The Cost of Financial Disclosure for Start-Up Firms: An Examination of Regulation Crowdfunding Offering Closures

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Abstract:

While there exists a vast literature exploring the benefits of mandated financial disclosure, few have documented the direct cost of issuing financial statements. Using a sample of start-up firms where the costs and benefits of financial reporting may be most material, we examine entrepreneurs' willingness to sacrifice further invested capital during a securities offering in order to avoid preparing updated financial statements. First, we show a dramatic increase in offering closures immediately before their deadline to file updated financials. Then, we estimate a model of entrepreneurs' offering closure decisions to recover the distribution of financial reporting costs. We find that 64% of issuers are willing to close their offering at least one month early to avoid reporting, with 34% of issuers willing to close at least six months early. In the aggregate, these results indicate financial statement reporting requirements for Regulation Crowdfunding issuers have reduced the amount of investment in this market by at least $57 million.

Keywords: financial reporting, compliance, Form C/A, Regulation Crowdfunding (Reg CF), Securities and Exchange Commission (SEC), JOBS Act Title III, KingsCrowd

JEL classification: G18, G24, G32, K22, M13, M41

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I. INTRODUCTION

How costly is financial reporting for start-up firms? To facilitate capital formation, securities regulators often trade off investor protection afforded by financial reporting with the associated reduction in firms' preparatory costs. And while this cost-benefit analysis is at the forefront of modern-day securities regulation, there exists little empirical evidence on the direct cost of financial reporting (Leuz and Wysocki 2016). In particular, there is no evidence, to our knowledge, of financial reporting preparatory costs among start-up firms where such costs to firms and benefits to investors might be most material. This paper seeks to fill this gap, providing evidence on the financial reporting costs of start-up firms by showing that issuers will sacrifice the opportunity to raise additional capital to avoid financial reporting. Specifically, we estimate financial reporting costs using a sample of Regulation Crowdfunding (Reg CF) offerings where issuers may close their offerings early, thereby sacrificing potential capital, to avoid preparing updated financial statements.

Focusing on ongoing Reg CF offerings allows us to uniquely isolate financial reporting costs from other compliance costs among a sample of start-up firms. Unlike IPOs where securities are sold within a short enough period that the offering statement (Form S-1) does not require amending with updated financial statements, Reg CF offerings are open for months, often requiring an amendment (Form C/A) with financial statements to continue offering securities. This difference in the market structure provides an exogenous reporting deadline whereby issuers must either file updated financial statements or close the offering, thereby sacrificing potential capital. To date, no study, to our knowledge, has examined the impact of this financial reporting deadline on the duration of Reg CF offerings nor considered the associated costs of providing updated financials to continue offering securities.

We begin our analysis by documenting a striking pattern of issuers closing their offering just before they would otherwise be required to file updated financial statements. We show that nearly **X** percent of offerings close in the week before their reporting deadline. Furthermore, we show that offerings are much more likely to close in April, immediately before most firms' reporting deadline, than other months during the year.

Given evidence that issuers close their offerings to avoid this mandated reporting deadline, we estimate a model of offering closure decisions to recover the distribution of issuer willingness-to-close. We assume Reg CF issuers' willingness-to-close will be higher as the cost of financial reporting increases, whereby an issuer would prefer to accelerate the closure of their offering and forgo some portion of their capital-raising window in order to avoid preparing updated financial statements. Following Benzarti (2020), we use the excess closures just before the reporting deadline and the missing mass of closures just after the deadline to identify how much offering time issuers are willing to forego to avoid reporting.

We find that issuers are willing to close their offerings substantially earlier to avoid reporting. Specifically, we estimate that 64 percent of issuers are willing to close one month early, with 34 percent of issuers willing to forego at least six months of capital raising. This means that on average, offerings are 9.2 percent shorter than they would be in the absence of a reporting requirement.

In order to translate these compliance costs into dollar values, we estimate the foregone capital raised from closing early. We bound these estimates using the average weekly amount raised and the average amount raised in the last week of an offering. These estimates indicate a median cost of reporting of between $59 thousand and $268 thousand of foregone investment. In

the aggregate, these results indicate the costs from reporting requirements for equity crowdfunding issuers total at least $57 million.

This paper adds to the existing literature studying financial reporting of small (private) businesses. While other studies have focused on the determinants and benefits of voluntary financial reporting (e.g., Allee and Yohn 2009; Minnis and Shroff 2017; Minnis et al. 2024), none to our knowledge have estimated the associated preparatory costs of financial statements. Using an exogenous financial reporting deadline faced by a sample of start-up firms, we estimate a firm's willingness-to-close their offering early, thereby sacrificing future potential investment. Doing so, responds to the call from Lisowsky and Minnis (2020) whereby our study further explores the direct costs of producing GAAP financial statements.

Secondly, we contribute to the growing literature on U.S. equity crowdfunding (ECF), providing the first evidence of how financial reporting regulations impact the timing of Reg CF offerings and estimating the associated costs. While there exist some studies that consider the financial reporting in the initial offering statement (e.g., Aland 2023), none consider how an offering might close earlier than it otherwise would have to avoid preparing updated financial statements. Therefore, our paper also introduces how financial reporting adds a seasonality to this market which may have a downstream impact on the allocation of capital.

In addition to informing the aforementioned academic literatures, our findings may provide insights to the SEC and market participants. Given financial reporting requirements are causing issuers to curtail their offering periods, the SEC may consider adjustments to the Reg CF financial reporting rules, particularly among issuers who launch their offering with relatively stale financial statements. For investors, understanding issuer behavior in response to filing requirements may inform their participation in offerings surrounding a financial reporting

deadline, whereby a disproportionate number of offerings may be soliciting investment in April with few offerings available in May. Such behavior may also call investor attention to the timeliness of the financial statements in the initial offering statement, Form C.

II. INSTITUTIONAL SETTING

Following the Jumpstart Our Business Start-ups (JOBS) Act of 2012, the adoption of Reg CF in May of 2016 provided entrepreneurs the regulatory framework to issue unregistered securities to accredited and non-accredited investors over an Internet-based platform without going through the costly and onerous initial public offering (IPO) process. Reg CF allows for the broadest investor-base among private offering exemptions which have raised more capital "than in public markets each year for over a decade with no signs of a change in the trend" (Lee 2021) equating to approximately four times of public markets (Shephard 2023). Importantly, Reg CF has become a popular form of raising capital among U.S. start-ups, providing us with a setting to study financial reporting costs among start-up firms.

Borrowed from Burke (2024), Figure 1 illustrates where Reg CF fits into the regulatory framework for entrepreneurs wishing to issue securities in the U.S. and Figure 2 summarizes crowdfunding types and their popular platforms. For additional details on how Reg CF differs from other transaction exemptions available to issue unregistered securities as well as the popular alternative rewards-based crowdfunding where no securities are issued, see Burke (2024).

