PitchBook

Introducing the VC Dealmaking Indicator

Estimating the fundraising environment for early- and late-stage financings

PitchBook is a Morningstar company providing the most comprehensive, most accurate, and hard-to-find data for professionals doing business in the private markets.

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Key takeaways

- The VC Dealmaking Indicator measures the startup or investor friendliness of different segments of the VC dealmaking environment over time.
- Liquidation participation and cumulative dividends have waned in popularity as deal terms since 2006.
- Q2 2021 early- and late-stage deal terms have grown 2.7x and 3.3x more startup-friendly, respectively, since Q1 2010.
- The late stage has been consistently more favorable to investors, while the early stages have favored startups.
- Demand for both early- and late-stage capital has outpaced the growth in supply of capital available from VC firms over the last decade. Nontraditional investors have flooded the market to meet that excess demand and drive overall growth in venture investing.

Contents

Key takeaways	1
Introduction	2
Supply and demand of capital	3
Methodology	6
Deal term glossary	9

Introduction

Anecdotes of the VC dealmaking environment ebbing and flowing between startup and investor friendliness are frequently reported among industry participants and journalists. Whether concerned about frothy valuations, lax liquidation preferences, or record levels of capital chasing deals, investors, founders, and reporters alike often rely on their own experiences and conversations to get a sense of how the dealmaking environment is evolving. Now, PitchBook has quantified these trends into a single score that tracks VC dealmaking over time across stages and industries.

Our new VC Dealmaking Indicator captures trends in dealmaking and generates a composite score that indicates whether the capital raising environment is more favorable for startups or for investors. We use PitchBook's wealth of deal term, deal attribute, and fundraising data to take a historical perspective and present a methodology for comparing different segments of the market. It can also be used by other market participants such as investment banks, advisors, and law firms as they help structure these deals. In the following sections, we discuss the elements this indicator captures, explain the methodology behind it, and show the results of our analysis.

There are many deal terms that investors and startups negotiate, but the most important terms dictate either control or economic interest in the startup. Additionally, certain attributes of a deal can inform on the broader capital raising environment. The VC Dealmaking Indicator incorporates the following deal terms and attributes (please see the glossary for details on these terms):

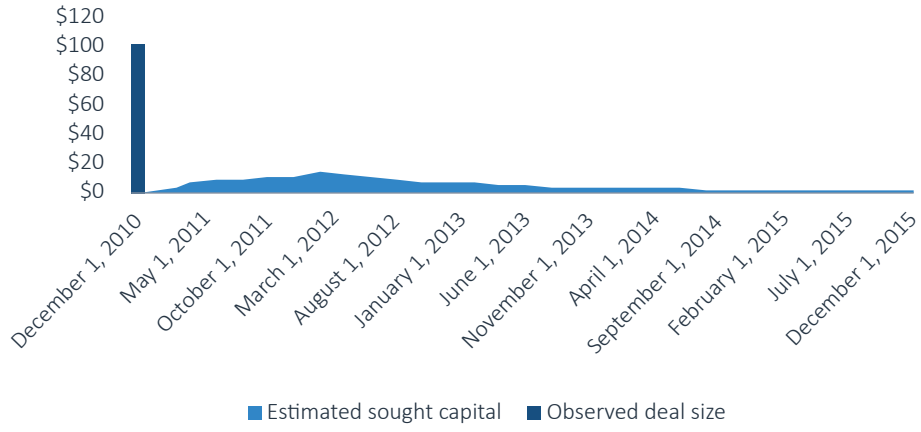
- Cumulative dividends
- Liquidation participation
- Anti-dilution terms
- Board voting rights
- General voting rights
- Median years since last VC
- Median valuation step-ups
- Median percentage acquired
- Supply and demand of capital

Supply and demand of capital

Capital availability is key to understanding the ease with which a startup can raise funds, and conversely, how much investors can impose their preferences in negotiations. The more firms there are investing capital, the better for the startups seeking investment, though the supply is limited by the demand from other startups attempting to seek funding. To estimate the supply-and-demand dynamic at play in the VC funding environment, we have developed a new metric that looks at both the current amount of capital available to be invested by VC firms and other market participants, as well as the amount of capital we expect startups to seek.

