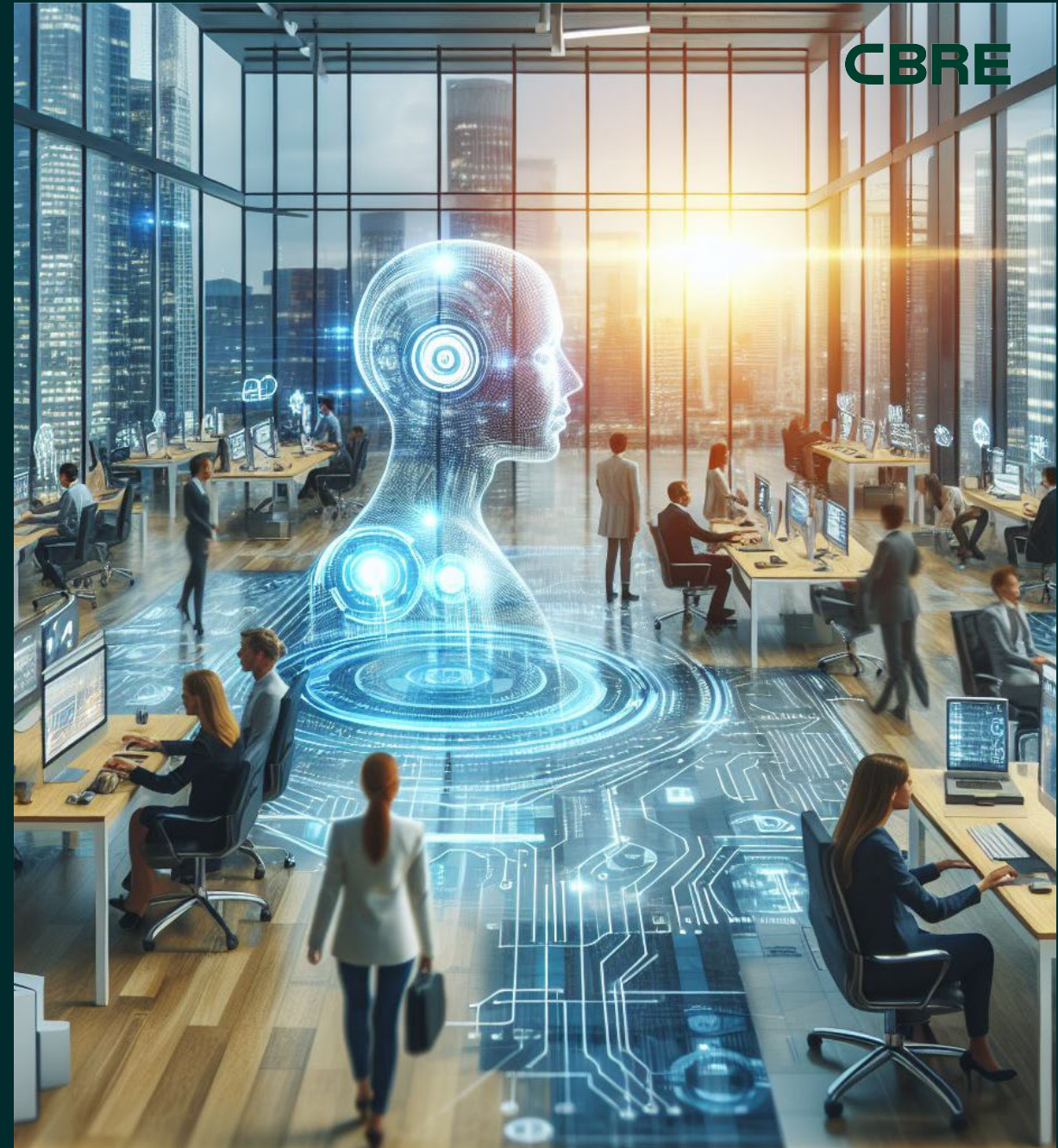


Adaptive Spaces

AI's Impact on Australian Office

REPORT

CBRE RESEARCH
JULY 2024

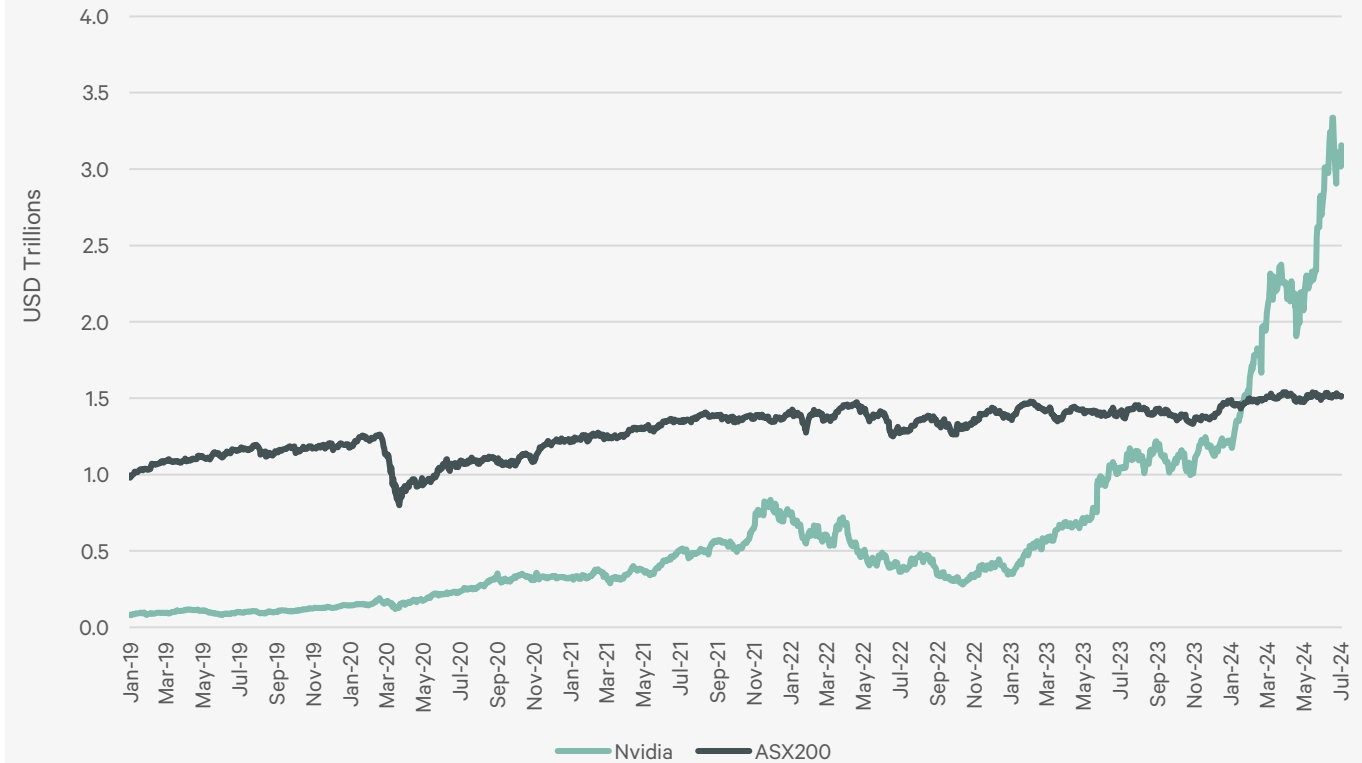


Introduction

Artificial Intelligence (AI) has gained huge momentum in recent times with the expectation that it will reshape the world as we know it. At its core, AI refers to systems or machines that mimic human intelligence to perform tasks and can improve themselves based on the information they collect. Nvidia, a leading manufacturer of graphics processing units (GPUs), has been a key beneficiary of the AI boom. The company has grown from a market cap of about USD150 billion at the start of 2020 to over USD3 trillion in mid-2024, making it worth more than Australia's 200 biggest listed companies combined.

