The Relationship Between Homeownership and Well-Being — Based on the Case of Singapore Public Housing

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Abstract
This essay explores the relationship between homeownership and human well-being after surveying the public homeownership policy in Singapore’s development in the last 35 years. Drawing primarily on existing papers in the fields of well-being and housing, it outlines the social impact of house ownership on both physical and mental health. Besides, selected elements like economy, society, ethnicity and employment are also considered to emphasize the associations with well-being. While relations are generally complicated, acceptable evidence exists to admit homeownership plays an important role in human well-being.

Conclusions are drawn on the personal and theoretical aspects, highlighting the significance of cross-disciplinary collaboration in urban strategy. Further research is recommended to analyze how the homeownership improves the human condition, which could offer useful experiences to other countries.

Keywords: homeownership, well-being, public housing, Singapore

1. Introduction
Well-being is a complex concept, according to the definition given by the World Health Organization, happiness is a state that not only refers to avoiding disease, but also includes people’s physical, spiritual, social, economic, and comprehensive lives. Individual subjective well-being refers to people’s perception of their quality of life, which includes emotional reflection and judgment1. However, Deeming C and Hayes D argued in 2012 that Well-being is not entirely subjective. Except for individuals’ attributes, the surrounding environment is a powerful tool to influence human well-being. Therefore, human well-being is tightly linked with living conditions.

Homeownership is encouraged by governments in many countries because it has a positive impact on individuals and the entire society. Owning a house provides greater security, freedom, economic advantages and higher housing satisfaction.

This paper analyzes the possibility of homeownership to influence human well-being,
which contains mental and physical health, as well as the quality of life.

2. Public Housing Policy Review

2.1 Development

The first public housing plan has been implemented since 1964, and the housing problem in Singapore was finally solved in the 1990s after about 4 stages of adjustment and development. In this policy, there are 3 organizations involved: the government, the Housing and Development Board (HDB), and the Central Provision Funds (CPF).

The initial stage was 1964-1967, Singapore citizens and permanent residents with income below a certain level could buy the public house. Applicants need to pay a lump sum of 20% of the transaction amount as a down payment, and a 15-year loan with 6.25% interest. But, due to the high down payment and few houses, not many apartments were sold. The second stage is 1968-1969, purchasers can use part or all of their CPF contributions for the first down payment as well as mortgage. The number of houses sold is twice the previous amount. In the third stage, 1970-1979, in order to further promote the housing ownership rate, policy changes have increased the income ceiling for purchasing houses, canceled down payment, and increased the mortgage to 20 years. Additionally, the government also made a plan for the middle-income group. In the fourth stage, 1980-1989, the level of the national economy improved, and house owners were encouraged to upgrade to houses of better size and location, and small houses were provided to low-income people. In the last stage, the 1990s, the poverty problem has been resolved in Singapore. In order to further maintain the affordability of housing, the price of dwellings was pegged to household income, and the income ceiling of those who can purchase HDB flats was repeatedly confirmed, so that more than 90% of households could afford a 3-room apartment or a new 4-room apartment.

The main purpose of the government is not to provide free public housing, but to realize low-cost housing ownership. The government pegged the price of dwellings to household income level, citizens and permanent residents with incomes below a certain level only need to pay a low down payment to get a residence, and both the down payment and mortgage are allowed to be paid with part or all of the housing provident fund from individuals and employer. Thus, this makes homeownership more accessible to ordinary people and low-income fellows.

