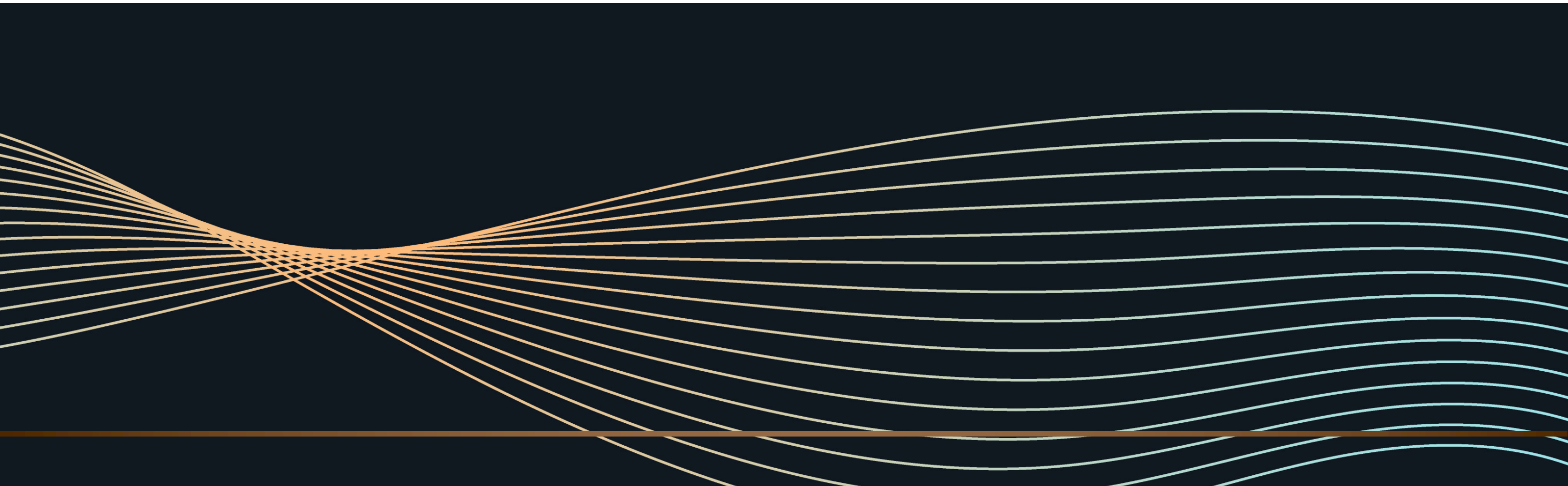


J.P.Morgan

INNOVATION ECONOMY

# Innovation Economy update

2024



# Executive summary

“Following an eventful year for the Innovation Economy, J.P. Morgan remains optimistic that 2025 will bring welcome changes for private markets as the macroeconomic backdrop continues to improve. Despite muted exit activity in 2024, several key companies successfully went public, and high-growth technology companies in the public markets continue to perform well. We expect venture investment levels will continue to improve and that many of the companies in line to go public will have the chance to explore opportunities in 2025. An increase in exit activity should alleviate liquidity pressures, which have hindered investors from deploying capital (except for AI companies). Additionally, we found that venture investment in 2024 saw more mid-stage investing and increased concentration in California. AI has been the big winner, with a large proportion of capital going toward the space, including most rounds over \$1 billion. The rate of AI development drew in capital in 2024, and this is expected to continue in 2025 as adoption spreads.”

- Melissa and John

## Co-heads of Innovation Economy:



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



**John China**  
Co-Head of Innovation Economy

## Authors:



**Nick Candy**  
Head of Innovation  
Economy Insights



**Vincent Harrison**  
Innovation Economy  
Insights Analyst



**Julie Tsang**  
Innovation Economy  
Insights Analyst

# Contents

01 Macroeconomic factors

02 Venture investment

03 Venture fundraising

04 Exit activity

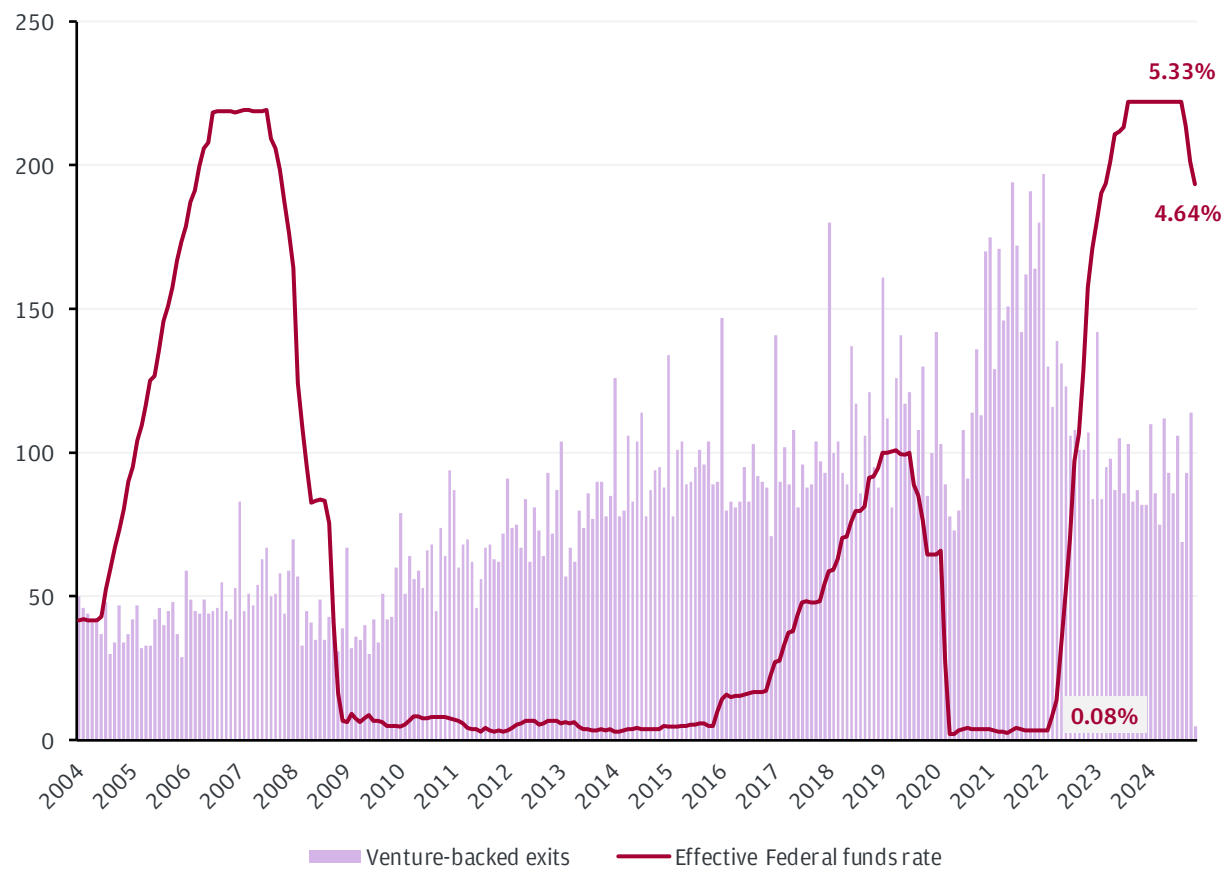


# 01

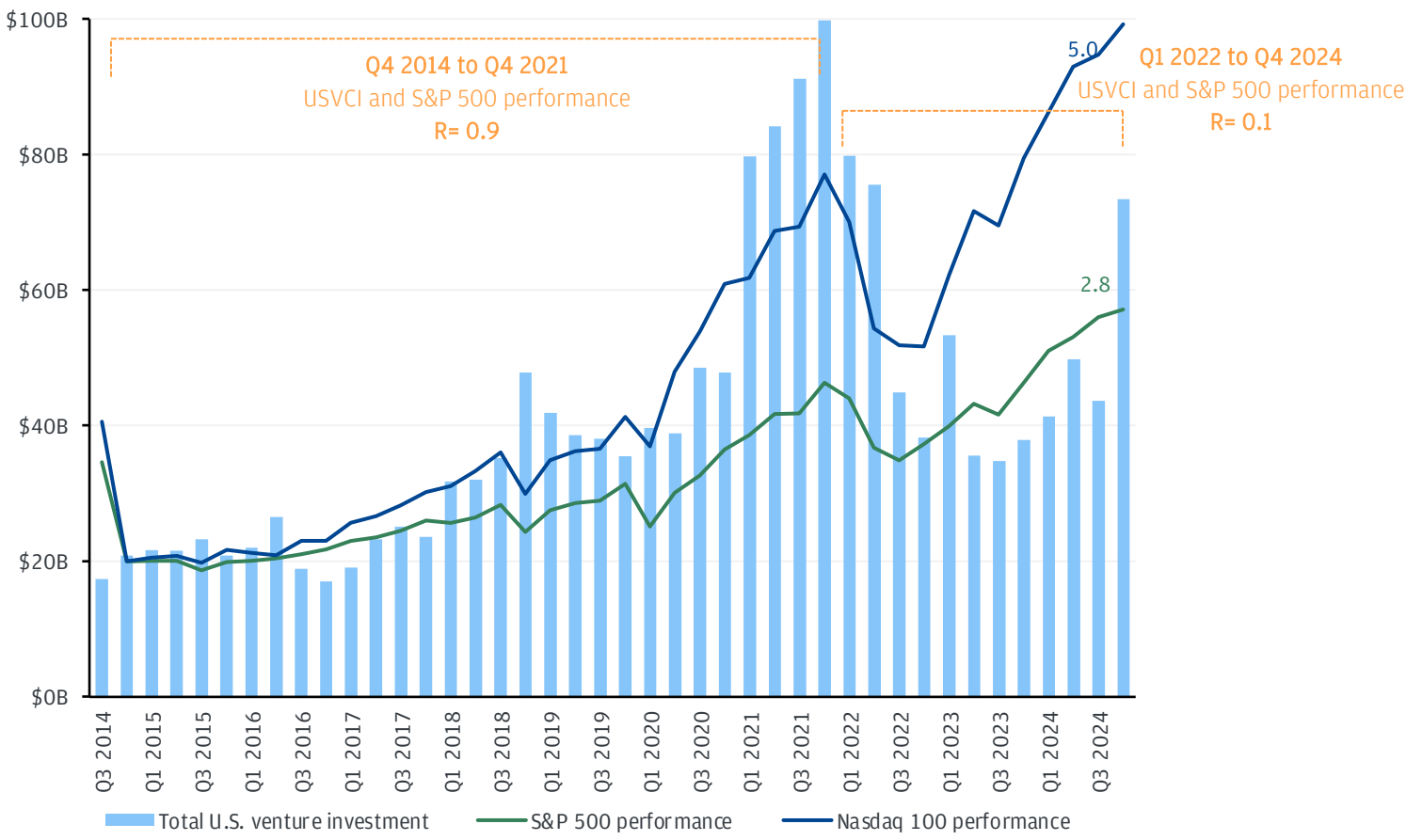
## Macroeconomic factors

# Declining rates and robust public markets may breathe life back into venture ecosystem

DECLINING INTEREST RATES MAY HELP TO SPUR EXIT ACTIVITY  
VENTURE-BACKED EXITS VS. EFFECTIVE FEDERAL FUNDS RATE<sup>1</sup>



CORRELATION BETWEEN VC ACTIVITY AND PUBLIC MARKET PERFORMANCE DECLINED AFTER 2021  
U.S. VENTURE INVESTMENT (USVCI) VS. PERFORMANCE OF S&P 500 AND NASDAQ 100<sup>2</sup>

