

# Superstar Founders<sup>\*</sup>

Andrea L. Eisfeldt<sup>†</sup>

Aria Liu<sup>‡</sup>

Yu Shi<sup>§</sup>

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## Abstract

Superstar founders—those who take a firm public through a true IPO—represent a substantial share of the extreme right tail of the US wealth distribution. This paper provides the first comprehensive analysis of their wealth accumulation, from the IPO through the firm’s public lifecycle. Using hand-collected data on founder and venture capital ownership from 1996 to 2021, we document three key findings. First, we quantify a persistent trade-off: while VC backing enables firms to reach a larger scale at IPO, it is associated with a significant reduction in founder ownership and wealth. Second, we introduce a novel and comprehensive wealth measure that incorporates both the accumulated proceeds from post-IPO share liquidations and the gains from underpriced acquisitions. We show that relying solely on retained ownership understates founder wealth by 50% for firms ten years post-IPO. Additionally, founders’ acquisition of new shares below market price contributes 5% to total wealth. Third, we demonstrate that path-dependent ownership dynamics, predictable from the initial IPO stake, explain 40% of the variation in founders’ wealth growth rate. Ultimately, extreme wealth is achieved by founders who maintain substantial stakes in the selection of firms that persistently outperform the market and achieve massive scale over time. Our findings provide the microfoundations for the rise in top wealth shares, highlighting the IPO as a key entry channel and post-IPO ownership dynamics as critical amplifiers of founder fortunes.

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<sup>†</sup>UCLA Anderson School of Management and NBER, [andrea.eisfeldt@anderson.ucla.edu](mailto:andrea.eisfeldt@anderson.ucla.edu)

<sup>‡</sup>UCLA Anderson School of Management, [aria.liu.phd@anderson.ucla.edu](mailto:aria.liu.phd@anderson.ucla.edu)

<sup>§</sup>Nankai University School of Finance, [yushi@nankai.edu.cn](mailto:yushi@nankai.edu.cn)

# 1 Introduction

Superstar founders – defined as the founders of firms that undergo a true IPO in the United States – represent a substantial and growing segment of the extreme right tail of the US wealth distribution. As shown in Figure 1, the median value of a superstar founder’s stake at IPO surpasses the wealth threshold for the top 0.1% of US households, while the average stake is an order of magnitude larger than the top 0.01%. According to Forbes, 71% of the Forbes 400 in 2021 were entrepreneurs who founded or helped build a company.<sup>1</sup> The IPO event continues to be a primary engine for creating such extreme wealth, with dozens of new billionaires created worldwide each year from their firms’ public offerings.<sup>2</sup> Despite their central role in modern wealth inequality, we lack a systematic understanding of how these fortunes are built. The existing literature on insider ownership has largely overlooked founders as a distinct group, and no study has comprehensively tracked their wealth accumulation from the IPO throughout the firm’s life cycle. Our paper fills this gap by studying founders of true U.S. IPOs from 1996 to 2021. We focus on true IPOs (excluding spin-offs, reverse LBOs and reverse mergers) because they provide a clear lens on value creation by entrepreneurial founders, isolating wealth generated by building a new company as distinct from wealth derived from the restructuring of existing assets.<sup>3</sup> This paper bridges the macro phenomenon of wealth concentration with a specific micro-level mechanism: the dynamic wealth accumulation of superstar founders.

We analyze the wealth accumulation of superstar founders in two stages: the financing stage that ends in a successful IPO, and the post-IPO stage. This separation is important because the dynamics of founder wealth accumulation differ between them. In the pre-IPO stage, founders face a central trade-off: selling substantial equity to venture capital investors to finance growth and achieve an IPO, and thereby reducing the proportion of the firm they retain. We believe that our study provides the first systematic quantification of this trade-off, measuring the net effect of VC financing on founder wealth at the IPO.

In the post-IPO stage, the financing-ownership trade-off is no longer the primary driver of wealth as both founders and VCs begin liquidating their holdings. Founder wealth then evolves from the dynamic interplay between their retained ownership, the firm’s subsequent performance, and their ability to acquire shares at below-market prices.<sup>4</sup> To capture this

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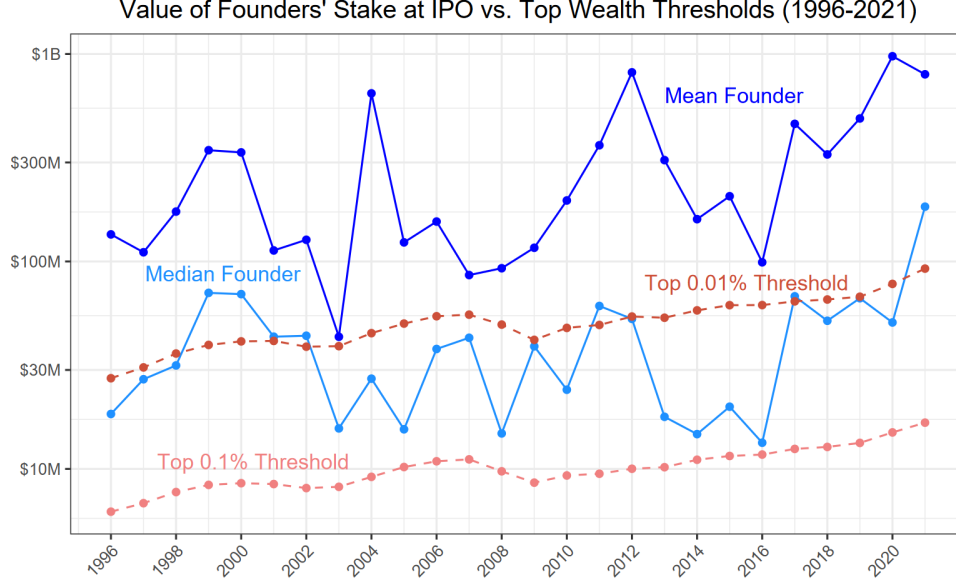
<sup>1</sup>Source: The 2021 Forbes 400 List of Richest Americans: Facts and Figures.

<sup>2</sup>Source: Jackpot: Ten New Billionaires From IPOs in 2021.

<sup>3</sup>Following standard criteria in the IPO literature (e.g., Ritter and Welch (2002)), our sample further excludes IPOs with an offer price below \$5.00 per share, unit offers, ADRs, closed-end funds, partnerships, REITs, banks, S&Ls, and SPACs, as well as firms not listed on CRSP.

<sup>4</sup>For a contemporary discussion of this wealth creation process, see Meet The World’s Self-Made Billionaires.

**Figure 1:** Founder equity values at IPO (ownership multiplied by firm market capitalization) for true IPOs with positive founder ownership, compared to wealth thresholds for the top 0.1% and 0.01% of households (from World Inequality Database). All values in constant 2021 U.S. dollars. Y-axis uses a logarithmic scale while showing actual dollar amounts (M for millions, B for billions).



process comprehensively, we introduce a novel wealth measure that incorporates both the proceeds from liquidated shares (reinvested in a market portfolio) and the gains from acquiring shares below market value. Our analysis of this accumulation process sheds light on the dynamics of wealth inequality.

Analyzing founder wealth dynamics requires comprehensive data on ownership throughout the firm’s lifecycle. This requires hand-collecting founder stakes from pre- and post-IPO filings and tracking annual ownership changes, including share dispositions and acquisitions. To examine the ownership and financing trade-offs at and before IPO, we also collect data on the ownership of VC blockholders (defined as those owning more than 5% of shares) and VC-affiliated board representatives.<sup>5</sup> Our final sample consists of 2,279 founders and co-founders from 1,498 true IPO firms where founders maintained board or executive roles and held non-zero ownership at the time of offering. In our sample, the average pre-IPO ownership is 25% for founders, 31% for VC blockholders, and 18.8% for VC-affiliated board representatives.

Having this data in hand, we begin by analyzing the financing-ownership trade-off at the IPO in the cross-section of IPOs. We first document an ownership/financing trade-off between VC and founder ownership: a one standard deviation increase in VC blockholder ownership is associated with a 0.42 standard deviation decrease in founder ownership pre-IPO,

<sup>5</sup>For a discussion of VC representatives’ role in firm outcomes, see, for example, Lerner (1995).

controlling for IPO year, firm age, and industry fixed effects. We then quantify the net impact of this trade-off on founder wealth, measured as the founder’s equity stake multiplied by the firm’s market capitalization at the IPO. In *cross-sectional regressions*, a one-percentage-point increase in founder ownership is associated with a 4% increase in founder wealth, while a one-percentage-point increase in VC blockholder ownership is associated with a 2% decrease, after controlling for the same fixed-effects. To address endogeneity concerns, we provide two identification strategies. First, we employ an instrumental variables approach. We instrument for founder ownership using the age of the firm’s youngest founder, arguing that younger founders have greater liquidity needs, leading to smaller retained ownership. This instrument is strong (first-stage F-statistic of 20) and plausibly satisfies the exclusion restriction, as founder age is unlikely to affect firm valuation except through its impact on ownership structure.<sup>6</sup> Second, we implement propensity score matching based on IPO year cohorts, firm age buckets, and industries, matching on the closest firm by total assets.<sup>7</sup> Through this PSM approach, we confirm that higher VC ownership is associated with lower founder wealth on both the extensive margin (VC-backed vs. non-VC-backed firms) and the intensive margin (high vs. low VC blockholder ownership).

To further shed light on increasing wealth inequality over time, we analyze the time series of financing-ownership trade-off at the IPO by grouping firms by their offering year. This allows us to demonstrate how different pre-IPO funding eras have influenced founders’ ownership choices at the IPO and the subsequent impact on their wealth. Our analysis yields two key findings. First, we find that the impact of the financing-ownership trade-off for founder wealth has remained stable for firms that successfully complete an IPO: the positive relationship between founder ownership and wealth, and the negative relationship between VC blockholder ownership and founder wealth, are consistent throughout our sample period. Second, despite this stable trade-off, ownership levels have shifted substantially at the time of IPO. We quantify a strong time trend: between 1996 and 2021, mean founder ownership at IPO declined from 38% to 17%, while mean VC blockholder ownership increased from 19%

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<sup>6</sup>See Azoulay et al. (2020) for a comprehensive review of the literature on founder age and firm success. While prior literature finds a relationship between founder age and success—with mixed results on the nature of this link—a key mechanism is that age serves as a proxy for certain qualities, such as experience. To the extent that age correlates with these qualities, Ewens et al. (2022) argue that they are ultimately reflected in the ownership split negotiated with VCs—the very channel our instrument captures. This approach is also motivated by Coles et al. (2012), who provide a theoretical motivation that variables related to the productivity of managerial input, but unrelated to the productivity of physical assets, are good candidates for instruments when linking ownership to firm outcomes. Our empirical strategy is also consistent with prior work in financial economics; for example, Cassell et al. (2012) instrument for the CEO’s choice of inside debt using CEO age to identify its effect on firm outcomes.

<sup>7</sup>This strategy follows Pagano et al. (1998), who show that industry market-to-book and firm size determine the propensity to go public. Matching on industry and size thus compares firms with similar ex-ante IPO probabilities, isolating the differential impact of VC ownership.

to 35%.<sup>8</sup> However, despite this decline in founder ownership, average founder wealth at IPO rose substantially over the same period, from a mean wealth of \$76 million to \$798 million. This apparent contradiction with our cross-sectional results is resolved by a dominant scale effect. The average market capitalization of firms at IPO has grown significantly over time. The value enhancement, potentially facilitated by VC-backed growth, has outweighed the negative effect of founder ownership decreasing, leading to higher founder wealth despite their smaller percentage stakes. Together, these findings demonstrate that the observed decline in founder ownership is not driven by a changing financing-ownership trade-off conditional on going public. Rather, founders cede ownership to secure the VC backing necessary to build larger firms before going public, with the wealth gains deriving primarily from this increase in firms' market capitalization for an average founder.<sup>9</sup>

We then analyze the post-IPO stage, examining the wealth accumulation process and the long-term impact of the initial financing-ownership trade-off on founder wealth. We first introduce a novel, comprehensive measure of post-IPO wealth comprising three components: (1) the proceeds from shares liquidated since the IPO, reinvested to earn the value-weighted equity market return; (2) the value of retained shares in their own firm, which earns the firm's return; and (3) the value gained from acquiring shares at below-market prices. We find all three components are economically meaningful. The first component is substantial: for firms ten years post-IPO, wealth from previously liquidated shares contribute 50% to founder wealth on average.

For the value of retained shares, post-IPO ownership is highly path-dependent, shaped primarily by the initial IPO stake and years since the offering. This pattern is consistent with founders managing their ownership toward a long-term target that is heavily influenced by their starting ownership at IPO. A simple model using just founders' initial IPO stake and years since the offering explains 66% of the variation in post-IPO ownership.<sup>10</sup> A decomposition of founders' wealth growth rates reveals that 38% of the variation is attributable to this expected ownership path.

Founders not only sell shares as their firms age, they also acquire new shares, often at prices that are substantially below the market price. This third component of founder wealth dynamic is also meaningful. The median founder disposes 5% of their shares in a given year at market prices. At the same time, they acquire 2% new shares at prices that are 23%

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<sup>8</sup>For similar evidence on increasing VC ownership, see Huang et al. (2023).

<sup>9</sup>Ewens and Farre-Mensa (2020) offers a potential explanation: the supply of equity capital to private firms has increased since 1996, enhancing insider bargaining power. The increased capital supply explains rising VC ownership (and correspondingly decreased founder ownership), while founders' stronger bargaining position supports our finding that gains from increased scale outweigh losses from reduced ownership percentages for the average firm going public.

<sup>10</sup>For other determinants of insider ownership, see, for example, Fahlenbrach and Stulz (2009).

of market prices on average. Gross changes in ownership are over double net changes. As a result, these below-market price acquisitions are an important source of founder wealth generation, contributing around 5% to overall founder wealth and 12% of the variation in their wealth growth rates.

Finally, we analyze the determinants of extreme founder wealth by examining how founders reach the far right tail of the distribution. To do so, we perform two counterfactual analyses: one where founders immediately sell all shares at the IPO (“IPO Value”), and another where they never liquidate any shares (“Never-Sell Value”). We find a pronounced divergence across the wealth distribution. For founders with lower wealth, the IPO Value often exceeds their actual wealth, meaning they would have been better off liquidating their entire stake at the IPO. However, for founders in the right tail, the Never-Sell Value not only constitutes the majority of their wealth but often exceeds their actual realized wealth, indicating that the wealthiest founders could have been even richer had they never sold a single share. The median founder would have been wealthier by fully liquidating their IPO stake and investing in the market. The extreme wealth observed in the right tail, however, arises only for founders who maintain long-lived stakes in high-performing firms. Thus, superstar founders are the result of superstar firms.<sup>11</sup> This finding provides a quantified, micro-level explanation for a significant component of wealth inequality.

**Related Literature:** Our paper provides a microeconomic perspective for the rise in top wealth shares, a phenomenon extensively documented at the aggregate level (e.g., Piketty and Saez (2003); Piketty (2014); Saez and Zucman (2016)). We do so by providing new evidence on the dynamics of an important segment of the right tail of the wealth distribution. First, our findings provide empirical support for theoretical models of top wealth dynamics (e.g., Gabaix et al. (2016); Atkeson and Irie (2022); Luttmer (2007)). Their models show that the rapid creation of new fortunes from idiosyncratic firm risk is key to understanding the shape of the wealth distribution. We provide empirical validation for this mechanism, demonstrating that the “stars among the superstars” in our sample are precisely those founders whose firms experience a long series of positive idiosyncratic shocks while they maintain a substantial ownership stake. Second, we contribute to the literature documenting that higher asset returns earned by the wealthy amplify wealth inequality (e.g., Bach et al. (2020); Fagereng et al. (2020)). Research into the sources of these returns shows they stem from sophisticated fixed-income portfolios (Smith et al. (2023)) and strategic asset trading (Fagereng et al. (2025)). We identify a crucial, additional mechanism: the substantial wealth gains founders realize by acquiring equity in their own firms at prices below market value. This channel represents a previously undocumented pathway for the amplification of top fortunes. This

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<sup>11</sup>See Autor et al. (2020) for a seminal discussion of the rise of superstar firms.

finding also complements the entrepreneurial finance literature, which has focused on the impact of sweat equity (Bhandari and McGrattan (2021); McGrattan (2020)) and human capital (Smith et al. (2019)), as well as the literature on understanding equity compensation (e.g., Oyer (2004); Chang et al. (2015); Sun and Xiaolan (2019); Eisfeldt et al. (2023a)). Third, we provide a founder-level microfoundation for the displacement effects highlighted by Gomez (2023) and Zheng (2019), who establish that entry into top wealth percentiles is a key driver of inequality. We analyze the IPO as a primary channel for this entry, measuring the substantial wealth founders command through their equity stakes and tracing how their subsequent ownership decisions shape the extreme dispersion of outcomes within this elite group. Relatedly, Chetty et al. (2024) study the determinants of entrepreneurship using population tax records.

By analyzing the microfoundations of how founders accumulate wealth through their own firms, we contribute directly to the literature on insider ownership. A substantial body of work in corporate finance has examined the ownership patterns of various corporate insiders. This research has primarily focused on the incentives and outcomes for directors and executives (e.g., Holderness et al. (1999); Fahlenbrach and Stulz (2009); Coles et al. (2012); Fabisik et al. (2021)), the influence of large shareholders and blockholders (e.g., DeMarzo and Urošević (2006); Brockman et al. (2009)), the specific role of CEO ownership (Lilienfeld-Toal and Ruenzi (2014)), and founding-family ownership (e.g., Anderson and Reeb (2003)), and the dynamics of how firms transition to dispersed ownership (Helwege et al. (2007)). While these groups are central to corporate governance and firm outcomes, the founder’s equity stake—originating from the creation of the firms and fundamental to their wealth creation—has been absent from systematic analysis. Our paper addresses this gap by providing the first comprehensive study of individual founder ownership, tracking its dynamics from the pre-IPO stage throughout the firm’s public lifecycle.

We also contribute to the literature on VC investment by quantifying the trade-off between VC financing and founder ownership, closest related to Crouzet et al. (2022) who offer a theoretical discussion of the ownership-funding tradeoff in the context of intangible capital and property rights institutions. An influential strand of the VC literature has been dedicated to analyzing the determinants, characteristics, and performance of VC investments from investors’ perspective—studying their returns (e.g., Moskowitz and Vissing-Jørgensen (2002); Cochrane (2005)); the factors that drive their success (e.g., Korteweg and Sorensen (2010); Korteweg and Nagel (2016)); and how they make investment decisions (e.g., Gompers et al. (2020); Kaplan and Strömberg (2001)). A separate but related body of work has examined the implications for founders. For instance, Cagetti and De Nardi (2006) and Hurst and Lusardi (2004) establish how financing constraints shape the decision to be-

come an entrepreneur; Hall and Woodward (2010) empirically examines one component of founder compensation by analyzing how VC backing affects founder salaries; Hellmann and Puri (2002) studies founder replacement; and Ewens et al. (2022) theoretically models how founder and VC quality determine the optimal equity split to maximize the probability of a successful exit. These studies provide foundational insights into different facets of the founder-VC relationship. We complement this work by quantifying the impact of this relationship on the level of wealth founders hold in their equity stakes at the IPO, which offers a more concrete understanding of the wealth implications of the financing-ownership trade-off for entrepreneurs.

Last but not least, our paper connects to the literature on initial public offerings. Since our analysis of founder wealth begins with their wealth at the IPO, this literature provides a critical foundation. First, we speak to the literature on the probability and determinants of going public (e.g., Brau and Fawcett (2006); Pagano et al. (1998); Gao et al. (2013); Rajan (2012); Weitzner et al. (2025)). Our empirical strategy, which matches firms on characteristics like size and industry, allows us to isolate the effect of VC ownership on founder wealth, conditional on the firm’s decision to go public. Second, we speak to the literature on post-IPO performance and corporate behavior. Building on a well-established finding of initial post-IPO stock underperformance (e.g., Ritter (1991); Loughran and Ritter (1995); Loughran and Ritter (2004)), we show that subsequent founder outcomes can diverge dramatically. The IPO literature has also studied underpricing and its evolution over time (Loughran and Ritter (2002); see Ritter and Welch (2002) for a survey). Baker and Wurgler (2002) document that equity market conditions influence capital structure decisions, a consideration relevant to the timing of IPOs and insider sales. Founders who systematically acquire shares at a discount and maintain large stakes in firms that become long-run superstars can achieve significant wealth outperformance. Our study thus provides a founder-centric perspective on the long-term consequences of an IPO, complementing studies on how going public affects firm behavior (e.g., Bernstein (2015)).

The remainder of our paper proceeds as follows. Section 2 details the construction of our novel dataset, outlining the sample selection of true IPOs and the hand-collection process for founder and venture capital ownership. Section 3 establishes the cross-sectional trade-off between venture capital financing and founder ownership at the IPO and its net impact on founder wealth. Section 4 analyzes the time-series evolution of this relationship, documenting how the interplay between founder ownership, VC ownership, and founder wealth has changed across different IPO eras. Section 5 turns to the post-IPO stage, constructing a comprehensive measure of founder wealth and documenting the dynamic path of ownership over the firm’s lifecycle, including the significant role of share acquisitions at below-market

prices. Section 6 uses this wealth measure to perform counterfactual analyses and identify the determinants of extreme wealth in the right tail of the distribution. Section 7 concludes.

## 2 Data Construction and Description

This section describes our data sources and sample construction. We construct a novel dataset by manually collecting and web-scraping ownership data for founders, VC blockholders, and VC representatives from SEC filings, tracking their ownership continuously from the pre-IPO stage through their eventual exit from the firm.

### 2.1 Sample

Our sample construction begins with all U.S. IPOs from 1996 to 2021. Following the empirical IPO literature (Ritter and Welch, 2002), we include common stocks listed on the NYSE or Nasdaq and exclude financial firms (Fama-French 48 industries), unit offerings, and penny stocks (first-day closing price below \$5). We further exclude firms that went public via spin-offs, reverse leveraged buyouts, or reverse mergers, as these do not represent entrepreneurial IPOs. Finally, we restrict the sample to firms with positive founder ownership at the IPO, ensuring we study firms where founders maintained meaningful stakes. Our final sample consists of 1,498 true IPO firms and 2,279 founders.

Table 1 presents summary statistics for the cross-sectional characteristics of true IPOs at the time of their offering, comparing three distinct samples. The first sample includes all true IPOs (Columns 1–2), the second restricts to firms where founders maintain positive ownership and hold an executive or director role (Columns 3–4), and the third further restricts to firms with both founder and VC blockholder ownership (Columns 5–6). In our universe of true IPOs, 73% of firms have a founder present at the IPO, and 52% have the combined presence of both a founder and a VC blockholder. Founder-involved firms have lower average book assets than the full sample, yet command higher market capitalizations—a pattern that is even more pronounced when VCs are also present. This is consistent with VC financing enhancing firm scale at the IPO. Furthermore, firm age decreases across the samples, with the youngest firms being those with both founder and VC involvement (median age of 7 years), suggesting that venture capital enables earlier public listings. The industry composition also shifts, with VC-backed founder firms exhibiting the highest concentration in high-tech (52.5%) and health (30.2%) sectors, aligning with the focus of modern venture investing.

## 2.2 Ownership Data Collection

We obtain ownership data from the U.S. Securities and Exchange Commission’s (SEC) filings. Section 16(a) of the Securities Exchange Act of 1934 mandates that directors, executive officers, and beneficial owners of more than 5% of a class of equity securities report their ownership. This includes filings at the IPO and annual disclosures thereafter. These reports detail all vested stock and shares acquirable within 60 days via options or vesting awards. Following the prior literature Fabisik et al. (2021), we define insider ownership to include these vested and soon-to-vest shares.

We construct our ownership panel using SEC filings from two key sources. First, we manually collect pre- and post-IPO ownership data from IPO prospectuses (Form 424b or S-1) filed on the SEC’s EDGAR website. Although the tabular format varies across firms, the required information is consistent. Figure 2 illustrates a typical ownership table from the Celebrate Express (2004) prospectus, detailing shareholdings of directors and officers before and after the offering. In this example, we identify Michael K. Jewell, Tim McGarvey, and Jean Reynolds as founders based on other filing sections, and Keith Crandell as a VC representative due to a footnote stating 98% of his shares were held for ARCH Venture Fund.

Second, we collect post-IPO insider ownership data from definitive proxy statements (DEF 14A) filed annually. For the period 2002–2021, we extracted ownership tables using web-scraping algorithms applied to HTML filings. For the earlier period (1996–2002), we manually collected data from TXT-format filings. To ensure data quality, we manually validated a random 5% of the scraped sample and cross-referenced a subsample with ExecuComp, which provides ownership data for top executives at S&P 1500 firms. Figure 3 shows a representative ownership table from Celebrate Express’s 2006 proxy statement, detailing share quantities and ownership percentages for each director and executive officer. We then track each individual by name across all filings to create a continuous ownership record.

From this universe of insiders, we manually identify founders through filer designations and supplementary web searches. We then classify venture capital involvement in two ways. First, we identify VC blockholders by cross-referencing beneficial owner names with the PitchBook database. Second, we manually identify VC-affiliated board members, typically indicated in filing footnotes. When a VC representative’s ownership is reported as zero—a common inconsistency, as they hold shares on behalf of their firm—we replace the value with the VC firm’s reported ownership stake.

We supplement our ownership data with transaction information from the Thomson Reuters insider transaction database, which compiles SEC Form 4 filings. Form 4 must be filed following any transaction that changes an insider’s holdings, detailing the type of transaction, volume, and price of each trade. We match these transactions to our sample

using individuals’ names, retaining only those that occur during their observed tenure at the firm. Figure 4 presents an example filed by the Vice President of Celebrate Express on July 28, 2005. The form specifies transaction details, including the type (e.g., "S" for open market sale), number of shares, direction (disposal or acquisition), and price.

### 3 The Impact of VC Financing: Cross-Sectional Trade-Offs at IPO

This section establishes the outcomes for superstar founders at the IPO, analyzing the cross-sectional relationship between pre-IPO ownership structure and founder wealth.

We measure a founder’s wealth at the IPO as the value of their equity stake immediately prior to the offering, valued at the IPO price:

$$W_{i,0} = \alpha_{i,-1}^F P_{i,0} N_{i,-1}, \quad (1)$$

where  $\alpha_{i,-1}$  denotes founder  $i$ ’s ownership share prior to the IPO,  $P_{i,0}$  is the first day closing price, and  $N_{i,-1}$  is the total number of shares outstanding before the offering. The product  $\alpha_{i,-1} N_{i,-1}$  thus represents the number of shares held by the founder.<sup>12</sup>

Founders sell equity to outside investors—primarily VCs in our focus—to finance growth. This reflects a trade-off between retained ownership and firm scale. We first document an ownership/financing trade-off: higher founder ownership is associated with lower ownership by VCs. A one standard deviation increase in VC ownership at the IPO is associated with a 0.46 standard deviation decrease in founder ownership.

We then quantify the net impact of this trade-off on founder wealth. That is, when founders sell shares to VCs in exchange for a larger firm, how the net effect of lower ownership but larger firm size impact their wealth. We document two key cross-sectional relationships, conditional on the firm going public: (1) Higher founder ownership is associated with greater wealth at the IPO, (2) Higher VC ownership is associated with lower founder wealth.

We find that this effect operates on both the extensive margin (VC-backed vs. non-VC-backed firms) and the intensive margin (high vs. low VC ownership within VC-backed firms). Furthermore, this pattern holds within a given VC firm’s portfolio and among founders who systemically maintain relatively high or low ownership.

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<sup>12</sup>Note that this implicitly assumes that founders receive their shares at zero cost. In practice, the typical share value for shares bought by firm founders is very close to zero. This is consistent with founders acquiring the shares they still hold when the firm goes public at the time of founding if firms begin with a value of zero. In practice, this price is often set at \$0.0001 per share, which is the lowest legal price at which a company can issue shares when first forming.

### 3.1 The Ownership/Financing Trade-Off: VC Ownership and Founder Ownership

This section analyzes the relationship between pre-IPO venture capital ownership and founder ownership. Our regression framework controls for three well-established determinants of insider ownership structure: the IPO year, firm age, and industry.<sup>13</sup>

We estimate the following cross-sectional specification for firm  $i$  at the offering:

$$\alpha_{i,t}^F = \beta_1 \alpha_{i,t}^{VC} + \beta_2 \alpha_{i,t}^{VCRep} + \beta_3 Year_i + \beta_4 Age_i + \eta_k + \epsilon_i, \quad (2)$$

where  $\alpha_{i,t}^F$  is founder ownership,  $\alpha_{i,t}^{VC}$  is the combined ownership of all VC blockholder holding at least 5%,  $\alpha_{i,t}^{VCRep}$  is the ownership by VC-affiliated board members,  $Year_i$  is the IPO year,  $Age_i$  is firm age, and  $\eta_k$  represents industry fixed effects. We present results from specifications that include the IPO year and firm age as continuous regressors, as well as specifications that use them as fixed effects. Columns (1) to (4) of Table 2 present the results for pre-IPO ownership  $t = -1$ . We find a negative relationship between founder ownership and both VC ownership measures, consistent with an ownership/financing trade-off. Column 1 presents the baseline specification, revealing that a one standard deviation increase in VC blockholder ownership is associated with a 0.42 standard deviation decrease in founder ownership. Although VC representative ownership is negatively significant in isolation (Column 2), it does not retain its significance when included alongside VC blockholder ownership in the full model. The primary relationship is robust to these additional controls, including time-varying factors (Column 4). In economic terms, a one standard deviation increase in VC blockholder ownership (26.87%) predicts an 11.28 percentage point reduction in founder ownership.

Columns (5) to (8) of Table 2 present the results for ownership immediately after the IPO ( $t = 0$ ). The negative relationship between founder and VC ownership persists, confirming that the ownership/financing trade-off holds in the post-IPO ownership structure. This result is robust across specifications, whether controlling for IPO year, age, and industry via fixed effects or including them as explicit regressors. The smaller magnitude of the post-IPO coefficient, compared to the pre-IPO regression, can be explained by two concurrent effects during the offering: (1) dilution from the issuance of new shares, and (2) secondary sales of existing shares to external investors. Both mechanisms reduce the ownership of founders and VCs in the same direction, and since this does not represent a transfer between them, it attenuates the estimated ownership/financing trade-off.

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<sup>13</sup>We discuss the time-series variation in founder ownership in Section 4 and provide a detailed analysis of age and industry effects in Appendix B.

## 3.2 Quantifying the Tradeoff: VC Ownership and Founder Wealth

Given that lower founder ownership is often exchanged for higher VC ownership to facilitate firm growth, this section investigates the net impact of this trade-off on founder wealth at IPO as defined in Equation (2). Since our analysis is based on a sample of IPO firms, we face a selection problem: the decision to sell equity to VCs may be correlated not only with achieving a larger firm size at the IPO, but also with a higher probability of going public. We follow the approach of Pagano et al. (1998) to control for the probability of an IPO. This allows us to explore the relationship between VC financing and founder wealth within the context of firms among successful public firms.

### 3.2.1 Baseline Results

To establish a baseline, Figure 5 presents the distribution of founder wealth at the IPO, segmented by the mean VC blockholder ownership. The distribution shifts to the right for firms with lower VC ownership, indicating higher founder wealth. To formally test this relationship, we estimate the following specification:

$$\log(W_{i,0}) = \beta\alpha_{i,-1} + X_i + \gamma_t + \eta_k + \xi_\tau + \epsilon_i \quad (3)$$

where  $\log(W_{i,0})$  is the log of founder wealth at the IPO. The model includes IPO year fixed effects ( $\gamma_t$ ), industry fixed effects ( $\eta_k$ ), and age fixed effects ( $\xi_\tau$ ). We estimate this model using three different measures for the key independent variable  $\alpha_{i,-1}$ : (1) founder ownership, (2) VC blockholder ownership, and (3) VC representative ownership. In firms with multiple founders or VC investors, ownership stakes are aggregated to the firm level. The control vector  $X_i$  includes sales-to-assets, SG&A-to-sales, capital expenditures-to-PP&E, R&D-to-PP&E, and log total assets. Dummy variables are included for missing R&D and SG&A data.

