Frontier International

Megatrends reshaping real estate

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Frontier Advisors | Forefront Thinking

About Frontier

About us Frontier has been at the forefront of institutional investment advice in Australia for over 25 years and provides advice on over $600 billion of assets across the superannuation, charity, public sector, insurance and university sectors.

Frontier's purpose is to empower our clients to advance prosperity for their beneficiaries through knowledge sharing, customisation, technology solutions and an alignment and focus unconstrained by product or manager conflict.

Jennifer Johnstone-Kaiser

Head of Property, Principal Consultant

Jennifer Johnstone-Kaiser joined Frontier in January 2018. Jennifer leads Frontier's property research program providing consulting and research for clients, both domestically and globally.

Jennifer has held senior positions, in the US and across Asia Pacific, advising institutional investors on their global real estate portfolios. Her previous roles included Country Head of Savills Investment Management, Australia and Mercer's Head of Real Estate - Asia Pacific and Senior Consultant with consultancy firm Pinnacle Property Group.

Jennifer is a Senior Fellow of Finsia and and sits on several conference advisory panels. She holds a Master of Finance and Bachelor of Business, Property (Distinction).

Shrabastee Mallik

Senior Consultant

Shrabastee Mallik joined Frontier in July 2022 as a Senior Consultant. As part of the Real Assets Team, she has responsibility for undertaking manager and investment research with a focus on property.

Prior to Frontier, Shrabastee worked at Dexus for three years as a Senior Research Manager, specialising in the office and healthcare industries and was actively involved in presenting to key internal and external stakeholders and actively contributing to key development and investment projects. She has also worked on a number of key thought leadership pieces, addressing the changing structural drivers in commercial property.

Prior to this, Shrabastee led Savills' national research team. She began her career working at Charter Hall in Research. Shrabastee has a Masters degree in Mathematical and Statistical Modelling from UTS and a Bachelor degree in Economics and Applied Finance from Macquarie University.

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Introduction

In May 2023, Frontier undertook an international research trip to the United States with two themes in mind: the state of play in commercial property markets post the peak of COVID-19; and attractive opportunities for investors.

We observed sweeping regulatory and structural shifts across US states and cities. The transformational changes in property fundamentals shape and sharpen our future assessment of real estate opportunities.

Frontier has advocated an allocation to niche real estate sectors for a number of years, underpinned by long-term favourable demographics – housing, healthcare, and life sciences (needs-based sectors).

Most recently, we observed a heightened regulatory focus on carbon emissions to address climate change. All type of assets must become regulatory resilient or risk penalties for non-compliance.

Transformational change requires transformational thinking.

Importantly, we found the growing focus on environmental, social and governance (ESG) factors in stakeholders' decision-making processes pleasantly surprising. This presents risks, but also opportunities. How should investors hold their managers accountable in their net zero carbon (NZC) objectives aligned with their Paris Agreement accord?

During the trip, Frontier met with a number of real estate managers across multiple US cities. Our key takeaway is a necessary and immediate focus on differentiated strategies. For example, managers investing in:

- companies specialising in technologies creating 'green' cement (limestone substitutes with little to no carbon), clean steel, smaller and more powerful electric motors, and mass manufactured ecofriendly housing frames.
- companies piloting initiatives to capture CO_2, store it, reuse it, and price it.

Leading edge technology is critical to the real estate industry's quest for attaining NZC across asset types. It requires an accelerated program of non-traditional investment.

An otherwise unused space, the rooftop of a Philadelphia four level multifamily asset has been converted to a green roof aimed at improving sustainability. The roof i) reduces stormwater runoff, ii) cools the roof surface, improving energy efficiency, iii) increasing biodiversity (wildlife such as bees and butterflies), and iv) absorbs carbon dioxide and pollutants.

ESG - sustainability initiatives, regulatory imperatives, and valuation questions

The built environment generates circa 40% of annual global CO_2 emissions[1] - with building operations (energy needed to heat, cool and power them) accounting for 27% annually. Building systems with reasonable economic life are unlikely to be replaced well ahead of obsolescence. City and state regulations have become the lightning rods to accelerate the NZC journey.

