

The logo consists of the letters 'svb' in white, lowercase, sans-serif font, set against a blue square background.

svb



Silicon Valley Bank

State of the Markets

**Inside Views on the Health and Productivity
of the Global Innovation Economy**

First Quarter 2019



State of the Markets: First Quarter 2019

As Good as it Gets?

With all the dire headlines, let's not forget the epic run that venture has been on. We're now approaching a full decade of compounding tailwinds, with low rates and abundant capital bringing in risk-incentivized asset managers from around the globe. We've only just begun harvesting this decade of innovation investing.

Yet some investors are left pondering: Is this as good as it gets? For starters, it appears we have entered into a new era of higher volatility in public markets. Trade turmoil, anti-globalization rhetoric and fears of a slowing global economy are also giving investors pause. And the US is no longer alone in shaping the future of technology or regulating its changing landscape.

But much of what got us here will take us further. After a decade of support from private markets, the caliber of IPO candidates approaching 2019 is unmatched. The unicorns of today have raised nearly 4x the historical average for venture-backed tech companies at IPO. And new opportunities continue to open for entrepreneurs, as technology takes hold in long-unaffected industries.

So while acknowledging the risks coming into focus, we also know that change and disruption are inherent to the venture economy. It's what we do. No matter what the future holds, it's unlikely that innovation will be stifled.

Bob Blee
Head of Corporate Finance
Silicon Valley Bank

State of the Markets: First Quarter 2019

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SVB's Outlook for Venture in 2019

Records were broken in 2018 as both venture-backed companies and their investors stockpiled private capital. Will this be the year we finally see exits for many of the high-profile startups built during this decade of prosperity?

2018 Themes	Category	2019 Prediction
Deal counts at the early stages fell for another year from their 2015 highs. Capital remained robust, however; the median Seed deal size reached \$2M for the first time.	Early Stage	Without the robust pool of Seed-funded companies from years past, SVB anticipates another year of steady capital in the early stages, despite declining deal counts.
Records were shattered at the later stages, with nearly 200 venture deals of \$100M+ in the US in 2018. Median pre-money valuations for Series D+ crossed \$300M.	Late Stage	2018 could well be an anomaly for mega-round activity without renewed support from SoftBank or sovereign wealth funds. Expect valuations in aggregate to slide.
International startups took advantage of calm markets and strong valuations to list in 2018. The US, however, still has \$500B worth of unicorns on paper waiting to be realized.	Exits	If the marquee names in venture set a positive sentiment early, 2019 could represent the tipping point between demand for private and public capital at the late stage.
US venture firms secured more than \$50B in committed capital, the highest total since the dot-com era. 43% went to funds of \$1B+, like Sequoia's \$8B Global Growth III.	Fundraising	The velocity of US venture firms' fundraising efforts foreshadows another big year for capital commitments. 2019 should top \$40B, even with a decrease from 2018.
Corporates participated in one-in-six US VC deals in 2018, with new CVC groups forming in old guard industries facing disruption late in the economic cycle.	Corporates	If stock prices (and management teams) remain stable, CVCs will remain heavily involved. Look for nearly 1,000 tech venture deals to have corporate participation.

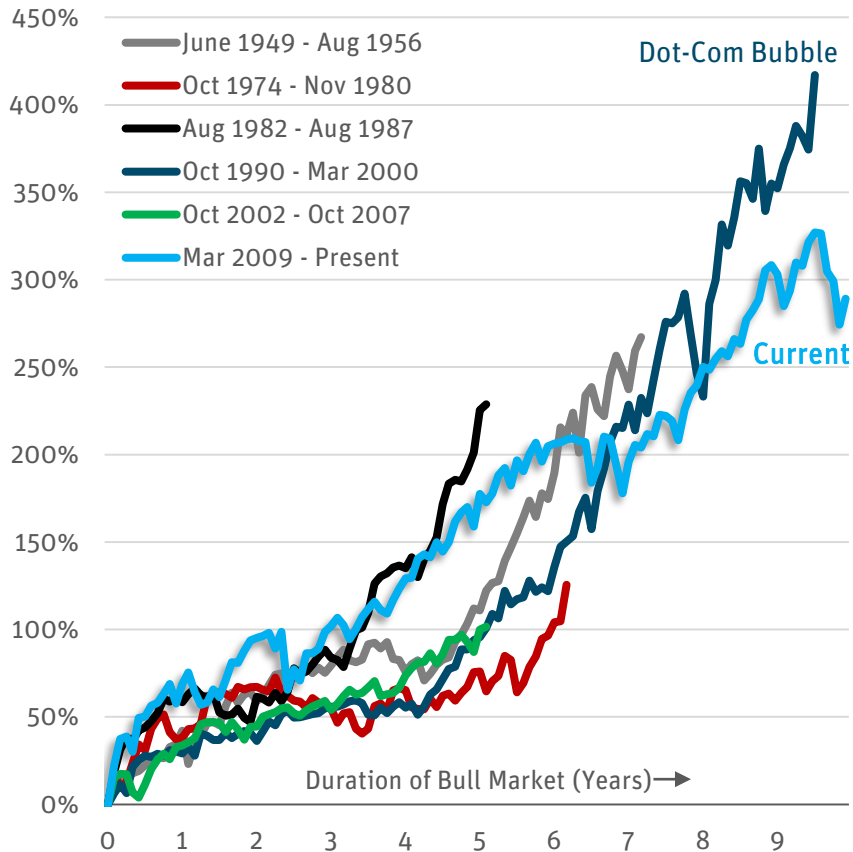


US Venture: A Decade of Capital

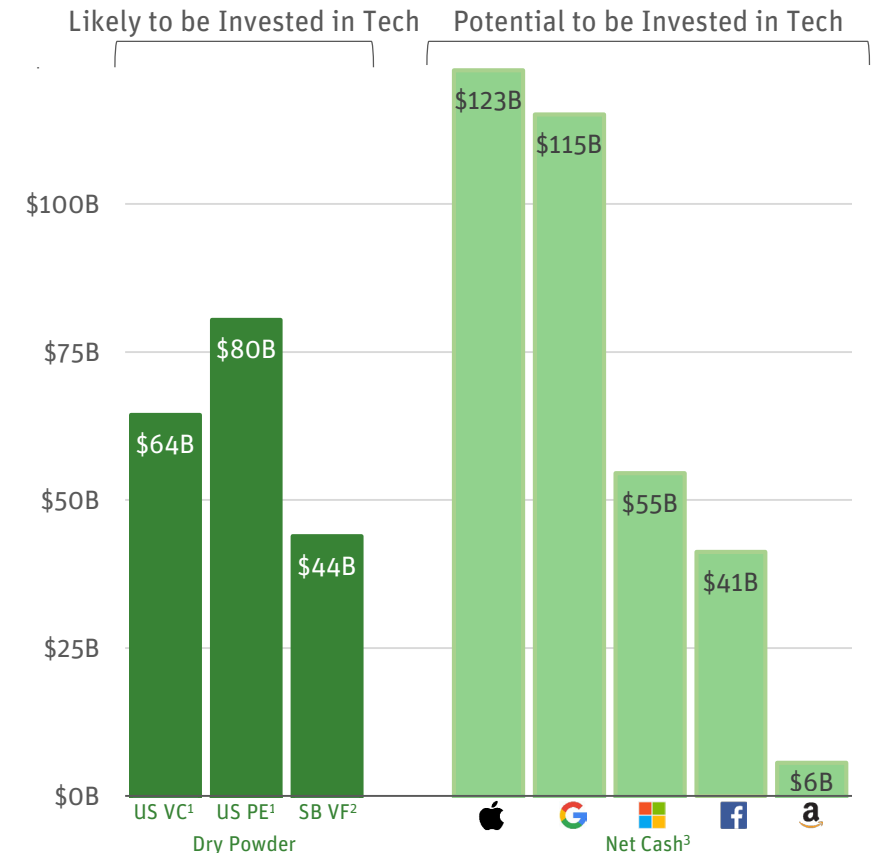
Sizeable Cash Piles as Bull Run Breaks Records

A decade of prosperity following the recovery from the Global Financial Crisis has left both traditional and emerging investors flush with cash for venture investing.

Longest S&P 500 Bull Market Runs Since 1945



Accumulated Net Cash: 12/31/2018

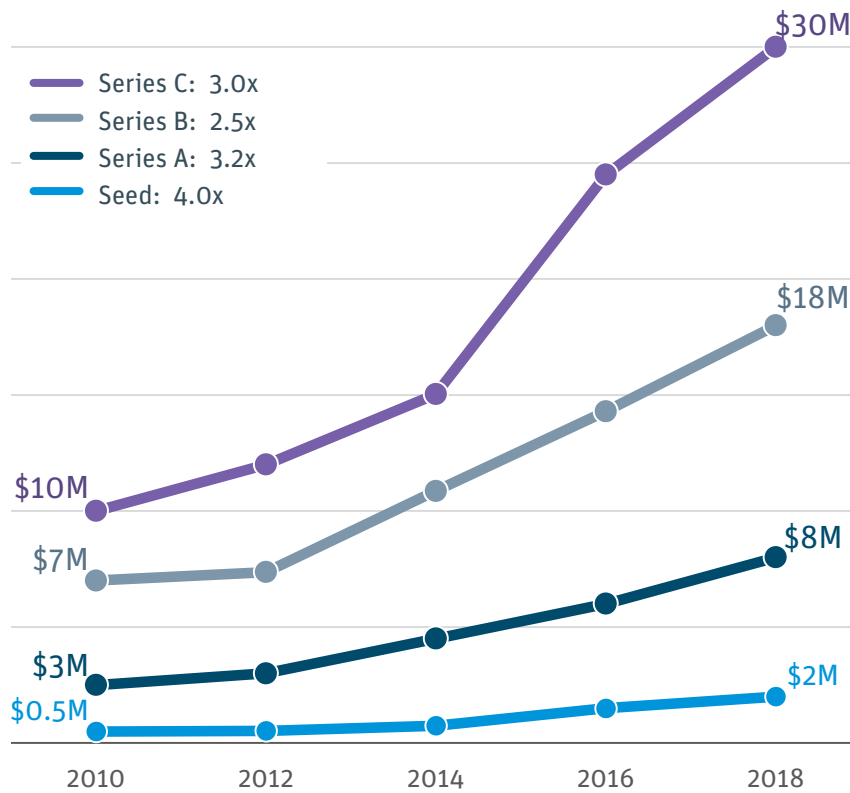


Notes: 1) VC and PE dry powder as of 3/31/2018 with SVB estimates for amount expected for tech investment. 2) Vision Fund dry powder remaining as of year-end. 3) Cash includes cash and ST and LT investments, net ST and LT debt.
Sources: LPL Research, Yahoo, S&P Capital IQ, PitchBook and SVB analysis.

