

Sector Snapshot

Key Trends in Dealmaking
Artificial Intelligence

Data provided by



Commercial Bank



I have the privilege to introduce the 2024 Citi Commercial Bank Sector Snapshot Report on Artificial Intelligence.

Rich with data from PitchBook, the report looks beyond the hype around Artificial Intelligence's (AI) potential and assesses market conditions, industry shifts, and key trends in investment.

This raises a number of interesting questions: Can the introduction of AI in Enterprise Solutions outweigh the cost of innovation and deployment? Will VCs' push into early stage companies continue unabated? Will AI continue to fuel all time highs in tech stocks and private markets?

These are some of the areas covered in the report which delivers valuable insights and points to the opportunities with AI.

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Introduction

AI & machine learning (ML) have exploded in markets, public consciousness, and usage in the past 12 to 18 months. NVIDIA, a key producer of the specialized chips that power multiple AI applications, saw its full-year 2023 revenue increase 126% year over year,¹ while OpenAI's ChatGPT hit 100 million weekly users in November 2023.²

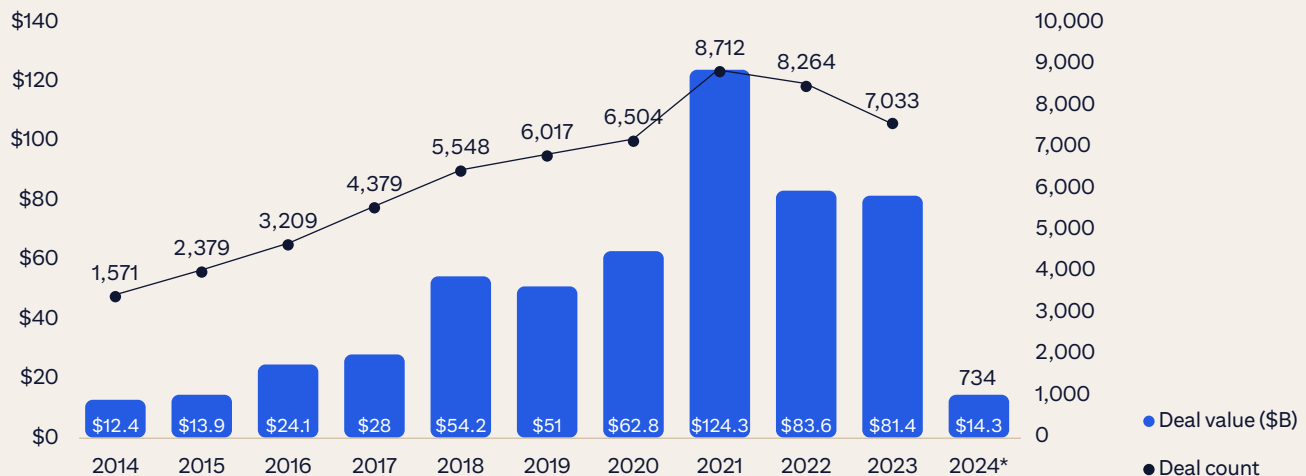
In public markets, AI has fueled all-time highs in multiple indexes and stocks; in private markets and primarily in venture, even as economic and market volatility continue

to exact a toll on dealmaking levels and confidence, AI has seen significant resilience.

Venture financing counts have fallen from a remarkable peak of 8,712 in 2021, yet aggregate VC investment has stayed strong even through the first tumultuous months of 2024. Skewed by mega-rounds such as Amazon's investment in Anthropic and Microsoft's agreement with OpenAI, such resilience still speaks to the stage of the AI adoption cycle, as does the cumulative valuation of all private AI unicorns, which is at a record \$1.12 trillion.

