

Corporate Governance and Innovation: Building Bridges

Evan Epstein

Executive Director, Rock Center for Corporate Governance

Stanford University

Rio de Janeiro, Brazil. December 5, 2016

evan.epstein@stanford.edu

Summary

- Silicon Valley's Role in Fostering Innovation: the Founder Narrative.
- “Staying Private” and “Unicorn” Phenomenon
- The Governance Twist: Multiclass Stock Voting in Tech Industry
- New Models of Capital Formation and The Rise of Fintech: Crowdfunding, Blockchain, Robo-Advisors and Marketplace Lending
- The Next Chapter of Corporate Governance

Silicon Valley

- From the “Valley of the Heart’s Delight” to “Silicon Valley” (term first used only in 1971). HP, one of the early startups, was founded in 1939.
- Role of Stanford (2012 study: 39,900 active companies can trace roots back to Stanford)
- Story of the “Traitorous Eight” (1957). Shockley (Beckman Instruments) – Fairchild Semiconductor (“Fairchildren”)
- Technology Waves:
 - ’40-’50s Defense
 - ’60s: Integrated Circuits (Semiconductor Industry): Fairchild, Intel, AMD...
 - ’70s: Personal computer hardware and software: Apple, Microsoft.
 - ’80s: Biotech, mobility and networking companies: Genentech, Cisco
 - ’90s: Internet: Netscape, Yahoo, Google, Amazon, eBay
 - ’00s: Web 2.0 / Social Networks: Facebook, LinkedIn, Twitter
 - ’10s: Mobile Revolution / “Software Eat the World”

The “Traitorous Eight”



California Historical Society/Wayne Miller/Magnum Photo

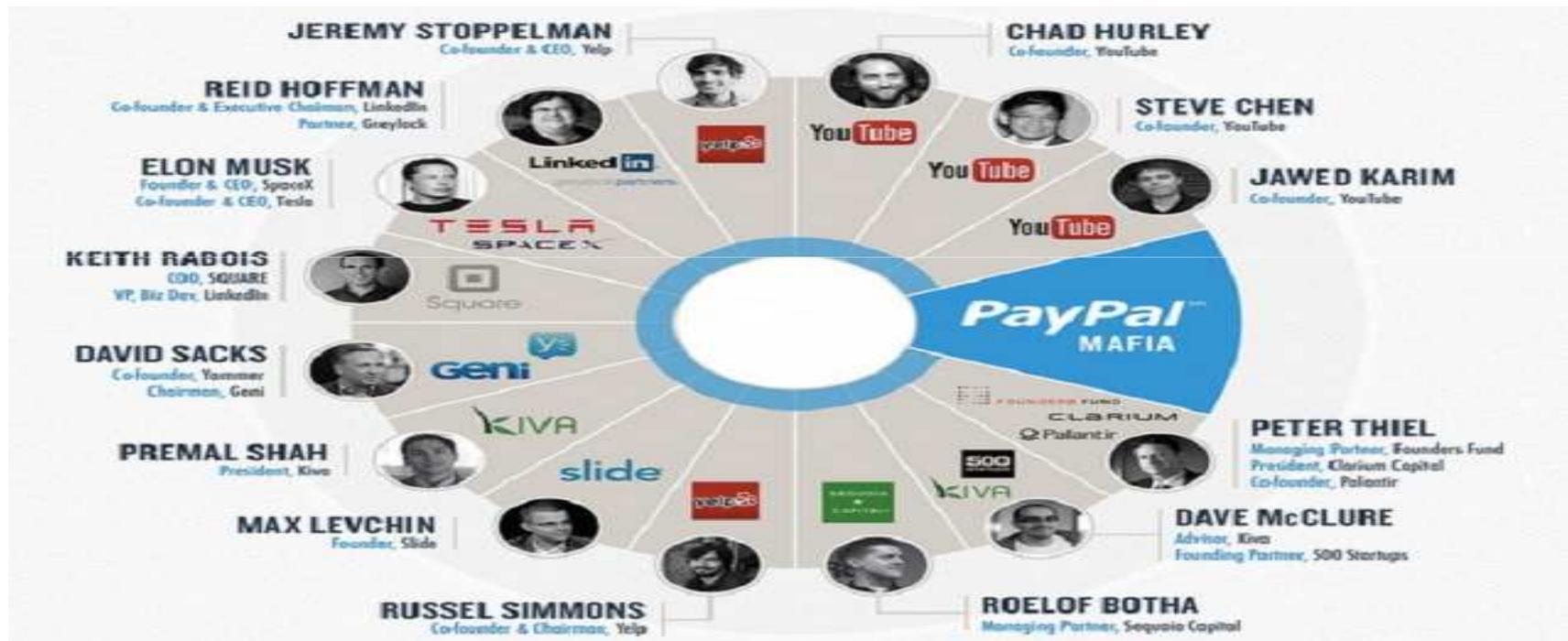
Gordon Moore (from left to right), C. Sheldon Roberts, Eugene Kleiner, Robert Noyce, Victor Grinich, Julius Blank, Jean Hoerni and Jay Last.

