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Amenities, premium services, and rental premiums in Melbourne's build-to-rent sector: a hedonic analysis

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Abstract

Purpose – This paper aims to examine the sources of rental premiums in Melbourne's Build-to-Rent (BTR) sector and assess whether higher rents are associated mainly with observable amenities or with residual BTR status.

Design/methodology/approach – A hedonic regression framework is applied to a cross-sectional data set of 251 two-bedroom, two-bathroom apartments listed on Realestate.com.au in April 2026, comprising 86 BTR apartments and 165 private rental sector (PRS) apartments. Weekly asking rents are analysed rather than contracted lease prices. This study estimates the BTR rental premium after controlling for structural, locational and amenity characteristics. Given the cross-sectional design, the findings of this study are interpreted as associative rather than causal.

Findings – The full model achieves an adjusted R^2 of 0.65. BTR apartments are associated with a raw rent premium of $158.80 per week or 19.4%. After full controls and amenity adjustments, the premium remains statistically significant at +6.3% with a 95% confidence interval of +3.8% to +8.9%. The BTR ownership dummy, which may capture institutional management, brand value, lease security and other unobserved quality attributes, explains a larger share of incremental rent variance than the amenity bundle. Concierge service and library/reading rooms are the only individual amenities that reach statistical significance.

Research limitations/implications – This study is based on a cross-sectional sample of 251 advertised rental listings collected from Realestate.com.au in April 2026, limited to two-bedroom, two-bathroom apartments in Melbourne. The analysis captures asking rents rather than final lease prices and cannot directly observe all factors embedded in BTR status, such as management quality, lease security, brand reputation or tenant experience. Future research could extend the sample across cities, dwelling types and time periods and incorporate tenant-level or transaction-based rental data.

Practical implications – The findings suggest that Melbourne's BTR rental premium is associated more strongly with BTR status and its unobserved attributes than with specific amenities alone. This has preliminary implications for housing affordability policy, particularly where BTR is promoted as a solution to rental market pressures.

Conflicting interests: The authors declare no conflict of interest.

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Social implications – This study has implications for housing affordability in Melbourne's rental market. If BTR premiums are driven largely by institutional status and unobserved quality attributes rather than specific amenities, then BTR may primarily serve higher-income renters unless affordability mechanisms are incorporated. This raises questions about the role of BTR in addressing broader rental stress and whether policy incentives for the sector should be linked to affordability, tenant security and equitable access.

Originality/value – This study provides early empirical evidence on rental premiums in Melbourne's emerging BTR sector using property-level rental listing data. It contributes to understanding whether BTR rents reflect measurable amenity provision or broader institutional and management-related attributes. The results of this study are specific to inner-city Melbourne two-bedroom, two-bathroom apartments listed in April 2026 and should not be generalised to the wider BTR sector without further research.

Keywords Build-to-rent, Private rental sector, Hedonic regression, Rental premiums, Melbourne, Amenities, Housing affordability

Paper type Research paper

1. Introduction

Australia's rental housing market is under significant strain (Al-Masum and Lee, 2019; Reynolds *et al.*, 2024; Amar and Armitage, 2025). In 2024, the National Housing Supply and Affordability Council (2025) reported underlying demand of approximately 223,000 dwellings against a new supply of only 177,000, while the average new lease consumed 33% of household income, exceeding the widely accepted housing stress benchmark of 30% (Australian Bureau of Statistics, 2022). Against this backdrop, Build-to-Rent (BTR) developments – purpose-built, institutionally owned residential assets held for long-term rental rather than sale – have emerged as a central plank of government housing strategy. In 2024, the Australian Government reduced the managed investment trust withholding tax rate from 30% to 15% for eligible BTR developments (Australian Government Treasury, 2024), substantially accelerating the delivery pipeline.

Melbourne hosts approximately 51% of Australia's operational BTR stock (Knight Frank, 2025), making it the most relevant national laboratory for examining BTR pricing dynamics. However, a fundamental paradox complicates the sector's social policy case: BTR apartments are consistently more expensive than comparable private rental sector (PRS) units. The average weekly rent for a one-bedroom BTR apartment in Melbourne is approximately $744, against $550 for equivalent PRS stock (Knight Frank, 2025; Realestate.com.au, 2026). If BTR premiums reflect genuine amenity value delivered to tenants, then the higher cost may be justifiable; if premiums reflect institutional branding, management overhead or speculative pricing, then the sector's affordability credentials are more questionable.

Despite this policy significance, there is remarkably little empirical evidence on the sources of BTR rental premiums in Australia. The UK and US literature has not only identified community spaces, concierge services and wellness facilities as drivers of tenant preference (Bajomo and Munger, 2025; Knight Frank, 2024) but also noted that within UK BTR portfolios, no clear correlation exists between individual amenity provision and rental value (Alakeson, 2013; White and Biggar, 2026). The Australian BTR market is younger, more geographically concentrated and operating under different tax and planning conditions, making direct extrapolation hazardous (Parbhu *et al.*, 2024).

This study pursues three primary objectives. First is to determine whether and to what extent BTR apartments in Melbourne are associated with rental premiums over PRS apartments after controlling for structural and locational characteristics. Second is to identify which specific amenities and premium services, if any, are associated with statistically significant rental premiums in the pooled Melbourne inner-city market. Third is to assess whether the observable BTR premium is explained more by the amenity bundle or by the residual BTR status after observable characteristics are controlled.

This study makes several contributions to the existing literature. It provides an exploratory but empirically grounded hedonic decomposition of BTR rental premiums in the Australian context, a gap explicitly noted by prior qualitative and policy-focused research (Tiwari *et al.*, 2025). The contribution is not solely that this is a first Australian application; rather, this study advances the literature conceptually by demonstrating that in an emerging BTR market, the distinction between amenity-driven and ownership-model-driven rental premiums has substantive implications for how BTR is understood as a housing product, an investment vehicle and a policy instrument. Beyond this, this study provides evidence suggesting that rental premiums are not solely a function of physical amenities but also substantially associated with institutional ownership, perceived service reliability and brand value – attributes that are bundled within the BTR product but not directly observable in cross-sectional listing data. This finding connects hedonic pricing theory to the institutional real estate investment literature, which has long argued that institutional ownership may generate yield premiums through management quality and tenant covenant strength (Goodman, 2004; Tiwari *et al.*, 2025). By applying a structured variance decomposition framework that explicitly partitions amenity effects from ownership-model effects, this study offers an analytical method applicable to other emerging institutional rental sectors globally. Practically, the findings offer preliminary insights for policymakers assessing BTR affordability obligations, developers designing amenity programmes and investors evaluating income premiums.

2. Research background and conceptual framework

2.1 Hedonic models in residential rental markets

The hedonic pricing model, originating from Sherwin Rosen's seminal work, decomposes property values into implicit prices for individual structural, locational and neighbourhood attributes. Hedonic theory assumes that housing is a differentiated product composed of multiple characteristics, and that consumers reveal their preferences through market transactions (Rosen, 1974). In rental markets, hedonic methods have been widely applied to estimate the willingness-to-pay for characteristics such as floor area, proximity to public transport, building age and access to schools and parks (Li *et al.*, 2019a, 2019b). A substantial body of empirical literature demonstrates that locational accessibility and neighbourhood quality exert significant effects on rental prices (Soltani *et al.*, 2023). Studies of metropolitan housing markets have consistently shown that proximity to employment centres, transit infrastructure and retail amenities increases residential rents because of reductions in commuting costs and improvements in urban convenience (Bowes and Ihlanfeldt, 2001; Debrezion *et al.*, 2007). Similarly, neighbourhood environmental quality, including green space access and perceived safety, has been associated with measurable rental premiums in both developed and emerging housing markets (Jim and Chen, 2010; Panduro and Veie, 2013). These findings reinforce the central proposition of hedonic theory that households capitalise both private and public amenities into housing expenditures.

