Unicorn companies in China

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Abstract

In recent years, a host of unicorn companies have emerged in China. This study holistically examined the startup companies in China that have quickly achieved unicorn status (that is, a $1 billion dollar plus valuation). To explore this phenomenon, the study used a two-phased methodology. A literature review This article mainly describes the situation and surrounding ecology of unicorn companies in China in 2018.

The results obtained in this research include the current position of Chinese unicorn companies in the world, the characteristics of unicorn companies’ distribution in China, the macroeconomic environment and policy background of Chinese unicorn companies and the investment preferences and return on investment of unicorn hunters.

Keywords: unicorn companies, venture capital, industry analysis, policies, China, financial system, legal,
# Index

Abstract ........................................................................................................................................ 2

1. Introduction ........................................................................................................................................ 5
   1.1 Literature review .......................................................................................................................... 7
   1.2 Table review .................................................................................................................................. 10

2. Unicorn companies in the world ........................................................................................................ 16
   2.1 Geographic distribution ................................................................................................................. 17
   2.2 Sector distribution ......................................................................................................................... 18
   2.3 Valuation distribution .................................................................................................................... 18
   2.4 Most valuable unicorn companies in the world ......................................................................... 19

3. Unicorn companies in China .............................................................................................................. 20
   3.1 Overview ........................................................................................................................................ 20
      3.1.1 Geographical distribution ..................................................................................................... 21
      3.1.2 Founded date distribution ..................................................................................................... 22
      3.1.3 Valuation distribution ........................................................................................................... 23
      3.1.4 Sector distribution ................................................................................................................. 24
   3.2 Ten major industry analysis ......................................................................................................... 25
      3.2.1 e-Commerce ........................................................................................................................... 25
      3.2.2 Health ..................................................................................................................................... 27
      3.2.3 Real estate services ............................................................................................................... 28
      3.2.4 Media & Entertainment (M&E) ............................................................................................. 30
      3.2.5 Local services ........................................................................................................................ 31
      3.2.6 Hardware ............................................................................................................................... 31
      3.2.7 Ed Tech .................................................................................................................................. 32
      3.2.8 Travel Tech ........................................................................................................................... 33
      3.2.9 Auto Tech .............................................................................................................................. 35
      3.2.10 Corporation Services .......................................................................................................... 35
   3.3 Reasons for startups to leave the unicorn club ............................................................................ 36

4. Unicorn companies and surrounding ecological analysis ..................................................................... 38
4.1 Founders of unicorn companies ................................................................. 39
  4.1.1 Founders’ education background for different industries ................. 40
  4.1.2 Analysis of the giant-company-based unicorns .................................. 41
  4.1.3 Analysis of the industries of the giant-company-based unicorns ....... 42
4.2 Unicorn Hunter’s track and ecological layout ........................................ 45
  4.2.1 Overview of Chinese unicorn hunters.................................................. 46
  4.2.2 Changes of giants in the internet industry.......................................... 51
5 Challenges and opportunities .................................................................... 52
  5.1 Changes in external environment; Due to equity investment market policies change in China, investors are more a lot more cautious. ......................... 52
  5.2 Changes in internet environment; the technology content is not high, and the continuity of business operations is not strong. ................................. 53
  5.3 Problems need to solve; the listing is frequent, but the reality is not up to expectations ...................................................................................................... 55
6 Conclusions and discussions .................................................................... 57
  6.1 Technology innovation enterprises may have more development opportunities .................................................................................................................. 57
  6.2 Strengthening post-investment management is a matter of urgency. ....... 58
  6.3 The founder of the unicorn company needs to improve crisis awareness and management .......................................................... 59
Reference ........................................................................................................ 62
1. Introduction

In recent years, a host of unicorn companies have emerged in China. The rapid modernization of China and the growth of its economy help explain the unicorn phenomenon (Wennekers and Thurik, 1999). Another factor contributing to the emergence of China's unicorns is the pace of technological innovation (Yu, 2016; Elena Huergo, 2017). Besides, support from capital market and government has also been essential for growth of unicorns (Zimmerman, 2016; Chen, Li, and Zhou, 2005; Di Guo, 2016).

As of May 8th 2019, there were 346 unicorns around the world. (CB insight, 2019) 91 of them were Chinese companies. Beijing, Shanghai, Shenzhen and Zhejiang are the main gathering places for unicorn enterprises. The total number of enterprises is 60 (85.7%). Around 83% of unicorns in China were established during year 2011 to 2015. 18 (5%) are considered decacorns, which valuation over $10 billion. The average valuation of total unicorn companies is $3.32 billion.

Despite the increasing number of unicorns, the high-tech or high-end manufacturing enterprises are not growing fast. The Chinese unicorns are mainly based on Internet companies.

But the establishment of the unicorn company is relatively short, the internal management mechanism and personnel structure are not stable enough, although we can find it is in a period of rapid expansion, and some enterprises are even unable to achieve profitability.

This article mainly describes the situation and surrounding ecology of unicorn companies in China in 2018.

The article is divided into two separate parts. The first part of the existing literature is evaluated to study the Chinese unicorns and surrounding ecosystem.

In the second part, in order to show the ranking of Chinese unicorns on a global scale, the first chapter introduces the current position of unicorn companies in the world.

First, all companies are classified by country. The quantity and valuation of the
unicorns from each region are compared. Then, compare the distribution characteristics of unicorn enterprises in the United States and in China, the first and second places in the list, explain the possible reasons.

The second chapter lists all current the Chinese unicorn companies. They are classified according to the establishment time, by industry, and focus on the analysis of the characteristics of each industry. Second, list these Chinese super unicorns. Classify and explain features of them. Finally, compare with the previous year, list some companies that have been withdrawn from the Unicorn Club and reasons for being quit.

The third chapter analyzes the surrounding ecology of Chinese unicorn companies. Including the distribution of the founder's academic qualifications, the distribution of the establishment time, whether it is incubated by a leading business or not and China's macro policy background. Second, analyze the characteristics of China's angel investment industry and the hunters who successfully captured the unicorn company, their investment preferences and return on investment.

In the fourth chapter, the problems of Chinese unicorn enterprises are listed, and their Corresponding possible solutions. Secondly, the industry may emerge unicorn companies in the future. In the fifth chapter, there are conclusions based on the analysis of the previous four chapters.

The data statistics time is up to 2018, and some important data will be fine-tuned according to the latest market trends.

Exchange rate applies to this article bellows;
1CNY=0.15USD  1CNY=15.7JPY  1CNY=0.13EUR  1CNY=169.44KRW  1CNY=0.11GBP  1CNY=1.25HKD

China's unicorn companies are in a period of rapid growth, and the scale of enterprises is unprecedented.

But subtly, the list of domestic institutions such as Henda Research Institute of Tsinghua University of China (https://www.tsinghua.edu.cn), Hurun Research Institute (https://www.hurun.net), and Orange Data (https://orange.biolab.si/) has
more than doubled the list of foreign companies represented by CB Insight(https://www.cbinsights.com/). According to the statistics of Henda Institute, there are 161 generalized unicorns in 2018 and 137 unicorns in narrow sense. The number of unicorns counted by Hurun Research Institute is 97, and the number of IT oranges is as high as 203; CB Insights there are only 91.

New York-based CB Insights compiles a global list, while Hurun focused on China and counts spin-offs and subsidiaries of publicly traded corporations as unicorns, such as JD.com Inc.’s logistics division and Suning Finance - an arm of Alibaba-backed retailer Suning Commerce Group Co.

This report obtains second-hand data from the official website, government website, enterprise annual report and other professional information, timely and accurate disclosure of information, and applies the verified data to the report after cross-matching to ensure the data objectivity and multidimensionality.

### 1.1 Literature review

In order to select the relevant literature to be reviewed, we have adopted a three-stage exploration process. First, we use a series of keywords that cover the subject of the review to review published peer reviews. The title and abstract of the article were extensively searched. The selected keywords are as follows: unicorn companies, Chinese unicorns, Chinese startups, startups, China entrepreneurship, venture capital, government. We then selected all relevant research published in academic journals in the appropriate time frame (from 2000 to 2019). At this stage, secondly, we manually screened the identified papers to validate the search terms and filter the preliminary list based on the fit to remove all articles that did not meet the research topic.

Unfortunately so far, few academic researches has isolated the factors leading to the growth of unicorn companies, especially researches related to Chinese unicorns, which has exhibited a lot of differences from the west.(David Ahlstrom,2003;2007). The closest researches that can be applied to study these unicorn companies are
these venture growth literature.
The main theoretical and empirical evidence is synthetized along the two identified research streams and summarized in Table 1.

(i) Where Chinese venture capital come from, where it likely to go and the difference between in China and that in the West.

The first international venture capital firms entered China in the early 1980s. The impetus for the development of the Chinese venture capital industry was government policy; in China the government still has a dominant role in the economy. In the mid-1980s, venture capital in China was limited primarily to infrastructure and property investments; new hotels and tourist facilities were especially popular (Lau, 1999). There were four distinct types of venture capital firms operate in China: (1) foreign firms, (2) government firms, (3) university firms, and (4) corporate firms, (White et al., 2005). According to the report "The Evolution and Status of China’s Venture Capital (2000-2017)" released by Peking University Enterprise Big Data Research Center, from 2000 to 2017, the number of venture capital institutions in China increased from 106 to 8,863, with an average annual growth rate of 29.7%; the number of venture capital funds increased from 164 to 19,139, with an average annual growth rate of 32.3%; cumulative investment events From 143 to 46,357, the average annual growth rate was 40.5%.

The venture capital industry in every country is shaped in part by its institutional context, especially culture (Garry D. Bruton, 2003). China’s institutional environment is quite different from the West (Boisot and Child, 1996; Peng, 2000; Peng and Heath, 1996). The nation’s socialist tradition and strong culture together create a distinct social and commercial milieu (Boisot and Child, 1988; Child, 1994; Scarborough, 1998). All these created a number of significant differences from the West (Çetindamar, 2003).

In the West, venture capitalists rely on financial and accounting information contained in the business plan to initially evaluate the proposal and assess the risk of the proposed ventures (Wright et al., 1992; McGrath, 1997). The issue that arises in China is how to assess which firms to fund when there is an unsteady regulatory
in institutional environment and weak corporate governance (Becker, 2000; Tam, 1999). Venture capital plays a crucial role in the West in the development and growth of entrepreneurial firms (Patricof, 1989). However, the venture capital industry in much of Asia remains largely unexplored (except for Japan, e.g., Hurry et al., 1992; Ray and Turpin, 1993),

(ii) Factors related to the growth of unicorn companies in China and regulations

China is an important counterexample to the findings in the law, institutions, finance, and growth literature: Neither its legal nor financial system is well developed, yet it has one of the fastest growing economies. While the law-finance-growth nexus applies to the State Sector and the Listed Sector, with arguably poorer applicable legal and financial mechanisms, the Private Sector grows much faster than the others and provides most of the economy's growth. The imbalance among the three sectors suggests that alternative financing channels and governance mechanisms, such as those based on reputation and relationship, support the growth of the Private Sector (Franklin Allen 2011).