![Figure 1. Public Housing in Singapore](https://en.wikipedia.org/wiki/Public_housing_in_Singapore#/media/File:StrathmoreGreen.jpg)

Singapore's public housing system is a globally unique and successful case. Its exclusive feature lies in its extremely high rate of homeownership and high coverage rates of public housing. In 2015, Singapore's homeownership rate was over 90%, and 86% of the population lived in government-provided flats, which is rare among market economies. (Table1)
### Table 1. Housing Stock, Housing Supply, and Homeownership Rate, 1970-2015

<table>
<thead>
<tr>
<th>Year</th>
<th>Population ('000)</th>
<th>Total Housing Stock</th>
<th>HDB Housing</th>
<th>Private Housing</th>
<th>Persons per Dwelling Unit</th>
<th>HDB Dwellings as Proportion of Housing Stock</th>
<th>Resident Homeownership Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>2,075</td>
<td>305,833</td>
<td>120,138</td>
<td>185,695</td>
<td>6.8</td>
<td>39%</td>
<td>29.4%</td>
</tr>
<tr>
<td>1980</td>
<td>2,414</td>
<td>467,142</td>
<td>337,198</td>
<td>129,944</td>
<td>5.2</td>
<td>72%</td>
<td>58.8%</td>
</tr>
<tr>
<td>1990</td>
<td>3,047</td>
<td>690,561</td>
<td>574,443</td>
<td>116,118</td>
<td>4.4</td>
<td>83%</td>
<td>87.5%</td>
</tr>
<tr>
<td>2000</td>
<td>4,017</td>
<td>1,039,677</td>
<td>846,649</td>
<td>193,028</td>
<td>3.9</td>
<td>81%</td>
<td>92.0%</td>
</tr>
<tr>
<td>2010</td>
<td>5,076</td>
<td>1,156,732</td>
<td>898,532</td>
<td>258,200</td>
<td>4.4</td>
<td>78%</td>
<td>87.2%</td>
</tr>
<tr>
<td>2015</td>
<td>5,535</td>
<td>1,286,304</td>
<td>968,856</td>
<td>327,448</td>
<td>4.3</td>
<td>75%</td>
<td>90.3%</td>
</tr>
</tbody>
</table>

**% Change**

<table>
<thead>
<tr>
<th>Period</th>
<th>Increase/Decrease</th>
<th>Total Housing Stock</th>
<th>HDB Housing</th>
<th>Private Housing</th>
<th>Persons per Dwelling Unit</th>
<th>HDB Dwellings as Proportion of Housing Stock</th>
<th>Resident Homeownership Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970-1980</td>
<td>16%</td>
<td>53%</td>
<td>181%</td>
<td>–30%</td>
<td>–24%</td>
<td>64%</td>
<td>100%</td>
</tr>
<tr>
<td>1980-1990</td>
<td>26%</td>
<td>48%</td>
<td>70%</td>
<td>–11%</td>
<td>–15%</td>
<td>15%</td>
<td>49%</td>
</tr>
<tr>
<td>1990-2000</td>
<td>32%</td>
<td>51%</td>
<td>47%</td>
<td>66%</td>
<td>–12%</td>
<td>–2%</td>
<td>5%</td>
</tr>
<tr>
<td>2000-2010</td>
<td>26%</td>
<td>11%</td>
<td>6%</td>
<td>34%</td>
<td>14%</td>
<td>–5%</td>
<td>–5%</td>
</tr>
<tr>
<td>2010-2015</td>
<td>9%</td>
<td>12%</td>
<td>8%</td>
<td>27%</td>
<td>–3%</td>
<td>–4%</td>
<td>4%</td>
</tr>
</tbody>
</table>

HDB = Housing & Development Board

Sources: Data from Singapore government publications and websites.

#### 2.2 Finance Arrangement

Another factor that facilitates the success of public homeownership in Singapore is the profitable public housing finance system. The government is the main provider of public housing finance. The HDB as an agent to manage houses and money, CPF is the social security system used as an intermediary to help buyers of HDB repay their mortgage interest, the construction sector is the major builder (Diagram 1).

![Diagram 1. Flow Chart of Singapore Public Housing Finance](source: Developed from the HDB annual report.)

The main reasons why the price of public houses can be far below the market price are loans and grants. There are two major types of government loans provided to the HDB. One is housing development loans, which need to be repaid within 20 years and are lower than the market loan interest rate. The HDB will invest loans in the construction industry. The other is to
provide financing for home buyers. The loan is provided to the HDB and also need to be repaid to the government within 20 years at the current provident fund interest rate. In addition to loans, the annual fiscal deficit of HDB flats is paid by government subsidies.