The cities of Boston, Los Angeles, San Francisco, Seattle, Washington DC, among others, have introducted various energy reporting and disclosure ordinances with punitive effect.

A specific example of regulatory change is in New York, where operational carbon emission penalties will be imposed effective January 2024 under Local Law 97 (LL97). Asset owners of office buildings will be held accountable and required to post carbon ratings on buildings.

Decarbonising will vary vastly, depending on asset type. For example, office owners have a relatively easier task, because they most often manage fewer relationships with larger corporates. In sectors with tenants across individual assets, such as residential or retail, much depends on individual tenants' behaviours, making the solutions more challenging and less timely. However, this will vary by geography. The political divide between states is distinct in the US and we believe this will also impact investment decisions. For example, in many Californian cities, new construction requires all electric energy and appliances. It is not yet clear whether standing assets must switch over, creating the impetus for asset owners to act accordingly.

Efficiency gains from lower operational costs improve the 'bottom line' net operating income (NOI).
Capex requirements to improve energy efficiency can be significant. But the returns on investment from operational gains are real. US fund managers revealed they are adding line items in annual asset-level budgets for sustainability-linked building improvements over fixed periods. While some managers are more proactive than others, the consensus is there are clear bottom-line benefits. Owners, occupants, and the environment all win.

One fund manager Frontier met is going further – creating a fund designed to "create a global supply of future-proofed net zero carbon real estate assets". The manager's focus is retrofitting existing 'brown' buildings (those with poor energy ratings, and declining values relative to the mean), to 'green' (properties that achieve or exceed sustainability requirements), capitalising on higher rents – often referred to as a 'green premium'. Frontier has seen consistent evidence of 'green premiums' on rents within Australian and European markets. Within these markets, tenants are willing to pay a premium on rents. Other operational costs (such as energy usage) are lowered, leading to no change in the level of absolute rental costs for businesses. Additionally, there is evidence of premiums on sale prices as institutional capital increasingly favours these 'green' buildings. According to a 2020 study[2] , buildings in the US with green certification benefit from a rental premium up to 23%, increased occupancy of up to 17% and higher sale price (up to 43%).

One Court Square is a 53-storey, 1.5 million square feet office tower located in Long Island City, Queens, New York. In 2020, the building we toured underwent a heating, ventilating and air conditioning (HVAC) modernisation upgrade, replacing the chillers, refurbishing the cooling tower, replacing the building management system (BMS), and optimising the various building systems, saving up to 20% in energy costs per year while delivering improved air quality and environmental control comforts for tenants. The upgrade will result in an estimated saving of 4.5 million kilowatt-hours of electricity each year.

[1]https://worldgbc.org/advancing-net-zero/embodied-carbon/

[2]Source: N Leskinen, J Vimpari and S Junnila "A Review of the Impact of Green Building Certification on the Cash Flows and Values of Commercial Properties" Sustainability 2020

Tenants must also play ball on the path to net zero carbon

Asset owners have much greater control over Scope 1 and 2 emissions[3], but achieving success on Scope 3 emissions requires tenants to play a major role. As one fund manager eloquently expressed, “the tenant can either expedite the path to NZC or prove a major hindrance.” So how do landlords engage with tenants?

In the case of office buildings, many larger tenants already have their own corporate policies, including various ESG commitments - and are working toward them, independent of their landlords’ initiatives. Generally, the smaller tenant can be the biggest impediment to achieving NZC goals.

Another challenge is also the measurement and reporting of real time data. The absence of adequate individual metering can hamper informed decision-making. But tenants, depending on geography, are under no obligation to share this information with landlords. Privacy laws in many countries mean this can’t be stipulated as part of lease agreements. Ultimately, it comes down to tenant engagement and creating a relationship of mutual trust, encouraging tenants to join the path to NZC. Improving transparency in data measurement and reporting will minimise operational energy use in due course.

