	(-44.43)	(-2.21)	(-24.01)
Ln (Funders)	1.75***	170.7*	1.96***	1.75***	171.3*	2.02***
	(11.69)	(6.33)	(25.00)	(10.70)	(7.05)	(16.64)
Advanced degree	0.058***	42.3	0.24***	0.12***	56.3	0.077
	(18.02)	(4.94)	(3.40)	(21.43)	(3.17)	(0.79)
Team size	0.026	19.0	-0.041***	0.015	19.4	-0.026
	(1.34)	(1.37)	(-7.96)	(0.63)	(1.94)	(-0.93)
Equity	0.016*	5.70	0.023***	0.0026	4.19*	0.017*
	(1.71)	(1.39)	(9.81)	(0.27)	(7.72)	(1.71)
Ln (Firm age)	-0.12	-22.4	-0.041	-0.010	-24.9	0.0049
	(-0.83)	(-3.08)	(-0.54)	(-0.96)	(-4.99)	(0.20)
Ln (Goal)	-0.74***	187.4	-0.85***	-0.70***	280.6	-1.06***
	(-5.43)	(2.41)	(-5.57)	(-10.76)	(5.67)	(-84.51)
Pre-money valuation	-0.0089	29.3	-0.027***	-0.030***	19.1*	-0.019***
	(-0.33)	(1.49)	(-6.18)	(-8.19)	(8.40)	(-8.03)
Diversification	-0.26***	-29.9	-0.28***	-0.37**	-36.9**	-0.54**
	(-7.19)	(-3.07)	(-4.32)	(-2.44)	(-23.92)	(-2.42)
Ln (Team age)	-0.42***	-24.8	-0.061	-0.16	-39.5	0.27*
	(-6.57)	(-4.35)	(-0.20)	(-0.42)	(-1.64)	(1.91)
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes
Observations	946	951	927	748	751	732
R-squared		0.578			0.633	
Pseudo R-squared	0.622		0.582	0.620		0.587

Table 4. Intra-platform Nominee short run performance

Table 4 reports the impact of a Nominee dummy variable on measures of short run performance from a sample of Crowdcube offerings. Model (7) reports the 1st stage Heckman coefficients from a sample of initial Crowdcube and Seedrs offerings in which a Crowdcube dummy is the dependent variable. The other models report the 2nd stage Heckman coefficients from a sample of Crowdcube offerings. Models (8) and (9), and (10) employ Nominee, Success dummy and Amount as dependent variables respectively whereas models (11) employ the Overfunding dummy. It spans the period from January 2012 to December 2018. Significance levels are denoted as * for p ≤ 0.10, ** for p ≤ 0.05 and *** when p ≤ 0.01. See Table A1 for variable definitions.

	(7)	(8)	(9)	(10)	(11)
	Crowdcube_d	Cr_Nominee	Success	Amount	Overfunding_d
Cr_Nominee			1.19***	113.3**	1.33***
			(3.61)	(2.41)	(3.94)
Post February 2015	0.13**	3.35	-2.19	-34.5	-0.004
	(2.48)	(0.01)	(-0.53)	(-0.28)	(-0.01)
Ln (Funders)	0.21***	0.34***	1.64***	183.7***	1.93***
	(5.93)	(2.89)	(13.13)	(12.76)	(12.94)
Advanced degree	0.079**	-1.05**	0.02	68.2	0.15
	(2.55)	(-2.23)	(0.05)	(1.24)	(0.42)
Team size	0.053***	0.06	-0.003	25.4**	-0.07
	(3.05)	(0.98)	(-0.05)	(2.48)	(-0.96)
Equity	0.052***	-0.03*	-0.01	2.10	-0.004
	(41.71)	(-1.85)	(-0.84)	(1.07)	(-0.40)
Ln (Firm age)	0.069***	0.02	-0.03	-28.01**	-0.01
	(4.57)	(0.16)	(-0.37)	(-2.18)	(-0.11)
Ln (Goal)	0.073	0.33**	-0.68***	261.3***	-1.06***
	(1.54)	(1.97)	(-4.96)	(13.53)	(-7.21)
Diversification	0.032***	-0.03	-0.27	-42.2*	-0.37**
	(3.28)	(-0.12)	(-1.61)	(-1.68)	(-2.27)
Ln (Team age)	0.32***	0.96*	-0.43	-71.9	-0.001
	(16.70)	(1.92)	(-1.18)	(-1.33)	(-0.01)
Pre money valuation	0.025***	-0.0001	-0.001	0.001***	-0.001
	(5.08)	(-1.39)	(-1.36)	(6.72)	(-1.44)
Platform preference	0.053***				
	(4.51)				
Pr (Nominee)		17.9***			
		(4.36)			
Inverse Mills ratio			-0.53	-134.9***	-0.99***
			(-1.64)	(-3.00)	(-3.58)
Year dummies	Yes	Yes	Yes	Yes	Yes
Industry dummies	No	Yes	Yes	Yes	Yes
Observations	1006	658	658	658	658
Pseudo R-squared	0.119				

