

The Innovation Economy Outlook

Executive Summary

We are starting to see signs of improvement across the Innovation Economy. The Fed is expected to start lowering rates in Q3 2024, and the U.S. still looks on track for a “soft landing.” The knock-on effects could be meaningful for the Innovation Economy. More certainty would provide a boost of confidence to investors who have slowed their pace, companies waiting to go public could take the plunge and would-be acquirers might shed their hesitation and make deals. A meaningful capital release from increased exit activity would alleviate a tight fundraising environment for both investors and founders and help close the divide between the “haves” and the “have-nots.” Currently, 2024 is on a similar trajectory to 2023, which by most metrics was a weak year (in this decade) for venture. The big question is whether improvement will continue, or if changes in macroeconomic factors combined with a looming U.S. election will stall the recovery.

- **Melissa and John**

Authors:



Melissa Smith
Co-Head of Innovation Economy and
Head of Specialized Industries



John China
Co-Head of Innovation Economy

Contributors:



Nick Candy
Head of Innovation
Economy Research



Vincent Harrison
Innovation Economy
Researcher



Julie Tsang
Innovation Economy
Researcher

Contents

- 04 Macroeconomic Factors
- 06 Venture Fundraising
- 08 Venture Investment
- 12 Valuations
- 15 Startup Operations
- 17 Exit Activity

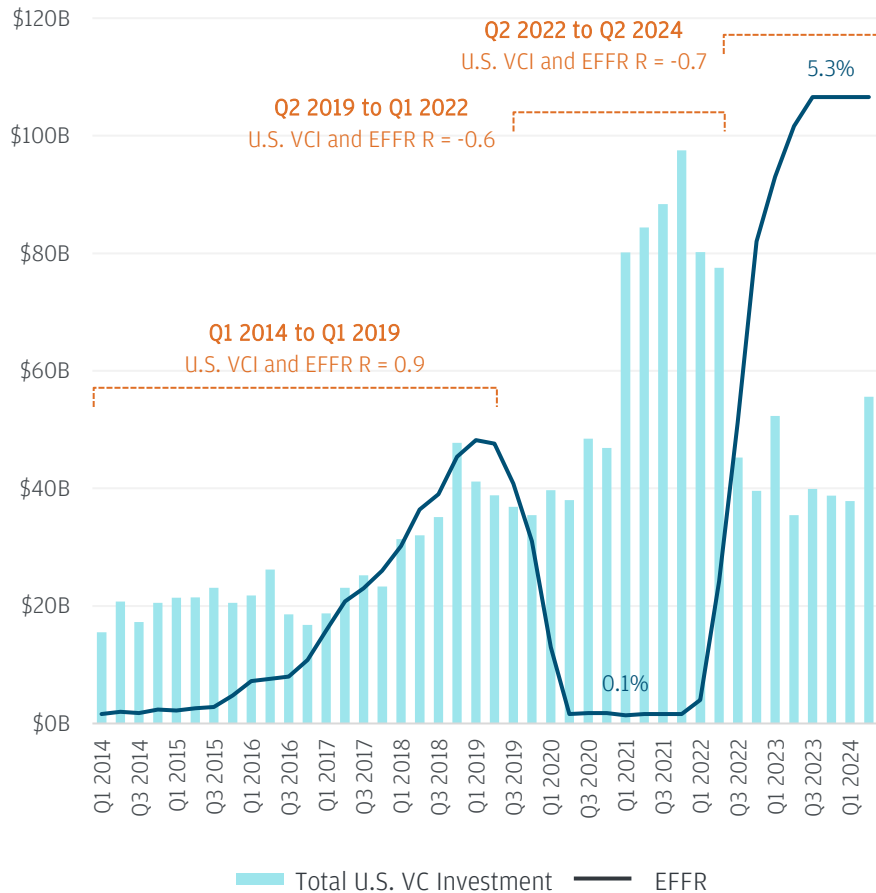
04

| Macroeconomic Factors

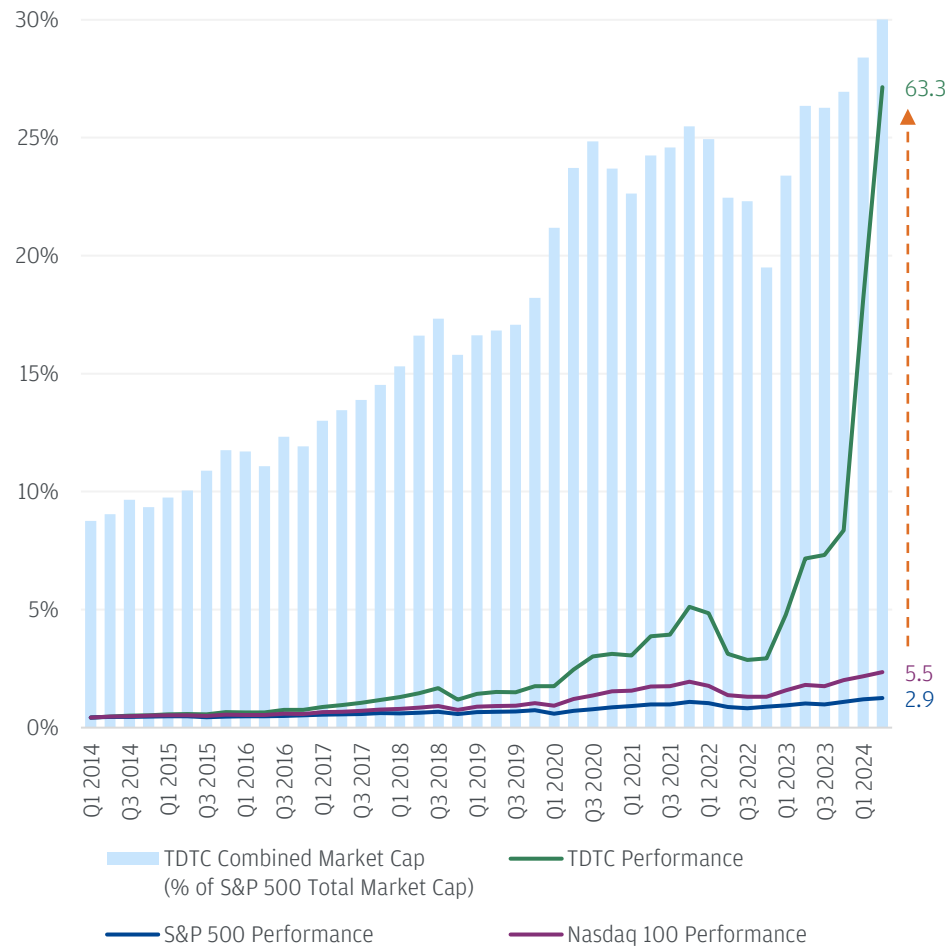


U.S. venture investment starts to heat up; trillion-dollar tech companies are red-hot!

TOTAL U.S. VC INVESTMENT (VCI) COMPARED TO THE EFFECTIVE FED FUNDS RATE (EFFR)



TRILLION-DOLLAR TECH COMPANIES¹ STOCK MARKET CONCENTRATION AND PERFORMANCE²



As the Federal Open Market Committee dropped the Federal Funds target range to 0-25bps during the pandemic, venture capital investment ramped up before peaking in 2021. Following rate hikes in Q1 2022, investment fell back to pre-pandemic levels. The most recent quarter did see a jump in VC investment, perhaps signaling the start of a new upcycle. Public markets have performed well since the end of 2022, driven by a group of trillion-dollar tech companies that combined make up 32% of the total market capitalization of the S&P 500 (as of Q2 2024). For some, this may be reminiscent of a bubble. However, their fundamentals are strong, and businesses diversified.

Notes: (1) Trillion-Dollar Tech Companies (TDC) includes AAPL, MSFT, NVDA, GOOG, AMZN, META, (2) Indexed (Q1 2014 = 1.0).