Financial disclosure is of particular importance to the overall information environment of Reg CF issuers given these companies are mostly privately held, have little operating history, have little to no media/analyst attention, and primarily attract retail investors. In many cases, the only source of financial information available to prospective investors is the financial statements of the two most recent fiscal years available in the offering statement, Form C. In contrast, registered firms

have a relatively rich information environment, including more detailed financial reporting via Form S-1 which is reviewed by the SEC, years of operating history, higher levels of media/analyst attention, and significant participation by institutional investors. And while there exists some limited evidence on public company regulatory costs, including the decision to go public (Ewens et al. 2024), there is no evidence, to our knowledge, of financial reporting costs among start-up firms where such costs to firms and benefits to investors might be most material.

Unlike IPOs that generally close before financial statements become stale, Reg CF offerings are often open for months, requiring updated financial statement via an amendment (Form C/A) to continue offering securities. More specifically, in order to offer Reg CF securities, the offering statement (Form C) must include financial statements of the two most recent fiscal years which must be subsequently updated via Form C/A no later than 120 days after any subsequent fiscal year end.[1] Since approximately 90 percent of Reg CF issuers have a December 31st year end, this means that most issuers need to either close their offering or file Form C/A by the end of April (or beginning of May) if the initial offering statement does not contain the most recent fiscal year.

If an issuer fails to comply with this financial reporting requirement, they are in violation of Reg CF and cannot legally continue to offer securities. Anecdotally, this requirement is well understood by the online platforms that host Reg CF offerings. Given the main business of these platforms is to host offerings and they are regulated by FINRA, platforms are highly incentivized to ensure compliance among the offerings which they host.

III. DATA AND SAMPLE SELECTION

[1] If a Reg CF issuer has previously issued securities or the offering successfully closes before providing updated financial statements, the issuer is required to file annual financial statements via Form C-AR until they meet the criteria for terminating their annual reporting obligation and file notice of such termination via Form C-TR. However, in practice, few firms comply with their annual reporting requirement likely because of the lack of regulatory risk (Burke and League 2024).

Our data come from three sources. First, we obtain SEC filing data from the SEC's Crowdfunding Offerings Data Sets, which includes details from all Form C submissions, including amendments, withdrawals, updates, annual reports, and termination of annual reporting. Second, we download all Form C filings, which we use to identify the likely fiscal year end of the initial offering disclosure.[2] Third, we obtain data on all Reg CF offerings from KingsCrowd, Inc. (KC) which include offering, entrepreneur, and issuer-level variables.

Table 1 outlines the sample used in hypothesis testing. Starting with all Reg CF offerings followed by KC, we limit our sample by dropping offerings that do not link to an SEC Form C filing, were withdrawn, or did not successfully close by April 1, 2024. The resulting sample includes 5,877 offerings from 4,921 unique firms.

IV. STATE OF OFFING DISCLOSURE AND TIMING

The key insight for our estimation strategy is that entrepreneurs will close their offering early to avoid filing updated financials if and only if the preparatory costs are larger than the benefits they would receive (via increased capital raised) from remaining open. Thus, if these costs are non-negligible, there must be a disproportionate amount of offerings closing before this deadline. And given approximately 90 percent of issuers are required to amend their offering by the beginning of May, we consider the offering closure rate around May 1st. Figure 3 Panel A reports the number of offerings available for investment in each month, indicating a clear drop-off in the number of offerings in May relative to April, a difference that is statistically different from zero with $p<0.001$. To better understand this behavior, we consider if this pattern is driven by managers closing relatively more offerings in April or opening relatively fewer offerings in

[2] We convert all filings to text and then use a script to identify all dates across all filing documents. We assign the likely year-end based on the highest frequency of dates that appear to be the fiscal year end, which are determined based on proximity to key words or phrases and being the end of a month.

May. Panel B shows the pattern in Panel A is largely driven by offerings closing in April, accounting for 22.0 percent of offerings, which is much more than the 8.3 percent we would expect if closings were uniformly distributed throughout the year. Further, while there appears to be marginally fewer offerings opening in April than surrounding months, this difference is much smaller. Testing for excess mass in the rate of offering openings and closures by week using a quartic polynomial indicates that there is no statistically significant evidence of bunching in offering openings at the reporting threshold, while there is strong ($p<0.001$) evidence of bunching in offering closures. These histograms are shown in Panels C and D of Figure 3. Taken together, Figure 3 provides evidence that managers are closing offerings to avoid issuing updated financial statements, suggesting the underlying costs of financial reporting may be material.

V. MODEL

In this section we derive and estimate a model of an issuer's willingness-to-close their security offering early as a proxy for the underlying investment capital sacrificed in return for avoiding financial reporting preparatory costs. Therefore, the key decision we model is how long an issuer keeps their offering open, or equivalently, how early they close their offering. We denote the amount of time the issuer chooses to keep offering i open T_i.[3] We assume that issuers are endowed with an exogenous amount of time from launching offering i to their financial reporting deadline, denoted D_i. We do not model the issuer's decision of when to launch their offering, consistent with the evidence presented in Section IV that shows offering launches do not differ around the deadline. If the offering is open past the reporting deadline (if $T_i>D_i$), then the issuer must file updated financials and pay reporting cost C_i. Each offering i is endowed with

[3] To improve generalizability of our model, we do not require a specific the measure of time (e.g., days, weeks, months, etc.). Ultimately, in our estimation, to improve the interpretation of our results by reducing the number of parameters we estimate, we choose months as the unit of time.

an optimal amount of time to be open O_i, which is known to the issuer and determined by factors including the issuer's time value of money, the target offering amount, the issuer's anticipation of offering popularity among potential investors, etc. Closing the offering earlier or later than the optimal time, O_i, imposes costs on the issuer of $f_i(T_i-O_i)$ where $f_i()$ is an arbitrary function that is decreasing for $T_i>D_i$ and increasing for $T_i<D_i$, taking its minimum of 0 at $T_i=D_i$.

Thus, the issuer chooses the amount of time offering i is open T_i to maximize

$$\max_{T_i>0} -f_i(T_i - O_i) - 1[T_i > D_i] \times C_i.$$

The payoff maximizing amount of time open T_i^* is

$$T_i^* = \begin{cases} D_i \text{ if } f_i(D_i - O_i) < C_i \text{ and } D_i < O_i \\ O_i \text{ if } f_i(D_i - O_i) \geq C_i \text{ or } D_i \geq O_i \end{cases}.$$

In words, this means that the issuer never closes the offering later than the optimal time, but may close the offering early, at the reporting deadline D_i, when the costs of closing early are less than the costs of reporting (i.e. $f_i(D_i - O_i) < C_i$). Otherwise, the issuer closes the offering at the optimal time, O_i.

The key parameter we estimate is the distribution of financial reporting costs which, in our setting, is given in terms of amount of offering time the issuer is willing to forego in order to avoid issuing updated financial statements. Specifically, we denote the share of issuers willing to close their offering t units of time early (i.e., $P[f_i(t) < C_i]$) as s_t. Further, we will also estimate the distribution of optimal offering length, O_i, denoting the share of issuers with an optimal offering length of t ($O_i = t$) as c_t.

We use variation in the financial reporting deadline, D_i, to estimate our model of financial reporting costs. The issuer's deadline varies depending on the timing of the offering launch and the timeliness of the financial statements included in their Form C. We assume that the reporting deadline D_i is independent of the optimal offering length O_i, cost of closing $f_i()$, and reporting

cost C_i. In other words, we assume that, on average, the variation in the proximity of the reporting deadline (e.g., financial statements are due one month versus ten months after opening) may impact the decision to close an offering directly, but is completely unrelated to the optimal offering length, cost of closing, or reporting cost.

Under these assumptions, we are able to use variation in D_i to identify s_t and c_t in an unbiased way. Because D_i and c_t are independent, offerings that open with a long time until their reporting deadline (large D_i) show us the distribution of when issuers would like to close absent the deadline (O_i) for all the time periods before the deadline (this distribution is c_t). With the distribution of optimal offering lengths in hand (c_t), we can identify how early an offering closes to avoid their reporting deadline by comparing the observed distribution of offering closures at or after the deadline to the counterfactual distribution of optimal closures (c_t). For example, if we observe that only half as many offerings close one month after the deadline as we expect (based on our estimate of c_t), we can conclude that half of issuers are willing to close at least one month early to avoid issuing updated financial statements.

In particular, the probability that an offering that opens d time periods before its financial reporting deadline and closes within t time periods is given by

$$p_d^t = \begin{cases} \sum_{j=0}^{t} c_j & \text{if } t < d \\ \sum_{j=0}^{t} c_j + \sum_{j=t+1}^{\infty} s_{j-d} c_j & \text{otherwise} \end{cases}.$$

The summation from 0 to t of c_t gives the share of offerings that would be closed by t in the absence of a financial reporting requirement. For time periods before the deadline ($t < d$), this includes all the offerings that are closed. For time periods at or beyond the deadline, we include this first summation as all the offerings that would close absent a reporting requirement still

close. Additionally, we include a second summation capturing all the offerings that would have otherwise closed in future periods, but choose to close early to avoid issuing updated financials.

To tractably estimate our model, we make the following functional form assumptions. First, we assume that beyond some amount of time τ_1 the share of issuers willing to close their offering *t* periods early to avoid reporting is a constant fraction of the share willing to close their offering one less period early, or $s_t = \beta s_{t-1}$ for $t > \tau_1$. We will estimate s_t without any functional form assumption for $t \in [1, \tau_1]$ while also estimating β. Second, we will similarly assume that beyond some amount of time τ_2, the share of offerings that would optimally close in period *t* is a constant fraction of the share that would optimally close in the previous period, or $c_t = \alpha c_{t-1}$ for $t > \tau_2$, which is equivalent to assuming a constant optimal closing hazard of α for $t > \tau_2$. We will estimate c_t without any functional form assumption for $t \in [1, \tau_2]$ while also estimating α. Finally, we assume that $s_t, c_t \in (0,1)\ \forall t$, meaning that we assume $\alpha, \beta \in (0,1)$, and that $\sum_{t=0}^{\infty} c_t = 1$. Less formally, these assumptions mean that some share of issuers is willing to close at least *t* periods early for each value of *t*, that there is some share of offerings with an optimal offering length of each period *t*, and that all offerings close at some point. Appendix 1 shows the probability that an offering opens *d* time periods before its reporting deadline and closes within *t* time periods under our functional form assumptions.

VI. ESTIMATION AND RESULTS

Estimation

We will estimate this model using maximum likelihood. We set $\tau_1 = 6$ and $\tau_2 = 12$, and we use a month as the relevant period of time.[4] We denote the number of offerings that open *d* months before the reporting deadline as n_d and the number of these offerings that close within *t*

[4] Since offerings are often opened for a number of months, we use months as the time period in our model, however any time period, including weeks, days, etc. could also be used.

months as k_d^t. Using this notation, the probability of observing k_d^t offerings close by month t among offerings that open in month d (n_d) conditional on parameter values $\theta = \{s_1, \dots, s_{\tau_1}, \beta, c_1, \dots, c_{\tau_2}, \alpha\}$ is given by

$$l(k_d^t, n_d|\theta) = \binom{n_d}{k_d^t} (p_d^t)^{k_d^t} (1 - p_d^t)^{n_d - k_d^t},$$

where p_d^t is given above. Thus, the log-likelihood function for θ given the data is

$$L(\theta; k_d^t, n_d) = \sum_{d,t} \left(\log \binom{n_d}{k_d^t} + k_d^t \log(p_d^t) + (n_d - k_d^t) \log (1 - p_d^t) \right).$$

Note that this function has the same argmax and Fisher information matrix as

$$L'(\theta; k_d^t, n_d) = \sum_{d,t} (k_d^t \log(p_d^t) + (n_d - k_d^t) \log (1 - p_d^t)),$$

which we will use in estimation.

We choose initial values for the counterfactual share of closures using the empirical distribution, which is shown in Figure 4. The pink line shows the implied distribution for months beyond τ_2.

Results

Table 2 presents the parameter values from estimating our model. We estimate that 64% of issuers would be willing to close their offering one month early to forgo preparing updated financial statements (s_1) and 34% of issuers would be willing to close six months early (s_6). Our estimate of β is not statistically different from 1, indicating that effectively all issuers that are willing to close six months early are also willing to close an arbitrarily high number of months early to avoid filing. In other words, we estimate that roughly a third of issuers are completely unwilling to prepare updated financial statements, consistent with financial reporting costs being material for these firms. Figure 5 plots the parameters presented in Table 2, showing the

estimated share of issuers willing to close that would rather close early than prepare updated financial statements from one to twelve months, whereby months seven to twelve are determined by $s_t = \beta s_{t-1}$, as previously assumed.

The estimates of c_τ give the estimated share of offerings that would close in τ months, absent the requirement to update financial statements. For example, we estimate 1 percent of offerings would close in one month, 7.7 percent in two months, etc. The value of α implied by these estimates is 0.85 with a standard error of 0.004. Our estimated counterfactual distribution of offering lengths is shown in Figure 6, with Panel A reporting the probability mass function and Panel B reporting the cumulative density function. These estimates suggest that absent a financial reporting requirement half of offerings would close in five months and 90 percent of offerings would close in ten months. As expected, the estimated counterfactual distribution of closure dates is to the right of the observed empirical distribution, further suggesting some offerings close earlier than they otherwise would have without a financial reporting requirement.