To estimate capital sought (demand), we assume a startup that has raised a round of funding will seek to raise a round in the future at a multiple of their prior round. We use the median deal size step-up for a five-year time horizon to estimate the magnitude of the jump in capital sought. For example, if the median deal size step-up was 1.5x between 2005 and 2010 and a startup raised a $100 million round in 2010, we project that startup will come back and seek $150 million in the future. We estimate when the company will come back to the market by looking at the time between rounds for that company's industry and the timeframe of when the round is raised. This allows us to develop a probability distribution for when we expect the company to raise the next round every 60 days for the next 10 years after the observed deal is made. We then allocate the sought capital estimate over that 10-year timeframe based on the probability of a deal taking place at each of those 60-day intervals. The accompanying area chart represents the total sought capital estimate resulting from a deal in Q4 2010 spread across the ensuing quarters based on the likeliness another deal will occur. As we can see, it is very unlikely a startup will raise again immediately, with the chances rising to the peak at around six quarters after the deal and diminishing to near zero around five years post-transaction.

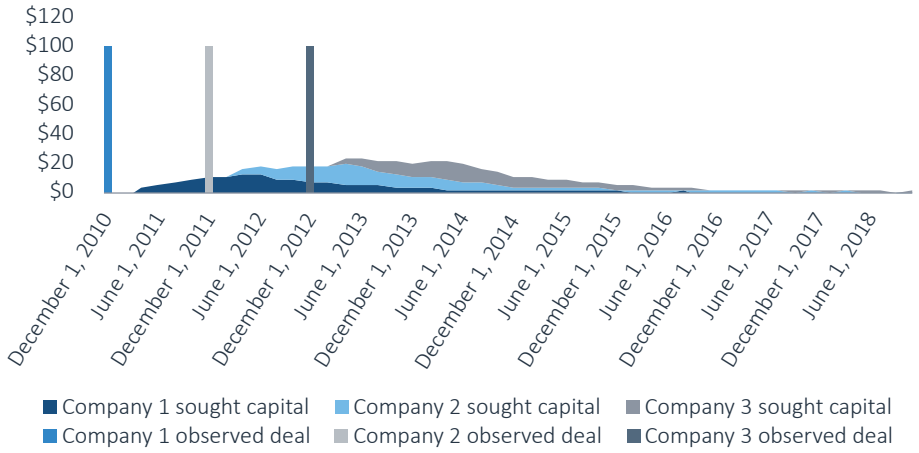
Total capital sought estimate ($M) for one sample company



Source: PitchBook

These estimates are done for each deal for each startup, and thus begin to stack on each other to create an industrywide estimate of capital sought at any point in time, as demonstrated by the accompanying example.

Total capital sought estimate ($M) for three sample companies



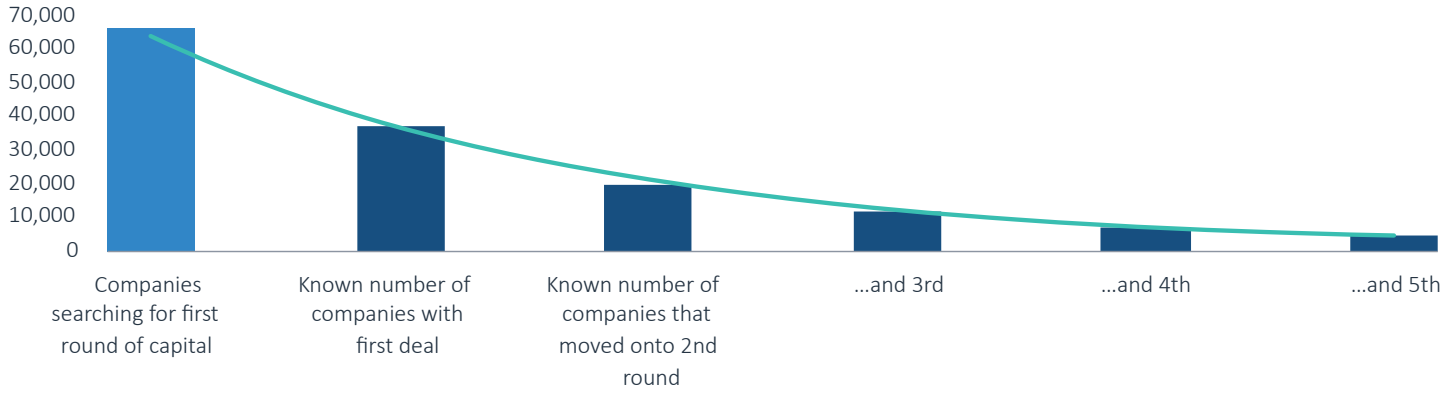
Source: PitchBook

Accommodations must also be made to the capital demand to incorporate instances where 1) startups are no longer seeking additional venture funding, instead looking to gain access to public markets or liquidity via an acquisition or 2) new market entrants are seeking to raise capital for the first time and have no prior deal history from which to estimate future demand.

