The value of access: Measuring the impact of Riyadh metro on real estate

Knight Frank

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White paper series

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EXECUTIVE SUMMARY

The launch of the Riyadh Metro represents a transformational milestone in the Kingdom's capital and a flagship of Vision 2030. Delivered in a single step as a six-line, 85-station network, the metro has already transported over 100 million passengers in its first nine months of operation, signalling rapid adoption and strong demand for enhanced connectivity.

Our analysis finds that around 1.5 million residents – 18% of Riyadh's population – live within a 15-minute walking distance of a metro station, a level of accessibility rarely seen in newly launched systems.

The direct impact on house prices is already visible. For example, in Al Yarmuk, villa prices near stations rose by 78% between 2023 and 2025, compared to 22% in surrounding areas, while in Tuwaiq and Al Malqa the effect is positive albeit more moderate.

Complementing this, our hedonic pricing model shows a direct and statistically significant relationship between proximity to metro stations and apartment values. If two otherwise identical 250sqm apartments differ only in being 500m apart from the nearest metro station, the one farther away would, on average, be valued SAR 24,000 less.

These dynamics mirror international precedent in cities such as London, Dubai, and Istanbul, where mass-transit systems consistently deliver a long-term price premium to nearby housing.

Looking ahead, expansion plans, including the Line 7 corridor linking Qiddiya, King Salman Park, Diriyah Gate, New Murabba, and King Khalid International Airport, will extend these accessibility benefits further, unlocking new development corridors.

To maximise the metro's impact, success will depend on embedding transit-oriented development around stations and ensuring strong last-mile connectivity. Together, these strategies will not only reinforce real estate value growth but also advance Riyadh's broader transition into a more sustainable, globally competitive capital city.

URBAN ECONOMICS AND ACCESSIBILITY

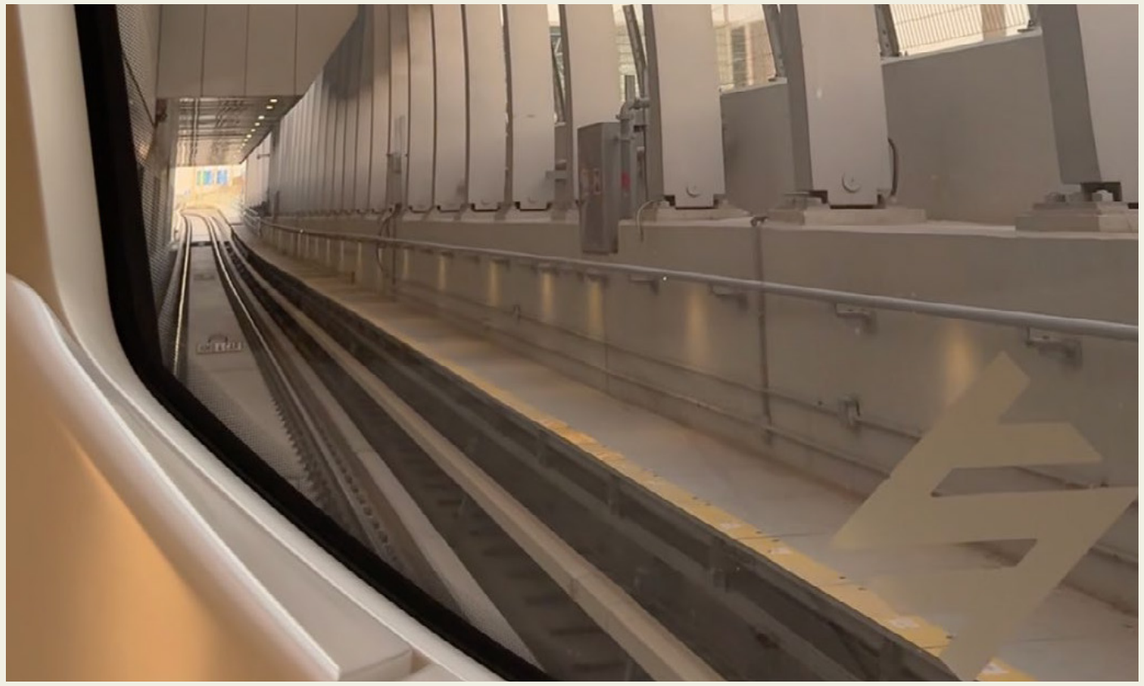
In global real estate markets, one principle consistently holds true: improved transport connectivity drives value. When travel times fall and commuting becomes easier, neighbourhoods gain in attractiveness, and this premium is quickly reflected in land values and housing prices.
The classic bid-rent model developed by William Alonso in 1964 shows that households are willing to pay more for locations that offer better access to jobs and amenities. In practice, this means that homes situated closer to transport hubs – whether metro stations, rail lines, or major highways – tend to command higher prices than those further away.

Transport infrastructure as a market's driver

International benchmarks provide clear evidence of this dynamic. In London, for instance, home to the world's oldest underground railway, the 163-year-old "Tube", the Elizabeth Line (Crossrail), London's largest transport infrastructure project since the Second World War, has driven up the prices of homes along the new rail route. Even though the new line opened in 2022, between July 2008 and December 2016, the prices within a 10-minute walk from announced new stations outperformed the wider market by, on average, 7%. In central London neighbourhoods, the premium was as high as 40%, according to our teams in the UK.

In Dubai, the metro corridor has consistently outperformed the wider market since launch, particularly in communities with direct access to stations. Similarly, studies in Istanbul demonstrated that apartments within walking distance of metro stations achieved significant uplifts in unit values compared to more peripheral locations.