Fifty years later: PayPal Mafia (2007)



2007 Fortune Magazine

PayPal Children?



The Narrative of Founder Mentality

- “**Tinkerings of Robert Noyce. How the sun rose on the Silicon Valley**” by Tom Wolfe. Esquire Magazine. 1983
 - “[When the 8 decided to leave Shockley] On that day was born the concept that would make the semiconductor business as wild as show business: **defection capital**”
 - “Noyce realized how much he detested the eastern corporate system of class and status (...) He rejected the idea of a social hierarchy at Fairchild.”
- “**The New New Thing**” by Michael Lewis. 1999
 - Profile of Jim Clark, the founder of Netscape, Silicon Graphics, and Healtheon
 - The person who makes his living searching for the new new thing is not like most people, “he is to Silicon Valley what Silicon Valley is to America.”
- “**Zero to One**” by Peter Thiel. 2014
 - 1) Vertical or Intensive Progress (going from zero to one). Doing new things. This is where technology excels, with its capital in Silicon Valley.
 - 2) Horizontal or Extensive Progress (going from one to n). Copying things that work (ie China). This equates to globalization.
 - New technologies tend to come from new ventures, startups.

Exponential Growth of Technology

The Second Machine Age

Changing the world requires two things:

- *Physical Power*: move or transform things
- *Mental Power*: decide where and how

Industrial Revolution = Physical Power

- Steam engine (and Internal combustion engine, Electricity)
- Mostly a complement to humans

Second Machine Age = Mental Power

- Computers, Software, Big Data, Machine Intelligence
- Complement or substitute?

