

After the Hardware Boom: Long-Term Value Creation in the Generative AI Era

Ross Johnson, CFA
Chief Investment Officer

The modern technology stack can be visualized as an advanced jet airplane. Computer hardware is the jet engine and the fuselage; the chips, servers, and networking gear that provide the power and backbone for flight. Software is the navigation systems and controls; the applications, workflows, and user interfaces that collect, organize, and analyze data to drive productivity and support decision making. The user is the pilot, using the tools at their disposal to make strategic and tactical choices, adapt to new information, and learn continuously. Data and information are the fuel, without which the hardware would have nothing to process, the software would have nothing to organize and analyze, and the user would have no basis upon which to inform their decisions. All components—working in harmony—are required to take flight.

Since the emergence of generative artificial intelligence 19 months ago, market participants, business leaders, and end users alike have been contemplating how AI will interact with—or alter—the airplane’s engineering. Will AI act as a co-pilot? Replace the pilot altogether? Will it eventually be able to build its own navigational systems and controls, thus rendering current vendors obsolete?

Such questions and speculation are common during the emergence of new and potentially transformative compute platforms. Many are trying to quickly sort businesses, business models, and even whole industries as winners or losers in an AI age. From Riverbridge’s perspective, this technology cycle is proceeding like others we have invested through in our 35-year history.

From Riverbridge’s perspective, this technology cycle is proceeding like others we have invested through in our 35-year history.

Like the internet and cloud computing before it, the first stage of the AI cycle has been the infrastructure buildout. Most notably, the demand for hardware capable of handling compute-intensive generative AI workloads, such as Nvidia’s (NVDA) GPUs and Super Micro Computer’s (SMCI) servers, has been insatiable. Nvidia’s sales are up 340% in the past 18 months, and Super Micro Computer’s sales have more than

doubled. The companies’ stock returns have been even more eye popping, with Nvidia up nearly 750% and SMCI up nearly 900% since the beginning of 2023.

Unsurprisingly, however, this hardware gold rush has largely preceded the real-world application of AI. Venture capital firm Sequoia calculated that startups spent \$50 billion on Nvidia chips in 2023 to generate \$3 billion in revenue. Microsoft, Alphabet, and Amazon have added more than \$3 trillion to their market cap during the AI boom—yet are only projecting \$20 billion of AI-related revenue in 2024. Just as a plane and the pilot are of little use without each other, chips, large language models, and automation require software applications and deep domain expertise on the part of developers to make insights digestible and actionable in the real world.

As such, we can say with a high degree of confidence that the enduring economic value of AI will be captured by far more than the handful of companies benefiting today. When combined with specialized data and knowledge, AI will help businesses and end users across every sector of our economy—such as how retailers price and build inventory, how insurance companies assess and price risk, or how healthcare companies research and test their next breakthrough. While it is not easy to precisely quantify, an oft-cited maxim is that the consumers of technology products and services capture more than half of the economic value generated through gains in efficiency and productivity.

We can say with a high degree of confidence that the enduring economic value of AI will be captured by far more than the handful of companies benefiting today.

Indeed, those that own or have access to proprietary data will have the opportunity to capture a substantial amount of the value created by AI-augmented insights and workflows. Technology’s end users need not sell data to make it valuable—they can apply AI and automation to increase the speed at which they develop new products, respond to changes in their end market, make better decisions, and reduce the cost of redundant or time-consuming tasks.

Ross Johnson, CFA
Chief Investment Officer

As one of the few companies beginning to monetize AI, ServiceNow (NOW) provides an early illustration of the dynamic between software provider and end user. The company has long been at the forefront of making the enterprise IT ecosystem more user-friendly and self-serve; their solutions dramatically improve productivity and efficiency in completing complex workflows such as employee onboarding, security breach remediation, IT lifecycle management, and compliance and risk management. The company's recently released AI offering, Pro-Plus, is priced 30 percent higher than its previous premium product, but is enjoying even faster uptake because the productivity gains are far greater than the increased cost. In time, ServiceNow expects their AI-augmented solutions to help customers streamline and eliminate redundancies in increasingly complex domains such as legal services and contract lifecycle management.

We will continue to seek leaders and cultures that are adaptable, close enough to customers to understand their evolving needs, and willing to adopt or develop new capabilities to serve those needs.

This example is just the tip of the spear. With breakthrough innovations, humans always find methods to apply and leverage them in ways that are unimaginable at the outset. As it evolves, Riverbridge will approach AI and its impact on the economy, businesses, and individuals as we do any transformative technology. We will continue to seek leaders and cultures that are adaptable, close enough to customers to understand their evolving needs, and willing to adopt or develop new capabilities to serve those needs. Those who do so successfully are poised for enduring earnings power.

Information in this newsletter is not intended to be used as investment advice. Mention of companies/stocks herein is for illustrative purposes only and should not be interpreted as investment advice or recommended securities. The securities identified do not represent all of the securities purchased, sold or recommended and the reader should not assume that any listed security was or will be profitable. Past performance is not indicative of future results.