

JUNE 01, 2026

PHILEQUITY CORNER

By Wilson Sy

Five-layer cake

AI is the current technological revolution that is shaping financial markets and the broad economy. Its vast range of uses and applications is transforming how companies operate and how consumers utilize technology. Moreover, AI is increasing the economy's overall productivity. It is changing hiring patterns and work functions.

Five layers of the AI stack

In various interviews, Jensen Huang - CEO of Nvidia and dubbed as the "godfather of AI" - used the metaphor of a five-layer cake to explain the complete AI stack. This shows that AI goes beyond chips and models. It is actually composed of five important layers that are needed to make AI work. As elaborated by Huang, below are the five layers of the AI industrial system.

- 1. Energy.** Generating real-time intelligence requires massive amounts of power. This could be a critical bottleneck as there would be no AI if there is no energy to power it. This layer includes power generation, electrical grids and cooling systems.
- 2. Chips.** Specialized processors convert energy into computation. This layer does the heavy lifting for AI's mathematical and computational requirements. Progress in this layer determines how fast, efficient and affordable AI systems are. Some examples of companies that operate in this layer are Nvidia, Intel, TSMC, Samsung Electronics, AMD, Broadcom and Micron.
- 3. Infrastructure.** This pertains to data centers and cloud systems that aggregate chips into AI factories that manufacture intelligence and operate in an industrial scale. Companies that fall in this cluster include Amazon Web Services, Google Cloud and Microsoft Azure.
- 4. Models.** These refer to mathematical systems that are trained on huge datasets. These are capable of conducting various functions such as prediction, reasoning and classification. OpenAI, Anthropic and Google Deepmind are examples of companies that build AI models.
- 5. Applications.** This is the layer where AI is transformed into usable products that users interact with. Consequently, this layer is where economic value is realized. ChatGPT, Gemini, Claude and Perplexity are some of the more popular AI applications.

Massive tech spending fueled by AI boom

Major tech companies are projecting massive levels of IT spending to keep up with the growing usage and importance of AI. Amazon, Alphabet, Meta and Microsoft are expected to spend up to \$700 billion this year. On a global scale, tech spending is forecasted to exceed \$6 trillion this year. Aside from corporates, governments are also heavily investing in IT and AI.

AI to boost productivity

AI is expected to drastically improve labor productivity. This means that the same number of workers can perform more tasks faster and more efficiently. This would also allow less employees to complete operational tasks. As a result, software companies fell precipitously as AI agents are expected to automate workflows which may enable firms to significantly reduce their SaaS subscriptions. Various business sectors such as research advisory, wealth management, consumer lending, legal services, compliance, insurance and accounting companies may also be negatively affected by AI.

Shifting labor demands

The AI boom will consequently underscore the importance of hiring specialists for AI and related functions. These include energy engineers, data scientists, chip designers and AI research scientists. There will also be a focus on skilled workers such as engineers, electricians, facilities managers and physical securities officers to perform support functions for AI operations. As a result, educational trends would shift towards specialized curriculum or certifications that would allow graduates to design and work with various AI systems. The demand for skilled laborers to operate AI's physical support infrastructure would likewise increase.

“Largest infrastructure buildout in human history”

Jensen Huang's metaphor of a five-layer cake provides an informative explanation of the major parts that underpin the AI industrial system. Each layer is important and the five layers are interconnected. Considering this, Nvidia has made several strategic investments in the different parts of the AI stack. It has provided/pledged funding to OpenAI and Anthropic. It has also bought stakes in companies in the AI value chain such as Intel, Nokia, Coherent, CoreWeave, Corning and Synopsys. Aside from these, Nvidia has forged investment commitments and partnerships in various parts of the AI ecosystem such as AI infrastructure, model companies and application creators. Huang said that the AI rollout is the “largest infrastructure buildout in human history.” He stressed that “every company will use it; every country will build it.” This explains the reason behind the spectacular, once-in-a-generation run-up in AI-related stocks.