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Silicon Valley Bank

State of the Markets

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

Third Quarter 2019

State of the Markets: Third Quarter 2019

Finally, The IPOs We've Been Waiting For!

The innovation economy has been nothing if not resilient. Consider some of the recent hurdles: trade turmoil and tariffs, fears of slowing global growth, increased regulatory scrutiny and an inverted yield curve. Together, these factors tested investor confidence over the first six months of 2019. Nevertheless, entrepreneurs keep innovating, and markets continue to climb higher.

Perhaps the best illustration has been the arrival of so many highly anticipated IPOs. After a brief U.S. federal government shutdown early in the year, March ushered in a flurry of high-profile unicorn IPOs. Enterprise businesses had success, while consumer-focused IPOs experienced a more lukewarm reception.

This year's IPOs are expected to provide significant liquidity for employees and venture investors. It will be interesting to see how this release of capital and talent gets recycled back into the innovation economy.

While we acknowledge the uncertainties and risks, it remains an exciting time for tech. We still have a healthy backlog of unicorn companies looking to go public this year. As long as public markets remain buoyant, we expect venture to continue to thrive.

Bob Blee
Head of Corporate Finance
Silicon Valley Bank

State of the Markets: Third Quarter 2019

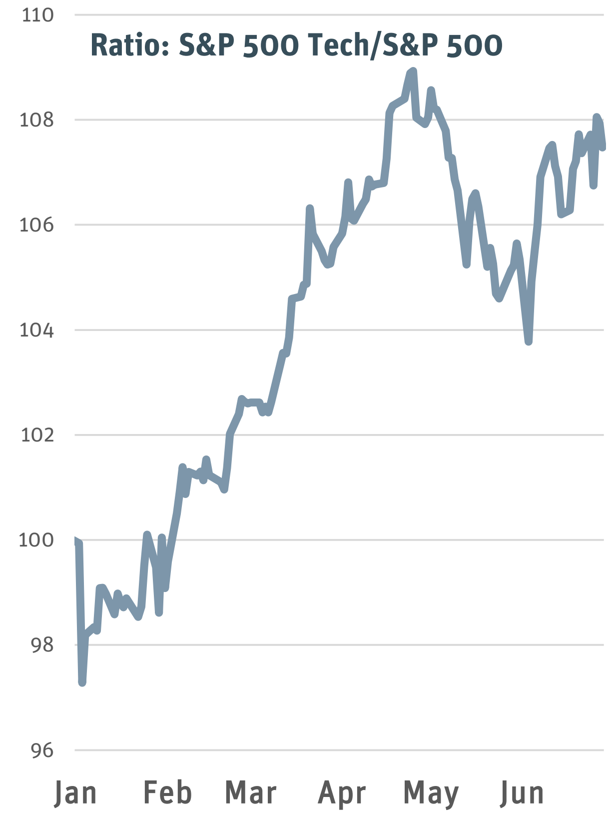
Macro: Tech Dominates Despite Mounting Concerns

Amid IPOs and Robust Markets, Tech Outperforms

History has shown that tech companies prefer to go public when markets are accommodative. This year's positive performance has encouraged a flurry of IPOs. Since the markets' rebound from December lows, tech has been the best performing sector of the S&P 500.

S&P 500 vs. U.S. Venture-Backed Tech IPOs: 2005–1H'19

2019: Tech Outperformance YTD

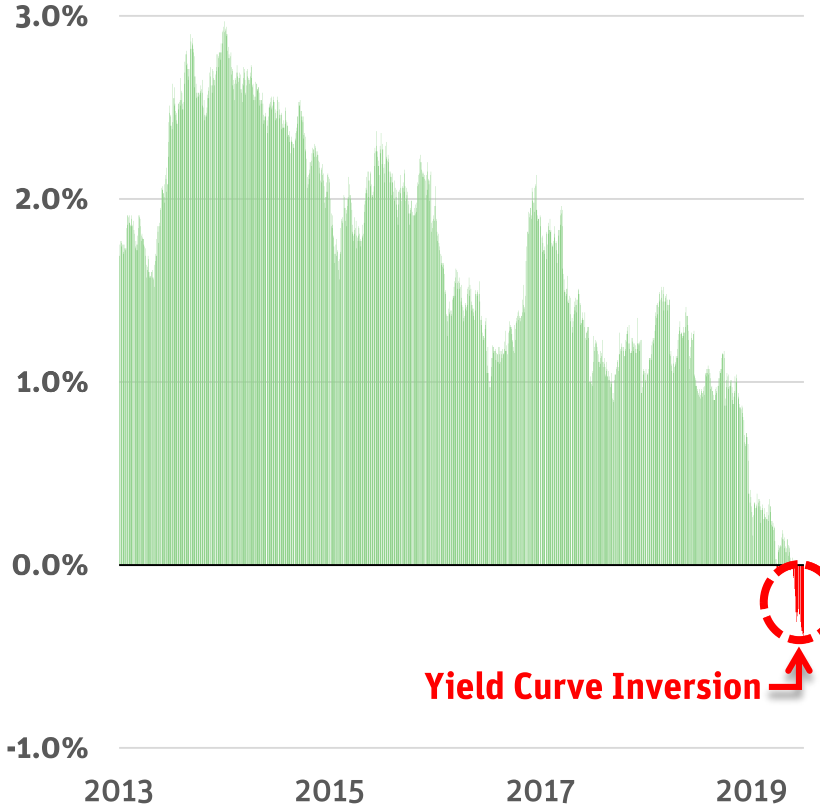


Source: S&P Capital IQ, PitchBook and SVB analysis.

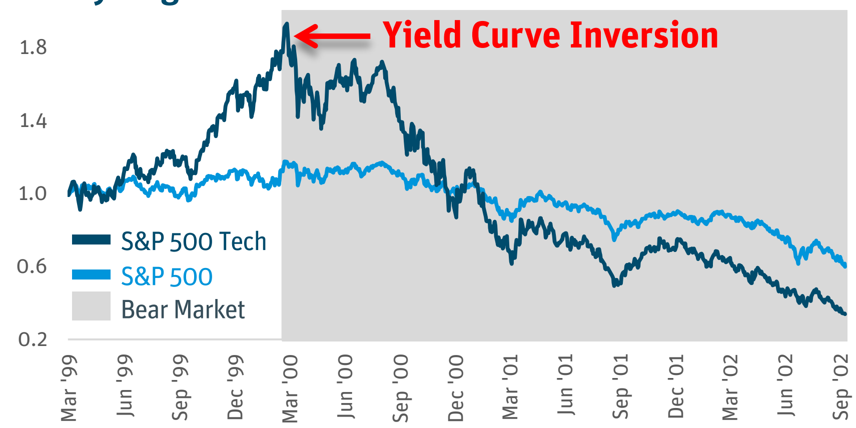
Inverted Yield Curve Puts Investors on Edge

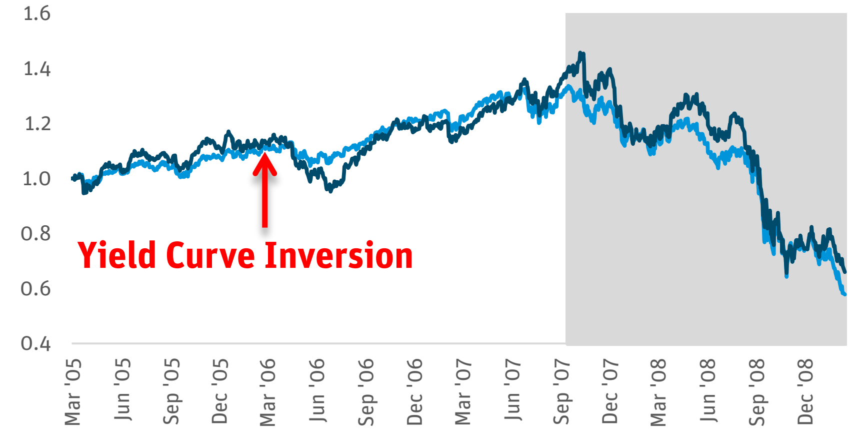
Despite historically low interest rates, recent Fed rate hikes and falling long-term yields have inverted the yield curve. Not all inversions precede recessions, but this still might portend to an economic slowdown—with tech's relative performance mixed.

Yield Curve (10Y less Fed Funds): 2009–2019



Analyzing Past Inversions: Tech's Performance



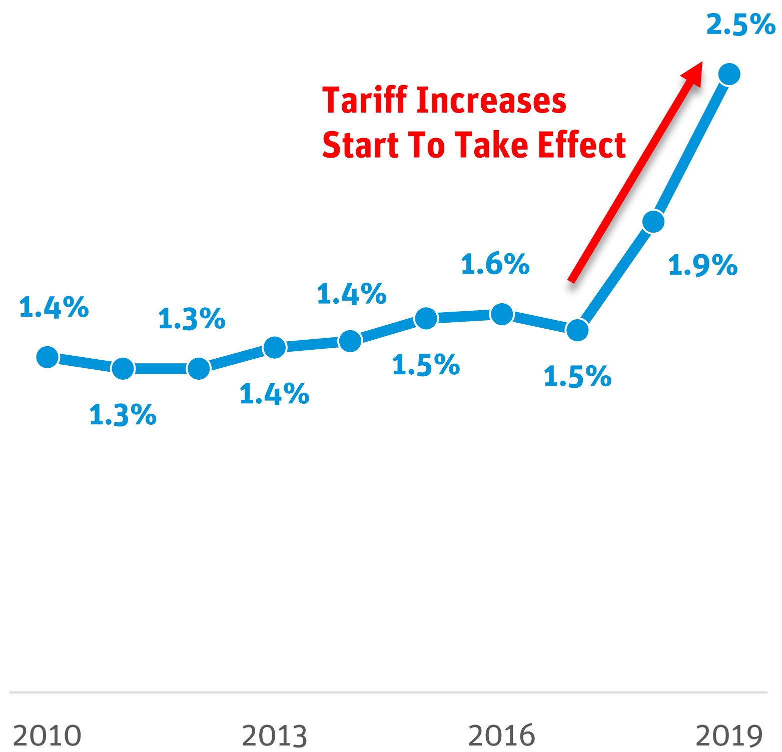


Notes: Yield Curve = 10Y U.S. Treasury less federal funds rate; bear market dates determined by S&P 500 Price Returns greater than -20%
Source: S&P Capital IQ and SVB analysis.

