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HDB Resale Insights

Predicting Home Values for
Young and Expecting Families



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01

Context & Problem Statement



79%

increase in BTO first-timer family applicants
in 3 years (2018-2021)

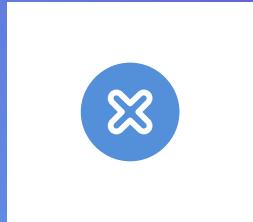


[Source: [hdb.gov.sg](https://www.hdb.gov.sg)]

Your clients

With a large influx in family-based buyers, we want to make sure that they find a home that meets their needs, with an accurate proposal based on their budgets





Problem

“Guess-timation” of HDB
resale valuation for
customers based on
neighbouring units sold



Solution

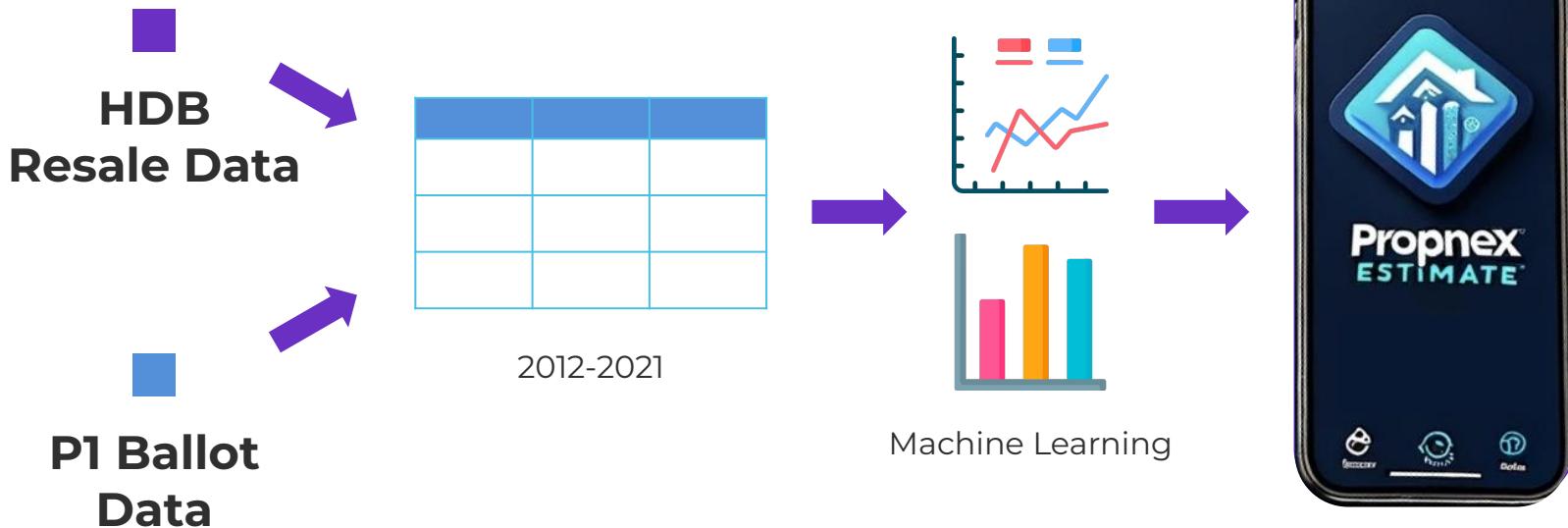
PropNex EstiMate -
An app with predictive model
that predicts resale values,
based on family-centric
features



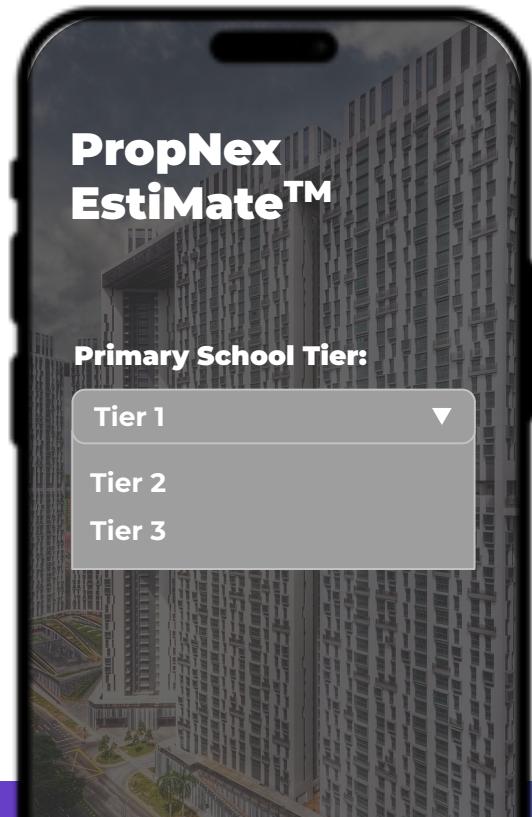
02

Data, Methodology & Features

Data and Methodology



Unique features



Application

—
Vacancies

= Popularity



Tier 1

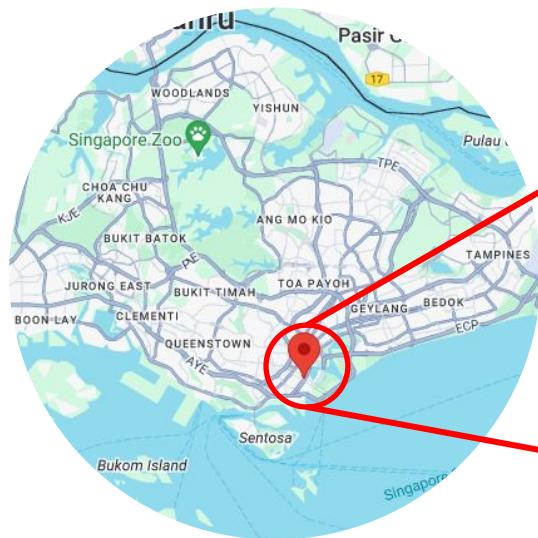
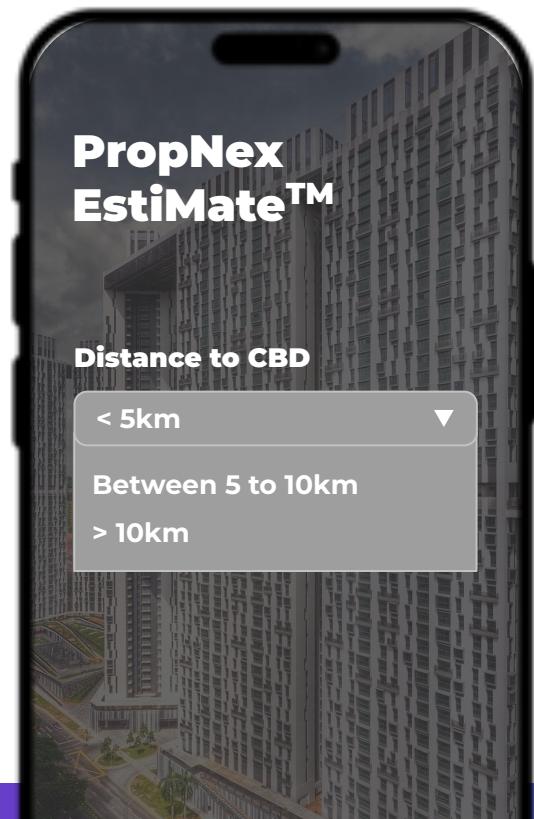
Highest ratios

