

# Housing development policies toward sustainability in Japan and Vietnam

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**Abstract.** Achieving sustainable development goals requires adequate housing provision, one of the most crucial tasks for consolidating economic and social capacity. This study aimed to review the housing development process and policies in Japan and Vietnam, which are representatives for establishing a sustainable housing market in developed and developing economies. We first presented the situation of the Japanese housing market from the post-World War II period to the present, including three periods of economic development, recovery, development, and stabilization. We then reviewed implemented policies that greatly affected the changes in housing stock from shortage to fulfillment. Similarly, we summarized the main characteristics of the Vietnamese housing market and policies since the economic perspective changed. The experiences in both countries indicate that economic reform and the private sector play a substantial role in accomplishing the housing market balance. Notably, the study also pointed out a potential and existing crisis, including housing vacancy and affordability. We propose that understanding the current situation would help policymakers to consolidate the housing provision and mitigate the crisis effects. On the other hand, lessons learned from these two cases might be helpful for other countries to emulate.

## 1 Introduction

Sustainable housing development has become a global priority in recent decades as countries seek to address environmental challenges and promote social and economic sustainability. Adequate housing provision also plays a crucial role in improving human capital and economy capacity [1]. In 2000, the United Nations General Assembly committed to reducing at least 100 million slum dwellers by 2020 the Millennium Development Goals (MDGs). Building on this, the Sustainable Development Goals (SDGs) continue integrating housing into their goals, including poverty reduction, reducing access inequality, and developing sustainable cities and communities.

Since the issue of housing provision arose, progress in dealing with it has passed through three periods or phases, including public housing approaches, self-help, and enabling environments [2]. The first phase extended from the post-World War II (WWII) period to the 1970s and was characterized by government investment in the housing supply.

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The second phase began in the early 1970s, during which the task of housing construction shifted from the government to residents. Meanwhile, the third phase, which started in the mid-1980s, emphasizes supporting the housing sector by providing a financial, legal, and institutional environment [2]. With the great efforts made by nations, the housing provision improved significantly during these periods. However, in 2020, about one billion people lived in slums and informal habitats [3]. Despite many countries striving to improve housing provision, some have failed to meet the demand. This fact raises the question of which policies and implementation processes would help them solve the housing crisis.

Among the countries that have successfully achieved their goals, Japan and Vietnam have become prominent cases representing developed and developing countries, respectively. Japan experienced heavy economic damage after WWII but has since made an impressive recovery. At the end of 2020, the homeless population in Japan was close to zero, which is the lowest value among OECD countries [4,5]. Similarly, Vietnam has achieved great strides in economic development, poverty reduction, and improving housing provision since the government's economic perspective changed. The country's GDP growth rate increased gradually from 5.1% in 1990 to 9.54% in 1995 and remained at an average value of about 7.0% until the Covid-19 pandemic in 2020. Moreover, the poverty rate and the number of homeless households decreased significantly to 4.8% and 0.04% in 2020, respectively [6,7]. Understanding how these two countries have become the best practice would be worthwhile for others in dealing with housing problems.

In this study, we aimed to review the progress of housing development in Japan and Vietnam, starting from the housing deficiency crisis to the fulfillment of the housing supply. Additionally, we also examined policies that had a significant influence on the housing market during this time. While the two countries have different stages of housing development, some similarities exist alongside their dissimilarities. We propose that these points would be worthy for both economies in securing and consolidating their housing markets in the future. Furthermore, by analyzing the housing development policies in Japan and Vietnam, this paper seeks to contribute to the global dialogue on sustainable housing and provide insights for policymakers, researchers, and practitioners.

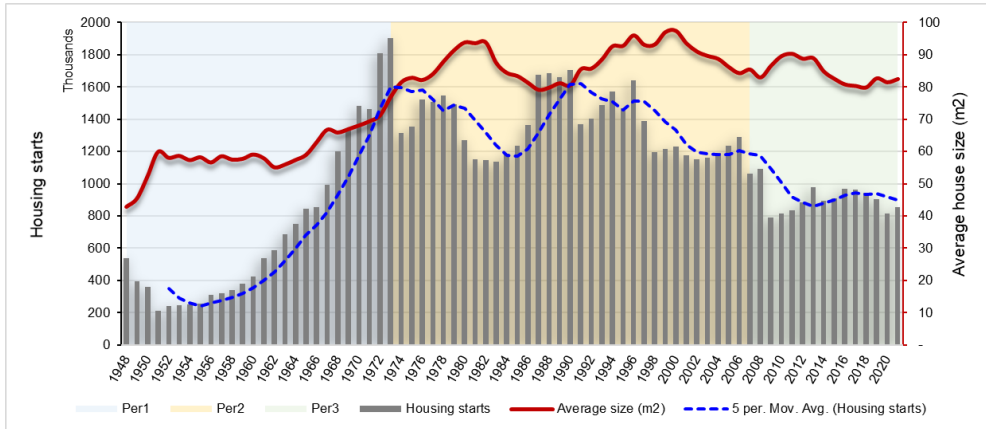
The remaining content of the study consists of three sections. In section 2, we review the housing market in Japan, including the development process, implemented housing policies, and existing risks. Likewise, in section 3, we express the Vietnamese housing market from the early 1980s economic transformation to the present. We also provide discussions relating to housing policies in these two parts. The study ends with the conclusion part summarizing the main findings.

