

HOW COULD AI

BOOST YOUR FINANCES?

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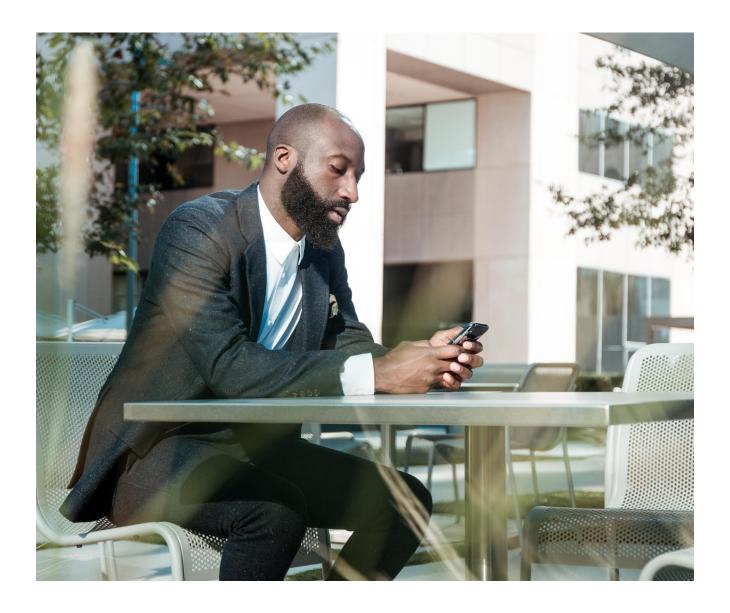
How could AI boost your finances?

A view by Roger Camrass, Director of Research for CIONET International.

Something unusual is afoot, even in the fast-moving world of technology. Chip manufacturer Nvidia's recent boast of a 422% growth in year-on-year net income has little, if any, historical precedence.

While Cisco delivered a tenfold rise in share price during the explosive growth of the dotcom era, or what American investor and author Peter Lynch described as a "ten-bagger", the networking giant's stock has not advanced significantly since then.

So, is Nvidia's massive growth in net income a break from the past? Are we entering a new investment era driven by the development of artificial intelligence (AI)? In this short article, we argue that this may well be the case. If so, it would be wise to position your investments for a white-water ride.



What are the demand-side factors that will push interest in AI stocks?

The first demand-side factor that will drive equity growth in the technology sector is the prospect of a trillion-dollar refresh of data centres around the globe. This refresh will be based on a shift from traditional central processing unit (CPU) architectures based on Intel's original x86 family to the graphics processing unit (GPU). These new architectures will be required to support a surge in data-intensive activities, such as:

- Enterprises striving to make sense of information and insight that is scattered across thousands of legacy applications.
- Professionals using software-based bots to perform automated, repetitive, pre-defined tasks that humans might have previously undertaken.
- Consumers and employees using ChatGPT and other large language (LLMs) models to enhance their personal interest and productivity levels.

As the demand for data increases, companies will need access to more computing power and data storage facilities. These factors, in combination, will increase the demand for computing and storage in the coming decade by as much as 1,000 %. It is this massive increase in demand that will lead to upgrades in both on-premises data centres and public cloud facilities.

A second demand factor will be how businesses seek to organise themselves in an AI-enabled world. Marc Andreessen spoke about software eating the world in his seminal article for the Wall Street Journal in 2011. In the years that followed, digital native firms, including Google and Meta, have proven the power of this statement by developing software models that have supported their growth. Meanwhile, Heritage firms have been busy implementing digital transformations to keep pace.

However, the advent of generative AI services, such as ChatGPT, is leading to a sharp change in the direction of travel. Professionals are already using AI to automate repetitive tasks from media to law and finance. The pace of change is such that it's conceivable that AI will destabilise established business models and create an explosive reinvention of the firm, which I predicted 20 years ago in my book *Atomic*¹. Some 40% of blue-chip chief executives already refer to the potential long-term impact of AI in their earnings calls².



Where are the investment gems?

Five tech stocks – Microsoft, Apple, Amazon, Alphabet, and Meta (MAAAM) – have dominated global equity markets for the past decade. Technology has been the only source of value creation during this period. Such is the dominance of MAAAM stocks that their removal from the S&P 500 leads to near-flatline growth. MAAAM equity has exploded, and the value of these stocks has risen by as much as 300%. Trillion-dollar values for Big Tech stocks are now the norm rather than the exception.