To account for startups on their last round before IPO, and thus not returning to the VC market for funding, we determine the 75th percentile of amount raised to date for all VC-backed IPOs for each year. We then compare that to the most recent VC deal for each startup. If the amount raised to date is higher than that 75th percentile, it is excluded, and no further sought capital is calculated for that startup.

To determine the capital sought by new entrants seeking their first rounds of funding, we use a VC funnel analysis. We estimate the pool of new startups by extrapolating failure rates backward. We then assign this group of startups the median first round deal size to serve as their sought capital amount, which would otherwise go unaccounted for.

Number of startups in a typical VC funnel

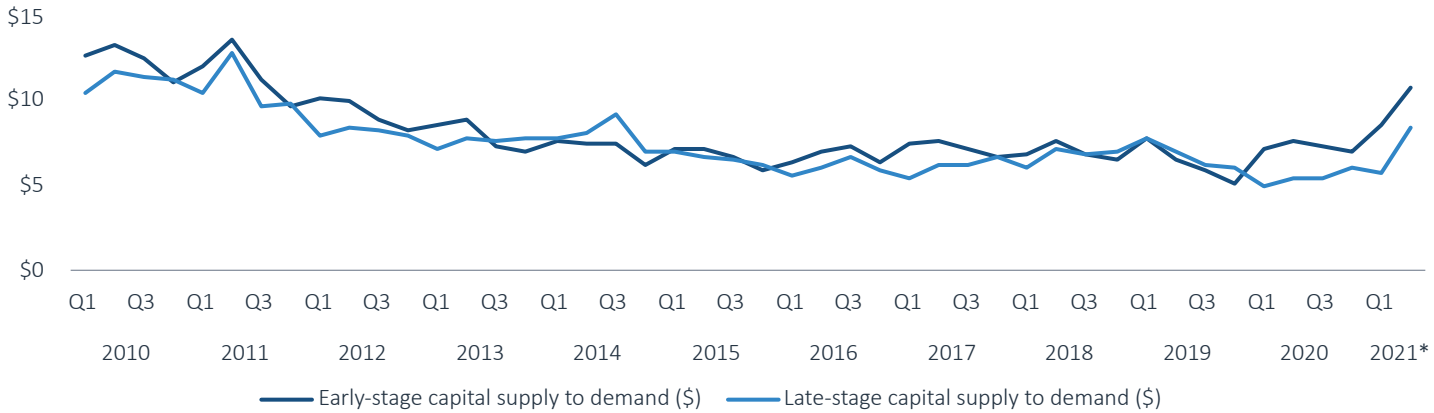


Source: PitchBook

Supply of capital is more straightforward to estimate and can be thought of in two main parts: the amount of unspent capital in VC funds (capital overhang), and the amount of capital supplied by nontraditional venture investors. We calculate capital overhang using PitchBook's database of fund and fund returns data. Capital supplied by nontraditional investors can be derived by calculating the difference in VC fund cash flows and the observed amount of capital invested across the VC landscape.

Capital supply differs by stage of the VC funding lifecycle. Many venture investors specialize in the early or late stages, so we also parse the supply-and-demand metric by those two categories. On the demand side, we delineate by stage using attributes of the deal and the age of the startup at the time of the observed deal. The supply is divided based on how much capital has historically flowed into the early and late stage from both traditional VCs and nontraditional market participants.