In markets such as Europe (which are further along the path to NZC), legislation drives shared responsibility between tenants and landlords for whole building performance. We found this helps create better engagement with smaller tenants. These initiatives are starting to emerge in the US, but there is greater pushback in some states than in others.

Scope 3 emissions are most challenging and can slow progress. Greater technological solutions are known to alleviate these challenges.

[3]Scope 1 are those direct emissions that are owned or controlled by a company, whereas scope 2 and 3 indirect emissions are a consequence of the activities of the company but occur from sources not owned or controlled by it.

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Proptech[4] to propel the 'Great Renovation' in real estate

Every facet of an existing building potentially requires upgrading or replacement – window glazing or seals, boilers, smart meters with real-time software to switch from solar to electric and elevators than can harness energy to provide heating. Various industry estimates show the cost to retrofit US real estate to meet net zero targets by 2050 will be between US$8 to $18 billion, or circa 3% per annum of NOI. However, most mature cities are only budgeting for a third of that. From our observations, it was evident that increasing regulations at various city and state governments is a big driver of climate change adaption and ESG integration into portfolios.
We are of the view that investment managers must be leaders together with their asset owners in the way they identity opportunities to 'future-proof' investments.

Asset owners must carefully consider and choose whether to commit over the long-term or exit certain investments if the cost is too prohibitive. Either way, there may be costs to complying or non-compliance.

As a result, managers are increasingly looking for solutions to do this cost effectively and become regulatory resilient. Active managers are shifting the conversation beyond just how to cut carbon emissions – they are exploring initiatives to capture it, store it, reuse it, and price it.

Ultimately, nearly all new buildings will always be built of concrete, steel, and glass, particularly skyscrapers. Some existing buildings will contain embodied carbon in those materials. Timber currently can only extend up to a maximum of 18 levels under certain conditions. The question now is how do we build or retrofit with enough scale to meaningfully reduce carbon emissions? Proptech will be a powerful facilitator on the decarbonisation pathway.

One fund manager we met in New York invests in companies specialising in such technologies – for example, creating 'green' cement (cement manufactured using clean, green energy), clean steel, smaller and more powerful electric motors, and mass manufactured ecofriendly housing frames assembled in days, not months. These pilot programs have, and are, being rolled out across the US, in offices, shopping centres (notably Turntide Technologies smart electric motors in Nordstrom and Walmart), and similarly, industrial warehouses (Amazon).

[4] Property technology (also known as proptech and real estate technology) encompasses any application of digital technology, platform economics and physical innovations in the real estate industry.