2.3 Spatial Design

Singapore is a country that attaches great importance to ecology and greening. Basically, every 1000 people will be equipped with $0.8\text{hm}^2$ of green land. Besides, different settlements will be linked to each other through the Park Connector Network to improve user efficiency. When choosing the location of HDB flats, the government would like to avoid high-density city centers area and choose suburbs around the city, which can reduce development costs and avoid population gathering in the city center.

![Figure 2. Next Generation HDB Housing Kampung Admiralty](https://woha.net/)

Residential areas in Singapore are roughly divided into three levels: New Town — Neighborhood Area — Neighborhood. Each New Town has a total of 40-100 thousand households with 5-8 Neighborhood Area; 1 Neighborhood Area has 300-900 households, including 6-7 Neighborhoods; each Neighborhood consists of 4-8 HDB houses, about 1000-2000 households. Each New Town covers an area of 5-10km$^2$, including commercial centers, subway stations, schools, libraries, gymnasium, parks, and other service facilities.

In addition, due to the small land area of Singapore, the public house planning to be a high-density one (Figure 2). Singapore’s public housing has a wide range of suite types. The common types of suites are one-bedroom, two-bedroom, three-bedroom, four-bedroom, three-generation-in-house, and executive apartments, which are 33.0 m$^2$, 45.3 m$^2$, 65.4 m$^2$, 90.3 m$^2$, 110.0 m$^2$, 115.0 m$^2$, 130.0 m$^2$ respectively (Figure 3). It can greatly meet the needs of different households.
Figure 3. Usual unit type of Singapore public house

Author repainted.


3. Well-Being Benefits from Housing

3.1 Social Stabilization

Singapore’s public housing units basically enable all citizens and permanent residents to own houses to live in. A society with a higher standard of living is better than a society living in poverty. This policy has achieved a better human condition by enhancing the overall stability of society. According to Marja Elsinga’s analysis, in some countries, Homeownership is actually essential to acquire a degree of personal security and to offset individual risks. For example, if a society does not provide a good system for safety, then it is not suitable for living. In such a society, people feel long-term anxiety and incompetence, which obviously cannot lead to a good life.

Housing ownership will qualify citizens to participate more actively in community democracy and promote community integration so that people would be happier by helping others, and then enhance their well-being spiritually. In addition, Kingston and Fries recommend that land and housing are the foremost components in individual property, after obtaining their property rights, the family will feel more satisfied and safer, which will make the entire society more stable.

Moreover, human well-being can also be directly influenced by the society in a way. According to Roslyn Lindhem and S. Leonard Syme, suicide, accidents, tuberculosis, coronary disease, schizophrenia, pregnancy complications, and alcoholism are included on the list of negative health problems linked to weak social bonds. Besides, Jacobs’s observation shows that personal contact among neighborhoods can reduce street crimes, and children can be well-supervised to keep safe.

3.2 Economic Development

In the case of Singapore, the implementation of public housing has greatly promoted the country’s economic development. In 1965, five years after the adoption emerged, more than 5000 housing units were provided by the HDB.

References:

Therefore, the economic growth is mainly coming from the increase in the construction sector. When economic leap results in greater income, families would have a higher demand for better and bigger dwellings. Consequently, their quality of life would be developed, they could get better medical care and pay the course they like that lighten their moods.

Previous studies have proved the positive correlation between housing and well-being. According to the German Socio-Economic Panel Study data from 1992 to 2009, Timo Zumbro1 analyzed the relationship between housing and residents’ well-being, the ordered ologit models support that owning a house has a positive impact on residents’ well-being.