Tier 2

Tier 3

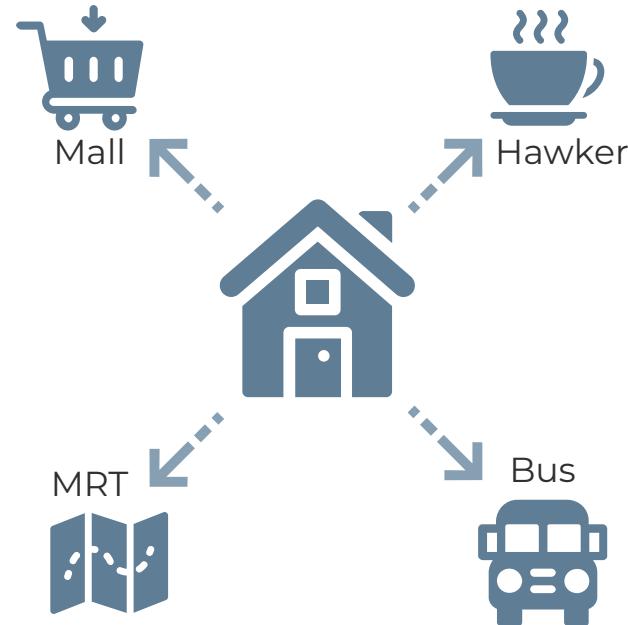
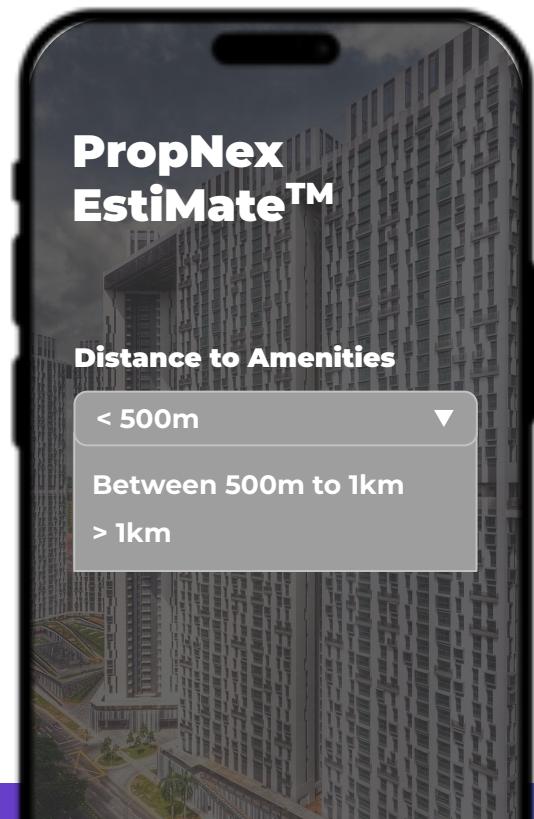
Lowest ratios