To validate our estimates, we evaluate the fit of our model by comparing our estimated closures relative to actual closures conditioned on the same value of D_i. Figure 7 Panels A through D reports the observed and model-predicted CDF of closures for offerings that face a reporting deadline of 2, 4, 6, and 8 months after opening, respectively. The predicted and observed CDF of closures are overlapping, suggesting our model does a good job matching the large jump in closures at each deadline and fits the observed distribution of closures well. This supports the use of our model to estimate an issuer's willingness-to-close when faced with a decision to prepare updated financial statements or sacrifice future invested capital.

Figure 8 demonstrates the effect of the reporting requirement on closure timing for each deadline, D_i. The lower envelope (i.e. curve) gives the counterfactual closure timing in the

absence of a reporting requirement, while each other line gives the model-predicted closure timing for each deadline. At each level of D_i, we can see that facing a deadline leads a large share of issuers to close their offering to avoid filing updated financial statements with the greatest effect for those offerings that open close to a reporting deadline.

In the aggregate, our estimates indicate that the presence of reporting deadlines results in 1,929.9 total months of foregone offering time, meaning the average offering is open for 9.2% less time than it would be in the absence of reporting requirements. Of this foregone offering time, 833.2 months is attributable to issuers that open their offering with stale financials, meaning these offerings are 25.1% shorter than they would otherwise be.

To translate these costs into dollars, we estimate the amount of forgone invested capital by closing early using a back-of-the-envelope calculation. Given that the average (median) monthly investment is $89,478 ($29,480), we estimate the median issuer is willing to forego between $59,000 and $268,000 of invested capital to avoid preparing financial statements. Aggregating across offerings and assuming the availability of updated financial statements does not increase investment, this means the Reg CF market has forgone $57 million to $173 million of investment due to the requirement to provide updated financial statements.

VII. CONCLUSION

[Pending] Our findings underscore the significant impact of regulatory deadlines on issuer behavior, suggesting that filing mandates can lead to substantial economic costs in terms of reduced capital-raising duration. This insight calls for further examination of how regulatory adjustments might balance compliance objectives with issuer incentives for efficient capital access.

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Table 1 - Sample Selection

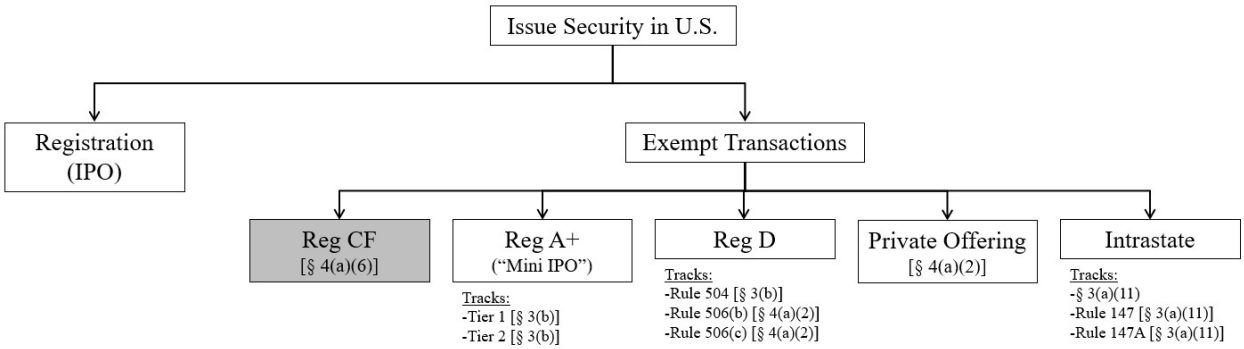
	Offering N	Issuer N
ECF offerings on KingsCrowd	7,867	6,665
Drop if does not link to SEC Form C filing	7,703	6,530
Drop if offering was withdrawn	6,878	5,815
Drop if offering did not close by April 1, 2024	**5,877**	**4,921**

Note: This table reports the sample selection procedure for our analysis of U.S. ECF offerings.

Table 2 – Parameter Estimates

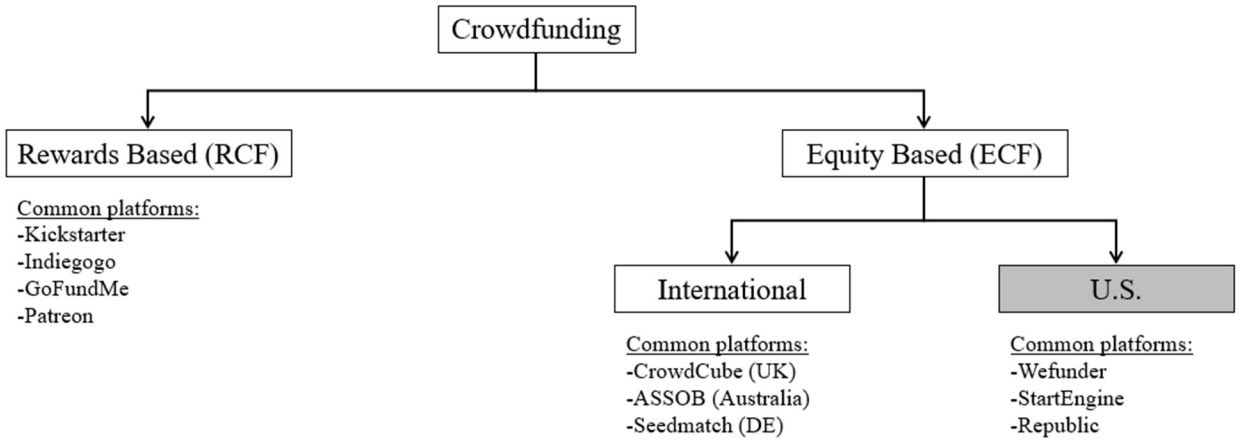
Parameter	Estimate	Standard Error
α_1	0.640	0.121
α_2	0.594	0.140
α_3	0.481	0.181
α_4	0.373	0.225
α_5	0.369	0.171
α_6	0.340	0.036
β	0.999	0.002
c_1	0.010	0.002
c_2	0.077	0.005
c_3	0.167	0.008
c_4	0.168	0.011
c_5	0.142	0.012
c_6	0.097	0.012
c_7	0.112	0.012
c_8	0.056	0.012
c_9	0.030	0.015
c_{10}	0.034	0.016
c_{11}	0.031	0.011
c_{12}	0.011	0.001

Figure 1 – U.S. Securities Offerings and Transaction Exemptions



Note: Borrowed from (Burke 2024), this figure displays the regulatory framework in the U.S. for entrepreneurs who wish to issue a security, highlighting the exempt transactions available under Sections 3 and 4 of the 1933 Act to avoid SEC registration (IPO). This paper studies issuances that constitute ECF and fall under the Reg CF exemption, as indicated by the shaded box. Reg A+ is not explicitly studied in this paper but is another available exemption for larger ECF offerings which is far less common in practice. Reg D is typically associated with venture capital offerings (i.e., accredited investors with high net worth). Private Offerings are generally not ECF. Rule 147A permits intrastate ECF subject to individual state-level Blue Sky Laws. And while some states allow for intrastate ECF, regulations vary by state and investment is limited to firms and investors of the same state. In addition, there are limited data on these offerings. For these reasons, such intrastate ECF offerings are not considered in this analysis. [§ #(ABC)(#)] identifies the statutory authority relied upon, at least in in part, for the identified safe harbor exemption. For a more detailed overview of exemptions available, see https://www.sec.gov/education/smallbusiness/exemptofferings/exemptofferingschart.