Table 5. Nominee and long run performance

Table 5 reports reports the impact of a (Sedrs and SydndicateRoom) Nominee dummy variable long run performance using a Heckman two step procedure. The Model (13) results give the coefficients of the first step regression where a (SECO or seasoned equity offering) Success dummy is the dependent variable in the sample of all firms embarking on a SECO camapign. The other model results are the second stage Heckman coefficients from the sample of successful SECO firsm. Models (14) and (17) employ a SECO dummy whereas models (15) and (18) employ the number of SECOs. Models (16) and (19) employ a Failure dummy. The probit method is employed in models (14), (16) and (17) and (19) whereas the zero-inflated negative binomial model Is used in models (15) and (18). Significance levels for marginal effects are denoted as * for p ≤ 0.10, ** for p ≤ 0.05 and *** when p ≤ 0.01. The sample spans the period from January 2012 to December from a sample of initial Crowdcube, Seedrs and SyndicateRoom offerings. See Table A1 for variable definitions.

	(12)	(13)	(14)	(15)	(16)	(17)	(18)
	Success_d	SECO_d	SECO no	Failure_d	SECO_d	SECO no	Failure_d
Sdrs_Nominee		0.57***	0.74***	-0.13			
		(6.20)	(66.90)	(-0.72)			
SR_Nominee					1.17***	1.03***	0.007
					(19.12)	(17.22)	(0.06)
Post February 2015	0.48	-1.08***	-1.16***	0.26	-1.21***	-1.64***	0.49***
	(1.53)	(-7.21)	(-2.90)	(0.70)	(-4.06)	(-7.79)	(3.41)
Ln (Funders)	1.17***	0.40***	0.46***	-0.12***	0.41***	0.31***	-0.24**
	(6.02)	(3.36)	(74.57)	(-3.73)	(3.37)	(2.66)	(-2.12)
Advanced degree	0.37***	0.063	-0.15	-0.21	0.19*	0.13***	-0.33
	(6.06)	(0.33)	(-0.63)	(-0.93)	(1.75)	(7.72)	(-1.20)
Team size	0.16***	0.022	0.16	-0.095	0.12***	0.21***	-0.027***
	(2.81)	(0.19)	(1.51)	(-1.45)	(7.44)	(10.34)	(-2.93)
Equity	0.017***	-0.0074***	-0.0065***	-0.0031	-0.0066	-0.011**	-0.0014
	(5.88)	(-7.99)	(-8.58)	(-0.29)	(-1.22)	(-1.99)	(-0.13)
Ln (Firm age)	0.016	-0.23***	-0.27***	-0.013	-0.17*	-0.20***	0.0094
	(0.30)	(-18.90)	(-5.19)	(-0.57)	(-1.82)	(-2.79)	(0.16)
Ln (Goal)	-0.40***	0.018	0.028	-0.19***	-0.021	0.14	-0.17***
	(-3.21)	(0.63)	(0.29)	(-26.68)	(-0.18)	(1.41)	(-4.28)
Ln (Duration)	0.61***	-0.18***	-0.16**	-0.019	-0.091	-0.01	0.044
	(4.83)	(-4.42)	(-2.55)	(-0.72)	(-1.30)	(-1.41)	(0.49)
Diversification	-0.17***	-0.12	0.077	0.35***	0.079	0.32***	0.18
	(-3.07)	(-0.58)	(0.44)	(3.76)	(1.39)	(45.60)	(1.63)
Ln (Team age)	-0.12	-0.30***	-0.57***	0.096	-0.46**	-0.61**	0.17***
	(-0.87)	(-32.43)	(-4.22)	(0.98)	(-2.37)	(-2.28)	(3.14)
Ln (1+ Competing offerings)	-1.03***						
	(-4.56)						
Inverse Mills ratio		0.48**	0.64***	-0.25	0.13	-0.24	-0.32
		(1.96)	(24.31)	(-1.53)	(0.18)	(-0.25)	(-0.88)
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1103	486	598	578	396	489	468
Pseudo R-squared	0.494	0.165		0.240	0.200		0.243

