The Unicorn Initiative – Exits

A JOINT RESEARCH PROJECT BETWEEN THE UC HASTINGS CENTER FOR BUSINESS LAW AND THE BRATTLE GROUP

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Introduction

1. Unicorn startups ("Unicorns") are a paradox. They have produced both outsized wealth and cautionary tales. Late-stage financing is surging,[1] but the Elizabeth Holmes trial and scandals at high-profile Unicorns such as WeWork and Uber highlight a thornier side of entrepreneurship.[2]

2. For many commentators and policy makers, this paradox has the makings of a perfect storm.[3] They worry about a potential regulatory blind spot where companies have outgrown the

[1] See National Venture Capital Association, 2021 Yearbook (2021) at 27 (reporting a "record-setting amount of capital infused by VC investors in 2020"), https://nvca.org/wp-content/uploads/2021/08/NVCA-2021-Yearbook.pdf.

[2] See for example, Elizabeth Pollman, Private Company Lies, 109 Geo. L.J. 353, 354–56 (2020) (recounting fraud at Theranos); Renee M. Jones, The Unicorn Governance Trap, 166 U. PA. L. Rev. Online 165, 169 (2017) (discussing "recent scandals at prominent Unicorns").

[3] See for example, Jennifer S. Fan, Regulating Unicorns: Disclosure and the New Private Economy, 57 B.C. L. Rev. 583 (2016); Matthew Wansley, Taming Unicorns, 97 Ind, L. J. (forthcoming 2021); Verity Winship, Private Company Fraud, 54 U.C. Davis L. Rev. 663, 685 (2020) (describing the SEC's "Silicon Valley Initiative" aimed at policing misconduct at startups).

capabilities of private ordering but fall below thresholds for public company regulation. Indeed, regulators are signaling interest in new regulatory frameworks for Unicorns.[4]

3. There is no shortage of Unicorn lists,[5] but these tallies leave a key question unanswered for policy makers: are the concerning anecdotes indicative of a pattern or are they outliers? To answer that question, policy makers need a systematic account of Unicorn outcomes. In the parlance of Silicon Valley, we need to know more about Unicorn exits. Until recently, this kind of analysis was not possible because startups take time to exit. But now a critical mass of companies has been unicorns long enough to start the project.[6]

4. This report tracks exit transactions for a set of approximately 720 unicorns. It focuses primarily on a subset of 115 companies that reached unicorn status by 2015 (the "Mature Unicorns"). Key findings include:

   - 49% of the Mature Unicorns exited by IPO or reverse merger (a category that includes SPACs). This represents a considerably higher rate of public-company status than the general population of startups.
   - Among the Mature Unicorns, only a relatively small number (7 companies) exited by reverse merger. Thus, SPAC transactions were not a major avenue of exit for this vintage of Unicorns.
   - Another 23% of Mature Unicorns have been acquired or merged.
   - Of the acquired or merged Mature Unicorns, a substantial majority exited at merger values considerably in excess of total funding received. This suggests that mergers and acquisitions

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[4] See Paul Kiernan, SEC Pushes for More Transparency from Private Companies, The Wall Street Journal (January 10, 2022), https://www.wsj.com/articles/sec-pushes-for-more-transparency-from-private-companies-11641752489; Speech by SEC Commissioner Allison Herren Lee, Going Dark: the Growth of Private Markets and the Impact on Investors and the Economy (October 12, 2021), https://www.sec.gov/news/speech/lee-sec-speaks-2021-10-12.

[5] For example, prominent unicorn lists are maintained by CB Insights (https://www.cbinsights.com/research-unicorn-companies) and Crunchbase (https://www.crunchbase.com/lists/unicorn-leaderboard-privately-held/488c2557-4d5a-4c25-8bd3-61c519f07508/identifiers).

