BOX 5. GENERATIVE AI

Artificial intelligence is booming. Equity valuations and venture funding for the AI sector have increased since the public release of OpenAI's ChatGPT tool late last year, which introduced "generative AI" to the broader population and delivered highly context-specific outputs from unstructured data in a user-friendly format.

Indeed, we believe that investor interest in AI stems more from generative AI terminals like ChatGPT bringing existing natural language processing (NLP) capabilities to non-expert users for general usecases, rather than a watershed moment in computational innovation. Estimates on macro impacts range wildly depending on assumptions, whereas we see narrower, near-term impacts on markets that can be more rigorously justified.

Firstly, the deployment of more capable AI engines emphasizes the need for businesses to focus on technology integration. Prior to the current boom, principal customers of GAI engines were firms operating in a restricted set of industries, such as quantitative finance. The advent of GAI has opened a host of capabilities for all other industries leaving firms scrambling to adopt efficient methods of storing and sorting their suddenly valuable data for use in training AI models.

In many cases, collected data may be sensitive or legally protected, which creates an opening for firms like Granica that recently closed a \$45 million Series A round for its data-management-for-LLMs services for new customers of AI integration. However, demand isn't entirely serviceable by external SaaS startups: when data management is so baked-in to internal system architectures, it's more likely that firms will choose in-house solutions with cloud providers like Azure and AWS, or through hiring a new crop of data scientists specialized in managing data for AI integration.

This leads us to our second prediction: an industry-wide realignment within the big-tech sector. Microsoft is an easy winner to pick: they stand to gain from their existing — and extensive — integration with OpenAl's platform, giving them a monopoly on GAI integration on cloud, business, and consumer. Unless open-source alternatives can be reliably integrated into firm-specific architectures on cloud (which provides another avenue for Amazon, Google, and Meta to impose restrictions on integrations with their APIs), it's likely that demand will be captured by these existing providers of cloud services.

Finally, hardware. NVIDIA's stock has tripled to a current P/E of more than 230x as of 20th July, indicating investors believe in the firm's dominance, but the history of the semiconductor industry shows periods of similar commercial dominance ended with spinoffs, defections, and diversification. Given the burgeoning amount of public investment in semiconductor talent and research post-CHIPS Act, it's likely that the innovation space for Al processing hardware will diversify outside NVIDIA, rather than being contained within it.