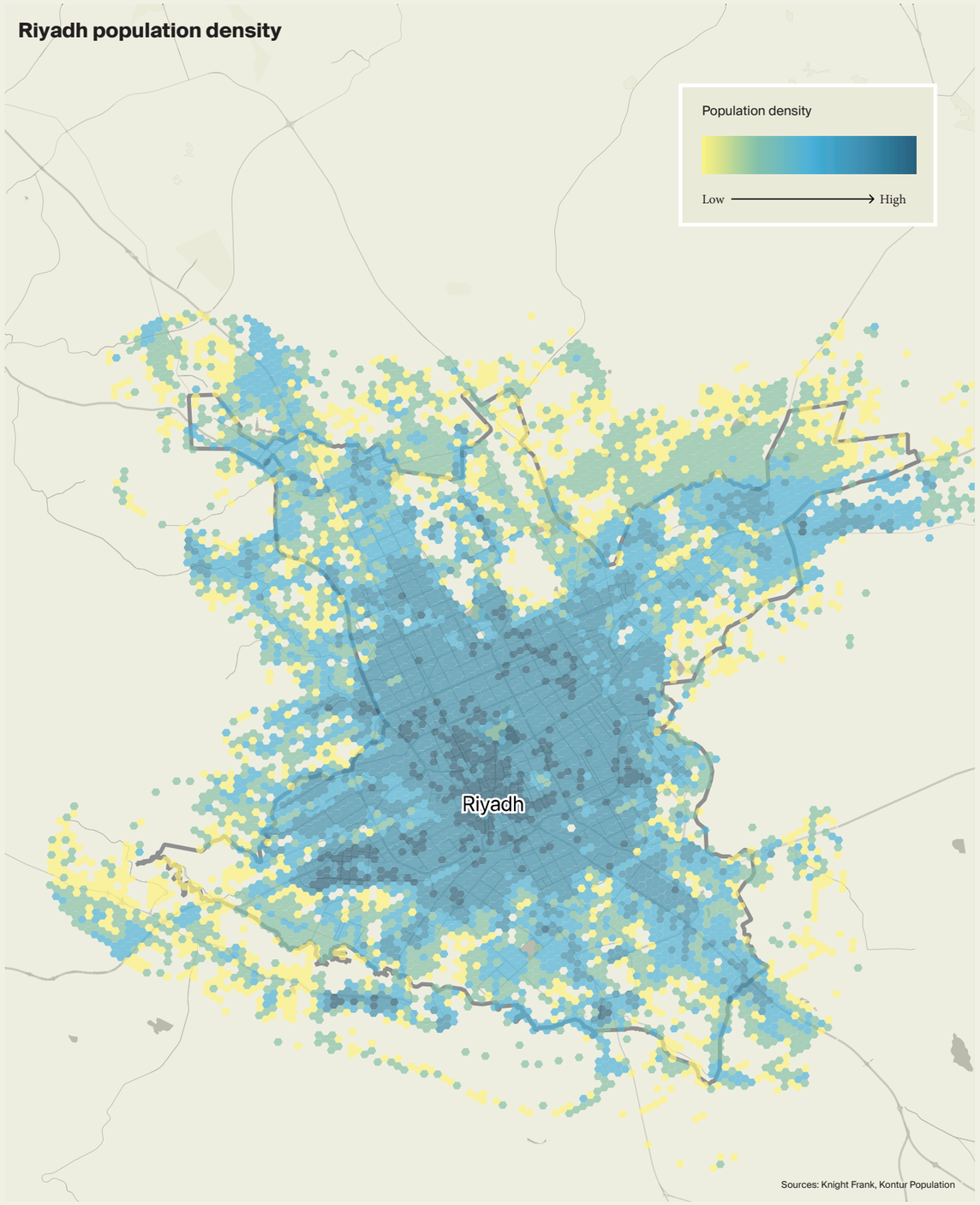
In summary, the primary trend is clear: new mass-transit stations tend to raise nearby housing prices. This "transit premium" is widely observed across contexts – from high-income cities to emerging economies.



A car-centric city

Since the 1940s, Riyadh has grown from a small desert settlement to a city of 7 million, as of the 2022 Census, with expansion, in general, following a US-style grid street plan, built for cars. Riyadh has become a city of low-rise residential districts, with a limited number of defined centres — a form that may shift as the public transport network develops.

Riyadh population density



Sources: Knight Frank, Kontur Population

RIYADH METRO AND VISION 2030

Transformational shift

The opening of the Riyadh Metro earlier this year marks a pivotal shift in the city's development. By dramatically increasing accessibility, the system is set to reshape residential demand, influencing commercial and mixed-use growth, and redefining the geography of value.

As one of the flagship initiatives of Saudi Arabia's Vision 2030, the metro is more than a transport project; it is a cornerstone of the Kingdom's ambition to diversify its economy, enhance liveability, and transform Riyadh into a global capital. It supports the goal to reduce car dependency, cut emissions, and enable more sustainable patterns of growth.

Delivered as a six-line, 85-station network in a single programme, the metro is unprecedented in scale. Unlike systems in London or New York, which evolved gradually over a century, Riyadh has leapfrogged stages of development to deliver an integrated city-wide upgrade in a single step.

