

Green Investing and Venture Capital: A Signal for Reputation and Fundraising

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Abstract

This paper examines whether venture capitalists' green investment improves follow-on fundraising outcomes and whether such effects operate through a signalling channel. Combining venture capital (VC) fund data from LSEG and i3 Connect, we study US and European VC firms over the 2000–2022 period. We find that green activity undertaken prior to the close of the next fund is positively associated with the likelihood of raising a follow-on fund and the amounts raised. The effect is most pronounced for lower-reputation VC firms and first-time fund managers in terms of raising a follow-on fund, while for higher-reputation VC firms it is reflected mainly in larger follow-on fund sizes. Results are broadly similar across the US and EU subsamples, and green investing is associated with quicker fundraising. These results indicate that observable green investing has become an economically significant element of VC fundraising strategy.

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Introduction

In recent years, there has been a notable shift towards sustainable investment, driven by the growing importance of Environmental, Social, and Governance (ESG) factors in the investment decisions (Pástor et al., 2021; Pedersen et al., 2021). As a response to the environmental changes, venture capital (VC) firms have increasingly turned their attention towards cleantech startups (Hegeman & Sorheim, 2021), which are at the forefront of providing innovative solutions in addressing environmental issues (Nanda et al., 2015).

The ability to raise future funds is very crucial for venture capitalists (VCs) and defines their success in the long-term. What determines the choice of VC funds by institutional investors? Previous studies have explored some factors that affect the VC fundraising. VC firms that are larger (Balboa & Martí, 2007; Kaplan & Schoar, 2005), older (Gompers & Lerner, 1998; Kaplan & Schoar, 2005), and with better past performance record usually raise more capital during the fundraising (Balboa & Martí, 2007; Barber & Yasuda, 2017; Crain, 2018; Phalippou, 2010). Additionally, VC funds that provide financial and strategic advice, achieve higher returns, and utilise higher performance-based fees, raise greater amount of capital (Cumming et al., 2005).

Previous research emphasised how the actions taken by VCs in the current fund affect future fundraising. Chakraborty & Ewens, (2018) examines the impact of agency conflicts during VC fundraising on investment behaviour. They find that venture capitalists often take actions that are not disclosed to their LPs, such as undisclosed write-offs and fund performance metrics, which become known to LPs after a new fund is raised. These actions, once revealed, undermine investor confidence and hinder future fundraising efforts. Additionally, Lahr & Trombley, (2020) demonstrate that when VC firms engage in style drifts (investing outside their stated investment focus), they are less likely to raise new funds.

Beyond these behavioural factors, market-specific dynamics also play a crucial role in VC fundraising. Milosevic (2018) document in France that VC fundraising is significantly influenced by social networks, particularly those formed through previous public sector experience and top educational backgrounds. This contradicts findings from the US market, where capital commitments are typically associated with previous fund

performance(Cumming et al., 2005; Kaplan & Schoar, 2005), highlighting regional differences in fundraising dynamics.

Young VC firms face pressure to build their reputation and secure future funding. Gompers (1996) posits that younger and new established VC firms have stronger incentives than older VC firms to take their portfolio companies public early. This behaviour arises because VC funds are structured as limited partnerships with a predetermined lifespan of ten/twelve years. Consequently, venture capitalists are required to liquidate investments and distribute proceeds to limited partners (LPs) at the end of the fund's life (Gompers & Lerner, 1998). To remain active in the venture capital market, VCs must raise follow-on funds every three to five years. This pressure that young VC funds face to establish their reputation can lead to real wealth losses for limited partners, as their fundraising ability is more sensitive to their recent IPO performance compared to older VC firms.

It is also essential for VCs to preserve a high reputation if they want to be active players in the financial markets in the long-term. Better reputation grants financial benefits, which gives VCs the incentives to invest and gain reputation. For instance, Hsu (2004) shows evidence that offers from high-reputation VC firms are about three times more likely to be accepted by startups, and these VC firms acquire start-up equity at a discount of 10–14%, compared to less reputable VC firms. Thus, VCs are also having concerns regarding preserving and enhancing their reputation through better future performance.

Given the importance fundraising and reputation in venture capital, investing in green startups emerges as a possible strategic response to these pressures, due to the growing emphasis on sustainable investing. ESG considerations have gained significant importance in recent years. This is particularly true for investors interested in socially responsible and impact investing (Barber et al., 2021; Pedersen et al., 2021). Suggesting that investors are becoming more environmentally conscious in their investment decisions (Steblianskaia et al., 2023).

Green startups are positioned in a market with significant growth potential due to increasing global awareness and regulatory pressures around environmental sustainability. This sector's potential of high long-term returns can attract more capital commitments from LPs. In addition, investing in green startups aligns VC firms with sustainable investment trends. This strategic

alignment, coupled with green sector's growth potential of high long-term returns, positions VC firms to secure greater capital commitments for future funds from potential investors.

The signalling effect may encourage VCs to invest in green companies, which can differentiate these VC firms in the market, enhance their reputation to LPs, and can attract investors who are increasingly interested in ESG criteria. In other words, green investing can send a positive signal to institutional investors about a VC firm's reputation as a responsible investor, potentially boosting fundraising prospects.

Despite the growing focus on sustainable investing, limited studies have explored the role of green investments as a signal for VC quality and reputation and their subsequent impact on fundraising. This paper addresses three key questions to fill this gap: (1) How does green investing affect follow-on fundraising outcomes, including both the likelihood of raising and the amount raised? (2) Do these effects differ across lower- vs higher-reputation VC funds, and across regions (US vs EU)? (3) Is green investing associated with the timing of follow-on fundraising

The purpose of this paper is to examine whether VCs use green investing as a signal of their commitment to the green transition to raise capital for their subsequent funds, and whether the effect is the same across low vs high reputation VC funds. Additionally, we aim to explore whether this signalling approach is uniform across different regions (US and EU) or is more pronounced in one specific region. Finally, we study the effect of green investing of fundraising timing.

Our analysis combines VC fund data from LSEG Workspace (with green classification data from i3 Connect (Cleantech Group)). We study VC firms headquartered in the US and Europe over 2000 to 2022 period. The resulting sample comprises 3,538 unique funds managed by 2,067 VC firms and includes both first-time funds and follow-on funds. To test whether green investing operates as a signal to LPs, we focus on green investments made within fund (N) that occur before the final close of fund (N+1), namely, investments that are observable to LPs at the time of follow-on fundraising.

This paper shows that venture capitalists' green investing, particularly new green deals completed before the close of the next fund, is positively associated with follow-on fundraising

outcomes. Green activity prior to the next fund close predicts both a higher probability of raising a follow-on fund and a larger fund size, consistent with a signalling channel. The effects are strongest for lower-reputation VC funds (and first-time fundraisers) in terms of the likelihood of raising, whereas for higher-reputation VC funds the association is more evident in the amount raised for the follow-on fund. The results are similar across US and EU subsamples, and survival analysis further indicates that green investing is associated with faster follow-on fundraising.

The remainder of the paper is organised as follows. Section 2 presents the paper motivation. Section 3 describes the data and variable construction. Section 4 outlines the empirical specification. Section 5 presents and discusses the main results. Section 6 reports robustness analyses. Section 7 concludes.

2. Motivation

2.1 Fundraising

Fundraising is a central stage in the VC market because the VC partnership structure links the scale and survival of a VC firm to repeated access to external capital. LPs commit capital to sequential, finite-life funds, while general partners earn a substantial share of compensation through fee income tied to assets under management, and through carried interest that is reliant on fund outcomes. As a result, the ability to raise a follow-on fund is not merely an administrative step; it is a primary determinant of the general partner's expected lifetime payoffs and of the continuity of the VC firm. Chung et al., (2012) evaluates how general partners' lifetime incomes are influenced by fund performance through both carried interest and indirect earnings from future fundraising activities. They found that the indirect pay from future fundraising often equals or surpasses the earnings from direct carried interest.

Given the importance of fundraising to VCs, previous research studied many important factors affecting VC fundraising. Evidence from the fundraising literature highlights a strong relationship between prior fund performance and a VC firm's ability to raise and secure larger future funds. Kaplan & Schoar (2005) show that past performance is positively related to subsequent capital flows, including both the likelihood of raising a follow-on fund and the size of that fund. Chung et al., (2012) found similar results on VCs' future fundraising success and

subsequent earnings, indicating that better-performing funds are more likely to secure follow-on funding.

