# Measuring Housing Affordability in the Philippines

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## Abstract

Understanding housing affordability is key to addressing the housing problem. This study evaluates housing affordability in the Philippines using conventional approaches. It compares Residual Income Method estimates with those from the 30 percent of income standard that is commonly used as a measure of housing affordability in the country. The authors note that the 30 percent of income standard overestimates housing affordability among the poor and underestimates among those in the upper income levels relative to the Residual Income Method. In other words, the poor and low-income households are not able to afford housing priced at 30% of their income, while the middle income to rich are able to afford housing priced at more than 30% of their income. The study also shows that the structure of family (i.e., size and presence of children) affects housing affordability. A comparison of household affordability levels with the available housing supply in the formal market shows that a typical household in the Philippines experiences housing stress due to inadequate affordable housing specifically near places of work or livelihood and the low capacity to qualify for mortgage financing. This situation tends to worsen over time as the growth of residential prices surpasses the growth of incomes. Given the housing affordability problem in the country, the government must undertake reforms to prevent speculative increases in land and residential prices and to reexamine the role of the public sector in the delivery of affordable housing. The former would involve adopting a standard valuation of land and real estate properties; the effective implementation of idle land tax by all LGUs and regulation on borrowings such as financial ceilings on household debt to income ratio and other anti-speculative measures. On the other hand, government provision of affordable housing would require an overhaul of the housing subsidy programs and creation of a public housing fund to finance direct subsidies to households, public sector construction of affordable housing (for rent or ownership); and housing support in times of disaster. At the town or city level, Community Development Funds (CDFs) anchored to municipal councils should be established to support housing projects arising from urban renewal or upgrading or other urbanization challenges.

**Keywords:** housing, affordable housing, shelter poverty, urbanization, cities

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### 1. Introduction

The housing deficit problem in the Philippines has remained unresolved. The Department of Human Settlements and Urban Development (DHSUD) estimated an accumulated housing need of 6.5 million from 2017-2022. A recent study shows that more than 50 percent of the households in the country are unserved by either government programs or the housing market as shown in the lack of affordable housing supply in the market and the increasing population of informal settlers in urban areas (Padojinog and Yap 2020).

Since early 2000s, the government has intervened in the housing market to address the housing backlog in two ways: <u>first</u>, through government-subsidized housing programs that specifically cater to the informal settlers or to select sectors such as the police, armed forces, and teachers from public schools; and <u>second</u>, through the market in the form of direct fiscal incentives (e.g. income tax holidays and VAT exemptions) on socialized and economic housing developments[1] or the imposition of rent control laws and the balanced housing requirements on non-low-cost housing developments.[2]

Despite these interventions, the housing shortage, especially for the low-income sector persists. It has been reported that the "*bulk of the construction activities since 2016 has shifted to upper-class housing where margins are more attractive, as well as to other non-housing construction projects*" (Padojinog and Yap 2020 p.19). On the other hand, the budget provided to DSHUD, NHA and SHFC targets to support only 1.5 million low-cost housing for the period 2017-2022 or 300,000 units annually. There are also efforts from local government units (LGUs) to allocate their own funds for the housing needs of their constituents, but these are often irregular or often are provided only to local employees. Most LGUs still depend on the national government to fund local housing projects specifically for those in the lowest income deciles.

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[1] Defined in terms of housing price ceiling as follows: (1) PHP 700,000 for 22 sqm and PHP 750,000 for 24 sqm for socialized condominiums in the National Capital Region; San Jose del Monte City, Bulacan Province; Cainta and Antipolo City, Rizal Province; San Pedro City, Laguna; Carmona and Cities of Imus and Bacoor in Cavite Province; (2) PHP 600,000 for 22 sqm and PHP 650,000 for 24 sqm for socialized condominiums in other areas; (3) PHP 480,000 for 22 sqm with loft of at least 50% of base structure / 24 sqm, and PHP 580,000 for 28 sqm with loft of at least 50% of base structure / 32 sqm for socialized subdivisions; and (4) PHP 1,700,000 for economic housing (see Housing and Urban Development Coordinating Council [HUDCC] Resolution No. 2, Series of 2018; HUDCC Resolution No. 1, Series of 2018; and Housing and Land Use Regulatory Board (HLURB) Memorandum Circular No. 13, Series of 2017).

[2] Republic Act No. 10884, also known as the "Balanced Housing Development Program Amendments", amended Section 18 of Republic Act No. 7279 and has required condominium and subdivision developers and/or owners to contribute to balanced housing development through the development of an area for socialized housing or modes which may involve the following among other things: socialized housing in a new settlement; community mortgage program; and joint-venture projects with selected stakeholders.

Deficient housing is an indicator of an affordability problem. Housing, unlike other consumer goods, is a basic need that households cannot choose not to purchase. If housing is unaffordable, households are either consuming unacceptable housing arrangements (e.g. overcrowding, homelessness, informal settlements, etc.) or consuming unacceptably high and unsustainable proportion of their incomes on rent or mortgage payment (this can lead to unpaid mortgages/rent, abandonment of rental space, not sending children to school, etc.).

Understanding housing affordability is key to understanding the housing market and addressing the housing problem. Affordability does not only involve income but also access to the housing market, availability of jobs or livelihood opportunities and presence of basic services and infrastructure. House prices can be low, but the housing can still be unaffordable if households consider it far from livelihood opportunities or needed amenities such as school or medical support. It is also unaffordable if quality standards of living (space per person) are compromised.

With the ever escalating housing prices, having a good measure of housing affordability is important for the government to have a broader sense of policy options and economic outcomes to address housing inequalities and the gaps between housing demand and supply.

In the Philippines, the 30% income standard is a widely used and accepted measure of the extent of housing affordability. Section 2 of Batas Pambansa Blg. 220 (BP 220) provides that socialized and economic housing should be within low-income and average earners' affordability level, which is at 30% of gross family income as determined by the National Economic and Development Authority (NEDA).[3]

The validity of the 30% income standard, however, has not been fully established in the country. The lack of supporting research weakens the rationale for using the standard and the argument that housing has been affordable over time. Consequently, this study proposes to address the following policy questions:

(1) How well does the current housing affordability method capture housing affordability in the Philippines? What are the gaps/limitations in using the 30% income standard for the country?

(2) Are households in the Philippines housing stressed? What is the extent of shelter poverty amongst population ?

(3) What policy responses are needed to address housing affordability issues especially in urban areas?

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[3] According to NEDA, the 30% was also an accepted standard due to expectations of higher incomes in the future.

## 2. Conceptual Framework

### 2.1. Defining Affordable Housing

Affordable housing has certain elements that are apparent from definitions in reviewed literature. Majale et al. (2011, p. 10), who wrote on affordable land and housing in Asia, said that "Affordable housing is broadly defined as that which is adequate in quality and location and does not cost so much that it prohibits its occupants [*sic*] meeting other basic living costs or threatens their enjoyment of basic human rights.". Similarly, housing affordability is usually described as "households' ability to access and obtain decent housing without experiencing unwarranted financial hardship" (Aribigbola and Makinde as cited in Ezennia and Hoskara 2019, pp.4-5). Based on the definitions, there are three aspects that can be associated with housing affordability: (1) attainable, (2) decent, and (3) sustainable (Figure 1).

**Figure 1. Characteristics of affordable housing**
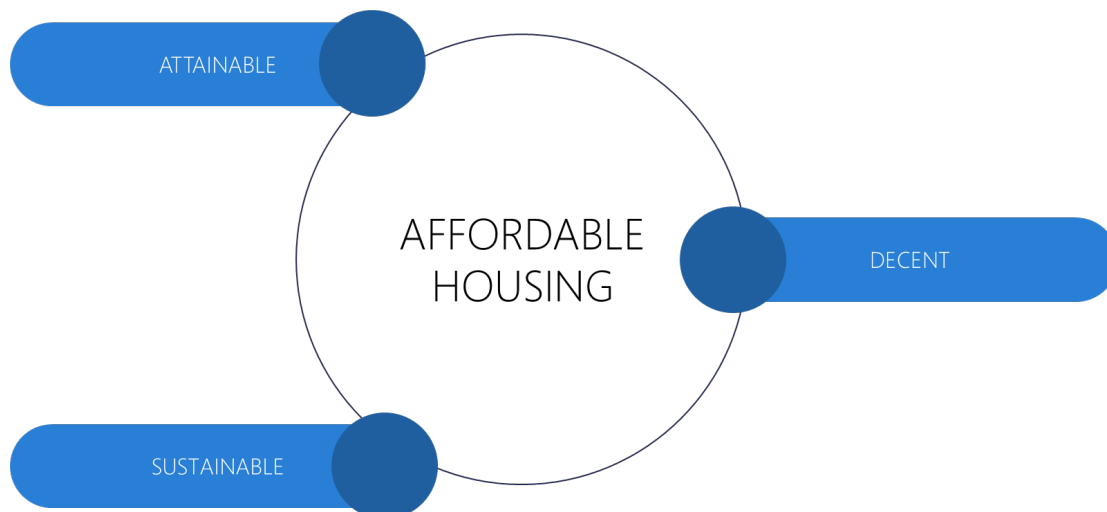


Source: Authors' summary

Affordability in terms of attainability should not only be based on housing cost. Bergenstråhle (2018, pp. 1-2) defines affordability as "a relationship between housing and people" and even pushes the envelope by saying that "below-market housing" is a more accurate term. The attainability element then is more concerned on the ratio between housing costs and income. This can be exhibited by the case of Australia. The Australian Institute of Health and Welfare (2021) noted that lower rental cost due to the COVID-19 pandemic did not increase housing affordability for every Australian because the renters' income suffered a greater decline than rental prices. It can also be exhibited by the case of the USA. Howell (2020) presents Figure 2 on the income distribution of cost-burdened households in the ten most populous cities in the USA and points out that the affordability problems experienced by households in the cities of San Jose, Los Angeles, and New York vis-à-vis Philadelphia are caused more by high housing costs than low income. In other words, housing affordability challenges can be experienced if there are high housing prices and also if there are low-income levels.

**Figure 2. Income distribution of cost-burdened households of most populous cities in the USA, 2018**
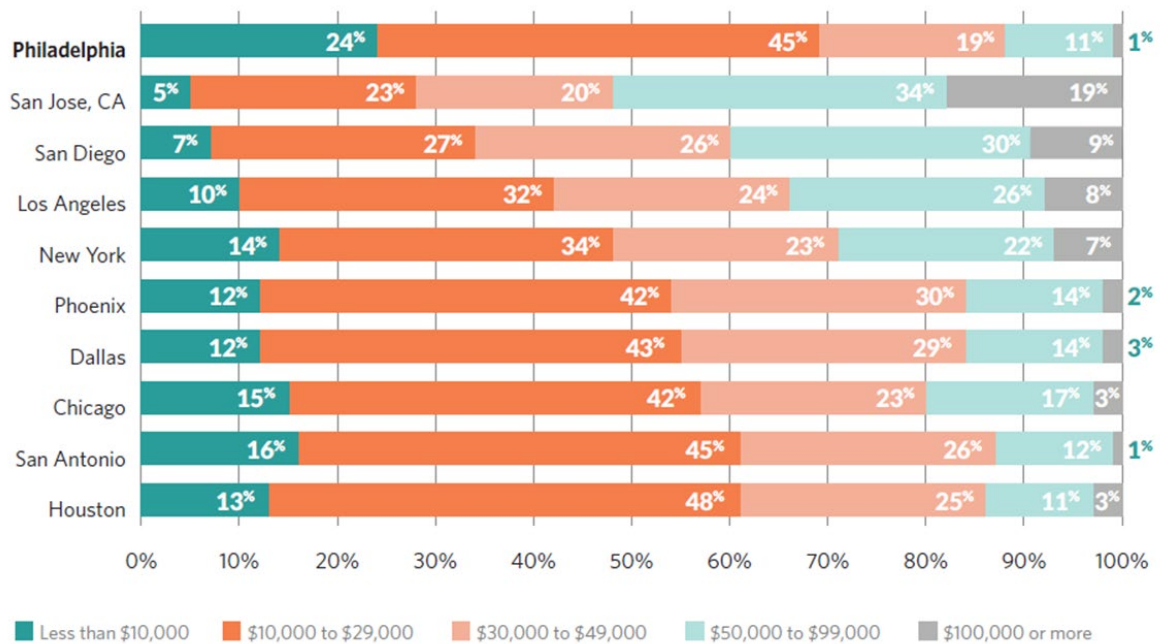


Note: Income-category figures for some cities do not add up to 100% due to rounding.

Sources: Pew analysis of U.S. Census Bureau, American Community Survey, Public Use Microdata Sample (2018 one-year estimates) as seen in Howell (2020)

In assessing the decency element of affordability, basic shelter attributes from the United Nations Habitat can be used as a reference. These include (1) tenure security, (2) dwellings' structural quality or durability, (3) sufficient living area, (4) access to improved sanitation, and (5) access to improved water (UN Habitat 2018) (Figure 3). Tenure security is related to the attainment of a legal status against threats (UN Habitat 2018). Assessment on dwellings' structural quality or durability should be based on adequacy and permanency of structure, as well as construction on non-hazardous location (UN Habitat 2018). Living area is sufficient if at most three persons share a habitable room (UN Habitat 2018). Meanwhile, access to improved sanitation is said to be available if the household has access to a facility with an excreta disposal system that prevents human waste from being in contact with humans (UN Habitat 2018). Likewise, there is access to improved drinking water if the household utilizes a facility that is safe from outside contamination (UN Habitat 2018).