Ridership and reach

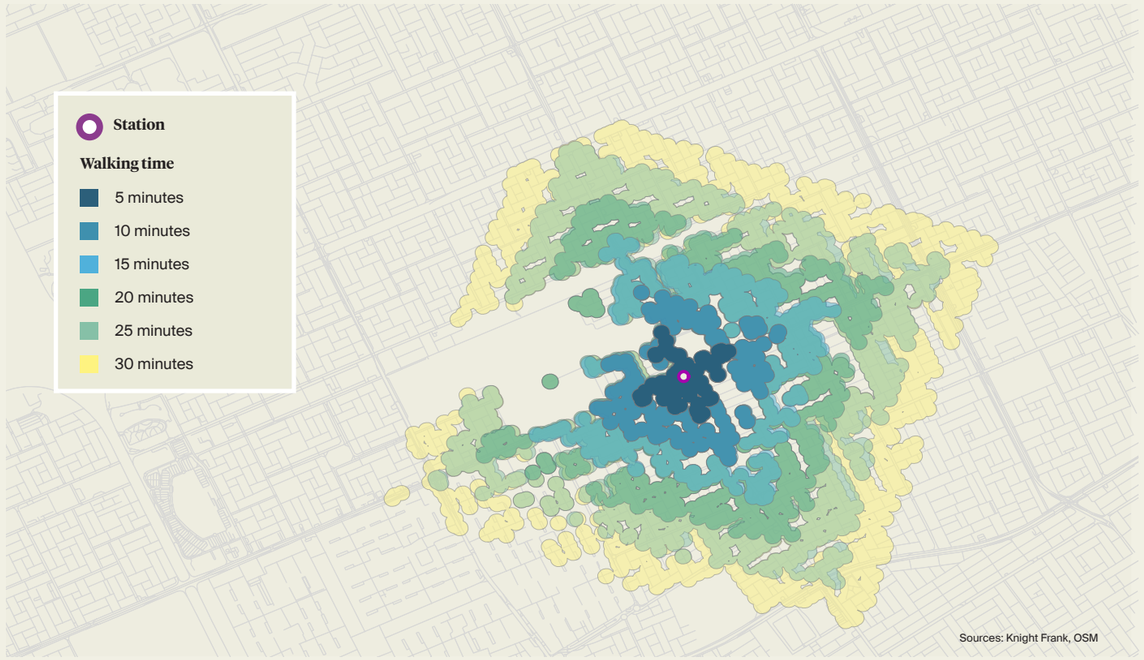
In just nine months after launch, the network has already carried over 100 million passengers, underscoring its rapid adoption and transformative impact.

As of end 2024, we estimate Riyadh city's population to have reached 8.3 million. The large increase from 2022 is a direct result of an influx of construction, manufacturing and logistics workers. In addition, we estimate there to have been a 250,000 surge in domestic migrants moving to the capital from elsewhere in the Kingdom since 2019.

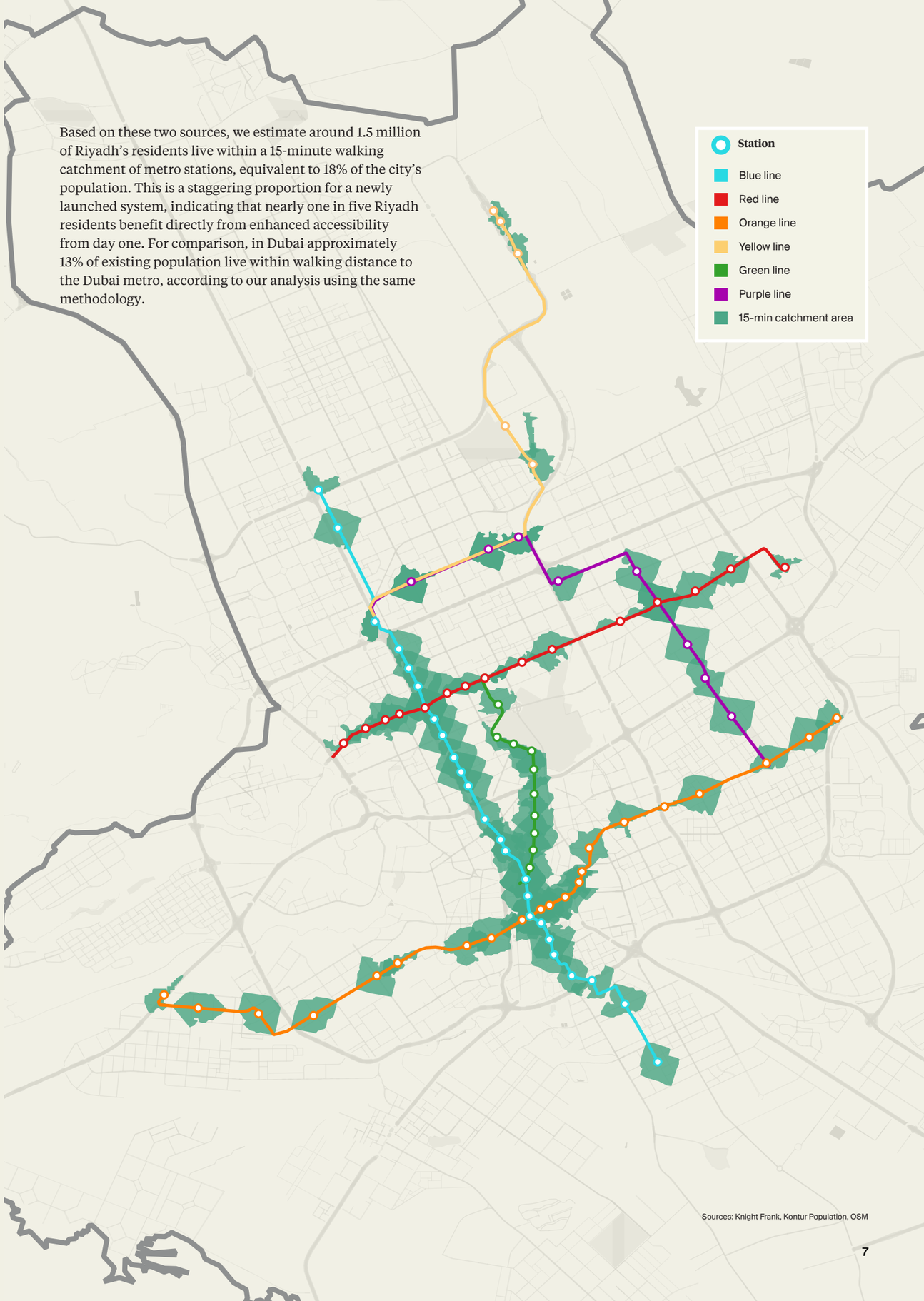
To understand how these people are distributed across the city, we rely on the Kontur Population Dataset, a global database that breaks Riyadh into small grid cells and estimates the number of residents in each. It draws on billions of data points from satellites and maps, offering one of the most precise pictures available of population density at a neighbourhood level. This allows us to measure with confidence how many people live within walking distance of each metro station.