## **2 Housing market in Japan**

### **2.1 Progress from supplying shortage to stable housing market**

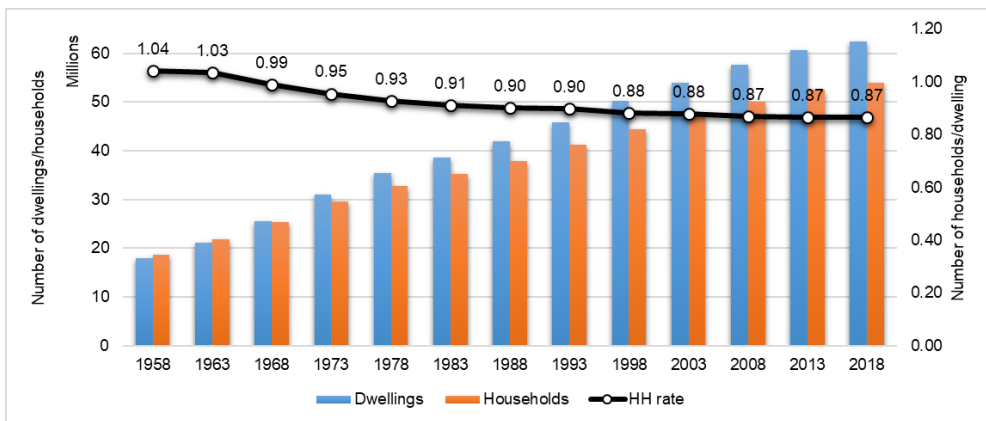
After WWII, Japan faced an unprecedented economic crisis with a growth rate was about one-third of 1937 [8]. Along with damaged infrastructure, numerous residential housing was also heavily destroyed, causing a lack of 4.2 million units, accounting for about one-third of the housing stock [8,9]. However, the housing market overcame the crisis and became stable after three decades. This process has a strong relationship with three periods of economic development, including recovery, transformation, and stability, denoted as Per1, Per2, and Per3 in Figure 1.

The first period extended from 1945 to 1973, characterized by miraculous economic development. In the first half of the 1950s, the economy recovered to the pre-war level and grew sharply until 1973. The average GDP growth rate was about 10% [8]. Along with the economy developing, the country experienced two baby-boom periods in the 1940s and 1970s. Within 30 years, the Japanese population rose from about 72 million in 1945 to 110 million in 1974. In addition, urbanization led to extensive immigration from rural to urban areas, resulting in a significant rise in housing demand in metropolises. Nonetheless, the housing supply was insufficient, causing a shortage crisis.



**Fig. 1.** Housing starts and average housing size in Japan from Post War World II [10]

At this time, the Japanese government urgently invested in housing development programs. The housing starts increased by about 11% annually from 1950 to 1973 (Figure 1). As a result, the housing stock compensated for the shortage in 1968. Further, the supply surpassed the demand in 1973 (Figure 2). At the end of this period, the oil crisis in October 1973 occurred, denoted the second stage of housing development.



**Fig. 2.** The improvement of housing supply in Japan from 1958 to 2018 [10]

In the second period, from 1973–2007, the Japanese economy encountered three events, the oil crisis in 1973, economic transformation in the 1980s, and the financial crisis in the early 1990s. Each event depressed the housing supply, although the total number of housing

stock still increased. Specifically, when the oil crisis occurred, the number of new houses dropped by 31% in 1974 compared to 1973. This figure decreased to 15% in 1980 when the government's economic development perspective shifted from Keynesian economics to neoliberalism [8,11]. Similarly, the collapse of a speculative bubble in the Japanese real estate and stock markets resulted in a 20% shrinkage of the housing supply in 1991.