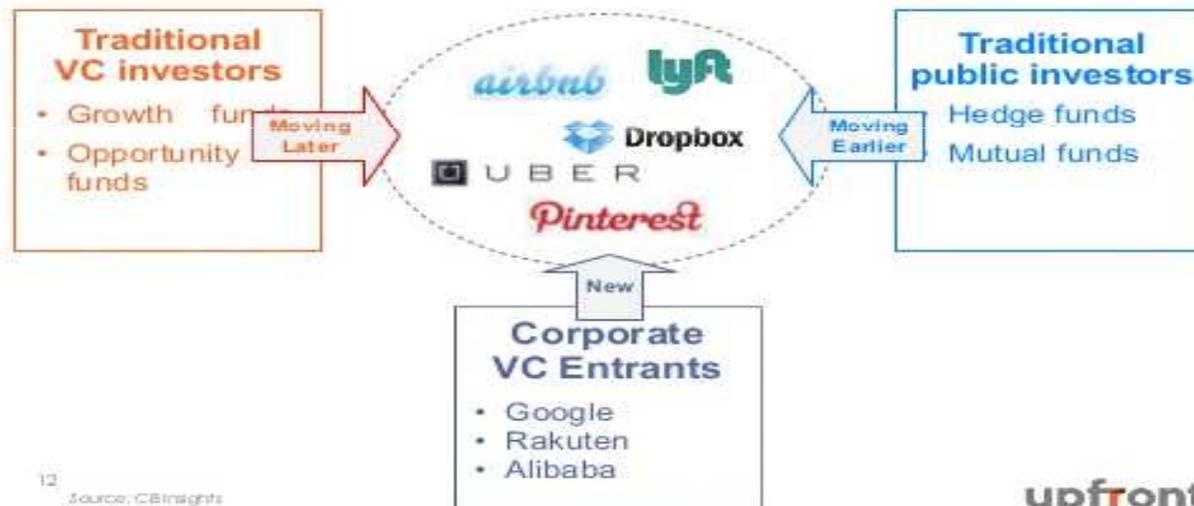


Why companies are “staying private”

- **JOBS Act (2012)** extension of 500 shareholder rule to 2000 shareholders.
- **Creation of secondary markets (of shares of private companies)**, started in 2007-2008 (with SecondMarket and SharesPost) for employees and/or early investors to cash out at least a portion of their holdings without waiting to go public.
- **Public investors in private markets:** The biggest mutual fund companies (such as T. Rowe Price, BlackRock, Fidelity...) plus strategic investors, have invested billions of dollars in private tech companies.
- **Favorable investment terms for public investors:** Later stage investors have benefited from some investment terms like liquidation preferences, ratchets and IPO veto or blocking rights.
- **Fading Silicon Valley Public Company:** There are 423 public companies in Silicon Valley, but only 275 are tech or life science companies. The number of Silicon Valley public companies is down from a high of 417 reached in 2000 during the dot-com era.
- **In addition, companies are Going Private:** Many public companies (ie. Dell, Safeway) have also opted to go private (encouraged by PEs). The rise of activist investors has also contributed to this trend.