Cities with more startups usually have better economic performance than those that do not (Glaeser 2007). However, the geography of startups is unevenly distributed across regions (Stam 2010). In the USA, San Francisco, Boston, and New York appear more attractive for entrepreneurial activities than other cities (Florida and Mellander 2014). Similarly in China, startup agglomeration is extremely in some metropolises, such as Beijing, Shanghai, and Shenzhen (Guo et al. 2016). Many studies have demonstrated that demographic structure, institutional environment, and agglomeration economies are the major factors influencing the location choice of startups (Kerr 2010; Lu and Tao 2010). However, as a crucial factor determining new firm creation, the effects of financial resources on the distribution of startups have mostly remained uncharted (Malo and Norus 2009). Low availability of financial support is regarded as the main constraint for cities seeking to attract startups in regions with undeveloped financial markets, in China and India (GEM 2016). As one of the largest emerging economy, China’s entrepreneurial environment had lagged
for the lack of an effective financial market for startups for a long while
The unicorn phenomena have led to increased media coverage of start-ups and emergence of new terminologies such as decacorns (valuation exceeding $10 billion) and hectacorns (valuation exceeding $100 billion). The potential unicorns as soonicorns with valuation between $500 M and $1 billion (TechCrunch, 2017; Tracxn, 2017). Many industry experts have raised concern against unicorn citing it high valuation of many unicorns as unrealistic (Verhage, 2017) and it could potentially lead to tech startup bubble (McGee, 2016). “Unicorns” are private companies with valuations of a billion dollars or more. Each one of them has the potential to transform financial and cultural norms. Yet from a legal perspective, these behemoths are regulated just like their much smaller, non-mythical counterparts. There is a argue that once a private company reaches unicorn status, it should be subject to some of the same reporting obligations as public companies to provide greater transparency and protect minority stockholders (i.e., employees). (Jennifer S. Fan 2016)

### 1.2 Table review

<table>
<thead>
<tr>
<th>Stream</th>
<th>Authors</th>
<th>Article</th>
<th>Research Question</th>
<th>Data</th>
<th>Research method</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Luukkonen (2008)</td>
<td>Different types of venture capital investors and value added to high-tech portfolio firms</td>
<td>Whether there are systematic differences among types of venture capital investors in their activities in imparting non-financial value-added to their</td>
<td>The survey was conducted in the autumn of 2006 using a semi-structured web-based questionnaire sent to business angels and one or more managers of venture capital organizations</td>
<td>Agency relations between firms (investors, their investee firms, and fund-providers) and resulting incentives venture capitalists have to be engaged in their portfolio firms; Competence-based view of the firm</td>
<td>Public-sector used considerable time for evaluating proposals and selecting targets for investments; Private sector venture capitalists used considerable time for the</td>
</tr>
<tr>
<td>I</td>
<td>Garry D. Bruton, David Ahlstrom</td>
<td>An institutional view of China’s venture capital industry</td>
<td>The impact of China’s institutional environment created a number of significant differences from the West on future research on Asian venture capital, theory development, and the activities of VC professionals in that region.</td>
<td>Interviews with 36 venture capitalists in 24 venture capital firms investing in China</td>
<td>Four broad topical areas were examined: (1) selection process for firms to be funded, (2) structuring of relationships and monitoring of the funded firm, (3) value-added activities provided to the funded firm, and (4) exit.</td>
<td>(1) More likely venture capital firms will fund firms near to their offices and have a close relationship with the entrepreneur or others that know the entrepreneur is crucial. (2) Board membership is a far weaker means of monitoring firm than in much of the West. (3) VC firms will more likely fund firms near to their offices and value-added activities are crucial.</td>
</tr>
<tr>
<td>I</td>
<td>David Ahlstrom &amp; Garry D. Bruton &amp; Kuang S. Yeh</td>
<td>Venture capital in China: Past, present, and future</td>
<td>Where China’s venture capital industry has been and where it is likely to go in the future; Specify the system difference between China and U.S.</td>
<td>Semi-structured in-depth interviews with 30 leading participants in China’s venture capital industry from 2001–2005.</td>
<td>Using a data gathering design known as replication logic, these semi-structured interviews were conducted to first build an understanding of how venture capital works in China and the problems that venture capitalists face.</td>
<td>(1) Foundation for the venture capital firm itself, staffing. (2) The selection process for firms to fund, (3) monitoring the firm, (4) value-added activities provided to the funded firm, and (5) investment exit. In addition, the venture capital firm has to be especially concerned with its own organization and disposition of its staff.</td>
</tr>
<tr>
<td>I</td>
<td>Fenghua Pan; Bofei Yang</td>
<td>Financial development and the geographies of start-up cities: evidence from China</td>
<td>investigate the geographical characteristics of start-up cities and the role of finance in promoting start-up across Chinese cities</td>
<td>Start-ups (over 5000) of city that were newly listed on the NEEQ in 2014 and 2015;</td>
<td>Regression analysis; Model specification;</td>
<td>Strong financial supports from both equity financing and credit financing are beneficial to the development of start-up at the regional level.</td>
</tr>
<tr>
<td>I</td>
<td>Po-Hsuan Hsu;</td>
<td>Financial development</td>
<td>How financial market</td>
<td>Data set of 32 developed and</td>
<td>Identify economic mechanisms</td>
<td>Industries that are more</td>
</tr>
<tr>
<td>Authors</td>
<td>Title</td>
<td>Subtitle</td>
<td>Dataset Details</td>
<td>Excerpts</td>
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<tr>
<td>Xuan Tian; Yan Xu</td>
<td>and innovation: Cross-country evidence</td>
<td>development affects technological innovation.</td>
<td>emerging countries (between 1976 and 2006) and a fixed effects identification strategy.</td>
<td>through which the development of equity markets and credit markets affects technological innovation. dependent on external finance and that are more high-tech intensive exhibit a disproportionally higher innovation level in countries with better developed equity market: The development of credit markets appears to discourage innovation with this characteristic.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Anita Kerai             | Role of Unicorn tag in gaining legitimacy and accessing funds        | a) How do the event of $1 billion valuation and entry into unicorn club impact the funding of new ventures?  
b) How does new venture strategically deploy the media attention achieved by unicorn tag to acquire resources? | Data set of prior and post of unicorn tag; Data set of media coverage immediately after devaluation news; A pilot study of 133 start-ups from 2011-2017; Data on funding events; | Using signalling perspective, it proposes to study the impact of unicorn tag on funding events of new ventures from 2011-2017. The paper proposes to conduct content analysis of news and coverage in general and specific start-up media to understand unicorn’s ability to maintain and manipulate media attention. |
| Franklin Allen; Jun Qian| Law, finance, and economic growth in China                           | The status of China’s economy;                                           | Data set of 17 entrepreneurs and executives                                      | Examine and compare China’s formal system of China’s legal, financial systems and institutions |
|                         |                                                                      |                                                                          |                                                                                 |                                                                                                                                                                                     |
| Meijun Qian | What mechanisms support the Private sector growth? in Zhejiang and Jiangsu provinces. | law and finance and the alternative institutional arrangements and governing mechanisms, and the relation between the development of these systems and China's economic growth. | are all underdeveloped, but its economy, especially the Private sector grows very fast, where applicable legal and financial system even poorer than those in the State and listed sectors. The imbalance among the three sectors suggests the alternative mechanism, such as those based on reputation and relationships, support the growth of the Private sector. |
| Toby Stuart & Yanbo Wang | Who cooks the books in China, and does it pay? Evidence from private, high-technology firms | The extent of fraudulent reporting among 467 private Chinese technology companies | We find politically connected companies are approximately 18% more likely to commit fraud and those with venture capital backing are 19% more likely to do so. Furthermore, we show that it pays to cheat.; Fraud can be a source of performance differential for emerging market |
| ii | Jennifer S. Fan | Regulating unicorns; disclosure and the new private economy | Rethinks of the current regulatory regime in the context of unicorns | Part I explains what a unicorn is and what role it plays; Part II, influence render their effect in the marketplace; Part III, what type of information is available, where more information needs to be disclosed; Part IV looks at the new trend of late mega-fundings, also known as “private IPOs”. | Once a private company reaches unicorn status, it should be subject to some of the same reporting obligations as public companies to provide greater transparency and protect minority stockholders. |
| ii | Ken Wiles | In search of unicorns: Private IPOs and the changing markets for private equity investments and corporation control | To examine the development and economic consequences of capital market movement toward the growing use of PIPO financing; Why are PIPOs emerging now as a viable funding vehicle? | Analysis of the 142 companies that have used PIPO financing | The transformative power that PE investments can have on public firms with ineffective management and governance structures; PIPO investments have the ability to forestall these problems by providing privately held companies the opportunity to remain out of the public markets for a longer period of time. |
| ii | Zhai Jinzhi; The Rise of the | Q1) What Interviews | In the first phase, pursuit of |
2. Unicorn companies in the world

Data by startup and venture capital intelligence firm CB Insights (https://www.cbinsights.com/research-unicorn-companies) show a total of 346 private companies around the world valued at more than $1 billion as of May 8th 2019. (The complete list of unicorn companies, see annex 1)

36 new increases form the end of 2018. Last year, 112 new companies joined the global unicorn club, a 58% increase from the 71 new unicorns in 2017.
2.1 Geographic distribution

The US leads in share of unicorns (49%), China (26%) in the second place. Third and fourth place go to the UK (4.9%) and India (4.6%), with 17 and 16 unicorns respectively. 35 in the European Union (17 in the UK; 8 in Germany; 4 in France; 1 each in Estonia, Sweden, Malta, Portugal, Luxembourg, Spain), accounts for 10.1%; 16 in India, or 4.6%.

The largest unicorns by valuation in each region are:

- Bytedance in China (valued at $75 billion);
- JUUL Labs in the US ($50 billion);

Resources: CB insights
GrabTaxi in Singapore (valued at $14 billion) and Global Switch in the UK (both valued at $11.08 billion);
Go-Jek in Indonesia (valued at $10 billion)
One97 Communications in India ($10 billion);
Coupang in South Korea ($9 billion);
Roivant Sciences in Switzerland and Tokopedia in Indonesia (both $7 billion).

