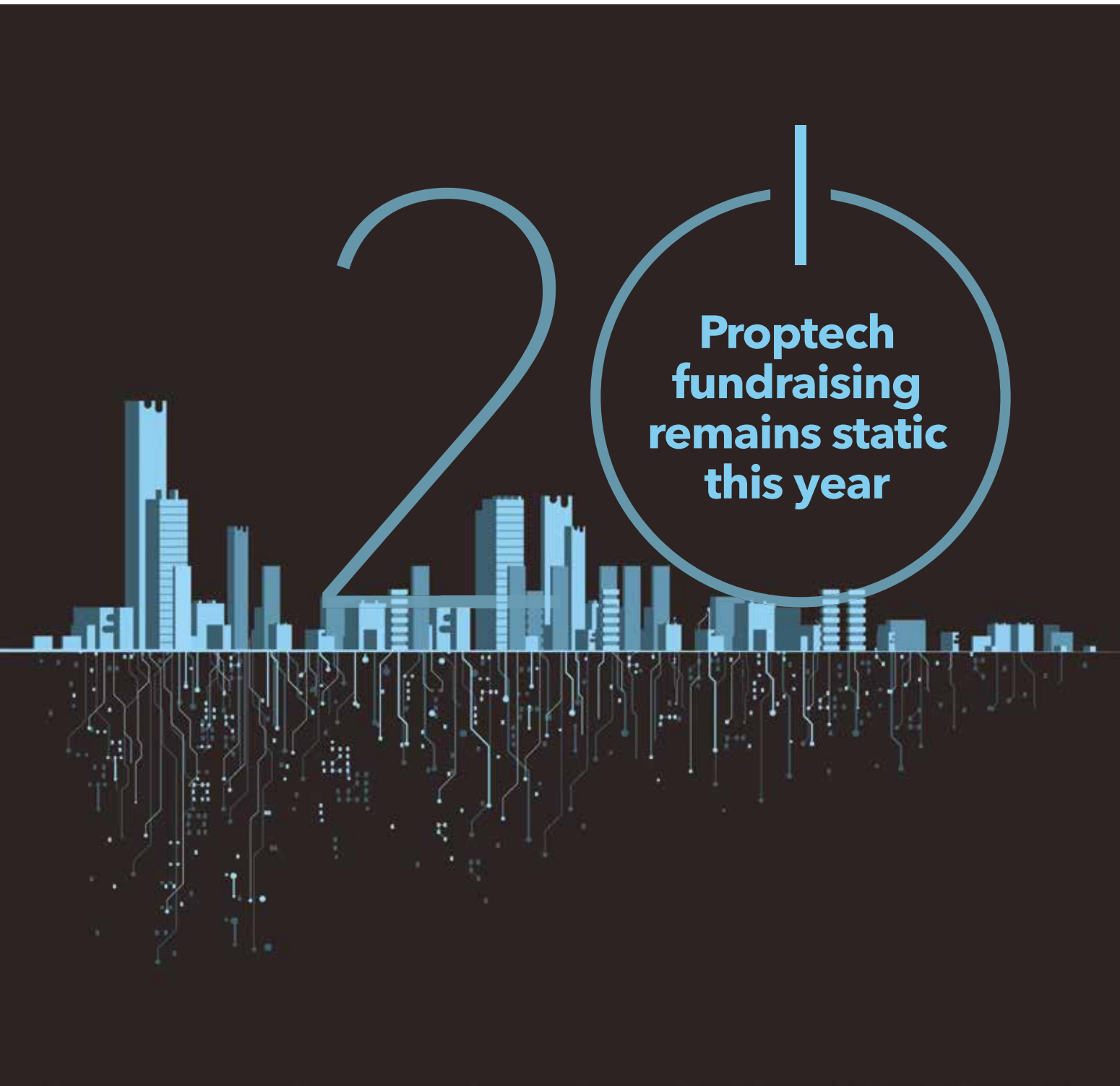
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KEYNOTE INTERVIEW

The AI edge in real estate investment



By embedding artificial intelligence into the investment process, investors could uncover new sources of alpha and identify opportunities, argues UBS's Norman Niemer

Artificial intelligence has the potential to transform real estate investment by identifying opportunities earlier, assessing risk more precisely and uncovering new sources of outperformance. But success depends on more than technology alone.

