



Green-Blue Infrastructure and Housing Prices

A Case from Rạch Đĩa Canal, Ho Chi Minh City

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- 1. Motivation & research questions**
- 2. Literature, study area & data**
- 3. Method**
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- 6. Conclusions & policy**

Motivation: Peri-urban canals in HCMC: drainage liability or green-blue asset?



Dense tidal network

Creeks and canals long treated as drainage: filled, straightened or built over



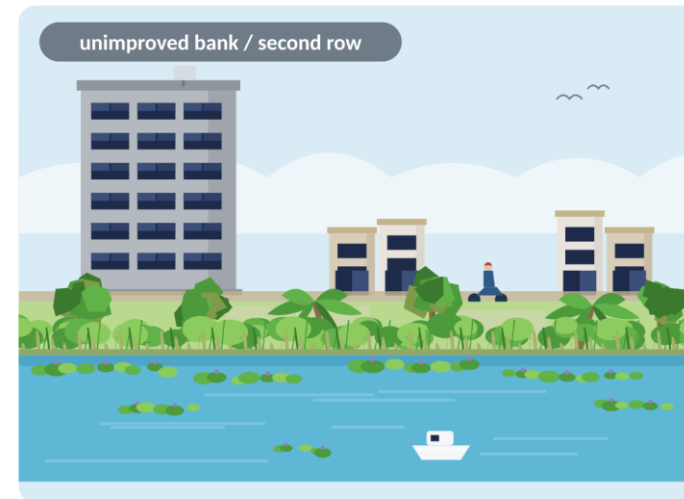
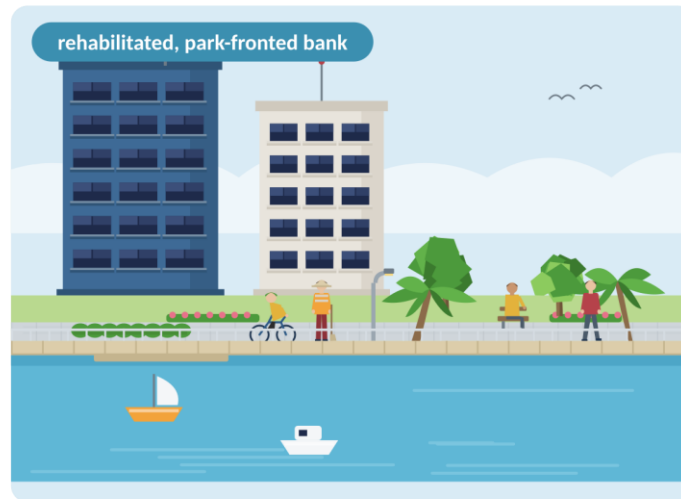
Rehabilitation works

Nhiều Lộc–Thị Nghè, Tân Hóa–
Lò Gốm, Xuyên Tâm



Evidence gap

Almost no Southeast Asian
hedonic evidence



Research questions

1 Capitalization

Is a canal view capitalized into apartment prices, and by how much, when units of the same project are compared?