Unique features



1°16'59.2"N 103°51'04.0"E

Unique features





03

Data and Insights

Factors that have the strongest relationship to resale price



Floor area

Correlation = 0.66



Storey

Correlation = 0.35



Age

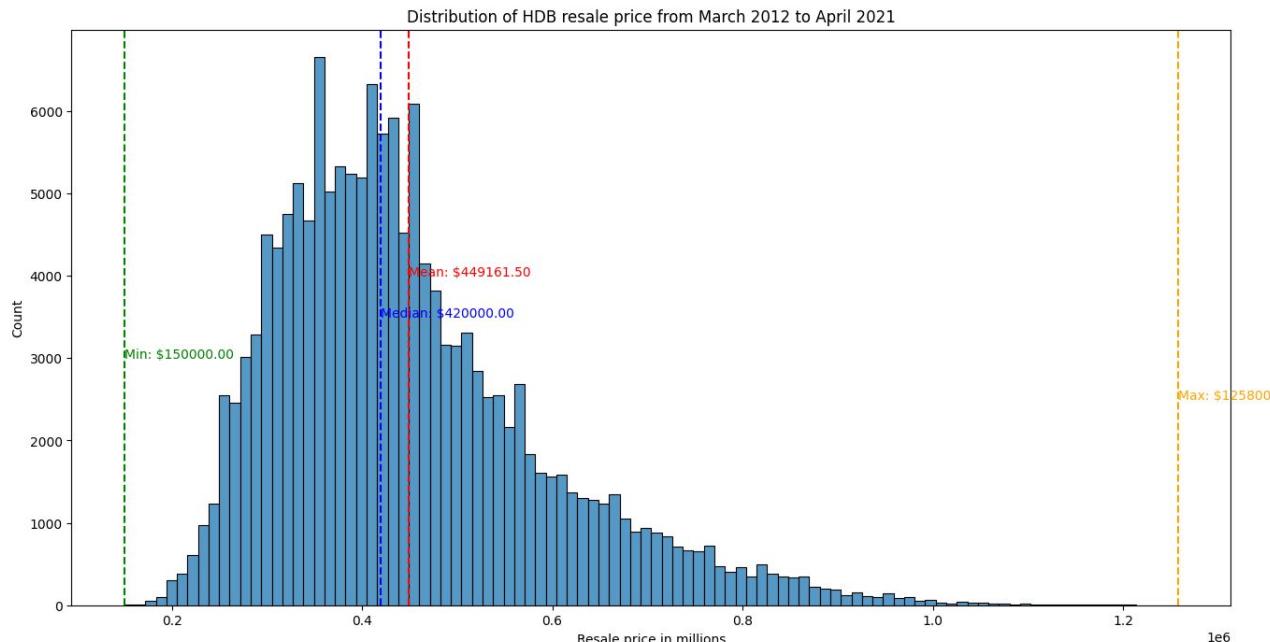
Correlation = -0.35



Distance to
CBD

Correlation = -0.55

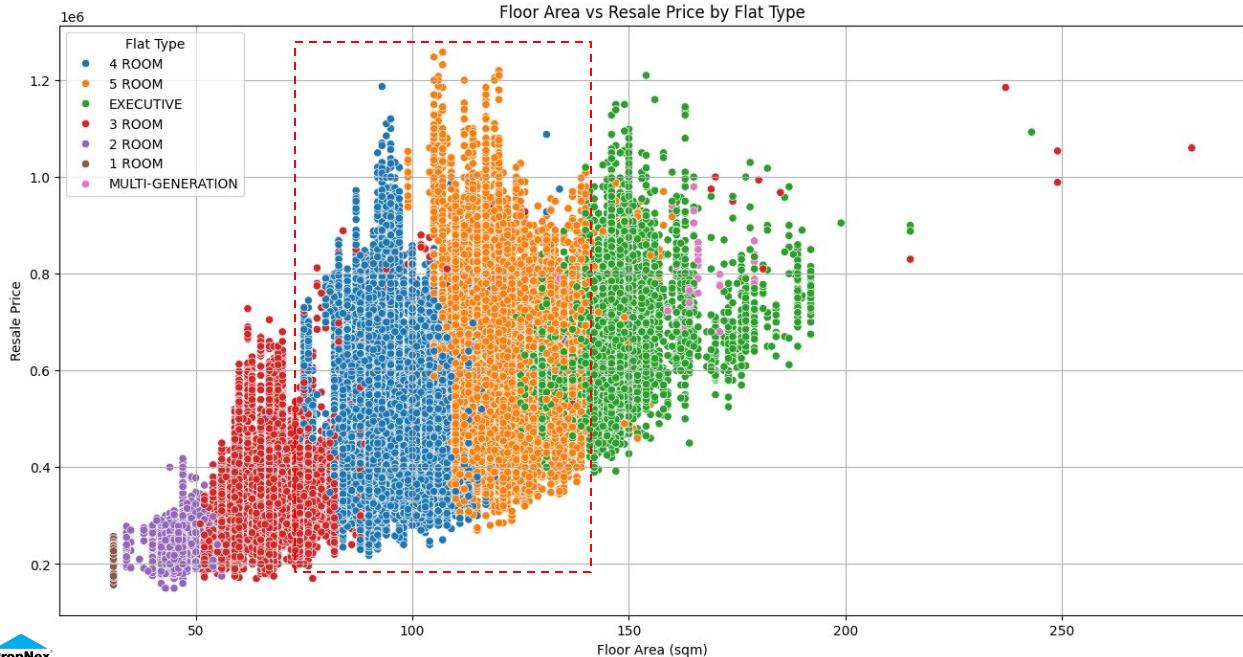
HDB Resale Price Distribution



Summary of HDB Resale Prices

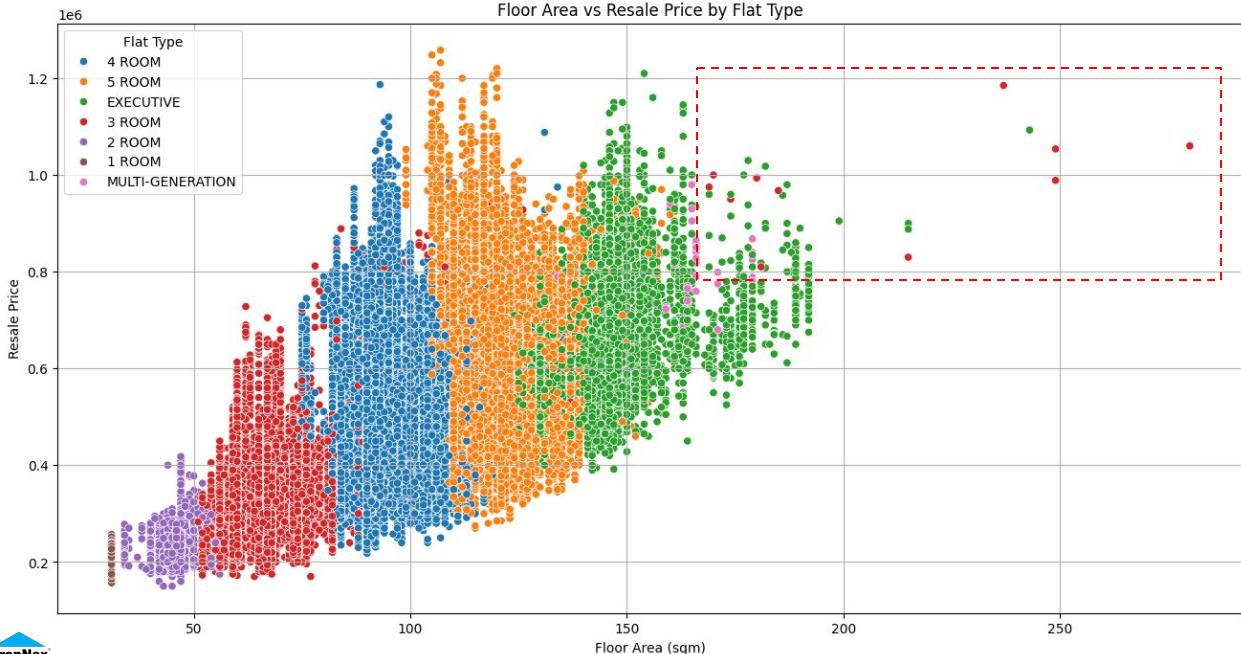
Min	:	\$150k
Max	:	\$1.25Mil
Mean	:	\$449k
Median	:	\$420k

Floor Area VS Flat Type VS Price



Larger price min-max with 4 and 5 room types, offering more options to clients looking for larger home space

Flat type doesn't always define floor space

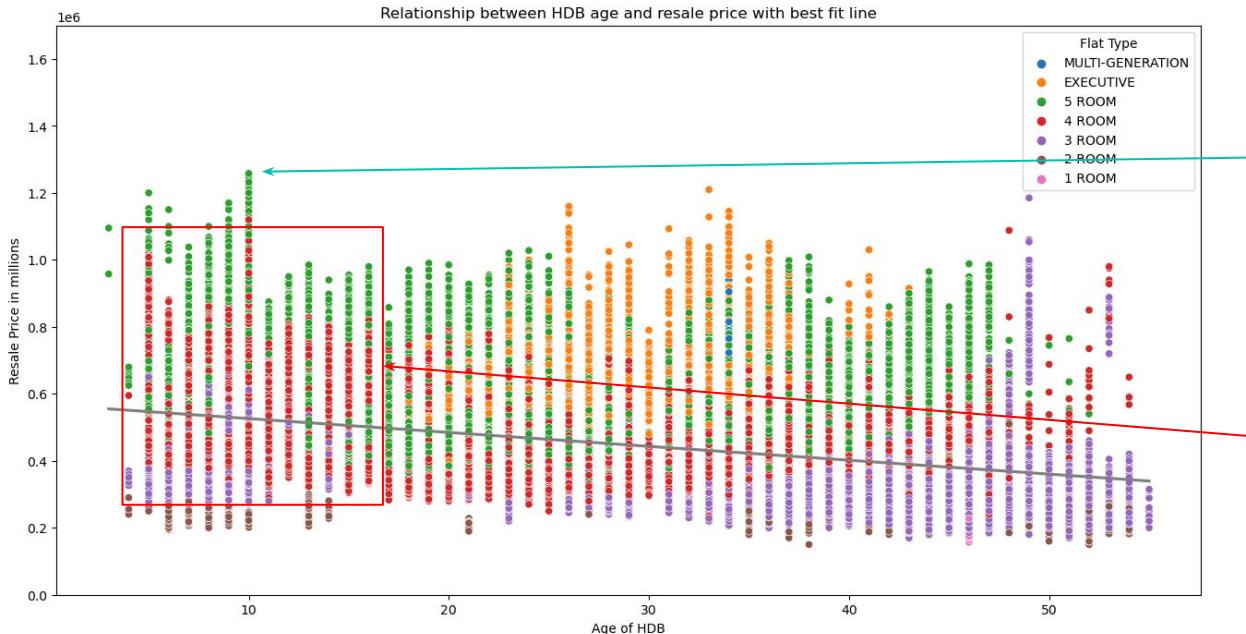


Potential options
for clients looking
for larger homes

3 room flats
>150sqm
>800K

transact_date	town	floor_area_sqm	resale_price	storey	age
145478	2017-05-01	KALLANG/WHAMPOA	181.0	810000.0	2 49
178987	2017-06-01	KALLANG/WHAMPOA	215.0	830000.0	2 49
106968	2018-06-01	KALLANG/WHAMPOA	174.0	950000.0	2 49
101839	2018-05-01	KALLANG/WHAMPOA	185.0	968000.0	2 49
59168	2019-07-01	KALLANG/WHAMPOA	169.0	975000.0	2 49
5341	2012-08-01	KALLANG/WHAMPOA	249.0	988888.0	2 49
62343	2013-11-01	KALLANG/WHAMPOA	180.0	993888.0	2 49
148581	2020-09-01	KALLANG/WHAMPOA	170.0	1000000.0	2 49
79886	2017-12-01	KALLANG/WHAMPOA	249.0	1053888.0	2 49
371	2015-03-01	KALLANG/WHAMPOA	280.0	1060000.0	2 49
60635	2018-09-01	KALLANG/WHAMPOA	237.0	1185000.0	2 49