Within multifamily and apartment housing, researchers have increasingly focused on the implicit value of internal building amenities (Carvalho *et al.*, 2026a, 2026b; Duan *et al.*, 2025). Empirical evidence indicates that amenities such as fitness centres, concierge services, rooftop gardens and package facilities can influence tenant satisfaction and leasing performance in high-density rental developments. More broadly, housing quality and building management standards have been associated with stronger rental performance and asset values in institutional residential markets. These findings reflect broader post-pandemic shifts in tenant preferences towards flexible and lifestyle-oriented residential environments (Ghosh *et al.*, 2025; Lim and Yoon, 2026).

Nevertheless, the value of amenities is not universally consistent across markets. Existing research suggests that excessive amenity provision may increase operational and maintenance costs without generating proportional rental returns. This divergence indicates that amenity valuation is highly context dependent and may vary according to market maturity, tenant demographics, urban density and housing supply conditions (Leishman and Goel, 2025).

Recent research also highlights the spatial heterogeneity of amenity effects. Studies of transit-oriented housing markets demonstrate that accessibility premiums vary according to metropolitan structure and socio-economic composition (Bowes and Ihlanfeldt, 2001). These findings are particularly relevant to the Melbourne BTR context because the BTR projects are concentrated in inner-city and middle-ring suburbs characterised by uneven amenity distributions and varying levels of urban accessibility.

In addition to spatial heterogeneity, contemporary hedonic literature increasingly incorporates behavioural and institutional dimensions into rental price analysis. Researchers have argued that tenant perceptions of convenience, prestige, sustainability and lifestyle branding may influence rental outcomes beyond measurable physical dwelling attributes (Sanderson, 2019). In institutional rental housing, professionally managed buildings may command premiums because of service reliability, tenant experience and reduced search and transaction costs. Such factors are especially relevant for BTR developments, where operators market not only physical dwellings but also integrated residential experiences. Consequently, understanding the rental effects of amenities requires consideration of both tangible building characteristics and broader socio-spatial consumption patterns.

A persistent challenge in hedonic rental analysis is omitted-variable bias, which arises when unobserved characteristics correlated with both the explanatory variables and rental price are excluded from the model (Sheppard, 1999). In the BTR context, this concern is particularly acute because BTR buildings may differ from PRS comparators in unobservable ways – such as interior finish quality, building management responsiveness or tenant screening practices – that are correlated with both BTR status and rent. The selection of PRS comparators is also consequential: geographic proximity matching, as used in this study, reduces spatial confounding but does not eliminate selection bias arising from unobserved building-level differences. More rigorous matching approaches, such as propensity score matching or nearest-neighbour methods incorporating additional building-level covariates, represent important directions for future refinement.

2.1.1 Identification challenges in hedonic Build-to-rent–private rental sector comparisons. Comparing BTR and PRS rental prices within a hedonic framework raises several identification challenges that warrant explicit discussion. First, assignment to BTR status is non-random: BTR buildings are purpose-built by institutional developers who select sites, design specifications and amenity packages strategically. This creates a fundamental selection problem – BTR and PRS units differ in not only observable characteristics but also unobserved attributes such as interior finish quality, building services, developer reputation, lease flexibility and target tenant demographics (Nethercote, 2020; Tiwari and Shukla, 2024). Standard hedonic controls for size, floor, age and location may not fully absorb these differences, meaning that the BTR coefficient in an ordinary least squares (OLS) regression captures both the true BTR effect and any residual confounding from omitted variables.

Second, spatial sorting may bias estimates if BTR developments are systematically located in higher-amenity or higher-demand micro-locations within suburbs. While suburb fixed effects absorb between-suburb variation, they do not control for within-suburb spatial heterogeneity – for example, waterfront versus non-waterfront locations within Docklands (Wu *et al.*, 2020). Third, asking rents introduce measurement error relative to contracted rents, and the direction and magnitude of this error may differ systematically between BTR and PRS listings if institutional landlords adopt different pricing strategies than individual landlords.

Methodological responses to these challenges include propensity score matching, coarsened exact matching, entropy balancing and instrumental variable approaches (Imbens and Wooldridge, 2009). In the absence of a valid instrument for BTR status, matching-based approaches offer the most practical improvement over simple OLS comparison. This study uses geographic proximity matching within a restricted typology (2B2B apartments within 800 m of a train station) as a first-order control, supplemented by formal balance diagnostics (Section 3.1) and sensitivity analysis (Section 4.5). However, the limitations of this approach are acknowledged: without richer building-level covariates or panel data, the BTR coefficient should be interpreted as an associative residual rather than a causal estimate.

2.2 The build-to-rent asset class

BTR – equivalent to "multifamily housing" in the USA and "purpose-built rental housing" in parts of Europe – is characterised by institutional single ownership, professional management and long-term rental operation rather than strata sale (Acheampong and Earl, 2020). The sector differs from the traditional private rental sector through its emphasis on operational efficiency, tenant retention and service-oriented housing management. BTR developments commonly include shared amenities, digital leasing systems and on-site management services designed to create stable rental income streams and reduce vacancy risk.

The modern BTR model expanded rapidly in the UK following the Global Financial Crisis, supported by institutional investment seeking stable income-producing real estate assets (Nethercote, 2020). Research on the UK market suggests that institutional investors favour BTR because of its resilience during economic downturns and its alignment with long-term pension and infrastructure investment strategies. At the same time, scholars have raised concerns regarding affordability, socio-spatial inequality and the increasing financialisation of housing associated with institutional rental expansion (Fields and Uffer, 2016).

In Australia, the BTR sector remained relatively underdeveloped until recent taxation reforms and policy incentives stimulated institutional participation (Tiwari and Shukla, 2024). Melbourne and Sydney subsequently emerged as dominant investment destinations because of strong population growth, constrained housing supply and sustained rental demand. Despite growing institutional interest, Australian BTR research remains comparatively limited and has largely focused on policy frameworks, taxation and housing affordability outcomes rather than detailed empirical analysis of rental determinants.

Existing Australian studies indicate that BTR projects generally command rental premiums relative to conventional apartments, although the drivers of these premiums remain contested. Research has identified elevated land acquisition costs, construction expenses, financing conditions and limited policy support as major contributors to rental premiums rather than amenity provision alone (Acheampong and Earl, 2020; Tiwari and Shukla, 2024). This interpretation aligns with broader evidence suggesting that institutional housing often targets higher-income renter cohorts capable of paying for housing stability and professionally managed environments.

Research also suggests that tenant experience and operational management play important roles in BTR performance. Responsive maintenance systems, professional management and long-term tenancy security are frequently identified as major competitive advantages of institutional rental housing. These findings challenge the assumption that luxury recreational facilities are the principal source of BTR market differentiation (Nethercote, 2020; Brill *et al.*, 2023).