**Figure 3. Basic Shelter Attributes**



Source: UN Habitat (2018)

Affordability should not only be based on the attainability and decency of housing but also on sustainability or the capacity of families to incur housing payments in the longer -term without suffering from lower expenditure on other goods/services. In paying downpayment and monthly amortizations, there should also be consideration on expenditure on other basic goods/services in line with items under PSA's total basic expenditure that are not related to housing: (1) food expenditure; (2) clothing, footwear and other wear expenditure; (3) water supply and miscellaneous services expenditure; (4) electricity, gas and other fuels expenditure; (5) medical care expenditure; (6) education expenditure; (7) transportation expenditure; (8) communication expenditure; (9) non-durable furnishings expenditure; and (10) personal care and effects expenditure. Tradeoffs on budget allotment for expenditure on such goods/services can occur, and families should be forward-looking when assessing whether they can afford particular housing packages.

## 2.2. The Need to Measure Housing Affordability

The Philippines has a housing need problem as earlier discussed; however, there is a need to establish first that the problem is because of affordability. This is to emphasize the urgency of the problem and rationalize the importance of addressing it through additional or even a change of policies.

Housing need is likely to be due to affordability issues especially when the group in need of housing is comprised of lower income families, which seems to be the case in the Philippines. Padojinog and Yap (2020) showed that the housing backlog persists in the low-cost, economic, and socialized segments (Table 1).[4] Around 41.42% of the housing supply from 2001 to 2018 has gone to the economic segment and 10.16% has gone to the socialized segment, but the shares have been decreasing recently (Padojinog & Yap 2020).

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[4] Padojinog and Yap (2020, p.15) define low-cost housing as "housing with price ranges between PHP 1.75 million and PHP 3.0 million", economic housing as "housing with price ranges from PHP 750,001 to PHP 1.75 million", and socialized housing as "housing with price ranges from PHP 480,000 to PHP 750,000".

**Table 1. Housing Backlog Per Segment in Units from 2001 to 2018 and Projected Housing Needs in Units from 2019 to 2022**

| Segments | Backlog (2001-2018) | Housing Needs (By 2022) |
|---|---|---|
| Unserved | 5,623,943 | 5,933,289 |
| Socialized | -4,808,424 | 5,117,770 |
| Economic | -303,934 | 2,110,427 |
| Low-Cost | -602,347 | 1,914,769 |
| Mid-Cost | 377,434 | - |
| High-End | 204,044 | - |
| Shortage | -5,714,706 | - |
| **Total Housing Needs** | | 15,076,255 |

Source: HLURB and Center for Research and Communication (CRC) as cited in Padojinog & Yap (2020)

Note from Padojinog & Yap (2020, p. 26): "The estimated backlog on the row classified as "Shortage" excludes the surpluses in the mid and high-end segments. Numbers in parentheses in the second column under "Backlog (2001-2018)" indicate a negative value or a backlog for the socialized, economic, and low-cost segments which is the result of the accumulation of deficits over time (i.e., demand exceeding supply of housing units). The unserved segment is a positive number indicating the number of households that could not afford socialized housing or avail of any housing finance program. This segment is not included in the column's computation of the housing shortage. The last column under "Housing Needs (By 2022)" pertains to the estimated housing need accumulated from 2019 to 2022, assuming that no new housing units are supplied and produced."

The World Economic Forum (WEF) (2019) mentions that a common challenge in housing affordability is a failure of affordable housing supply to be in line with demand and the lack of incentives to construct affordable housing in the market. Increasing housing demand induced by demographic changes is also an indicator of a housing affordability problem (WEF 2019 & Calabrese et al. 2021). This can be illustrated by the housing backlog presented in Table 1.

Increasing transportation costs is also a cause of concern related to the housing problem. Calabrese et al. (2021) mentioned that many families allot a big percentage of their income to transportation, influencing their decision on the location of the housing. Consequently, discussions on affordable housing involve transportation (Calabrese et al. 2021). Adapting the concept of the standard urban model from Alonso, Mills, Muth, and Wheaton, the price of land increases as the distance from the city center decreases assuming all jobs are in the central business district, the city is in a featureless plain, and constituents commute to work along an infinite number of straight radial roads (Bertaud 2015). The large increases in gasoline prices in the Philippines can then be considered as influential to the housing affordability.

Important findings that would evidently rationalize increasing efforts towards addressing the housing need is of course establishing that housing itself is not affordable in the Philippines. Calabrese et al. (2021) relays that increases in home and rental prices in relation to household income can reflect a strong affordable housing demand. WEF (2019) mentions that a common problem in housing affordability is a disproportionate increase in housing costs vis-à-vis household incomes. Such scenarios are expected to be illustrated through the employment of housing affordability measures.

## 2.3. Conventional Approaches to Measuring Housing Affordability

Various methods are available to measure housing affordability. Ezennia and Hoskara (2019) conducted a review on these methods and classified them according to the following: (1) conventional approaches, (2) scarcely used approaches, and (3) emerging novel approaches (Figure 4). This study employs the conventional approaches because the expected outputs of the other approaches are not closely related to this study's objectives. Scarcely used and emerging novel approaches are centered on the relationship of inequality with affordability, looks closely into households' perception on affordability, more suitable for rationalizing of housing stakeholders' decisions, and/or is focused on trends in housing price. Furthermore, data availability would be an issue in the adoption. In fact, research on and use of these emerging novel and scarcely used methods is limited. The conventional approaches, namely the Income Ratio Method, Residual Income Method, and Composite Method, are more in line with the objectives of the study and feasible in the context of the Philippines.

**Figure 4. Housing Affordability Methods**
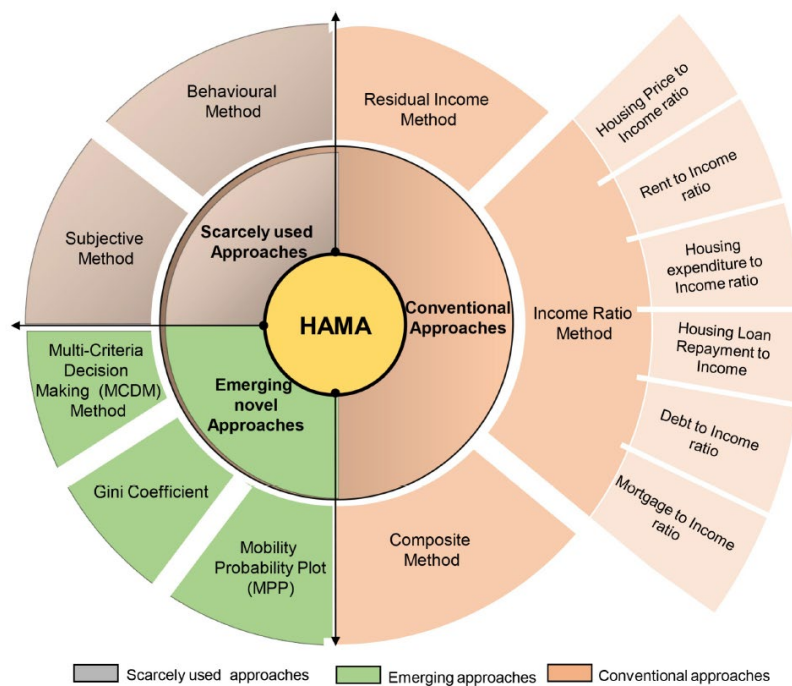


Source: Ezennia and Hoskara 2019

The Income Ratio Method has various forms. Among the many forms, one can compute the proportion of income used to settle actual or imputed rents, and one can also compute the proportion of income needed to pay amortizations. The mathematical form of the Income Ratio Method can be found in Ezennia and Hoskara (2019): $Housing\ Affordability = \frac{House\ Price}{Household\ Income}$. Housing is typically said to be affordable at 30% of the income or less (OECD n.d.). The standard, which started as 25%, is based on an old principle that the wage for one week should be allotted for the rent for one month (Herbert et al. 2018).

The Residual Income Method and Composite Method measures affordability based on a non-housing basic expenditure. According to Nwuba and Kalu (2018), the Residual Income Method highlights the need to recognize factors other than housing expenditure in measuring affordability, and it can reflect the capacity of households to afford a minimum standard of living. Housing is considered affordable if $Household\ Income - Housing\ Expenditure \geq Minimum\ Non - housing\ Expenditure$, and housing stress is experienced if $Household\ Income - Housing\ Expenditure - Minimum\ Non - housing\ Expenditure < 0$. The Residual Income Method can also be used to estimate an affordability ratio similar to that of the Income Ratio Method. The affordability ratio is computed as follows: $\frac{Total\ Household\ Income - Minimum\ Non - housing\ Expenditure}{Household\ Income} = Affordability\ Ratio$. The approach can also be regarded as the Composite Method, which estimates the proportion of family income available for housing expenditure. The Composite Method combines various housing affordability methods (see Ezennia and Hoskara 2019). The Income Ratio Method and Residual Income Method are typically included. For this study, the approach is termed as the Residual Income Method given the large influence of the use of a threshold on non-housing expenditure in the estimation.

The Income Ratio Method and Residual Income Method are assessed in terms of the following criteria: (1) Accuracy, (2) Comprehensibility, (3) Applicability, and (4) Feasibility (Table 2).

In terms of accuracy, both the Income Ratio Method and Residual Income Method are said to have limitations. The Income Ratio Method is criticized for having an arbitrary threshold, the maximum percentage of income that can be allotted to housing expenditure to ensure affordability (see Ezennia and Hoskara 2019, and Nwuba and Kalu 2018). The measure is at risk of overestimating and underestimating housing affordability (Ezennia & Hoskara 2019; Herbert et al. 2018). The Residual Income Method, nevertheless, is also associated with an issue of arbitrariness but this one is in terms of the setting of the minimum income for non-housing expenditure (see OECD n.d.). Additionally, under the Residual Income Method, cost-of-living issues might be erroneously identified as cost-of-housing issues (OECD n.d.).

Selecting a method in terms of comprehensibility boils down to preference. The Income Ratio Method is said to be easily understandable (OECD n.d.). It facilitates application and comparisons (Ezennia and Hoskara 2019). Credit is given to the Residual Income Method, nevertheless, by Nwuba and Kalu (2018) because of the more realistic approach of using a monetary amount compared to a percentage of income.

Method selection in terms of applicability should take into consideration the specific unit whose housing affordability is measured. Herbert et al. (2018) mentioned that the 30% standard of the Income Ratio Method generates similar results with those from the Residual Income Method. They noted, however, that household characteristics influence non-housing expenditure such that 70% may not necessarily be the exact required income to meet the expenses (Herbert et al. 2018). Ezennia and Hoskara (2019) further highlighted that the Income Ratio Method does not take into account non-housing expenditure, location, household structure, age groups, income levels, and dwelling and neighborhood characteristics. On the other hand, the Residual Income Method considers varying household structures, incomes, and expenditure needs (Ezennia and Hoskara 2019).

In terms of feasibility, the Residual Income Method is recognized as a more complex metric to generate (Herbert et al. 2018). The measure requires potentially unavailable data in computing the minimum cost of the non-housing basic goods/services (see Herbert et al. 2018, Nwuba and Kalu 2018, and OECD n.d.). Meanwhile, the Income Ratio Method is advantageous because the required variables are readily available (see OECD n.d., and Ezennia & Hoskara 2019).

The Income Ratio Method seems to be employed more than the Residual Income Method. The UN Habitat says that housing is unaffordable to a household if "the net monthly expenditure on its cost exceeds 30% of the total monthly income of the household" (UN-Habitat 2018, p. 16). For the United States of America (USA) Housing and Urban Development, there is a housing cost burden if households have total housing costs of greater than 30% of gross annual income and there is severe housing cost burden if the costs are greater than 50% (Jewkes and Delgadillo 2010). The USA National Association of Realtors, meanwhile, regards income as insufficient if the ratio of the median income to qualifying income for a median-priced house multiplied by 100 is lower than 100 (Napoli 2017). The Commonwealth Bank of Australia and Housing Industry of Australia assess affordability based on the ratio of average disposable income to income needed to meet repayments on 25-year loan for 80% of median price of house bought by first-home buyers (Abelson 2009). The Real Estate Institute of Australia or AMP notes that affordability is worsening or improving based on a comparison of simple housing cost-to-income ratio over time (Gabriel et al. 2005). For the Australian Housing and Urban Research Institute (AHURI) (2019), affordability stress occurs among households at the lowest 40% of income distribution and whose housing costs cover greater than 30% of income. Meanwhile, the Central Bank of Malaysia regards housing as affordable if cost is not higher than 30% of gross income (Thaker 2022). The Monetary Authority of Singapore (MAS) (2021) requires that the repayment of all property loans and that in application not exceed 30% of a borrower's gross monthly income. It further requires that the repayment of all debt obligations and that in application not exceed 55% of a borrower's gross monthly income (MAS 2021). The Canada Mortgage and Housing Corporation (2020), on top of employing the shelter cost-income ratio and 30% standard to evaluate affordability, uses the housing hardship concept to assess household ability to afford non-housing necessities after housing-related expenses, taxes and transfers.