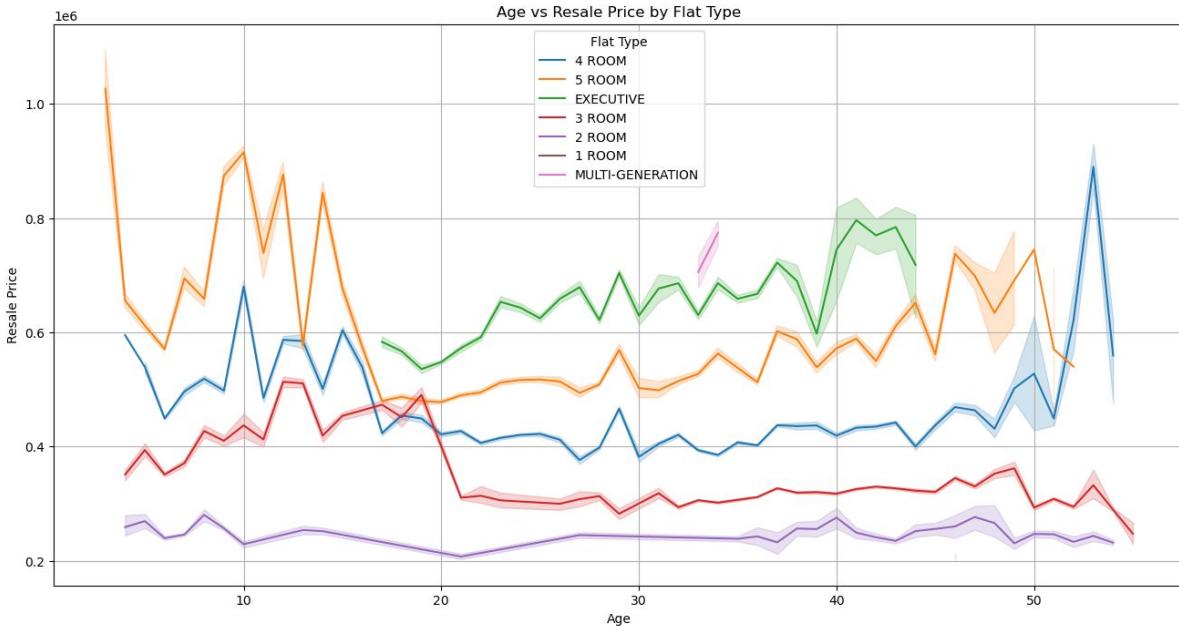
Generally as age increases, price decreases



Highest resale price was a 5 room sold after 10 years

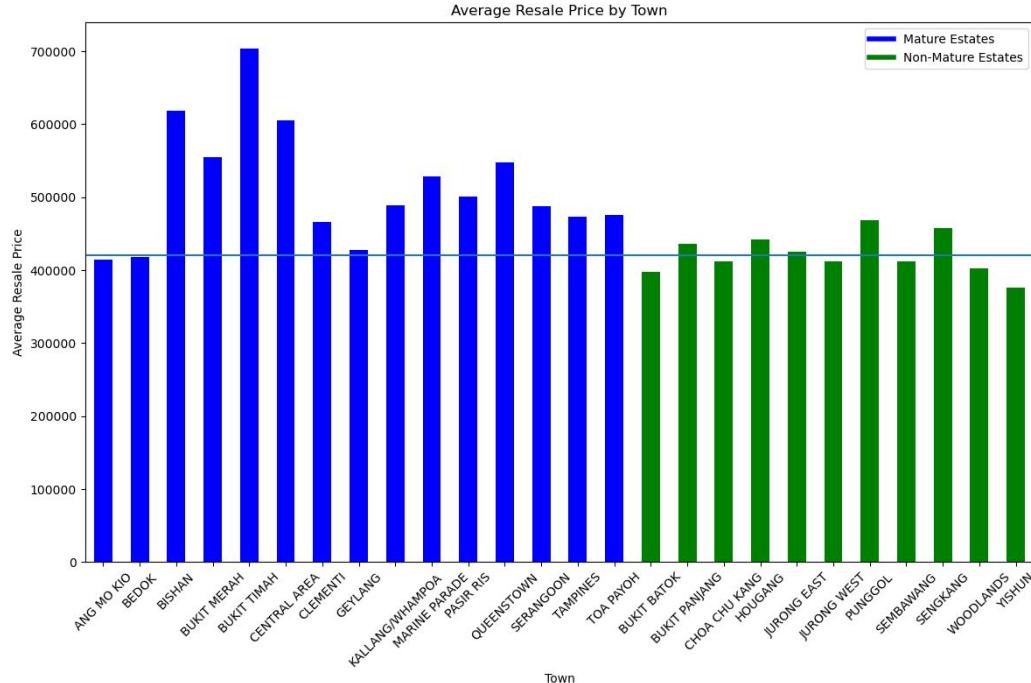
More price variance in newer 4 room units

However the relationship is not perfectly linear



After 20 years, resale value increases as estates mature & neighbouring facilities improve

Resale price of mature and non-mature estates



Mature estates are not always more expensive than non-mature estates.

Transport developments in Bedok

DRAFT
MASTER
PLAN 2019

WHAT TO
LOOK OUT
FOR IN
BEDOK!

Bedok is home to some of the oldest neighbourhoods and HDB estates. Today, it boasts a variety of landscapes ranging from the tranquil reservoir and coastal parks to the bustling town and neighbourhood centres with healthcare facilities and recreational amenities. New housing developments, with more amenities and recreational facilities,

will strengthen Bedok as a liveable and pleasant housing environment, with a variety of housing choices close to mature areas. These include infill developments throughout Bedok and the new Bayshore precinct. The soon-to-be ready Thomson-East Coast Line, running through Bedok South, will also provide residents with more public transport options.

For more information on the Draft Master Plan 2019, please visit ura.sg/DMP19.

HOW OUR TOWNS
ARE PLANNED

Bedok as a liveable and pleasant housing environment, with a variety of housing choices close to mature areas. These include infill developments throughout **Bedok** and the **new Bayshore precinct**. The **Thomson-East Coast Line**, running through Bedok South, will also provide residents with **more public transport options**.

Amenity developments in Geylang

In The Next 10 Years

According to the URA master plan, the area next to Paya Lebar MRT interchange will be transformed into a vibrant commercial hub with office and retail developments.

Residents can look forward to Paya Lebar Quarter (PLQ), a \$3.2 billion urban regeneration project in Paya Lebar Central (PLC) that will comprise Grade-A offices, a shopping mall and a high-end condominium called **Park Place Residences**.

To be completed by the first half of 2019, PLQ will also contain about 100,000 sq ft of green spaces and a cycling path.

Future developments will be integrated with the scenic Geylang River, bringing shops and restaurants to the riverfront. Part of PLQ will also be located next to a reconstructed stretch of the Geylang River, bringing more buzz to the area.

Pedestrians will find it easier to get around PLC as more covered walkways, underground walkways and overhead bridges will be built to enhance connectivity.

Given the unique Malay heritage of nearby Geylang, more community spaces will be built to hold festive activities such as the popular annual Hari Raya bazaar where stalls sell a variety of homemade goodies and hipster food. This will further enhance the area's local character.

Future developments will be integrated with the scenic **Geylang River, bringing shops and restaurants to the riverfront**. Part of PLQ will also be located next to a reconstructed stretch of the Geylang River, **bringing more buzz to the area**.

Transport developments in Ang Mo Kio

Ang Mo Kio In The Next 10 Years

According to the URA Master Plan 2019, Ang Mo Kio will be rejuvenated with new housing precincts at Lentor Hills and Kebun Baru that will be served by the upcoming Lentor and Mayflower MRT stations respectively via the Thomson East Coast Line.

Meanwhile, Thomson Nature Park will open this year and will allow visitors to explore a nature trail within a 50-hectare park. In addition, Ang Mo Kio will be enhanced as a walking and cycling town. A 16km cycling network will be added to the existing 4km cycling loop by 2022 making it even more convenient for cyclists and pedestrians.

To ease commute time for commuters and pedestrians to the city, the authorities are embarking on the development of a North-South Corridor (NSC). Connecting residents from Woodlands, Sembawang, Yishun and Ang Mo Kio, the corridor will be Singapore's first integrated transport corridor featuring continuous bus lanes and cycling trunk routes. When completed around 2026, it will feature dedicated bus lanes for express bus services which will reduce commute time to the city by up to 30 minutes.