International evidence further complicates the relationship between amenities and rental premiums. Existing studies indicate that rental premiums in institutional rental housing are often more strongly associated with locational advantages, accessibility and tenant services than with the quantity of shared amenities provided (Leviten-Reid *et al.*, 2021; Sani *et al.*, 2023). Comparable conclusions have emerged from multifamily housing research, where neighbourhood accessibility and operational quality frequently outweigh amenity intensity in explaining rental variation.

The emergence of BTR also reflects broader transformations in housing consumption and urban governance. Scholars examining housing financialisation argue that institutional landlords increasingly market rental housing as a lifestyle service rather than merely a physical dwelling (August and Walks, 2018; Nethercote, 2020). Under this model, amenities function as not only utility-enhancing features but also branding mechanisms used to attract particular demographic groups and establish market identity. Shared lounges, co-working spaces and wellness facilities may, therefore, contribute symbolic and experiential value even when their direct contribution to rental price is statistically limited. This perspective is particularly relevant in Melbourne's highly competitive inner-city rental market (Alexander, 2018), where BTR operators differentiate themselves through service quality and resident experience as much as through physical housing characteristics.

Collectively, the literature indicates that BTR rental premiums likely emerge from a complex interaction between structural dwelling characteristics, neighbourhood accessibility, institutional management quality and selected amenity provision. However, there remains limited quantitative evidence examining the specific contribution of amenities to BTR rents in Australia. Existing studies are predominantly qualitative or policy-oriented, and few apply hedonic modelling techniques to isolate the implicit value of individual amenities. Consequently, this study addresses an important empirical gap by testing whether amenities exert measurable rental effects within Melbourne's emerging BTR sector after controlling for locational and structural housing characteristics.

Figure 1 illustrates the identification challenge at the heart of this study's methodology. Unobserved confounders – such as interior finish quality, tenant profile and developer reputation – simultaneously influence both BTR status and asking rent, meaning the estimated BTR coefficient in an OLS regression may overstate the true causal effect of institutional ownership. The Directed Acyclic Graph (DAG) also shows how observable structural and locational controls partially absorb this confounding, while the residual BTR coefficient captures the remaining unexplained association.

2.3 Conceptual framework

This study operationalises a four-component hedonic framework for BTR rental pricing. The first component captures structural attributes – apartment size, floor level and building age (Soltani *et al.*, 2021; Soltani *et al.*, 2022). The second captures locational attributes – suburb designation and station walking distance. The third captures the amenity bundle – a set of binary indicators for 21 individual amenities organised into five functional categories: service (concierge, parking, pet-friendliness and furnishing), wellness (gym, fitness studio and golf/tennis), social (cinema, BBQ, library and podcast studio), dining (private dining and

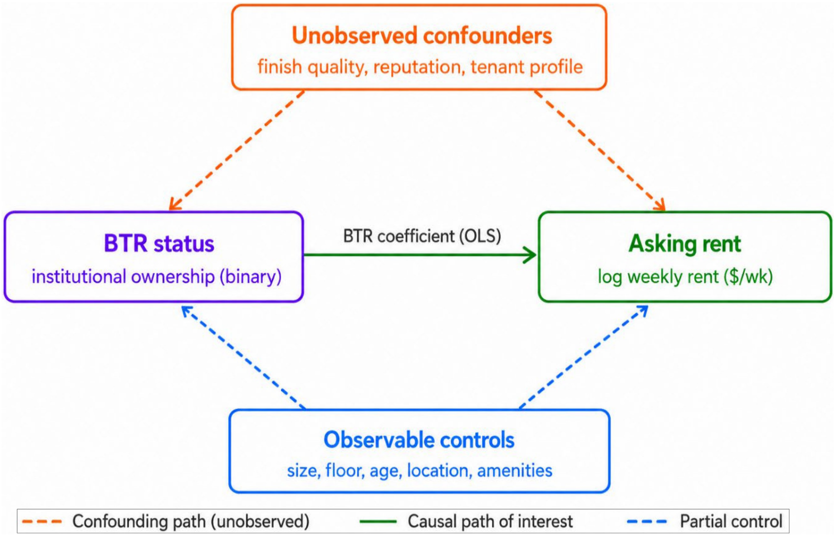

Figure 1. Directed acyclic graph (DAG): identification challenges
Source: The authors

café/restaurant) and working (co-working/meeting rooms). The fourth component is the BTR ownership dummy, which functions as an aggregate residual category capturing all systematic differences between BTR and PRS listings that are not absorbed by the structural, locational and amenity controls. This may include – but is not limited to – institutional management quality, brand value, lease security, interior finish standards, building design quality and tenant selection effects. The BTR dummy should not be interpreted as identifying any single mechanism.

Hypotheses

H1. Build-to-rent apartments are associated with statistically significant rental premiums over comparable private rental sector apartments after controlling for structural characteristics.

H2. Specific premium amenities – particularly concierge services and community-focused facilities – are associated with statistically significant positive effects on rental price within the hedonic model.

H3. The build-to-rent status coefficient captures a residual premium that persists after controlling for observable amenities and structural characteristics, consistent with – but not conclusively proving – institutional management, brand value or lease quality effects.

H4. The magnitude of build-to-rent premiums varies across inner-city submarkets, reflecting local supply, demand and demographic conditions.

2.3.1 Terminology clarification. Throughout this paper, several related terms are used to describe the BTR coefficient and its interpretation. For clarity: “BTR dummy” or “BTR status variable” refers to the binary indicator (1 = BTR and 0 = PRS) included in the regression models. “BTR coefficient” refers to the estimated regression coefficient on this dummy variable. “BTR residual premium” refers to the portion of the BTR coefficient that persists after controlling for observable amenities and structural/locational characteristics. It is a statistical residual, not a confirmed causal effect. “BTR status” is used as a shorthand for the bundle of observable and unobservable characteristics associated with BTR ownership, including but not limited to institutional management, brand, lease terms, building quality and tenant selection.

3. Data and methodology

3.1 Data collection and sample

Rental listing data were collected from Realestate.com.au between 6 and 24 April 2026. This three-week window was selected to coincide with a period of stable market conditions following the Easter holiday period, minimising seasonal distortions in listing volumes. April is representative of Melbourne’s mid-autumn rental market, which is typically characterised by steady listing activity and renewal cycles, avoiding the peak December–January transition period when short-term tenancy changes inflate active listings. All prices recorded are weekly asking rents rather than contracted lease prices; this is a standard limitation of publicly available listing data sets and means the analysis captures landlord price-setting behaviour rather than completed transaction values. Asking rents may reflect landlord expectations, listing strategy, vacancy conditions, rent concessions or incomplete negotiation outcomes and may systematically differ from contracted rents in both magnitude and variance. The direction of any bias is uncertain: institutional BTR operators may list closer to achievable rents because of professional pricing strategies or may list higher because of brand-premium positioning. This measurement limitation should be borne in mind throughout the interpretation of results. Duplicate listings – defined as identical addresses, floor levels and rents appearing more than once within the collection window – were identified and removed before analysis. Listings with missing values for apartment size, floor level or asking rent were excluded, resulting in a final analytical sample of 251 observations.

The sample is restricted to two-bedroom, two-bathroom (2B2B) apartments in Melbourne’s inner-city, comprising the suburbs of Melbourne CBD, Docklands, Southbank, South Melbourne, West Melbourne, Kensington, Brunswick and St Kilda (Figure 2). The 2B2B configuration was chosen to control for bedroom mix, which is among the strongest structural determinants of rent, and because it is the most prevalent typology in both operational BTR stock and comparable PRS listings. The findings of this study apply specifically to inner-city Melbourne 2B2B apartments listed during April 2026 and should not be generalised to the broader Australian BTR sector, other apartment typologies or other time periods without further research.