Table 6a. Robustness: Accounting for selection between ECF and other types of finance

Table 6a reports the coefficients on whether the nominee structure affects short run performance when one takes into account selection effect between Angel and VC finance and ECF. Model (1) reports the 1st stage Heckman coefficients from a sample of Angel and VC funded firms and initial Crowdcube direct and Seedrs nominee offerings in which equity crowdfunding dummy is the dependent variable Models (2) and (4) report the coefficients of a probit method when a success dummy and over-subscription are employed as dependent variables respectively. Model (3) reports the coefficients of an OLS method when total amount (in thousands) is employed as dependent variable. Significance levels for marginal effects are denoted as* for p ≤ 0.10, ** for p ≤ 0.05 and *** when p ≤ 0.01. The sample spans the period from January 2012 to December 2018. See Table A1 for variable definitions.

	(1)	(2)	(3)	(4)
	ECF_d	Success_d	Amount	Overfunding_d
Sdrs_Nominee		0.23***	88.7*	0.076
		(3.95)	(8.92)	(1.50)
Post February 2015		0.26	12.1**	0.32***
		(1.30)	(25.57)	(9.37)
Ln (Funders)		1.67***	167.0	1.74***
		(24.63)	(5.78)	(38.95)
Advanced degree		0.065	41.1	0.23***
		(1.39)	(5.55)	(17.30)
Team size		0.049*	21.0	-0.00014
		(1.74)	(1.85)	(-0.01)
Equity		0.014***	5.82	0.020***
		(3.39)	(1.40)	(2.93)
Ln (Firm age)		-0.083	-20.7	-0.0021
		(-0.79)	(-2.31)	(-0.05)
Ln (Goal)		-0.70***	189.1	-0.72***
		(-10.60)	(2.44)	(-3.49)
Diversification		-0.27***	-28.6	-0.27***
		(-7.47)	(-2.55)	(-4.82)
Ln (Team age)		-0.22***	-5.57	0.060
		(-6.13)	(-0.35)	(0.21)
Pre money valuation		-0.0098	29.1	-0.025***
		(-0.42)	(1.52)	(-9.74)
Pr (ECF)	7.75***			
	(29.48)			
Inverse Mills ratio (ECF_d)		-0.57***	-69.0	-0.50***
		(-5.11)	(-1.11)	(-4.64)
Year dummies	Yes	Yes	Yes	Yes
Industry dummies	No	Yes	Yes	Yes
Observations	1949	956	961	937
R-squared			0.577	
Pseudo R-squared	0.27	0.597		0.542

Table 6b. Robustness: Accounting for selection between ECF and other types of finance

Table 6b reports the second stage Heckman coefficients on whether the nominee structure affects short-term performance when one takes into account selection effect between Angel and VC finance and ECF. The 1st stage Heckman is the same as in Table 7a. Models (1) and (3) report the coefficients of a probit method when a success dummy and over-subscription are employed as dependent variables respectively. Model (2) reports the coefficients of an OLS method when total amount (in thousands) is employed as dependent variable. Significance levels for marginal effects are denoted as* for p ≤ 0.10, ** for p ≤ 0.05 and *** when p ≤ 0.01. The sample spans the period from January 2012 to December 2018. See Table A1 for variable definitions.

