State of the Markets
Inside views on the health and productivity of the innovation economy
THIRD QUARTER 2017

SPECIAL REPORT:
China’s Innovation Economy
State of the Markets: Third Quarter 2017

Innovation Economy Posts Strong Performance

Heightened Investor Interest, Options for Founders

Through the first half of 2017, US market conditions for IPOs have been favorable: strong investor demand, equities near all-time highs and volatility at historical lows have provided US companies and their investors with ample opportunity for new listings. Despite this, many highly valued companies continue to raise capital on the private markets, delaying their public offering and extending the nearly two-decade trend of staying private longer. In fact, this past quarter recorded the most $100M-plus financing rounds since Q3 2015, driven by participation from private equity investors who have shown growing interest in the tech sector.

China in Focus: Converging Opportunities

China has emerged as a transformative player in the global innovation ecosystem, catalysed through rapid urbanization, an expanding domestic investor base, and an economy that boasts the most mobile-connected consumers in the world. Today, China is home to the second-largest venture capital market in the world, with access to talent and capital rivaling that of the United States.

This quarter we bring you a special report, produced in partnership with SPD Silicon Valley Bank*, our joint-venture bank based in Shanghai and Beijing, examining the many ways in which China’s innovation ecosystem reflects the US and provides insight into converging future opportunities.

*SPD Silicon Valley Bank is a Sino-US joint-venture bank of Silicon Valley Bank, the California bank subsidiary and commercial banking operation of SVB Financial Group, and Shanghai Pudong Development Bank.
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## Midterm Grades — Predicting 2017

Halfway through 2017, the venture ecosystem is showing no signs of slowing. The return of mega-$100M+ rounds has driven private financings up and venture fundraising continues its tear. Still, many investors are asking: when may a decade of staggering paper gains be realised?

<table>
<thead>
<tr>
<th>2017 Predictions</th>
<th>2H 2017 Updates</th>
</tr>
</thead>
<tbody>
<tr>
<td>With plenty of capital in VC war chests, valuations remain stable across early</td>
<td>Companies in the upper quartile have ready access to capital at attractive</td>
</tr>
<tr>
<td>stages but fall in later stages without crossover participation.</td>
<td>valuations after 2016’s record fundraising is put to work by VCs.</td>
</tr>
<tr>
<td>With public company valuation confidence restored and a stable of maturing</td>
<td>Q2’17 started hot, particularly for SaaS, but slowed entering the summer months.</td>
</tr>
<tr>
<td>unicorns, 2017 sees 2-3x the number of IPOs as 2016.</td>
<td>Still, 2017 tech IPOs are on track to double the 2016 total.</td>
</tr>
<tr>
<td>The spending spree from tech giants reaches the VC-backed ecosystem but with</td>
<td>Both strategic and financial buyers continue to hunt (and find) reasonably</td>
</tr>
<tr>
<td>mixed success compared to the most recent private valuation.</td>
<td>priced acquisition targets in consumer and enterprise technology.</td>
</tr>
<tr>
<td>With full coffers, fundraising in 2017 falls from the 2016 high, but interest</td>
<td>The early 2017 pace for venture fundraising matches 2016’s record year. LP</td>
</tr>
<tr>
<td>from LPs stays high.</td>
<td>interest is also driving PE mega-funds.</td>
</tr>
<tr>
<td>With rates rising, asset managers look for growth elsewhere. This helps deflate</td>
<td>PE’s growing comfort with tech and renewed crossover interest has led to the</td>
</tr>
<tr>
<td>the overheated market for late-stage capital.</td>
<td>second-highest quarterly count of $100M+ rounds in Q2’17.</td>
</tr>
</tbody>
</table>
Market Dynamics
Bull Run Continues in US Led by Tech & Banks

Whereas financial institutions enjoyed an immediate “Trump Bump” following the November election, tech stocks helped drive first-half 2017 returns for the S&P on the back of robust growth and limited earnings shocks.


- S&P Banks: +23%
- S&P IT: +18%
- Composite: +13%

Source: S&P Capital IQ.
Fed Tightens Again Despite Mixed Signals

Citing improving economic conditions, the Fed hiked rates for a fourth time in 18 months in June 2017, ending a decade of near-zero interest rates. Future hawkish policy moves are dependent on the alignment of key indicators.