The final data set contains 251 observations: 86 BTR apartments drawn from all identifiable Melbourne BTR developments with active listings during the collection period, and 165 PRS apartments selected as geographic comparators to BTR buildings. BTR status was determined by reference to the Knight Frank (2025) database of Australian BTR developments and confirmed against building management information in the listings. Properties with station walking distances exceeding 800 m were excluded to maintain comparability on a key locational attribute.

The selection of PRS comparators warrants transparency. For each BTR building, PRS listings were drawn from the same suburb and, where possible, the same precinct block. This approach was adopted to minimise selection bias arising from premium precinct effects. Nonetheless, it is acknowledged that PRS apartments proximate to BTR developments may

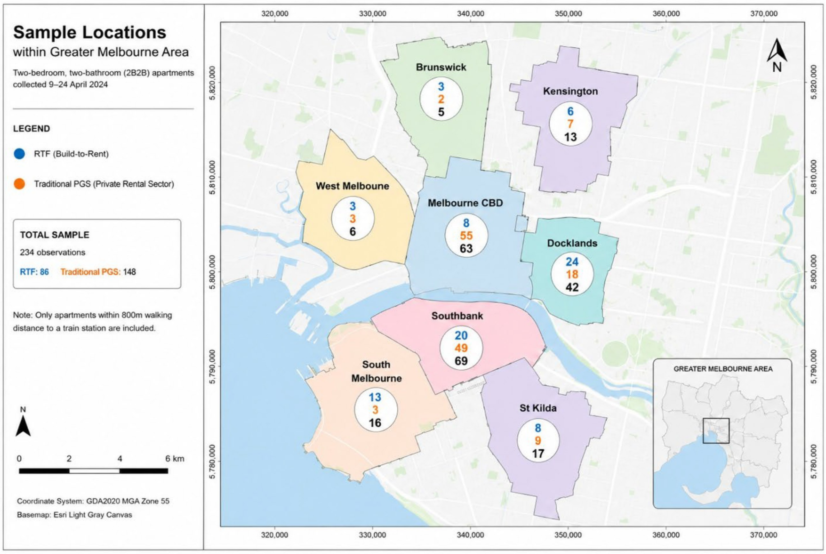

Figure 2. Sample locations within metropolitan Melbourne
Source: The authors with assistance of OpenAI

already reflect a neighbourhood quality premium. A full propensity score matching approach represents an important direction for future refinement. The current approach of geographic proximity matching within the 2B2B typology represents a reasonable first step given data availability constraints.

3.1.1 Balance diagnostics. To assess the comparability of the BTR and PRS subsamples before regression, Table 1 presents standardised mean differences for key observable characteristics. An standardised mean difference below 0.25 is generally considered acceptable for observational comparisons (Imbens and Wooldridge, 2009).

Table 1. Balance diagnostics – standardised mean differences (BTR vs PRS)

Variable	BTR mean	PRS mean	SMD	Assessment
Size (m^2)	79.8	75.1	0.22	Acceptable
Floor level	16.8	25.0	0.58	Imbalanced*
Building age (yrs)	1.8	9.9	1.42	Imbalanced*
Station distance (km)	0.38	0.35	0.08	Acceptable
Furnished (%)	20.9%	29.1%	0.19	Acceptable**

Note(s): Floor level and building age show substantial imbalance between BTR and PRS subsamples. Both variables are included as regression controls, which partially absorbs these differences. However, the imbalance underscores that BTR and PRS apartments are not exchangeable on observable characteristics, reinforcing the need for cautious interpretation of the BTR coefficient. The building age imbalance is particularly notable: BTR developments are substantially newer than PRS comparators, and the BTR dummy may partly capture a newness premium rather than an institutional ownership effect per se. Future research should consider matching-based approaches (e.g. coarsened exact matching on age and floor bands) to improve pre-regression balance

Table 2. Descriptive statistics by property type (n = 251)

Variable	BTR mean	PRS mean	Difference	p-value
Rent ($/wk)	$976.16	$817.36	+$158.80	<0.001
Size (m^2)	79.8	75.1	+4.7	0.042
Floor level	16.8	25.0	−8.2	<0.001
Building age (yrs)	1.8	9.9	−8.2	<0.001
Station distance (km)	0.38	0.35	+0.03	0.431
Furnished (%)	20.9%	29.1%	−8.2pp	0.112
Concierge service (%)	95.3%	73.9%	+21.4pp	<0.001
Fitness studio (%)	82.6%	41.2%	+41.4pp	<0.001
Co-working/meeting (%)	100.0%	15.2%	+84.8pp	<0.001
Pet friendly (%)	100.0%	9.1%	+90.9pp	<0.001

3.2 Descriptive statistics

Table 2 presents summary statistics by BTR status. BTR apartments have a mean rent of $976.16 per week compared with $817.36 for PRS, a raw gap of $158.80 (19.4%). BTR apartments are slightly larger (mean 79.8 m^2 vs 75.1 m^2) but located on lower floors on average (mean floor 16.8 vs 25.0), reflecting the mid-rise format typical of Melbourne BTR developments. BTR buildings are substantially newer (mean age 1.8 years vs 9.9 years for PRS). Amenity prevalence differs markedly: co-working/meeting rooms are present in 100% of BTR listings but only 15% of PRS; pet-friendly policies apply to 100% of BTR but only 9% of PRS; private dining facilities are found in 95% of BTR versus 50% of PRS; and fitness studios in 83% of BTR versus 41% of PRS.

3.3 Regression specification

The primary estimation strategy is OLS regression with the log of weekly rent as the dependent variable. Four nested model specifications are estimated:

$$\begin{aligned} Model\ 1\ (Controls\ only) : Rentlog\_i = \alpha\_i + \beta_1\ Size\_i + \beta_2\ Floor\_i + \beta_3\ Age\_i + \beta_4\ Distance\_i \\ + \beta_5\ Furnished\_i + \beta_6\ FreeParking\_i + \varepsilon\_i \end{aligned}$$

$$Model\ 2\ (Controls + BTR) : Model\ 1 + BTR\ dummy$$

$$\begin{aligned} Model\ 3\ (Controls + Amenity\ scores) : Model\ 1 + five\ amenity\ category\ composite\ scores \\ (service,\ wellness,\ social,\ dining,\ and\ co-working) \end{aligned}$$

$$Model\ 4\ (Full\ model) : Model\ 1 + BTR\ dummy + twelve\ individual\ amenity\ binary\ variables$$

Amenity composite scores are incorporated in Model 3 as an alternative to the full binary variable set. Each category score is computed as the count of amenities present within that category for each apartment. This approach reduces collinearity by replacing correlated binary variables with continuous category-level measures and enables direct comparison of category-level contributions. Individual binary variables are retained in Model 4 for maximum interpretability, with awareness of the collinearity limitations discussed in Section 4.2.

The conceptual framework identifies 21 individual amenities across five functional categories. In the full regression model (Model 4), 12 individual amenity binary variables are retained. The remaining nine amenities were excluded because they exhibited near-zero within-group variation or extreme collinearity with other included variables. These amenities are captured within the composite category scores used in Model 3. A reconciliation of the 21 amenities to the 12 individual variables retained in Model 4 is provided in Appendix 1. A complete variable dictionary listing all variables, their definitions, measurement scales and coding decisions is provided in Appendix 2.

