

Market Watch on U.S. Generative AI Investments

From Raphael ANCELLIN (GETD San Francisco) with contributions from Antoine PIETRI. Under the sponsorship of Marcin DETYNIECKI. Contact: Raphael.Ancellin@axa.com

San Francisco, Nov 2023

This report, aggregating insights from various sources form VCs, Tech executive and academics, initiates a series examining the **Generative AI market**, with a focus on current investment trends as of Q3 2023. Subsequent reports will delve into related topics such as market trends of models, infrastructure, and application of Generative AI. The analysis provides a glimpse into the current state of a swiftly evolving domain, please reach out for more detailed reports.

- 1. Gen AI represents a \$150B market opportunity for the software industry, accounting for 22% of the \$685B global Total Software Industry Addressable Market (Goldman Sachs). The same Goldman Sachs team estimates that investment in the AI sector could account for up to 4% of GDP in the US by 2025. Finally, they predict that AI adoption will "likely start to have a meaningful impact on the U.S. economy sometime between 2025 and 2030". By 2026, Morgan Stanley forecasts that 60% of AI spending will be channeled toward cloud infrastructure and services.
- 2. Startup funding in Gen AI is surging, tripling from \$6B in 2022 to \$18B in 2023. Approx. 70% of the value is directed to infrastructure for 10% of the deals. This highlights the capital-intensive nature of AI model training and ML-Ops tools development (CB Insights, Pitchbook). Model builders such as Inflection, Anthropic, Adept, and Cohere are notable recipients of considerable investments, with funding amounts ranging from \$150M to \$1.3B (CNBC, Bloomberg). Another example is Databricks, which specializes in data management for AI applications. It raised \$500M in September and is now valued at \$43B with a forward multiple estimated around 29x. Snowflake, its public traded competitor, is trading at approximately 15x (TechCrunch). For other references, multiple for Hugging Face or Stability.ai are estimated around 100x, Open AI and Anthropic around 20x (Source: CB Insight, PitchBook).
- 3. Most of this investing activity is happening in the US with 2x more deals than the rest of the world combined stats are based on disclosed generative AI equity deals to startups by company HQ location, Q4'22 Q3'23. (Source: CB Insight, PitchBook)
- 4. Despite a handful of \$100M+ mega-rounds, the generative AI space is still nascent. Among the 360+ generative AI companies identified by CB Insight, 27% did not raise any outside equity funding yet (Source: CB Insight, a16z). Over half of them are Series A or earlier, highlighting the early-stage nature of the space.

- 5. The early M&A deals shows and interest for infrastructure and data companies. The acquisition of MosaicML, 62 employees, by Databricks for \$1.3B is a prime example. The company had raised \$37 Million in venture funding (Source: CNBC, CrunchBase). On the application side, we can mention Casetext, a data base and co-pilot tool for legal professional acquired by Thomson Reuters for \$650 million for 110 employees and \$64 million in venture funding.
- 6. An open-source ecosystem is emerging and attracting investors. Following the leadership of industry thought leaders like Meta, an open-source ecosystem is emerging quickly. Meta likely invested tens of millions of dollars in training and open sourcing its Llama model that has been reused by others to train models that compete in performance with closed-source ones in most specific use cases available to all developers. However, deploying these "raw" models requires more developer tooling than using a "ready to use API" from providers like Anthropic or OpenAI. Informal conversations with 3 venture firms confirm their priority in investing in this tooling. Aggregated data is not available so far, but a few data points are starting to make this trend tangible. For instance, HuggingFace, a platform that hosts opensource models, boasts a valuation of \$4.5 billion post its Series D funding round. Other companies popular among developers are worth following include Llama Index (which raised \$8.5 million in seed funding from Greylock), LangChain (which secured \$10 million in seed funding from Benchmark Capital) or TogetherAI (that raised \$20M and rumored to double it soon). These companies are at the forefront of assisting developers in the industrialization of generative AI applications and since they don't directly train any model, they are less capital intensive. Additionally, large cloud providers (such as AWS or Azure) are also creating solutions to simplify the deployment of open-source models on their infrastructures with the ambition of generating revenues from training and inference.
- 7. On the public traded side of the market, Cloud Giants (AWS, GCP, Azure or NVIDIA) are also investing heavily in specialized chips, data centers, models, and Gen Al-powered products to safeguard and foster growth. In addition to their internal investment, these big techs are spending billions in R&D and in backing every top investment deal in 2023 (Crunchbase and CB Insights). Especially on models, cloud providers and Al startups are forming partnerships, with significant investments. Microsoft invested \$13B in Open Al, Amazon has announced a \$1.25B investment in Anthropic with an option to extend up to \$4B. Google is also reportedly planning a similar investment in the same company. Meanwhile NVIDIA is becoming the most active investor in Gen Al with a total of 17 deals including 9 in 2023.
 - Big Cloud sales teams are also "investing" by actively offering free computing power to secure promising startups, and Google has confirmed that it serves 70% of the leading startups in GenAl (Earnings Call). With a similar ambition, Amazon has launched a \$100M generative Al accelerator, looking to feed its cloud computing business.
 - However, it may take time for Big Tech to convert AI hype into profits. As an example, Github Copilot is reportedly losing \$20 per user (Wall Street Journal) and the latest Google Cloud results did not reach analysts' expectations.
 - However, Microsoft's latest results indicate early signs of success from its investments in generative AI (CNBC and earning call).
- 8. OpenAl's momentum continues as the company is on the verge of securing additional funds, increasing its potential valuation from \$29B to \$90B (WSJ). Annualized revenue is reportedly reaching \$1.3B, a significant increase from its \$30M revenue and \$540M loss in 2022. Furthermore, the company has achieved 30% growth since the summer of 2023. 100M weekly active users are

using ChatGPT, ranked as the 24th most visited website globally (Source: A16Z and SimilarWeb). Already serving 80% of Fortune 500 companies, the company has launched its ChatGPT Enterprise edition to better align with corporate security and compliance standards. The impressive lineup of products or new features announced early November to the 2 million developers using the platform shows that this is just a beginning.

- 9. 80% of the most popular consumer applications in Gen AI (mostly assistants, with the traffic in the range of the 20-30th most visited websites globally) did not exist a year ago and nearly half of these emerging companies are being self-funded. Interestingly, the study led by Venture firm Andreessen Horowitz reveals that customer acquisition is entirely organic (no paid marketing) and that customers are willing to pay for the service going away from ad-powered business models. These statistics also underscore the ability to quickly develop and deploy significant AI products.
- 10. Information regarding non-tech companies' use and investment is still limited. Comprehensive data is lacking despite numerous press releases. IT service and BPO giants such as EY and Accenture are among the rare companies to declare multi-billion-dollar investments in GenAI. Deloitte's third-quarter CFO Signals report reveals that that 42% of firms are testing GenAI, 15% are actively integrating it into their strategies, 24% are educating themselves about it, and 17% believe it's too early to decide on its application. Keynotes and informal conversations with insurance Executives at ITC Conference early in November tend to confirm this. Apart from Bloomberg, no other significant financial entity has publicized vast investments in training expansive models. Instead, they favor methods like fine-tuning or RAG techniques, which demand less capital and specialized knowledge.

Appendix:

