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State of the Markets

SVB's Innovation Economy Outlook

H2 2023

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Approaching Solid Ground

As we wade through the unsettled waters of 2023, it's worth reflecting on how much has changed. At the onset of the year, top market strategists called for weak public markets. Analysts cited concerns over increased market volatility, Federal Reserve overtightening, credit shocks, elevated inflation, recession risk, falling corporate and investor sentiment, rising unemployment and geopolitical tensions. In spite of these hurdles, the market has proved resilient. As of August 17, the S&P 500 stood at 4,370, up 14% on the year. Inflation has fallen precipitously, unemployment remains near recent historic lows, the Fed has grown increasingly confident that it can avoid a recession, and investor sentiment seems to be warming.

Top players in the private markets, SVB included, predicted material drops in fundraising, investment and exits. While that has mostly played out, for pockets of the innovation economy a floor is beginning to form. Valuations and investment appear to be stabilizing, company profitability is modestly improving, and generally companies have ample runway. This momentum could reopen the IPO window, bring confidence and stability to late-stage investment and valuations, and help balance limited partner (LP) allocations to public and private markets.

Looking ahead, there are several key indicators that give us pause, such as an inverted yield curve, falling corporate profits, muted LP distributions, increased down rounds and declining revenue growth among startups. Despite this adversity, SVB continues to believe in the resilience of the innovation economy. Uncertain and challenging market conditions provide an opportunity for startups to focus on building, on product market fit, on talent, on efficiency, on profitability and on innovation. Startups are already making headway in these realms. Burn multiples have decreased 24% since the start of the year. Operating margins have improved 37 percentage points (pp) since this time last year. There is no doubt companies will be busy shifting their business to improve their position — but it's the right kind of busy. Companies that embrace these tactics are well-positioned to accelerate as headwinds become tailwinds.

SVB's State of the Markets report leverages our unmatched proprietary data and vast network of deep relationships with investors and startups to gauge the health and productivity of the innovation economy. For this edition, we surveyed 80 notable venture capitalists (VCs) to delve into the new normal for banking. The consensus is clear. Treasury management is more important than ever, and investors recommend diversifying risk among two banks for most companies. Our spotlight on innovation banking (pages 7-9) dives deeper into this subject to provide key takeaways on how VCs are thinking about banking when it comes to their portfolio companies.

US investors sit on north of a trillion dollars in dry powder across private equity (PE) and VC strategies. They can be patient, but they can't be stagnant. Capital will need to be deployed. If history is a guide, tech will remain an integral part of a recovery and likely be the foundation for a new bull market. Exciting technologies such as generative AI will help usher in a new age of innovation.

The venture ecosystem may not have turned the corner just yet, but it's clear the tide is starting to change, and we will be there for our clients every step of the way. We look forward to working with and are committed to supporting the best and brightest companies and investors in the innovation economy.

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Tracking Our H1 Outlook

VC Fundraising

H1 2023 Outlook: US VC funds will likely raise $70B in 2023, **down 50%** from 2022, driven by subdued public markets, high interest rates and muted distributions to LPs.

H2 Update: Capital Raised

H1 2023 Actual | Full-Year Forecast From H1 Report

VCs are on target to raise $70B by year-end, as anticipated. Continued rate hikes and slow deployment of record-high dry powder are deterring new funds until investments pick up.

Early-Stage

H1 2023 Outlook: US Series A tech deals will likely **decline 15%** to 1,250 deals in 2023, falling back to 2015-20 levels on mismatched valuation expectations and slower growth.

H2 Update: Deals

H1 2023 Actual | Full-Year Forecast From H1 Report

Series A deals are on pace for a 36% drop from last year, tracking below our expectations. While early-stage valuations and investment are more resilient than late-stage, investors are still slowing down.

Late-Stage

H1 2023 Outlook: Late-stage US tech valuations will likely settle at **60%-65% below Q4 2021 levels**, reaching a floor as public and private markets converge.

H2 Update: Valuation Decline

H1 2023 Actual | Full-Year Forecast From H1 Report

Valuations may be approaching the floor. The median later-stage pre-money valuation bottomed out at 61% below market peak in Q1, then rebounded 6 pp in Q2. The bounce may signal pricing clarity. However, valuation overhang persists.

Exits

H1 2023 Outlook: US VC-backed tech IPOs will likely remain dormant in H1 2023, though pent-up demand and greater interest rate clarity may lead to **10+ VC-backed IPOs** in 2023.

H2 Update: IPOs

H1 2023 Actual | Full-Year Forecast From H1 Report

Valuation overhang is suppressing later-stage exits. The IPO route remains blocked with only one VC-backed exit in H1. Barring a strong Q3, we're lowering expectations and looking for an open window in 2024.

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Macro

Big Tech Booms While Banking Comes into Focus

Big Tech Bounces Back, But Interest Rates Loom

Economic expectations couldn't have started much lower this year. In January, the S&P 500 was down 20% from the year prior and heading in the wrong direction. Inflation, though abating, was still twice the historic average. Fed-controlled interest rates, already at 15-year highs, were climbing with no end in sight. Mounting tech sector layoffs threatened to spill into the broader economy, and corporate profits — an indicator of business investment and spending — dipped to a two-year low. Surveying these headwinds, economists polled in January by The Wall Street Journal (WSJ) found a 63% likelihood of recession in 2023, a near-record level of pessimism. The market braced for a recession. So far, it hasn't materialized.

While challenges still exist — borrowing rates are higher than they've been in 20 years — the macro picture has generally improved. Inflation appears tamable, unemployment has remained near all-time lows and public markets are surging back. **After 18 months of uncertainty, there are signs that confidence is returning to the market.** The S&P 500 has recovered nearly all its losses since the downturn. The latest WSJ poll from June showed a 54% chance of recession, back into coin-toss territory.

Perhaps no group is having a better year than Big Tech. The five tech giants of Meta, Amazon, Apple, Microsoft and Google have mounted a remarkable comeback to collectively reclaim more than $3T in market cap since January. The turnaround has accompanied a rise in AI applications that has captured public interest in what the next era of technology may mean for humanity. **While Big Tech is rising, not all tech companies are being lifted. Venture-backed tech companies that went public in 2021 are struggling to meet lofty expectations.** These struggles are having a knock-on effect throughout the innovation economy as a backlog of exit-ready companies tread water.

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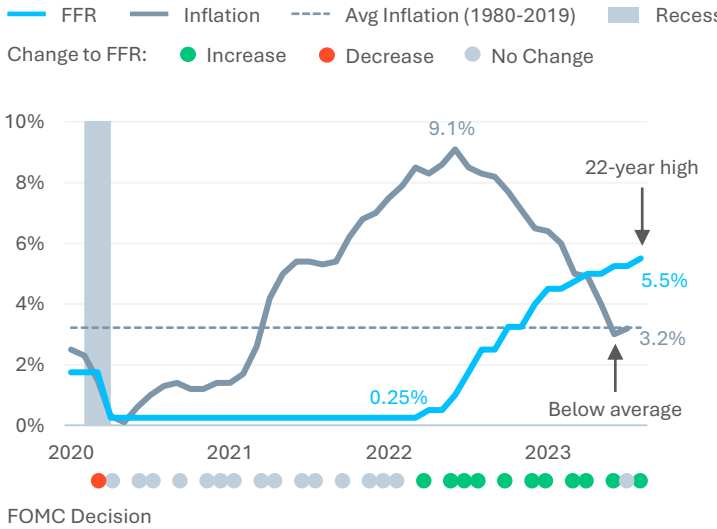
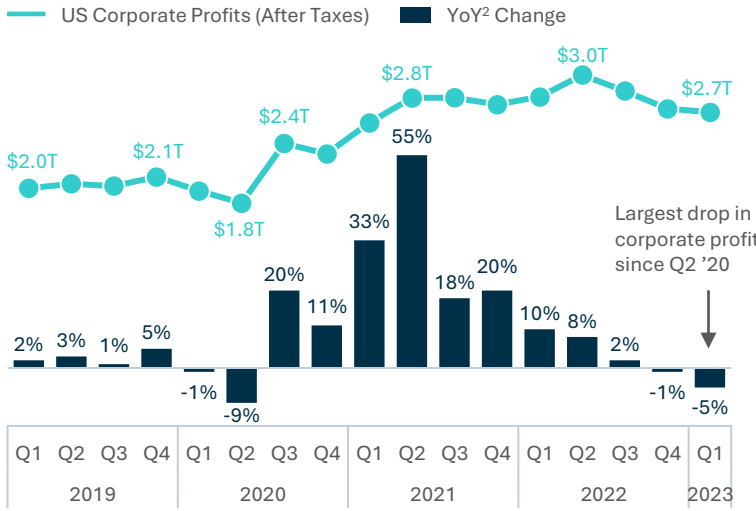
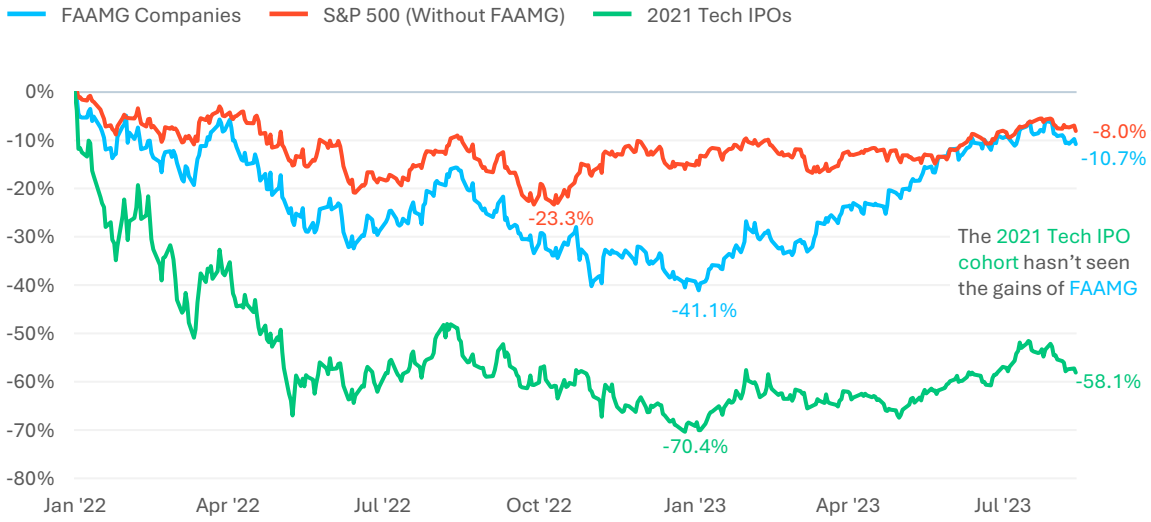
US Federal Funds Rate (FFR) and Inflation[1]



US Corporate Profits



Public Market Performance: Indexed Market Cap of Tech Cohorts vs. S&P 500[3]



FAAMG Market Cap 2023

	Jan '23	Jul '23	Growth
	$2.0T	$3.0T	51%
	$1.8T	$2.6T	44%
	$1.2T	$1.6T	38%
	$0.9T	$1.4T	58%
	$0.3T	$0.8T	142%

Notes: 1) Inflation measured as the year-over-year (YoY) change in the Consumer Price Index. 2) Year-over-year (YoY). 3) As of 7/14/2023. FAAMG companies include: Meta (Facebook), Amazon, Apple, Microsoft and Alphabet (Google).

Source: S&P Market Intelligence, Bureau of Labor Statistics, National Bureau of Economic Research, *The WSJ*, and SVB analysis.

After a Banking Shock, a New Normal Emerges

Startups grappling with the VC downturn faced an added stressor in March when simmering concerns about the banking sector boiled over. The rapid rise in interest rates over the last two years put many banks' investment securities underwater. **In Q4 2021, US banks had just $8B of unrealized losses on their securities portfolio, which ballooned to $620B over the next year as the Fed began its rate hike cycle.** Between March and July, a handful of notable banks facing liquidity concerns, including SVB, went into FDIC receivership and were subsequently acquired.

This shock to the banking system — the biggest financial crunch since the Global Financial Crisis (GFC) — has reverberated in the innovation economy. For banks, the ripples from March have resulted in increased scrutiny from credit rating agencies, which have downgraded the credit ratings of at least 10 US banks, with more under review (as of August 11). These pressures, coupled with higher interest rates and other market forces weighing on regional commercial lenders, have contributed to constrained debt markets and tighter lending standards. As a result, US venture debt deployments have fallen back to 2017 levels.

For some tech companies, higher interest rates and broader macro challenges such as slowing VC investment and weaker revenue growth are making debt financing a less viable source of capital. A Federal Reserve poll of senior loan officers in July showed that demand for loans to companies with less than $50M in revenue was at its weakest level since the GFC, while lending standards had also tightened to near-record highs. While this data is not specific to VC-backed companies, it highlights how many banks are tightening their lending standards and slowing the flow of capital. Despite these trends, tech companies seeking loans may benefit from new competition for their business. Since March, a range of conventional banks have entered the innovation space or sought to expand their presence.

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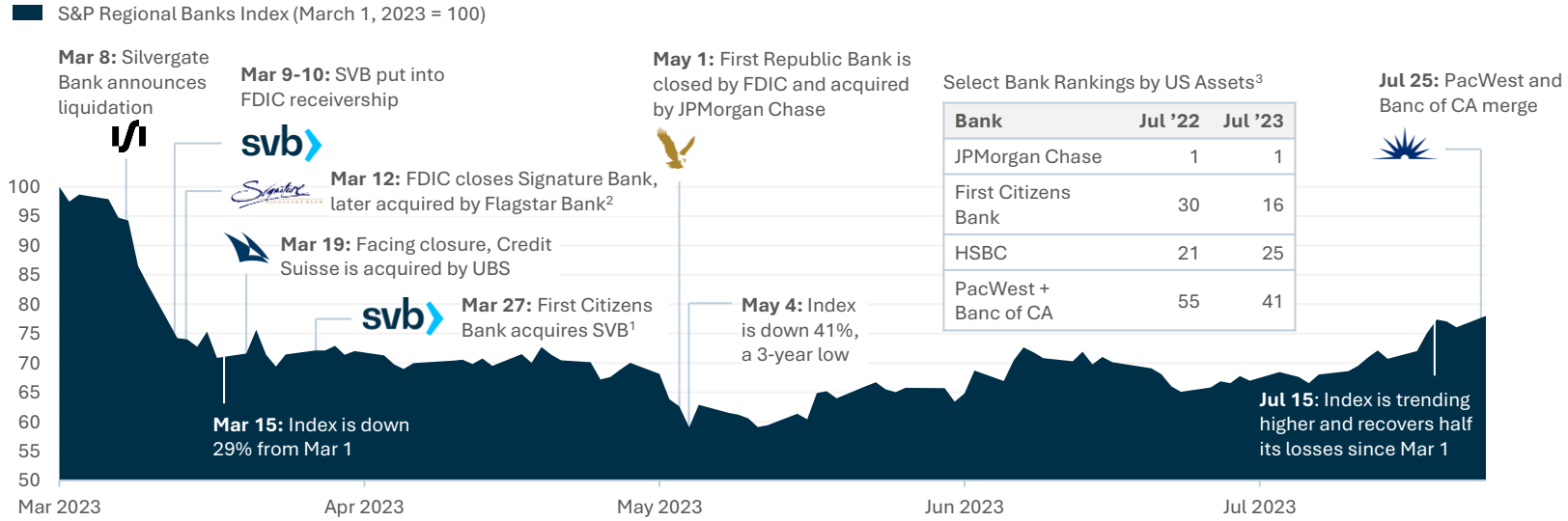
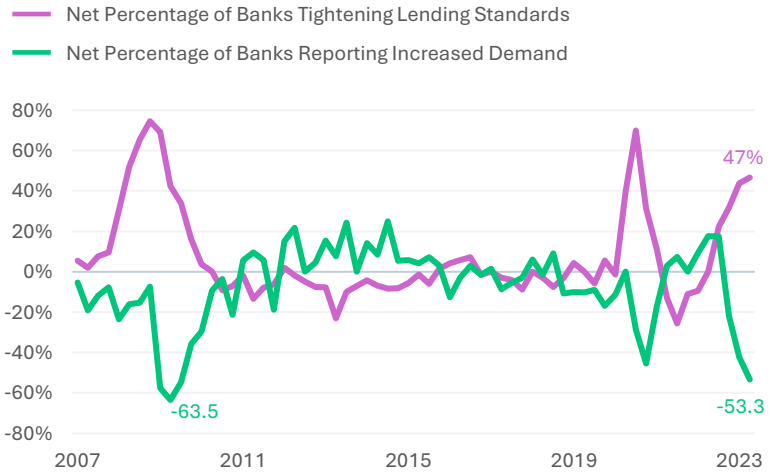
Timeline of Notable Banking Events in 2023



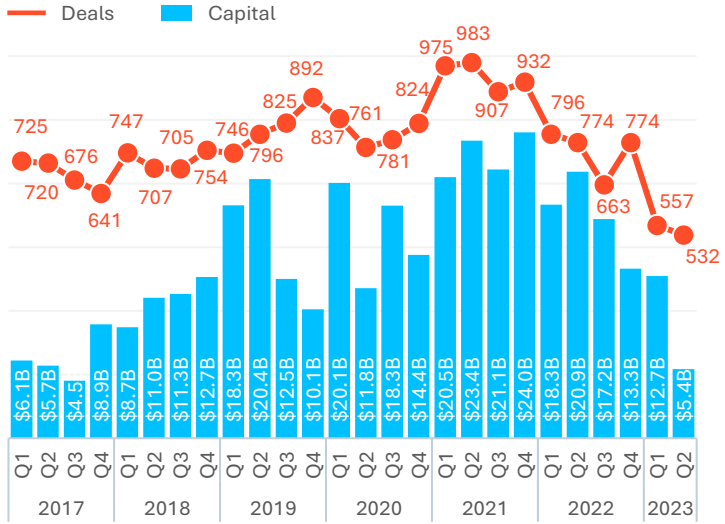
Select Bank Rankings by US Assets[3]

Bank	Jul '22	Jul '23
JPMorgan Chase	1	1
First Citizens Bank	30	16
HSBC	21	25
PacWest + Banc of CA	55	41

US Demand for Small Business Loans and Tightening Lending Standards[4]



US Venture Debt Deals



Notes: 1) First Citizens Bank acquired SVB's US private and commercial banks. It did not acquire SVB Securities, SVB Capital or SVB's internationally-located businesses. 2) On March 20, Flagstar acquired $38B in Signature assets, including 30 banking branches. The FDIC retains $60B in Signature assets. 3) July rankings estimated based on acquisitions and latest available assets. 4) Small business are those with under $50M in annual revenue.

