

UBS Asset Management

The next transformative technology?

What does AI mean for real estate?

Artificial intelligence – what was once a mere buzzword is now reshaping industries and creating an environment ripe with investment opportunities. This transformative force is driving efficiency and innovation across industries and sectors, including real estate. We think AI has the potential to enhance investment processes and add diversity to investment strategies. Asset managers who strategically integrate AI into their operations can gain a competitive edge, and they risk falling behind if they don't.

A technology with great potential

Al has the potential to reshape the real estate sector. It can improve the investment process and enhance the asset- and property-management functions. We also expect Al to create attractive real estate investment opportunities and allow investors to access new markets. In this article, we will focus on Al's potential impact on investment, but also look at some of its other effects on the real estate sector.

Al may be the next transformative technology, and although its potential has been increasing for years, the more recent expansion of accessible tools such as ChatGPT have made it mainstream. The potential for Al has helped push equity valuations higher.

More recently, there has been market anxiety and concerns over Al's impact and its ability to deliver the widespread gains predicted. We still think Al has the potential to have a significant and wide-ranging impact, however, though there is uncertainty over the exact quantum and nature of this effect.

In the broad sense, AI refers to the use of machine-learning and deep-learning algorithms to study data to predict future behavior or trends, mimicking some human cognitive functions. The breakthrough in generative AI algorithms is that they can now learn from patterns in existing data to generate new content, designs and solutions. It is hoped AI will have a major impact on the economy, as its further integration into the jobs market will help enhance overall productivity. It could mirror the period running up to the millennium when more widespread use of computing saw strong productivity growth.

In the United States, Oxford Economics expects the use of generative AI to assist and automate workplace tasks and boost annual GDP by 2.9 percent by 2032.¹ The productivity of the overall U.S. workforce is expected to rise by more than 10 percent during the same time period. Hence, generative AI has the potential to significantly raise the outlook for GDP growth in the United States and other countries, too.

Despite the prediction that AI will help enhance productivity, the key questions are which jobs are at risk of being displaced and which will be enhanced by AI. This has important implications for the real estate sector. On one hand, productivity-enhancing AI can boost overall job numbers if innovation spurs a sector and causes demand to grow in excess of the productivity gains delivered by AI. On the other hand, if output is static, productivity advances can see the same amount of output produced with fewer hours from people required.

Al as a technology is still in its early phases and will likely affect the economy in ways not yet envisaged. The wide range of outcomes means there is significant uncertainty about the future of Al and its impact on the labor market. The downside is greater structural unemployment due to job displacement, while the upside is net job creation and productivity enhancements. The overall impact will vary by sector. Oxford Economics, however, estimates more than 9 percent of the current U.S. workforce will be displaced by generative Al by 2032. The affected workers are predominantly in the office-using sectors, such as information, professional, scientific and technical services. This will likely present some headwinds to future space demand for offices.

Al and real estate investment

Ultimately, real estate values are determined by the income assets generate, the income's expected growth trajectory and the discount rate applied to those income streams. The discount rate, in turn, is determined by market interest rates and the risk premium applied, which in itself relates to the risk and volatility of expected income flows. Properties that generate outsized income growth compared with expectations will tend to generate higher returns than expected. Hence, when assessing real estate investment opportunities that might arise from AI, we should focus on the impact on the overall demand for space from occupiers, the ability of occupiers to pay rents and any impact on the volatility of income flows and risks associated with them.

Finally, we also need to consider how responsive supply is. From another perspective, as Al helps to improve productivity and boost economic growth, some consumers will be subject to a wealth effect. For example, there could be some increased travel and consumer spending, providing a boost to demand for the hospitality and retail sectors. It could also impact the residential sector if households have more income available to spend on rent or mortgage payments.

The most obvious investment opportunity arising from the widespread adoption of the technology are data centers, the engine room of Al. As companies incorporate Al into their businesses, they will require more computing power, cloud-based data and data center capacity. As such, data centers and towers present both short-term, potentially higher returning development opportunities, and also longer-term opportunities to acquire stabilized assets.