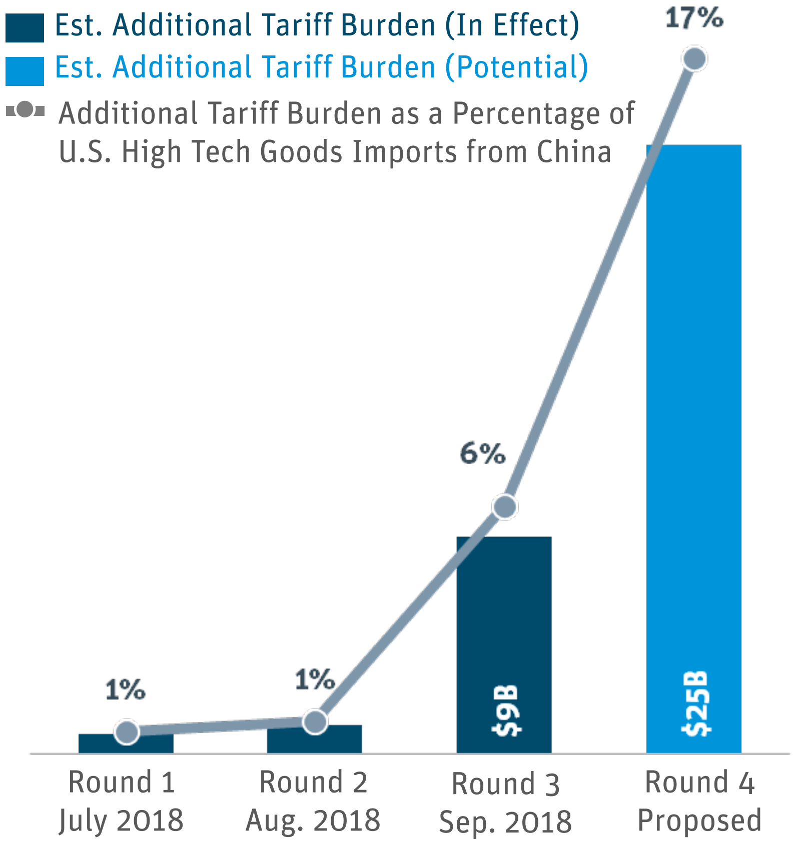
Trade Turmoil Ramps Up

Tariff talk has escalated in recent months with China increasing rates on $60B worth of U.S. goods and the U.S. threatening tariffs on an additional $300B+ worth of Chinese goods. The proposed 4th round would have an outsized effect on U.S. imports associated with High Tech.

Effective Tariff Rate for All U.S. Goods Imports[1]



Effect of U.S. Tariff Rounds on High Tech Sector[2]

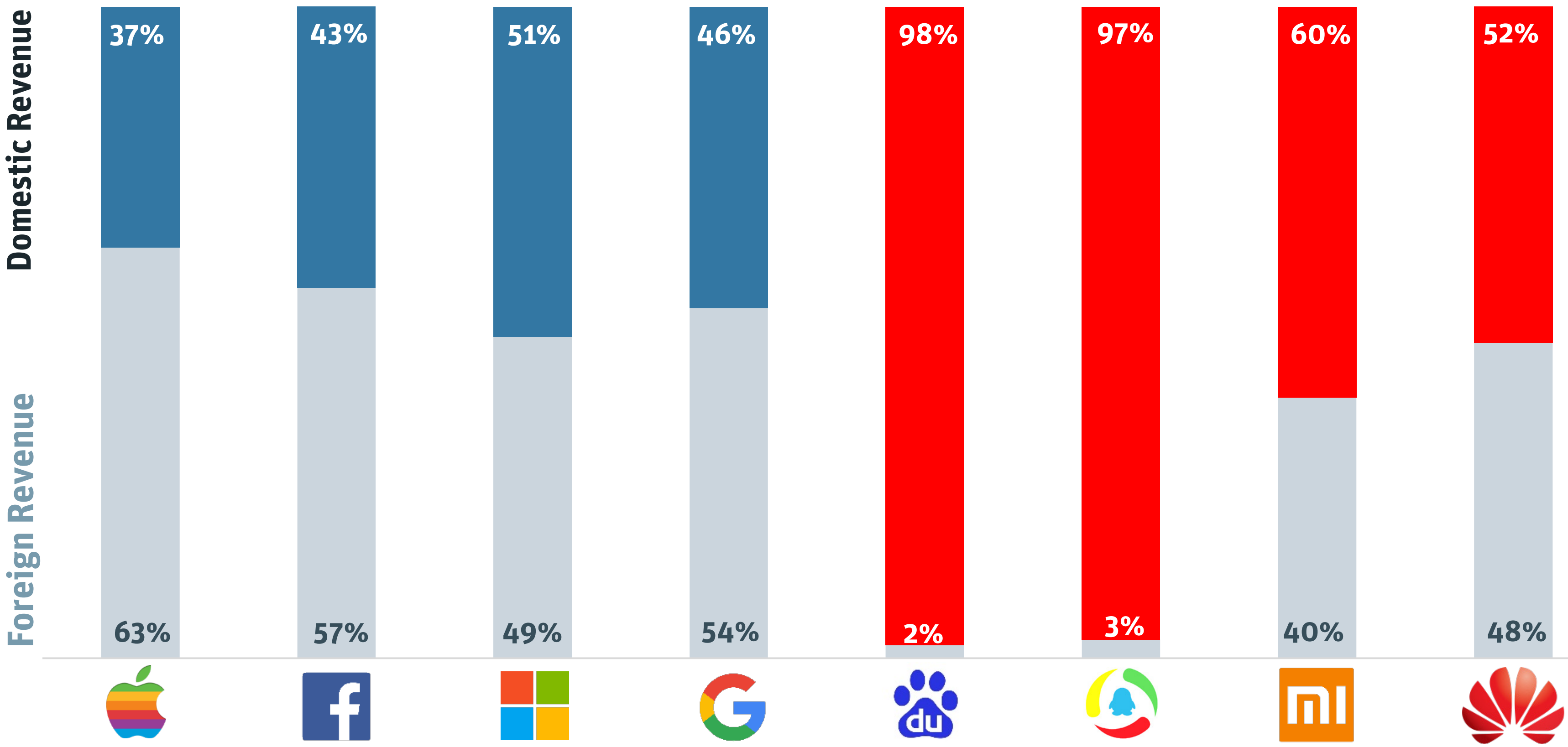


Notes: 1) Calculated as the total tariff burden divided by total goods imports 2) Product codes associated with the "High Tech Sector" are defined by the U.S. Census.
Source: Treasury website and SVB analysis.

Who Risks More in a Trade War?

U.S. tech giants recognize a significant portion of their revenue from overseas. For Chinese tech giants, the situation is mixed. Huawei and Xiaomi rely heavily on foreign sales, while Baidu and Tencent are much more focused domestically.

Select Tech Company 2018 Revenue Breakdown: Domestic vs. Foreign

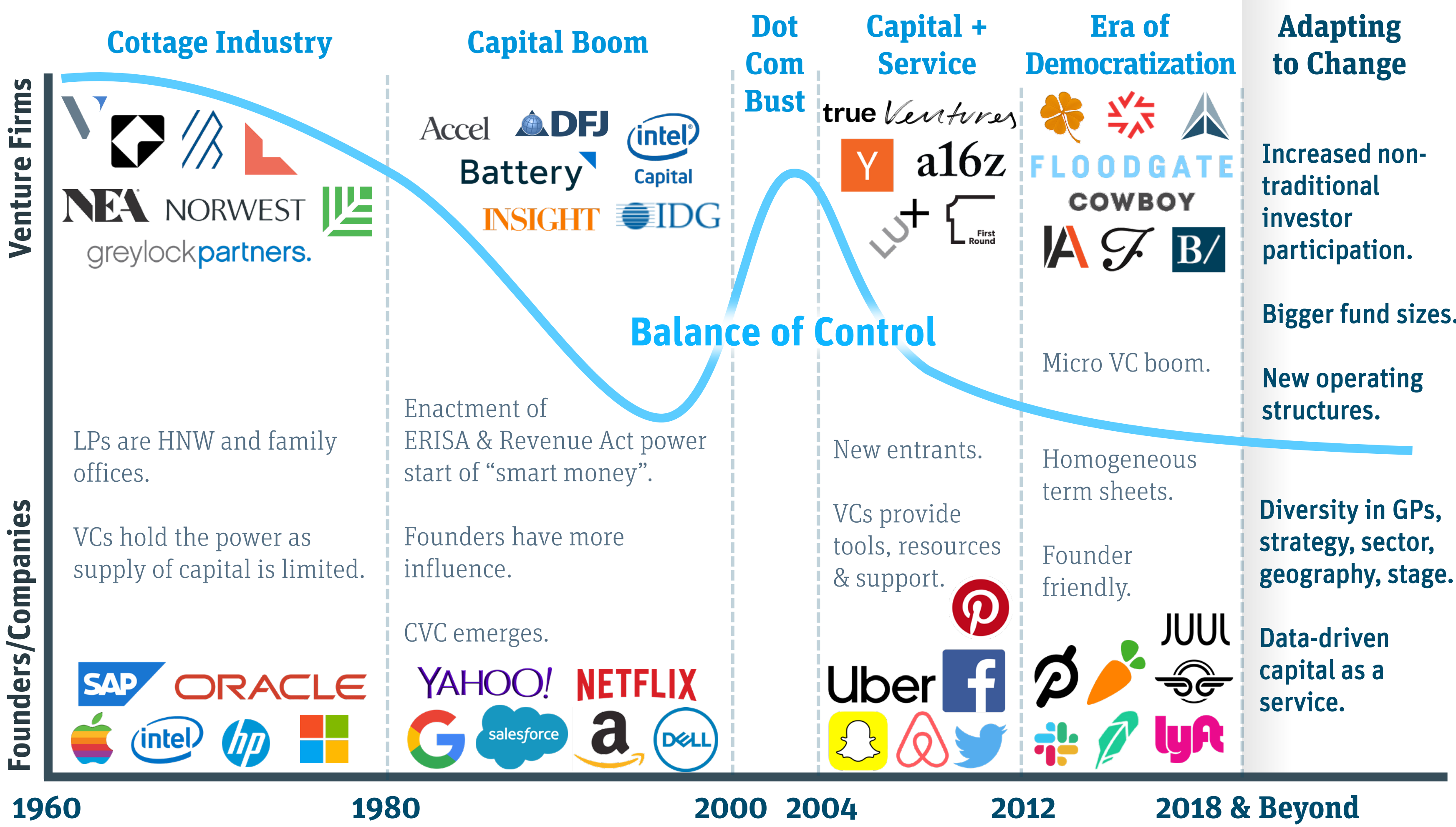


Source: EDGAR, S&P Capital IQ and SVB analysis.

U.S. Venture: A Shifting Landscape

The Next Era of Venture Capital

In most industries, with competition and technological advancement comes disruption. It would be ironic if the venture capital industry were any different.