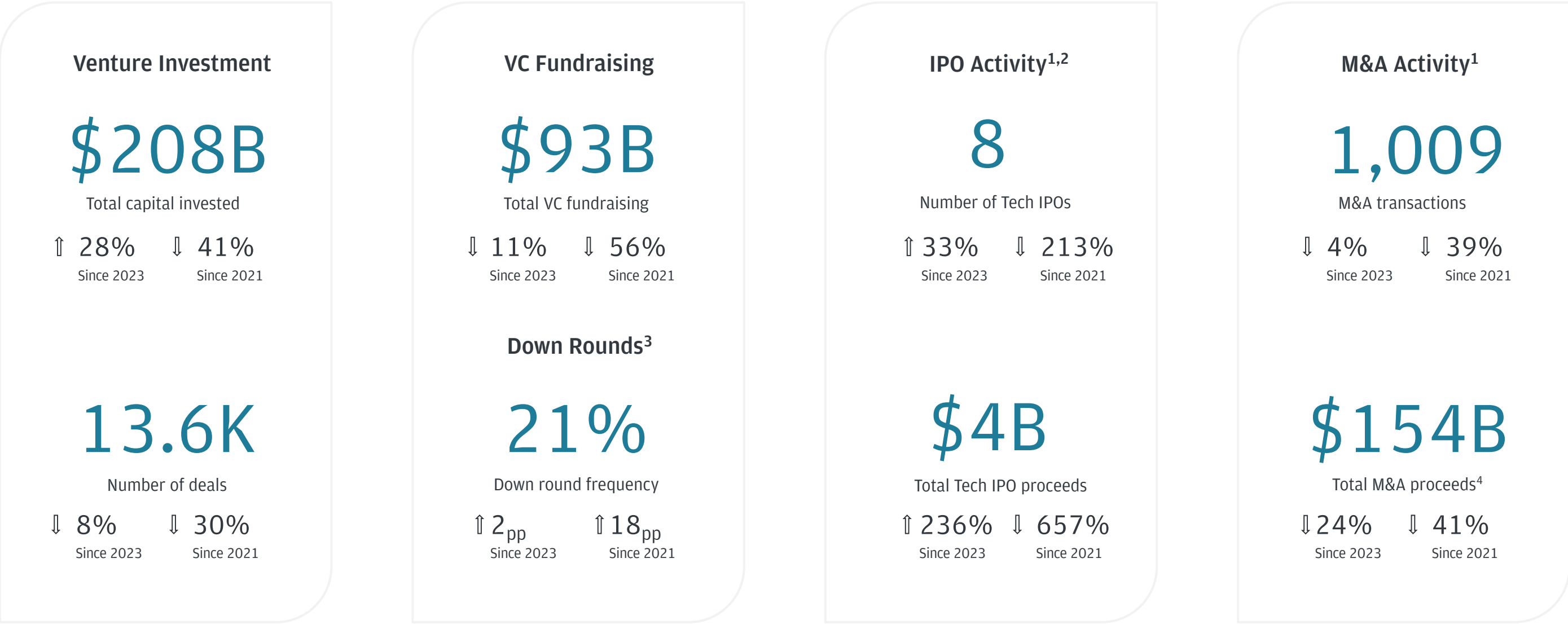


The Fed's attempt to stymie inflation through rising interest rates had a knock-on effect on venture-backed exits. Rising interest rates can impede deal activity by increasing the cost of capital, which in turn raises the minimum acceptable rate of return for the deal. With rates starting their climb down, more activity may follow, especially for tech companies, since lower rates tend to support higher tech valuations. When looking at public market performance, venture activity has generally risen alongside public markets. However, at the beginning of 2022, this relationship lessened. A myriad of reasons have caused investors to slow down, including uncertainty in the geopolitical environment, constrained exit markets and differing valuation expectations. In addition, Limited Partners (LPs) have been hesitant to back new funds when the capital being returned to them has been at such low levels.

Notes: (1) Venture-backed exits includes acquisitions, buyouts, and public listings of venture-backed companies. (2) U.S. Venture Investment and Nasdaq 100 R = 0.9 and 0.0 for Q4 2014 to Q4 2021 and Q1 2022 to Q4 2024 periods, respectively.

# 2024 venture dashboard

Key Innovation Economy indicators:



Notes: (1) Includes IPOs and M&A transactions in which the company going public or being acquired was venture-backed prior to the transaction. (2) Includes only companies listed on major U.S. exchanges. (3) PP denotes 'percentage point'. (4) For deals reporting a transaction amount.



# 02 | Venture investment







**CARLY RODDY**

*Managing Director,  
Co-Head of Private Capital Markets - Americas*



**TROY WAGNER**

*Managing Director,  
Co-Head of Private Capital Markets - Americas*

# IPO markets are beginning to open up

From a private capital perspective, we see that the IPO markets are beginning to open up, which has positive downstream effects for both our issuer and investor clients. A constructive IPO environment has led to a resurgence in pre-IPO funding rounds with broad-based participation from crossover investors, sovereign wealth funds, pensions and growth equity firms.

In addition, the anticipated pickup in M&A activity in 2025 is poised to create increased liquidity for funds and limited partners, buoying the private fundraising environment.

# Many companies are opting to remain private longer

In parallel with these constructive dynamics, many companies are opting to remain private longer, securing substantial funding through mega-rounds and investor/employee tender offers, as seen with fundraises from Stripe, SpaceX, Revolut and, most recently, Databricks.

This environment has fostered a great deal of creativity in deal structuring to effectively meet client objectives and adapt to the evolving market landscape, which we expect to continue in 2025.

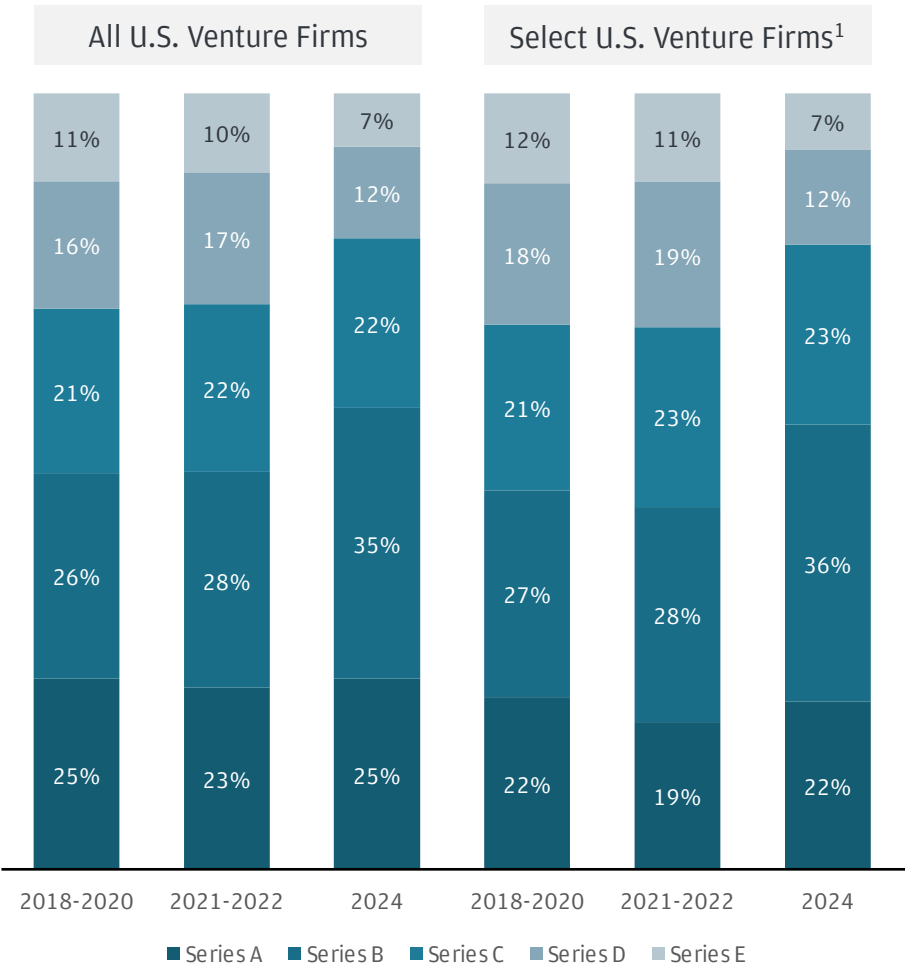
Select J.P. Morgan-led transactions

2024 \$1,000mm  EPP - AI Placement Agent	2024 \$300mm  EPP - AI Sole Placement Agent	2024 \$1,500mm  EPP - Gaming Placement Agent	2024 \$70mm  EPP - AI / Semis Sole Placement Agent	2024 \$225mm  PIPE - Biotech Placement Agent	2024 \$170mm  EPP - Biotech Sole Placement Agent
--	---	--	--	--	--