However, the housing market archived some important indexes during this period. The housing stock reached 50.2 million units by the end of the 1990s [8,9]. Also, homeownership recorded the highest rate of 62.4% in 1983. Additionally, the household rate improved significantly, decreasing from 0.95 households/house in 1973 to 0.87 in 2008 (Figure 2).

The third period began in 2008, starting with the global financial crisis. The Great Recession significantly impacted the Japanese economy, causing a negative GDP growth index of about -5.7% in 2009 [12]. This year also saw the lowest value in housing starts since 1965, at less than eight thousand units in one year (figure 1). However, the decline in housing supply did not seem to affect the balance of the housing market because the Japanese population began to shrink. According to statistics, the population has declined after peaking at 128 million people in 2008 [13–15]. These demographic changes resulted in the household ratio remaining at a low value of 0.87 households/house in 2018.

## **2.2 Policies that enable the housing market balance**

As mentioned earlier in Part 1, housing development in Japan has gone through various stages. To adapt to the specific situations of each period, the government has issued and amended numerous policies related to the housing market, such as supporting home purchases, tax policies, land use planning policies, and so on. Of these measures, the three pillars claimed to have a critical role in establishing a sustainable housing market include the Government Housing Loan Corporation (GHLC) established in 1950, the Public Housing Act (PHA) issued in 1951, and the Japan Housing Corporation (JHC) established in 1955.

The first and foremost successful policy is the GHLC, founded in 1950 with 100% government investment. GHLC provides long-term mortgage loans with a fixed interest rate for buying or rebuilding homes. The targeted customers of GHLC are mainly low to middle-income households with a minimum down payment of 25%. The loan repayment period can be up to 30 years, with the fixed interest rate being 5.5% [8,9]. As a result, from 1950 to 2007, up to 19.41 million housing loans were successfully traded, accounting for about 30% of the post-war housing stock [8,9].

Following the GHLC is the PHA, a significant policy contributing to the low-income housing supply. The act authorized the national and local governments to build public housing for low-income families and to provide rent subsidies for eligible households. As a result, numerous public rental housing projects were built throughout the country, reaching about 1.96 million units as of 2013 [9]. Under the PHA, low-income households pay a portion of the rental fee based on their income level and receive subsidies provided by the government. Overall, the PHA produced affordable accommodations that support a stable housing market and help prevent homelessness and housing insecurity.

Along with the PHA, JHC was responsible for public housing construction, new town development, and the provision of mortgage loans for homebuyers. From the 1950s to the 1970s, JHC constructed a series of rental apartment projects in the suburbs. Housing quality also gradually improved in terms of area and utilities. However, JHC's activities did not receive any subsidies from the government, unlike GHLC. Therefore, eligible households

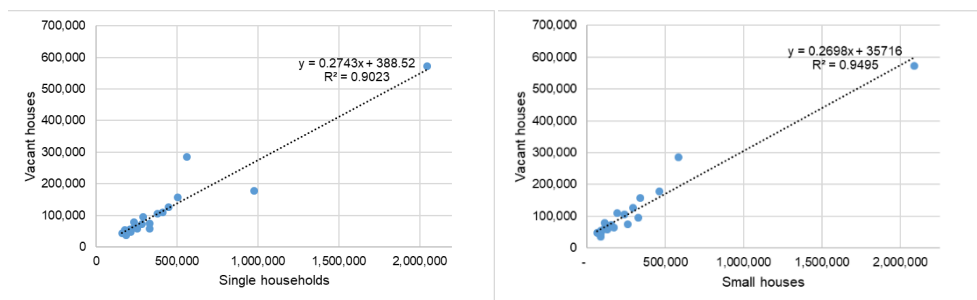
for this type of housing usually have middle incomes. In 2001 the Ministry of Land, Infrastructure, Transport and Tourism (MLIT) took over JHC and reformed it as Urban Renaissance Agency (UR).

In the 1970s, private financial institutions joined the housing market by offering housing loans; however, the share of this sector was limited and heavily affected by the economic bubble collapses. In the 2000s, along with the recovery of private finance and the change of the government perspective, the government restructured the GHLC, leading to the establishment of the Japan Housing Finance Agency (JHF) in 2007. The JHFA secured and guaranteed the private financial sector to provide long-term fixed-rate housing loans instead of providing housing loans directly to households. The transformation from GHLC to JHF increased the housing credit supply and variable-rate loans in the housing market. This reform significantly promoted the homeownership rate in Japan.