The economic impact of AI is staggering. The McKinsey Global Institute estimates that AI could contribute about USD 2.6-4.4 trillion per year to the global economy. Large Language Models (LLMs) like ChatGPT are at the forefront of AI's practical applications and will reshape how we work in the future. They process vast amounts of data to generate text, summarise information, translate languages, and even author commercial property research reports! While the long-term effects of AI over the next 20-30 years remain shrouded in uncertainty, the next decade offers a clearer picture. It will likely be characterised by the maturation and widespread adoption of current AI technologies, which will continue to evolve and integrate into every aspect of our lives. The impacts to office-based companies will be profound which will have widespread impacts on how they think about workplace strategy in the future.

FIGURE 1: Market Capitalisation – Nvidia vs ASX200



Source: Macrobond, CBRE Research

Note: Images in this report are AI generated using Microsoft Copilot

Impacts on Office Based Industries

AI is revolutionising white-collar jobs by automating routine tasks, enabling data-driven decision-making, and enhancing productivity. It's reshaping roles in sectors like finance, law, and healthcare, where AI tools analyse data, predict trends, and even assist in customer service. While it streamlines workflows, it also necessitates new skills, leading to a dynamic shift in job functions and the creation of new career paths.



Financial Services: AI is set to significantly impact the financial services sector by enhancing precision and efficiency. It will transform trading by identifying signals and vulnerabilities, streamline underwriting processes for quicker service, bolster fraud monitoring with advanced pattern recognition, and revolutionise data collection. These advancements will redefine the landscape of financial services, making them more robust and responsive.



Legal Services: AI's impact on law firms will be profound, automating routine tasks like document review and legal research. It will enable faster case analysis, prediction of case outcomes, and efficient management of legal databases. AI will also assist in drafting and reviewing contracts, saving time and reducing human error, thereby allowing lawyers to concentrate on strategy and client advocacy.



Tech: The technology sector is the leader in the rollout of AI, but will also benefit greatly. For example, it could enable generative AI to write code, democratising development. This means even individuals without programming skills could use natural language to instruct an AI tool, which then generates the necessary code. Such advancements could significantly lower the barrier to entry for software creation, fostering innovation and expanding the tech industry's reach.



Design & Architecture: AI is revolutionising the design and architecture sectors by aiding in complex tasks, once deemed exclusively human. It assists designers in creating intricate models, analysing structural integrity, and visualising end results. This collaboration allows for more experimental designs and marks a significant shift in how creative professions are perceived and executed.



Healthcare: AI will transform the healthcare sector. It will aid frontline workers by reducing diagnostic errors and streamlining patient care. For administrative tasks, AI will automate scheduling, billing, and claims processing, enhancing operational efficiency. This synergy of AI and healthcare professionals will lead to improved patient outcomes.