AI deal value remains *resilient* even amid downturn

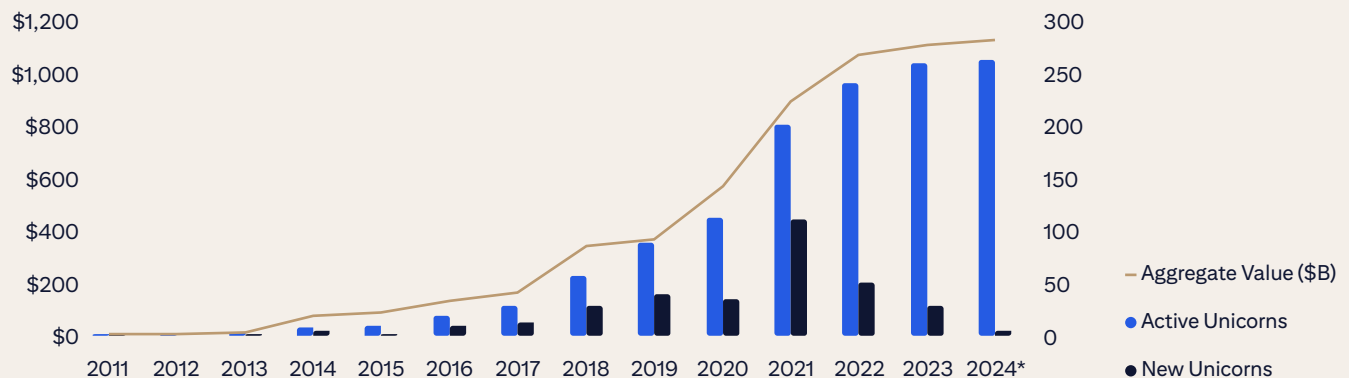
AI & ML VC deal activity



*As of 02/20/2024. Source: PitchBook.

Even as the venture market moderates, aggregate *unicorn valuations* hit a peak

Aggregate AI & ML unicorn count and post-money valuation (\$B)



*As of 02/20/2024. Source: PitchBook.

¹ "NVIDIA Announces Financial Results for Fourth Quarter and Fiscal 2024," NVIDIA, February 21, 2024.

² "ChatGPT Continues to Be One of the Fastest-Growing Services Ever," The Verge, Jon Porter, November 6, 2023.

Market trends