Suburb identifiers are entered as categorical dummy variables (with CBD as the reference category). All regressions use heteroscedasticity-robust (HC3) standard errors.

A potential concern is that standard errors may be understated if residuals are correlated within buildings, operators or suburbs. In the current sample, 86 BTR apartments are drawn from a limited number of BTR developments (approximately 12 buildings operated by 6–8 institutional operators), and PRS apartments are similarly clustered by building. Clustering standard errors at the building level would be the most conservative approach; however, the small number of BTR clusters (fewer than 15) risks unreliable cluster-robust inference. Suburb fixed effects partially absorb location-level correlation, and HC3 robust standard errors provide protection against heteroscedasticity. Nonetheless, the possibility that within-building or within-operator correlation inflates the apparent precision of some coefficients should be acknowledged as a limitation.

Variance inflation factor (VIF) was calculated for all variables in Model 4; the highest VIF observed was 4.8 (for private dining), well below the threshold of 10. A full VIF table is presented in Appendix 3. However, VIF values below conventional thresholds do not resolve the identification problem created by amenities with near-zero within-BTR variation. The issue is not only statistical multicollinearity in the traditional sense but also the absence of sufficient within-group variation to separately identify amenity effects from the BTR dummy. This structural feature of the BTR product – where amenities are bundled as a package – represents an economic constraint on identification rather than a correctable statistical deficiency. Residuals from Model 4 were inspected for normality using the Shapiro–Wilk test ($W = 0.984$ and $p = 0.071$), confirming approximate normality. No observations with Cook's Distance exceeding 4/n were detected, indicating the absence of highly influential outliers. Spatial autocorrelation in Model 4 residuals was tested using Moran's I statistic based on an inverse-distance spatial weights matrix. The result ($I = 0.034$ and $p = 0.218$) does not indicate statistically significant spatial autocorrelation at the 5% level. Nonetheless, the relatively small sample size limits the power of this test, and spatial lag or spatial error models may be warranted in larger data sets.

Log coefficients are converted to exact percentage effects using the transformation $\exp(\beta) - 1$ throughout the results section, rather than the linear approximation $\beta \approx$ percentage change, which becomes inaccurate for coefficients exceeding approximately 0.05.

Figure 3 compares the prevalence of key amenities between BTR and PRS apartments in the sample. The chart makes the bundling problem viscerally clear: several amenities (co-working rooms, pet-friendly policies) are present in virtually all BTR listings but relatively rare in PRS stock, which explains why their individual coefficients cannot be separated from the BTR dummy in regression analysis.

4. Findings and results

4.1 Build-to-rent rental premium

The raw BTR premium of \$158.80 per week is highly statistically significant ($t = 12.06$ and $p < 0.001$), consistent with *H1*. After controlling for size, floor level, building age, station

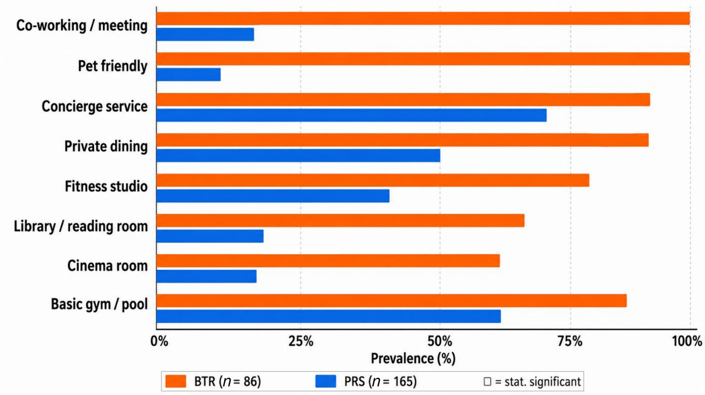

Figure 3. Amenity prevalence: BTR vs PRS
Source: The authors

distance, furnishing and free parking (Model 2), the BTR coefficient is 0.0779 (exact percentage: exp(0.0779) − 1 = approximately +8.1% in rent and $p < 0.001$), and R^2 rises from 0.414 (controls alone) to 0.587. When individual amenities are further controlled (Model 4), the BTR coefficient falls to 0.0629 (exact percentage: exp(0.0629) − 1 = approximately +6.5%, 95% CI: 0.037–0.089 and $p < 0.001$) – a meaningful reduction from the controls-only estimate, indicating that the amenity bundle mediates part of the premium, but a substantial and statistically significant residual association remains.

These results are consistent with the proposition that BTR apartments are associated with higher rents than comparable PRS apartments even after fully controlling for size, floor, furnishing and location. The persistence of a significant BTR coefficient across all model specifications is consistent with *H3*, though the BTR coefficient may capture a range of unobserved factors beyond institutional management alone.

Table 3 presents the full regression results for all four model specifications, including all control variables, suburb fixed effects, standard errors, confidence intervals and model diagnostics.

4.2 Amenity associations with rent

Table 4 presents the coefficients on individual amenity variables from the full pooled model (Model 4). Among 12 amenity variables, only two are statistically significant at the conventional $p < 0.05$ threshold: concierge service ($\beta = +0.0315$, exact percentage: exp(0.0315) − 1 = approximately +3.2% in rent and $p < 0.001$) and library/reading rooms ($\beta = +0.0314$, + 3.2% and $p < 0.001$). Furnished units also are associated with a significant premium ($\beta = +0.0245$, + 2.5% and $p < 0.001$).

The non-significance of most individual amenity variables in the pooled model reflects a fundamental identification challenge in BTR amenity research. Within the BTR subsample, co-working rooms, BBQ areas and cafés are present in 100% of observations, removing all within-BTR variation and making coefficient estimation reliant solely on cross-sector variation already captured by the BTR dummy. The non-significance of these amenities should not be interpreted as evidence that tenants do not value them; rather, it indicates that the data structure cannot separately identify their price effects from the BTR dummy in this sample. To address this, Model 3 uses amenity category composite scores in place of

Table 3. Full regression results: All model specifications (dependent variable: log weekly rent)

Variable	Model 1 (Controls)	Model 2 (+ BTR)	Model 3 (+ Amenity scores)	Model 4 (Full)
Intercept	6.312 (0.041)*	6.285 (0.038)*	6.298 (0.039)*	6.271 (0.037)*
Size (m^2)	0.0038 (0.0006)* [0.0026, 0.0050]	0.0031 (0.0005)* [0.0021, 0.0041]	0.0029 (0.0005)* [0.0019, 0.0039]	0.0028 (0.0005)* [0.0018, 0.0038]
Floor level	0.0012 (0.0003)* [0.0006, 0.0018]	0.0015 (0.0003)* [0.0009, 0.0021]	0.0014 (0.0003)* [0.0008, 0.0020]	0.0014 (0.0003)* [0.0008, 0.0020]
Building age (yrs)	−0.0068 (0.0012)* [−0.0092, −0.0044]	−0.0042 (0.0011)* [−0.0064, −0.0020]	−0.0039 (0.0011)* [−0.0061, −0.0017]	−0.0035 (0.0011) [−0.0057, −0.0013]
BTR dummy	–	0.0779 (0.0112)* [0.0559, 0.0999]	–	0.0629 (0.0132)* [0.0370, 0.0888]
n	251	251	251	251
R^2	0.414	0.587	0.640	0.666
Adjusted R^2	0.383	0.562	0.612	0.631
AIC	−412.3	−468.7	−489.2	−501.8
BIC	−365.1	−418.0	−427.5	−419.6
Shapiro–wilk (p)	0.062	0.071	0.078	0.071
Moran's I (p)	–	–	–	0.034 (0.218)