[6] See generally, Abraham J.B. Cable, Time Enough for Counting: A Unicorn Retrospective, Yale Journal on Regulation Bulletin (2021), https://www.yalejreg.com/bulletin/time-enough-for-counting-a-unicorn-retrospective/ (including an exploratory study of outcomes for 32 early unicorns and describing the need for additional data and analysis).

among this group of companies are not fire-sale transactions. Only 7 additional Mature Unicorns are coded as “Out-of-Business” or “Bankruptcy.”

5. The overall picture is one of positive company outcomes, despite anecdotes that might imply otherwise. Finally, with regard to the frequency of Unicorn valuations, we find a *259% increase* in the number of Unicorns during 2021 – a record of 334.

6. The continued media interest in Unicorn valuations will make 2022 another year to watch.

A. Data Sources & Unicorn Definition

7. We first offer our definition of a Unicorn, which will importantly drive our subsequent analysis. The term Unicorn is not well defined.[7] To identify Unicorns in a systematic way we take the following approach.[8] First the company must have received, at some point in its private company lifecycle, venture capital funding. Second, the company is based in the U.S. Third, the company must have at least one private funding round with a post-money valuation equal to or greater than $1 billion. That is, we do not consider a private company a Unicorn if it reached a post-money valuation of $1 billion or more through an exit – an IPO, reverse merger, or merger/acquisition.

8. Our sample consists of companies that reached Unicorn status from 2005 through 2021.

9. We use data provided by Pitchbook to identify companies for our analysis. Pitchbook data is used by industry participants and the National Venture Capital Association (“NVCA”) in its annual report on venture capital activity.[9]

B. Unicorn Companies (All Cohorts)

10. We divide the Unicorns into cohorts or “classes” depending on when Pitchbook first reports a post-money valuation of $1 billion or more for a company from a private funding round (a company’s “First Unicorn Financing”).

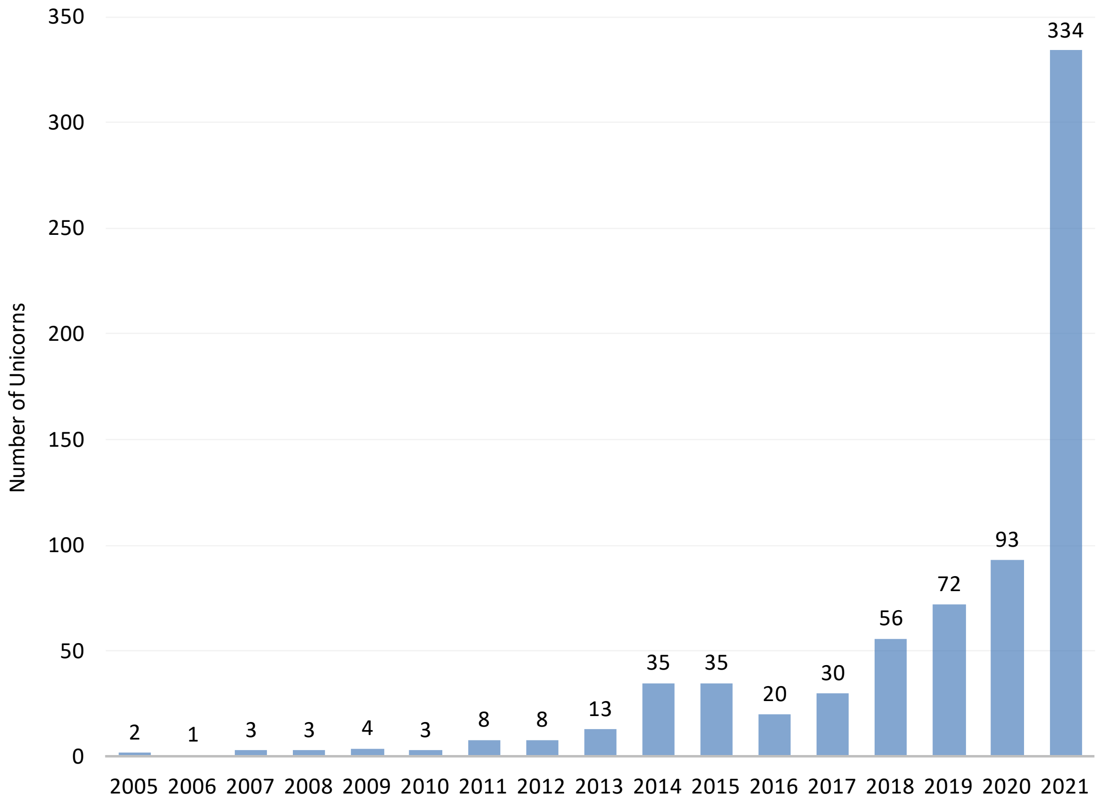
[7] See for example, Ilya Strebulaev, What do we know about Unicorns? Defining and finding Unicorns, LinkedIn (September 22, 2021), https://www.linkedin.com/pulse/what-do-we-know-unicorns-defining-finding-ilya-strebulaev/.