Market and regional factors also play a significant role. Gompers & Lerner (1998) Found that macroeconomic indicators such as GDP growth, stock market returns, R&D expenditures positively correlate with VC fundraising in the US market. However Jeng & Wells, (2000) report contradicting results from cross-country data; GDP growth and market capitalization growth have limited impact on VC funding, but they both prove that pension fund motives significantly influence VC fundraising. In the French VC market, Milosevic (2018) emphasises that fundraising is significantly influenced by social networks, particularly those formed through previous public sector experience and top educational institutions. This contradicts with findings from the US market, where capital commitments are typically associated with previous fund performance (Cumming et al., 2005; Kaplan & Schoar, 2005).

Interim performance and disclosure play a central role in fundraising outcomes because LPs face uncertainty about fund manager's quality and the state of underlying investments. Barber & Yasuda, (2017) show that interim fund performance predicts fundraising success and that fund managers time their fundraising for follow-on funds when interim performance is at its peak. They achieve this by exiting successful investments prior to fundraising and managing net asset values (NAVs) to present positive interim performance. This behaviour is more pronounced among less reputable VC firms.

Similarly, Brown et al. (2019) demonstrate that low-performing funds inflate reported returns during fundraising efforts. However, this manipulation does not significantly influence LPs' decisions, as these funds are less likely to raise subsequent funds successfully. By contrast, top-performing funds tend to understate their valuations. This approach reflects a desire to maintain a strong long-term reputation and to mitigate the impact of potential future underperformance.

However, deal-level evidence challenges a pure "NAV manipulation" interpretation. Using quarterly valuations at the deal level, Hüther, (2023) argues that patterns commonly interpreted as fundraising period inflation are more consistent with cohort effects and investment pressure, in which rushed or lower-quality investments made prior to fundraising underperform and contribute to the post-fundraising performance decline. This distinction matters for understanding fundraising incentives. The mechanism may operate not only through reporting

choices, but also through real investment decisions shaped by the demands of closing the next fund.

Fundraising incentives can also shape risk-taking activities and investment strategy. The earliest study of Gomper's (1996) shows that young VC firms have an incentive to take companies public sooner, as their fundraising ability is more sensitive to their recent IPO performance compared to older VC firms, suggesting that the pressure to establish a reputation can lead to real wealth losses for LPs.

Chakraborty and Ewens (2018) examine agency conflicts during fundraising on investment behaviour. They show that VCs delay the revelation of negative information until after a new fund is raised, even if such actions are ultimately revealed by LPs and penalised. They delay negative information to manipulate investment signals, which imposes significant economic costs on LPs. In particular, VCs strategically delay writing off poorly performing companies and delay re-investments in low-quality companies until after fundraising is completed because that would reveal underperformance. Thus, post-fundraising periods see significantly increased write-offs and reinvestments into weaker portfolio companies.

Moreover, Lahr & Trombley (2020) show how investment behaviours like style drift (investing outside the stated investment focus), frequent follow-on, and non-lead investments negatively affect VC fundraising outcomes. Buzzacchi et al., (2015) study investment stage drift in European VC funds and link drift to managerial incentives and market conditions. They show that compensation terms such as hurdle rates affect incentives to change risk, and that more reputable managers are more likely to shift towards later-stage investments, consistent with reputational considerations shaping risk choices. In this way, fundraising is connected not only to the size of future capital commitments, but also to the investment choices that determine whether a manager continues to match LPs objectives and constraints.

Crain, (2018) highlights career-concern incentives and explores how the need for follow-on capital influences VCs' risk-taking over time, highlighting that early outcomes can change subsequent investment choices in ways that are relevant for future fundraising prospects. Specifically, VCs avoid high-risk projects that, despite potentially high returns, might endanger their reputation and future fundraising capabilities. Yet, early success in fund performance leads VCs to take riskier investments later, shifting their strategy due to altered career concerns.

Taken together, prior research highlights why fundraising is an essential incentive moment. When performance signals are noisy and disclosure is imperfect, the fundraising event increases the actions that temporarily improve the appearance of performance. Fundraising outcomes are related to performance and reputation, but they are also shaped by the fund manager's choices about timing, disclosure, and investment strategy during fundraising windows.

These insights motivate studying signals that may affect investor beliefs at fundraising. The next section builds on this logic and considers why green investing may operate as one such signal, shaping perceived quality, legitimacy, and differentiation in ways that can translate into fundraising outcomes.

2.2 Signalling through green investing

Building on the importance of fundraising for VC firms, a natural next question is what determines LPs' willingness to recommit capital to a given VC firm. Recently, there has been an increasing emphasis on sustainability and ESG considerations in institutional capital allocation. Barber et al. (2021), for example, examine whether investors sacrifice financial returns in exchange for impact when investing in impact VC funds, and find that investors are willing to pay for impact by accepting lower expected returns. This willingness is strongest where missions, political/regulatory incentives, or reputational considerations raise the value of impact, and weakest where legal constraints discourage non-financial motives. By contrast, McCahery et al. (2022) show that LPs integrate ESG mainly because they believe it helps manage risk and improve financial performance, while general partners (GPs) integrate ESG largely in response to LPs demand for sustainable products. Thus, the increasing demand for sustainable investing suggests that investors are becoming more environmentally conscious in their investment decisions (Pedersen et al., 2021; Steblianskaia et al., 2023).

A growing set of LPs incorporate sustainability-related criteria into fund manager selection (Abraham et al., 2024; De Silva et al., 2024; Steblianskaia et al., 2023), such as preferencing fund managers with explicit ESG policies or requests for sustainability reporting. These requirements matter in the VC marketplace because this market is characterised by long horizons and high asymmetric information between fundraisers, which increases LPs' reliance on observable strategy attributes and credible green commitments when forming beliefs about

a VC's quality. If LP mandates require ESG integration, then VCs funds with credible green investing practices may face fewer screening frictions and access a larger pool of eligible capital. Conversely, VC funds without credible green investing practices may be excluded early in the process. Moreover, LPs may interpret ESG integration as part of risk management, particularly for transition, regulatory, and litigation risks. If sustainability orientation is perceived to improve the risk profile under adverse shocks, LPs may be more willing to commit larger amounts.

Additionally, green startups are positioned in a market with substantial growth potential due to growing global awareness and regulatory pressures about environmental sustainability. Thus, the relevance of green preferences to VC fundraising is strengthened by the role VC plays in enabling innovation. Prior work argues that VCs facilitate innovation in green ventures (Bellucci et al., 2023; Dong et al., 2021). This positions VC as a financing channel through which the direction and pace of technological change can be influenced. If sustainability transitions are viewed as shaping future markets and regulation, then a VC demonstrating ability to identify and finance green innovations may be perceived by LPs as relevant and potentially value-enhancing, rather than purely reputational. In combination with the screening frictions above, this makes credible green investing a plausible signal of both alignment with LP priorities and capability to identify future-relevant opportunities.

In competitive fundraising markets, green investing can differentiate a VC's positioning and alignment with LPs' priorities, especially for emerging fund managers who have less established reputations. This mechanism predicts a stronger association between green investing and fundraising success for smaller or younger GPs, where differentiation is most valuable.

Private equity (PE) evidence shows that ESG reporting is increasingly central to capital allocation and reputational positioning. Using global data on voluntary ESG disclosures, Abraham et al. (2024) document a steady rise in PE ESG reporting since 2000, especially in Europe and among GPs exposed to ESG-aware LPs. Importantly, they find that disclosure intensity is linked to faster fundraising and a higher likelihood of attracting UN PRI signatories, consistent with ESG reporting acting as a credible signal of ESG attention and capability to prospective LPs. Complementing this, Böni et al. (2022) provide global evidence that ESG transparency varies widely and is strongly investor-driven, supporting a signalling

interpretation: costly public transparency helps some GPs differentiate themselves in competitive fundraising environments, even where private communication is possible.

At the same time, PE research also highlights trade-offs. Böni et al. (2023) find that more transparent funds tend to raise more capital but may underperform relative to less transparent peers, suggesting that ESG transparency can be used strategically to win commitments even when it does not translate into superior financial performance. Communication strategies appear particularly noticeable around fundraising. Flam et al. (2025) show that PE firms increase press releases during fundraising and emphasise themes including ESG initiatives, with stronger benefits for smaller or lower-reputation firms. Yet, disclosure can also backfire. Analysing mandatory Form ADV brochures, Campbell et al. (2024) show that a higher volume of environmental disclosure, especially when negative in tone, is associated with lower likelihood of raising a new fund and reduced fundraising dollars, with stronger penalties among LPs from less ESG-friendly jurisdictions. Finally, beyond reporting, LPs discipline real environmental and social (E&S) outcomes. Duevski et al. (2023) document sizable fundraising penalties following portfolio-company E&S incidents, particularly among E&S concerned LPs, and evidence consistent with LPs “exit threats” inducing GPs’ engagement that reduces future incidents. Taken together, PE evidence implies that green reporting and green investing matter for fundraising and legitimacy.