Fed Funds Effective Overnight Rate: Q2’07–Q2’17

June 2017: Fourth Rate Hike Since December 2015

Reasons to Continue Tightening Monetary Policy:
- Low unemployment
- Elevated asset prices
- Signs of global growth

Reasons to Hold Off Tightening Monetary Policy
- Lack of progress on fiscal stimulus
- Inflation below target
- Tepid US growth

Sources: S&P Capital IQ and SVB analysis.
Exits Come in Fits and Starts
VC-Backed Tech Exits Come in Waves

After the first planned IPO of 2017 – AppDynamics – was instead acquired for a significant premium, 2017 looked to be a year of elevated liquidity. It would take another five weeks to see a second offering: Snap’s IPO in March set off a burst of activity, notably for cloud software. But exits slowed to a crawl entering the summer months, and the last two offerings – particularly Blue Apron’s disappointing debut – have done little to bolster excitement.

US VC-Backed Tech IPO and M&A Deals: Sized by Market Cap at IPO or Acquisition Price

Opportune Exit Conditions for SaaS

Limited volatility and growing valuations bode well for cloud software offerings in the second half of 2017. All but 18-year-old Appian attracted forward revenue multiples above the aggregate for the BVP Cloud Index. However, these high valuations may be giving aspiring public entrants pause due to fear of a “multiple crunch” once listed.

S&P Volatility Index (VIX): Q3’16–Q2’17

BVP Cloud & SaaS IPOs NTM Rev Multiple: Q3’16–Q2’17

Sources: Yahoo Finance, Bessemer Venture Partners and S&P Capital IQ.
Many Unicorns Are Older Than Average Tech IPO

Startups are staying private longer than ever, extending a nearly two-decade trend. More than 40% of US unicorns were founded at least ten years ago, bumping up against the typical life span of a venture fund. Should this trend persist, companies and investors may seek alternative liquidity solutions.

**US Technology IPOs – Years from Founding (Median Age): 1999–1H’17**

**US Unicorns – Count by Age: Q2’17**

41% of US Unicorns Founded 10+ Years Ago

Sources: Dr. Jay Ritter, University of Florida; The Wall Street Journal; S&P Capital IQ.
Private Markets Generate New Mega-Rounds
Late Stage Financing Surges; Early Holds Steady

Following three straight quarters of sub-$10B venture funding for US tech, private market financings swelled back to levels seen during the unicorn boom of 2014–2015. Steady activity in the earlier stages, coupled with the return of the mega-round, brought $13B of new investment in Q2’17.

Venture Capital Invested in US Information Technology: 2012–Q2’17

Split by Round Size:
- $100–999M
- $1B+
- $25–49M
- $50–99M
- $0–9M
- $10–24M

$100M+ Rounds

Source: PitchBook.
Private IPOs Bounce Back After Muted 2016

US tech firms raised 21 $100M+ rounds in Q2’17 — the second most active quarter on record. The activity was due in large part to reengaged asset managers and burgeoning demand from private equity.

**US Tech IPOs ($100M+ Rounds): Q1’12–Q2’17**

**PIPOs with PE & Crossovers Participation: Q2’17**

<table>
<thead>
<tr>
<th>Company</th>
<th>Deal Size</th>
<th>Investors</th>
</tr>
</thead>
<tbody>
<tr>
<td>lyft</td>
<td>$600M</td>
<td>KKR, CPP Investment Board</td>
</tr>
<tr>
<td>wish</td>
<td>$500M</td>
<td>Everbright</td>
</tr>
<tr>
<td>unity</td>
<td>$400M</td>
<td>SilverLake*</td>
</tr>
<tr>
<td>houzz</td>
<td>$400M</td>
<td>Wellington Management</td>
</tr>
<tr>
<td>peloton</td>
<td>$325M</td>
<td>Wellington Management, Fidelity, B.A.M:</td>
</tr>
<tr>
<td>avidxchange</td>
<td>$300M</td>
<td>Caisse de dépôt et placement du Québec</td>
</tr>
<tr>
<td>everfi</td>
<td>$190M</td>
<td>TPG*</td>
</tr>
<tr>
<td>qualtrics</td>
<td>$180M</td>
<td>Insight*</td>
</tr>
<tr>
<td>fuze</td>
<td>$134M</td>
<td>Wellington Management</td>
</tr>
<tr>
<td>illumio</td>
<td>$125M</td>
<td>J.P. Morgan*</td>
</tr>
<tr>
<td>domo</td>
<td>$107M</td>
<td>BlackRock*</td>
</tr>
<tr>
<td>crowdstrike</td>
<td>$100M</td>
<td>Warburg Pincus</td>
</tr>
</tbody>
</table>

*Led the round of financing. Source: PitchBook.*
Capital Flows Through Private Equity to Tech

Private equity fund commitments are on pace for the most active year in a decade, due in part to LP rotations out of hedge fund strategies. These funds are increasingly flowing to certain corners of tech, notably software, and serve as a source of both growth capital and liquidity, forestalling pressures to exit.