Last but not least, tax policies also play an integral role in controlling the housing market in Japan. Besides property, registration, and stamp duty taxes, the owner had to pay the vacant land tax if their land is empty. This tax is six times higher than that for occupied land. In addition, households can receive income tax reductions when purchasing a new or used house built within 20 years using a home loan [11]. These complementary policies, on one side, prevent low land usage in urban areas and, on the other side, promote homeownership for households.

### 2.3 Visible crisis in housing market

Though the Japanese housing market has achieved impressive development, some problems still exist. A visible issue that needs attention is the high number of vacant houses. Initially, the supply seemed to equal demand in the Japanese housing market in 1968, when the household rate was about 0.99 households per dwelling (figure 2). However, this ratio decreased to 0.87 households per dwelling in 2018, indicating an excess supply. As the statistic depicts, the vacancy ratio reached about 5.5% in 1968, higher than the natural vacancy ratio introduced by [16,17]. This value gradually increased to 13.6% in 2018, implying a housing vacancy crisis. As claimed in previous studies, the high vacancy rate is one of the reasons that cause the degradation of nearby property values, economic stagnation, tax revenue reduction, poor sanitation, and an unsafe environment [18–21].



**Fig. 3.** Relationship between vacant houses and ownership status, single households, house size and age in major Japanese cities. [10]

In identifying the factors that have caused the housing vacancy crisis in Japan, it has been stated that oversupply is the dominant determinant [22]. Additionally, demographic factors, housing market characteristics, and policies have also influenced the rise of vacant houses. Regarding the first two factors, the number of vacant dwellings has a strong

correlation with the proportion of single households and small houses (see figure 3). These factors reflect changes in the housing market and demographic aspects in Japan. Specifically, old buildings built during the early development stage are usually small and lack utilities, which can lead to a high possibility of abandonment. Similarly, single households are likely to be mobile and prefer to rent houses, which can lead to instability in housing demand.

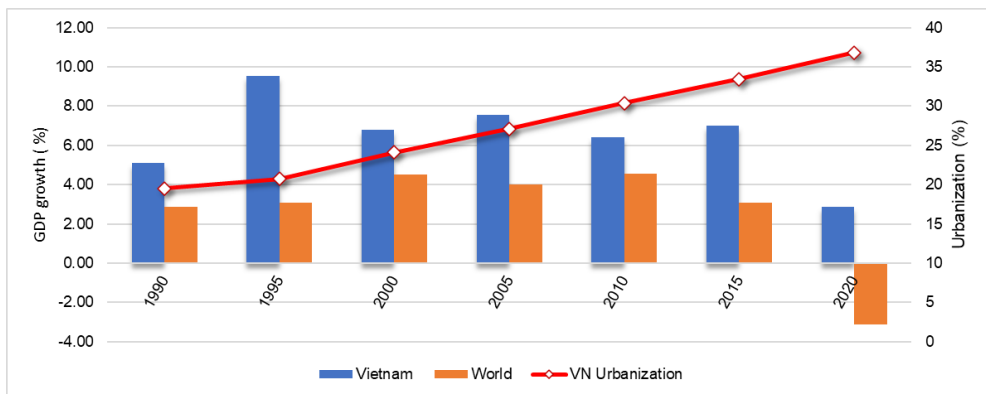
Regarding policy, the focus on developing new housing projects but the lack of focus on used house transactions has contributed to the high vacancy rate in the old house sector. As mentioned in previous sections, most housing policies in Japan aim to increase the supply by providing financial and taxation support. Meanwhile, the tax gap between vacant land and land with property can hinder owners from demolishing or renovating old houses. These factors can induce used buildings obsolete and more likely to become vacant.

To deal with this problem, the Japanese Cabinet has approved the act on special measures for vacant houses in March, 2023 [23]. This act focuses on owners' responsibility, managing empty house programs, and other measures that are expected to reduce the number of vacant houses in the future.

### 3 Housing market in Vietnam

#### 3.1 The improvement of housing supply

Since the economic transformation implemented in 1986, known as Doi Moi, the economy in Vietnam has experienced dramatic development. This reform resulted in an average growth rate of about 7.4% from 1990 to 2008 [24]. Additionally, urbanization has significantly sprawled, affecting immigration from rural to urban areas. The urban population grew from 19.51% in 1990 to 24.12% in 2000, 30.17% in 2010, and 36.83% in 2020 (figure 4). This demographic shift has led to a significant increase in housing demand in metropolises. The World Bank estimated that the housing market needs a supplement of 374,000 units annually to maintain balance [24].