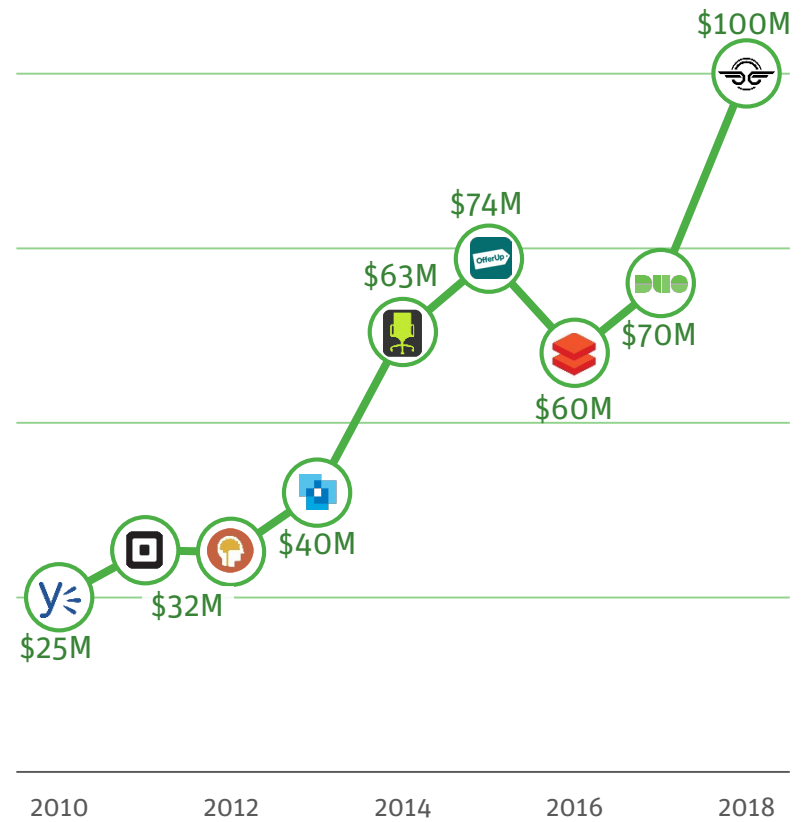
Startups Are Better Capitalized Than Ever

Thanks to risk-incentivized investors and their buckets of cash, capital raises at every stage have more than doubled since the beginning of this decade. In fact, in order to make the top 100 deals of 2018, a startup would need to have raised a nine-figure round.

US Tech Venture: Median Round Size by Series



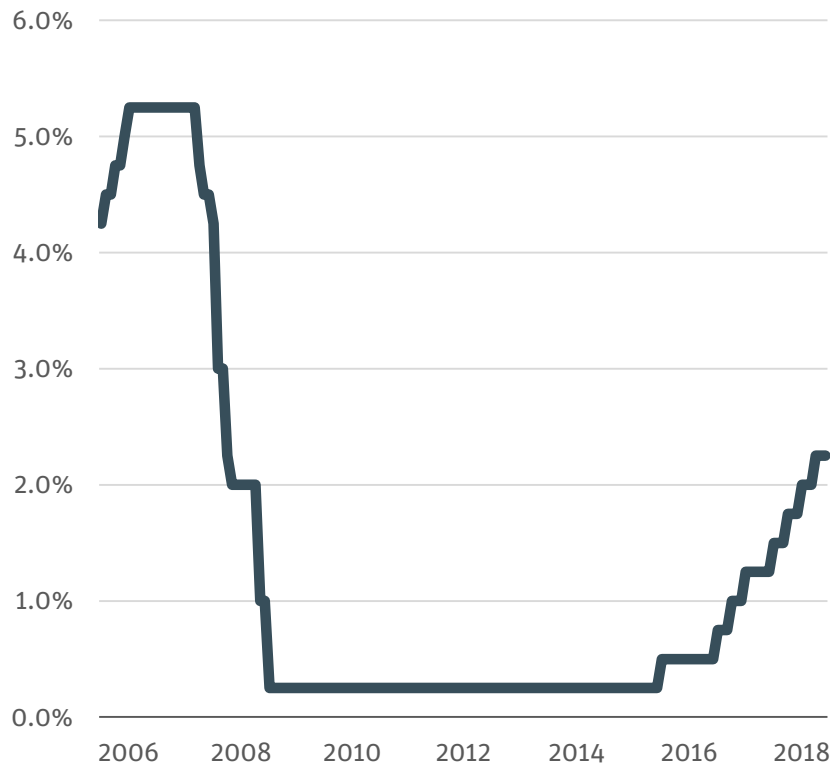
US Tech Venture: 100th Largest Deal



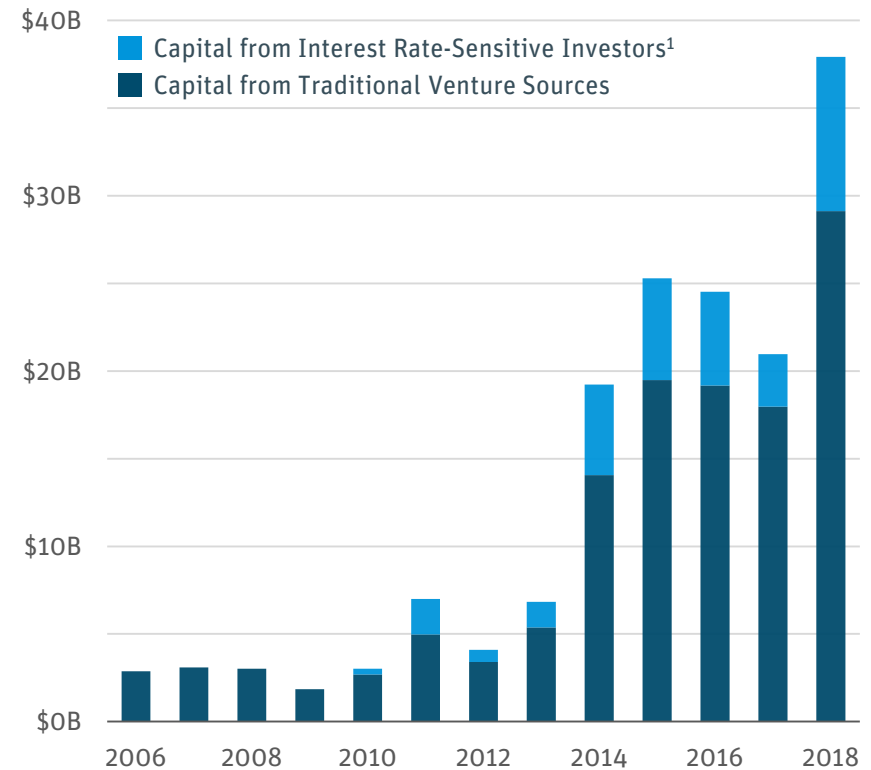
As Rates Rise, Tourist Investors May Pull Back

US interest rates have begun their measured climb back to historical norms, thus changing the risk-return profile for financial assets. If rate hikes continue, venture capital could see a pull back from rate-sensitive, late-stage investors like mutual funds, hedge funds, and sovereign wealth funds.

US Federal Funds: Target Rate



US Tech Venture: \$50M+ Rounds by Source of Capital



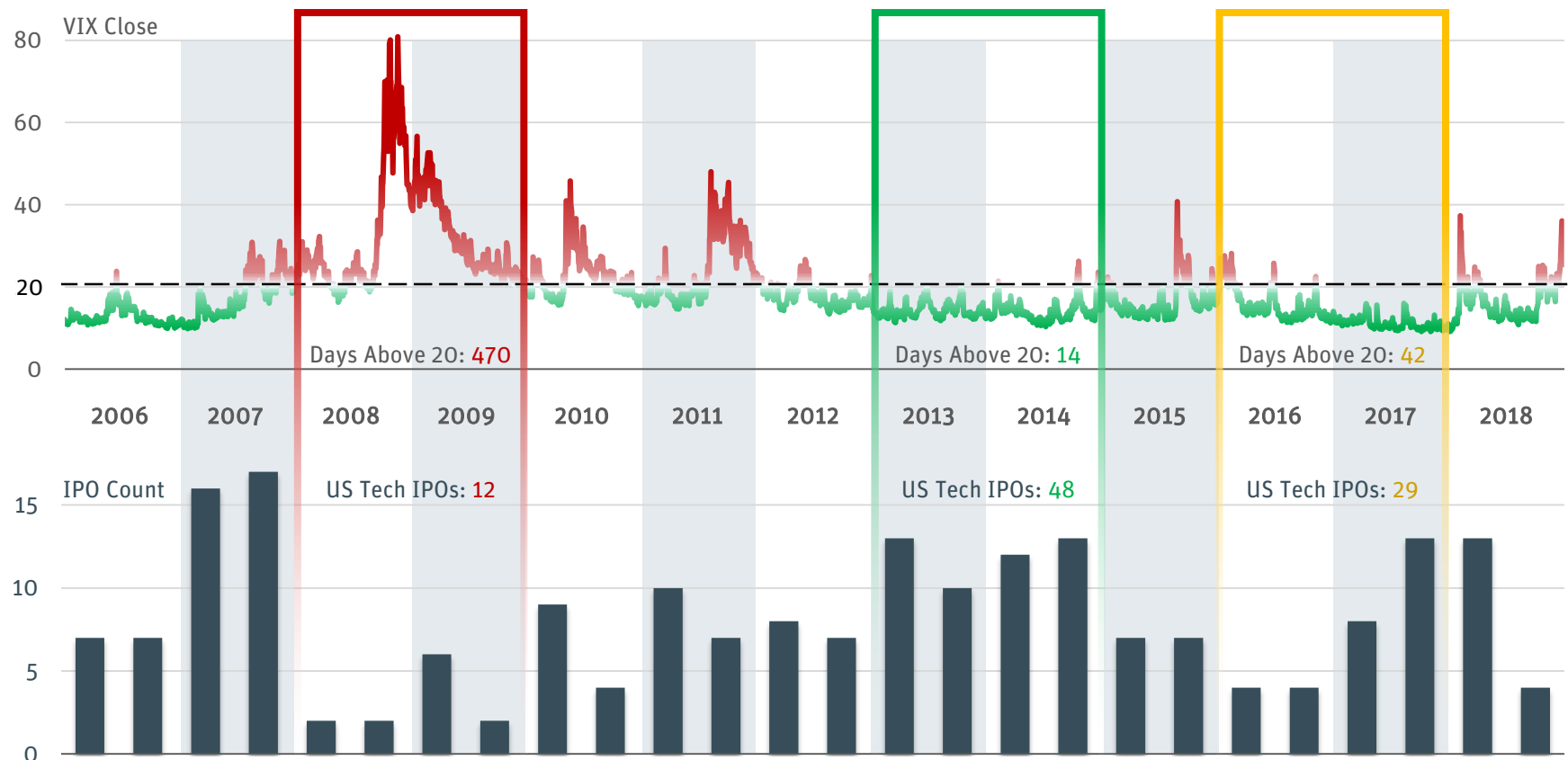


IPO Conditions: Ample Opportunities, Few Takers

Fewer IPOs Even in Calmer Conditions

Historically, high volatility has slowed the pace of venture-backed tech IPOs, which rely not only on first day pricing, but also on maintaining lofty valuations after a six-month lock-up. But with abundant private capital, 2016–2017 was an anomaly with relatively few IPOs despite calm markets.