As a next step, we calculated 15-minute walking catchments for each metro station. Rather than using a simple circle radius, these catchments are mapped along the actual street network, reflecting how far residents can realistically walk within that time. This approach gives a much more accurate view of which neighbourhoods are directly connected to the metro.

How far you can reach by foot around Al Yarmuk metro station



Based on these two sources, we estimate around 1.5 million of Riyadh's residents live within a 15-minute walking catchment of metro stations, equivalent to 18% of the city's population. This is a staggering proportion for a newly launched system, indicating that nearly one in five Riyadh residents benefit directly from enhanced accessibility from day one. For comparison, in Dubai approximately 13% of existing population live within walking distance to the Dubai metro, according to our analysis using the same methodology.



The top 3 stations with the highest surrounding populations are Al Bat'ha, Al Wizarat, and National Museum in central Riyadh. Each of them has around 50,000 residents living within a 15-minute walking distance.

Future expansion

Expansion plans for Riyadh's metro network are set to reinforce this momentum. Line 2, for instance, will extend westward to Diriyah, while the planned Line 7 — a 65 km, 19-station corridor linking Qiddiya, King Salman Park, Diriyah Gate, New Murabba, and King Khalid International Airport — represents a further US$ 8bn investment in public transport.

Strategic implications

For residents, the metro means shorter commutes and potentially, broader housing choices; for businesses, it could lead to enhanced labour mobility; for developers, it opens new development corridors; and for policymakers, it supports the Vision 2030 Quality of Life Programme, promoting denser, mixed-use, and more sustainable urban communities. In short, the Riyadh Metro is both a landmark infrastructure achievement and a strategic economic lever, embedding accessibility at the heart of Riyadh's transformation.

"We estimate that around 1.5 million of Riyadh's residents live within a 15-minute walking catchment of metro stations, equivalent to 18% of the city's population.

MEASURING THE IMPACT ON REAL ESTATE

Quantifying the impact of major transport projects on property markets requires robust methods. In the case of the Riyadh Metro, two approaches are most relevant: hedonic pricing models and difference-in-difference analysis.

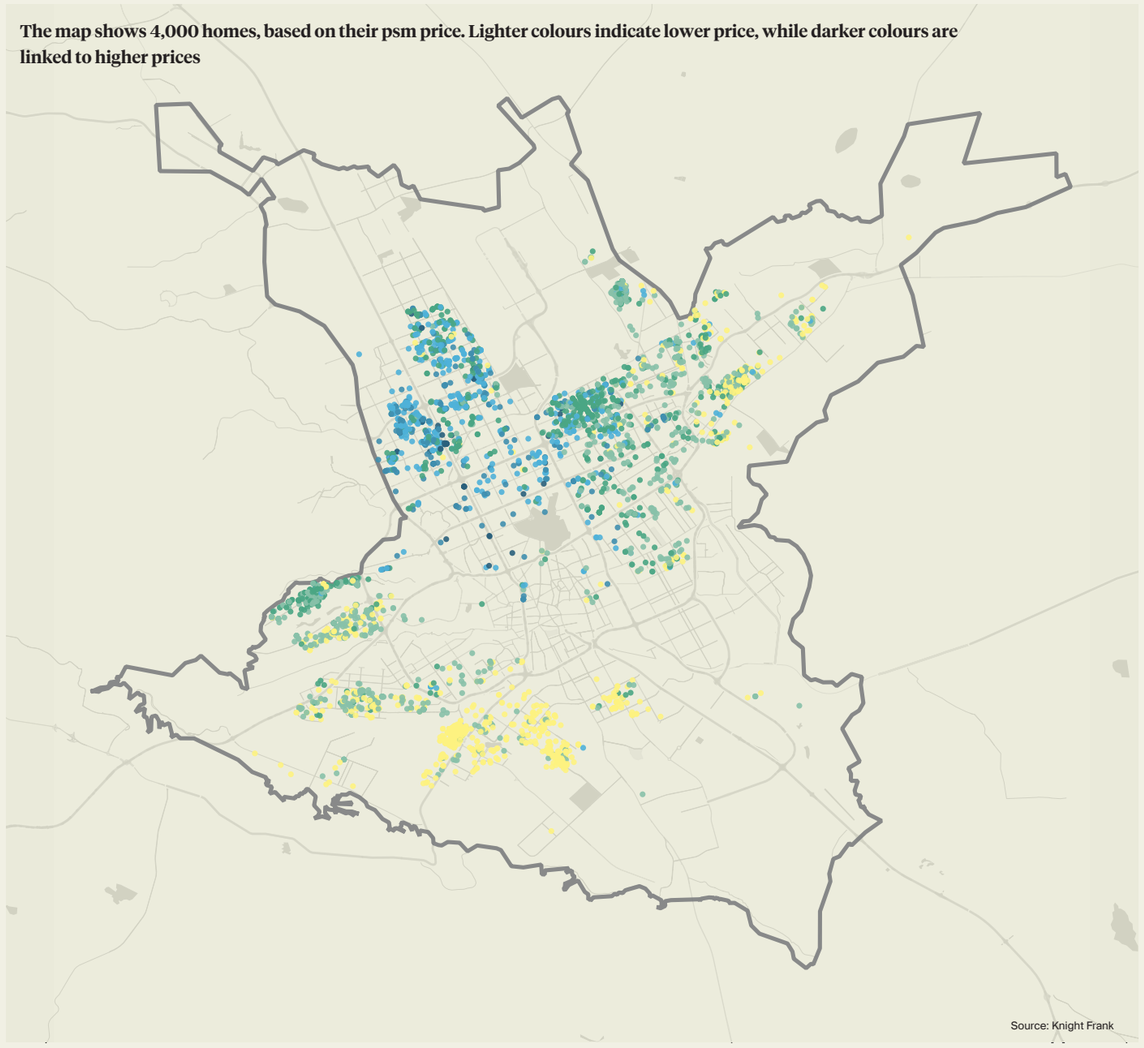
Hedonic models break down property values into their underlying features, making it possible to separate the effect of metro accessibility from other drivers such as size, age, proximity to amenities, or even building quality.