Yet this huge value growth is just the beginning. The exponential increase in demand for processing power and storage due to generative AI and artificial general intelligence is likely to produce new winners, just as was witnessed with the growth of technology stocks during the dot-com boom and the subsequent rise of MAAAM valuations due to the use of mobile apps, cloud services and social media. In the age of AI, I believe the likely direction of equity growth will be as follows:

- Big players in the semiconductor market will reap the early benefits from AI. These players include chip manufacturers such as Nvidia and AMD. Nvidia is displacing server manufacturers by creating a full-stack chipset, the EGX Platform. Semiconductor designers, such as Cadence and Arm, and power semiconductor manufacturers, like Infineon, will also reap the benefits from the initial AI surge.
- Cloud platform providers, such as Amazon Web Services and Microsoft Azure, will
 experience a rapid growth in demand from corporate customers in both B2B and
 B2C markets. The continued growth of these hyperscale providers will be a case of
 the strong getting stronger. These cloud behemoths will grow due to the scale of the
 investments they have already made in their infrastructures. Real estate investment
 trusts, such as Equinix and Digital Realty, should also benefit from the growth in
 demand for data centres.
- In data analytics and insights, existing players like Palantir, Snowflake, Salesforce, Oracle and SAP will benefit from AI-enabled applications. The growth of data-focused technology firms will be equivalent to the exponential growth of software-as-a-service (SaaS) companies during the recent cloud era. Fast-growing newcomers, such as OpenAI, will benefit from their focus on LLMs and machine learning, as will big players, such as Google and Microsoft, who are developing generative AI models.

In addition, we can expect a further boost to chip valuations. Sovereign states, such as Saudi Arabia, the EU and the USA, are buying Nvidia chips to gain strategic advantage in the AI race. The UK government has pledged £900m to build supercomputers that use Nvidia chips. Meanwhile, the EU is spending \$5bn on supercomputing and AI. In the AI era, GPU chips will become the new gold.

Peeping into the future

Lessons from the past offer pointers to the future. With the advent of the internet and e-commerce during the 1990s, blue-chip companies needed clarification about threats and opportunities. Most enterprises concentrated on defensive measures, such as creating websites and e-markets, rather than focusing on innovative business opportunities. The Big Tech companies that dominate our markets eclipsed traditional blue-chip companies by embracing social media, mobile, data analytics, and cloud (SMAC).

Yet the growth of MAAAM is not the only story from the past decade or more of technological development. While hundreds of SaaS companies sprung up to take advantage of public cloud platforms, only a handful survived or remained independent from the clutches of Big Tech. What's more, the impact of the AI era will be even more far-reaching than the SMAC era. We predict thousands of start-ups will emerge and develop their own LLMs and machine-learning algorithms. Of these thousands of buds, only a few key players will flower and develop an effective strategy to grow and protect themselves from the dominant tech companies.

As we have already stressed, the surge in data analytics and AI will necessitate a new level of computing power. With these requirements in mind, consultant McKinsey says quantum computing will be the next big trend in the coming decade. Estimates suggest that spending on quantum computing will exceed \$100bn by 2030. This flourishing market will see new entrants, such as Xanadu, ColdQuanta, D-Wave and IonQ, who will compete alongside incumbent technology giants, including IBM, Microsoft, Meta and Alphabet. Quantum computing will likely transform all sectors, mainly financial services, pharmaceuticals and defence. Once again, just as in the case of the rise of AI, the emergence of quantum will favour new business models and ecosystems.

What should you do next?

We are about to enter a period of tumultuous change. During this period of uncertainty, it is safe to back Big Tech, as the strong are likely to grow stronger. We can expect MAAAM to take proactive positions in AI, as exemplified by Microsoft's strategic investment in OpenAI and Google's acquisition of DeepMind. Investments in chip specialists, such as Nvidia and AMD, will play out in the short term as demand for computing escalates. In the longer term, the most exciting investment opportunities will likely emerge in data insights and LLMs. However, predicting which companies will challenge the Big Tech players to capture this nascent space is much harder Best to play safe for now..

¹ Roger Camrass & Martin Farncombe: Atomic: Reforming the Business Landscape into the New Structures of Tomorrow, published by John Wiley

² Financial Times article: www.ft.com/content/717dfab8-973e-416b-aac6-24c5c9cb1fe8



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A pioneer of today's Internet as an ARPA research fellow at MIT in the seventies, Roger has spent over forty five years helping corporations harness the power of new technologies such as cloud, mobile communications, e-commerce, voice recognition and satellite. He was a partner at EY responsible for e-commerce during the dot.com boom. He is a graduate of Cambridge University and MIT, and a visiting professor at the University of Surrey.

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