Estimated dollars of supply to estimated dollars of demand

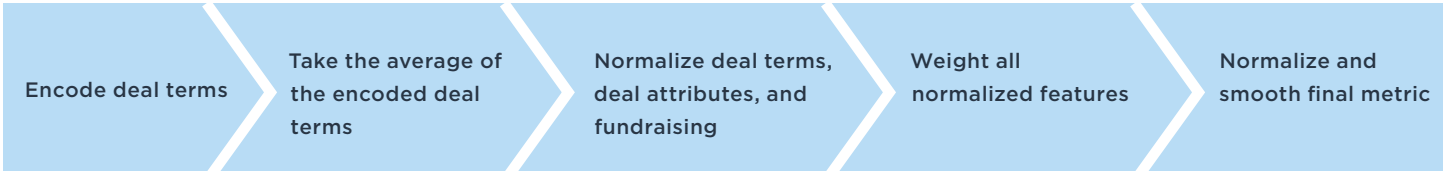


Source: PitchBook | **Geography:** US
*As of June 30, 2021

The accompanying chart illustrates that in Q1 2010, there was an estimated $12.73 of capital available for every dollar of estimated capital demand in the early stage. By Q4 2020, that number had declined to $6.96 before increasing to $10.75 of available capital for every dollar demanded by Q2 2021. The ratio is still significantly higher than $1.00, indicating that there is still substantial capital available to satisfy demand.

Methodology

For the deal term metrics, we encode each deal with +1 for every investor-favorable term and -1 for every startup-favorable term across each feature. We then total the encoded values for every deal term and divide them by the number of deals for every quarter. Once this average for each quarter is calculated, we normalize that feature using range normalization to make comparable deal terms. We also shift the supply of capital a quarter ahead relative to the demand. This is because the supply of capital is a known value before the deal closes, and the deal terms are affected by the supply of capital prior to the deal occurring.



Source: PitchBook

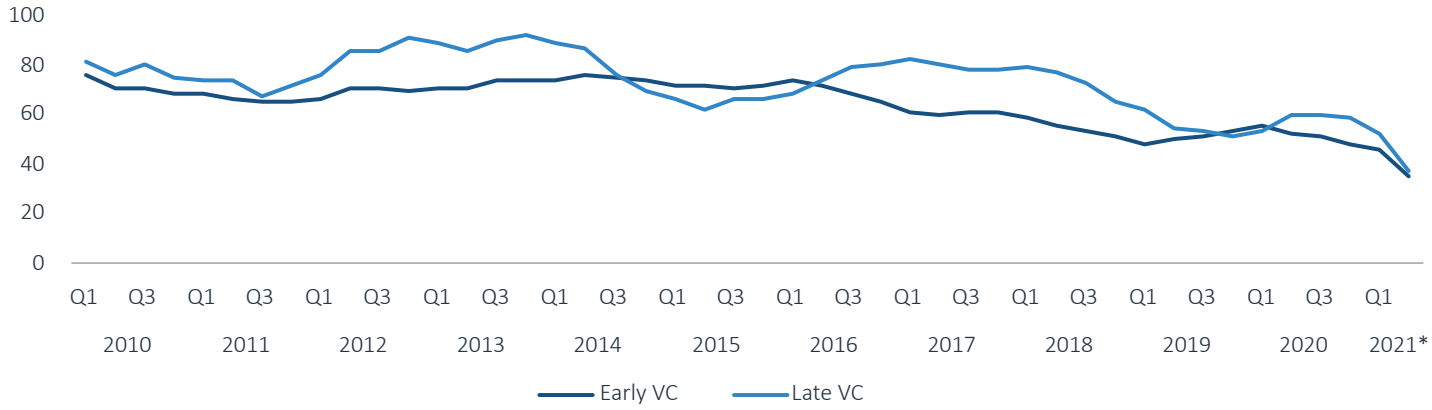
Next, we normalize the valuation step-ups and median years since the last VC round using range normalization and weight them equally. We then weight the indicator by importance of the features in the following way:

Feature	Weight
VC real overhang to real capital sought ratio	18%
Cumulative dividends feature	12%
Liquidation participation	12%
Anti-dilution feature	12%
Percent acquired	10%
Median years since last VC	10%
Median valuation step-up (post to pre)	10%
Board voting rights	8%
General voting rights	8%

Source: PitchBook

Board and general voting rights are reduced as they move closely in tandem over most quarters. The ratio between capital supply and demand is increased as this is the only fundraising metric included in the indicator, and the availability of capital underpins the market. We normalize the resulting metric one more time and then smooth it over trailing four quarters (inclusive of the current quarter) which results in the final VC Dealmaking Indicator that compares early- and late-stage VC financings.