### 2.2 Sector distribution

Unicorn companies are sorted into 13 categories, from auto tech to e-commerce. The Other category includes companies within facilities, renewable energy, food delivery, retail and more.
Categories are not mutually exclusive and are sorted by primary use case.
The collective worth of all unicorns currently identified by CB Insights under 13 categories — is $1,151 billion. All of the total value in the end of last year is $1,052 billion. They have raised a combined total of nearly $99 billion. The largest category in our map is Internet Software & Services (25.1% of unicorns), followed by E-Commerce (11.5%) and Fintech (11.2%).
The most valuable company in the Internet Software & Services category is enterprise software company Infor ($10B valuation), while online hospitality marketplace Airbnb ($29.3B) is the most valuable E-Commerce unicorn. Payments startups Stripe ($20B) is the most valuable private company within Fintech.
Another noteworthy category is On-Demand, with 23 unicorns accounting for nearly $203B in combined valuation. This includes the second and third most valuable companies on our map: ride-hailing startups Uber ($72B) and Didi Chuxing ($56B).

### 2.3 Valuation distribution

Eighteen private companies (5% of total unicorns) are considered decacorns, worth
The average valuation of total unicorn companies is $3.32B. Approximately 25% of companies included in the global unicorn club are valued at exactly $1B.

From the average valuation of countries, first of all, the Indonesian unicorn is the most expensive in the world, with an average valuation of 500 million US dollars, about 2 times the average valuation of other countries and regions. Second, South Korea's unicorns grew fastest, with an average valuation rising from $2.95 billion to $3.93 billion, mainly due to the emergence of three high-valued unicorns, one for the existing e-commerce company Coupang, and two for new students. The horns are the take-away delivery platform Woowa Brothers and the game production company Bluehole. Third, India is the country with the highest average valuation in the top ten countries. The average valuation has dropped from US$3.94 billion to US$2.79 billion, mainly due to the acquisition of Flipkart, the largest unicorn and e-commerce industry in India, by Wal-Mart. $11.6 billion.

### 2.4 Most valuable unicorn companies in the world

The world’s most valuable private company is China’s Bytedance (aka Toutiao), in the Media category. The company reached a $75B valuation following an investment by SoftBank in November 2018. In addition to Bytedance ($75B), Uber ($72B), Didi Chuxing ($56B), co-working company WeWork ($47B), and e-cigarette maker JUUL Labs ($38B) round out the top 5 most valuable private companies.

Here is the top 10 unicorns by market value:
3. Unicorn companies in China

3.1 Overview

The emergence speed at China’s unicorn in 2018 has slowed down, with only one company reached a valuation of $1 billion. At the end of 2018, China unicorn club members reached 70 in total. CB insights data shows.

The total number of Chinese unicorns represents a modest increase is 1 each in 2017 and in 2018, it is a slowdown over 2016 and 2015, which saw 3 and 11 new Chinese unicorns, respectively.

The complete list of Chinese unicorn companies, see Annex 2.
All contexts below were based on the analysis of the complete list of a total of 70 Chinese unicorn companies.

3.1.1 Geographical distribution

This statistic shows the total value of unicorn companies in China in 2018, by city. That year, the unicorns in Beijing had been valuated over 200 billion dollars in total, whereas the value of unicorn companies in Shanghai amounted to around 29 billion dollars.

From the perspective of geographical distribution, Beijing, Shanghai, Shenzhen and Zhejiang are the main gathering places for unicorn enterprises. The total number of
enterprises is 60 (85.7%), and the total valuation is 260.74B (93.6%). Among them, 37 in Beijing, accounting for 52.8%, with a total valuation of 212.82 billion dollars; 13 in Shanghai, accounting for 18.5%, with a total valuation of 29.37 billion dollars; 3 in Shenzhen, accounting for 4.2%, with a total valuation of 8 billion dollars; 7 in Zhejiang, accounting for 10%, with a total valuation of 10.5 billion dollars.

Value is a criterion to qualify a unicorn company. Therefore, the emergence of unicorn companies is inseparable from investment institutions and investors. According to statistics from the fund industry association's private equity funds, there are many private equity funds in Beijing, Shanghai, Guangdong and Zhejiang. In particular, Beijing and Shanghai have abundant funds, which provided opportunities to startups.

3.1.2 Founded date distribution

As of 2018, Five unicorns in China were younger than three years since establishment, whereas 7 unicorn companies were eight years or older. As of that time, around 83% of unicorns in China were established during year 2011 to 2015.

In 2016, the state promulgated the “13th Five-Year National Science and Technology Innovation Plan”, proposing to “promote mass entrepreneurship and innovation, build a good innovation and entrepreneurial ecology. Strengthen the construction of comprehensive carriers for innovation and entrepreneurship, develop space for
creation, and support the public to create crowdsourcing support. Crowd funding, service entity economy transformation and upgrading; in-depth implementation of intellectual property and technology standards strategy; improve the combination of technology and finance, and vigorously develop venture capital and multi-level capital markets." This provides a valuable development opportunity for the newly established innovative startups.

3.1.3 Valuation distribution

![Figure 3.4 Distribution of China unicorn companies valuation interval (by numbers, %)](image)

![Figure 3.5 Distribution of China unicorn companies, by valuation ($B, %)](image)

In 2018, there were three unicorn companies with a valuation of more than 10 billion
US dollars, with a total valuation of $143 billion, accounting for 24% of all unicorn companies in China. There are five unicorn companies with a valuation of $5 billion to $1 billion, with a total valuation of $30 billion, accounting for 11%. There are 12 companies with a valuation of $3 billion to $5 billion, with a total valuation of 38.92 billion US dollars, accounting for 14%. 50 companies valuation is below $3 billion and the total valuation is $66.7 billion, accounting for 24%.

### 3.1.4 Sector distribution

Unicorn companies in China are sorted into 10 categories. Categories are not mutually exclusive and are sorted by primary use case.

<table>
<thead>
<tr>
<th>Sector</th>
<th>number</th>
<th>Total Valuation</th>
<th>Average Valuation</th>
</tr>
</thead>
<tbody>
<tr>
<td>e-Commerce</td>
<td>14</td>
<td>20</td>
<td>1.4</td>
</tr>
<tr>
<td>Media &amp; Entertainment</td>
<td>6</td>
<td>84</td>
<td>14.0</td>
</tr>
<tr>
<td>Real estate services</td>
<td>6</td>
<td>11.8</td>
<td>1.9</td>
</tr>
<tr>
<td>Hardware</td>
<td>6</td>
<td>27.6</td>
<td>4.6</td>
</tr>
<tr>
<td>Local Services</td>
<td>2</td>
<td>2</td>
<td>1.0</td>
</tr>
<tr>
<td>Ed Tech</td>
<td>8</td>
<td>12.2</td>
<td>1.5</td>
</tr>
<tr>
<td>Auto Tech</td>
<td>6</td>
<td>13.75</td>
<td>2.3</td>
</tr>
<tr>
<td>Travel Tech</td>
<td>4</td>
<td>8.5</td>
<td>2.1</td>
</tr>
<tr>
<td>Corporation Services</td>
<td>9</td>
<td>17.7</td>
<td>1.9</td>
</tr>
</tbody>
</table>
3.2 Ten major industry analysis

This section of the unicorn company ranking comes from the public data of CB insights, I extracted the part of the Chinese company and verified it one by one. It has been removed for more than 10 years and is no longer operational. And reclassify the industry (see Annex 2).

3.2.1 e-Commerce

E-commerce is the activity of buying or selling of products on online services or over the Internet. The rapid development of third-party payment in China is related to the e-commerce originating from the customer-customer (C2C) model. China's e-commerce is mostly a customer-customer (C2C) model. This model has serious information asymmetry and moral hazard problems. In order to solve these two problems, a third party is required as a credit intermediary, and third-party payment comes into being.

<table>
<thead>
<tr>
<th>No.</th>
<th>Company</th>
<th>Valuation ($B)</th>
<th>Headquarter</th>
<th>Segmentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Xiaohongshu</td>
<td>3</td>
<td>Shanghai</td>
<td>Cross-border</td>
</tr>
<tr>
<td>2</td>
<td>Meicai</td>
<td>2.8</td>
<td>Beijing</td>
<td>Fresh Food</td>
</tr>
<tr>
<td>3</td>
<td>Huimin</td>
<td>2</td>
<td>Beijing</td>
<td>Integrated e-commerce</td>
</tr>
<tr>
<td>4</td>
<td>Aihuishou</td>
<td>1.5</td>
<td>Shanghai</td>
<td>3C Electronics</td>
</tr>
<tr>
<td>5</td>
<td>Kouday Gouwu</td>
<td>1.4</td>
<td>Beijing</td>
<td>Customized shopping</td>
</tr>
<tr>
<td>6</td>
<td>Yiguo</td>
<td>1.2</td>
<td>Shanghai</td>
<td>Fresh Food</td>
</tr>
<tr>
<td>7</td>
<td>Yijiupi</td>
<td>1.1</td>
<td>Beijing</td>
<td>Fresh Food</td>
</tr>
<tr>
<td>8</td>
<td>Jiuxian</td>
<td>1.05</td>
<td>Beijing</td>
<td>Wine sales</td>
</tr>
<tr>
<td>9</td>
<td>BeiBei</td>
<td>1</td>
<td>Zhejiang</td>
<td>Baby Products</td>
</tr>
<tr>
<td>10</td>
<td>Zhaogang</td>
<td>1</td>
<td>Shanghai</td>
<td>Steel Trade</td>
</tr>
<tr>
<td>11</td>
<td>Poizon</td>
<td>1</td>
<td>Shanghai</td>
<td>Fashion Shop</td>
</tr>
<tr>
<td>12</td>
<td>Fanli</td>
<td>1</td>
<td>Shanghai</td>
<td>e-Commerce services</td>
</tr>
</tbody>
</table>
In 2018, there were 14 unicorn companies in the e-commerce industry, with a total valuation of $20.05 billion. The average value of single unicorn is $1.43 billion.

