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# Morningstar Unicorn Market Monitor: Q4 2023

## Late-stage venture showed resilience in 2023, despite a tough fundraising environment for startups.

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### Morningstar Inc.

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### Authors

Sanjay Arya, CFA  
Head of Innovation, Morningstar Indexes  
Sanjay.Arya@morningstar.com

Kyle Stanford, CAIA  
Lead Venture Analyst, PitchBook  
Kyle.Stanford@pitchbook.com

### Contributors

Brendan Burke  
Senior Analyst, PitchBook  
Brendan.Burke@pitchbook.com

### Data Analysis

Ananya Roy, CFA  
Principal Quant Analyst  
Ananya.Roy@morningstar.com

### Designer

Aida Sui  
Design Lead  
Aida.Siu@morningstar.com

<https://indexes.morningstar.com/private-markets>

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### Introduction

In 2023, investors grappled with higher borrowing costs and heightened geopolitical risk. Against this backdrop, the late-stage venture capital market slowed, but also showed resilience. The Morningstar PitchBook Global Unicorn Index, which includes private companies valued at \$1 billion or more and serves as a proxy for late-stage venture markets, rose 12.77% for the year.

Late-stage venture-backed companies have encountered major obstacles as a result of decreased deal activity and a stagnant exit environment, both of which greatly impact valuation and performance. Businesses with limited cash reserves have struggled to secure additional funding. Yet, companies that are leading the way in cutting-edge fields like AI, life sciences, and cybersecurity have managed to attract significant investments. This shift toward quality investments indicates a promising trend of growth and development in the venture capital market.

This data-driven commentary using the Morningstar PitchBook Global Unicorn Index series provides a comprehensive overview of the late-stage VC market. Plus, our new Industry Vertical Indexes, developed in partnership with PitchBook's research and taxonomy, offer a different perspective on areas such as Cybersecurity, AI, BioPharma, and more.

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### Key Takeaways

- ▶ The Morningstar PitchBook Global Unicorn 500 Index and Morningstar PitchBook US Unicorn 100 Index gained 14.39% and 8.74%, respectively, in 2023, underperforming their public market counterparts, the Morningstar Global Markets Index and Morningstar US Market Index, which saw gains of 22.13% and 26.44%. This is not surprising, as private company valuations generally lag public equity prices.
- ▶ In 2023, just 81 unicorns were created worldwide. This is a significant decrease from the 330 unicorns that emerged in 2022. As a result, the Global Unicorn Index now had a constituent count of 1,381 companies as of year-end 2023.
- ▶ Of the new unicorns this year, 44% were dedicated to AI and machine learning. This contributed to a stellar 23% performance for the AI Unicorn Index. OpenAI, Anthropic, and Inflection secured the largest deals, driven by explosive demand for "generative" artificial intelligence tools.
- ▶ Fundraising hit a six-year low in 2023. Late-stage deals declined further from 2022 levels, with \$91 billion raised compared with \$146 billion last year. Notably, 20% of new funding rounds have lower valuations than before, a significant increase from 11% in 2022.

- ▶ The UK Unicorn 20 Index experienced a significant decline of 14.93% in 2023, making it the worst performer among major markets, as U.K. unicorns like Getir experienced down rounds and a crypto downturn took a toll.
- ▶ This year marks 10 years since the term "unicorn" was coined in reference to privately backed companies with billion-dollar valuations. The Morningstar PitchBook Global Unicorn Index, which launched in 2022 but has performance and constituent history that goes back to early 2014, reveals three significant trends that showcase their remarkable growth:
  - ▶ The number of unicorns has surged from 87 to 1,381 over the course of a decade.
  - ▶ The total market value captured by unicorns has soared from \$235 billion to \$4.5 trillion.
  - ▶ Unicorns are living longer than ever, with their average life span to exit increasing from 6.9 years to an impressive 10.7 years, a sign that private companies have ample access to capital to sustain their growth.

### Market Insights

The late-stage venture space experienced highs and lows in 2023. At the onset of the year, the collapse of Silicon Valley Bank and Signature Bank dampened startup funding, raising alarm bells for investors. As the year unfolded, recession expectations eased, lifting investor optimism. The market rallied on expectations of softening monetary policy.