Source: S&P Market Intelligence, Federal Reserve Board of Governors, PitchBook and SVB analysis.

SVB Banking Survey: How VCs Set Priorities

The events of this spring have created a new set of norms and standards for how startups and VCs manage their accounts. It's no longer standard practice to keep all deposits with one bank. That much is clear. But beyond that baseline, what best practices are emerging? For instance, how many banks should a company keep? What factors are important for evaluating the right banking partner?

To better understand best practices, we surveyed 80 notable VCs on their advice to founders.[1] Overall, our findings underscore VCs' view that founders, who may have once put banking on the back burner, must now actively manage their cash allocations as they do other business priorities. When asked how founders should rank treasury management among other business challenges, VCs gave it near the same importance as navigating macro headwinds or managing regulatory risk, two areas that have always been on founders' radar of priorities. **The survey also made clear that other essential needs such as product market fit, customer acquisition and hiring should come first.**

VCs are taking a more hands-on approach to their portfolio companies' banking decisions. Of the VCs we surveyed, over 95% say they advise their clients on banking practices, with 11% going further to enforce firm expectations. **When it comes to the most important features to look for in a primary bank, the top features were non-negotiables such as security and stability, execution and reliability, and products for startups. Below these table stakes were differentiating factors, such as relationships, the size of the bank and industry knowledge.** These secondary factors are still valued by VCs, all rated above moderately important. Now that competition in innovation banking is more fierce and companies are shoring up the must-haves in a banking relationship, it's possible that these peripheral factors like networking and industry knowledge could carry additional sway.

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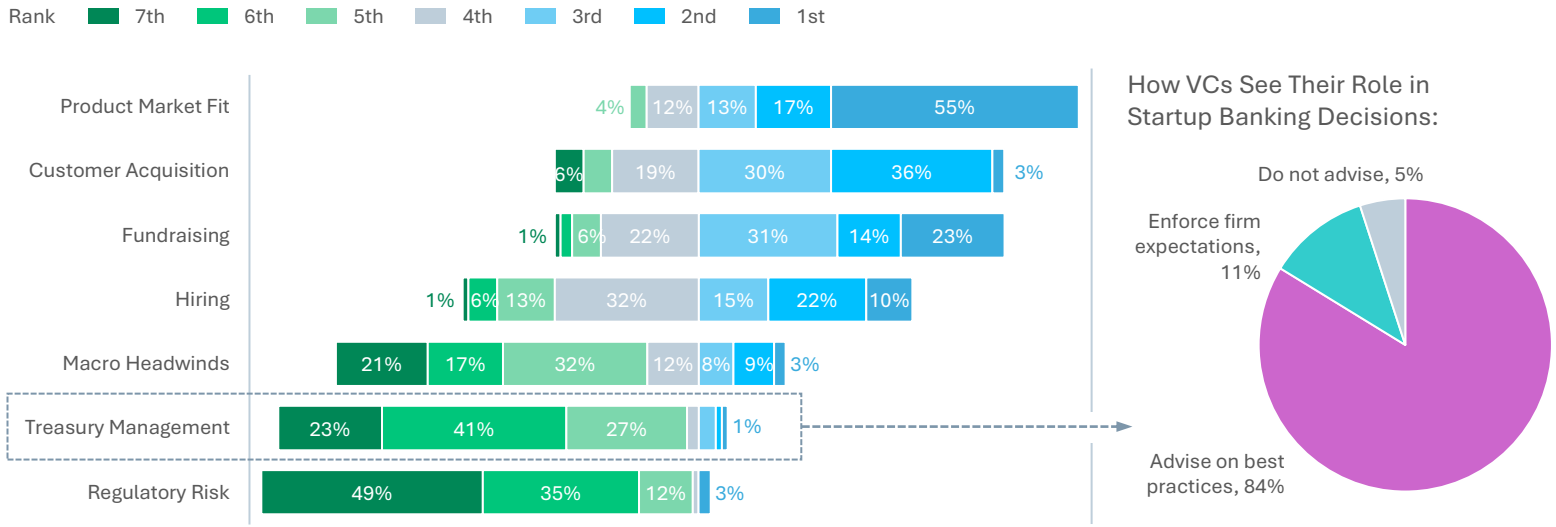
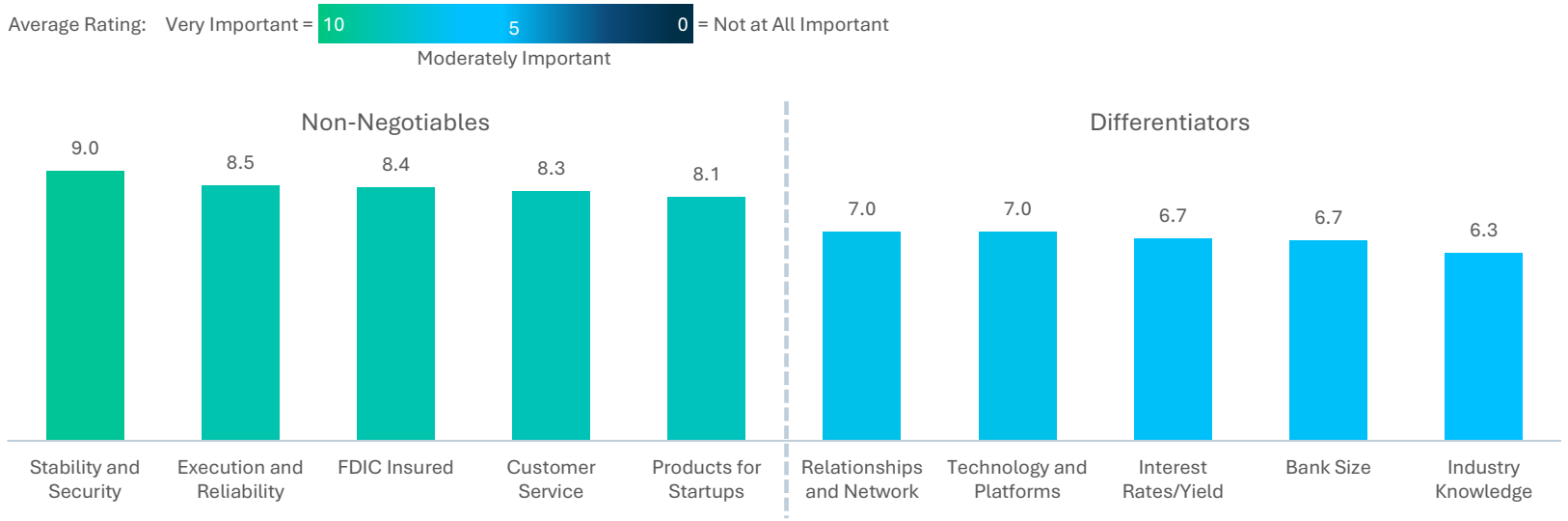
VC Guidance: How Founders Should Prioritize Business Challenges[2]



Most Important Features in Choosing a Primary Bank for VC-Backed Companies



Notes: 1) SVB survey of 80 general partners at US VC firms, conducted from 7/24 to 8/4/2023. 2) May not sum to 100% due to rounding.
Source: SVB survey, SVB proprietary data and SVB analysis.

Guiding Principles for Managing Treasury

When it comes to considerations for dividing assets between multiple banks, it is, unsurprisingly, all about the amount of cash held. Outweighing considerations like the experience of the founding team and the presence of a CFO on staff, 77% of VCs said they weigh a company's cash and amount raised when giving guidance on banking decisions.[1]

There were three main strategies considered for dividing money among bank accounts. The largest group of VCs advised keeping a cash reserve beyond what is needed for normal operations, with 40% of VCs favoring this approach. A less conservative approach is to keep a buffer to meet short-term payroll, say two pay cycles, for example. Over 28% advised this approach. The most conversative strategy was to move any money outside of the federal insurance amount of $250k. Nearly a third of VCs favored this approach, though the infeasibility of having dozens of banks suggests that it would take the form of an insured treasury management product like a cash sweep. These products have gained traction since March, though this route is typically reserved for companies with more cash. Of VCs who recommend the strategy of FDIC-insured limits, 94% said they've advised portfolio companies to consider insured accounts.

In practice, there are only so many banks a company can keep. For most companies, two is enough. That was the median recommendation for companies up to $100M in revenue. At that threshold, the median advice jumps to three banks. This tracks with the guidance that cash is the most important factor for these decisions. **As companies bring in more revenue and their cash reserves multiply, the complexity of their banking needs grows, necessitating more diversity.** It's also likely that preferences — based on relationships or familiarity or the desire for access to specialized products — will weigh more heavily over time.

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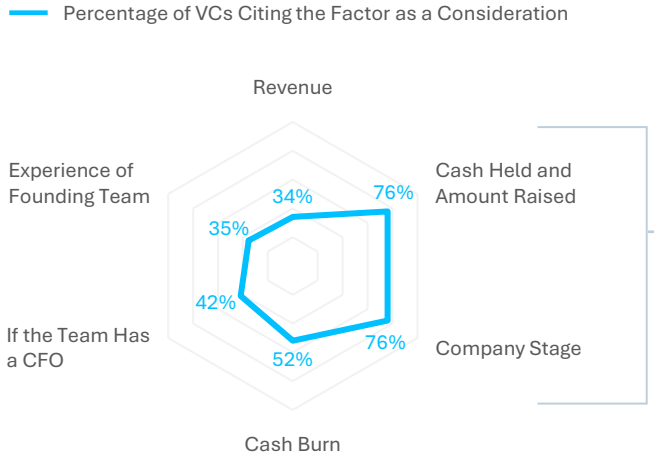
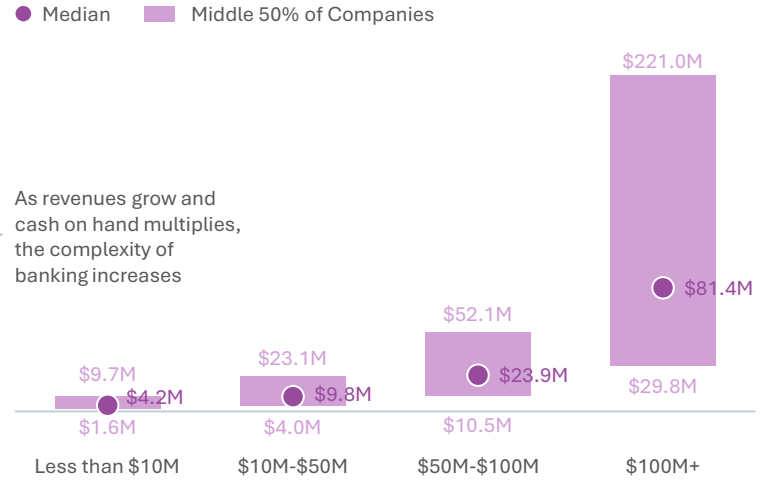
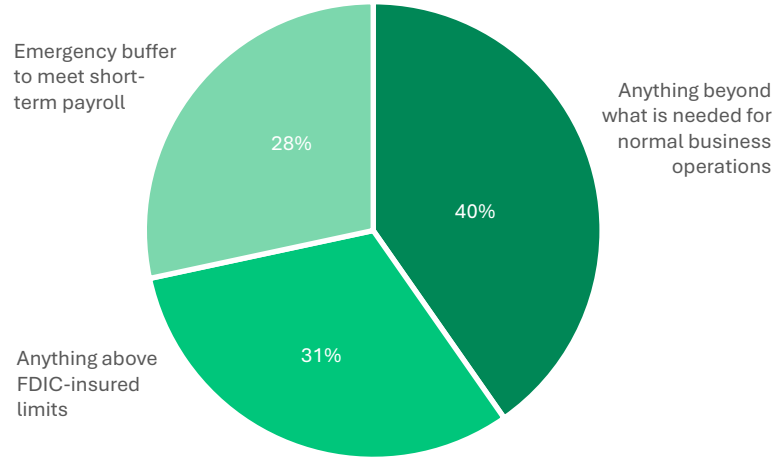
Factors VCs Consider When Advising on Banking Decisions



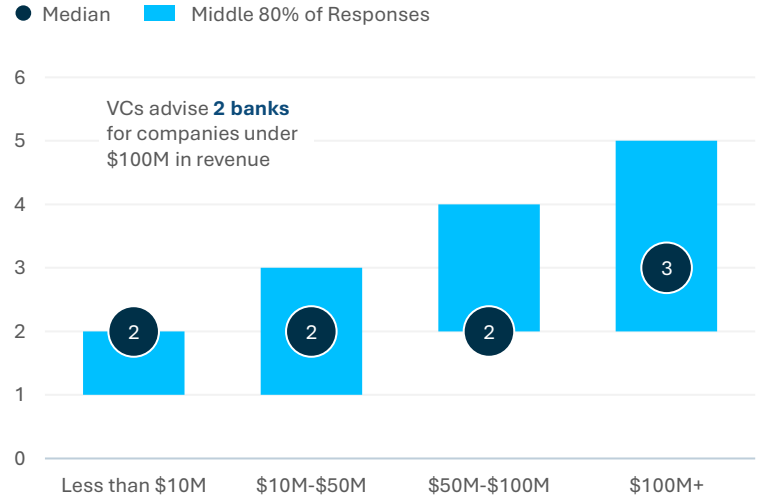
US VC-Backed Tech: Cash and Cash Equivalents by Revenue Band[2]



How Much Capital Should Companies Keep Outside of Their Primary Bank?[3]



VC Guidance: Number of Banks Startups Should Have by Revenue Band



Notes: 1) SVB survey of 80 general partners at US VC firms, conducted from 7/24 to 8/4/2023. 2) Annual revenue calculated using the revenue run rate for the statement period. 3) Does not sum to 100% due to rounding.

Source: SVB survey, SVB proprietary data and SVB analysis.

Fundraising

Capital Tied Up

Dry Powder Refuses to Burn

US VC fundraising saw five consecutive record-breaking years starting in 2017, growth that was fueled by low interest rates, investors seeking alpha in private markets, and tailwinds for technology that leapfrogged adoption during the pandemic. But the party is over. **Since H1 2022, US VC fundraising has fallen 66% to just $35B in H1 2023.** Many firms don't need to raise capital; they raised it during the boom and are now biding their time and deploying capital far more slowly. The pressure from LPs to deploy capital is also gone. Anecdotally, many LPs, already over allocated to private markets, would prefer VCs not continue to call capital. But the clock is ticking and this pause cannot last forever.