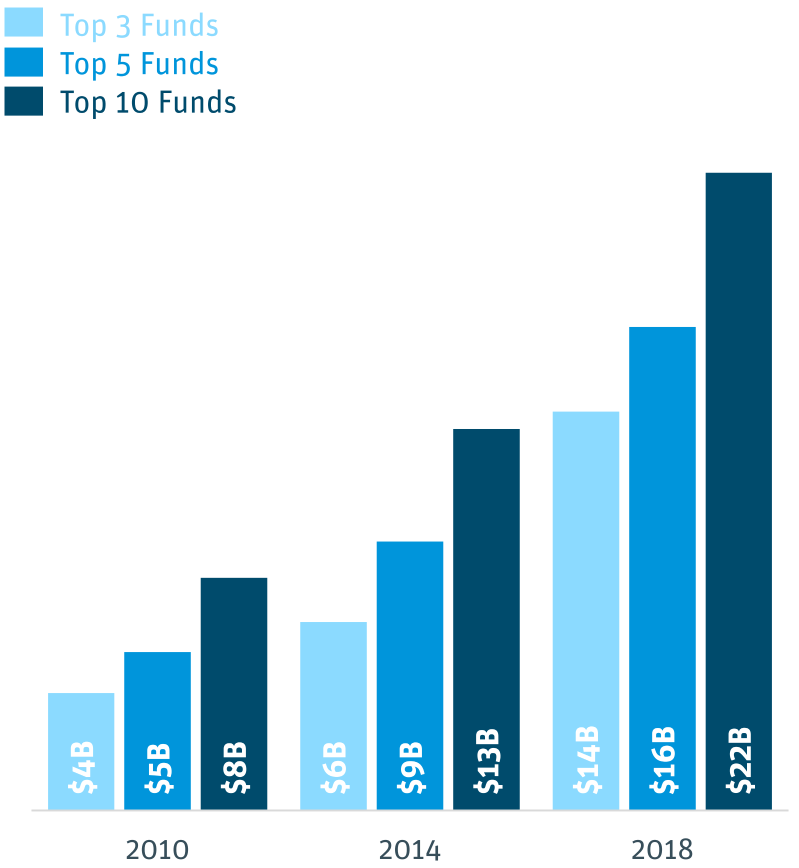


Source: SVB analysis.

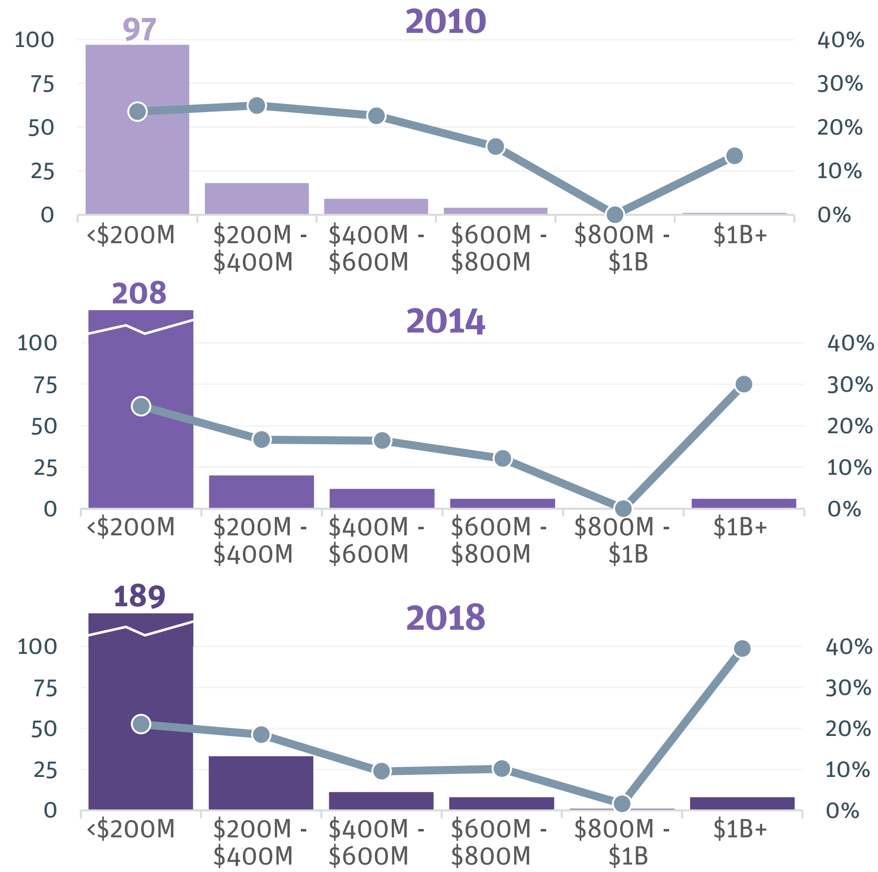
Firms Must Choose Which Wave to Catch

Facing a growing supply of capital and increased competition for deal flow, VC firms face a decision: Raise more and write bigger checks or pick a focus. Capital is becoming concentrated in funds greater than $1B in size—representing just under 40% of all fundraising in 2018.

Concentration of Capital in Top Funds



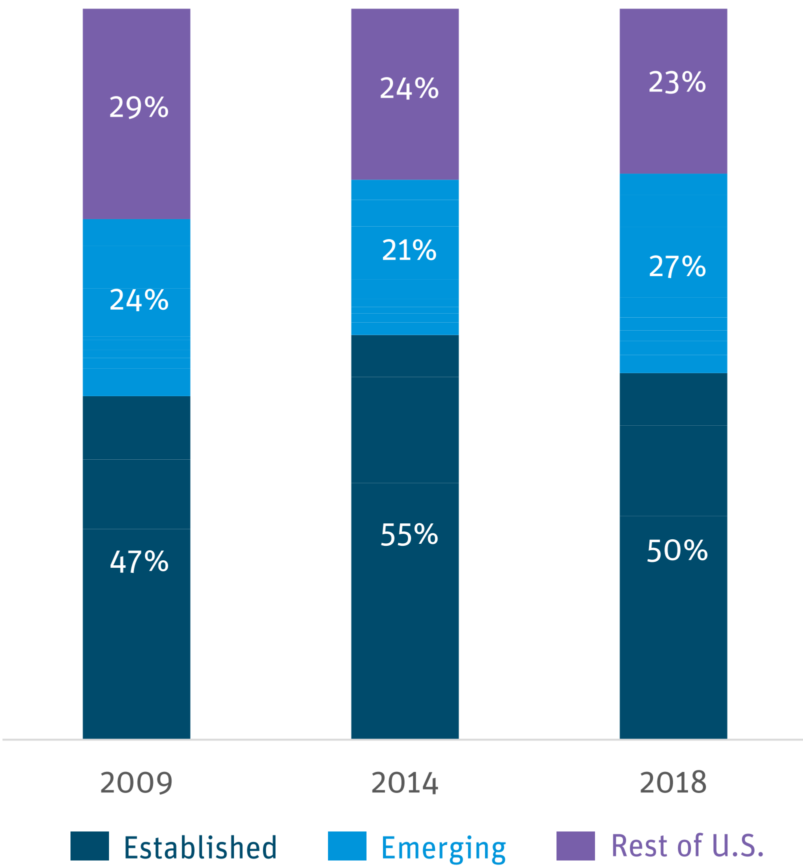
Fund Breakdown (# Funds and % of Total Raised)



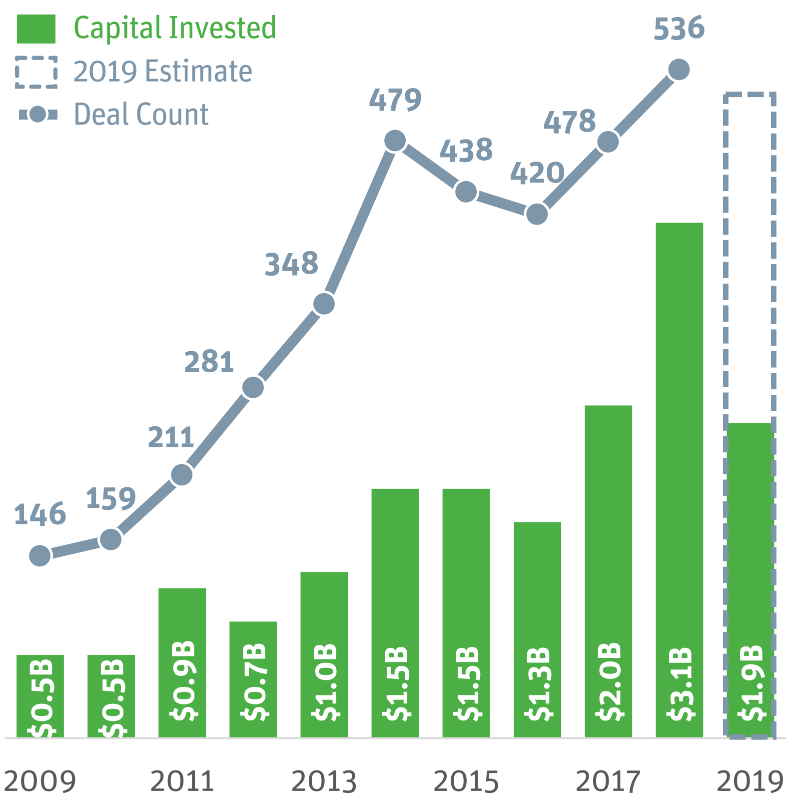
Focusing on the Future

Having a focus—whether it be geographical, sector specific or other—is one way to compete if writing bigger checks isn't an option. Initial signs are positive as firms are investing more in emerging areas and female-led companies are attracting a greater share of capital.