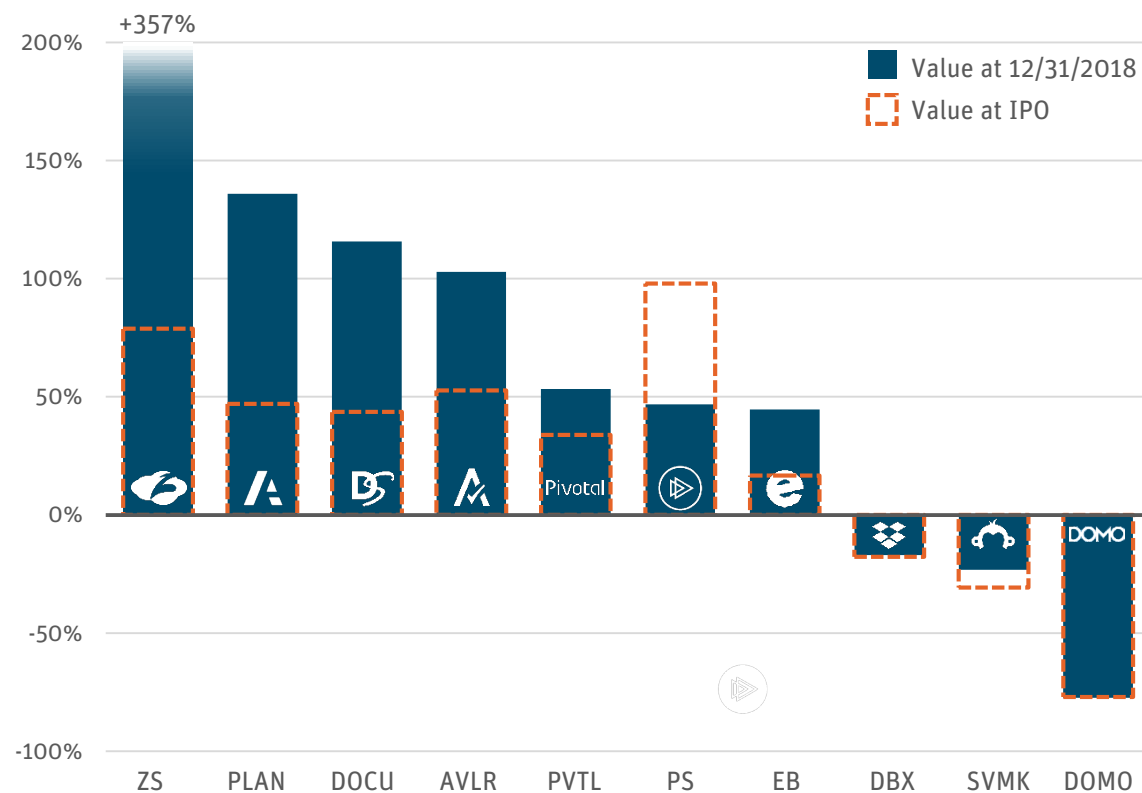
S&P 500 Volatility Index (Daily) vs. US Venture-Backed Tech IPOs (Semiannual): 2006–2018



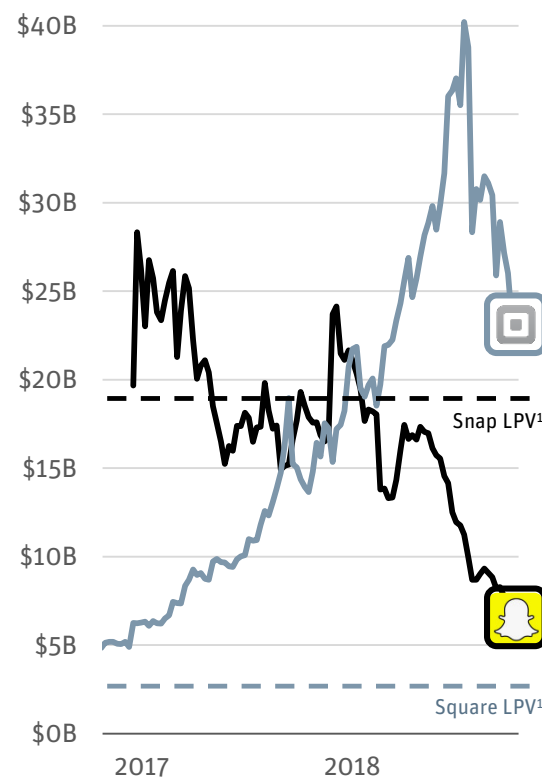
Public and Private Investors Seeing Eye-to-Eye

Public investors have largely agreed with private investors when it comes to unicorn valuations. Seven of the top ten billion-dollar debuts in 2018 priced and remained above their last private round. The IPO is just the beginning, as evidenced by Snap and Square's reversal over the last two years.

Valuation Relative to Last Private Valuation¹: 2018 US \$1B+ Tech IPOs



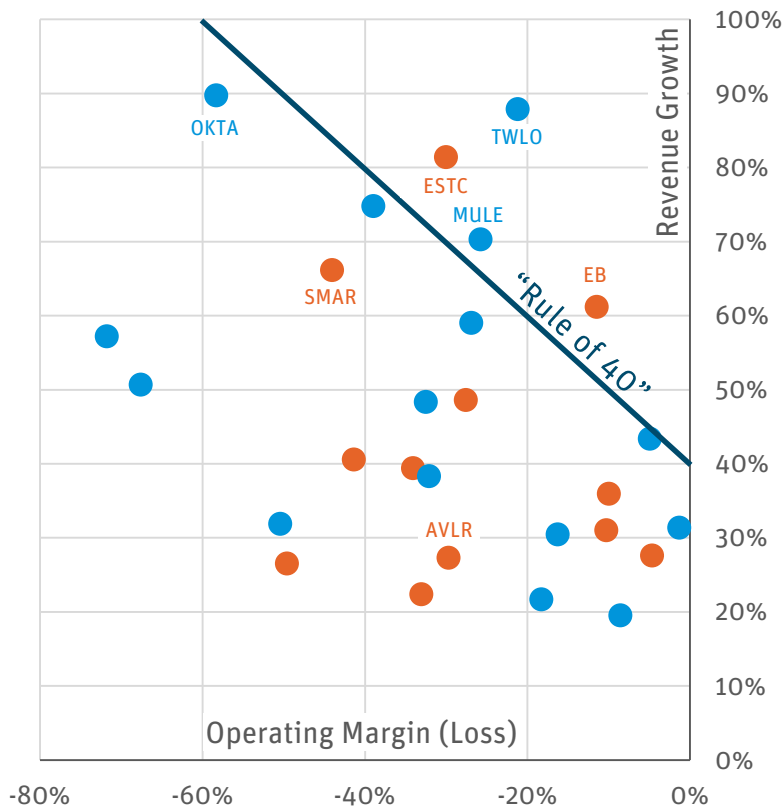
Market Cap: Square and Snap



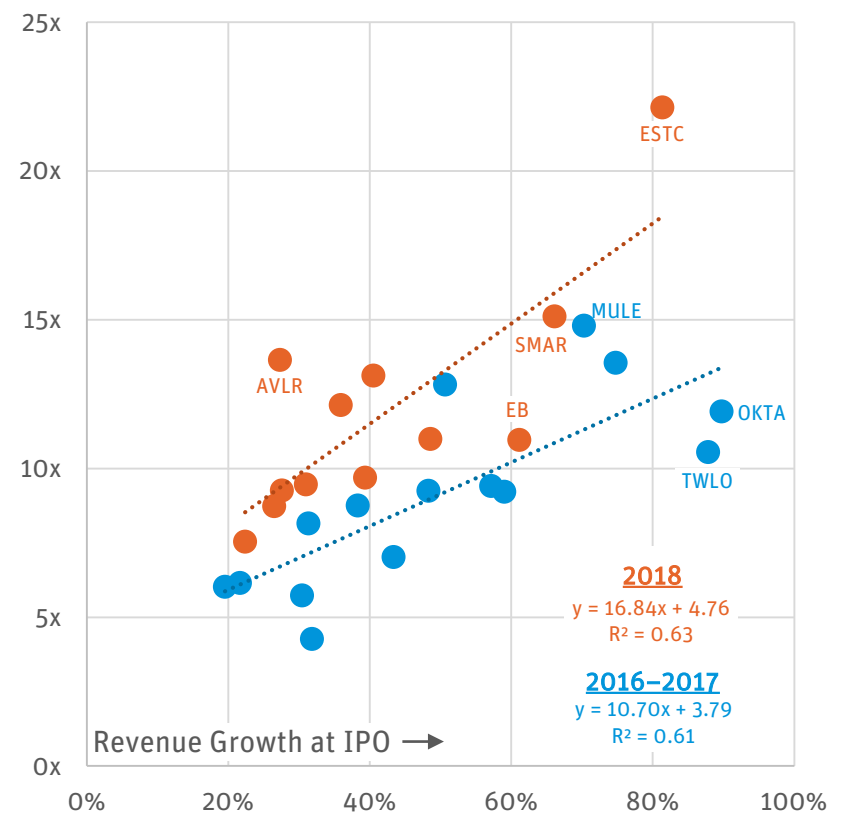
2018 SaaS Listings Price Above 2016–2017

Despite similarities to the IPO cohorts of earlier years – including negative operating margins and similar revenue growth – the class of 2018 software-as-a-service companies fetched superior valuations in an improved market environment. Multiples remained locked to topline growth.

“Rule of 40”¹ Metrics from 2016–2018 SaaS IPOs



IPO Rev. Run Rate Multiple² vs. YoY Rev. Growth³



Notes: 1) The “Rule of 40” is a guideline developed in 2015 for software-as-a-service companies to manage growth (approximated by revenue) in sacrifice of profitability (approximated by operating margin). Growth rate + profitability should exceed 40%.