Columns (1)–(2) of Table 3 present the results for pre-IPO founder ownership ( $\alpha_{i,-1}^F$ ). Column (1) shows the OLS estimate, indicating a positive relationship between founder ownership and founder wealth. A one-percentage-point increase in founder ownership is associated with a 0.04 increase in log founder wealth, which translates to an increase of approximately \$2 million for a founder with median log wealth (\$47 million). To establish a causal interpretation, Column (2) addresses endogeneity concerns by instrumenting for founder ownership with the age of the youngest founder. The first-stage F-statistic of 20 confirms this is a strong instrument. The validity of this instrument is based on two criteria. First, it satisfies the relevance condition: younger founders are likely to have more immediate liquidity needs, which leads them to retain a smaller percentage of ownership at the

IPO. Second, it satisfies the exclusion restriction: after controlling for observables, the age of the youngest founder should affect founder wealth only through its impact on ownership structure. A firm’s valuation at IPO is determined by its fundamental economic prospects, not the founder’s age, making this a plausibly exogenous source of variation for identifying the causal effect. The positive and significant coefficient on founder ownership in this IV estimation confirms that the positive relationship is robust to this causal identification strategy.<sup>14</sup>

Columns (3)–(4) of Table 3 present the results for pre-IPO VC blockholder ownership ( $\alpha_{i,-1}^{VC}$ ), measured as the combined stake of all venture capital investors holding at least 5% of outstanding shares. Column (3) shows the OLS estimate, indicating a negative relationship between VC blockholder ownership and founder wealth. A one-percentage-point increase in VC blockholder ownership is associated with a 0.02 decrease in log founder wealth, which translates to an increase of approximately \$1 million for a founder with median wealth (\$47 million). To identify a causal effect, Column (4) employs an instrumental variable approach, using the number of other portfolio companies held by a firm’s VC blockholders as an instrument for VC blockholder ownership. The first-stage F-statistic of 11 indicates a strong instrument. It meets the relevance condition: VCs with more portfolio companies are typically larger and more diversified, characteristics that are positively correlated with the capacity to hold larger ownership stakes. The key identification assumption is that, conditional on the controls, this instrument affects founder wealth only through its correlation with VC ownership. While portfolio size may correlate with unobserved VC quality, any such quality effect on firm value must operate independently of the VC’s equity stake for the exclusion restriction to be violated. The significant negative IV estimate suggests that the effect of VC blockholder ownership is causal and negative.

Columns (5)–(6) present results for VC representatives’ pre-IPO ownership ( $\alpha_{i,-1}^{VCRep}$ ), measured as the combined ownership stake of VC-affiliated board members. Column (5) shows the OLS estimate, indicating a negative relationship between VC representatives’ ownership and founder wealth, with a magnitude similar to that of aggregate VC institutional ownership. To identify a causal effect, Column (6) employs an instrumental variable approach, using the number of board seats held by representatives from the same VC firms in other portfolio companies as an instrument. The first-stage F-statistic of 10 indicates a strong instrument. The instrument meets the relevance condition: a VC firm whose representatives hold more external board seats likely has greater influence to secure board representation

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<sup>14</sup>We repeat this analysis using private-stage financing round data from Pitchbook. Since we do not directly observe founder ownership in the private stage, we calculate the cumulative percentage of equity retained by all insiders not involved in PitchBook transactions. We find a positive relationship between this measure of insider ownership and insider wealth across all types of equity financing (see Appendix Table C1).

and larger associated ownership stakes in a given firm. The key identification assumption is that, conditional on the controls, this instrument affects founder wealth only through its correlation with VC representative ownership. While the prevalence of board seats may correlate with a VC’s general strategy or capability for control, any such effect on firm value must operate independently of the specific equity stake held by its board representatives to violate the exclusion restriction. The significant negative IV estimate suggests a causal, negative effect of VC representative ownership on founder wealth.

### 3.2.2 Extensive Margin vs. Intensive Margin

Having established that higher VC ownership is associated with lower founder wealth at IPO, we now investigate whether this effect operates on the extensive margin (VC-backed versus non-VC-backed firms) or the intensive margin (high versus low VC ownership). To address potential sample selection bias and identify causal effects, we employ a Propensity Score Matching (PSM) methodology. Firms were matched within exact strata defined by 5-year IPO cohorts, age buckets (1-5, 5-20, 20+), and industry classification (as in (Eisfeldt et al., 2023b)). This stratification ensures comparability while maintaining viable sample sizes. Within each stratum, we performed nearest-neighbor matching based on log total assets, applying a caliper of 0.2 standard deviations to ensure match quality. This matching strategy follows the logic of Pagano et al. (1998), who show that industry level market-to-book and firm size are key determinants of the propensity to go public. While we do not explicitly model the IPO selection process, matching on exact industry and nearest-neighbor firm size (total assets) helps control for the underlying likelihood of achieving an IPO. This approach allows us to compare firms with similar ex-ante probabilities of going public, isolating the differential impact of VC ownership.

We estimate the following model on the matched sample:

$$Y_i = \beta Treat_i + X_i + \gamma_t + \eta_k + \xi_\tau + \epsilon_i \quad (4)$$

where the dependent variable  $Y_i$  is one of three outcomes: log founder wealth, log firm market capitalization at IPO, or pre-IPO founder ownership ( $\alpha_{i,-1}^F$ ). The model includes IPO year ( $\gamma_t$ ), industry ( $\eta_k$ ), and age ( $\xi_\tau$ ) fixed effects. The control vector  $X_i$  includes sales-to-assets, SG&A-to-sales, capital expenditures-to-PP&E, R&D-to-PP&E, log total assets, and dummy variables for missing R&D and SG&A data.

The extensive margin analysis is performed on a sample of firms where founders have positive pre-IPO ownership. The treatment indicator equals one for firms with any VC blockholder ownership ( $\alpha_{i,-1}^{VC} > 0$ ) and zero for firms with no VC blockholder ownership.

The results are presented in Columns (1)–(3) of Table 4, with a balance test for the matched sample shown in Panel A of Table D1. The results indicate a substantial negative effect of VC backing on founder outcomes. As shown in Column (1), VC-backed firms are associated with founder wealth that is 0.681 log points lower, which translates to a reduction of approximately \$23 million for a founder with median log wealth. This large magnitude arises because, after matching on IPO year, age, industry, and total assets, VC backing does not lead to a statistically significant difference in firm market capitalization at the IPO (Column 2). However, it is associated with a 24.6 percentage point reduction in founder ownership (Column 3). Founders who take their firms public without VC support retain a larger ownership stake, leading to significantly greater personal wealth at the time of the offering.

The intensive margin analysis is performed on a sample where both founders and VC blockholders have positive pre-IPO stakes. The treatment group comprises firms with above-mean VC blockholder ownership (the mean is 42%), while the control group consists of firms with below-mean VC ownership. The results are presented in Columns (4)–(6) of Table 4, with a balance test for the matched sample provided in Panel B of Table D1. The results indicate a negative effect of high VC blockholder ownership. As shown in Column (4), a high level of VC blockholder ownership is associated with founder wealth that is 0.670 log points lower. Even among VC-backed firms, a higher VC blockholder ownership share does not lead to a statistically significant increase in firm market capitalization at the IPO (Column 5), yet it is associated with a 8.8 percentage point reduction in founder ownership (Column 6).

### 3.2.3 VC and Founder Heterogeneity

To further investigate the impact of VC ownership specifically within VC-backed firms, we conduct two additional tests designed to control for unobserved characteristics of both VCs and founders.

One identification challenge is that unobserved VC characteristics—such as quality or bargaining power—might jointly influence both the size of the ownership stake a VC takes and the performance of its portfolio firms (e.g., Sørensen (2007)). To address this, we implement a matching strategy that compares companies within the same VC blockholder’s portfolio. We begin by identifying treatment firms with above-mean VC blockholder ownership. For each treatment firm, we then select a control firm from the same VC blockholder’s portfolio that has below-mean VC blockholder ownership, matching on firm size (log total assets) with a caliper of 0.2 standard deviations. This procedure is performed on a sample where both founders and VC blockholders have positive pre-IPO stakes. By comparing firms within the same VC blockholder’s portfolio, this approach controls for VC-specific unobserv-

ables, allowing us to attribute differences in founder outcomes more cleanly to the variation in ownership stakes. The results are presented in Columns (1)–(3) of Table 5, with a balance test for the matched sample provided in Panel A of Table D2. As shown in Column (1), after comparing firms within the same VC’s portfolio, a higher VC blockholder ownership stake maintains a significant negative association with founder wealth. This result is consistent with Ewens et al. (2022), who argue that, conditional on VC and founder quality, there is an optimal equity split that maximizes the probability of a successful exit. Our findings align with this view: after matching on the same VC, we find that variation in VC ownership does not significantly affect firm size at the IPO (i.e., exit outcome, Column 2). This suggests that the observed ownership level can be interpreted as an equilibrium outcome. Within this equilibrium, however, founders who secure a larger share of the equity for themselves are thus better off in terms of personal wealth.

A second identification challenge is that unobserved founder characteristics could influence both the founder’s retained ownership, the corresponding VC ownership and the firm’s outcome. Directly controlling for founder fixed effects is infeasible, as few founders take multiple firms public. To address this, we proxy for founder type by grouping them based on their ownership retention. Specifically, within groups defined by IPO year, firm age, and industry, we classify founders with above-mean ownership as high type and those with below-mean ownership as low type. The reasoning is that the grouping (year, age, industry) and matching (total assets) control for the baseline probability of achieving an IPO. Conditional on this, a founder’s ability to retain high ownership likely signals higher inherent quality or bargaining power. By matching within these founder-type groups, we compare firms where founders have similar observed propensities for high ownership, thereby controlling for these unobserved founder traits. We begin by identifying treatment firms with above-mean VC blockholder ownership. For each, we select a control firm from the same founder-type group that has below-mean VC blockholder ownership, matching on firm size (log total assets) with a caliper of 0.2 standard deviations. The results are presented in Columns (4)–(6) of Table 5, with a balance test for the matched sample provided in Panel B of Table D2. As shown in Column (4), after conditional on founder ownership level, a higher VC blockholder ownership stake maintains a significant negative association with founder wealth.

## 4 The Impact of VC Financing: Time-Series Dynamics

This section examines the time-series relationship between VC financing and founder outcomes by analyzing IPOs grouped by year, demonstrating how the different IPO era influenced founder ownership choices and wealth over the sample period. The IPO year is a

significant determinant, accounting for 15% of the cross-sectional variation in founder ownership and 14% of the variation in VC blockholder ownership based on simple fixed-effects regressions.

We begin by documenting three key time-series patterns in ownership and founder wealth. First, average founder ownership at IPO has declined over time, while VC blockholder ownership has increased. Second, despite this decline in ownership, founder wealth at IPO has risen over the sample period. Third, the average size of firms at IPO has grown substantially and is highly correlated with founder wealth. Taken together, these facts indicate that the positive “scale effect” on wealth—facilitated by VC-backed growth—has dominated the negative “ownership effect” of retaining a smaller percentage of the firm, resulting in rising founder wealth despite declining ownership.

We next examine the evolution of the trade-offs between founder ownership, VC ownership, and founder wealth. We establish three findings. First, the ownership/financing trade-off between founder and VC ownership shows no clear time trend. Second, the positive relationship between founder ownership and founder wealth has remained stable throughout the sample period. Third, the negative relationship between VC blockholder ownership and founder wealth has also been stable over time.

Collectively, these results suggest that despite significant shifts in ownership structures across different IPO eras, the underlying economic trade-offs have remained constant. The observed decline in founder ownership is not driven by a wealth-for-ownership trade-off conditional on going public. Rather, founders give up ownership to secure the VC backing necessary for their firms to grow large enough to undertake an IPO, with the wealth gains primarily stemming from the resulting increase in firm scale.

## 4.1 The Time Trend of Ownership and Founder Wealth

We first document a decline in founder ownership alongside a rise in VC ownership over the sample period, a pattern visually evident in Figure 6. The regression results in Table 2 provide supporting evidence. In a specification with founder ownership as the dependent variable and the IPO year as a continuous independent variable, the coefficient is a statistically significant  $-0.27$  (Column 3). This indicates that a one standard deviation increase in the IPO year (9 years) is associated with a 0.35 standard deviation (9 percentage point) decrease in founders’ ownership. To ensure this pattern is not an artifact of firms going public at later stages in their lifecycle in more recent years—a factor that could mechanically lower founder ownership—we control for the effect of firm age at IPO. To do so, we first estimate the regression of founder ownership on firm age, controlling for VC ownership (institutional

and board representatives), IPO year, and industry fixed effects (as in Equation 2). The adjustment is then made by subtracting the estimated age coefficient multiplied by the firm’s actual age from the raw ownership value. The resulting age-adjusted trend, presented in Figure 7, confirms that the decline in founder ownership over time is a robust feature of the data.

To illustrate the economic magnitude of founder ownership at IPO, Columns (1)–(2) of Table 6 report the summary statistics by year. Mean founder ownership declined from 37.7% in 1996 to 17.0% in 2021, while the median fell from 32.6% to 9.7%. This decline was concentrated during the dot-com era of the late 1990s and early 2000s. In contrast, VC blockholder ownership increased over the sample period. As detailed in Columns (3)–(4), the mean VC institutional ownership rose from 19.2% in 1996 to 34.6% in 2021. The median increased more substantially, from 0 to 35.2%. The larger increase in the median is consistent with the rising share of VC-backed IPOs over time. VC blockholder ownership levels were highest from 2014 to 2019, with the median peaking at 58% in 2014, followed by a modest decline in the most recent years. A similar upward trend is observed for VC-affiliated board members (Columns (5)–(6)). The mean VC representative ownership rose from 8.5% in 1996 to 18.2% in 2021, while the median increased from 0% to 8.5%.

Despite the continuous decline in founder ownership and the established cross-sectional finding that VC ownership negatively impacts wealth (Section 3.2), average founder wealth has maintained a positive trend (Figure 8, blue line). This apparent paradox is resolved by the overriding impact of increasing firm scale. Market capitalization (red line) has grown at a significantly faster rate than founder wealth, with a linear time trend coefficient more than double that of founder wealth (0.042 vs. 0.017). The high correlation between these series demonstrates that firm size has been the primary driver of wealth creation. Consequently, the positive “scale effect” on wealth—facilitated by VC-backed growth—has dominated the negative “ownership effect” of retaining a smaller firm percentage, leading to rising founder wealth despite declining ownership. This finding is consistent with a structural shift in the economy, as noted by Ritter (2011), where the value of being part of a larger, scaled organization outweighs the profitability of remaining a small, independent entity.

## 4.2 Time-Series Patterns in Ownership and Wealth Trade-offs

We analyze whether the relationship between VC ownership and founder outcomes has changed over time.

We first quantify the time-series ownership/financing trade-off between founder and VC ownership using a methodology from Section 3.1. For each three-year window, we run a

regression with normalized founder ownership as the dependent variable and normalized VC blockholder ownership as the independent variable, both standardized to have mean 0 and standard deviation 1, while controlling for firm age and industry fixed effects. This normalization ensures that the coefficients are comparable over time. The regression coefficients are plotted as a blue line in Figure 9, with their magnitude shown on the left y-axis. These coefficients reflect how many standard deviations of ownership the founder gives up to obtain an additional standard deviation of VC ownership. The estimated ownership/-financing trade-off ranges from  $-0.5$  to  $-0.2$  and shows no clear time trend. However, it moves counter-cyclically to the IPO market—becoming more negative during boom periods and less negative during busts (we show number of IPOs in the grey bars). This pattern is intuitive: when founders are more willing to exchange ownership for venture capital, a greater number of companies are able to go public.

We then analyze the ownership-wealth trade-off using the methodology from Section 3.2. For rolling three-year windows, we regress the normalized log of founder wealth on normalized founder ownership and VC blockholder ownership, standardizing variables to have a mean of 0 and a standard deviation of 1, and controlling for firm characteristics, age, and industry fixed effects. This normalization ensures that the coefficients are comparable over time. The coefficients for founder ownership (Figure 9, red line) show a persistently positive relationship, indicating that higher founder ownership is associated with higher founder wealth throughout the period, with no clear time trend. The coefficients for VC blockholder ownership (green line) show a persistently negative relationship—indicating that higher VC ownership is associated with lower founder wealth throughout the period—and also exhibit no clear trend.

In sum, the trade-offs between ownership and wealth have remained stable over time, conditional on firms going public. This implies that, at any given point, founders face the same trade-off: to maximize wealth, they should sell just enough equity to VCs to enable their firm to reach the IPO threshold and capture the resulting scale benefits. However, the de facto requirement for an IPO has evolved, requiring larger firm size over time. Consequently, founders must cede more ownership to secure the VC backing needed to cross this higher threshold. While this results in lower ownership percentages, it is not necessarily detrimental to founders, as the wealth generated from a substantially larger, VC-scaled company often outweighs the ownership effect of retaining a smaller firm percentage.

## 5 Founders' Wealth over the Post-IPO Life Cycle

This section examines the long-term impact of the ownership-wealth trade-off made at the IPO. We introduce a comprehensive measure of founder wealth creation over the entire firm lifecycle, starting from their wealth at the IPO. We find that nearly half of the variation in founders' post-IPO wealth growth rates can be attributed to their ownership stake at the IPO and the time since the firm went public, demonstrating that the consequences of this initial trade-off are long-lived.

A founder's total wealth from their firm is determined by the interplay of their ownership decisions, the firm's performance, and gains from acquiring shares at a discount. Relying solely on the stock value of their retained ownership provides an incomplete picture, as it omits the value of liquidated stakes and shares acquired below market price. To address this, our measure re-invests the proceeds from any liquidated own-firm shares into a value-weighted market portfolio and generates a return of  $r_{m,t+1}$ . This transfers wealth over time in a way that captures the opportunity cost of divestment.<sup>15</sup> We also account for wealth created when founders acquire new shares in their firm at below-market prices, utilizing transaction-level data to capture these gains. Given the data on own-firm stakes, founder acquisitions, and own-firm and market returns, the wealth dynamics for founder  $i$  at IPO age  $t$  can be described as follows:

$$\Delta W_{i,t} = W_{i,t-1} \left( r_{m,t} + \theta_{i,t-1} (r_{i,t} - r_{m,t}) \right) + \delta_{i,t}, \quad (5)$$

where  $\theta_{i,t}$  represents the proportion of wealth that founders have in own-firm equity, earning a return of  $r_{i,t+1}$ . We denote the wealth gain for founders through acquiring shares at a below-market price as  $\delta_{i,t}$ . Formally,  $\delta_{i,t}$  is defined as  $(P_{i,t} - P_{i,t}^{acq}) N_{i,t}^{acq}$ , where  $P_{i,t}^{acq}$  represents the price founders pay for acquiring new shares and  $N_{i,t}^{acq}$  is the number shares they acquire.

We demonstrate that accounting for post-IPO ownership changes is critical; relying solely on the value of retained shares underestimates wealth by 50% for founders of ten-year-old IPO firms (Table 9). Furthermore, gains from strategically acquiring shares at a discount contribute significantly, constituting 5% of total wealth on average. Our analysis of this accumulation process reveals that post-IPO ownership is path-dependent, heavily influenced by the initial IPO stake, with trading patterns consistent with founders managing adjustment

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<sup>15</sup>While our framework can accommodate other benchmark returns, it is informative to use the market return in order to highlight the impact of individual over/under performance relative to the overall market. In the rare instances where founders acquire additional shares but cannot fully fund the purchase through proceeds from prior share sales, we allow them to borrow at the 3-month Treasury bill rate. See Hall and Woodward (2010) for a calibrated model of founder wealth (up to and including the IPO only) for VC-backed firms that includes wage income.

costs to maintain a target ownership level. A key quantitative finding is that this predictable ownership component—determined by a founder’s age and stake at the IPO—explains 40% of the variation in their wealth growth rates.

## 5.1 The Dynamics of Retained Ownership

We first show that founders’ ownership pattern heavily depend on IPO era. We investigate this trend by examining subsamples based on the timing of the firms’ public offerings, dividing the full sample into four subsamples: 1996—2000, 2001—2005, 2006—2010, and 2011—2018. As shown in Figure 11, founders’ ownership declines over the life cycle across all subsamples, with a more rapid decline initially followed by a slower decrease later on. Founders whose firms went public at earlier years exhibit higher ownership levels at the IPO, as well as in the subsequent years following the IPO. Specifically, for firms that went public between 1996 and 2000, founders’ ownership decreases from 34.8% prior to the IPO to 22.8% one year post-IPO, and further declines to 20.12% by the age of 7. In contrast, founders whose firms went public in later years exhibit lower ownership levels at the IPO, as well as in the subsequent years following the IPO. Specifically, for firms that went public between 2011 and 2018 founders’ ownership decreases from 14.5% prior to the IPO to 10.8% one year post-IPO, and further declines to 6.29% by the age of 7.<sup>16</sup>

We analyze the dynamics of post-IPO founder ownership using the following regression specification for firm  $i$  at IPO age  $t$ :

$$\alpha_{i,t}^F = \beta_0 \alpha_{i,t-1}^F + \beta_1 \alpha_{i,t-1}^F \times t + \beta_2 Liq_{i,t}^H + \beta_3 Liq_{i,t}^L + X_{i,t} + \gamma + \eta + \xi + \epsilon_{i,t}, \quad (6)$$

where  $\alpha_{i,t}^F$  is the founder ownership level. We control for stock liquidity following Fabisik et al. (2021), include firm-level controls  $X_{i,t}$ , and incorporate fixed effects for IPO year ( $\gamma$ ), industry ( $\eta$ ), and calendar year ( $\xi$ ).

The results are presented in Columns (1)–(2) of Table 7. The specification in Column (1) explains 93% of the variation in post-IPO founder ownership. The coefficients indicate a high degree of persistence: a one-unit increase in lagged ownership is associated with a 0.79-unit increase in current ownership. This persistence grows stronger over time, as the positive interaction with IPO age shows the effect increases by 1.6 percentage points each year. This pattern is consistent with founders managing their ownership toward a long-term target that is heavily influenced by their initial IPO stake. To illustrate this path dependence, we use the coefficients from Column (1) to predict post-IPO ownership based solely on the initial

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<sup>16</sup>We present other key summary statistics for founders’ ownership and the changes in their ownership in the years following the IPO across different IPO ages in Table E1.

IPO ownership and IPO age. This simple prediction explains 66% of the actual variation in post-IPO ownership, underscoring that founder ownership is largely predetermined at the IPO and follows a stable, predictable trajectory.

We estimate the same specification for VC representatives (Columns 3–4). The ownership of VC representatives is also highly persistent and largely determined by their initial stake at the IPO. A key distinction emerges in the post-IPO period: whereas an ownership/-financing trade-off characterized the pre-IPO phase (with founders ceding ownership to VCs for financing), both groups become net sellers after the IPO, with VCs divesting at a faster rate than founders. We also find that founders’ ownership is significantly less sensitive to liquidity than that of VC representatives (coefficients are approximately half the magnitude). This supports our theory that founders adhere to a less reactive ownership path.

## 5.2 Wealth from Acquiring Shares at a Discounted Price

Founders not only sell shares as their firms age, but they also acquire new shares, often at prices that are substantially below the market price. To fully understand the wealth created from own-firm ownership, including acquisitions is important. The findings regarding acquisitions of shares post-IPO is a novel contribution of our study. We make two key findings. First, founders acquire substantial shares at below-market prices. For acquisitions outside of open-market purchases, founders pay an average of 23% of the current market price. Second, the median founder disposes of 5% of their shares in a given year while at the same time adding 2% new shares. The gross change is over double the net change in shares.

The three primary methods for insiders to dispose of their shares are through open market trades, exercising and selling options, and selling shares back to the issuers (e.g., under repurchase agreements). The three primary methods for insiders to acquire shares are through open market trades, exercising options, and receiving grants. We provide key summary statistics on the ratio of trading price to the end-of-day price for founders’ trades related to disposals and acquisitions in Panel A of Table 8. The prices at which founders dispose of their shares are close to the end-of-day trading price, with an average price ratio of 0.97 and a median price ratio of 1. Most founders’ disposals occur through open market trades, with an average price ratio of 0.99 and a median price ratio of 1. Regarding acquisitions, the prices at which founders acquire their shares are significantly lower than the end-of-day trading price, with an average price ratio of 0.38 and a median price ratio of 0.20. Most acquisitions occur through exercising options, with an average price ratio of 0.23 for founders. For acquisitions involving grants, the average price ratio for founders is 0.19.

We present key summary statistics on the ratio of shares traded to shares held by insiders

from the previous period for founders' trades related to disposals and acquisitions at the transaction level in Panel B of Table 8. We then aggregate these transactions to the annual level if they occur within the same year and display the summary statistics in Panel C of Table 8. The median disposal rate for founders is 5% of their shares, while their acquisition rate is at 2%, resulting in a net sale of 3%. Given this evidence, founders have the opportunity to acquire shares at prices significantly lower than the market rate, and the quantity of shares they acquire at these reduced prices is substantial.

For completeness, we report the same set of statistics for VC representatives (Appendix Table F1) and all insiders (Appendix Table F2).

### 5.3 Decomposing Post-IPO Wealth Growth Rates

This section analyzes the variation in founders' post-IPO wealth growth rates, decomposing it into components driven by firm performance, retained ownership stakes, and benefits from acquiring discounted shares. In particular, we quantify the extent to which a founder's ownership stake at the IPO determines their subsequent wealth growth rates.

We define the wealth growth rate for founder  $i$  at time  $t$ , based on Equation 5, as:

$$r_{i,t}^W = \frac{\Delta W_{i,t}}{W_{i,t-1}} = \left( r_{m,t} + \theta_{i,t-1}(r_{i,t} - r_{m,t}) \right) + \frac{\delta_{i,t}}{W_{i,t-1}}, \quad (7)$$

where we denote  $r_{i,t}^\delta = \delta_{i,t}/W_{i,t-1}$  as the return from wealth gained through acquiring discounted shares.

To connect wealth growth rates directly to observable firm-level variables, we implement a change of variables. We substitute for the portfolio weight  $\theta_{i,t}$  using the identity  $\theta_{i,t}W_{i,t} \equiv \alpha_{i,t}^F P_{i,t} N_{i,t}$ ; both sides of this equation represent the market value of the founder's retained shares, where  $\alpha_{i,t}^F$  is founder ownership,  $P_{i,t}$  is share price, and  $N_{i,t}$  is the number of outstanding shares. This allows us to rewrite the equation as:

$$\frac{W_{i,t-1}}{P_{i,t-1}N_{i,t-1}}(r_{i,t}^W - r_{m,t}) = \alpha_{i,t-1}(r_{i,t} - r_{m,t}) + \frac{W_{i,t-1}}{P_{i,t-1}N_{i,t-1}}r_{i,t}^\delta. \quad (8)$$

The scalar  $\frac{W_{i,t-1}}{P_{i,t-1}N_{i,t-1}}$  ensures the comparability of wealth growth rates to firm returns. The left-hand side represents scaled excess wealth growth rates. The first term on the right captures the joint effect of founder ownership and firm-specific excess returns, while the second term captures the scaled contribution from discounted share acquisitions. Using this equation, we find that the first term  $\alpha_{i,t-1}(r_{i,t} - r_{m,t})$  accounts for 81% of the variance in scaled excess wealth growth rates, while the second term  $\frac{W_{i,t-1}}{P_{i,t-1}N_{i,t-1}}r_{i,t}^\delta$  accounts for 12%

of the variance. Notably, these two terms are positively correlated, with their covariance contributing to 7% of the variance in scaled excess wealth growth rates. This positive correlation is primarily driven by the fact that founders with higher ownership also experience greater wealth gains from receiving discounted shares.

To understand the distinct effects of ownership and firm performance on wealth growth rates, we further decompose  $\alpha_{i,t-1}(r_{i,t} - r_{m,t})$  as follows:

$$\alpha_{i,t-1}(r_{i,t} - r_{m,t}) = \hat{\alpha}_{i,j,t-1}(r_{i,t} - r_{m,t}) + \epsilon_{i,t-1}(r_{i,t} - r_{m,t}). \quad (9)$$

Here,  $\hat{\alpha}_{i,t}$  represents the expected ownership based on the founders' ownership at the time of the IPO and years since the IPO, as outlined in Section 5.1. The first term on the right-hand side represents the joint dynamics of firm performance and the expected ownership based on founders' ownership at the IPO and their IPO ages. The second term on the right-hand side captures the joint dynamics of firm performance and the residual variation in founders' ownership. Using this equation, we find that  $\hat{\alpha}_{i,t-1}(r_{i,t} - r_{m,t})$  accounts for 70% of the total variance in actual ownership times relative firm performance.

Finally, we decompose  $\hat{\alpha}_{i,j,t-1}(r_{i,t} - r_{m,t})$ . We begin by rewriting  $\hat{\alpha}_{i,t-1}(r_{i,t} - r_{m,t}) \approx \hat{\alpha}_{i,t-1} \frac{1+r_{i,t}}{1+r_{m,t}}$ , and then take the logarithm to obtain:

$$\log \left( \hat{\alpha}_{i,t-1} \frac{1+r_{i,t}}{1+r_{m,t}} \right) = \log(\hat{\alpha}_{i,t-1}) + \left( \log(1+r_{i,t}) - \log(1+r_{m,t}) \right). \quad (10)$$

The first term on the right hand side represents the dynamics of the expected founders' ownership, while the second term represents firm performance. Using this equation, we find that the first term accounts for 67% of the total variation, while the second term accounts for 33%.

In conclusion, our stepwise decomposition reveals that the primary driver of variation in founders' excess wealth growth rates is the path of their expected ownership, which is largely determined at the IPO. 38% of the variation in founders' excess wealth growth rates can be attributed to the variation in the expected ownership, which is based on the founders' ownership at the time of the IPO and years since the IPO. 12% can be attributed to wealth gains from acquiring shares at a discounted price.

## 6 Path to the Right Tail

In this section, we analyze the determinants of the level of superstar founder wealth, and examine how the founders who reach the far right tail of the wealth distribution achieve

their enormous fortunes. The ultimate wealth outcomes for superstar founders vary widely, with vast differences observed between average and median results. While founders’ total wealth has shown significant growth over time, increasing nearly 60 times from an average of \$39 million in 1996 to \$2.32 billion in 2018, achieving truly enormous fortunes requires exceptional circumstances. We find that the median founder would have been wealthier if they had liquidated their entire own-firm stake at the IPO and invested the proceeds in the overall market. However, the existence of a fat right tail of own-firm performance alters this outcome for the few most successful founders. The wealthiest founders result from fairly long-lived own-firm stakes in high-performing firms.

We perform two decompositions to isolate the sources of wealth creation or destruction over the firm’s life cycle. Each decomposition breaks a founder’s terminal wealth into two components, providing different counterfactual perspectives.

The first decomposition illustrates the wealth a founder would have achieved by immediately diversifying their IPO stake into the market portfolio. The two terms in this decomposition are the “IPO Value”, and the residual value that is created (or destroyed) because the founder holds on to some own-firm shares, which we denote “Growth Value”. The growth value will be positive if the firm outperformed the market, and negative otherwise. It reflects the combined dynamics of founders’ ownership choices and the firm’s returns in excess of market returns. We include the value of acquiring shares at below-market prices in the IPO Value and compounded at market returns.

$$W_T = \underbrace{W_0 \prod_{t=1}^T (1 + r_{m,t}) + \sum_{t=1}^T \delta_t \prod_{s=t+1}^T (1 + r_{m,s})}_{\text{“IPO Value”}} + \underbrace{\sum_{t=1}^T W_{t-1}^F (r_t - r_{m,t}) \prod_{s=t+1}^T (1 + r_{m,s})}_{\text{“Growth Value”}}, \quad (11)$$

where  $W^F \equiv \theta W$  is the founder’s wealth in the firm.