According to the URA Master Plan 2019, **Ang Mo Kio will be rejuvenated with new housing precincts at Lentor Hills and Kebun Baru** that will be served by the **upcoming Lentor and Mayflower MRT stations** respectively via the **Thomson East Coast Line**.



04

Use Case

Client Persona

Demographic

Age: Mid 30s

Occupation: Finance

Current home: Sengkang

Family unit: 1 kid and expecting

Requirements

Convenience

- For expecting wife to spend less time commuting
- For child's commute to school
- Near to Tier 1 primary school
- For more family time

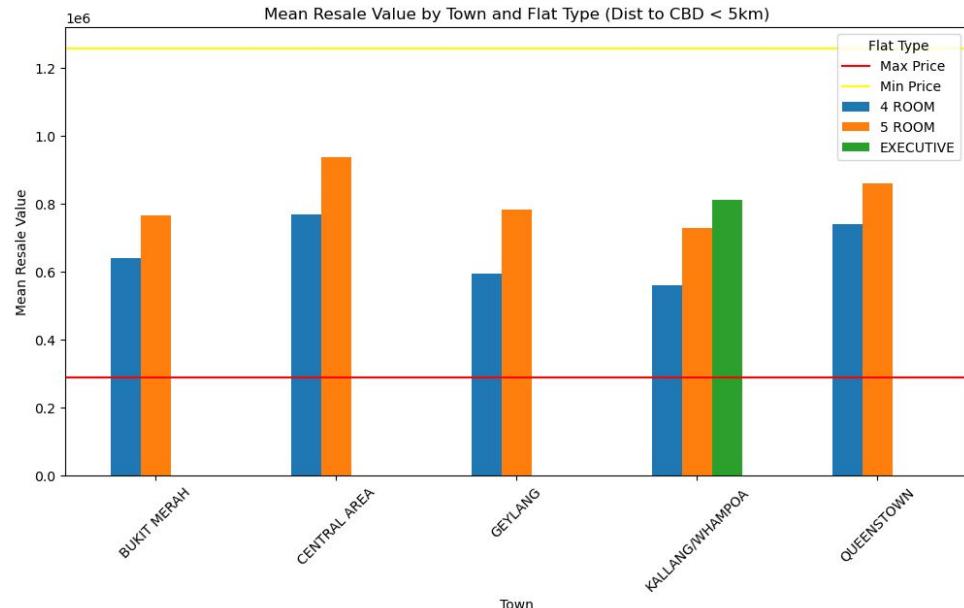
Accessibility

- To hospitals near town area
- To a larger variety of food
- To a larger variety of activities for child