Tech companies' utilization of AI in many core legacy products and services, such as Microsoft's Copilot or Google's Gemini A, has driven many companies' surges in the past several months. Enterprise software remains the focal point for the untapped potential of AI agents, and this has been further evidenced by the ebbs and flows of enterprise software VC investment activity broken out by AI adjacency.

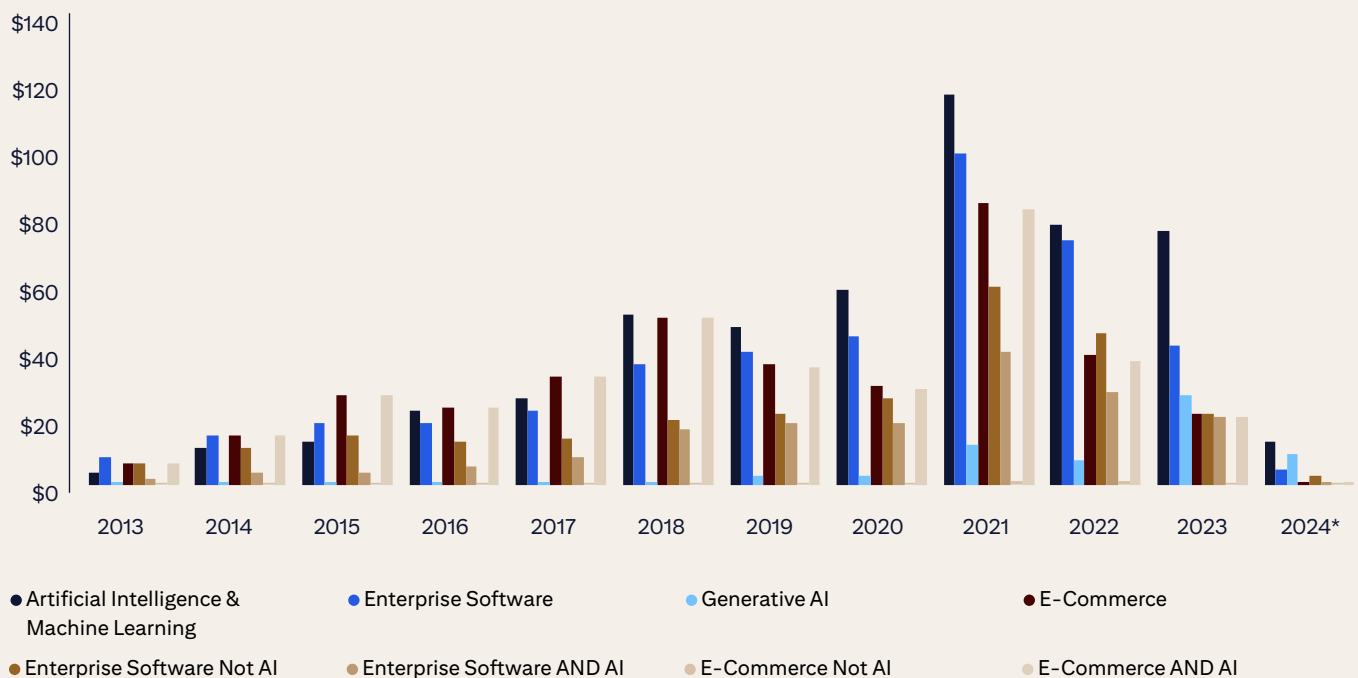
In the previous hype cycles around AI's potential, companies in enterprise software and AI garnered similar investment rates – for example, AI's \$18.0 billion in 2018 relative to \$21.0 billion