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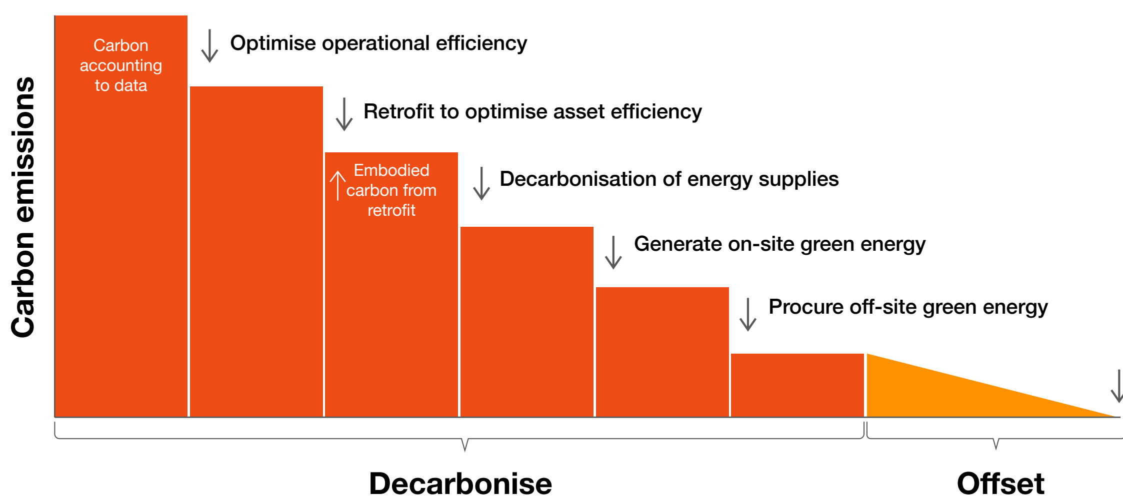
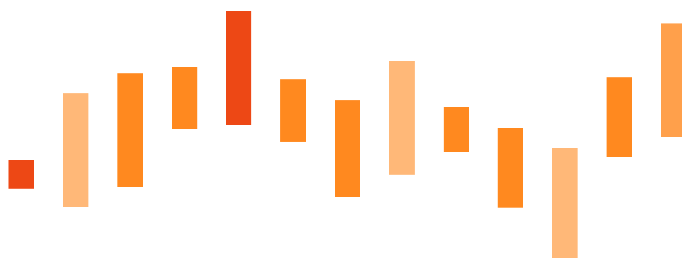
Forward-looking managers are incorporating proptech into their operating platforms, with investors reaping the rewards of the quantifiable benefits. For example, one logistics manager we met in the Inland Empire in California, is integrating energy supply with charging infrastructure, installation, and operations. Additionally, growing occupier demand for electrified transport fleets led to the establishment of a separate operating platform to capture this new revenue stream. The manager is also the largest owner of solar panels in the US, now producing more energy than it consumes. Drones, a cheaper labour cost, have replaced humans in Chicago and at other sites with uneven gradients to measure pavement gradients and assess required repairs.

Frontier prefers managers with clearly articulated decarbonisation pathways that are incorporated into business plans and budgets. We met with a number of active managers with differentiated strategies that are upgrading their buildings often without exceeding conventional budgets.

Chart 1: A decarbonisation pathway



Source: JLL, 2022



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Case study: New York, New York, it's a helluva town!

The introduction of Local Law 97 in NYC is forcing owners to make changes whether they like it or not. Under LL97, most buildings over 25,000 square feet (circa 2,300 square metres) must meet new energy efficiency and greenhouse gas limits from 2024, with stricter limits incrementally enforced in 2030 and 2050.

In a city where buildings account for nearly two-thirds of greenhouse gas emissions, improved building efficiency will have a significant impact.

Following the great 'work-from-home' experiment, which has transitioned into the great 'hybrid working' experiment, office occupancy levels are down. In markets like NYC, there is a plethora of older buildings – mostly office – now vacant, which still fall under the requirements of LL97. In the face of the effective implementation January 2024, we learnt high-net-worth private owners who have held these assets for decades are likely to face significant retrofit expenditure - maintaining ownership is no longer a benefit. Owners are either reluctant or unable to pay for the required capex to bring these buildings up to the new code and of the penalties they must pay post-2024.

There are emerging opportunities as a result of shifting valuations. According to Cushman and Wakefield, more than 20% of total office inventory in the US (over one billion square feet, equivalent to 92.9 million square metres) is now considered 'competitively obsolete' – meaning those buildings need to be upgraded or repurposed. The good news is many of these buildings can be transformed into smart, energy-efficient, low/no-carbon upgrade with the right expert advice. Where retrofitting is unviable, we heard of examples of New York local government encouraging transactions of such assets to interested parties, after mutual agreement to devalue to just the land value.

These distressed opportunities with conversion options could effectively address two conundrums in markets like NYC:

- Convert the vacant buildings to residential and provide much needed accommodation during a housing crisis.
- Reduce carbon emissions – retrofitting old buildings is more favourable compared to new construction.

Our views atop the Spiral Building, Hudson Yards, NYC (https://www.thespiralny.com/a)

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Demographic shifts in housing sectors

Generational demand drivers are creating the need for more specialised assets across the housing spectrum. At the same time, muted supply through 2025 is exacerbating the supply-demand equation.

