Unlocking real estate’s data potential
In this quarter’s INCANS Risk Insight, the overall theme is how data will be crucial for allowing us in real estate to make better informed decisions.

Now, you might very well say to yourselves that this is a blindingly obvious point. And it is. But it’s one the industry has failed to take on board for decades despite data being acknowledged as a critical component for real estate for at least a decade.

Myself and the other founders of Income Analytics have all worked in and around real estate since the 1990s, and while much has changed in the industry it’s certainly fair to say that our industry has not embraced data to the same extent as financial services for example.

But, finally the tide is turning far more towards the industry harnessing the power of data.

If you establish a property business today, then one of the very first things you will look to get in place is your data. More established firms may find the transition harder given so much of commercial real estate data is siloed, but while there may be significant short term pain, the long term gains of better insights and more profitable decision making cannot be ignored.

As the Oxford Future of Real Estate Initiatives Fabian Braessemann notes in this newsletter: “…data has the potential to provide tremendous insights that can be used as guides to help all actors in property’s ecosystem make better-informed decisions.”

And, to prove the kind of insights data can provide, please do read our partner MSCI’s latest deep dive into income risk post Covid-19. It uses our data at a high level to glean the insight that while leisure has suffered the most increase in terms of probability of default, its equivalent yield has risen by around 0.75%, in line with other segments that had far smaller increases in default probability.

Our bespoke data tailored to your exposure can obviously deliver you far more targeted insights that you can use to help you manage your own portfolio. Please do drop me a line if you’d like to discuss further, and in the meantime enjoy the rest of this our fourth issue of INCANS Risk INSIGHT.

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**Chart 1: Default Probability & Equivalent Yield**

![Chart image](source: MSCI and Income Analytics)
Why is real estate a late data adopter?

Fabian Braesemann Research Fellow & Data Scientist, the Oxford Future of Real Estate Initiative

Hailing a cab used to mean standing by the side of the street and waiting for a taxi to come along. If it was raining, and you didn’t have an umbrella, tough luck. But in 2009, Uber was launched and suddenly you could order a cab to wherever you were at the touch of a button.

Technology platforms disrupting an industry, as Uber did, has become the norm. Challenger banks like Monzo are taking on the high street household names while Tesla is busy reinventing the car, for example.

But real estate has historically lagged behind in adopting the power of technology.

Why is this the case?

Unlike other areas of the economy - such as banking and transport - there is perhaps less immediate pressure for real estate to indulge in innovation. After all, it’s an extremely capital heavy sector and is not very fluid as a result. Simply put, it can be hard to make the business case for introducing costly to implement technology.

But the pandemic may eventually be seen as a catalyst for the adoption of technology, albeit it is crucial to note that the signs of this are still in the earliest stages.

For example, software that counts the numbers of people in offices via key cards and then indicates where space is most utilized, has become a useful tool during the last few months given that building managers need to know what areas are busy so that social distancing can be enforced.

But a lot of these building management solutions - from occupancy through to measuring a building's energy efficiency - are still often expensive to install. And the fact of the matter is that a lot of office landlords have long leases in place. There simply isn’t enough perceived benefit - or direct pressure from tenants - across the industry yet for these things to be adopted en masse.

When it comes to examining real estate as a financial asset class, then the use of technology to drive deeper insights generates far more immediate traction.

Firstly, it’s easier to attach data technology to financial information so the costs are lower.

Secondly, the broader trend of the operationalisation of real estate means that harnessing the power of data to understand developments and realise value has never been more crucial.

Investors, operators and owners need far more information to understand their tenants than they ever did back when long-leases were the norm.
Naturally, that means having more granular insight into things like income will be higher up the list than it has been before when price and yield dominated.

However, and though it may sound trite, real estate by its very nature is an asset that cannot be moved. Location will always be a chief concern for anyone involved.

As Professor Baum has noted, real estate is in many ways a self-organising system. If demand for space drops as tenants go bust then there will be less construction. If the reverse is true, then the opposite takes place.

That’s not to say an increasing provision of data across real estate, from environmental to financial, will not be important in the coming years. It will be. Big data has the potential to provide tremendous insights that can be used as guides to help all actors in property’s ecosystem make better-informed decisions.

Real estate will over the coming years start to harness more and more data solutions. But its fundamentals mean it will never be a first mover.

**INCANS Insight – Supply chain woes for landlords?**

The supply chain woes in the UK have far more wide-reaching ramifications than the availability of Greggs pastries and IKEA furniture – if retailers struggle to make it through the crucial pre-Christmas trading season, it exposes landlords to significant risk.