Norman Niemer, head of investment research and data science, real estate, at asset manager UBS, explains how combining historical data with predictive analytics and embedding AI into investment decisions could help give investors a competitive edge, and considers how AI's implications for both risk and opportunity could reshape demand across real estate sectors.

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Q What is the key to successful adoption of AI?

There is a lot of evidence from prior tech cycles that gives us insight into how the business impact of AI is likely to play out. We have seen the introduction of the internet, PCs, mainframes and the industrial revolution, going all the way back to the introduction of the printing press.

The evidence tells us that what makes companies successful during times of technological change is not access to the latest technology. It is not the companies that spend the most money or those that move the fastest that succeed. The businesses that were most successful were those that evolved their processes and organizational structures to take full advantage of the new technology.

Q What does that evolution look like in practice?

In a lot of companies, their AI program is run out of the technology function. But to succeed in the age of AI, we took two functions – research and performance analytics, which typically do not work together – and combined them

into one function so we can harness data from all parts of the investment process, understand what has driven outperformance in the past and make predictions about what will generate outperformance in the future.

Centralized data science teams are sometimes a bit removed from the investment process. They may understand what investment decision-makers need, but because they are not really part of that process, there can be an adoption problem. The team we have created is deeply embedded in the investment process, so it is driving change from within.

The aim is human and machine collaboration: technology expands the evidence available to our investment teams, while judgment, accountability and investment decisions remain with the investment professionals. Embedding that collaboration into how our teams make decisions is critical, because unless you change habits and behaviors, it is difficult to impact outcomes.

Q How can AI be used to improve outcomes in the real estate investment process?

For a lot of businesses, AI is about efficiency. It allows them to do the same thing more quickly. But we do not just want to write the same research and performance reports faster. We want to create a granular and scalable investment-decision engine that can augment our investment professionals across the whole investment process.

Every acquisition, lease, appraisal and operating outcome creates data that can be captured, structured and analyzed at scale. Historically, that knowledge was trapped in spreadsheets, presentations and individual experience. Now we can connect 45 years of UBS's historical data with predictive intelligence and put that collective knowledge in front of investment professionals when they need it. That creates a feedback loop: portfolio strategy guides where we look, acquisitions bring local market knowledge and relationships to sourcing and underwriting, and asset management turns those insights into actions to support rent growth and enhance property value.

We increasingly invest in specialty and niche sectors, and we are sometimes relatively new to them, so it helps us to get into these sectors earlier, make decisions faster and potentially capture the alpha that is available. We can also execute much faster.

The time it takes to complete transactions has always been a challenge in real estate, and compressing that can help improve performance. We can also better manage risks because we can be much more thorough in how we assess them, sourcing more data and looking at more data points to build greater confidence in investment decisions.

AI also enables much more granular analysis. In the past, you could typically analyze down to the submarket level. But because of the digitization of the economy, information like credit card and mobile traffic data is available down to a zip code level. By combining historical performance and research, then applying predictive analytics, we can provide new insights.

But in the past, the problem with predictive analytics was getting investment professionals without a data science background to understand what the models are saying and why. So, we have taken the output from the machine learning model and put it into



Q How is the impact of AI playing out across real estate sectors?

AI is a bifurcating force for real assets: it is creating pockets of incremental demand, particularly in digital infrastructure and select tech clusters, while also increasing dispersion in tenant outcomes and raising new operational and obsolescence risks. The office sector has the highest exposure to AI-related demand risk. At an individual level, estimates of the productivity benefits of AI range from 30-50 percent. But at a company level, the productivity gain goes down to 10-15 percent, which may suggest a similar level of reduction in the need for office space, partially offset by new roles which are being created.