for enterprise software companies without AI involvement. Even amid a market downturn, 2023 saw the first near-equivalency, with enterprise software without AI at \$22.9 billion and with AI at \$22.1 billion.

Although multiple enterprise software companies are focused on building their own AI models, borrowing from open-source options, the flow of VC shows that AI is gradually proliferating across multiple aspects of enterprise software delivery, from back-end assembly optimization to automated customer service to product design to predictive maintenance for hardware.

Enterprise increasingly adopts AI

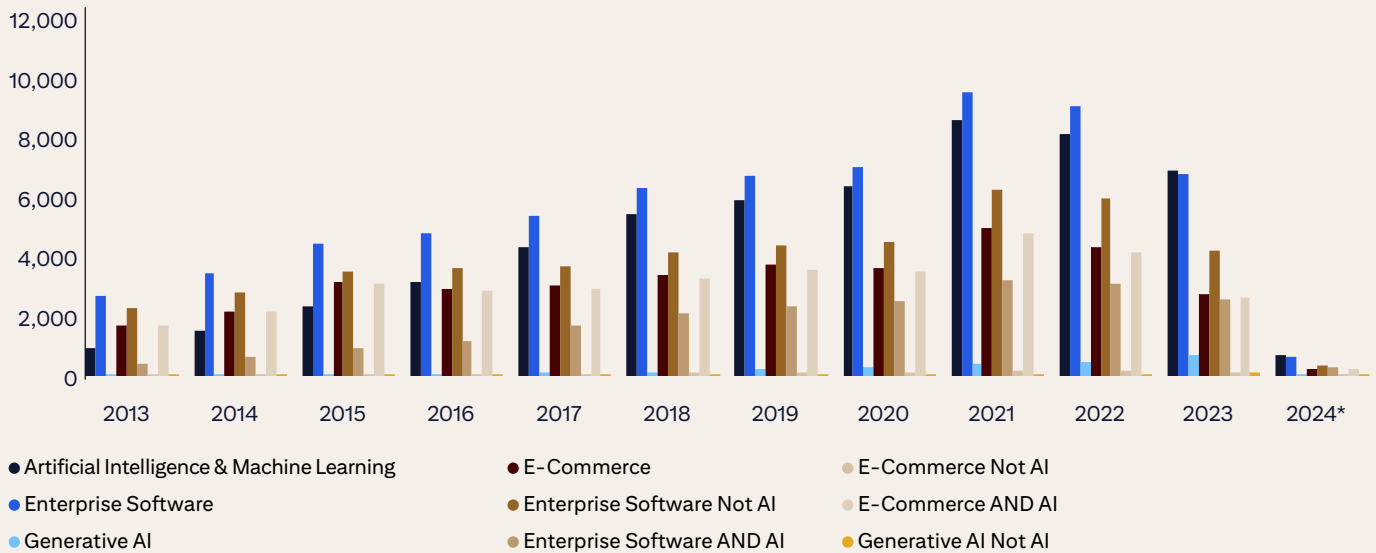
AI VC deal value (\$B) by segment



*As of 02/20/2024. Source: PitchBook.

Early 2024 data shows a *convergence* in financing volume for enterprise and AI

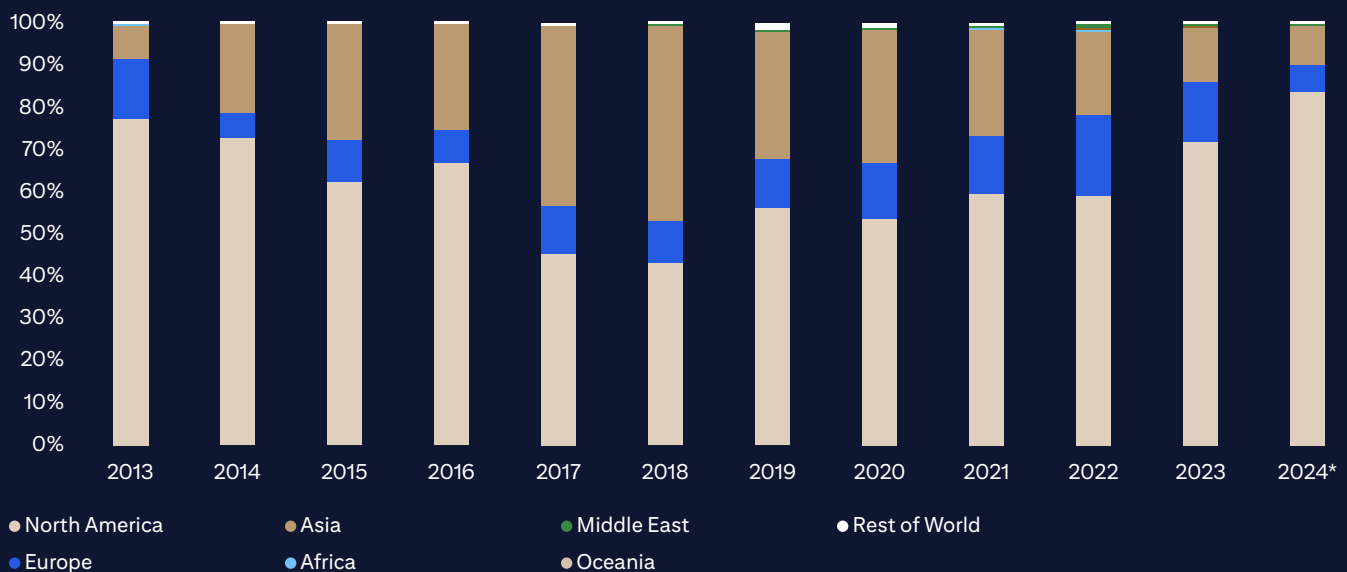
AI VC deal count by segment



*As of 02/20/2024. Source: PitchBook.