Globally, public markets had a strong year, showing signs that economic challenges may be easing. The Morningstar Global Markets Index rose by 22.13%, and the Morningstar US Market Index saw a gain of 26.43%. This positive trend had favorable impact on unicorn valuations, with the Morningstar PitchBook Global Unicorn 500 Index gaining 14.39% and the PitchBook US Unicorn 100 gaining 8.74% in 2023.

#### Exhibit 1: Trailing Returns %

Unicorn Indexes	Q4 2023	1Y	3Y	5Y
Morningstar PitchBook Global Unicorn 500	12.61%	14.39%	17.13%	16.32%
Morningstar PitchBook US Unicorn 100	12.82%	8.74%	21.41%	19.72%
Morningstar PitchBook Asia Unicorn 100	13.18%	21.32%	12.25%	12.57%
Morningstar PitchBook Europe Unicorn 50	8.96%	2.06%	21.71%	18.83%
Morningstar PitchBook UK Unicorn 20	7.26%	-14.93%	27.12%	

Global Market Indexes	Q4 2023	1Y	3Y	5Y
Morningstar Global Markets	11.15%	22.13%	5.85%	11.91%
Morningstar US Market	12.08%	26.43%	8.61%	15.25%
Morningstar Asia	7.37%	12.88%	-2.44%	5.72%
Morningstar Europe	11.43%	20.35%	4.95%	9.14%

Source: Morningstar. Data as of Dec. 31, 2023.

Despite positive returns on unicorn indexes, activity surrounding deals, fundraising, and exits remained subdued. Deal values experienced a decline in most cases as traditional VC investors have taken a materially cautious look, and nontraditional investors have lost their appetite.

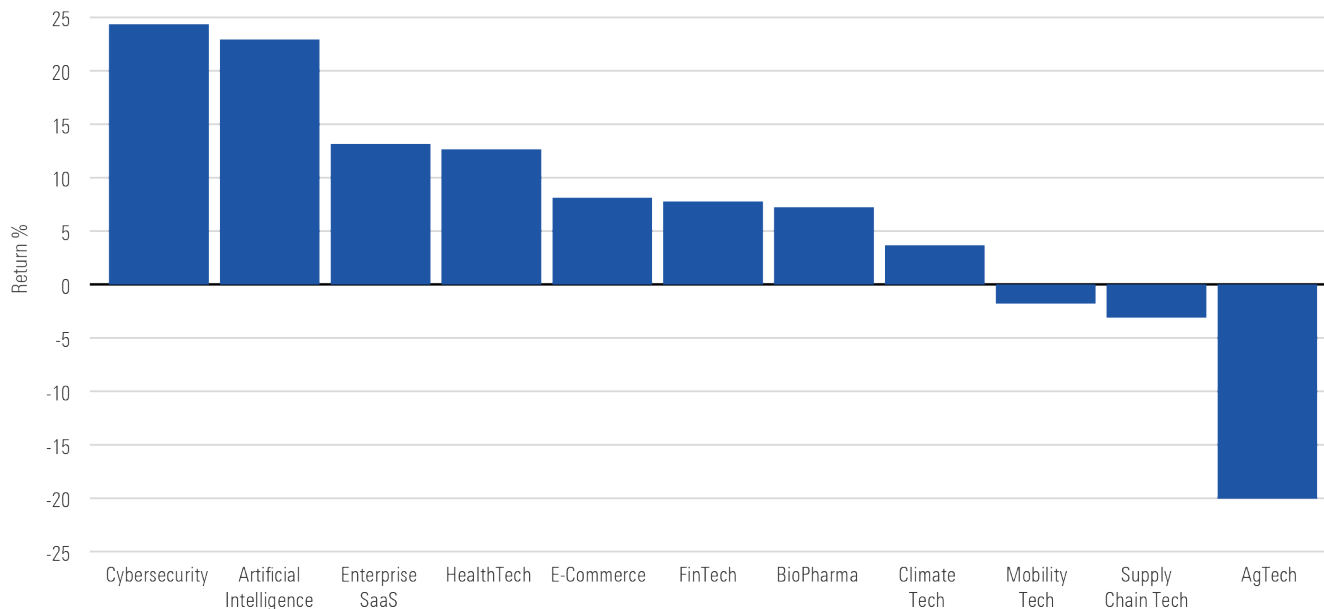
### **Unicorn Industry Vertical Indexes Market Insights**