The second decomposition takes the opposite perspective, and illustrates the wealth founders would generate if they never sold any of the shares they held at IPO, which we denote “Never-Sell Value”. The second term in this decomposition is the value that is created or destroyed because the founder sold own firm shares. This value, which we denote as “Liquidation Value” will be negative if the firm outperformed the market. Again this second term reflects the combined dynamics of founders’ ownership choices and the market returns in excess of the firm’s returns. We include the value of acquiring shares at below-market prices in the Never-Sell Value term.

$$W_T = W_0 \underbrace{\prod_{t=1}^T (1 + r_t) + \sum_{t=1}^T \delta_t \prod_{s=t+1}^T (1 + r_s)}_{\text{"Never-Sell Value"}} + \underbrace{\sum_{t=1}^T \left( W_{t-1}^M (r_{m,t} - r_t) - \delta_t \right) \prod_{s=t+1}^T (1 + r_s)}_{\text{"Liquidation Value"}}, \quad (12)$$

where  $W^M \equiv (1 - \theta)W + \delta$  as their wealth in the market.

These two decompositions establish two economically meaningful counterfactual benchmarks for post-IPO ownership path. The substantial divergence between the value of selling everything at the IPO (IPO value) and only selling at the terminal date (Never-Sell Value) for most founders underscores the critical economic importance of the interplay between ownership decisions and firm performance.

We illustrate these decompositions with two examples. Figure 12 shows the wealth decomposition for Jeff Bezos (Amazon). As the top plot shows, his total wealth far exceeds the IPO value. This is driven by the dynamics in the bottom plot: Amazon substantially and consistently outperformed the market while Bezos maintained a significant ownership stake, resulting in a massive positive Growth Value. In fact, Bezos would have benefited from never liquidating any shares. Conversely, Figure 13 shows the decomposition for James McCann (1-800-Flowers). Here, the IPO Value is relatively large compared to his total wealth. As the bottom plot shows, his firm underperformed the market while he maintained a steady ownership stake. Consequently, the Growth Value is negative, meaning he would have been wealthier by fully liquidating his IPO stake and investing in the market.

The overall distribution of IPO Value, Never-Sell Value, and total wealth is presented in Figure 14. Three key insights emerge from this figure. First, the median IPO Value exceeds both the median Never-Sell Value and the median total wealth, indicating that a median founder would have been wealthier by liquidating their entire stake at the IPO and investing in the market. Second, Never-Sell Value is more dispersed than IPO Value due to founders' ongoing exposure to their own firms and the higher volatility of those individual firms' equity returns. Finally, the right tail of Never-Sell Value is thicker than that of IPO Value. The wealthiest "Superstar Founders" tend to be those whose firms have grown significantly over several years during which they retained a substantial ownership stake. In other words, superstar founders result from superstar firms, firms that receive a long series of positive return shocks. This divergence is quantified in Table 10. Toward the end of the sample, the median founder's Never-Sell Value is 30% lower than their IPO Value, while the mean Never-Sell Value is 30% higher.

Next, we analyze the contribution of the IPO Value and Never-Sell Value to founders' actual wealth. We find a stark divergence across the wealth distribution. For founders with

lower wealth, the IPO Value often exceeds their actual wealth, meaning they would have been better off liquidating their entire stake at the IPO. However, the importance of the IPO Value diminishes sharply for founders in the right tail. The top plot of Figure 15 shows the ratio of IPO Value to actual wealth across the wealth distribution. This ratio declines from above 1 to less than 0.1, confirming that the initial stake becomes a negligible component of extreme wealth. Conversely, the Never-Sell Value is critical for reaching the right tail. As shown in the bottom plot of Figure 15, the ratio of Never-Sell Value to actual wealth increases from below 1 to over 1.2 for the wealthiest founders. This indicates that a small group of founders could have achieved even greater wealth—reaching as high as \$191 billion in our sample—had they never sold any shares, underscoring that extreme fortunes are built on prolonged, high-performing ownership.

## 7 Conclusion

This paper provides the first comprehensive analysis of wealth accumulation by superstar founders from the moment of their firm’s IPO through its public lifecycle. By constructing a novel dataset and a comprehensive measure of founder wealth that starts with the IPO value of their stake and incorporates all subsequent changes, including share transactions and firm performance, we uncover the microfoundations of a significant driver of top-end wealth inequality.

Our analysis reveals that founder wealth is determined by a dynamic process with two distinct stages. The first is a strategic trade-off at the IPO, where founders exchange ownership for the scale enabled by venture capital. While this trade-off depresses founder wealth cross-sectionally, its net effect over time has been positive due to a dominant scale effect, as VCs help build larger firms. The second, post-IPO stage is shaped by three key factors: the evolution of their ownership stake, subsequent firm performance, and strategic acquisitions of shares at below-market prices. Their ownership trajectory is highly path-dependent, with two-thirds of its variation explained simply by their initial IPO stake and years since the IPO. This creates a predictable lifecycle where founders who start with larger stakes maintain higher ownership. While founders are net sellers of shares over time, they simultaneously acquire substantial new equity at steep discounts—a previously undocumented wealth source that contributes significantly to their fortunes.

These dynamics ultimately generate substantial dispersion in founder wealth, which directly shapes the right tail of the wealth distribution. The median founder—whose wealth at IPO already places them within the top 0.1% of U.S. households—would have been better off selling their entire stake at the offering. Meanwhile, the extreme right tail of wealth is

populated by founders who maintain significant, long-lived stakes in the firms that generate persistent outperformance.

Our findings bridge macroeconomics and corporate finance, offering a quantified, founder-level explanation for the rise in top wealth shares. We focus on the IPO as a critical entry channel into the top percentiles—the mean founder’s stake at IPO is well above the top 0.01% threshold for U.S. households. We demonstrate that the post-IPO ownership path and acquisitions are the key amplifiers that determine which of these new entrants will accumulate extreme fortunes. This highlights that the mechanisms of extreme wealth creation extend beyond the IPO and are a continuous process throughout the lifecycle of high-growth firms.

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## Figures

**Figure 2:** This figure shows an example of the IPO prospectus for Celebrate Express IPO in 2004. The first column lists the names of beneficial owners, while Columns 2 and 3 detail the shares and ownership percentages held by these beneficial owners prior to the IPO. Column 4 indicates the number of shares being offered at the time of the IPO. Columns 5 and 6 represent the number of shares and ownership percentages held post-IPO. We gather insider information from the section titled “Named Executive Officers and Directors”. Original link: Celebrate Express’ IPO prospectus.

| Beneficial Owner                                                 | Shares Beneficially Owned Prior to this Offering |                        | Number of Shares to be Sold in this Offering | Shares Beneficially Owned After this Offering |                        |
|------------------------------------------------------------------|--------------------------------------------------|------------------------|----------------------------------------------|-----------------------------------------------|------------------------|
|                                                                  | Number of Shares                                 | Percent of Outstanding |                                              | Number of Shares                              | Percent of Outstanding |
| Five Percent Shareholders                                        |                                                  |                        |                                              |                                               |                        |
| ARCH Venture Fund IV, L.P.(1)                                    | 1,031,196                                        | 20.9%                  | —                                            | 1,031,196                                     | 14.8%                  |
| Advanced Technology Ventures V, L.P.(2)                          | 649,768                                          | 13.2%                  | 259,907                                      | 389,861                                       | 5.6%                   |
| Sigma Partners IV, L.P.(3)                                       | 618,125                                          | 12.5%                  | 309,062                                      | 309,063                                       | 4.4%                   |
| Jan A. Jewell(4)                                                 | 1,721,855                                        | 34.9%                  | —                                            | 1,721,855                                     | 24.6%                  |
| Named Executive Officers and Directors                           |                                                  |                        |                                              |                                               |                        |
| Michael K. Jewell(5)                                             | 1,721,855                                        | 34.9%                  | —                                            | 1,721,855                                     | 24.6%                  |
| Lori Liddle(6)                                                   | 69,537                                           | 1.4%                   | —                                            | 69,537                                        | 1.0%                   |
| Darin White(7)                                                   | 24,091                                           | *                      | —                                            | 24,091                                        | *                      |
| Dina Alhadeff                                                    | —                                                | —                      | —                                            | —                                             | —                      |
| Travis Roberts(8)                                                | 37,172                                           | *                      | —                                            | 37,172                                        | *                      |
| Keith Crandell(9)                                                | 1,044,993                                        | 21.2%                  | —                                            | 1,044,993                                     | 15.0%                  |
| Donald R. Hughes                                                 | —                                                | —                      | —                                            | —                                             | —                      |
| Tim McGarvey                                                     | —                                                | —                      | —                                            | —                                             | —                      |
| Jean Reynolds                                                    | —                                                | —                      | —                                            | —                                             | —                      |
| Jack Sansolo, Ph.D(10)                                           | 24,835                                           | *                      | —                                            | 24,835                                        | *                      |
| Ronald A. Weinstein(11)                                          | 212,873                                          | 4.3%                   | 88,742                                       | 124,131                                       | 1.8%                   |
| All executive officers and directors as a group (12 persons)(12) | 3,135,356                                        | 61.2%                  | 88,742                                       | 3,046,614                                     | 42.4%                  |

**Figure 3:** This figure shows an example of the proxy statement for Celebrate Express in 2006. The first column lists the names of beneficial owners, while Columns 2 and 3 detail the shares and ownership percentages held by these beneficial owners. We gather insider information from the section titled “Named Executive Officers and Directors”. Original link: Celebrate Express’ Proxy Statement

| <u>Name and Address of Beneficial Owner(1)</u>                                                 | <u>Amount and Nature of Beneficial Ownership(2)</u> | <u>Percent of Class</u> |
|------------------------------------------------------------------------------------------------|-----------------------------------------------------|-------------------------|
| <b>Five Percent Shareholders</b>                                                               |                                                     |                         |
| ARCH Venture Fund IV, L.P.(3)<br>8725 Higgins Road, Suite 290<br>Chicago, IL 60631             | 1,031,196                                           | 13.2%                   |
| Cortina Asset Management, LLC(4)<br>330 East Kilbourn Avenue, Suite 850<br>Milwaukee, WI 53202 | 864,267                                             | 11.1                    |
| Massachusetts Financial Services Company(5)<br>500 Boylston Street<br>Boston, MA 02116         | 478,980                                             | 6.1                     |
| Michael K. Jewell and Jan A. Jewell(6)<br>1020 88th Avenue NE<br>Bellevue, WA 98004            | 1,181,121                                           | 15.1                    |
| Spencer Capital Management, LLC(7)<br>1995 Broadway, Suite 801<br>New York, NY 10023           | 1,200,697                                           | 15.4                    |
| Springhouse Capital, LP(8)<br>520 Madison Avenue, 35th Floor<br>New York, NY 10022             | 542,921                                             | 7.0                     |
| T2 Partners Management, LP(9)<br>145 East 57th Street, 10th Floor<br>New York, NY 10022        | 709,349                                             | 9.1                     |
| <b>Named Executive Officers and Directors</b>                                                  |                                                     |                         |
| Kevin A. Green                                                                                 | *                                                   |                         |
| Darin White                                                                                    | *                                                   |                         |
| Keith Crandell(10)                                                                             | 1,057,140                                           | 13.5                    |
| Estelle DeMuesy                                                                                | *                                                   |                         |
| Donald R. Hughes                                                                               | *                                                   |                         |
| Jean Reynolds                                                                                  | *                                                   |                         |
| Stephen Roseman(11)                                                                            | 294,699                                             | 3.8                     |
| Kenneth Shubin Stein, M.D.(12)                                                                 | 1,200,697                                           | 15.4                    |
| Ronald A. Weinstein(13)                                                                        | 131,790                                             | 1.7                     |
| All executive officers and directors as a group (10 persons)(14)                               | 2,747,513                                           | 34.8                    |

**Figure 4:** This figure shows an example of the Form 4 statement for the vice president of Celebrate Express following a transaction on July 28, 2005. Table 1 presents the non-derivative securities traded, while Table 2 displays the derivative securities traded. This form specifies the nature of the transactions (indicated as “S” for open market sales in this instance), the number of shares traded, whether the transaction represents a disposal (D) or acquisition (A), and the price at which the shares were traded. Original link: Celebrate Express Form 4.

|                                                                   |         |          |                                                                                        |  |  |                                                                                                                                                                                                                               |  |  |
|-------------------------------------------------------------------|---------|----------|----------------------------------------------------------------------------------------|--|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| 1. Name and Address of Reporting Person*<br><u>Roberts Travis</u> |         |          | 2. Issuer Name and Ticker or Trading Symbol<br><u>CELEBRATE EXPRESS, INC. [ BDAY ]</u> |  |  | 5. Relationship of Reporting Person(s) to Issuer<br>(Check all applicable)<br>Director 10% Owner<br><input checked="" type="checkbox"/> Officer (give title below) Other (specify below)<br><u>Vice President, Operations</u> |  |  |
| (Last)                                                            | (First) | (Middle) | 3. Date of Earliest Transaction (Month/Day/Year)<br><u>07/28/2005</u>                  |  |  | 6. Individual or Joint/Group Filing (Check Applicable Line)<br><input checked="" type="checkbox"/> Form filed by One Reporting Person<br>Form filed by More than One Reporting Person                                         |  |  |
| 11220 120TH AVENUE NE                                             |         |          | 4. If Amendment, Date of Original Filed (Month/Day/Year)                               |  |  |                                                                                                                                                                                                                               |  |  |
| (Street)<br><u>KIRKLAND WA 98033</u>                              |         |          |                                                                                        |  |  |                                                                                                                                                                                                                               |  |  |
| (City) (State) (Zip)                                              |         |          |                                                                                        |  |  |                                                                                                                                                                                                                               |  |  |

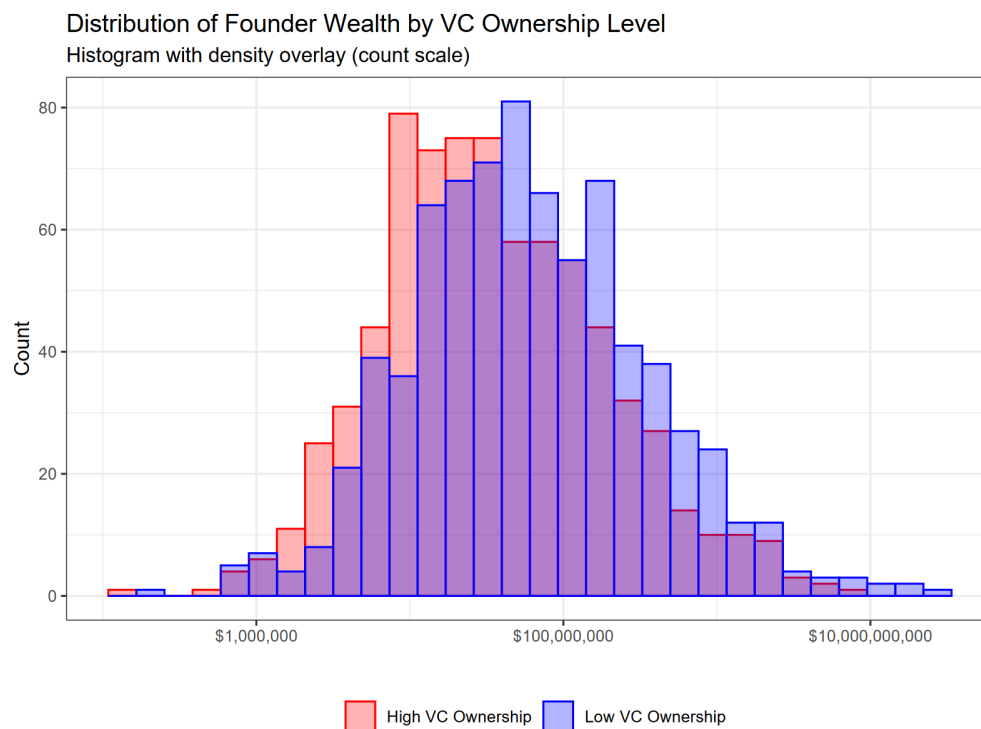
  

| Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned |                                      |                                                    |                                |   |                                                                   |            |                  |                                                                                               |                                                          |                                                       |
|----------------------------------------------------------------------------------|--------------------------------------|----------------------------------------------------|--------------------------------|---|-------------------------------------------------------------------|------------|------------------|-----------------------------------------------------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------|
| 1. Title of Security (Instr. 3)                                                  | 2. Transaction Date (Month/Day/Year) | 2A. Deemed Execution Date, if any (Month/Day/Year) | 3. Transaction Code (Instr. 8) |   | 4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5) |            |                  | 5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4) | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 7. Nature of Indirect Beneficial Ownership (Instr. 4) |
|                                                                                  |                                      |                                                    | Code                           | V | Amount                                                            | (A) or (D) | Price            |                                                                                               |                                                          |                                                       |
| <u>Common Stock</u>                                                              | <u>07/28/2005</u>                    |                                                    | <u>S</u>                       |   | <u>13,400</u>                                                     | <u>D</u>   | <u>\$13.6843</u> | <u>4,993</u>                                                                                  | <u>D</u>                                                 |                                                       |

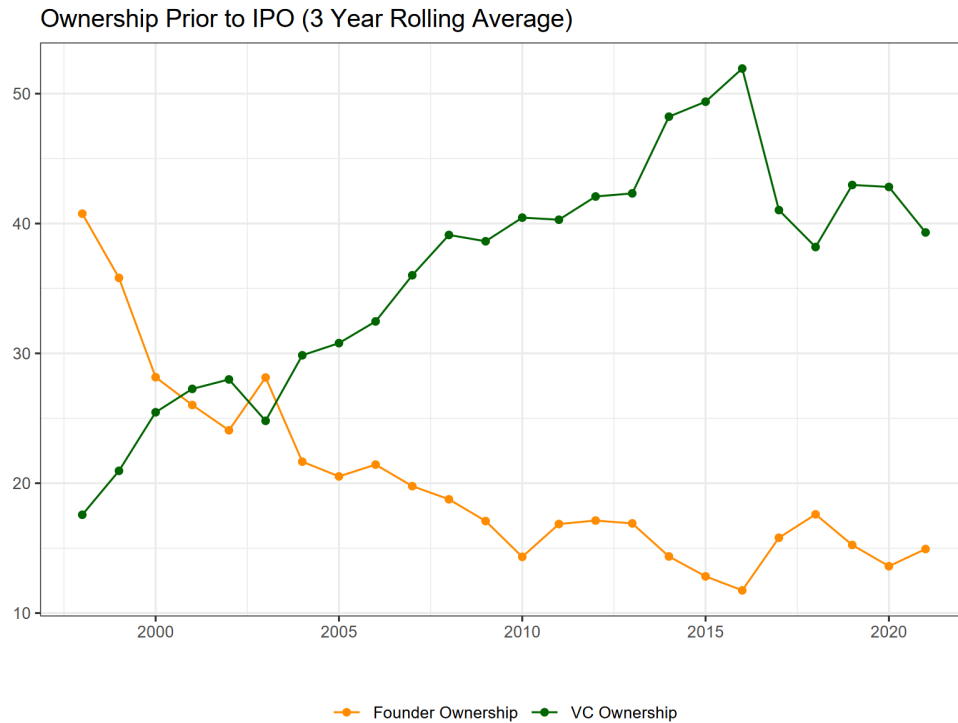
  

| Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned<br>(e.g., puts, calls, warrants, options, convertible securities) |                                                        |                                      |                                                    |                                |   |                                                                                        |                                                          |                 |                                                                                   |                                            |                                                                                                    |                                                           |                                                        |
|-------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|--------------------------------------|----------------------------------------------------|--------------------------------|---|----------------------------------------------------------------------------------------|----------------------------------------------------------|-----------------|-----------------------------------------------------------------------------------|--------------------------------------------|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------|--------------------------------------------------------|
| 1. Title of Derivative Security (Instr. 3)                                                                                                      | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day/Year) | 3A. Deemed Execution Date, if any (Month/Day/Year) | 4. Transaction Code (Instr. 8) |   | 5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) | 6. Date Exercisable and Expiration Date (Month/Day/Year) |                 | 7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4) | 8. Price of Derivative Security (Instr. 5) | 9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4) | 10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 11. Nature of Indirect Beneficial Ownership (Instr. 4) |
|                                                                                                                                                 |                                                        |                                      |                                                    | Code                           | V |                                                                                        | Date Exercisable                                         | Expiration Date |                                                                                   |                                            |                                                                                                    |                                                           |                                                        |
|                                                                                                                                                 |                                                        |                                      |                                                    |                                |   |                                                                                        |                                                          |                 |                                                                                   |                                            |                                                                                                    |                                                           |                                                        |

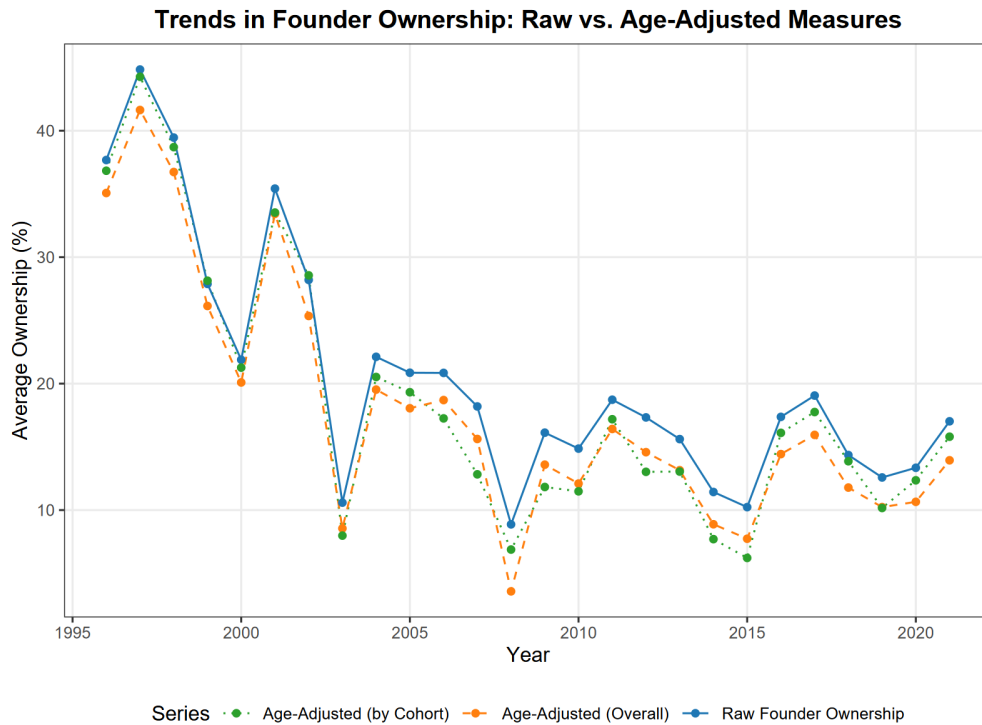
**Figure 5:** This figure presents histograms of founder wealth at IPO, grouped by VC ownership level. The sample comprises firms that completed IPOs between 1996 and 2021, restricted to those with positive founder ownership. The sample is divided at the mean of aggregate VC institutional holdings exceeding 5% ownership thresholds. The wealth distribution is displayed on a logarithmic scale, while the x-axis shows actual dollar values.



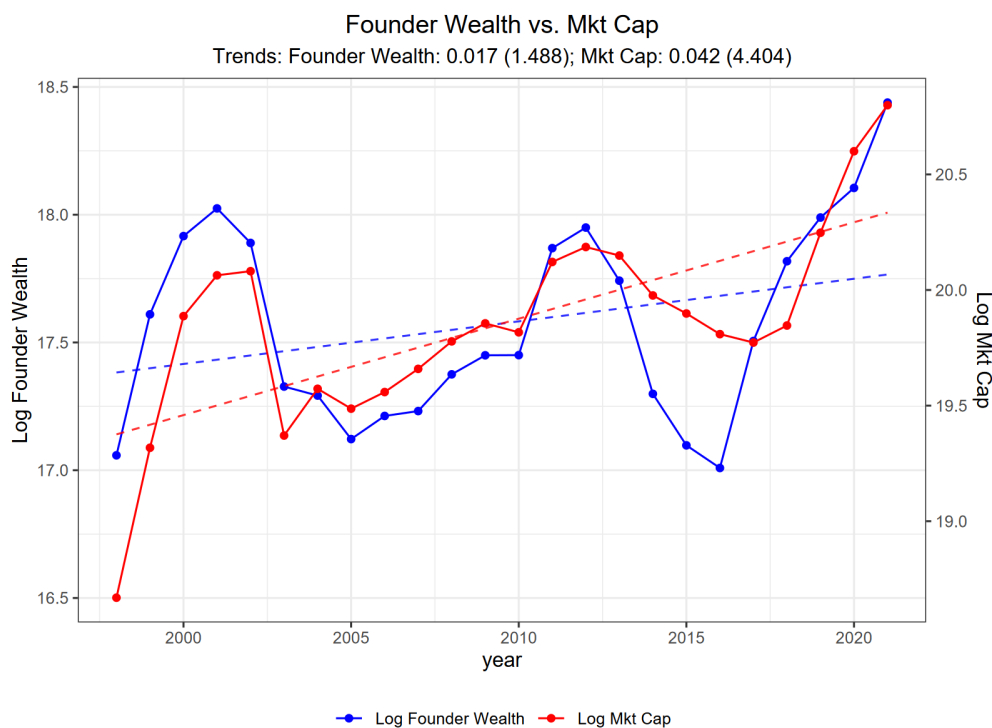
**Figure 6:** This figure presents 3-year rolling averages (right-aligned) of ownership structures at IPO. The sample comprises firms that completed IPOs between 1996 and 2021, restricted to those with positive founder ownership at the time of offering. Founder ownership is calculated as the firm-level equity retention, while VC ownership aggregates all institutional VC holdings exceeding 5% ownership thresholds. The plotted points represent mean values, with error bars denoting 95% confidence intervals calculated across the rolling window periods.



**Figure 7:** This figure compares three measures of average founder ownership across IPO years. (1) Raw Founder Ownership (blue solid line) shows the actual, unadjusted pre-IPO ownership percentage. (2) Age-Adjusted (Overall) (orange dashed line) shows ownership adjusted for a general age effect. This is calculated by estimating a regression of founder ownership on firm age, controlling for VC ownership (institutional and board representatives), IPO year, and industry fixed effects. The adjustment is made by subtracting the estimated age coefficient multiplied by the firm's actual age from the raw ownership value. (3) Age-Adjusted (by Cohort) (green dotted line) shows ownership adjusted for age effects that are specific to a firm's maturity stage. Separate regressions are run within three cohorts—young ( $\text{age} \leq 5$ ), medium ( $5 < \text{age} \leq 10$ ), and mature ( $\text{age} > 10$ ) firms—to estimate distinct age coefficients. The adjustment then subtracts the relevant cohort-specific age coefficient multiplied by the firm's actual age. All measures are derived from a sample of true IPOs where founders held positive ownership stakes.



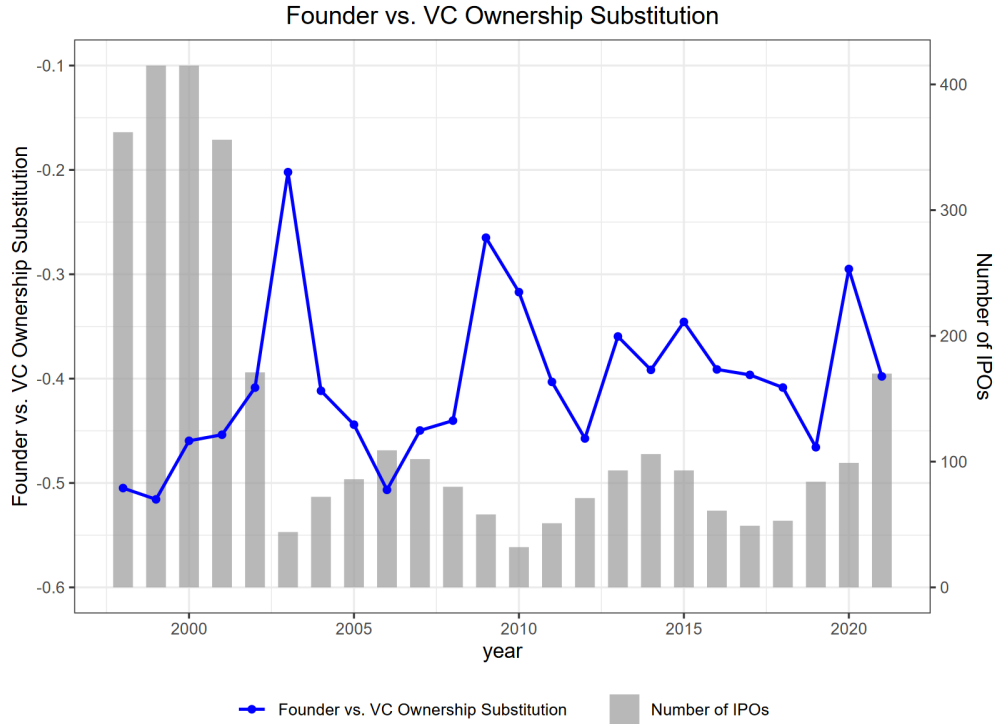
**Figure 8:** This figure displays 3-year rolling averages (right-aligned) of founder wealth and firm market capitalization at IPO for the period 1996–2021. The sample includes firms with positive founder ownership at IPO. Founder wealth is calculated as the product of founders’ pre-IPO equity (aggregated to firm level for multiple founders) and the first-day closing price. Points indicate means, dashed lines show linear time trends. Founder wealth exhibits a coefficient of 0.017 (t-stat = 1.488), while the market capitalization trend shows a coefficient of 0.042 (t-stat = 4.404).



**Figure 9:** This figure displays the time series of three-year rolling window coefficients (right-aligned) estimating the ownership/financing trade-off between founder ownership and VC blockholder ownership. The sample comprises true IPO firms from 1996 to 2021 with positive founder ownership. We estimate the following regression separately within each three-year window:

$$\tilde{\alpha}_{i,-1}^F = \beta_1 \tilde{\alpha}_{i,-1}^{VC} + \text{Age}_i + \eta_k + \epsilon_i \quad (14)$$

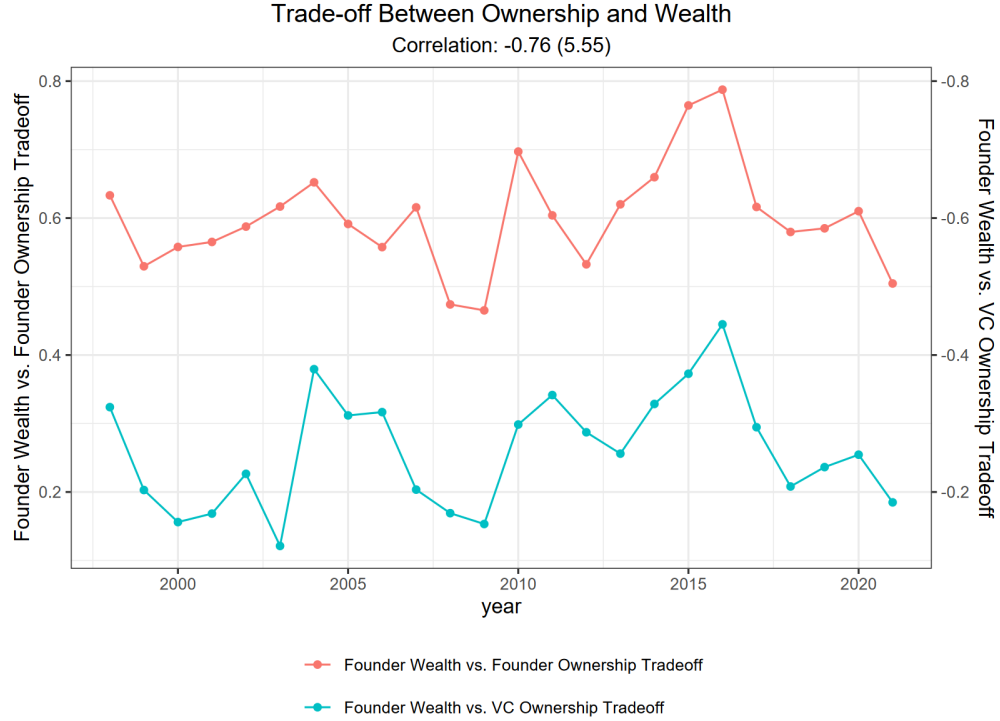
where  $\tilde{\alpha}_{i,-1}^F$  denotes normalized firm-level founder ownership and  $\tilde{\alpha}_{i,-1}^{VC}$  denotes normalized firm-level VC blockholder ownership, each standardized to have mean zero and standard deviation of one within the respective three-year window. Control variables include firm age ( $\text{Age}_i$ ) and industry fixed effects ( $\eta_k$ ). The line plot shows the estimated coefficients  $\beta_1$ , while the bar chart indicates the number of IPOs in each three-year window.