Despite the more widespread use of the Income Ratio Method, the study aims to assess it in the Philippine context because of its known weaknesses based on reviewed literature. The employment of the Residual Income Method facilitates the determination of whether 30% of income for housing should indeed be the standard. Through the Residual Income Method, a threshold on non-housing basic goods/services is utilized to get a more differentiated assessment on housing affordability given various households and contexts.

**Table 2. Comparison of Income Ratio Method and Residual Income Method**

| CRITERIA | INCOME RATIO METHOD | RESIDUAL INCOME METHOD |
|---|---|---|
| Accuracy | • Arbitrary threshold<br><br>• Tendency to overestimate and underestimate | • Arbitrary threshold<br><br>• Risk of erroneously identifying cost-of-living issues as cost-of-housing issues |
| Comprehensibility | • Easily understandable<br><br>• Facilitates application and comparisons | • Monetary amount as more realistic |
| Applicability | • 30% standard generates similar results with Residual Income Method at overall levels of affordability<br><br>• No consideration on household structure, age groups, non-housing expenditure, income levels, dwelling and neighborhood characteristics, and location<br><br>• May not be applicable within subgroups | • Considers various household structures, incomes, and expenditure needs |
| Feasibility | • Required variables are readily available | • Required variables might not be readily available<br><br>• Generation of metric is more complex |

Note: Authors' summary of strengths and limitations based on reviewed literature

## 3.  The Housing Affordability Problem in the Philippines

*3.1 Housing Expenditure of Philippine Households*

On average, families spend less than 10 percent of their incomes on rent (Table 3). The lowest income groups spend less than the average while those higher income groups generally spend a little over the average. The actual expenditure share does not really reflect housing affordability since families that pay rent may have other residences outside of their rented housing units that only serve as temporary abodes. In this case, the data indicate the proportion of income that households are willing to spend for rental. Households may be willing to spend more on housing ownership. In the case of imputed rents, no actual rent is paid, and the data reflect the value households give to different characteristics of the housing unit. In terms of location, the proportion of housing expenditure to income is higher in highly urbanized locations such as Metro Manila. (Table 4).

**Table 3. Share of Housing Expenditure (Rent) to Household Income by Income Group 2018 (Philippines)**

| Income Groups[5] | Owners[6] | Renters[7] | Others[8] | Total |
|---|---|---|---|---|
| Poor | 7.72 | 11.67 | 6.83 | **7.47** |
| Low Income but Not Poor | 8.70 | 11.62 | 7.42 | **8.49** |
| Lower Middle Income | 10.16 | 11.93 | 8.68 | **10.07** |
| Middle Middle Income | 10.74 | 11.57 | 10.53 | **10.81** |
| Upper Middle Income | 11.31 | 11.68 | 11.02 | **11.34** |
| Upper Income but Not Rich | 11.48 | 10.37 | 10.82 | **11.34** |
| Rich | 10.56 | 10.78 | 7.04 | **10.45** |
| **Total** | **9.61** | **11.71** | **7.91** | **9.39** |

Source of basic data: PSA – FIES 2018

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[5] The income group classification is based on the definition specified by Albert et al. (2018). In their definition, the poor pertain to those whose per capita incomes are less than the official poverty threshold. Low income are those between the poverty line and twice the poverty line. Lower middle income are those between twice the poverty line and four times the poverty line. Middle middle income are those between four times the poverty line and ten times the poverty line. Upper middle income are those between ten times the poverty line and fifteen times the poverty line. Upper income but not rich are those between fifteen times the poverty line and twenty times the poverty line. While the rich are those whose per capita incomes are at least equal to twenty times the poverty line.  This income classification will be adopted in the succeeding analysis.

[6] Owners: Those with tenure status of own or owner-like possession of house and lot.

[7] Renters: Those with tenure status of rent house/room including lot.

[8] Others: Those with tenure status of own house, rent lot; own house, rent-free lot with consent of owner; and rent-free house and lot with consent of owner.

Note:
For the housing expenditure on rent, actual rent values were used for "Renters", while imputed rent values were used for "Owners" and "Others".
Imputed Rent: The "estimated amount that the owner of a dwelling unit would charge if he or she were to rent his or her entire dwelling unit monthly, unfurnished and excluding the costs for utilities" (PSA 2020a).
Actual Rent: Rental value paid by tenants or subtenants occupying furnished or unfurnished premises as their main residence and payments by households occupying a room in a hotel or boarding house as their main residence (PSA 2020a).
*Families living in houses and/or lots without consent of owner are not included

**Table 4. Share of Housing Expenditure (Rent) to Household Income by Location and by Income Group, 2018**

| Location | Poor | Low Income but Not Poor | Lower Middle Income | Middle Middle Income | Upper Middle Income | Upper Income but Not Rich | Rich |
|---|---|---|---|---|---|---|---|
| Urban | 8.55 | 9.84 | 11.22 | 11.99 | 12.66 | 12.86 | 12.33 |
| Metro Manila | 15.13 | 13.45 | 13.48 | 14.29 | 16.22 | 17.84 | 19.74 |
| Calabarzon (Urban) | 11.11 | 10.66 | 10.85 | 11.34 | 11.38 | 10.31 | 10.06 |
| Cebu (Urban) | 10.19 | 9.66 | 11.19 | 12.56 | 12.97 | 13.06 | 11.55 |
| Davao (Urban) | 7.97 | 9.84 | 11.87 | 11.91 | 11.90 | 10.28 | 6.79 |
| Pampanga (Urban) | 8.53 | 8.94 | 9.77 | 9.86 | 10.20 | 11.70 | 6.31 |

Source of basic data: PSA - FIES 2018

The type of household also affects the share of housing expenditures to income (Table 5). A smaller family with 2 members can spend a higher proportion of their income for housing compared to a family with 5 members consisting of 3 children. For larger and/or more mature families, expenses for non-housing items (e.g. schooling, medical, clothing, etc.) take a higher proportion of family income.

**Table 5. Share of Housing Expenditure (Rent) to Household Income by Family Size and by Income Group, 2018 (Philippines)**

| Family Size | Poor | Low Income but Not Poor | Lower Middle Income | Middle Middle Income | Upper Middle Income | Upper Income but Not Rich | Rich |
|---|---|---|---|---|---|---|---|
| 2 Members | 12.99 | 11.60 | 12.37 | 13.29 | 12.95 | 13.42 | 11.10 |
| 5 Members with 3 Children | 7.47 | 8.42 | 9.36 | 7.59 | 9.32 | 7.44 | 2.33 |

Source of basic data: PSA – FIES 2018

*Note: Children – aged 17 or below

The authors compare actual expenditures of household with that of 30% of income to determine the difference in the perceived housing affordability among families in the Philippines. Table 6 shows that the annual mean housing expenditures are considerably lower than 30% of the mean family incomes. Given the lower estimates and following the concept of the 30% standard, housing in the Philippines based on the housing expenditure would indicate affordability.

If 30% is assumed to be the standard for affordable housing, then remaining income for other expenditures is still positive for all families (Table 6). However, the monthly residual income is minimal for the average family. On average, the remaining monthly income for non-housing expenditure amounts to only PhP18,279 for a family size of 5. This amount is only around twice the food threshold, indicating minimal income available for other non-food expenses such as water, electricity, gas and fuel, health, communication, etc.[9] Among the income groups, the poor and the low-income households have remaining incomes lower than the national average. For instance, a family of 5 would need a monthly food threshold of Php7,767.5 in urban areas and Php8,345.4 in highly urbanized areas such as Metro Manila. As shown in table, in the case of poor households, the remaining income after the 30% housing expenditure is lower than the monthly food threshold. Similarly, the low income but not poor households have barely any income left after spending for basic food needs.

Similar findings are apparent in selected urban areas. The estimates on remaining incomes based on the 30% affordability standard are generally higher than the nationwide values, potentially reflecting greater capacity of families to pay for expenditures other than housing. However, the poor and low-income households, which comprise most households, are expected to be severely constrained given higher non-housing expenditures in urban areas (Table 7).

In terms of family type, families of size five with three children could be severely constrained since it has bigger family size but the residual income, on average, is similar as those families with only two members (Table 8).

Despite the positive news that the 30% standard brings when applied in the Philippine context, estimates from the standard should be interpreted with caution. The estimates may not necessarily reflect affordability of housing as families may be spending too little on housing because of consideration of other expenditures. A question also arises on whether the residual income after the deduction of 30% for housing, despite being positive, is enough for other necessities.

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[9] Annual food threshold per capita in 2018 amounts to Php18,642 or Php 1,553.5 per month (see PSA 2020b).

**Table 6. Residual Income for Non-housing Basic Expenditure based on the 30% Standard, 2018 (PHP)**

| Income Groups | Philippines | | | |
|---|---|---|---|---|
| | Annual Mean Housing Expenditure (PHP) | 30% standard Housing expenditure (PHP) | Annual Residual Income Based on 30% Standard (PHP) | Monthly Residual Income Based on 30% Standard (PHP) |
| Poor | 8,480 | 35,738 | 83,388 | 6,949 |
| Low Income but Not Poor | 15,109 | 55,690 | 129,944 | 10,829 |
| Lower Middle Income | 28,750 | 91,233 | 212,876 | 17,740 |
| Middle Middle Income | 48,471 | 148,242 | 345,898 | 28,824 |
| Upper Middle Income | 75,694 | 223,984 | 522,629 | 43,552 |
| Upper Income but Not Rich | 113,517 | 343,649 | 801,849 | 66,821 |
| Rich | 180,931 | 704,228 | 1,643,199 | 136,933 |
| Total | 28,910 | 94,005 | 219,344 | 18,279 |

Source of basic data: PSA - FIES 2018

**Table 7. Monthly Residual Income for Non-housing Basic Expenditure in Selected Urban Areas based on the 30% Standard, 2018 (PHP)**

| Income Groups | Metro Manila | Calabarzon (Urban) | Pampanga (Urban) | Cebu (Urban) | Davao del Sur (Urban) |
|---|---|---|---|---|---|
| Poor | 9,597 | 8,482 | 9,963 | 7,765 | 7,576 |
| Low Income but Not Poor | 14,417 | 13,612 | 14,942 | 12,169 | 11,744 |
| Lower Middle Income | 21,656 | 20,462 | 19,450 | 18,733 | 16,465 |
| Middle Middle Income | 31,796 | 30,702 | 29,408 | 29,261 | 26,491 |
| Upper Middle Income | 46,066 | 44,237 | 39,378 | 46,531 | 42,873 |
| Upper Income but Not Rich | 68,110 | 80,102 | 57,414 | 57,806 | 70,418 |
| Rich | 125,116 | 124,200 | 93,104 | 251,836 | 122,913 |
| Total | 26,856 | 24,552 | 20,510 | 21,595 | 20,413 |

Source of basic data: PSA - FIES 2018

**Table 8. Monthly Residual Income for Non-housing Basic Expenditure in the Philippines by Family Type based on the 30% Standard, 2018 (PHP)**

| Income Groups | Philippines | |
|---|---|---|
| | Family Size 2 | Family Size 5 with 3 Children |
| Poor | 2,460 | 5,922 |
| Low Income but Not Poor | 4,533 | 10,551 |
| Lower Middle Income | 8,607 | 20,350 |
| Middle Middle Income | 15,599 | 37,805 |
| Upper Middle Income | 26,625 | 62,616 |
| Upper Income but Not Rich | 45,199 | 115,390 |
| Rich | 95,692 | 290,676 |
| Total | 13,998 | 13,743 |

Source of basic data: PSA - FIES 2018

## 3.2 Comparing Incomes and Housing Supply

Housing affordability can also be assessed using the Housing Affordability Index (HAI) that compares incomes with prices of available housing in the market. The HAI is a measure of the capacity of a typical household to access available housing in the market for ownership.[10] HAI is estimated as the ratio of the median family income in a specific area and the qualifying income for a median-priced house in the area as in the formula: $HAI = \frac{Median\ Family\ Income}{Qualifying\ Income} \times$ 100 (Napoli 2017). Qualifying income refers to the income required to obtain a loan at a preferred term, which is at 6% interest rate for a duration of 30 years for this particular study.[11]

Data on median family income in a given year and qualifying income for housing price in the same year would enable an assessment of sufficiency of income using the HAI measure. An

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[10] We use prices from the primary market (i.e. sold by developers) since sales of homes from the secondary are rarely monitored. Also, prices of housing on are used due to limited data on the rental housing market and the bias of government programs for homeownership.

[11] This rate is the based on the subsidized loan rates for socialized and low cost housing offered by the Home Development Mutual Fund (HDMF) to their members.

HAI value of 100 means that a typical family has sufficient income to meet the qualifying income; more than 100 means there is more than enough income, and less than 100 means there is insufficient income to meet the qualifying income (see Napoli 2017).

Results show that the income of a typical family in the selected areas is not enough to meet the qualifying income (Table 9). This means that a typical Philippine household is severely constrained in buying a house on the market even with the assumption that a lumpsum amount or a downpayment of 10 to 20 percent of the housing price is provided. The condition is more severe in highly urbanized locations such as Metro Manila, and urban areas of Cebu and Davao del Sur. Small (family size of 2) and bigger-sized families (family size of 5 with three children) are facing a similar constraint in buying a house on the market (Table 10).