Hedonic modelling allows us to measure the value of proximity at a single point in time – in other words, how much each additional metre of walking distance from a station affects residential values.

However, hedonic pricing cannot identify a causal relationship between metro station access and property prices.

Difference-in-difference analysis, by contrast, focuses on changes over time. It compares price trends in areas affected by the metro with those in unaffected control areas, both before and after the metro network's launch. It provides a way to identify the causal impact of the metro's introduction, separating it from broader market movements.
Together, these approaches offer complementary insights. Hedonic models show the pricing gradient of accessibility today, while difference-in-difference models highlights the dynamic change brought about by the metro's arrival.

The map shows 4,000 homes, based on their psm price. Lighter colours indicate lower price, while darker colours are linked to higher prices



Source: Knight Frank

3.1. Hedonic pricing models

For Riyadh, we applied a hedonic regression model using residential transaction data to assess how walking distance to the nearest metro station influences property values. We analysed close to 4,000 property listings between April and August 2025 for apartments across Riyadh, removing any outliers.

The dependent variable was price per square metre, while control variables included property size, number of bedrooms, and building age. We used GIS tools to calculate walking distances from each property to the nearest station using the actual street network.

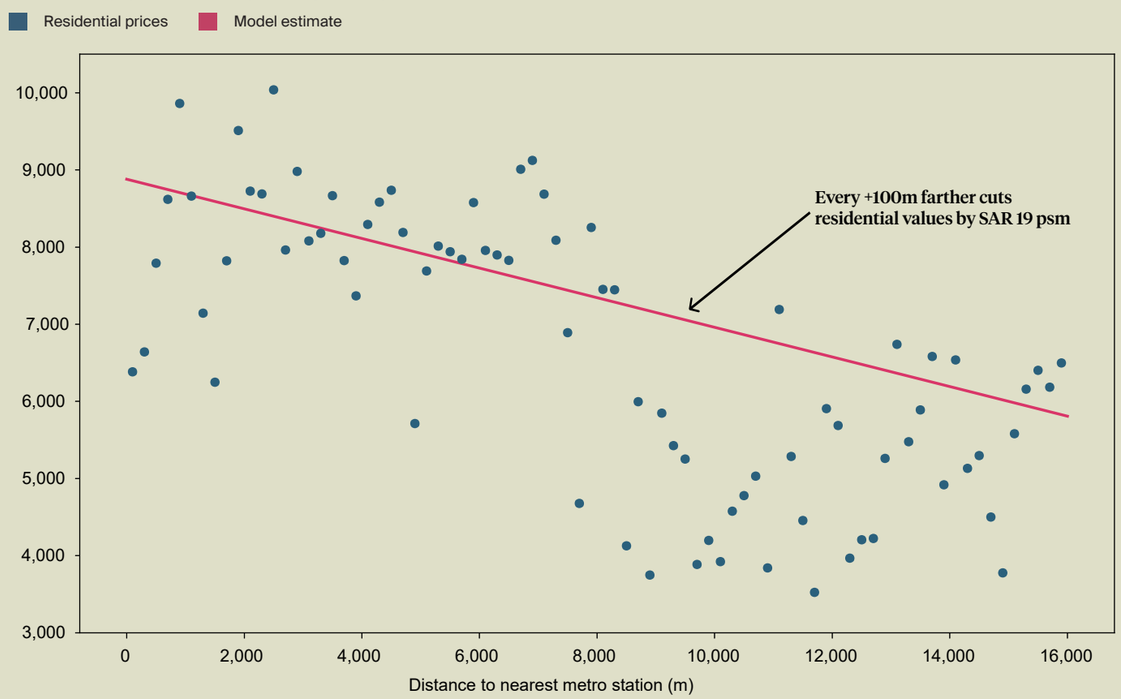
Results

The hedonic model reveals a clear and statistically significant relationship between metro accessibility and property values.

- Walking distance effect: every additional metre from the nearest station reduces price per square metre by SAR 0.19. In practical terms, a property located 500 metres farther from a station is priced, on average, SAR 96 psm lower than an otherwise similar property closer to the metro. It means that if two otherwise identical 250 sqm apartments differ only in being 500m apart from the nearest metro station, the one farther away would, on average, be valued SAR 24,000 less.
- Larger homes (and those with more bedrooms) are associated with lower prices psm, reflecting economies of scale.
- Building age carries a negative effect (–SAR 40 psm per year), highlighting depreciation.

These results confirm that Riyadh Metro accessibility already appears to be influencing home values. There is a direct correlation between house prices and proximity to metro stations. The findings are consistent with international precedent, reinforcing the conclusion that metro accessibility is a durable determinant of real estate value. In the context of Riyadh, where the metro is newly operational, the scale and significance of the effect underline its role as a key driver of residential demand and home values, which over time is likely to intensify further as metro usage becomes more widespread and embedded in the cultural fabric of the city.

Proximity premium: price per sqm falls with distance from metro



Source: Knight Frank

3.2. Difference-in-difference method

Railway projects typically affect real estate markets at three distinct stages: announcement, construction, and operation. Each stage produces different dynamics. The announcement stage often brings a short-term uplift in anticipation of improved accessibility. During construction, negative externalities such as noise and dust may temporarily dampen values. Once operations begin, the full benefits of accessibility can be realised.

In an ideal setting, analysis would include property data from well before project announcement through to several years of operation. In Riyadh, plans for the metro were first announced in 2003, with formal approval by the Council of Ministers in 2012. Construction began in late 2014 and was largely completed by 2021. Operations, however, did not commence until late 2024. Given that Riyadh has almost doubled its population since 2003, older data would not provide a reliable baseline.