Late Stage VC Investment Growth

So late-stage private financing now facing **unprecedented competition**

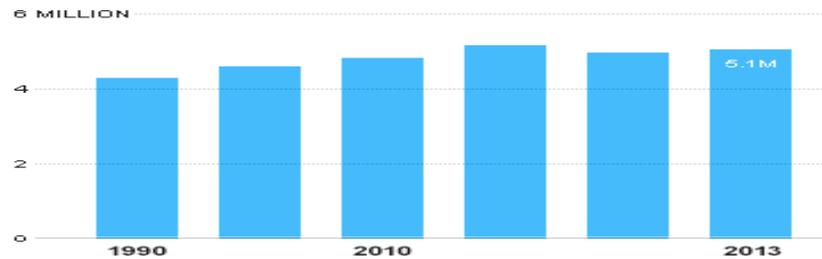


Source: Upfront Ventures

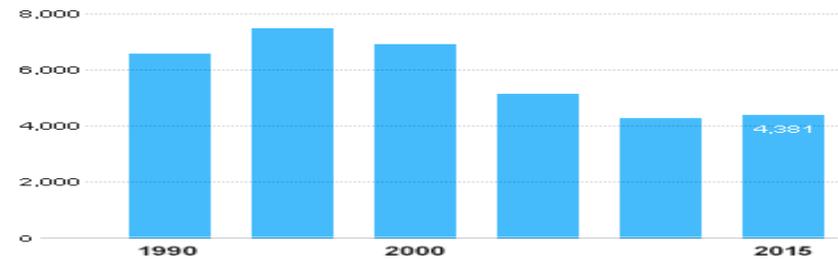
© Evan Epstein 2016

The Fading US Public Corporation

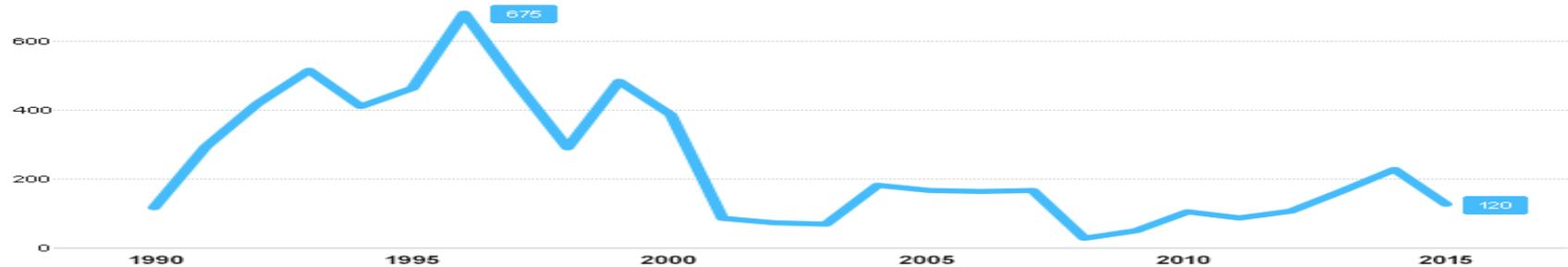
THE TOTAL NUMBER OF U.S. COMPANIES IS INCREASING...



WHILE THE # OF PUBLICLY TRADED COMPANIES IS FALLING.



U.S. IPOs HAVE PLUNGED, DECREASING FROM AN AVERAGE OF 436 A YEAR IN 1990s TO 120 LAST YEAR.



Sources: (top) U.S. Census Bureau; World Bank; World Federation of Exchanges; (bottom) Professor Jay R. Ritter, University of Florida

Source: Fortune Magazine 2016

© Evan Epstein 2016

Dual-Class Stock in Tech Industry

- **Dual-class share structures** are relatively uncommon but have a long history in the US.
- In the 1920s: Professor Ripley said this “plague” (of dual class shares) amounted to the “rape” of ordinary shareholders’ “voting power.”
- Between the 1940s-1980s: dual class shares were disallowed in NYSE.
- In 1988: SEC Rule 19c4 (struck down by DC Circuit in 1990). Pressure on Exchanges.
- Typically, the publicly traded **Class A** shares have 1 vote, and the **Class B** shares, held by founders and management, have 10 votes per share.
- **Google** bucked convention when, in 2004, it adopted the dual-class structure for its I.P.O.
- According to Dealogic, **~14% of IPOs in 2015** used some form of dual class, compared to 1% in 2005.
- Examples of IPOs of tech companies with dual class shares: Google, LinkedIn, Zillow, Groupon, Zynga, Yelp, Facebook, Workday, Zulily, Box, GoPro, Square, etc. *Alibaba

“All animals are equal, but some animals are more equal than others”

- **Facebook:** 1) Original Dual Class Structure: added Voting Agreements that give Mark Zuckerberg ~60% of the supervoting stock. 2) Reclassification (June 2016) to Triple Class Share Structure (non-voting Class C shares).
- **Zynga:** 1) Class A: 1 vote, Class B: 7 votes and Class C: 70 votes. (Class C owned exclusively by Mark Pincus). Pincus stepped down in 2013, back as CEO in 2015, out again March 2016.
- **Dual Class Structures Come in Different Flavors:** conversion upon sale, sunset provisions with different time limits (ie. Pure Storage in 10 yrs, Yelp, Fitbit and Apptio in 7yrs & Nutanix in 17yrs), death of controlling shareholder (ie. LinkedIn), high vote shares not receiving premium in a merger (ie. Google), minimum thresholds for supervoting shares (Yelp 10%)
- **Will dual class share companies follow Alphabet’s lead on Class C shares?** (Zillow and Facebook show yes)

The Unicorn Phenomenon

- In Nov of 2013 Aileen Lee (Cowboy Ventures) coined the term “Unicorn Club” referring to U.S.-based software companies started since 2003 and valued at over \$1 billion by public or private market investors.
- She found 39 companies belonging to such club.
- In Jan 2015, Fortune came up with a list of more than 80 global unicorns.
- By November 2016, there are 177 companies in this category (97 from USA, 38 from China) with a combined valuation of \$640B, according to CB Insights.
- There are at least 15 “decacorns”, companies valued over \$10B.