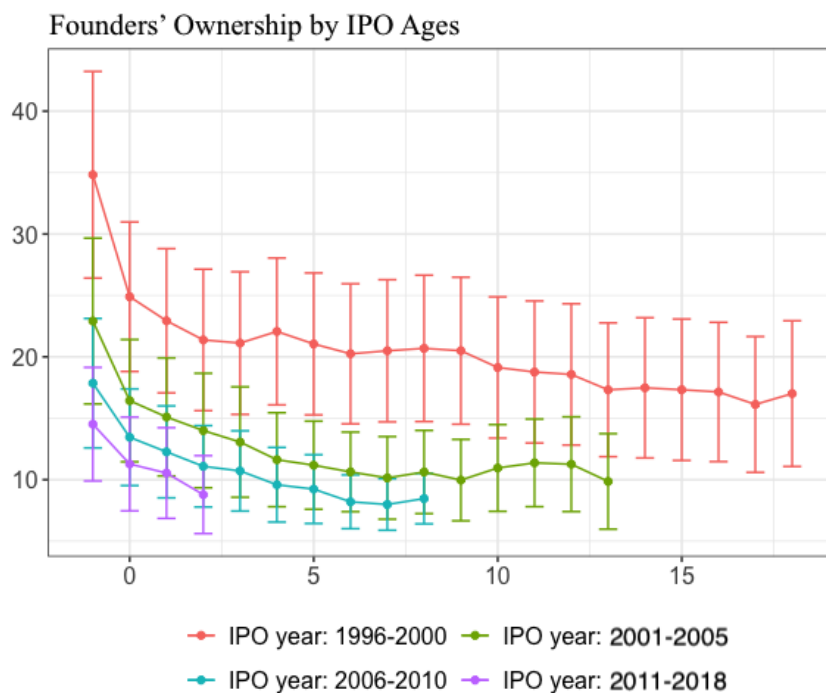
**Figure 10:** This figure displays the time series of three-year rolling window coefficients (right-aligned) estimating the trade off between ownership and founder wealth. The sample comprises true IPO firms from 1996 to 2021 with positive founder ownership. We estimate the following regression separately within each three-year window:

$$\widetilde{\log(W)}_{i,0} = \beta_1 \tilde{\alpha}_{i,-1} + \text{Age}_i + X_i + \eta_k + \epsilon_i \quad (16)$$

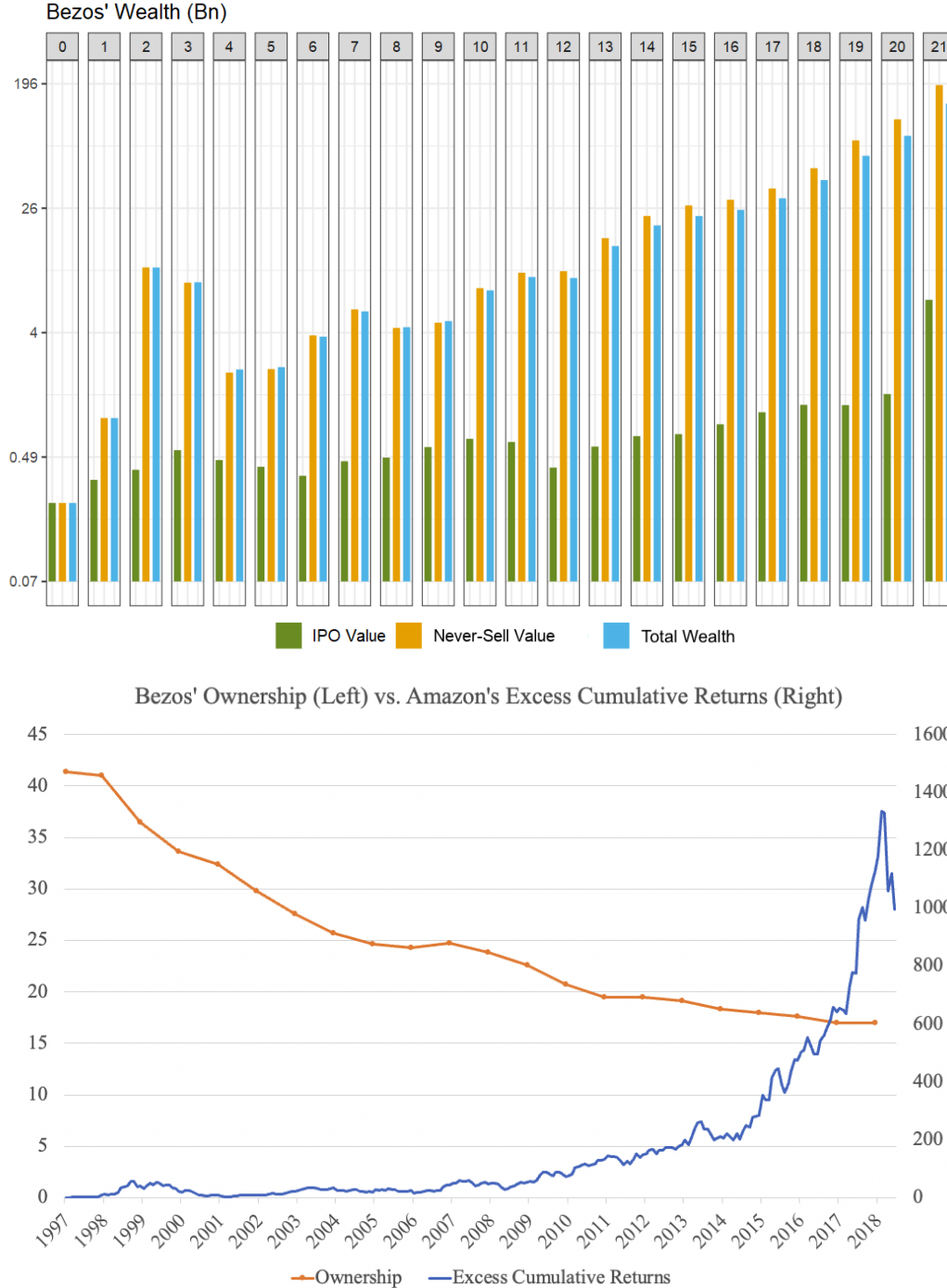
where  $\widetilde{\log(W)}_{i,0}$  denotes normalized log founder wealth at IPO and  $\tilde{\alpha}_{i,-1}$  denotes normalized founder or VC blockholder ownership, each standardized to have mean zero and standard deviation of one within the respective three-year window. Control variables include firm age ( $\text{Age}_i$ ), firm characteristics ( $X_i$ ) and industry fixed effects ( $\eta_k$ ). The line plot shows the estimated coefficients  $\beta_1$ , while the bar chart indicates the number of IPOs in each three-year window.



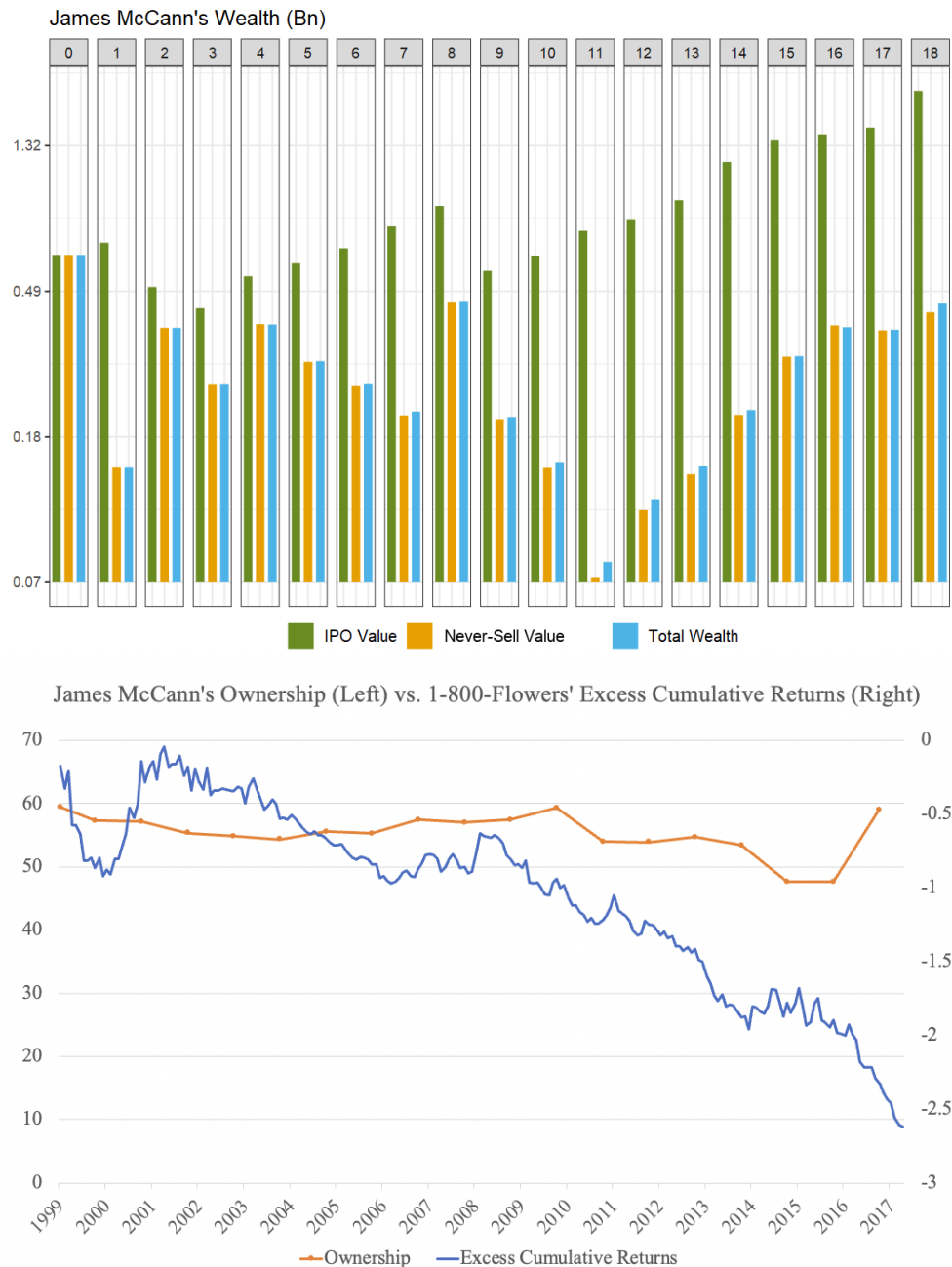
**Figure 11:** This figure presents the firm-level average ownership of founders by IPO age for firms that went public during specific time periods: 1996-2000, 2001-2005, 2006-2010, and 2011-2018. The data includes all true IPOs with non-zero founder ownership. In cases with multiple founders, their ownership stakes are aggregated at the firm level. Each subsample is truncated at the age when the most recent IPO firms in the sample are still active as of 2018, marking the end of our sample period. The error bars represent a confidence interval at the 5% level.



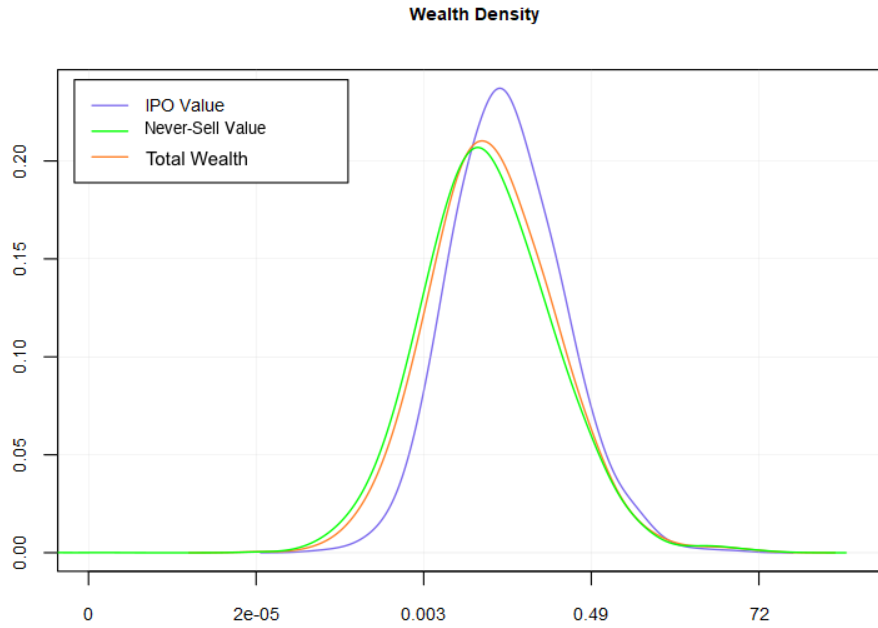
**Figure 12:** This top figure presents Jeff Bezos' wealth gain from holding Amazon shares over the company's IPO ages. The green bars represent the IPO Values (the value of founders' ownership just prior to the IPO accumulated at market returns), calculated according to Equation 11. The orange bars represent the Never-Sell Value, which is the founders' ownership just prior to the IPO accumulated at the own-firm return, calculated according to Equation 12. The blue bars represent the total wealth that Bezos has realized throughout Amazon's life cycle since its IPO, calculated according to the methodology described in Section 6. The bottom figure presents Bezos' ownership (orange, left y-axis), and Amazon's excess cumulative returns  $\prod_{t=1}^T (1 + r_t) - \prod_{t=1}^T (1 + r_{m,t})$  (blue, right y-axis).



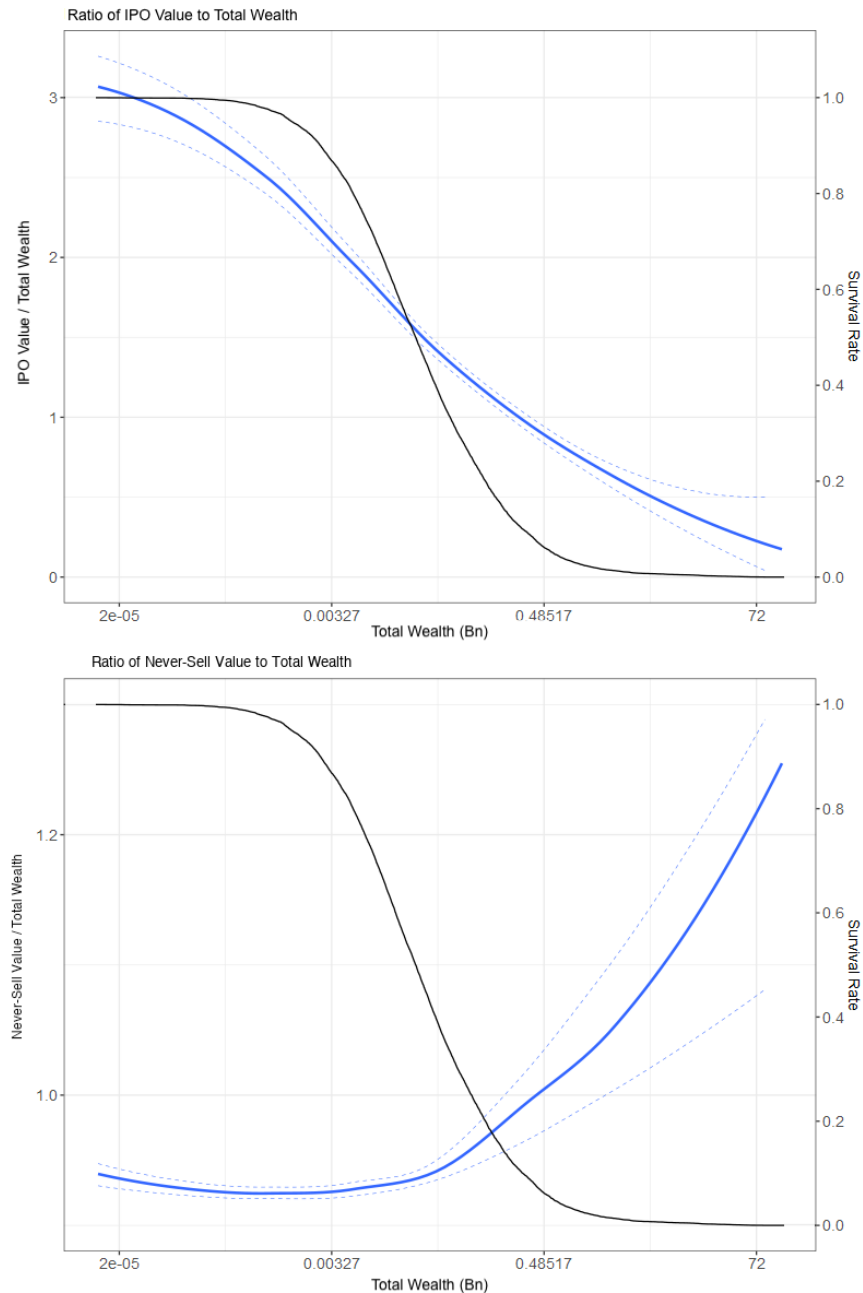
**Figure 13:** This figure presents James F. McCann's wealth gain from holding 1-800-Flower shares over the company's IPO ages. The green bars represent the IPO Values (the value of founders' ownership just prior to the IPO accumulated at market returns), calculated according to Equation 11. The orange bars represent the Never-Sell Value, which is the founders' ownership just prior to the IPO accumulated at the own-firm return, calculated according to Equation 12. The blue bars represent the total wealth that James F. McCann has realized throughout 1-800-Flower's life cycle since its IPO, calculated according to the methodology described in Section 6. The bottom figure presents James F. McCann's ownership (orange, left y-axis), and 1-800-Flower's excess cumulative returns  $\prod_{t=1}^T (1 + r_t) - \prod_{t=1}^T (1 + r_{m,t})$  (blue, right y-axis).



**Figure 14:** This figure displays the density of total wealth for founders of true IPOs from 1996 to 2018 under various selling rules throughout the firms' life cycle since their IPO. The IPO Value indicates the value of founders' ownership just prior to the IPO accumulated at market returns, calculated according to Equation 11. The Never-Sell Value represents the founders' ownership just prior to the IPO accumulated at the own-firm return, calculated according to Equation 12. Total wealth reflects the wealth that founders have realized, calculated according to the methodology described in Section 6. The plot displays the density of log wealth, with the x-axis adjusted to represent actual wealth levels.



**Figure 15:** This figure illustrates the ratio of IPO Value (top) and Never-Sell Value (bottom) to total wealth for founders of true IPOs from 1996 to 2018 throughout the firms' life cycle since their IPO. The IPO Value indicates the value of founders' ownership just prior to the IPO accumulated at market returns, calculated according to Equation 11. The Never-Sell Value represents the founders' ownership just prior to the IPO accumulated at the own-firm return, calculated according to Equation 12. Total wealth reflects the wealth that founders have realized, based on the methodology described in Section 6. The blue line indicates the average ratio of IPO Value and Never-Sell Value to total wealth for founders whose wealth exceeds the value indicated on the x-axis ( $B_n$ ), while the black line represents the survival rate (i.e., the percentage of founders whose wealth exceeds the value shown on the x-axis). The dashed line denotes the 5% confidence interval.



## Tables

**Table 1:** This table presents summary statistics for three samples of IPO firms. Column (1)-(2) include all true IPOs from 1996-2021 (excluding spin-offs, reverse LBOs, and reverse mergers). The sample further excludes IPOs with an offer price below \$5.00 per share, unit offers, ADRs, closed-end funds, partnerships, REITs, banks, S&Ls, and SPACs, as well as firms not listed on CRSP. Column (3)-(4) restrict to firms where founders maintain positive ownership at IPO ( $\alpha^F > 0$ ). Column (5)-(6) further restrict to firms with both founder and venture capital ownership ( $\alpha^F > 0$  &  $\alpha^{VC} > 0$ ). We report mean and median for book assets, market capitalization at IPO, capital expenditures-to-PP&E ratio, sales-to-assets ratio, SG&A-to-sales ratio (winsorized at 0.01), firm age at IPO, and the youngest of the founder age at IPO. All financial variables are measured at the first fiscal year-end after the IPO and are expressed in constant 2000 U.S. dollars. Market capitalization and assets are in millions. The last two rows report the percentage of firms in high-tech and health industries, defined as in Eisfeldt et al. (2023b).

|                    | True IPOs<br>(N=2,049) |               | $\alpha^F > 0$<br>(N=1,498) |               | $\alpha^F > 0$ & $\alpha^{VC} > 0$<br>(N=1,069) |               |
|--------------------|------------------------|---------------|-----------------------------|---------------|-------------------------------------------------|---------------|
|                    | Mean<br>(1)            | Median<br>(2) | Mean<br>(3)                 | Median<br>(4) | Mean<br>(5)                                     | Median<br>(6) |
| Book assets (Mn)   | 183.57                 | 34.79         | 134.29                      | 31.68         | 134.31                                          | 32.96         |
| Mkt Cap (Mn)       | 849.26                 | 321.32        | 870.61                      | 306.72        | 1011.00                                         | 376.67        |
| CAPX/PPE           | 0.50                   | 0.48          | 0.52                        | 0.51          | 0.54                                            | 0.54          |
| Sales/Assets       | 0.97                   | 0.69          | 0.99                        | 0.68          | 0.80                                            | 0.56          |
| XSGA/Sales         | 1.38                   | 0.42          | 1.30                        | 0.46          | 1.56                                            | 0.60          |
| Firm Age At IPO    | 12.15                  | 8.00          | 9.42                        | 7.00          | 7.92                                            | 7.00          |
| Founder Age at IPO |                        |               | 46.02                       | 45.00         | 45.56                                           | 45.00         |
| High-tech          | 47.00%                 |               | 49.27%                      |               | 52.48%                                          |               |
| Health             | 26.31%                 |               | 25.37%                      |               | 30.22%                                          |               |

**Table 2:** This table reports regressions on the relationship between venture capital and founder ownership. Columns (1)-(4) use pre-IPO founder ownership ( $\alpha_{i,-1}^F$ ) as the dependent variable, defined as the proportion of shares held by founders before the offering. Columns (5)-(8) use post-IPO founder ownership ( $\alpha_{i,0}^F$ ), defined as the proportion of shares held by founders after the offering. The main regressors are:  $\alpha_{i,t}^{VC}$ , the combined stake of all VCs holding at least 5% of shares; and  $\alpha_{i,t}^{VCRep}$ , the combined stake of VC-affiliated board members. For Columns (1)-(4),  $t = -1$  (pre-IPO); for Columns (5)-(8),  $t = 0$  (post-IPO). All variables are normalized to have mean 0 and standard deviation of 1. All specifications include industry fixed effects (Eisfeldt et al., 2023b). Standard errors are in parentheses. Note: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01.

|                         | <i>Founder Ownership pre-IPO <math>\alpha_{i,-1}^F</math></i> |                      |                      |                      | <i>Founder Ownership post-IPO <math>\alpha_{i,0}^F</math></i> |                      |                      |                      |
|-------------------------|---------------------------------------------------------------|----------------------|----------------------|----------------------|---------------------------------------------------------------|----------------------|----------------------|----------------------|
|                         | (1)                                                           | (2)                  | (3)                  | (4)                  | (5)                                                           | (6)                  | (7)                  | (8)                  |
| $\alpha_{i,-1}^{VC}$    | -0.421***<br>(0.023)                                          |                      |                      | -0.417***<br>(0.033) | -0.400***<br>(0.025)                                          |                      |                      | -0.396***<br>(0.035) |
| $\alpha_{i,-1}^{VCRep}$ |                                                               | -0.301***<br>(0.024) |                      | -0.036<br>(0.032)    |                                                               | -0.285***<br>(0.025) |                      | -0.037<br>(0.034)    |
| Year                    |                                                               |                      | -0.348***<br>(0.024) | -0.154***<br>(0.024) |                                                               |                      | -0.211***<br>(0.026) | -0.081***<br>(0.025) |
| Age                     |                                                               |                      | 0.211***<br>(0.024)  | 0.089***<br>(0.022)  |                                                               |                      | 0.153***<br>(0.025)  | 0.080***<br>(0.023)  |
| Observations            | 1,498                                                         | 1,498                | 1,498                | 1,498                | 1,498                                                         | 1,498                | 1,498                | 1,498                |
| Adjusted R <sup>2</sup> | 0.386                                                         | 0.323                | 0.153                | 0.350                | 0.324                                                         | 0.268                | 0.148                | 0.292                |
| IPO year, Age FE        | Yes                                                           | Yes                  | No                   | No                   | Yes                                                           | Yes                  | No                   | No                   |
| Ind FE                  | Yes                                                           | Yes                  | Yes                  | Yes                  | Yes                                                           | Yes                  | Yes                  | Yes                  |

**Table 3:** This table reports regression analyses of founders' wealth at the initial public offering. The dependent variable is founders' wealth, measured as the number of shares held immediately before the IPO multiplied by the firm's first-day closing price. Columns (1)–(2) present results for founders' pre-IPO ownership ( $\alpha_{i,-1}^F$ ), measured as the proportion of total outstanding shares held by founders prior to the offering. Column (2) instruments founders' ownership with the age of the youngest founder. Columns (3)–(4) present results for VC pre-IPO ownership ( $\alpha_{i,-1}^{VC}$ ), measured as the combined stake of all venture capital investors holding at least 5% of outstanding shares. Column (4) instruments VC ownership with the number of other portfolio companies within our sample held by the firm's VC investors. Columns (5)–(6) present results for VC representatives' pre-IPO ownership ( $\alpha_{i,-1}^{VCRep}$ ), measured as the combined ownership stake of VC-affiliated board members. Column (6) instruments this variable with the number of board seats held by representatives from the same VC firms across other portfolio companies in our sample. Control variables include: sales-to-assets ratio, SG&A-to-sales ratio, capital expenditures-to-PP&E ratio, R&D-to-PP&E ratio, and log of total assets. We include dummy variables for missing R&D ("No RD") and missing SG&A ("No XSGA"). The regression sample is restricted to firms with positive founder ownership and non-missing control variables at the IPO date. The specification includes year fixed effects, firm age at IPO, and 4-digit SIC industry fixed effects. Note: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01.

|                         | Dependent Variable: Log Founders' Wealth at IPO $\log(S_{i,-1}^F P_i)$ |                     |                      |                      |                      |                      |
|-------------------------|------------------------------------------------------------------------|---------------------|----------------------|----------------------|----------------------|----------------------|
|                         | Founder Ownership                                                      |                     | VC Ownership         |                      | VC Rep Ownership     |                      |
|                         | OLS<br>(1)                                                             | IV<br>(2)           | OLS<br>(3)           | IV<br>(4)            | OLS<br>(5)           | IV<br>(6)            |
| $\alpha_{i,-1}^F$       | 0.039***<br>(0.002)                                                    | 0.117***<br>(0.026) |                      |                      |                      |                      |
| $\alpha_{i,-1}^{VC}$    |                                                                        |                     | -0.018***<br>(0.002) | -0.014***<br>(0.004) |                      |                      |
| $\alpha_{i,-1}^{VCRep}$ |                                                                        |                     |                      |                      | -0.015***<br>(0.002) | -0.019***<br>(0.006) |
| Sales/Assets            | 0.104***<br>(0.036)                                                    | -0.209<br>(0.130)   | 0.219***<br>(0.044)  | 0.224***<br>(0.044)  | 0.236***<br>(0.045)  | 0.234***<br>(0.045)  |
| XSGA/Sales              | 0.002<br>(0.001)                                                       | 0.0005<br>(0.003)   | 0.003<br>(0.002)     | 0.003<br>(0.002)     | 0.002<br>(0.002)     | 0.002<br>(0.002)     |
| CAPX/PPE                | 0.491***<br>(0.127)                                                    | 0.220<br>(0.260)    | 0.699***<br>(0.155)  | 0.683***<br>(0.156)  | 0.723***<br>(0.160)  | 0.751***<br>(0.164)  |
| RD/PPE                  | -0.001<br>(0.001)                                                      | -0.0002<br>(0.001)  | -0.001<br>(0.001)    | -0.001<br>(0.001)    | -0.001<br>(0.001)    | -0.0005<br>(0.001)   |
| Log (AT)                | 0.604***<br>(0.033)                                                    | 0.790***<br>(0.088) | 0.520***<br>(0.040)  | 0.516***<br>(0.040)  | 0.511***<br>(0.041)  | 0.513***<br>(0.041)  |
| No RD Dummy             | -0.467***<br>(0.111)                                                   | -0.890**<br>(0.261) | -0.393***<br>(0.136) | -0.356**<br>(0.141)  | -0.303**<br>(0.138)  | -0.325**<br>(0.141)  |
| No XSGA Dummy           | -0.001<br>(0.131)                                                      | 0.204<br>(0.267)    | -0.130<br>(0.160)    | -0.130<br>(0.160)    | -0.110<br>(0.164)    | -0.105<br>(0.164)    |
| Observations            | 1,289                                                                  | 1,222               | 1,289                | 1,289                | 1,289                | 1,289                |
| Adjusted $R^2$          | 0.625                                                                  | -                   | 0.442                | -                    | 0.414                | -                    |
| First Stage F           | -                                                                      | 20.54               | -                    | 10.94                | -                    | 10.12                |
| IPO year, Age, Ind FE   | Yes                                                                    | Yes                 | Yes                  | Yes                  | Yes                  | Yes                  |

**Table 4:** This table presents regression results from propensity score matched samples examining the relationship between venture capital ownership and founder outcomes at IPO. The dependent variables are: founders' wealth, measured as shares held pre-IPO multiplied by first-day closing price (columns 1, 4); firm market capitalization at IPO (columns 2, 5); and founders' pre-IPO ownership ( $\alpha_{i,-1}^F$ ), measured as their proportion of outstanding shares (columns 3, 6). The treatment variable is VC pre-IPO ownership ( $\alpha_{i,-1}^{VC}$ ), defined as the combined stake of all venture capital investors holding at least 5% of outstanding shares. Columns 1-3 (extensive margin) compare firms with any VC ownership (treatment) against firms with no VC ownership (control), conditional on founders having positive pre-IPO ownership. Columns 4-6 (intensive margin) compare firms with above-mean VC ownership (treatment) against firms with below-mean VC ownership (control), conditional on both founders and VCs having positive pre-IPO ownership. Firms were matched within exact strata defined by 5-year IPO cohorts (1996–2001, 2002–2006, etc.), age buckets (1–5, 5–20, 20+ years), and industry classification Eisfeldt et al. (2023b). Within each stratum, nearest-neighbor matching was performed based on log total assets, with a caliper of 0.2 standard deviations to ensure match quality. Control variables include: sales-to-assets ratio, SG&A-to-sales ratio, capital expenditures-to-PP&E ratio, R&D-to-PP&E ratio, and log of total assets. We include dummy variables for missing R&D (“No RD”) and missing SG&A (“No XSGA”). All specifications include fixed effects for IPO year, firm age, and industry. Note: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01.