[8] Our approach is the same as the one outlined by Ilya Strebulaev. See preceding footnote.

[9] See https://pitchbook.com/; https://nvca.org/.

11. Figure 1 below shows the frequency of First Unicorn Financing over our sample period window, from 2005 through 2021. As the figure indicates, and as the media has reported,[10] First Unicorn Financings surged during 2021 with 334 companies reaching a post-money valuation of $1 billion or more. This is a *259% increase* from 2020's number of Unicorns at 93. The trend in companies reaching Unicorn status has been increasing each year since 2017.

FIGURE 1: FIRST UNICORN FINANCING FREQUENCY OVER TIME



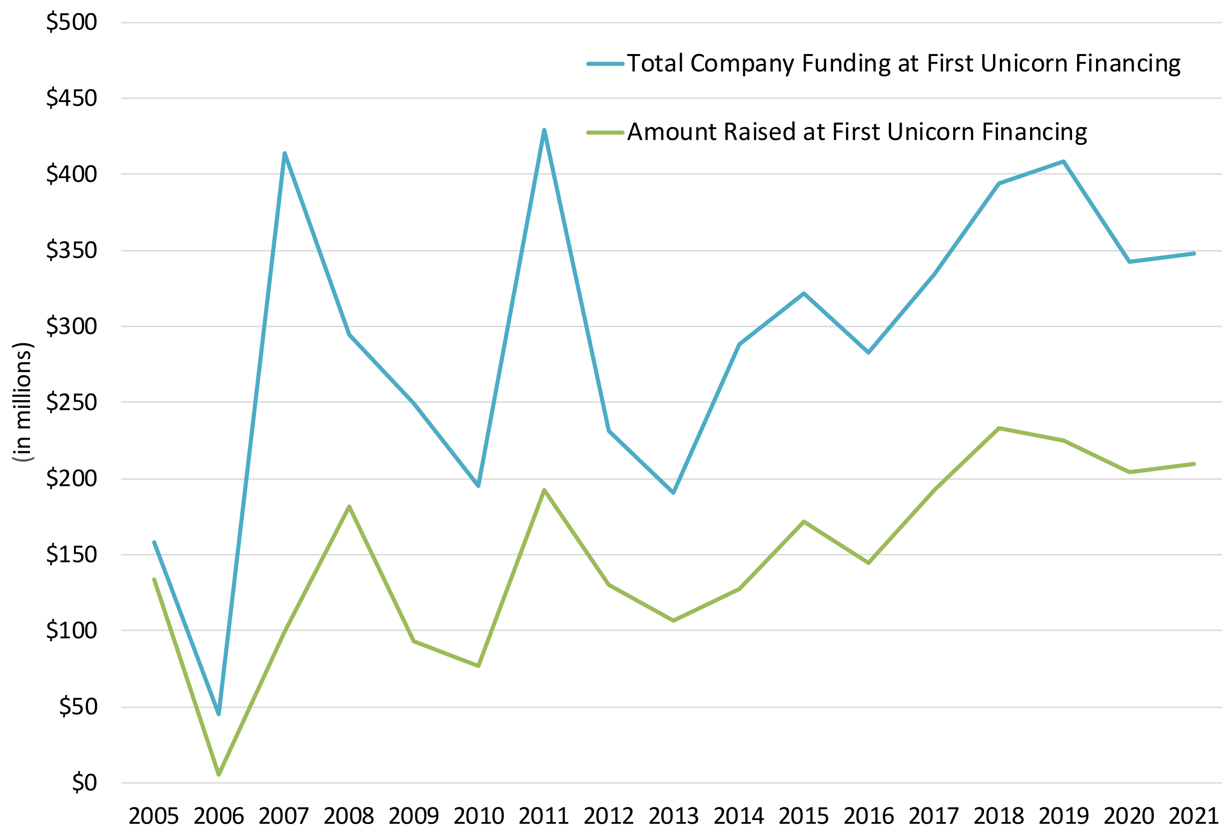
Source: Pitchbook Data

12. Next, we investigate trends in the First Unicorn Financing size (i.e., how much was raised in the First Unicorn Financing) and Total Company Funding (i.e., the First Unicorn Financing plus prior financings). In Figure 2, we plot the average of these values across the Unicorn classes.

[10] See for example, CB Insights, "Unicorns are seeing valuations take off," September 14, 2021, https://www.cbinsights.com/research/unicorn-valuation-growth/ ("In Q2'21... 136 new unicorns were birthed globally – nearly 6x the 23 unicorns born a year ago in Q2'20, and already higher than the 128 unicorns born in all of 2020").

13. Overall, Figure 2 indicates that the average Total Company Funding at First Unicorn Financing during 2021 is $347 million versus $158 million in 2005. On average, from 2005 through 2021, Total Company Funding was $290 million. Total Company Funding appears from the chart to be quite volatile, with spikes in 2007 and 2011. However, these spikes are related to two and eight companies, respectively, in those years.

FIGURE 2: TOTAL COMPANY FUNDING AT FIRST UNICORN FINANCING



Source: Pitchbook Data

14. With regard to First Unicorn Financing size, there is a more gradual upward trend as depicted in Figure 2. The average First Unicorn Financing size reached a high in 2018 of $234 million and as of 2021, the average was $209 million. The average First Unicorn Financing size over the sample period is $149 million.

15. We next analyze the most frequent primary industries of the companies at their First Unicorn Financing. Figure 3 below presents this analysis. There appears to be variation in the most

frequent industry across our sample period, although Information Technology (as defined by Pitchbook) is the most frequent primary industry, with Business Product Services (B2B) and Healthcare tying for the second most frequent industries of companies at first financing.