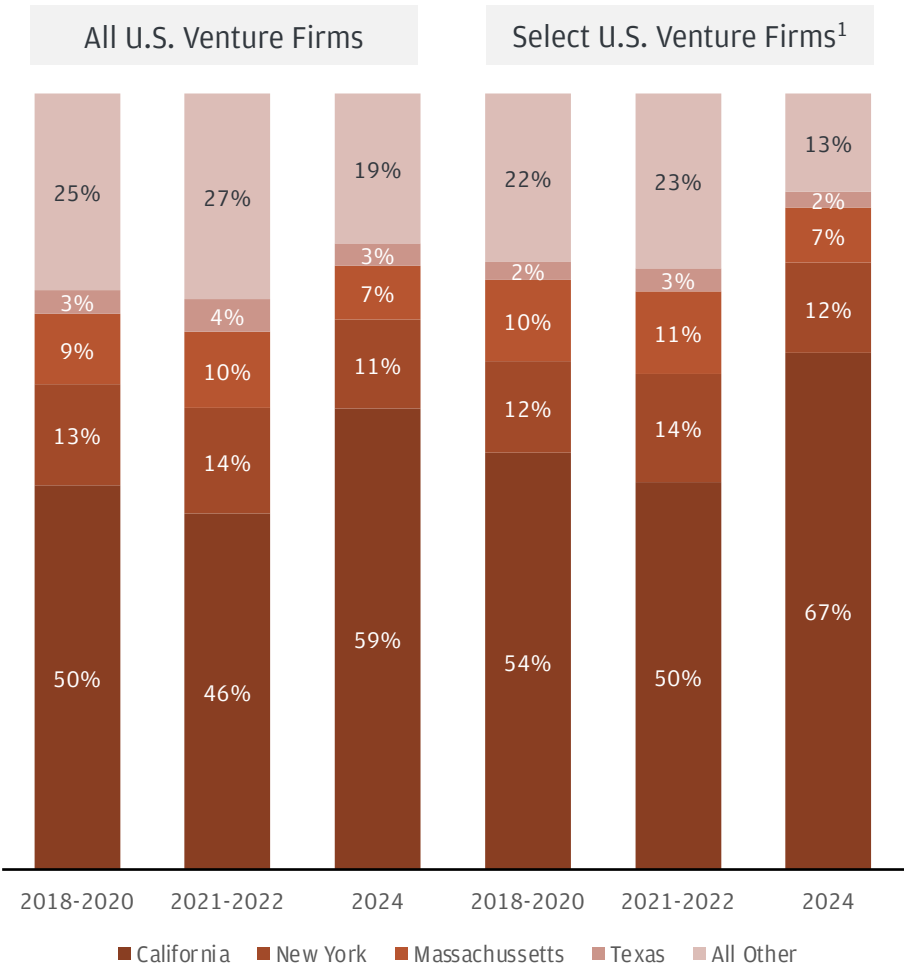


# Venture capital became more concentrated in 2024

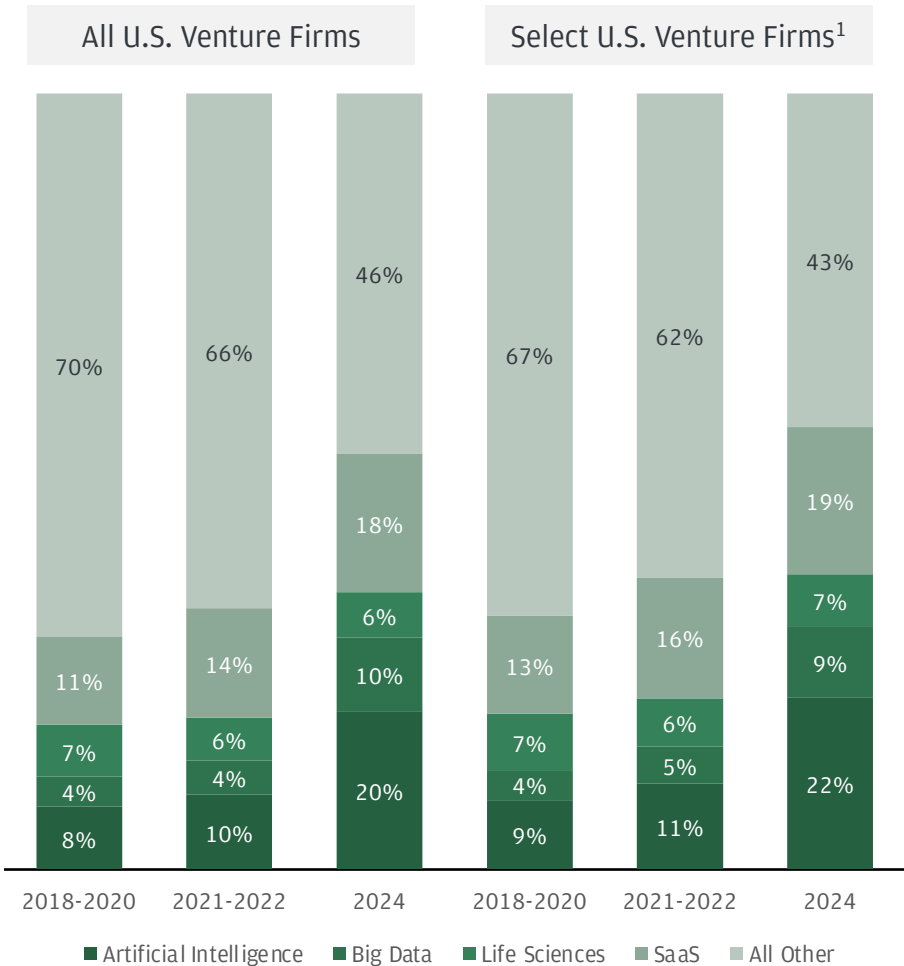
VENTURE FIRMS ARE MOVING DOWNSTREAM  
TOTAL U.S. VENTURE FIRM CAPITAL INVESTED BY SERIES (%)



VENTURE FIRMS ARE FOCUSING MORE ON CALIFORNIA  
TOTAL U.S. VENTURE FIRM CAPITAL INVESTED BY U.S. STATE (%)



VENTURE FIRMS DOUBLING DOWN ON ARTIFICIAL INTELLIGENCE  
TOTAL U.S. VENTURE FIRM CAPITAL INVESTED BY SECTOR (%)<sup>2</sup>

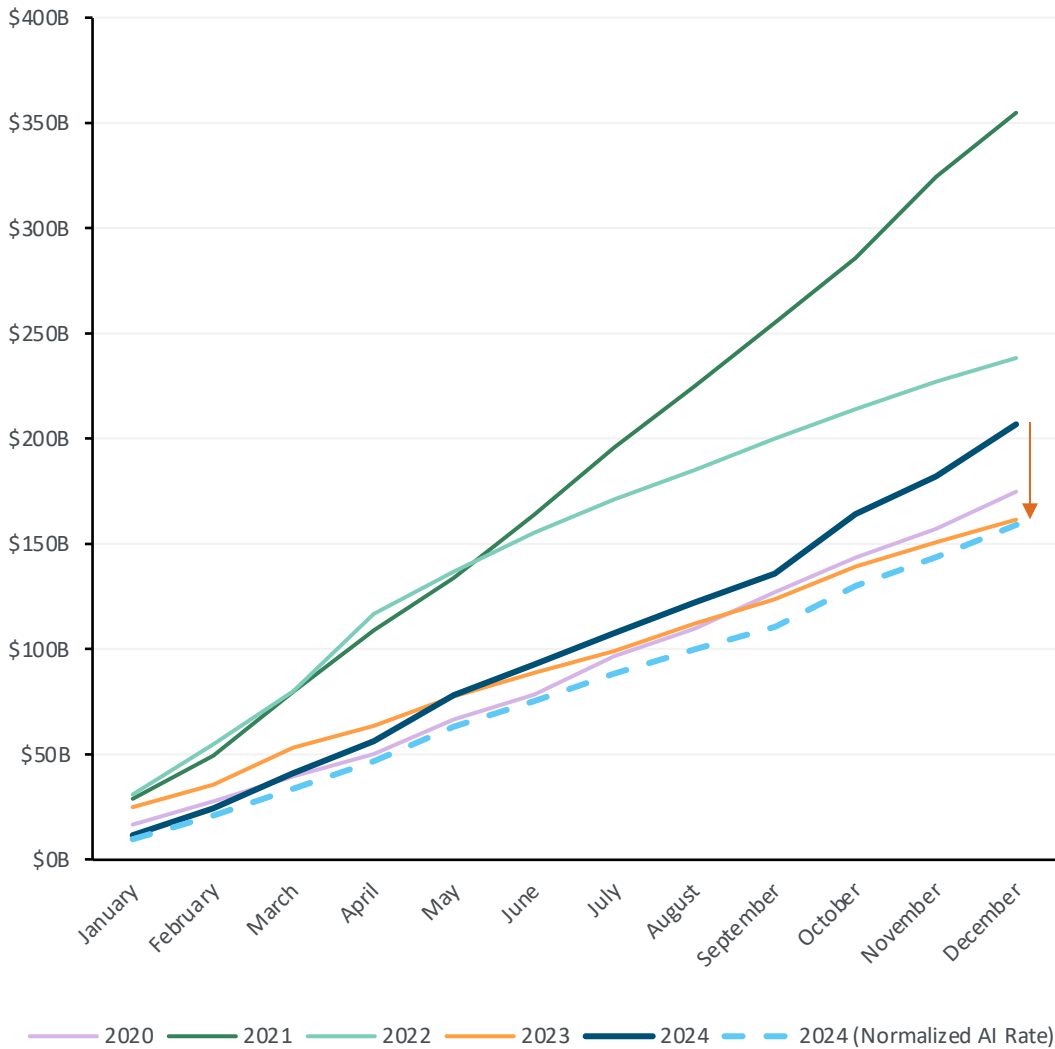


Given the heightened late-stage valuations following venture’s peak in 2021 and early 2022, many investors reduced their late-stage activity to focus on earlier-stage companies, whose valuations posed less of an impediment. California’s share of deal activity increased, largely due to the many well-funded AI companies based there. AI was a key theme in 2024, with most U.S. venture firms increasing their allocation to the space, including a select cohort of U.S. venture firms that typically can deploy larger amounts of capital on a deal-by-deal basis. Overall, venture capital became more concentrated in 2024 across stage, region and sector.

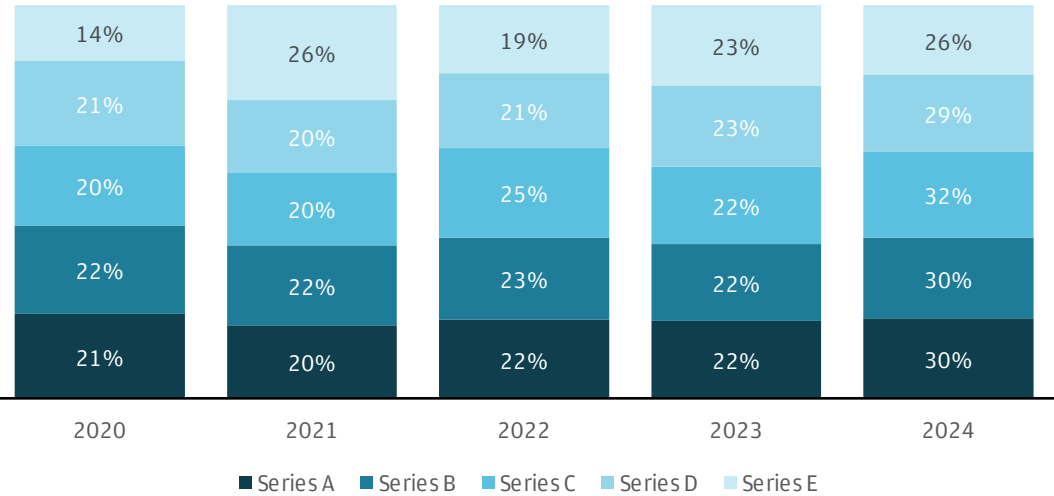
Notes: (1) Select U.S. Venture Firms is a cohort based on certain considerations, including strong investing track records and well-established brands, created and used by J.P. Morgan. (2) Sectors are not mutually exclusive.

# AI companies increased their share of venture deals and dollars

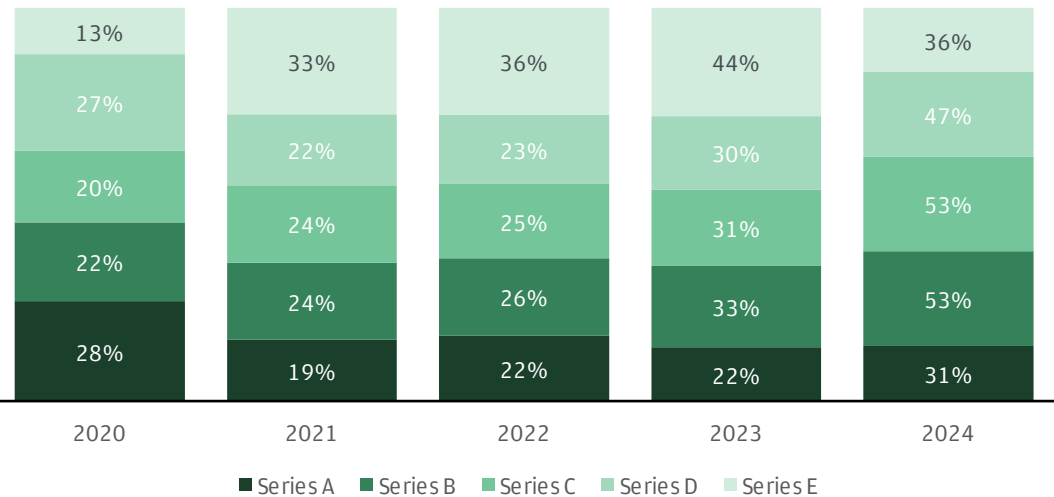
THE LEVEL OF AI INVESTMENT MADE THE DIFFERENCE IN 2024  
MONTHLY U.S. VENTURE INVESTMENT BY YEAR<sup>1</sup>



NEARLY A THIRD OF ALL VENTURE DEALS WERE FOR AI STARTUPS IN 2024  
PROPORTION OF AI VENTURE DEALS VS. ALL VENTURE DEALS, BY SERIES



SIGNIFICANT STEP-UP IN AI'S SHARE OF INVESTMENT FOR MOST SERIES  
PROPORTION OF AI VENTURE INVESTMENT VS. ALL VENTURE INVESTMENTS, BY SERIES