Beijing and Shanghai have the largest number of unicorns, both of which are six. The total valuation of the e-commerce unicorn company in Beijing is 9.35 billion dollars. The Shanghai area is slightly lower, which is 8 billion dollars. One in Zhejiang and Jiangsu. The valuation is 1 billion dollars each. The fresh food industry has the largest number and the highest valuation, with three, and a total valuation is 5.1 billion dollars.
3.2.2 Health

<table>
<thead>
<tr>
<th>Company</th>
<th>Valuation ($B)</th>
<th>Headquarter</th>
<th>Category</th>
<th>Segmentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>United Imaging Healthcare</td>
<td>5</td>
<td>Shanghai</td>
<td>Healthcare</td>
<td>Medical equipment and hardware</td>
</tr>
<tr>
<td>GuaHao (We Doctor)</td>
<td>1.5</td>
<td>Zhejiang</td>
<td>Healthcare</td>
<td>Comprehensive medical service</td>
</tr>
<tr>
<td>iCarbonX</td>
<td>1</td>
<td>Shenzhen</td>
<td>Healthcare</td>
<td>Health Care</td>
</tr>
<tr>
<td>Medlinker</td>
<td>1</td>
<td>Beijing</td>
<td>Digital Health</td>
<td>hospital ecosystem</td>
</tr>
<tr>
<td>LinkDoc Technology</td>
<td>1</td>
<td>Beijing</td>
<td>Digital Health</td>
<td>oncology big data company</td>
</tr>
<tr>
<td>YITU Technology</td>
<td>2.37</td>
<td>Shanghai</td>
<td>Healthcare</td>
<td>AI technologies with industrial applications</td>
</tr>
</tbody>
</table>

The health industry is a general term for the production, management, service delivery and information dissemination of a series of products related to maintaining, repairing and promoting health. It includes five major segments: one is a medical service organization; the other is a pharmaceutical industry; the third is health care...
products industry; the fourth is the health management service industry; the fifth is the health care industry based on the old-age market.

China's economic growth is slowing down, but the medical device industry is still on the rise. The Chinese medical device industry was valued at US$18.8 billion in 2016 and is projected to grow modestly through 2019, when it should reach over US$24 billion (https://www.emergobyul.com/resources/market-china). (CHINA – Overview of medical device industry and healthcare statistics) Due to the large population of China, the demand for medical services is strong, and the scale of the elderly population has grown rapidly in recent years. Therefore, China's health industry has formed a situation in which the pharmaceutical industry and healthy pensions are the mainstay (the total of the two accounts for more than 80%), supplemented by other industries.

According to the statistics of China’s Great Health Industry Strategic Planning and Enterprise Strategy Consultation Report released by Prospective Industry Research Institute, as of 2017, China's large health industry scale is $0.93 trillion. It is estimated that the scale of China's major health industry will exceed $1 trillion in 2018. It is estimated that the scale of China's large health industry will reach $1.3 trillion in 2019. By 2020, the scale of China’s big health industry will exceed $1.5 trillion. In the next five years (2019-2023), the average annual compound growth rate is about 12.55%, and it is predicted that the size of China's large health industry will reach $2.1 billion in 2023.

### 3.2.3 Real estate services

<table>
<thead>
<tr>
<th>Company</th>
<th>Valuation ($B)</th>
<th>Headquarter</th>
<th>Category</th>
<th>Segmentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>UCommune</td>
<td>3</td>
<td>Beijing</td>
<td>Real Estate Services</td>
<td>Co-working space</td>
</tr>
<tr>
<td>Ziroom</td>
<td>3.1</td>
<td>Beijing</td>
<td>Real Estate</td>
<td>House-renting</td>
</tr>
<tr>
<td>ESR Cayman</td>
<td>2.8</td>
<td>HongKong</td>
<td>Real Estate Tech</td>
<td>Real estate</td>
</tr>
<tr>
<td>(e-Shang Redwood)</td>
<td></td>
<td></td>
<td>developer and operator</td>
<td></td>
</tr>
<tr>
<td>-------------------</td>
<td>----------------</td>
<td>---------------</td>
<td>----------------------</td>
<td></td>
</tr>
<tr>
<td>Mofang Gongyu</td>
<td>1</td>
<td>Shanghai</td>
<td>Real Estate Services</td>
<td>House-renting</td>
</tr>
<tr>
<td>Eggshell Apartment</td>
<td>2</td>
<td>Shenzhen</td>
<td>Real Estate Services</td>
<td>House-renting</td>
</tr>
</tbody>
</table>

Ucommune offers co-working space solutions to small and medium enterprises. Ziroom provides home rental and property management services. Mofang Gongyu Develops and rents serviced apartments. Eggshell Apartment is the overall intelligent service provider of apartments, while ESR Cayman is a pan-Asia logistics real estate developer and operator.

The main business model of the real estate service industry is online e-commerce and offline agency. The products are two types of new houses and second-hand stock houses. The essence of real estate agency services is to help docking demand and supply to boost volume. Due to real estate block trades, low frequency and product differentiation. The core competitiveness of real estate agents lies in the continuous expansion of market share, the expansion of housing stocks and different levels of demand to increase the success rate of transactions.

Due to the lower barriers to entry in the real estate agency industry, the number of real estate institutions has grown rapidly. This has led to an increasingly fierce competition in the real estate industry. Therefore, traditional real estate service organizations have turned to individualized operations. Such as, the direction of real estate leasing, information consulting, co-work space develop or combine the company's resources and talent characteristics to the direction of new house sale planning and marketing. Three-fifths of current unicorn companies in China are real estate agents focusing on house renting services. They are located in the northern, central and southern parts of China, respectively.
### 3.2.4 Media & Entertainment (M&E)

<table>
<thead>
<tr>
<th>Company</th>
<th>Valuation ($B)</th>
<th>Headquater</th>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toutiao (Bytedance)</td>
<td>75</td>
<td>Beijing</td>
<td>Media &amp; Entertainment/ AI</td>
<td>News recommendation based AI</td>
</tr>
<tr>
<td>Kuaishou</td>
<td>3</td>
<td>Beijing</td>
<td>Media &amp; Entertainment</td>
<td>Short video platform</td>
</tr>
<tr>
<td>Zhihu</td>
<td>2.5</td>
<td>Beijing</td>
<td>Media &amp; Entertainment</td>
<td>Socialized website for Q&amp;As</td>
</tr>
<tr>
<td>DouyuTV</td>
<td>1.51</td>
<td>Wuhan</td>
<td>Media &amp; Entertainment</td>
<td>Short video platform</td>
</tr>
<tr>
<td>Yixia</td>
<td>1</td>
<td>Beijing</td>
<td>Media &amp; Entertainment</td>
<td>Short video platform</td>
</tr>
<tr>
<td>Yidian Zixun</td>
<td>1</td>
<td>Beijing</td>
<td>Media &amp; Entertainment</td>
<td>News recommendation based AI</td>
</tr>
</tbody>
</table>

Most of the unicorn companies in the cultural and entertainment industry are in the E round of financing. Below is comparison of financing situation of unicorn enterprises in M&E industry in 2018.

<table>
<thead>
<tr>
<th>Company</th>
<th>Round</th>
<th>The latest round of financing in 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toutiao (Bytedance)</td>
<td>F/PRO-IPO</td>
<td>4 billion US dollars</td>
</tr>
<tr>
<td>Kuaishou</td>
<td>E</td>
<td>400 million US dollars</td>
</tr>
<tr>
<td>Zhihu</td>
<td>E</td>
<td>270 million US dollars</td>
</tr>
<tr>
<td>DouyuTV</td>
<td>E</td>
<td>600 million US dollars</td>
</tr>
<tr>
<td>Yixia</td>
<td>E</td>
<td>500 million US dollars</td>
</tr>
<tr>
<td>Yidian Zixun</td>
<td>E</td>
<td>121 million US dollars</td>
</tr>
</tbody>
</table>
M&E is a multi-level coverage of a wide range of probabilities, and the M&E industry contains many subdivisions. Games, sports, movies, books, animation and other sectors are all in the M&E area. With the continuous warming of the entertainment industry, the concept of “big entertainment” and “pan-entertainment” has been derived from M&E. These concepts reflect the new trend of innovation in the development of content and the continuous integration of the industry chain. In the M&E industry chain, the impact of the head platform on content placement is increasing. While attracting users' consumption through high-quality content, the online short video platform has already started from the upstream of the M&E industry chain and entered the core links of product chain content generation.

### 3.2.5 Local services

<table>
<thead>
<tr>
<th>Company</th>
<th>Valuation ($B)</th>
<th>Headquater</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lalamove</td>
<td>1</td>
<td>HongKong</td>
<td>Local Services/Logistics</td>
</tr>
<tr>
<td>58 Daojia</td>
<td>1</td>
<td>Beijing</td>
<td>Local Services</td>
</tr>
</tbody>
</table>

58 Daojia provides online information and access to high-quality offline services such as leaning, moving, babysitting and beauty care, while Lalamove is an on-demand logistics company.

### 3.2.6 Hardware

<table>
<thead>
<tr>
<th>Company</th>
<th>Valuation ($B)</th>
<th>Headquater</th>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DJI Innovations</td>
<td>10</td>
<td>Guangdong</td>
<td>Hardware/Consumer electronics</td>
<td>Consumer electronics</td>
</tr>
<tr>
<td>Meizu Technology</td>
<td>4.58</td>
<td>Guangdong</td>
<td>Hardware/Consumer electronics</td>
<td>Consumer electronics</td>
</tr>
<tr>
<td>Royole</td>
<td>3</td>
<td>Guangdong</td>
<td>Hardware</td>
<td>Consumer</td>
</tr>
</tbody>
</table>
In 2018, from the distribution of the number of enterprises, the hardware industry unicorns are only distributed in Guangdong and Beijing. 4 of them located in Guangdong while 2 in Beijing. The new trend of hardware development is to enter the Internet of Things era. Intelligent hardware refers to emerging Internet terminal products that have the ability to collect, process, and connect information, and implement intelligent sensing, interaction, and big data services.

### 3.2.7 Ed Tech

<table>
<thead>
<tr>
<th>Company</th>
<th>Valuation($B)</th>
<th>Headquarter</th>
<th>Category</th>
<th>Segmentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yuanfudao</td>
<td>3</td>
<td>Beijing</td>
<td>Edtech</td>
<td>K-12</td>
</tr>
<tr>
<td>Vipkid</td>
<td>3</td>
<td>Beijing</td>
<td>Edtech</td>
<td>Language Learning</td>
</tr>
<tr>
<td>Logic Show (Luojisiwei)</td>
<td>1.17</td>
<td></td>
<td>EdTech</td>
<td>Talk show/ Book recommendation</td>
</tr>
<tr>
<td>New Dada</td>
<td>1</td>
<td>Shanghai</td>
<td>Edtech</td>
<td>Language Learning</td>
</tr>
<tr>
<td>iTutorGroup</td>
<td>1</td>
<td>Beijing</td>
<td>EdTech</td>
<td>Language Learning</td>
</tr>
<tr>
<td>HuJiang</td>
<td>1</td>
<td>Shanghai</td>
<td>Edtech</td>
<td>K12</td>
</tr>
</tbody>
</table>
There are eight unicorn companies in the education industry. 3 are K12 education, 3 are language learning (mainly English), one is a talk show providing a mobile app which allows users to subscribe to learn from key opinion leaders (KOLs), and one is an education provider which offers higher education and vocational education services and products.

The education industry can be divided into two parts, the established education period and supplementary education. The established education stage is divided into early education, K12 education, higher level education and vocational education. The supplementary education stage is divided into quality education (art, sports, science and technology, etc.) and study abroad (going abroad, exam training).

There is a saying in China that "live to the old and learn to be old." The education industry has a broad mass base. In recent years, financing in the education industry has been very active. In 2018, there were 579 financings in the primary market, an increase of 40.53% compared with 412 in the previous year. The amount reached $7.86 billion, an increase of 87.79% over the previous year.

### 3.2.8 Travel Tech

<table>
<thead>
<tr>
<th>Company</th>
<th>Valuation ($B)</th>
<th>Headquarter</th>
<th>Category</th>
<th>Segmentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>HelloBike</td>
<td>5</td>
<td>Shanghai</td>
<td>Travel/Transportation</td>
<td>Bike share for short distance travel</td>
</tr>
<tr>
<td>Klook</td>
<td>1</td>
<td>Guangdong</td>
<td>Travel Tech</td>
<td>Cross-board travel</td>
</tr>
</tbody>
</table>
China's tourism industry has gradually grown up and maintaining an average annual growth rate of more than 7%. It has become a new growth point for the national economy and one of the pillar industries for China's development. According to public data of China tourism academy (http://www.ctaweb.org/html/2018-12/2018-12-28-15-55-12622.html), Drawing a picture of China's tourism annual income from 2014 to 2017.

As the demand for personalized travel customization increases, the way of travel is more diverse. We can see that the four unicorn companies on the list have their own characteristics. One is specialized in cross-border tourism, the other is a platform for sharing bicycles, and the two of them operate a travel booking platform aimed at short-term rental housing. What they have in common is the combination of online and offline, and with the help of big data analysis, to understand the dynamics of
tourists, integrate tourism resources, and ultimately improve profitability.

### 3.2.9 Auto Tech

<table>
<thead>
<tr>
<th>Company</th>
<th>Valuation ($B)</th>
<th>Headquarter</th>
<th>Category</th>
<th>Segmentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>SouChe Holdings</td>
<td>3</td>
<td>Zhejiang</td>
<td>Auto Tech/e-Commerce</td>
<td>Trade platform</td>
</tr>
<tr>
<td>Momenta</td>
<td>1</td>
<td>Beijing</td>
<td>Auto Tech/Hardware</td>
<td>autonomous driving</td>
</tr>
<tr>
<td>XPeng Motors</td>
<td>3.65</td>
<td>Guangdong</td>
<td>Auto Tech</td>
<td>New energy</td>
</tr>
<tr>
<td>Youxia Motors</td>
<td>3.35</td>
<td>Shanghai</td>
<td>Auto Tech</td>
<td>New energy</td>
</tr>
<tr>
<td>AIWAYS</td>
<td>1.59</td>
<td>Shanghai</td>
<td>Auto Tech</td>
<td>New energy</td>
</tr>
<tr>
<td>Tuhu</td>
<td>1.16</td>
<td>Shanghai</td>
<td>Auto Tech/e-Commerce</td>
<td>After-sales Services</td>
</tr>
</tbody>
</table>

3 new energy vehicles are among the $1 billion valuation clubs. The competition for unicorns in the industry is fierce. Not only these manufacturers but also the capital behind is competing.

### 3.2.10 Corporation Services

<table>
<thead>
<tr>
<th>Company</th>
<th>Valuation ($B)</th>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>UCommune</td>
<td>3</td>
<td>Real Estate/Corporate Services</td>
<td>Ucommune offers co-working space solutions to small-to-medium enterprises</td>
</tr>
<tr>
<td>Tongdun Technology</td>
<td>1</td>
<td>Cybersecurity/Corporate Services</td>
<td>Software solutions for anti-theft and fraud management applications.</td>
</tr>
<tr>
<td>SenseTime</td>
<td>4.5</td>
<td>Corporate Services</td>
<td>an AI company that focuses on innovative computer vision and deep learning technologies</td>
</tr>
<tr>
<td>Jusfoun Big Data</td>
<td>1.65</td>
<td>Corporate Services</td>
<td>Government data asset operator.</td>
</tr>
<tr>
<td>4Paradigm</td>
<td>1.2</td>
<td>Corporate Services</td>
<td>A Beijing-based AI startup that is pioneering machine learning software in China</td>
</tr>
<tr>
<td>Face++</td>
<td>1</td>
<td>Corporate</td>
<td>Megvii builds AI Engine, a core fundamental</td>
</tr>
</tbody>
</table>
### 3.3 Reasons for startups to leave the unicorn club

China's unicorn companies are developing rapidly, and there are also many potential risks. 85.5% of unicorn companies have been established for less than 8 years and are generally established for a short period of time. The support point for high valuation of unicorn companies, whether it is business model innovation or technological innovation, has not experienced time experience and verification, such as whether the market demand is real and strong, whether the business model can be sustained, whether research and development capabilities can support product updates, and so on. The market is changing rapidly, and the market share of unicorn companies will be squeezed by endless competitors. If the new products or services of the company are lower than market expectations or cannot maintain high market share, the profitability of the company will face challenges and the valuation will be renewed.

There are many cases in which unicorn companies have withdrawn from the club. From the perspective of industry, the sharing economy used to be an investment hot point. The bicycle sharing company ofo was established in 2015. There are 12 rounds of financing amount of $2.25 billion and a peak valuation of $3 billion in three years. Up to now, millions of users have queued to refund the deposit, the deposit debt is estimated to reach $148 million, and the public debt to supply chain over $15 million. What puts ofo in the dilemma is a business model that relies on huge amounts of
financing to develop. The influx of capital also makes ofo do not need to consider
how to compete with their rivals through refined operations, even profit. When no
funds enter, the company goes to “death”.

Another worth-mention industry is financial technology (Fintech). Fintech is a rapidly
developing industry in which traditional banking, investing, and money management
is moving to digital platforms.

There are three types, one is that traditional banks use Internet technology to extend
payment services, second is third-party payment and online financial platform
derived from third-party payment, and the third is online lending.

As an intermediary platform connecting lenders and borrowers, P2P online lending
has been an important part of the Internet finance industry. It has established nearly
7,000 platforms and has become the Internet financial sub-sector with the largest
number of entrepreneurial platforms. However, in the middle of 2018, more than
5,000 platforms were “exploded”. As of November 2018, there were only 1109 online
loan platforms in operation.

The industry generally believes that the reason is; in terms of the environment,
financial de-leverage, monetary contraction, bond default, investors' risk preference
is changing; from the perspective of the online lending platform itself, maturity
mismatch and self-inflation are the two main reasons for the collapse of the platform,
Affected by liquidity tightening, investment and stock market downturn, borrowers
passively or actively overdue.

China Unicorn Enterprises have grown up in the “Entrepreneurial Gold” era, and the
arrival of the mobile Internet era has provided a huge space for innovation and
entrepreneurship. The equity investment market is booming and sufficient funds
support the valuation of unicorn companies. However, almost all unicorn companies
have not experienced the systematic risk or the baptism of external environmental
changes, such as financial crisis, trade friction, political risk and so on. Therefore, the
internal management mechanism of most unicorn enterprises is not perfect enough,
and there is also lack of experience in dealing with the crisis. These factors have laid
a risk hazard for the long-term healthy development of enterprises.
4. Unicorn companies and surrounding ecological analysis

Unicorns can be divided into platform ecotypes and technology-driven ones. The platform ecotype is mainly based on the Internet to build a platform. The core idea is to rely on the platform to “share”. From the perspective of industry distribution, as in the previous issue, cultural media, automobile transportation and e-commerce are the top three industries, with 25, 23 and 17 respectively. The three industry representatives are in turn the current headlines with a valuation of 75 billion US dollars. Xiao hong shu with a valuation of $45 billion and a valuation of $3 billion. Technology-driven ones are driven by high-tech technologies such as big data, cloud computing, artificial intelligence, and blockchain. From the perspective of specific enterprises, high-end manufacturing, artificial intelligence, etc. have begun to appear a number of high-quality key enterprises, such as the soft-tech technology focusing on flexible screens, SenseTime technology contempt for artificial intelligence, and the selection of robots. And the ranking and valuation have increased by a large margin.

When the platform ecotype is combined with technology-driven, it will play a greater role. In terms of valuation changes, Ant Financial and today’s headlines have changed the most, with valuations increasing by $75 billion and $45 billion, respectively. In addition to relying on the platform to build a large number of user bases and capital relationships, choose the right track, the use of emerging technologies such as big data, artificial intelligence is the key to maintaining its advantage. And the technical performance is more important in the later stage of enterprise operation. More than 80% of the top ten enterprises in the valuation are inseparable from the technical attributes.
4.1 Founders of unicorn companies

The founders of unicorn companies have always been a group of people who are both concerned and mysterious. After collecting the information of the founder, we found the group has a high degree of educational level, professional skill and diverse backgrounds.

From educational background, except 14 of 70 did not disclose academic qualifications, the remaining 56 founders have bachelor degree or higher, accounting for 79.4% of the total. 33 of them have master’s degree, accounting for 48.1%. Doctors and above, 19 of them are Doctors or above, accounting for 13.7%. The high level of education reflects the knowledge reserve and professional level of the founder of the unicorns. Among the founders of all unicorn companies, about 20 founders have a background in studying abroad, 7 of whom choose to start a business in Beijing, and 6 choose to start a business in Shanghai, accounting for 70% of the total. Beijing and Shanghai As first-tier cities in China, they provide entrepreneurs with a good policy environment, broad market space and abundant human resources. For example, the Beijing Municipal Bureau of Human Resources and Social Security conducts the “Guide for the Return of Overseas Students to Start a Business in China”, and selects enterprises established by returnees with development potential to give priority support during the initial stage of urgently needed funds.
Starting from the professional background of the founders, according to the Ministry of Education's first-class discipline classification standards, a total of 39 founders in the field of engineering; followed by management talents, a total of 27, of which 20 are MBA/EMBA senior management talent; 10 professionals. Of the 20 senior executives, 7 of them have a background in science and engineering. Among the founders of unicorns who disclose academic information, there are about 56 people with a history of science and engineering. At 62.2%, they have knowledge and work experience in the fields of electronics, computer, communication, biochemistry, etc., and have a deep understanding of industry development and technological innovation, which is high in the Internet and IT industry among unicorn companies. The proportion is consistent.