The demand shift in LPs’ sustainability preferences and the frictions inherent in VC fundraising suggest that credible green investing can affect fundraising through eligibility, signalling, and differentiation. Accordingly, green investing might be associated with (i) a higher likelihood of raising a subsequent fund, and (ii) a larger subsequent fund size. These relationships should be strongest where LPs sustainability considerations are most noticeable (e.g., EU vs US) and where a VC’s fundraising challenges are larger (low-reputation vs high-reputation VC).

3.Data, Sample Construction, and Variables

3.1 Data Sources

This study utilises data collected from two databases: LSEG Workspace (formerly VentureXpert by SDC Platinum) and i3 Connect provided by the Cleantech Group. LSEG offers comprehensive information on VC funds and VC investment transactions. It includes

information on VC funds raised by VC firms, such as the fund's founding date, fundraising dates, capital raised, and location. LSEG employs a classification for investments termed “The Internet Technology Group,” which enables the identification of companies in cleantech sectors. However, the representation of cleantech companies in LSEG is notably limited.

To address this limitation, we utilised the i3 Connect database to gather data on green companies and venture deals across various cleantech sectors. Like LSEG, the i3 Connect database provides detailed information on VC-backed companies, VC investors, and VC investment transactions.

To ensure a thorough identification of green deals, we rigorously matched data between the two databases using company names, web domains, and countries using several and detailed approach**. We classify a company as green if it is covered by i3 Connect or its “Internet Technology Group” classification in LSEG is “Clean Technology”. The full VC deals sample includes all VC investments undertaken between 2000 and June 2024 by VC firms headquartered in the United States or Europe. We exclude financing events that do not correspond to venture capital financing stages (e.g., open-market purchases and VC partnerships).

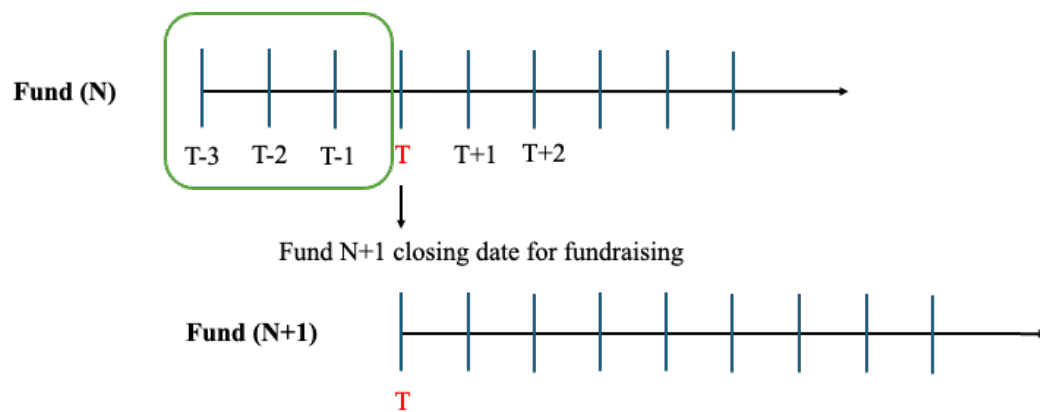
From this universe, we construct a fund-level sample based on the subset of financing events for which we can identify the specific VC fund providing capital (rather than observing only the investing VC firm). We focus on funds raised by VC firms founded after 1989. In addition, we require each fund to make at least one investment both before and after its final closing date, which helps ensure that the observed investment activity corresponds to an actively deployed fund over its lifecycle. We further exclude funds managed by corporate venture capital firms, buyout funds, and other non-traditional VC vehicles. Finally, we exclude funds first raised after 2022, as these funds are unlikely to have had sufficient time to raise a subsequent fund within our sample window. The resulting VC funds sample comprises 3,538

**The detailed data cleaning process is available upon request.

unique funds managed by 2,067 VC firms and includes both first-time funds and failed fundraisers.

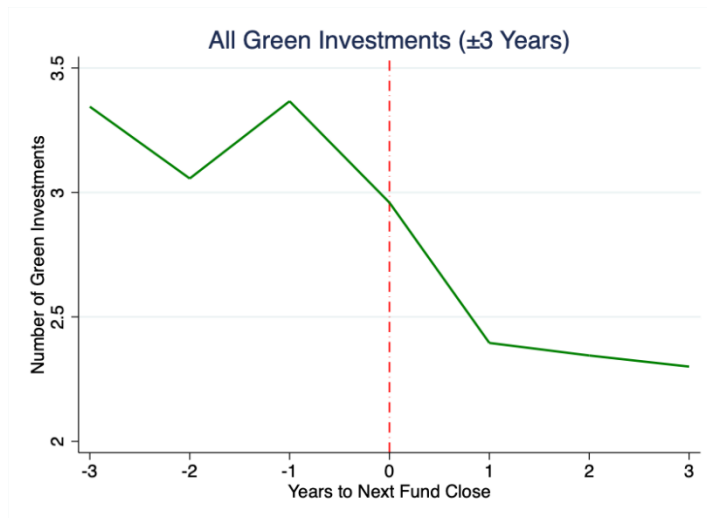
In our sample, the average VC has raised around three funds. Nevertheless, a noticeable number of venture capitalists do not succeed in raising a subsequent fund. Following Brown et al., (2019) and Chakraborty & Ewens (2018), we retain these VC funds in the analysis on the principle that they intended to raise a new fund but were unsuccessful.

3.2 Fund lifecycle



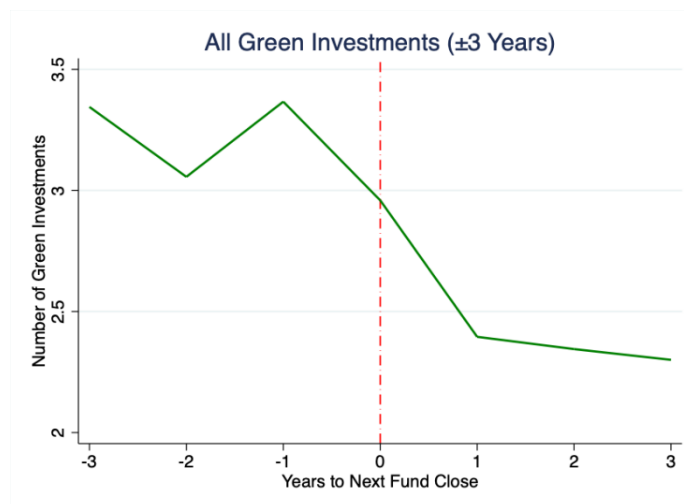
(Figure 1)

A typical VC fund's lifecycle constitutes two main periods: The initial investment period (usually from 1st to 5th year) and the follow-on investments period (usually from the 6th year to the last year). In the initial years of the fund life, VCs focus on heavy deal sourcing to select the most promising startup companies. In the following years, they tend to monitor and re-evaluate the value of their portfolio companies. VCs usually raise a new fund every three to six years. Thus, the investment period of the current fund overlaps with the next fundraising cycle. Figure (1) shows this overlapping nature.



(Figure 2)

Figure (2) plots the average number of green investments made by a VC fund (N) around the close of its subsequent fund (Fund N+1), where year 0 (the red dashed line) marks the final close of Fund (N+1). Green investment activity is relatively high in the three years before the following fund (N+1) closing date, and it peaks around one year before the next fund closes. After the close, green investment activity declines sharply and remains at a lower level in the following years. This pattern is consistent with the view that VCs may time green investments to the period immediately preceding fundraising, potentially using observable “green” deals as a signalling strategy to prospective limited partners, thereby facilitating the subsequent fundraise.



(Figure 3)

Figure (3) decomposes green investment activity into *new* green investments (solid line) and *follow-on* green investments (dashed line) around the final close of Fund (N+1) (year 0). The increase in overall green investing prior to fundraising is driven primarily by *new green deals*;

new green investments rise steadily and peak about one year before the close, then fall sharply after year 0 and continue to decline in the post-close period. By contrast, *follow-on* green investments are comparatively flatter before the close and become slightly more prominent after fundraising. This pattern suggests that the pre fundraising close concentration reflects VCs initiating *new* green investments, rather than simply re-investing in existing ones, consistent with an interpretation of *new* green investments as a more visible signalling action for the next fundraising.