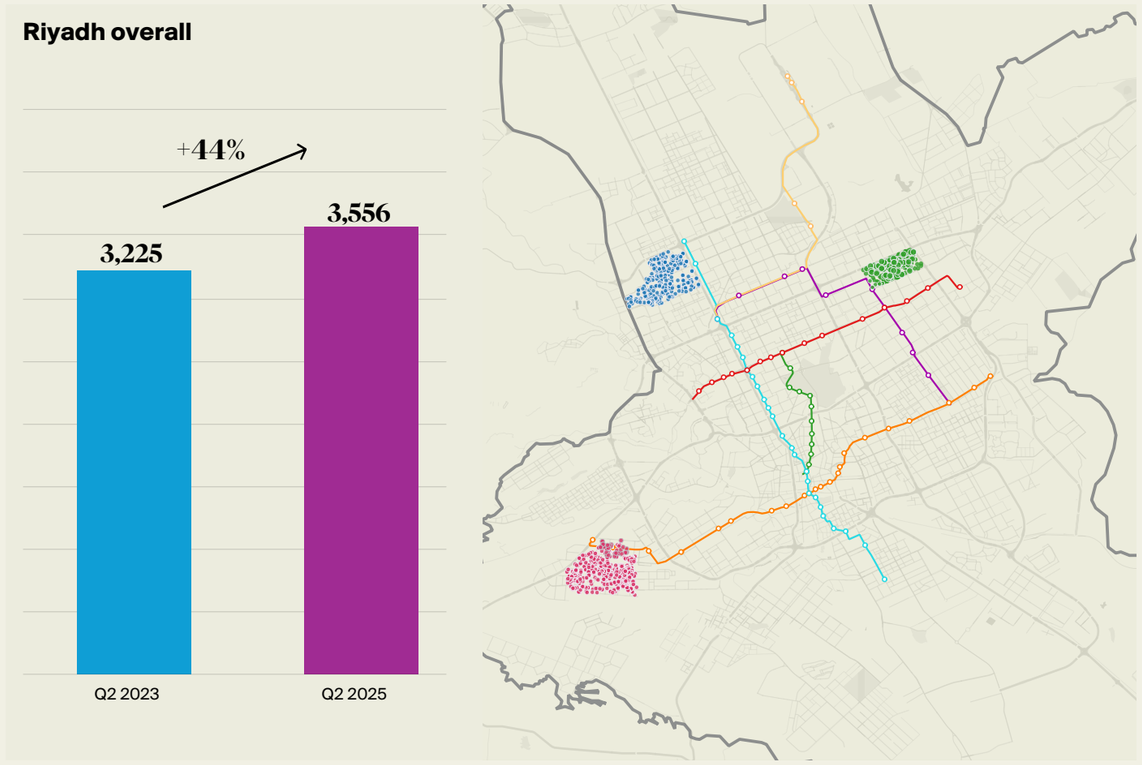
As such, our study is limited to capturing the short-term effect of the metro's opening. The first phase of the Riyadh Metro opened on 1 December 2024, with the final line becoming operational on 5 January 2025. We have analysed residential prices, treating 2023 as the pre-treatment year (when construction was complete and negative externalities had subsided) and 2025 as the post-treatment year.
To test for short-term market responses to the metro opening, we compared villa prices in three districts with differing characteristics: Tuwaiq, Al Yarmuk and Al Malqa. In each case, we analysed homes located within a 15-minute walking catchment of a metro station against those further away.

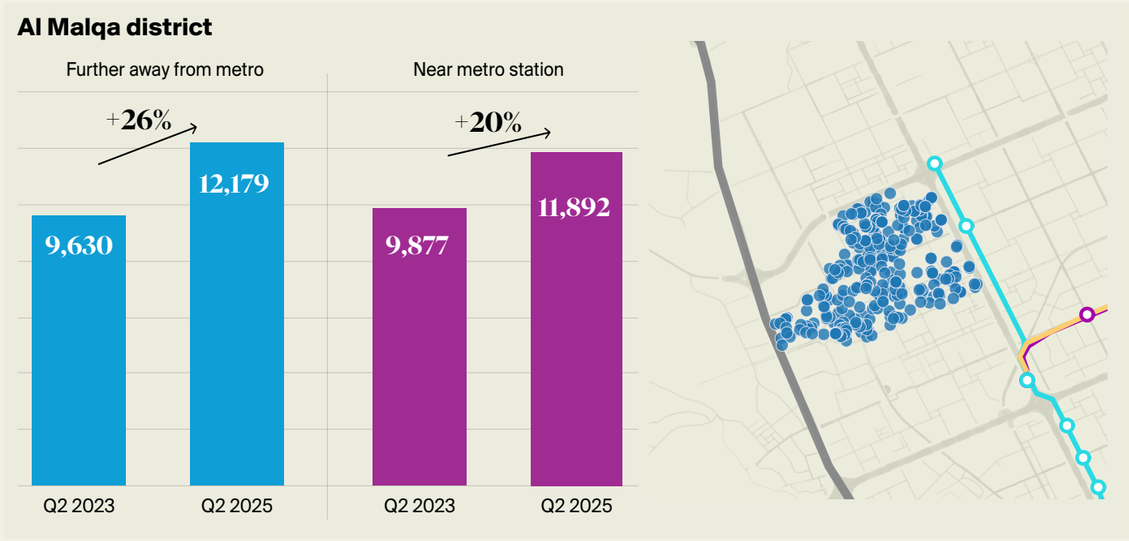
This design allows us to estimate the uplift associated with the metro's transition to operation, while acknowledging that the absence of pre-announcement data may understate the full impact of accessibility improvements.