**Table 9. Housing Affordability Index based on Average Price of Housing in the Market, 2018**

| Area | 0% Downpayment | 10% Downpayment | 20% Downpayment |
|---|---|---|---|
| Philippines | 54 | 60 | 67 |
| Metro Manila | 36 | 40 | 45 |
| Pampanga (Urban) | 61 | 68 | 77 |
| Cebu (Urban) | 19 | 21 | 24 |
| Davao del Sur (Urban) | 28 | 31 | 35 |

Source of basic data: PSA – FIES 2018; Colliers (2018a-c); Colliers (2021); BSP(2022b)

Notes:

* Estimates for Philippines are based on the economic housing price ceiling

* Estimates for Metro Manila, Cebu (Urban), and Davao del Sur (Urban) for condominiums; Pampanga (Urban) for house and lot

* The authors assume that downpayment of 10% and 20% are made.

* For housing prices, BSP's Residential Real Estate Price Indices (RREPI) and Colliers' estimates on average price per square meter or average total contract price for Metro Manila major central business districts, Cebu, Davao, and San Fernando City of Pampanga were used

**Table 10. Housing Affordability Index based on Average Price of Housing in the Market by Family Type, 2018**

| Area | Family Size 2 | | Family Size 5 with 3 Children | |
|---|---|---|---|---|
| | 10% Downpayment | 20% Downpayment | 10% Downpayment | 20% Downpayment |
| Philippines | 44 | 50 | 47 | 53 |
| Metro Manila | 30 | 33 | 30 | 33 |
| Pampanga (Urban) | 46 | 52 | 61 | 68 |
| Cebu (Urban) | 15 | 17 | 16 | 18 |
| Davao del Sur (Urban) | 23 | 26 | 28 | 31 |

Source of basic data: PSA – FIES 2018; Colliers (2018a-c); Colliers (2021); BSP(2022b)

Notes:

* Estimates for Philippines are based on the economic housing price ceiling

* Estimates for Metro Manila, Cebu (Urban), and Davao del Sur (Urban) for condominiums; Pampanga (Urban) for house and lot

* The authors assume that downpayment of 10% and 20% are made.

* For housing prices, BSP's RREPI and Colliers' estimates on average price per square meter or average total contract price for Metro Manila major central business districts, Cebu, Davao, and San Fernando City of Pampanga were used

Using the price ceilings for socialized and economic housing as the median price of housing in the country, the authors estimated the HAI across the years for the period 2006 to 2018. Median income and price ceilings of the respective years were used. Notably, the Index reveals differences in the capacities to meet qualifying income for socialized and economic housing (Figure 5). For the price of socialized housing during the years in review, a typical family has more than enough capacity to meet the qualifying income, thus housing is said to be affordable to most households. However, in the case of economic housing, which is priced higher than socialized housing, a typical family has limited capacity to afford housing even back in 2006. The lack of capacity is even more emphasized in the following years including 2009, 2015, and 2018, wherein the price ceiling on economic housing was increased from around twice to four times the price ceiling on socialized housing.

**Figure 5. Historical Trend of Housing Affordability Index (Philippines)**



Housing Affordability Index (Philippines)

| | 2006 | 2009 | 2015 | 2018 |
|---|---|---|---|---|
| Socialized | 152.30 | 140.94 | 164.89 | 190.76 |
| Economic | 91.38 | 45.10 | 43.65 | 53.86 |
| Socialized* | 99.27 | 94.35 | 383.84 | 397.66 |
| Economic* | 59.56 | 30.19 | 101.60 | 112.28 |
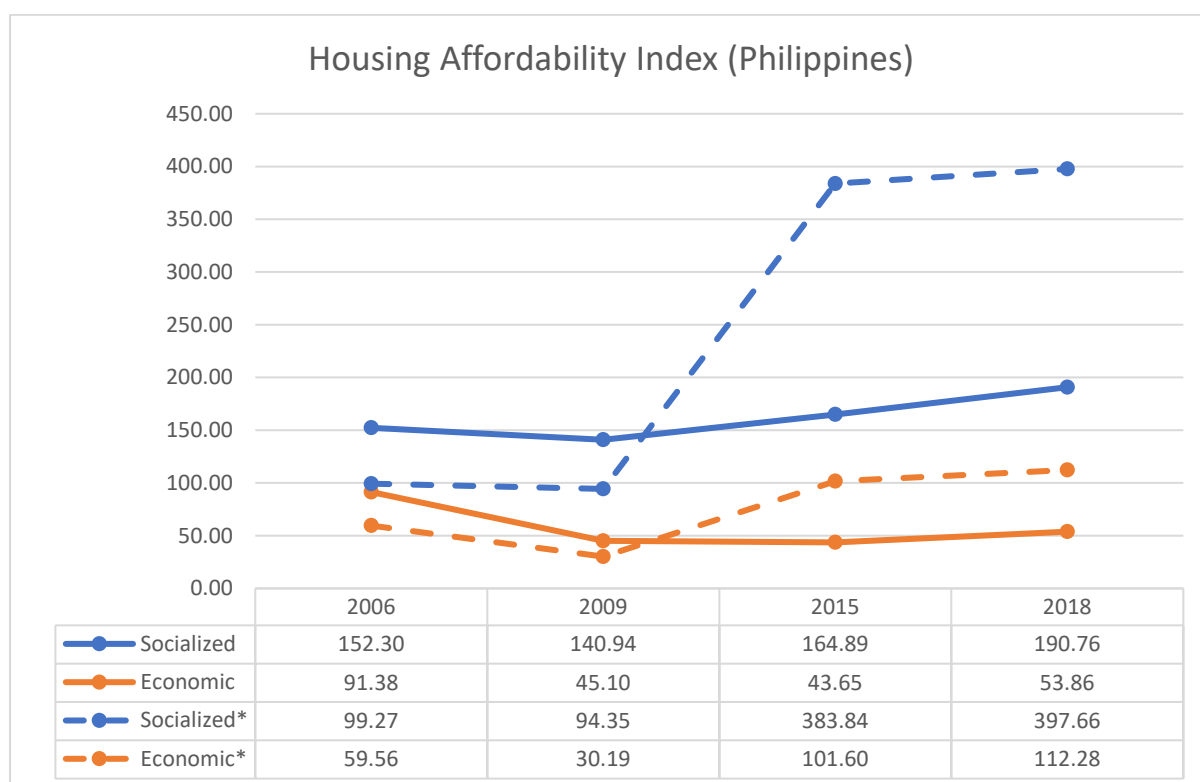
Source of basic data: PSA – FIES 2018; HUDCC

*Median income for middle middle income group was used for the median income values

Note: For the housing prices, the price ceilings for socialized and economic housing defined in BP 220 were used:

| Year | Socialized Housing | | Economic Hosuing | |
|---|---|---|---|---|
| 2006 | 300,000.00 | MC No. 3, s. 2005 | 500,000.00 | MC No. 1, s. 2000 |
| 2009 | 400,000.00 | HUDCC Resolution No. 1, s. 2008 | 1,250,000.00 | MC No. 4, s. 2006 |
| 2015 | 450,000.00 | HUDCC Resolution No. 1, s. 2013 | 1,700,000.00 | HUDCC Resolution No. 2, s. 2015 |
| 2018 | 480,000.00 | MC No. 1, s. 2018 | 1,700,000.00 | HUDCC Resolution No. 2, s. 2015 |

It is important to note that while government programs enable the development of socialized and economic housing in the country through several incentives, most projects are located at the peripheral areas of Metro Manila. This means that the available "low-cost" housing as defined by government price ceilings are far from employment or livelihood centers. In particular, only about 1% of socialized and economic housing units delivered by developers are within Metro Manila (Table 11). For the NHA, less than 50% of socialized housing units are in Metro Manila. The inability of government to maintain a pool of affordable lands in cities and urban centers will further limit the supply of affordable housing in Metro Manila and other urbanizing cities.

**Table 11. Distribution of Government Housing Projects in Metro Manila and Urban Fringes**

| | Onsite | | Off-site | | % On site | |
|---|---|---|---|---|---|---|
| | No. of Projects | No. of units/ beneficiaries | No. of Projects | No. of units/ beneficiaries | No. of Projects | No. of units/ beneficiaries |
| **DSHUD** | | | | | | |
| Socialized Housing | 10 | 2,470 | 398 | 169,471 | 2.51% | 1.46% |
| Economic Housing | 18 | 2,422 | 812 | 314,445 | 2.22% | 0.77% |
| **NHA** | | | | | | |
| Socialized Housing | 303 | 239,991 | 527 | 499,972 | 57.50% | 48.00% |
| **SHFC** | | | | | | |
| Socialized Housing | * | * | 240 | 28,700 | - | - |

NOTE:  Onsite: refers to projects located in Metro Manila

Offsite: refers to areas at the urban fringes of Metro Manila (Regions III and IV-A)

*Data still being processed by SHFC

A map of the housing projects at the urban fringes of Metro Manila is shown in Figure 6.  An estimate of the distances of the projects to the boundaries at the north, east and south of Metro Manila, shows that the median distance is between 3 and 20 kilometers, North of Metro Manila; between 10 and 22 kilometers East of Metro Manila; and between 17 and 32  kilometers South of Metro Manila (Table 12).

The urban sprawl of Metro Manila has been observed over the years and with the changing nature of employment (e.g. digital work; hybrid work), the increase demand for bigger spaces and green environment by richer families has pushed further the location of socialized and economic housing from business districts.

Similar trends are observed in Metro Cebu (Figure 7) and secondary cities (Table 13), where socialized and economic housing projects are noted to be far from the business districts.

**Figure 6. Location of Socialized and Economic Housing Projects (Metro Manila Area)**
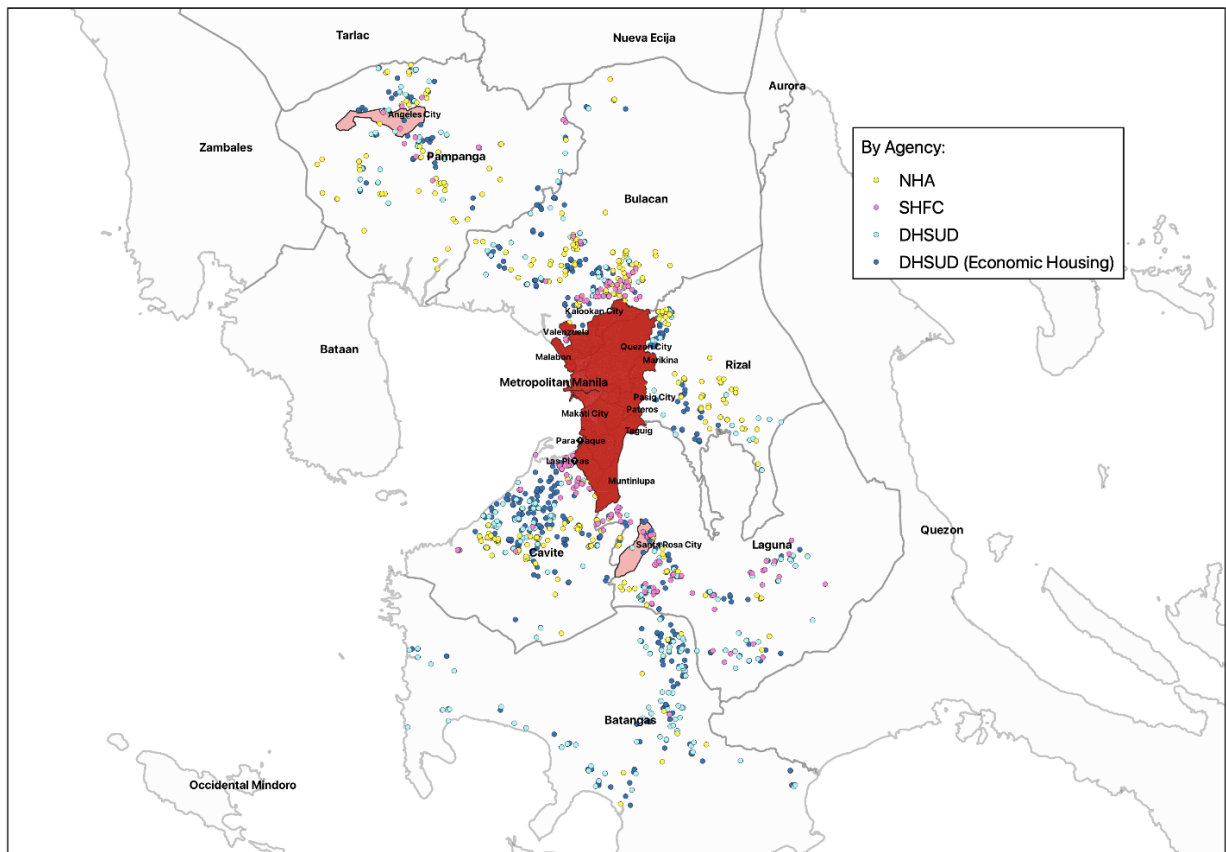