3.3 Key variables

Figure 1 illustrates how the overlap between successive funds is used to construct the variables of interest. Consider a VC whose fund (N) makes investments between 2003 and 2010, and whose subsequent fund (N + 1) reaches its final fundraising close in 2006. In this case, the indicator *Before Fund (N+1) close* equals one for investments made by fund (N) between 2003 and 2006, and zero for investments made after 2006.

Formally, for each investment undertaken by a VC from fund (N), we compare the investment date with the final close date of the VC's fund (N + 1). We then define *Before Fund (N+1) close* as an indicator equal to 1 if the investment occurs prior to the final close of fund (N + 1), and 0 otherwise. Following Chakraborty & Ewens (2018), for funds that do not raise a next fund, we proxy the (unobserved) next-fund closing date as the point at which the current fund has deployed 65% of its investments. In some specifications, we exclude VC that failed to raise a subsequent fund. For example, when running the follow-on fund size regressions.

Within this pre-close window, we identify all *green* investments. Among these, we further classify *new green investments* as those in which fund (N) makes the first investment in the portfolio company (i.e., the VC's initial investment in that start-up).

Using these investment-level measures, we construct our main fund-level variables: *No. of new green deals before Fund (N+1) close*: the count of unique new green investments made by fund (N) prior to the final close of fund (N + 1). *Ln (No. of new green deals before Fund (N+1) close)*: the natural logarithm of the count of unique new green investments made by fund (N) prior to the final close of fund (N + 1). *Green deal before Fund (N+1) close ?*: a binary

indicator equal to 1 if fund (N) undertakes at least one green investment prior to the final close of fund (N + 1), and 0 otherwise.

3.4 Controls

We include a set of controls commonly used in the literature on cross-sectional differences in VC fundraising outcomes. Prior research shows that more established and larger VC firms tend to raise larger funds. Gompers and Lerner (1998) document that older and larger VC firms are more likely to raise greater amounts of capital than younger and smaller peers. Accordingly, we control for *VC firm age*, measured as the natural logarithm of the firm's age in years, and for *VC firm size*, measured as the natural logarithm of the cumulative investment amounts invested by the VC firm up to the observation year (Hochberg, Ljungqvist and Lu, 2007).

We also account for geographic segmentation in venture capital markets. VC firms operating in the same location at the same time are likely to face a similar investment opportunity set, as the VC industry remains geographically segmented (Chen et al., 2010). Given that our sample include VC funds in both the United States and Europe, we include a *US VC* indicator equal to one if the VC firm is headquartered in the United States and zero if headquartered in Europe.

To control for time-varying macroeconomic and institutional determinants of fundraising, such as capital gains taxation, interest rates, and regulatory changes affecting institutional investors (Gompers & Lerner, 1998; Jeng & Wells, 2000; Poterba, 1989), we include fund vintage year fixed effects. These time dummies also capture broader shifts in market conditions that may influence fundraising, including changes in liquidity (Cumming et al., 2005) and aggregate economic growth (Gompers & Lerner, 1998).

Finally, to disentangle the effect of green investment activity from overall investment activity, we control for the composition of the fund's investment profile prior to Fund (N+1)'s final close. Specifically, we include the ratio of green to non-green investments made before the Fund (N+1) final close date. This addresses the concern that our key results might be driven by funds that are predominantly green, and allows us to test whether green investments themselves, rather than simply "green funds", are associated with a distinct signalling effect.

3.5 Summary statistics

(Insert Table 1 here)

Table 1 reports summary statistics at the VC fund, firm, and deal levels for the main variables used in the analysis. At the fund level (Panel A), the variable *Raised fund?* has a mean of 0.497, implying that around half of funds are followed by a subsequent fund close. The typical VC firm is relatively young at the time of fundraising (mean age 6 years; median 4), and the average fund size is around 121.6 million dollars. The majority of VC firms in our sample are located in the US (i.e. 77%) Conditional on observing a next fund, the average time between a current fund and the following fund ($N+1$) is about three years (i.e. mean 2.96; median 3), though the range is wide (0 to 19 years). Funds undertake an average of 20 deals, while takes only 2 green deals on average. New green deals occurring before the close of fund $N+1$ are less frequent (mean 1; median 0), and the average share of new green deals before fundraising (*Ratio of new green deals before Fund($N+1$) close*) is 0.119 with a median of zero. Consistent with this, only 35% of funds make at least one green investment prior to the close of the next fund (*Green deal before Fund($N+1$) close?* = 0.350).

Panels B and C describe the broader activity of VC firms and the characteristics of individual investment deals. At the firm level (Panel B), VC firms manage on average three funds and 59.5% of firms raise more than one fund. At the deal level (Panel C), 10.9% of observations are classified as green (mean = 0.109). Majority of investments in our sample typically represent the second round (median = 2), with deal stages distributed across seed/early (45.3%), expansion (30.2%), and later-stage (24.4%) rounds. Deals have, on average, four participating investors, and portfolio companies are relatively young at the time of investment (mean age 6 years; median 5). Company size, measured by total capital raised, averages \$67.8m, with a wide range, indicating a mix of small and very well-funded companies.

(Insert Table 2 here)

Table 2 compares VC firm and fund characteristics across green versus non-green investments. Panel A shows that, relative to non-green investments, green investments are undertaken by VC firms with lower reputation (mean 0.0019 vs 0.0030); and smaller VC firms (mean \$1,196m vs \$1,542m). In addition, VC firms that take green investments manage fewer funds

on average, and fewer number of deals (200 vs 264). In terms of geography, green investments are less likely to involve US-based VC firms (0.770 vs 0.831). In other words, green investments are more likely to be backed by EU VC firms because sustainability and environmental goals is stronger in EU region.

Panel B reports comparisons of fund characteristics. Green investments are linked to smaller funds (mean \$171m vs \$210m) and lower deal counts (39 vs 50), while fund sequence is similar across the two groups (third fund on average in both). As expected, green investments occur in funds with substantially more green deals (mean 11 vs 3).

3.6 When Do VCs Make Green Investments ?

(Insert Table 3 here)

Table 3 reports the results from probit models of the probability that an investment is green. All columns show the average marginal effects and controlling for investment-year fixed effects. Across the full sample in column 1, VC firm age is negatively related to green investing suggesting that green investments are more likely to be taken by younger VC firms. This result is consistent with view that less established VC are more likely to use green investing as a signal.

Moreover, in Column 2 we added a VC reputation measure, as we see the outcome is negative and significant at 1% statistical level, suggesting that green investments are more likely to be taken by low reputation VC firms. Investments made by US based VC firms are consistently less likely to be green across specifications, this is consistent with the view that EU based VC firms are more interested in environmental green investing. In terms of investment characteristics, green investments are older and larger from non-green investments at the time of the investments.

Columns (3) and (4) restrict the sample to investments made by funds that have a subsequent fund (the “raised fund” sample) and introduce our key timing measure. The indicator *Before Fund (N+1) close* is positive and highly significant: green deals are 2.2 percentage points more likely when the investment occurs before the final close of the VC’s next fund, consistent with

green investing being concentrated in the fundraising window. The effects of company age, company size, and US VC status remain similar in sign and magnitude in the restricted sample.

4. Empirical strategy

4.1 Baseline specification

The two main empirical specifications that we use in the following sections are a probit model and an OLS model with fund vintage year fixed effects. To test whether VCs use green investments to increase the likelihood of raising a following fund (N+1), we first consider a probit model where the dependent variable $RaisedFund_{i,N+1}$ is a dummy variable that takes the value of one if a specific VC fund (N) of a VC firm i raised a following fund (N+1), and zero otherwise. The probit specification function of the first main model is as follows:

$$Pr(RaisedFund_{i,N+1} = 1) = \Phi(\beta_0 + \beta_1 No.NewGreenDeals_{i,N+1}^{pre-close} + \beta X_{i,N} + \gamma_\tau) \quad (1)$$

where $\Phi(\cdot)$ is the cumulative distribution function of the standard normal distribution. The vector of controls, $X_{i,N}$, includes the VC firm i characteristics at fund (N): $\ln(1 + VC \text{ firm } i \text{ size})$, $\ln(1 + VC \text{ firm } i \text{ age})$, an indicator for US-based VC firms, and the *Ratio of new green deals before Fund (N+1) close*. Detailed variables definitions are in Table A1. The term γ_τ denotes current fund (N) vintage year fixed effects. The main variable of interest $No.NewGreenDeals_{i,N+1}^{pre-close}$ represent the number of new green deals of fund (N) taken before the close date of fund (N + 1).