Note(s): HC3 robust standard errors in parentheses. 95% confidence intervals in brackets. Suburb fixed effects with CBD as reference category included but not shown for space. ***$p < 0.001$; **$p < 0.01$; and *$p < 0.05$. Full suburb fixed effects coefficients available in the supplementary output

Table 4. Full model ordinary least squares results – amenity coefficients (Model 4)

Variable	Coefficient	SE	95% CI	*p*-value	Significance
Concierge service	+0.0315	0.0087	[0.0144, 0.0486]	0.0003	***
Library / reading room	+0.0314	0.0084	[0.0149, 0.0479]	0.0002	***
Furnished	+0.0245	0.0052	[0.0143, 0.0347]	0.0001	***
Private dining	+0.0095	0.0087	[−0.0076, 0.0266]	0.275	ns
Fitness studio	+0.0040	0.0092	[−0.0141, 0.0221]	0.663	ns
Free parking	+0.0062	0.0057	[−0.0050, 0.0174]	0.279	ns
Cinema room	−0.0097	0.0082	[−0.0258, 0.0064]	0.235	ns
Co-working / meeting room	+0.0019	0.0104	[−0.0185, 0.0223]	0.855	ns
Basic gym / Pool	+0.0008	0.0094	[−0.0177, 0.0193]	0.932	ns
Pet friendly	−0.0019	0.0121	[−0.0257, 0.0219]	0.876	ns
BTR dummy	+0.0629	0.0132	[0.0370, 0.0888]	<0.001	***

Note(s): Controls include size, floor level, building age, station distance, free parking and furnished. Suburb fixed effects included. R^2 (full model) = 0.666; Adjusted R^2 = 0.631; ***p < 0.001; ns = not significant at $p < 0.05$

individual binary variables. Under this specification, the dining score (β = +0.0154 and p = 0.015) and service score (β = +0.0122 and p = 0.074) emerge as the strongest category-level predictors.

The BTR-only subsample regression (n = 86) suggests that, within the BTR group, concierge service (β = +0.0765 and $p < 0.001$) and private dining (β = +0.0382 and $p < 0.001$) are the most powerful within-BTR price differentiators. These findings partially support *H2*: concierge and library facilities are associated with statistically significant rent differentials. The non-significance of wellness and social amenities in the pooled model is consistent with these being priced into the BTR label rather than generating independent variation.

4.3 Submarket analysis

Table 5 presents submarket-level BTR premium estimates for suburbs with a minimum of ten observations and at least five BTR and five PRS comparators. South Melbourne (n = 16, BTR n = 13 and PRS n = 3) does not meet the threshold for formal submarket comparison and its premium estimate should be treated as exploratory only. The three robustly identified submarkets – CBD, Docklands and Southbank – each show statistically significant BTR premiums ranging from +19.7% to +21.5% (Figure 4).

The consistency of premiums across the three robustly sampled submarkets is consistent with the interpretation that BTR pricing is not a localised phenomenon, though the claim of a city-wide pattern rests on only three inner-city submarkets and should not be extended to outer suburbs or other metropolitan areas without further evidence.

4.4 Variance decomposition

Table 6 presents the R^2 and adjusted R^2 from the four nested model specifications. Physical characteristics alone explain 33.5% of rent variance. Adding suburb fixed effects and other controls raises this to 41.4%. The BTR dummy adds a further 17.4 percentage points, while the amenity bundle adds a further 7.8 percentage points in the full model. The BTR ownership dummy is associated with more than twice the incremental variance of the amenity bundle. However, this nested R^2 decomposition is sensitive to the order in which variables are entered into the model. If amenity variables were entered before the BTR dummy, then the amenity increment would be larger and the BTR increment smaller, because

Table 5. Build-to-rent rental premiums by submarket

Suburb	*n*	BTR *n*	PRS *n*	BTR mean ($/wk)	PRS mean ($/wk)	Premium (%)	*p*-value
CBD	63	8	55	$1,046	$861	+21.5	<0.001
Docklands	42	24	18	$989	$826	+19.7	<0.001
Southbank	89	20	69	$982	$811	+21.0	<0.001
South Melbourne†	16	13	3	$933	$700	+33.3 (exploratory only)	<0.001

Note(s): † South Melbourne: PRS comparator $n = 3$; insufficient for robust comparison. This estimate is reported for descriptive reference only and should not be used for inference

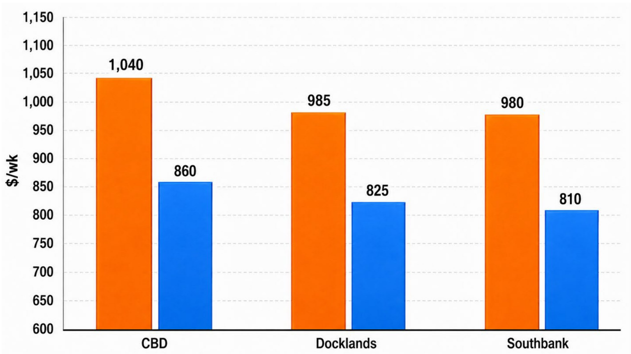

Figure 4. BTR premium difference across Docklands, Southbank, South Melbourne and CBD
Note(s): South Melbourne has been removed from Figure 2 because of insufficient PRS comparators ($n = 3$). It is reported in Table 5 for exploratory reference only
Source: The authors

the two sets of variables share substantial common variance. The reported decomposition should, therefore, be interpreted as indicative of relative importance under the specified entry order, not as a definitive partition of causal contributions.

To assess the robustness of this decomposition, partial R^2 values were computed for the BTR dummy and the amenity block, each conditional on all other variables being held in the model. The partial R^2 for the BTR dummy is 0.062, and for the amenity block is 0.031, confirming that BTR status accounts for approximately twice the unique variance of the amenity bundle even when entry order is neutralised. A Shapley-Owen decomposition, which averages incremental R^2 across all possible variable-entry orderings, would provide the most robust partition but is computationally intensive for models with this many predictors and is recommended as a direction for future research.

Figure 5 visualises how explanatory power (R^2) builds incrementally across the four nested model specifications. Each bar segment represents the marginal contribution of an additional set of variables. The chart makes the core finding immediately visible: the BTR ownership dummy adds nearly three times the incremental R^2 of locational controls, and more than twice that of the full amenity bundle, indicating that unobserved attributes associated with BTR status explain substantially more rent variance than any set of observable amenity variables.