Source of data: Compiled information from NHA, SHFC, and DHSUD

*Note: Accuracy of location is up to barangay level

**Figure 7. Location of Socialized and Economic Housing Projects (Cebu Area)**
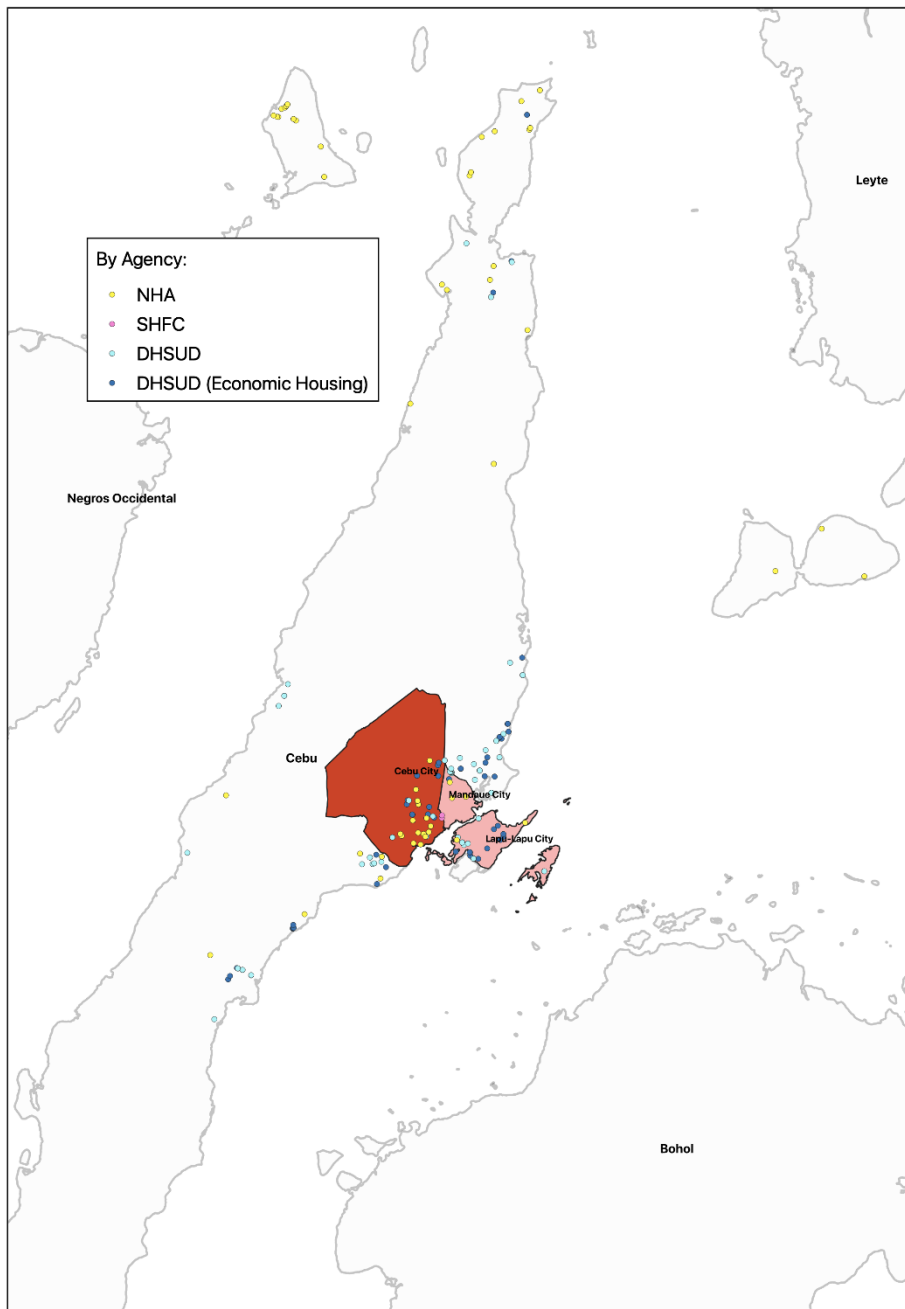


Source of data: Compiled information from NHA, SHFC, and DHSUD

*Note: Accuracy of location is up to barangay level

**Table 12. Distance of Low-Cost Housing Projects to the Nearest Urban Centers in Metro Manila[12] Region (in kilometers)**

| Nearest Urban Centers | No. Of Projects | | Minimum | | Maximum | | Mean | | Median | |
|---|---|---|---|---|---|---|---|---|---|---|
| | SH | EH | SH | EH | SH | EH | SH | EH | SH | EH |
| NORTH | | | | | | | | | | |
| Caloocan City | 112 | 37 | 8.73 | 10.00 | 57.91 | 51.87 | 16.68 | 16.48 | 13.69 | 13.90 |
| Valenzuela City | 81 | 73 | 3.13 | 2.50 | 49.09 | 45.12 | 20.57 | 20.42 | 20.40 | 17.51 |
| Navotas City | 3 | - | 3.30 | - | 3.62 | - | 3.41 | - | 3.31 | - |
| EAST | | | | | | | | | | |
| Quezon City | 36 | 25 | 7.61 | 6.73 | 14.34 | 14.56 | 12.77 | 9.63 | 13.19 | 9.69 |
| Markina City | 41 | 27 | 6.17 | 4.83 | 33.80 | 31.18 | 17.19 | 10.32 | 17.43 | 8.51 |
| Pasig City | 16 | 9 | 4.34 | 1.61 | 29.54 | 23.87 | 20.75 | 14.15 | 22.45 | 16.43 |
| SOUTH | | | | | | | | | | |
| Taguig City | 5 | 13 | 11.59 | 11.25 | 49.76 | 49.76 | 33.85 | 21.76 | 32.16 | 16.43 |
| Muntinlupa City | 191 | 123 | 3.03 | 7.55 | 55.72 | 54.91 | 27.11 | 29.17 | 25.60 | 26.33 |
| Las Piñas City | 164 | 171 | 2.90 | 4.80 | 34.93 | 29.37 | 17.91 | 17.62 | 19.54 | 17.55 |

Source of data: Compiled information from NHA[13], SHFC, and DHSUD

*Note: Accuracy of location is up to barangay level; SH - Socialized Housing; EH - Economic Housing

*For Metro Manila, only low-cost housing projects located in Bulacan, Rizal, Laguna, and Cavite were counted. Moreover, in-city low-cost housing projects were not included.

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[12] Metro Manila is divided into four districts. The Capital District is Manila City. Eastern Manila District includes Mandaluyong City, Marikina City, Pasig City, Quezon City, and San Juan City. Northern Manila District includes Caloocan City, Malabon City, Navotas City, and Valenzuela City. While the Southern Manila District includes Las Piñas City, Makati City, Muntinlupa City, Parañaque City, Pasay City, Pateros City, and Taguig City.

[13] The list of low-cost housing projects provided by the NHA can be further classified into different housing programs namely: resettlement program, settlements upgrading program, development of sites and services and construction of core housing units, government employees housing program, vertical development, and housing program for calamity victims. The resettlement program caters to informal settler families (ISFs) affected by the Manila Bay Clean up under the Supreme Court's Mandamus, Government Infrastructure Projects, and those living along danger areas.

**Table 13.  Distance of Low-Cost Housing Projects to Other Key Urban Centers (in kilometers)**

| Nearest Urban Center | Location of Low-Cost Housing Projects | No. of Projects | | Minimum | | Maximum | | Mean | | Median | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SH | EH | SH | EH | SH | EH | SH | EH | SH | EH |
| Angeles City | Pampanga | 106 | 67 | 0.52 | 3.00 | 35.57 | 28.45 | 14.41 | 11.19 | 13.56 | 11.18 |
| Sta. Rosa City | Cavite, Laguna, Batangas | 450 | 448 | 0.65 | 2.09 | 65.37 | 63.32 | 25.27 | 27.03 | 24.75 | 25.49 |
| Cebu City | Cebu Province | 72 | 34 | 4.77 | 4.59 | 101.90 | 98.03 | 44.00 | 23.57 | 24.65 | 17.15 |
| Lapu-Lapu City | Cebu Province | 12 | 15 | 3.59 | 1.86 | 66.71 | 9.10 | 20.40 | 4.11 | 6.36 | 4.02 |
| Mandaue City | Cebu Province | 20 | 17 | 0.84 | 2.91 | 10.95 | 12.51 | 4.67 | 7.53 | 3.97 | 6.83 |

Source of data: Compiled information from NHA, SHFC, and DHSUD

*Note: Accuracy of location is up to barangay level

SH - Socialized Housing; EH - Economic Housing

## 4.  Measuring Housing Affordability through Residual Income Method

*4.1 Estimation of Threshold for Non-housing Basic Expenditure*

The limitations of the Income Ratio Method estimates further encouraged the employment of the Residual Income Method. As mentioned in the framework, the Residual Income Method considers and estimates a minimum level of non-housing basic expenditure unlike the Income Ratio Method.

The Residual Income Method enables an estimation of housing affordability through the derivation of a minimum non-housing basic expenditure to get a more differentiated assessment on the affordability of housing in relation to various households and contexts. For this particular study, the authors applied the Residual Income Method using Philippine data from the 2018 Family Income and Expenditure Survey (FIES). The threshold for non-housing basic expenditure is first estimated to determine if income is enough to accommodate all expenses for basic goods/services including housing. Non-housing basic expenditure is composed of two groups, *i.e.*, food and non-food. Table 14 presents the components of the threshold, which were patterned after the items under PSA's total basic expenditure (see PSA n.d.).[14]

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[14] CPI weights could have been used to estimate the threshold for non-housing and non-food items; however, there is a high tendency to underestimate with the exclusion of the weights on fuel, light, and water expenditure that is lumped with the weights on housing expenditure.

**Table 14. Components of Threshold for Non-housing Basic Expenditure**

## Components

| Components |
|---|
| Food Expenditure Based on Food Threshold and Family Size |
| Clothing, Footwear and Other Wear Expenditure |
| Water Supply and Miscellaneous Services Expenditure |
| Electricity, Gas and Other Fuels Expenditure |
| Medical Care Expenditure |
| Education Expenditure |
| Transportation Expenditure |
| Communication Expenditure |
| Non-durable Furnishings Expenditure |
| Personal Care and Effects Expenditure |

Notes:

* Authors' summary of components of threshold

* Annual per capita food thresholds based on PSA estimates in urban and rural areas per province, are multiplied by respective family sizes to get the minimum expenditure on food for each family.

* For non-food expenses, the authors derived a minimum threshold using the mean basic expenditure of the first to fifth income decile groups on the following items: (1) clothing, footwear, and other wear; (2) water supply and miscellaneous services; (3) electricity, gas and other fuels; (4) medical care expenditure; (5) education; (6) transportation; (7) communication; (8) non-durable furnishings; and (9) personal care and effects.

* It is assumed that the expenditure of the first to fifth per capita income decile groups can represent sufficient expenses on non-housing and non-food basic goods/services.

Table 15 shows the estimated threshold for non-housing basic expenditures. Families in selected Luzon areas have the highest thresholds, which is reasonable as prices of goods/services tend to be higher in Luzon compared with those in Visayas and Mindanao. More income is required to be spent on non-housing basic expenditure by families of size five with three children compared with those of size two, reflecting that family structures can have an influence on income that is available for housing expenditure.

**Table 15. Threshold for Non-housing Basic Expenditure, 2018 (PHP)**

| Area | All Family Sizes | Family Size 2 | Family Size 5 with 3 Children |
|---|---|---|---|
| Philippines | 123,401 | 54,194 | 128,205 |
| Urban | 134,377 | 57,292 | 138,714 |
| Metro Manila | 152,893 | 64,545 | 155,875 |
| CALABARZON (Urban) | 144,460 | 63,329 | 146,996 |
| Pampanga (Urban) | 158,744 | 65,008 | 148,576 |
| Cebu (Urban) | 127,202 | 52,771 | 133,723 |
| Davao del Sur (Urban) | 119,578 | 52,258 | 135,332 |

Source of basic data: PSA – FIES 2018; PSA (2020b)

Note: For this study, family sizes from the FIES were rounded up to the nearest whole number.


## 4.2 Estimation of Shelter Poverty

Using the estimated thresholds, shelter poverty is assessed in two parts. First, the estimated threshold for non-housing basic expenditure and amortization on socialized/economic housing are deducted from the total income. Negative values would indicate insufficient income to cover the basic goods/services including housing. Second, the percentage of families experiencing socialized/economic housing stress for all family size and per family type nationwide and in selected areas are estimated. This percentage is then compared with the results from the 30% standard to check the validity of the latter measure.

On the estimation of shelter poverty, the price ceilings for socialized and economic housing were used as the standard to determine the housing expenditure for the families. The results show that for socialized housing, all income groups except poor families have sufficient income to cover housing expenses and the basic expenses on goods/services (Table 16). Those families considered income poor are also shelter poor due to insufficient income to cover housing and non-housing needs. This is observed even when a downpayment of 20% is provided. It further implies that poor families, even if they are given the opportunity to avail socialized housing, will not be able to pay their amortizations. In other words, poor families would experience housing stress even at the price ceiling intended to facilitate their access to housing.

On the other hand, using the price ceiling of economic housing as benchmark, the authors note that total family income becomes insufficient also to families that are with low income but not poor. This means that more families are considered shelter poor as housing prices increase. The provision of a 20% downpayment does not change the situation for the poor and the low-income but not poor families (Table 17).