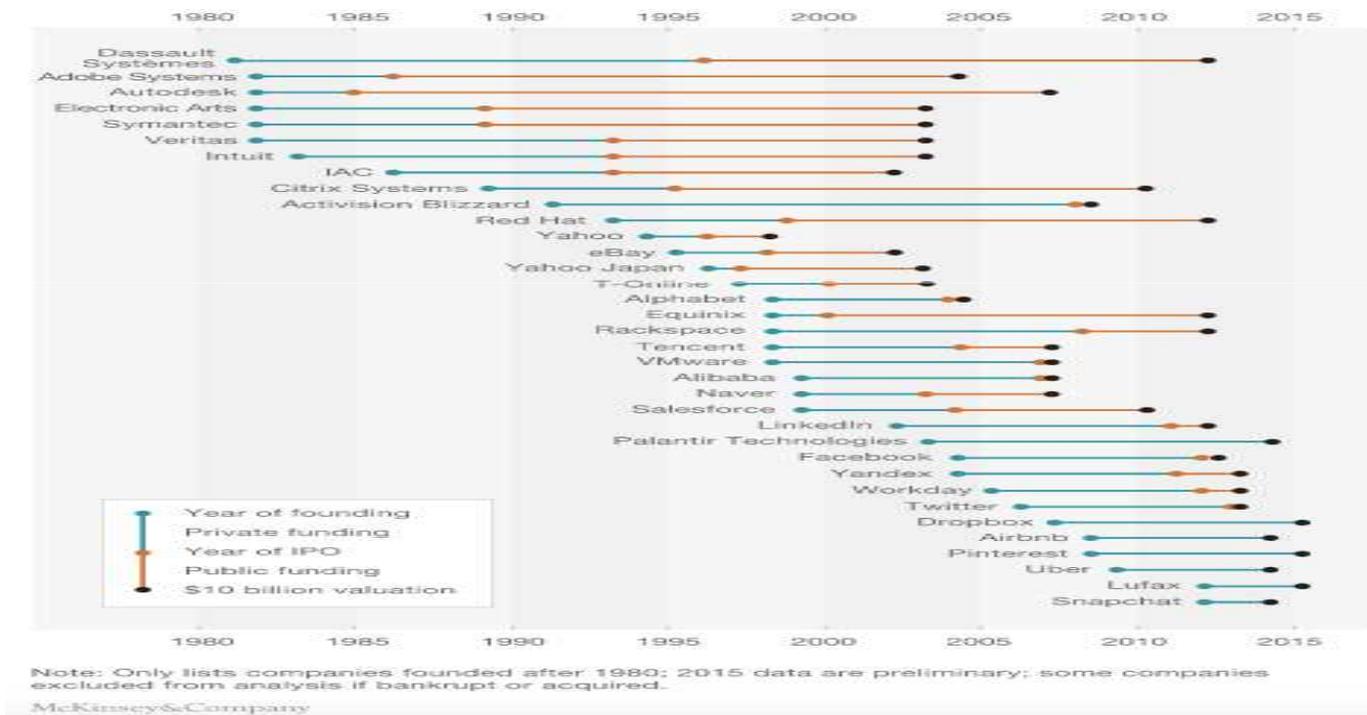
List of Top Unicorns

Company	Valuation (\$B)	Date Joined	Country	Industry	Select Investors
Uber	\$68	8/23/2013	United States	On-Demand	Lowercase Capital, Benchmark Capital, Google Ventures
Xiaomi	\$46	12/21/2011	China	Hardware	Digital Sky Technologies, QIMing Venture Partners, Qualcomm Ventures
Didi Chuxing	\$33.8	12/31/2014	China	On-Demand	Matrix Partners, Tiger Global Management, Softbank Corp.,
Airbnb	\$30	7/26/2011	United States	eCommerce/Marketplace	General Catalyst Partners, Andreessen Horowitz, ENIAC Ventures
Palantir Technologies	\$20	5/5/2011	United States	Big Data	RRE Ventures, Founders Fund, In-Q-Tel
Lu.com	\$18.5	12/26/2014	China	Fintech	Ping An Insurance CDH Investments, Bank of China
China Internet Plus Holding	\$18	12/22/2015	China	eCommerce/Marketplace	DST Global, Trustbridge Partners, Capital Today
Snapchat	\$18	12/11/2013	United States	Social	Benchmark Capital, General Catalyst Partners, Lightspeed Venture Partners
WeWork	\$16.9	2/3/2014	United States	Facilities	T. Rowe Price, Benchmark Capital, Wellington Management
Flipkart	\$16	8/6/2012	India	eCommerce/Marketplace	Accel Partners, Digital Sky Technologies, Iconiq Capital
SpaceX	\$12	12/1/2012	United States	Other Transportation	Founders Fund, Draper Fisher Jurvetson, Rothenberg Ventures
Pinterest	\$11	5/19/2012	United States	Social	Andreessen Horowitz, Bessemer Venture Partners, Firstmark Capital
Dropbox	\$10	10/5/2011	United States	Internet Software & Services	Accel Partners, Greylock Partners, Index Ventures

Source: CB Insights (Nov 2016)