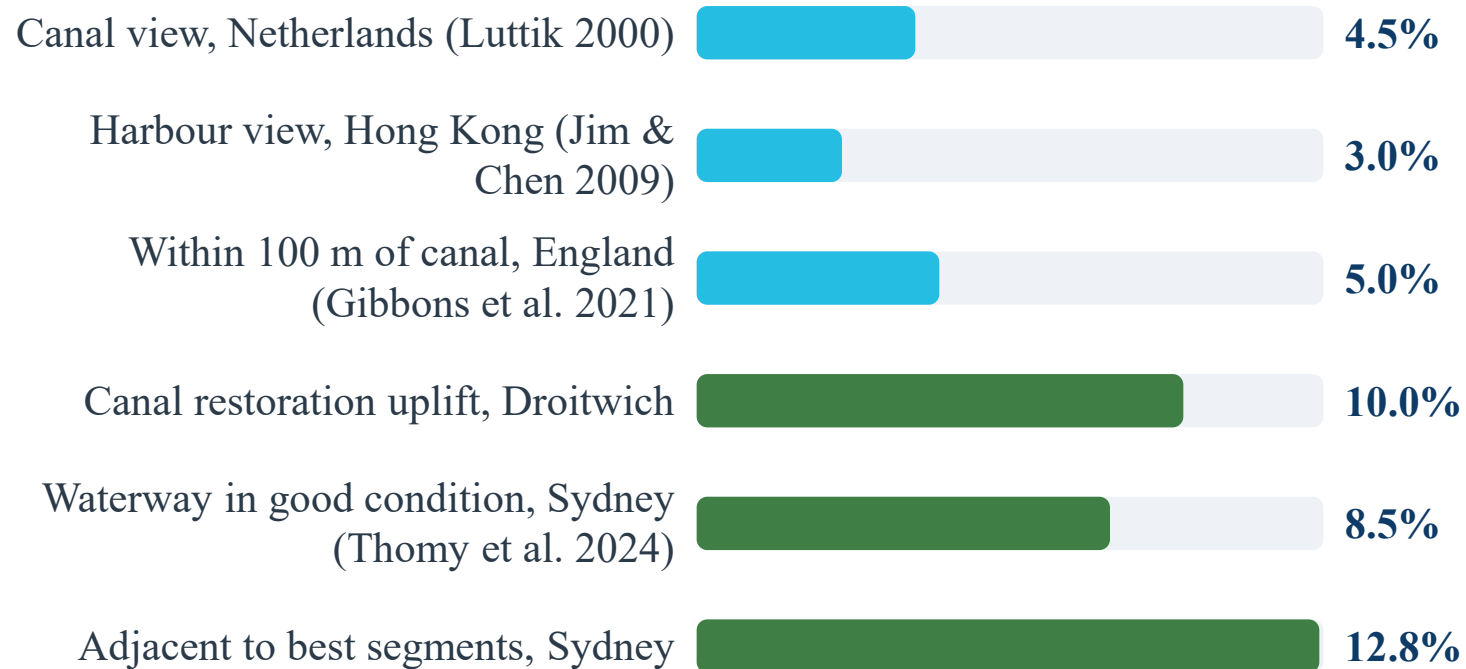
2 Waterfront condition

Does the size of the premium depend on the condition of the waterfront? By how much?



Literature review: Water views carry small, context-dependent premiums

● View / proximity ● Condition / restoration



Price premium, % (representative point values)

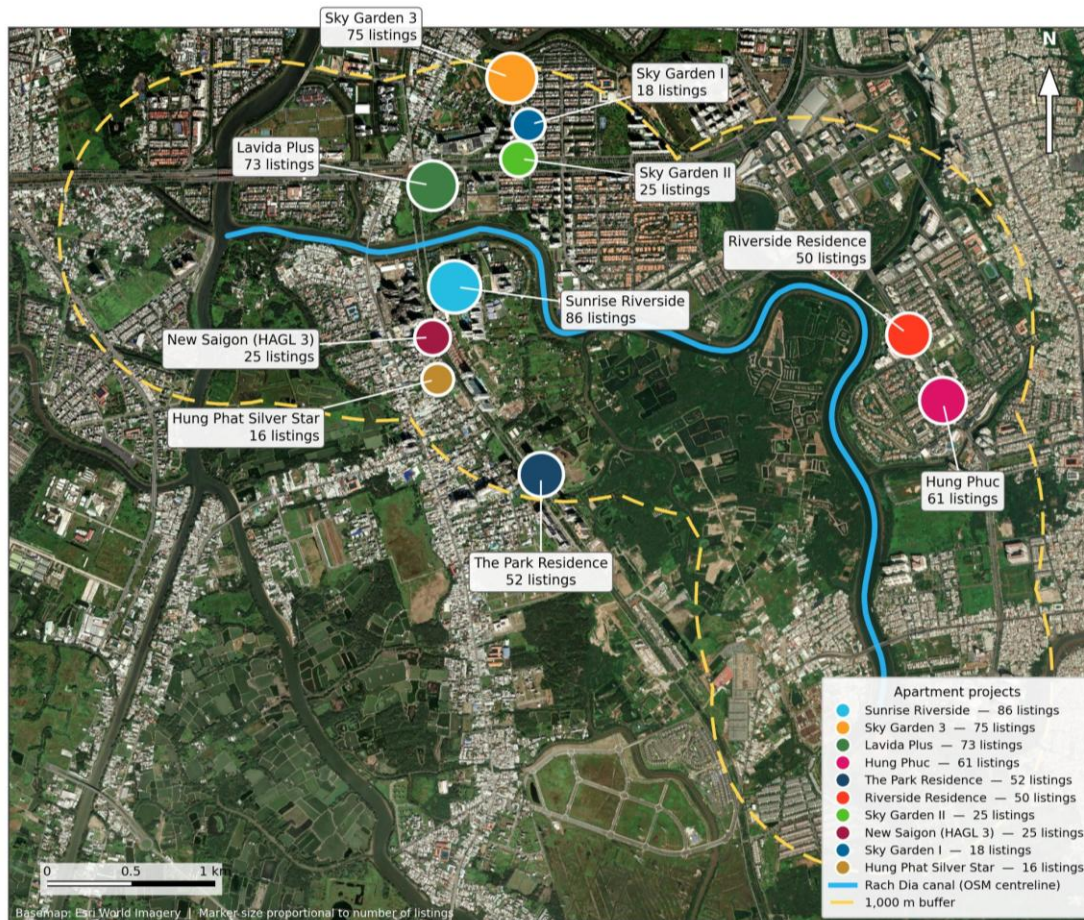
1 Views can be identified inside apartment towers