Investment decision making and other AI applications

Al tools already exist within real estate investment, including Al-assisted forecasts and pricing models. Historically, however, real estate has been slow to adopt new technologies. The McKinsey Global Institute (MGI) believes generative Al could generate \$110 billion to \$180 billion or more in value for the real estate industry. To incorporate Al and generative-Al systems into real estate investing, companies can utilize existing foundation models for internal tasks, such as GPT-4 or Microsoft Copilot. Additionally, companies can purchase off-the-shelf Al-powered products and services.

A good example of AI being used as a "co-pilot" is its potential to enhance and improve the real estate investment decision-making process. With the ability to synthesize insights from unstructured data and write commentary, investment analysts can use AI to interpret and query large data sources to provide a more comprehensive understanding of properties and markets at breakneck speed. AI can also leverage predictive technology to forecast rental growth, assess market demographics and pull comparable properties. Investment committees may even see new AI committee members casting votes on transactions and helping to make investment decisions or AI-computed investment strategies.

Al has many other uses in the investment process, including data standardization for portfolio analytics, while firms with large datasets could create customized benchmarks. Similar to data interpretation, Al can "read" existing documents, such as leases, to summarize key themes and variables and flag important terms – expected monthly rent, market forces, tables of information – and present them in a standardized format for easy comparison. Al can help draft comprehensive market reports and quarterly fund reports or respond to routine data requests faster than a human.

Advanced property analysis can provide accurate and comprehensive information about properties to investors. It can utilize data from a variety of sources and analyze past transactions to help get a sense of which neighborhoods are primed for growth and which are headed for potential downturn. It can also analyze property-owner behavior to help investors find distressed properties, off-market deals and opportunities for value creation. Al could also be used to value properties using a "mass appraisal" focused on systematic and automatic analysis of broad databases and self-learning models.

Investors have large amounts of proprietary and third-party data on properties, communities, tenants and the market, which can be used to customize existing generative Al tools that can, in turn, perform real estate tasks. These tools could identify opportunities for investors at lightning speed, revolutionize building and interior design, create marketing materials and facilitate customer journeys.

Al can also be used as a tool for predicting demand and managing rental income streams for properties. By analyzing rental rate data, Al can help predict optimal unit pricing using real-time data, particularly for residential assets which typically have shorter leases. Future possible applications include real-time tenant credit analysis, market data trends, adaptation of floorplates and amenity spaces to tenant demand and automated valuation models.

Alternative data, such as mobile data, package flows and market-based amenity demand, can also be added to traditional underwriting models. The integration of Al has the potential to create more efficient operating models, a stronger customer experience, tenant retention, new revenue streams and smarter asset selection. Generative Al can also be used in other ways, such as for virtual reality tours of properties to allow the visualization of desired furnishings. Furthermore, it can be used for creative content, including images.

In terms of managing properties, AI has the potential to create greater efficiency for real estate, including the ability to better manage property operations, such as through energy management. AI can help drive down costs and improve property performance and efficiency. In terms of asset management, generative AI can help collect and analyze property-level data more effectively, which should lead to enhanced budgeting and forecasting.

The companies that are first to implement AI into their real estate management will benefit from greater operational efficiencies. This should give them an edge over competitors, allowing them to improve their operational margins and profits, and charge lower management fees.

No matter the application, for the foreseeable future, firms will still need people to review AI output before it is released or relied upon for decision making, but AI can play a significant role in speeding up the process and improving the breadth and quality of the analytics.

Investment opportunities and transformation of the real estate sector

Overall, we think AI will have a significant impact on real estate, presenting investment opportunities and changing the ways in which the sector works. This transformative technology is expected to positively impact the economy and labor market, though some jobs will likely be displaced. The impact on job growth will influence occupier demand and offices in particular. We expect strong growth and long-term investment opportunities in data centers. AI will also provide opportunities within the real estate investment process to help improve efficiency, performance and analysis. In addition, we think AI can enhance the sustainability of real estate by reducing energy consumption and carbon emissions. This needs to be considered, however, in the context of the significant energy and water consumption requirements of running AI models.

Notes: 1 Oxford Economics; UBS Asset Management, Real Estate & Private Markets (REPM), March 2024

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* Assets under management stated on gross asset values basis and includes Credit Suisse, reflecting values as of March 31, 2024, where available.

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