Geographies: First Time Fund Investments



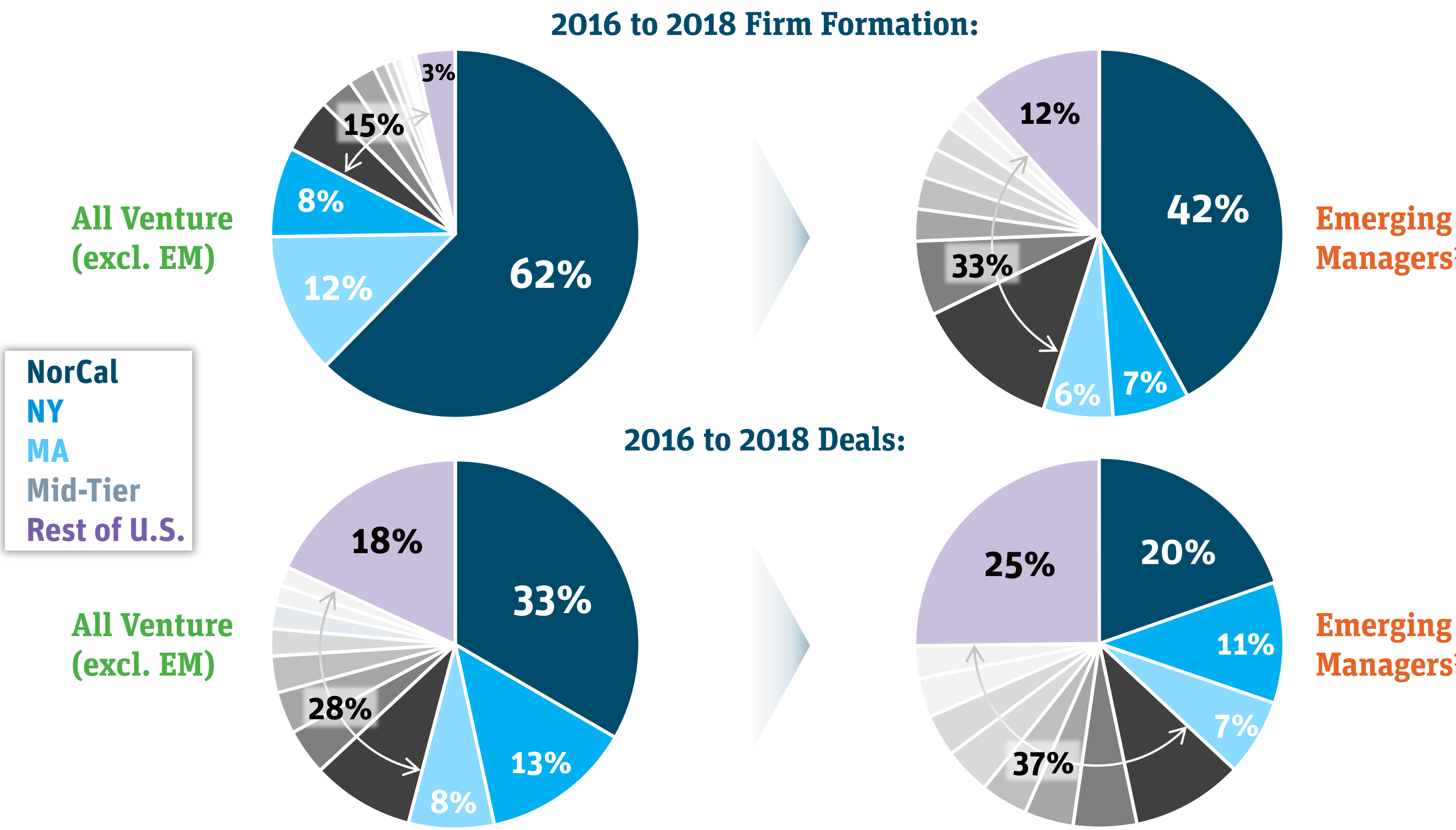
Diversity: Venture Investment in Female Founders



Source: PitchBook, PitchBook-NVCA Venture Monitor and SVB analysis.

Case Study: Emerging Managers

The changing venture landscape has pushed emerging managers to consider other locations for formation and investment. Specialist firms tend to form near the epicenter of their industry of focus — with the added benefit of avoiding the valuation premiums present in established hubs.



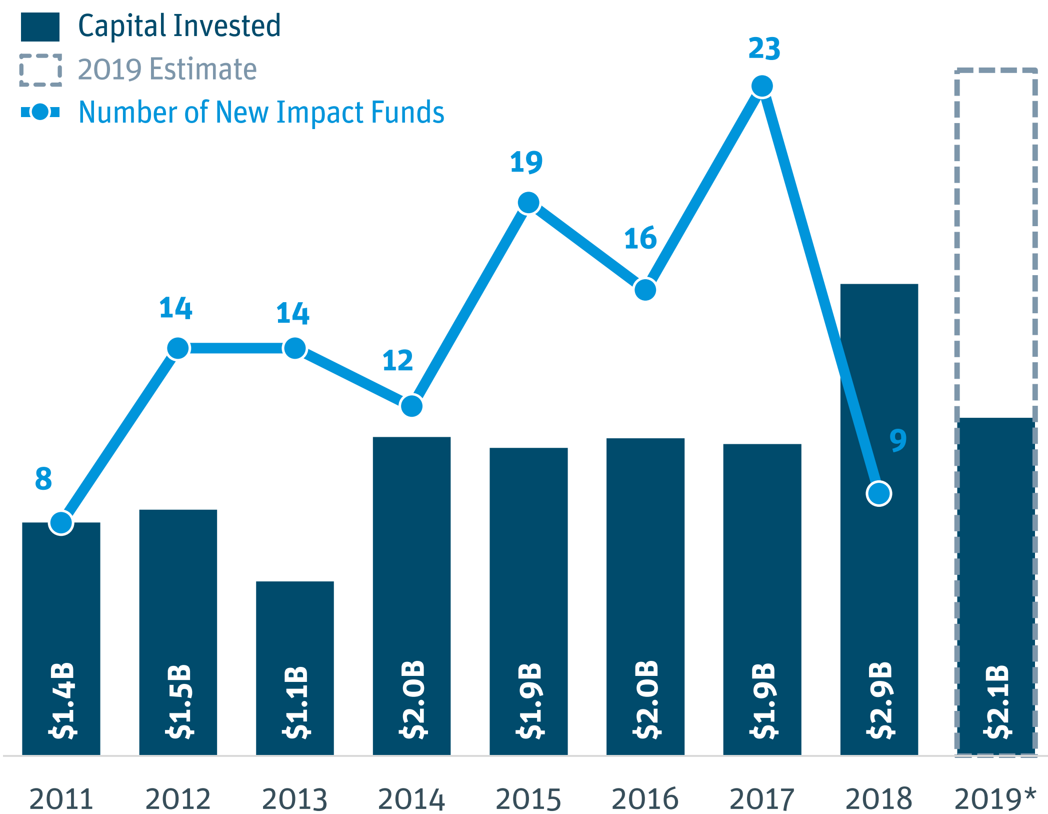
Notes: 1) Emerging Manager defined as having raised no more than three funds, sub-$100M in size.
Source: PitchBook and SVB analysis.

Spotlight: Sustainability

Sustainability Investments Are on the Rise

Investment in sustainability hit a new high in 2018 and is projected to blow past that mark in 2019. With increased involvement from family offices and a more conscious approach from both VCs and corporates, sustainable investing is here to say.

Investments in Sustainability



Notable Companies

CALYSTA
Solving for food security
$119M raised to date

chargepoint
Solving for EV charging
$558M raised to date

LanzaTech
Solving for carbon capture
$350M raised to date

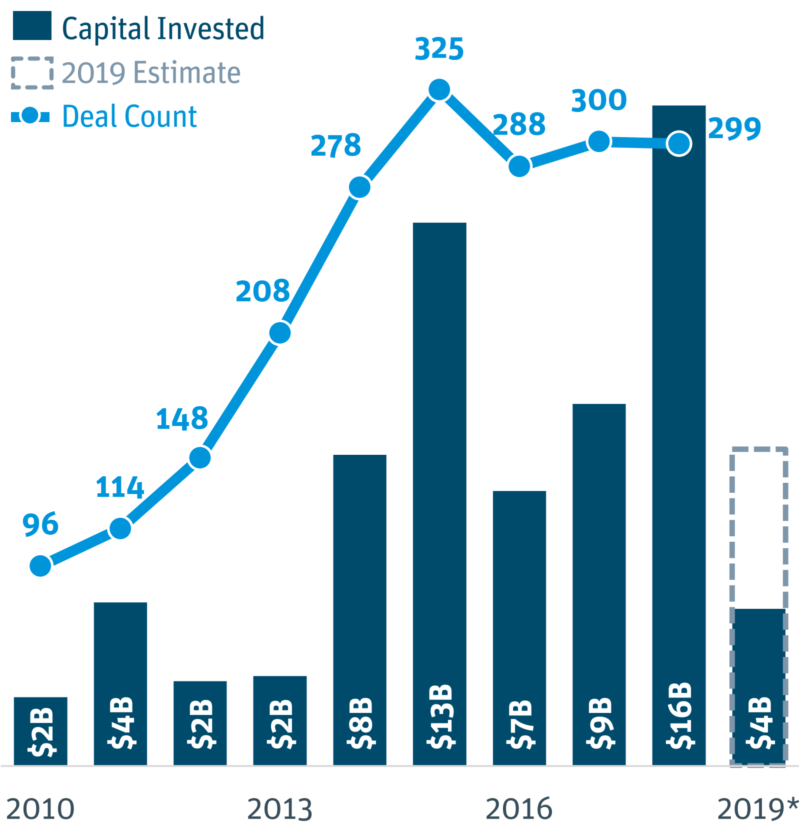
Virgin hyperloop one
Solving for sustainable transport
$459M raised to date

Note: Fund data for 2018 lower due to lag in recording of data.
Source: PitchBook and SVB analysis.

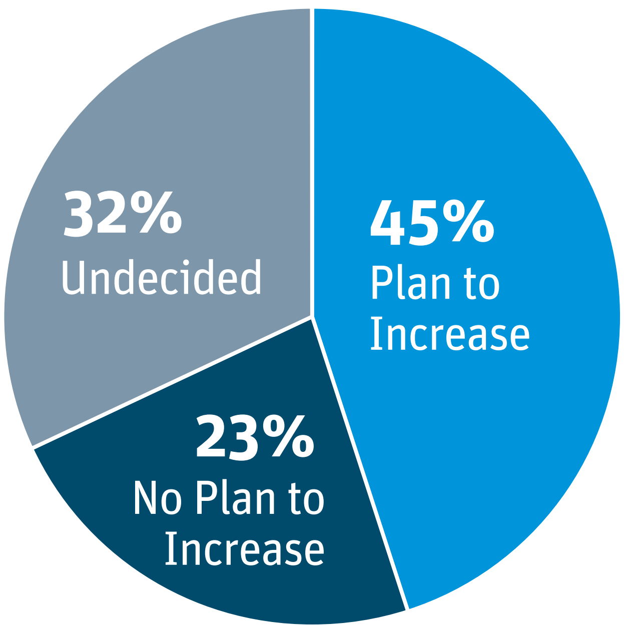
Family Offices Lead by Example

Despite being only 3% of total venture deals, family offices are an important complement to traditional venture due to their willingness to accept longer holding periods and invest in underserved areas. In 2018, 38% of family offices were involved in sustainable investing, with 45% planning to increase their level of investment going forward.

U.S. Venture Investment Involving a Family Office



Family Office Survey:
Do you plan to increase investments in sustainability over the next 12 months?



Source: UBS/Campden Wealth Global Family Office Report 2018, PitchBook and SVB analysis.

Corporates Make Their Mark on Sustainability

Motivated by greater social expectations and tax efficiency, many top tech companies have committed to incorporating sustainable investment initiatives into their overall strategy.