|                         | Extensive Margin     |                     |                       | Intensive Margin     |                     |                      |
|-------------------------|----------------------|---------------------|-----------------------|----------------------|---------------------|----------------------|
|                         | Log(Wealth)          | Log(MktCap)         | Ownership             | Log(Wealth)          | Log(MktCap)         | Ownership            |
|                         | (1)                  | (2)                 | (3)                   | (4)                  | (5)                 | (6)                  |
| Treat                   | −0.681***<br>(0.165) | 0.052<br>(0.110)    | −24.586***<br>(2.770) | −0.670***<br>(0.136) | −0.024<br>(0.087)   | −8.759***<br>(1.423) |
| Sales/Assets            | 0.220***<br>(0.063)  | 0.114***<br>(0.042) | 2.378**<br>(1.056)    | 0.251***<br>(0.095)  | 0.030<br>(0.061)    | 3.682***<br>(0.994)  |
| XSGA/Sales              | −0.018<br>(0.020)    | −0.014<br>(0.013)   | −0.207<br>(0.338)     | −0.015**<br>(0.007)  | 0.001<br>(0.005)    | −0.122<br>(0.077)    |
| CAPX/PPE                | 1.221***<br>(0.296)  | 0.373*<br>(0.198)   | 18.195***<br>(4.962)  | 0.695***<br>(0.244)  | 0.259<br>(0.157)    | 3.317<br>(2.563)     |
| RD/PPE                  | −0.026**<br>(0.012)  | −0.004<br>(0.008)   | −0.538***<br>(0.201)  | −0.019<br>(0.015)    | −0.001<br>(0.010)   | −0.152<br>(0.157)    |
| Log(AT)                 | 0.473***<br>(0.082)  | 0.473***<br>(0.055) | −1.795<br>(1.369)     | 0.391***<br>(0.088)  | 0.356***<br>(0.057) | −0.497<br>(0.924)    |
| No RD Dummy             | −0.580**<br>(0.241)  | −0.257<br>(0.161)   | −4.005<br>(4.039)     | −0.207<br>(0.258)    | −0.218<br>(0.166)   | 1.655<br>(2.707)     |
| No XSGA Dummy           | −0.152<br>(0.323)    | 0.192<br>(0.215)    | −9.141*<br>(5.407)    | −0.415<br>(0.268)    | −0.198<br>(0.173)   | −5.255*<br>(2.819)   |
| Observations            | 460                  | 460                 | 460                   | 470                  | 470                 | 470                  |
| Adjusted R <sup>2</sup> | 0.342                | 0.479               | 0.440                 | 0.460                | 0.514               | 0.240                |
| IPO year, Age, Ind FE   | Yes                  | Yes                 | Yes                   | Yes                  | Yes                 | Yes                  |

**Table 5:** This table presents regression results from propensity score matched samples examining the relationship between venture capital ownership and founder outcomes at IPO. The treatment variable is VC pre-IPO ownership ( $\alpha_{i,-1}^{VC}$ ), defined as the combined stake of all venture capital investors holding at least 5% of outstanding shares. We compare firms with above-mean VC ownership (treatment) against firms with below-mean VC ownership (control), conditional on both founders and VCs having positive pre-IPO ownership. The dependent variables are: founders' wealth, measured as shares held pre-IPO multiplied by first-day closing price (columns 1, 4); firm market capitalization at IPO (columns 2, 5); and founders' pre-IPO ownership ( $\alpha_{i,-1}^F$ ), measured as their proportion of outstanding shares (columns 3, 6). For columns 1–3 (VC Quality), we perform exact matching on VC investor quality. Since VC quality is fixed for each investor, we match firms within the same VC investor's portfolio. For each VC investor, we implement nearest-neighbor matching based on log total assets with a caliper of 0.2 standard deviations among firms backed by that same investor. For columns 4–6 (Founder Quality), we perform exact matching on founder quality groups. We first define founder quality groups based on mean ownership within each category, where categories are defined by 5-year IPO cohorts (1996–2001, 2002–2006, etc.), age buckets (1–5, 5–20, 20+ years), and industry classification Eisfeldt et al. (2023b). Within each founder quality group (high and low), we then match treatment and control firms using nearest-neighbor matching based on log total assets with a caliper of 0.2 standard deviations. Control variables include: sales-to-assets ratio, SG&A-to-sales ratio, capital expenditures-to-PP&E ratio, R&D-to-PP&E ratio, and log of total assets. We include dummy variables for missing R&D (“No RD”) and missing SG&A (“No XSGA”). All specifications include fixed effects for IPO year, firm age, and industry. Note: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01.

|                         | VC Quality           |                     |                      | Founder Quality     |                     |                      |
|-------------------------|----------------------|---------------------|----------------------|---------------------|---------------------|----------------------|
|                         | Log(Wealth)          | Log(MktCap)         | Ownership            | Log(Wealth)         | Log(MktCap)         | Ownership            |
|                         | (1)                  | (2)                 | (3)                  | (4)                 | (5)                 | (6)                  |
| Treat                   | −0.741***<br>(0.125) | −0.104<br>(0.078)   | −7.828***<br>(1.185) | −0.287**<br>(0.122) | −0.005<br>(0.079)   | −3.494***<br>(1.239) |
| Sales/Assets            | 0.238***<br>(0.091)  | 0.026<br>(0.057)    | 3.819***<br>(0.865)  | 0.373***<br>(0.105) | 0.039<br>(0.068)    | 2.278**<br>(1.061)   |
| XSGA/Sales              | −0.024***<br>(0.008) | −0.002<br>(0.005)   | −0.177**<br>(0.073)  | 0.002<br>(0.002)    | 0.000<br>(0.001)    | 0.015<br>(0.017)     |
| CAPX/PPE                | 0.493**<br>(0.212)   | 0.076<br>(0.133)    | 5.120**<br>(2.015)   | 0.667***<br>(0.221) | 0.169<br>(0.144)    | 4.443**<br>(2.244)   |
| RD/PPE                  | −0.021*<br>(0.012)   | 0.005<br>(0.007)    | −0.162<br>(0.111)    | −0.001<br>(0.001)   | 0.000<br>(0.000)    | −0.006<br>(0.008)    |
| Log(AT)                 | 0.490***<br>(0.079)  | 0.358***<br>(0.050) | 0.370<br>(0.754)     | 0.438***<br>(0.066) | 0.406***<br>(0.043) | −1.495**<br>(0.666)  |
| No RD Dummy             | −0.539*<br>(0.285)   | −0.449**<br>(0.179) | 1.720<br>(2.714)     | −0.130<br>(0.227)   | −0.121<br>(0.147)   | 2.031<br>(2.299)     |
| No XSGA Dummy           | −0.136<br>(0.256)    | 0.083<br>(0.161)    | −0.902<br>(2.436)    | −0.196<br>(0.231)   | 0.041<br>(0.150)    | −2.676<br>(2.342)    |
| Observations            | 560                  | 560                 | 560                  | 636                 | 636                 | 636                  |
| Adjusted R <sup>2</sup> | 0.546                | 0.578               | 0.352                | 0.454               | 0.514               | 0.282                |
| IPO year, Age, Ind FE   | Yes                  | Yes                 | Yes                  | Yes                 | Yes                 | Yes                  |

**Table 6:** This table reports the mean and median of founder and venture capital ownership stakes immediately prior to the IPO, presented by IPO year. The sample includes all true IPOs where founders held a positive ownership stake. The statistics are shown for three key ownership variables: founder ownership ( $\alpha_{i,-1}^F$ ), defined as the proportion of total outstanding shares held by founders; VC ownership ( $\alpha_{i,-1}^{VC}$ ), defined as the combined stake of all venture capital investors holding at least 5% of shares; and VC representative ownership ( $\alpha_{i,-1}^{VCRep}$ ), defined as the combined stake of VC-affiliated board members.

| IPO Year | N     | Founder (%) |               | VC (%)      |               | VC Rep (%)  |               |
|----------|-------|-------------|---------------|-------------|---------------|-------------|---------------|
|          |       | Mean<br>(1) | Median<br>(2) | Mean<br>(3) | Median<br>(4) | Mean<br>(5) | Median<br>(6) |
| 1996     | 160   | 37.681      | 32.584        | 19.161      | 0.000         | 8.534       | 0.000         |
| 1997     | 149   | 44.835      | 38.367        | 16.284      | 0.000         | 8.411       | 0.000         |
| 1998     | 88    | 39.455      | 26.737        | 16.856      | 8.686         | 9.663       | 0.000         |
| 1999     | 210   | 27.884      | 19.213        | 25.982      | 22.419        | 15.406      | 10.052        |
| 2000     | 149   | 21.888      | 13.662        | 29.824      | 27.039        | 17.900      | 13.688        |
| 2001     | 24    | 35.421      | 27.290        | 22.604      | 18.514        | 13.527      | 9.862         |
| 2002     | 13    | 28.201      | 19.097        | 16.963      | 11.093        | 2.819       | 0.000         |
| 2003     | 10    | 10.589      | 8.238         | 40.275      | 38.577        | 25.749      | 23.917        |
| 2004     | 56    | 22.119      | 11.501        | 30.984      | 32.295        | 18.523      | 16.999        |
| 2005     | 30    | 20.860      | 8.010         | 27.261      | 23.093        | 18.374      | 6.608         |
| 2006     | 36    | 20.847      | 13.399        | 39.092      | 41.686        | 25.304      | 30.971        |
| 2007     | 45    | 18.194      | 10.360        | 39.391      | 44.842        | 21.237      | 10.672        |
| 2008     | 5     | 8.870       | 7.147         | 36.879      | 25.909        | 14.338      | 12.967        |
| 2009     | 9     | 16.122      | 16.300        | 35.816      | 39.871        | 19.769      | 12.499        |
| 2010     | 21    | 14.861      | 11.140        | 43.290      | 39.429        | 29.603      | 26.029        |
| 2011     | 26    | 18.726      | 11.108        | 39.423      | 44.282        | 25.326      | 21.603        |
| 2012     | 29    | 17.327      | 9.992         | 43.593      | 51.805        | 28.451      | 24.377        |
| 2013     | 46    | 15.612      | 7.937         | 43.160      | 47.557        | 28.042      | 28.662        |
| 2014     | 49    | 11.429      | 6.320         | 55.733      | 58.442        | 36.388      | 36.526        |
| 2015     | 23    | 10.233      | 6.220         | 48.304      | 54.513        | 27.305      | 17.216        |
| 2016     | 9     | 17.370      | 8.442         | 40.542      | 47.960        | 18.858      | 25.344        |
| 2017     | 35    | 19.056      | 10.200        | 36.385      | 38.813        | 23.186      | 21.357        |
| 2018     | 31    | 14.352      | 8.800         | 40.775      | 52.087        | 28.300      | 25.615        |
| 2019     | 60    | 12.579      | 7.589         | 48.659      | 49.669        | 25.498      | 23.902        |
| 2020     | 65    | 13.345      | 7.353         | 39.061      | 42.826        | 22.332      | 19.144        |
| 2021     | 120   | 17.020      | 9.652         | 34.559      | 35.182        | 18.230      | 8.585         |
| Total    | 1,498 | 25.362      | 14.501        | 30.584      | 28.470        | 17.709      | 9.367         |

**Table 7:** This table presents the regression results for an OLS estimation of Equations 6 analyzing insiders' ownership levels post-IPO. The dependent variable is the ownership level  $\alpha_{i,j,t}$  where  $j \in (F, VC)$ . Columns (1) to (2) display results for founders, and Columns (3) to (4) for VC representatives. For the results regarding founders, we restrict the sample to firm-years with non-zero founder ownership. For the results regarding VC representatives, we restrict the sample to firm-years with both non-zero founder ownership and non-zero VC representative ownership. The independent variables include the lagged value of the dependent variable from the previous period, along with an interaction term involving IPO ages. Liquidity measures and firm-level control variables are based on the methodology outlined by Fabisik et al. (2021).  $Liq^H$  denotes a variable indicating firms with high liquidity. In particular, this measure captures the fraction of years that a company spent in the high liquidity bracket, where high liquidity means top quartile of the annual liquidity distribution. Similarly,  $Liq^L$  denotes a variable indicating firms with low liquidity. In particular, this measure captures the fraction of years that a company spent in the low liquidity bracket, where low liquidity means bottom quartile of the annual liquidity distribution. We incorporate fixed effects for the IPO year, calendar year, and industry. All standard errors are clustered at the firm level.

|                                            | <i>Dependent variable: Ownership Level <math>\alpha_{i,j,t}</math></i> |                        |                       |                        |
|--------------------------------------------|------------------------------------------------------------------------|------------------------|-----------------------|------------------------|
|                                            | Founders                                                               |                        | VCs                   |                        |
|                                            | (1)                                                                    | (2)                    | (3)                   | (4)                    |
| $\alpha_{i,F,t-1}$                         | 0.7946***<br>(0.0100)                                                  | 0.7993***<br>(0.0091)  |                       |                        |
| $\alpha_{i,F,t-1} \times \text{IPO Ages}$  | 0.0162***<br>(0.0013)                                                  | 0.0148***<br>(0.0011)  |                       |                        |
| $\alpha_{i,VC,t-1}$                        |                                                                        |                        | 0.7442***<br>(0.0121) | 0.7407***<br>(0.0119)  |
| $\alpha_{i,VC,t-1} \times \text{IPO Ages}$ |                                                                        |                        | 0.0016<br>(0.0062)    | -0.0009<br>(0.0060)    |
| Low Liquidity                              |                                                                        | 0.0121***<br>(0.0043)  |                       | 0.0203***<br>(0.0075)  |
| High Liquidity                             |                                                                        | -0.0093***<br>(0.0025) |                       | -0.0200***<br>(0.0040) |
| IPO Year & Year & IND FE                   | Y                                                                      | Y                      | Y                     | Y                      |
| Other Firm Controls                        | N                                                                      | Y                      | N                     | Y                      |
| Observations                               | 6,370                                                                  | 6,326                  | 2,588                 | 2,566                  |
| Adjusted R <sup>2</sup>                    | 0.9257                                                                 | 0.9235                 | 0.8287                | 0.8371                 |

*Note:*

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

**Table 8:** This table presents summary statistics for founder trading activities across three different measures. Panel A shows the ratio of transaction price to the end-of-day market price (winsorized at the 1% level). Panel B shows the ratio of shares traded to lagged shares (winsorized at the 1% level) at the transaction level. Panel C shows the annual ratio of shares traded to lagged shares (winsorized at the 1% level), aggregating transactions that occur within the same year for each type of trading transaction for each individual. Columns (1) - (4) show summary statistics for disposals, and columns (5) - (8) show summary statistics for acquisitions. Open market trade prices differ from the end-of-day market price because trades are executed through multiple transactions. The reported transaction price is a weighted average of these trading prices. In the disposal categories, “Option (exercise and sell)” refers to transactions where insiders exercise their options and immediately sell the resulting shares. “Sale back to the issuer” refers to transactions such as the forfeiture of unearned performance-based restricted stock or repurchase agreements. “Others” represents transactions such as bona fide gifts. In the acquisition categories, “Others” refers to transactions such as pro-rata distributions, conversions of convertible bonds, and conversions from non-publicly traded classes to publicly traded classes.

| Disposals                                                      |        |        |        |        | Acquisitions      |        |        |        |        |
|----------------------------------------------------------------|--------|--------|--------|--------|-------------------|--------|--------|--------|--------|
| N                                                              | Mean   | Median | SD     |        | N                 | Mean   | Median | SD     |        |
| (1)                                                            | (2)    | (3)    | (4)    |        | (5)               | (6)    | (7)    | (8)    |        |
| <b><i>Panel A: Transaction Price to Market Price Ratio</i></b> |        |        |        |        |                   |        |        |        |        |
| Open Market Trade                                              | 22,650 | 0.9852 | 0.9992 | 0.1045 | Open Market Trade | 2,090  | 0.9745 | 1.0000 | 0.1364 |
| Option (Exercise and Sell)                                     | 1,703  | 0.9655 | 1.0000 | 0.1830 | Option (Exercise) | 5,374  | 0.2292 | 0.1609 | 0.2444 |
| Sale back to the Issuer                                        | 175    | 0.5988 | 0.9628 | 0.4761 | Grants            | 1,954  | 0.1868 | 0.0000 | 0.3840 |
| Others                                                         | 355    | 0.4352 | 0.0000 | 0.4823 | Others            | 734    | 0.3260 | 0.0000 | 0.4351 |
| Total                                                          | 24,883 | 0.9733 | 0.9998 | 0.1496 | Total             | 10,152 | 0.3814 | 0.1998 | 0.4119 |
| <b><i>Panel B: Transaction-Level Shares Traded Ratio</i></b>   |        |        |        |        |                   |        |        |        |        |
| Open Market Trade                                              | 24,445 | 0.0166 | 0.0034 | 0.0555 | Open Market Trade | 2,490  | 0.0489 | 0.0035 | 0.2819 |
| Option (Exercise and Sell)                                     | 1,712  | 0.0104 | 0.0031 | 0.0249 | Option (Exercise) | 5,798  | 0.0514 | 0.0091 | 0.1928 |
| Sale back to the Issuer                                        | 188    | 0.0428 | 0.0138 | 0.0893 | Grants            | 2,035  | 0.0598 | 0.0133 | 0.1717 |
| Others                                                         | 770    | 0.0899 | 0.0095 | 0.2064 | Others            | 882    | 0.1154 | 0.0055 | 0.3425 |
| Total                                                          | 27,115 | 0.0185 | 0.0034 | 0.0651 | Total             | 11,205 | 0.0574 | 0.0077 | 0.2275 |
| <b><i>Panel C: Annual Shares Traded Ratio</i></b>              |        |        |        |        |                   |        |        |        |        |
| Open Market Trade                                              | 3,400  | 0.1161 | 0.0660 | 0.1540 | Open Market Trade | 1,066  | 0.0703 | 0.0089 | 0.2069 |
| Option (Exercise and Sell)                                     | 723    | 0.0249 | 0.0073 | 0.0502 | Option (Exercise) | 1,437  | 0.1212 | 0.0526 | 0.1952 |
| Sale back to the Issuer                                        | 110    | 0.0557 | 0.0215 | 0.0918 | Grants            | 551    | 0.0669 | 0.0189 | 0.1488 |
| Others                                                         | 117    | 0.1077 | 0.0503 | 0.1575 | Others            | 197    | 0.0931 | 0.0046 | 0.2355 |
| Total                                                          | 4,350  | 0.0992 | 0.0499 | 0.1449 | Total             | 3,251  | 0.0936 | 0.0227 | 0.1965 |

**Table 9:** This table presents summary statistics for founders' total wealth (Columns 1 to 5), founders' wealth in the firms (Columns 6 to 9), and the ratio of founders' wealth in the firm to their total wealth (Columns 10 to 11) across IPO ages, specifically for true IPOs that occurred between 1996 and 2018. Total wealth is calculated using founders' ownership data, firm value, and the wealth gained by founders through acquiring shares at a discounted price, based on the methodology described in Section 6. Column (5) presents the percentage contribution of the wealth gained by founders through acquiring shares at a discounted price ( $\delta$ ) to their total wealth. Notably, due in part to the well-documented post-IPO underperformance (e.g., Ritter (1991)), the distribution of total wealth shifts leftward in the three years following the IPO, and begins to fan out thereafter.

| Ages | N    | Total Wealth ( $W$ , Bn) |        |       |        |            | Wealth in the Firm ( $W^F$ , Bn) |        |       |        | $W^F/W$ |        |
|------|------|--------------------------|--------|-------|--------|------------|----------------------------------|--------|-------|--------|---------|--------|
|      |      | Mean                     | Median | S.D.  | 99%    | $\delta/W$ | Mean                             | Median | S.D.  | 99%    | Mean    | Median |
|      |      | (1)                      | (2)    | (3)   | (4)    | (5)        | (6)                              | (7)    | (8)   | (9)    | (10)    | (11)   |
| 0    | 1865 | 0.101                    | 0.020  | 0.548 | 1.394  | -          | 0.101                            | 0.020  | 0.548 | 1.394  | 1.000   | 1.000  |
| 1    | 1733 | 0.103                    | 0.016  | 0.569 | 1.248  | 6.15%      | 0.093                            | 0.014  | 0.531 | 1.211  | 0.905   | 0.988  |
| 2    | 1444 | 0.151                    | 0.014  | 1.255 | 1.297  | 4.78%      | 0.126                            | 0.010  | 1.052 | 1.090  | 0.805   | 0.900  |
| 3    | 1107 | 0.183                    | 0.016  | 1.692 | 1.753  | 4.42%      | 0.139                            | 0.010  | 1.385 | 1.396  | 0.740   | 0.818  |
| 4    | 823  | 0.251                    | 0.023  | 2.430 | 2.437  | 4.40%      | 0.192                            | 0.014  | 2.066 | 1.570  | 0.700   | 0.767  |
| 5    | 648  | 0.298                    | 0.025  | 3.287 | 2.938  | 4.22%      | 0.225                            | 0.013  | 2.798 | 1.882  | 0.687   | 0.724  |
| 6    | 511  | 0.429                    | 0.032  | 4.330 | 3.605  | 8.13%      | 0.325                            | 0.016  | 3.620 | 3.448  | 0.900   | 0.642  |
| 7    | 402  | 0.327                    | 0.039  | 1.755 | 5.023  | 3.25%      | 0.218                            | 0.019  | 1.367 | 4.512  | 0.588   | 0.614  |
| 8    | 333  | 0.410                    | 0.042  | 2.064 | 9.151  | 3.70%      | 0.253                            | 0.017  | 1.406 | 6.624  | 0.554   | 0.542  |
| 9    | 282  | 0.506                    | 0.043  | 2.745 | 8.204  | 3.28%      | 0.280                            | 0.018  | 1.758 | 3.800  | 0.586   | 0.505  |
| 10   | 228  | 0.714                    | 0.052  | 3.963 | 22.134 | 2.82%      | 0.392                            | 0.022  | 2.523 | 6.318  | 0.502   | 0.487  |
| 11   | 195  | 0.961                    | 0.056  | 5.585 | 29.801 | 2.00%      | 0.424                            | 0.023  | 2.590 | 8.815  | 0.467   | 0.443  |
| 12   | 165  | 0.973                    | 0.054  | 5.127 | 32.476 | 2.49%      | 0.345                            | 0.022  | 1.749 | 10.203 | 0.451   | 0.450  |
| 13   | 142  | 1.352                    | 0.061  | 6.820 | 43.287 | 2.67%      | 0.493                            | 0.026  | 2.420 | 15.685 | 0.441   | 0.397  |
| 14   | 128  | 1.709                    | 0.091  | 8.209 | 51.634 | 2.24%      | 0.620                            | 0.032  | 2.961 | 19.011 | 0.425   | 0.349  |

**Table 10:** This table presents summary statistics for founders' IPO Value (the value of founders' ownership just prior to the IPO, accumulated at market returns), calculated according to Equation 11 (Columns 1 to 5), and founders' Never-Sell Value (founders' ownership just prior to the IPO, accumulated at the firm's own return), calculated according to Equation 12 (Columns 6 to 10). The data is organized by calendar year and pertains specifically to true IPOs that occurred between 1996 and 2018. Columns (5) and (10) show the percentage contribution of the accumulated wealth gained by founders through acquiring shares at a discounted price to their IPO Value and Never-Sell Value respectively. Columns (11) and (12) show the mean and median of the ratio of Never-Sell Value to IPO Value.

| Year | N   | IPO Value |        |       |        |              | Never-Sell Value |        |        |        |              | <u>Never-Sell Value</u><br><u>IPO Value</u> |        |
|------|-----|-----------|--------|-------|--------|--------------|------------------|--------|--------|--------|--------------|---------------------------------------------|--------|
|      |     | Mean      | Median | S.D.  | 99%    | % $W^\delta$ | Mean             | Median | S.D.   | 99%    | % $W^\delta$ | Mean                                        | Median |
|      |     | (1)       | (2)    | (3)   | (4)    | (5)          | (6)              | (7)    | (8)    | (9)    | (10)         | (11)                                        | (12)   |
| 1996 | 252 | 0.039     | 0.010  | 0.133 | 0.297  | 0%           | 0.039            | 0.010  | 0.133  | 0.297  | 0%           | 1.000                                       | 1.000  |
| 1997 | 495 | 0.042     | 0.011  | 0.124 | 0.428  | 2.20%        | 0.036            | 0.009  | 0.085  | 0.427  | 2.66%        | 0.911                                       | 1.000  |
| 1998 | 576 | 0.061     | 0.017  | 0.182 | 0.602  | 4.39%        | 0.051            | 0.013  | 0.136  | 0.602  | 5.28%        | 0.870                                       | 0.941  |
| 1999 | 793 | 0.091     | 0.031  | 0.215 | 1.330  | 4.79%        | 0.095            | 0.021  | 0.432  | 1.507  | 5.73%        | 0.878                                       | 1.000  |
| 2000 | 902 | 0.115     | 0.037  | 0.261 | 1.509  | 5.05%        | 0.143            | 0.023  | 0.670  | 1.491  | 6.78%        | 1.096                                       | 0.928  |
| 2001 | 753 | 0.107     | 0.033  | 0.238 | 1.340  | 7.19%        | 0.059            | 0.011  | 0.242  | 0.581  | 10.45%       | 0.721                                       | 0.343  |
| 2002 | 603 | 0.093     | 0.032  | 0.195 | 1.095  | 8.30%        | 0.054            | 0.010  | 0.187  | 0.501  | 12.87%       | 0.691                                       | 0.410  |
| 2003 | 483 | 0.085     | 0.027  | 0.180 | 1.010  | 10.41%       | 0.050            | 0.011  | 0.184  | 0.568  | 15.41%       | 0.705                                       | 0.455  |
| 2004 | 466 | 0.142     | 0.031  | 0.590 | 1.764  | 10.69%       | 0.119            | 0.020  | 0.623  | 1.812  | 14.85%       | 0.985                                       | 0.716  |
| 2005 | 424 | 0.160     | 0.033  | 0.657 | 1.918  | 13.19%       | 0.147            | 0.022  | 0.751  | 1.618  | 16.92%       | 0.911                                       | 0.795  |
| 2006 | 403 | 0.192     | 0.037  | 0.822 | 2.302  | 14.61%       | 0.236            | 0.026  | 1.375  | 3.188  | 17.41%       | 1.048                                       | 0.885  |
| 2007 | 406 | 0.214     | 0.042  | 0.936 | 2.755  | 14.14%       | 0.276            | 0.030  | 1.707  | 2.371  | 16.60%       | 1.033                                       | 0.919  |
| 2008 | 352 | 0.216     | 0.040  | 0.954 | 2.757  | 16.86%       | 0.283            | 0.020  | 1.726  | 6.401  | 19.46%       | 0.967                                       | 0.646  |
| 2009 | 307 | 0.156     | 0.034  | 0.668 | 1.792  | 18.04%       | 0.213            | 0.022  | 1.275  | 1.956  | 20.18%       | 1.090                                       | 0.735  |
| 2010 | 312 | 0.211     | 0.045  | 0.939 | 2.449  | 18.81%       | 0.345            | 0.024  | 2.103  | 6.024  | 21.00%       | 1.118                                       | 0.909  |
| 2011 | 304 | 0.274     | 0.055  | 1.273 | 2.977  | 19.50%       | 0.453            | 0.034  | 2.425  | 14.533 | 21.52%       | 1.173                                       | 0.936  |
| 2012 | 305 | 0.345     | 0.059  | 1.686 | 5.513  | 19.29%       | 0.536            | 0.032  | 2.899  | 18.499 | 21.63%       | 1.045                                       | 0.890  |
| 2013 | 333 | 0.411     | 0.071  | 2.019 | 5.753  | 17.99%       | 0.611            | 0.038  | 3.407  | 18.601 | 20.41%       | 1.030                                       | 0.932  |
| 2014 | 356 | 0.478     | 0.068  | 2.398 | 6.326  | 16.85%       | 0.796            | 0.039  | 4.623  | 31.371 | 19.34%       | 1.060                                       | 0.947  |
| 2015 | 345 | 0.534     | 0.072  | 2.732 | 6.744  | 19.69%       | 0.942            | 0.040  | 5.298  | 32.531 | 22.36%       | 1.191                                       | 0.819  |
| 2016 | 308 | 0.555     | 0.076  | 2.897 | 8.724  | 23.17%       | 1.186            | 0.032  | 7.407  | 46.651 | 26.98%       | 1.133                                       | 0.665  |
| 2017 | 260 | 0.729     | 0.107  | 3.750 | 12.624 | 26.88%       | 1.682            | 0.051  | 10.443 | 59.992 | 31.49%       | 1.257                                       | 0.633  |
| 2018 | 206 | 1.003     | 0.123  | 4.819 | 17.105 | 31.01%       | 2.738            | 0.065  | 16.574 | 67.881 | 35.70%       | 1.272                                       | 0.733  |

# Appendices

## A Sample

This section presents time-series summary statistics for our sample over the 1996–2018 period.

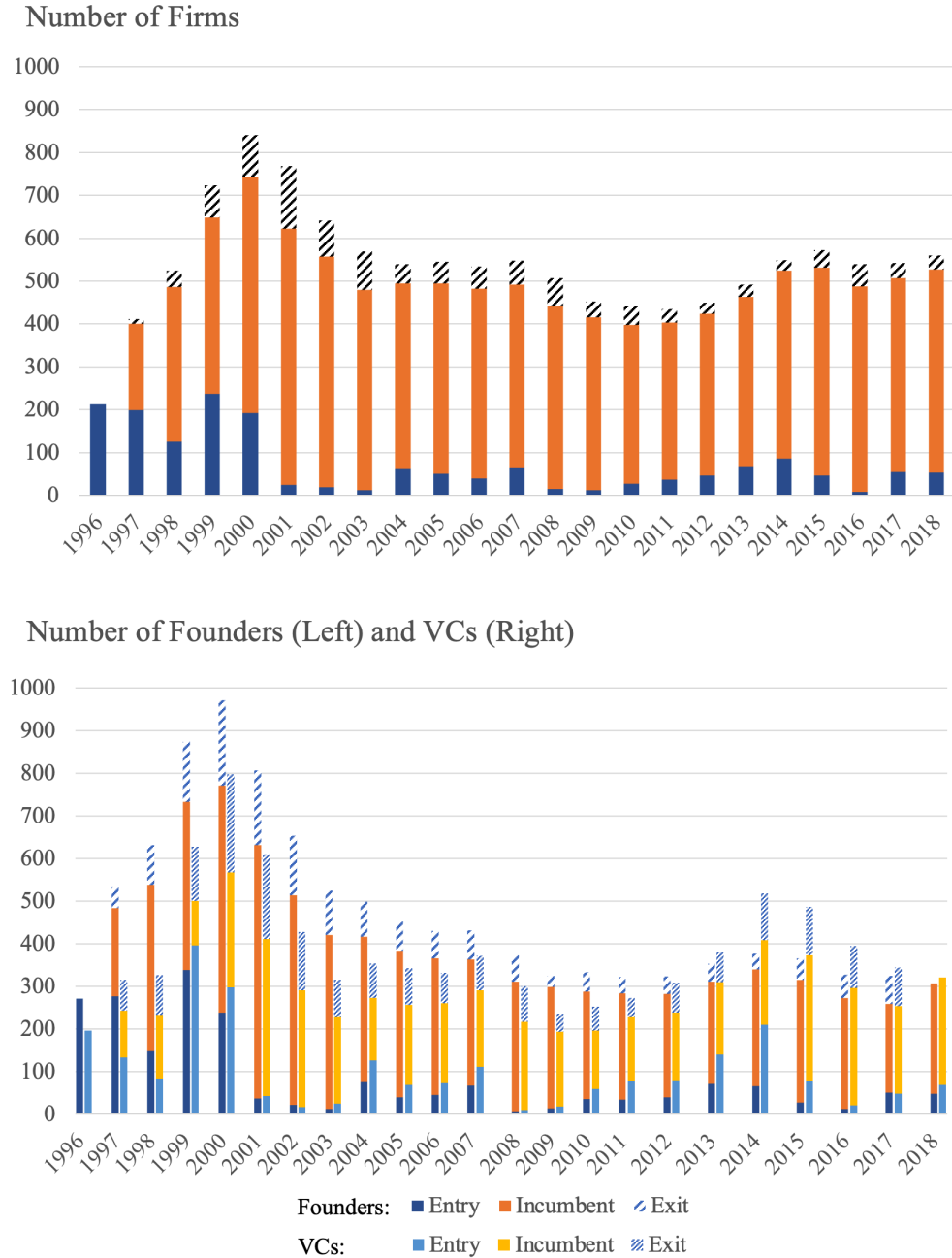
The dynamics and composition of our sample are illustrated in Figure A1 and Figure A2. The top panel of Figure A1 shows the number of firms in our sample over time, highlighting both their entry into and exit from the sample. Because our sample begins with IPOs in 1996, the initial sample consists of a smaller number of firms. A surge in IPO activity occurred prior to the 2000 dot-com period, leading to a significant increase in the number of firms. Thereafter, the sample size stabilizes as firms continue to enter and exit over time. The bottom plot of Figure A1 presents the number of founders and VCs in our sample over time. The counts of founders and VCs are not directly comparable to the firm counts, as not all IPOs have a founder or VC serving as insiders at the time of their IPO. For firms that have a founder or VC as an insider at the time of their IPO, it is possible for multiple founders or VC representatives to be associated with a single firm. Specifically, there are 1,937 founders, and 1,617 VC representatives in our sample. Figure A2 presents similar summary statistics across IPO ages. The number of firms decreases over time, with the number of founders and venture capitalists declining more rapidly. This is because founders and VCs may leave the sample before the firms are delisted, either when they are no longer insiders or have fully liquidated their shares.