2 Canals are under-researched; premiums are modest

3 **Condition matters** — premium where the waterway is in good shape

4 Nothing yet for Vietnam

Study area: Rạch Đĩa, a tidal canal on the southern fringe



Two banks, two conditions

North — Phú Mỹ Hưng: landscaped embankment, marina, riverside park

South — Phước Kiển: mid-market projects on an unimproved bank

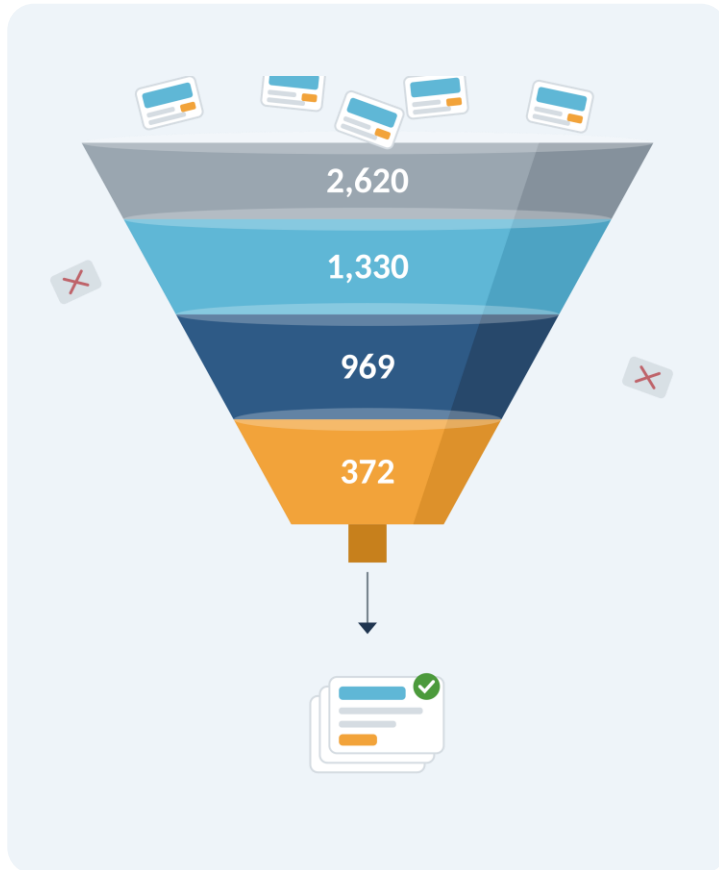
Towers on both sides since late 2000s

8–10 km from the District 1 CBD

1,000 m buffer

Water effects fade by ~1 km

Data: 2,620 online listings to an estimation sample of 969



- **2,620** raw listings from two property websites
- **1,330** within 1,000 m of the canal
- **969** estimation sample in 44 projects
- **372** checked by hand (14 canal-front projects)