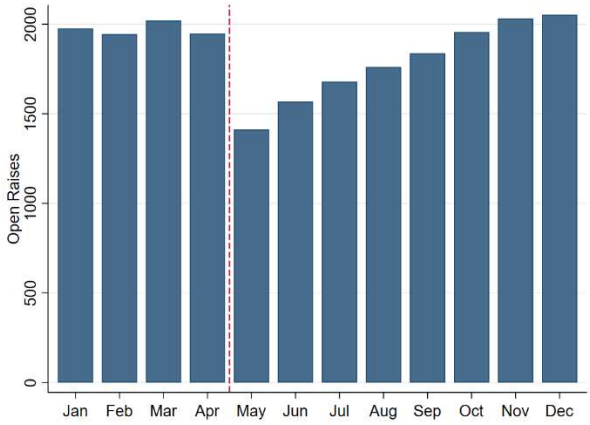
Figure 2 – Types of Crowdfunding



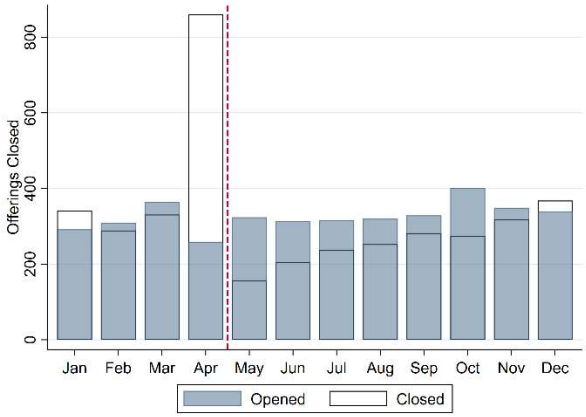
Note: Borrowed from (Burke 2024), this figure displays the different types of crowdfunding and their most common associated platforms. My analysis relates to U.S. ECF, as indicated by the grey shaded box.