Student housing:

Student housing is purposefully designed and built for university students and spans off-campus (like apartments, but located off, but near the university campus) and on-campus (located on, or immediately adjacent to campus) housing. The sector is underpinned by a stable population for college-age adults and growing demand for tertiary education – making it more resilient to economic shocks and volatility. Additionally, student housing benefits from 9-12 monthly re-leasing, allowing managers to mark-to-market rents regularly – a benefit in high inflationary environments.

While there is a plenitude of options for investors, fund strategies and manager selection remain key. Portfolios with assets in high-quality education precincts (mostly, top 5% tier universities) are more resilient. High barriers to entry provide stable revenue in such markets – particularly with moderating supply, which underpin long-term NOI growth. Over the past five years, the sector has also benefited from increased institutionalisation, leading to a more liquid market.

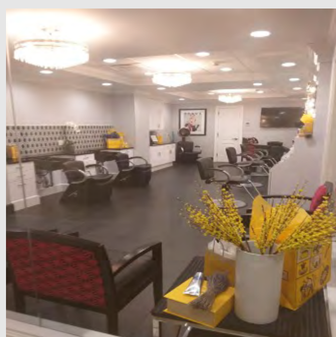
One manager we spoke to is using its mature operating platform and experience to leverage its long-term partnerships with top-tier universities and opportunistically modernise existing stock. Frontier believes such investments in US student accommodation offer diversification benefits and long-term risk-adjusted returns.

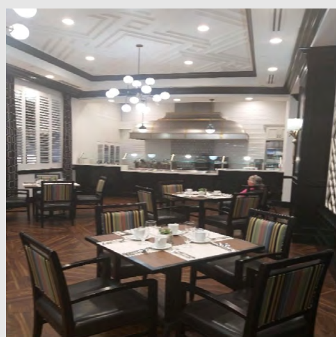
Senior housing:

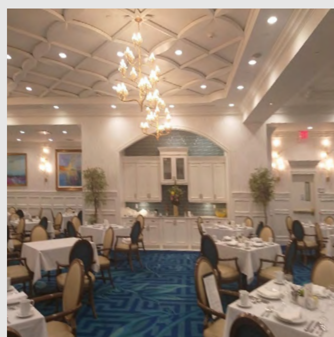
Growing 'baby boomer' and 'silent' generation[5] populations are driving demand for more senior housing options. Senior housing spans independent living, assisted living, memory care and skilled nursing care facilities. Frontier prefers the independent living segment, not acute, end of life care segments that are labour intensive and potentially come with reputational risk.

The spectrum of housing options varies vastly. One Chicago-based manager owns a large senior housing portfolio, with internal property management and development capabilities. The manager operates a 'private pay' model and the assisted living asset we toured presented like a luxury hotel with a sprinkling of medical facilities. The manager conducts in-depth demographic analysis of local areas and generally caters to high-net-worth residents (assets over US$2 to $3 million) with adult children guarantees. The default rate is low (circa 0.2%) despite leases being adjusted every six months to absorb inflation. The more resilient assets are those that target 'private pay' residents, rather than those being reliant on government reimbursements such as Medicaid.

The key downsides to the senior living sector (excluding independent living) include high operational costs, reputational risk, and operating company complexities. There is a growing opportunity set for investment into senior housing, but manager selection is key. We believe investors should avoid manager strategies that are homogenised and commoditised. Residents seek facilities in their local communities so, assets must be finely targeted for local communities, down to food and fitout.







[5] The 'silent' generation are defined as people born from 1928 to 1945, while the 'baby boomer' generation are those born between 1946 to 1964.

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Multifamily:

Multifamily residential is a classification of housing (usually apartments) where multiple residents rent separate apartments within one building or several buildings within one complex.[6] Frontier has held a view for several years that the sector is underpinned by some of the strongest tailwinds of any sector:

- stable, diverse and decentralised population growth
- ageing population looking to downsize to more amenity-rich offerings
- rising costs of home ownership that prices out younger participants
- lack of housing options – over the last decade, a lack of housing construction has led to a shortage of four-to-six million homes in the US
- rise of hybrid working, leading to increased demand for housing with high level of amenities.