### 3.3 Employment Status

Singapore’s public housing is heavily subsidized, which leads to the development of the national construction sector. This expansion and other HDB related organizations as well as companies could create multiple employment opportunities. Besides, the construction of New Towns and public housing complexes also offers positions to job hunters such as supermarkets and malls located in the complex. Therefore, accomplishing residential buildings for all the citizens ensures job stability for its employees.

When citizens buy dwellings with a low-priced down payment, they need to work to earn money so they can afford the mortgage every year rather than doing nothing in particular like homeless people. This phenomenon curtails conflicts, fights, robberies, and any other harmful performances to a certain extent.

Besides, Elena Bardasi and Marco Francesconi2 used 10 waves of the BHPS (1991–2000) to analyze the relationship between employment and personal well-being in the UK. And concluded that regardless of gender, people engaged in seasonal/casual jobs are far more dissatisfied with work due to the lack of security and less welfare than long-term employees.

### 3.4 Ethnic Integration

In Singapore, the proportions of races vary greatly. Chinese, Malays, and Indians live here together. In 1957, the proportion of Chinese was 75.4%, 13.6% were Malays, 9% were Indians and 2.8% were others. The locations of these ethnic groups were scattered spatially in Singapore3.

Conflicts between races will cause casualties. For example, where the Malay community was dominant, there were many clashes between the two races, which led to deaths and injuries4.

Race integration can provide opportunities for mutual understanding among races, thereby promoting the development of society in a good direction. In the Sample Household Survey in 1998, the longer residents stay in the community, the more neighbors they know. After living for 10 years residents would visit one another, exchange gifts or food, and help keep watch of each other’s flat5. Robert Putnam, professor of Harvard University, uses existing survey data related to the social indicators to measure numerous aspects of human health and welfare6. His compelling result shows that poor social conditions are as bad as or worse than smoking, obesity, elevated blood pressure, or physical inactivity for human health.

### 4. Limitations

Singapore’s experience shows a complete approach to benefit human well-being. It may, however, bring about adverse effects as well.

The system of public housing is to use the purchasers’ future pension to fund their house, that means people will going to living in harmful quality of life when they grow old since they only hold assets but cash. Even if it is a private house that draws from people’s own savings, it is certainly a large expenditure that can not be ignored by ordinary families to buy a flat. And this asset rich and cash poor condition will obliged them to moderate their spending in other areas for old age. In particular, the elderly are prone to various senile diseases, and some are physically fragile, so they would need nutritious food and costly medicine to support

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them, all of which require financial status.

Secondly, housing ownership may restrict the freedom of residents, preventing residents from moving freely, thereby reducing their subjective well-being. Freedom is represented by the individual’s mobility: the tenants are able to move elsewhere at short notice. When people’s freedom is violated, it may cause psychological problems.

The third side effect is that the over-allocation of resources to the building industry may lead to employees in other industries facing unemployment and even poverty. With unemployment and poverty, people tend to be more unstable mentally and bodily.

5. Conclusion

The housing issue is a livelihood issue related to everyone’s vital interests. It not only has an important impact on residents’ subjective well-being and life satisfaction but also affects people’s physical and mental health. Veenhoven R. and Ehrhardt J¹ suggest that the social science community has long-term research on happiness, and increasing people’s well-being is the basic function of the government. Although human health problems have not yet provoked the development of universal housing, in fact, this can become the original driving force for housing popularization.

Public housing can affect people’s happiness directly or indirectly from different social aspects, such as the economic, ethnic, community, and employment mentioned in this article. At the same time, there are also completely different opinions, opponent argued that it is not helpful to save money in case of diseases, restricting freedom which would lead to depression and bankruptcy of non-construction industries. However, Government could solve these problems through a multi-level and structured system of resumes and a guaranteed policy system.

Singapore’s policies have allowed the majority of Singaporeans to have their own homes, which has largely improved their happiness. This proves that government intervention is the strongest weapon to solve the housing shortage problem, meanwhile, government subsidies are also a crucial part of the success. Thus, this useful experience can be drawn from Singapore’s public housing system to promote human well-being.

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