Cybersecurity, AI, and Life Sciences continue to flourish, drawing strong investor interest and driving up valuations. Generative AI has revolutionized the artificial intelligence landscape, with its potential to transform businesses, streamline processes, enhance decision-making, and automate tasks, leading to improved productivity and cost-effectiveness. Likewise, drug discovery is broadly considered one of the most potentially transformative applications of AI.

The Cybersecurity Unicorn Index achieved an impressive 24.3% return in 2023, outperforming other industry segments. This success can be attributed to the remarkable gains of notable public companies in the sector, such as CrowdStrike, Palo Alto Networks, and Zscaler.

The AI Unicorn Index was the second-best performer, returning 22.93% for the year. The index benefited from the quick and wide-ranging adoption of AI technology leading to multiple private funding up rounds, coupled with strong-performing public AI stocks. Amazon, Google, Meta, Microsoft, and Nvidia led public markets higher in 2023, based in part on their market leadership and high revenue growth in emerging generative AI applications. These companies drive private valuations higher based on comparisons with their share prices and their willingness to invest in startups. More broadly, AI infrastructure innovators were the best-performing stocks during the fourth quarter.

In 2023, the BioPharma Unicorn Index delivered a return of 7.22%. This surge is fueled by increased investment and research in cutting-edge areas like gene and cell therapies. The industry is dedicated to finding solutions not just for common illnesses, but also for complex and chronic diseases. Current trends include the development of obesity treatments and the incorporation of artificial intelligence in drug-discovery processes, inspired by the success of drugs like Ozempic. Machine learning is also being integrated into the drug-discovery process, contributing to this wave of innovation. The recent partnership between Alphabet subsidiary Isomorphic Labs and Eli Lilly and Novartis, worth nearly \$3 billion, has generated excitement about Big Tech's future role in digital biology and drug discovery.

**Exhibit 2: 2023 Performance for Morningstar PitchBook Unicorn Industry Vertical Indexes**

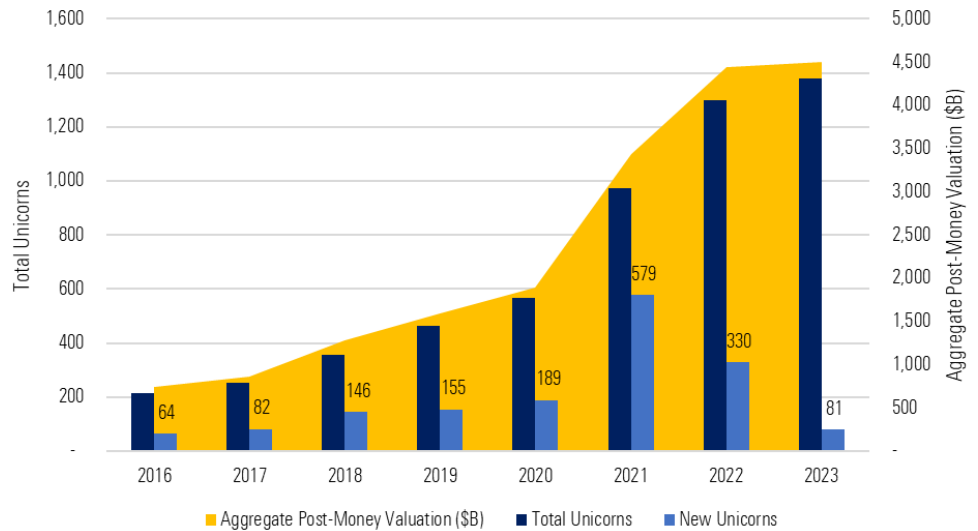
Source: Morningstar. Data as of Dec. 31, 2023.