The tighter market has shown up in several key metrics for VC fundraising and deployment. First, the time between funds is beginning to increase as funds are not coming back to market as quickly. This is due to their slower pace of deployment and a lengthier timeline for those raising capital because of muted demand from LPs, who have yet to see material liquidity from their VC holdings in recent quarters. Second, the average age of dry powder is beginning to increase. The dot-com bubble and the GFC saw the weighted average age of dry powder increase significantly as VC fundraising slowed and VCs called capital less frequently. Third, the percentage of dry powder deployed for funds with a vintage of 2021 is just 9% — lower than any previous cycle. This indicates that the capital raised at market peak remains untouched. **While the amount of US VC dry powder is a bright spot in the innovation economy, with limited LP pressure to invest, capital deployment is likely to remain slow — at least until more companies are forced and there is more agreement on terms and pricing.**

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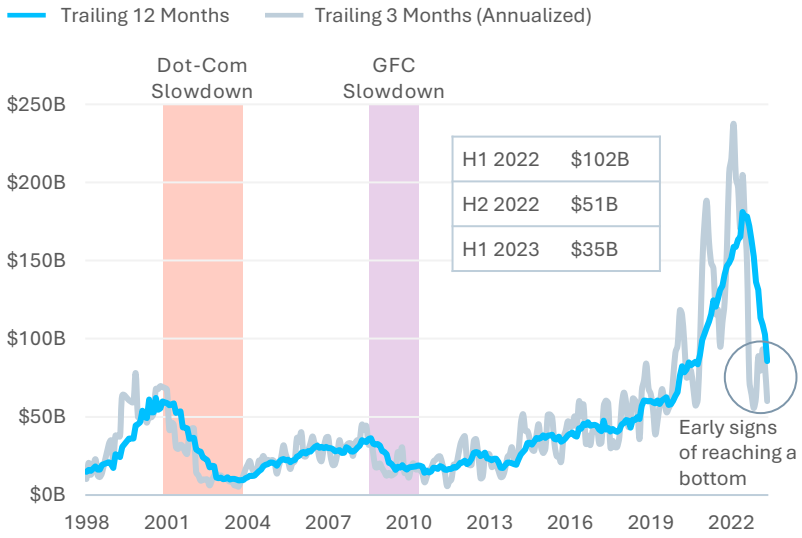
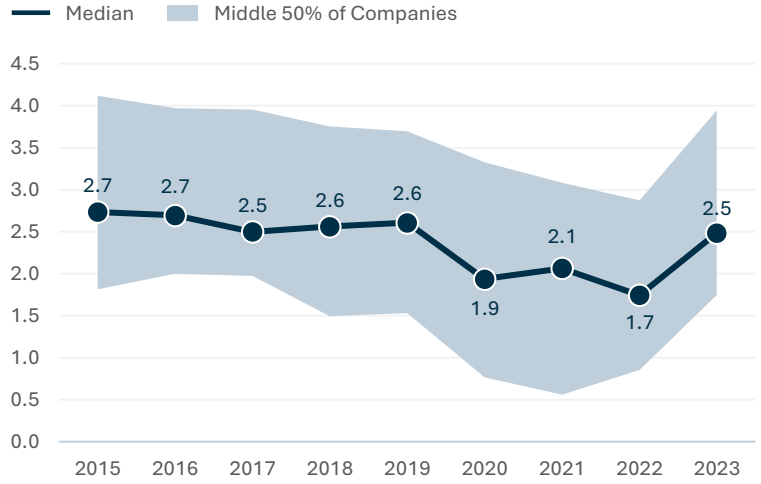
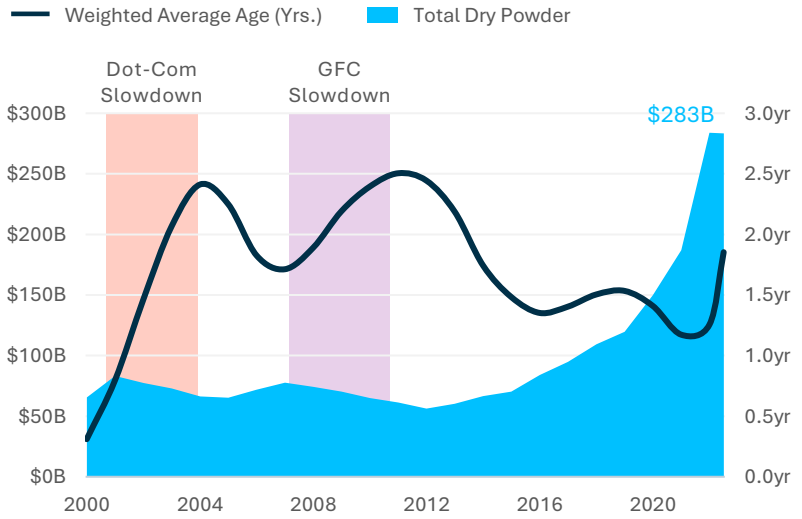
Annualized US VC Fundraising



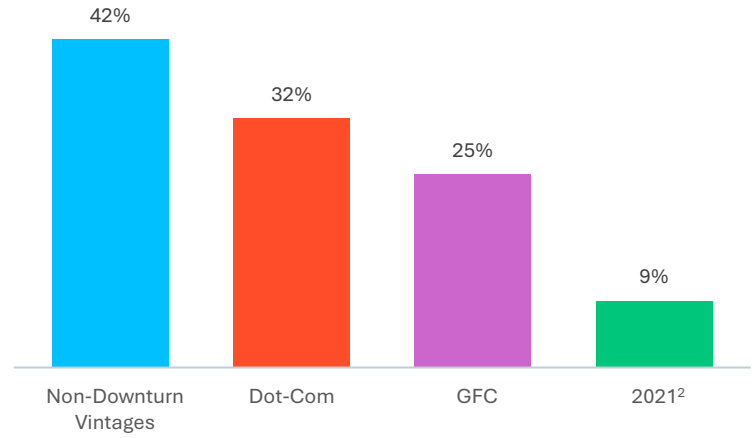
Years Between US VC Funds Closed of the Same Fund Series[1]



US VC Dry Powder



US VC: Average Dry Powder Deployed Two Years After Fund's Vintage Year



Notes: 1) For funds of the same series time between close dates of the fund. 2) Assumes current run rate of deployment through year-end.
Source: Preqin and SVB analysis.

DPI Is the New KPI; IRR Takes a Back Seat

Following a surge in VC investment, valuation increases and material exits in 2021, the private market industry delivered stellar returns. However, as the industry has entered a new phase, those returns haven't translated into distributions, but rather paper gains. **More than 80% of US VC fund vintages since 2010 have at least half of their total value to paid-in capital (TVPI) tied up in residual value to paid-in capital (RVPI).[1] This indicates that half of funds' value is in unrealized paper markups.** The percentage of return tied up in undistributed valuation gains only increases as you move along the fund vintages. When cutting the data by fund stage, as expected, funds focused on earlier-stage investments have a disproportionately smaller amount of returns from distributions.

Without an open exit market, investors have been forced to extend hold times for their portfolio companies or seek alternative solutions for liquidity. One option general partners (GPs) have used more is the net asset value (NAV) loan. Uses of NAV loans could range from growth capital support for portfolio companies, financing for bolt-on acquisitions or distributions to LPs, especially before beginning to raise another fund. This third purpose is becoming increasingly popular. Look no further than the Carlyle Group, which recently used a €1.25B NAV facility on its fifth European buyout fund to accelerate distributions back to LPs.

This could signal a shift in the purpose of NAV facilities, putting the emphasis on consistent distributions and liquidity management rather than portfolio growth or internal rate of return (IRR) enhancement.

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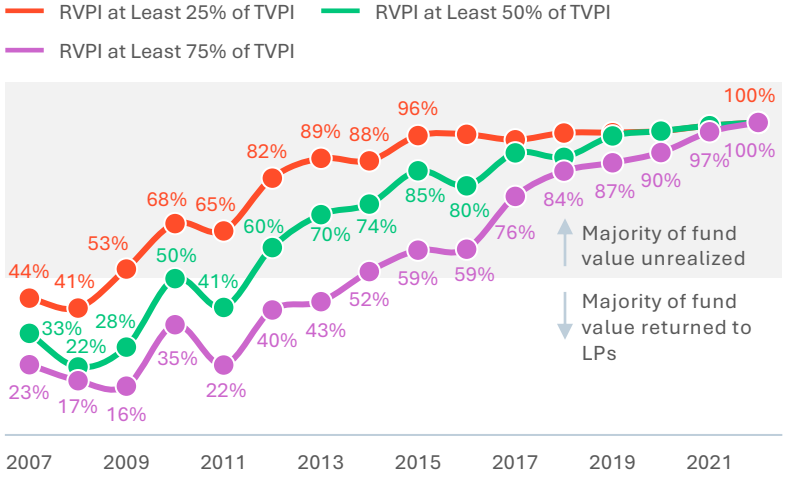
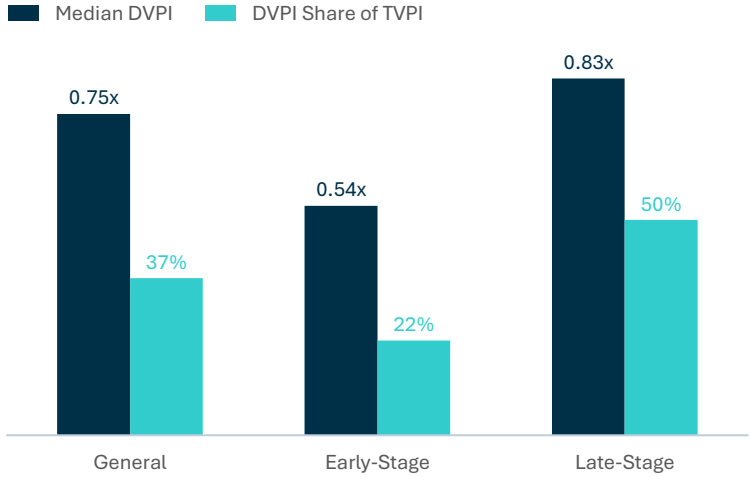
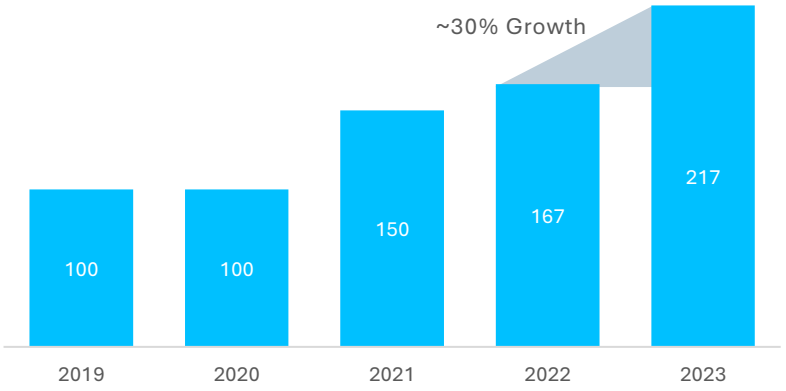
US VC Funds' Share of TVPI Held in RVPI by Vintage Fund Year



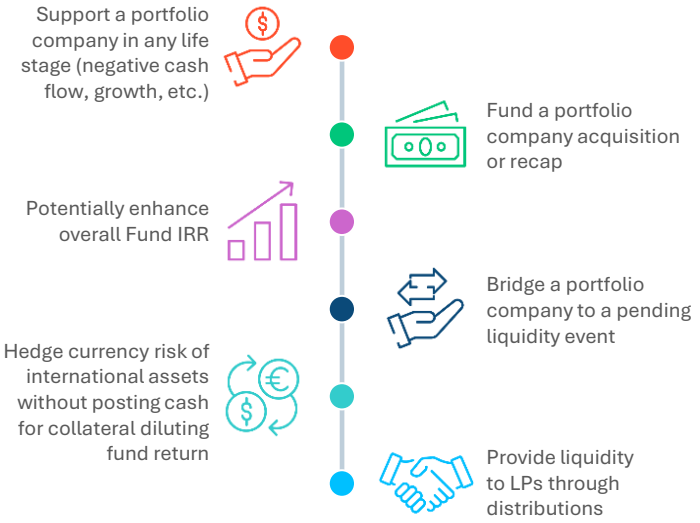
US VC Funds Median DVPI and DVPI Share of TVPI by Strategy[2] for 2010-2015



Count of Active NAV Facilities Indexed to 100 by Year[3]



Common Use of a NAV Facility



Notes: 1) As of 8/9/2023. Performance data for US VC funds as defined by Preqin with vintage years from 2010 to 2022. 2) Strategy defined by Preqin. Early-stage includes startup, seed and undefined early-stage funds. 3) Data as of year end for all dates except 2023, which is as of 6/30/2023.

Source: Preqin, Private Equity International, SVB proprietary data and SVB analysis.

Investment

Finding the Floor?

The Clock Is Ticking on Capital Shortfall

On a monthly basis we estimate US VC-backed tech companies collectively burn $27.6B net of revenue. In other words, these companies rely on outside sources of capital to cover $27.6B of net burn. In 2020 and 2021, record VC investment meant companies could raise capital relatively easily and on favorable terms. This pushed company burn higher as companies prioritized growth over profitability. Now the tables have turned, and companies have cut back. **However, burn is still high — it's harder to reduce spending than to increase it during good times.** As a result, there is a significant gap between the $27.6B that companies burn each month and the $13.1B in VC investment that has occurred (on average) each month in 2023. This is the funding gap.

A funding gap is a normal part of the venture ecosystem. It ensures that companies that are underperforming are not funded and keeps the ecosystem healthy. However, a 50% gap means that many companies will be unsuccessful at raising capital and must look for alternatives such as reaching profitability or pursuing an acquisition to avoid failure. **Companies that can raise capital may have to accept lower valuations and tougher terms that induce investors to invest.**

The gap is immediately apparent to companies with limited runway that must raise capital now, but most companies aren't in that position yet. **In the next 12 months, only 46% of US VC-backed tech companies must raise, which is lower than historical pre-pandemic levels.** As companies adjust burn and VC investment normalizes over time, we expect the gap to decrease.

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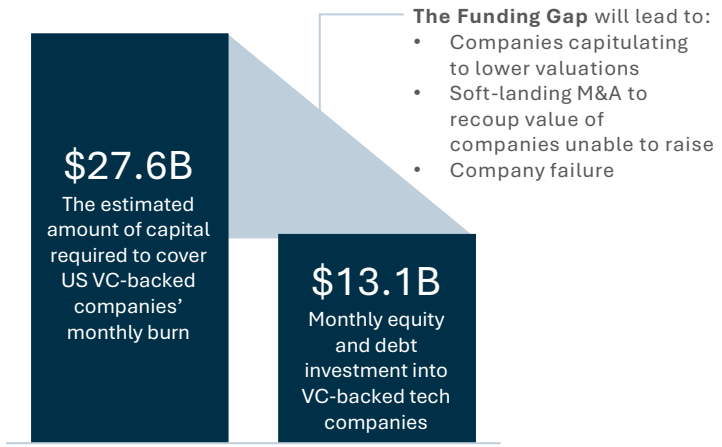
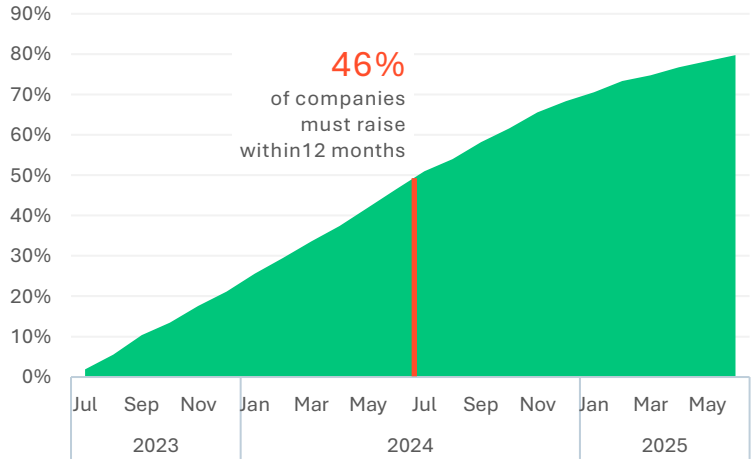
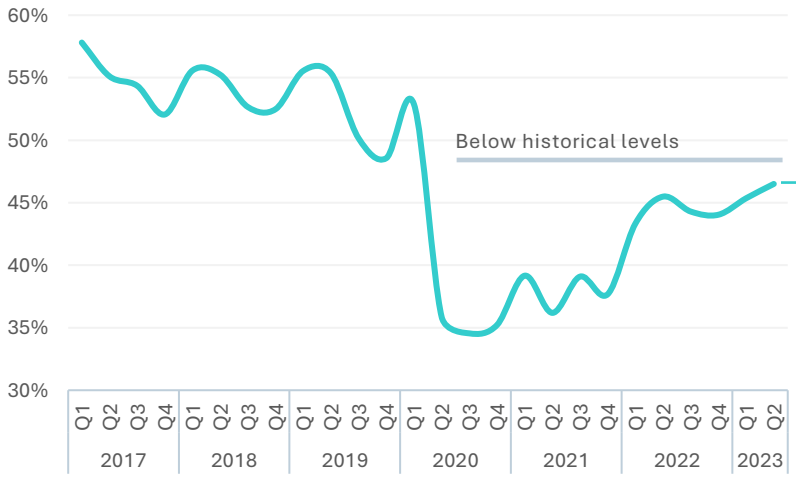
Capital Requirements: US VC-Backed Tech Startups[1]



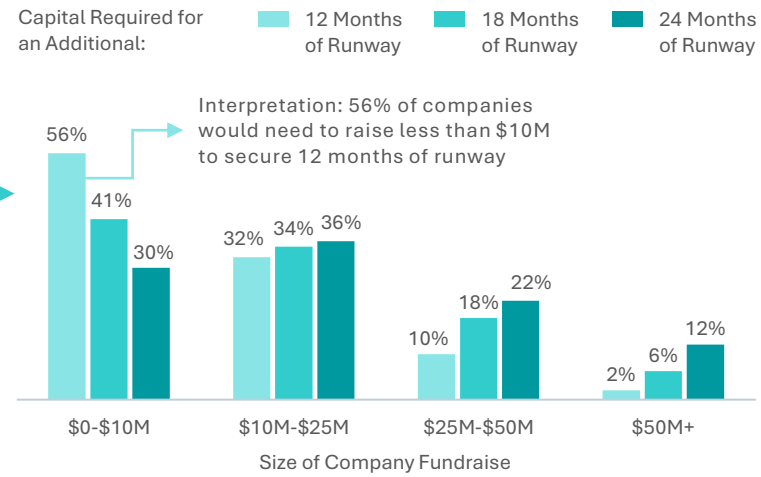
Percentage of US VC-Backed Tech Startups Running Out of Runway by Date[2]



Percentage of US VC-Backed Tech Startups that Must Raise: Next 12 Months[2]



Startups that Must Raise in the Next 12 Months: Distribution of Capital Required[3]



Notes: 1) Estimated based on net burn rates and the number of active US VC-backed tech companies that have raised capital in the last three years. 2) Assuming current burn rate and cash and cash equivalents. 3) Estimate uses current monthly burn rate and multiples by 12, 18 or 24 months.