Frontier toured a number of multifamily assets with a number of different managers and was able to see a vast spectrum of different strategies – from Class B[7] in Los Angeles (targeting young professionals) to social housing[8] in Harlem, New York. In the latter, we were impressed by the communal initiatives led by the manager, such as free Wi-Fi and local construction job opportunities, which are a critical component of the social infrastructure.

We spent a day with a New York manager (it has an Australian presence in development and management of build-to-rent or BTR) with a vertically integrated platform[9] throughout the investment process and focused on middle-market rental properties. We toured two properties in Philadelphia – one that was newly developed and had a high concentration of younger families, while the other was slightly older, with the manager refurbishing to different standards to command a range of rents. Both properties had median rents in the top 5% of their respective markets and were over 97% occupied. The privately held manager has a track record in the multifamily sector for two generations with a number of large offshore pension fund clients. Frontier is supportive of the manager's strategies noting there needs to be a high level of specialisation, branding and solid understanding of underlying demographics in each local market to strike optimal rents for tenant retention.

Frontier is wary of markets with outbound migration and relatively higher levels of unrestricted supply such as in Texas or some mid-Western cities. We prefer managers with a strong local presence and sophisticated operational platforms. These strategies should be more resilient through the long-term and offer more stable income returns.

[6]Source: https://guides.loc.gov/real-estate-industry-sources/residential/multifamily

[7]Property classes for multi-family real estate ranges from high-quality, highly amenitised new builds (Class A) to Class B and Class C buildings (which are the mid-range, more common classes of multi-family real estate) to Class D apartments. Source: https://www.crefcoa.com/property-classifications.html

[8]Where residents pay 30% of their household income in rent to the landlord

[9]Where the manager takes ownership of several key stages in the supply and management chain, instead of outsourcing these functions to third-party service providers.

The final word

The US continues to offer strong diversification for Australian investors in needs-based real estate as noted from previous research trips with a particular focus on most housing types. Typically, multi family, senior living and some healthcare sub-segments fall under this umbrella.

These sectors are largely unavailable in Australia, not within the current YFYS[10] benchmark and so may pose tracking error risk for portfolios. Nevertheless, they are an attractive alternative to traditional, office and retail sectors, which remain challenged.

The most recent and notable thematic is the race to achieve net zero carbon by 2050. Sweeping reform is underway, driven largely by regulatory measures across the US, UK and Europe. Every facet of an existing building potentially requires upgrading or replacement. This calls for a large capex allocation. Asset owners may have to consider and choose whether to commit over the long-term or exit certain investments if the cost is too prohibitive. Either way, there may be costs to comply or from non-compliance. On the other hand, the re-pricing of real estate could provide attractive vintage and risk-adjusted returns over the next few years.

Transformational change requires transformational thinking. Forward-looking managers are incorporating proptech into their operating platforms. Some of the proptech examples in this paper may have idiosyncratic risk outside a conventional real estate allocation. Nevertheless, we encourage investors to consider a suitable allocation bucket to invest from. There is no hiding from NZC re-positioning.

Frontier prefers managers with clearly articulated decarbonisation pathways that are incorporated into business plans and budgets. We think investment managers, together with their asset owners, must be leaders, in the way they identity opportunities to 'future-proof' investments.

Meeting notes from our research of multiple specialist US property managers across the country, are available in our Manager Insights technology solution. Access to such meeting notes depends on the subscription level and /or your consulting agreement with Frontier Advisors.

Want to learn more?

We hope this paper has generated many ideas for your own portfolios. We encourage investors to reach out to our Real Assets Team for a discussion on how we can help.

[10]Your Future Your Super (YFYS) is a legislated assessment, based on comparing a superannuation product's net investment returns (including fees and taxes) with a benchmark return and fees.