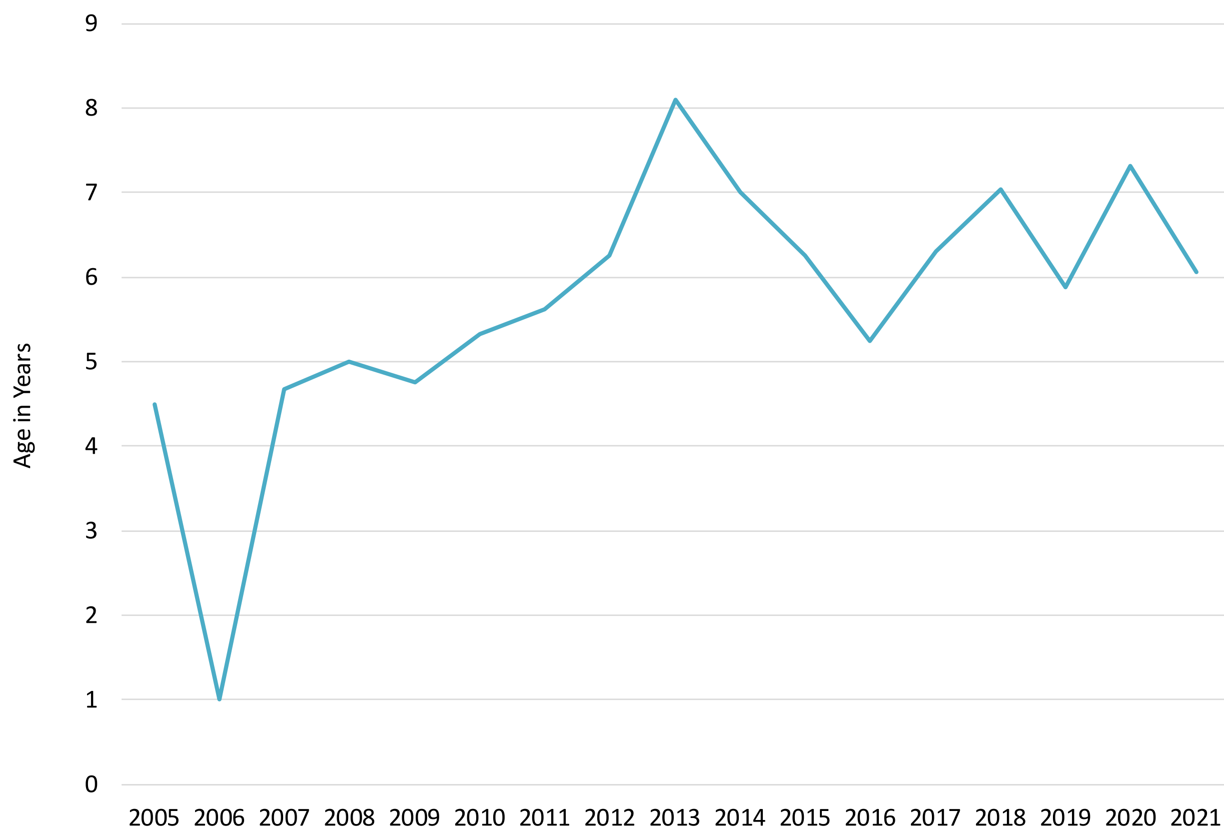
FIGURE 3: MOST FREQUENT PRIMARY INDUSTRY AT FIRST UNICORN FINANCING

Year	Most Frequent Primary Industry
2005	Business Products and Services (B2B)
2006	Information Technology
2007	Healthcare and Business Products and Services (B2B)
2008	Consumer Products and Services (B2C) and Information Technology
2009	Information Technology
2010	Business Products and Services (B2B)
2011	Information Technology
2012	Information Technology
2013	Information Technology
2014	Information Technology
2015	Information Technology
2016	Information Technology
2017	Information Technology
2018	Information Technology
2019	Information Technology
2020	Healthcare
2021	Healthcare

Source: Pitchbook Data
Notes: Reflects “Primary Industry Sector” as classified by Pitchbook.

16. Over the sample period, the age of Unicorn companies at their First Unicorn Financing across the period is shown in Figure 4 below – on average Unicorn companies are from one to eight years old before they receive a post-money valuation of $1 billion. To calculate age, we take the date of the First Unicorn Financing and subtract from it the year the company was founded as reported in Pitchbook. Over the entire sample period 2005 through 2021, average age at First Unicorn Financing is 7 years.