Source: SVB proprietary data, PitchBook and SVB analysis.

Investment Finds the Floor in 2024?

While it is unlikely that we'll see US VC investment levels return to 2021 levels in the near future, the question remains as to where we are in the cycle. **Using history as a guide, past cycles have taken between 12 and 18 months to find a bottom. June marked the 18th month of this cycle, and while US VC investment levels may still fall, they are showing signs of stabilizing.** Return to peak is another story — it took nearly 14 years to return to the peak achieved during the dot-com bubble but only three years to recover from the GFC.

Over the last 18 months there have been several shifts that have changed the VC investment landscape significantly. The zero interest-rate environment and low-cost capital of 2021 has disappeared, replaced with the highest rates in 22 years. The pandemic tailwinds that catapulted tech adoption years ahead have faded. LP appetite for alpha from private markets has subsided as returns become available elsewhere and their portfolios are overly weighted to private assets. Finally, with the median 2021 US VC-backed tech IPO 62% below its IPO price, late-stage activity has slowed 46% YoY as most late-stage companies would prefer not to risk raising a down, flat or weaker up round than anticipated.

This late-stage slump has also been impacted by hybrid PE/VC firms. As a proxy, we looked at a cohort of four notable hybrid firms who reduced their US VC deal activity by 82% since 2021.[3] These investors participated in 60% of the total value of deals in 2021; however, that has fallen to just 39% as PE investors have retreated. Firms such as Tiger Global went from averaging nearly four US VC deals per week in 2021 to about two and a half deals a month in 2023. Yet not all non-traditional VC investors have pulled back. **Corporate venture capitalists (CVCs) have remained active, dispelling the common misconception that they are tourist investors.** Some CVCs are far more active such as Lockheed Martin, which went from being the 50th most active CVC to the 4th, highlighting the significant tailwinds in the defense sector, including NATO's €1B deep tech defense fund.

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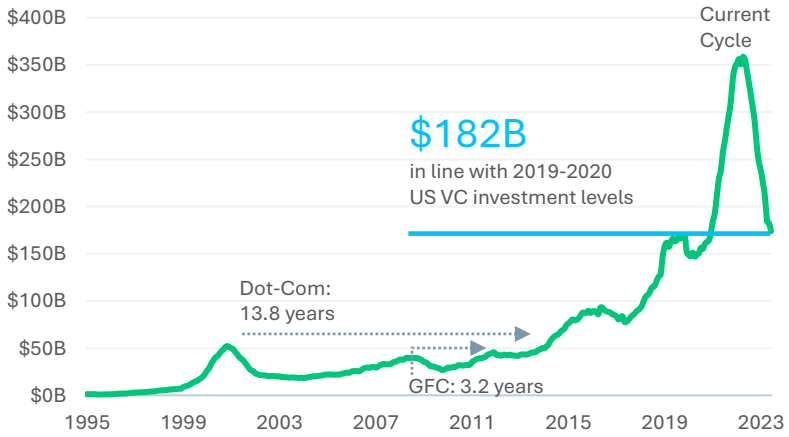
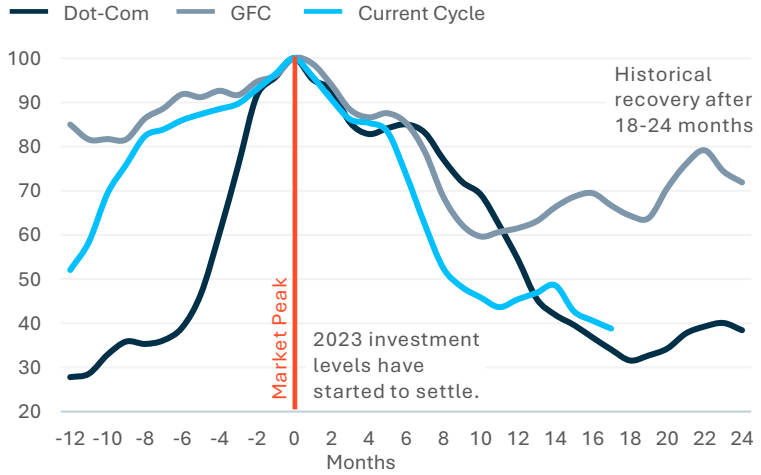
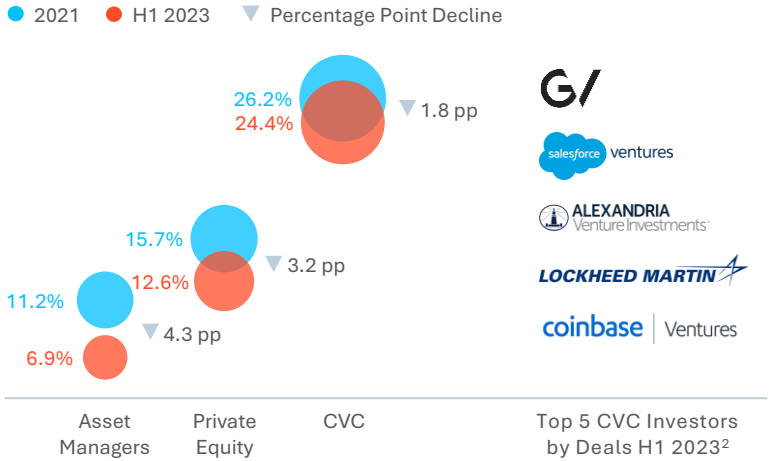
VC Investment in US Companies: Trailing Twelve months



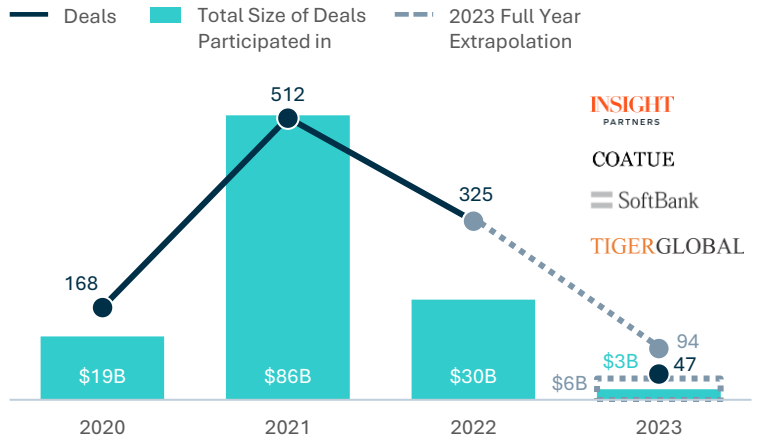
VC Investment in US Companies: Indexed to 100 at Market Peak[1]



Non-Traditional Investors' Share of US VC Deal Activity



US VC Investment from Notable Hybrid PE/VC Investors[3]



Notes: 1) Uses monthly VC investment number smoothed with a trailing three-month average to remove noise as of 6/30/2023.
2) Google Ventures, Salesforce Ventures, Alexandria Venture Investments, Lockheed Martin and Coinbase Ventures.
3) Notable hybrid PE/VC firms include: Insight Partners, Coatue Management, SoftBank and Tiger Global.
Source: PitchBook, PitchBook NVCA Venture Monitor, NATO and SVB analysis.

Sugar, We're Going Down (Round)

It was only a matter of time. Following a frenzied 2021 dealmaking pace that many deemed unsustainable, the venture slump has hit startups — and finally shown up in the data. **This year saw a jump in down rounds, accounting for the largest share of deals since 2018.**[1] Down rounds are an unwelcomed event for a number of reasons, namely because they can lead to outsized dilution, disgruntled investors and employees concerned over their equity — not to mention the public black eye.

Even though 2022 was a muted year, startups likely had enough runway due to an exuberant 2021 funding year. As startups have gone back to the venture well this year, they've been faced with the harsh reality that yesterday's price is not today's price. In fact, Q2 2023 had the highest share of down rounds (12.6%) since Q4 2017 (14.8%).[1] **As expected, most of the down rounds are occurring at the late-stage, where public comps are more readily available and the allure of early-stage potential is better understood.**

This share of down and flat rounds could be even higher than the data suggests as more companies refuse to disclose their valuation during downturns. This is likely tied to startups wanting to avoid the public scrutiny of raising a down round. Another possible scenario for not disclosing terms is if a company raised less capital or at a lower valuation than initially expected.

Valuation step-ups[2] in 2023 are the lowest they have been post-pandemic. Step-ups have fallen the most at the later stage, with Series C to Series D valuation step-ups decelerating to 22% — the lowest total since 2010.[1] Meanwhile, the earlier stage has remained more resilient as it is less susceptible to changes in the public markets.

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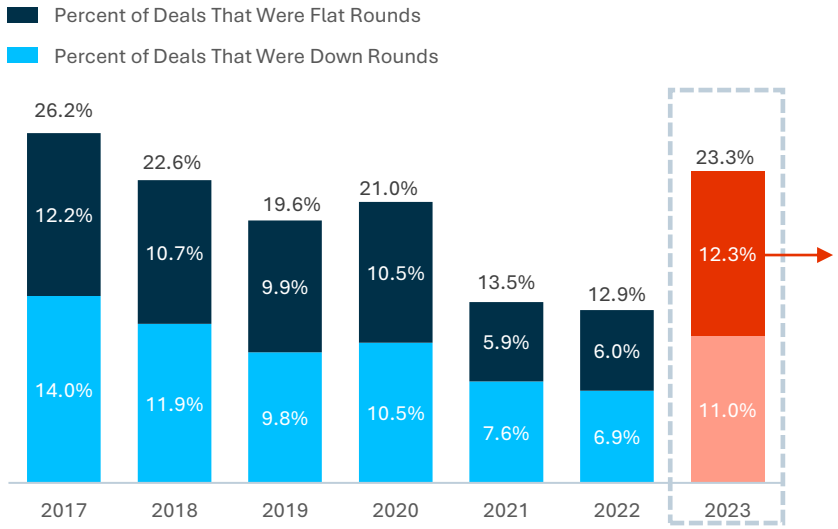
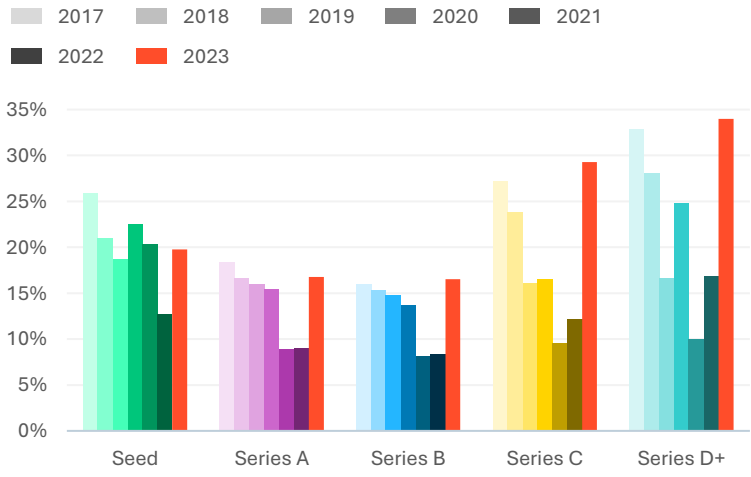
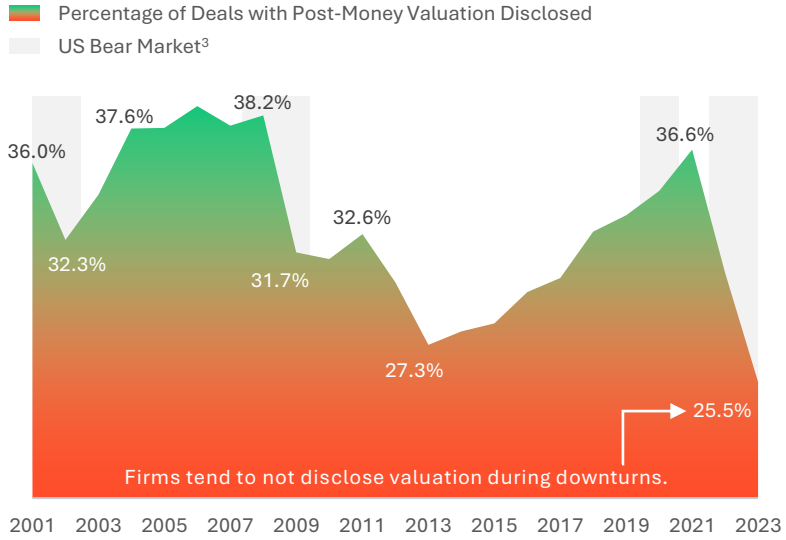
US VC Down & Flat Rounds by Year



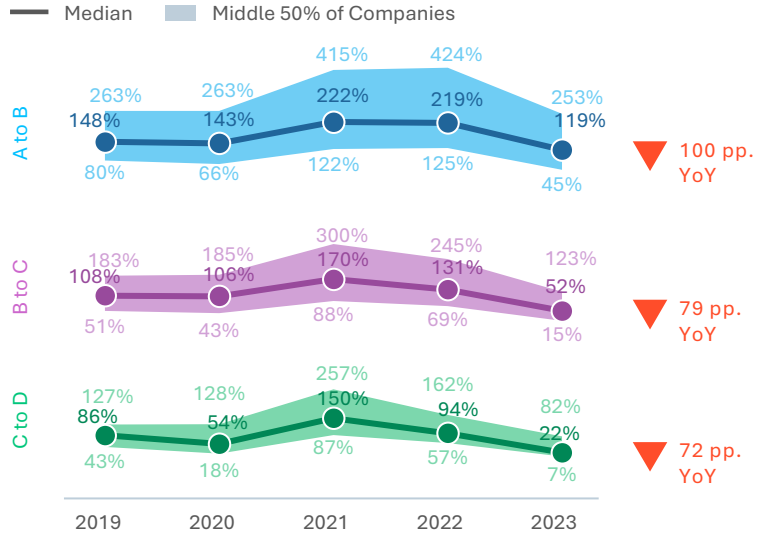
Down & Flat Rounds as a Percentage of All US VC Deals by Stage



US Startups Disclosing Valuations



US Valuation Step-Ups by Series



Notes: 1) As of 7/31/2023. 2) Step-up defined as the percentage change from the current round's pre-money valuation vs. its previous round post-money valuation. 3) US bear market defined as a period where the S&P 500 declined by more than 20% from peak to trough.

Source: PitchBook and SVB analysis.

Unicorns: Long Runway Before Takeoff

The US innovation economy produced a record 293 new tech unicorns in 2021 and added 168 more in 2022. However, minting unicorns has all but stopped in 2023, with only 13 added in the first half. For the stable of 622 US tech unicorns, the question is what happens as the late-stage capital that supported them remains largely dormant.

One measure to understand the dynamics of unicorns is to examine what has happened to 2021 US VC-backed tech IPOs, which saw their market caps fall on average 52% from their IPO date. If 2021 unicorns were marked to market based on 2021 IPOs, we would expect their total valuation to fall from $900B to around $550B.

At current burn rates, only 18% of unicorns will have to raise in the next 12 months. The market dynamics may shift by that time in favor of large, late-stage companies. **Nonetheless, unicorns have tightened their belts; 38% of US tech unicorns have implemented layoffs since the beginning of 2022, and EBITDA margins have improved steadily since the beginning of 2022.**

But as companies have moved toward profitability, revenue growth has slowed. Only 13% of unicorns are profitable, and they've been relying on large, late-stage deals to sustain their operations. Even public companies have depended on growth and capital. Uber, for example, founded in 2009 and exiting a decade later, just reported its first profitable quarter, indicative of the low-cost capital environment where investors favored growth over profitability.