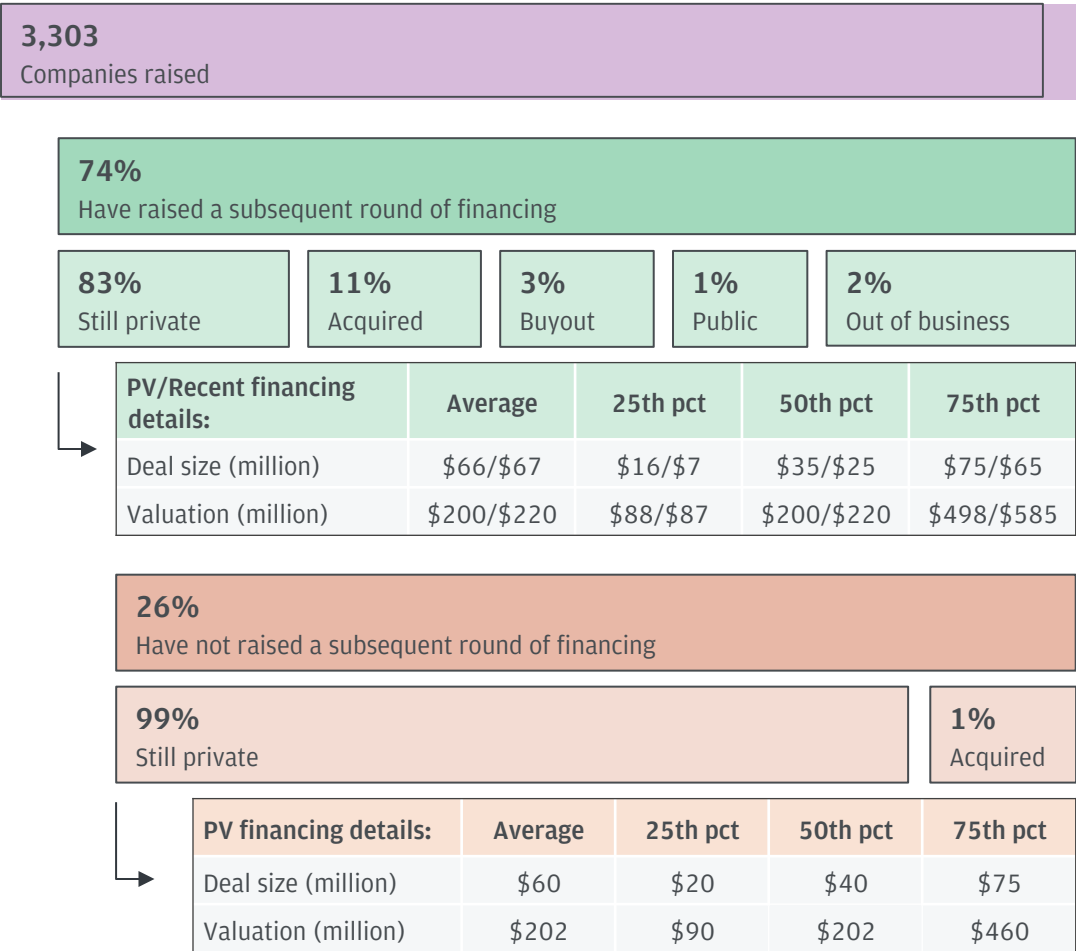


Venture investment started slow in 2024 but has since surpassed 2020 and 2023. A major driver has been the large amount of capital allocated to AI companies. Without this, 2024 may have hit a new low for the decade. Sixteen deals above \$1 billion were raised in 2024, totaling \$54 billion, compared to nine in 2023, which raised \$26 billion. Most of the companies that raised funds had an AI element. Questions remain around the longevity of AI interest, especially as the development of proprietary models is capital-intensive. The number of venture funds raised with a preference for AI was in line with prior years; however, the amount of capital raised was over 2.5 times that of 2023. There will likely be demand for this capital, as the median \$1 billion+ deal was a Series C, suggesting there may be more activity to come in 2025.

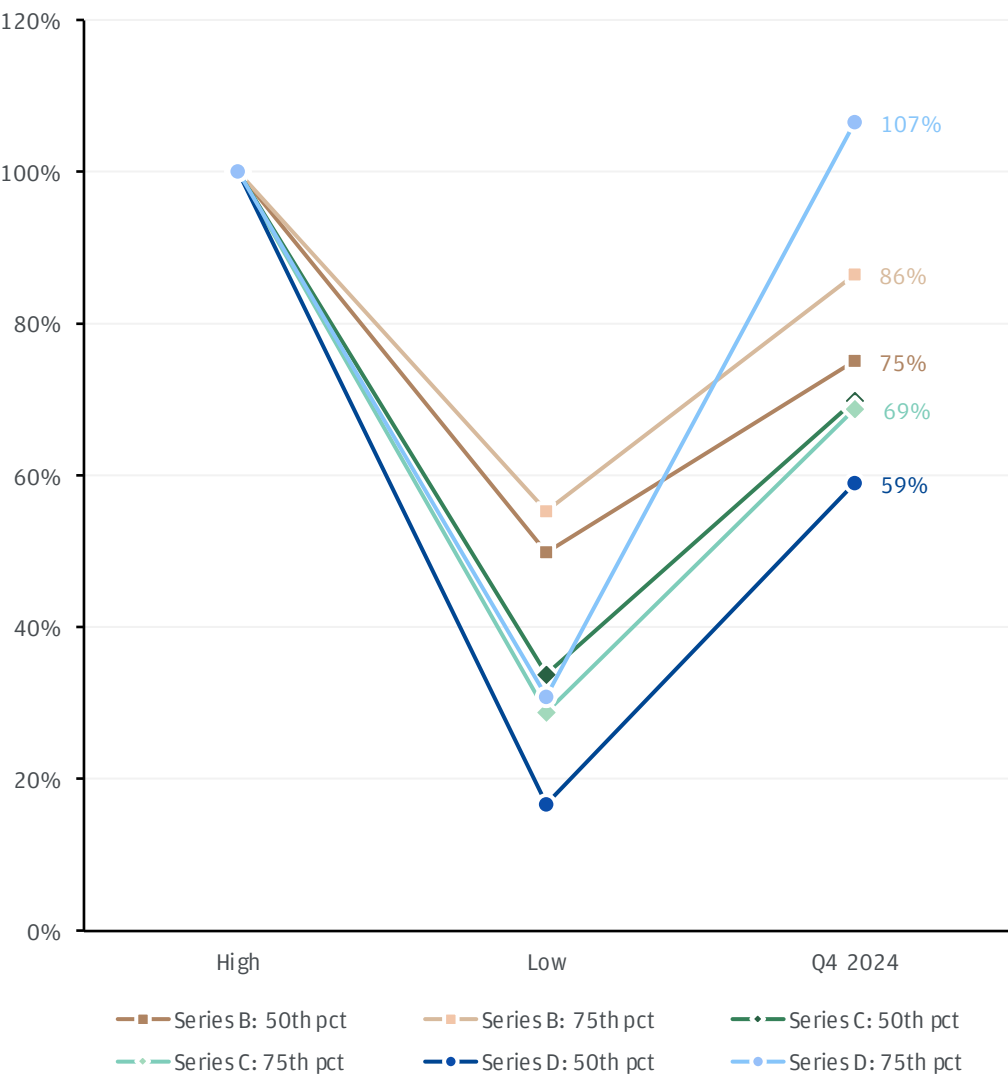
Note: (1) To evaluate the impact of AI investment in 2024, a line was added to show the level of investment in 2024 if AI investment was "normalized". To normalize, the AI investment rate was reduced by 50%.

# Late-stage companies have mostly rightsized themselves

MOST COMPANIES THAT RAISED DURING “PEAK VENTURE” HAVE RAISED AGAIN<sup>1</sup>  
STATUS OF COHORT THAT RAISED A SERIES B, C, OR D VC ROUND BETWEEN 2021 AND Q2 2022



VALUATIONS TRACKING BACK UP TO THE PEAK  
LATE-STAGE VALUATIONS INDEXED TO HIGH WATER MARK



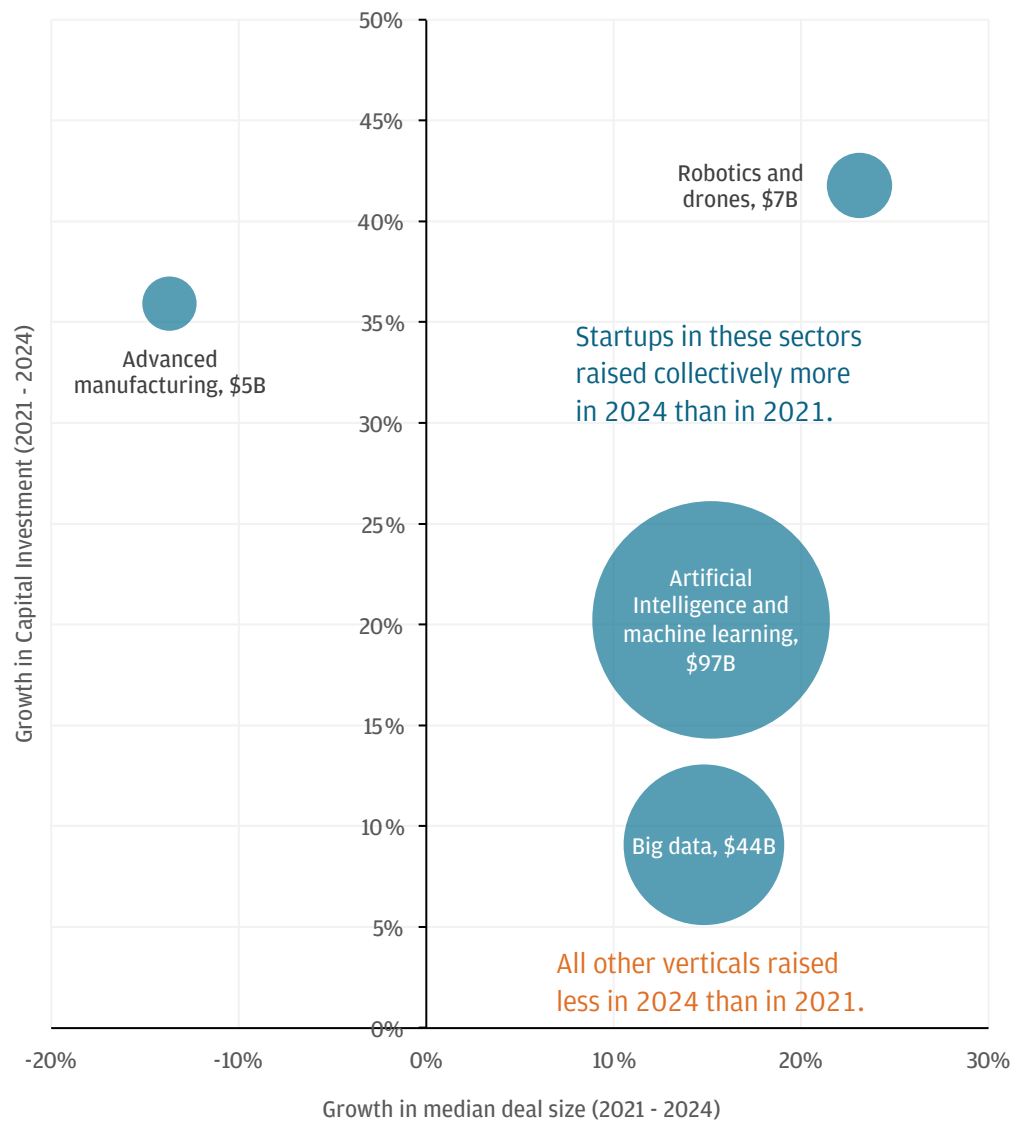
One of the reasons given for the slowdown in late-stage venture investment was agreeing on a price with investors. As valuations across all stages fell substantially from their peak, determining a company's valuation became a moving target. However, 74% of companies that raised funds during the Peak Venture period were able to secure subsequent financing. Most of those who raised funds achieved a modest step-up in valuation but had to compromise by raising a smaller round than their prior one. Of this cohort, 15% exited, mainly via acquisition. For the companies that didn't raise subsequent funding, only 1% exited. With valuations rising again, it could become easier for companies to meet or exceed prior valuations when raising fresh capital.