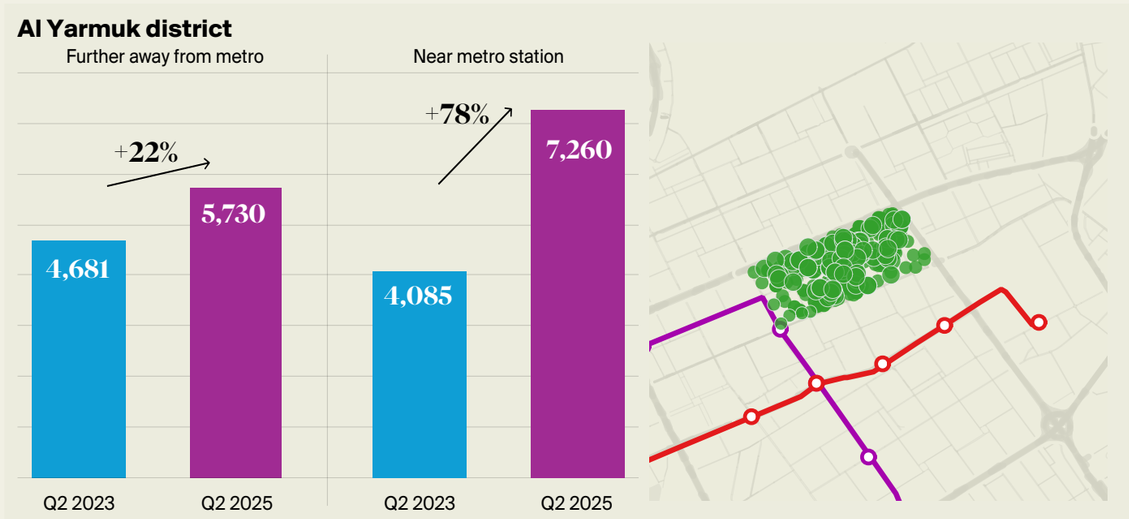
A clear premium

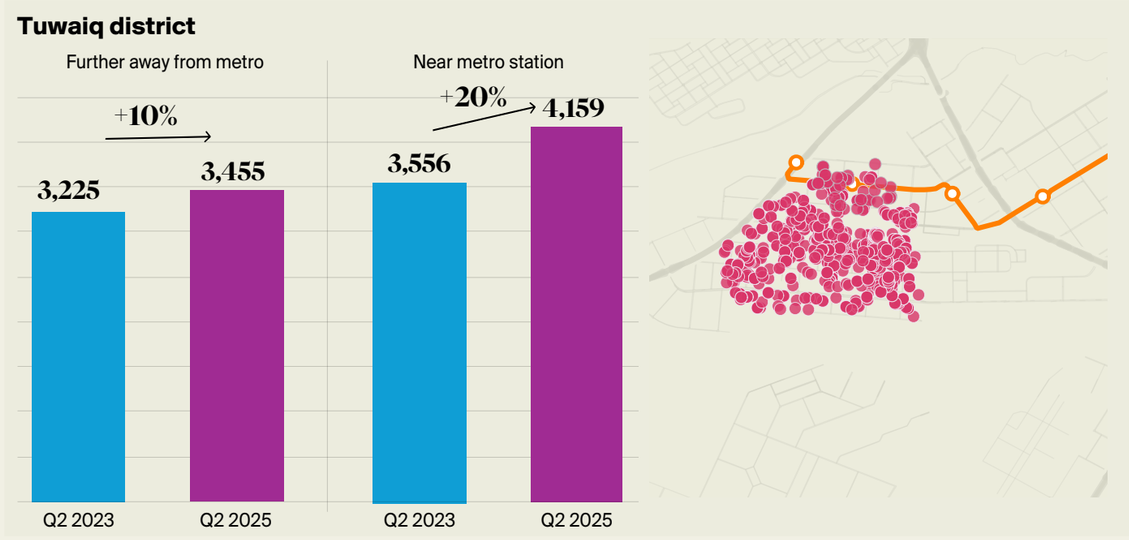
The results reveal clear evidence of a metro premium. In Tuwaiq, homes near the station rose by 20% between Q2 2023 and Q2 2025, compared with 10% growth further away. In Al Yarmuk, the effect was especially pronounced, with prices near the metro surging by 78%, versus 22% in more peripheral areas. Even in Al Malqa, one of Riyadh's most established districts, values near the metro climbed by 20%, slightly below the 26% increase observed further out, suggesting that in already prime markets, other dynamics can outweigh accessibility effects.

Overall, residential villa prices across Riyadh increased by 44% over the same period. The district-level comparisons highlight how the metro's impact is not uniform: it can generate substantial uplifts in areas where accessibility is newly transformed, while playing a more modest role in established, high-value locations.









IN FOCUS: 15-MINUTE CITY

The 15-minute city is a planning model where every home is just a 15-minute walk from all essential amenities including schools, shops, healthcare, mosques and more. It envisions walkable mixed-use neighbourhoods that reduce car dependence, enhance wellbeing, and deliver sustainable, climate-resilient urban living.