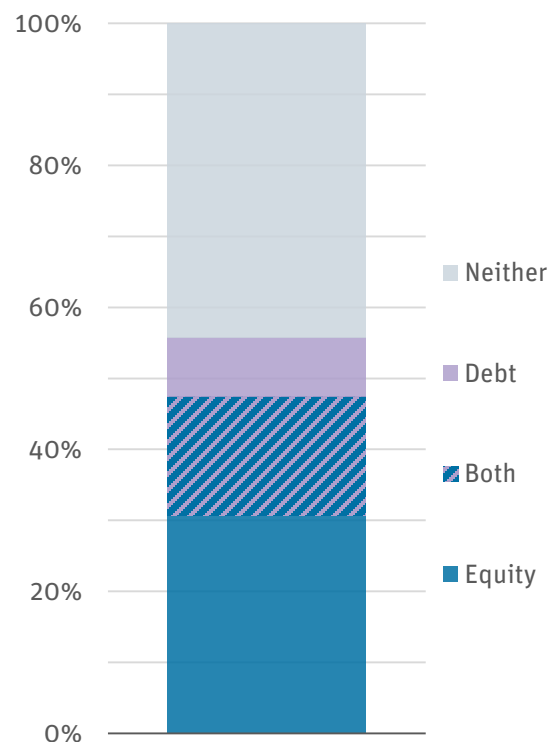
2) Revenue run rate = Most Recent Quarter’s Revenue x 4. 3) Most recent quarter relative to year prior.

Sources: Company SEC filings, S&P Capital IQ and SVB analysis.

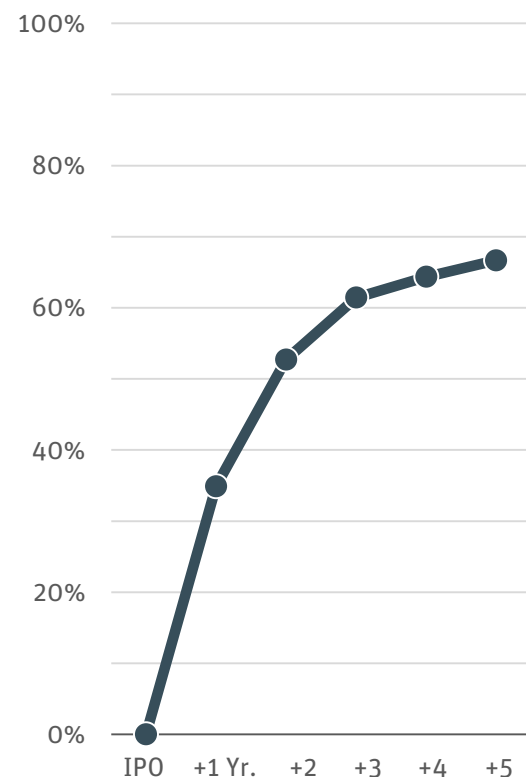
The What, When and How of Post-IPO Capital Raises

One of the primary benefits for publicly listed companies is permanent access to capital, whether in the form of additional equity or debt. 2018 saw a flurry of recently listed companies opt for a combination — convertible debt issuances — which raised more than \$12B.

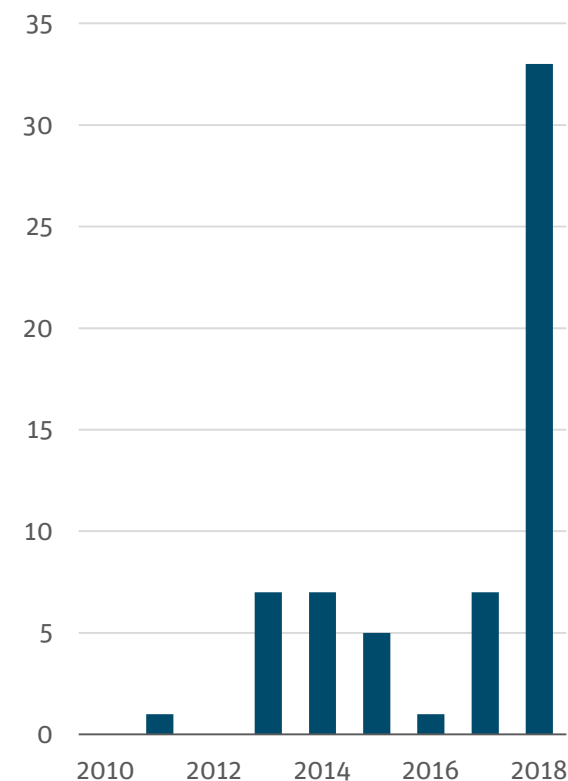
**Follow-On Capital Raises by Type:
2010–2018 US Tech IPO Cohort¹**



**Percentage of IPO Cohort¹ to Have
Completed Follow-On over Time**



**Post-IPO Convertible Debt Raises
by Year of Issuance: IPO Cohort¹**



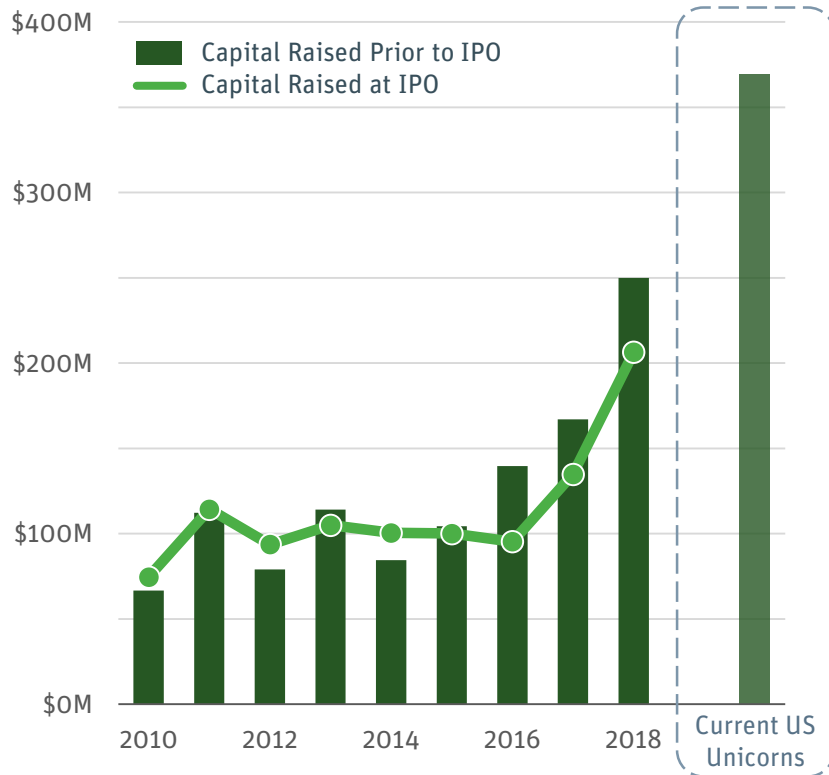


Exit Readiness: The Unicorn Generation

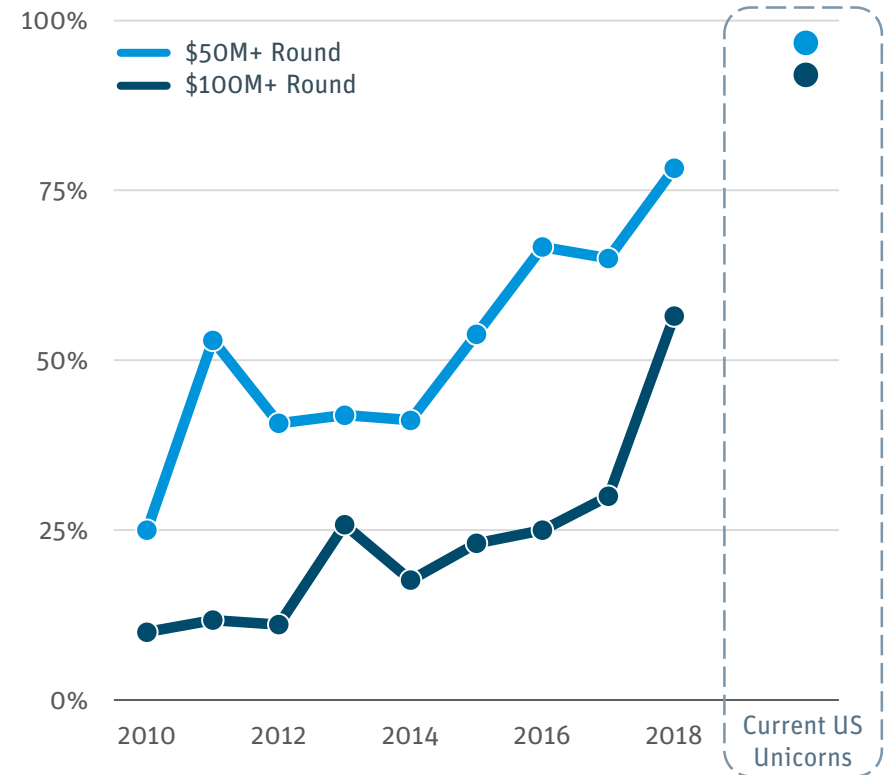
Expect IPOs to Continue Their Capital Climb

Before the flurry of private capital began in 2015, the average venture-backed tech company would raise \$100M in private capital ahead of their \$100M public offering. Looking at the current crop of US unicorns, more than 90% have already raised at least \$100M in a single private financing.

Median Equity Raised Prior to IPO and via IPO by US Venture-Backed Tech Companies



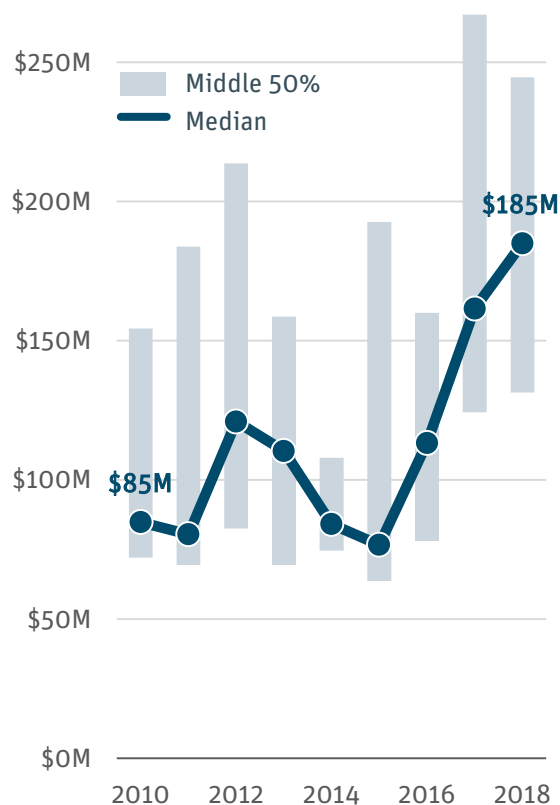
Percentage That Raised a Private Venture Round of \$50M+ and \$100M+ Prior to IPO



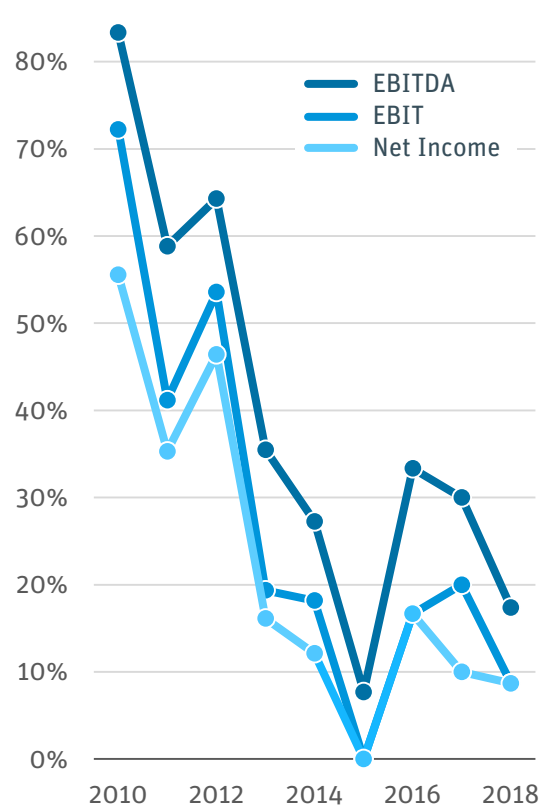
Revenue Climbs, But Other Fundamentals Slide

With an abundance of capital at their disposal, venture-backed startups have more than doubled their average revenue base at IPO this decade. However, this scaling has come at the expense of profitability — and few have demonstrated significantly higher revenue growth at their debut.