VC Dealmaking Indicator results by stage



Source: PitchBook | **Geography:** US
*As of June 30, 2021

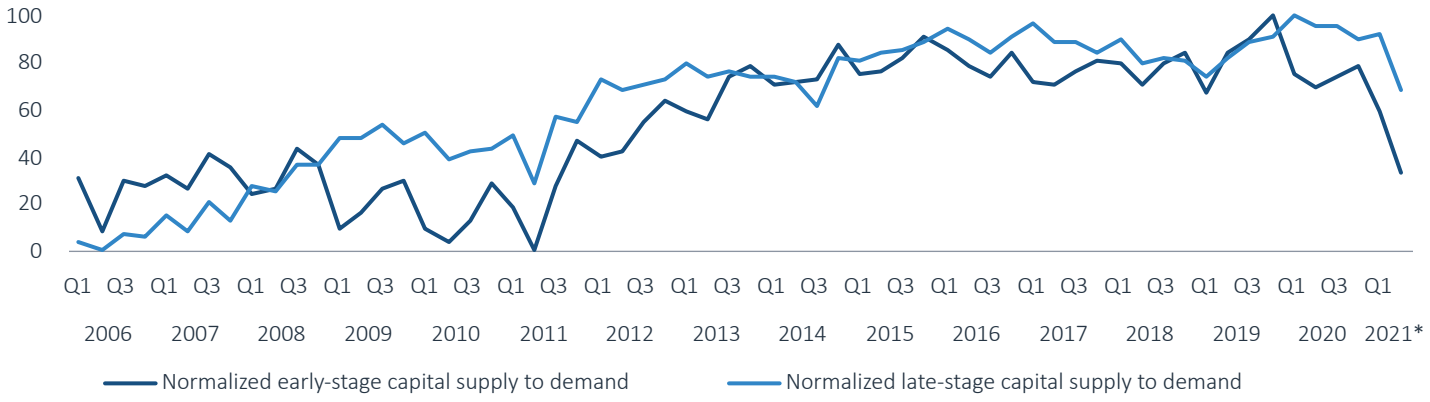
For the early stage, we show a Q2 2021 reading of 35.0. When comparing the normalized values of the indicator metrics across time, we can see that the supply to demand of capital ratio has become the most favorable for startups compared to all other indicator metrics over the last five years, becoming nearly three times as startup-friendly. General and board voting rights have remained stable, but median valuation step-ups, time since the last VC round, cumulative dividends, and liquidation participation have all become more startup-friendly over that same time. These same trends have accelerated over the last year as well, except for cumulative dividends, which have become slightly more investor-friendly since Q2 2020. This is a similar story for late-stage VC with a Q2 2021 reading of 37.1. This is primarily due to the same, albeit more aggressive, trends present at the early stage. Median valuation step-ups have led the way in startup friendliness at 3.5x friendlier, followed by the capital supply to demand ratio, which has become twice as startup-friendly over the same five-year period.

As late-stage startups began delaying their IPOs in the early 2010's—going on to raise larger sums of money at ever-growing valuations—investors demanded more protective deal terms to limit their downside. The gap between early- and late-stage indicator scores during that period highlights this trend. However, as more startups successfully navigated their liquidity events, the demand for these pre-IPO rounds grew, attracting more nontraditional players to the game and giving startups more bargaining power with their term sheets.

On the other hand, early-stage financings exhibited a sharp rise in investor favorability immediately following the global financial crisis (GFC). This may be attributable to investors protecting themselves through deal terms in the wake of increased financial risk.

The supply and demand of capital has moved in investors' favor over time. Despite the ever-increasing dry powder and sustained growth in nontraditional investor participation, we estimate that the supply of capital has not kept up with its demand. In other words, there are fewer dollars available for every dollar sought today than in 2007. Nontraditional investor involvement has continued to grow over this same period, increasing more than the traditional sources of VC. However, this trend has moved sharply in the other direction in H1 2021 as VC fundraising has skyrocketed.