Capital concentrates overwhelmingly in North America, skewed by *megadeals*

Share of AI & ML VC deal value (\$B) by region

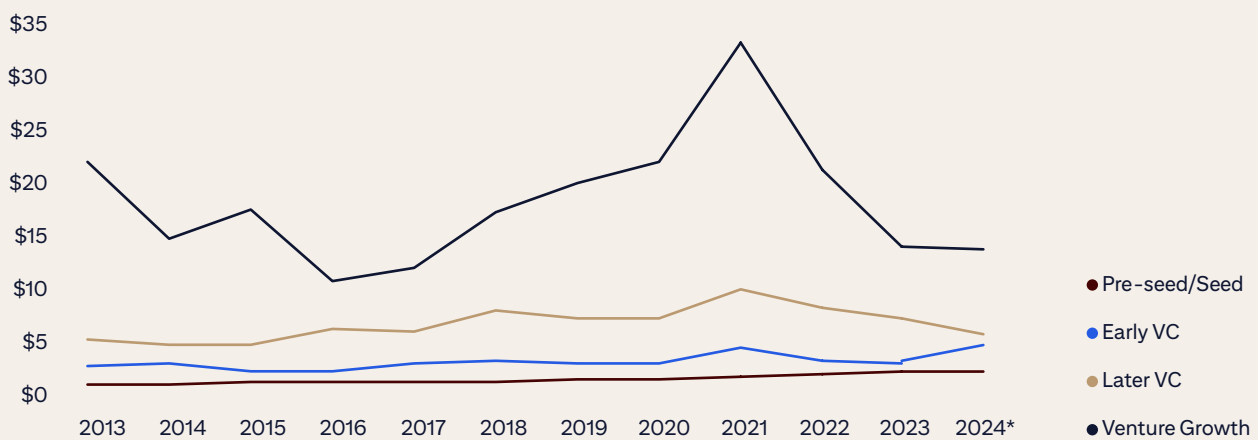


*As of 02/20/2024. Source: PitchBook.

Financing metrics reflect both market conditions and industry shifts, especially pertaining to concentration. Frontier Large Language Models (LLMs) are composed of mostly closed-source models created by tech giants that can fund massive spending on datasets, infrastructure, and training, while VCs are seeking the open-source, cutting-edge AI plays that do not have to contend at such scale.

Late – and growth – stage valuations *normalize* as earlier metrics hold strong

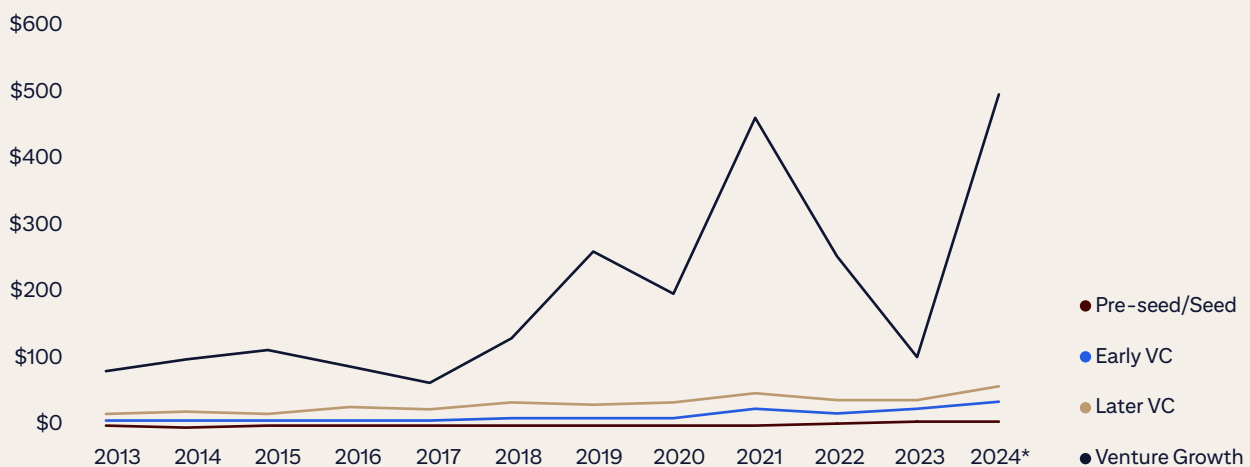
Median AI & ML VC deal value (\$M) by stage



As of 02/20/2024. Note: 2024 venture growth figures are based on a non-normative population size. Source: PitchBook.