*Indicates Apollo Global Management's announced $23.5B fund expected to close 2H'17. Source: PitchBook.*
New Unicorns Up but Well Below 2015 Levels

The number of new companies reaching $1B+ valuations still exceeds the number of exits,¹ but since early 2016 the ratio has settled to approximately two new entrants for each exit. The backlog of unicorns is immense, and total private market value exceeds $600B.

¹ Exits include IPOs, M&A and revaluations below $1B.
² As of 6/30/17.
Sources: The Wall Street Journal and S&P Capital IQ.
China Embraces the Global Stage
Planned Economy Evolves Beyond Manufacturing

Twenty years ago, China’s manufacturing-driven economy was only one-ninth the size of the US economy. Today, that gap has closed tremendously, driven by a focus on services, which now account for the majority of China’s GDP.


The Rise of China’s Consumer Class

Two key drivers are necessary for continued private-sector-led growth: sustained wage growth and further access to affordable credit. In both cases, China is trending toward US levels of prosperity.


- 24.0x in 2016


- US: Declining from 100% to 60%
- China: Increasing from 0% to 20%
Nascent Public Markets, Convergent Private

The relatively young China stock exchanges remain subject to high volatility, as witnessed in 2015. Sheltered in large part from these shocks, China’s flourishing innovation economy is now approaching similar opportunities targeted in the US.


Source: S&P Capital IQ.
China’s Dominant Internet Giants
Alibaba, Tencent Reign in China

China’s internet giants, impressive in their scale and breadth, play a pivotal role in pushing innovation forward in knowledge-intensive industries. Proving out strong revenue and profit growth, Alibaba and Tencent each hit all-time market highs in the first half of 2017. Baidu has struggled to expand beyond its dominance in search.

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*BAT*, Alibaba and Tencent.


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**BAT* – Select Product Offerings and Subsidiaries**

<table>
<thead>
<tr>
<th><strong>Baidu</strong></th>
<th><strong>Alibaba</strong></th>
<th><strong>Tencent</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Search</strong></td>
<td><strong>Commerce</strong></td>
<td><strong>Social/Messaging</strong></td>
</tr>
<tr>
<td>Baike (百科)</td>
<td>Commerce</td>
<td>WeChat (微信)</td>
</tr>
<tr>
<td>Online collab. encyclopedia</td>
<td>Video</td>
<td>Mobile &amp; MMO platforms</td>
</tr>
<tr>
<td>75%+ market share in China</td>
<td>Cloud</td>
<td>Gaming</td>
</tr>
<tr>
<td><strong>iQiyi</strong></td>
<td><strong>Ant Financial</strong></td>
<td><strong>Music</strong></td>
</tr>
<tr>
<td>China’s largest video website</td>
<td></td>
<td>Combining Top 3 services</td>
</tr>
<tr>
<td><strong>Netdisk</strong></td>
<td><strong>FinTech</strong></td>
<td><strong>IM-integrated payments</strong></td>
</tr>
<tr>
<td>Online storage for consumers</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Apollo</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
China Tech Giants Reach for Global Scale

All three of China’s tech giants have placed sizable bets beyond their domestic market, particularly in the US. These cross-border investments have expanded market access and tapped into innovation hubs across the world.

**BAT – Select Global Investments**

- **Supercell**
  - $8.6B Acquisition
  - June 2016
- **Flipkart**
  - $1.4B Investment
  - April 2017
- **hike**
  - $175M Investment
  - Aug. 2016
- **Paytm**
  - $200M Investment
  - Feb. 2017
- **Lazada**
  - $1B Majority Stake
  - June 2017

**BAT – US Investments**

- $100M Deals
  - Velodyne Lidar
  - Cloudflare
  - Uber
  - Lyft
  - Magic Leap
  - Tango
  - Snap
  - Fanatics
  - MoneyGram
  - Kabam
- All Deals
  - Tesla
  - Glu Mobile
  - Fab

Sources: PitchBook and S&P Capital IQ.
# BAT Initiatives Mirror Those of US Giants

From consumer messaging apps to deep technology such as autonomous cars, overlapping strategic investment by China and US tech giants underscores the competition to own the platforms of tomorrow.