FIGURE 4: AVERAGE AGE AT FIRST UNICORN FINANCING



Source: Pitchbook Data

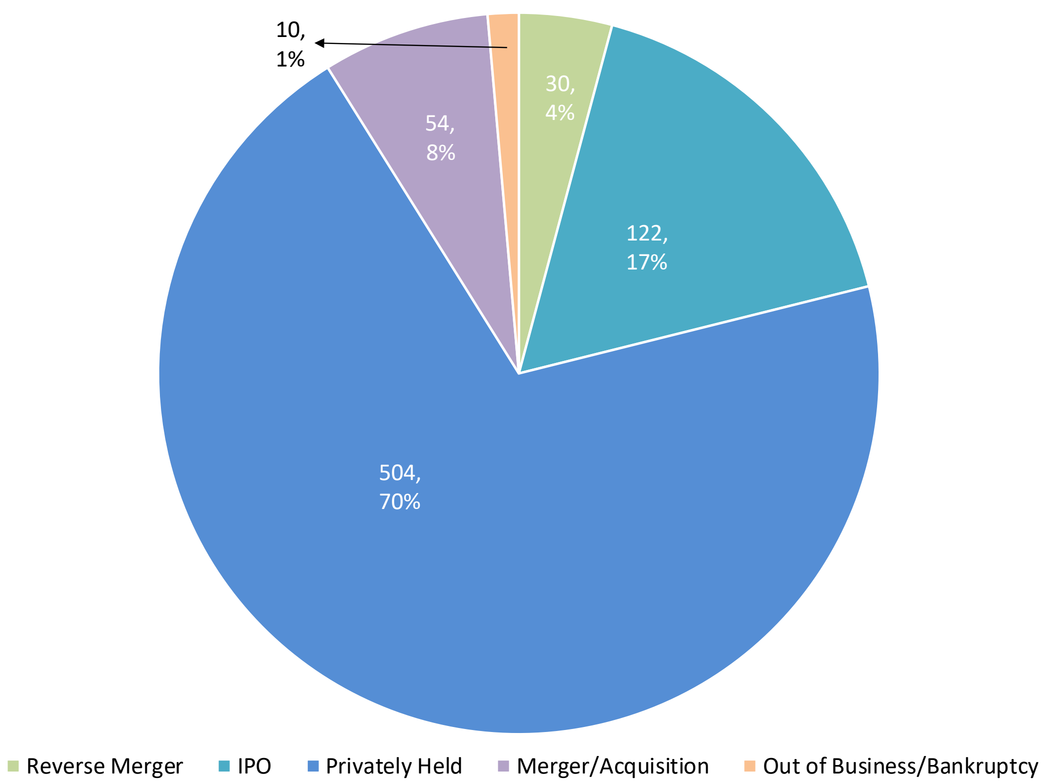
17. We next analyze the exit status of Unicorns in our sample. To identify the exit status for each company, we retain the *first* deal reported as "IPO," "Reverse Merger," "Merger/Acquisition," or "Out of Business." [11] We adopt this approach, rather than using the current business status indicated on Pitchbook, because several of the Unicorns in our sample have had multiple exits. For example, LinkedIn had an IPO in 2011, but was subsequently acquired by Microsoft. For our purposes, we code LinkedIn's exit status as IPO.

18. Figure 5 presents the exits for all Unicorns in our sample. Given that most companies in this broader sample achieved Unicorn status in the past three years, it is unsurprising that many Unicorns continue to remain privately held (504 companies or 70% of the sample). Figure 5 indicates that the second most frequent exit status for Unicorns in our sample is IPO (122

[11] As we use it, "Out of Business" includes the following Deal Types on Pitchbook: Bankruptcy: Admin/Reorg, Bankruptcy: Liquidation, or Out of Business.

companies or 17% of the sample). Another 30 companies (4%) achieved public company status through a Reverse Merger, bringing the total number of public-company exits (IPOs plus Reverse Merger) to 152 (21%). The third most frequent exit status for the Unicorns in our sample is Merger/Acquisition (54 companies or 8% of the sample). Finally, only 10 Unicorns are coded as Out of Business – 1% of the sample.[12]

FIGURE 5: EXIT STATUS (ALL COHORTS)



Source: Pitchbook Data

C. Mature Unicorns (2015 and Earlier)

19. The analysis presented in the prior section focused on all Unicorns we identified over the period 2005 through 2021. However, exits take time, and it is too early to assess exits for much of the sample. In order to account for this time effect, we create another Unicorn sample, identifying companies that completed their First Unicorn Financing in 2015 or earlier. This provides a total

[12] That is, seven companies divided by 720, the total number of Unicorns in our sample.

sample of 115 companies, or about 16% of the total sample. We refer to these companies as the "Mature Unicorns."