Second, we use an OLS model with fund (N) vintage year fixed effects and fund (N+1) vintage year fixed effects to test whether green investments, taken before the fund (N + 1) close date, affect the amount of fund (N+1) size. The second model specification is as follows:

$$Y_{i,N+1} = \beta_0 + \beta_1 No.NewGreenDeals_{i,N+1}^{pre-close} + \beta X_{i,N} + \gamma_\tau + \gamma_{\tau(N+1)} + \varepsilon_{i,N+1} \quad (2)$$

Here $Y_{i,N+1}$ is the natural log of fund (N+1) size. The vector of controls, $X_{i,N}$, includes the VC firm i characteristics at fund (N): $\ln(1 + VC \text{ firm } i \text{ size})$, $\ln(1 + VC \text{ firm } i \text{ age})$, an indicator for US based VC firms, and the *Ratio of new green deals before Fund (N+1) close*. The term γ_τ

denotes current fund (N) vintage year fixed effects, and $\gamma_{\tau(N+1)}$ denotes fund (N+1) vintage year fixed effects. The main variable of interest $No.NewGreenDeals_{i,N+1}^{pre-close}$ represent the number of new green deals of fund (N) taken before the close date of fund (N + 1). $\varepsilon_{i,N+1}$ is an idiosyncratic error term.

4.2 Timing model

We also study the timing of subsequent fundraising using a Cox proportional hazards model. Let T_{iN} denote the time (in months) from the close of VC firm i 's current fund (N) to the close (or first close) of its next fund (N + 1). Funds for which a subsequent fund is not observed within the sample window are treated as right-censored at the end of the observation period. We estimate:

$$h_{i,N}(t | X_{i,N}) = h_0(t) \exp(\beta_1 No.NewGreenDeals_{i,N+1}^{pre-close} + \beta X_{i,N} + \gamma_{\tau}) \quad (3)$$

where $h_{i,N}(t | X_{i,N})$ is the hazard that VC firm i raises a subsequent fund at time t after fund (N)'s close, $h_0(t)$ is the unspecified baseline hazard, $No.NewGreenDeals_{i,N+1}^{pre-close}$ is our main measure of new green deal activity prior to fund close, $X_{i,N}$ includes control variables, and γ_{τ} are current fund vintage year fixed effects. Standard errors are clustered at the VC-firm level.

In this model, coefficients are interpreted in terms of hazard ratios: a positive coefficient implies a higher hazard of raising the next fund (i.e., a shorter time to subsequent fundraising), while a negative coefficient implies a lower hazard (i.e., a longer time to raise the next fund).

5. Results

5.1 Main results: fundraising success and the amount raised

(Insert Table 4 here)

Table 4 examines whether green investing activity is associated with (i) the likelihood that a VC fund raises a follow-on fund Fund (N+1) and (ii) the size of that follow-on fund. Columns (1) to (5) use alternative measures of green investing. For the binary outcome *Raised fund?*,

we estimate probit models and report average marginal effects, so coefficients can be interpreted as changes in probability (in percentage points). All specifications include vintage year fixed effects, and the reported p-values are robust.

Across all specifications, green investing is positively associated with the probability of raising Fund (N+1). In column (1), an additional green deal in fund (N) is associated with a 0.9 percentage point higher probability of raising a follow-on fund. In column (2), an additional green portfolio company is associated with a 2.2 percentage point higher probability. However, we then consider only the new green investments that happened before Fund (N+1) closing date because these investments are observable by LPs before fundraising and would reflect the signalling effect. The association is strongest for measures capturing *new* green activity prior to the closing of Fund (N+1); each additional new green deal before Fund (N+1) close is linked to a 2.6 percentage point higher probability of fundraising (column 3). Using the log specification in column (4), the estimates imply that a doubling of new green deals taken before Fund (N+1) close is associated with an increase in the probability of raising the following fund of approximately 6 percentage points. Consistent with a “presence of green activity” channel, the dummy indicator for at least one green deal before close in column (5) is associated with an 8.9 percentage point higher fundraising probability. These results confirm that green investing is considered a significant signalling strategy that facilitates follow-on fundraising for VCs.

Turning to the size of Fund (N+1), the results indicate that *new* green investing prior to closing is also associated with larger follow-on funds. In column (8), each additional new green deal before Fund (N+1) close is associated with roughly a 9% larger fund, column (9) provides consistent results. Among controls, VC firm size is positively and strongly related to both the likelihood of fundraising and fund size, while VC firm age is not statistically related to the fundraising indicator but is negatively associated with fund size. Overall, the estimates suggest that green investing, particularly *new* green deal activity before the next fund close, is associated with both a higher likelihood of raising a following fund and, a larger fund size.

5.2 Heterogeneity across VC reputation

(Insert Table 5 here)

Table 5 shows substantial heterogeneity by VC reputation. In Panel A, for low-reputation VC firms, green investing is strongly associated with the likelihood of raising Fund (N+1); each additional new green deal completed before the Fund (N+1) close is associated with a 2.8 percentage point higher probability of raising, and having at least one green deal is associated with a 9.9 percentage point higher probability. However, these green measures are not significantly related to the size of Fund (N+1) within the low-reputation subsample. In contrast, in Panel B, for high-reputation VC firms, green investing does not significantly affect the probability of raising Fund (N+1), but is positively associated with the amount raised. An additional new green deal is linked to roughly a 10% larger follow-on fund. Overall, the results suggest that for low reputation VC firms, green investing is more significant as a signalling strategy since they face larger challenges when raising a following fund, while for high reputation VC firms, it is used more as a tool to raise larger follow-on funds. Our results are consistent with previous findings about the higher incentives of low reputation VC firms to take actions before fundraising to ‘grandstand’ and establish their reputation and raise capital for new funds. (Amor & Kooli, 2020; Giot et al., 2014; Gompers, 1996). Also, the results suggest that the growing institutional demand for green investments would create fundraising opportunities for both low- and high-reputation VC firms, but through fundamentally different mechanisms. For instance, for low-reputation VC firms, green deals may serve as a reputation-building tool, signalling quality and strategic differentiation in the VC market, to attract LPs who are concentrating on sustainable investing. In contrast, high-reputation VC firms may employ green deals to reinforce their position and maintain their relationship with current LPs, where ESG involvement is becoming central to capital allocation.

(Insert Table 6 here)

In Table 6, we used another measure for reputation. We split the sample by VCs raising their first funds versus VCs that are not first-time fundraisers. First time fundraisers are younger and have shorter track record, and therefore less reputed, so they might be more willing to employ green investing for signalling. The patterns are highly consistent with the heterogeneity documented in Table 5. Among first-time fundraisers (Panel A), green investing prior to the close of Fund (N+1) is strongly associated with the likelihood of raising a follow-on fund; each additional new green deal is linked to a 3.8 percentage point higher fundraising probability. However, these green measures are not significantly related to the size of Fund (N+1) for first-time fundraisers. By contrast, for VCs that are not first-time fundraisers (Panel B), green

activity does not significantly affect the probability of raising Fund (N+1), but it is positively associated with the amount raised; an additional new green deal before close is associated with about a 10% larger follow-on fund, and the log specification again points to economically meaningful effects. Overall, this alternative reputation proxy reinforces the interpretation that green investing operates primarily as a signalling device for less-established VC funds, whereas for more established fundraisers it is more closely related to raising larger funds rather than to simply raising at all.

5.3 Regional Heterogeneity: US vs EU

(Insert Table 7 here)

Table 7 explores whether the relationship between green investing and follow-on fundraising differs across regions by estimating our baseline specifications separately for US and EU VC firms' subsamples. Panel A (US subsample) shows that observable green activity before the closing of Fund (N+1) is strongly associated with both the likelihood of raising and the size of the follow-on fund. In column (1), Each additional new green deal before Fund (N+1) close is associated with a 2.6 percentage point higher probability of raising the next fund. In column (3), simply having at least one green deal prior to close is associated with a 7.7 percentage point higher probability of follow-on raising, consistent with a “presence of green activity” channel.

Turning to the amount raised, the results are also economically meaningful. In column (1), an additional new green deal is associated with an approximately 9% larger follow-on fund, and In contrast, the binary indicator is not significantly related to follow-on fund size in the US subsample, suggesting that intensity of green activity matters more than mere participation when explaining the amount raised.