Across the board, valuations *hit new highs* except in a handful of venture-growth deals

Median AI & ML VC post-money valuation (\$M) by stage



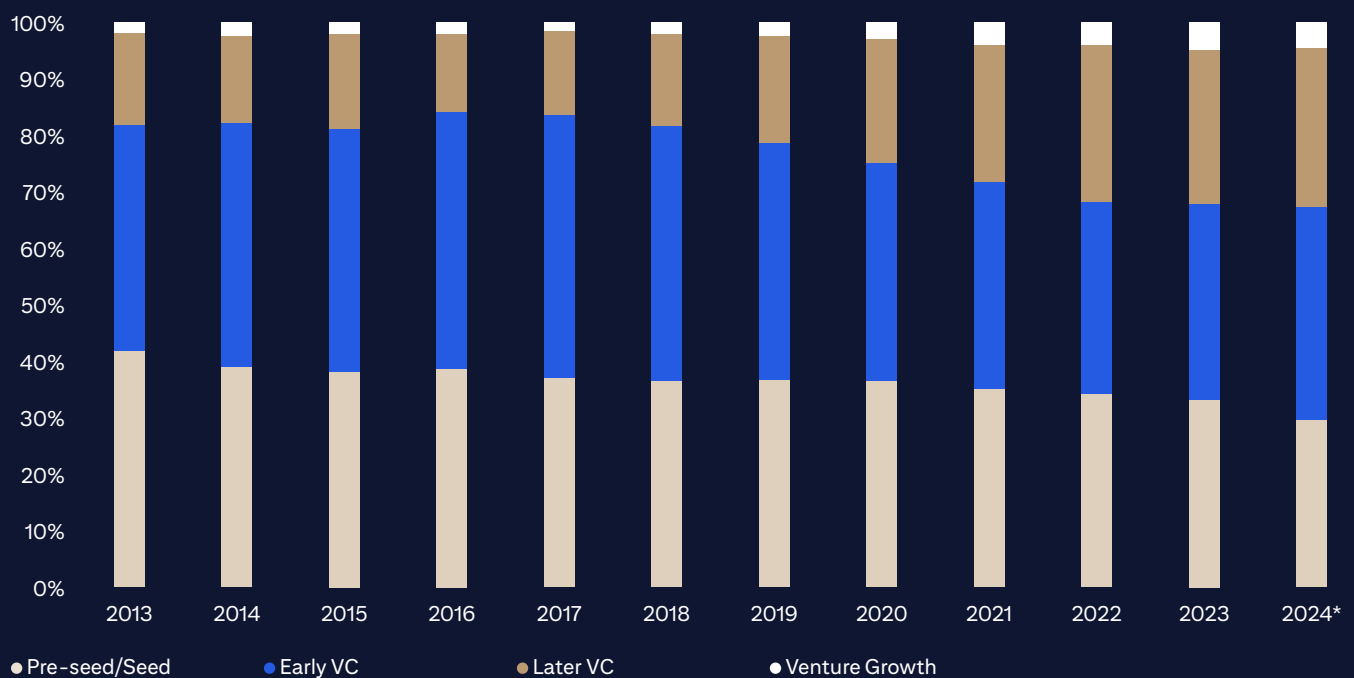
As of 02/20/2024. Note: 2013 and 2024 venture growth figures are based on a non-normative population size. Source: PitchBook.

Importantly, some pundits have noted that AI-driven impacts on cloud services can recoup such spending swiftly. For example, if Azure for Microsoft grows 3% from AI in Q1 2024 as it did in Q2 2023, then that could represent a meaningful portion of its investment in OpenAI already. As a result, VCs are splitting the difference and pushing early-stage financing medians to