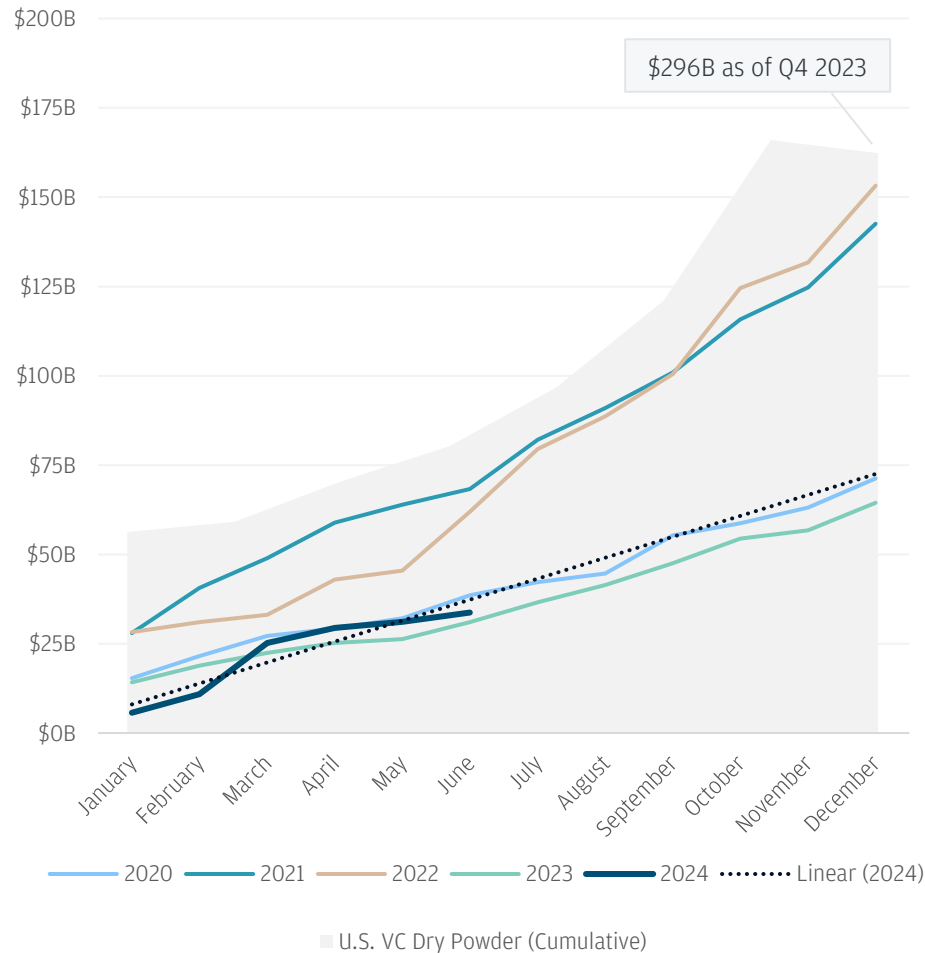
06

| Venture Fundraising

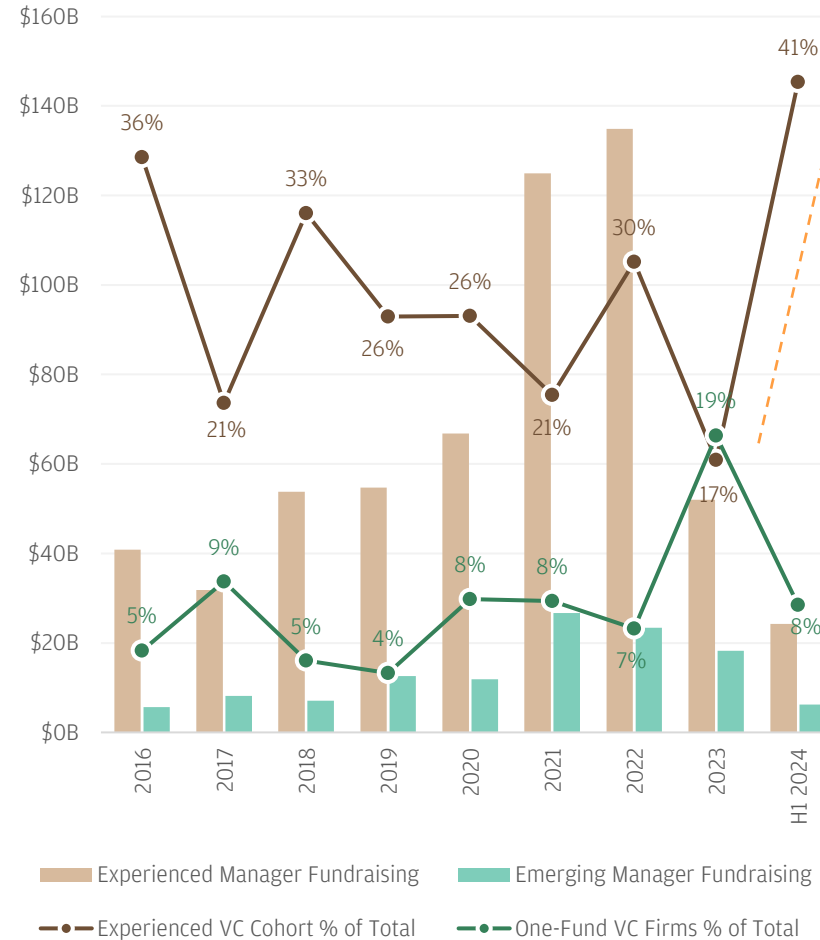


Fundraising challenged; emerging managers are feeling it the worst

CUMULATIVE U.S. VC DRY POWDER AND FUNDRAISING ACTIVITY



EXPERIENCED VS. EMERGING MANAGER FUNDRAISING ACTIVITY^{1,2}



At nearly \$300B, U.S. Venture Capital (VC) dry powder remains near an all-time high, due to the massive influx of capital that was raised in 2021 and 2022. Fundraising in 2024 is trending in line with 2020, which was a record year for fundraising up to that point, but a stark contrast to what followed. Today, funds are having a harder time raising capital, especially emerging managers. In tougher times, Limited Partners tend to be more risk-averse and therefore allocate capital to established managers (for their proven track records). Still, emerging managers remain a vital part of the ecosystem as they bring new perspectives and strategies, essential for identifying overlooked opportunities and supporting underrepresented groups.

Notes: (1) Emerging manager defined as having raised less than three funds; experienced manager defined as having raised three or more funds. (2) Experienced VC cohort includes 30 VC firms selected based on tenure and performance.