© Evan Epstein 2016

“Decacorns” without needing to go public

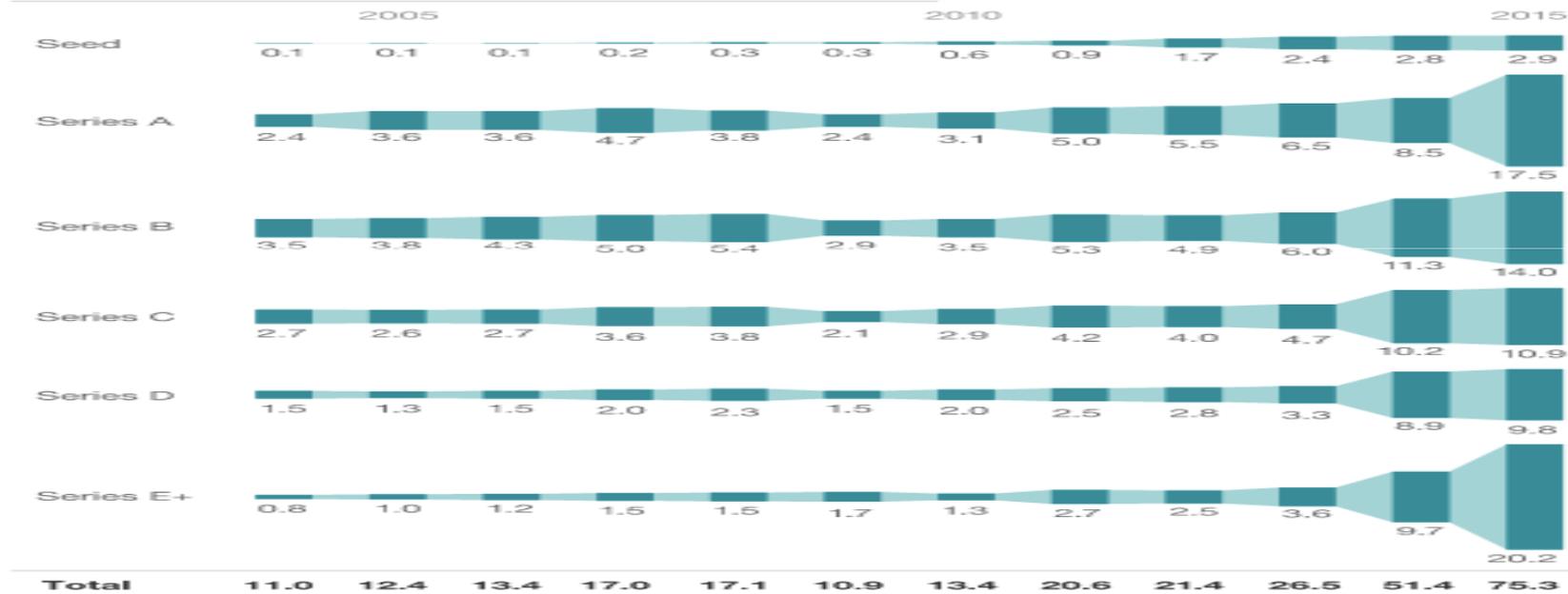


Source: McKinsey & Company

© Evan Epstein 2016

Investment in Tech has tripled 2013 – 2015

Capital invested in tech companies, by series, \$ billion



McKinsey&Company | Source: PitchBook; McKinsey analysis

Source: McKinsey & Company

© Evan Epstein 2016

Downside Protections M&A

Downside Protections — Acquisition Protection Terms

	Current Survey Results				Prior Survey Results
	2Q'15	3Q'15	4Q'15	Total (2Q'15-4Q'15)	(2Q'14-1Q'15)
Liquidation preference (preference over common stock)	95%	100%	100%	98%	100%
Senior liquidation preference (preference over common stock and also other series of preferred stock)	15%	15%	42%	21%	19%

Source: Fenwick & West Survey (Dec 2015)

© Evan Epstein 2016

Downside Protection IPOs

Downside Protections — IPO Protection Terms

	Current Survey Results				Prior Survey Results (2Q'14-1Q'15)
	2Q'15	3Q'15	4Q'15	Total (2Q'15-4Q'15)	
Blocking right* (IPO price must be at least as high as the unicorn round price, or in some cases the unicorn price plus a premium)	20%	25%	33%	25%	16%
Ratchet (investor receives additional shares if IPO price is less than the unicorn round price, or in some cases the unicorn round price plus a premium)	5%	10%	17%	10%	14%
Total	25%	35%	50%	35%	30%

* A “blocking right” means that the unicorn investors’ preferred stock will not automatically convert into common stock on an IPO unless the IPO price is at least as high as the previously agreed price. As the conversion of all preferred stock into common stock is almost always required for an IPO, if the agreed price is not met the company and investors will need to resolve the issue. This can result in the issuance of additional shares to the unicorn investors as consideration for the investors agreeing to convert their shares of preferred stock into common stock.