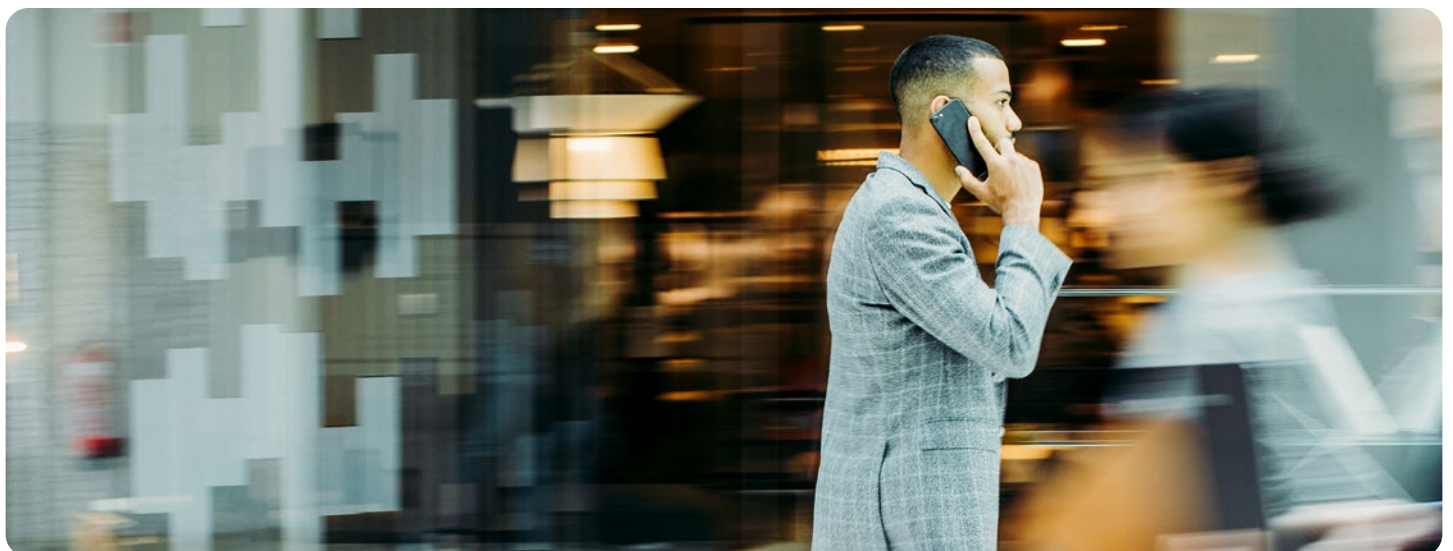
new highs, while late-stage and venture-growth metrics are declining or holding flat as prospects for commercial viability are increasingly challenged by incumbents' deployment of AI in multiple products. However, due to the overall prospects for commercial value in many sectors with bespoke AI solutions founded on proprietary data, valuations keep climbing.

Venture financing is tilting toward the late and *growth stages*

Share of AI & ML VC deal count by stage



*As of 02/20/2024. Source: PitchBook.



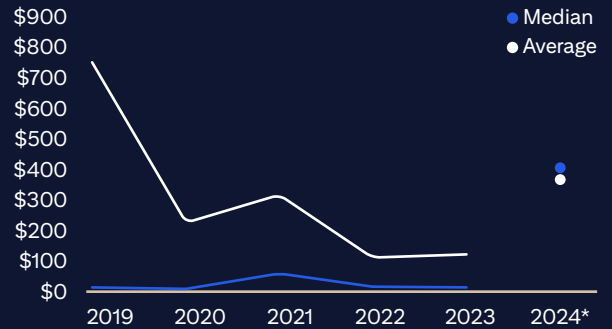
During the more beneficent exit climate of 2021 to early 2022, multiple late-to-growth-stage AI businesses went public and generated the largest single spike in exit value. However, M&A continues to drive the bulk of exit counts. The paucity of exits thus far in 2024 for AI companies speaks to the difficult exit environment for venture-backed businesses overall, but parsing trends through the end of 2023 hints at some rapidly shifting trends in the sector. The average of capital raised prior to going public dwindled from a peak in 2019, while the median time between the final private VC round and going public steadily rose by approximately 18 months.

In tandem, these trends suggest that AI companies and their backers are pushing into various frontiers of AI applications without raising as much as in the past, as these niche plays (as opposed to computation) do not require vast sums of capital.