4.1.1 Founders’ education background for different industries

Among the 70 unicorn companies, the Internet and IT industries have gathered the most master's degree or above. There are 20 or 12 founders in the Internet and IT industry, each with a master's degree or above, and half of the founders of the entire unicorn master's degree or above. Most of them are born in science or engineering, and they are a group of people who have early access to high-tech knowledge and
industries such as computers and software engineering.

4.1.2 Analysis of the giant-company-based unicorns

The unicorn that grows from a unicorn "mother", that is, a business incubator to an independent operation, and is financed by external investors, can be described as a non-start from scratch company, backed by incubators including capital, manpower, technology, customers and many other aspects. Enriching resources, you can usually achieve twice the result with half the effort in the process of business development.

Twenty-six of the 131 unicorns started their internal incubation, accounting for 19.85% of the total, and the valuation ratio reached 53.42%, more than half. According to the incubator, Alibaba Group has a total of 7 unicorns, with a total valuation of 1,582.941 billion yuan, ranking first. Tencent and Ping An have each hatched three unicorn companies. Tencent's unicorns include Tencent Music, Weizhong Bank, and Tencent Cloud. The three unicorn companies under the Ping An Group are Lu Jinsuo, Ping An Healthcare Technology and Financial Accounts. Jingdong, Qihoo 360 and 58 Group each hatched two unicorn companies. Other companies, Jiuding Holdings, Suning, and Beiqi, each have a unicorn.

The unicorn that grew up from the incubation of the company, compared with the start from scratch unicorn, the most intuitive advantage is the support of the "mother" of the incubator. Issues such as capital investment and team recruitment that are usually faced in the early stage of the venture can be effectively solved by the existing resources of the incubator. Incubating customer groups, industry chain resources and brand endorsements will be the accelerators for the expansion of the incubation project. However, the "mother" of the enterprise may not have enough reputation and the management methods may are not proper. For example, the institutional framework constraints, the competition of departmental interests, the lack of incentive mechanisms, and the lack of resources are all possible lead to collapse of the incubation project. To some extent, incubator projects are less flexible and united than independent startups. Therefore, for incubators, to successfully
cultivate internal projects, it is necessary to establish a flexible and effective entrepreneurial mechanism and incentive mechanism; for incubating projects, it is necessary to grasp the key resources of the enterprise to maximize its utility.

In general, entrepreneurial projects that internalized by companies are more likely to be recognized by investors.

### 4.1.3 Analysis of the industries of the giant-company-based unicorns

In order to capture new opportunities and deploy new areas, or to explore the upstream and downstream of the industry around its own business, in addition to acquiring external companies, establishing joint ventures and achieving strategic cooperation, it is also an important way to achieve business expansion through internal team entrepreneurship. The Alibaba Group, which has the largest number of internal incubating companies, the highest valuation and the most involved in the industry, covers companies in the fields of finance, IT, logistics, entertainment and life services. The main way for Alibaba to incubate unicorn companies is to cut into its optimistic industry with the “Internet Plus” model, and use its large online customer base and leading big data technology to help incubators quickly capture the market.

As an integrated financial group, PingAn Group covers almost all types of traditional financial services, including insurance, banking, securities, funds, and trusts. PingAn Medical Insurance Technology, which focuses on medical technology services, is an important part of PingAn’s strategic plan for “big medical health”. Based on the network resources and data resources accumulated by PingAn Group, Ping An Medical Insurance Technology has established a cloud service platform for government medical insurance, commercial insurance companies, hospitals and individuals to help commercial insurance companies better manage funds, reduce medical waste, and improve personal medical care service Level. Although Jingdong Group has only two unicorns, Jingdong Logistics and Jingdong Finance, its development prospects are promising, with valuations exceeding US$10 billion,
ranking among the top unicorns. Jingdong started out as an e-commerce company, and then laid out in the financial and logistics industries. The idea of development around the business is basically consistent with the Alibaba Group.

There is also the birth of a class of unicorns, which mainly originated from the personal hobby of the founder of the Incubation Group. For example, the initial concept of NetEase Cloud Music originated from the hobby of NetEase owner Ding Lei on niche music. Based on the strong interest in doing mobile music products, and the experience of NetEase Entertainment in the entertainment media industry, after determining the social characteristics as a product, the internal project was quickly established and hatched. The success of NetEase Cloud Music is obvious. It has become a symbolic product of the NetEase Group in the music market that is competitive in many types of players.

In general, companies choose industry and segmentation services to initiate internal incubation, usually because of strategic layout considerations or optimism about a new field, in order to form synergies with existing businesses or to help existing businesses. entering new areas is based on the resource advantages already available in existing businesses. Therefore, from the vertical industry to hatch the number and valuation of unicorns, you can also know the layout intentions and industry preferences of incubators in the long-term development plan.

From the vertical industry perspective, the three industries with the highest valuation of unicorns are the Internet finance, IT and logistics industries.

There are 8 unicorns in the Internet finance field, with a total valuation of 133.825 billion yuan, which is the industry with the largest number of companies and the highest valuation of unicorns. E-commerce companies such as Alibaba and JD.com are pushing the demand for online payment based on the online shopping scene of customers, and relying on the advantages of online traffic to the financial industry; financial companies such as Ping An Group rely on their traditional The experience and advantages accumulated in financial services are transferred online through the Internet. The two IT unicorns incubating within the enterprise are cloud computing enterprises that provide enterprise cloud services such as cloud servers, big data and
artificial intelligence services, which are located under Alibaba and Tencent respectively, with a total valuation of 445.187 billion yuan. The two logistics industry unicorns incubating within the company are the rookie network and Jingdong Logistics, with a valuation of 125.8 billion yuan and 75.48 billion yuan respectively. The incubators are Alibaba and Jingdong. As a two-home appliance company, Alibaba is not directly involved in the logistics and distribution industry, but uses its Internet thinking to build a big data platform, gathering customers, businesses, logistics information and other data to help achieve the aggregation of logistics orders. Work, and ultimately achieve the cost reduction and efficiency of the entire logistics industry; Jingdong chose to build a self-built warehouse distribution logistics network, through technology innovation to achieve a comprehensive and intelligent logistics system.

There are four unicorns in the entertainment media industry that are internally hatched, involving music and sports. The Internet service industry has a total of three incubators, and Alibaba's reputation is an Internet company that provides local life services and reviews. The 58 unicorns hatched by the group, 58 home to provide standardized home-to-home service, and the transfer is a second-hand idle goods trading platform. The unicorn cat's eye (micro-shadow) and the Taobao ticket in the field of e-commerce are two pan-entertainment platforms under the US Mission and Alibaba. They are the current duopoly in the Chinese ticket market. In addition, there is a unicorn enterprise in the banking, insurance, and financial services fields, namely, Weizhong Bank established by Tencent, Ping An Healthcare Technology and Finance Accounts established by Ping An Group. WeBank is the first Internet private bank in China. It has no business outlets and counters. It distributes loans through face recognition technology and big data credit rating. PingAn Medical Insurance Technology cuts in from the medical insurance payment end to provide services such as control fees, actuarial and medical insurance accounts for the medical system. Financial credit rules mainly provide financial technology service support for financial institutions such as banks. The automobile industry unicorn Beiqi New Energy was founded by BAIC Group and is a pure electric vehicle enterprise. Finally, the
biotech/healthcare unicorn is 360 health and 360 medicine for Qihoo 360’s medical e-commerce platform.

4.2 Unicorn Hunter's track and ecological layout

As a unicorn hunter, investment institutions have their own attributes, tracks and ecological distribution. From the type of organization, it can be divided into financial venture capital institutions (FVC) and corporate venture capital institutions (CVC). FVCs refer to funds established by investors mainly for financial purposes and conduct VC investments externally. Financial investors pay attention to the medium-term return of investment, with M&A and listing as the main exit. Therefore, when selecting investment targets, they will examine the company’s performance after 3-5 years. FVCs are the best choice when companies want to remain independent.

The CVC refers to a venture capital fund that does not include financial products in its main business, and conducts venture capital activities both internally and externally. With the strategic layout as the goal, most of them use their own funds to invest in enterprises.

Compared with FVCs, CVC's investment has a longer duration and can provide industrial assistance. But entrepreneurs may lose their independence.

Investors have their own areas that are good at or optimistic about future development. Therefore, they will have their own different investment tracks. From their track layout, they can see the current industry hotspots and future trends, and at the same time, they can refer to entrepreneurs. Domestic investment is more appropriate.

Large enterprises restrict innovation in the system, and external acquisitions will gain external innovation. Each enterprise will carry out upstream and downstream ecological layout according to its main business, and enterprise cooperation within the ecological chain will produce synergy.
4.2.1 Overview of Chinese unicorn hunters

According to the public information, as of the first quarter of 2018, a total of 510 VC/PE institutions participated in the investment of 121 unicorns, and the cumulative investment amount of the disclosed amount reached 526.022 billion yuan. The unicorn companies with investment institutions accounted for more than 90% of the total, and the investment rounds ranged from seed rounds to angels to pre-ipo, covering the entire growth cycle of start-ups. Since 2012, China's private equity investment industry has developed rapidly, and both the amount of funds raised and the amount of investment have continued to grow at the end of 2017. At the same time, under the background of economic restructuring and the country's strong support for scientific and technological innovation, many venture capital enterprises have emerged in the market, providing sufficient optional investment targets for various institutions. With the “bullet” and “prey”, it is a tempting challenge for investment institutions to successfully “capture” the unicorn.

As with China's equity investment fund investment trend, since 2012, the investment amount of institutional investment unicorn has shown an “index” growth trend and peaked in 2017. At the same time, it can be seen that the unicorn's ability to absorb gold continues to increase. In 2012, the investment in unicorns accounted for less than 1% of the total equity investment in the market, reaching 2.3% and 6.7% in 2013 and 2014, and continuing in 2015-2017, more than 15%. The proportion of institutional investment unicorns has shown a downward trend in 2012-2017. A group of unicorns that had been established earlier and survived and developed in the brutal entrepreneurial market entered the expansion and maturity periods, and the financing amount was correspondingly higher. The enterprises established in the last two or three years were “savagely growing”. As for the ranks of unicorns, it is also inseparable from the financial support of investment institutions. At the same time, it can also be seen that the organization’s risk aversion awareness, in the case of the selection of high-quality investment targets is becoming more and more difficult, the large amount of funds given to the unicorn is a safer investment. In addition, the capital market is also opening a “green light” to the unicorn, which has aroused the
enthusiasm of various institutions to participate in the investment of unicorns.