The AgTech Unicorn Index was the worst-performing industry segment, with a decline of 20.05% in 2023. Two key holdings of the index, Indigo and Bowery, contributed to this downturn, as both suffered significant valuation declines. Indigo's worth plummeted from \$3.9 billion to just \$200 million in August. Indigo reportedly struggled to sell grain for farmers and has gone through rounds of layoffs. The CEO noted that the value of similar companies had been cut by at least 80%. However, the company announced they are approaching profitability and aims to be cash-flow positive by Q4 2024. Bowery's value decreased from \$2.3 billion to \$943 million in November. The company's struggles were further compounded by layoffs and delayed expansion plans, all stemming from a decline in investor enthusiasm for vertical farming.

### Unicorn Growth Slows Down in 2023

Fewer unicorns were minted in 2023 than in any year since 2017, as valuations toppled and venture capitalists became more cautious when investing in startups. Only 81 new unicorns entered the Morningstar PitchBook Global Unicorn Index in all of 2023; 43 unicorns entered the US Unicorn Index, while a mere nine made their way into the Europe Unicorn Index.

Investors are becoming cautious about inflating valuations without solid financial metrics because of the difference in public and private valuations. However, the excitement and speculation surrounding the transformative impact of AI have given rise to approximately 25% of all new unicorns, such as Anthropic and Hugging Face, since the beginning of 2022.

**Exhibit 3: Growth of Global Unicorns by Number and Assets**

Source: PitchBook Data. Data as of Dec. 31, 2023.

### New Deal Flow Remains Low in 2023

Late-stage<sup>1</sup> global deal activity continued to decline in 2023, bringing the annual total deal value to \$91 billion across 420 deals, a notable decline from the \$146 billion in deal value generated across 727 deals in 2022. PitchBook also observed a sharp decline in the number of mega rounds (rounds exceeding \$100 million) in 2023 relative to prior years, with just 189 mega rounds being completed compared with 459 in 2022.

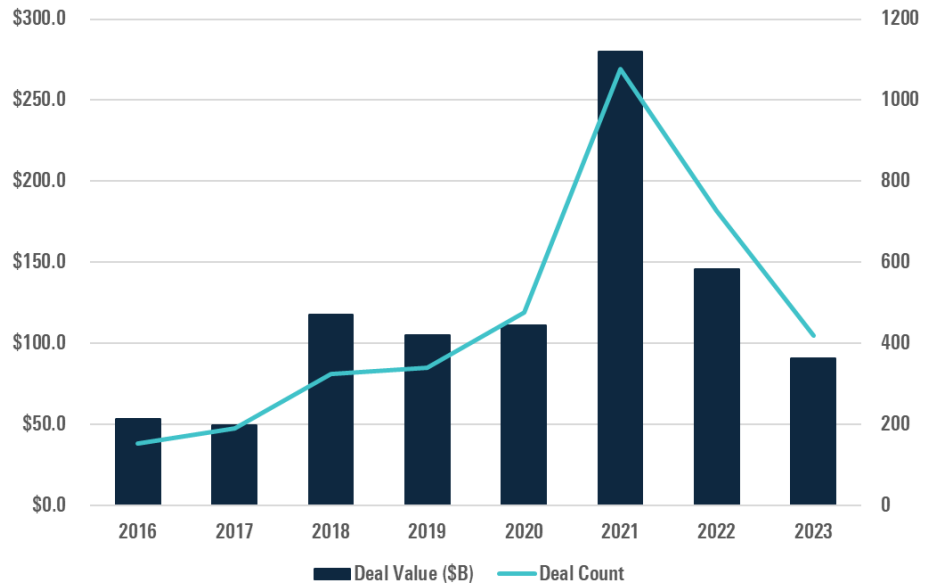
Limited deal activity in Europe hindered the growth of the Europe Unicorn Index, resulting in a modest 2.06% gain for the year. The U.K. and Ireland regions remained core to unicorn activity in 2023. The U.K. government announced plans to direct GBP 75 billion from pension funds to private markets in the second quarter to bolster the startup market and spur innovation. Nonetheless, the UK Unicorn 20 Index ended the year down 14.39%, making it the worst performer among major markets. This was largely because of several down rounds for U.K. unicorns, such as Getir's 79% markdown, and valuation decreases in the blockchain space. Although the price of bitcoin appreciated 156% in 2023, the start of the year saw several months of a crypto bear market due to various reasons, such as the collapse of several major firms including FTX, leading to valuation markdowns for U.K. crypto exchanges Blockchain.com and eToro.