Long-term, if private capital doesn't continue to fund the herd of US tech unicorns, and if they exit through down-round IPOs, late-stage investors may pull back due to poor performance. **This dynamic could mean companies exit sooner, reversing the trend witnessed in recent years of companies relying on private capital investments to stay private longer.**

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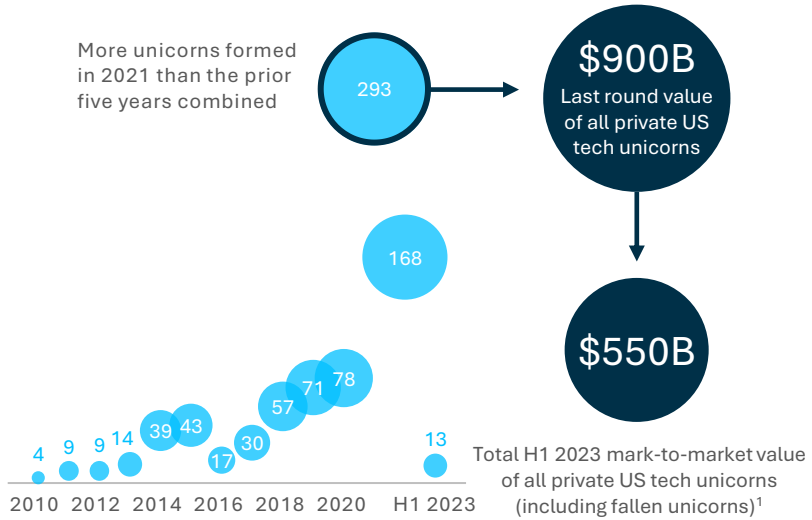
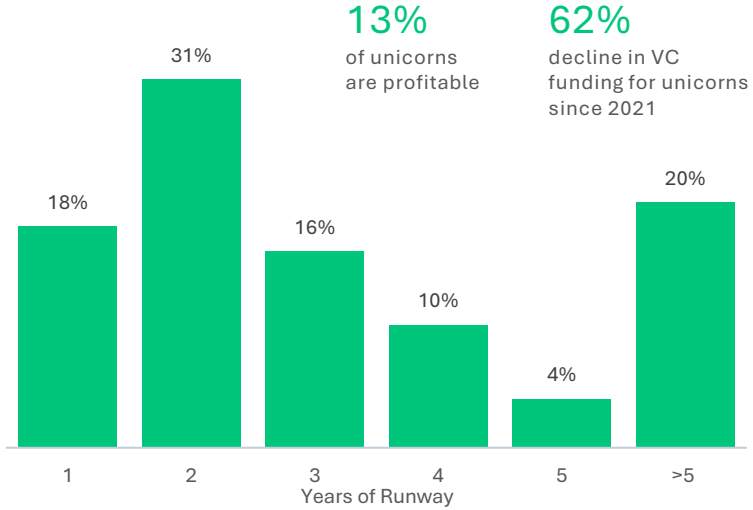
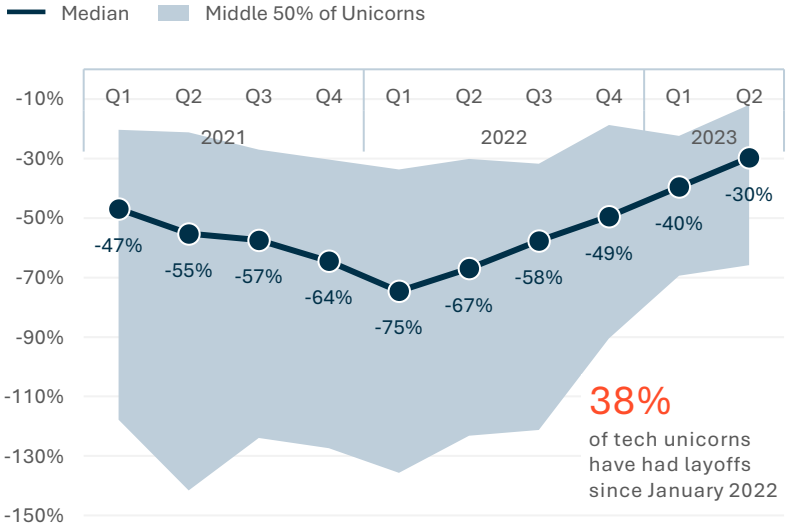
US Tech Unicorn Formation and Value



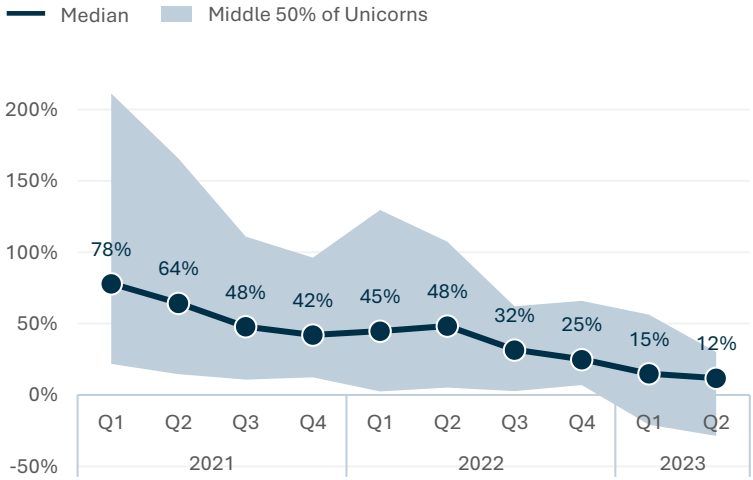
US Tech Unicorns Years of Runway



US Tech Unicorns EBITDA Margin[2]



US Tech Unicorns Annual Revenue Growth[3]



Notes: 1) Mark-to-market values assessed using average performance of the 2021 US VC-backed tech IPO cohort; only companies that haven't raised since 2021 were revalued. 2) Using a representative sample of US tech unicorns. 3) Annual revenue growth rate calculated using the quarterly revenue growth rate.

Source: PitchBook, S&P Market Intelligence, SVB proprietary data and SVB analysis.

Up Next: ~~Web~~, ~~Mobile~~, ~~Web3~~, Generative AI

AI applications have augmented our lives for years, performing tasks from setting our kitchen timers to detecting cancer cells. With the rise of generative AI, we've entered a new realm. Powerful language models such as OpenAI's GPT are demonstrating the capacity for computers to mimic human creativity and improve productivity in ways that far exceed anything that came before. Where Alexa could recite a Wikipedia article, ChatGPT can compose one. The seemingly limitless promise of software capable of writing a hit song or crafting a business plan has become a bright spot in the innovation economy, as founders and investors race to stake their claim in the AI gold rush.

The share of US VC investment in AI companies jumped to 26% for the 12 months ending in Q2 2023, a 10 pp spike from the year prior. **Not only has the deal activity increased, but investors are also paying a premium for AI exposure.** This year, companies at the seed stage — which are less prone to market volatility — have seen a 33% spike in valuations if they list AI as a tech vertical.[1] Many of these companies are incorporating AI into their core business products, mining the technology for efficiency gains by replacing workers with chatbots or adding revenue-producing features. **The biggest opportunity may belong to those selling the picks and shovels.** AI chip producer NVIDIA is among the top-performing stocks in the S&P 500 this year, increasing its market cap 2.5x since January.

Large corporations have invested heavily in AI infrastructure for decades. Companies like Google have long touted the potential for AI as a new paradigm for computing. Microsoft invested $3B into OpenAI, with a further $10B committed. GM has invested billions into its self-driving car subsidiary, Cruise, now offering nighttime rides in San Francisco. Collectively, R&D spending at Google, Meta, Microsoft, Amazon and GM exceeded $176B in 2022 — an amount greater than 48 state budgets.

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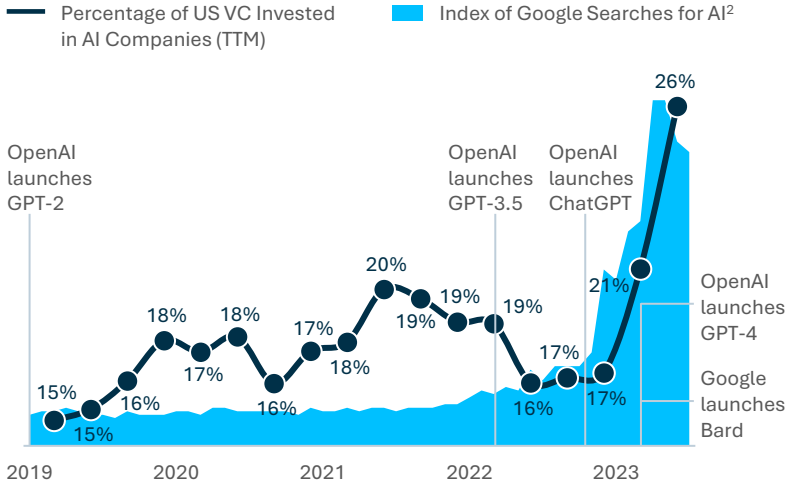
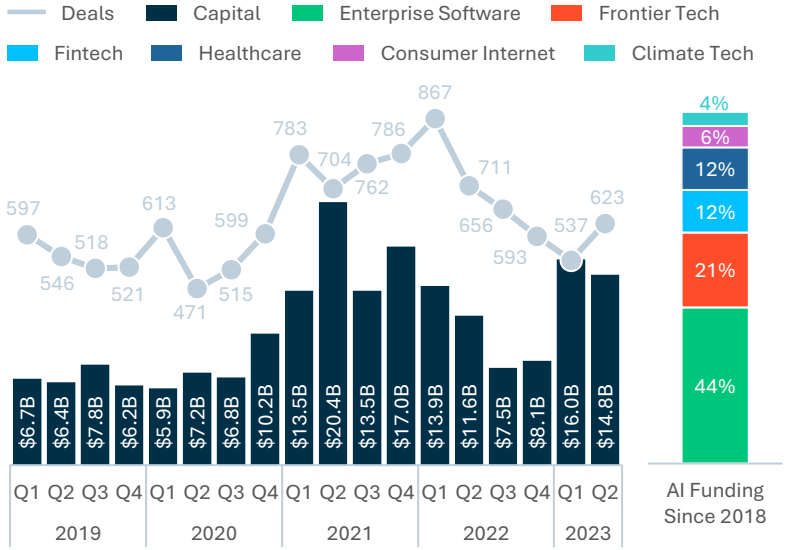
Key Milestones in Generative AI and Funding in AI[1] as a Percentage of Total VC



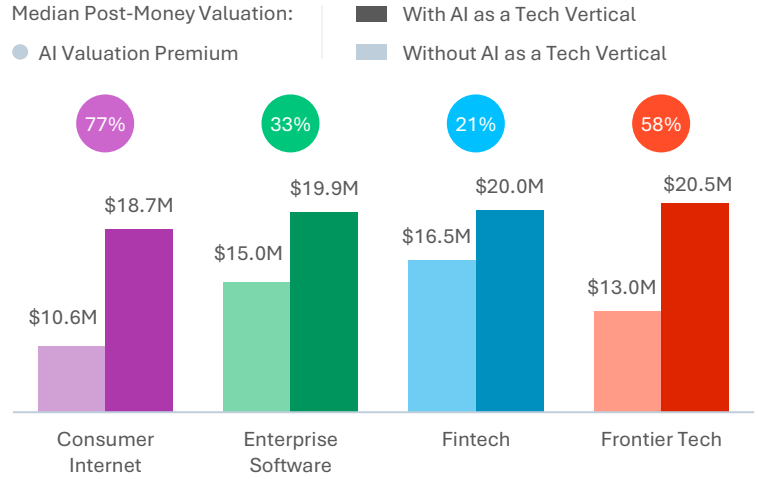
US VC Investment in AI[1]



Notable Corporates Funding AI Research

Company	Annual R&D	Key AI Business Unit/Products
a	$73.2B	Amazon Bedrock
G	$39.5B	DeepMind Technologies Lab, Bard
∞	$35.3B	AI Research SuperCluster
⊞	$27.2B	OpenAI, Co-pilot (Productivity Software)
GM	$9.8B	Cruise (Self-Driving Cars)

AI Valuation Bump for Seed Stage Tech Companies by Sector in 2023



Notes: 1) Deals include the PitchBook vertical "artificial intelligence and machine learning" as of 7/17/2023. TTM = Trailing 12 months.
2) Aggregated search terms for "artificial intelligence" indexed to 100 for the top search month since 2004.

Source: PitchBook, Google Trends, company annual reports and SVB analysis.

Venturing From Coast to Coast

Despite the transition to remote work enabling workers to move out of cities, California and New York remain the dominant force in US VC investment. In 2019, these states accounted for 62% of US VC investment. As of H1 2023, that number remains more or less unchanged at 61%. While metros like Miami have tripled in size since 2020, the up-and-coming regions remain small relative to established VC hubs. **The network effects of repeat founders, established pools of capital, and a VC community make top regions hard to surpass.** Nonetheless, tides are turning in established markets. A McKinsey study found demand for office space could fall 20% in San Francisco and 16% in New York by 2030. Looking to Austin as an example of where companies may go, 197 companies expanded or relocated to Austin in 2021, but today the city is on track to see just 70 companies relocate or expand in a sign that some of the trends accelerated by COVID-19 may now be decelerating.

Nonetheless, US VC investment is not a monolith, and trends vary greatly depending on the region. During the investment boom of 2020-2021, California and New York saw the steepest increases in valuations, while other regions lagged. Today, many regions continue to play catch-up with valuations. While the median valuations may still be climbing in the middle of the country (Mountain, Midwest and South regions), California and New York still hold a substantial valuation premium. Furthermore, just because the median valuation may be climbing does not mean all companies are seeing gains in these subregions. **The reality is that fundraising dynamics are still challenging — every region has seen substantial declines in VC investment.**

Some of these regions are also more heavily impacted by individual sectors. Miami, for example, has a vibrant fintech scene, while the Mountain West sees more frontier tech. These sectoral differences result in investment trends driven by industries rather than simply macro VC trends.

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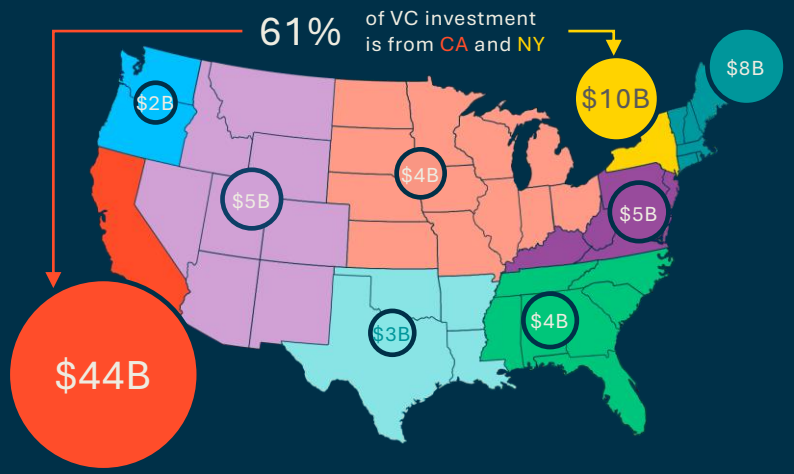
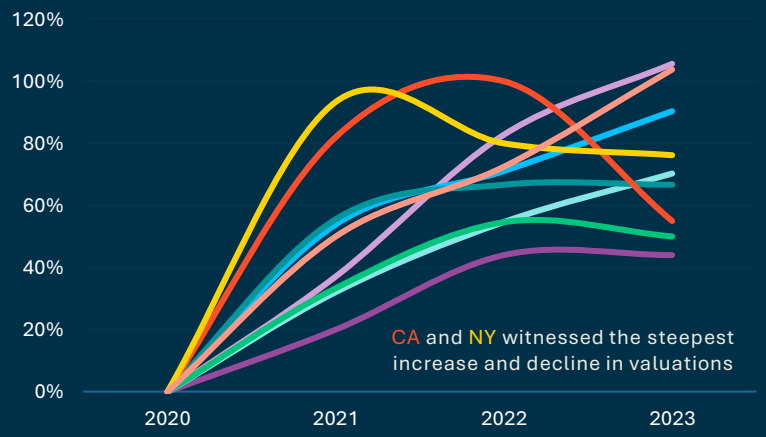
VC Investment in US Companies Key Metrics by Region