In terms of the type of institution, a total of 200 PEs participated in the unicorn investment. PE institutions usually invest the period of expansion and maturity of projects, so compared to other institutions the probability of succeed investing in unicorns is correspondingly higher. PE Followed by VC and strategic investors, respectively, 147 and 115. The active investment of strategic investors in China's equity investment market has been rising, and it has become an important capital force for cultivating venture capital enterprises. In addition, there are 21 early institutions that invest in unicorns and 3 parent funds. The total number of PE, VC and strategic investor institutions reached 90.59%.

Investment in China's equity investment funds (including early investment, VC, PE)

Figure 4.3 Time distribution of institutions' investment

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We counted 11 institutions that captured more than 10 unicorns, and 5 VC and PE, Sequoia China topped the list with a total of 40 unicorns, or 30.5% of the unicorns were supported by Sequoia China during the development process. As a professional VC investment institution, Sequoia China has a wide distribution of “occupied” unicorn industry, covering most of the unicorn list, including Internet, entertainment media, IT, logistics, telecommunications and value-added services, and finance, cars, real estate. Among them, the Internet industry is the most popular. A total of 13 unicorns, such as honey buds, VIPKID, and micro-medicine, are mostly innovative in the traditional business model of education, medical care, and retail using Internet thinking.

Ranked second is Tencent Investment, a corporate venture capital platform (CVC: corporate venture capital) established by Tencent, which invests in high-quality companies in the industry chain, focusing on online games, social games, e-commerce and new media. Tencent invested in “capture” 24 unicorns, covering 8 major industries, and Sequoia China adopted a strategy of broad layout. Specifically, Tencent's investment is more focused on the TMT and entertainment media industries.

IDG Capital and Huaxing Private Equity Fund tied for third place, each bringing 18 unicorns into the arm. In addition to the popular Internet and telecom and value-added services, IDG Capital is more concerned with the technology sector,
while Huaxing Fund prefers the financial industry. IDG Capital invested in the production of high-performance flexible displays, such as Rouyu Technology, Shangtang Technology, which focuses on artificial intelligence, and Jinshanyun, a cloud computing company. Huaxing Fund invested in financial integrated service platform Jingdong Finance, providing professional online investment. Banking and wealth management services for financing and financial services, and Bairong Finance and other companies that use big data technology to provide risk control services to users in the financial industry.

Ali Capital is part of the Alibaba Group and focuses on investments in e-commerce and related industries. It has acquired 17 unicorns, all of which are concentrated in the TMT industry. Compared with the “Guangsha Network” of Tencent Investment, which is also the flag of the Internet company, the investment layout of Ali Capital is more clear and concentrated.

Huaping Investment, Shunwei Capital, MatrixPartners China, Qiming Venture Capital, and Gaochun Capital performed well, each winning about 10% of the unicorns. In addition, it is worth mentioning that the Zhen Fund as an early institution, the performance of "capture" 11 unicorns is quite impressive. Most of the investment rounds start from the Angel Wheel or the A round and continue to participate in the financing of subsequent rounds until the investment target ranks among the unicorns.

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<th>Institution</th>
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<tr>
<td>Sequoia China</td>
<td>VC</td>
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<td>Tencent Investment</td>
<td>PE</td>
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<td>IDG Capital</td>
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<td>Huaping Investment</td>
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In terms of the amount of investment disclosed, Tencent Investment and Ali Capital ranked first and second, with accumulated investment amounts of 59.244 billion yuan and 49.837 billion yuan respectively, accounting for more than 20% of the total. The two PE institutions are backed by Tencent and Alibaba, which have strong capital strength. On the one hand, they can invest well and their fund-raising ability is correspondingly strong. On the other hand, based on the strategic layout needs of the Group, they will explore high-quality venture capital projects in the equity investment market. The performance is very active.

Sequoia China and Huaping Investment ranked third and fourth, with investment amounts of 3.7 billion dollars and 2.3 billion dollars respectively. CIC’s investment amount ranked fifth with a total investment of 1.5 billion dollars. Overall, the top 10 institutions accounted for 40% of the total investment.

It can be seen that well-known investment institutions with strong financial strength are still an important support for the growth of start-up enterprises. On the one hand, the brand reputation can attract other investment institutions to invest, and on the other hand, the follow-up development of entrepreneurs favored by well-known investment institutions is also easier. Get ongoing financial support. At the same time, we can also see the Matthew affect in the venture capital market, and the stronger the ability to “suck gold” in projects that have received high investment. All kinds of institutions have flooded into the unicorn investment market, and to a certain extent have also caused a bubble in the valuation of unicorns.
4.2.2 Changes of giants in the internet industry

The giant has become another major factor in the birth of the unicorn, and the proportion of influence has increased. Under the current trend of enterprise ecologicalization, unicorn enterprises have become an important component of the enterprise ecological chain. Through self-incubation or strategic investment, many giant companies have begun to build an ecosystem and gradually improve it. As can be seen from the list, about 50% of enterprises are more or less associated with Alibaba, Baidu, Tencent, JD and so on. From the top ten companies in terms of valuation, the degree of association with the giants is as high as 100%.

From the perspective of investment, ATD (Alibaba, Tencent, JD) replaced BAT as the top three Internet giants in the investment of new economic sectors. Alibaba and related companies ranked first in the world with 124 investment events over $27 billion. The top five industries in their investment were 19 corporate services, 17 e-commerce, 16 automobile, 15 financial services, and 10 artificial intelligence.

Tencent and related companies have over 132 global investments and total value of over $13.5 billion. Compared with Ali’s focus on e-commerce and financial sectors, Tencent prefers cultural entertainment and games. The top five industries are 42 entertainment and games, 18 games, 20 corporate services, 10 financial services, and 12 automobile traffic; JD is more diverse, focusing on assets such as logistics. The annual investment is over 50 times, involving an amount of over $3 billion. The top five industries are 13 enterprise services, 7 e-commerce, 6 financial, 4 financial, and 3 logistics and transportation. Despite the different focuses, all three are sticking to their own areas of strength and gradually improve the ecological environment layout.

From the results on investment, Alibaba and Tencent are more effective in driving the Unicorn. According to public data, in 2018 Tencent captured 20 Chinese unicorns, including XiaoHongShu, CheHaoDuo, KuaiShou and Yuanfudao. Alibaba covered 17 unicorns throughout the year, including JinRiTouTiao, XiaoZhu, Megvii, and SenseTime.
5 Challenges and opportunities

5.1 Changes in external environment; Due to equity investment market policies change in China, investors are more a lot more cautious.

The difficulty of raising funds for Chinese private equity investment institutions began to appear in early 2018. On July 20, 2018, the Central Bank issued the "Notice on Further Clarifying the Relevant Matters Concerning the Guidance of Financial Asset Management Business of Financial Institutions", and the China Insurance Regulatory Commission issued the "Measures for the Supervision and Management of Commercial Banks' Financial Management Business (Draft for Comment)", and the CSRC also on the same day issued the “Administrative Measures on the Management of Private Equity Assets of Securities and Futures Institutions (Draft for Comment)”. Limited by the new regulations on capital management, bank financing products, which are one of the most important sources of funds for private equity investment funds, can no longer be funded, and nominal investors’ money are also sourced from banks. As a result, it is difficult for many institutions to raise funds. According to the private equity data of Zero2IPO Research Center, the total amount of fund raising in China’s equity investment market in the first half of 2018 was $57billion, down 55.8% year-on-year; the total investment was $128 billion, down 10.7% year-on-year; the institutional investment amount was reduced by $2.9 billion. The reduction of “bullet” will prompt the organization to strengthen the selection of quality projects, and the competition for funds between startups will become even more intense. At present, many unicorn companies are still not profitable. During the expansion period, they rely on continuous capital financing to maintain normal operations. The huge expenditures include continuous investment in cash to purchase land, equipment, and technology research and development expenses, as well as subsidies for “burning money”. In the case of occupation of the market, etc., once the institution
withdraws funds, it will be a devastating blow to the enterprise.

5.2 Changes in internet environment; the technology content is not high, and the continuity of business operations is not strong.

Unicorns can be divided into platform ecotypes and technology-driven ones. The platform ecotype is mainly based on the Internet to build a platform. The core idea is to rely on the platform to “share”. From the perspective of industry distribution, as in the previous issue, cultural media, automobile transportation and e-commerce are the top three industries, with 25, 23 and 17 respectively. The three industry representatives are in turn the current headlines with a valuation of 75 billion US dollars. Xiao hong shu with a valuation of $45 billion and a valuation of $3 billion.

Technology-driven is driven by high-tech technologies such as big data, cloud computing, artificial intelligence, and blockchain. From the perspective of specific enterprises, high-end manufacturing, artificial intelligence, etc. have begun to appear a number of high-quality key enterprises, such as the soft-tech technology focusing on flexible screens, SenseTime technology and contempt for artificial intelligence, and the selection of robots. And the ranking and valuation have increased by a large margin.

When the platform ecotype is combined with technology-driven, it will play a greater role. In terms of valuation changes, Ant Financial and today's headlines have changed the most, with valuations increasing by $75 billion and $45 billion, respectively. In addition to relying on the platform to build a large number of user bases and capital relationships, choose the right track, the use of emerging technologies such as big data, artificial intelligence is the key to maintaining its advantage. And the technical performance is more important in the later stage of enterprise operation. More than 80% of the top ten enterprises in the valuation are inseparable from the technical attributes
Since the beginning of this year, the Chinese economy has continued to face the dual challenges of external trade wars and internal de-leverage. The obvious changes in the external environment have intensified the urgency of the transformation and development of Chinese enterprises. In particular, the US sanctions against ZTE in April exposed the shortcomings of Chinese enterprises, pursued short-term economic benefits, and neglected the control of core technologies and production of products. And sales are highly dependent on foreign patented technology. While the de-leverage of the financial industry can resolve the chaos of internal financial volatility in the financial industry, it also exacerbates the difficulty of financing the entity.