Generative AI and AI-related startups raised nearly USD 62 billion in aggregate deal value in 2023, an increase from the USD 54 billion raised in 2022. However, aggregate deal value is buoyed by a handful of corporate megadeals, such as the Anthropic and OpenAI funding rounds. Generative AI has created a new class of technology leaders across product segments, yielding unprecedented VC deals. The

<sup>1</sup> Late-stage refers to pre-IPO companies that have received series C funding or higher.

multibillion-dollar partnerships between tech giants and startups are changing the VC landscape and presenting promise for continued startup outcomes during a tech recession.

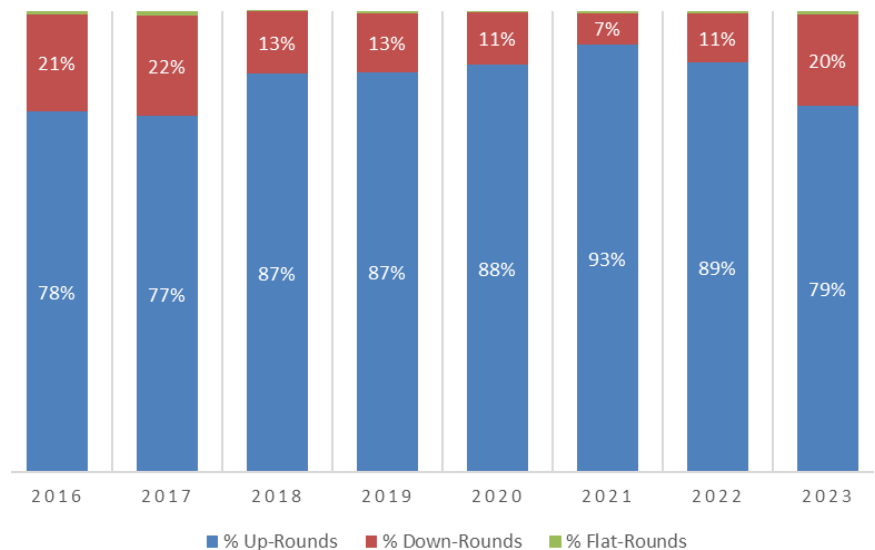
**Exhibit 4: Global Unicorn Deals by Year**



Source: PitchBook Data. Data as of Dec. 31, 2023.

Founders are prolonging their runway to avoid unfavorable deal terms, leading to a decline in deals. When businesses lack liquidity, their only choice is to seek new equity financing at lower valuations. Unicorns that were once highly valued are now undergoing a correction as market forces align their perceived value with their actual valuation. In 2023, 20% of new funds raised by unicorns came at lower valuations, compared with 11% in 2022.

**Exhibit 5: Percentage of Up/Flat/Down Valuations**



Source: Morningstar. Data as of Dec. 31, 2023.

Indian FinTech company BharatPe experienced a remarkable 5x increase in value, making it the biggest unicorn valuation surge of 2023. This contributed to the Unicorn India 25 Index's gain of 7.08% for 2023. However, the AI industry reigns supreme in terms of highest step-up multiples. Anthropic, a leading AI company based in the United States, achieved a 5x increase in value in the last quarter of 2023, raising \$2 billion in funding and reaching a post-money valuation of \$25 billion. Inflection, another U.S.-based AI company, secured \$1.3 billion in new funding with Microsoft as the lead investor, resulting in a step-up multiple of 3.27x and a post-money valuation of \$4 billion.