Panel B (EU subsample) indicates a similarly positive, and in some cases stronger, association between green investing and fundraising outcomes. Similar to Panel A, each additional new green deal before close is linked to a 2.9 percentage point higher probability of raising Fund (N+1), and the presence indicator is associated with a particularly large 15.1 percentage point increase in fundraising likelihood (column 3), suggesting that the green investing incentive to raise a following fund is not mainly driven by regional differences. For fund size in column (4), an additional new green deal is associated with a 12% larger follow-on fund.

Overall, the regional results show that green investing prior to the closing of the next fund is positively associated with follow-on fundraising in both the US and EU. The EU estimates suggest a comparatively stronger role for the extensive margin (having at least one green deal) in predicting whether a follow-on fund is raised, while in the US the intensive margin (the number of green deals) appears more closely linked to the size of the follow-on fund.

5.4 Fundraising timing

(Insert Table 8 here)

Table 8 examines whether green investing is associated with faster follow-on fundraising using a Cox proportional hazards model, where the dependent variable is the time until Fund (N+1) is raised. We report hazard ratios, so estimates above one indicate a higher fundraising hazard (i.e., a shorter time to raise the next fund). Across all specifications, green activity undertaken before the close of Fund (N+1) is associated with significantly faster fundraising. In column (1), each additional new green deal prior to the next fund close is associated with a 6.1% higher hazard of raising Fund (N+1) (hazard ratio = 1.061), implying that VC funds with more observable green activity raise follow-on funds more quickly. Using the log specification in column (2), the hazard ratio of 1.223 indicates that greater green intensity is strongly related to faster fundraising. Consistent with an extensive-margin effect, column (3) shows that simply having at least one green deal before the next fund closes is associated with an 18.7% higher hazard (hazard ratio = 1.187). Overall, these results suggest that green investing not only increases the likelihood of raising a follow-on fund but is also associated with raising it faster.

6. Robustness

(Insert Table 9 here)

To address the concern that follow-on fund size is observed only for VC firms that successfully raise a following fund, and that this selection into fundraising is unlikely to be random, we estimate a Heckman (1979) two-stage selection model. The first-stage selection equation models the probability that a VC raises Fund (N+1), while the second-stage outcome equation explains the log size of Fund (N+1) conditional on being observed. Identification relies on an

exclusion restriction; a variable that affects the likelihood of raising a fund but does not directly determine fund size once a fund is raised.

For the selection equation, we construct an instrument capturing distance to institutional LPs hubs. Specifically, for each VC firm, we compute the distance between its headquarters and a set of major LP hubs (US: New York, Boston, San Francisco; Europe: London, Paris, Frankfurt, Zurich), and take the minimum distance across hubs. We then use *ln_dist_hub*, the log of this minimum distance, as the excluded variable. The intuition is that greater distance increases search and relationship building costs (meetings, networking, repeated interactions), reducing the probability of successfully closing a follow-on fund (relevance). Conditional on successfully raising, however, follow-on fund size should primarily reflect the VC's track record, strategy, and LP demand, while marginal travel frictions mainly operate on the extensive margin (raise vs. not) rather than the intensive margin (how large), confirming the exclusion criteria. The selection equation includes fund-vintage-year fixed effects, and standard errors are clustered at the VC firm level.

Table 9 supports both the relevance of the instrument and the main green-investing result. In column (1), *ln_dist_hub* is negative and highly significant, implying that VC firms located farther from major LP hubs are less likely to raise a follow-on fund. Importantly, even after accounting for this selection, the key green measure remains strongly related to fundraising outcomes; each additional new green deal before Fund (N+1) close is associated with a higher probability of raising Fund (N+1) (selection-stage coefficient 0.074, $p < 0.01$). In the outcome equation (column (2)), the same measure is also positively associated with follow-on fund size. Conditional on raising, one additional new green deal prior to close predicts an approximately 9% larger Fund (N+1) (coefficient 0.089). At the same time, the estimated inverse Mills ratio is statistically insignificant, suggesting limited evidence that unobservables driving the selection into fundraising are systematically correlated with unobservables determining fund size once a fund is raised. This result indicates that sample selection is unlikely to be the primary driver of the estimated green investing signal and fund size relationship, while the Heckman framework still serves as a conservative robustness check given that fund size is only observed for funds that successfully close.

7. Conclusion

This paper studies whether venture capitalists use green investing as a signal to improve follow-on fundraising outcomes, including both the likelihood of raising a subsequent fund and the amount raised. Using VC fund data from LSEG Workspace matched with i3 Connect, we study US and European VC firms over the 2000-2022 period. We focus on green investments in the current fund that occur before the final close of the next fund to capture an observable action to LPs at the time of follow-on fundraising. We find a positive association between green activity occurring prior to the close of the next fund and follow-on fundraising success. Green activity is also associated with larger follow-on fund sizes.

The results further reveal economically meaningful heterogeneity by VC reputation. For lower-reputation VC firms and first-time fundraisers, green investing is most strongly linked to raising a follow-on fund, whereas for higher-reputation VC the relationship is more evident in raising larger amounts for the follow-on fund. This pattern is consistent with the idea that less-established VC firms use observable green investments as a reputation-building or differentiation strategy when facing stronger constraints in attracting capital, while established VC firms may leverage green investing to maintain relationships with capital providers and meet increasing LPs demand for ESG-aligned exposure. Regional analyses indicate that these relationships hold in both the US and EU, suggesting that the fundraising relevance of green investing is not limited to a single market. Survival analysis further shows that green investing is associated with faster follow-on fundraising, implying that observable green activity may both improve fundraising prospects and shorten fundraising duration.

These findings contribute to the venture capital and sustainable finance literatures by documenting that observable green investing is systematically related to subsequent fundraising outcomes in line with a signalling interpretation. For practitioners, the results suggest that observable and timely green deal activity may be strategically important in fundraising cycles, especially for managers with limited track records.

A possible limitation of our analysis is that our green measure relies on a cleantech classification and may not capture broader ESG-oriented investments or the degree of ESG integration outside cleantech. Consequently, our findings should be interpreted as relating

specifically to observable green activity, rather than ESG engagement more broadly. Future research may further assess whether these fundraising gains translate into superior performance or improved outcomes for LPs, and study whether signalling effects differ across varying degrees of LPs ESG mandates.

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Tables

Table 1: Summary Statistics

The Table provides summary statistics for the sample of 2,067 VC firms that raised any funds in the period of 2000 -2022. Panel A presents summary statistics for all VC funds observations. Panel B presents statistics at VC firm level. Panel C presents VC deals' statistics. All variable definitions are in Table A1.

Panel A: VC fund level stats

	N	Mean	Median	Min	Max
Raised fund?	3,562	0.497	0	0	1
VC firm age	3,562	6	4	1	23
VC fund size (mills \$)	3,054	121.55	55.00	1.65	1250.00
VC firm size (mills \$)	3,562	666.565	75	0.50	16310.31
US VC	3,562	0.770	1	0	1
Years to next fund	1,821	2.96	3	0	19
No. of deals	3,562	20	12	1	311
No. of green deals	3,562	2	0	0	36
No. of new green deals before Fund (N+1) close	3,562	1	0	0	11
Ratio of new green deals before Fund (N+1) close	3,562	0.119	0	0	1
Green deal before Fund (N+1) close ?	3,562	0.350	0	0	1

Panel B: VC firm level stats

No. of funds	2,067	3	2	1	156
VC firm had follow-on fund?	2,067	0.595	1	0	1
Total No. of deals	2,067	71	27	2	1771
Total No. of green deals	2,067	7	1	0	278

Panel C: Deal stats

Green	66,122	0.109	0	0	1
Round number	66,122	3	2	1	29
Seed/Early	66,121	0.453	0	0	1
Expansion	66,121	0.302	0	0	1
Later	66,121	0.244	0	0	1
Fund Sequence	66,122	3	2	1	48
No. of investors	66,122	4	4	1	52
Company age	60,358	6	5	1	21
Company size (mills \$)	64,692	67.759	30.742	0.001	680.230

Table 2: Descriptive statistics of Green vs Non-Green Deals

Panel A presents VC firms' characteristics of green deals and non-green deals. Panel B presents VC funds' characteristics of green deals and non-green deals

Panel A: VC Firms
characteristics

	Green investments			Non- green investments			Diff. / tstat
	N	Mean	Median	N	Mean	Median	
VC Reputation	7,196	0.0019	0.0004	58,735	0.0030	0.0010	-0.0011*** (-18.73)
VC firm Size (mills \$)	7,196	1,196.06	324.88	58,735	1,542.11	442.68	-346.05*** (-6.59)
No. of funds	7,222	6	4	58,890	7	5	-1.00*** (-11.59)
Total No. of deals	7,222	200	85	58,890	264	128	-64.00*** (-16.05)
U.S. VC	7,222	0.770	1	58,890	0.831	1	-0.061*** (-12.97)

Panel B: VC Funds characteristics

	Green investments			Non- green investments			Diff. / tstat
	N	Mean	Median	N	Mean	Median	
VC fund size (mills \$)	6,277	171.41	92	52,005	210.25	110	-38.84*** (-8.32)
Fund Sequence	7,228	3	2	58,894	3	2	-0.00** (-3.15)
No. of Deals	7,228	39	25	58,894	50	34	-10.58*** (-17.50)
No. of green deals	7,228	11	7	58,894	3	1	7.721*** (98.86)

Table 3 : Green investments probabilities and VC characteristics

The table reports probit model estimates at deal level with the binary dependent variable Green, that equal 1 if the deal is green and 0 otherwise. Models 1 and 2 shows the results of the full sample for deals financed by all funds. Model 3 and 4 focus on the sample of deals financed by funds that raised a following fund. All variables' definitions are in the appendix Table A1.