**Fig. 4.** Economic growth and urbanization progress in Vietnam [6,12]

Along with the economic transformation, the Vietnamese government has implemented various laws to manage and consolidate the housing market. Dominant policies include the Housing Law 2005, revised in 2009 and 2014, the National Housing Development Strategy, and related decrees. These acts have had a positive influence on the housing supply. The

most significant change in these policies is the government's economic perspective, which allows foreign and private sector investment to join the real estate market. As a result, the foreign direct investment (FDI) in the real estate sector increased from 2.4 billion US dollars in 2015 to 5 billion US dollars in 2020, accounting for about 10% and 16% of the total amount [6]. Likewise, the private sector has constructed extensive commercial houses in large cities from 2015 to 2020. During this time, Hanoi and Ho Chi Minh City provided about 21.56 million and 12.5 million square meters of floor space, respectively.

Besides the increase in housing supply, the housing and social indexes have improved significantly since the government enacted new policies. Specifically, the homelessness ratio reduced from 0.07‰ in 1999 to 0.06‰ in 2009, accounting for about 11,377 and 12,647 households [25]. According to statistics, in 2018, the number of the homeless household was 1244, equivalent to about 0.005‰ of total households [6]. Likewise, the permanent and semi-permanent houses increased from 63.2% to 84.9% and 93.1% in 1999, 2009, and 2019, respectively. The average floor area per person also increased from 17.9 in 2010 to 25.3 m<sup>2</sup>/person in 2020.

### **3.3 Existing risks that need to concern**

Though the housing market in Vietnam has achieved impressive achievements, some issues still exist including the housing affordability, lack of rental houses, and improper land taxation. These problems might affect the sustainable development of the housing market that need to remedy.

Regarding the first issue, although the data show a significant rise in housing supply, accessibility appears limited. As mentioned in the previous section, the housing market in Vietnam has experienced a substantial increase in home starts supplied by FDI and the private sector. However, the target customers of these houses are middle- to high-income households, while low-income appear to have limited access due to the high prices. Moreover, the financial subsidy packages provided by the government are insufficient to support this group in purchasing a home. Specifically, the World Bank has reported that only the top three income quintiles can pay the down payment for housing purchases [24]. Contrary, the first- and second-income quintiles cannot pay the down payment when their savings are close to zero. This problem thus constrains the effectiveness of government programs such as the 30 trillion package or Mekong River Delta flood mitigation. Therefore, besides financial support, the government should focus on other housing policies, including developing starter and rental home projects.

The second issue is the shortfall in the supply of rental housing, despite the significant increase in demand for this type of housing. In 2009, the share of rental houses in the housing market was about 15% [25]. Likewise, in 2019, statistics estimated that about 11.4% of households lived in rental accommodations [7]. These households are mainly young, low-income rural immigrants. Meanwhile, the labor force in the manufacturing sector increased by approximately 33% from 2015 to 2020, from 8.5 million to 11.3 million [26]. Of this labor force, about 22% is in the age range of 15-29, accounting for about 2.5 million people in 2020. This fact indicates a significant demand for rental houses. Nevertheless, the supply has only fulfilled about 10% of the need [24]. The imbalance suggests that the government should pay attention to supporting households in finding affordable rental housing.

Regarding taxation, as the World Bank has claimed, the land tax in Vietnam is too low compared to that in other countries [24]. This issue, on the one hand, decreases tax revenue and, on the other hand, may lead to land and housing speculation. The report estimated that



the land tax contributed only 2-3% to government revenues, which is insufficient for constructing, maintaining infrastructure, and investing in other development programs. Furthermore, investors may take advantage of the low tax to keep the land unconstructed, waiting for the price to rise before transferring or selling to other investors to make a profit. This speculation would negatively affect the housing market, including surging land and housing prices and limiting land resources for housing development. Recently, the occurrence of numerous empty lands in Hanoi and Ho Chi Minh City reflects this phenomenon.

## 4 Conclusions

To achieve sustainable development goals, securing the housing market is one of the substantial tasks that a country needs to address. This study summarizes the housing development process in two countries, Japan and Vietnam, along with their policy interventions. Lessons learned from Japan highlight the substantial importance of the role of the private finance sector, which is also true for Vietnam, where the housing market has developed dramatically. This achievement is thanks to the economy's transformation, which enable the FDI and private sector to join the housing supply.

However, the two countries are facing different housing problems. While Japan is dealing with a vacancy crisis, Vietnam is vulnerable to housing affordability and the lack of rental shares in the housing market. Improving these weaknesses would help consolidate and facilitate the housing market development in Vietnam and Japan in a sustainable direction.

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