Table A1 presents firm characteristics at the time of the IPO for true IPOs with founders involved across different IPO years. In general, firms are becoming larger in terms of market capitalization and total assets. The median founding age has increased slightly in the second half of the sample period.<sup>17</sup> Most of these firms operate in the high-tech and health industries.

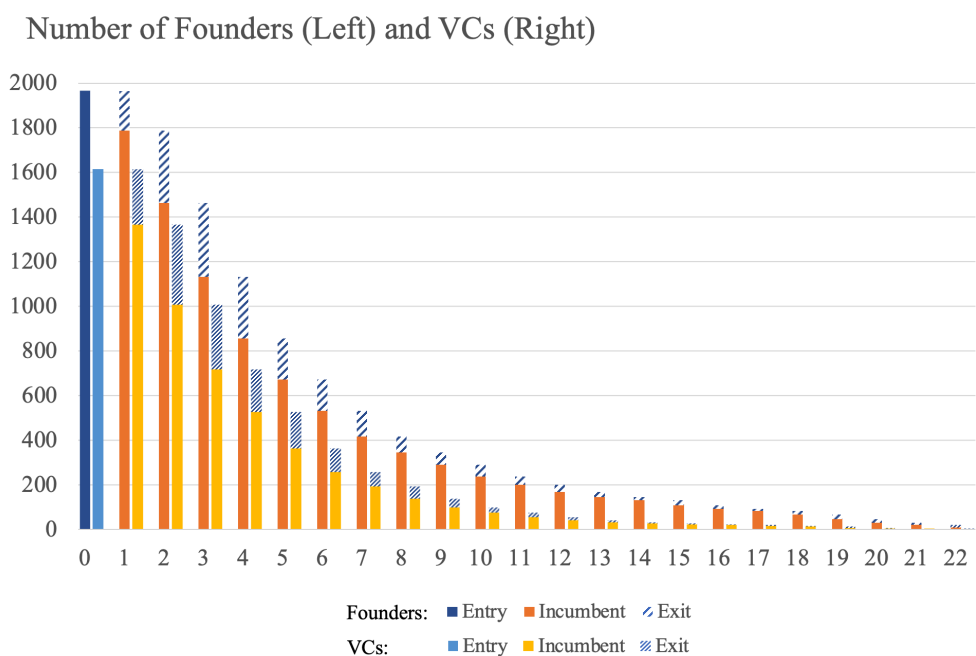
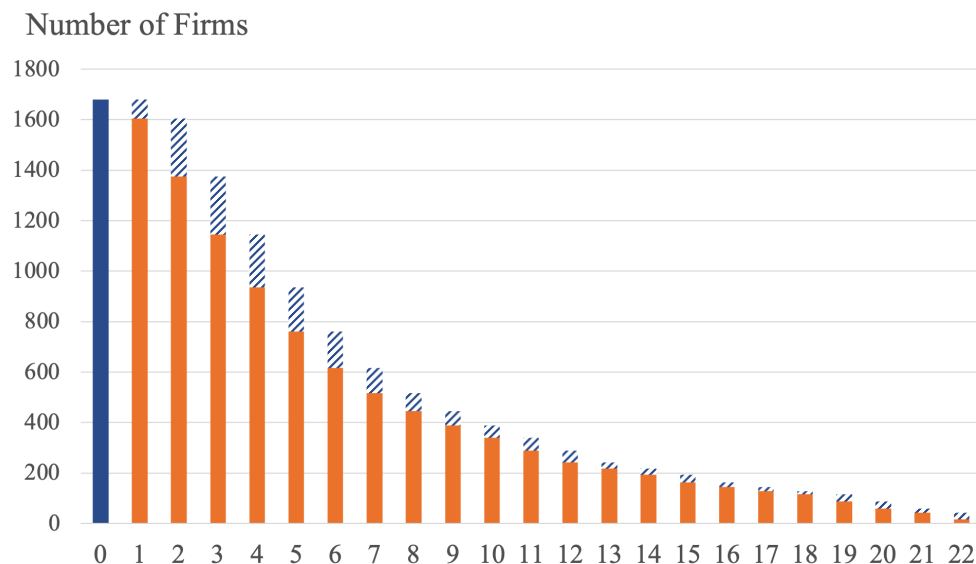
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<sup>17</sup>Regarding founding age at IPO, we find no significant time trend, either for true IPOs or for all IPOs, whether considering mean age or IPO market cap-weighted age. A regression analysis with founding age as the dependent variable and year as the independent variable yields a non-significant coefficient and an adjusted R-squared close to zero.

**Figure A1:** This figure presents the composition and dynamics of our sample over time. The upper panel illustrates the number of firms in the dataset. Blue bars denote the number of new firm entries, while orange bars represent the count of incumbent firms. The dashed grey bars indicate the number of firm exits. The lower panel shows the number of key stakeholders: founders and venture capital (VC) representatives. The number of key stakeholders is not directly comparable to the firm counts in the upper panel because multiple founders or VC representatives may be associated with a single firm, and that founder departures may occur prior to firm delisting.



**Figure A2:** This figure presents the composition and dynamics of our sample over IPO ages. The upper panel illustrates the number of firms in the dataset. Blue bars denote the number of new firm entries, while orange bars represent the count of incumbent firms. The dashed grey bars indicate the number of firm exits. The lower panel shows the number of key stakeholders: founders and venture capital (VC) representatives. The number of key stakeholders is not directly comparable to the firm counts in the upper panel because multiple founders or VC representatives may be associated with a single firm, and that founder departures may occur prior to firm delisting.



**Table A1:** This table presents summary statistics for true IPOs with founders present at the time of the IPO across various IPO years. Columns (1) and (2) show the firm age at the time of the IPO, while columns (3) to (10) display firm characteristics at that time. Columns (11) and (12) present the percentage of industry compositions for our firms, based on the industry definitions provided by Eisfeldt et al. (2023b). All dollar amounts have been adjusted for inflation or deflation using the Consumer Price Index (CPI) from the year 2000. Tobin's q is calculated as the ratio of the market value of assets to the book value of assets, where the market value of assets is derived from the sum of the book value of assets and the market value of common stock, less both the book value of common stock and deferred taxes.

|    | Panel A: Market Performance Metrics |     |       |        |              |        |             |        |            |        |           |        |                   |        |
|----|-------------------------------------|-----|-------|--------|--------------|--------|-------------|--------|------------|--------|-----------|--------|-------------------|--------|
|    | Ages                                | N   | Age   |        | Mkt Cap (Mn) |        | Assets (Mn) |        | No. of Emp |        | Tobin's Q |        | Industry Comp (%) |        |
|    |                                     |     | Mean  | Median | Mean         | Median | Mean        | Median | Mean       | Median | Mean      | Median | High-tech         | Health |
|    |                                     |     | (1)   | (2)    | (3)          | (4)    | (5)         | (6)    | (7)        | (8)    | (9)       | (10)   | (11)              | (12)   |
| 60 | 1996                                | 166 | 9.90  | 7.00   | 250.52       | 128.84 | 92.03       | 54.21  | 1.64       | 0.18   | 3.60      | 2.94   | 39.76             | 15.66  |
|    | 1997                                | 153 | 12.10 | 9.00   | 206.30       | 111.01 | 97.42       | 54.44  | 1.16       | 0.35   | 3.43      | 2.75   | 43.79             | 13.07  |
|    | 1998                                | 87  | 10.32 | 7.00   | 246.17       | 168.60 | 104.13      | 65.68  | 0.78       | 0.31   | 3.77      | 2.32   | 44.83             | 6.90   |
|    | 1999                                | 213 | 6.75  | 4.00   | 971.41       | 450.80 | 214.14      | 88.50  | 0.54       | 0.28   | 12.42     | 6.96   | 67.61             | 2.82   |
|    | 2000                                | 148 | 6.76  | 5.00   | 1206.75      | 572.10 | 200.71      | 116.64 | 0.41       | 0.25   | 3.93      | 2.29   | 67.57             | 16.22  |
|    | 2001                                | 21  | 6.76  | 6.00   | 289.74       | 264.33 | 164.28      | 93.73  | 0.63       | 0.22   | 2.97      | 2.40   | 52.38             | 23.81  |
|    | 2002                                | 13  | 10.77 | 7.00   | 519.88       | 257.30 | 263.13      | 96.09  | 1.33       | 0.66   | 2.91      | 2.18   | 38.46             | 15.38  |
|    | 2003                                | 10  | 7.70  | 7.00   | 300.87       | 307.76 | 179.61      | 110.68 | 0.69       | 0.30   | 2.92      | 2.76   | 30.00             | 40.00  |
|    | 2004                                | 53  | 9.81  | 6.00   | 451.46       | 264.21 | 239.31      | 80.98  | 1.27       | 0.19   | 4.13      | 3.59   | 41.51             | 32.08  |
|    | 2005                                | 30  | 10.57 | 8.00   | 724.33       | 256.80 | 243.57      | 87.02  | 0.72       | 0.20   | 3.21      | 2.82   | 43.33             | 36.67  |
|    | 2006                                | 36  | 8.11  | 7.00   | 385.22       | 238.19 | 151.09      | 97.42  | 0.34       | 0.16   | 4.35      | 3.48   | 50.00             | 30.56  |
|    | 2007                                | 45  | 9.80  | 8.00   | 470.23       | 286.38 | 158.17      | 115.76 | 0.45       | 0.26   | 3.78      | 2.88   | 57.78             | 28.89  |
|    | 2008                                | 5   | 20.00 | 11.00  | 462.86       | 247.83 | 136.77      | 83.66  | 1.02       | 0.53   | 2.60      | 2.12   | 20.00             | 40.00  |
|    | 2009                                | 9   | 9.56  | 9.00   | 595.06       | 458.23 | 219.99      | 111.71 | 1.03       | 0.51   | 3.07      | 2.71   | 66.67             | 11.11  |
|    | 2010                                | 20  | 10.60 | 9.50   | 411.12       | 228.69 | 162.38      | 115.63 | 0.88       | 0.35   | 4.12      | 3.39   | 60.00             | 25.00  |
|    | 2011                                | 26  | 8.73  | 7.50   | 962.78       | 427.73 | 219.81      | 105.94 | 1.00       | 0.35   | 4.23      | 3.29   | 69.23             | 19.23  |
|    | 2012                                | 29  | 10.38 | 8.00   | 1166.26      | 492.85 | 267.97      | 125.78 | 0.66       | 0.48   | 4.94      | 4.50   | 68.97             | 10.34  |
|    | 2013                                | 49  | 9.55  | 9.00   | 824.25       | 337.57 | 274.40      | 100.70 | 0.78       | 0.17   | 4.62      | 3.48   | 46.94             | 42.86  |
|    | 2014                                | 48  | 9.71  | 9.00   | 440.66       | 270.12 | 754.26      | 84.73  | 0.50       | 0.09   | 4.18      | 3.46   | 37.50             | 54.17  |
|    | 2015                                | 20  | 8.90  | 8.50   | 503.22       | 425.85 | 243.59      | 114.36 | 0.47       | 0.18   | 3.72      | 3.53   | 35.00             | 65.00  |
|    | 2016                                | 9   | 11.11 | 9.00   | 269.89       | 176.53 | 109.51      | 63.00  | 0.21       | 0.06   | 3.14      | 3.48   | 22.22             | 44.44  |
|    | 2017                                | 33  | 11.97 | 10.00  | 611.55       | 186.98 | 197.78      | 75.35  | 0.46       | 0.08   | 4.38      | 4.15   | 48.48             | 42.42  |
|    | 2018                                | 33  | 9.88  | 10.00  | 557.50       | 334.43 | 224.48      | 249.99 | 1.81       | 0.96   | 4.32      | 3.84   | 36.36             | 54.55  |

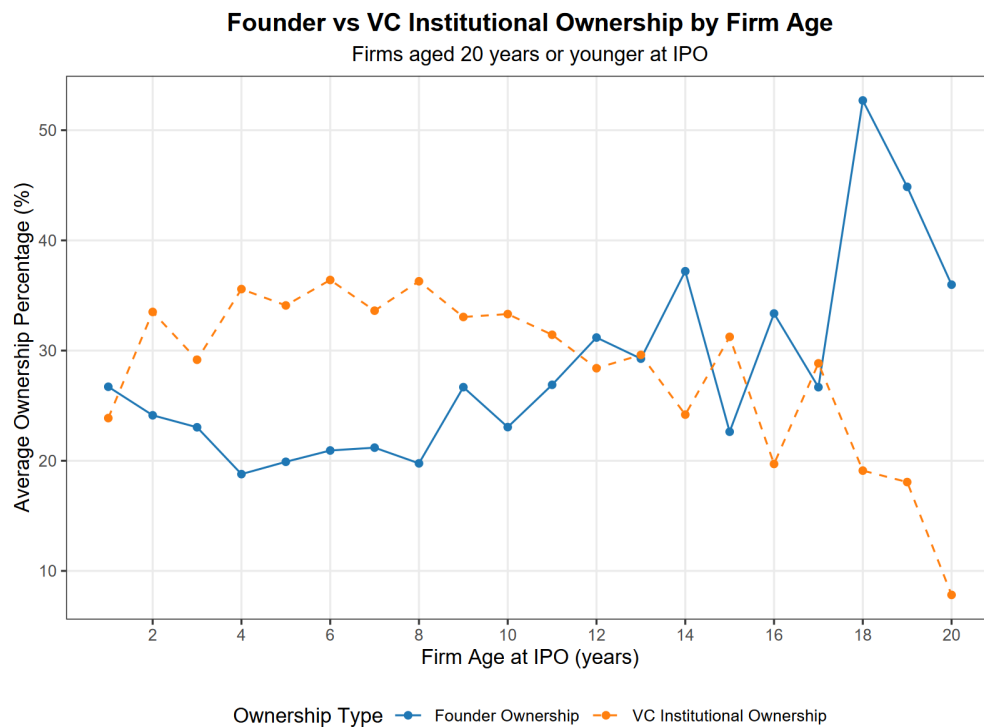
## B The Impact of Firm Age on Founder Outcomes at IPO

**Firm Age and Founder Ownership:** As shown in Figure B1, founder ownership at IPO follows a U-shaped pattern across firm ages, while venture capital institutional ownership follows an inverted U-shaped pattern. The summary statistics by age cohort in Table B1 illustrate this dynamic: founder ownership decreases from an average of 26.7% for one-year-old firms to 20% for five-year-old firms, before rising to 32% for firms that are twelve years old at IPO. Conversely, VC institutional ownership increases from 23.9% to 34% over the same initial period, then declines to 29% by age twelve.

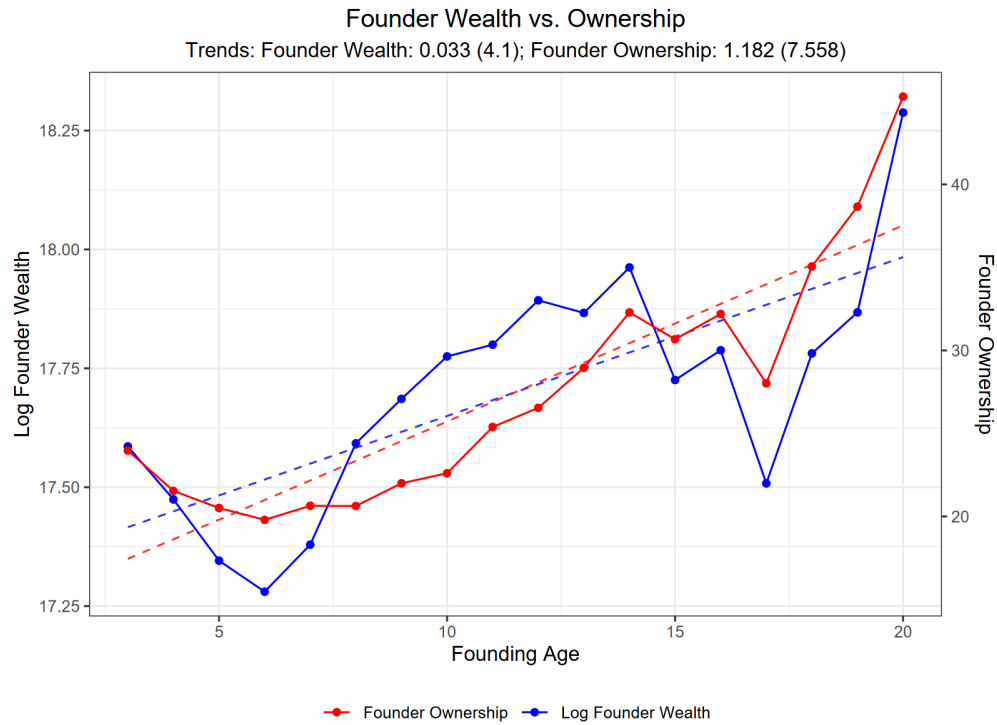
**Founder Ownership and Founder Wealth (Unconditional Average):** The relationship between founder ownership and wealth is analyzed by calculating the average for each firm age cohort at IPO. As shown in Figure B2, these cohort-level averages are positively correlated, indicating that founder ownership and wealth move together across firm ages. This relationship, combined with the U-shaped trajectory of founder ownership—which increases steadily after age 5—explains the general upward trend in founder wealth over the firm ages.

**Founder Ownership and Founder Wealth (Conditional on Industry):** The unconditional positive correlation between founder wealth and firm age, however, does not hold when controlling for industry. A regression of log founder wealth on firm age at IPO, including industry fixed effects, shows that the significant positive relationship disappears. This indicates that the observed age effect is confounded by systematic differences in industry composition across the firm age distribution. To understand this mechanism, Figure B3 plots the industry composition over firm ages at IPO. It reveals a clear trend: the proportion of firms in the Health sector decreases with age, while the proportion of High-tech firms increases. As shown in Table B2, the Health industry has the lower average founder ownership and smaller market capitalization at IPO compared to the High-tech sector. Therefore, the unconditional age trend in founder wealth is primarily driven by a compositional shift from younger, lower-wealth Health firms to older, higher-wealth High-tech firms.

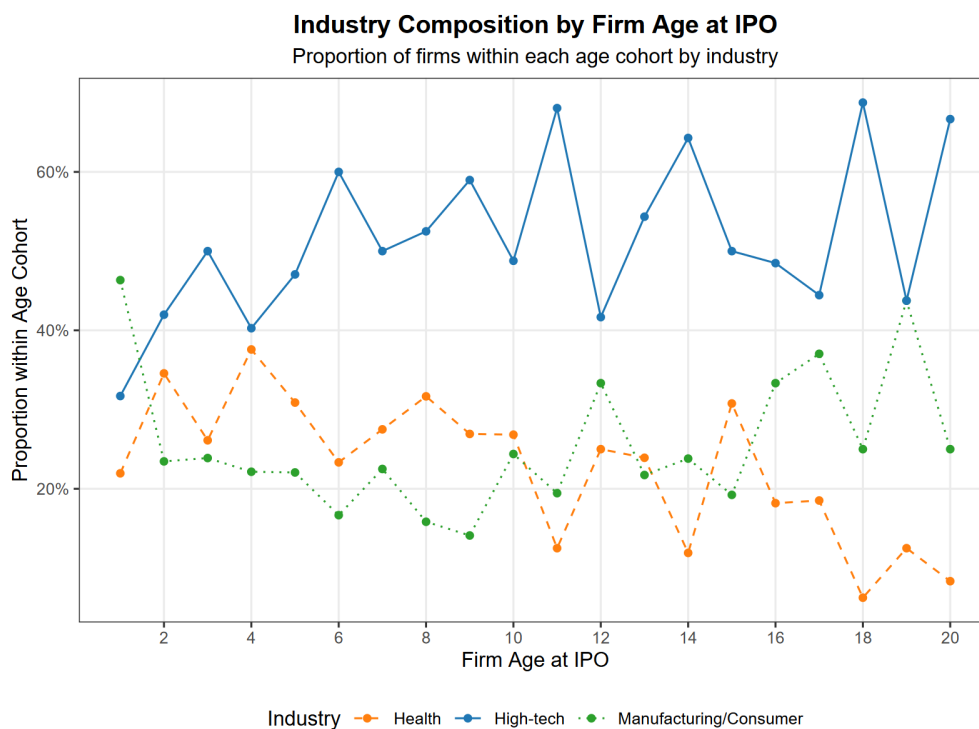
**Figure B1:** This figure plots the average pre-IPO ownership percentages for founders and venture capital institutions (defined as the combined stake of all VCs holding at least 5% of shares) across firm age cohorts. The sample includes all true IPOs from 1996 to 2021 where founders held a positive ownership stake and the firm was aged 20 years or younger at IPO.



**Figure B2:** This figure shows founder wealth and ownership patterns using 3-year rolling windows (right aligned) across founding ages at IPO. The sample comprises IPO firms with positive founder ownership. Founder wealth equals pre-IPO equity aggregated to firm level and valued at first-day closing price; founder ownership represents firm-level equity retention. Dashed lines indicate linear trends. Founder wealth trend: 0.033 ( $t = 4.1$ ); founder ownership trend: 1.182 ( $t = 7.558$ ).



**Figure B3:** This figure shows the distribution of industries across firm age cohorts for true IPOs with positive founder ownership from 1996-2021. The y-axis represents the proportion of firms within each age cohort that belong to a given industry group following industry classification defined by Eisfeldt et al. (2023b). Industries are aggregated into three categories: High-tech (blue solid line), Health (orange dashed line), and a combined group of Manufacturing, Consumer, and Other industries (green dotted line).



**Table B1:** This table reports the mean and median of founder and venture capital ownership stakes immediately prior to the IPO, presented by firms' ages at IPO. The sample includes all true IPOs where founders held a positive ownership stake. The statistics are shown for three key ownership variables: founder ownership ( $\alpha_{i,-1}^F$ ), defined as the proportion of total outstanding shares held by founders; VC ownership ( $\alpha_{i,-1}^{VC}$ ), defined as the combined stake of all venture capital investors holding at least 5% of shares; and VC representative ownership ( $\alpha_{i,-1}^{VCRep}$ ), defined as the combined stake of VC-affiliated board members.

| Age   | N     | Founder (%) |               | VC (%)      |               | VC Rep (%)  |               |
|-------|-------|-------------|---------------|-------------|---------------|-------------|---------------|
|       |       | Mean<br>(1) | Median<br>(2) | Mean<br>(3) | Median<br>(4) | Mean<br>(5) | Median<br>(6) |
| 1     | 41    | 26.714      | 18.500        | 23.872      | 18.917        | 13.306      | 0.000         |
| 2     | 80    | 23.804      | 18.380        | 33.827      | 33.887        | 20.873      | 13.193        |
| 3     | 133   | 23.087      | 14.336        | 29.059      | 26.319        | 17.168      | 9.605         |
| 4     | 146   | 18.891      | 12.455        | 35.797      | 35.134        | 21.030      | 15.325        |
| 5     | 136   | 19.904      | 10.953        | 34.097      | 34.229        | 20.707      | 16.994        |
| 6     | 119   | 21.093      | 13.470        | 36.327      | 38.537        | 23.322      | 24.023        |
| 7     | 120   | 21.189      | 13.243        | 33.620      | 35.566        | 18.662      | 12.757        |
| 8     | 118   | 19.969      | 10.300        | 36.056      | 39.454        | 19.989      | 13.315        |
| 9     | 78    | 26.678      | 16.075        | 33.049      | 37.891        | 18.226      | 14.162        |
| 10    | 82    | 23.053      | 11.314        | 33.313      | 33.681        | 17.861      | 13.378        |
| 11    | 72    | 26.893      | 16.021        | 31.434      | 31.422        | 18.263      | 11.564        |
| 12    | 59    | 31.512      | 19.968        | 28.880      | 22.257        | 14.345      | 0.005         |
| 13    | 46    | 29.265      | 16.495        | 29.608      | 22.661        | 19.215      | 7.945         |
| 14    | 42    | 37.200      | 23.423        | 24.186      | 16.041        | 11.955      | 0.000         |
| 15    | 26    | 22.632      | 12.330        | 31.244      | 17.617        | 18.648      | 0.000         |
| 16    | 32    | 33.638      | 21.604        | 20.325      | 4.657         | 12.362      | 0.000         |
| 17    | 27    | 26.677      | 14.325        | 28.842      | 15.941        | 12.647      | 0.000         |
| 18    | 16    | 52.700      | 58.229        | 19.104      | 7.455         | 11.173      | 0.000         |
| 19    | 16    | 44.861      | 34.233        | 18.065      | 0.000         | 15.523      | 0.000         |
| 20    | 12    | 35.981      | 29.218        | 7.824       | 0.000         | 7.687       | 0.000         |
| 21+   | 97    | 41.179      | 38.231        | 12.418      | 0.000         | 6.134       | 0.000         |
| Total | 1,498 | 25.362      | 14.501        | 30.584      | 28.470        | 17.709      | 9.367         |

**Table B2:** This table reports the mean and median of founder and venture capital ownership stakes immediately prior to the IPO, presented by industry. The sample includes all true IPOs where founders held a positive ownership stake. The statistics are shown for three key ownership variables: founder ownership ( $\alpha_{i,-1}^F$ ), defined as the proportion of total outstanding shares held by founders; VC ownership ( $\alpha_{i,-1}^{VC}$ ), defined as the combined stake of all venture capital investors holding at least 5% of shares; and VC representative ownership ( $\alpha_{i,-1}^{VCRep}$ ), defined as the combined stake of VC-affiliated board members.

| Industry      | N     | Founder (%) |               | VC (%)      |               | VC Rep (%)  |               |
|---------------|-------|-------------|---------------|-------------|---------------|-------------|---------------|
|               |       | Mean<br>(1) | Median<br>(2) | Mean<br>(3) | Median<br>(4) | Mean<br>(5) | Median<br>(6) |
| High-tech     | 738   | 25.292      | 16.450        | 31.009      | 30.885        | 19.294      | 14.206        |
| Health        | 380   | 12.940      | 6.922         | 42.814      | 47.944        | 23.908      | 20.676        |
| Manufacturing | 83    | 40.159      | 36.768        | 14.637      | 0.000         | 8.420       | 0.000         |
| Consumer      | 134   | 37.315      | 29.917        | 17.806      | 6.175         | 7.096       | 0.000         |
| Others        | 163   | 37.276      | 26.783        | 18.768      | 3.971         | 9.539       | 0.000         |
| Total         | 1,498 | 25.362      | 14.501        | 30.584      | 28.470        | 17.709      | 9.367         |

## C Private Financing Deals

**Table C1:** This table reports regression analyses of insider wealth across private financing deals. We use Pitchbook data on private firm financing rounds. For each deal, we calculate firm size as deal size divided by the percentage acquired. Insider ownership represents the cumulative percentage retained by insiders after prior rounds (1 minus cumulative dilution). It therefore reflects the ownership for parties not involved in PitchBook transactions. Insider wealth at each round equals insider ownership multiplied by firm size. The sample comprises U.S. headquartered deals from PitchBook spanning 1996 to 2022. Estimated coefficients shown are from regressions of log insider wealth on insider ownership, with fixed effects controls. Note: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01.

|                       | Dependent Variable: Log Insiders' Wealth |                        |                        |                        |                        |                        |
|-----------------------|------------------------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
|                       | N                                        | Insider Ownership      |                        |                        |                        |                        |
|                       | (1)                                      | (2)                    | (3)                    | (4)                    | (5)                    | (6)                    |
| Seed Round            | 18,552                                   | 0.0104***<br>(0.000 4) | 0.0127***<br>(0.000 4) | 0.0115***<br>(0.000 4) | 0.0116***<br>(0.000 4) | 0.0135***<br>(0.000 4) |
| Early Stage VC        | 28,536                                   | 0.0099***<br>(0.000 3) | 0.0112***<br>(0.000 3) | 0.0102***<br>(0.000 3) | 0.0121***<br>(0.000 3) | 0.0131***<br>(0.000 3) |
| Later Stage VC        | 17,768                                   | 0.0203***<br>(0.000 5) | 0.0206***<br>(0.000 4) | 0.0210***<br>(0.000 4) | 0.0211***<br>(0.000 5) | 0.0224***<br>(0.000 4) |
| Accelerator/Incubator | 6,110                                    | 0.0114***<br>(0.001 9) | 0.0129***<br>(0.001 8) | 0.0117***<br>(0.001 9) | 0.0114***<br>(0.001 9) | 0.0124***<br>(0.001 9) |
| Year FE               |                                          | No                     | Yes                    | No                     | No                     | Yes                    |
| Industry FE           |                                          | No                     | No                     | Yes                    | No                     | Yes                    |
| Age FE                |                                          | No                     | No                     | No                     | Yes                    | Yes                    |

## D Propensity Score Matching

**Table D1:** This table presents balance tests for covariates before and after propensity score matching. The extensive margin compares VC-backed firms against non-VC-backed firms, while the intensive margin compares high-VC-ownership firms against low-VC-ownership firms. T-statistics test the null hypothesis of equal means between treated and control groups. Sample sizes show the reduction from original to matched samples. Matching was performed within strata defined by IPO year cohorts, age buckets, and industry classification using nearest-neighbor matching with a caliper of 0.2 standard deviations.

| Variable                         | Means           |         |                |         | T-statistics |        |
|----------------------------------|-----------------|---------|----------------|---------|--------------|--------|
|                                  | Before Matching |         | After Matching |         | Before       | After  |
|                                  | Treated         | Control | Treated        | Control |              |        |
| <i>Panel A: Extensive Margin</i> |                 |         |                |         |              |        |
| N                                | 910             | 382     | 230            | 230     |              |        |
| Log(AT)                          | 17.615          | 17.366  | 17.263         | 17.113  | 2.42         | 1.257  |
| Sales/AT                         | 0.934           | 1.557   | 1.168          | 1.599   | −8.39        | −3.161 |
| XSGA/Sales                       | 2.804           | 0.859   | 1.348          | 1.108   | 2.12         | 0.691  |
| CAPX/PPE                         | 0.544           | 0.462   | 0.522          | 0.525   | 4.80         | −0.128 |
| RD/PPE                           | 6.031           | 1.985   | 2.656          | 2.087   | 2.00         | 0.860  |
| No RD Dummy                      | 0.165           | 0.458   | 0.222          | 0.404   | −10.35       | −4.298 |
| No XSGA Dummy                    | 0.174           | 0.115   | 0.104          | 0.104   | 2.83         | 0.000  |
| <i>Panel B: Intensive Margin</i> |                 |         |                |         |              |        |
| N                                | 448             | 460     | 235            | 235     |              |        |
| Log(AT)                          | 17.717          | 17.506  | 17.531         | 17.483  | 2.121        | 0.405  |
| Sales/AT                         | 0.829           | 1.040   | 0.828          | 0.884   | −2.909       | −0.658 |
| XSGA/Sales                       | 3.595           | 2.042   | 2.015          | 2.141   | 0.852        | −0.150 |
| CAPX/PPE                         | 0.538           | 0.551   | 0.576          | 0.575   | −0.619       | 0.046  |
| RD/PPE                           | 9.396           | 2.775   | 3.265          | 3.482   | 1.661        | −0.439 |
| No RD Dummy                      | 0.127           | 0.200   | 0.132          | 0.145   | −2.978       | −0.400 |
| No XSGA Dummy                    | 0.201           | 0.148   | 0.179          | 0.179   | 2.108        | 0.000  |

**Table D2:** This table presents balance tests for covariates before and after propensity score matching. Both panels compare high-VC-ownership firms against low-VC-ownership firms. The treatment variable is VC pre-IPO ownership ( $\alpha_{i,-1}^{VC}$ ), defined as the combined stake of all venture capital investors holding at least 5% of outstanding shares. We compare firms with above-mean VC ownership (treatment) against firms with below-mean VC ownership (control), conditional on both founders and VCs having positive pre-IPO ownership. T-statistics test the null hypothesis of equal means between treated and control groups. Panel A performs matching exact on VC quality, where VC quality is defined by fixing the same VC investor and matching firms within each investor’s portfolio. The observations in Panel A represent firm-VC pairs, as firms can be associated with multiple VC investors. Panel B performs matching exact on founder quality, where founder quality groups are defined based on above-mean ownership within categories defined by 5-year IPO cohorts (1996–2001, 2002–2006, etc.), age buckets (1–5, 5–20, 20+ years), and industry classification Eisefeldt et al. (2023b). Both matching procedures use nearest-neighbor matching with a caliper of 0.2 standard deviations based on log total assets.

| Variable                        | Means           |         |                |         | T-statistics |        |
|---------------------------------|-----------------|---------|----------------|---------|--------------|--------|
|                                 | Before Matching |         | After Matching |         | Before       | After  |
|                                 | Treated         | Control | Treated        | Control |              |        |
| <i>Panel A: VC Quality</i>      |                 |         |                |         |              |        |
| N                               | 1,766           | 990     | 280            | 280     |              |        |
| Log(AT)                         | 17.663          | 17.591  | 17.574         | 17.537  | 1.24         | 0.381  |
| Sales/AT                        | 0.776           | 0.943   | 0.769          | 0.895   | −3.92        | −1.675 |
| XSGA/Sales                      | 3.123           | 2.557   | 1.546          | 2.314   | 0.66         | −1.214 |
| CAPX/PPE                        | 0.532           | 0.560   | 0.590          | 0.602   | −2.28        | −0.462 |
| RD/PPE                          | 11.073          | 3.143   | 4.466          | 3.555   | 3.51         | 1.830  |
| No RD Dummy                     | 0.098           | 0.167   | 0.064          | 0.104   | −4.98        | −1.678 |
| No XSGA Dummy                   | 0.233           | 0.174   | 0.193          | 0.200   | 3.79         | −0.212 |
| <i>Panel B: Founder Quality</i> |                 |         |                |         |              |        |
| N                               | 448             | 460     | 318            | 318     |              |        |
| Log(AT)                         | 17.717          | 17.506  | 17.843         | 17.668  | 2.121        | 1.630  |
| Sales/AT                        | 0.829           | 1.040   | 0.854          | 0.873   | −2.909       | −0.305 |
| XSGA/Sales                      | 3.595           | 2.042   | 3.924          | 2.319   | 0.852        | 0.633  |
| CAPX/PPE                        | 0.538           | 0.551   | 0.536          | 0.551   | −0.619       | −0.634 |
| RD/PPE                          | 9.396           | 2.775   | 10.811         | 3.037   | 1.661        | 1.390  |
| No RD Dummy                     | 0.127           | 0.200   | 0.138          | 0.201   | −2.978       | −2.116 |
| No XSGA Dummy                   | 0.201           | 0.148   | 0.195          | 0.164   | 2.108        | 1.033  |

## E Ownership Post IPO

### E.1 Summary Statistics by IPO ages

The top plot of Figure E1 illustrates the average ownership of founders, VCs, and other directors throughout the firm life cycle across different IPO ages.