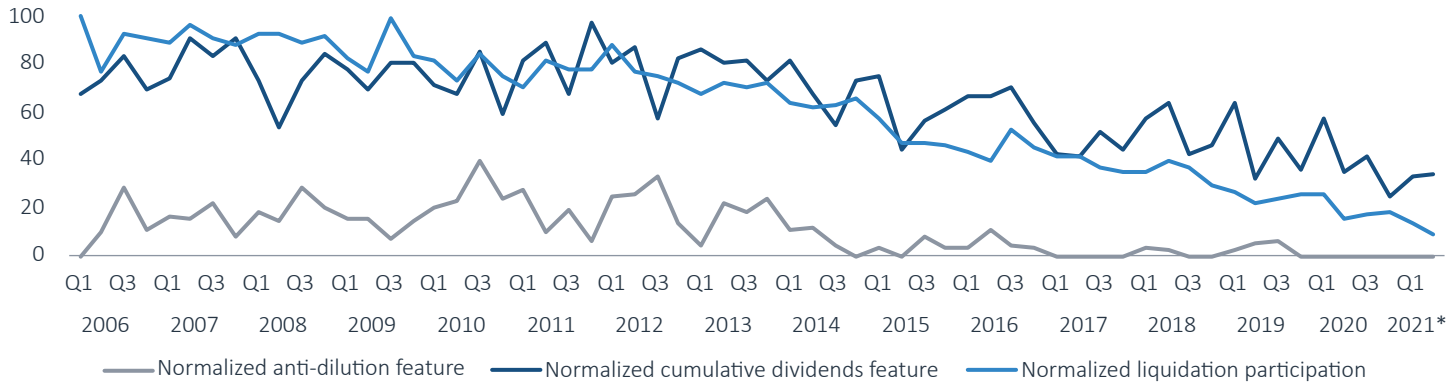
VC Dealmaking Indicator normalized estimated capital supply and demand by stage



Source: PitchBook | **Geography:** US
*As of June 30, 2021

In both early- and late-stage financings, the prevalence of liquidation participation and cumulative dividends has fallen consistently YoY. The accompanying chart illustrates the late-stage deal terms used in the VC Dealmaking Indicator. Anti-dilution features were present in all deals where the anti-dilution feature reads 0, but they are all weighted-average anti-dilution terms instead of full-ratchet terms.

VC Dealmaking Indicator selected deal terms for the early stage



Source: PitchBook | **Geography:** US
*As of June 30, 2021

Deal term glossary

Cumulative dividends

Typically, a dividend requires board approval for distribution; however, a cumulative dividend is mandatory for investors that negotiate this term. The term "cumulative" refers to the fact that these dividends typically accrue over the life of the startup and are realized by the investor at a liquidation event as startups are unlikely to have the capital available to pay the dividend out as the business grows. Noncumulative dividends require authorization from the board of the startup, rather than automatically occurring. Cumulative dividends are investor-friendly as they are typically used as a safety measure so that investors can obtain some economic benefit from a startup even if the startup experiences a less-than-ideal outcome.

Liquidation participation

This term refers to whether preferred shares for the round receive additional compensation after their liquidation preference has been paid out. The liquidation participation is distinct from the liquidation preference, which is a multiple of invested capital that the preferred investor is entitled to receive upon liquidation. Typically, this liquidation preference is between 1.0x and 2.0x of the invested capital before common equity holders split the remaining proceeds. When a startup goes through a liquidity event, liquidation participation determines if the preferred shareholders are entitled to then share in the proceeds with common equity holders after their preference has been paid out on an as-converted basis. The presence of liquidation participation is investor-friendly in our indicator.

Anti-dilution terms

Anti-dilution terms work by changing the conversion ratio during a liquidation event and protects the investors against dilution in ownership over time. This deal term is tracked either as full-ratchet anti-dilution or weighted-average anti-dilution for each deal; full-ratchet is preferable to investors. When a series contains a full-ratchet provision for investors, if the startup issues future shares at a lower price, then the earlier round that contains the full-ratchet provision is made to match the newer lower round's price. The more common anti-dilution term is the weighted-average provision, which works by considering the number of shares issued at a reduced price in the future when a round is repriced. While both options are beneficial to investors, a full-ratchet provision is more beneficial. We therefore encode this term as the positive outcome for investors.

Board and general voting rights

Investors may negotiate for the right to vote on the board—also known as obtaining a board seat—or to elect an individual to a board. General voting rights refers to the investor participating in standard voting events that occur in a portfolio startup. Board voting rights are preferable to general voting rights for investors, and both terms are included separately in the indicator. The presence of either or both terms in a deal is encoded as investor-friendly.

Median years since last VC

We incorporate this metric and assume that the more often deals are being made, the more startup friendly the environment is, as investors demonstrate interest in the industry or stage of business. Higher median years since last VC is investor friendly.

Median valuation step-ups (previous round post-money valuation to current round pre-money valuation)

This metric uses deal valuation step-up data, which is calculated by dividing the current round pre-money valuation by the previous round's post-money valuation. As step-ups increase, founders are seeing their startup valued at higher multiples as investors are willing to value startups at a higher price, and thus are willing to obtain less ownership for their investment. Low valuation step-ups are coded as investor-friendly in our VC Dealmaking Indicator .