Note: (1) Peak Venture (PV) is used to describe the period between 2021 and Q2 2022 when venture investment was elevated (compared to prior levels) and consistently rose quarter-over-quarter.

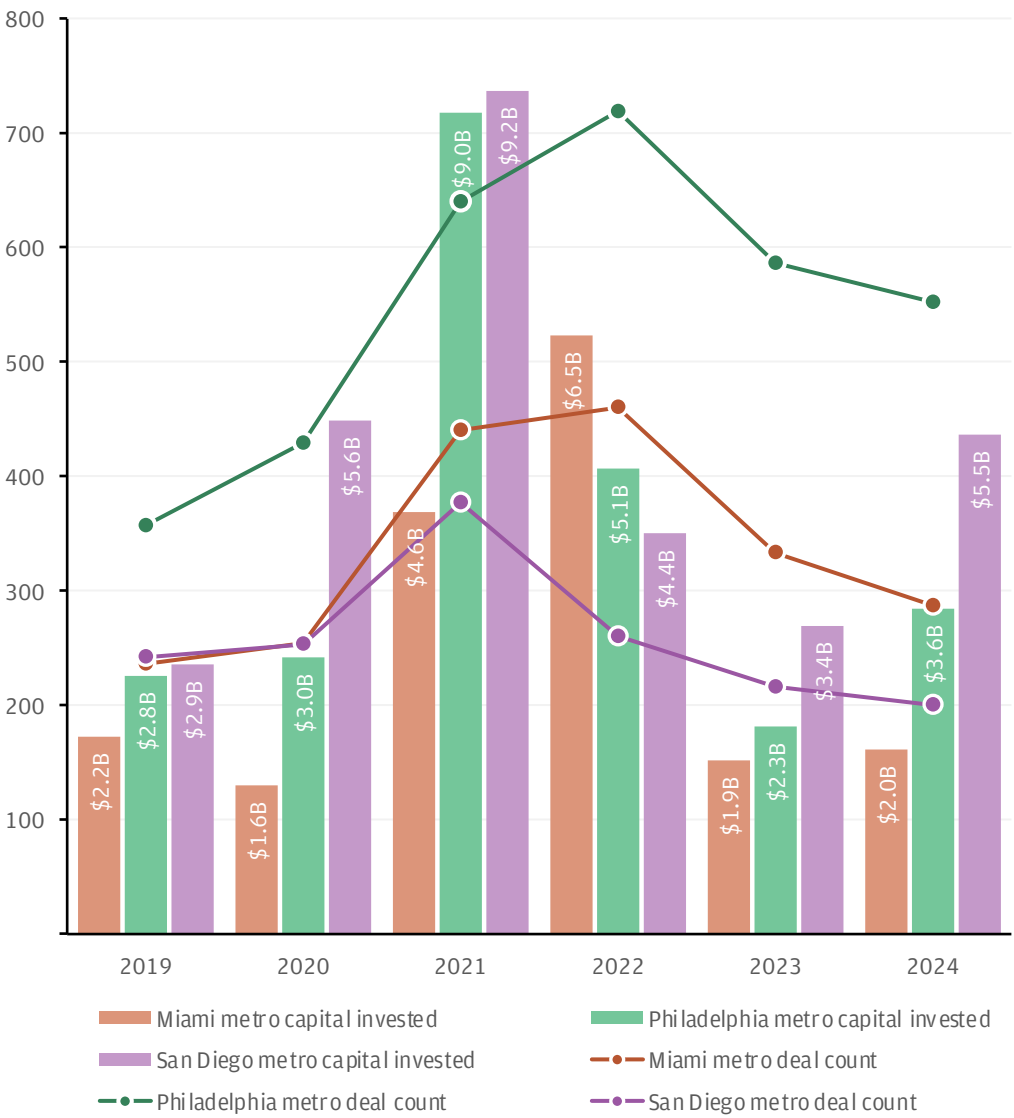


# Sectors and cities on the rise in 2024

**SECTORS BUCKING THE VENTURE SLOWDOWN TREND**  
SELECT VERTICALS BASED ON GROWTH IN CAPITAL INVESTMENT AND MEDIAN DEAL SIZE<sup>1</sup>



**MIAMI, PHILADELPHIA, AND SAN DIEGO RISE UP THE RANKS**  
DEAL ACTIVITY FOR MIAMI, PHILADELPHIA AND SAN DIEGO METRO AREAS



Venture investment peaked during 2021 and 2022, with practically every sector experiencing an uplift. Since then, levels of investment have fallen, settling for most sectors around pre-pandemic levels. However, four sectors—advanced manufacturing, AI, robotics and drones, and big data—have continued to attract a similar or greater level of investment, which in turn has pushed the median deal size for almost each one higher. Outside the major hubs like San Francisco, New York City, and Boston, a few places have stood out. The Philadelphia and San Diego metro areas attracted venture investment in 2024 above pre-pandemic levels, raising their rankings<sup>2</sup> from 10th to seventh, and ninth to fifth, respectively. Miami’s deal activity in 2024 also increased above pre-pandemic levels, raising its ranking from 11th to eighth.

Notes: (1) Sectors are not mutually exclusive. (2) Rankings based on the level of venture investment or deal activity of a region compared to all other regions from 2019 to 2024.

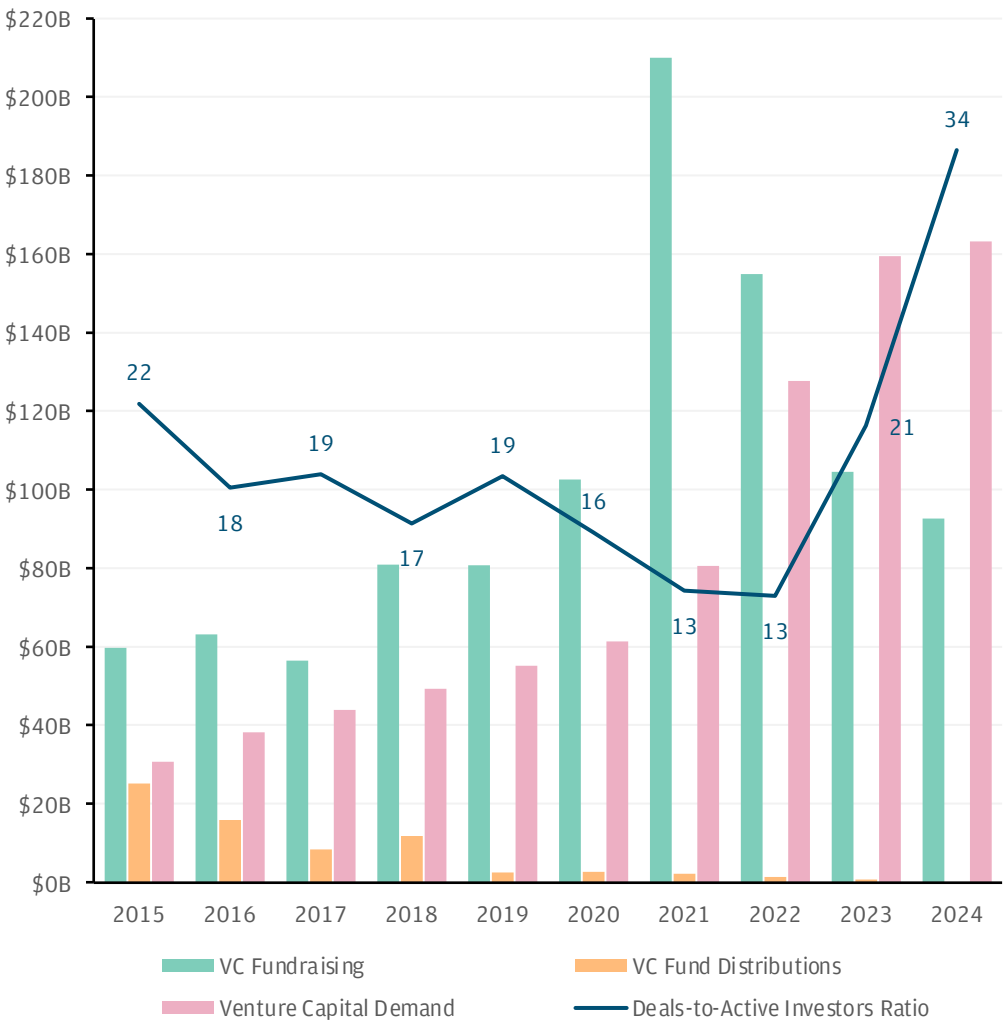
# 03

## Venture fundraising

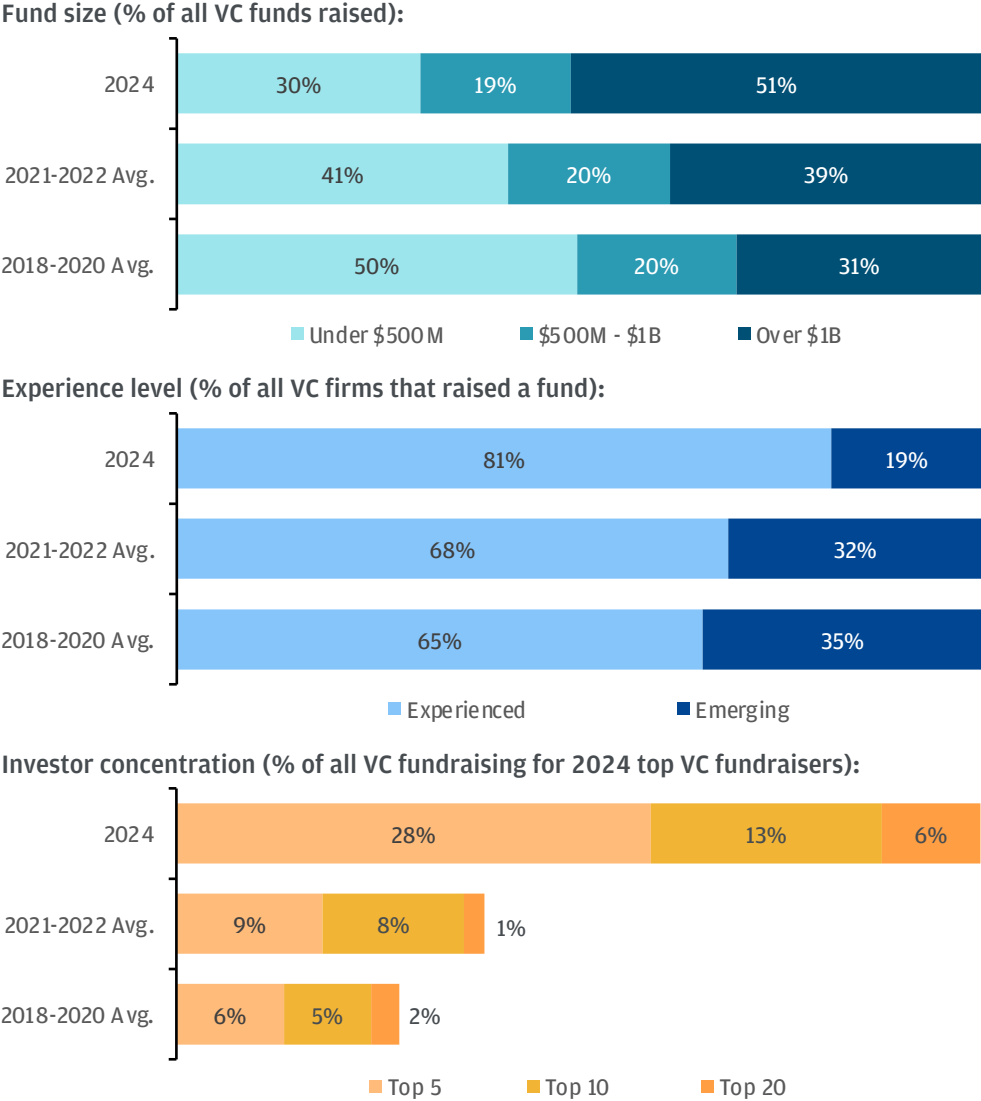


# Venture capitalists willing but still waiting?

EXPECTED DEMAND OUTPACES FUNDRAISING AS INVESTORS GO DORMANT  
U.S. VENTURE CAPITAL SUPPLY AND DEMAND DYNAMICS<sup>1</sup>



FUNDRAISING FLOWS TO LARGER AND EXPERIENCED FUNDS  
U.S. VENTURE CAPITAL FUNDRAISING BREAKDOWN BY SELECT CRITERIA<sup>2</sup>



VC dry powder stands at an all-time high of \$328 billion<sup>3</sup>. However, distributions have practically fallen to zero as liquidity has been tough to come by due to stifled M&A activity and quiet IPO markets. The lack of capital returned to LPs has caused some to pause. Starting in 2023, the level of VC fundraising fell below expected demand. The number of VC investors actively investing has also fallen, although many may return in 2025. More experienced firms, raising larger funds, have weathered the environment better, relying on their scale, reputations, and deep networks. This has manifested as higher average fund sizes for the industry. Emerging managers, who typically raise smaller funds, have had a tough time. As a result of this shift, a notable 28% of all VC fundraising in 2024 went to the top five investors.