J.P.Morgan

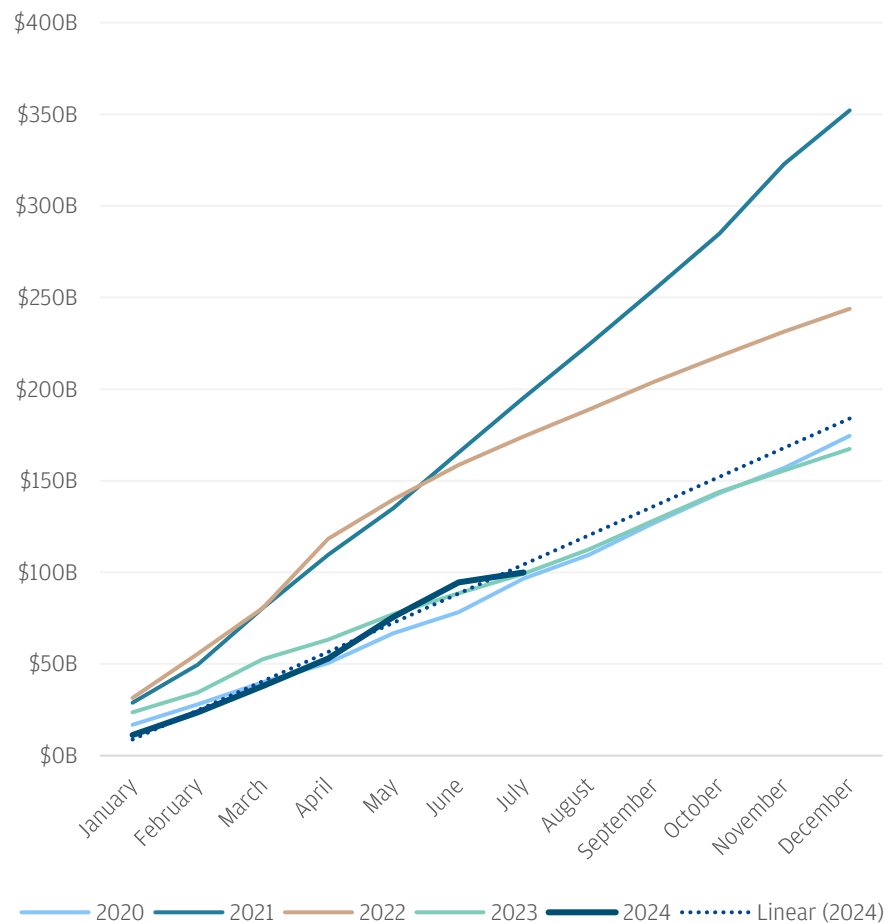
08

| Venture Investment

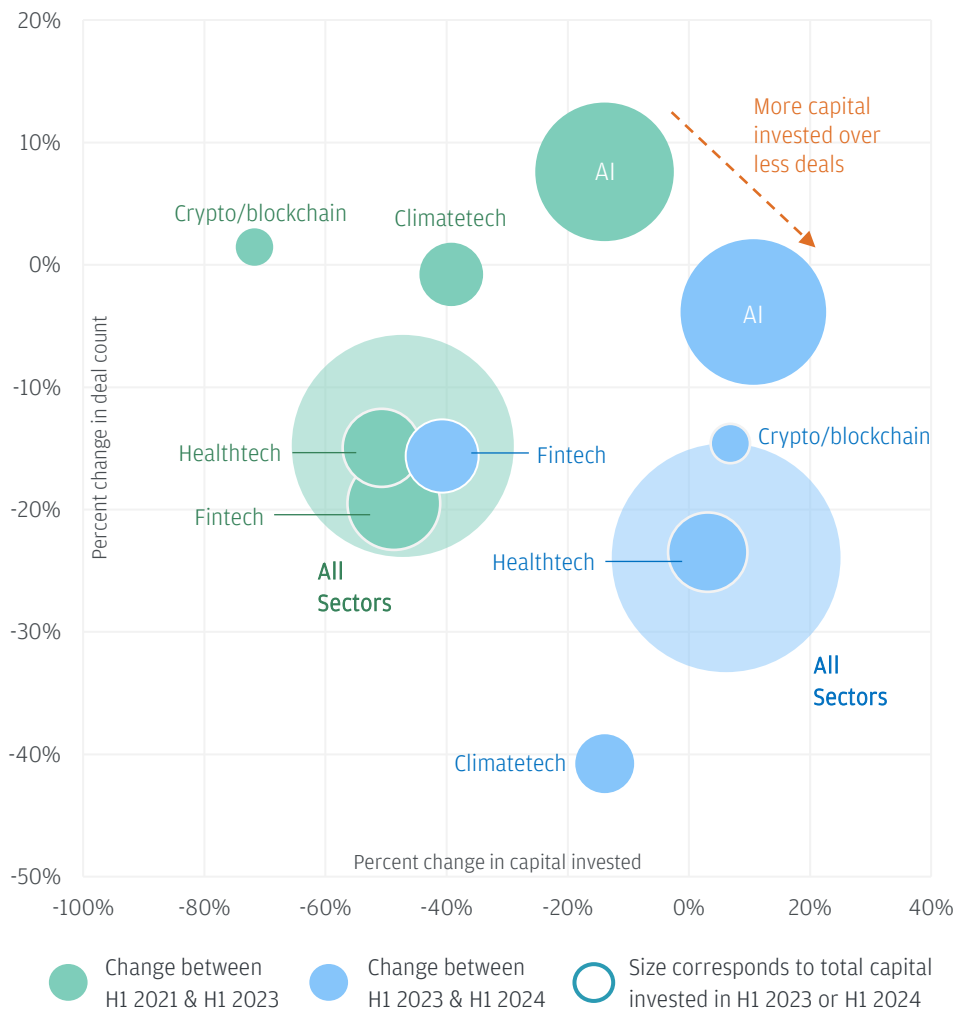


Is venture investment starting to turn the corner?

CUMULATIVE U.S. VENTURE INVESTMENT ACTIVITY



CHANGE IN DEAL COUNT AND CAPITAL INVESTED FOR SELECT SECTORS



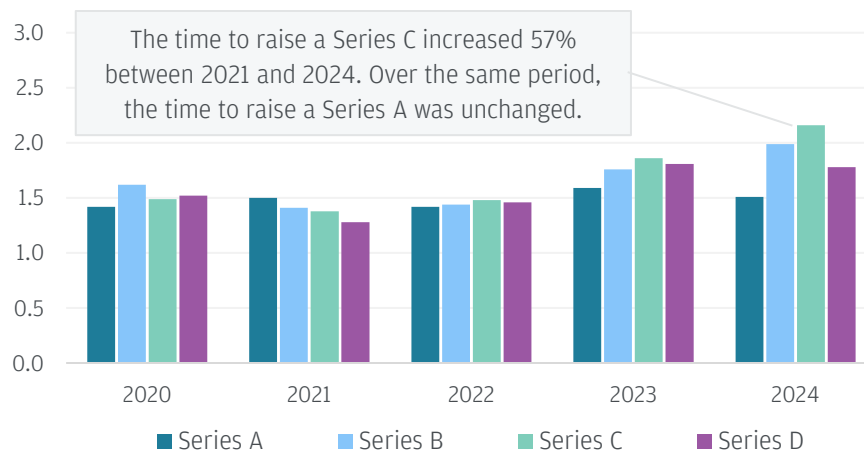
A bright spot has been the recent uptick in venture investment, which, if the trend materializes, would see an improvement over 2023. It would also be similar to 2020, which was, at the time, a high-water mark for venture. Deal count is still lower for most sectors, which has meant deal sizes have increased, especially for Artificial Intelligence (AI), Healthtech and Climatetech. The number of deals over \$100M as of H1 2024 was 169. Annualizing this trend gives 338 deals, which is ~30% more than in 2023, but in line with 2020. AI represents ~20% of capital invested in \$100M+ deals, compared to ~15% for all venture deals. Whether 2024 will exceed or fall short of 2023 depends on the continuation of investment in hot sectors like AI.

Late-stage struggles shift focus to the early-stage

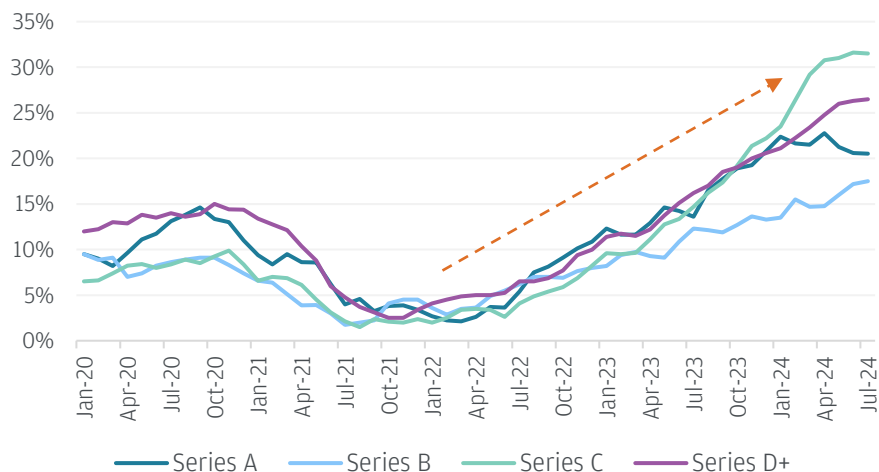
U.S. VENTURE DEALS BY SERIES (SHARE OF TOTAL DEALS)

Year	Seed	Series A	Series B	Series C	Series D+
2020	57%	22%	10%	5%	6%
2021	56%	21%	11%	5%	7%
2022	61%	21%	9%	4%	5%
2023	64%	20%	8%	4%	4%
2024 ¹	62%	20%	10%	4%	4%

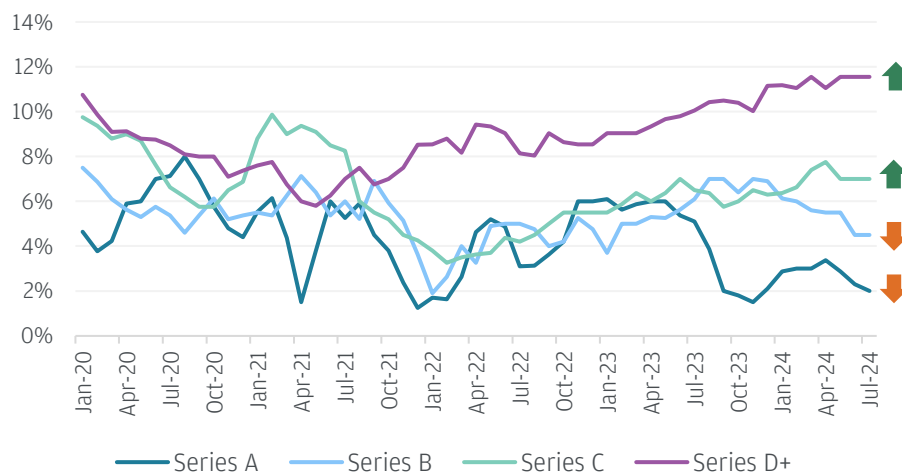
MEDIAN YEARS BETWEEN VENTURE ROUNDS



DOWN ROUNDS² BY SERIES (SHARE OF TOTAL DEALS)