Select Sustainable Development Goals (SDG)

4 QUALITY EDUCATION

7 AFFORDABLE AND CLEAN ENERGY

11 SUSTAINABLE CITIES AND COMMUNITIES

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

13 CLIMATE ACTION

15 LIFE ON LAND

- Entrepreneur camp
- All global facilities 100% clean energy
- Forestry program
- $300M clean energy fund

- Future Engineer program
- $10M waste minimization
- Commitment to using 100% renewable energy

salesforce

- $50M impact investment fund focusing on SDG issues

- $1B affordable housing
- Carbon-neutral data centers

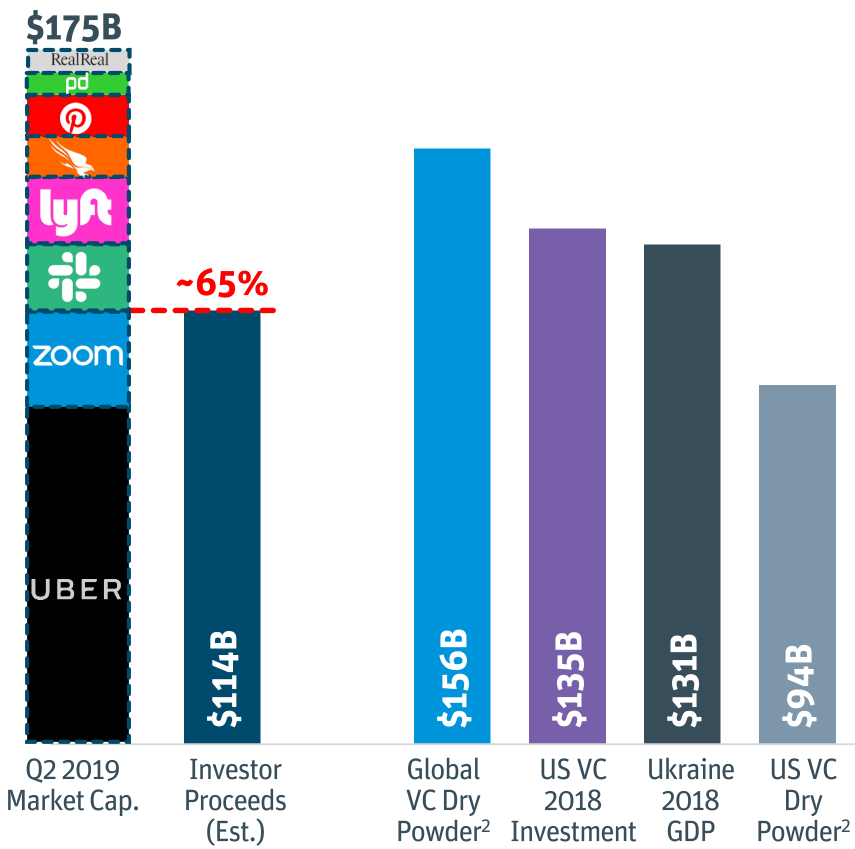
- $500M to address homelessness
- Signed large solar agreements

IPOs: The Year of Liquidity

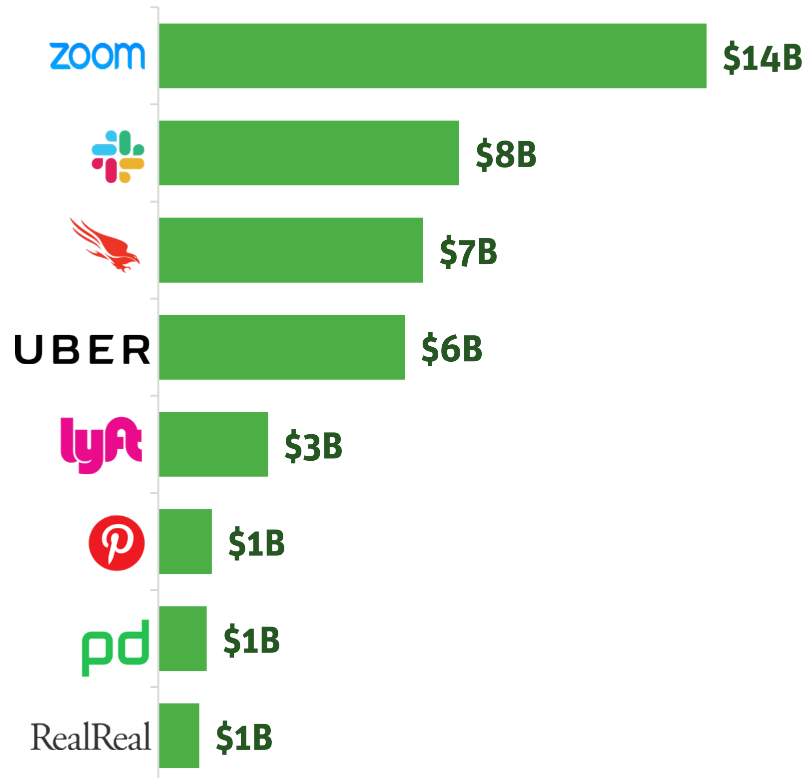
Investors Are Ready to Cash Out

The proceeds investors are expected to receive is substantial and on par with dry powder estimates, venture investment and even Ukraine's GDP. This flood of capital is likely to have a waterfall effect, driving Limited Partner returns and fueling the next venture cycle.

2019 VC-Backed Tech Unicorn IPOs: Investor Equity[1]



Increase in Value of Investor Equity Post-IPO

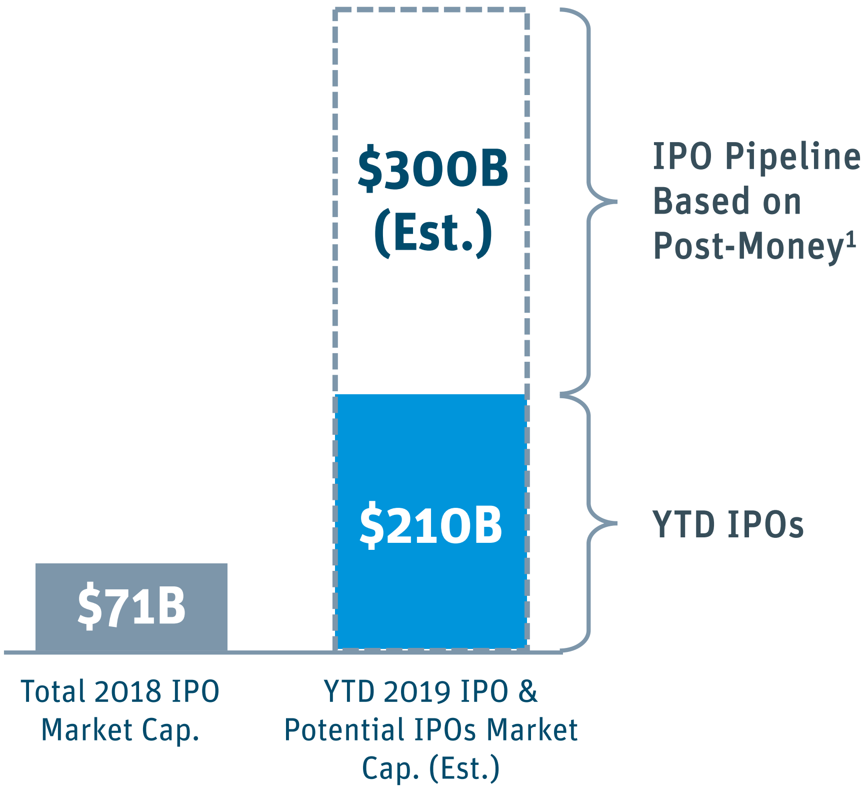


Notes: 1) Investor equity calculated using ownership figures provided by PitchBook. 2) Dry powder figures as of Q3 2018.
Source: PitchBook, S&P Capital IQ, WorldBank and SVB analysis.

Liquidity Splashes Down on San Francisco

With the flood of IPOs, investors and employees will soon be flush with capital. This liquidity release will drive the next wave of investors and entrepreneurs as capital gets recycled back into the ecosystem, with San Francisco a leading beneficiary.

Analysis of 2019 VC-Backed Tech IPOs (U.S. Exchanges)



~15,000 Millionaires
$120B Wealth Creation

$8M
Average Gross Payout

≈

4x
Median Series Seed Investment in 2018

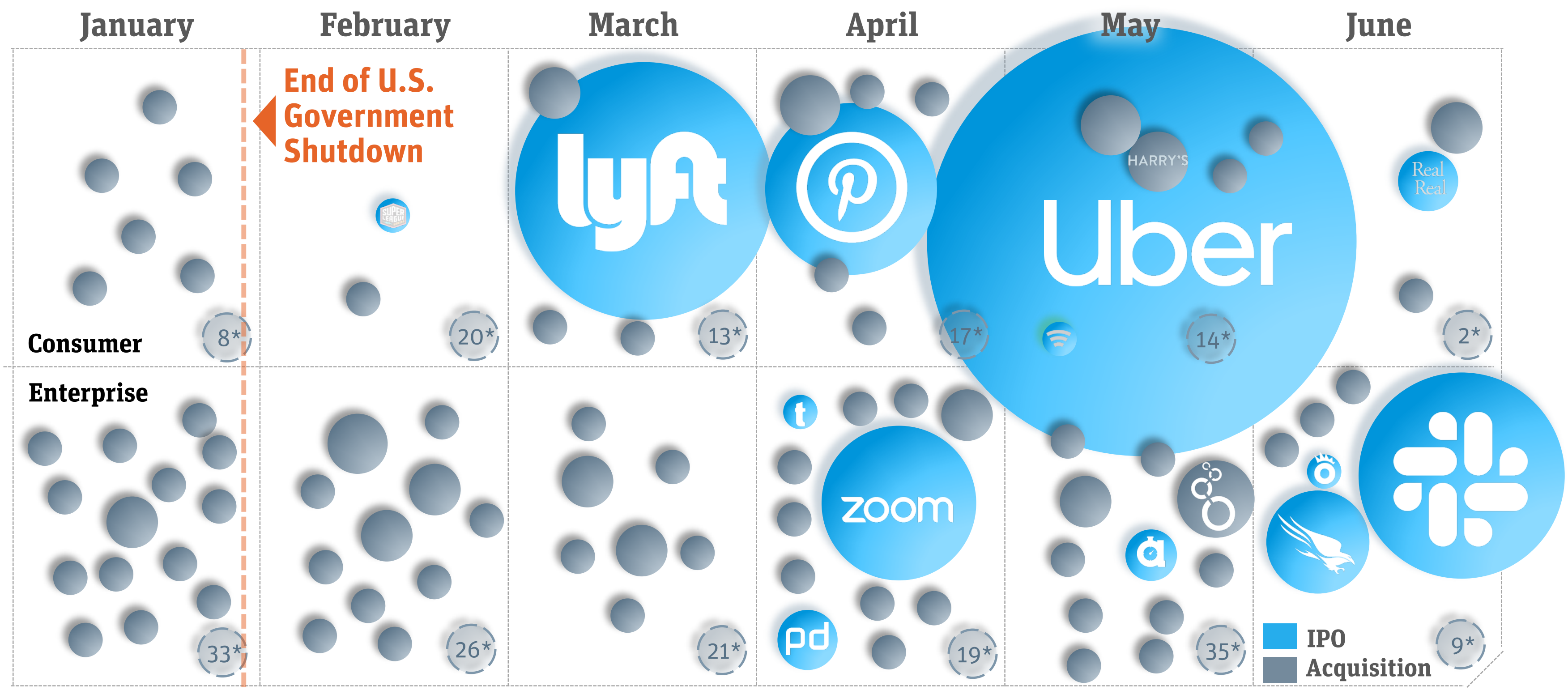
~40%
Millionaires located in San Francisco[2]

Notes: 1) IPO pipeline determined by SVB "IPO Readiness" analysis 2) Based on company headquarters' location
Source: PitchBook, SVB proprietary data and SVB analysis.