**Table 16. Extent of Shelter Poverty Based on Socialized Housing Price Ceiling, 2018**

| Income Groups | Philippines | | | Urban | | |
|---|---|---|---|---|---|---|
| | 0% Downpayment | 10% Downpayment | 20% Downpayment | 0% Downpayment | 10% Downpayment | 20% Downpayment |
| Poor | - | - | - | - | - | - |
| Low Income but Not Poor | + | + | + | + | + | + |
| Lower Middle Income | + | + | + | + | + | + |
| Middle Middle Income | + | + | + | + | + | + |
| Upper Middle Income | + | + | + | + | + | + |
| Upper Income but Not Rich | + | + | + | + | + | + |
| Rich | + | + | + | + | + | + |
| Total | + | + | + | + | + | + |

Source of basic data: PSA – FIES 2018; PSA (2020b)

Legend:    -    Negative residual income after housing expenditure and threshold for non-housing basic expenditure are subtracted from income

+    Positive residual income after housing expenditure and threshold for non-housing basic expenditure are subtracted from income

**Table 17. Extent of Shelter Poverty Based on Economic Housing Price Ceiling, 2018**

| Income Groups | Philippines | | | Urban | | |
|---|---|---|---|---|---|---|
| | 0% Downpayment | 10% Downpayment | 20% Downpayment | 0% Downpayment | 10% Downpayment | 20% Downpayment |
| Poor | - | - | - | - | - | - |
| Low Income but Not Poor | - | - | - | - | - | - |
| Lower Middle Income | + | + | + | + | + | + |
| Middle Middle Income | + | + | + | + | + | + |
| Upper Middle Income | + | + | + | + | + | + |
| Upper Income but Not Rich | + | + | + | + | + | + |
| Rich | + | + | + | + | + | + |
| Total | + | + | + | + | + | + |

Source of basic data: PSA – FIES 2018; PSA (2020b)

Legend:    -    Negative residual income after housing expenditure and threshold for non-housing basic expenditure are subtracted from income

           +    Positive residual income after housing expenditure and threshold for non-housing basic expenditure are subtracted from income

Getting the percentage of families experiencing housing stress provides further indication of shelter poverty. Comparing such values from the Residual Income Method with those from the Income Ratio Method provides an opportunity to determine whether the latter is a good enough measure for housing affordability. In terms of socialized housing priced at the ceiling, the percentage of families under housing stress is not the same for the two methods (Figure 8). Although both measures reflect that there are families under socialized housing stress, the differences across the selected areas indicate that the 30% standard underestimates the percentage. For instance, the 30% standard estimates only 8% of families in urban areas are under socialized housing stress, but the Residual Income Method estimates 21% of the families are burdened. The finding is critical because if the Philippine government revises the socialized housing price ceiling based on housing stress evaluated through the 30% standard, many families that should be beneficiaries may be left out. In terms of economic housing priced at the ceiling, the percentage of families under housing stress is understandably higher compared with those under socialized housing stress for both the Residual Income Method and the 30% standard (Figure 9). Unlike the estimates involving socialized housing, the Income Ratio Method overestimates the percentage of families under economic housing stress when compared with the results from the Residual Income Method. Nevertheless, the finding does not invalidate the fact that the current economic housing price ceiling would leave a significant percentage of families, (one third to more than half) under housing stress.

**Figure 8. Percentage of Families under Socialized Housing Stress, 2018**



| | Philippines | Urban | Metro Manila | CALABARZON (Urban) | Pampanga (Urban) | Cebu (Urban) | Davao del Sur (Urban) |
|---|---|---|---|---|---|---|---|
| Residual Income Method | 31 | 21 | 11 | 16 | 18 | 22 | 18 |
| 30% Standard | 16 | 8 | 2 | 5 | 2 | 8 | 8 |
| Difference | 15 | 13 | 9 | 11 | 15 | 14 | 10 |
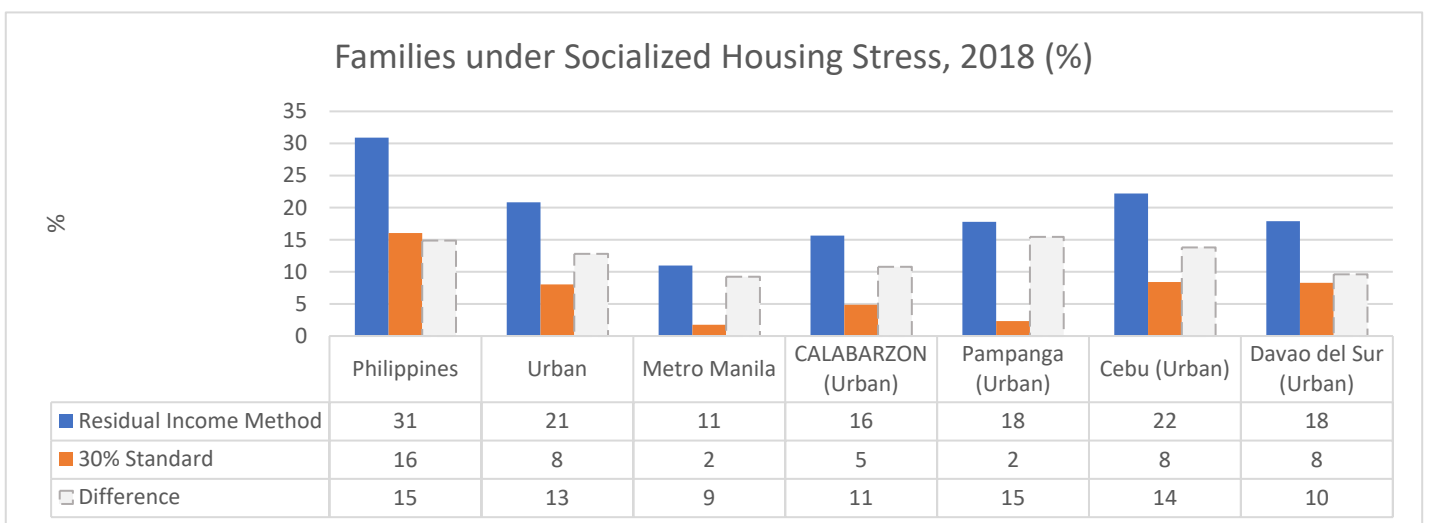
Source of basic data: PSA – FIES 2018; PSA (2020b)

**Figure 9. Percentage of Families under Economic Housing Stress, 2018**



| Families under Economic Housing Stress, 2018 (%) | Philippines | Urban | Metro Manila | CALABARZON (Urban) | Pampanga (Urban) | Cebu (Urban) | Davao del Sur (Urban) |
|---|---|---|---|---|---|---|---|
| Residual Income Method | 56 | 45 | 33 | 39 | 44 | 48 | 46 |
| 30% Standard | 79 | 70 | 59 | 65 | 75 | 73 | 75 |
| Difference | -23 | -26 | -26 | -26 | -31 | -26 | -29 |
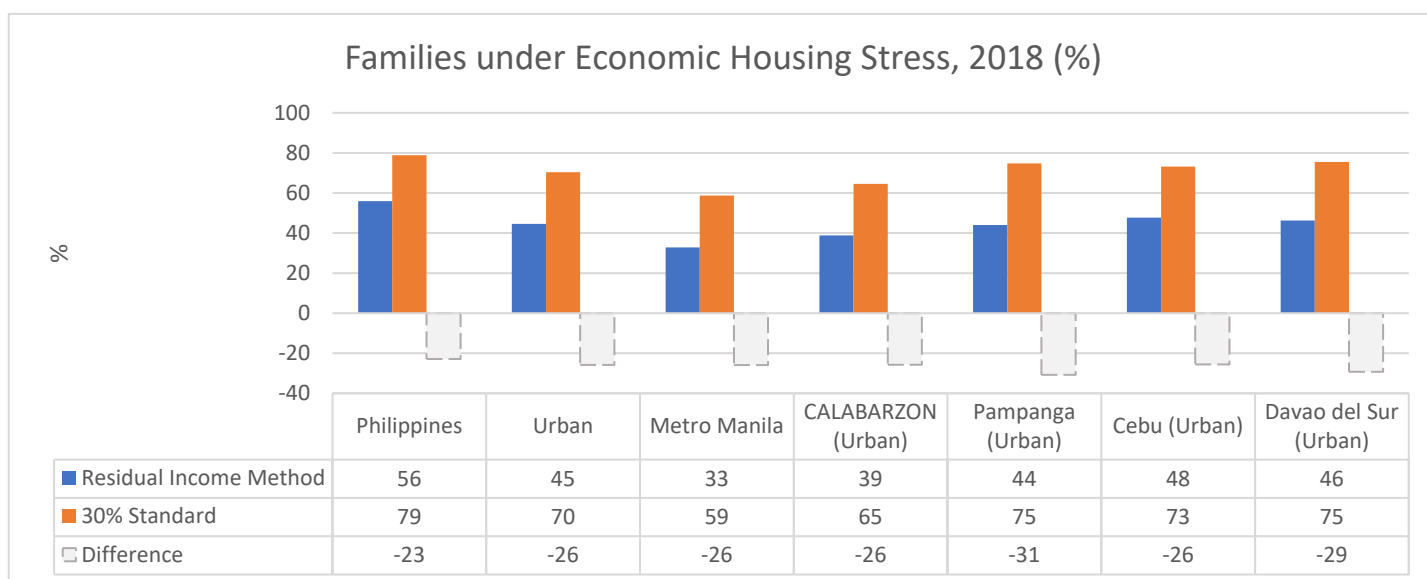
Source of basic data: PSA – FIES 2018; PSA (2020b)

By family type, a greater percentage of families of size five with three children are under socialized housing stress compared with families of size two based on the Residual Income Method but not according to the 30% standard (Figure 10). The 30% standard also underestimates the percentage of family size of five with three children under socialized housing stress relative to the values from the Residual Income Method. Only 8% of families sized five with three children in urban areas are under socialized housing stress based on the 30% standard, while 32% of the families are burdened under the Residual Income Method. Meanwhile, the 30% standard overestimates the percentage of family size five with three children under economic housing stress (Figure 11). 86% of families sized five with three children in urban areas are under economic housing stress based on the 30% standard, while 64% of the families are burdened under the Residual Income Method. The findings imply how housing program designs may change depending on the affordability method used.

**Figure 10. Percentage of Families Under Socialized Housing Stress by Family Type, 2018**



| Families of Size 2 under Socialized Housing Stress, 2018 (%) | Philippines | Urban |
|---|---|---|
| ■ Residual Income Method | 19 | 10 |
| ■ 30% Standard | 32 | 17 |
| ▢ Difference | -13 | -7 |

| Families of Size 5 with 3 Children under Socialized Housing Stress, 2018 (%) | Philippines | Urban |
|---|---|---|
| ■ Residual Income Method | 44 | 32 |
| ■ 30% Standard | 18 | 8 |
| ▢ Difference | 26 | 24 |
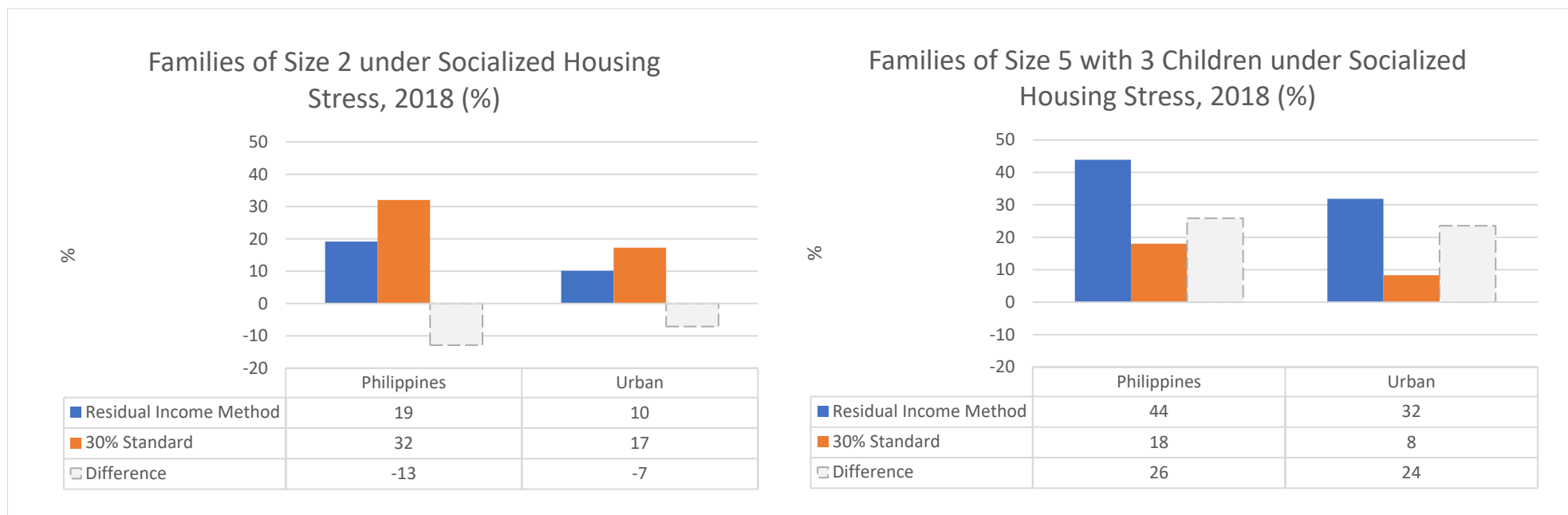
Source of basic data: PSA – FIES 2018; PSA (2020b)