**Founders:** On average, founders' ownership decreases at the time of the IPO and then experiences a slight decline, remaining relatively stable in the following years. Specifically, founders' ownership drops from 27.9% prior to the IPO to 18.9% at one year post-IPO, and further decreases to 17.3% by the age of 15. Since we are working with an unbalanced panel, this pattern is influenced by the entry and exit of firms. At earlier IPO ages, founders' ownership is averaged across all IPOs. However, for later IPO ages, founders' ownership is averaged only among the firms that remain in the sample, which primarily consists of firms that went public in earlier years.

**VCs:** In contrast to the steady trend observed in founders' ownership, the average VC ownership declines significantly as IPO ages increase. Specifically, VCs' ownership drops from 18.7% prior to the IPO to 10.3% at one year post-IPO, and further decreases to 0.07% by the age of 15. Similarly, at earlier IPO ages, VCs' ownership is averaged across all IPOs. For later IPO ages, VCs' ownership is averaged only among the firms that remain in the sample, which primarily consists of firms that went public in earlier years had lower VC ownership at the time of their IPO.

**Total Insiders:** The ownership of other directors also declines as IPO ages increase. As a result of, total insiders' ownership declines with increasing IPO ages. Specifically, total insiders' ownership drops from 62.5% prior to the IPO to 41.49% at one year post-IPO, and further decreases to 21.92% by the age of 15. We present other key summary statistics for insiders' ownership in the years following the IPO across different IPO ages in Table E2.

### E.2 Ownership Variation over Calendar Years

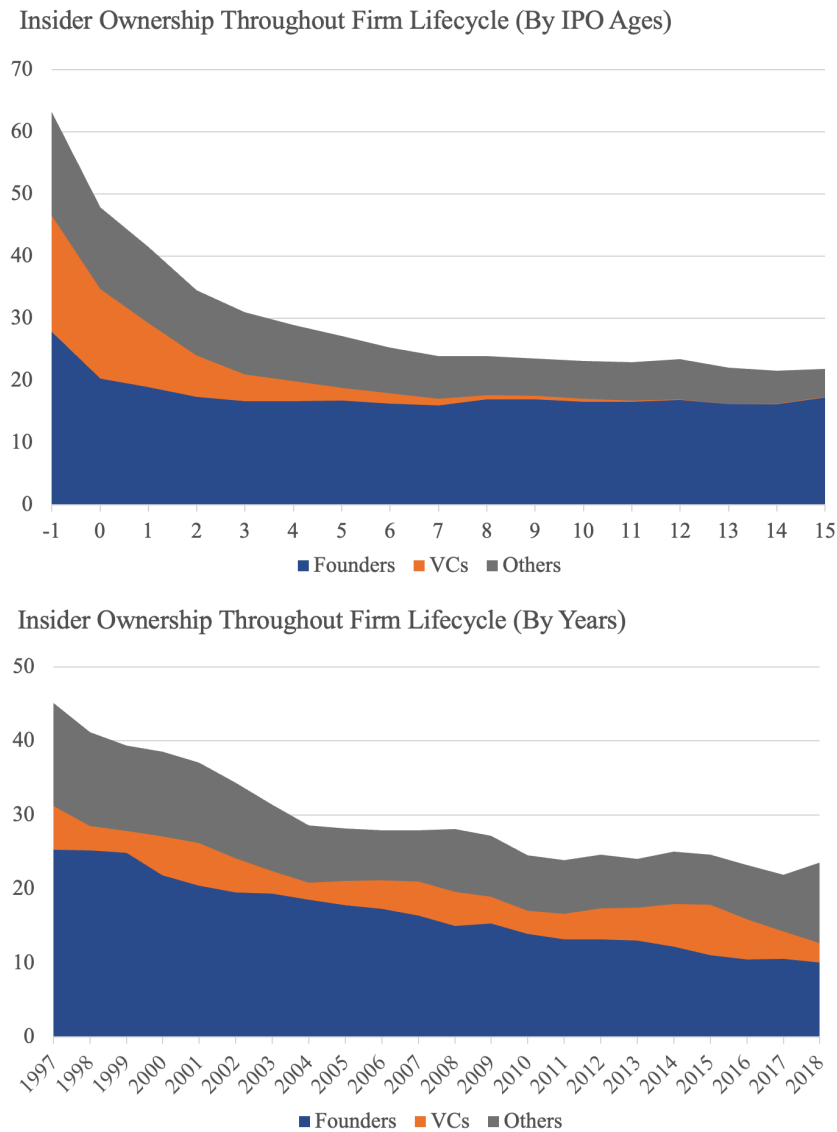
The bottom plot of Figure E1 illustrates the average ownership of founders, VCs, and other directors throughout the firm life cycle across different calendar years.

**Founders:** On average, founders' ownership decreases at a nearly constant rate over

time. Specifically, founders' ownership declines from 25.25% in 1997 to 10.01% in 2018. Since we are working with an unbalanced panel, this pattern is influenced by the entry and exit of firms. In earlier years, founders' ownership is averaged only among firms that went public in those years. However, for later IPO ages, founders' ownership is averaged across all IPOs that IPO'd in previous years and remain in the sample. Since founders of firms that went public later have lower ownership at the time of the IPO, each subsequent year brings in new founders with a lower average ownership.

**VCs:** VCs' ownership remains steady over the years. This is because, although VCs begin to reduce their ownership at the time of the IPO, new VCs are added to the sample each year, which helps to sustain a more stable average ownership level. We present other key summary statistics for insiders' ownership in the years following the IPO across different years in Table E3.

**Figure E1:** This figure presents the firm-level average of insiders' ownership throughout the firm life cycle, with the top plot illustrating ownership by IPO ages and the bottom plot by calendar years. Dark blue areas represent founders' ownership, orange areas represent venture capitalists' (VCs) ownership, and grey areas represent the ownership of other insiders. The figure includes firm-years where founders' ownership is non-zero. In cases with multiple founders or VCs, their ownership stakes are aggregated at the firm level. Additionally, we assign a VC ownership value of zero for firm-years that have non-zero founder ownership but no VC representatives on their board.



**Table E1:** This table presents summary statistics of founders' ownership in the years following the IPO, categorized by IPO ages, specifically for true IPOs that occurred between 1996 and 2018 and involved a founder at the time of the IPO. The number of observations decreases over time for two primary reasons: 1) firms or founders exit the sample as time progresses, and 2) due to the limitations of the sample period (1996-2018), firms that went public later do not encompass all IPO ages. Panel A displays the summary statistics for the entire sample, while Panel B provides summary statistics for firms that went public during specific time periods: 1996-2000, 2001-2005, 2006-2010, and 2011-2018. In cases where multiple founders are involved, their ownership stakes are aggregated at the firm level for each IPO age. Columns (1) to (4) present the summary statistics of ownership prior to the IPO, while Columns (5) to (7) show the summary statistics of ownership changes at the IPO (i.e., the difference between ownership prior to and after the IPO). Column (4) reflects the percentage of founders in relation to total insider ownership.

| Age<br>(IPO)                                             | N    | Ownership Level |        |       |         | Ownership Change |        |      |
|----------------------------------------------------------|------|-----------------|--------|-------|---------|------------------|--------|------|
|                                                          |      | Mean            | Median | Sd    | % Total | Mean             | Median | Sd   |
|                                                          |      | (1)             | (2)    | (3)   | (4)     | (5)              | (6)    | (7)  |
| <b><i>Panel A: Founders' Ownership (Full Sample)</i></b> |      |                 |        |       |         |                  |        |      |
| 1                                                        | 1165 | 18.91           | 11.22  | 19.41 | 43.43   | 1.76             | 0.67   | 6.23 |
| 2                                                        | 978  | 17.37           | 9.90   | 18.70 | 47.23   | 2.37             | 0.74   | 5.59 |
| 3                                                        | 777  | 16.67           | 8.70   | 18.76 | 50.52   | 1.69             | 0.51   | 4.37 |
| 4                                                        | 609  | 16.69           | 8.40   | 18.92 | 52.86   | 1.46             | 0.40   | 6.05 |
| 5                                                        | 480  | 16.76           | 8.55   | 18.84 | 55.98   | 1.30             | 0.30   | 4.06 |
| 6                                                        | 379  | 16.26           | 8.06   | 18.32 | 57.88   | 1.40             | 0.30   | 5.29 |
| 7                                                        | 299  | 15.99           | 8.31   | 18.25 | 59.08   | 1.12             | 0.26   | 3.99 |
| 8                                                        | 244  | 16.94           | 8.40   | 19.12 | 61.44   | 0.76             | 0.16   | 5.56 |
| 9                                                        | 209  | 17.02           | 8.40   | 19.29 | 62.55   | 0.88             | 0.27   | 3.25 |
| 10                                                       | 175  | 16.61           | 8.30   | 18.80 | 61.47   | 1.24             | 0.26   | 7.25 |
| 11                                                       | 146  | 16.61           | 8.15   | 19.09 | 61.47   | 0.67             | 0.18   | 3.10 |
| 12                                                       | 125  | 16.92           | 8.00   | 19.64 | 60.82   | 0.48             | 0.20   | 1.69 |
| 13                                                       | 109  | 16.15           | 7.50   | 18.87 | 61.69   | 0.93             | 0.10   | 4.84 |
| 14                                                       | 99   | 16.23           | 7.40   | 19.60 | 62.21   | 0.13             | 0.20   | 4.50 |
| 15                                                       | 80   | 17.31           | 7.88   | 20.49 | 64.09   | 0.31             | 0.15   | 2.22 |
| 16                                                       | 69   | 17.23           | 8.20   | 20.08 | 64.87   | 0.78             | 0.16   | 1.83 |
| 17                                                       | 64   | 16.18           | 7.28   | 19.68 | 62.50   | 0.68             | 0.10   | 3.25 |
| 18                                                       | 53   | 17.16           | 6.63   | 21.32 | 61.48   | -0.46            | 0.03   | 3.13 |
| 19                                                       | 35   | 18.83           | 7.54   | 23.68 | 62.30   | -0.06            | 0.15   | 1.26 |
| 20                                                       | 24   | 14.89           | 6.03   | 18.22 | 66.42   | 0.25             | 0.09   | 1.29 |
| 21                                                       | 15   | 18.36           | 6.69   | 21.90 | 68.08   | 0.30             | 0.22   | 1.44 |
| 22                                                       | 7    | 25.26           | 9.10   | 28.21 | 69.16   | 0.26             | 0.20   | 0.36 |

| Age<br>(IPO)                                               | N   | Ownership Level |        |       |         | Ownership Change |        |      |
|------------------------------------------------------------|-----|-----------------|--------|-------|---------|------------------|--------|------|
|                                                            |     | Mean            | Median | Sd    | % Total | Mean             | Median | Sd   |
|                                                            |     | (1)             | (2)    | (3)   | (4)     | (5)              | (6)    | (7)  |
| <i>Pane B1: Founders' Ownership (Firms IPOd 1996-2000)</i> |     |                 |        |       |         |                  |        |      |
| 1                                                          | 727 | 22.80           | 15.15  | 20.77 | 49.65   | 2.24             | 1.00   | 6.68 |
| 2                                                          | 605 | 21.13           | 13.51  | 20.26 | 53.17   | 2.83             | 1.00   | 6.49 |
| 3                                                          | 461 | 20.97           | 12.80  | 20.69 | 56.64   | 1.90             | 0.60   | 4.83 |
| 4                                                          | 357 | 21.72           | 13.02  | 21.09 | 59.37   | 1.54             | 0.50   | 6.79 |
| 5                                                          | 293 | 21.02           | 12.37  | 20.80 | 60.46   | 1.61             | 0.40   | 4.77 |
| 6                                                          | 236 | 19.92           | 10.60  | 20.39 | 60.74   | 1.63             | 0.49   | 5.79 |
| 7                                                          | 191 | 20.12           | 9.93   | 20.70 | 62.30   | 1.25             | 0.30   | 4.58 |
| 8                                                          | 166 | 20.39           | 10.74  | 21.37 | 63.00   | 0.95             | 0.20   | 6.33 |
| 9                                                          | 146 | 20.22           | 10.42  | 21.40 | 64.39   | 0.88             | 0.30   | 3.55 |
| 10                                                         | 126 | 19.10           | 9.03   | 20.62 | 62.13   | 1.45             | 0.20   | 8.51 |
| 11                                                         | 108 | 18.81           | 8.65   | 20.79 | 62.15   | 0.60             | 0.13   | 3.43 |
| 12                                                         | 101 | 18.41           | 8.90   | 20.67 | 61.94   | 0.43             | 0.20   | 1.80 |
| 13                                                         | 91  | 17.28           | 8.10   | 19.54 | 62.60   | 1.07             | 0.10   | 5.23 |
| 14                                                         | 86  | 17.47           | 7.85   | 20.49 | 62.82   | 0.11             | 0.14   | 4.83 |
| 15                                                         | 77  | 17.44           | 7.59   | 20.78 | 63.47   | 0.33             | 0.15   | 2.26 |
| 16                                                         | 66  | 17.43           | 8.15   | 20.43 | 64.15   | 0.76             | 0.17   | 1.84 |
| 17                                                         | 62  | 16.45           | 7.28   | 19.92 | 62.03   | 0.70             | 0.10   | 3.30 |
| 18                                                         | 53  | 17.16           | 6.63   | 21.32 | 61.48   | -0.46            | 0.03   | 3.13 |
| 19                                                         | 35  | 18.83           | 7.54   | 23.68 | 62.30   | -0.06            | 0.15   | 1.26 |
| 20                                                         | 24  | 14.89           | 6.03   | 18.22 | 66.42   | 0.25             | 0.09   | 1.29 |
| 21                                                         | 15  | 18.36           | 6.69   | 21.90 | 68.08   | 0.30             | 0.22   | 1.44 |
| 22                                                         | 7   | 25.26           | 9.10   | 28.21 | 69.16   | 0.26             | 0.20   | 0.36 |

| Age<br>(IPO)                                                | N   | Ownership Level |        |       |         | Ownership Change |        |      |
|-------------------------------------------------------------|-----|-----------------|--------|-------|---------|------------------|--------|------|
|                                                             |     | Mean            | Median | Sd    | % Total | Mean             | Median | Sd   |
|                                                             |     | (1)             | (2)    | (3)   | (4)     | (5)              | (6)    | (7)  |
| <i>Panel B2: Founders' Ownership (Firms IPOd 2001-2005)</i> |     |                 |        |       |         |                  |        |      |
| 1                                                           | 122 | 15.74           | 7.85   | 17.87 | 39.36   | 0.68             | 0.30   | 7.32 |
| 2                                                           | 118 | 14.36           | 7.00   | 17.01 | 44.62   | 1.57             | 0.80   | 2.81 |
| 3                                                           | 101 | 13.31           | 6.68   | 16.33 | 49.81   | 2.20             | 0.60   | 4.06 |
| 4                                                           | 84  | 11.78           | 5.80   | 13.69 | 48.05   | 1.95             | 0.40   | 7.61 |
| 5                                                           | 72  | 11.67           | 5.70   | 13.38 | 50.21   | 1.11             | 0.22   | 3.42 |
| 6                                                           | 64  | 10.39           | 5.90   | 10.57 | 52.95   | 1.48             | 0.30   | 5.91 |
| 7                                                           | 47  | 9.86            | 5.07   | 10.94 | 54.64   | 1.34             | 0.24   | 3.54 |
| 8                                                           | 41  | 10.62           | 5.40   | 11.60 | 57.34   | 0.18             | 0.09   | 4.35 |
| 9                                                           | 35  | 10.11           | 5.80   | 11.77 | 54.95   | 1.04             | 0.20   | 3.01 |
| 10                                                          | 29  | 11.16           | 7.55   | 12.55 | 58.10   | 0.44             | 0.20   | 0.67 |
| 11                                                          | 25  | 11.63           | 8.71   | 12.68 | 59.47   | 0.88             | 0.26   | 2.10 |
| 12                                                          | 21  | 11.54           | 6.40   | 13.76 | 56.32   | 0.54             | 0.20   | 1.08 |
| 13                                                          | 18  | 10.40           | 5.29   | 14.08 | 57.06   | 0.21             | 0.21   | 1.68 |
| 14                                                          | 13  | 8.05            | 5.29   | 8.90  | 58.19   | 0.28             | 0.24   | 0.28 |
| 15                                                          | 3   | 13.94           | 12.93  | 12.18 | 80.03   | -0.21            | -0.03  | 0.82 |
| 16                                                          | 3   | 12.73           | 12.80  | 10.30 | 80.64   | 1.21             | 0.13   | 2.07 |
| 17                                                          | 2   | 7.65            | 7.65   | 7.57  | 77.07   | -0.05            | -0.05  | 0.21 |
| <i>Panel B3: Founders' Ownership (Firms IPOd 2006-2010)</i> |     |                 |        |       |         |                  |        |      |
| 1                                                           | 111 | 12.26           | 7.80   | 13.50 | 32.89   | 1.51             | 0.50   | 3.11 |
| 2                                                           | 100 | 10.99           | 6.80   | 11.83 | 37.10   | 1.50             | 0.30   | 4.06 |
| 3                                                           | 84  | 10.60           | 6.03   | 11.67 | 40.55   | 1.47             | 0.30   | 4.41 |
| 4                                                           | 71  | 9.52            | 5.01   | 11.02 | 44.10   | 1.44             | 0.55   | 2.55 |
| 5                                                           | 62  | 8.83            | 4.67   | 9.85  | 48.64   | 0.97             | 0.42   | 1.81 |
| 6                                                           | 56  | 8.18            | 5.16   | 7.94  | 50.98   | 0.86             | 0.16   | 2.61 |
| 7                                                           | 50  | 8.15            | 4.98   | 7.68  | 52.14   | 0.51             | 0.10   | 1.74 |
| 8                                                           | 37  | 8.44            | 6.91   | 7.12  | 58.97   | 0.52             | 0.34   | 1.80 |
| 9                                                           | 28  | 8.95            | 7.30   | 6.88  | 62.44   | 0.64             | 0.21   | 1.45 |
| 10                                                          | 20  | 8.85            | 5.81   | 7.67  | 62.23   | 1.12             | 0.55   | 1.64 |
| 11                                                          | 13  | 7.87            | 5.04   | 7.17  | 59.67   | 0.84             | 0.60   | 1.44 |
| 12                                                          | 3   | 4.32            | 4.50   | 2.63  | 54.67   | 1.65             | 1.70   | 1.23 |

| Age<br>(IPO)                                                | N   | Ownership Level |        |       |         | Ownership Change |        |      |
|-------------------------------------------------------------|-----|-----------------|--------|-------|---------|------------------|--------|------|
|                                                             |     | Mean            | Median | Sd    | % Total | Mean             | Median | Sd   |
|                                                             |     | (1)             | (2)    | (3)   | (4)     | (5)              | (6)    | (7)  |
| <i>Panel B4: Founders' Ownership (Firms IPOd 2011-2018)</i> |     |                 |        |       |         |                  |        |      |
| 1                                                           | 202 | 10.79           | 5.72   | 13.27 | 29.88   | 0.82             | 0.26   | 4.80 |
| 2                                                           | 153 | 9.23            | 4.70   | 11.92 | 33.01   | 1.80             | 0.64   | 3.73 |
| 3                                                           | 129 | 8.10            | 4.05   | 10.99 | 36.51   | 0.69             | 0.35   | 2.23 |
| 4                                                           | 97  | 7.65            | 3.80   | 11.49 | 39.49   | 0.79             | 0.10   | 2.27 |
| 5                                                           | 53  | 9.36            | 4.56   | 14.63 | 47.64   | 0.26             | 0.10   | 1.43 |
| 6                                                           | 23  | 14.78           | 6.30   | 20.80 | 59.09   | 0.18             | 0.18   | 1.23 |
| 7                                                           | 11  | 6.29            | 4.50   | 6.14  | 53.87   | 0.69             | 0.27   | 1.20 |

**Table E2:** This table presents summary statistics of insiders' ownership in the years following the IPO, categorized by IPO ages, specifically for true IPOs that occurred between 1996 and 2018 and involved a founder at the time of the IPO. Panel A displays the summary statistics for VC representatives, while Panel B provides summary statistics for total insiders. For VC representatives, when multiple individuals are involved, their ownership stakes are aggregated at the firm level for each IPO age. Additionally, we assign a VC ownership value of zero for firms with founders at the IPO but no VC representatives on their board in Panel B1, while Panel B2 presents summary statistics exclusively for instances of non-zero VC ownership. Columns (1) to (4) present the summary statistics of ownership prior to the IPO, while Columns (5) to (7) show the summary statistics of ownership changes at the IPO (i.e., the difference between ownership prior to and after the IPO). Column (4) reflects the percentage of founders in relation to total insider ownership.

| Age<br>(IPO)                                                                  | N    | Ownership Level |        |       |         | Ownership Change |        |      |
|-------------------------------------------------------------------------------|------|-----------------|--------|-------|---------|------------------|--------|------|
|                                                                               |      | Mean            | Median | Sd    | % Total | Mean             | Median | Sd   |
|                                                                               |      | (1)             | (2)    | (3)   | (4)     | (5)              | (6)    | (7)  |
| <i>Panel A1: VCs' Ownership by IPO Ages (Assign 0s When No VC is Present)</i> |      |                 |        |       |         |                  |        |      |
| 1                                                                             | 1165 | 10.30           | 1.05   | 14.29 | 24.77   | 4.24             | 0.05   | 8.83 |
| 2                                                                             | 978  | 6.68            | 0.09   | 11.85 | 19.78   | 3.96             | 0.00   | 7.98 |
| 3                                                                             | 777  | 4.33            | 0.00   | 9.76  | 14.24   | 1.99             | 0.00   | 5.17 |
| 4                                                                             | 609  | 3.22            | 0.00   | 8.98  | 10.74   | 1.10             | 0.00   | 3.29 |
| 5                                                                             | 480  | 2.04            | 0.00   | 7.09  | 7.41    | 0.72             | 0.00   | 3.28 |
| 6                                                                             | 379  | 1.66            | 0.00   | 6.87  | 5.70    | 0.39             | 0.00   | 2.19 |
| 7                                                                             | 299  | 1.08            | 0.00   | 5.41  | 4.02    | 0.35             | 0.00   | 2.23 |
| 8                                                                             | 244  | 0.70            | 0.00   | 3.78  | 2.73    | 0.21             | 0.00   | 1.88 |
| 9                                                                             | 209  | 0.52            | 0.00   | 2.95  | 2.28    | 0.24             | 0.00   | 2.43 |
| 10                                                                            | 175  | 0.46            | 0.00   | 2.89  | 2.05    | 0.15             | 0.00   | 1.51 |
| 11                                                                            | 146  | 0.17            | 0.00   | 1.04  | 1.15    | 0.21             | 0.00   | 2.33 |
| 12                                                                            | 125  | 0.07            | 0.00   | 0.26  | 0.66    | 0.11             | 0.00   | 1.09 |
| 13                                                                            | 109  | 0.07            | 0.00   | 0.27  | 0.57    | 0.00             | 0.00   | 0.04 |
| 14                                                                            | 99   | 0.07            | 0.00   | 0.27  | 0.65    | 0.00             | 0.00   | 0.03 |
| 15                                                                            | 80   | 0.07            | 0.00   | 0.29  | 0.61    | 0.00             | 0.00   | 0.02 |
| 16                                                                            | 69   | 0.08            | 0.00   | 0.29  | 0.69    | 0.00             | 0.00   | 0.03 |
| 17                                                                            | 64   | 0.08            | 0.00   | 0.27  | 0.72    | 0.01             | 0.00   | 0.05 |
| 18                                                                            | 53   | 0.07            | 0.00   | 0.22  | 0.58    | 0.00             | 0.00   | 0.03 |
| 19                                                                            | 35   | 0.04            | 0.00   | 0.16  | 0.54    | 0.01             | 0.00   | 0.02 |
| 20                                                                            | 24   | 0.03            | 0.00   | 0.15  | 0.32    | 0.00             | 0.00   | 0.01 |
| 21                                                                            | 15   | 0.04            | 0.00   | 0.15  | 0.50    | 0.01             | 0.00   | 0.04 |

| Age<br>(IPO)                                                        | N   | Ownership Level |        |       |         | Ownership Change |        |       |
|---------------------------------------------------------------------|-----|-----------------|--------|-------|---------|------------------|--------|-------|
|                                                                     |     | Mean            | Median | Sd    | % Total | Mean             | Median | Sd    |
|                                                                     |     | (1)             | (2)    | (3)   | (4)     | (5)              | (6)    | (7)   |
| <i>Panel A2: VCs' Ownership by IPO Ages (Non-zero VC Ownership)</i> |     |                 |        |       |         |                  |        |       |
| 1                                                                   | 644 | 18.63           | 15.08  | 14.64 | 44.80   | 6.75             | 3.28   | 10.14 |
| 2                                                                   | 513 | 12.73           | 8.45   | 13.82 | 37.72   | 6.57             | 4.64   | 9.38  |
| 3                                                                   | 352 | 9.55            | 4.80   | 12.67 | 31.43   | 3.73             | 0.94   | 6.63  |
| 4                                                                   | 244 | 8.05            | 2.08   | 12.77 | 26.81   | 2.19             | 0.25   | 4.38  |
| 5                                                                   | 164 | 5.97            | 0.76   | 11.14 | 21.69   | 1.07             | 0.05   | 3.53  |
| 6                                                                   | 102 | 6.17            | 0.66   | 12.20 | 21.19   | 0.97             | 0.02   | 3.67  |
| 7                                                                   | 70  | 4.60            | 0.53   | 10.49 | 17.18   | 1.17             | 0.00   | 4.33  |
| 8                                                                   | 50  | 3.42            | 0.52   | 7.83  | 13.33   | 0.96             | 0.00   | 4.09  |
| 9                                                                   | 41  | 2.67            | 0.43   | 6.28  | 11.64   | 1.20             | -0.01  | 5.43  |
| 10                                                                  | 32  | 2.51            | 0.43   | 6.45  | 11.23   | -0.01            | -0.02  | 0.16  |
| 11                                                                  | 25  | 1.01            | 0.40   | 2.37  | 6.69    | 0.01             | 0.01   | 0.11  |
| 12                                                                  | 17  | 0.49            | 0.33   | 0.54  | 4.88    | 0.03             | 0.01   | 0.09  |
| 13                                                                  | 14  | 0.52            | 0.28   | 0.60  | 4.42    | 0.01             | 0.00   | 0.08  |
| 14                                                                  | 12  | 0.54            | 0.28   | 0.59  | 5.38    | 0.02             | 0.00   | 0.08  |
| 15                                                                  | 8   | 0.72            | 0.65   | 0.63  | 6.08    | -0.01            | 0.00   | 0.06  |
| 16                                                                  | 7   | 0.79            | 0.73   | 0.56  | 6.76    | 0.01             | -0.02  | 0.11  |
| 17                                                                  | 7   | 0.73            | 0.70   | 0.46  | 6.57    | 0.06             | 0.02   | 0.16  |
| 18                                                                  | 6   | 0.58            | 0.66   | 0.41  | 5.12    | 0.02             | 0.04   | 0.09  |
| 19                                                                  | 2   | 0.65            | 0.65   | 0.16  | 9.48    | 0.07             | 0.07   | 0.01  |
| 20                                                                  | 1   | 0.74            | 0.74   | NA    | 7.60    | 0.03             | 0.03   | NA    |
| 21                                                                  | 1   | 0.58            | 0.58   | NA    | 7.55    | 0.16             | 0.16   | NA    |

| Age<br>(IPO)                                          | N    | Ownership Level |        |       |         | Ownership Change |        |       |
|-------------------------------------------------------|------|-----------------|--------|-------|---------|------------------|--------|-------|
|                                                       |      | Mean            | Median | Sd    | % Total | Mean             | Median | Sd    |
|                                                       |      | (1)             | (2)    | (3)   | (4)     | (5)              | (6)    | (7)   |
| <i>Panel B: Total Insiders' Ownership by IPO Ages</i> |      |                 |        |       |         |                  |        |       |
| 1                                                     | 1165 | 41.49           | 40.80  | 19.33 |         | 6.77             | 3.50   | 11.81 |
| 2                                                     | 978  | 34.49           | 31.30  | 20.00 |         | 7.81             | 5.20   | 11.21 |
| 3                                                     | 777  | 30.98           | 26.50  | 20.92 |         | 3.80             | 2.42   | 9.33  |
| 4                                                     | 609  | 28.89           | 24.20  | 20.95 |         | 3.28             | 1.27   | 8.34  |
| 5                                                     | 480  | 27.20           | 21.55  | 20.80 |         | 2.06             | 0.70   | 7.58  |
| 6                                                     | 379  | 25.28           | 20.00  | 19.74 |         | 2.84             | 0.95   | 7.59  |
| 7                                                     | 299  | 23.94           | 17.43  | 19.59 |         | 1.79             | 0.78   | 5.29  |
| 8                                                     | 244  | 23.96           | 17.98  | 19.89 |         | 1.62             | 0.61   | 8.52  |
| 9                                                     | 209  | 23.58           | 16.60  | 19.94 |         | 1.28             | 0.41   | 4.24  |
| 10                                                    | 175  | 23.12           | 15.42  | 19.83 |         | 1.32             | 0.41   | 8.60  |
| 11                                                    | 146  | 22.91           | 14.94  | 19.77 |         | 1.01             | 0.46   | 4.02  |
| 12                                                    | 125  | 23.44           | 15.80  | 20.36 |         | 0.58             | 0.40   | 2.85  |
| 13                                                    | 109  | 22.03           | 15.50  | 19.61 |         | 1.72             | 0.40   | 7.49  |
| 14                                                    | 99   | 21.61           | 12.70  | 20.61 |         | 0.15             | 0.30   | 4.84  |
| 15                                                    | 80   | 21.92           | 12.63  | 21.32 |         | 0.72             | 0.30   | 2.67  |
| 16                                                    | 69   | 22.20           | 13.50  | 21.06 |         | 0.62             | 0.05   | 2.44  |
| 17                                                    | 64   | 21.71           | 14.70  | 21.00 |         | 0.07             | 0.00   | 3.57  |
| 18                                                    | 53   | 22.97           | 15.00  | 21.85 |         | -0.39            | 0.20   | 3.06  |
| 19                                                    | 35   | 24.00           | 15.30  | 23.97 |         | 0.49             | 0.25   | 4.01  |
| 20                                                    | 24   | 19.04           | 15.46  | 19.32 |         | 1.33             | 0.30   | 4.33  |
| 21                                                    | 15   | 21.94           | 9.58   | 23.03 |         | 1.06             | 0.60   | 1.97  |
| 22                                                    | 7    | 27.39           | 13.60  | 27.42 |         | 0.29             | 0.40   | 0.43  |