FREQUENCY OF PARTICIPATING LIQUIDATION PREFERENCE³ BY SERIES

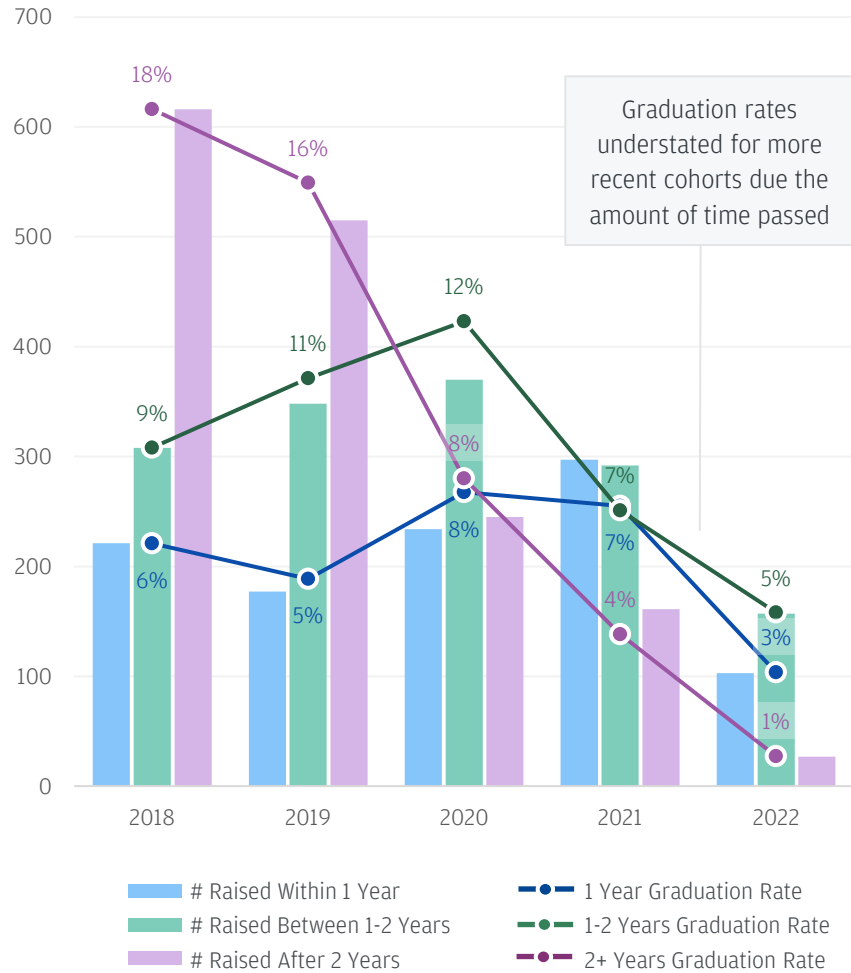


The decline in late-stage venture activity (since 2021) has been well documented, as the most active investors (many “crossover” or “non-traditional”) pulled back. Stifled by heightened valuations, investors shifted their focus to the early-stage. This extra attention is likely one reason why the time to raise a Series A round has remained flat, compared to later-stages where it has risen significantly. The combination of valuation hangovers from 2021 and moderating growth rates has meant more companies have had to take a down round to raise additional funding. A rise in less founder-friendly terms, especially for later-stage deals, also signals a tighter fundraising market.

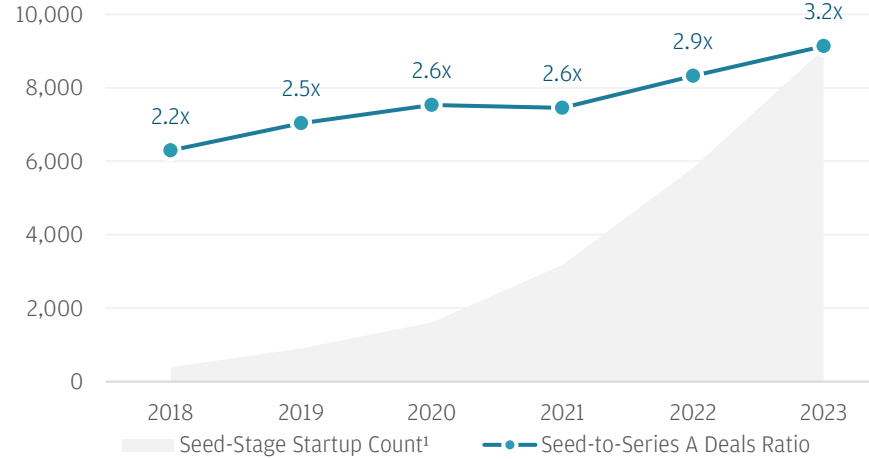
Notes: (1) Data through 7/10/24. (2) A down round is when a new round is raised at a lower valuation than the previous round. (3) Participating liquidation preference gives investors a greater share of value and is considered less founder-friendly.

Seed-stage startups face increased competition and a higher bar to raise again

SERIES A FUNDRAISING RATES BY YEAR OF SEED ROUND



U.S. SEED STARTUP BACKLOG AND SEED-TO-SERIES A DEAL RATIO



MEDIAN POST-MONEY VALUATION MARKUP (SEED TO SERIES A)



The advice for startups in 2021, when venture capital was abundant, was “raise while you can.” The number of Seed and Series A deals peaked, and valuations were driven higher due to intense investor demand. Since 2021, the number of Seed and Series A deals dropped 30% and 43%, respectively. The consequence is fewer Seed-stage startups raising a Series A. Part of the challenge is the generous Seed deal valuations handed out in 2021. Valuation markups have come down considerably since, even though investor expectations have risen. Before \$1M in ARR² would have been sufficient to raise a Series A, now investors are now looking for \$3M ARR and substantial growth.

Notes: (1) Cumulative count since 2018. (2) ARR = Annual Recurring Revenue.

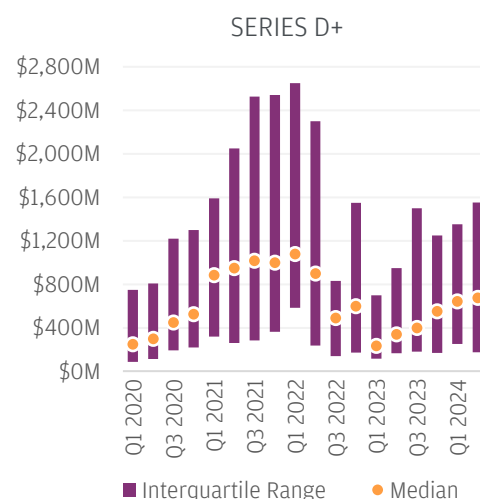
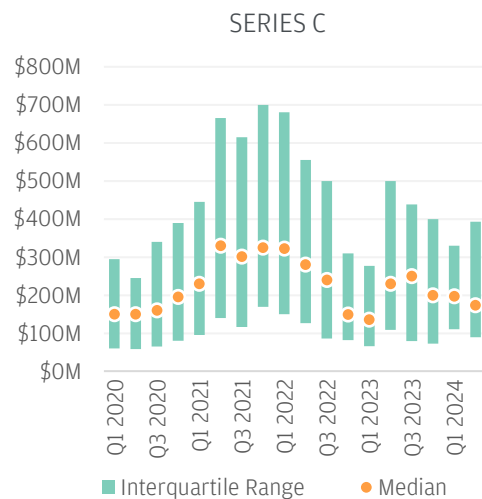
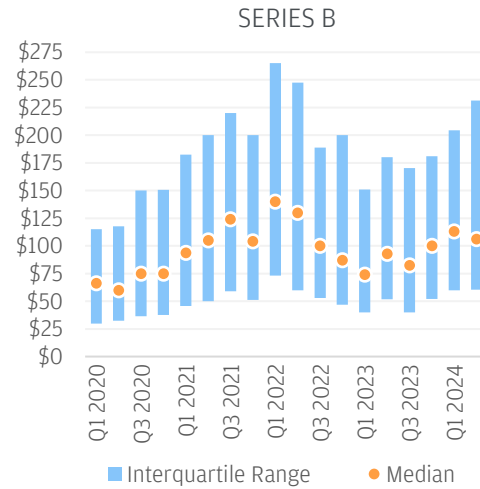
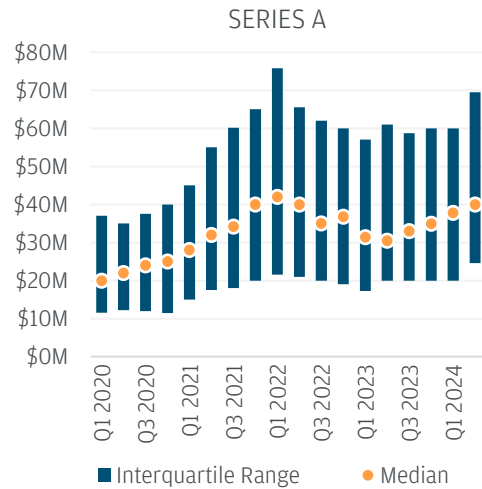
J.P.Morgan