VAST Data, a platform that focuses on operational efficiency software, also made significant progress. It successfully raised \$118 million in funding led by Fidelity Investments in December 2023, bringing its post-money valuation to \$9.04 billion. Lastly, Hugging Face, a developer of chatbot applications and natural language-processing technology, made an impressive leap in August 2023. It raised \$235 million, resulting in a post-money valuation of \$4.5 billion, which was a 2.25x increase from its previous primary fundraiser.

#### Exhibit 6: Largest 2023 Primary Up Rounds

Unicorn	Step-Up Multiple	Latest Funding Round Date	Latest Post-Money Valuation (\$B)	Country	Primary PitchBook Vertical
BharatPe	5.08	01/01/23	5.50	India	FinTech
Anthropic	5.00	10/27/23	25.00	US	Artificial Intelligence
Inflection	3.27	06/29/23	4.00	US	Artificial Intelligence
JD Industrial Products	3.16	03/09/23	6.33	China	E-Commerce
LayerZero	3.00	04/03/23	3.00	Canada	Crypto/Blockchain
SUNWODA EVB	2.56	06/21/23	5.00	China	Climate Tech
VAST Data	2.46	12/06/23	9.10	US	Artificial Intelligence
Hugging Face	2.25	08/24/23	4.50	US	Artificial Intelligence
Skydio	2.13	03/06/23	2.25	US	Mobility Tech
SJSemi	2.00	04/03/23	2.00	China	Manufacturing

\*Step-Up Multiple is the increase in a company's valuation, calculated by dividing a company's post-money valuation at a round by its post-money valuation at its previous funding round.

Source: Morningstar. Data as of Dec. 31, 2023.

While there were notable up rounds in 2023, it is important to highlight that capital is being reserved only for what investors believe are the highest-quality startups with high return potential. Overall, the macroeconomic climate has lowered valuations for late-stage unicorns as investors take a more measured approach to prospective deals. One of the major late-stage valuation detractors has been Stripe, which is one of the largest holdings in the FinTech Unicorn Index — it lost \$45 billion in value after its Series I down round. Other down rounds include Clearco, which had a valuation markdown of 90%, bringing its post-money valuation down to \$0.2 billion after its latest Series D funding round in October; and cybersecurity company Cybereason, which raised \$0.1 billion of Series G funding in April, bringing its valuation to \$0.57 billion, a 79% markdown.

**Exhibit 7: Largest 2023 Primary Down Rounds**

Unicorn	Valuation Markdown	Latest Funding Round Date	Latest Post-Money Valuation (\$B)	Country	Primary PitchBook Vertical
Clearco	-90%	10/04/23	0.20	Canada	FinTech
Cybereason	-79%	04/03/23	0.58	US	Cybersecurity
Getir	-79%	09/08/23	2.50	UK	FoodTech
Flink	-76%	06/02/23	0.69	Germany	FoodTech
Blockchain.com	-64%	11/14/23	5.00	UK	Crypto/Blockchain
Bowery	-59%	11/09/23	0.94	US	AgTech
Perimeter 81	-51%	09/13/23	0.49	Israel	Cybersecurity
Tractable	-50%	07/10/23	0.50	UK	Artificial Intelligence
Stripe	-47%	03/15/23	50.00	US	FinTech
JOKR	-41%	09/20/23	0.80	Luxembourg	FoodTech

Valuation Markdown % is the decrease in a company's valuation. It is calculated by subtracting a company's latest post-money valuation in a funding round from its previous post-money valuation in the previous funding round. The difference is divided by the latest post-money valuation to express a percentage.

Source: Morningstar. Data as of Dec. 31, 2023.

As some of the largest unicorns anticipated going public, taking down rounds prior to listing serves a way to level-set investor expectations and assure share-value growth. As more unicorns deplete cash runways and struggle to turn profitable, we should anticipate more returning to raise in the harsher dealmaking environment, which could potentially force them to compromise their valuation to stay alive.

**Exits**

In 2023, VC-backed startups experienced a decline in exits, posing difficulties for late-stage startups and their investors. This lackluster exit activity has led to a substantial number of returns being trapped in the system, adversely affecting overall performance.