After a Dry Start, Tech IPOs Swell

This year was expected to be the year of liquidity as long-anticipated exits of many unicorns came to fruition, releasing billions in trapped value. The U.S. federal government shutdown held back IPO activity until the end of February. Since then, exit activity has picked up, and IPOs have grown in size, with notable divergences in performance.

U.S. VC-Backed Tech IPOs and M&A Deals: Sized by Market Cap at IPO or Acquisition Price

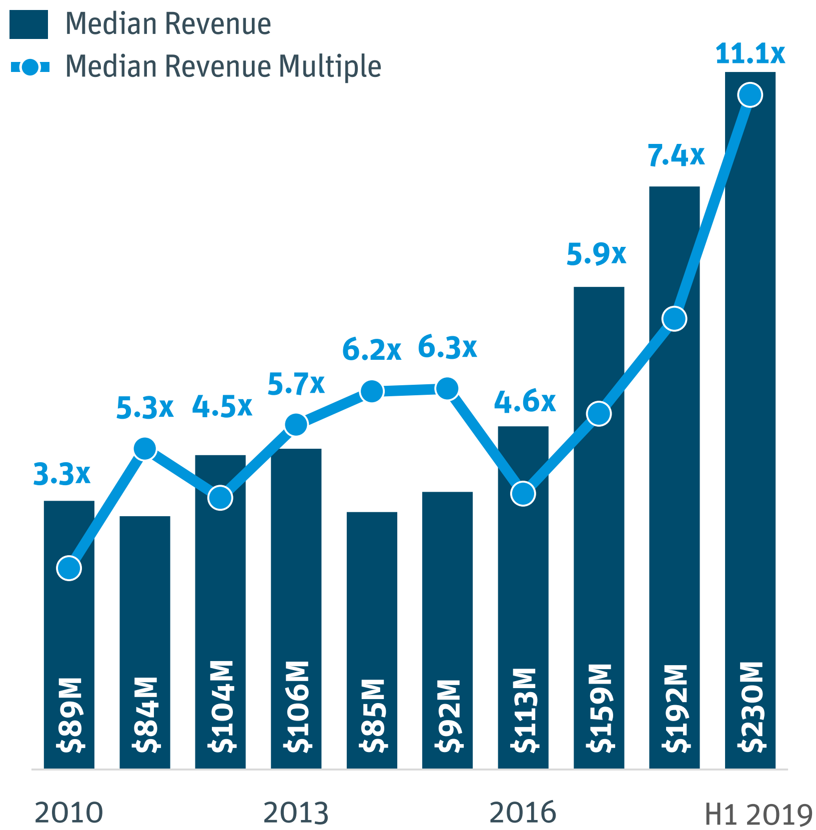


Notes: *Number of M&A deals with an undisclosed value; June 2019 acquisition figures may be lower due to lag in recording of data.
Source: PitchBook, Axios Pro-Rata, PE-Hub, Strictly VC, Fortune Term Sheet and SVB analysis.

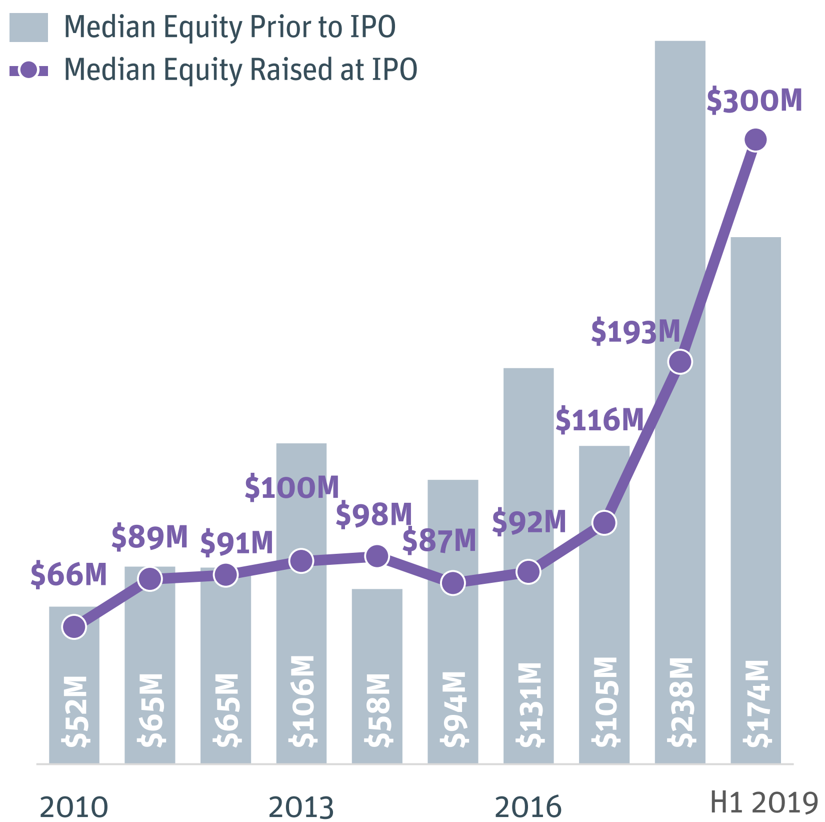
The Changing Face of IPOs

With the abundance of private capital, companies have been able to grow larger while staying private longer. Today's aspiring public tech company typically has raised significantly more capital and boasts much higher revenues.

VC-Backed Tech IPOs: Revenue



VC-Backed Tech IPOs: Equity Raised

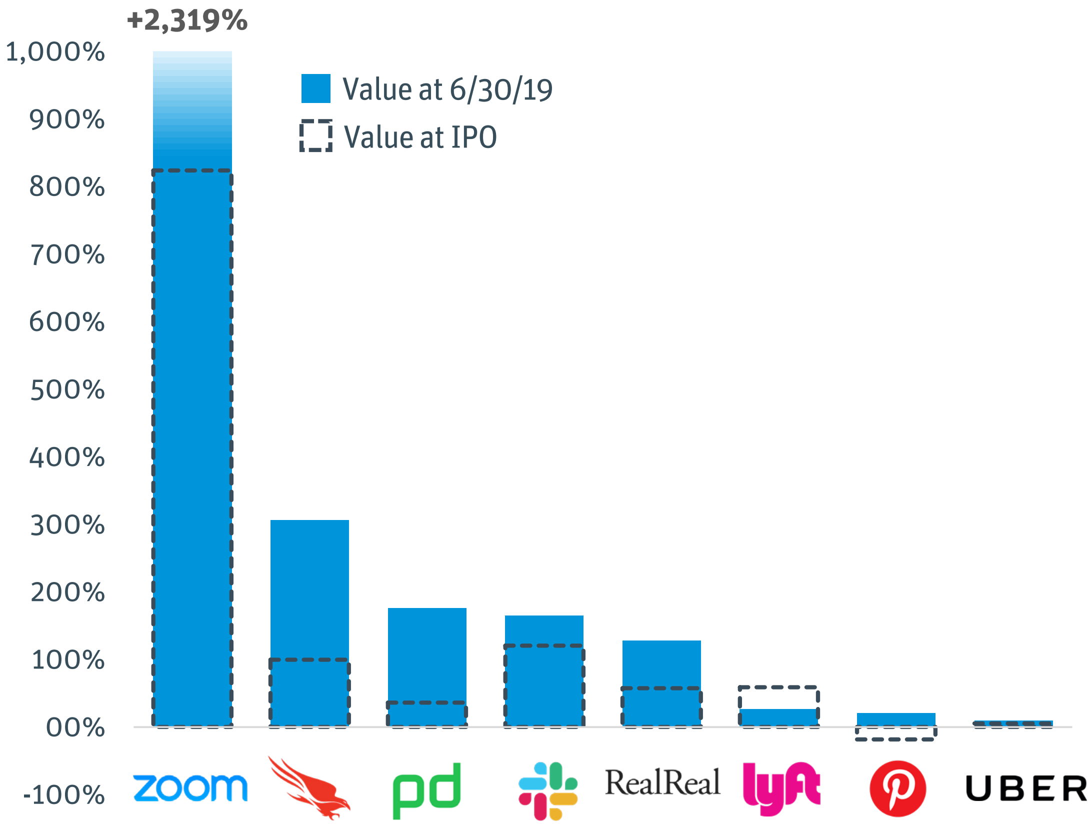


Source: PitchBook and SVB analysis.

Public Markets Validate Private Valuations

Public investors have largely agreed with their private counterparts on unicorn valuations. Six of eight billion-dollar IPOs in 2019 priced above their last private round. Public markets can be mercurial, and true validation may take time. Facebook traded below its LPV[1] for almost a year.