12 | Valuations

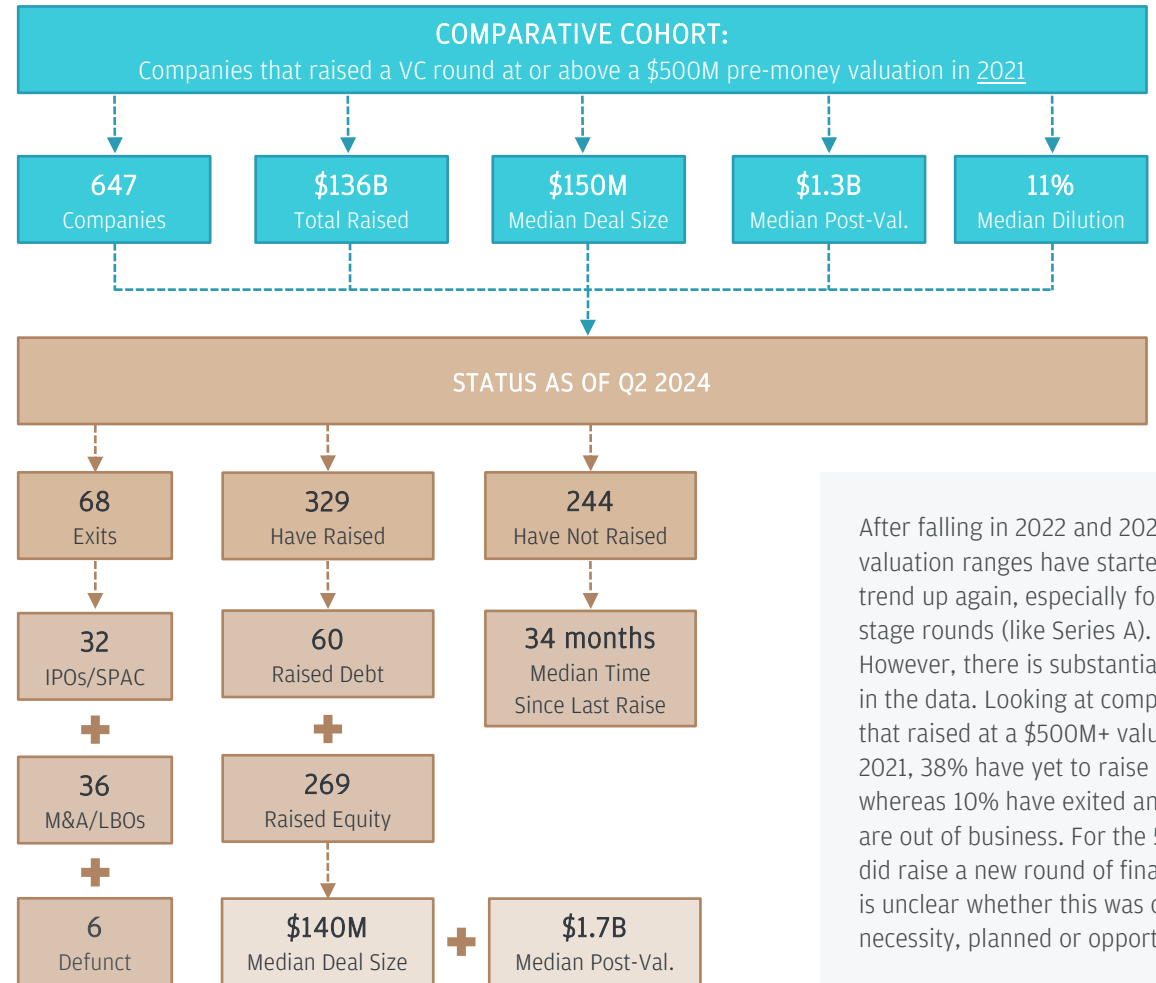


Rebounds in valuations mask a tight fundraising environment

U.S. PRE-MONEY VALUATIONS BY SERIES



LATER-STAGE COMPANY COHORT FUNDING ANALYSIS



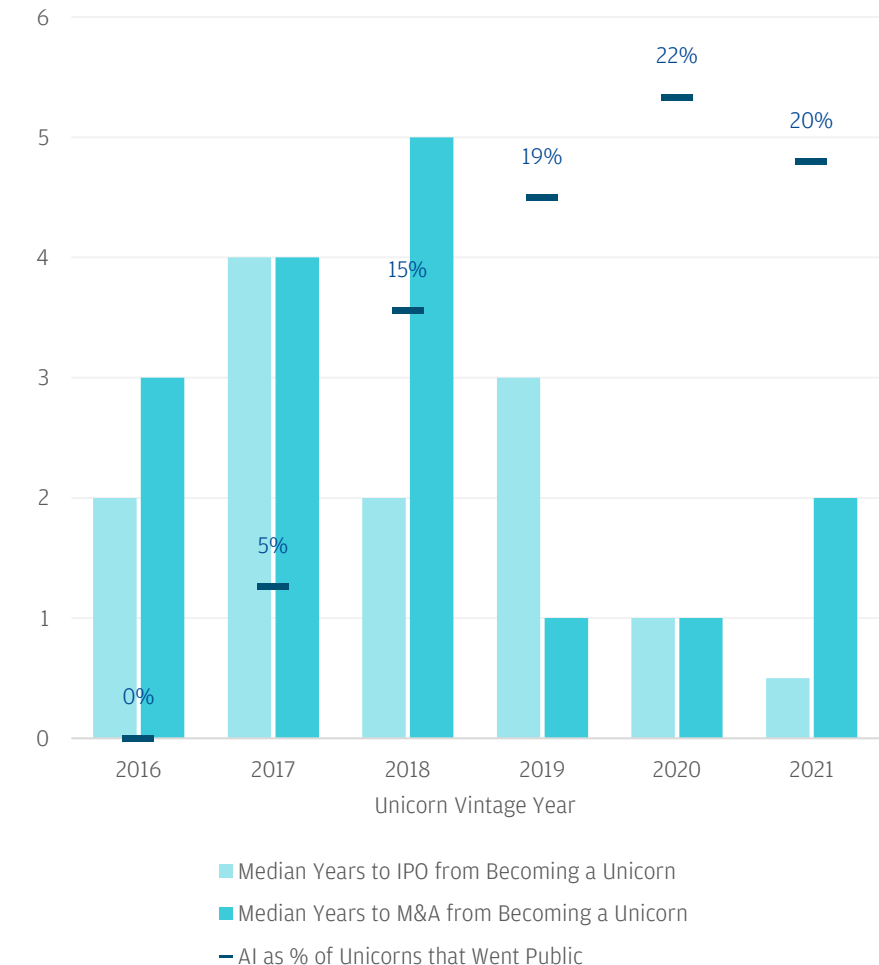
After falling in 2022 and 2023, valuation ranges have started to trend up again, especially for early-stage rounds (like Series A). However, there is substantial nuance in the data. Looking at companies that raised at a \$500M+ valuation in 2021, 38% have yet to raise again, whereas 10% have exited and 1% are out of business. For the 51% that did raise a new round of financing, it is unclear whether this was out of necessity, planned or opportunistic.

AI-corns; future thoroughbreds or wonky donkeys?

TIME FROM FOUNDING TO BECOME A UNICORN AND EXIT, SHARE OF ARTIFICIAL INTELLIGENCE (AI) UNICORNS



TIME FROM BECOMING A UNICORN TO IPO OR M&A, SHARE OF ARTIFICIAL INTELLIGENCE (AI) UNICORNS



The time to become a Unicorn was stable between 2017 and 2021 at approximately six years. The time to exit fell in 2021, due to the buoyant IPO market. This is highlighted by the time between achieving Unicorn status and exiting via an IPO. The IPO market in 2021–2022 cleared out longer-tenured Unicorn companies and gave the opportunity for newly minted Unicorns to exit sooner in 2021—within six months of becoming a Unicorn. Still, Unicorn exits are rare; only 16% of Unicorns have exited since 2016. In today’s tight exit environment, some are struggling, while others in hot sectors like AI may prefer to stay private indefinitely. “Forevercorns” can grow without the pressure and costs of being a public company and still access ample private capital.

Notes: (1) Exits include IPO, SPAC and M&A.

J.P.Morgan

15

| Startup Operations

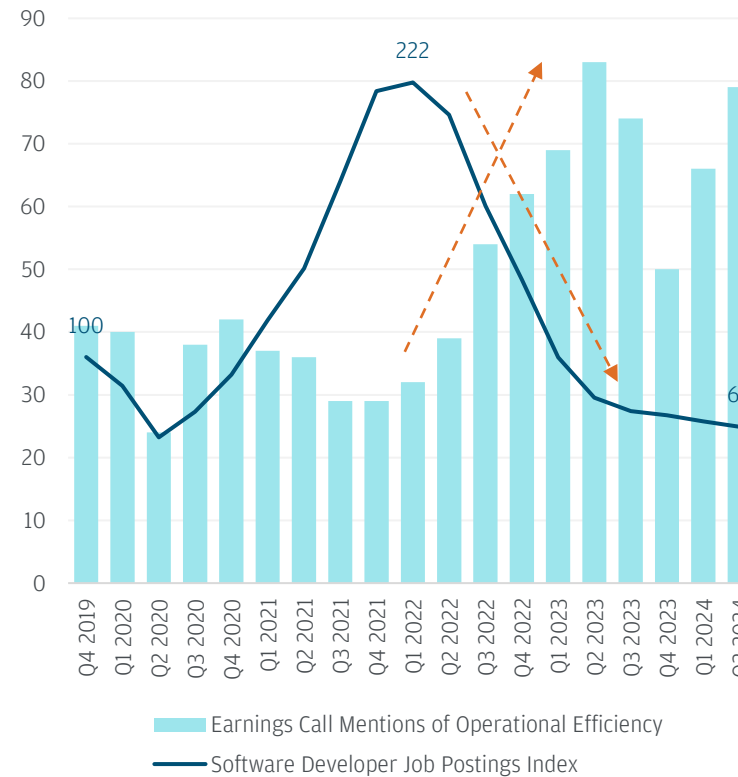


Startups weigh the balance between growth and profitability

RULE 40¹ AS OF Q2 2024 FOR SELECT PUBLIC SaaS COHORTS



PUBLIC COMPANY SENTIMENT INDICATORS



Cohorts	Rule 40 Average	TTM Revenue Growth Average	EBITDA Margin Average
2021 SaaS IPOs	-1.7%	19.1%	-20.8%
2022-2023 SaaS IPOs	-23.7%	0.9%	-24.6%
SaaS Benchmark	10.7%	14.7%	-3.9%