	(1) Success_d	(2) Amount	(3) Overfunding_d
SR_Nominee	3.91***	326.4	4.61***
	(25.49)	(3.21)	(64.96)
Post February 2015	-2.49***	-18.6*	0.0026
	(-4.20)	(-6.35)	(0.01)
Ln (Funders)	1.72***	165.9	1.96***
	(16.23)	(5.85)	(37.55)
Advanced degree	0.24***	50.0	0.16*
	(3.99)	(4.88)	(1.86)
Team size	0.024	19.4	-0.0096
	(0.82)	(1.99)	(-0.27)
Equity	0.0073	4.60*	0.021**
	(0.90)	(6.44)	(2.31)
Ln (Firm age)	0.0024	-27.6***	0.013
	(0.55)	(-69.77)	(0.66)
Ln (Goal)	-0.70***	285.7	-1.06***
	(-173.50)	(5.16)	(-13.44)
Pre-money valuation	-0.030***	19.3*	-0.017***
	(-6.60)	(8.54)	(-3.88)
Diversification	-0.41**	-40.5**	-0.58**
	(-2.29)	(-14.87)	(-2.39)
Ln (Team age)	-0.0064	-40.6	0.36***
	(-0.02)	(-1.31)	(3.08)
Inverse Mills ratio (ECF_d)	-0.53***	18.0	-0.54***
	(-5.20)	(0.43)	(-8.90)
Year dummies	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes
Observations	751	754	735
R-squared		0.629	
Pseudo R-squared	0.618		0.586

Table 7a. Robustness: Platform VS nominee campaign effect

Table 7a reports the coefficients on whether *Nominee* affects short-term success across the full sample of Crowdcube and Seedrs initial offerings. Nominee takes value 1 for Crowdube and Seedrs nominee campaigns, zero otherwise. Models (1) and (3) report the coefficients of a probit method when a success dummy and over-subscription are employed as dependent variables respectively. Model (2) reports the coefficients of an OLS method when total amount (in thousands) is employed for dependent variable. Significance levels for marginal effects are denoted as * for p ≤ 0.10, ** for p ≤ 0.05 and *** when p ≤ 0.01. The sample spans the period from January 2012 to December 2018 from a sample of initial Crowdcube and Seedrs offerings. See Table A1 for variable definitions.

	(1)	(2)	(3)
	Success_d	Amount	Overfunding_d
Nominee	0.34***	104.7*	0.20
	(2.59)	(9.97)	(1.19)
Post February 2015	0.26	10.3	0.33***
	(1.29)	(1.54)	(14.92)
Ln (Funders)	1.64***	169.3*	1.70***
	(24.02)	(6.45)	(59.58)
Advanced degree	-0.074***	56.3	0.100
	(-4.70)	(3.54)	(1.50)
Team size	0.057***	24.8	0.0070
	(4.85)	(1.96)	(1.53)
Equity	0.0052	5.85	0.012***
	(0.75)	(1.73)	(4.63)
Ln (Firm age)	-0.088	-20.9	-0.010
	(-0.95)	(-2.94)	(-0.24)
Ln (Goal)	-0.66***	203.5	-0.68***
	(-9.06)	(2.64)	(-4.01)
Pre-money valuation	-0.0036	28.4	-0.020***
	(-0.17)	(1.59)	(-8.61)
Diversification	-0.26***	-31.9	-0.26***
	(-8.88)	(-3.74)	(-4.90)
Ln (Team age)	-0.28***	-42.1	0.012
	(-11.60)	(-1.86)	(0.05)
Year dummies	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes
Observations	1000	1005	981
R-squared		0.606	
Pseudo R-squared	0.580		0.528