Key areas of AI that are likely to see significant innovation and competition going forward are the overall AI cloud stack across enterprise use cases and company sizes, specialized agents with attuned risk mechanisms, and more, while tech incumbents battle for AI-empowered predominance in their core business lines. Thus, once market uncertainty and volatility ebb – which may not occur for some time – M&A will likely remain the prime driver of exits going forward as some deep-pocketed companies turn to acquisition of innovative products and services.

Declining averages for VC raised showcase a focus on *less expensive* solutions

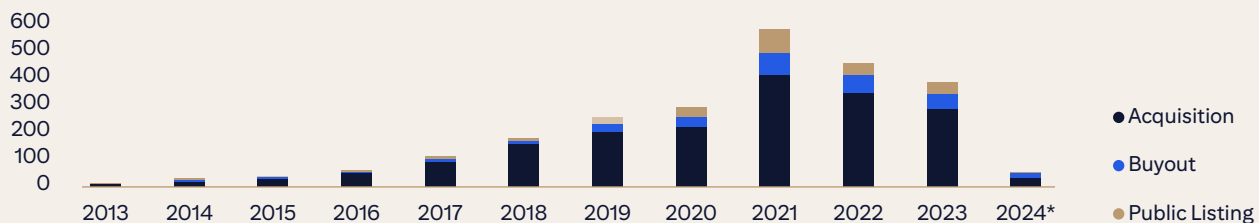
Median and average venture capital raised (\$M) by AI & ML companies prior to IPO



As of 02/20/2024. Note: 2024, 2020 and 2019 all have population sizes that are non-normative. Source: PitchBook.

Buyouts continue at a steady trickle, while M&A remains paramount

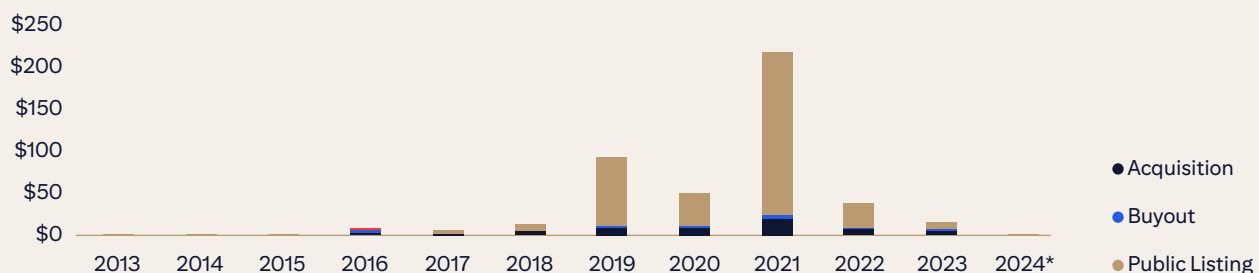
AI & ML VC exit count by type



*As of 02/20/2024. Source: PitchBook.

As the IPO boom has faded, so too, have AI exits

AI & ML VC exit value (\$B) by type



*As of 02/20/2024. Source: PitchBook.

About Citi Commercial Bank

Citi Commercial Bank provides global banking solutions to mid-sized companies that are looking to grow rapidly and expand internationally. With Citi's global network, comprehensive solutions, and industry expertise, we help these businesses succeed across a wide variety of industries and at most stages of their growth.

<https://citi.com/commercialbank>

Further Reading:



[AI Time](#)

AI Assistants Are Coming For You
August 2023



[Citi GPS: Unleashing AI](#)

The AI Arms Race
September 2023



[AI Meetings Human Capital \(Management\)](#)

Part 3: AI Doom or Boom for Jobs
February 2024

Methodology:

PitchBook's standard reports methodology was utilized for classifying deal types, statuses, and geographies. For classifying verticals or sectors, the two industry codes in PitchBook of "business/productivity software" and "automation/workflow software" were combined and dubbed "enterprise software." Using the existing PitchBook AI & ML vertical, each sector was then compared with companies that had the AI & ML vertical tagged to those that did not, within the given overall population of the sector. For example, "enterprise software" with or without "AI & ML" tags. Only completed transactions were included.



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