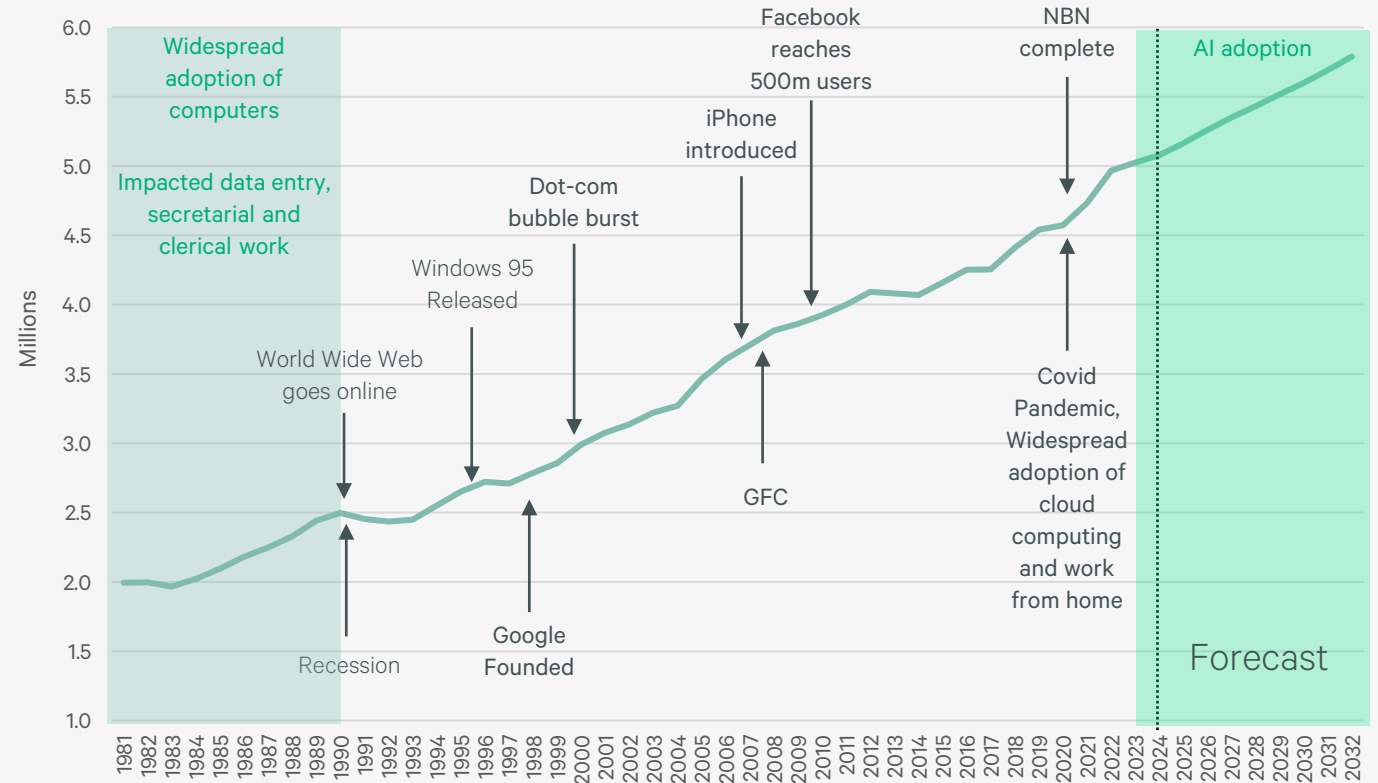
Impact on white collar employment

AI is poised to reshape white-collar employment in significant ways. Some have predicted that automation will lead to massive job losses. However, MIT has surveyed a range of academics and Chief Information Officers who suggest that such fears are exaggerated. They argue that AI will liberate the workforce from mundane tasks, allowing employees to concentrate on more strategic and high-value activities. The Tech Council of Australia estimates that approximately 200,000 AI related jobs will be created between now and 2030. This represents about 5% of the current white-collar employment base.

The integration of AI into the workplace is not without its challenges. Generative AI, for example, can sometimes produce unreliable or incorrect results. This necessitates a layer of human oversight for quality control, ensuring that AI-generated outputs meet the required standards.