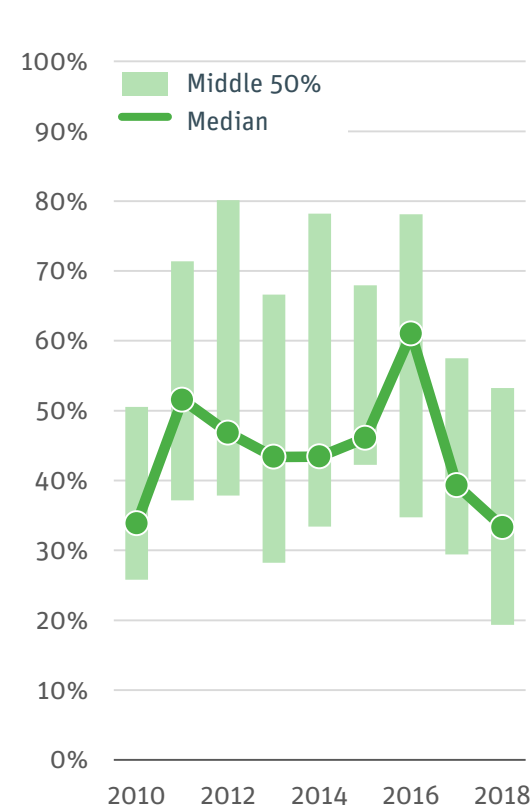
US Tech IPOs¹: LTM² Rev. at IPO



Percentage Profitable² at IPO



Revenue Growth Rates (YoY³)



Notes: 1) IPO cohort includes all venture-backed technology IPOs. 2) Last 12 months prior to IPO date.

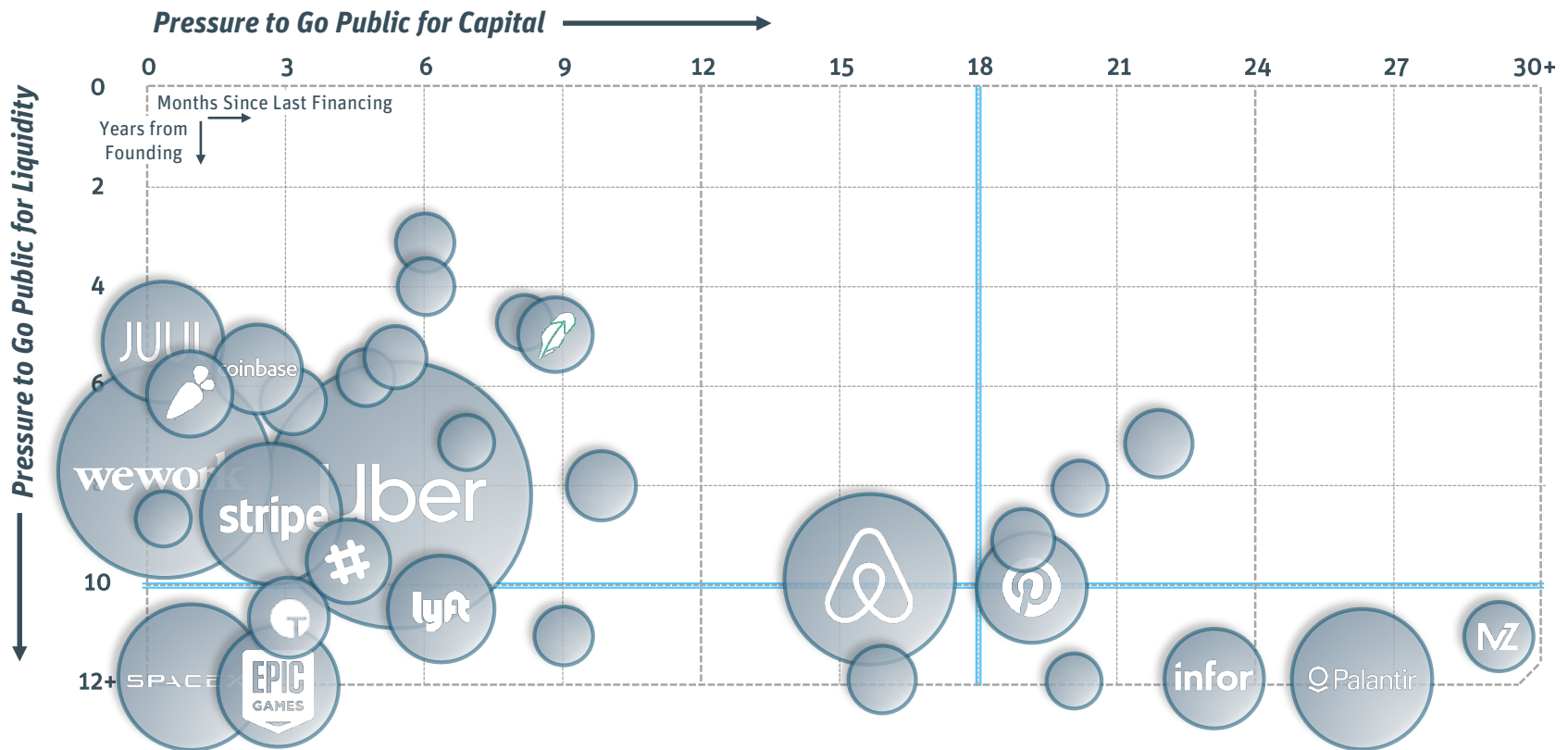
3) Most recent quarter relative to year prior.

Sources: PitchBook, S&P Capital IQ and SVB analysis.

A Stable of Unicorns Prepares to Debut

Could 2019 finally be the year? After employing workarounds in secondary markets, a number of high-profile tech IPOs are anticipated, relieving demands for full liquidity. Pressure to access public capital remains secondary: two-thirds of US unicorns raised private rounds in 2018.

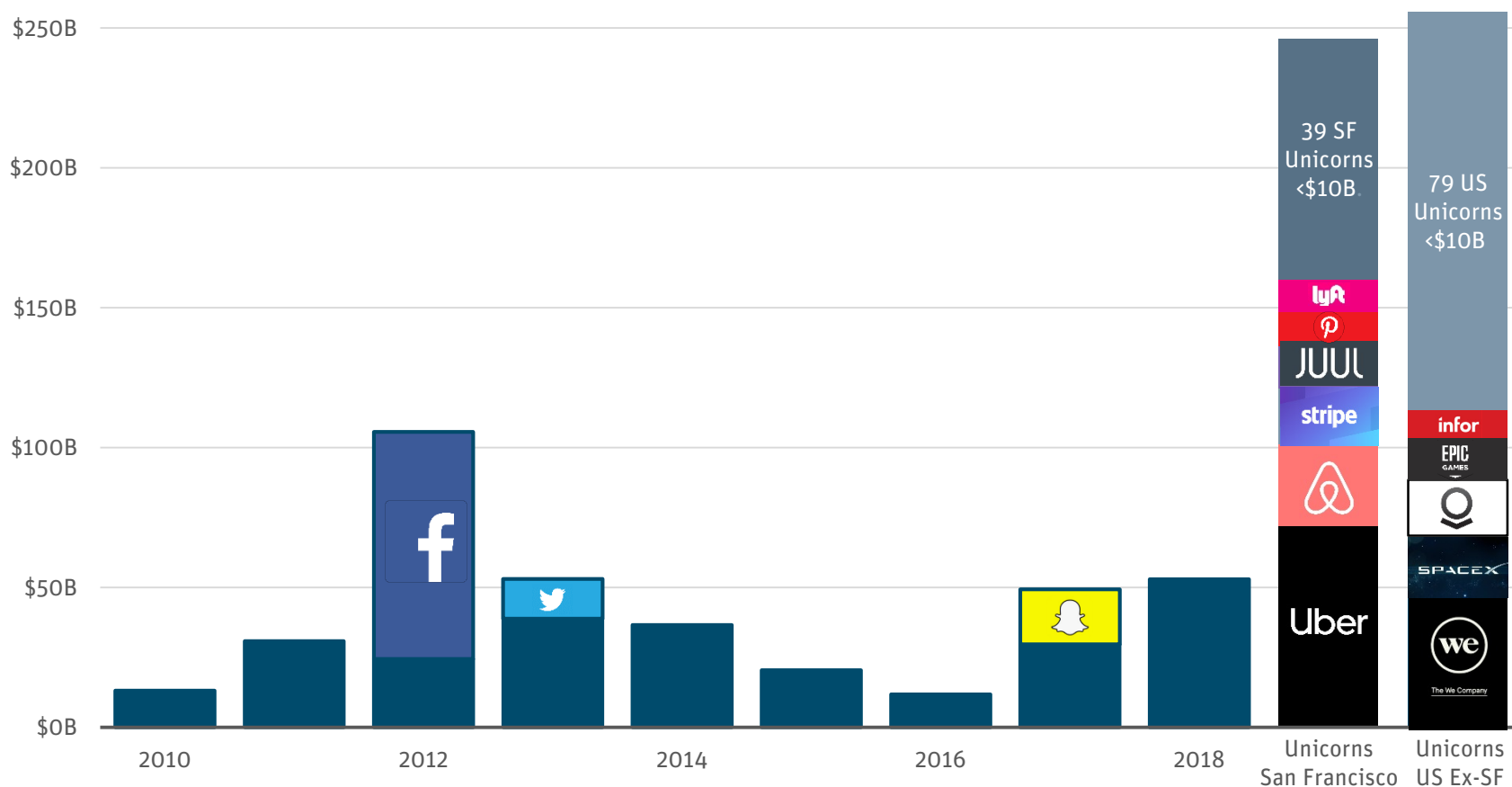
US Tech Unicorns: Time Since Founding & Last Financing (Sized by Private Value as of 12/31/18)¹



Another San Francisco Gold Rush

San Francisco may soon find itself flush with the wealth created by its venture darlings. These startups have a combined private value equivalent to all those located across the rest of the US.