Valuation Relative to LPV: 2019 U.S. $1B+ Tech IPOs



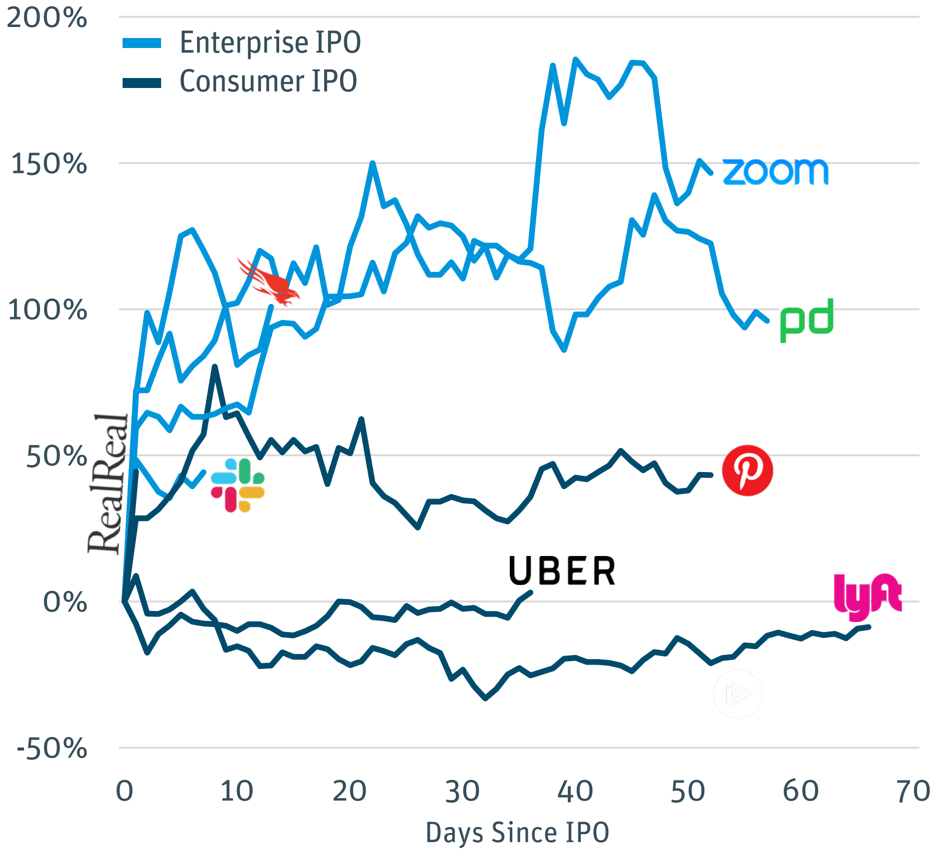
Market Cap: Facebook

Note: 1) LPV is last private valuation from a priced venture equity round prior to IPO.
Source: S&P Capital IQ, PitchBook and SVB analysis.

Enterprise Zooms While Consumer Needs a Lift

One unmistakable trend is the outperformance of enterprise tech companies versus their consumer counterparts. Whether it be first-day “pops” or post-IPO performance, enterprise companies have led the pack due in part to their stronger fundamentals.

Cumulative Performance: 2019 U.S. $1B+ Tech IPOs



IPO Breakdown by Customer Type

	Enterprise			
	pd	zoom	CrowdStrike	Slack
IPO Date	4/11/19	4/18/19	6/12/19	6/18/19
Range	$21–$23	$33–$35	$28–$30	–
IPO Price	$24	$36	$34	$26
LPV[1]	$1B	$1B	$3B	$7B
1st Day	59%	72%	71%	49%
Post-IPO	96%	147%	101%	44%
IPO Mkt. Cap	$2B	$9B	$7B	$16B

	Consumer			
	lyft	Pinterest	UBER	RealReal
IPO Date	3/29/19	4/18/19	5/10/19	6/28/2019
Range	$70–$72	$15–$17	$44–$50	$17–$19
IPO Price	$72	$19	$45	$20
LPV[1]	$15B	$12B	$70B	$1B
1st Day	9%	28%	-8%	45%
Post-IPO	-9%	43%	3%	45%
IPO Mkt. Cap	$24B	$10B	$76B	$2B

Note: 1) LPV is last private valuation from a priced venture equity round prior to IPO.
Source: S&P Capital IQ, PitchBook and SVB analysis.

International: Murky Waters

The U.S. Takes a FIRRMA Stance

The enactment of the Foreign Investment Risk Review Modernization Act (FIRRMA)[1] adds to a host of headwinds for cross-border M&A between foreign entities and the U.S. CFIUS had already dramatically increased reviews before FIRRMA. It will now have latitude to do even more.

Who & What Might be Affected?

Funds
Funds with foreign LPs investing in American companies

Companies
American companies who outsource to non-U.S. entities

Industries
Broadens scope of transactions and industries

Funds & Companies
Lengthens the time period for reviews and investigations by CFIUS

Acquisitions Blocked and Divestitures Ordered

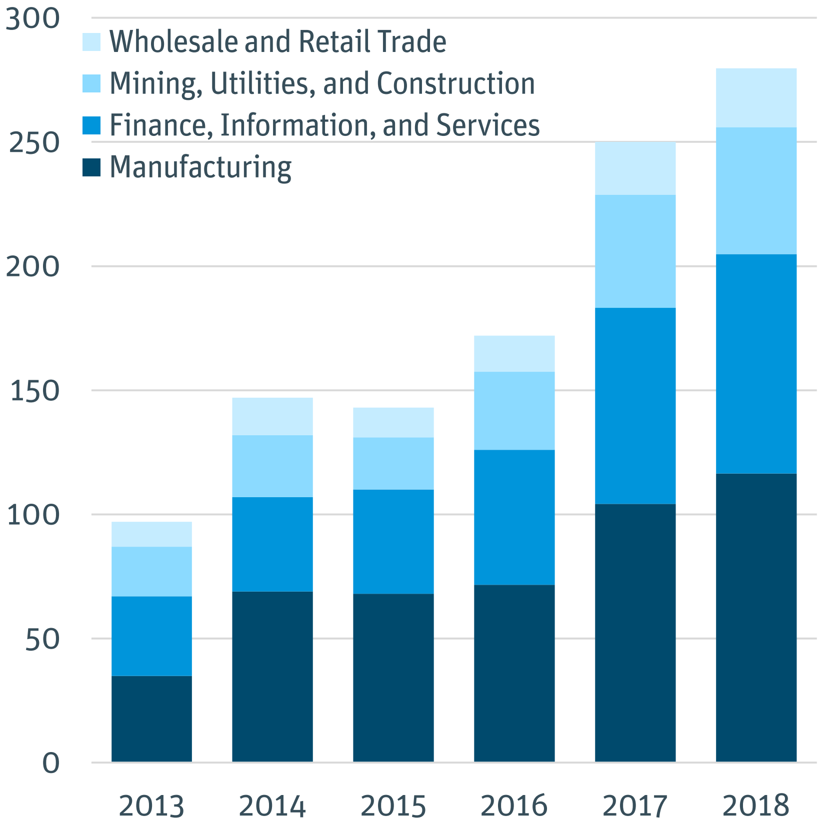
KUNLUN	$245M Divestiture →	Grindr
BROADCOM	$117B Blocked →	
CANYON BRIDGE	$1.3B Blocked →	Lattice Semiconductor Corporation
GRAND CHIP INVESTMENT	$723M Blocked →	AIXTRON

Notes: 1) FIRRMA is a regulation adopted in November 2018 that makes revisions and clarifications to CFIUS.
Source: PitchBook and SVB analysis.

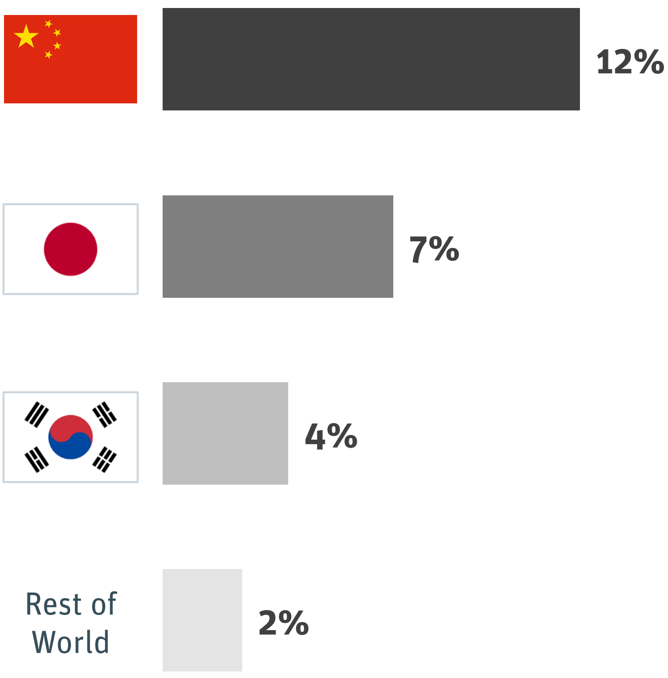
CFIUS: East Asia in the Crosshairs

Historically one of the most secretive regulatory bodies in the U.S., CFIUS has been more active than ever, especially in manufacturing and services. Transactions involving China and Japan, important competitors of the U.S. in these sectors, are more likely to be reviewed.

CFIUS: Reviewed Transactions[1]



Reviewed Percentage of Respective Country's Transactions: 2013–2015[2]

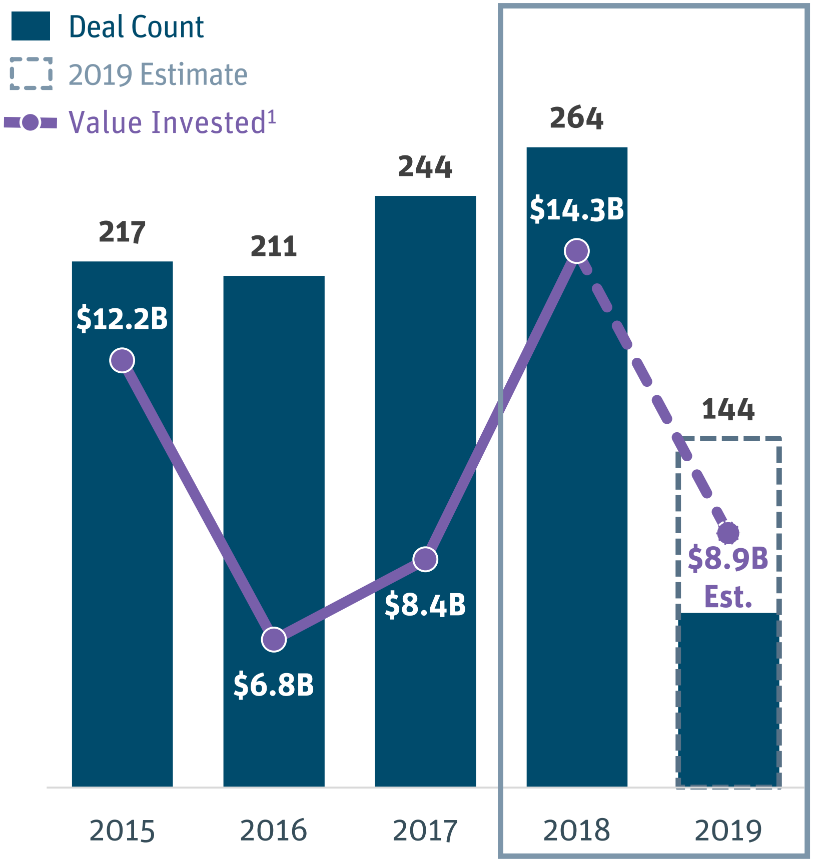


Notes: 1) 2016–2018 sectoral makeup and 2018 total based on extrapolation from previous years.
2) 2015 is the latest country-level data available.
Source: U.S. Gov. Accountability Office, Congressional Research Service, Kirkland Ellis, PitchBook and SVB analysis.