Despite the good development of the technology head enterprises, the overall high-tech and high-end manufacturing enterprises are not growing fast. The Chinese unicorns are mainly based on Internet companies. From the perspective of growth rate, compared with the previous period, automobile transportation and medical health developed most rapidly, which increased by 8 and 7 respectively compared with the previous period. However, the technological content of the two types of industries is not high, and more than 50% are Internet-based companies. Among them, the automobile transportation industry is affected by new energy vehicles, such as Xiaopeng Automobile, Ranger Motor, Momenta and other new vehicle power and auto-driving enterprises, but it accounts for only 43.5% of the total automobile transportation industry; the medical and health industry is even more, only Fuhong Hanlin, who focuses on monoclonal antibodies, and two pharmaceutical R&D companies that focus on tumor immunity and autoimmune.

Secondly, in industries such as big data and artificial intelligence that are listed in major development projects, although the number of enterprises has increased, the proportion has declined. The development speed of these fields is not as fast as that of the unicorns.

The unicorn grows fast and has a strong outbreak. However, the development of a certain scale will fall into a bottleneck. Breaking through the dilemma is a problem that many unicorns need to face. Sustainability includes the maintenance and
continuous export of corporate brand and cultural values, the convening of high-quality talents, the continuous optimization of the internal structure of the enterprise, and the product or service to better meet the needs of users, improve quality and increase profitability. However, even if the famous head unicorns such as Ofo and Didi traveled, after the subsidies fell back, due to the inability to understand the needs of consumers and the development of the times, and make good plans based on their own advantages, the scale of enterprises with sufficient capital in the early stage And valuation, in the face of fierce competition, it is difficult to continue to maintain the advantage.

5.3 Problems need to solve; the listing is frequent, but the reality is not up to expectations.

Chinese unicorns are listed frequently, and Hong Kong and the United States are the main choices. According to statistics, in the year of 2018, a total of 19 unicorns in China were listed, with pre-IPO valuations ranging from US$1 billion to US$46 billion. Listed locations include HKEX, NYSE, NASDAQ and Shenzhen Stock Exchange. The number is 8, 5, 5, and 1 respectively, and the total number has reached a record high. With the increase of the threshold of entrepreneurship and the entry of the Internet industry into the second half, the quality projects in the market have gradually decreased, and the unicorn enterprises have been pushed to the climax as the leader among the start-ups. In 2017, the Ministry of Science and Technology announced the list of unicorns on the list, and the media rushed to report, and the market attention increased. A large number of non-professional capital investment hot money also flooded into the market, with large funds participating in the mid-to-late round of financing of the unicorn enterprise, further pushing up the valuation of the unicorn. While the unicorn company has achieved high valuations in the primary market, the secondary market has not achieved the same results. Affected by factors such as “de-leverage” in the financial industry and Sino-US trade wars, A-shares turbulently fell in the first half of the year. The cumulative declines of the Shanghai Composite
Index and Shenzhen Stock Exchange Index reached 13.9% and 15.1% respectively. The average P/E ratio of the A-share market continued to fall. By July 2018, the average P/E ratio of the Shanghai Stock Exchange was 24.7, and that of the Shenzhen Stock Exchange was 14.3. The decline in the valuation of the secondary market has not yet been transmitted to the primary market, but the issue of the valuation bubble has already alerted companies and investment institutions. Especially for the investment institutions with high valuations of Pre-Ipo round financing, it is difficult to realize the valuation arbitrage in a short period of time, and even have to face losses.

Judging from the first day of listing, due to excessively high issue prices, the market is not optimistic about its prospects, no breakthrough innovation, doubts about the profit model, etc., a total of 7 companies broke the first day, the highest degree of breakup was 14.8%. In addition, in addition to the above reasons, due to the gap between foreign investors and the capital market in terms of domestic corporate culture and operating models, compared with 10 companies listed in the US, the number of broken companies accounted for 40%, accounting for 57.1% of the total number of breaks.

Of course, not all unicorn companies have a valuation upside down after listing. The Internet medical platform Ping An doctor has a valuation of 4.5 billion dollars before listing. It was listed on the Hong Kong stock market on May 4, with an opening price of HK$57.30, which is higher than the issue price. 4.6%, the total market value once exceeded HK$60 billion, which was a significant increase from the pre-IPO valuation. Although the share price has fallen in the next three months, overall, it is still higher than the primary market valuation.
6 Conclusions and discussions

6.1 Technology innovation enterprises may have more development opportunities

From the list of unicorn companies, most unicorns remain at the level of business model innovation, not the technical iteration. If the model innovation can solve the industry's pain points or make up for the market gap, it will lead to a huge change in the market pattern in just a few years, and become an industry leader with the "black horse" posture. The innovation of technology requires more time, more capital investment, and the risk of R&D failure. From the perspective of pursuing short-term investment returns, business model innovation can be described as a good investment project. However, scientific and technological progress is the driving force behind the advancement of the industry and society, and it is also the core kinetic energy for the sustainable development of enterprises. At present, among the unicorn companies, companies with technological innovation as their core competitiveness include the Cambrian, high-performance flexible display with flexible chips, and the Vision Technology with face recognition technology. With the dual support of policies and policies, companies with technology and technology as their core competitiveness will win more opportunities.

In addition to start-up companies, domestic Internet giants such as Alibaba, Tencent, and Jingdong continue to increase investment in research, but their R&D expenditures are still far behind the world's leading Internet companies such as Google and Amazon. At present, Alibaba and Tencent Cloud, which are cultivated by Alibaba and Tencent, mainly focus on big data and cloud services. JD.com's Jingdong Logistics focuses on artificial intelligence and storage robots. With the continuous advancement of technology, entrepreneurs with core technologies will have greater opportunities and opportunities for development.
6.2 Strengthening post-investment management is a matter of urgency.

The popularity of the "unicorn" concept has sparked a wave of investment. Many financial institutions with non-professional equity investments have entered the market and participated in the mid-to-late financing round of unicorn enterprises with large sums of money. Not only is the valuation of the unicorn enterprise soaring, but the valuation of many companies with low investment value in related industries has also risen. Since the capital market opened a green channel for unicorn companies, the unicorn company has not yet been listed, and the secondary market reaction has been very strong. Some “unicorn” concept stocks have risen sharply. After the listing of unicorn companies with high expectations, there have been repeated inversions and breaks in valuations, and the stock price is not optimistic in the medium and long term. Although this part is affected by the de-leverage of the financial industry and the sluggish A-share market, it also reflects the valuation bubble of the primary market. On the other hand, the difficulty of raising funds for private equity funds will not change in the short term, and investment will be forced to cool down. The small and medium-sized institutions that have difficulty collecting funds have almost stagnated; there are still sufficient “bullet” head agencies, and currently the project selection is the mainstay, and the actual capital injection will be more cautious. Such an environment will help investment institutions to tap into truly high-quality businesses.

In the four stages of “raising, investing, managing, and retreating”, “financing and investment” are difficult to achieve at present, and investment institutions can increase their post-investment management efforts to feed back. In a good market environment, the focus of investment institutions is to capture opportunities, invest extensively, and seize the track; the deterioration of the market environment is the time for the organization to keep a low profile. It is deeply involved in the projects already invested, and intensive management is a trend in the future. In fact,
post-investment management is very important for the long-term healthy development of investment institutions. Managing the invested project by returning to, collecting, and monitoring business information helps the fund reduce or eliminate potential investment risks. Many organizations will also provide value-added services to the invested companies, including brand promotion, strategic planning proposals, and financing docking. These services can effectively enhance the soft power of the organization, and help the invested companies expand their market influence, broaden their business ideas, and resolve their follow-up. The problem of funds will realize the preservation and appreciation of the projects invested. Investing institutions monitor corporate risks, promote corporate growth, fully exploit corporate value, effectively combine capital and industry, and optimize exit strategies in a timely manner. Not only that, but for investment institutions, refined post-investment management helps organizations to make investment logic re-engineering, thereby further optimizing investment strategies.

6.3 The founder of the unicorn company needs to improve crisis awareness and management.

Any negative changes in the internal or external market, such as sluggish market demand, tight financing environment, internal power struggles, and the spread of negative public opinion, may lead to “death”. This is also why the capital-rich group incubating companies occupy the unicorn list in a large proportion in terms of quantity and valuation. Such "non-giant-base" unicorn companies rely on incubating enterprises, including capital, manpower, technology, customers and other rich resources, to have a natural advantage in maintaining internal stability and resisting external risks. However, the unicorn enterprise must develop and grow mature, and ultimately must face the ups and downs of the market independently. Recently, some of the difficulties encountered by some unicorn companies have also given the founders more warnings. It is expected that the risk awareness will be deepened in the future and the crisis management capability will be improved to ensure the
Most of the products or services of the unicorn company start to solve people's current needs. If the hungry order service provided by the unicorn company reduces the meal time of people, VIPKID facilitates the oral English training of Chinese primary and secondary school students and North American teachers. Nest Technology solved the last mile delivery problem. The honey bud baby created by the full-time mother is intended to establish a simple and assured mother-and-baby product shopping platform. These pain points of demand are also business opportunities, and the unicorn company is fortunate enough to seize the opportunity at the right time. However, in the future, in response to market changes, Unicorn companies need to maintain high sensitivity, timely adjustment strategies, and a sense of crisis ready to withstand the test of the market. Internally, unicorn companies are constantly improving their internal management mechanisms. As a high valuation company that has not been established for a long time, rich innovation ability and flexible communication mechanism are its vitality sources. However, with the expansion of business scale and the increase of the number of employees, the establishment and improvement of the management system is also very important. In terms of personnel composition, the stability of management and key positions needs to be focused. The unicorn company's judgment standard is valuation, not common financial indicators such as corporate income and profit. In fact, many unicorn companies are not self-financing based on their own operating income. During the expansion period, unicorn companies have carried out a series of activities including product research and development, occupation of the market through subsidies or price wars, purchase of land and equipment purchases, etc., all of which have formed a large amount of cash flow outflow, making it difficult to achieve profitability. At present, the financing environment continues to be tight, and excessive dependence on capital is not conducive to the long-term survival of enterprises. Therefore, unicorn companies are constantly exploring sustainable profit models. In the future, the phenomenon of “big stride” occupying the market and simply “burning money” R&D investment is expected to decrease. The development
model of “open source and thrifty” while expanding to maximize self-financing will be more easily recognized. In addition, the inversion of the valuation of the primary and secondary markets has already caused the investors to be alert. In the market, there have been cases in which the company cannot raise the valuation after the subsequent round of financing, and even has to lower the valuation. Therefore, when the founders negotiated financing conditions with investment institutions, they are expected to be more cautious in raising the valuation of the company and abandon some short-term interests in order to avoid the future development of the company. Only by keeping a low profile and solid products and services can we gain the favor of investment institutions and have the ability to withstand risks and respond to crises.
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