Future resale value



Towns within 5KM distance to CBD



No. of towns

5

Min price

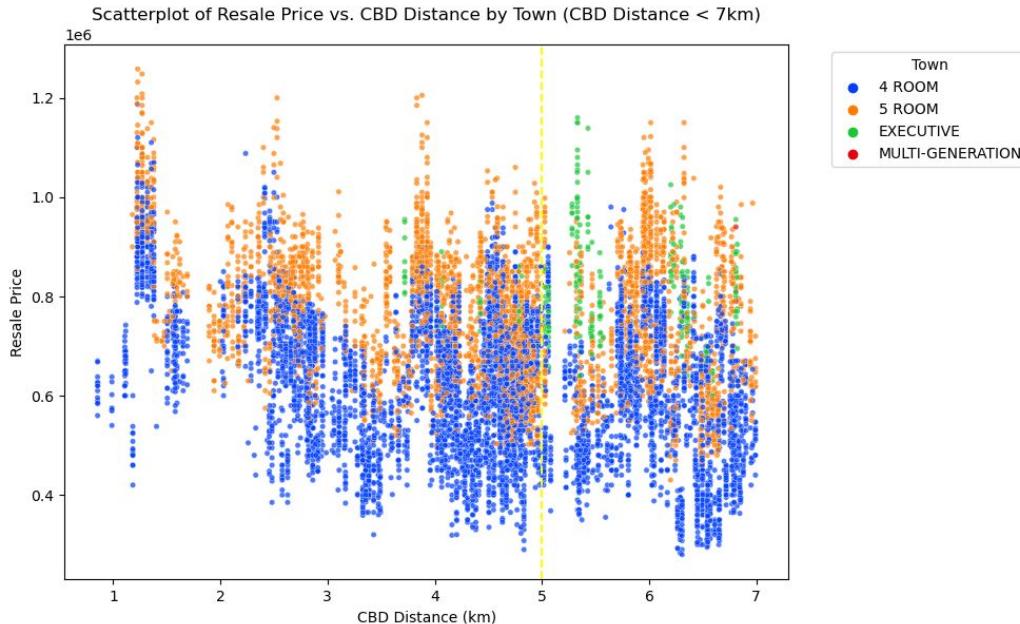
S\$290,000

Max price

S\$1,258,000

Only 5 towns contain flats that are
within 5KM distance to CBD

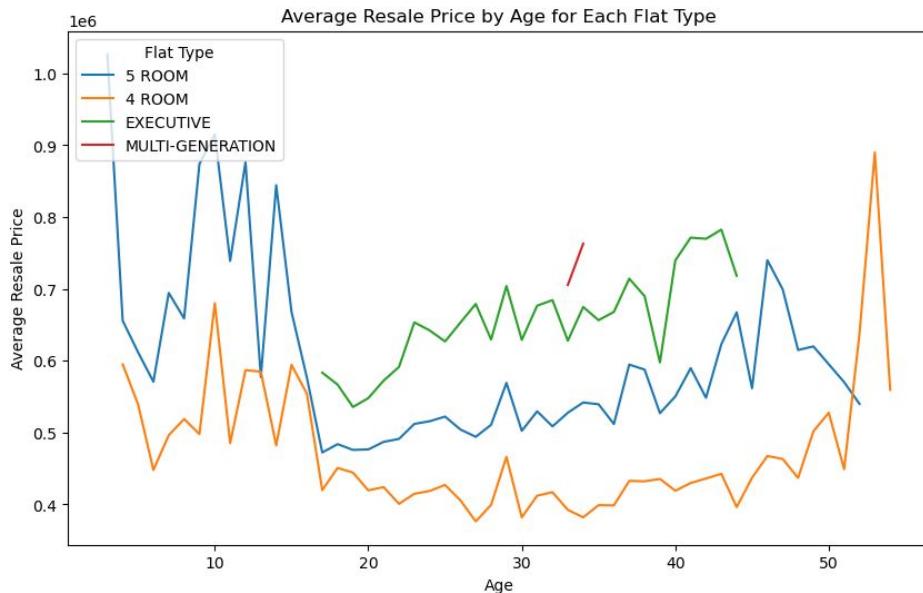
Affordable options are available



Range of prices between 4 room and 5 room

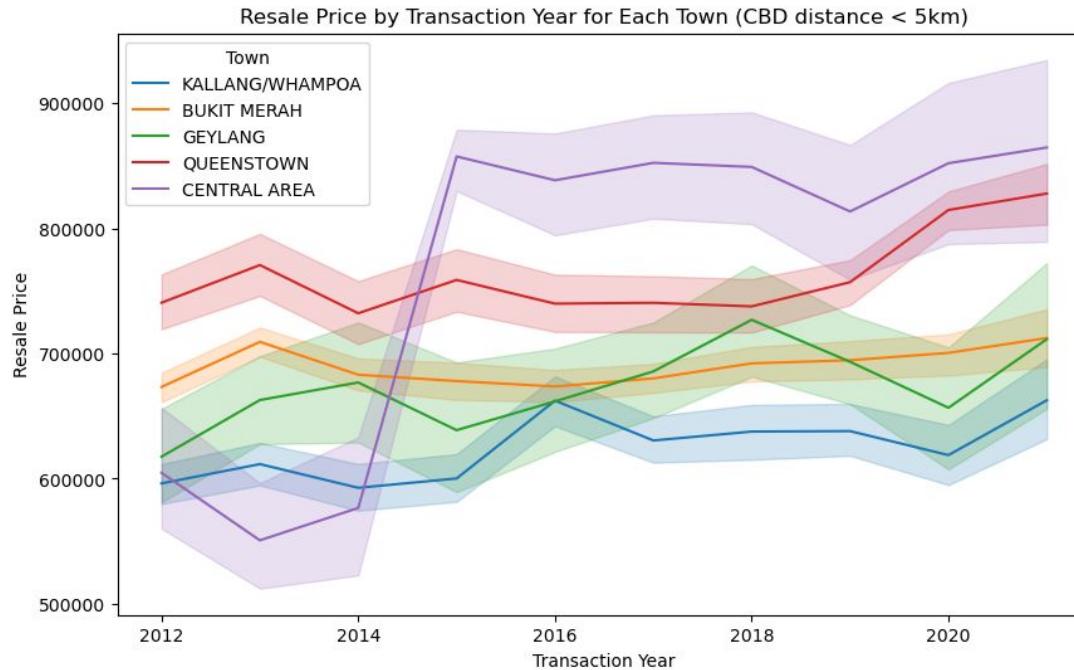
Depending on the client's budget, they can look between 290K (4 rm) to almost 1.3M (5 rm)

Similarly, prices can increase after 20 years

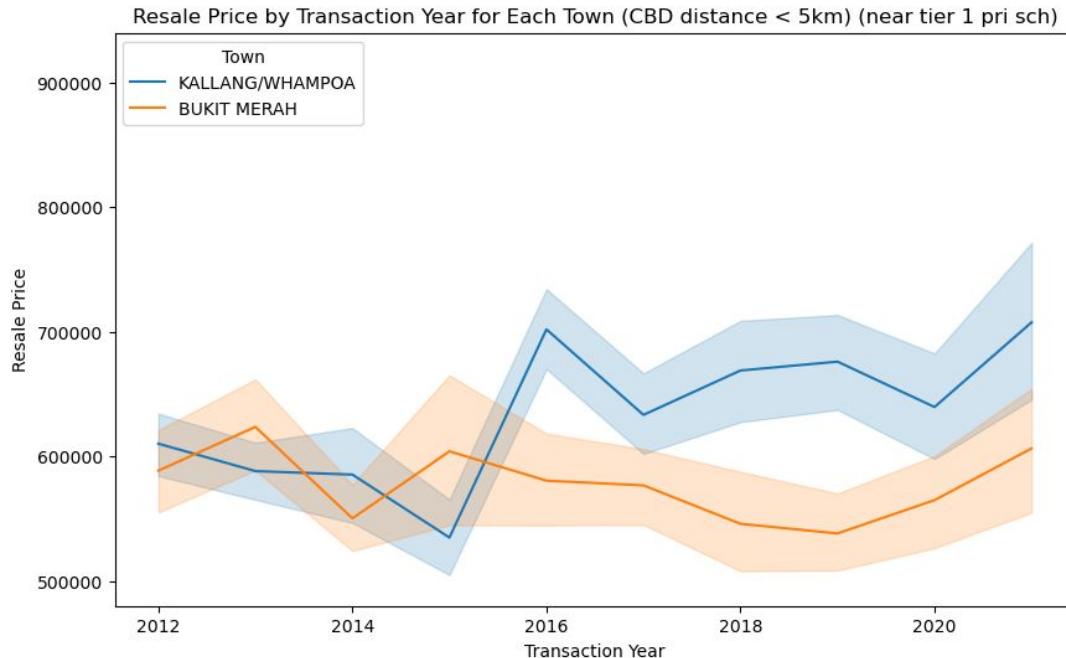


This is especially true for mature estates near CBD

Over the last 10 years, price uptrend for units in these towns



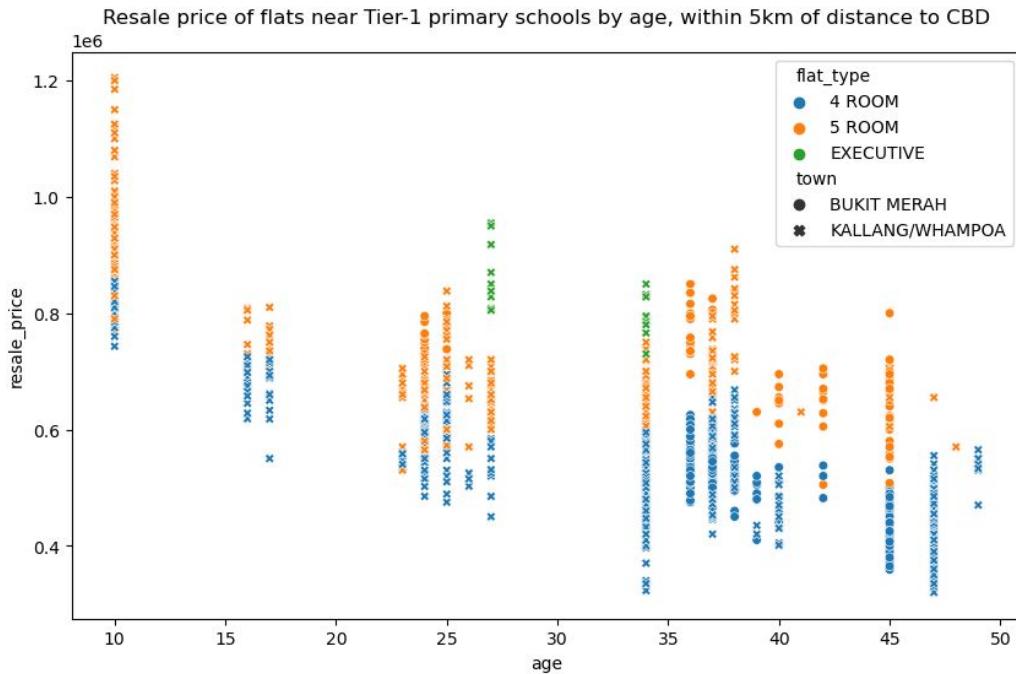
To meet clients' criteria of Tier 1 Primary school



Only 2 towns meet this criteria

1. Bukit Merah
2. Kallang/Whampoa

To meet clients' criteria of Tier 1 Primary school



Kallang/Whampoa has more units that meet the clients' key criterias:

1. Within 5km to CBD
2. Tier 1 school

05



Conclusions & Recommendations

Why guesstimate, when you can EstiMate?