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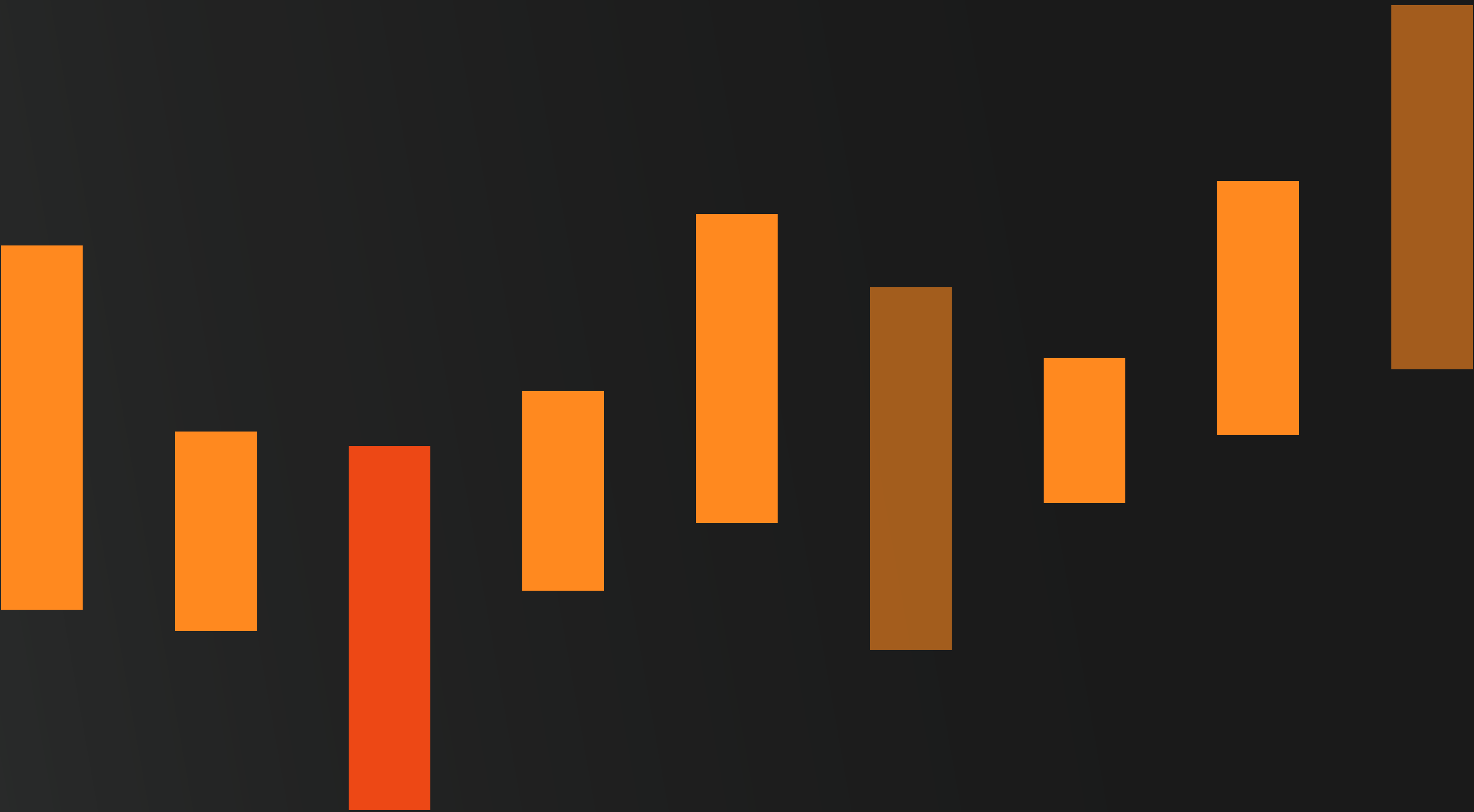

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