“Rule 40” shows most public SaaS companies falling below the line. In a toughening economic environment, cutting expenses to raise margins is likely more feasible than growing revenues. The rise in earnings call mentions of “operational efficiency” speaks to a focus on operational improvements (mentions of Artificial Intelligence are also elevated) and talent rightsizing (through hiring freezes, outsourcing and layoffs). For SaaS companies, talent is one of the largest costs. As mentions of “operational efficiency” started increasing in late 2022, the number of job postings for software developers began declining as demand cooled amidst economic uncertainty, cost pressures and the advancement of AI automation.

Notes: (1) Rule 40 is a measure of operating performance for SaaS companies calculated as TTM revenue growth (x-axis) + EBITDA margin (y-axis).

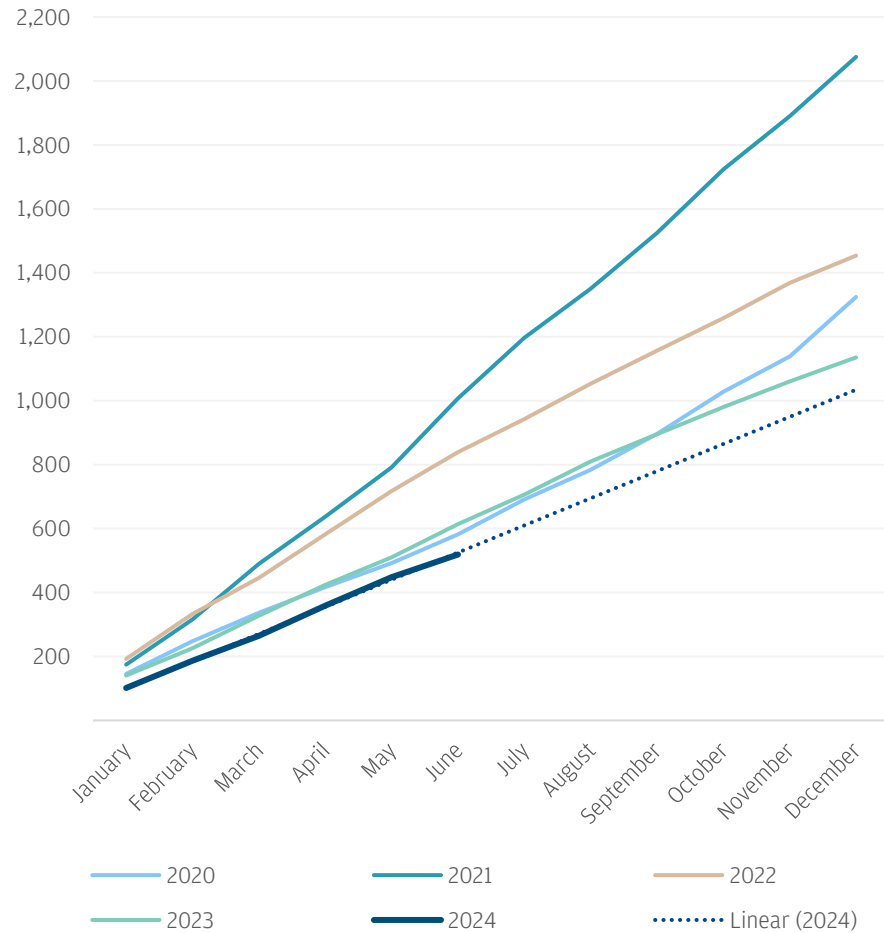
17

| Exit Activity

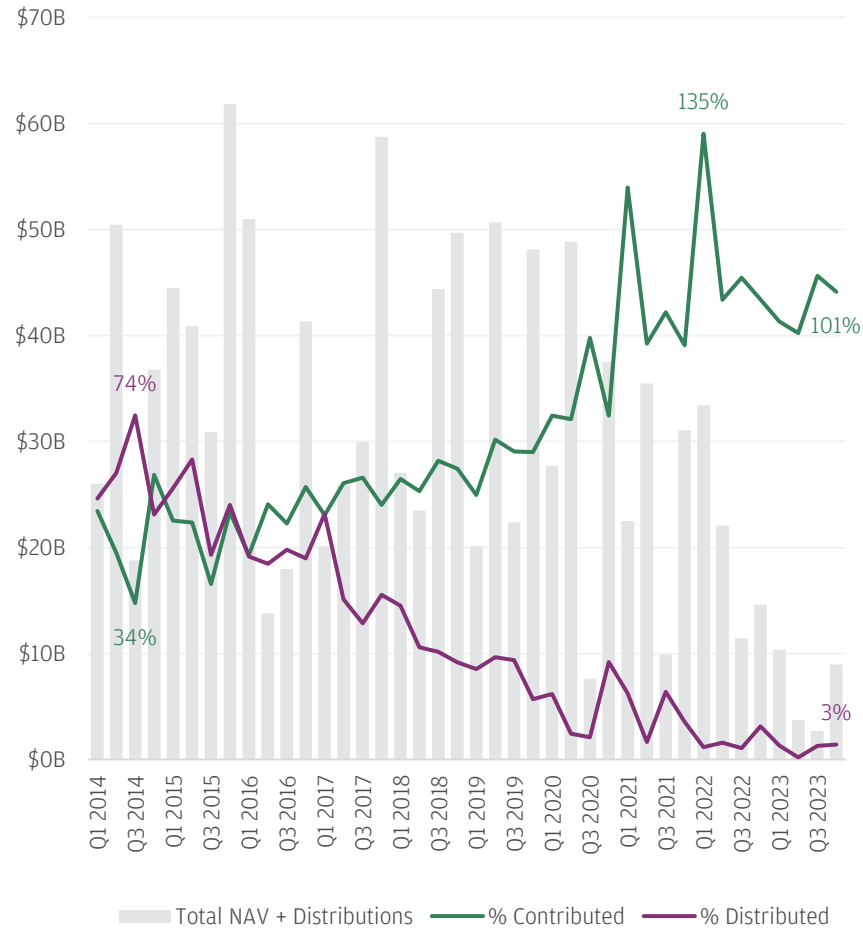


A dry spell for liquidity events hurts the recycling of capital

CUMULATIVE MONTHLY U.S. VENTURE-BACKED EXITS¹



VENTURE CAPITAL FUND PERFORMANCE² BY CLOSED YEAR

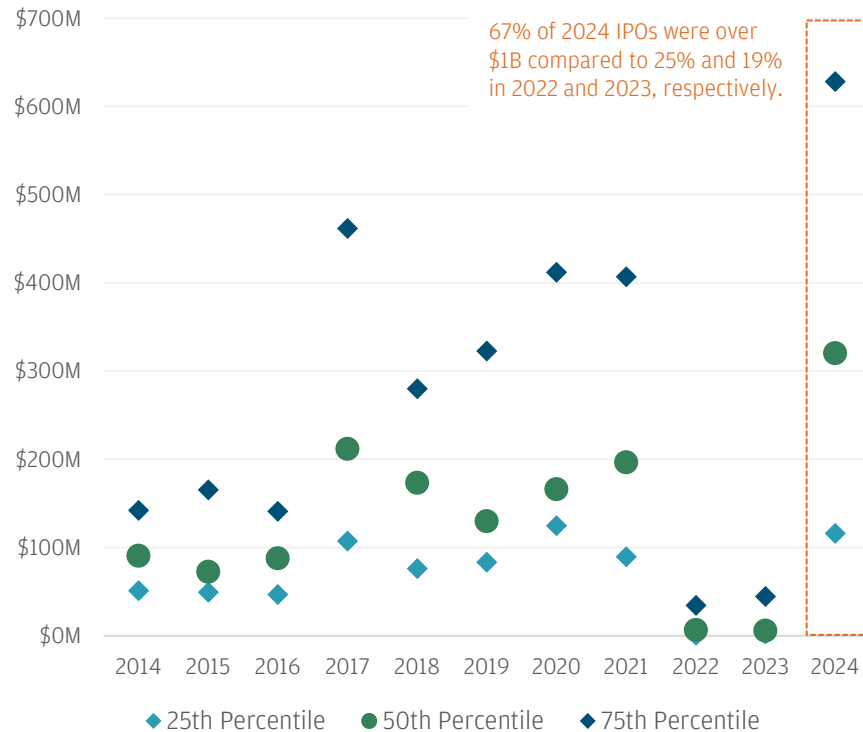


Total U.S. venture-backed exits are trending below 2023, which would be the lowest level of activity over the period. For M&A and buyouts, price setting has been a challenge combined with greater scrutiny by buyers and a more stringent regulatory landscape. M&A is confidence driven; with uncertainty around the trend in macro-economic indicators and a U.S. presidential election, many may wait for more certainty before acting. Distributions are few and far between with fund lives being stretched beyond 10 years. The term zombie funds has been coined—where GPs are managing out existing portfolios due to an inability to raise new funds.