EstiMate Case 1

 PropertyGuru [Buy](#) [Sell](#) [Rent](#) [Condos](#) [HDB](#) [New Projects](#) [Mortgages](#) [Find Agent](#) [Guides](#)

357 Hougang Avenue 7

357 Hougang Avenue 7 Hougang / Punggol / Sengkang (D19) [See on Map](#)
14 mins (1.2 km) from NE14/CR8 Hougang MRT

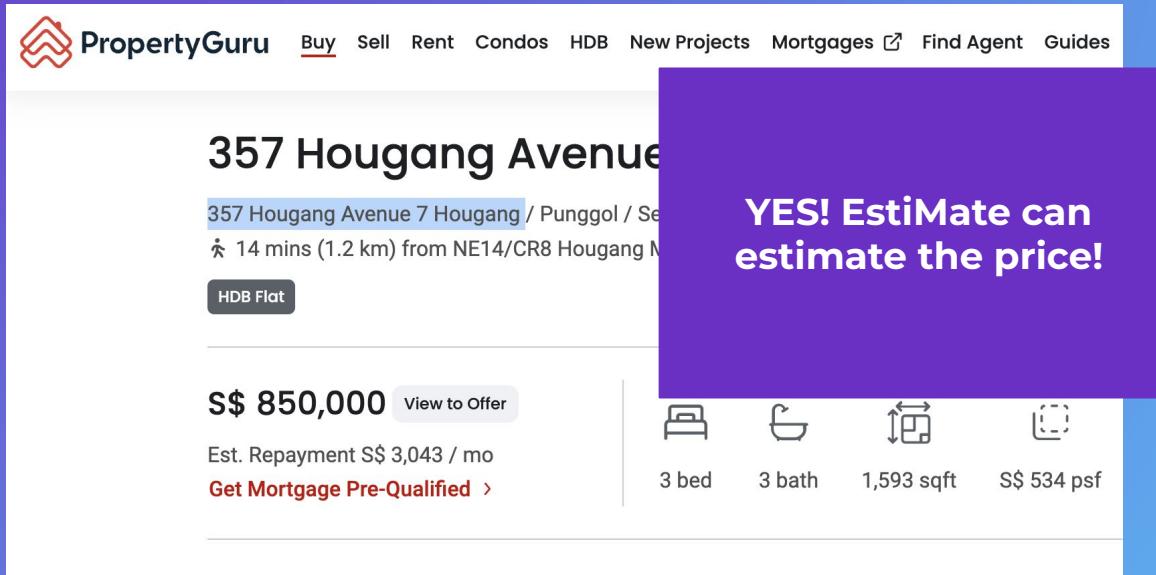
[HDB Flat](#)

Can EstiMate estimate the price?

 3 bed 3 bath 1,593 sqft S\$ 534 psf



EstiMate Case 1



PropertyGuru Buy Sell Rent Condos HDB New Projects Mortgages Find Agent Guides

357 Hougang Avenue 7 Hougang / Punggol / Sembawang

14 mins (1.2 km) from NE14/CR8 Hougang MRT

HDB Flat

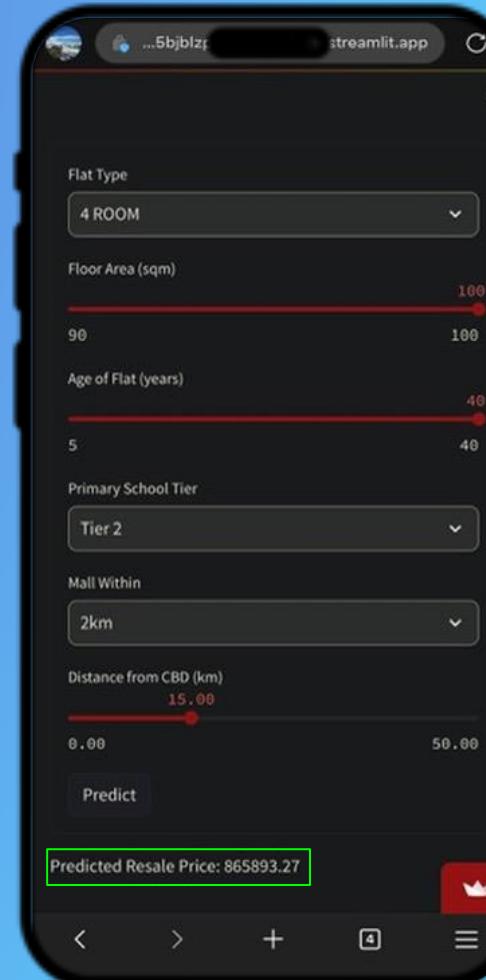
S\$ 850,000 View to Offer

Est. Repayment S\$ 3,043 / mo

[Get Mortgage Pre-Qualified >](#)

3 bed 3 bath 1,593 sqft S\$ 534 psf

YES! EstiMate can estimate the price!



Flat Type: 4 ROOM

Floor Area (sqm): 100

Age of Flat (years): 40

Primary School Tier: Tier 2

Mall Within: 2km

Distance from CBD (km): 15.00

Predict

Predicted Resale Price: 865893.27

EstiMate Case 2

 PropertyGuru [Buy](#) [Sell](#) [Rent](#) [Condos](#) [HDB](#) [New Projects](#) [Mortgages](#) [Find Agent](#) [Guides](#)

53 Commonwealth Drive

53 Commonwealth Drive Alexandra / Commonwealth (D03) [See on Map](#)
步行 5 mins (460 m) from EW20 Commonwealth MRT

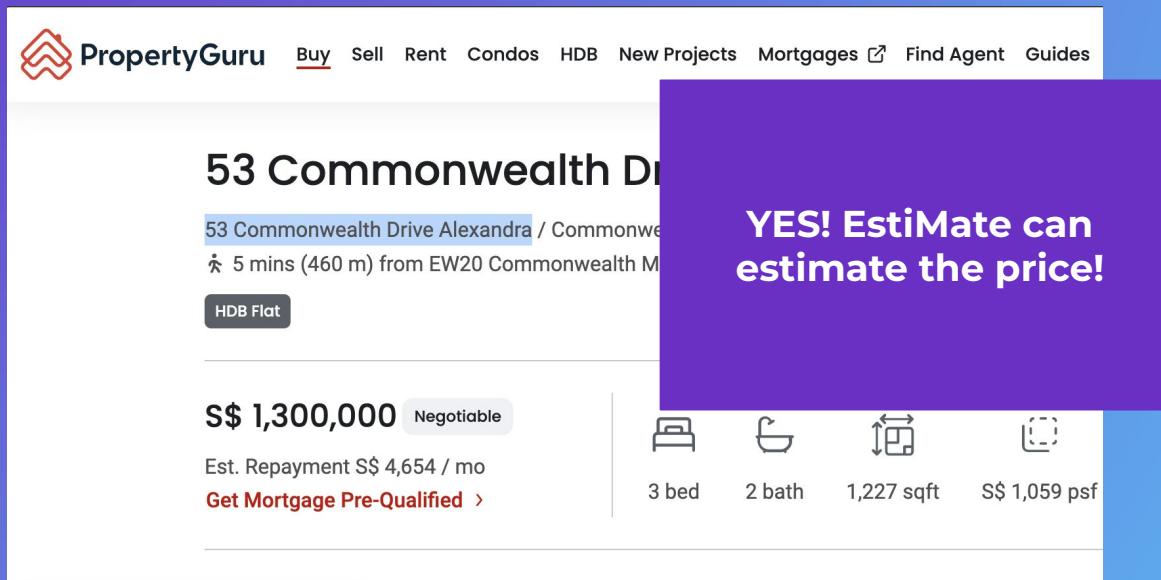
[HDB Flat](#)

Can EstiMate
estimate the
price?

 3 bed  2 bath  1,227 sqft  S\$ 1,059 psf



EstiMate Case 2



PropertyGuru Buy Sell Rent Condos HDB New Projects Mortgages Find Agent Guides

53 Commonwealth Drive Alexandra / Commonwealth

5 mins (460 m) from EW20 Commonwealth MRT

HDB Flat

S\$ 1,300,000 Negotiable

Est. Repayment S\$ 4,654 / mo

Get Mortgage Pre-Qualified >

3 bed 2 bath 1,227 sqft S\$ 1,059 psf

YES! EstiMate can estimate the price!