## Heat Map of Internet Giants’ Acquisitions & Private Placements (Deal Count): 2012–Q2’17

<table>
<thead>
<tr>
<th>Category</th>
<th>Baidu</th>
<th>Tencent</th>
<th>Google</th>
<th>Amazon</th>
<th>Apple</th>
<th>Microsoft</th>
<th>Facebook</th>
</tr>
</thead>
<tbody>
<tr>
<td>Artificial Intelligence</td>
<td>3</td>
<td>2</td>
<td>17</td>
<td>5</td>
<td>13</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>AR/VR</td>
<td>1</td>
<td>2</td>
<td>10</td>
<td>1</td>
<td>5</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Commerce</td>
<td>3</td>
<td>11</td>
<td>3</td>
<td>12</td>
<td>6</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Auto Tech</td>
<td>3</td>
<td>5</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Cloud</td>
<td>2</td>
<td>4</td>
<td>13</td>
<td>3</td>
<td></td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Consumer</td>
<td>6</td>
<td>8</td>
<td>10</td>
<td>5</td>
<td>11</td>
<td>8</td>
<td>6</td>
</tr>
</tbody>
</table>

- **Google and Apple are investing heavily in the race for AI, while Baidu has executed three acquisitions.**
- **Alibaba and Amazon are battling for control of the future of commerce: frictionless and on-demand.**
- **US investment in cloud software, led by Google and Microsoft, hopes to extend global enterprise dominance.**
- **Consumer investments naturally remain an area of focus for both US and China giants.**

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Source: S&P Capital IQ.
Case Study: Tangled Investments in Ride-Sharing

Multinational tech firms took notice of Uber’s rise and rapidly deployed investments to secure market share in China. Amid the land grab, Didi has emerged victorious, merging with Kuaidi Dache and acquiring Uber China. Each BAT, positioned in either Uber or Lyft, now holds a stake in the competition for US ride-sharing dominance.

Corporate Investments in Transportation-as-a-Service Companies

Sources: PitchBook and S&P Capital IQ.
Venture Capital Playbook: China
China’s Venture Fundraising Climbs to US Levels

Last year, venture capital commitments in China exceeded $50B for the first time, funded largely by domestic RMB investors. Venture fundraising in China matched US fundraising in 2016, which was the highest total in 15 years.

Sources: Zero2IPO’s PEdata and PitchBook.
China’s Unicorns Dependent on the Consumer

Many of the private enterprises finding current success have done so by meeting the evolving tastes of the Chinese consumer. Unrealised opportunity lies in China’s budding service-based economy. In contrast, many highly valued US tech giants target enterprise markets.

**Unicorn Industry Composition: 1H’17**

<table>
<thead>
<tr>
<th>Industry</th>
<th>China</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer (B2C)</td>
<td>38%</td>
<td>22%</td>
</tr>
<tr>
<td>Information Technology</td>
<td>33%</td>
<td>60%</td>
</tr>
<tr>
<td>Business (B2B)</td>
<td>13%</td>
<td>5%</td>
</tr>
<tr>
<td>FinTech</td>
<td>13%</td>
<td>7%</td>
</tr>
<tr>
<td>Healthcare</td>
<td>3%</td>
<td>6%</td>
</tr>
</tbody>
</table>

**Recent Financing Events – China Unicorns: 1H’17**

<table>
<thead>
<tr>
<th>Company</th>
<th>Sector</th>
<th>Total Raised</th>
</tr>
</thead>
<tbody>
<tr>
<td>SenseTime</td>
<td>Artificial Intelligence</td>
<td>$420M</td>
</tr>
<tr>
<td>ofo</td>
<td>Sharing Economy</td>
<td>$1.4B</td>
</tr>
<tr>
<td>Mobike</td>
<td>Sharing Economy</td>
<td>$1.0B</td>
</tr>
<tr>
<td>OneDream</td>
<td>Big Data</td>
<td>$180M</td>
</tr>
<tr>
<td>Ele.me</td>
<td>Food Delivery</td>
<td>$2.0B</td>
</tr>
<tr>
<td>Yuanfudao</td>
<td>Education Technology</td>
<td>$244M</td>
</tr>
<tr>
<td>NextEV</td>
<td>Electric Vehicles</td>
<td>$1.1B</td>
</tr>
<tr>
<td>Yitu</td>
<td>Artificial Intelligence</td>
<td>$130M</td>
</tr>
<tr>
<td>Royole</td>
<td>Virtual Reality</td>
<td>$330M</td>
</tr>
</tbody>
</table>

Straight to Mobile; Ad Spend Yet to Catch Up

China has 2.5x the number of US internet users, and 95% of China’s users connect regularly through a mobile device. Despite this massive connected audience, China’s advertising platforms capture just a fraction of the global digital advertising market.