Notes: (1) Venture capital demand based on PitchBook's proprietary methodology. Emerging is defined as firms that have launched fewer than four funds. Experienced is defined as firms that have launched four or more funds. (2) Investor concentration based on the 2024 top VC fundraisers cohort. (3) As of March 2024.



# 04 | Exit activity







## KEITH CANTON

*Managing Director,*

*Head of Americas Equity Capital Markets*



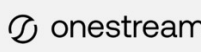



J.P.Morgan

## 2025 is expected to be a strong year for equity markets

The year is expected to be a strong year for equity markets issuance with a convergence of tailwinds, including a resilient economy, modest Fed easing and an IPO market that delivered substantial investor returns in 2024. The backlog of quality IPO candidates is as robust as ever, particularly within the technology sector. Our pipeline continues to build with issuers seeking to take advantage of favorable market conditions and increased investor appetite for the IPO asset class.

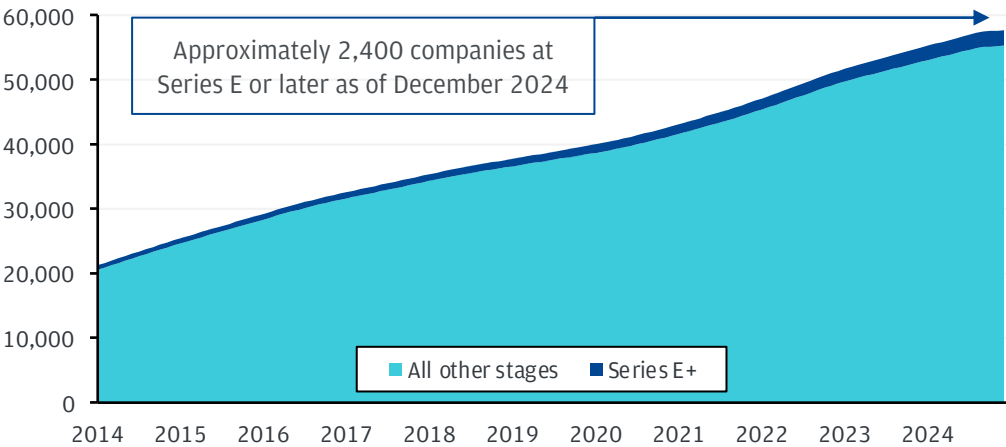
While there are many reasons to be optimistic, we also remain attentive to potential headwinds, such as inflation uncertainties, interest rate risk and geopolitical challenges. As we navigate these dynamics, we continue to work with our clients across sectors to position their stories around scalability, profitability and durability while providing objective advice on their capital markets goals.

### Select J.P. Morgan-led transactions

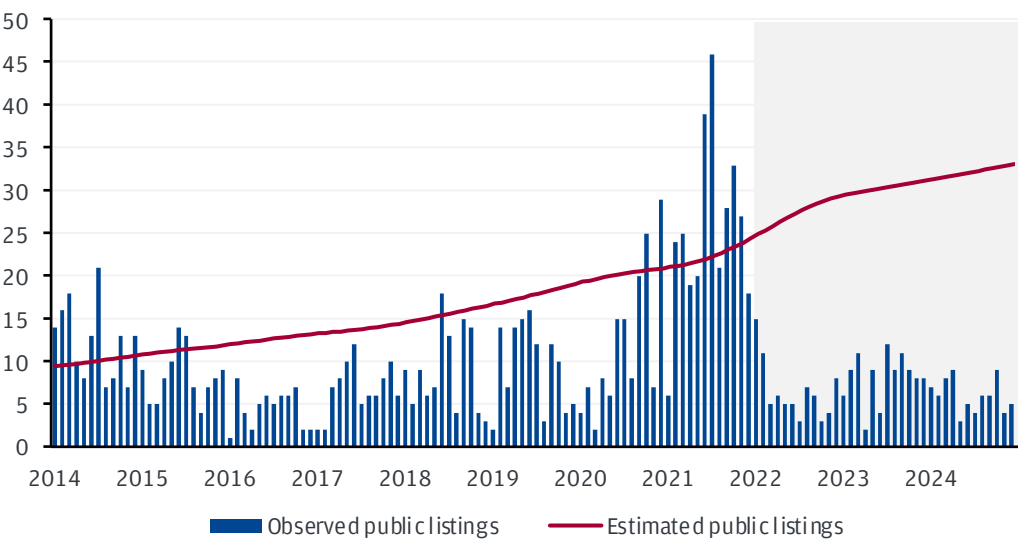
2024	\$968mm	2024	\$820mm	2024	\$564mm	2024	\$411mm	2024	\$367mm	2024	\$331mm
											
IPO - HealthTech Lead Left Bookrunner		IPO - AI / Semis Lead Active Bookrunner		IPO - Software Lead Active Bookrunner		IPO - AI / HealthTech Joint Lead Bookrunner		IPO - Biotech Lead Left Bookrunner		IPO - Biotech Lead Left Bookrunner	

# Public markets hungry for high-growth technology companies

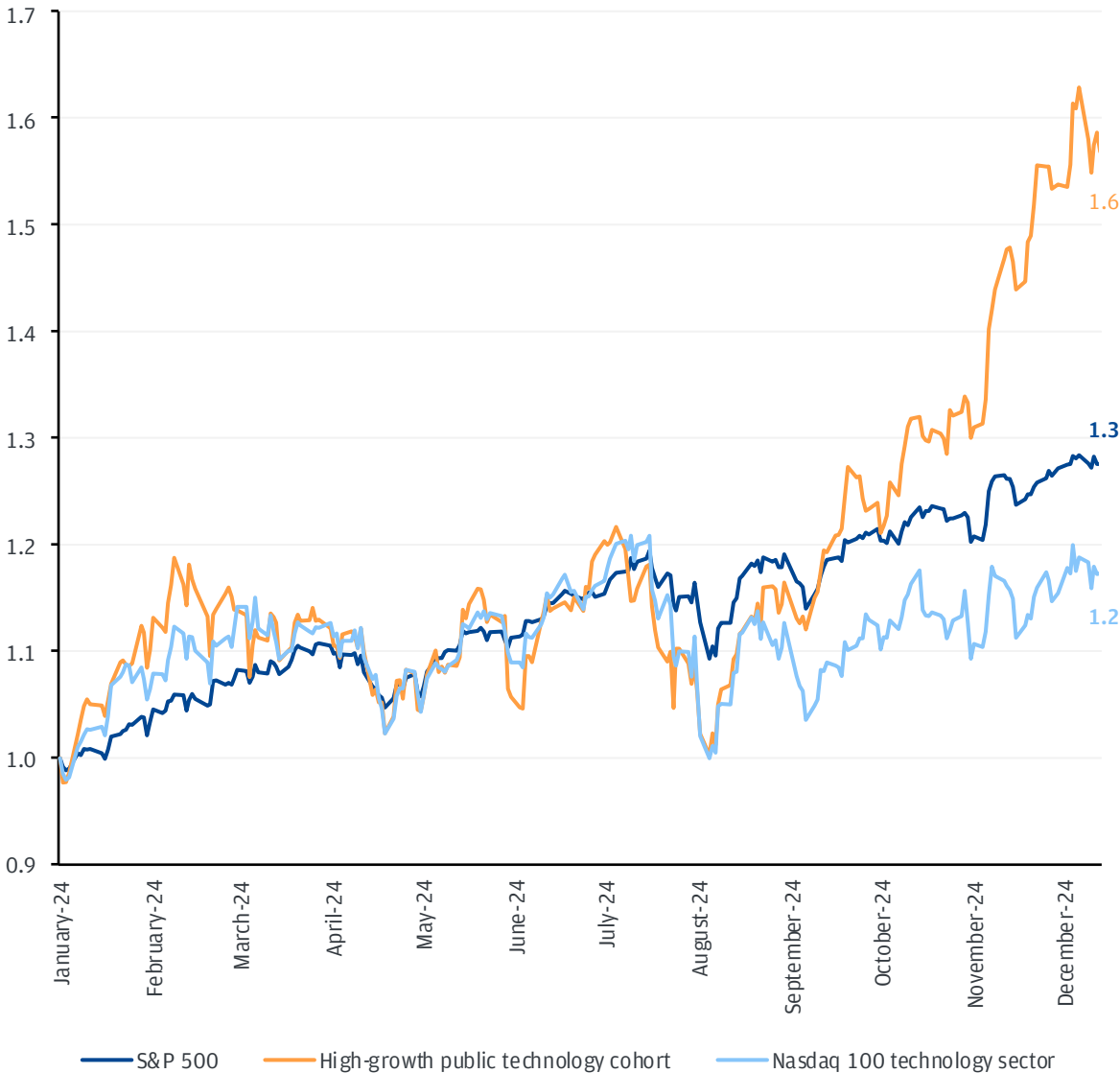
NUMBER OF U.S. VENTURE-BACKED COMPANIES AT AN ALL-TIME HIGH  
CUMULATIVE COUNT OF U.S. VENTURE-BACKED COMPANIES



ESTIMATED IPO BACKLOG CONTINUES TO GROW  
VENTURE-BACKED IPOs ESTIMATED VS. OBSERVED COUNT



HIGH-GROWTH PUBLIC TECH COMPANIES ARE OUTPERFORMING THE BROADER MARKET  
2024 STOCK PERFORMANCE OF HIGH-GROWTH PUBLIC TECHNOLOGY COHORT<sup>1,2,3</sup>