Notes: (1) Exits include IPOs, M&A, Buyouts and SPACs. (2) NAV stands for Net Asset Value and is the value of the holdings of a fund.

IPO woes for all but the largest technology companies

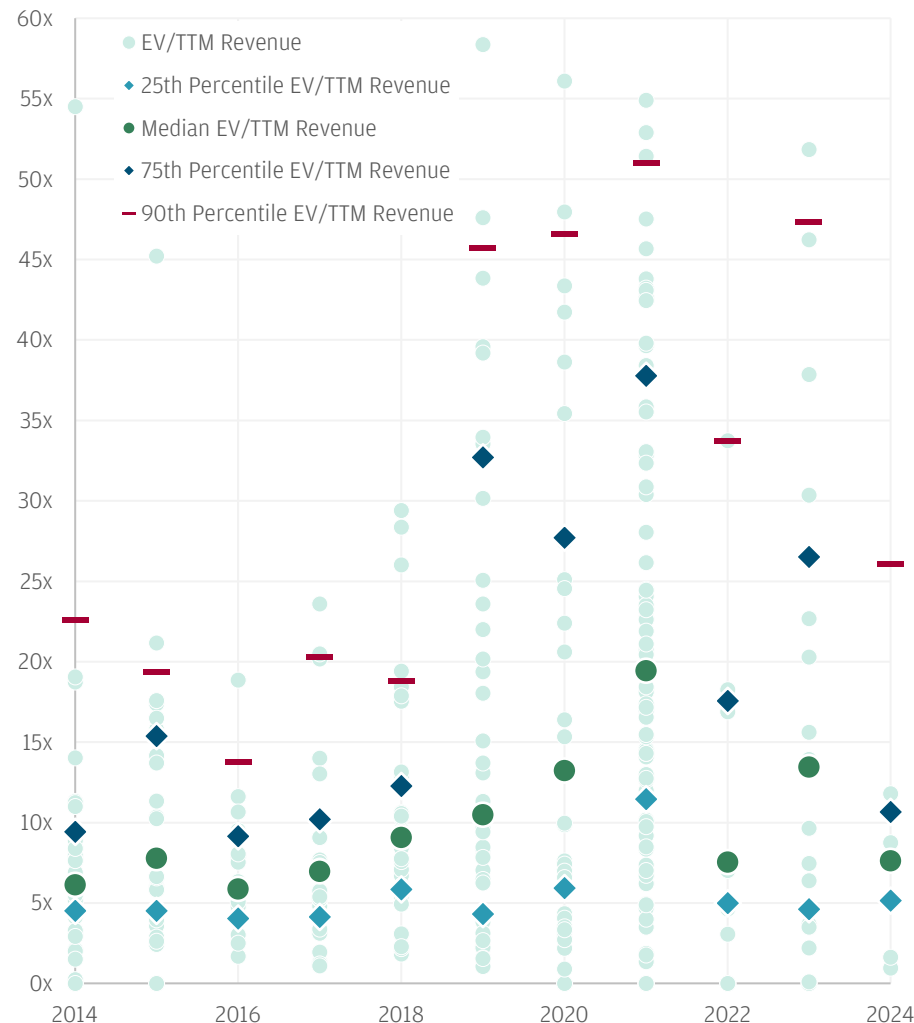
TTM¹ REVENUE AT IPO FOR TECHNOLOGY COMPANIES²



Ref.	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
A	\$603M	\$525M	\$480M	\$1.1B	\$1.2B	\$1.4B	\$2.5B	\$4.3B	\$98M	\$80M	\$6.6B
B	37%	42%	49%	34%	38%	48%	41%	54%	14%	19%	NM
C	31%	18%	33%	26%	25%	24%	21%	32%	27%	24%	NM

A = Median market capitalization, B = Median revenue growth, C = Percent of companies FCF positive

EV/TTM¹ REVENUE MULTIPLES AT IPO FOR TECHNOLOGY COMPANIES¹

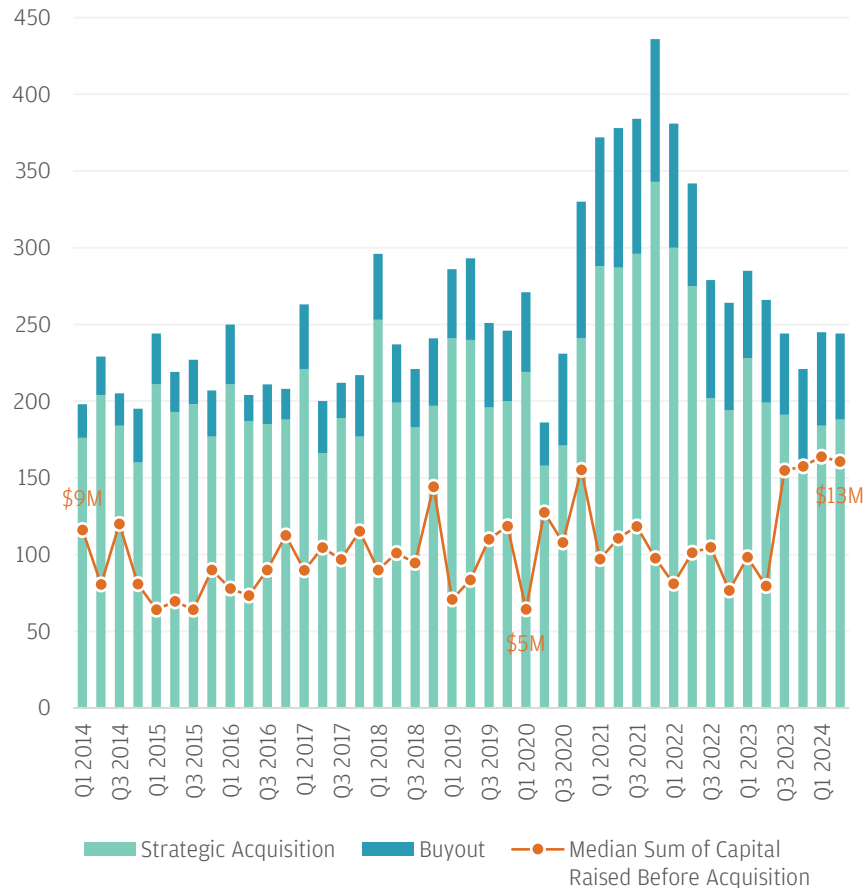


IPOs have recovered from the lull of 2022 and 2023, with 2024 on track to pass both years, just shy of pre-pandemic levels. VC-backed IPOs are not faring as well. Companies are still reluctant to exit, with 2024 trending like 2022 and 2023, surprisingly, given the exceptional market performance of TDTC's and low levels of market volatility. As of Q2 2024, 85% of tech IPOs since 2022 traded below their IPO market capitalization. The revenue bar has been raised, from sub-\$100M in 2022 and 2023 to \$300M in 2024. Many are stuck between a high private market valuation and lower public market valuation multiples. Still, filing activity indicates there might be a burst of activity in Q3 before tapering off into the election.