Table 7b. Robustness. Platform VS nominee campaign effect

Table 7b reports the coefficients on whether *Nominee* affects short-term success when one employs a matched sample from Crowdcube and Seedrs initial offerings employing the coarsened matching method. Nominee takes value 1 for Crowdube and Seedrs nominee, zero otherwise. Nominee are matched with direct firms according to firm age, pre money valuation and industry group. Models (1) and (3) report the coefficients of a probit method when a success dummy and over-subscription are employed as dependent variables respectively. Model (2) reports the coefficients of an OLS method when total amount (in thousands) is employed for dependent variable. Significance levels for marginal effects are denoted as * for p ≤ 0.10, ** for p ≤ 0.05 and *** when p ≤ 0.01. The sample spans the period from January 2012 to December 2018 from a sample of initial Crowdcube and Seedrs offerings. See Table A1 for variable definitions.

	(1)	(2)	(3)
	Success_d	Amount	Overfunding_d
Nominee	0.31***	45.2**	0.13*
	(4.26)	(2.37)	(1.65)
Post February 2015	0.012	-2.89	0.13
	(0.03)	(-0.04)	(1.15)
Ln (Funders)	1.71***	127.8***	1.70***
	(36.84)	(12.43)	(106.80)
Advanced degree	0.36***	18.3	0.48***
	(4.04)	(0.40)	(8.44)
Team size	0.036	12.9	-0.035
	(0.64)	(1.57)	(-0.68)
Equity	0.015***	16.1***	0.020
	(7.96)	(10.59)	(1.35)
Ln (Firm age)	0.071	9.28	0.082
	(0.55)	(0.93)	(1.38)
Ln (Goal)	-0.95***	9.38	-0.87**
	(-6.45)	(0.61)	(-2.22)
Pre-money valuation	0.14	115.1***	0.10
	(1.46)	(25.54)	(0.79)
Diversification	-0.45**	-41.5**	-0.37***
	(-2.46)	(-2.11)	(-3.70)
Ln (Team age)	-0.43***	15.3	-0.012
	(-2.99)	(0.40)	(-0.03)
Year dummies	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes
Observations	877	877	856
R-squared		0.716	
Pseudo R-squared	0.633		0.571

Table A1. Variable definition

Variable	Definition	Data source
Success_d	A binary variable that takes value 1 for those campaigns that reach their target, zero otherwise	Constructed employing data from TAB
Funders	The number of investors at the end of the campaign	TAB
Amount	Total amount raised at the end of the campaign	TAB
Overfunding_d	A dummy variable that takes value 1 if amount raised exceeds the goal, zero otherwise.	Constructed employing data from TAB
SECO_d	A dummy variable that takes value 1 for a successful first SECO (seasoned equity crowdfunded offering), zero otherwise	Constructed employing data from TAB
SECO_no	The total number of successful SECOs	Constructed employing data from TAB
Failure_d	A dummy variable that takes value 1 if a firm has defaulted or is in administration or liquidation, zero otherwise.	UK Companies House
Crowdcube_d	A dummy variable that takes value 1 for Crowdcube offerings, zero for Seedrs	Constructed employing data from TAB
X_Nominee	A dummy variable that takes value 1 for campaigns that employ the nominee approach on platform X, zero otherwise	Constructed employing data from TAB
Post February 15	A dummy variable that takes value 1 for Crowdcube and Seedrs campaigns conducted after February 2015, zero otherwise	Constructed employing data from TAB
Post 2016	A dummy variable that takes value 1 for campaigns from 2016 onwards, zero otherwise	Constructed employing data from TAB
Advanced degree	A dummy variable that takes value 1 if at least 1 member holds the title Dr or Professor, zero otherwise	UK Companies House
Team size	The number of team members on public launch date	UK Companies House
Equity	Equity issued during the campaign	TAB
Firm age	The age of the firm on public launch date	UK Companies House
Goal	The target amount set at the beginning of the campaign	TAB
Duration	The number of days a campaign is live	TAB
Diversification	The number of 4-digit codes for a firm	UK Companies House
Team age	The average age of team members	UK Companies House
Platform preference	The number of Crowdcube offerings over Seedrs offerings conducted by firms that belong to the same industry group in the last twelve months prior to each observation	Constructed employing data from TAB
Competing offerings	The number of live competing offerings on public launch date on the same platform	Constructed employing data from TAB
Pr (Nominee)	The number of prior nominee offerings conducted on Crowdcube the same year over the number of all prior Crowdcube offerings	Contructed employing dtata from TAB