**Figure 11. Percentage of Families Under Economic Housing Stress by Family Type, 2018**

| | Families of Size 2 under Economic Housing Stress, 2018 (%) | |
|---|---|---|
| % | Philippines | Urban |
| ■ Residual Income Method | 54 | 40 |
| ■ 30% Standard | 87 | 82 |
| ☐ Difference | -33 | -42 |

| | Families of Size 5 with 3 Children under Economic Housing Stress, 2018 (%) | |
|---|---|---|
| % | Philippines | Urban |
| ■ Residual Income Method | 74 | 64 |
| ■ 30% Standard | 90 | 86 |
| ☐ Difference | -16 | -22 |
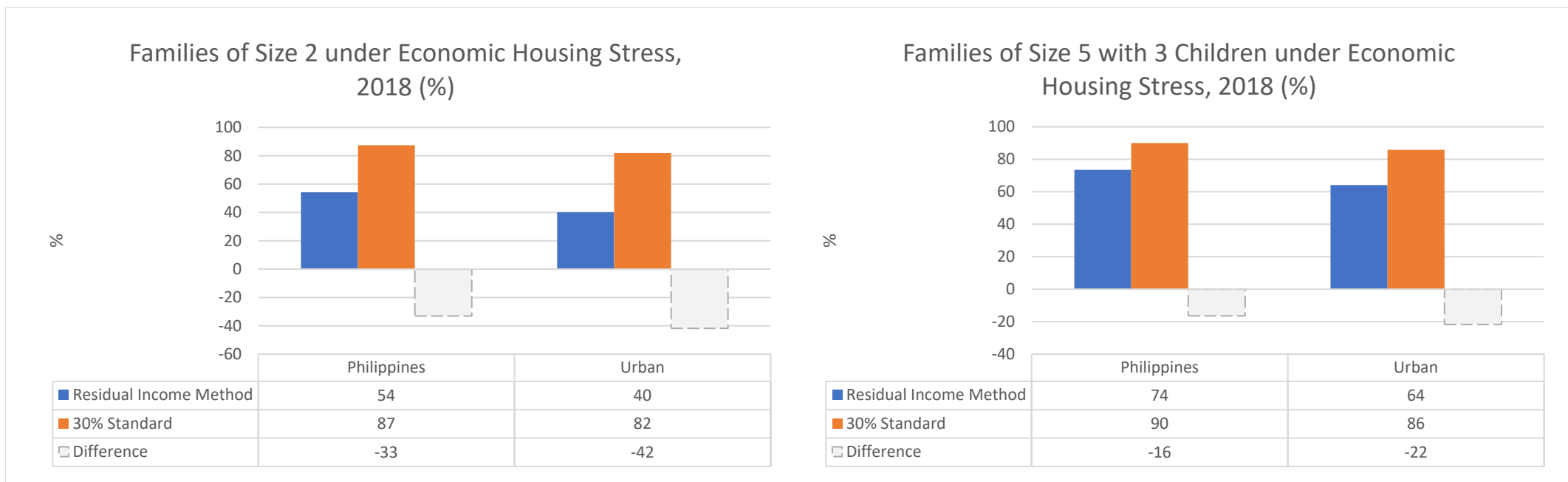
Source of basic data: PSA – FIES 2018; PSA (2020b)

*4.3 Housing Affordability and Affordable Housing Packages*

Affordability ratios from the Residual Income Method are estimated to assess the validity of the 30% as well as determine the housing packages that are deemed affordable to households by income group. In summary, the formulas used are as follows:

(1) $Family\ Income\ for\ Housing = Total\ Family\ Income - Threshold\ for\ Non-housing\ Expenditure$

$$(2)\ Affordability\ Ratio = \frac{Family\ Income\ for\ Housing}{Family\ Income}$$

Estimates on affordability ratio using actual expenditure on basic goods/services per income group are also computed in consideration of differences in lifestyles of families across the groups. The use of the same goods/services would help reflect the differences of the threshold with the actual expenditure on non-housing basic goods/services. This can also help prevent underestimation of the affordable housing price due to the inclusion of expensive goods/services that are not necessities.

For the estimation of affordable housing packages, the computed family income for housing was assumed as the annuity payment to service a loan for a period of 25 and 30 years. The present value of the total annuity payments is assumed as the maximum loan or housing package that a specific household can afford.

$$P = PMT \times \frac{1 - \left(\frac{1}{(1+r)^n}\right)}{r}$$

where   P = Present Value

PMT = Each Annuity Payment

r = Interest Rate

n = Number of Periods for Payments

Source: Christian (2022)

Results show that for the poor, the 30% standard overestimates their capacity to own a house since their income is not sufficient to amortize even the socialized housing packages from government programs (Table 18). In other words, these families do not have access to the formal housing market and would need other forms of intervention aside from homeownership. Meanwhile, the affordability ratios for the low income and higher income groups show that these households have the capacity to allocate a higher proportion of income for housing ownership given the minimum threshold for non-housing basic services. However, the actual non-housing basic expenditure of such families is different from the estimated minimum threshold due to lifestyle differences among income groups.

**Table 18. Affordability Ratio using the Residual Income Method, 2018**

| Income Groups | Philippines | | Urban | |
|---|---|---|---|---|
| | Annual Family Income for Housing (PHP) | Affordability Ratio (%) | Annual Family Income for Housing (PHP) | Affordability Ratio (%) |
| Poor | * | * | * | * |
| Low Income but Not Poor | 62,233 | 34 | 77,140 | 36 |
| Lower Middle Income | 180,708 | 59 | 199,301 | 60 |
| Middle Middle Income | 370,738 | 75 | 379,642 | 74 |
| Upper Middle Income | 623,211 | 83 | 630,905 | 82 |
| Upper Income but Not Rich | 1,022,097 | 89 | 1,037,363 | 89 |
| Rich | 2,224,027 | 95 | 2,257,009 | 94 |

Source of basic data: PSA – FIES 2018; PSA (2020b)
 Legend:
* Negative
^ Greater than 100

By family type, a housing price that is affordable for families of size two is considerably lower than what families of size five with three children can afford in the Philippines and urban areas (Table 19). In terms of affordability ratio, however, estimates for the two family types are quite similar even at the national level and at the level of urban areas. The difference generally lies across income groups such that relatively richer income groups have higher affordability ratios, but this again assumes that families across the groups have the same lifestyle.

**Table 19. Affordability Ratio by Family Type using the Residual Income Method, 2018**

| Income Groups | Philippines | | | | Urban | | | |
|---|---|---|---|---|---|---|---|---|
| | Annual Family Income for Housing (PHP) | | Affordability Ratio (%) | | Annual Family Income for Housing (PHP) | | Affordability Ratio (%) | |
| | Family Size 2 | Family Size 5 with 3 Children | Family Size 2 | Family Size 5 with 3 Children | Family Size 2 | Family Size 5 with 3 Children | Family Size 2 | Family Size 5 with 3 Children |
| Poor | * | * | * | * | * | * | * | * |
| Low Income but Not Poor | 23,510 | 52,676 | 30 | 29 | 25,422 | 55,522 | 31 | 29 |
| Lower Middle Income | 93,354 | 220,658 | 63 | 63 | 101,804 | 218,810 | 64 | 61 |
| Middle Middle Income | 213,225 | 519,886 | 80 | 80 | 218,986 | 517,251 | 79 | 79 |
| Upper Middle Income | 402,227 | 945,219 | 88 | 88 | 410,646 | 944,373 | 88 | 87 |
| Upper Income but Not Rich | 720,650 | 1,849,908 | 93 | 94 | 732,145 | 1,813,177 | 93 | 93 |
| Rich | 1,586,241 | 4,854,810 | 97 | 97 | 1,569,760 | 4,976,678 | 96 | 97 |

Source of basic data: PSA – FIES 2018; PSA (2020b)
Legend:
* Negative
^ Greater than 100

Table 20 shows the affordable housing packages based on estimated annual family income for housing. For the poor, ownership through mortgage financing is not an option. For the low-income households, ownership through mortgage finance is feasible but only for housing prices of Php2.0 million and below.  The volatility of mortgage interest rates could impact on housing affordability and overstretch their capacities to pay for their amortizations.  These households are also highly vulnerable to economic crises.  Meanwhile, for the middle-income groups, they are likely to have access to home ownership and to the formal housing market given their capacities to qualify for housing packages priced at Php 4 million to 8 million.

**Table 20. Estimated Affordable Housing Packages by Income Group, 2018 (PHP)**

| Income Groups | Philippines | | Urban | |
|---|---|---|---|---|
| | 30 Years at 6% Interest Rate | 30 Years at 8% Interest Rate | 30 Years at 6% Interest Rate | 30 Years at 8% Interest Rate |
| Poor | * | * | * | * |
| Low Income but Not Poor | 856,620 | 700,600 | 1,061,816 | 868,423 |
| Lower Middle Income | 2,487,409 | 2,034,366 | 2,743,343 | 2,243,686 |
| Middle Middle Income | 5,103,151 | 4,173,692 | 5,225,712 | 4,273,931 |
| Upper Middle Income | 8,578,398 | 7,015,978 | 8,684,294 | 7,102,587 |
| Upper Income but Not Rich | 14,068,991 | 11,506,546 | 14,279,120 | 11,678,403 |
| Rich | 30,613,350 | 25,037,609 | 31,067,353 | 25,408,923 |

Source of basic data: PSA – FIES 2018; PSA (2020b)
Legend:
* Negative

Actual expenditure on basic goods/services per income group can be used to adjust for the lifestyle differences of families across the groups. Estimates for the poor were based on the previously computed threshold for non-housing basic expenditure because this has already been assumed as the minimum that should be spent on non-housing basic goods/services (Table 21). As expected, the mean non-housing expenditure on basic goods/services is different from the threshold because of lifestyle differences. The annual family income for housing and affordability ratio are lower compared with previous estimates. The low income but not poor group is able to meet the affordability ratio of 30%. For the higher income groups, their housing affordability ratios are lower when lifestyle is considered, but still above the 30 percent standard. The lower affordability ratios imply lower housing packages that can be bought in the market (Table 22). The low-income households can still afford socialized housing priced at the ceiling, but they can no longer afford economic housing priced above PHP 1.5 million at the same loan terms.

By type of family, we note that the structure of family affects the affordability ratio, especially among low-income households. Low income but not poor families sized five with three children have lower housing affordability ratio compared with families of size two (Table 23). For upper income groups, families sized five with three children have equal or higher housing affordability ratios compared with families of size two.

**Table 21. Affordability Ratio based on Mean Annual Non-housing Expenditure by Income Group, 2018**

| Income Groups | Philippines | | |
|---|---|---|---|
| | Mean Non-housing Basic Expenditure (PHP) | Annual Family Income for Housing (PHP) | Affordability Ratio (%) |
| Poor | 123,401 | * | * |
| Low Income but Not Poor | 129,959 | 55,674 | 30 |
| Lower Middle Income | 181,300 | 122,809 | 40 |
| Middle Middle Income | 250,204 | 243,935 | 49 |
| Upper Middle Income | 321,719 | 424,893 | 57 |
| Upper Income but Not Rich | 407,353 | 738,145 | 64 |
| Rich | 528,299 | 1,819,129 | 77 |

Source of basic data: PSA – FIES 2018

Note: Estimated threshold was used for the income group of the poor instead of the mean non-housing basic expenditure.

Legend: * Negative

**Table 22. Estimated Affordable Housing Packages based on Mean Annual Non-housing Basic Expenditure, 2018 (PHP)**

| Income Groups | Philippines | |
|---|---|---|
| | 30 Years at 6% Interest Rate | 30 Years at 8% Interest Rate |
| Poor | * | * |
| Low Income but Not Poor | 766,347 | 626,769 |
| Lower Middle Income | 1,690,442 | 1,382,555 |
| Middle Middle Income | 3,357,723 | 2,746,167 |
| Upper Middle Income | 5,848,585 | 4,783,357 |
| Upper Income but Not Rich | 10,160,447 | 8,309,881 |
| Rich | 25,040,004 | 20,479,360 |

Source of basic data: PSA – FIES 2018

Legend: * Negative

**Table 23. Affordability Ratio based on Mean Annual Non-housing Expenditure by Income Group and by Family Type, 2018**

| Income Groups | Philippines | | | | | |
| | Mean Non-housing Basic Expenditure (PHP) | | Annual Family Income for Housing (PHP) | | Affordability Ratio (%) | |
| | Family Size 2 | Family Size 5 with 3 Children | Family Size 2 | Family Size 5 with 3 Children | Family Size 2 | Family Size 5 with 3 Children |
|---|---|---|---|---|---|---|
| Poor | 54,194 | 128,205 | * | * | * | * |
| Low Income but Not Poor | 56,204 | 131,598 | 21,500 | 49,283 | 28 | 27 |
| Lower Middle Income | 90,132 | 212,650 | 57,416 | 136,213 | 39 | 39 |
| Middle Middle Income | 140,327 | 330,994 | 127,092 | 317,096 | 48 | 49 |
| Upper Middle Income | 209,209 | 493,949 | 247,212 | 579,475 | 54 | 54 |
| Upper Income but Not Rich | 298,347 | 646,127 | 476,497 | 1,331,986 | 61 | 67 |
| Rich | 459,433 | 484,355 | 1,181,002 | 4,498,660 | 72 | 90 |

Source of basic data: PSA – FIES 2018
Legend: * Negative

## 5. Trends in Housing Prices and Household Incomes

A limitation of the Residual Income Method is that it is static and does not consider future income growth of households. However, a comparison of quarterly growth rate of income and growth rate of RREPI, the housing price inflation measure from BSP, shows that increases in family income are somewhat being offset by the decreases given the fluctuations seen in Figure 12.[15] RREPI growth rates were relatively more stable but had sharp increases in some quarters of 2019 and 2020 despite income growth being negative. Since housing stress was being experienced already in 2018, such a phenomenon is likely to have exacerbated housing stress.