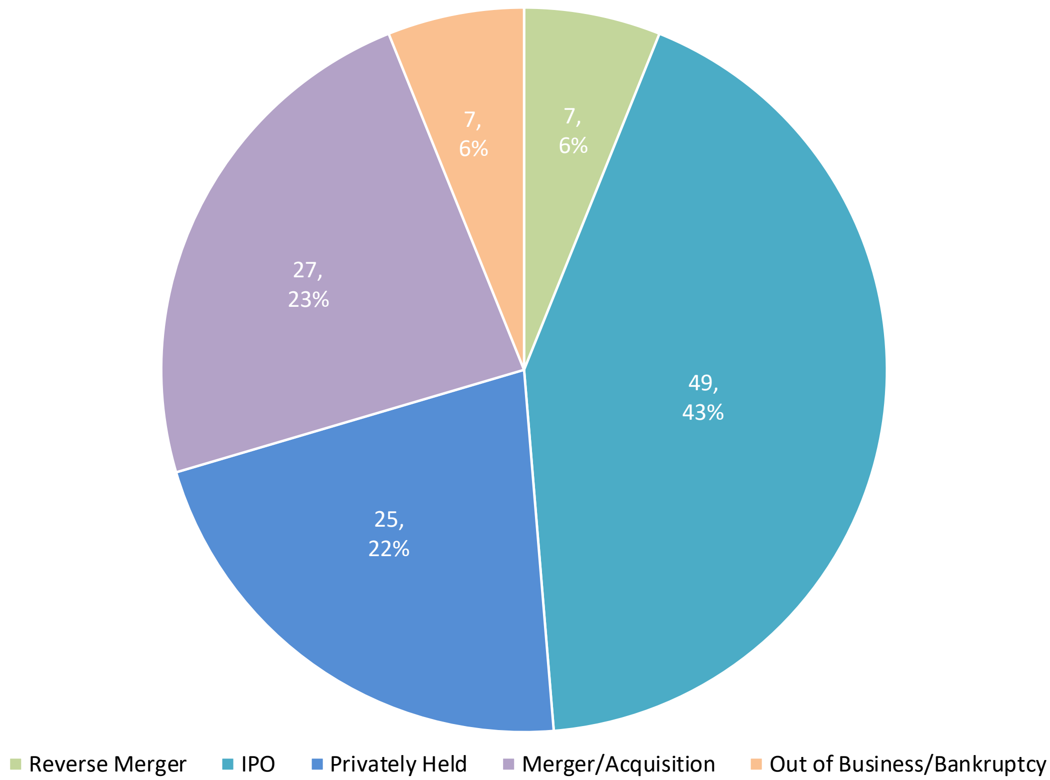
20. The most common exit status for Mature Unicorns is IPO (49 companies or 43% of the sample). In addition, seven Mature Unicorns went public through Reverse Merger, bringing the total number of public companies to 56 (49% of the Mature Unicorns). The next most frequent exit for Mature Unicorns is Merger/Acquisition (27 companies or 23% of the sample). The third most frequent status for the Mature Unicorns is still Privately Held (25 companies or 22% of the sample).

21. Overall, these results somewhat contradict a prominent theme in corporate law and policy discussions – the death of the IPO.[13] In fact, among the Mature Unicorns, an IPO is the most common outcome (see Figure 6, below). This finding also sets Unicorn startups apart from the general population of venture-backed startups, in which acquisitions remain the most likely outcome. According to a recent National Venture Capital Association report, there were more than eight times more acquisitions than IPOs among all venture-backed companies in 2020.[14]

[13] Elisabeth de Fontenay, The Deregulation of Private Capital and the Decline of the Public Company, 68 Hastings L.J. 445, 447 (2017).

[14] See National Venture Capital Association, 2021 Yearbook (2021) at 37-40 (reporting, for all venture-backed companies, 103 IPOs and 886 acquisitions in 2020), https://nvca.org/wp-content/uploads/2021/08/NVCA-2021-Yearbook.pdf.

FIGURE 6: EXIT STATUS (MATURE UNICORNS)



Source: Pitchbook Data

22. Figure 7 (below) provides additional analysis of Mature Unicorn exits by comparing exits that result in public-company status (IPO/Reverse Merger) to trade sales (Merger/Acquisition). Overall, the figure indicates that Mature Unicorns achieve, on average, positive outcomes in the sense of increasing post-$ valuations from First Unicorn Financing to exits.