Research prepared for Bisnow by us using our proprietary INCANS™ scores looked at a group of 30 retailers facing trading difficulties and found that default risks, thanks to the supply chain crisis, are very much real for some landlords who rely on at-risk tenants – but fortunately, the danger is not yet widespread.

“With the exception of a few outliers, most retailers are in quite a strong position to withstand shocks to their supply chain,” Matthew Hopkinson, co-founder of Income Analytics said. “But you can see a distinct decline in the fortunes of some apparel retailers, these are the most challenged, and the most dependent on bricks-and-mortar retail rather than online.”

Read more about the research [here](#).
It’s become a cliche, but data is the new oil. Unlike resource-limited black gold though, the amount of data being produced by an ever more connected world looks likely to only increase exponentially over the coming years.

By 2025, some reckon the amount of data generated each day will reach 463 exabytes globally. An exabyte is 1,000 bytes to the sixth power, and frankly, this vast pool of information is beyond human comprehension. Thankfully, algorithms can draw on this vast reservoir and crunch the numbers to deliver insights that can be used to make better decisions, drive efficiencies, understand risks and ultimately make more money.

Many sectors - from financial services to e-commerce to sports such as baseball’s famous Moneyball system - already use these data insights.

But real estate is an industry that has historically shied away from adopting data to generate insights to better understand risk and opportunity.

This might have been fine back in the days of 25-year long leases when all landlords had to do was hand over the keys and clip the coupons every rent day, but the pandemic’s impact has in all likelihood been the final nail in the coffin for that approach to be viable.

Ian Houston, partner at St Brides Managers, comments: “The pandemic has certainly swept away any remnants of the notion that all you have to do is sign a 25-year lease and collect the rent every quarter or every month.”

In fact, St Brides has already been harnessing the power of data to help it navigate the pandemic.

“When we’re managing an asset, it’s becoming increasingly useful to have a wide array of data points that can help guide our decision making. For example, if it’s flagged to us that a tenant has not paid their utility bill via the INCANS data, then that’s an early warning sign that they may be in some form of distress and warrant further inspection. Another benefit is that it helps contextualise the conversations we are having with our tenants, making it easier to formulate and ultimately deliver our portfolio and individual asset business plans,” says Houston.

However, while some are harnessing data, there will need to be more sources of it to help satisfy occupier and investor demand for proof points on key metrics such as sustainability.

Peter Cosmetatos chief executive of trade body the Commercial Real Estate Finance Council (CREFC) Europe, thinks that the situation has improved - especially in the UK compared to Europe- but that crucially more still needs to be done.

He says: “The commercial real estate industry in the UK is generally more transparent than European markets, albeit rather less so than the US. But
even in the UK, data availability and quality fall a long way short of what we need to track and drive improved sustainability, to understand and manage property cycle risk at the market level and for lenders, and to analyse income, risk and credit at the asset and portfolio level.”

While there is growing agreement that data is tremendously useful for real estate market actors in understanding risks and opportunities, what is going to drive the wider adoption of this technology, particularly at the scale required to produce the data points that will be needed to prove to say to investors that your building portfolio is sustainable enough to pass their risk committee? After all, installing sensors to measure energy efficiency for example will not be cheap for those with large portfolios.

“Now intuitively you might think that a greener office space designed with wellbeing in mind will increase productivity, but it’s incredibly hard to tangibly demonstrate that through data without spending a lot of money to conduct a trial. Lots of firms don’t have the time or the cash reserves to take a chance on an experiment,” says Fabian Braesemann, a research fellow and data scientist for the Oxford Future of Real Estate Initiative.

In the end, though, Braesmann thinks occupiers and investors may eventually force the hands of developers to invest.

“Ultimately, it might be the occupiers who start to drive the adoption of technology in real estate. A lot of younger people entering the workforce are far more environmentally aware than their predecessors and firms may have to start demonstrating that their offices are eco-friendly to attract the best talent. Equally, investors may increasingly want to see these types of metrics as ESG becomes a top criterion for investment,” he notes.
St Brides’ Houston also notes that the fundamental shift of real estate towards becoming an operational asset will only heighten the need for the provision of data in real estate.

“Prior to the Black Swan of Covid-19, many parts of real estate were already becoming increasingly operationalised and that trend is not going away any time soon. Fundamentally, that means it is more important for us to understand our tenants at a deeper level than ever before. Data has a huge role to play here and while real estate has historically lagged behind other sectors in adopting data and technology, that’s going to drastically change over the next few years,” he says.

While real estate may have managed to avoid embracing the power of data to understand risk for years longer than it should, that is unlikely to remain the case as momentum behind factors such as increasing operationalisation and investors and operators demanding sustainability metrics force the sector's hand.