	Pr(Green)			
	(1)	(2)	(3)	(4)
Before Fund(N+1) close			0.022*** (0.000)	0.017*** (0.001)
Ln (1+VC firm age)	-0.012*** (0.000)	-0.001 (0.729)	0.002 (0.663)	0.015*** (0.002)
VC Reputation		-4.898*** (0.000)		-4.513*** (0.000)
Ln (1+Company age)	0.018*** (0.000)	0.016*** (0.000)	0.012** (0.016)	0.009* (0.073)
Ln (Company size)	0.010*** (0.000)	0.013*** (0.000)	0.008*** (0.000)	0.011*** (0.000)
U.S. VC	-0.046*** (0.000)	-0.038*** (0.000)	-0.041*** (0.000)	-0.030*** (0.000)
Observations	59,015	58,946	37,664	37,635
Raised fund sample?			YES	YES
Investment Year FE	YES	YES	YES	YES
Log Likelihood	-19841	-19721	-11901	-11816
chi2	512.0	524.1	361.6	370.6

pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 4: Green Investing and follow-on Fundraising: Probability and Amount Raised

This table reports the association between green investing activity and fundraising outcomes. Models (1)–(5) estimate probit models for the likelihood that a VC fund raises a follow-on fund where the dependent variable *Raised fund?* takes the value of 1 for funds that subsequently raised a following fund, and 0 otherwise. We report marginal effects for probit results to facilitate economic interpretation. Columns (6)–(10) estimate OLS models for ln(Fund (N+1) size). All models include vintage year fixed effects and, for fund size regressions, Fund (N+1) vintage year fixed effects as well, with p-values shown in parentheses.

	Raised fund?					ln(VC Fund (N+1)size)				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
No. of green deals	0.009*** (0.001)					0.001 (0.865)				
No. of green companies		0.022*** (0.001)					0.036 (0.173)			
No. of new green deals before Fund (N+1) close			0.026*** (0.001)					0.090*** (0.000)		
Ln (No. of new green deals before Fund (N+1) close)				0.097*** (0.000)					0.254*** (0.002)	
Green deal before Fund (N+1) close ?					0.089*** (0.000)					0.092 (0.197)
Ln (1+VC firm size)	0.067*** (0.000)	0.067*** (0.000)	0.067*** (0.000)	0.067*** (0.000)	0.068*** (0.000)	0.419*** (0.000)	0.415*** (0.000)	0.411*** (0.000)	0.414*** (0.000)	0.419*** (0.000)
Ln (1+VC firm age)	-0.016 (0.150)	-0.015 (0.199)	-0.015 (0.195)	-0.014 (0.191)	-0.016 (0.153)	-0.307*** (0.001)	-0.302*** (0.001)	-0.298*** (0.001)	-0.301*** (0.001)	-0.306*** (0.001)
U.S. VC	0.019 (0.340)	0.024 (0.244)	0.021 (0.297)	0.021 (0.316)	0.019 (0.344)	-0.072 (0.376)	-0.070 (0.398)	-0.076 (0.360)	-0.081 (0.334)	-0.076 (0.352)
Ratio of new green deals before Fund (N+1) close	-0.083 (0.105)	-0.126** (0.037)	-0.116** (0.047)	-0.170** (0.011)	-0.122** (0.036)	-0.051 (0.848)	-0.295 (0.384)	-0.544* (0.066)	-0.536* (0.067)	-0.158 (0.474)
Observations	3,559	3,559	3,559	3,559	3,559	1,439	1,439	1,439	1,439	1,439
Vintage Year FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Fund (N+1) Vintage Year FE	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES
Adj. R2	0.145	0.146	0.146	0.147	0.146	0.221	0.222	0.226	0.225	0.221

*** p<0.01, ** p<0.05, * p<0.1

Table 5: Green Investing and Follow-on Fundraising: Evidence by VC Reputation

This table reports whether the association between green investing activity and fundraising outcomes varies by VC reputation. We split the sample into low-reputation VCs (Panel A) and high-reputation VCs (Panel B) and estimate the same specifications within each subsample. Models (1)–(5) estimate probit models for the likelihood that a VC fund raises a follow-on fund where the dependent variable Raised fund? takes the value of 1 for funds that subsequently raised a following fund, and 0 otherwise. We report marginal effects for probit results to facilitate economic interpretation. Models (6)–(10) estimate OLS models for ln(Fund (N+1) size). All models include vintage year fixed effects and, for fund size regressions, Fund (N+1) vintage year fixed effects as well, with p-values shown in parentheses.

Panel A: Low Reputation VC subsample.

	Raised fund?			ln(VC Fund (N+1)size)		
	(1)	(2)	(3)	(1)	(2)	(3)
No. of new green deals before Fund (N+1) close	0.028*** (0.005)			0.058 (0.254)		
Ln (No. of new green deals before Fund (N+1) close)		0.109*** (0.004)			0.125 (0.499)	
Green deal before Fund (N+1) close ?			0.099** (0.022)			0.015 (0.947)
Observations	1,362	1,362	1,362	403	403	403
Controls	YES	YES	YES	YES	YES	YES
Vintage Year FE	YES	YES	YES	YES	YES	YES
Fund (N+1) Vintage Year FE	NO	NO	NO	YES	YES	YES
Adj. R2	.	.	.	0.176	0.174	0.173

Panel B: High Reputation VC subsample

	Raised fund?			ln(VC Fund (N+1)size)		
	(1)	(2)	(3)	(1)	(2)	(3)
No. of new green deals before Fund (N+1) close	0.008 (0.364)			0.100** (0.018)		
Ln (No. of new green deals before Fund (N+1) close)		0.032 (0.356)			0.266** (0.031)	
Green deal before Fund (N+1) close ?			0.039 (0.260)			0.018 (0.878)
Observations	1,371	1,371	1,371	691	691	691
Controls	YES	YES	YES	YES	YES	YES
Vintage Year FE	YES	YES	YES	YES	YES	YES
Fund (N+1) Vintage Year FE	NO	NO	NO	YES	YES	YES
Adj. R2	.	.	.	0.201	0.198	0.194

*** p<0.01, ** p<0.05, * p<0.1

Table 6: Green Investing and Follow-on Fundraising by Fund Sequence: First Fund versus Non-First Fund Subsamples

This table reports whether the association between green investing activity and fundraising outcomes differs by VC fund sequence. We split the sample into first-time VC funds (Panel A) and non-first (follow-on) VC funds (Panel B) and estimate identical specifications within each subsample. Models (1)–(5) estimate probit models for the likelihood that a VC fund raises a follow-on fund where the dependent variable Raised fund? takes the value of 1 for funds that subsequently raised a following fund, and 0 otherwise. We report marginal effects for probit results to facilitate economic interpretation. Models (6)–(10) estimate OLS models for ln(Fund (N+1) size). All models include vintage year fixed effects and, for fund size regressions, Fund (N+1) vintage year fixed effects as well, with p-values shown in parentheses.