Meanwhile, AI companies are leasing lots of new office space, so the net effect is probably not as apocalyptic as some people have predicted. That said, we are underweight to office for a variety of reasons. AI is one of them, but it is also capex-intensive, and you must be extremely selective. In retail, AI could enhance data-driven personalization by creating improvements in areas like virtual reality shopping. Prime and necessity-based formats are likely to remain resilient, whereas secondary retail formats could be increasingly exposed to tenant rationalization.

a large language model that produces market write-ups, then put an AI agent on top of that. The user can talk to the machine learning model and ask it questions. Adoption and trust are key to embedding predictive analytics tools into the investment process and potentially improving outcomes.

Q How can AI be employed to inform sector and market selection?

As a generalist investor, we have a vast investable universe, covering all traditional and specialty sectors in hundreds of markets across the US. We receive thousands of opportunities, and we cannot chase them all. Even if we could process all of them with AI, we would still want to focus our acquisition teams and their local market relationships on the opportunities with the greatest potential to generate sector and market allocation alpha.

So, the challenge becomes how to select the opportunities with the potential to outperform. There are two traditional ways to solve the problem. There is the bottom-up dealflow, where you see what comes in and what the head of acquisitions feels good about chasing. That is obviously very subjective, and very deal-dependent. And chances are, you are going to see a lot of deals in places where there is a lot of supply.

Alternatively, you could use data from third-party organizations like CBRE and Green Street. But because everybody else looks at the same information, it is not very differentiated.

So, we built a proprietary predictive model that informs our sector and market selection. It combines data on real estate demand drivers, macro fundamentals, historical performance, operating data and alternative data. That machine learning model, trained on 350,000 data points covering over 40 years of history, identifies which sectors and markets have the potential to outperform the benchmark, and which are expected to underperform, and that ultimately informs our allocation guidance.

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During back-testing, we found that if you get market selection right, you can generate significant allocation alpha. We have back-tested the model under realistic conditions, and on average it captured about 40 percent of that market selection alpha. It has also been effective at identifying underperforming markets, reducing portfolio downside risk and introducing us to new and less crowded markets.

It can enable better-informed portfolio construction because the model produces outputs like alpha forecasts that we can use in a portfolio optimizer and other quantitative portfolio management tools. These tools inform rather than determine portfolio decisions: portfolio managers weigh the quantitative signal alongside investment judgment, risk and asset-specific considerations, while the consistent framework used to evaluate every market and asset can support more objective and durable outcomes.

Q Which sectors could benefit from AI-driven demand in the years ahead?

Data center investment is obviously a very direct play to potentially capture the upside, as well as derivative and adjacent uses like industrial buildings for data center equipment storage and energy generation infrastructure. In addition, there will be advances in robotics and automation, which could lead to logistics, biotech and manufacturing companies reshoring.

In multifamily, the impact is mainly through employment. For example, in San Francisco, where many AI-related businesses are headquartered, apartments are showing year-on-year rent growth of more than 10 percent. There has been a lot of debate about how AI will impact employment. In every single historic technology cycle, there have been winners and losers as some skill sets become obsolete and new jobs are created, but net employment has always increased. The same may apply to AI.

Still, for every multifamily asset that we are underwriting, we look closely at the employment situation. If we were evaluating a multifamily asset in a city where a particular company was likely to be disrupted by AI, with a local renter base that was very exposed to it, we might think twice about investing.

However, if everyone else was so bearish on that asset that it became very cheap, then it might be a good investment. That illustrates the broader point: the model provides a signal, but investment professionals interpret it in context and ultimately decide how to act. Once we own an asset, the same combination of data and operating expertise can enable asset management, identify opportunities to support rent growth and maximize property value.

We are also bullish on senior housing. AI is unlikely to significantly impact demand and there are some good ways to put AI to use to improve the tenant experience, so it could be a net beneficiary. ■