In the first half of 2023, IPOs had taken a backseat and mergers and acquisitions emerged as the preferred exit route for unicorns. When IPOs finally seemed like they could be having a comeback with the highly anticipated public listings of Instacart and Klaviyo, they did little to coax an increase in IPO activity into the fourth quarter because of lackluster post-listing performance. By the end of 2023, there were only a total of 23 IPOs and eight M&A transactions.

**Exhibit 8: Growth of Unicorns Measured by Index Constituents (2023)**

Index	Total	New	IPOs	Avg Val (\$B)	Total Val (\$B)
Morningstar PitchBook Global Unicorn	1,376	81	23	3.26	4,503
Morningstar PitchBook US Unicorn	725	43	4	3.13	2,270
Morningstar PitchBook Asia Unicorn	406	28	19	3.68	1,496
Morningstar PitchBook Europe Unicorn	142	9	0	3.14	452

Source: Morningstar. Data as of Dec. 31, 2023.

Pending IPOs include Shein, which confidentially filed for an IPO under the New York Stock Exchange in November 2023, and more recently, Reddit, which is seeking to launch an IPO in March 2024.



### "Unicorns": A Decade of Extraordinary Growth

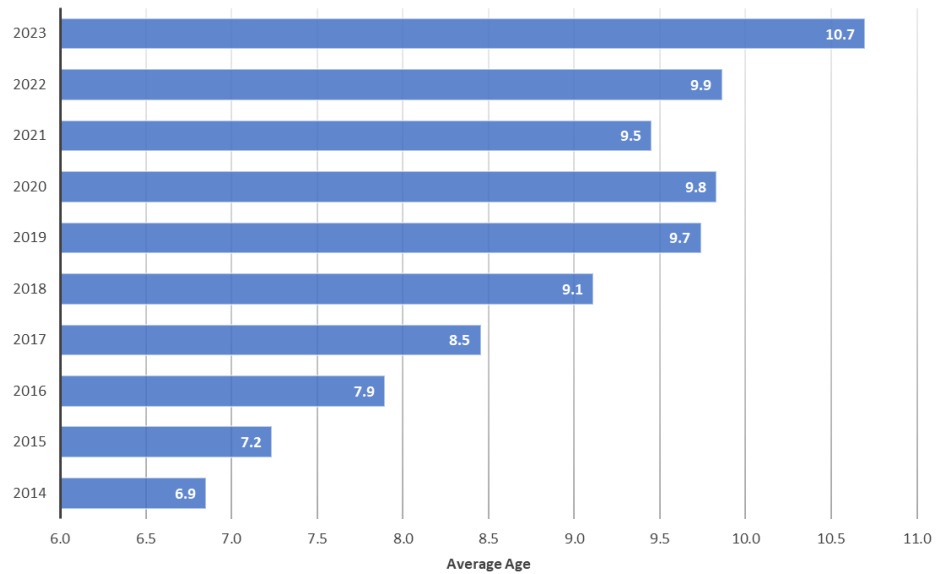
The term "unicorns" was created a decade ago to describe companies that have raised \$1 billion or more in funding. These startups were rare and remarkable, with Facebook, LinkedIn, Workday, and Twitter leading the way in 2013.

What makes these companies so significant? In venture capital, it's often the case that only a select few companies generate the majority of a fund's returns. This concept, known as the power law, is fully exemplified by unicorns.

Several factors have contributed to the growth of unicorns. Favorable regulations, such as the JOBS Act in the U.S., social trends, and breakthrough technological advances (social media, mobile, cloud technology, AI, and so on), the increased demand for digital services due to the coronavirus, and an influx of capital from both traditional and nontraditional investors.

Since its performance inception in 2014, the Morningstar PitchBook Global Unicorn Index has allowed us to track the progress and impact of these extraordinary companies. Here are five key statistics that shed light on their journey.