Aggregate Valuation of US Venture-Backed Tech IPOs: 2010–2018



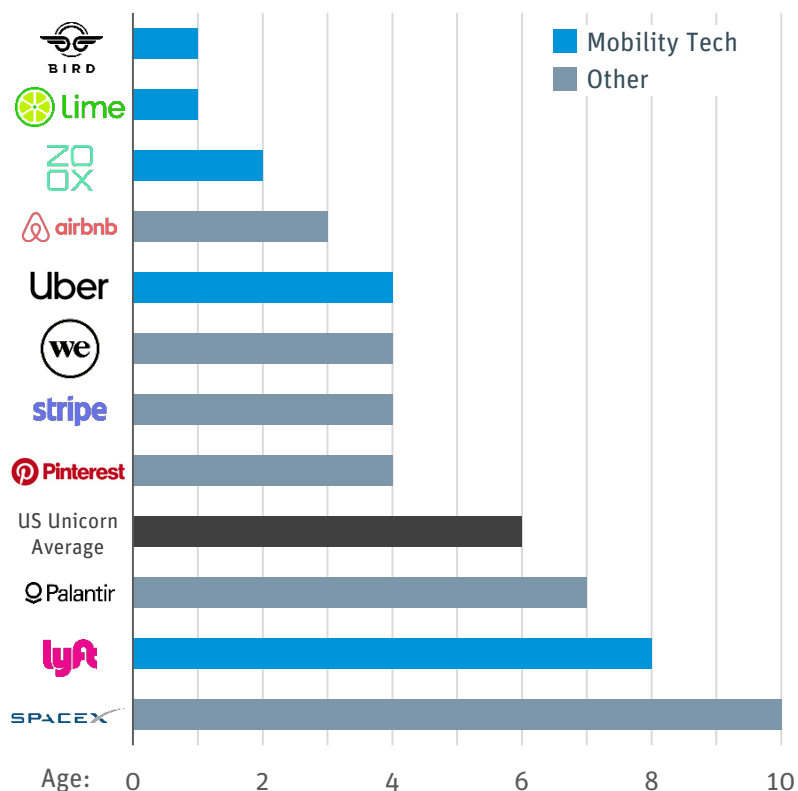


Emerging Sectors: Disrupting the Old Guard

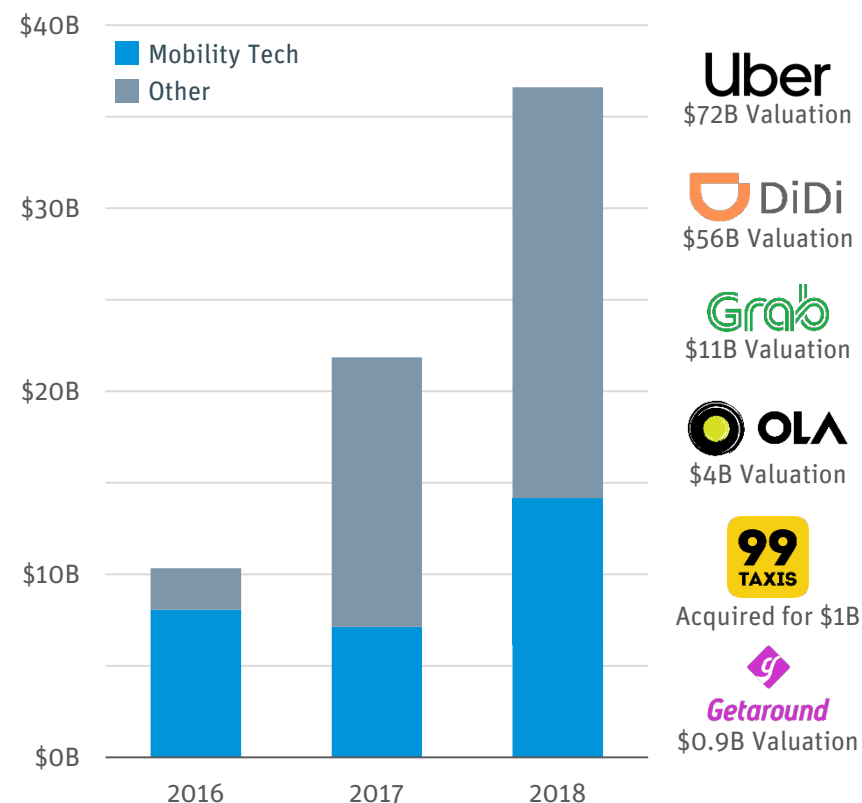
The Future of Mobility: New Platforms Skyrocket

The fastest unicorns ride scooters: Bird and Lime rolled to billion-dollar valuations as quickly as any in history. Startups are benefitting from advances in fundamental hardware, artificial intelligence, and communications — not to mention plentiful capital from the likes of SoftBank's Vision Fund.

Mobility Tech and Notable US Tech Decacorns: Age at Which Unicorn Status Achieved



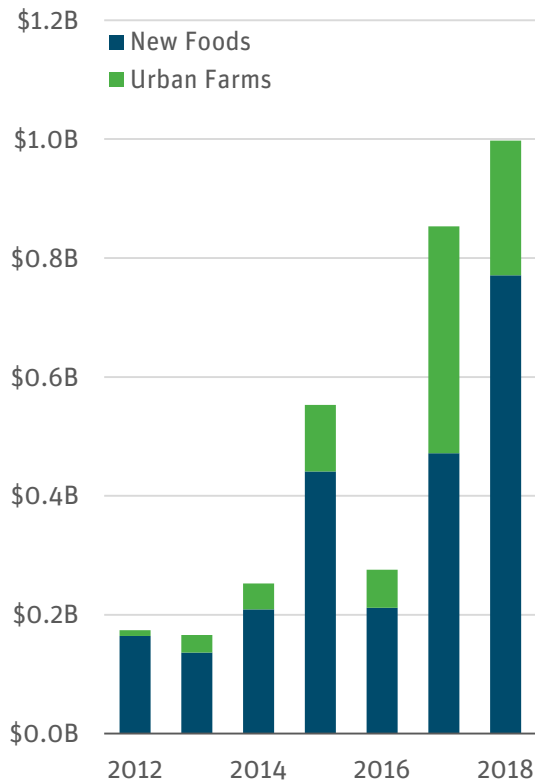
SoftBank \$100M+ Global Investments in Mobility



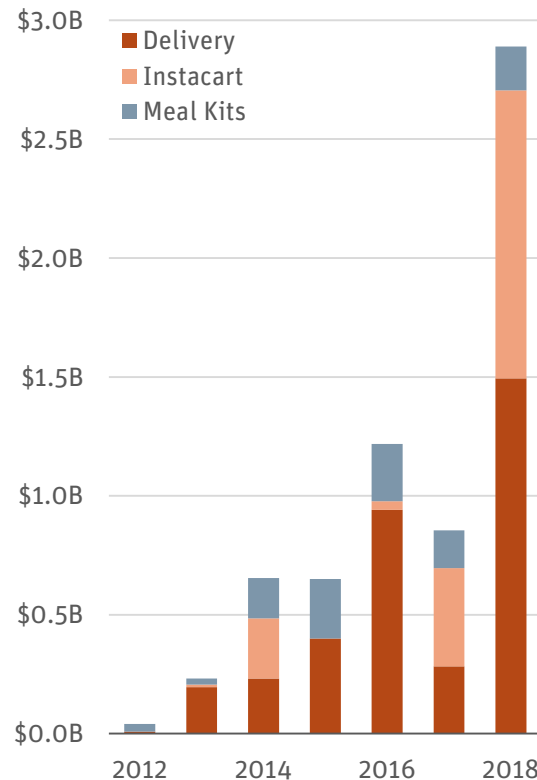
From Farm to Table, Corporates Feeling the Pressure

The what and how of eating is changing. Venture capital is flowing to FoodTech opportunities ranging from meat substitutes to pre-packaged dinner delivery. In response, food industry stalwarts are eagerly investing in new ways to reach consumers.

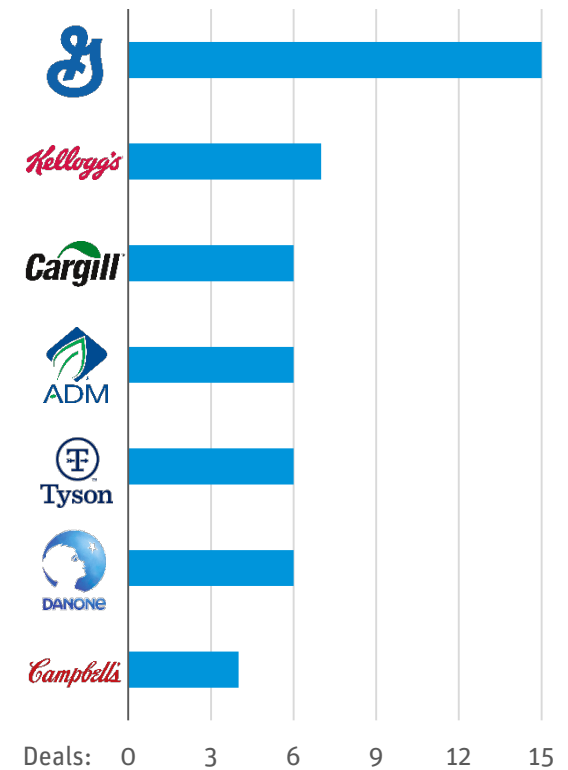
FoodTech: New Development US Venture Investment



FoodTech: Delivery & Meal Kits US Venture Investment




Most Active Food Corporates by US Venture Deal Count: 2012–2018



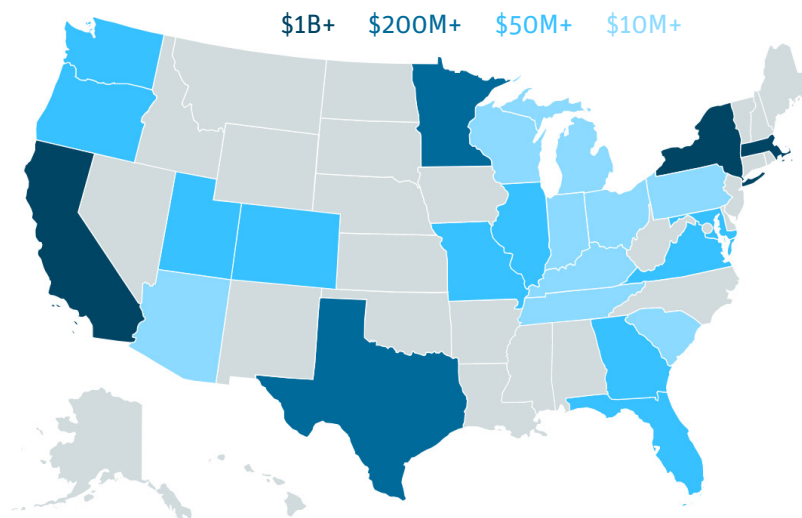
Digital Health: Burgeoning Ecosystems Coast-to-Coast

Perhaps more than other industries, startups in digital health rely on strategics to accelerate growth. Eight of the ten best-funded startups of the last two years have tapped corporate capital. It's no wonder then that states rich in partnership opportunities have attracted the most funding.