Figure 3 – Cyclicality in Offering Openings and Closures

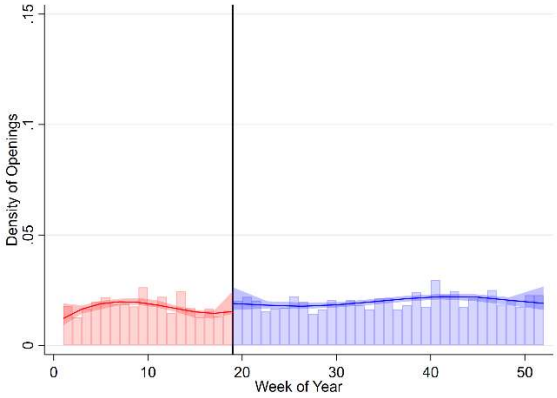
Panel A – Total Offerings Open



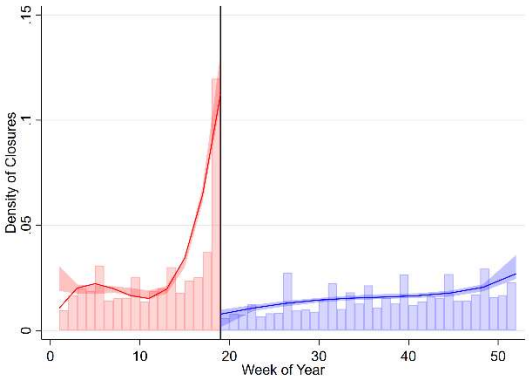
Panel B – Offering Closures & Openings



Panel C – Weekly Openings

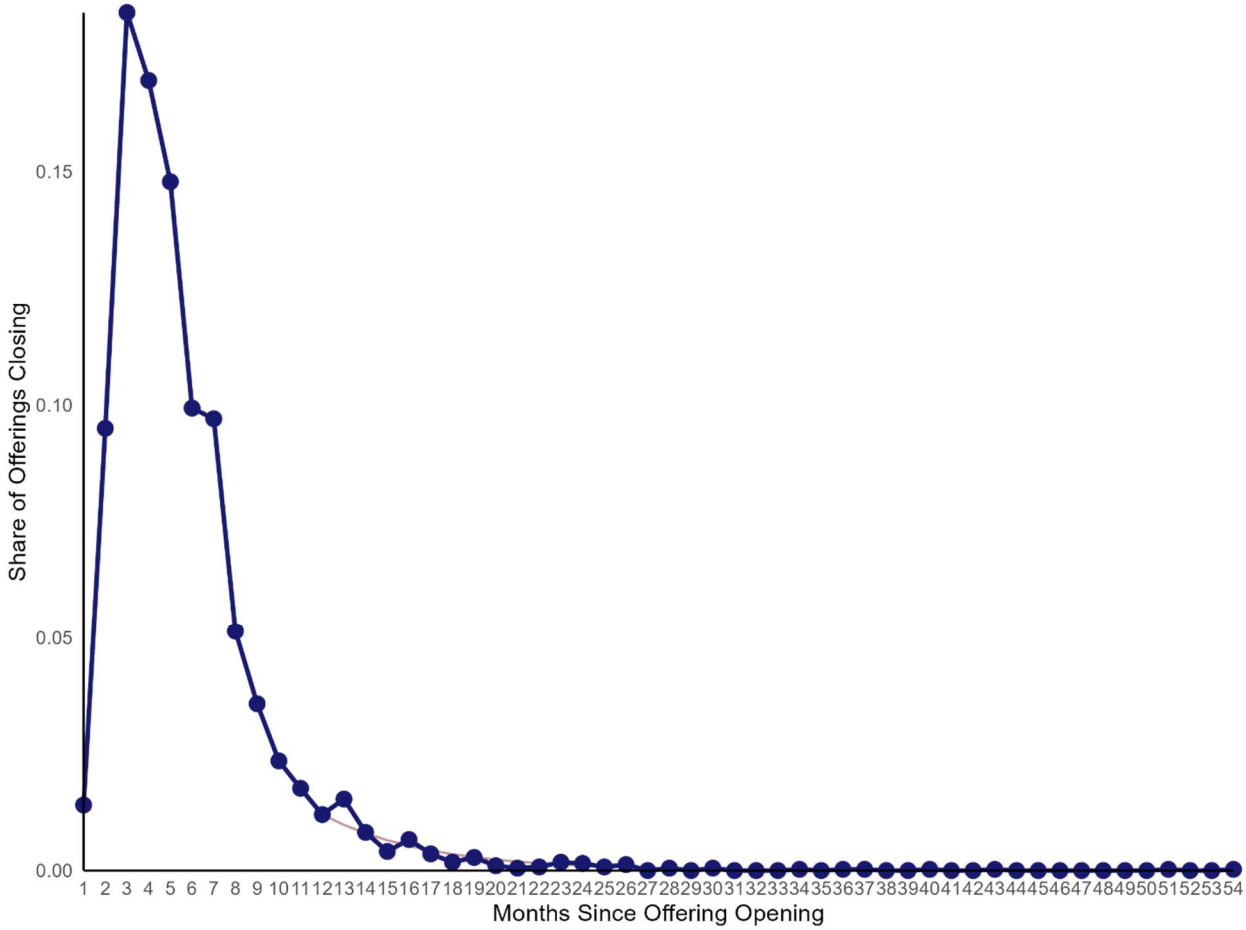


Panel D – Weekly Closures



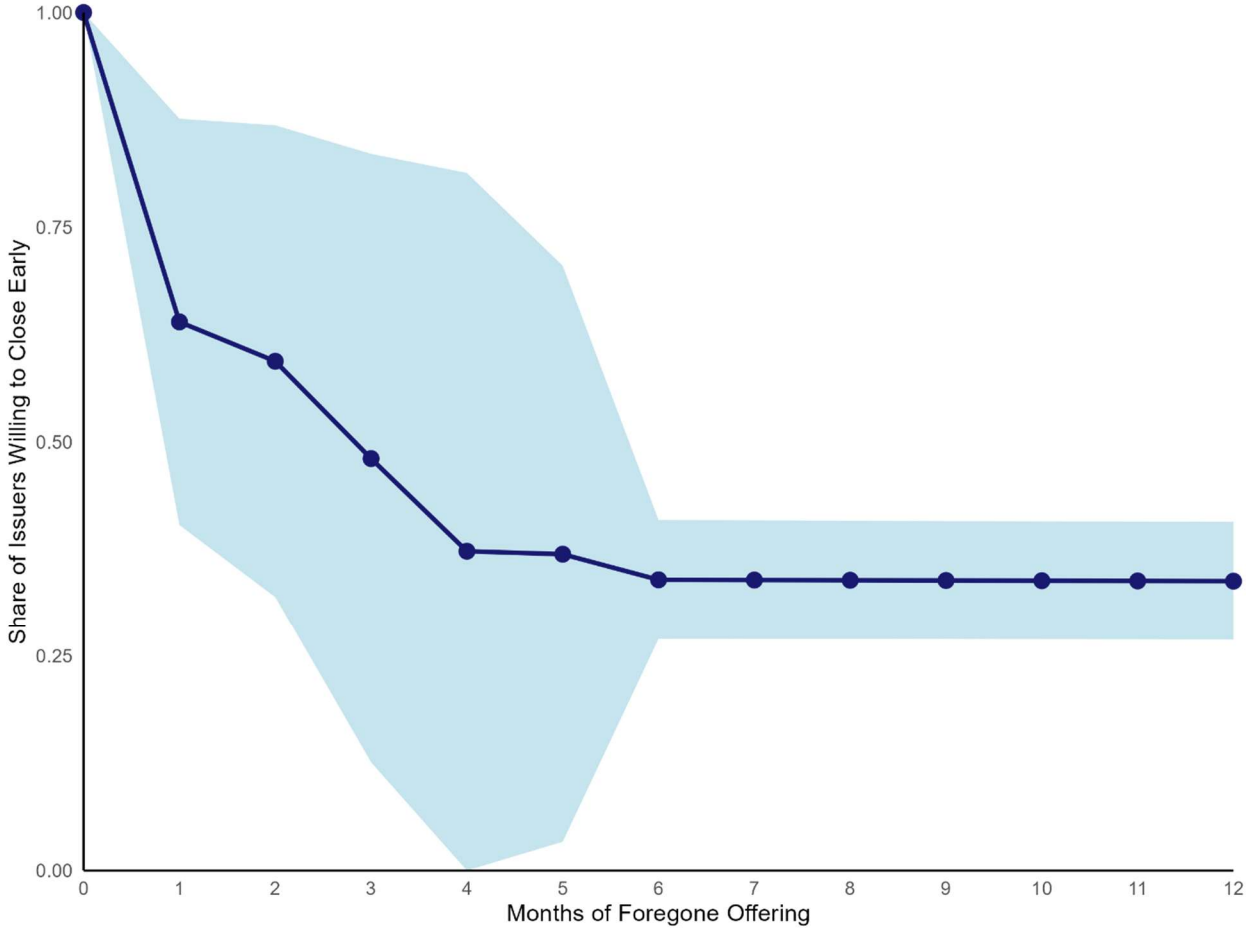
Note: Panel A displays the total number of offerings open (i.e. available for investment) during each month. Panel B reports the number of offerings closed and newly opened during each month. Panels C and D report the density of offering opened and closed, respectively, during each week of the year along with quartic polynomials to detect any discontinuity in the densities at the reporting deadline. The vertical dashed line denotes the date at which most firms face a disclosure requirement.

Figure 4 – Empirical Distribution of Closures



Note: This figure shows the observed empirical distribution of offering lengths. The red line shows the distribution for the implied value of α for months beyond 12.