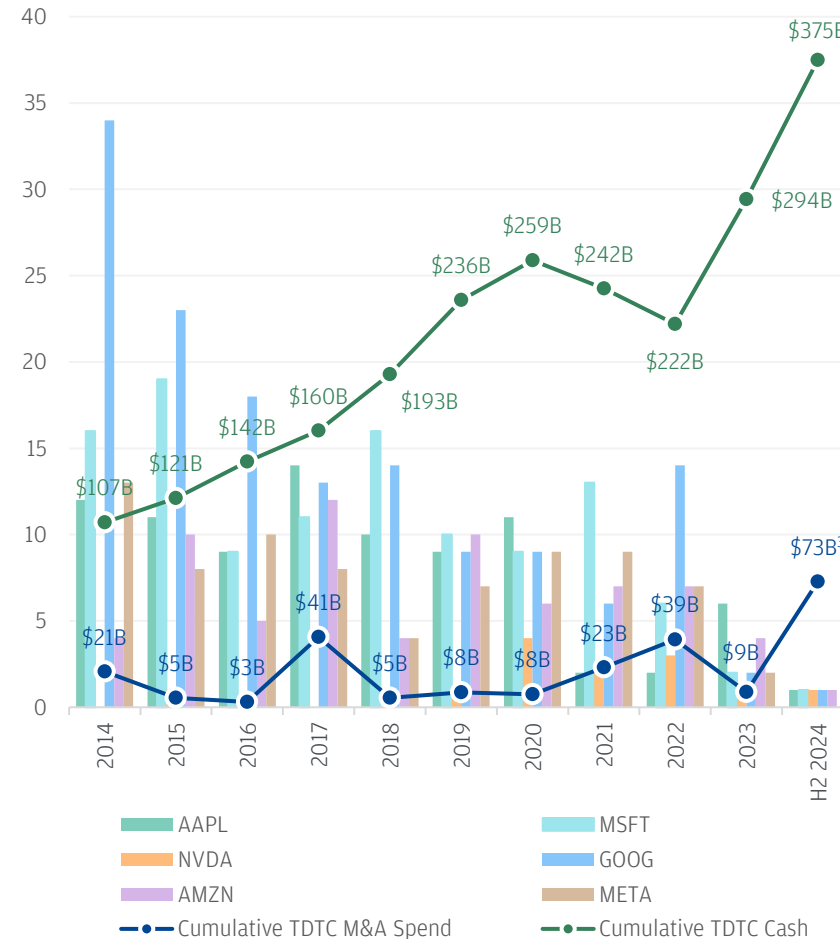
Notes: (1) Trailing twelve months. (2) VC-backed and listed on a major U.S. exchange. Companies grouped by year of IPO.

Buyers are hitting pause on acquisitions

STRATEGIC ACQUISITION AND BUYOUT ACTIVITY¹



TRILLION DOLLAR TECH COMPANIES (TDTCC) M&A ACTIVITY²



The pace of acquisitions of VC-backed companies has been subdued since 2022. M&A transactions are trending in line with 2023, while Buyout deals are tracking significantly below 2023. Heightened interest rates, especially for PE buyers and pricing divides, have been the biggest headwinds. TDTCC's have slowed their acquisition pace in recent years, and not because of a lack of liquidity given the combined cash balances of these companies is greater than the GDP of 150 nations. More so, regulators in the U.S. and Europe have been stricter on allowing (big) tech M&A while a higher cost of capital and inflated private valuations have made the economics of certain deals less appealing.

Notes: (1) Targets are U.S.-based, VC-backed companies. (2) Data is inclusive of companies based globally from all universes (VC-backed, PE-backed, etc.). (3) Includes Microsoft's \$68B acquisition of Activision/Blizzard.

Chase, J.P. Morgan, JPMorgan, JPMorgan Chase, and Story by J.P. Morgan are marketing names for certain businesses of JPMorgan Chase & Co. and its affiliates and subsidiaries worldwide (collectively, "JPMC", "We", "Our" or "Us", as the context may require). The information in this content (website, article, event invitation or other form) does not represent an offer or commitment to provide any product or service. The views, opinions, analyses, estimates and strategies, as the case may be ("views"), expressed in this content are those of the respective authors and speakers named in those pieces, and/or the JPMC departments that publish the content and may differ from those of JPMorgan Chase Commercial Banking and/or other JPMC employees and affiliates. These views are as of a certain date and often based on current market conditions, and are subject to change without notice. Any examples used are generic, hypothetical and for illustration purposes only. Any prices/quotes/statistics included have been obtained from sources deemed to be reliable, but we do not guarantee their accuracy or completeness. To the extent indices have been used in this content, please note that it is not possible to invest directly in an index. This information in no way constitutes research and should not be treated as such. Any information related to cybersecurity provided is intended to help clients protect themselves from cyber fraud, not to provide a comprehensive list of all types of cyber fraud activities nor to identify all types of cybersecurity best practices.

Copying, re-publishing, or using this material or any of its contents for any other purpose is strictly prohibited without prior written consent from JPMorgan. In preparing this material, we have relied upon and assumed, without independent verification, the accuracy and completeness of all information that was acquired from public sources. Any mentions of third-party trademarks, brand names, products and services are for referential purposes only and any mention thereof is not meant to imply any sponsorship, endorsement, or affiliation unless otherwise noted. Notwithstanding anything to the contrary, the statements in this material are not intended to be legally binding. Any products, services, terms or other matters described herein (other than in respect of confidentiality) are subject to, and superseded by, the terms of separate legally binding documentation and/or are subject to change without notice.

The information in this content is not advice on legal, tax, investment, accounting, regulatory, technology or other matters. You should always consult your own financial, legal, tax, accounting or similar advisors before making any financial or investment decisions, or entering into any agreement for JPMC products or services. In no event shall JPMC or any of its directors, officers, employees or agents be liable for any use of, for any decision made or action taken in reliance upon, or for any inaccuracies or errors in or omissions from, the information in this content. We are not acting as your or any client's agent, fiduciary or advisor, including, without limitation, as a Municipal Advisor under the Securities and Exchange Act of 1934. JPMC assumes no responsibility or liability whatsoever to you or any client with respect to such matters, and nothing herein shall amend or override the terms and conditions in the agreement(s) between JPMC and any client or other person.

The information in this content does not include all applicable terms or issues, and is not intended as an offer or solicitation for the purchase or sale of any product or service. Our products and services are subject to applicable laws and regulations, as well as our service terms and policies. Not all products and services are available in all geographic areas or to all customers. In addition, eligibility for particular products and services will be determined by JPMC, including satisfaction of applicable legal, tax, risk, credit and other due diligence, and JPMC's "know your customer", anti-money laundering, anti-terrorism and other policies and procedures. Credit is subject to approval. Rates and programs are subject to change. Certain restrictions apply.

Products and services may be provided by banking affiliates, securities affiliates or other JPMC affiliates or entities. In particular, securities brokerage services other than those that can be provided by banking affiliates will be provided by appropriate registered broker/dealer affiliates, including J.P. Morgan Securities LLC and J.P. Morgan Institutional Investments Inc. Any securities provided or otherwise administered by such brokerage services are not deposits or other obligations of, and are not guaranteed by, any banking affiliate and are not insured by the Federal Deposit Insurance Corporation. Certain financial products and services are required by law to be provided only by licensed representatives and affiliates. Inquiries regarding such products and services will be referred to a licensed representative or a licensed affiliate. The information in this content is not an offer to sell, or solicit an offer to purchase, any securities by anyone in any jurisdiction in which such offer or solicitation is not authorized, or in which JPMC or the person making such an offer is not qualified to do so, or to anyone to whom it is unlawful to make such an offer or solicitation, or to anyone in any jurisdiction outside of the United States. Nothing in this content constitutes any commitment by JPMC to underwrite, subscribe for or place any securities, or to extend or arrange credit, or to provide any other product or service. JPMC contact persons may be employees or officers of any JPMC subsidiary or affiliate.

Any information requested on this invitation, page or other relevant registration form will be processed for the purposes of preparation and administration of this event. Providing the requested information will also assist us in ensuring that the event is properly tailored to meet the requirements of the attendees. By providing the information requested, you are consenting to your data being processed by employees and agents of JPMC as well as potential co-organizers for these purposes. You expressly consent to our use of your information in the manner described herein and in our privacy policy (www.jp Morgan.com/privacy).

Please note that any JPMC-hosted event or webinar that you register to attend may be recorded, and videos, photographs and other recordings may be taken, where you may be captured participating in the event. By providing the information requested on the registration form, you consent to the publication of such photographs, videos, recordings and/or likenesses (whether edited, adapted, modified or copied), and their use by us and those that we authorize, without prior notice or compensation, in any way which we may see fit now or in the future, including but not limited to, marketing and advertising. Further, you release JPMC and its employees and agents from all claims of every kind on account of such use. You also acknowledge and agree that the replay links, if any, will be shared with JPMC clients and prospects who were invited but did not register/attend, and also potentially to other third parties if the topics are relevant to them. If you do not agree with any statements in this paragraph, please make a member of our staff aware on the day of the event.

The statements made in this content or during this event, or provided in materials as part of this event, are proprietary to JPMC and are not intended to be legally binding. Any products and services described during these events are offered by JPMC subject to applicable laws and regulations and service terms.

We will provide reasonable accessibility accommodations brought to our attention.

Changes to Interbank Offered Rates (IBORs) and other benchmark rates: Certain interest rate benchmarks are, or may in the future become, subject to ongoing international, national and other regulatory guidance, reform and proposals for reform. For more information, please consult: <https://www.jp Morgan.com/IBOR>.

© 2024 JPMorgan Chase & Co. All rights reserved. JPMorgan Chase Bank, N.A. Member FDIC. JPMorgan Chase Bank, N.A., organized under the laws of the U.S.A. with limited liability. Deposits held in non-U.S. branches, are not FDIC insured.