Digital Health Startups: Most Capital Raised 2017–2018

Company	Equity Raised	Strategics
 oscar	\$540M	
 DevotedHealth	\$362M	
 bright HEALTH	\$360M	
American Well	\$350M	Allianz  teva 
 HUMAN LONGEVITY, INC.	\$200M	  illumina
Clover	\$130M	 
Welltok	\$117M	 Qualcomm  HEARST HEALTH
 Livongo	\$105M	Humana  MERCK
 eghc	\$100M	 BlueCross BlueShield
 insitro	\$100M	

Digital Health: Funding and Notable Strategics by State: 2017–2018



Massachusetts

 **MASSACHUSETTS GENERAL HOSPITAL**

 **BRIGHAM AND WOMEN'S HOSPITAL**

 **Boston Scientific**

New York

Northwell Health

Montefiore Health System, Inc.

 **NYU Langone Health**

 **Mount Sinai**

California

MCKESSON

 **Dignity Health**

 **KAISER PERMANENTE**

 **MOLINA HEALTHCARE**

Texas

 **Baylor Scott & White HEALTH**

TMC | **TEXAS MEDICAL CENTER**

 **CORNERSTONE HEALTH CARE**

 **tenet HEALTH**

Minnesota

Medtronic

unitron

 **MAYO CLINIC**

 **UnitedHealthcare**

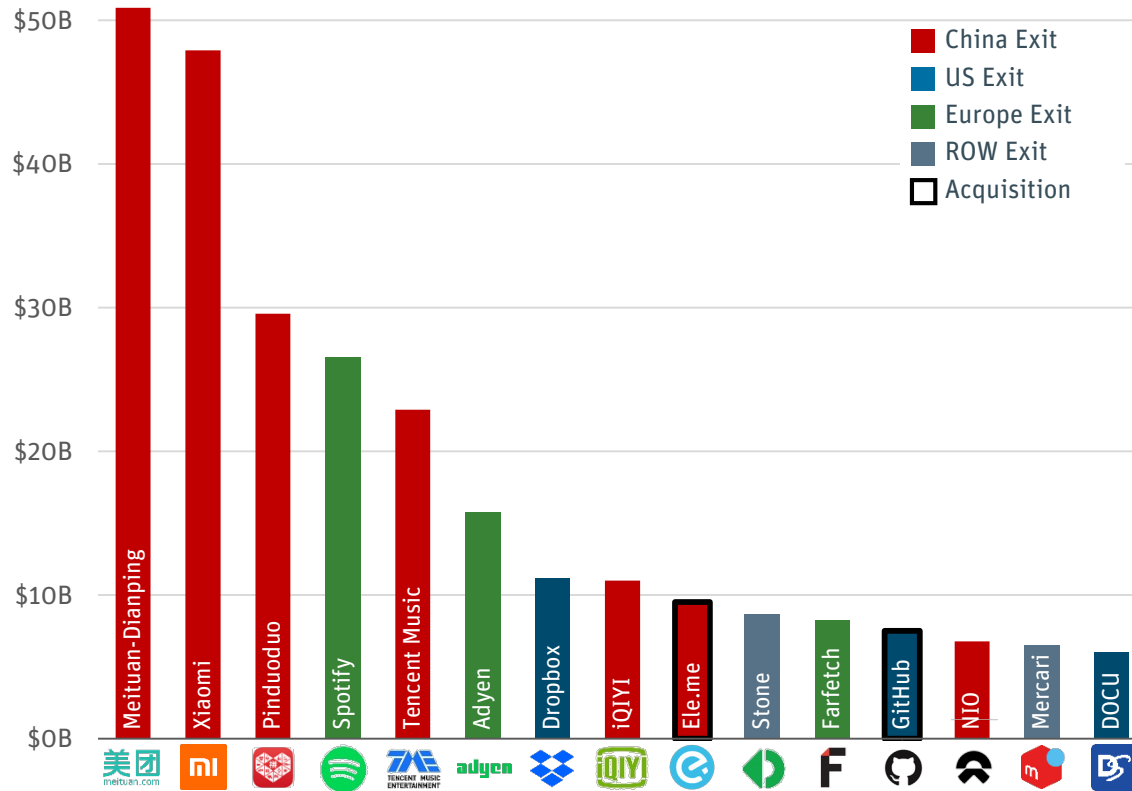


Global Venture: International Exits Shine

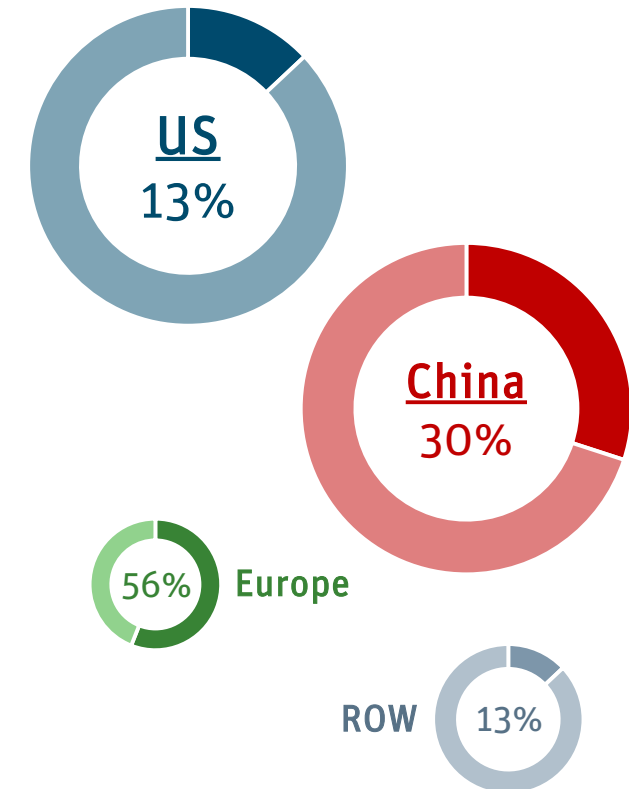
International IPOs Dominate 2018 Mega-Exits

Listings from startups in China and Europe far outpaced those of the US during 2018. And while much of the “paper” value backlog has been realized in those regions, private investors still hold nearly 90% of aggregate US unicorn value from the start of 2018.

Largest Venture-Backed Technology Exits¹ by Region: 2018



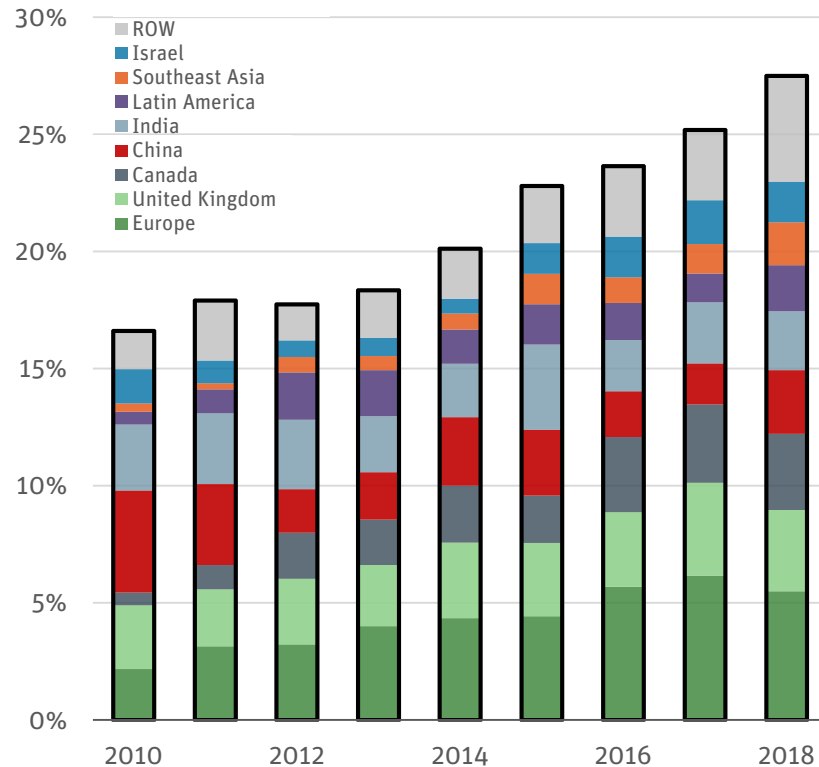
Unicorn Value Realized in 2018 Exits Relative to Total Remaining Value



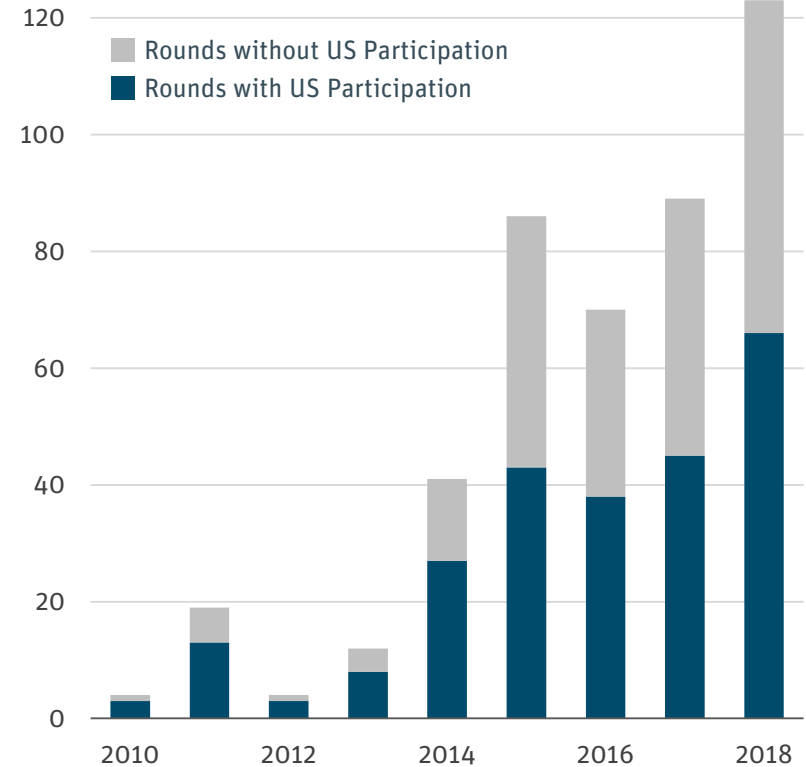
Frequent Fliers: US Investors Venture Abroad

Venture capital from Sand Hill's elite is increasingly finding a home outside the Bay Area. More than one-in-four deals from the most active US investors in 2018 was international. American investors have helped boost mega-rounds to new heights around the globe.