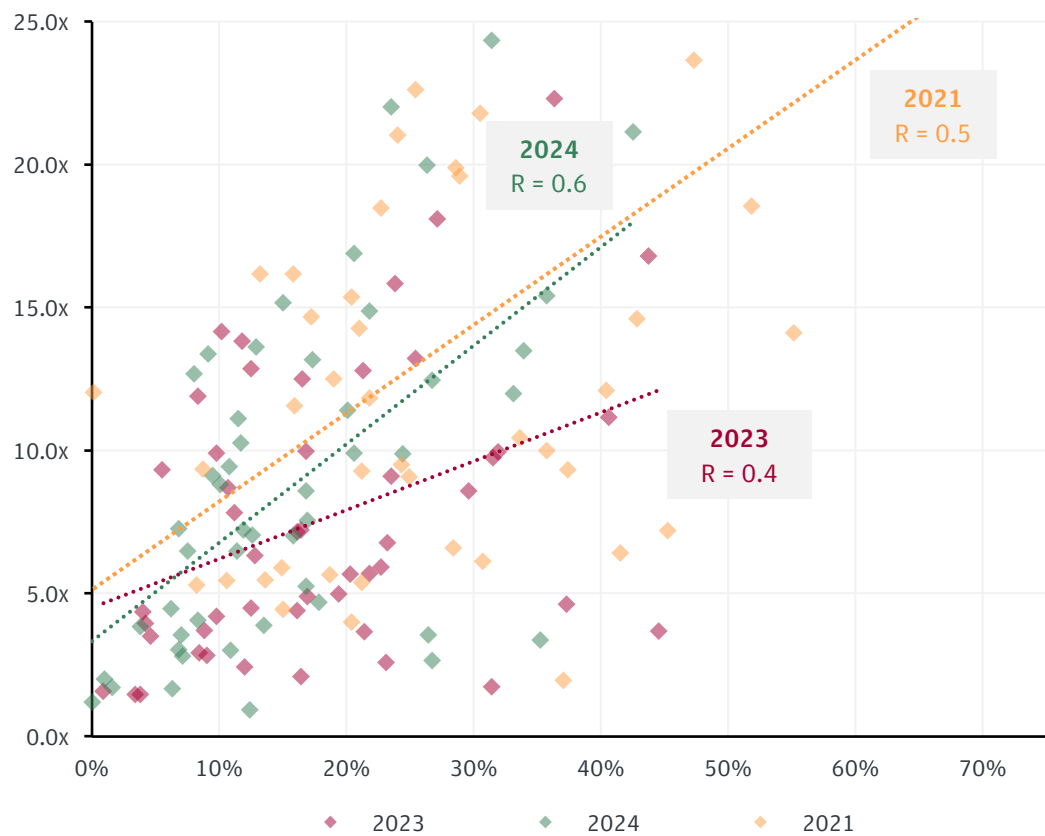
Despite the growing number of venture-backed private companies, IPOs in 2024 have been low, with 13 IPOs over \$1 billion compared to 40 in 2020 and 87 in 2021. Conditions appear to have been favorable in 2024, as high-growth public technology companies have performed well. Some reasons previously offered for delaying going public include uncertainty around valuation, the availability of private capital, and concerns over the extra rigor associated with being public (such as quarterly reporting requirements). However, since the downturn in 2022, many late-stage venture-backed companies have optimized their valuations and managed costs. Going public is still a primary goal for many; the strong performance of public tech companies and healthy demand for recent IPOs suggest that 2025 might see higher IPO activity.

Notes: (1) Includes select public technology companies listed on a major U.S. exchange. (2) High growth is defined as achieving a trailing twelve-month (LTM) revenue growth rate exceeding 20 percent. (3) Performance indexed to January 2024.



# Growth back in vogue for public market investors

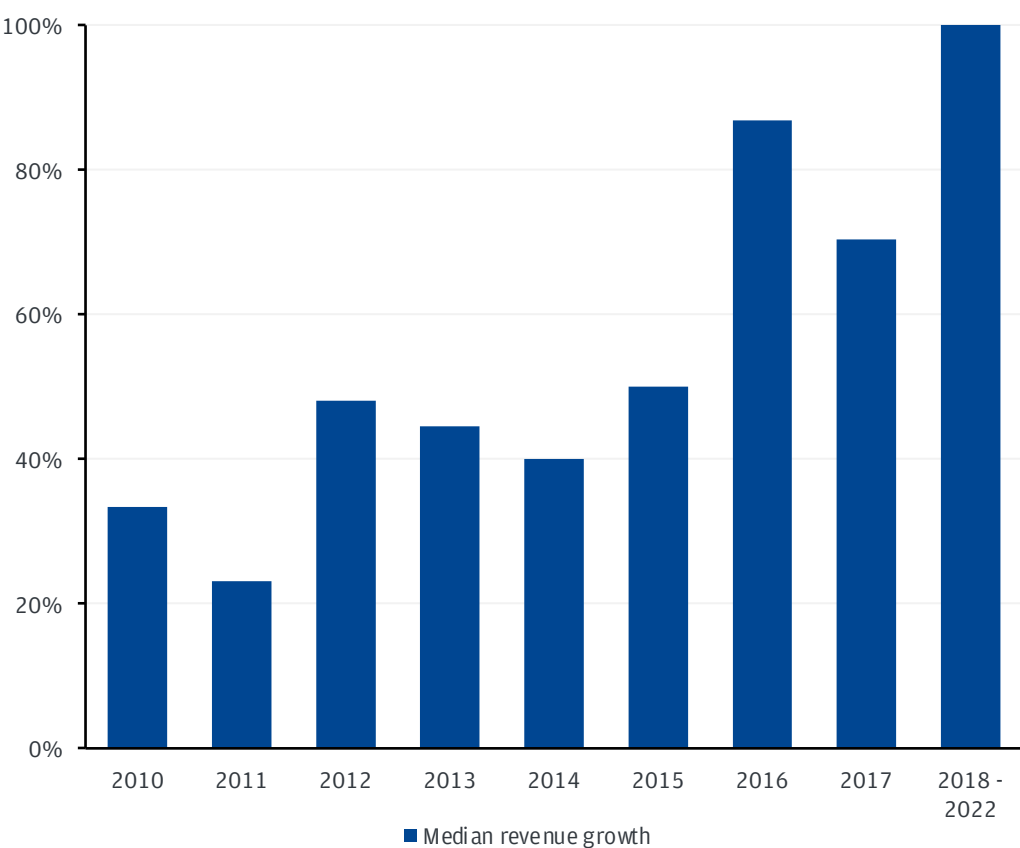
REVENUE GROWTH IS INCREASINGLY CORRELATED WITH HIGHER VALUATIONS  
PUBLIC TECHNOLOGY COMPANY COHORT: LTM REVENUE GROWTH VS. ENTERPRISE VALUE/REVENUE MULTIPLE FOR SELECT YEARS<sup>1</sup>



DISTRIBUTION OF PUBLIC TECHNOLOGY COMPANY COHORT BY 2024 PROFITABILITY AND GROWTH<sup>1</sup>

LTM EBITDA Margin / LTM Revenue Growth	<10%	10-15%	15-20%	20%+
>20%	7	5	1	1
15 - 20%	2	1	1	1
10 - 15%	0	2	3	3
<10%	6	6	2	19

MANY U.S. BASED UNICORNS ARE EXHIBITING OUTSIZED REVENUE GROWTH  
MEDIAN LTM REVENUE GROWTH BY FOUNDING YEAR FOR U.S. BASED UNICORNS<sup>2</sup>



OVERVIEW OF VENTURE-BACKED IPOs LISTED ON A MAJOR U.S. EXCHANGE BY YEAR

Year	IPO Count	Proceeds	# of IPOs > \$1B
2024	48	\$14B	13
2023	51	\$5B	7
2022	40	\$2B	4
2021	217	\$96B	87

As the slowdown in venture took hold in 2023, many investors (both private and public) chose to focus on less risky companies that were profitable or on a path to becoming so. However, in 2024, a focus on growth has returned, evidenced by high-growth companies receiving higher valuation multiples. This is encouraging for the many high-growth enterprises that are preparing to go public, particularly those that can demonstrate consistent performance. IPOs play an important role in recycling capital. Between 2019 and 2021, venture-backed IPOs accounted for approximately 79% of the total proceeds for all venture-backed exits, compared to 18% for M&A transactions<sup>3</sup>. However, from 2022 to 2024, IPO and M&A transactions represented 44% and 49% of the total proceeds, respectively.

Notes: (1) Includes select public technology companies listed on a major U.S. exchange. 2) Unicorns founded between 2018 and 2022 grouped together due to low data counts within each respective year. (3) Many M&A transactions do not disclose the price, so this figure is likely higher.



VINEET SETH

Managing Director,  
Head of Technology M&A

We anticipate a significant increase in M&A activity

Looking ahead, we anticipate a significant increase in M&A activity within the technology sector, particularly in software. Venture capital, growth equity and private equity firms are holding portfolio assets longer than usual, which is expected to lead to a surge in deal volumes as these private businesses are brought to market. We're already observing this trend in our mandate activity and the RFP requests we receive.

There's also substantial pent-up demand among public companies, as many strategics have been sidelined by previous regulations. We expect this to change with the new U.S. regulatory regime. Additionally, interest in corporate clarity, often driven by activist investors, is likely to result in more carve-outs and spinoffs.

While we foresee a rise in activity, we remain cautious about valuation increases due to elevated capital costs from inflation. We continue to work closely with our clients to strategically position them in this evolving landscape.

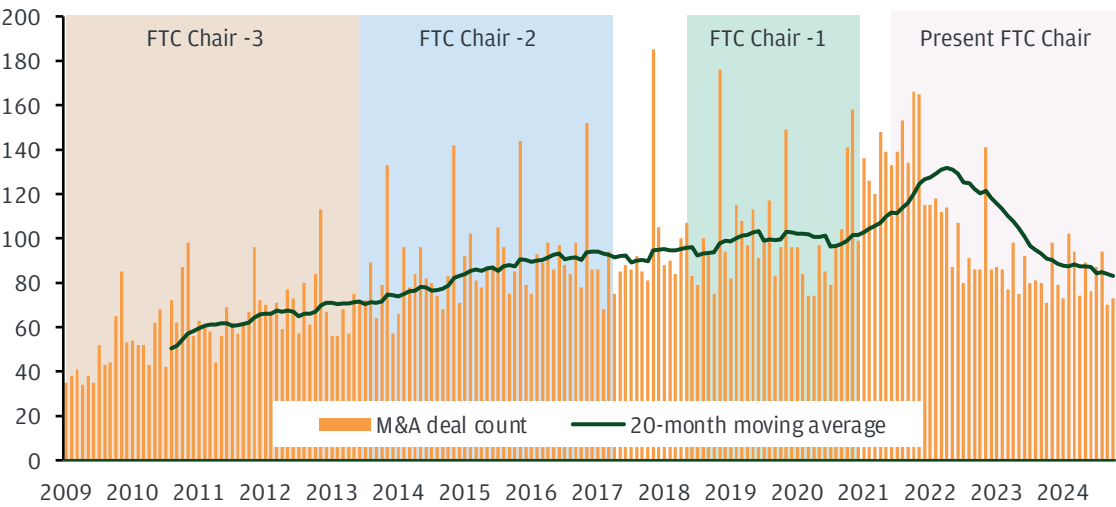
Select J.P. Morgan-led transactions

2024 \$6,900mm SQUARESPACE sale to PERMIRA M&A - Software Sell Side Advisor	2024 \$6,400mm IBM acquisition of HashiCorp M&A - Software Buy Side Advisor	2024 \$450mm noname sale to Akamai M&A - Software / Cyber Sell Side Advisor	2024 \$325mm airbase sale to paylocity M&A - Software / FinTech Sell Side Advisor	2024 Undisclosed CompTIA sale to THOMABRAVO M&A - IT Consulting Sell Side Advisor	2024 Undisclosed adata sale to WARBURG PINCUS M&A - Software Sell Side Advisor
---	---	---	---	---	--