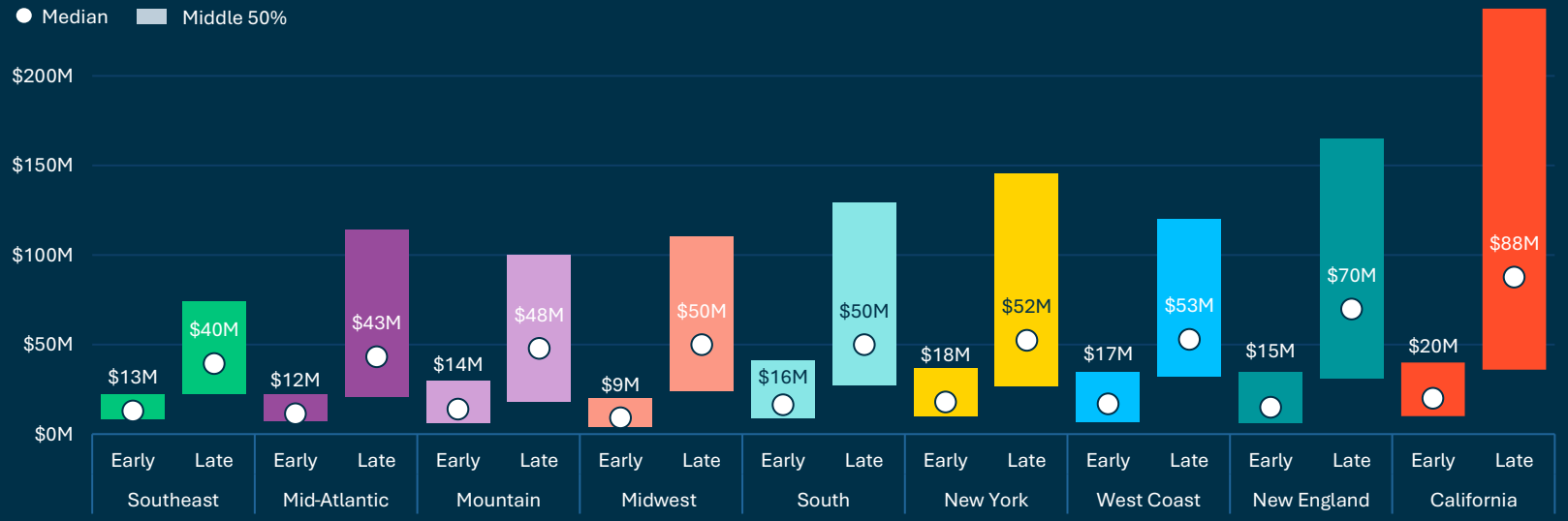
Capital Invested H1 2023[1]



H1 2023 Median Early-Stage Valuations Percent Change Since 2020



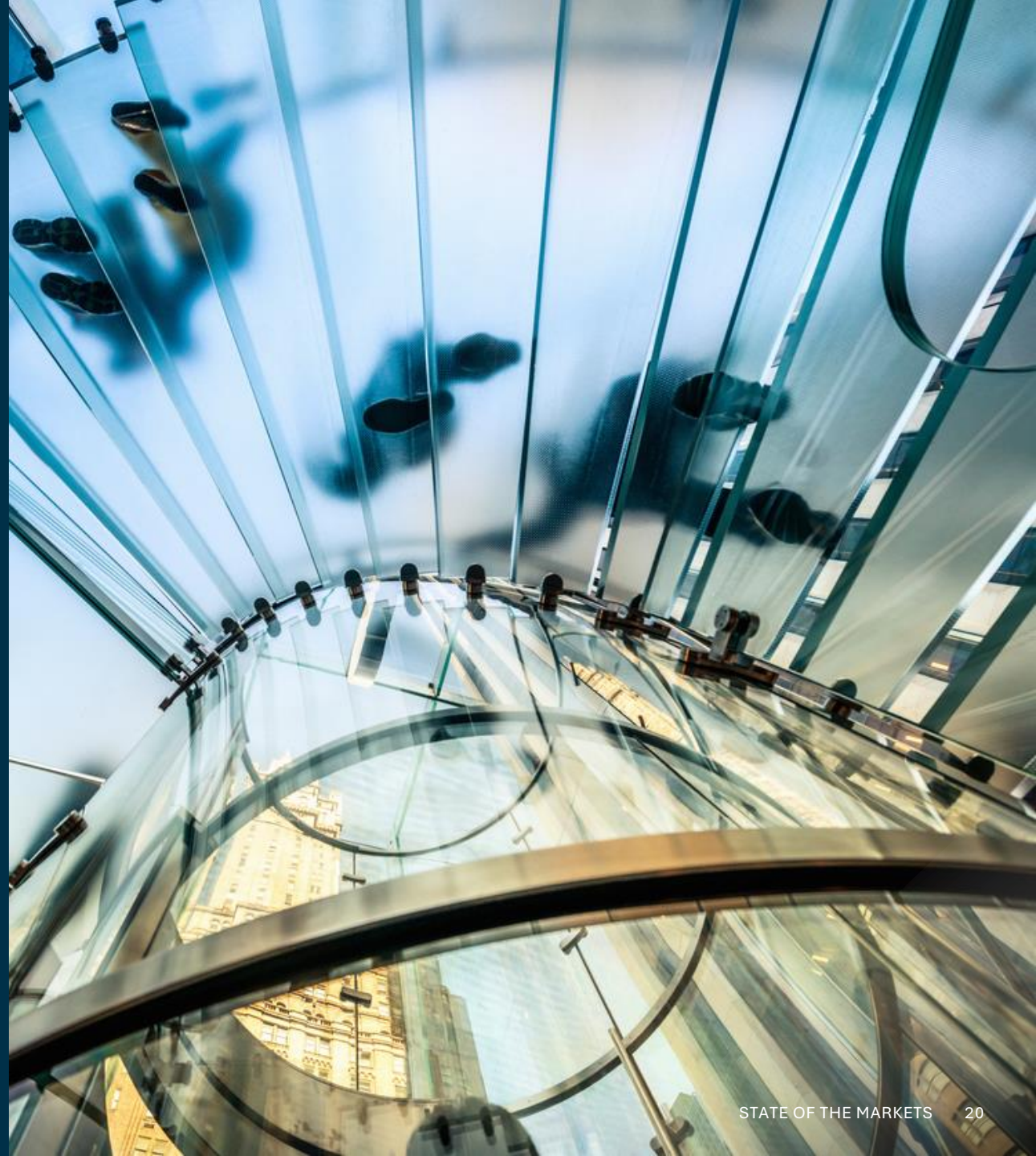
H1 2023 Pre-Money Valuations By Stage and Region



Notes: 1) West (turquoise blue) includes Alaska and Hawaii (not pictured).
Source: PitchBook, Austin Chamber of Commerce, McKinsey: *The Impact of the Pandemic on Real Estate* and SVB analysis.

Startup Benchmarks

Bottom Line Top of Mind



Metrics in the Red But Margins Inching Up

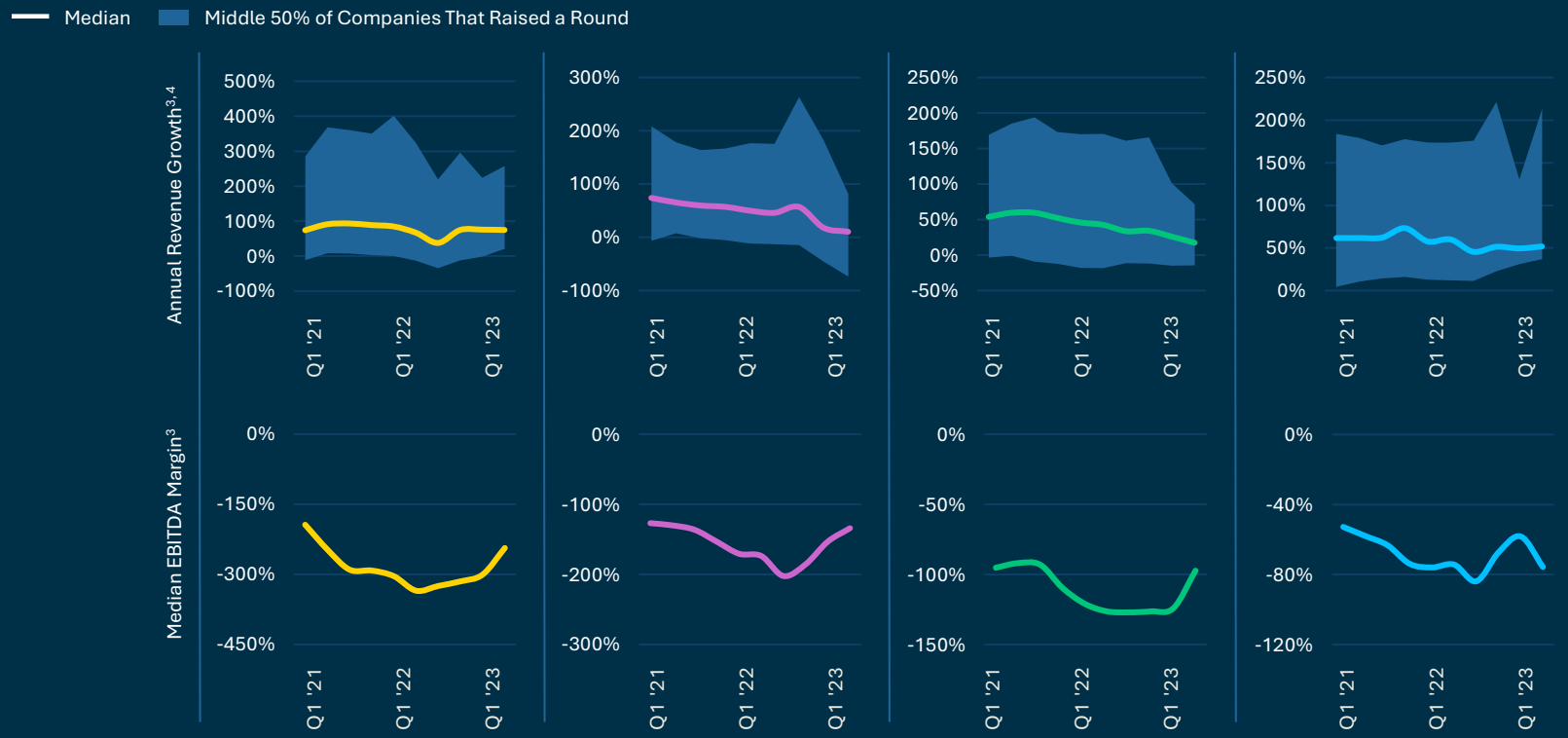
Valuations, deal size and investment levels are down across all stages. These declines have been steepest at the late-stage, mirroring trends in the public markets — 89% of VC-backed tech companies that went public in 2021 are below their IPO market caps.[1] This decline in tech IPO performance could be indicative of how late-stage companies would perform if they were to exit. That said, reported valuations are only half the story; higher liquidation preferences and investor-friendly terms are par for the course across all stages.

Not only are the deal metrics different today, but operating metrics for companies raising capital are also different. **As companies focus on profitability and reduce burn, their revenue growth has fallen, which is compounded by a tougher macro environment.** As companies are growing slower, the valuation calculus changes. Slower growth means higher forward revenue multiples and weaker forecasts used to inform company valuations. In our portfolio, we have seen many companies revise their forecasts — sometimes multiple times.

No longer will growth alone support high valuations if companies don't have a clear path to profitability. While revenue growth is lower, reductions to burn are showing up in higher EBITDA margins. EBITDA margins for companies successfully raising capital have increased substantially. For example, the median EBITDA margins for companies that raised a Series A have increased 71 pps since Q4 2022. Ultimately, we believe the focus on profitability will create stronger, leaner companies capable of sustainable growth and stronger long-term performance.

US VC-Backed Tech Companies: Deal Benchmarking by Deal Date and Stage[2]

	Series A	Series B	Series C	Series D+
Median Pre-Money Valuation	$32M ▼ -21% YoY	$80M ▼ -33% YoY	$155M ▼ -39% YoY	$309M ▼ -60% YoY
Median Deal Size	$11M ▼ -13% YoY	$25M ▼ -17% YoY	$39M ▼ -21% YoY	$54M ▼ -53% YoY
Annualized Investment	$23B ▼ -42% YoY	$26B ▼ -38% YoY	$17B ▼ -45% YoY	$27B ▼ -46% YoY



Notes:1) Data as of 7/20/2023. 2) Data as of 6/30/2023. 3) Calculated using trailing 4 quarters to remove noise from data.
4) Annual revenue growth is calculated using quarter-over-quarter (QoQ) data and annualizing the growth rate based on runrate.
Source: SVB proprietary data, PitchBook and SVB analysis.

Slowly Running Out of Runway

In aggregate, the US innovation economy is doing well in terms of runway. Only 46% of companies will have to raise in the next 12 months, which is below historical values typically in the mid-50% range. The troublesome trend is that runway continues to fall across the board for all stages and sectors, as capital coming in through investment and revenue lags capital going out through burn.

Overall, the early-stage is far more vulnerable than the late-stage from a runway perspective. The typical company with less than $10M in revenue now has less than a year of runway. **Anecdotally, a lot of the companies in this cohort that do not have technical differentiators may have the hardest time raising.** Some consumer internet companies, for example, differentiate with their business model and brand — not their technical capabilities. It is in these areas where we expect the most difficult fundraises and potentially the highest percentage of companies forced to shut their doors as runway runs out. In contrast, companies with technical intellectual property (IP), such as frontier tech, have a better case to make for an M&A. For example, Spark AI, a seed-stage AI company in the industrial space, was acquired by Deere in March of this year.

However, it's worth noting that despite a 61% decline in the level of US VC investment since 2021, tech company runway across the board has only fallen 23% since its peak in Q4 2021. This is in large part thanks to significant cost-cutting by companies as they focus on profitability and extending runway rather than revenue growth.

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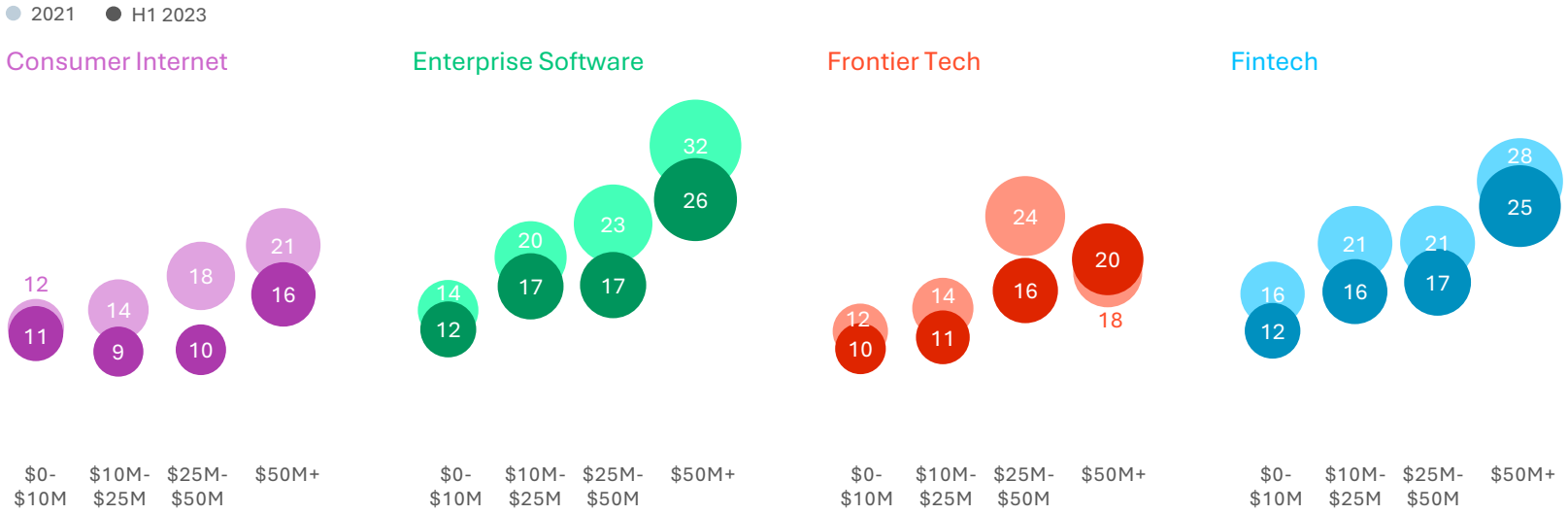
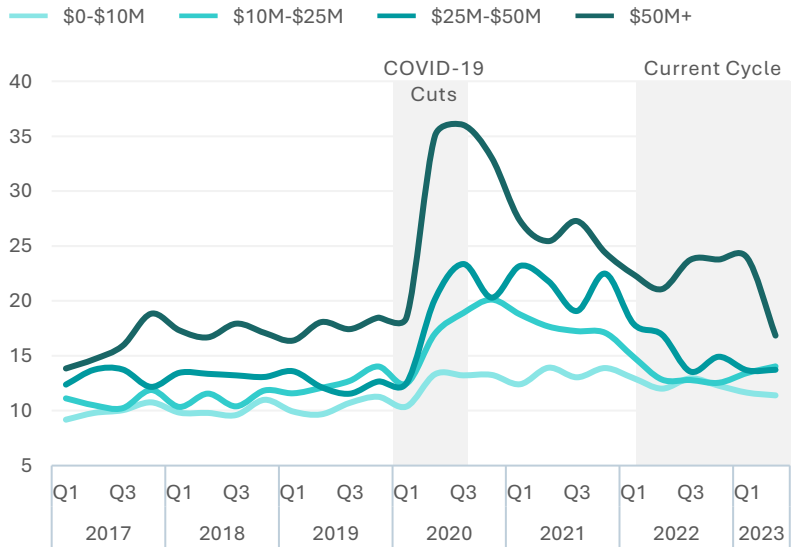
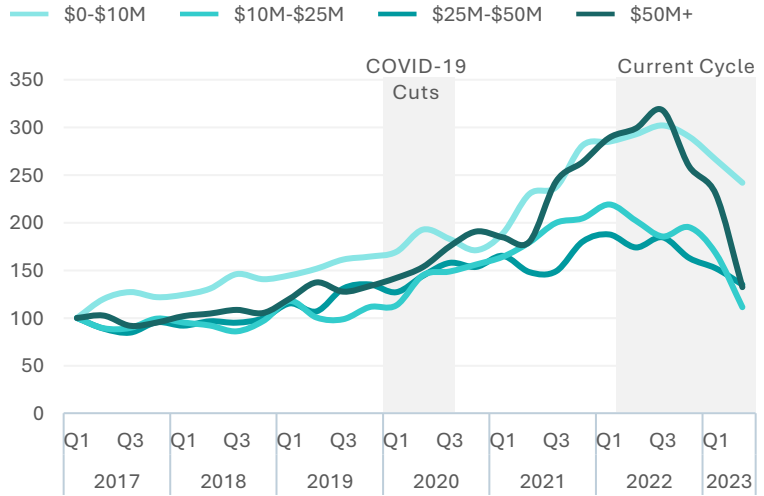
Median Months of Cash Runway by Revenue Band and Sector: US Tech[1]



Runway by Revenue Band: US Tech[1]



Cash and Cash Equivalents by Revenue Band Indexed to 100: US Tech[1]



Notes: 1) Annual revenue calculated using the revenue run rate for the statement period.
Source: SVB proprietary data, PitchBook and SVB analysis.