Table B1. Inter-platform nominee and short-term performance on unmatched sample

Table B1 reports the impact of a Nominee dummy variable on several measures of short-term performance. Models (1) to (3) report coefficients on nominee whereas models (4) to (6) report coefficients regarding SyndicateRoom nominee. Models (1), (3), (4) and (6) report the coefficients of a probit method when a Success dummy and Overfunding are employed as dependent variables, respectively. Models (2) and (4) report the coefficients of an OLS method when the total Amount (in £k) is employed as dependent variable. Significance levels for marginal effects are denoted as * for p ≤ 0.10, ** for p ≤ 0.05 and *** for p ≤ 0.01. The sample spans the period from January 2012 to December 2018 from a sample of initial Crowdcube direct, Seedrs and SyndicateRoom offerings. See Table A1 for variable definitions.

	(1) Success_d	(2) Amount	(3) Overfunding_d	(4) Success_d	(5) Amount	(6) Overfunding_d
Sdrs_Nominee	0.29***	97.1**	0.13***			
	(9.02)	(29.57)	(5.83)			
SR_Nominee				3.92***	325.8	4.63***
				(21.19)	(3.11)	(56.09)
Post February 2015	0.28	12.7	0.35***	-2.38***	-18.2*	0.021
	(1.25)	(2.47)	(176.01)	(-4.11)	(-8.23)	(0.07)
Ln (Funders)	1.67***	169.0	1.74***	1.71***	166.0	1.96***
	(22.78)	(5.98)	(36.68)	(15.03)	(5.67)	(38.98)
Advanced degree	0.0080	37.9*	0.19***	0.15***	52.6	0.076
	(0.19)	(8.98)	(8.37)	(3.59)	(3.10)	(0.71)
Team size	0.039	21.0	-0.012	0.016	19.4	-0.021
	(1.49)	(1.75)	(-0.49)	(0.58)	(1.91)	(-0.67)
Equity	0.012**	5.54	0.018***	0.0048	4.65	0.018**
	(2.46)	(1.44)	(2.97)	(0.64)	(5.70)	(2.03)
Ln (Firm age)	-0.088	-21.5	-0.010	-0.012***	-27.4**	-0.0052
	(-0.86)	(-2.59)	(-0.23)	(-7.39)	(-15.12)	(-0.47)
Ln (Goal)	-0.66***	193.2	-0.69***	-0.66***	284.5	-1.01***
	(-8.05)	(2.62)	(-3.60)	(-33.55)	(5.28)	(-13.77)
Pre-money valuation	-0.0076	28.9	-0.024***	-0.030***	19.3*	-0.017***
	(-0.29)	(1.51)	(-37.81)	(-6.63)	(8.19)	(-4.90)
Diversification	-0.24***	-30.0	-0.25***	-0.40**	-40.5**	-0.57**
	(-7.43)	(-3.28)	(-4.31)	(-2.09)	(-14.73)	(-2.23)
Ln (Team age)	-0.29***	-17.6	-0.0045	-0.13	-36.6	0.25**
	(-42.68)	(-1.67)	(-0.02)	(-0.32)	(-1.69)	(1.98)
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes
Observations	946	951	927	748	751	732
R-squared		0.575			0.629	
Pseudo R-squared	0.588		0.534	0.612		0.580