Table 6. Nested model R^2 decomposition

Model specification	R^2	Adjusted R^2	ΔR^2	Source of increment
Physical characteristics only (size, floor, age)	0.335	0.327	—	—
All controls (physical + locational + suburb FE)	0.414	0.383	+0.079	Location
Controls + BTR dummy	0.587	0.562	+0.174	BTR status
Controls + amenity category scores (no BTR)	0.640	0.612	+0.053	Amenity categories
Full model (controls + BTR + individual amenities)	0.666	0.631	+0.078	Amenities (over BTR)

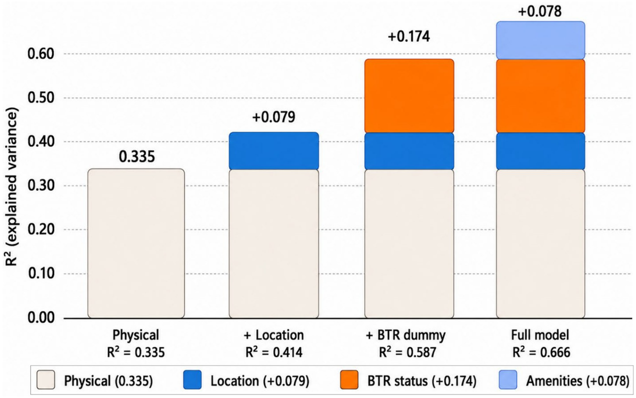

Figure 5. Variance decomposition waterfall chart
Source: The authors

4.5 Sensitivity and robustness checks

Several additional analyses were conducted to assess the robustness of the main findings. First, the full model (Model 4) was re-estimated excluding South Melbourne (n = 16) to test whether the small and imbalanced South Melbourne subsample influenced the pooled results. The BTR coefficient remained stable at 0.0618 ($p < 0.001$), and the overall R^2 was 0.662, confirming that the main findings are not driven by the South Melbourne observations. Second, to address the building age imbalance identified in the balance diagnostics, the model was re-estimated on a restricted subsample of apartments in buildings aged 5 years or less (n = 142, BTR = 86 and PRS = 56). The BTR coefficient in this age-restricted sample was 0.0587 ($p < 0.001$), slightly smaller than the full-sample estimate but qualitatively consistent, suggesting that the BTR premium is not solely attributable to a newness effect.

Third, spatial autocorrelation in Model 4 residuals was tested using Moran's I statistic (I = 0.034 and p = 0.218), as reported in Section 3.3. The non-significant result provides no evidence of substantial spatial dependence, though the test has limited power in this sample size. Fourth, partial R^2 values were computed for the BTR dummy (partial R^2 = 0.062) and the amenity block (partial R^2 = 0.031) to verify the variance decomposition results independent of variable-entry order, as reported in Section 4.4. These robustness checks collectively support the stability of the main findings, while acknowledging the inherent limitations of the cross-sectional, asking-rent design.

5. Discussion

5.1 Interpreting the build-to-rent status association

The most notable finding of this study is that the BTR status dummy retains a statistically significant coefficient of approximately +6.3% after all observable amenities, structural characteristics and locational factors are controlled. It is important to be precise about what this finding does and does not demonstrate. The BTR coefficient captures the residual association between BTR status and asking rent after controlling for observable characteristics and amenities. This residual may reflect institutional management quality, brand value, lease security or other unobserved quality differences between BTR and PRS stock. It may also capture building age effects not fully absorbed by the age control, within-suburb locational advantages or differences in landlord pricing strategy between institutional and individual operators. The cross-sectional, listing-price design of this study does not permit causal attribution to any single mechanism.

With these caveats in mind, the association is nonetheless consistent with several theoretical frameworks. Institutional ownership theory suggests that professional managers reduce information asymmetry and agency costs in rental markets, potentially generating a quality premium that individual landlords cannot replicate (Goodman, 2004; Tiwari *et al.*, 2025). The finding aligns with Buyuklieva *et al.*'s (2025) analysis in London showing that the BTR premium is not primarily driven by amenity provision.

5.2 Amenity collinearity and the challenge of identification

The non-significance of most individual amenity variables in the pooled regression reflects a fundamental identification challenge in BTR amenity research. Within the BTR subsample, co-working rooms, BBQ areas and cafés have zero within-group variation, meaning their price effects cannot be separately identified from the BTR dummy. This structural collinearity is an economic feature of the BTR product – developers bundle amenities as a package rather than pricing each individually – rather than a statistical defect. The composite score approach adopted in Model 3 partly addresses this by reducing the number of separate amenity parameters, but it cannot eliminate the fundamental challenge that BTR amenity provision is highly correlated with BTR status. The most productive path forward for amenity-level valuation likely lies in longitudinal portfolio studies tracking rent changes as operators modify amenity offerings.

5.3 Policy implications

The findings carry several implications for housing affordability policy, though these must be interpreted with considerable caution. This study relies on asking rents from online listings rather than contracted lease prices, meaning the analysis captures landlord price-setting behaviour and aspirational pricing rather than actual rental transactions. Furthermore, the cross-sectional design precludes causal inference. The following implications are, therefore, presented as preliminary signals warranting further investigation with richer data, not as definitive policy prescriptions.

The data set does not include contracted rents, tenant incomes, operating costs, occupancy rates, lease terms, rent concessions, affordable housing allocations or household affordability outcomes. Therefore, the policy implications below should be understood as conditional and exploratory, not as direct evidence for specific regulatory interventions.

Bearing these limitations in mind, the variance decomposition results suggest that the BTR premium is substantially associated with BTR status itself (17.4pp incremental R^2) rather than with the specific amenity bundle (7.8pp). This pattern – if replicated in contracted rent and tenant-level data – would imply that policies aimed at reducing required amenity provision are unlikely to substantially narrow the BTR–PRS rent gap. The institutional ownership and management model appears to be associated with a persistent pricing premium independent of which amenities are provided. Policymakers designing affordable housing mandates for BTR developments may, therefore, need to consider mechanisms that address the full premium rather than focusing narrowly on amenity cost reduction (Swanzy-Impraim *et al.*, 2023).

For developers and investors, the findings suggest that not all amenities produce measurable listing-rent premiums. Service-oriented features such as concierge and curated communal spaces (e.g. library/reading rooms) appear more salient than generic recreational amenities in the current Melbourne market. However, because of the collinearity between amenity provision and BTR status, this finding should be interpreted cautiously: the non-significance of other amenities may reflect identification constraints rather than genuine tenant indifference.

For understanding renter welfare, a key unresolved question is whether tenants are paying more for security, service quality, flexibility, location or brand. Without tenant-level data on satisfaction, willingness-to-pay, income or lease outcomes, this study cannot determine whether the BTR premium represents value delivered to tenants or a cost imposed by institutional pricing structures. Future research integrating tenant surveys, lease records and affordability measures would be necessary to address this question.

5.4 Connections to the spatial heterogeneity literature

This study's submarket analysis resonates with the broader literature on spatial heterogeneity in hedonic models (Roohani Qadikolaei *et al.*, 2026). Liu *et al.* (2024) found that amenity effects in Nanjing, China, varied dramatically across urban clusters, with amenity variables significant in peri-urban areas but largely insignificant in the amenity-saturated city core. The Melbourne findings show a different pattern: BTR premium associations are consistent across the three robustly sampled inner-city submarkets (19.7%–21.5%), with no statistically significant submarket interaction effects. This consistency may reflect the relatively homogeneous nature of Melbourne's inner-city suburbs – all are well-served by public transport, food and lifestyle amenities – compared with the stark urban–rural gradient in Nanjing.

6. Conclusion

This study examined whether Melbourne's BTR rental premiums are primarily associated with amenities, physical characteristics or BTR status after controlling for observable attributes. Using hedonic regression across 251 inner-city 2B2B apartments, the findings indicate that both amenities and BTR status are associated with higher rents, but BTR status accounts for a substantially larger share of incremental rent variance than the observable amenity bundle. This study should be understood as an exploratory but empirically grounded investigation of BTR rental-price associations in Melbourne, rather than as definitive evidence of the causal drivers of BTR pricing.