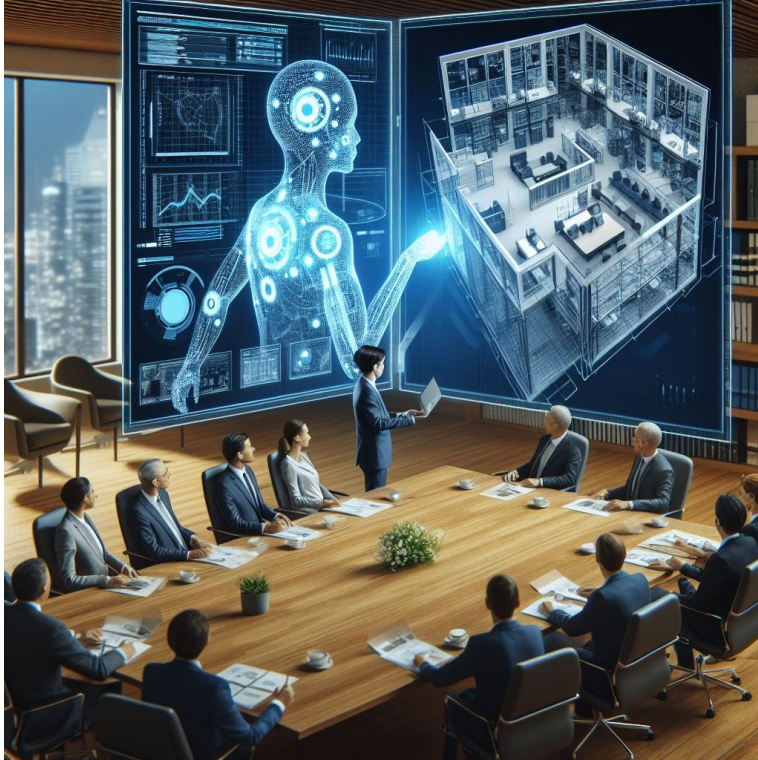
Goldman Sachs predicts that AI-related automation will touch two-thirds of occupations, yet this does not spell doom for employment. Many jobs are only partially automatable, meaning that AI will likely serve as a complement to human workers rather than a replacement. As shown in figure 2, previous technological advances have barely impacted on the growth in white-collar employment in Australia since the 1980's. The collaboration between AI and humans can lead to greater efficiency and productivity, as machines handle repetitive tasks while humans focus on areas where they excel—critical thinking, decision-making, and interpersonal skills.

FIGURE 2: White Collar Jobs in Australia and Key Technological Milestones



Source: Deloitte Access Economics, CBRE Research

Impacts to office



More Efficient Workplace Strategy

Generative AI will revolutionise office design by automating layout planning and furniture arrangement, optimising efficiency and comfort. It will analyse workplace data to create dynamic 3D models, suggesting modifications based on team interactions and space utilisation. This approach will enable real-time adaptation of workspaces, fostering collaboration and productivity, while also predicting future space requirements.



Lower Outgoings

AI is expected to streamline cleaning and maintenance by enabling robots to learn and perform tasks autonomously, adapting to new environments and improving efficiency without human intervention. This will benefit landlords and tenants in office buildings. Common area cleaning and maintenance averages around 15% of outgoings for Prime CBD buildings in Australia. In addition, cleaning of the tenancy might cost a typical 5,000 sqm tenant up to \$160,000 per year.

Impacts to office



Smart buildings

AI will accelerate smart office buildings by enabling real-time building analytics, optimising energy consumption, and enhancing security. Machine learning algorithms will analyse occupancy patterns, predict maintenance needs, and adjust lighting and HVAC systems for improved environmental impacts. Additionally, AI-powered surveillance systems can enhance security by detecting anomalies and ensuring a safe workplace.



Shorter working weeks

Given how productive we will all be with the help of our new AI digital colleagues, companies may continue to look at more flexibility for their employees. Australian firms are increasingly exploring the idea of a four-day workweek, aiming to enhance employee well-being, productivity, and work-life balance. This will impact on office utilisation, although peak day utilisation, typically from Tuesday to Thursday may not be impacted as significantly. (Note: This author has not received any commitment to this proposal from leadership at CBRE)

Impacts to office



Shorter Commute Times

AI has become pivotal in advancing driverless car technology. By processing vast datasets faster than humans, AI improves vehicle safety and navigation. Enhanced algorithms enable real-time decision-making, mitigating traffic congestion and reducing commute times. Employees have often cited commute times as a key factor that encourages them to work from home. Therefore, the potential shorter commute times from highly efficient driverless vehicles might encourage higher office attendance.



Higher Demand for Technology Infrastructure

Companies are increasingly investing more on technology as part of their office fit-outs. To harness AI's full potential, companies must invest in top-tier technology infrastructure within their offices. This includes robust computing power, high-speed networks, and advanced security systems. Such infrastructure supports AI's complex algorithms and vast data processing needs. This may mean that WiredScore certification could become increasingly important for occupiers.

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