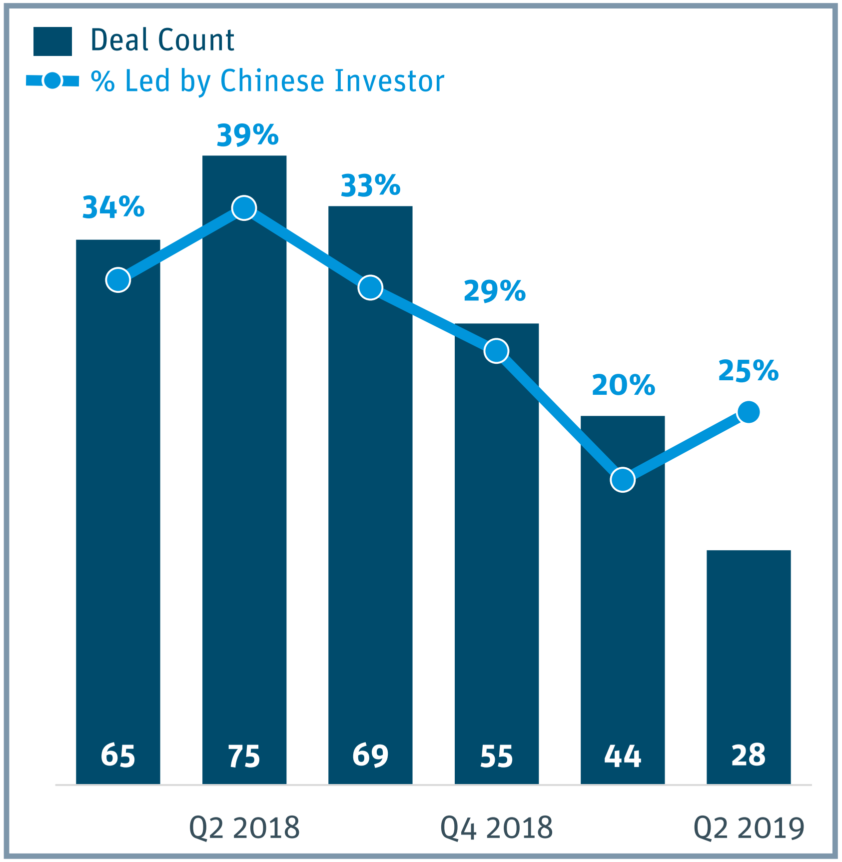
China-U.S. VC Investment Drops

Symptomatic of a generally sour trade and investment outlook, Chinese VC investment in U.S. companies has declined quarter over quarter since the first half of 2018. The percentage of these investments with a Chinese lead declined until this most recent quarter.

U.S. VC Deals with at Least One Chinese Investor



U.S. VC Deals with at Least One Chinese Investor

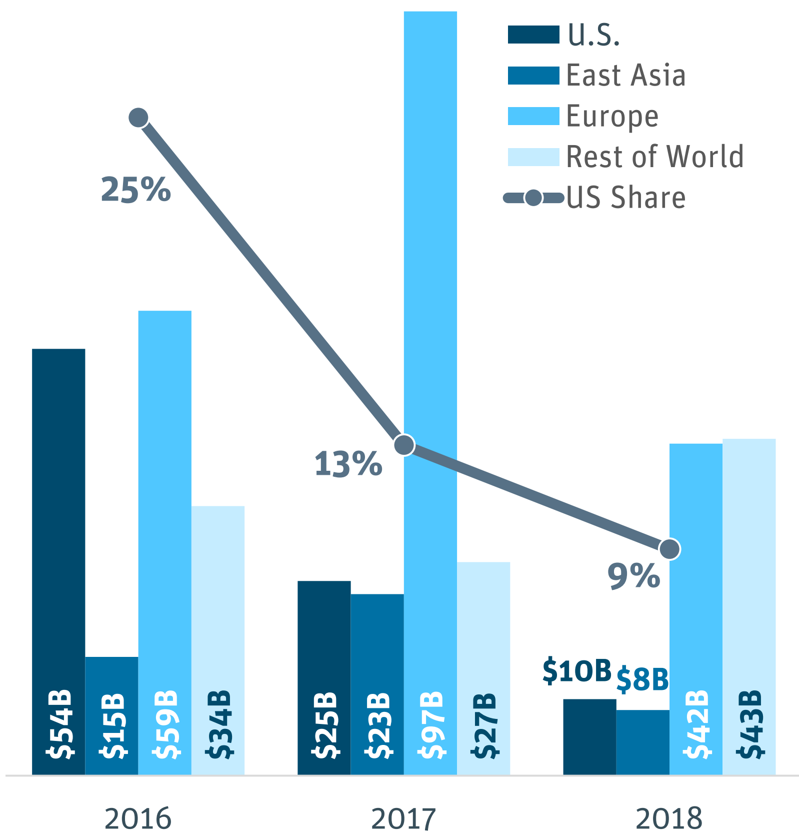


Notes: 1) Represents aggregate value of all deal sizes involving Chinese investors, not those investors' specific commitments.
Source: PitchBook and SVB analysis.

China's Global Investment Mix Is Shifting

China continues to diversify its overseas investment portfolio. Europe receives the lion's share, while the U.S. share is now below 10%. Countries lying along the New Silk Road trade corridor have received massive investment in recent years, as have other emerging markets such as Brazil.

Chinese Investment by Region



Top Non-U.S. Destinations

		Country	2015–2018 Investment
#1		United Kingdom	$55B
#2		Switzerland	$52B
#3		Australia	$36B
#4		Germany	$34B
#5		Brazil	$31B
#6		Pakistan	$27B
#7		Nigeria	$27B
#8		Singapore	$26B
#9		Malaysia	$26B
#10		Bangladesh	$23B

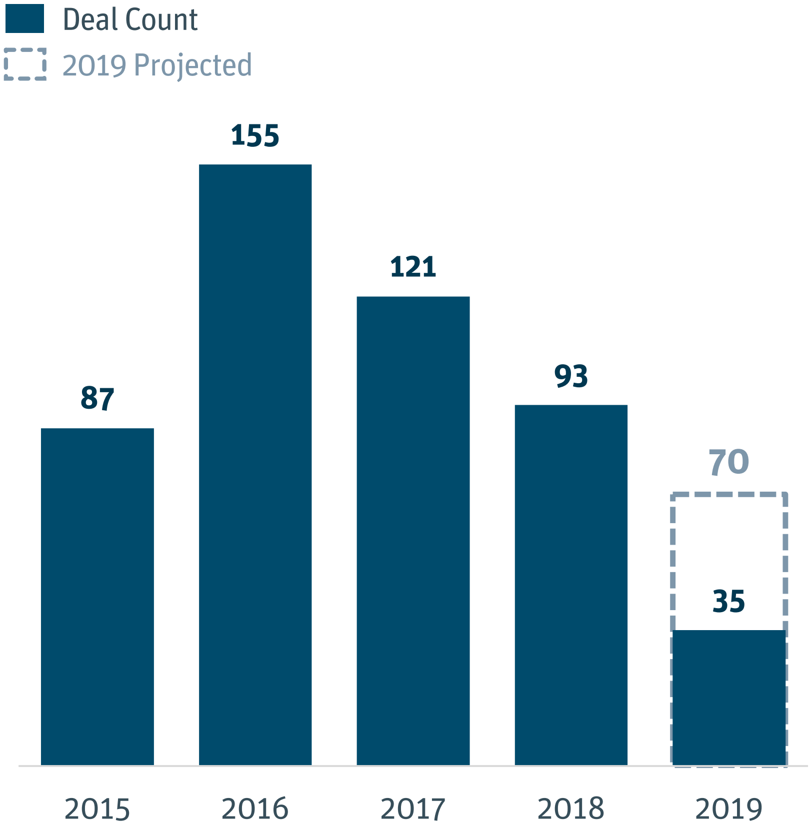
These countries lie on or near trade routes associated with the $900B New Silk Road initiative.

Source: AEI China Investment Tracker, World Economic Forum and SVB analysis.

Europe Also Clamps Its Regulatory Jaws

As in the U.S., European regulators are ratcheting up oversight of foreign deals. As China looks to invest more in Europe, policymakers at both the national and EU level are raising concerns, citing national security.

European Acquisitions by Chinese Buyers



Important Policy Events

December 29, 2018 – Germany gives its Federal Ministry for Economic Affairs and Energy power to block investments for 10% control or more in security-critical industries.

February 6, 2019 – European Commission makes two landmark merger-blocking decisions on the same day.

March 5, 2019 – Council of the European Union passes Regulation 2019/452, establishing new framework for screening foreign investments into the European Union.

April 10, 2019 – Regulation 2019/452 officially goes into effect.

Source: Mergermarket, National Law Review, Arnold & Porter and SVB analysis.

A Star Is Born: The New Chinese Nasdaq?

With reduced prospects for collaboration with U.S. tech, focus on domestic innovation has increased significantly. The new STAR Market aims to be the market of choice for Chinese tech firms. This new exit avenue may stimulate the VC industry in China.

Venture Investment in Chinese Companies, 2019
$17B

Capital Raised in First 25 STAR Market IPOs
$5.4B

Venture Investment in U.S. Companies, 2019
$61B

Capital Raised in Last 25 Nasdaq Tech IPOs
$8.3B

STAR Market 科创板	上海證劵交易所 Shanghai Stock Exchange	Nasdaq	NYSE
20% daily fluctuation restriction	10% daily fluctuation restriction	5–10% 5-minute fluctuation limit	5–10% 5-minute fluctuation limit
500,000 RMB minimum individual investment	No minimum individual investment	No minimum individual investment	No minimum individual investment
Registration-based system for IPOs – formality review	Approval-based system for IPOs – value assessment	Registration-based system for IPOs – formality review	Registration-based system for IPOs – formality review
Unprofitable companies may list	Profitability track record required	Unprofitable companies may list	Unprofitable companies may list

Source: PitchBook, SSE Website, LULD Plan Website and SVB analysis.

Appendix

Authors

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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.

Nick Candy, CFA

Vice President, Research

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Nick Candy 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 global research efforts exploring investment, fundraising and exit dynamics in the venture ecosystem.

Prior to his research role, Nick managed strategic advisory and valuation engagements for venture-backed technology companies as part of SVB Analytics.

Nick earned a Master of Business Administration from Chapman University and a Bachelor of Science in design from Bournemouth University. In addition, he holds the Chartered Financial Analyst (CFA) designation.

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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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