Source: Fenwick & West Survey (Dec 2015)

© Evan Epstein 2016

Total Number of Down-rounds since 2015: 93

Company	Sector	Date	Category	Round Type	Down Valuation (\$M)	Prior Valuation (\$M)	Total Raised (\$M)
Xiaomi	Mobile & Telecommunications	1/10/2016	Rumored To Be Raising Down Round	Series F	n/a	46000	1145
Flipkart	Internet	3/11/2016	Rumored To Be Raising Down Round	Series J	n/a	16000	3021
Square	Mobile & Telecommunications	11/19/2015	Down Exit From Private Valuation	IPO	2900	6000	716.8
LivingSocial	Internet	10/26/2016	Down Exit From Private Valuation	Acquired	n/a	4500	919
Zenefits	Internet	6/30/2016	Share Price Decline	Series C	2000	4500	584
Global Fashion Group	Internet	7/5/2016	Down Round	Corporate Minority	1100	3430	542
Global Fashion Group	Internet	4/27/2016	Down Round	Corporate Minority	1130	3430	541
Jawbone	Consumer Products & Services	1/15/2016	Down Round	Series F	1500	3300	778.8
Powa Technologies	Internet	2/19/2016	Rumored Down Exit From Private Valuation	Acquired	n/a	2700	226.7
Box	Internet	1/23/2015	Down Exit From Private Valuation	IPO	1670	2400	562.5

Source: CB Insights Downround Tracker (Nov 2016)

© Evan Epstein 2016

Unicorn Mark Downs: Fidelity Portfolio



Source: Upfront Ventures (Feb 2016)

© Evan Epstein 2016

Extreme Supervoting Shares in Unicorns

Company	Ratio
Medallia	10,000:1
Theranos	100:1
ZocDoc	100:1
Casper Sleep	100:1
BuzzFeed	50:1
Domo	40:1
Thumbtack	30:1
Snapchat	10:1:0
SpaceX	10:1:0
NerdWallet	10:1:0
Revel Systems	10:1
Tanium	10:1
Planet Labs	10:1
Uber	10:1
Airbnb	10:1
Palantir	10:1
Dropbox	10:1
WeWork	10:1
GitHub	10:1
Alphaeon	10:1
Oscar Health Insurance	10:1
AppDirect	10:1
Gusto	10:1