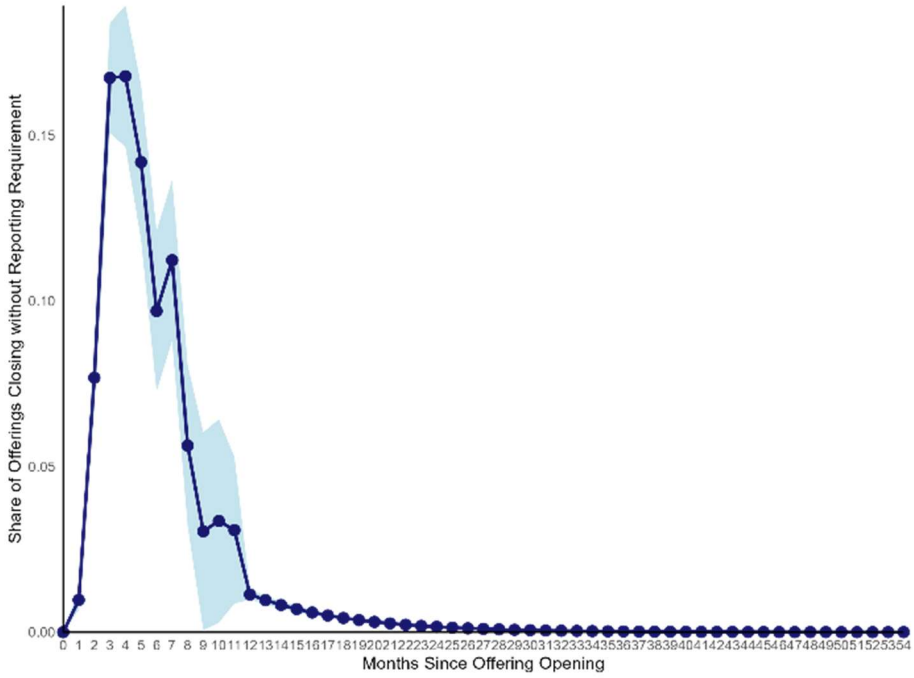
Figure 5 – Share of Issuers Willing to Close Offering Early



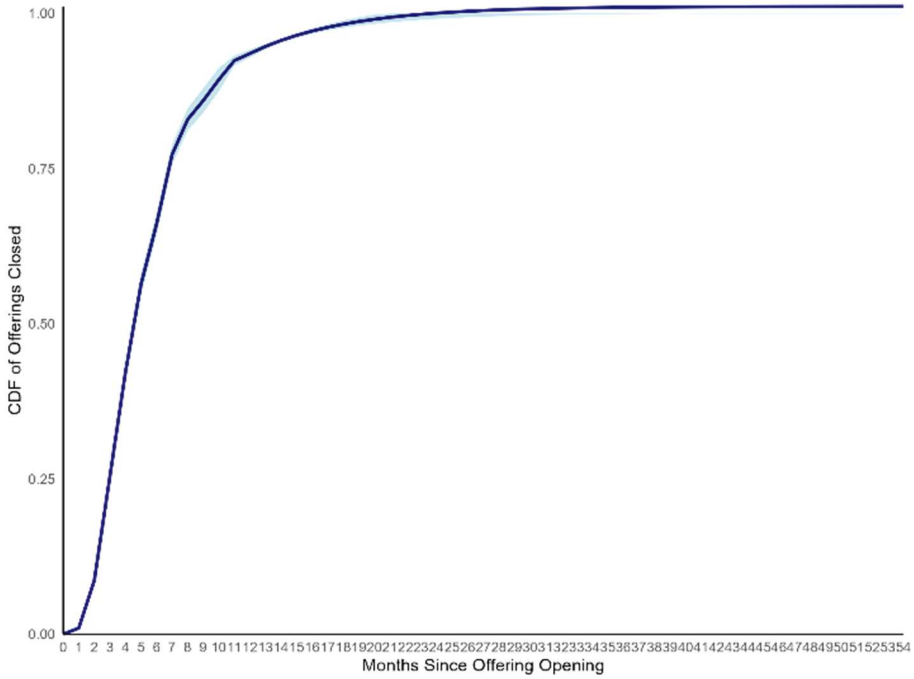
Note: This figure shows the estimated share of issuers willing to close their offerings early at various monthly intervals, with these amounts of time given on the horizontal axis. 95% confidence intervals are shaded in blue.

Figure 6 – Counterfactual Distribution of Offering Lengths

Panel A – PDF



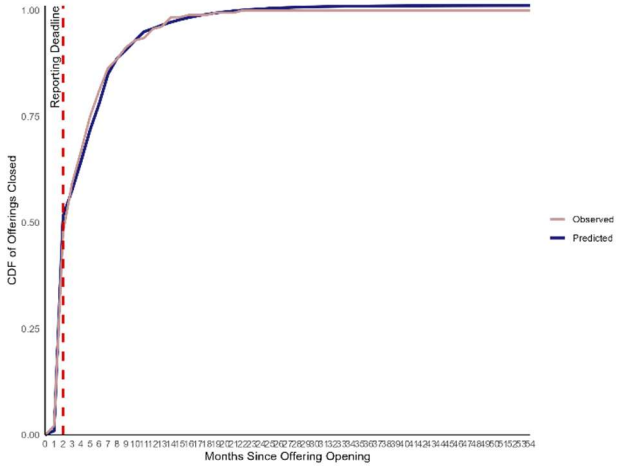
Panel B – CDF



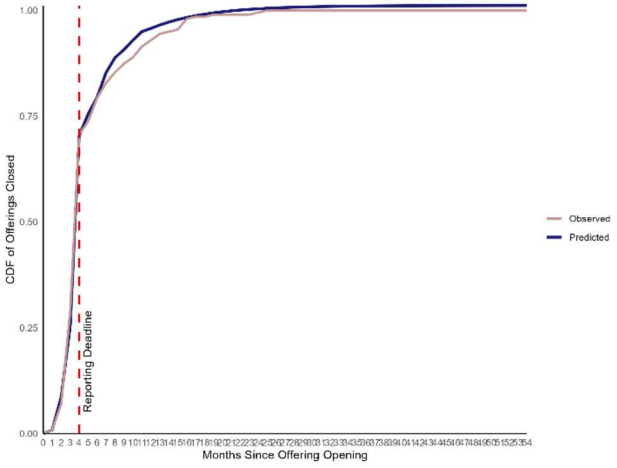
Note: This figure shows the estimated counterfactual PDF and CDF (Panels A and B, respectively) of offering lengths were issuers to face no reporting requirement. 95% confidence intervals are shaded in blue.