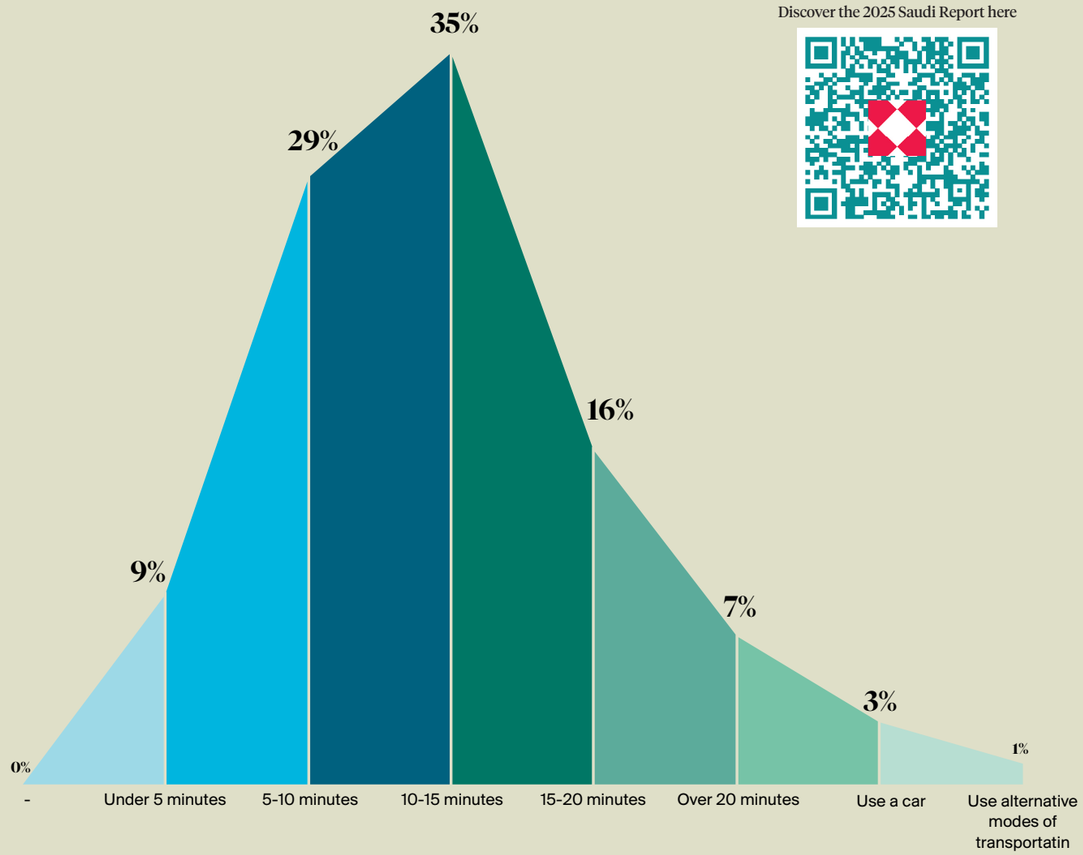
Harsh summer climatic conditions have played a significant role in fostering the car culture that is embedded across much of the Gulf, including Saudi Arabia, but our respondents have also indicated a strong desire to live in walkable communities.

Based on our 2025 Saudi Report, over a third (35%) of Saudi nationals or Saudi-based expats we polled say they would be willing to walk 10-15 minutes to reach a nearby destination, with an additional 29% saying they would be prepared to walk for up to 10 minutes only.

As we have previously reported, the average person can cover a distance of around 830m in 10 minutes or 1250m in 15 minutes. This would need to be reduced during the summer months in the Kingdom, but it does provide a barometer for how far community facilities and amenities need to be from every home in a residential community development.

Perhaps unsurprisingly, the two most important reasons for not wanting to walk to nearby destinations were the hot summer months (44%) and 'dangerous crossings/high speed of cars' (33%).

Willingness to walk to a destination of interest



Discover the 2025 Saudi Report here

Source: Knight Frank

POLICY CONSIDERATIONS/ OPPORTUNITIES

Based on our analysis, we have been able to identify two key policy implications for developers and investors, which we outline below.

1. Transit-Oriented Development (TOD)

TOD principles suggest that transit infrastructure achieves maximum impact when paired with planning for mixed-use, walkable, higher-density development around stations. Creating vibrant, pedestrian-friendly "station precincts" with integrated retail, residential and office space tends to further increase the desirability of these locations.

While Riyadh's urban form has historically been low-density and car-centric, the introduction of the metro alongside supportive land-use changes (e.g. upzoning around stations) could produce similar TOD dynamics: higher foot traffic supporting retail, new housing projects clustered around stations, and a shift in preferences toward transit-served neighbourhoods. This is in line with Saudi Arabia's Vision 2030 goals of creating more sustainable and liveable cities in the Kingdom.

TOD also supports congestion relief and environmental benefits. By drawing residents closer to stations and shifting trips from cars to metro, traffic volumes can be reduced. Current projections suggest the metro will eliminate around 250,000 car trips per day and save 400,000 litres of fuel daily, reinforcing its role in sustainable urban mobility.

2. Last-mile connectivity

Currently, 18% of Riyadh's population (1.5 million) lives within a 15-minute walk of a metro station, and they are the immediate beneficiaries of the accessibility premium. However, the last mile remains a challenge. The metro cannot operate in isolation: to fully unlock its value, it must be supported by reliable feeder modes such as buses, and improved pedestrian networks.

Recent bus passenger data underlines this interdependence.

Nationally, buses served 23 million passengers in Q1 2025 – a 34% increase compared to the fourth quarter of 2024. While in Q2 2025 country-wide bus passengers' volume decreased by 7% when compared to the previous quarter. In contrast, bus users in Riyadh have continued to grow – from 15 million in Q1 to 15.6 million in Q2 2025.

> **"Every additional 100 metres from the nearest metro station reduce residential values by SAR 19 psm.**

CONCLUDING THOUGHTS

The opening of the Riyadh Metro marks the starting point of the city's urban transformation, not its conclusion. Designed to generate change rather than react to it, the system will reshape residential patterns, business locations, and the lived experience of the city's residents.

Currently, 18% of Riyadh's population lives within a 15-minute walk of a metro station, and they are the immediate beneficiaries of the accessibility premium. The metro's long-term success will be reinforced by transit-oriented development and by the growing integration with buses and other last-mile solutions. Recent bus passenger data hints at this growing interdependence.

Moreover, the metro's evident success further supports expansion plans, including the Line 2 extension to Diriyah and the planned Line 7, a 65 km corridor linking Qiddiya, King Salman Park, Diriyah Gate, New Murabba, and King Khaled International Airport.

For developers, the Metro network represents an untapped opportunity to unlock new land parcels that may have previously been considered too remote.
Riyadh is evolving. The metro is not just a transport project but a lasting catalyst for growth, resilience and opportunity, fully aligned with the ambitions of Vision 2030.

We like questions. If you've got one about our research,
or would like some property advice, we would love to hear from you.

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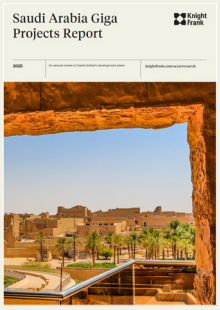

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