...5bjblzp treamlit.app

Flat Type: 4 ROOM

Floor Area (sqm): 100

Age of Flat (years): 11

Primary School Tier: Tier 2

Mall Within: >2km

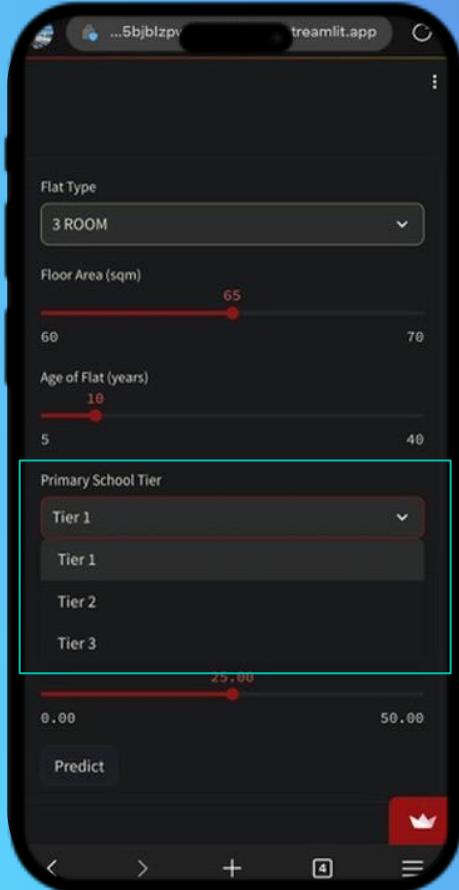
Distance from CBD (km): 2.50

Predict

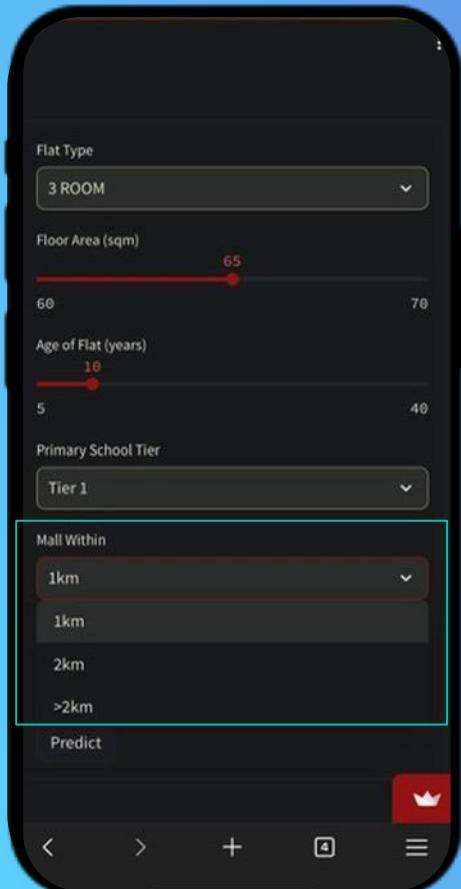
Predicted Resale Price: 1333192.32



Phase 1: Existing Features

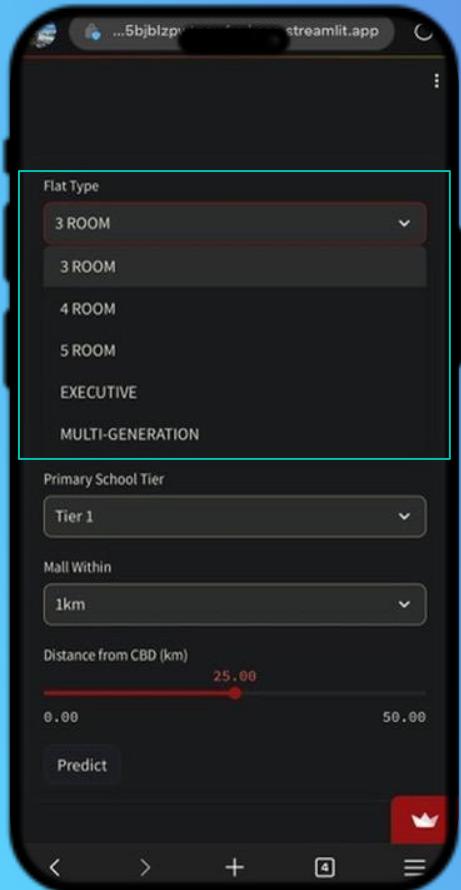


Phase 1: **Primary School Tier**



Phase 1: Distance to Mall

Phase 1: Flat Type





06

Future Improvement



UI Enhancements

Interactive Maps

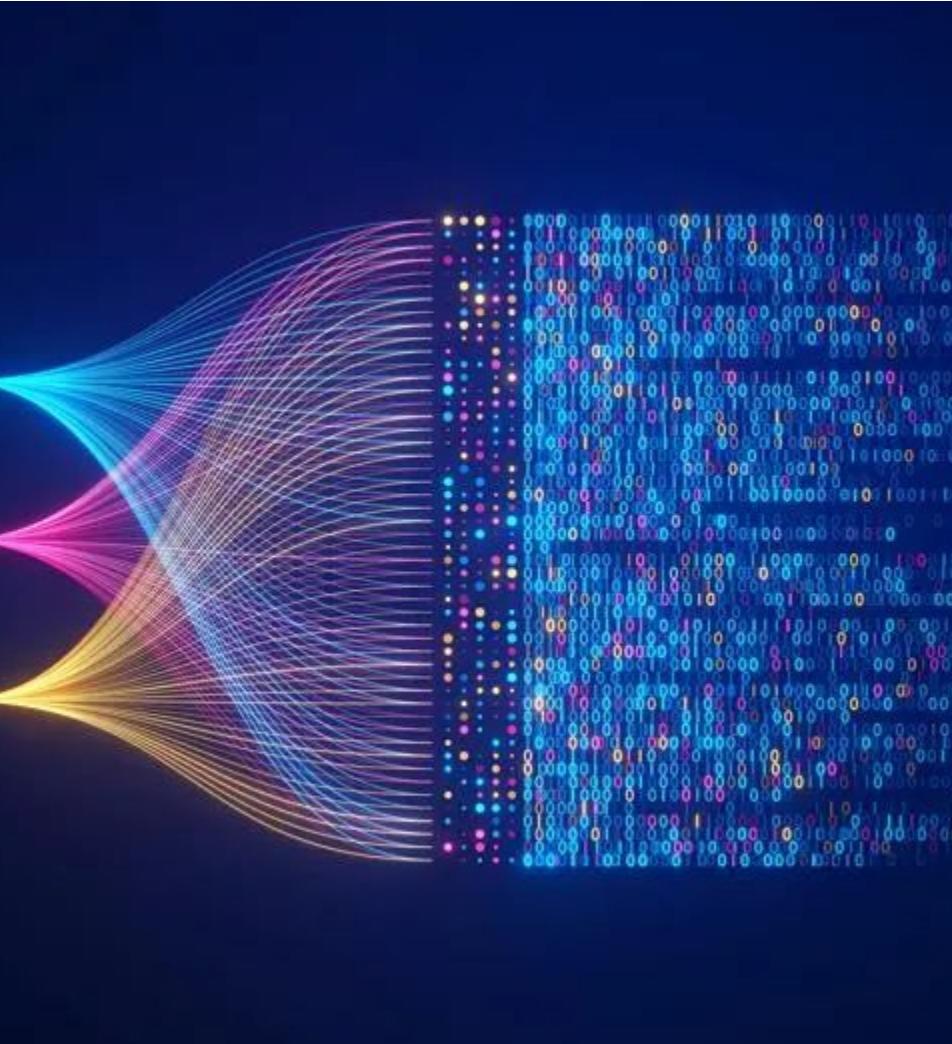
- Tap any point on the map
- Autofill parameters
- Include town selection

Charts

Predicted price vs Historical prices

Save and Compare

Save predictions
Compare predictions side-by-side



Prediction Improvements

Feature Engineering

- Renovation status
- Floor level
- View quality (e.g., sea view, park view),
- Amenities (swimming pool, etc)

External Data Integration

- Current market trends
- Interest rates
- Government policy changes

Models

Regular retraining
Explore more advanced models



Thank you