Cleaned for duplicates, missing values and outliers

Asking prices: the only source with unit-level detail

Method: semi-log hedonic regression with project fixed effects

$$(1) \ln p_i = \alpha + \beta \cdot \text{VIEW}_i + \sum \gamma_k \cdot S_{ki} + \theta_j + \varepsilon_i$$

$$(2) \ln p_i = \alpha + \beta_1 \cdot \text{VIEW}_i + \beta_2 \cdot (\text{VIEW}_i \times \text{REHAB}_j) + \sum \gamma_k \cdot S_{ki} + \theta_j + \varepsilon_i$$

p = asking price per m²

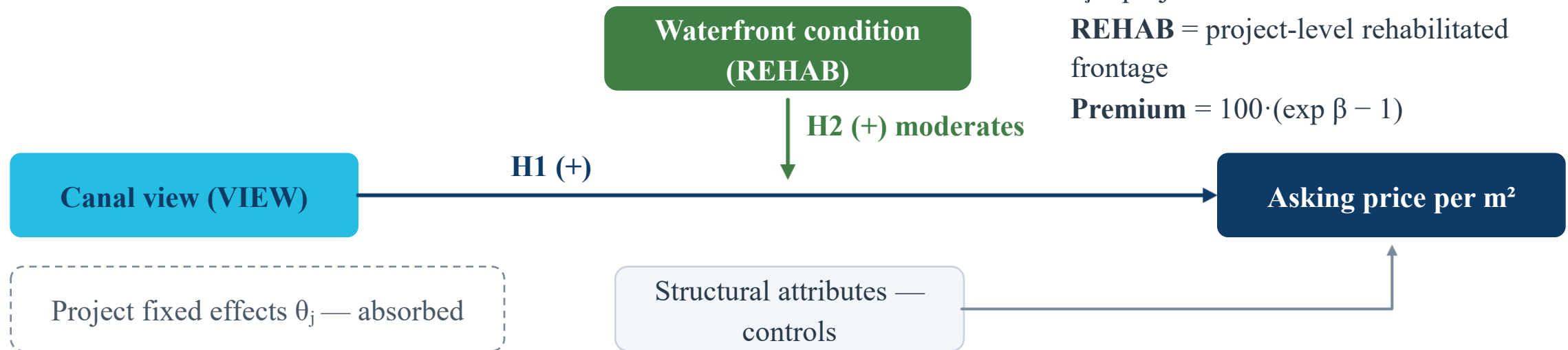
VIEW = unit-level canal view

S = floor area, bedrooms, bathrooms, orientation, furnishing, legal status, platform

θ_j = project fixed effect

REHAB = project-level rehabilitated frontage

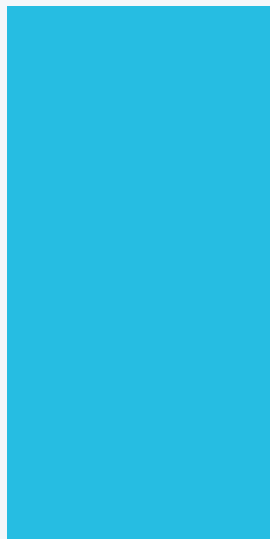
Premium = $100 \cdot (\exp \beta - 1)$



Results: canal-view flats ask 16% more, at first sight

Average asking price per m²

+16%



Canal view



Other flats

But canal-view flats also differ in other ways:

- 👤 They are larger
- 👤 They are more often furnished
- 👤 They are in more expensive projects