Figure 7 – Fit of Model

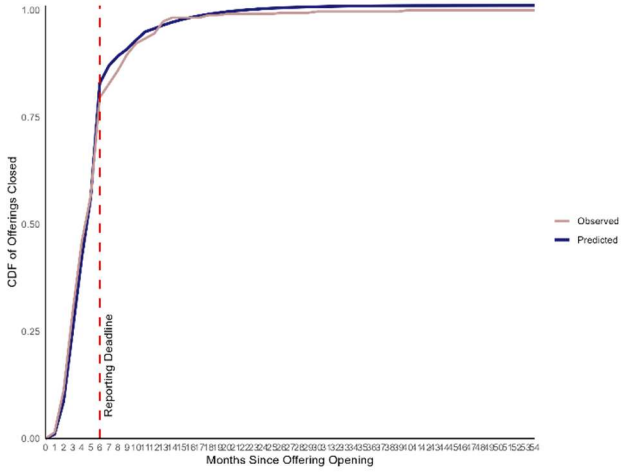
Panel A – Reporting Deadline in 2 Months



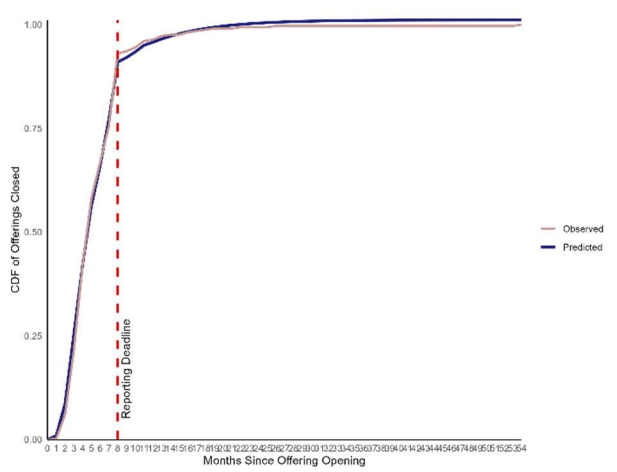
Panel B – Reporting Deadline in 4 Months



Panel C – Reporting Deadline in 6 Months

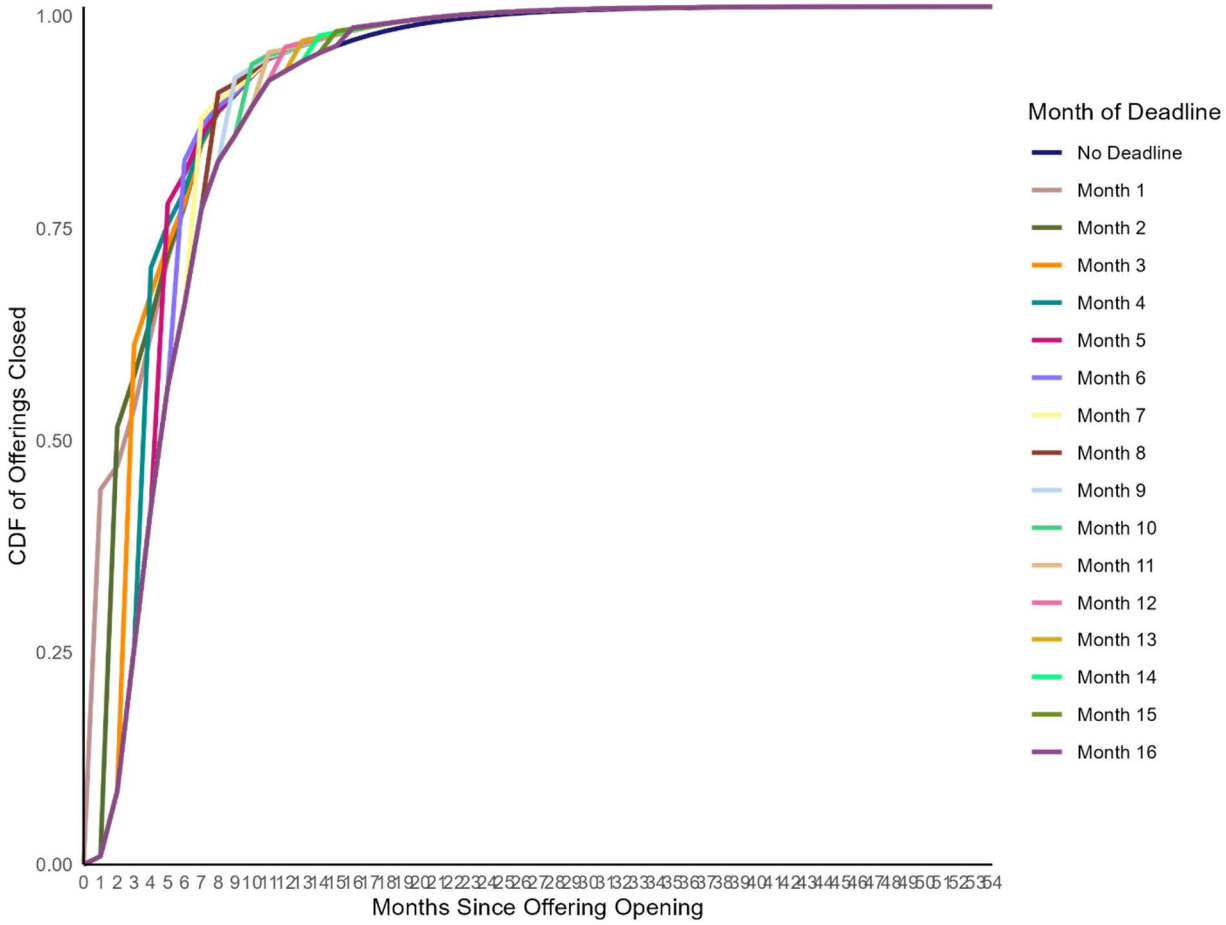


Panel D – Reporting Deadline in 8 Months



Note: This figure shows the observed empirical distribution (in pink) and model-predicted CDF (in blue) of offering lengths for offerings facing a reporting deadline in month 2, 4, 6, or 8, depending on the panel. The vertical dashed line denotes the date at which most firms face a disclosure requirement.

Figure 8 – Comparison of Closures with No-Reporting Requirement Counterfactual



Note: This figure shows the model-predicted distributions of offering lengths for offerings facing a reporting deadline in each month.

Appendix 1 – Comparison of Closures with No-Reporting Requirement Counterfactual

$$
p_d^t = \begin{cases}
\sum_{j=1}^{\min\{t,\tau_2-1\}} c_j \; + \dfrac{(1-\alpha^{t-\tau_2+1})c_{\tau_2}}{1-\alpha} & \times\ 1[t \geq \tau_2] \\
+ \sum_{j=t-d+1}^{\tau_1-1} s_j c_{\min\{d+j,\tau_2\}} \alpha^{\max\{d+j-\tau_2,0\}} & \times\ 1[t \in [d, d+\tau_1-1)] \\
+ \sum_{j\,=\,\max\{t-\tau_1-d+1,\;\;0\}}^{\tau_2-\tau_1\;\;-d-1} \beta^j s_{\tau_1} c_{\mathrm{d}+\tau_1+\mathrm{j}} & \times\ 1[t \in [d, \tau_2-1) \cap d < \tau_2-\tau_1] \\
+ \dfrac{c_{\tau_2} s_{\tau_1} \beta^{\max\{\tau_2-\tau_1-d,0\}} (\alpha\beta)^{\max\{t+1-\max\{d+\tau_1,\tau_2\},0\}} \alpha^{\max\{d+\tau_1-\tau_2,0\}}}{1-\alpha\beta} & \times\ 1[t \geq d]
\end{cases}
.
$$