- 1) Number of Unicorns continue to swell.** The count of unicorns has increased significantly from 87 to 1,381 over the past 10 years (see Exhibit 3), demonstrating a rapid increase in their presence and influence on the market.
- 2) Growing market size (and investment opportunity).** The collective market value of unicorns has grown to a staggering \$4.5 trillion, up from \$235 billion (see Exhibit 3), underscoring their ability to generate substantial wealth and value creation.
- 3) Unicorns are choosing to stay private longer.** The median age of a VC-backed company going public—defined as the year of the IPO minus the year of founding—increased from 6.9 years to 10.7 years during this time.

**Exhibit 9: Average Age of Unicorns**

Source: Morningstar. Data as of Dec. 31, 2023.

**4) A global phenomenon.** While the U.S. remains the home to 723 unicorns, which collectively make up more than 50% of the total market size, China and India have experienced the fastest growth in recent years. Since 2020, the number of unicorns has increased in China by 63%, totaling 284, and the number of unicorns has increased in India by 200%, totaling 66.

**5) Diversification across industries.** Unicorns have grown way beyond the traditional Enterprise SaaS. PitchBook has identified 59 distinct industry verticals with a significant concentration of companies. The largest sectors include Enterprise SaaS, FinTech, AI, and Cybersecurity.

### We welcome your feedback

Please reach out to us at [AskIndexes@morningstar.com](mailto:AskIndexes@morningstar.com).

## Appendix

### Exhibit 10: Performance for Morningstar PitchBook Global Unicorn Indexes: Return %

Global Unicorn Indexes	Q4 2023	1 Y	3 Y	5 Y
Morningstar PitchBook US Unicorn	12.98%	15.28%	26.77%	23.82%
Morningstar PitchBook US Unicorn 100	12.82%	8.74%	21.41%	19.72%
Morningstar PitchBook Global Unicorn	12.77%	16.44%	18.99%	17.74%
Morningstar PitchBook Global Unicorn 500	12.61%	14.39%	17.13%	16.32%
Morningstar PitchBook Asia Unicorn	12.66%	22.61%	10.92%	11.03%
Morningstar PitchBook Asia Unicorn 100	13.18%	21.32%	12.25%	12.57%
Morningstar PitchBook Europe Unicorn	10.37%	5.34%	20.60%	18.13%
Morningstar PitchBook Europe Unicorn 50	8.96%	2.06%	21.71%	18.83%
Morningstar PitchBook China Unicorn 50	14.58%	28.82%	1.98%	5.59%
Morningstar PitchBook India Unicorn 25	7.51%	7.08%	12.53%	
Morningstar PitchBook UK Unicorn 20	7.26%	-14.93%	27.12%	

Source: Morningstar. Data as of Dec. 31, 2023.

## Glossary

**Deal, or Funding Round:** A discrete round of investment in which a business raises money to fund operations or growth in exchange for equity or an ownership stake. In venture capital investing, each funding round after the initial seed investment is given a series letter, beginning with A.

**Down Round:** A funding round in which a company is determined to have a lower valuation than it had at the previous round.

**Exit:** A liquidity event for a private company, which can take the form of an initial public offering, a merger, or an acquisition.

**Initial public offering:** A company's debut on a public stock exchange, marking its transition from private to public company; at that point, the general population can invest in it.

**Mergers and acquisitions:** A merger is a financial transaction that results in the combining of two companies to form a new company. An acquisition, on the other hand, occurs when one company buys another company and folds it into its operations.

**Post-money valuation:** A company's dollar value as determined as inclusive of new capital invested in the round.

**Pre-money valuation:** A company's dollar value as determined as excluding new capital invested in the round.

**Step-up multiple:** The percentage increase in a company's valuation, calculated by dividing a company's post-money valuation at a round by its post-money valuation at its previous funding round.

**Unicorn:** A venture capital-backed company with a post-money valuation of \$1 billion or more.

**Up Round:** A funding round in which a company is determined to have a higher valuation than it had at the previous round.

**Valuation Markdown %:** The percentage decrease in a company's valuation. It is calculated by subtracting a company's post-money valuation at a round from its post-money valuation at the previous funding round, and then dividing the result by the first post-money valuation. ■■■

### About Morningstar Indexes

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Contact:

[indexes@morningstar.com](mailto:indexes@morningstar.com)

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22 West Washington Street  
Chicago, IL 60602 USA

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