**So the 16% mixes the view with project quality.
Next, we compare flats inside the same project.**

Results: within the same project, a canal view adds about 3%

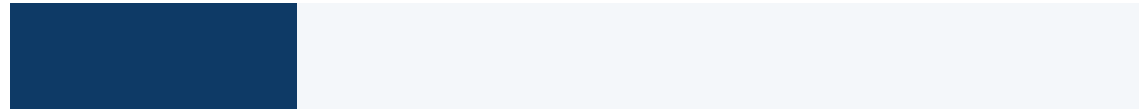
Price premium for a canal view

Comparing all flats



10.5%

Comparing flats in the same project



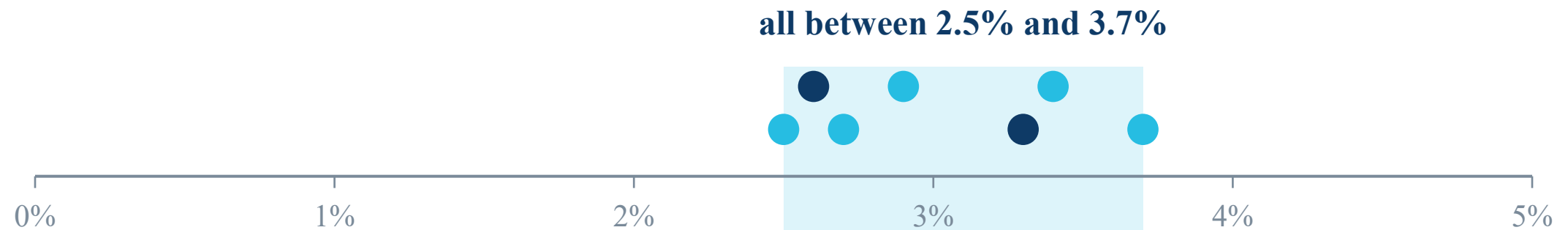
≈ 3%

✓ About three-quarters of the first gap is project quality, not the view.

⚠ The view premium is small and positive, but statistically borderline.

Results: the 3% holds across seven checks

Canal-view premium in seven alternative estimates



Other ways of coding the view

Only flats within 500 m of the canal

Only one listing website

The size of the premium is stable; its precision is limited.

Results: a premium only where the bank has been rehabilitated

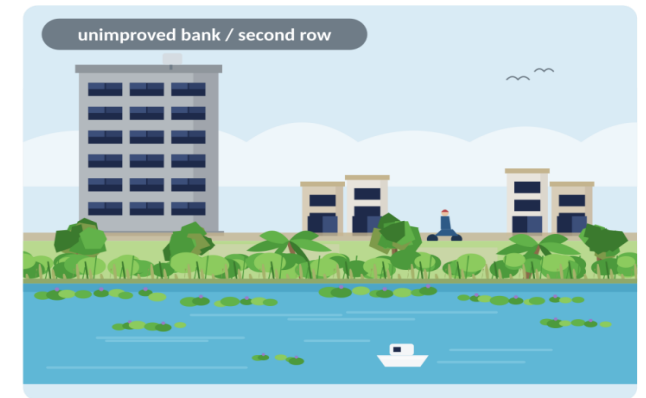
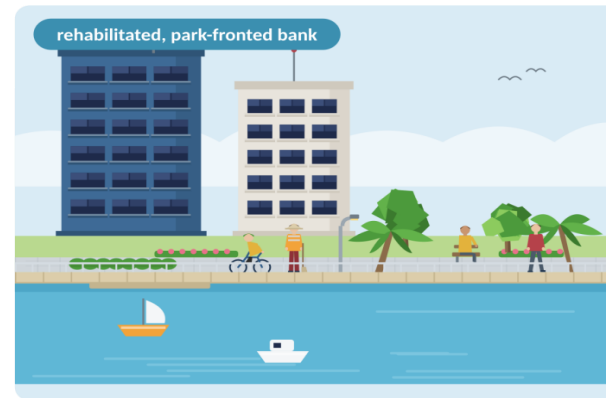
Canal-view premium

$\approx 0\%$

Unimproved bank

$\approx 6\%$

Rehabilitated bank



✓ Not driven by any single project

✓ Also holds within one developer (Phú Mỹ Hưng)

Based on 14 projects: read as indicative.

Discussion: the water, or the waterfront?

Why only about 3%?

A narrow canal, mostly partial views

Similar to canal premiums elsewhere



Why the bank matters

Same pattern in Sydney and England

Unmanaged water is often not valued

Buyers pay for a designed, accessible waterfront, not for water alone.

Limitations



Asking prices, not sale prices



Listings are not a random sample



View coded from listing text



Floor level is not observed



One canal, few projects



Indicative estimates for this canal, not general values

Conclusions and what they mean for canal policy

≈ 3%

canal-view premium within the same project

≈ 6% vs 0%

rehabilitated vs unimproved bank

3/4

of the first price gap is project quality

- 💡 Count the canal's amenity value in project appraisals
- 🔑 Rehabilitation creates the premium; part of it could help fund the works
- 🏠 A low-cost method that can cover the whole canal network
- ▶ Next: more canals, sale prices, the Saigon River

Thank you — nam.cn@vgu.edu.vn

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