*Next Five includes Microsoft, Verizon, Snap, Amazon and Twitter. Sources: CNNIC and eMarketer via The Wall Street Journal.
China’s Strengths Breed Innovative Biz Models

China’s homegrown strengths — mobile ubiquity, the emergence of microtransactions and the migration to urban centers — have allowed local consumer companies to scale without relying on advertising. However, as seen with heightened regulatory scrutiny over live-streaming this year, there are limits to the advantages China presents.

Live Streaming

- Kuaishou
  - Valuation: $3.0B
  - Raised: $360M

Bicycle Sharing

- Inke
  - Valuation: $980M*
  - Raised: $13M*

- Mobike
  - Valuation: $3.0B
  - Raised: $1.0B

- Ofo
  - Valuation: $3.0B*
  - Raised: $1.4B*

Digital Education

- Yuanfudao
  - Valuation: $1.0B
  - Raised: $244M

- VIPKID
  - Valuation: Undisclosed
  - Raised: $118M

*Figures from 2016. In May 2017, Inke sold a 50% stake to Shunya International for an undisclosed amount.
Sources: China Money Network, Bloomberg, PitchBook and SVB analysis.
China Outlook – Predicting 2017

The overall market outlook for 2017 is quite bullish, particularly given abundant capital and a growing supply of quality entrepreneurs. Domestic IPOs are particularly encouraging and could lead to a strong year for exits.

<table>
<thead>
<tr>
<th>Themes</th>
<th>Predictions</th>
</tr>
</thead>
<tbody>
<tr>
<td>With abundant capital, valuations remained stable in early and growth stages. Late stage high-fliers managed to raise unprecedented rounds in 2017.</td>
<td>Valuations: The valuation level won't decrease drastically for the rest of the year. AI and enterprise companies will enjoy higher valuations given investor demand.</td>
</tr>
<tr>
<td>Valuations in China's public market (particularly GEM) did drop, but domestic IPOs quadrupled in 1H’17 despite stricter rules on stock sales.</td>
<td>IPOs: The pace of IPOs in China in 2H 2017 will likely slow down with the whole-year number totaling 320 or more.</td>
</tr>
<tr>
<td>Overseas M&amp;A experienced significant challenges, and many acquisitions made by public companies in previous years turned sour. However, tech giants are still proactively looking for new targets.</td>
<td>M&amp;A: Overall M&amp;A activity will cool down, but strategic buyers won't be deterred.</td>
</tr>
<tr>
<td>Venture fundraising in China has fallen from the 2016 high, but interest from LPs remains high.</td>
<td>Fundraising: GPs will focus their capital-raising efforts on institutional LPs and government guidance funds. Top VCs will meet their fundraising goals easily.</td>
</tr>
<tr>
<td>The mega-rounds seen in 2017 are increasingly funded by PE and unconventional tech investors. Some sophisticated VCs have contributed as well.</td>
<td>Crossovers: PE and other crossover investors will remain active for the rest of the year.</td>
</tr>
</tbody>
</table>
European Venture: UK Maintains Lead
Strong Fundraising Helps Boost Major Metros

LP interest in venture allocations remains high, with a particular focus on large, Pan-European funds. While many emerging innovation hubs have blossomed, the traditional hubs maintain their top positions by deals and capital.

**UK Venture Fundraising and Funds Closed: 2012–1H’17**

**European Venture Activity by Metro (Top 5): Q2’17**

<table>
<thead>
<tr>
<th>Metro Area</th>
<th>Deal Count</th>
<th>Deal Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>London</td>
<td>149</td>
<td>€1,070M</td>
</tr>
<tr>
<td>Paris</td>
<td>51</td>
<td>€392M</td>
</tr>
<tr>
<td>Berlin</td>
<td>38</td>
<td>€496M</td>
</tr>
<tr>
<td>Stockholm</td>
<td>19</td>
<td>€100M</td>
</tr>
<tr>
<td>Barcelona</td>
<td>16</td>
<td>€44M</td>
</tr>
</tbody>
</table>

*As of June 30, 2017. Source: PitchBook.*
UK Maintains Lead As Investments Grow

Venture capital continues to flow into Europe, with the UK growing to 36% of capital through the first half of 2017. The current trend is toward larger rounds with a continued slowdown in the seed stage.

1. Excludes Energy, Materials and Resources.
*As of June 30, 2017.
Source: PitchBook.
Thank you

Contact us
About Silicon Valley Bank
For more than 30 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.

About SVB’s UK Branch
SVB provides a range of targeted financial services and expertise through its office in the UK. With commercial and international banking services, SVB helps address the unique needs of innovators. The UK’s leading technology and life science businesses, in all stages of development, look to SVB’s niche expertise, experience and unparalleled network, as they grow at home and tackle new markets abroad.