Top 50 Most Active US Tech Venture Investors: Percentage of Deals Outside of the US



\$100M+ Tech Venture Rounds Outside of the US with Participation from a US-Based Investor



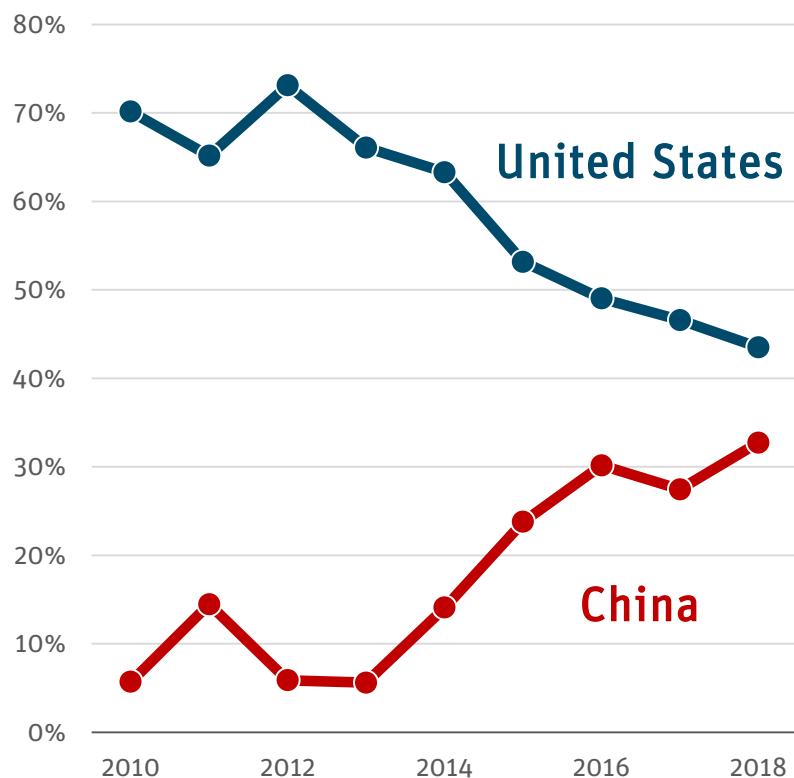


Geopolitical Tensions: Technology in the Crosshairs

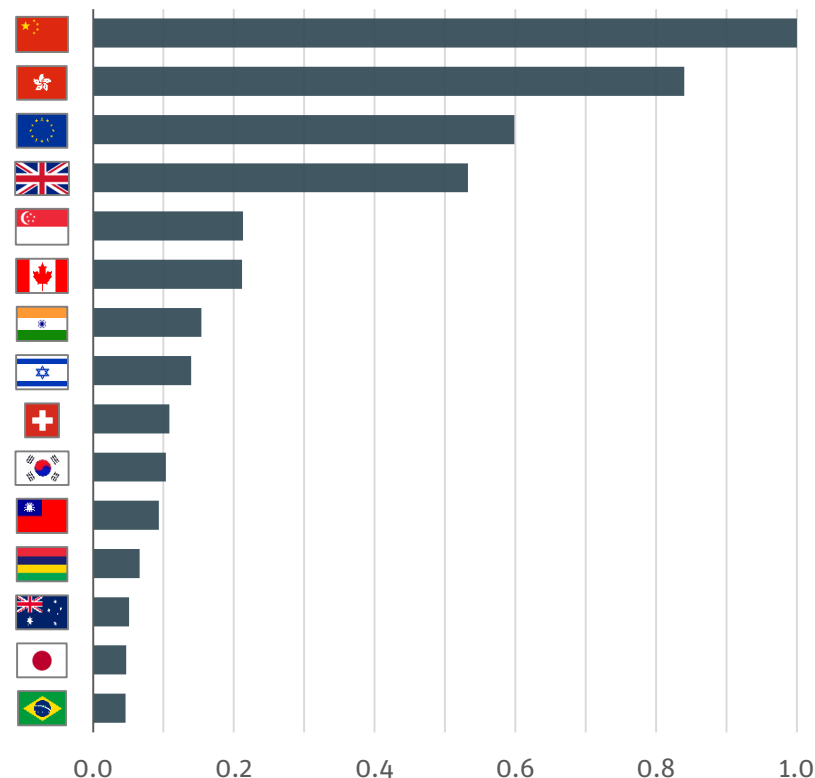
China's Growing Global Stature

China has cemented itself as the #2 venture market, more than tripling its share of global venture capital in the matter of a decade. Despite rising geopolitical tensions, US venture-backed companies are finding opportunities given China's development as a hub for trade and talent.

Share of Global Technology Venture Investment



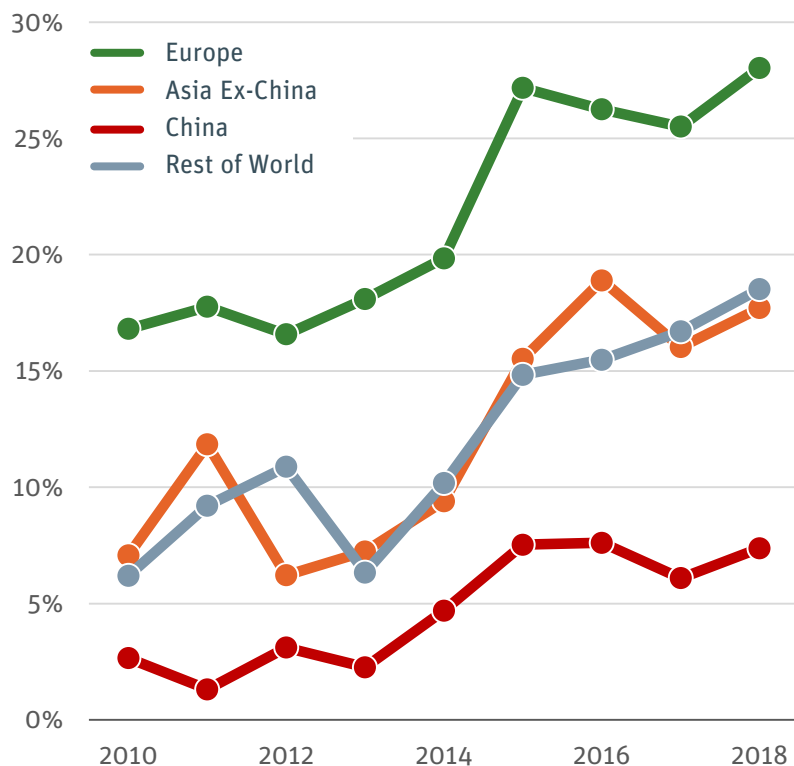
SVB Client Fund Transaction Destinations: Relative Proportion by Currency: 2018



The World is Still Hungry for US Tech

For myriad reasons, China's growing investment into US tech is being scrutinized by government and media. However, restrictions on all foreign investment would have a larger impact on the meaningful amount of capital flowing from the rest of the world.

Participation by International Investors by Region in \$25M+ US Tech Venture Deals



Most Active International Investors by Region in \$25M+ US Tech Venture Deals: 2010–2018

Investor	Deals	Investor	Deals
Index (U.K.)	98	Telstra Ventures	26
Deutsche Telekom	30	83North	18
Atomico	15	Georgian Partners	18
Atlantic Bridge	14	AUS Future Fund	15
Bailie Gifford	14	Pitango VC	11
Eight Roads	14	Viola Ventures	11

Investor	Deals	Investor	Deals
SoftBank	49	Tencent	15
Samsung	42	IDG Capital	14
EDBI	28	Alibaba	13
Temasek	27	Baidu	12
DST Global	24	China Broadband	11



Appendix

Authors



Bob Blee
Head of
Corporate Finance
bblee@svb.com

Bob Blee heads Silicon Valley Bank's Corporate Finance Group, which leads SVB's relationships with public and late-stage private companies in the Innovation sector throughout North America, providing a full suite of lending and banking products, as well as guidance as a trusted partner, helping our clients succeed and quickly scale.

Previously, Bob held a variety of roles in SVB's California and Midwest regions, including heading seed, early and mid-stage Infrastructure, Hardware, Consumer Internet and Fintech banking in the Bay Area and Southern California and was responsible for SVB's Mezzanine Lending and Loan Syndications practices.

Bob sits on the nonprofit board of the Network for Teaching Entrepreneurship (NFTE) and the Silicon Valley Advisory Council of the Commonwealth Club. He is also active with his alma mater, the University of Illinois.



Steven Pipp, CFA
Vice President, Research
spipp@svb.com

Steven Pipp is a Vice President based in San Francisco responsible for capital markets research and data-driven analysis of the innovation economies that SVB serves globally. In this role, he has led research efforts exploring investment, fundraising and exit dynamics between the venture ecosystems of the US, China, Southeast Asia and Europe.

Prior to his research role, Steven managed strategic advisory and valuation engagements for venture-backed technology companies as part of SVB Analytics. Before joining SVB, Steven worked in Minneapolis as a consultant and entrepreneur with a focus on clean energy technology.

Steven earned a Master of Science in Finance from Boston College and a Bachelor of Science in Business from the University of Minnesota. In addition, he holds the Chartered Financial Analyst (CFA) designation.



Andrew Pardo
Sr. Associate, Research
apardo@svb.com

Andrew Pardo is a Senior Research Associate based in San Francisco responsible for the capital markets research and data-driven analysis of the innovation economies that SVB serves globally. In this role, he supports research efforts exploring investment, fundraising and exit dynamics in the global venture ecosystem.

Prior to this role, Andrew was a Buy-Side Equity Research Analyst for a \$100B+ asset manager based in the Bay Area. His area of coverage spanned the domestic and international Financials sector. Andrew earned a Bachelor of Science in accounting from Loyola Marymount University.

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About Silicon Valley Bank

For more than 35 years, Silicon Valley Bank has helped innovative companies and their investors move bold ideas forward, fast. SVB provides targeted financial services and expertise through its offices in innovation centers around the world. With commercial, international and private banking services, SVB helps address the unique needs of innovators.



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