Source: The Information and PitchBook

© Evan Epstein 2016

Silicon Valley Failure Rate

- Most VC investments are complete failures where all investors lose all of their money (95% of returns are driven by less than 1% of the investments)
- ***Marc Andreessen**: The key characteristic of venture capital is that returns follow a **power-law distribution**”
- “The basic math component is that there are about **4,000** startups a year that are founded in the technology industry which would like to raise venture capital and we can invest in about **20.**”
- “We see about **3,000** inbound referred opportunities per year we narrow that down to a couple hundred that are taken particularly seriously.... There are about **200** of these startups a year that are fundable by top VCs. ... about **15** of those will generate 95% of all the economic returns ... even the top VCs write off half their deals.”
- *The rule of thumb is that a healthy venture capital industry invests in 1,000 to around 1,400 new companies each year.

New Models of Capital Formation: Crowdfunding

- **The Jumpstart Our Business Startup (JOBS) Act (2012)** was passed to encourage funding of US small businesses by easing various securities regulations. Title III created Regulation Crowdfunding (Reg CF), which came into effect on **May 16, 2016**.
- For the first time, **equity crowd-funding** for unaccredited investors is allowed (capped at \$1M per year per company) for private US companies.
- **Crowdfunding Portals:** Broker Dealers or Funding Portals. Funding limited to \$2,000 or 5% (whichever is greater) for people earning (or worth) up to \$100,000, and \$10,000 or 10% (whichever is less) for people earning (or worth) \$100,000 or more.
- **Some limits and requirements:** 1) Cap of \$100K total per person; 2) Resale limitation for one year (exceptions apply, ie. to issuer, accredited investors, etc.); 3) issuer disclosures (depending on \$ raised) and SEC annual reporting requirements.
- *About 120 companies have registered with the SEC to hold equity sales using the act. More than 60 have gone on to raise close to \$12M (as per NextGen Crowdfunding)

The Rise of Fintech and some of its growth markets

- **1) Blockchain/Distributed Ledger Technology:** Blockchain (underlying technology for Bitcoin) is a decentralized electronic ledger or audit trail of all transactions or activities in a network. Investments have been made in the order of US\$1B. Is 2015 (DLT) the new 1995 (Internet)?
- **2) Robo Advisors:** Technology-based platforms that provide automated investment advice and high-quality investment services to investors. Estimates: market could grow to **US\$2.2 trillion** in AUM by 2020. The investable assets in the US range are in the order of **US\$34-40 trillion** (source: SEC Fin Tech Forum Nov 2016)
- **3) Online Marketplace Lending:** Online marketplace lending has emerged as an industry offering faster credit for consumers and small businesses. Market analysts identify a **\$1 trillion** addressable market for online marketplace lenders (excluding mortgages), and estimate loan origination volumes could reach **\$90.0 billion by 2020** (see US Treasury White Paper)
- **Investment in Fintech:** US\$19.1 Billion in 2015. Something very big is happening!

The Next Chapter of Corporate Governance

- Speech by SEC Chair Mary Joe White at Stanford Rock Center in March 2016 (Silicon Valley Initiative) highlighted some corporate governance issues that private companies (including Unicorns) have to consider:
 - 1) Have boards of directors expanded beyond entrepreneurs and original investors?
 - 2) Does the board have sufficient regulatory expertise?
 - 3) Whether leadership includes outsiders with relevant industry experience or experience in public companies (see: Theranos case)
 - 4) Whether board directors understand their fiduciary duties, and that they extend to all stockholders (see Dual Fiduciary Conflict cases: Trados 2013 and Nine Systems 2014)
 - 5) Instituting internal controls over financial reporting to avoid errors or misconceptions in valuation.