Bottom Line is Top of Mind

As more companies face depleting cash reserves and few options to extend runway, founders are cutting every expense they can bear. While this trend began in 2022 as VC investment began to fall, the gains in profitability and efficiency continue to materialize. Operating margins for US VC-backed tech companies peaked in Q3 of 2020 after companies made significant cuts during COVID-19. At the same time, tech adoption accelerated. If the current trend of improving profitability continues, we can expect operating margins to surpass their 2020 peak by the end of the year.

That said, VC-backed tech companies remain highly unprofitable by the nature of the VC model, which depends on high growth and low profitability to achieve scale. As of H1 2023, our proprietary data suggest only 7% of US VC-backed tech companies are profitable and 13% of unicorns.

The efficiency of unprofitable companies has increased markedly as measured by burn multiples. For example, the typical company in 2022 burned $2.10 to gain one dollar in new revenue. As of Q2 2023, that number is now $1.60 to gain one dollar of new revenue. That said, those companies that have successfully raised since 2022 are less efficient compared to those that didn't raise. Perhaps this is indicative of the fact that they are less worried about runway than those that haven't raised.

Complicating companies' journey to profitability is the fact that many late-stage enterprise companies have struggled with customer retention, as many customers examine the tools and services they use and seek to reduce costs. Generally speaking, enterprise companies focused on core-business functions, such as cybersecurity or accounting, have performed better than those required to perform non-essential tasks.

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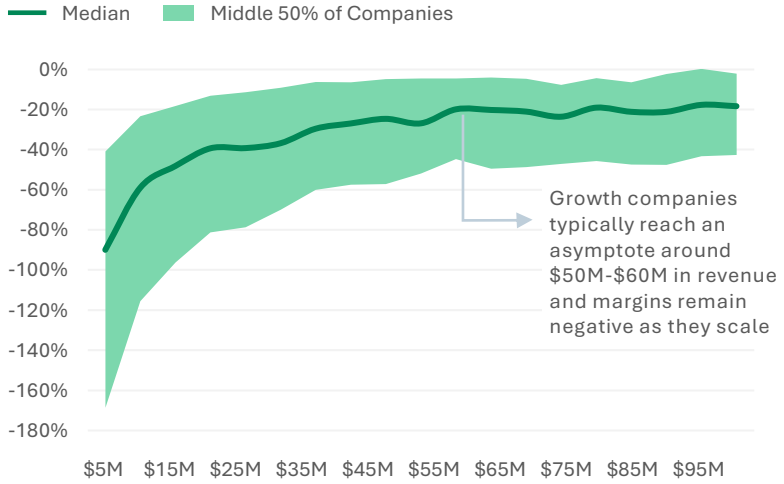
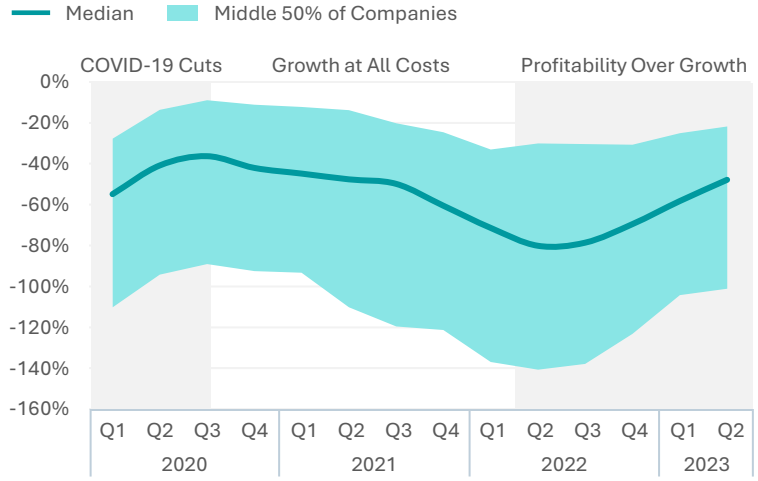
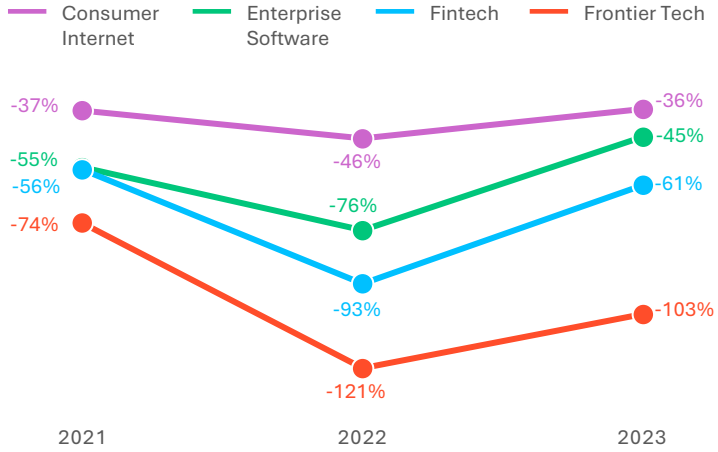
US VC-Backed Tech Historical EBITDA Margin by Revenue[1]



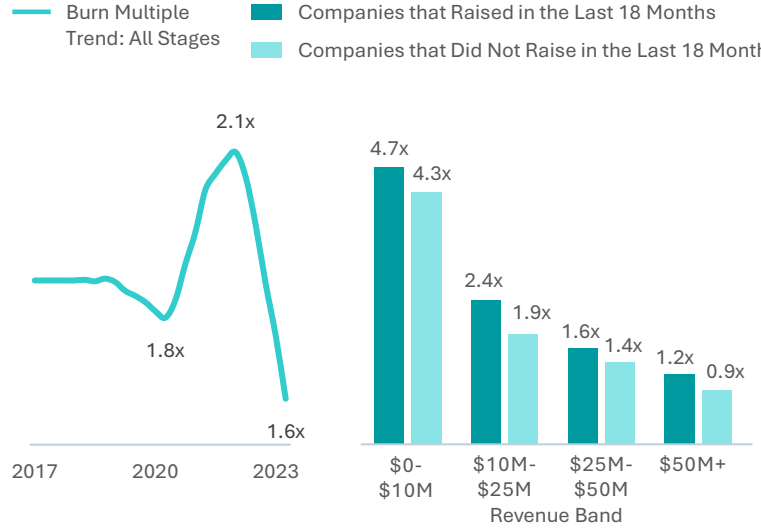
EBITDA Margin: US VC-Backed Tech with $10M-$25M in Annual Revenue



EBITDA Margin by Sector: US VC-Backed Tech with $10M-$25M in Annual Revenue[2]



Median Burn Multiple: US VC-Backed Tech



Notes: 1) Trajectory assessed using historical data between Q1 2017 and Q2 2023 to reflect typical path of US tech companies. 2) Data for 2023 as of H1.

Source: SVB proprietary data and SVB analysis.

Cutting Straight to the Point

One of the primary ways companies have sought to improve profitability and extend runway is through layoffs. While companies are focusing on other areas such as travel and expense (T&E) and reducing spend on SaaS, headcount is among the largest line items for many startups, making it a core focus for cuts. Not only that, but many companies overhired in the high growth environment of 2020-2021, and now face slower than expected growth and excess headcount.

In one signal of the trend, the online job site ZipRecruiter cut one-fifth of its staff in June. The company, which primarily serves the tech industry, experienced a 19% drop in YoY revenue in Q1 and a 29% drop in Q2. ZipRecruiter said cuts were necessary to "focus on profitability during times of decreased demand." They aren't alone. With 68% of US VC-backed tech companies reducing net burn, personnel cuts have spiked in H1 2023, with first-wave cuts giving way to second, third and fourth waves of cuts. Our analysis showed that cuts are occurring across all stages and sectors of the tech industry, though large layoffs at public companies account for the majority of disclosed job losses.

SVB proprietary data demonstrates that cuts do make an impact on the bottom line. **Companies that made layoffs in H1 2023 had a 20% lower burn rate compared to companies that didn't make layoffs.** That happens to be the average size of a force reduction for tech layoffs announced over the last 12 months. All of these layoffs may be keeping the lights on. **While US bankruptcies have spiked 68% this year compared to last, VC-backed tech bankruptcies are flat to last year's rate, according to PitchBook data.**

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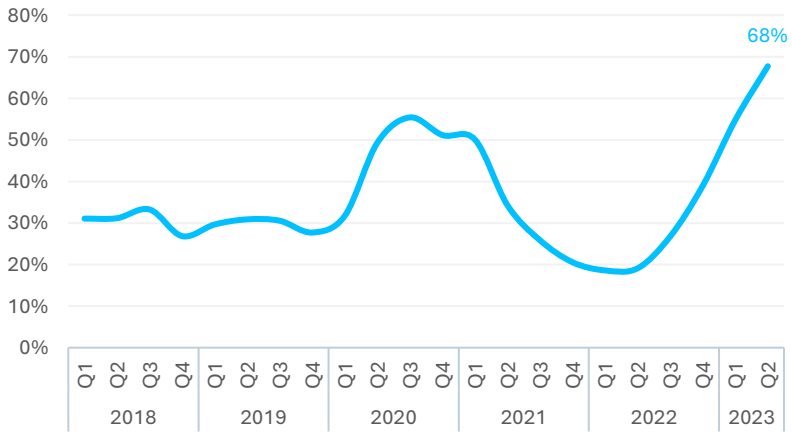
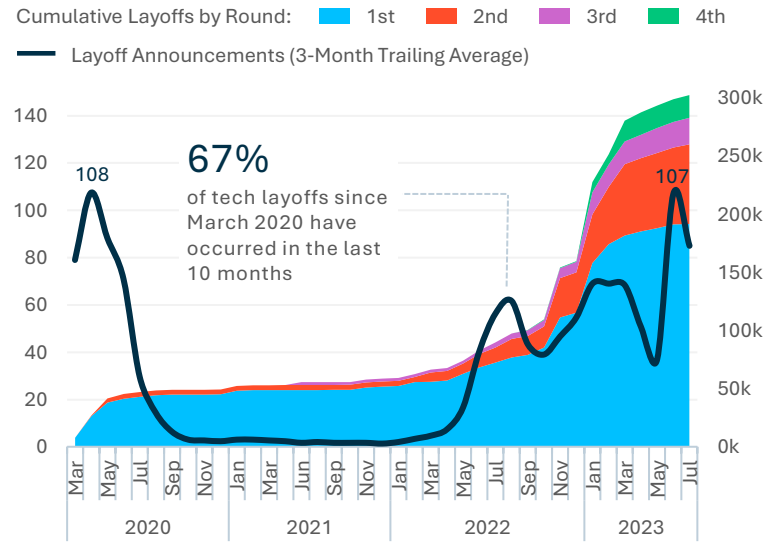
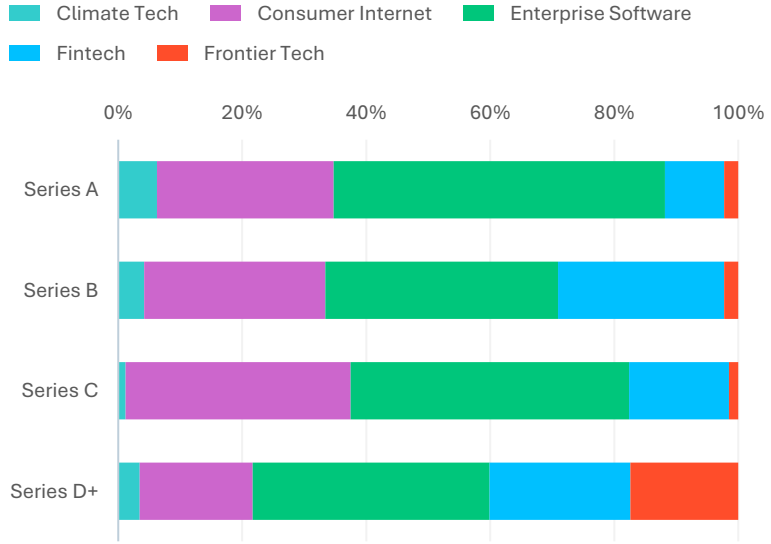
Percentage of US VC-Backed Tech Companies with Decreasing Net Burn YoY



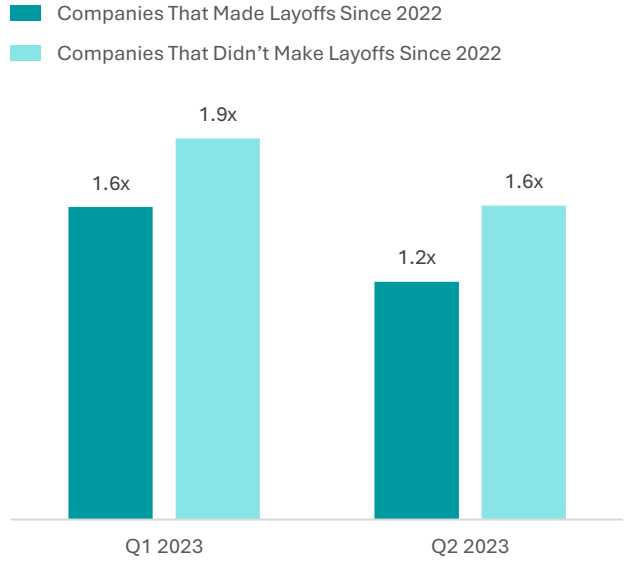
US Tech Layoffs by Round of Job Cuts[1]



US Tech Layoffs by Sector and VC Round



US VC-Backed Tech Burn Multiples



Notes: 1) VC-backed or formerly VC-backed companies reporting layoffs and number of jobs cut.
Source: Layoffs.fyi, Reuters, PitchBook, SVB proprietary data and SVB analysis.

Exits

Looking for Soft Landings

I(P)Owe You! Startups Continue to Push Exit

If you listen closely, you can hear the creaks of the IPO window slowly starting to open. This is on the back of public market indices steadily remaining in positive territory, despite most calling for a muted year. The S&P 500 climbed 25% off its 2022 low and is up 17% year-to-date (YTD).[1] Another glimmer of hope is the recent IPO of restaurant chain CAVA. While not a traditional tech IPO, its nearly 100% first day pop and 250%+ return above its last private valuation provides investors confidence that they can deliver a successful IPO in current market conditions.[1]

However, private investors have recently shifted their view on how long they plan to hold portfolio companies that recently had a public exit before selling their position. **In fact, nearly one-fifth of 2021 US VC-backed tech IPOs' outstanding shares are held by private investors — who missed their opportunity to liquidate at market peak and provide distributions to LPs.** This puts emphasis on long-term public market performance and a broader economic environment.

As it stands now, it's likely most private investors will continue to hold on to their recently exited positions, given 64% of US VC-backed tech IPOs since 2017 are below their IPO market cap.[1, 2] Even compared to measures like last private valuation (LPV), over one-third of that same cohort remain below their LPV, with 43% of the 2021 cohort being below that watermark.[1,2] Furthermore, the complicated cap tables of late-stage private companies pose challenges for companies who need to raise. **Many exit-ready companies may prefer taking a down-round IPO rather than a private market down round.**

Having a long-term view on the public markets may provide a helpful perspective for investors. Some of the most notable tech companies have gone public during downturns or volatile market periods, indicating it's not just about how you perform out of the gate, but rather how you sustain that success over the long term.