Panel A: First VC Fund subsample

	Raised fund?			ln(VC Fund (N+1)size)		
	(1)	(2)	(3)	(1)	(2)	(3)
No. of new green deals before Fund (N+1) close	0.038*** (0.000)			0.061 (0.211)		
Ln (No. of new green deals before Fund (N+1) close)		0.158*** (0.000)			0.234 (0.106)	
Green deal before Fund (N+1) close ?			0.151*** (0.000)			0.207 (0.150)
Observations	1,616	1,616	1,616	571	571	571
Controls	YES	YES	YES	YES	YES	YES
Vintage Year FE	YES	YES	YES	YES	YES	YES
Fund (N+1) Vintage Year FE	NO	NO	NO	YES	YES	YES
Adj. R2	.	.	.	0.211	0.212	0.210

Panel B: Not First VC Fund subsample

No. of new green deals before Fund (N+1) close	0.016 (0.124)			0.099*** (0.006)		
Ln (No. of new green deals before Fund (N+1) close)		0.045 (0.212)			0.242** (0.029)	
Green deal before Fund (N+1) close ?			0.026 (0.405)			-0.048 (0.671)
Observations	1,941	1,941	1,941	868	868	868
Controls	YES	YES	YES	YES	YES	YES
Vintage Year FE	YES	YES	YES	YES	YES	YES
Fund (N+1) Vintage Year FE	NO	NO	NO	YES	YES	YES
Adj. R2	.	.	.	0.248	0.245	0.241

*** p<0.01, ** p<0.05, * p<0.1

Table 7: Green Investing and follow-on Fundraising: Probability and Amount Raised; Evidence by Region

This table reports whether the association between green investing activity and follow-on fundraising outcomes varies across regions. We estimate the baseline specifications separately for the US VC subsample (Panel A) and the EU VC subsample (Panel B). Models (1)–(3) estimate probit models for the likelihood that a VC fund raises a follow-on fund where the dependent variable Raised fund? takes the value of 1 for funds that subsequently raised a following fund, and 0 otherwise. We report marginal effects for probit results to facilitate economic interpretation. Models (4)–(6) estimate OLS models for ln(Fund (N+1) size). All models include vintage year fixed effects and, for fund size regressions, Fund (N+1) vintage year fixed effects as well, with p-values shown in parentheses.

Panel A: US VC subsample

	Raised fund?			ln(VC Fund (N+1)size)		
	(1)	(2)	(3)	(4)	(5)	(6)
No. of new green deals before Fund (N+1) close	0.026*** (0.006)			0.091*** (0.001)		
Ln (No. of new green deals before Fund (N+1) close)		0.089*** (0.003)			0.245*** (0.002)	
Green deal before Fund (N+1) close ?			0.077*** (0.006)			0.051 (0.496)
Observations	2,738	2,738	2,738	1,128	1,128	1,128
Controls	YES	YES	YES	YES	YES	YES
Vintage Year FE	YES	YES	YES	YES	YES	YES
Fund (N+1) Vintage Year FE	NO	NO	NO	YES	YES	YES
Adj. R2	.	.	.	0.240	0.238	0.234

Panel B: EU VC subsample

No. of new green deals before Fund (N+1) close	0.029** (0.027)			0.121** (0.016)		
Ln (No. of new green deals before Fund (N+1) close)		0.140*** (0.004)			0.375* (0.072)	
Green deal before Fund (N+1) close ?			0.151*** (0.001)			0.306 (0.160)
Observations	817	817	817	311	311	311
Controls	YES	YES	YES	YES	YES	YES
Vintage Year FE	YES	YES	YES	YES	YES	YES
Fund (N+1) Vintage Year FE	NO	NO	NO	YES	YES	YES
Adj. R2	.	.	.	0.157	0.156	0.151

*** p<0.01, ** p<0.05, * p<0.1

Table 8: Green investing and time to raise the following fund

This table reports Cox proportional hazard model estimates to test the association between green investing activity and the time it takes a VC fund to raise its follow-on fund (Fund (N+1)). The dependent variable is Time to raise fund (N+1). Columns (1)–(3) estimate duration models where the key explanatory variables alternately capture green investing intensity and incidence. Coefficients from the model are reported as hazard ratios. All specifications include the full set of controls and vintage year fixed effects. We report chi-squared statistics for model fit, with p-values shown in parentheses.

	Time to raise fund (N+1)		
	(1)	(2)	(3)
No. of new green deals before Fund (N+1) close	1.061*** (0.003)		
Ln (No. of new green deals before Fund (N+1) close)		1.223*** (0.001)	
Green deal before Fund (N+1) close ?			1.187** (0.015)
Observations	3,619	3,619	3,619
Controls	YES	YES	YES
Vintage Year FE	YES	YES	YES
chi2	469.2	468.6	6013

*** p<0.01, ** p<0.05, * p<0.1

Table 9: Green Investing and Follow-on Fundraising: Heckman Two-Stage Model Correcting for Sample Selection

This table reports estimates from a Heckman two-stage sample selection model that corrects for non-random observation of follow-on fund sizes. Column (1) reports the first-stage selection equation, where the dependent variable Raised fund? equals 1 if a VC fund subsequently raises a follow-on fund and 0 otherwise. Column (2) reports the second-stage outcome equation with the dependent variable ln(VC Fund (N+1) size), estimated conditional on selection. *ln_dist_hub*, defined as the log distance from the VC firm's headquarters to the nearest major institutional LP hub (US: NYC/Boston/SF; EU: London/Paris/Frankfurt/Zurich). All specifications include the full set of controls and vintage year fixed effects. Standard errors are cluster-robust at the VC firm level. The table reports Pseudo R² for the first stage and Adjusted R² for the second stage. p-values shown in parentheses.

	Raised fund? Fist-Stage (1)	ln(VC Fund (N+1)size) Second-Stage (2)
<i>ln_dist_hub</i>	-0.033*** (0.000)	
No. of new green deals before Fund (N+1) close	0.074*** (0.000)	0.089** (0.022)
Ln (1+VC firm size)	0.191*** (0.000)	0.303*** (0.000)
Ln (1+VC firm age)	-0.036 (0.260)	-0.298*** (0.000)
U.S. VC	0.035 (0.570)	-0.178* (0.075)
Ratio of new green deals before Fund (N+1) close	-0.312** (0.025)	-0.480* (0.072)
<i>i_mills</i>		-0.789 (0.258)
Observations	3,590	1,434
Controls	YES	YES
Vintage Year FE	YES	YES
PseudoR2 / Adj R2	0.160	0.204

*** p<0.01, ** p<0.05, * p<0.1

Table A1: Variables Definitions

Variable name	Definition
Raised fund?	Dummy equal to 1 if the current VC fund is followed by a subsequent fund closing (Fund (N+1)), and 0 otherwise.
VC firm age	VC firm age at the time of raising the current fund.
VC fund size (mills \$)	Amount of capital committed to fund in USD millions.
VC firm Size (mills \$)	Sum of all previous investments (amounts) made by the VC firm up to a particular year, in USD millions.
US VC	Dummy equal to 1 if the VC firm is based in the United States, and 0 otherwise.
VC Reputation	VC investment share: the dollar amount invested by a VC firm from the beginning of 2000 up to a given calendar year, normalised by total aggregate VC industry investment over the same period.
Years to next fund	Number of years between Fund (N) and Fund (N+1).
No. of deals	Total number of deals invested in by the fund.
No. of green deals	Number of green investments made by the fund.
No. of new green deals before Fund (N+1) close	Number of unique (new) green investments made before the final close of Fund (N+1).
Green deal before Fund (N+1) close ?	Dummy equal to 1 if Fund (N) undertakes at least one green investment prior to the final close of Fund (N+1), and 0 otherwise.
Ratio of new green deals before Fund (N+1) close	Ratio of new green investments to total new investments before the final close of Fund (N+1).
No. of funds	Number of funds managed by the VC firm.
VC firm had follow-on fund?	Dummy equal to 1 if the VC firm raised more than one fund (i.e., has at least one follow-on fund), and 0 otherwise.
Total No. of deals	Total number of deals the VC firm invested in.
Total No. of green deals	Total number of green investments made by the VC firm.
Green	Dummy equal to 1 if the investment/company is classified as green, and 0 otherwise.
Round number	Round number for the portfolio company at the time of the investment.
Seed/Early	Dummy equal to 1 if the investment stage is Seed or Early, and 0 otherwise.

Expansion	Dummy equal to 1 if the investment stage is Expansion, and 0 otherwise.
Later	Dummy equal to 1 if the investment stage is Later, and 0 otherwise.
Fund Sequence	Fund number within the VC firm (e.g., 1st, 2nd, 3rd, ...).
No. of investors	Number of investors in the deal.
Company age	Startup company age at the time of investment.
Company size (mills \$)	Total amount of capital raised by a portfolio company, in USD millions.
VC firm age	VC firm age at the time of the investment.