FIGURE 7: EXIT OUTCOME ANALYSIS (MATURE UNICORNS)

Statistics	IPO/Reverse Merger (n=56)	Merger/Acquisition (n=27)
Average "post-$ valuation" reported for the First Unicorn Financing	$1,675	$1,338
Average "post-$ valuation" reported at the exit deal	$7,691	$3,382
Average number of years from First Unicorn Financing to exit	3.2	3.2
Average age at exit	8.9	10.9
Average "total amount raised" at exit deal*	$2,190	$401

Source: Pitchbook Data
Notes: * indicates that the average "total amount raised" at exit *does not* include the exit deal value as part of the amount raised. The Mature Unicorn sample for IPO/Reverse Merger includes 56 companies for which all variables in Pitchbook necessary for this analysis are populated, and 27 companies for the Merger/Acquisition category for the same reason.

23. In many respects, Mature Unicorns that achieve public-company status (IPO or Reverse Merger) and Mature Unicorns that exit by Merger/Acquisition have a similar profile. Specifically, after the First Unicorn Financing, the two samples have similar average post-money valuations – $1.7 billion for Mature Unicorns that go public versus $1.3 billion for Mature Unicorns that exit by Merger/Acquisition. Further, measures of company age are similar for the two categories of companies. The number of years from First Unicorn Financing to exit is 3.2 for both categories. The average age at exit is 8.9 years for IPOs/Reverse Mergers and 10.9 years for Merger/Acquisition (see Figure 7).

24. However, the two categories of exits differ with respect to average post-$ valuation at exit and the total amount raised at exit (see Figure 7). That is, for Mature Unicorns that go public, their post-money valuation at exit is more than twice as high as the Mature Unicorns that exit by Merger/Acquisition: $7.7 billion versus $3.4 billion, respectively. Also, by the time of exit, companies that achieve public status have raised considerably more private financing ($2.2 billion) than companies that exit by Merger/Acquisition ($401 million).

25. One way to measure the success of an exit is the ratio of total capital raised to exit value (the "exit multiple"). The exit multiples for our sample of Mature Unicorns are presented in Figure 8. By this metric, IPOs are not always outsized successes. A majority of the IPOs/Reverse Mergers achieve exit multiples of less than 5. This analysis also shows that, while some mergers may be fire sales that return less than total capital invested, other mergers achieve comparative high

exit multiples of over 20. In short, IPOs/Reverse Mergers are not always clear successes and Mergers/Acquisitions are not all disappointments.

FIGURE 8: EXIT MULTIPLES

	Post-$ Valuation/ Total Raised < 1	Post-$ Valuation/ Total Raised < 5	Post-$ Valuation/ Total Raised <10	Post-$ Valuation/ Total Raised >10	Post-$ Valuation/ Total Raised >20
Exit Type					
IPO/Reverse Merger	4	37	11	4	0
Merger/Acquisition	8	7	5	3	3

Source: Pitchbook Data
Notes: The "total amount raised" *does not* include the exit deal value as part of the amount raised.

26. Lastly, we present the top three primary industries by exit type (see Figure 8 and Figure 9). The top two most frequent industries are the same across exit types, Information Technology and Consumer Products and Services (B2C).

FIGURE 9: TOP THREE PRIMARY INDUSTRIES FOR IPO/REVERSE MERGER MATURE UNICORNS

Primary Industry	Count
Information Technology	29
Consumer Products and Services (B2C)	11
Healthcare	6

Source: Pitchbook Data
Notes: Reflects "Primary Industry Sector" as classified by Pitchbook.

FIGURE 10: TOP THREE PRIMARY INDUSTRIES FOR MERGER/ACQUISITION MATURE UNICORNS

Primary Industry	Count
Information Technology	17
Consumer Products and Services (B2C)	5
Financial Services	3

Source: Pitchbook Data
Notes: Reflects "Primary Industry Sector" as classified by Pitchbook.