# M&A continues to moderate, but conditions are improving

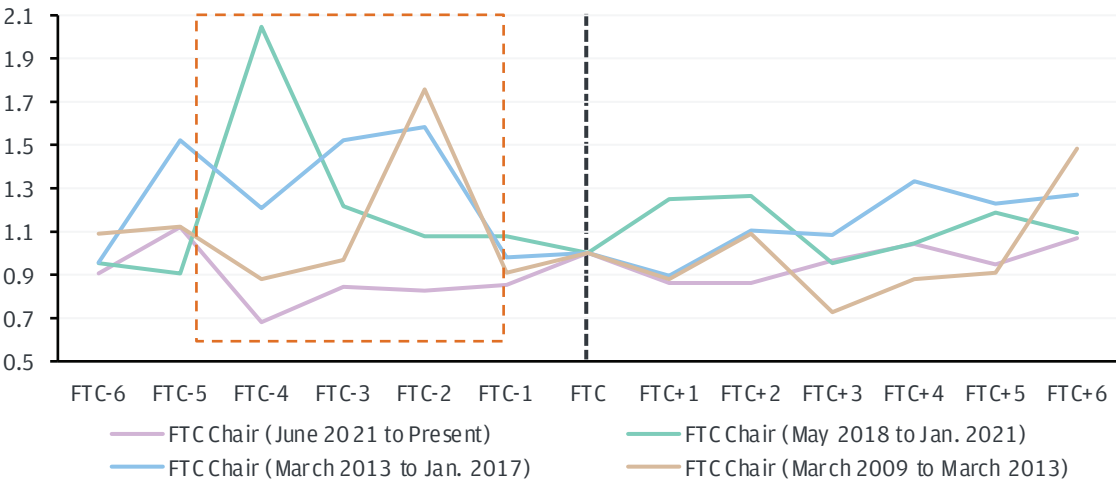
## M&A HAS BEEN FALLING, BUT IN LINE WITH PRE-PANDEMIC LEVELS

M&A DEAL ACTIVITY DURING DIFFERENT FTC CHAIR TENURES<sup>1,2</sup>



## M&A ACTIVITY TYPICALLY SPIKES PRIOR TO A NEW FTC CHAIR APPOINTMENT

M&A DEAL ACTIVITY INDEXED TO SIX MONTHS BEFORE AND AFTER APPOINTMENT OF FTC CHAIR



## DECLINING M&A PROCEEDS LIMIT THE RETURN OF CAPITAL

STRATEGIC M&A PROCEEDS VS. MEDIAN TRANSACTION SIZE<sup>3</sup>



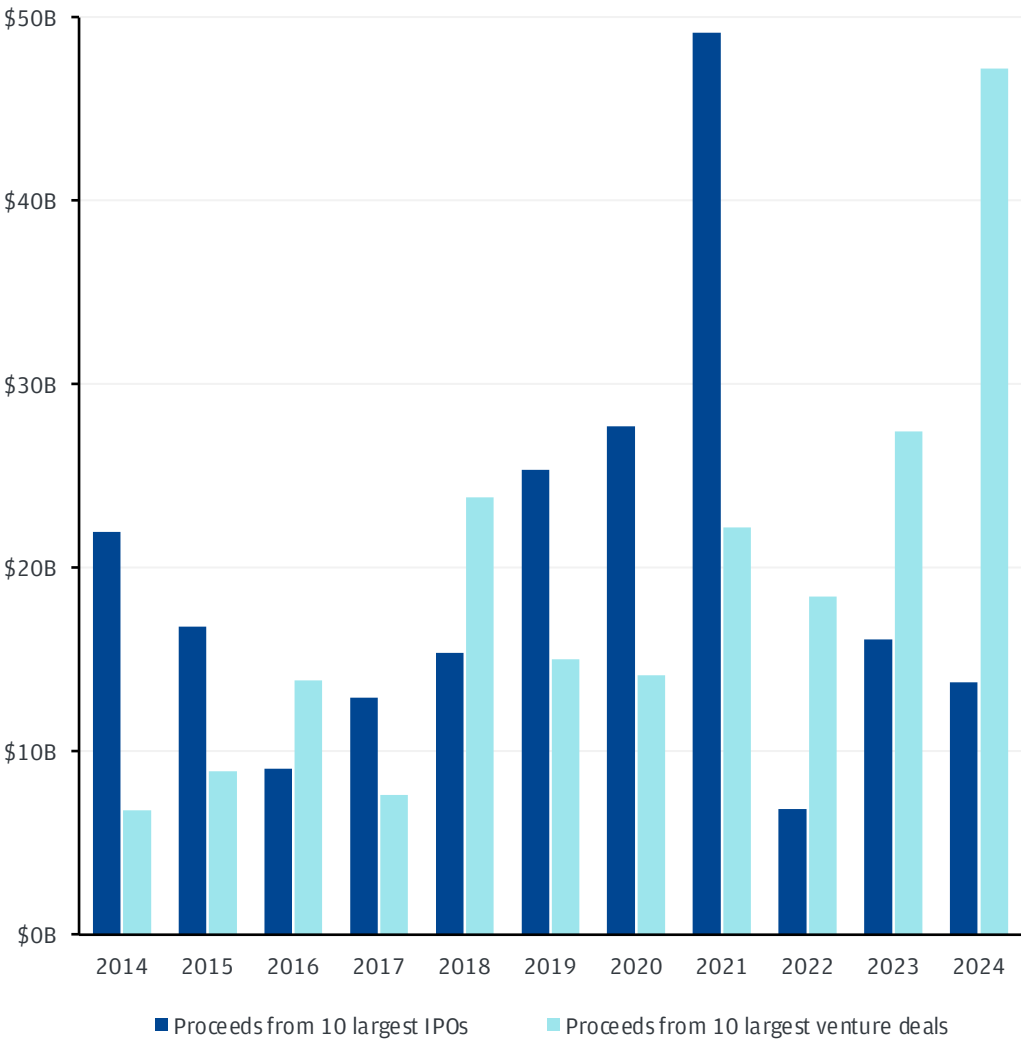
Since its peak in 2021, M&A activity has been slowly moderating, hampered by elevated interest rates, misalignment in valuation expectations and a challenging regulatory environment. With the new incoming presidential administration, a new FTC chair is likely to be appointed. Historically, the months leading up to the appointment of a new FTC chair have seen increased M&A activity, but over the longer term, activity generally remains unaffected. This is because only a small proportion of M&A transactions (although potentially a large share of proceeds) are typically impacted by FTC oversight. Previously, deals by large tech companies have fallen into this category, which might explain the sharp decline in the number of these types of transactions in favor of direct equity investments instead.

Notes: (1) M&A = Mergers and Acquisitions; FTC = Federal Trade Commission. (2) Only includes deals in which the target company is venture-backed. (3) Only includes deals in which the target company is venture-backed and a price is disclosed.

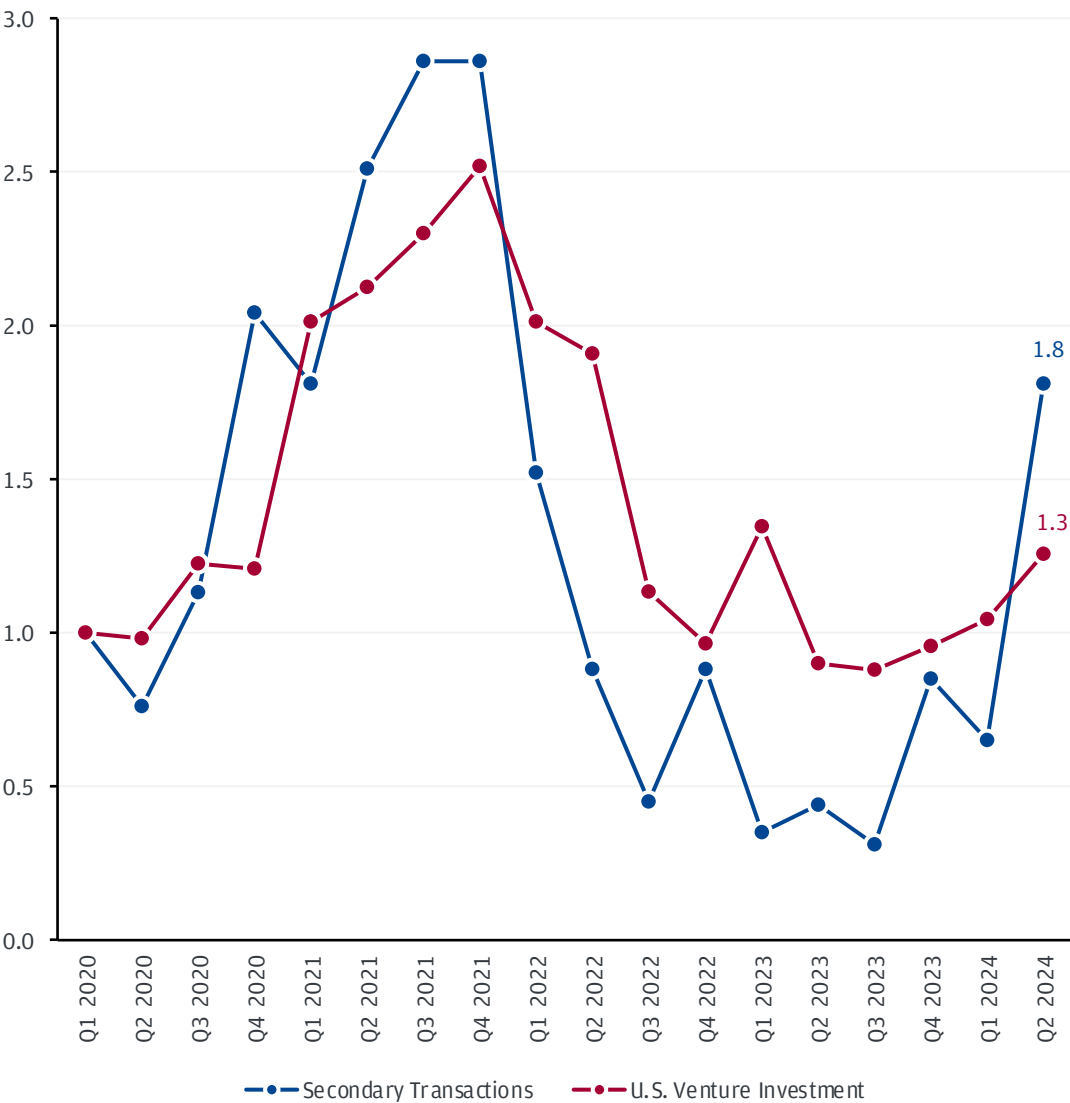


# Secondaries provide some release for tied-up shareholders

**MORE CAPITAL GOING AND LESS CAPITAL COMING OUT**  
PROCEEDS FROM THE TEN LARGEST U.S. IPOs VS. THE TEN LARGEST U.S. VENTURE DEALS<sup>1,2</sup>



**RELEASE VALVE: SECONDARY MARKET ACTIVITY CLIMBS**  
SECONDARY TRANSACTION VOLUME AND U.S. VENTURE INVESTMENT<sup>3,4</sup>



Historically, IPOs were the main way companies gained access to large sums of capital and provided their shareholders with liquidity. The rate of IPOs has fallen drastically since 2021, with more companies able to meet their funding needs in private markets. Despite the strong performance of public markets, the necessary IPO volumes to unlock the substantial amount of private capital haven’t materialized. Liquidity remains important for investors, who have seen holding periods for their investments extend beyond historical norms. Consequently, secondary market activity has risen as some see it as a viable option for liquidity. Some of this depends on the price a seller can get. During 2023, a larger proportion of sales were at a discount. However, this trend reversed by the end of 2023, and now the majority are sold at a premium or par.

Notes: (1) Includes IPOs on major U.S. exchanges, regardless of sector or backing-status prior to IPO. (2) Proceeds refers to sum of capital raised via IPO or venture round. (3) Indexed to Q1 2020. (4) Secondaries refers to the trading of existing shares in private, venture-backed companies.

---

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 is not a product of the Research Department of J.P. Morgan Securities LLC. 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.jpmorgan.com/privacy](http://www.jpmorgan.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.jpmorgan.com/IBOR>.

© 2025 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.