**Table E3:** This table presents summary statistics of insiders' ownership in the years following the IPO, categorized by calendar years, specifically for true IPOs that occurred between 1996 and 2018 and involved a founder at the time of the IPO. We provide data for founders (Panel A), VC representatives (Panel B), and total insiders (Panel C). In cases where multiple founders or VCs are involved, their ownership stakes are aggregated at the firm level. Additionally, for VC representatives, we assign an ownership value of zero for firms with founders at the IPO but no VC representatives on their board in Panel B1, while Panel B2 presents summary statistics only for instances of non-zero VC ownership. Columns (1) to (4) display the summary statistics of ownership prior to the IPO, while Columns (6) to (8) show the summary statistics of ownership changes at the IPO (i.e., the difference between ownership prior to and after the IPO). For founders and VCs, Column (5) reflects the percentage of ownership held by insiders in relation to total insider ownership.

| Age<br>(IPO)                                        | N   | Ownership Level |        |       |         | Ownership Change |        |      |
|-----------------------------------------------------|-----|-----------------|--------|-------|---------|------------------|--------|------|
|                                                     |     | Mean            | Median | Sd    | % Total | Mean             | Median | Sd   |
|                                                     |     | (1)             | (2)    | (3)   | (4)     | (5)              | (6)    | (7)  |
| <b><i>Panel A: Founders' Ownership by Years</i></b> |     |                 |        |       |         |                  |        |      |
| 1997                                                | 159 | 25.25           | 21.71  | 21.61 | 53.53   | 1.16             | 0.42   | 6.41 |
| 1998                                                | 293 | 25.20           | 19.30  | 21.70 | 57.94   | 3.62             | 0.99   | 8.74 |
| 1999                                                | 320 | 24.88           | 17.25  | 21.94 | 57.72   | 2.46             | 1.00   | 6.22 |
| 2000                                                | 453 | 21.86           | 14.10  | 20.77 | 53.37   | 2.60             | 1.20   | 6.18 |
| 2001                                                | 492 | 20.45           | 12.52  | 20.06 | 51.43   | 1.89             | 0.70   | 6.13 |
| 2002                                                | 410 | 19.49           | 11.00  | 19.36 | 52.79   | 1.77             | 0.60   | 5.22 |
| 2003                                                | 340 | 19.32           | 9.89   | 19.75 | 55.61   | 0.97             | 0.22   | 3.84 |
| 2004                                                | 289 | 18.57           | 10.50  | 19.38 | 57.65   | 2.15             | 0.60   | 5.51 |
| 2005                                                | 294 | 17.77           | 9.59   | 19.78 | 56.16   | 1.18             | 0.38   | 6.31 |
| 2006                                                | 276 | 17.26           | 8.31   | 19.61 | 55.79   | 1.15             | 0.42   | 4.91 |
| 2007                                                | 270 | 16.38           | 8.13   | 19.12 | 54.46   | 1.40             | 0.37   | 3.87 |
| 2008                                                | 273 | 14.97           | 7.40   | 17.35 | 51.35   | 1.54             | 0.30   | 6.71 |
| 2009                                                | 233 | 15.32           | 7.00   | 17.43 | 53.56   | 0.35             | 0.03   | 3.17 |
| 2010                                                | 223 | 13.93           | 6.80   | 15.94 | 53.68   | 1.41             | 0.30   | 4.13 |
| 2011                                                | 213 | 13.14           | 6.84   | 15.82 | 53.21   | 0.95             | 0.40   | 4.69 |
| 2012                                                | 214 | 13.16           | 7.20   | 16.01 | 51.98   | 0.77             | 0.20   | 2.62 |
| 2013                                                | 217 | 12.98           | 7.06   | 15.83 | 52.70   | 0.93             | 0.20   | 3.49 |
| 2014                                                | 236 | 12.19           | 6.31   | 15.52 | 49.34   | 1.01             | 0.30   | 2.40 |
| 2015                                                | 260 | 11.04           | 5.05   | 14.68 | 46.71   | 1.00             | 0.30   | 3.04 |
| 2016                                                | 250 | 10.47           | 4.87   | 14.07 | 47.01   | 0.52             | 0.10   | 2.51 |
| 2017                                                | 222 | 10.57           | 4.64   | 15.17 | 48.18   | 0.26             | 0.20   | 4.35 |
| 2018                                                | 204 | 10.04           | 4.54   | 14.28 | 45.43   | 0.49             | 0.20   | 1.32 |

| Age<br>(IPO)                                                               | N   | Ownership Level |        |       |         | Ownership Change |        |      |
|----------------------------------------------------------------------------|-----|-----------------|--------|-------|---------|------------------|--------|------|
|                                                                            |     | Mean            | Median | Sd    | % Total | Mean             | Median | Sd   |
|                                                                            |     | (1)             | (2)    | (3)   | (4)     | (5)              | (6)    | (7)  |
| <i>Panel B1: VCs' Ownership by Years (Assign 0s When No VC is Present)</i> |     |                 |        |       |         |                  |        |      |
| 1997                                                                       | 159 | 5.96            | 0.00   | 11.90 | 13.13   | 1.47             | 0.00   | 5.61 |
| 1998                                                                       | 293 | 3.30            | 0.00   | 8.22  | 8.65    | 2.52             | 0.00   | 6.49 |
| 1999                                                                       | 320 | 2.96            | 0.00   | 7.88  | 8.31    | 1.47             | 0.00   | 4.34 |
| 2000                                                                       | 453 | 5.26            | 0.00   | 10.32 | 13.51   | 3.04             | 0.00   | 7.68 |
| 2001                                                                       | 492 | 5.77            | 0.00   | 11.40 | 14.97   | 3.09             | 0.00   | 7.13 |
| 2002                                                                       | 410 | 4.60            | 0.00   | 10.22 | 13.06   | 1.82             | 0.00   | 5.57 |
| 2003                                                                       | 340 | 3.06            | 0.00   | 8.37  | 9.60    | 1.12             | 0.00   | 3.80 |
| 2004                                                                       | 289 | 2.23            | 0.00   | 7.83  | 6.80    | 0.93             | 0.00   | 3.13 |
| 2005                                                                       | 294 | 3.27            | 0.00   | 8.75  | 10.53   | 1.69             | 0.00   | 5.27 |
| 2006                                                                       | 276 | 3.90            | 0.00   | 10.48 | 11.47   | 1.34             | 0.00   | 4.43 |
| 2007                                                                       | 270 | 4.60            | 0.00   | 11.27 | 13.05   | 1.47             | 0.00   | 4.54 |
| 2008                                                                       | 273 | 4.66            | 0.00   | 11.32 | 13.43   | 2.09             | 0.00   | 5.66 |
| 2009                                                                       | 233 | 3.62            | 0.00   | 9.37  | 10.71   | 0.95             | 0.00   | 4.86 |
| 2010                                                                       | 223 | 3.13            | 0.00   | 9.23  | 8.73    | 1.08             | 0.00   | 3.37 |
| 2011                                                                       | 213 | 3.53            | 0.00   | 10.30 | 9.50    | 1.34             | 0.00   | 4.30 |
| 2012                                                                       | 214 | 4.20            | 0.00   | 10.48 | 11.10   | 1.22             | 0.00   | 4.97 |
| 2013                                                                       | 217 | 4.49            | 0.00   | 11.50 | 11.54   | 1.69             | 0.00   | 8.74 |
| 2014                                                                       | 236 | 5.77            | 0.00   | 12.23 | 16.06   | 2.58             | 0.00   | 6.89 |
| 2015                                                                       | 260 | 6.80            | 0.00   | 12.95 | 20.12   | 2.77             | 0.00   | 6.19 |
| 2016                                                                       | 250 | 5.41            | 0.00   | 11.10 | 17.56   | 2.38             | 0.00   | 6.69 |
| 2017                                                                       | 222 | 3.68            | 0.00   | 8.03  | 13.90   | 2.37             | 0.00   | 6.34 |
| 2018                                                                       | 204 | 2.69            | 0.00   | 7.01  | 10.68   | 1.95             | 0.00   | 6.58 |

| Age<br>(IPO)                                                     | N   | Ownership Level |        |       |         | Ownership Change |        |       |
|------------------------------------------------------------------|-----|-----------------|--------|-------|---------|------------------|--------|-------|
|                                                                  |     | Mean            | Median | Sd    | % Total | Mean             | Median | Sd    |
|                                                                  |     | (1)             | (2)    | (3)   | (4)     | (5)              | (6)    | (7)   |
| <i>Panel B2: VCs' Ownership by Years (Non-zero VC Ownership)</i> |     |                 |        |       |         |                  |        |       |
| 1997                                                             | 55  | 17.22           | 12.06  | 14.72 | 37.95   | 3.55             | 0.68   | 7.70  |
| 1998                                                             | 84  | 11.50           | 8.57   | 11.91 | 30.16   | 7.49             | 4.13   | 9.21  |
| 1999                                                             | 87  | 10.88           | 8.35   | 11.97 | 30.56   | 4.76             | 0.84   | 6.83  |
| 2000                                                             | 191 | 12.47           | 9.79   | 12.76 | 32.05   | 6.42             | 3.54   | 10.20 |
| 2001                                                             | 224 | 12.66           | 8.39   | 14.08 | 32.87   | 5.67             | 3.19   | 9.16  |
| 2002                                                             | 175 | 10.77           | 6.06   | 13.36 | 30.59   | 3.38             | 0.72   | 7.46  |
| 2003                                                             | 127 | 8.19            | 2.02   | 12.08 | 25.70   | 2.21             | 0.06   | 5.37  |
| 2004                                                             | 92  | 7.00            | 0.90   | 12.66 | 21.36   | 2.42             | 0.05   | 4.86  |
| 2005                                                             | 102 | 9.43            | 2.86   | 12.79 | 30.35   | 4.26             | 0.42   | 7.22  |
| 2006                                                             | 91  | 11.83           | 4.75   | 15.51 | 34.78   | 3.31             | 0.17   | 6.49  |
| 2007                                                             | 95  | 13.06           | 7.54   | 15.85 | 37.08   | 3.96             | 1.45   | 6.69  |
| 2008                                                             | 104 | 12.22           | 4.97   | 15.66 | 35.25   | 4.82             | 0.84   | 7.62  |
| 2009                                                             | 76  | 11.09           | 5.68   | 13.70 | 32.82   | 2.51             | 0.09   | 8.06  |
| 2010                                                             | 70  | 9.96            | 3.33   | 14.32 | 27.80   | 2.86             | 0.42   | 5.12  |
| 2011                                                             | 72  | 10.45           | 2.92   | 15.61 | 28.10   | 3.60             | 0.68   | 6.68  |
| 2012                                                             | 77  | 11.68           | 5.75   | 14.82 | 30.84   | 3.36             | 0.21   | 7.86  |
| 2013                                                             | 77  | 12.64           | 6.25   | 16.46 | 32.52   | 4.19             | 0.45   | 14.06 |
| 2014                                                             | 101 | 13.49           | 8.42   | 15.70 | 37.52   | 5.65             | 1.63   | 9.42  |
| 2015                                                             | 122 | 14.49           | 9.46   | 15.70 | 42.87   | 5.10             | 1.69   | 7.27  |
| 2016                                                             | 115 | 11.77           | 6.39   | 13.91 | 38.17   | 4.50             | 1.68   | 8.75  |
| 2017                                                             | 95  | 8.59            | 4.08   | 10.44 | 32.49   | 4.40             | 0.68   | 7.35  |
| 2018                                                             | 80  | 6.85            | 2.66   | 9.86  | 27.23   | 2.67             | 0.37   | 5.23  |

| Age<br>(IPO)                                       | N   | Ownership Level |        |       |         | Ownership Change |        |       |
|----------------------------------------------------|-----|-----------------|--------|-------|---------|------------------|--------|-------|
|                                                    |     | Mean            | Median | Sd    | % Total | Mean             | Median | Sd    |
|                                                    |     | (1)             | (2)    | (3)   | (4)     | (5)              | (6)    | (7)   |
| <i>Panel C: Total Insiders' Ownership by Years</i> |     |                 |        |       |         |                  |        |       |
| 1997                                               | 159 | 45.13           | 45.30  | 18.98 |         | 3.63             | 1.90   | 9.82  |
| 1998                                               | 293 | 41.16           | 41.00  | 19.79 |         | 7.24             | 3.50   | 10.70 |
| 1999                                               | 320 | 39.40           | 37.75  | 20.36 |         | 4.84             | 2.15   | 10.15 |
| 2000                                               | 453 | 38.50           | 36.80  | 20.57 |         | 6.64             | 3.30   | 12.07 |
| 2001                                               | 492 | 37.09           | 35.95  | 21.03 |         | 5.52             | 2.80   | 11.94 |
| 2002                                               | 410 | 34.32           | 32.35  | 20.59 |         | 3.95             | 2.40   | 9.99  |
| 2003                                               | 340 | 31.39           | 26.81  | 20.13 |         | 2.89             | 0.91   | 8.20  |
| 2004                                               | 289 | 28.54           | 24.20  | 19.77 |         | 4.02             | 1.44   | 8.33  |
| 2005                                               | 294 | 28.14           | 22.95  | 19.90 |         | 4.10             | 1.40   | 9.34  |
| 2006                                               | 276 | 27.89           | 22.15  | 20.39 |         | 3.11             | 1.30   | 7.71  |
| 2007                                               | 270 | 27.87           | 23.00  | 20.64 |         | 3.46             | 1.45   | 8.11  |
| 2008                                               | 273 | 28.07           | 22.36  | 20.35 |         | 3.17             | 1.00   | 9.20  |
| 2009                                               | 233 | 27.17           | 22.04  | 19.88 |         | 2.01             | 0.20   | 7.45  |
| 2010                                               | 223 | 24.55           | 19.58  | 18.56 |         | 2.84             | 0.70   | 7.06  |
| 2011                                               | 213 | 23.92           | 17.64  | 19.21 |         | 3.08             | 1.25   | 7.53  |
| 2012                                               | 214 | 24.59           | 18.17  | 20.02 |         | 2.74             | 0.70   | 6.96  |
| 2013                                               | 217 | 24.06           | 17.70  | 19.81 |         | 3.65             | 1.10   | 11.21 |
| 2014                                               | 236 | 25.04           | 18.34  | 20.78 |         | 4.20             | 1.50   | 8.12  |
| 2015                                               | 260 | 24.61           | 18.85  | 20.20 |         | 4.06             | 1.20   | 8.23  |
| 2016                                               | 250 | 23.24           | 17.42  | 20.23 |         | 2.65             | 0.50   | 8.03  |
| 2017                                               | 222 | 21.93           | 14.71  | 21.18 |         | 2.49             | 0.75   | 7.82  |
| 2018                                               | 204 | 23.56           | 15.82  | 22.45 |         | 2.57             | 0.80   | 7.38  |

## F Disposal and Acquisitions post IPO

**Table F1:** This table presents summary statistics for VC representatives' trading activities across three different measures. Panel A shows the ratio of transaction price to the end-of-day market price (winsorized at the 1% level). Panel B shows the ratio of shares traded to lagged shares (winsorized at the 1% level) at the transaction level. Panel C shows the annual ratio of shares traded to lagged shares (winsorized at the 1% level), aggregating transactions that occur within the same year for each type of trading transaction for each individual. Columns (1)–(4) show statistics for disposals, and columns (5)–(8) show statistics for acquisitions. In disposal categories, “Option (exercise and sell)” refers to transactions where insiders exercise options and immediately sell the shares; “Sale back to the issuer” includes forfeitures of unearned performance-based restricted stock or repurchase agreements; “Others” includes bona fide gifts. In acquisition categories, “Others” includes pro-rata distributions, conversions of convertible bonds, and conversions from non-publicly traded to publicly traded classes.

|                                                                     | Disposals |        |        |        |                   | Acquisitions |        |        |        |
|---------------------------------------------------------------------|-----------|--------|--------|--------|-------------------|--------------|--------|--------|--------|
|                                                                     | N         | Mean   | Median | SD     |                   | N            | Mean   | Median | SD     |
|                                                                     | (1)       | (2)    | (3)    | (4)    |                   | (5)          | (6)    | (7)    | (8)    |
| <i>Panel A: VC Representatives - Transaction Price Ratios</i>       |           |        |        |        |                   |              |        |        |        |
| Open Market Trade                                                   | 3,430     | 0.9829 | 0.9990 | 0.1150 | Open Market Trade | 1,122        | 0.9460 | 0.9974 | 0.1774 |
| Option (Exercise and Sell)                                          | 53        | 0.7896 | 0.9958 | 0.4022 | Option (Exercise) | 1,458        | 0.2288 | 0.1444 | 0.2592 |
| Sale back to the Issuer                                             | 171       | 0.9825 | 1.0000 | 0.1328 | Grants            | 2,000        | 0.2579 | 0.0000 | 0.4356 |
| Others                                                              | 123       | 0.1707 | 0.0000 | 0.3778 | Others            | 2,006        | 0.0828 | 0.0000 | 0.2715 |
| Total                                                               | 3,777     | 0.9537 | 0.9991 | 0.2020 | Total             | 6,586        | 0.3153 | 0.0000 | 0.4326 |
| <i>Panel B: VC Representatives - Transaction-Level Share Ratios</i> |           |        |        |        |                   |              |        |        |        |
| Open Market Trade                                                   | 3,317     | 0.0780 | 0.0116 | 0.1748 | Open Market Trade | 1,294        | 0.1463 | 0.0070 | 0.5337 |
| Option (Exercise and Sell)                                          | 168       | 0.0764 | 0.0074 | 0.2238 | Option (Exercise) | 1,519        | 0.1682 | 0.0368 | 0.4262 |
| Sale back to the Issuer                                             | 58        | 0.0960 | 0.0033 | 0.1996 | Grants            | 2,043        | 0.0665 | 0.0049 | 0.2416 |
| Others                                                              | 211       | 0.1223 | 0.0185 | 0.2545 | Others            | 1,909        | 0.0911 | 0.0043 | 0.4521 |
| Total                                                               | 3,754     | 0.0807 | 0.0116 | 0.1832 | Total             | 6,765        | 0.1116 | 0.0073 | 0.4149 |
| <i>Panel C: VC Representatives - Annual-Aggregated Share Ratios</i> |           |        |        |        |                   |              |        |        |        |
| Open Market Trade                                                   | 967       | 0.1979 | 0.0796 | 0.2745 | Open Market Trade | 651          | 0.1477 | 0.0125 | 0.3312 |
| Option (Exercise and Sell)                                          | 78        | 0.1035 | 0.0215 | 0.2129 | Option (Exercise) | 556          | 0.2192 | 0.0957 | 0.3143 |
| Sale back to the Issuer                                             | 20        | 0.1737 | 0.0202 | 0.2481 | Grants            | 504          | 0.0825 | 0.0127 | 0.2079 |
| Others                                                              | 23        | 0.1610 | 0.0198 | 0.2695 | Others            | 119          | 0.0660 | 0.0078 | 0.2222 |
| Total                                                               | 1,088     | 0.1899 | 0.0667 | 0.2708 | Total             | 1,830        | 0.1461 | 0.0208 | 0.2953 |

**Table F2:** This table presents summary statistics for all insiders' trading activities across three different measures. Panel A shows the ratio of transaction price to the end-of-day market price (winsorized at the 1% level). Panel B shows the ratio of shares traded to lagged shares (winsorized at the 1% level) at the transaction level. Panel C shows the annual ratio of shares traded to lagged shares (winsorized at the 1% level), aggregating transactions that occur within the same year for each type of trading transaction for each individual. Columns (1)–(4) show statistics for disposals, and columns (5)–(8) show statistics for acquisitions. In disposal categories, “Option (exercise and sell)” refers to transactions where insiders exercise options and immediately sell the shares; “Sale back to the issuer” includes forfeitures of unearned performance-based restricted stock or repurchase agreements; “Others” includes bona fide gifts. In acquisition categories, “Others” includes pro-rata distributions, conversions of convertible bonds, and conversions from non-publicly traded to publicly traded classes.

| Disposals                                                     |         |        |        |        | Acquisitions      |         |        |        |        |
|---------------------------------------------------------------|---------|--------|--------|--------|-------------------|---------|--------|--------|--------|
|                                                               | N       | Mean   | Median | SD     |                   | N       | Mean   | Median | SD     |
|                                                               | (1)     | (2)    | (3)    | (4)    |                   | (5)     | (6)    | (7)    | (8)    |
| <b>Panel A: All Insiders - Transaction Price Ratios</b>       |         |        |        |        |                   |         |        |        |        |
| Open Market Trade                                             | 116,857 | 0.9883 | 0.9989 | 0.0924 | Open Market Trade | 17,997  | 0.9521 | 0.9990 | 0.1617 |
| Option (Exercise and Sell)                                    | 26,831  | 0.9654 | 1.0000 | 0.1821 | Option (Exercise) | 63,620  | 0.2361 | 0.1556 | 0.2528 |
| Sale back to the Issuer                                       | 1,971   | 0.6307 | 0.9884 | 0.4775 | Grants            | 43,269  | 0.2137 | 0.0000 | 0.4014 |
| Others                                                        | 1,510   | 0.4141 | 0.0000 | 0.4842 | Others            | 8,722   | 0.4185 | 0.3363 | 0.4284 |
| Total                                                         | 147,169 | 0.9734 | 1.0000 | 0.1525 | Total             | 133,608 | 0.3353 | 0.1235 | 0.3970 |
| <b>Panel B: All Insiders - Transaction-Level Share Ratios</b> |         |        |        |        |                   |         |        |        |        |
| Open Market Trade                                             | 115,293 | 0.0815 | 0.0182 | 0.1899 | Open Market Trade | 16,190  | 0.1774 | 0.0190 | 0.5067 |
| Option (Exercise and Sell)                                    | 24,426  | 0.0518 | 0.0138 | 0.1447 | Option (Exercise) | 63,657  | 0.1719 | 0.0430 | 0.4273 |
| Sale back to the Issuer                                       | 1,914   | 0.1179 | 0.0313 | 0.2223 | Grants            | 38,246  | 0.2289 | 0.0608 | 0.5164 |
| Others                                                        | 2,660   | 0.1208 | 0.0222 | 0.2408 | Others            | 8,227   | 0.1224 | 0.0062 | 0.4294 |
| Total                                                         | 144,293 | 0.0777 | 0.0175 | 0.1851 | Total             | 126,320 | 0.1866 | 0.0400 | 0.4675 |
| <b>Panel C: All Insiders - Annual-Aggregated Share Ratios</b> |         |        |        |        |                   |         |        |        |        |
| Open Market Trade                                             | 26,252  | 0.2786 | 0.1551 | 0.3087 | Open Market Trade | 8,922   | 0.2178 | 0.0490 | 0.3776 |
| Option (Exercise and Sell)                                    | 9,778   | 0.1073 | 0.0441 | 0.1887 | Option (Exercise) | 16,959  | 0.3478 | 0.1922 | 0.3963 |
| Sale back to the Issuer                                       | 896     | 0.1419 | 0.0565 | 0.2202 | Grants            | 9,839   | 0.2439 | 0.0912 | 0.3649 |
| Others                                                        | 506     | 0.1494 | 0.0640 | 0.2154 | Others            | 2,510   | 0.1100 | 0.0109 | 0.2910 |
| Total                                                         | 37,432  | 0.2288 | 0.1086 | 0.2894 | Total             | 38,230  | 0.2751 | 0.1109 | 0.3846 |

## G Wealth

We define  $W^F \equiv \theta W \equiv \alpha PN$  as the founders' *wealth in the firm*, and  $W^M \equiv (1 - \theta)W + \delta$  as their *wealth in the market*. Table G1 presents summary statistics by calendar year for founders' total wealth ( $W$ ), the ratio of wealth gained from acquiring shares at a discounted price to total wealth ( $\delta/W$ ), wealth in own firm ( $W^F$ ), and the ratio of wealth in own firm to total wealth ( $W^F/W$ ). Founders' total wealth has shown significant growth over time. Overall, founders' wealth has gradually increased over time, rising from an average of \$39 million in 1996 to \$2.32 billion in 2018—an increase of nearly 60 times. In terms of the composition of founders' total wealth, the proportion of wealth gained from acquiring shares at a discounted price constitutes, on average, 5% of founders' total wealth. In addition, by the end of the sample period, the ratio of wealth in the firm to total wealth stands at 55%, suggesting that the wealth outside their firms, where founders can borrow or lend at market returns, contributes to 45% of their overall wealth. Therefore, focusing solely on founders' wealth in the firm significantly underestimates their total net wealth accumulated throughout the life cycle of their firms. Two notable time periods in our sample are the 1999-2000 dot-com era and the 2008-2009 financial crisis. During 1999 and 2000, the average founder tripled their wealth. However, in 2001, following the burst of the dot-com bubble, the average founder's wealth plummeted to half of its previous amount. Similarly, in 2009, founders' wealth fell to one-third of its earlier level.

**Table G1:** This table presents summary statistics for founders' total wealth (Columns 1 to 5), founders' wealth in the firms (Columns 6 to 9), and the ratio of founders' wealth in the firm to their total wealth (Columns 10 to 11) across calendar years, specially for true IPOs that occurred from 1996 to 2018. Total wealth is calculated using founders' ownership data, firm value, and the wealth gained by founders through acquiring shares at a discounted price, based on the methodology described in Section 6. Column (5) presents the percentage contribution of the wealth gained by founders through acquiring shares at a discounted price ( $\delta$ ) to their total wealth.

| Year  | N     | Total Wealth ( $W$ , Bn) |        |        |        |            | Wealth in the Firm ( $W^F$ , Bn) |        |        |        | $W^F/W$ |        |
|-------|-------|--------------------------|--------|--------|--------|------------|----------------------------------|--------|--------|--------|---------|--------|
|       |       | Mean                     | Median | S.D.   | 99%    | $\delta/W$ | Mean                             | Median | S.D.   | 99%    | Mean    | Median |
|       |       | (1)                      | (2)    | (3)    | (4)    | (5)        | (6)                              | (7)    | (8)    | (9)    | (10)    | (11)   |
| 1996  | 252   | 0.039                    | 0.010  | 0.133  | 0.297  | -          | 0.039                            | 0.010  | 0.133  | 0.297  | 1.000   | 1.000  |
| 1997  | 495   | 0.036                    | 0.010  | 0.082  | 0.427  | 4.81%      | 0.035                            | 0.009  | 0.083  | 0.427  | 0.954   | 1.000  |
| 1998  | 576   | 0.051                    | 0.013  | 0.132  | 0.613  | 4.37%      | 0.046                            | 0.011  | 0.128  | 0.586  | 0.898   | 0.993  |
| 1999  | 793   | 0.095                    | 0.022  | 0.425  | 1.507  | 4.54%      | 0.088                            | 0.019  | 0.416  | 1.407  | 0.889   | 1.000  |
| 2000  | 902   | 0.138                    | 0.023  | 0.609  | 1.490  | 4.01%      | 0.122                            | 0.019  | 0.540  | 1.386  | 0.872   | 0.987  |
| 2001  | 753   | 0.064                    | 0.012  | 0.231  | 0.626  | 4.83%      | 0.048                            | 0.009  | 0.169  | 0.538  | 0.806   | 0.914  |
| 2002  | 603   | 0.062                    | 0.011  | 0.211  | 0.538  | 3.92%      | 0.043                            | 0.008  | 0.140  | 0.446  | 0.752   | 0.839  |
| 2003  | 483   | 0.061                    | 0.014  | 0.211  | 0.610  | 3.16%      | 0.040                            | 0.008  | 0.158  | 0.406  | 0.716   | 0.798  |
| 2004  | 466   | 0.129                    | 0.022  | 0.640  | 3.005  | 2.69%      | 0.101                            | 0.013  | 0.603  | 1.223  | 0.743   | 0.831  |
| 2005  | 424   | 0.159                    | 0.024  | 0.760  | 2.879  | 4.41%      | 0.118                            | 0.013  | 0.667  | 1.207  | 0.725   | 0.807  |
| 2006  | 403   | 0.238                    | 0.029  | 1.316  | 4.117  | 11.26%     | 0.182                            | 0.018  | 1.121  | 1.686  | 1.067   | 0.826  |
| 2007  | 406   | 0.278                    | 0.033  | 1.619  | 3.960  | 4.03%      | 0.199                            | 0.020  | 1.279  | 1.545  | 0.721   | 0.816  |
| 2008  | 352   | 0.284                    | 0.027  | 1.636  | 6.144  | 3.74%      | 0.194                            | 0.014  | 1.284  | 4.664  | 0.706   | 0.724  |
| 2009  | 307   | 0.211                    | 0.025  | 1.144  | 3.807  | 3.54%      | 0.144                            | 0.013  | 0.926  | 1.572  | 0.631   | 0.697  |
| 2010  | 312   | 0.327                    | 0.030  | 1.858  | 7.801  | 3.70%      | 0.225                            | 0.015  | 1.509  | 4.678  | 0.630   | 0.654  |
| 2011  | 304   | 0.425                    | 0.038  | 2.207  | 16.032 | 3.73%      | 0.293                            | 0.021  | 1.718  | 12.272 | 0.641   | 0.686  |
| 2012  | 305   | 0.508                    | 0.038  | 2.642  | 19.307 | 3.80%      | 0.342                            | 0.020  | 2.036  | 14.634 | 0.634   | 0.676  |
| 2013  | 333   | 0.579                    | 0.043  | 3.017  | 20.492 | 3.92%      | 0.374                            | 0.023  | 2.188  | 12.410 | 0.659   | 0.735  |
| 2014  | 356   | 0.733                    | 0.043  | 4.033  | 29.219 | 4.52%      | 0.469                            | 0.025  | 2.861  | 15.493 | 0.660   | 0.738  |
| 2015  | 345   | 0.936                    | 0.047  | 5.351  | 35.887 | 5.71%      | 0.545                            | 0.025  | 3.386  | 17.284 | 0.624   | 0.672  |
| 2016  | 308   | 1.032                    | 0.045  | 6.223  | 39.352 | 6.08%      | 0.616                            | 0.021  | 4.551  | 14.048 | 0.596   | 0.604  |
| 2017  | 260   | 1.487                    | 0.064  | 8.781  | 51.190 | 5.66%      | 0.900                            | 0.026  | 6.541  | 18.046 | 0.556   | 0.577  |
| 2018  | 206   | 2.320                    | 0.074  | 13.351 | 60.313 | 5.99%      | 1.475                            | 0.037  | 10.638 | 20.281 | 0.553   | 0.587  |
| Total | 9,944 | 0.318                    | 0.024  | 3.051  | 3.668  | 4.58%      | 0.211                            | 0.015  | 2.298  | 2.073  | 0.772   | 0.877  |