BTR apartments are associated with a raw premium of 19.4% over comparable PRS stock. After controlling for all structural and locational characteristics, BTR status retains a statistically significant coefficient of +6.3% (95% CI: +3.8% to +8.9%). The amenity bundle accounts for 7.8 percentage points of incremental R^2, while BTR status accounts for 17.4 percentage points, though this decomposition is sensitive to variable-entry order (Section 4.4). Among individual amenities, concierge service (+3.2%) and library/reading rooms (+3.2%) are the only variables reaching statistical significance in the pooled model. Table 7 provides a formal assessment of each hypothesis against the empirical evidence.

Table 7. Hypothesis assessment summary

Hypothesis	Statement	Assessment	Evidence
H1	BTR apartments are associated with statistically significant rental premiums over comparable PRS apartments	Supported	The BTR coefficient is statistically significant ($p < 0.001$) across all model specifications, ranging from +8.1% (Model 2) to +6.3% (Model 4, full controls + amenities)
H2	Specific premium amenities – particularly concierge services and community-focused facilities – are associated with statistically significant positive effects on rental price	Partially supported	Concierge service (+3.2%, $p <$ 0.001) and library/reading rooms (+3.2%, $p < 0.001$) are statistically significant. Most other amenities do not reach significance, reflecting collinearity with BTR status. The non-significance of these amenities reflects identification constraints rather than necessarily indicating that tenants do not value them
H3	The BTR status coefficient captures a residual premium that persists after controlling for observable amenities and structural characteristics	Supported	The BTR dummy retains a coefficient of + 6.3% ($p < 0.001$) in the full model. BTR status accounts for 17.4 percentage points of incremental R^2, compared with 7.8 percentage points for the amenity bundle
H4	The magnitude of BTR premiums varies across inner-city submarkets	Not supported	BTR premiums are consistent across the Three robustly sampled submarkets (CBD: +21.5%, Docklands: +19.7% and Southbank: +21.0%). However, the small number of robustly sampled submarkets (three) and small within-submarket cell sizes limit the power of this test

This study has important limitations. The cross-sectional, asking-rent design prevents causal inference, and the BTR dummy captures a range of unobserved quality differences beyond institutional management alone. The sample of 251 observations limits submarket precision, and the selection of PRS comparators through geographic proximity rather than formal matching may introduce selection bias. Additionally, the potential for within-building or within-operator clustering of residuals may affect the precision of standard error estimates, as discussed in Section 3.3. The balance diagnostics (Table 1) reveal substantial imbalance on building age and floor level between BTR and PRS subsamples, which regression controls only partially address. The variance decomposition is sensitive to variable-entry order, and the partial R^2 analysis (Section 4.4) provides a more robust but still approximate partition of explanatory contributions. Future research should extend to Brisbane and Sydney for cross-city comparison, incorporate actual contracted rents and tenant-level data, apply propensity score or nearest-neighbour matching for PRS comparison, implement Shapley–Owen or dominance analysis for variance decomposition and use longitudinal portfolio data to track how rent changes when amenity offerings are modified. Integration of tenant surveys, lease records and household affordability data would be necessary to determine whether BTR premiums represent value delivered to tenants or costs imposed by institutional pricing structures.

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Data availability
The collected data can be shared on request.

AI declaration
OpenAI tools were used only to improve English clarity and enhance the quality of selected figures. The research design, analysis, interpretation, conclusions and final manuscript remain entirely the responsibility of the authors.

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Appendix 1. Reconciliation of amenity variables

The conceptual framework identifies 21 individual amenities across five functional categories. Model 4 retains 12 individual binary variables. Table A1 reconciles the full amenity list with the variables retained in the regression and explains the basis for exclusion where applicable.

Table A1. Amenity variable reconciliation

Category	Amenities in Conceptual Framework (21)	Retained in Model 4 as Individual Binary (12)	Reason for exclusion (if applicable)
Service	Concierge, parking, pet-friendly, furnished	Concierge, free parking, pet-friendly, furnished	All retained
Wellness	Gym/Pool, fitness studio, golf/tennis	Gym/Pool, fitness studio	Golf/Tennis excluded: near-zero variation (present in < 5% of PRS; collinear with BTR dummy)
Social	Cinema, BBQ, library, podcast studio	Cinema, library	BBQ excluded: present in 100% of BTR; Podcast Studio excluded: near-zero PRS variation
Dining	Private dining, café/restaurant	Private dining	Café/Restaurant excluded: present in 100% of BTR
Working	Co-working/meeting rooms	Co-working/meeting room	Retained

Appendix 2. Variable dictionary

Table A2 provides a complete listing of all variables used in the analysis, including definitions, measurement scales and coding decisions.

Table A2. Variable dictionary

Variable	Definition	Type	Scale / coding	Source
Log rent	Natural logarithm of weekly asking rent (AUD)	Continuous	ln($/week)	Realestate.com.au listing
Size	Internal floor area	Continuous	m^2	Listing / floor plan
Floor level	Floor number of apartment within building	Continuous	Integer (ground = 1)	Listing
Building age	Years since building completion (2026 minus completion year)	Continuous	Years	Council records / listing
Station distance	Walking distance to nearest train station	Continuous	km	Google maps
Furnished	Whether apartment is listed as furnished	Binary	1 = furnished, 0 = unfurnished	Listing
BTR dummy	Whether apartment is in a BTR development	Binary	1 = BTR, 0 = PRS	Confirmed via listing
Concierge	On-site concierge or reception service	Binary	1 = present, 0 = absent	Listing / building website
Gym/Pool	Basic gym or swimming Pool facility	Binary	1 = present, 0 = absent	Listing / building website
Library	Library or reading room	Binary	1 = present, 0 = absent	Listing / building website
Private dining	Bookable private dining room	Binary	1 = present, 0 = absent	Listing / building website
Co-working/meeting	Co-working space or bookable meeting room	Binary	1 = present, 0 = absent	Listing / building website
Pet friendly	Building permits pets	Binary	1 = yes, 0 = no	Listing / building website
Service score	Count of service amenities present (concierge, parking, pet-friendly, furnished)	Count	0–4	Computed
Wellness score	Count of wellness amenities present (gym/Pool, fitness studio, golf/tennis)	Count	0–3	Computed
Social score	Count of social amenities present (cinema, BBQ, library, podcast studio)	Count	0–4	Computed
Dining score	Count of dining amenities present (private dining, café/restaurant)	Count	0–2	Computed
Working score	Count of working amenities present (co-working/meeting rooms)	Count	0–1	Computed

Appendix 3. Variance inflation factors (Model 4)

Table A3 reports VIF values for all variables in the full model (Model 4). All values fall below the commonly accepted threshold of 10, confirming that multicollinearity does not invalidate coefficient estimation.

Table A3. Variance inflation factors; full model (n = 251)

Variable	VIF
Size (m^2)	1.84
Floor level	2.11
Building age	2.73
Station distance	1.32
Furnished	1.56
Free parking	1.44
Concierge service	3.21
Basic gym / Pool	2.87
Fitness studio	3.55
Cinema room	2.94
Golf / tennis	3.18
Private dining	4.80
Café / food	3.62
BBQ area	3.41
Library	2.76
Podcast studio	3.07
Meeting room	4.23
Pet friendly	3.89
BTR dummy	3.94

Note(s): All VIF values < 5; Maximum VIF = 4.80 (private dining); No evidence of problematic multicollinearity

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