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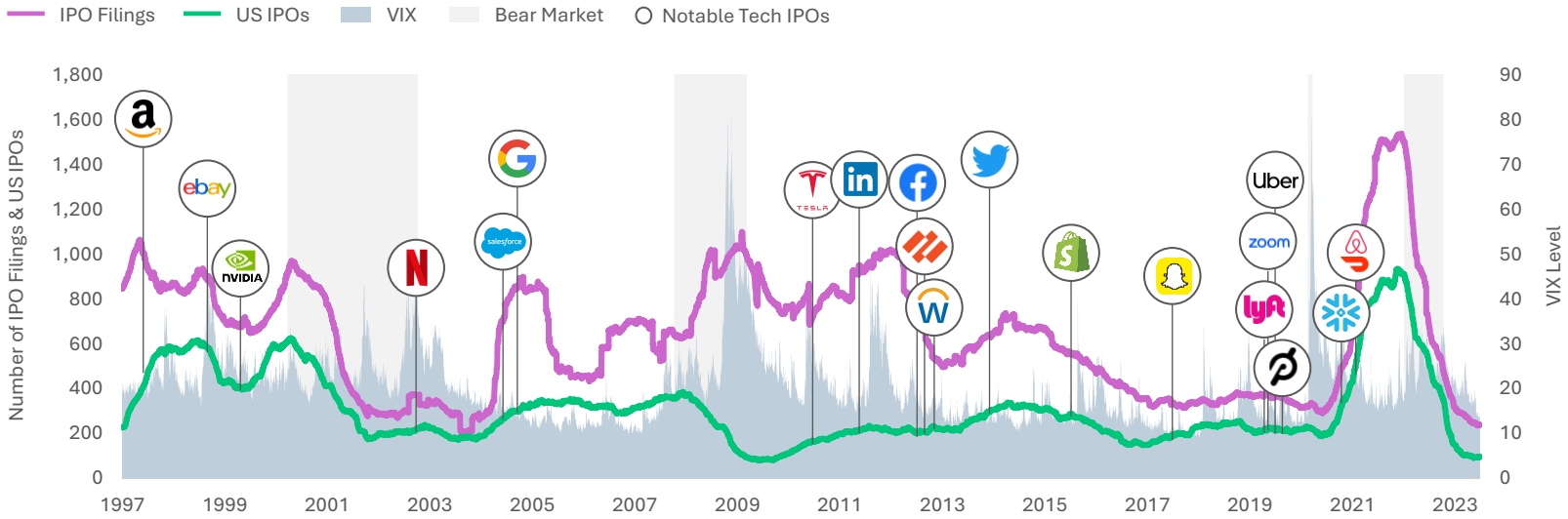
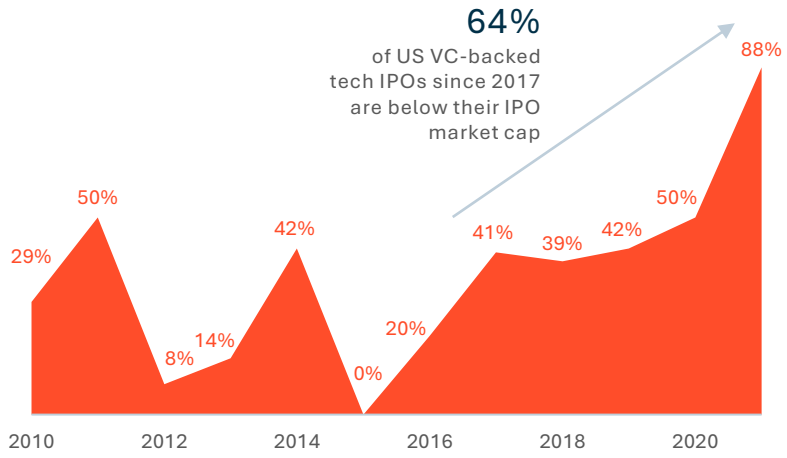
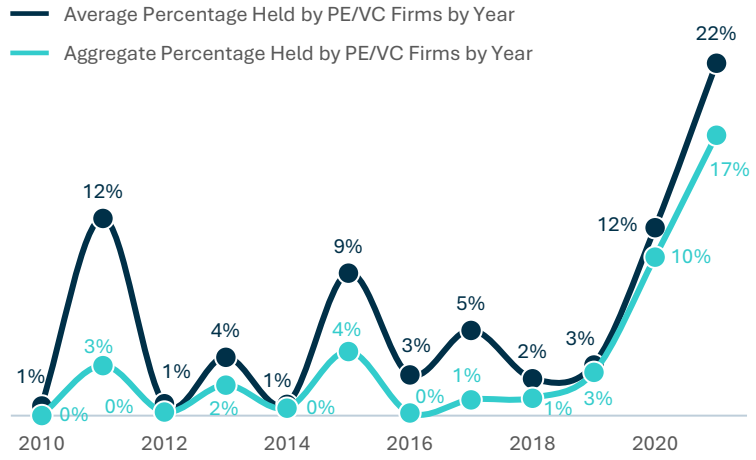
Trailing Twelve Month US IPOs and IPO Filings by Year[1]



Share of US VC-Backed Tech IPO's Below IPO Market Cap by Year[1]



Percentage of Outstanding Shares of US VC-Backed Tech IPOs Held by PE/VC Firms[3]



Notes: 1) As of 8/10/2023. 2) Tech defined using SVB's proprietary taxonomy. 3) Data as of latest company filing.
Source: PitchBook, S&P Market Intelligence, SEC EDGAR and SVB analysis.

Acquisitions Getting Preferential Treatment

As public exits remain subdued, acquisitions continue to be the preferred exit route — even if not by choice. As 2023's exit market mirrors last year, a greater share of exits are M&A deals. Despite this, M&A deals are getting done at a slower clip, with US VC-backed tech M&A on track to be 20% lower than last year and the lowest total since 2013.[1] As uncertainty still remains, companies likely look for more clarity before moving forward with a deal. Plus, interest rates at a 22-year high add additional hurdles to dealmaking by increasing the cost of acquisition financing and lowering equity valuations.

These acquisitions are skewing smaller, with 21% of US VC-backed tech M&A coming from sub-$500M deals — nearly double last year's share and the highest since 2000.[1] Smaller deals tend to occur during periods of uncertainty as larger companies push pause on larger, transformational deals until more clarity comes to light. These challenges will pressure potential sellers and add to the likelihood of more distressed activity. Carve-outs and divestitures will likely become more prominent, as companies shore up balance sheets.

As deals are made, similar to down rounds, fewer companies are reporting their exit price as they go for the "soft landing" route as to avoid a perceived negative outcome. If capital doesn't continue to flow into the venture ecosystem, more companies will become "troubled" and have to look to acquirers for rescue. Our proprietary index on troubled startups has grown 30% since 2019, recently passing levels last seen at the onset of the pandemic in 2020.[1]

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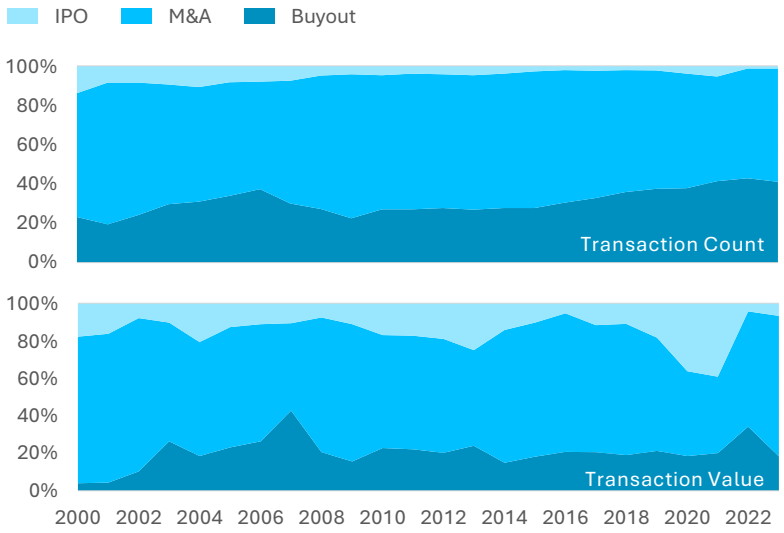
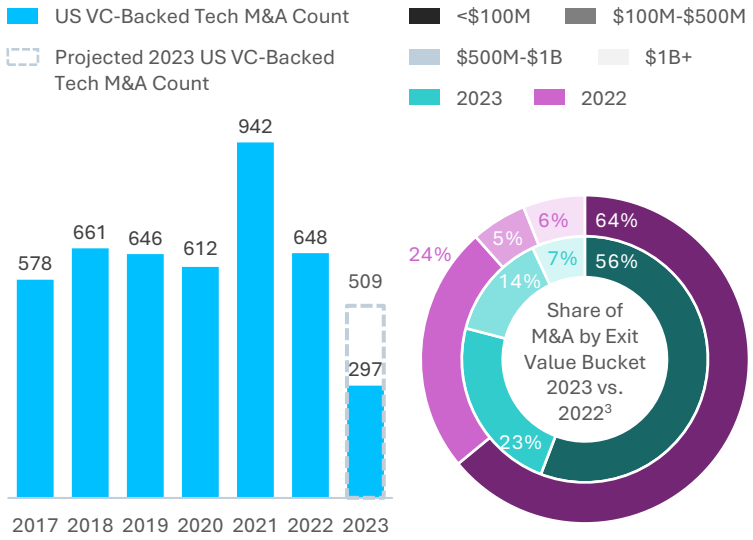
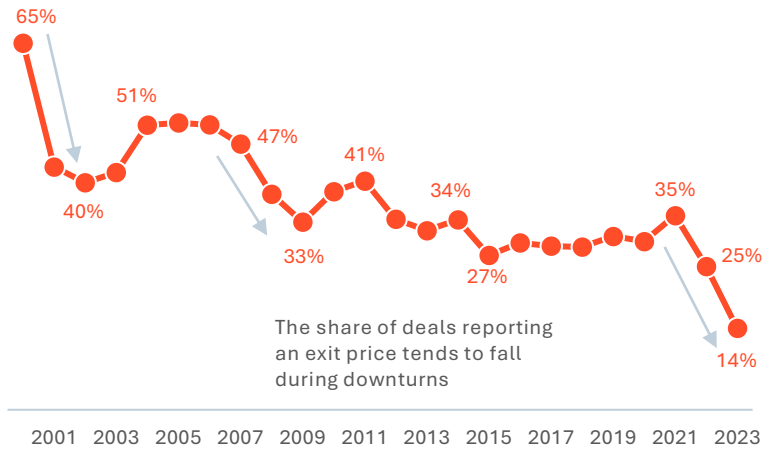
Share of Startup Exits by Exit Route[1]



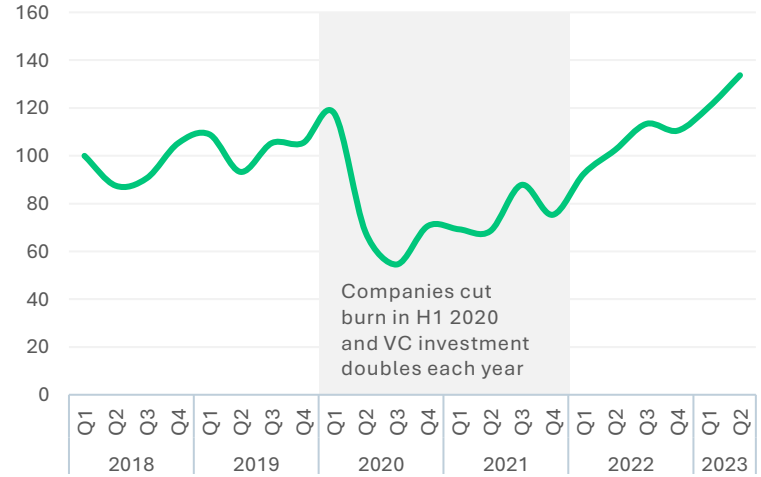
US VC-Backed Tech M&A by Year[1]



Share of US VC-Backed Tech M&A with Reported Exit Price[1]



Index of Troubled US VC-Backed Tech Companies[2]



Notes: 1) As of 7/31/2023. 2) Troubled companies defined as those with less than 12 months of runway and have a combined EBITDA and revenue growth rate less than predetermined buckets based on stage. These buckets were determined using the long-term median value by stage. 3) May not sum to 100 due to rounding.

Source: PitchBook, S&P Market Intelligence, SVB proprietary data and SVB analysis.

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Marc Cadieux is president of Silicon Valley Bank's commercial banking business where he focuses on the needs of innovation companies at all stages of development, including the investors who back them.

Marc's career at Silicon Valley Bank, a division of First Citizens Bank, began in 1992. In the three decades since, he has held a variety of top credit and sales roles serving some of the world's most innovative companies. Most recently, he served as chief credit officer, appointed in 2013, and oversaw credit policy and process, credit underwriting, loan approval and portfolio management activities. He is a strong advocate of bank initiatives to expand opportunities for those who are underrepresented in the innovation economy. He serves as an executive sponsor for the company's employee resource group focused on women employees.

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Mark Gallagher is the co-head of the investor coverage practice. He and his team provide tailored services, industry insights and strategic guidance to top investors in the innovation economy.

Mark has served as a financial partner to venture capital firms and technology and life science companies for the majority of his career. During his 22-year tenure with SVB, he has been involved in a number of strategic projects and initiatives, most recently leading the corporate venture capital practice. He's held numerous leadership roles including head of the Northeast technology banking practice, head of business development in New England and several years running the Northeast life science practice.

A supporter and champion of the New England technology community, Mark serves as a board member for BUILD Boston and was formerly on the board of overseers for The Mass Technology Leadership Council (MTLC).

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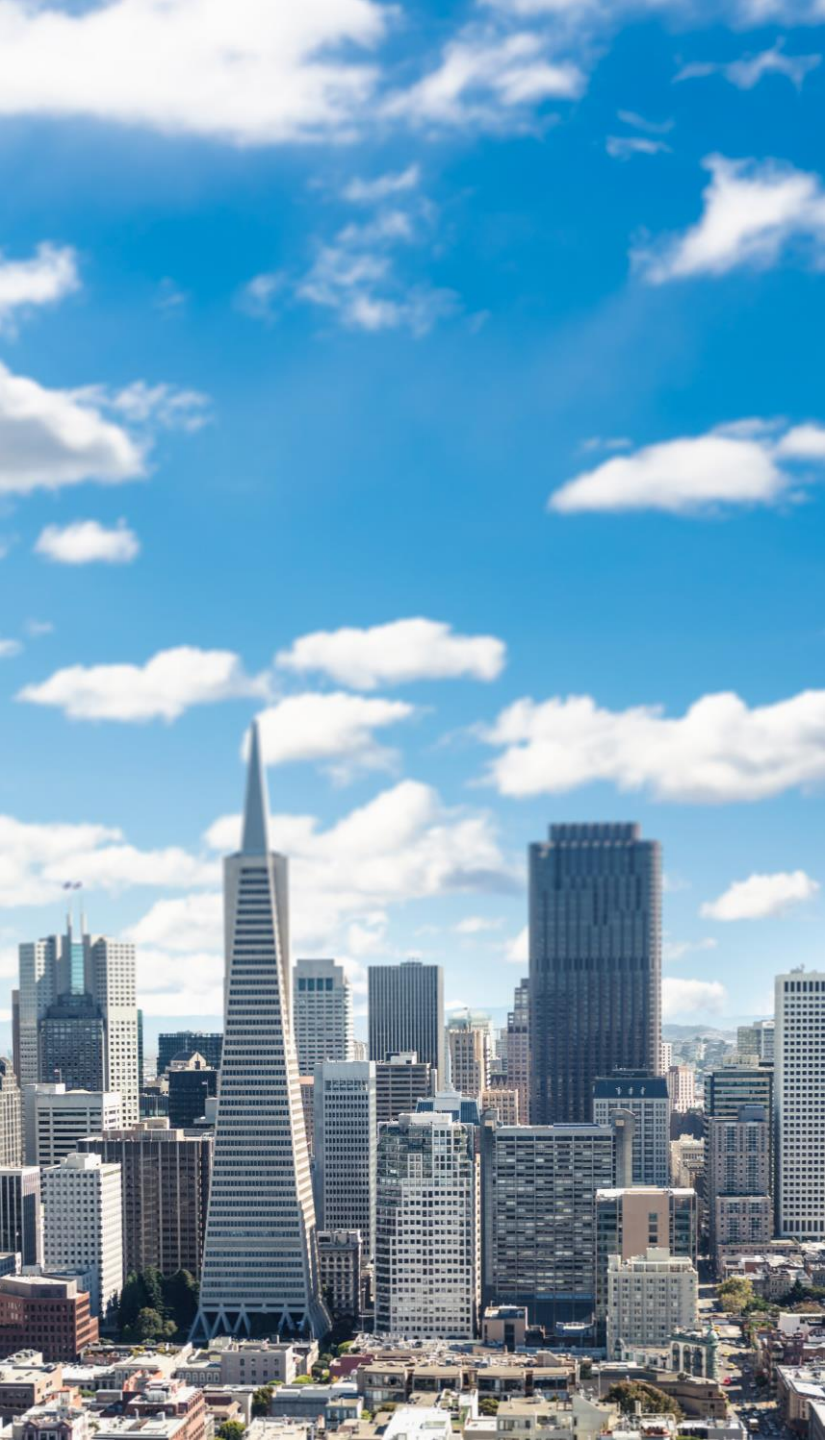

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