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[15] The BSP (2022a) based the RREPI on bank reports on residential real estate loans granted through BSP Circular No. 892 dated November 16, 2015. Total values from the RREPI dataset might not add up because of rounding (BSP 2022a).

**Figure 12. Growth of Family Income vs. Growth of RREPI**
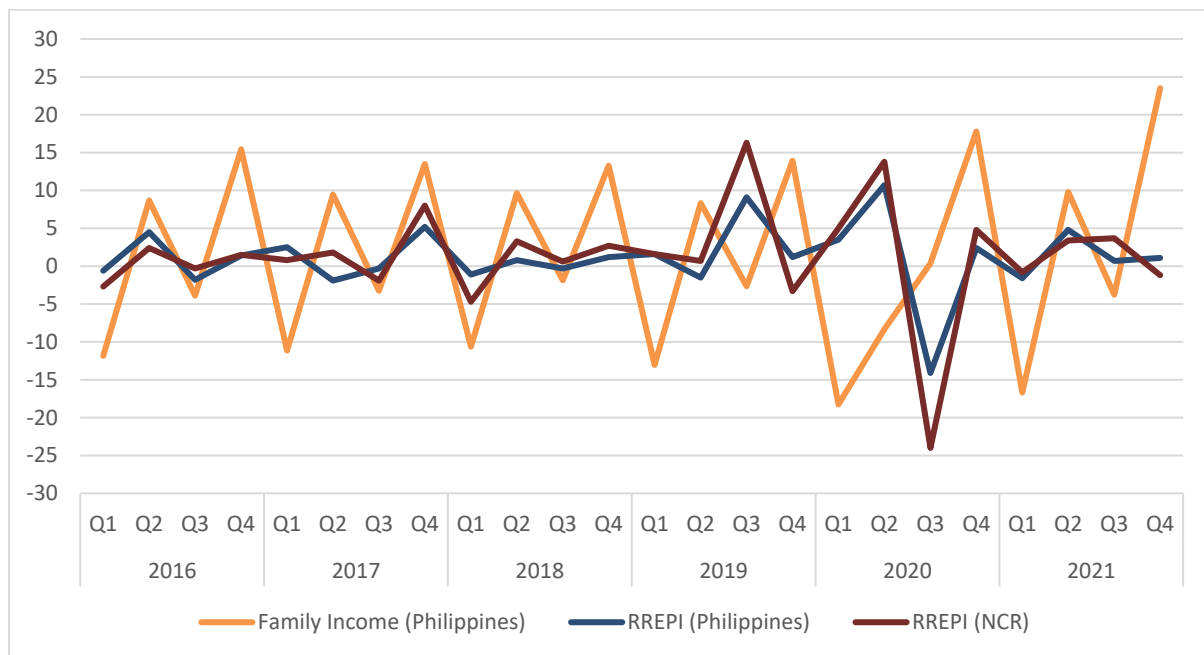


Source of basic data: PSA(2022a); BSP (2022a)

Year-on-year growth rates in NCR provide a different angle of the situation. Year-on-year RREPI growth rates, *i.e.*, comparisons from the same quarter of the previous year, show that housing prices have generally increased given the generally positive values in Figure 13. Comparing the RREPI growth rates with those of residential construction values in the same period, the trends are not necessarily similar when evaluating at a per quarter basis. Despite negative growth rates in residential construction price per square meter in particular quarters, RREPI growth rates have been positive and persistently on the rise. The increase in construction cost exceeded that of RREPI growth rates as the economy contracted due to the pandemic. Annual values of the growth rates, nevertheless, reflect similar movements especially from 2018 to 2020. With the economy, as well as international markets showing signs of recovery, residential real estate prices are picking up and are expected to increase further given the inflationary pressures on goods and services and imports brought about by the increase in fuel prices, devaluation of the Philippine pesos and rising interest rates. Construction values, therefore, can be considered as influential to housing prices.

**Figure 13. Year-on-Year Growth Rate of RREPI and Price per Square Meter of Residential Constructions in the NCR, 2016 – 2021**

Families' outlook on housing have changed over time based on data from the BSP's Consumer Expectations Survey, which captures consumers' economic outlook to serve as indication of the future economic conditions of the Philippines (see BSP 2022b). From 2015 to 2016, the percentage of NCR households considering the succeeding 12 months as a good time to purchase real property were playing around 5% to 9% (see BSP 2022b). There were increases in the percentage in the following years, the peak being at around 12% in the first quarter of 2019 (see BSP 2022b). Shortly after and even before the pandemic, however, there was less interest among the households (see BSP 2022b).

In the second quarter of 2018, the BSP (2022b) also started collecting data on the price of real property the households intended to buy in the succeeding 12 months (Figure 14). Data showing that majority of the prices are below PHP 1.7 million is notable given that the highest percentage of real property intended to be bought is single detached housing (see BSP 2022b). The data imply that ownership of single detached housing is a preference for socialized and economic housing despite land constraints in NCR.

**Figure 14. Price of Real Property NCR Households Intend to Purchase in Succeeding 12 Months (%)**
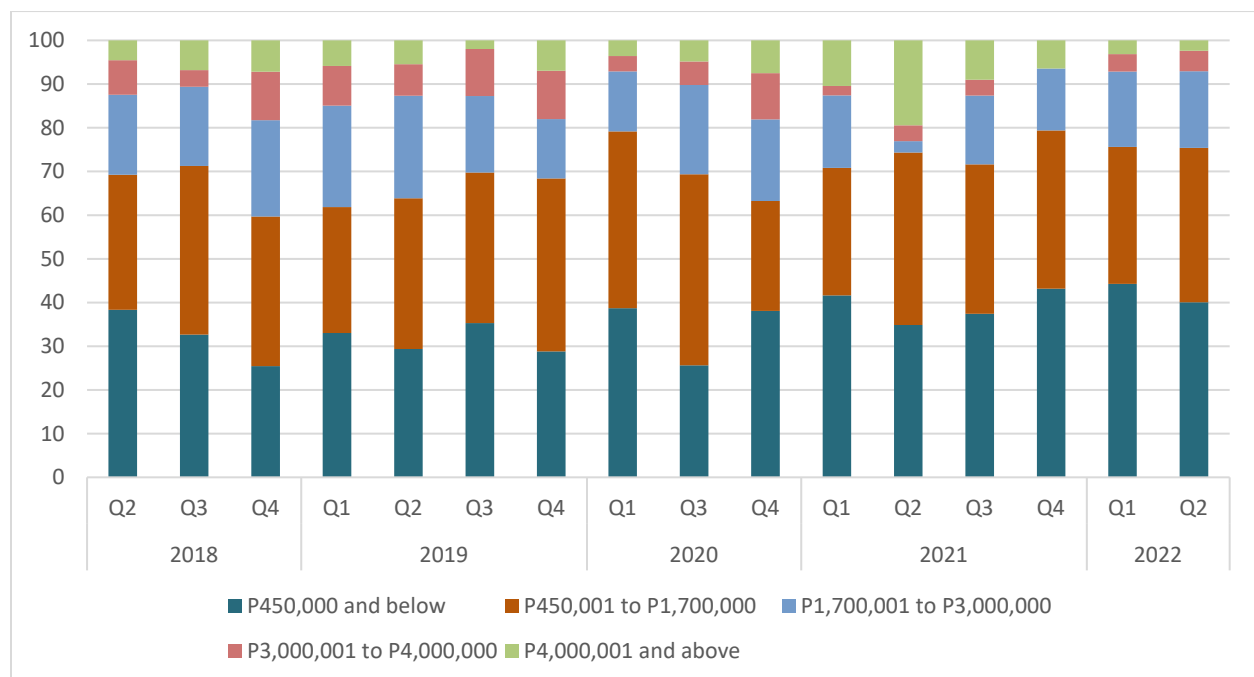


Source of basic data: BSP (2022b)

Preferences, however, may not necessarily be attainable in reality based on License to Sell (LTS) data. Table 24 shows the estimated average annual housing supply and demand in the country from 2010 to 2018 based on CRC estimates on average annual demand in terms of number of households and HLURB LTS data. The total average annual supply was at 190,386, and 84% of those are priced between PHP 3 and 6 million and 5% have prices greater than or equal to PHP 6 million (see Padojinog & Yap 2020). Out of the total average annual supply, only 11% were for mass housing or those who prices ranged from PHP 480,000 to around PHP 3 million (see Padojinog & Yap 2020). The minimal average annual supply on the lower-priced housing certainly does not meet the respective average annual demand.

**Table 24. Estimated Average Annual Housing Supply and Demand in the Philippines, 2010 – 2018**

| | Unserved | Mass Housing | Mid-Cost | High-End | Total average |
|---|---|---|---|---|---|
| Average demand | 106,536 | 469,174 | 37,953 | 6,751 | 620,414 |
| Average Supply | | 20,716 | 159,204 | 10,466 | 190,386 |
| Average (deficit) or surplus | (106,536) | (448,458) | 121,251 | 3,715 | (430,029) |

Note: "cannot afford" segment as the unserved segment

Source: HLURB and CRC as cited in Padojinog & Yap (2020)


## 6. Conclusions and Policy Recommendations

Using residual income method provides a more realistic assessment of housing affordability in the Philippines since it considers a minimum threshold of food and other non-housing basic needs. Residual income method also considers varying households structures, incomes, and expenditure needs. Families with more children or dependents are expected to allocate a larger proportion of income for non-housing basic expenses.

A comparison of the residual method and the 30 percent affordability standard currently adopted for the Philippines shows that the latter overestimates the capacity of the poor and low-income families, while it underestimates the capacity of the middle-income and richer families on housing expenditure. Poor and low-income families are unable to afford housing priced at 30% of their income, while the middle-income and richer families are able to afford to pay for housing priced at more than 30% of their income. This distortion in affordability levels adds to the problem of poorly targeted government housing programs, specifically one that is geared towards homeownership and mortgage financing.

Estimates of housing affordability shows that a typical Filipino household is severely constrained to access housing in the formal market. For an average household, only socialized housing, which is below Php1.0 million is considered affordable. This means that most households are under housing stress and have limited access to the supply of housing in the formal market. This situation has worsened over time as housing prices, including price ceilings set by the government for economic housing are increasing at a faster rate than income. While residential real estate prices also decline during crisis years, the decline is minimal and often short-term compared to the deeper dives and longer-term impacts on incomes of a typical Filipino household.

The mismatch between housing affordability and the housing programs of government for the 50th lowest income deciles show the need to undertake policy reforms to address distortions in the housing market. First, government must be wary of speculative increases in land and real estate prices. Previous studies have noted the speculative increase in land prices in Metro Manila brought about by inefficient taxation policy (Strassman and Blunt 1993). Another area for policy reform is on the role of government in the provision of affordable housing. Government must play a bigger and more active role in the development and maintenance of affordable housing.

The first policy goal would involve support of the Department of Housing Settlement and Urban Development (DHSUD on the Valuation Reform Act (VAR) proposed under Senate and House

Bill No 8453. The proposed bill is intended to result in an equitable and efficient valuation system that will enable government to properly implement real property taxation and expropriation of real properties. With proper valuation, the government can effectively capture gains from government infrastructure projects through taxation.

The effective implementation of the idle land tax is another measure to reduce speculative forces on real estate prices. The levy on idle lands was imposed to ensure optimal land use decisions and discourage land speculations (Local Government Code 7160 of 1991). However, its implementation has been flawed due to policy and operational gaps (Lebrilla 2016). Orijola (2019) noted that Idle Land Tax collection contributed only 0.53% to total real property tax collection for the period 2012-2016; the second lowest contributor to property taxes. Average growth of collection is only 14.30% for the period, with the collections coming mainly from cities.[16] Moreover, the actual number of LGUs imposing ILTs still remained below the target number. Some LGUs consider it optional and there is lack of appropriate guidelines for its implementation (Lebrilla 2016). For instance, there is no clear definition of what an idle land is, which leads to difficulties in coming up with an inventory of idle lands in the country. According to DOF and DILG (2011), the institutionalization of valuation reforms would help address the implementation problem in the collection of idle land tax.

Other anti-speculative measures can be done through financial regulations such as providing financial ceilings on loan to real estate value, debt to income ratios to reduce over borrowing of richer families for residential investments that drives demand and increases residential prices. Foreign ownership of housing (specifically condominium units) should also be regulated. While other countries allow foreigners ownership of housing, in these countries, foreigners are taxed more and government can issue moratoriums on sale when the real estate market is heating up. Similar tax levers should also be considered in the Philippines.
Government has also to undertake reforms on its role in the provision of affordable housing. Development of affordable housing should be government led not private sector led. Direct subsidies to households and to builders of affordable housing (rent or own) should be adopted. Government should create a public housing fund to finance direct subsidies, public construction of housing and recovery from disasters. Likewise, LGUs should build community development funds (CDFs) anchored to municipal councils and funded from grants, LGU budget, community savings and loans to support communities at risk from urbanization challenges (e.g. upgrading, renewal, safety and environmental considerations, etc).

The housing fund can be funded from idle land taxes and the balanced housing requirement. Currently, developers are given a free hand in the utilization of funds from the compliance of balanced housing. A similar scheme was implemented in Pakistan, South Korea, and Malaysia. This arrangement seems good on paper but because the process of designing, producing, locating and allotting it are totally controlled by the alliance of developers and government officials, without any participation from poor communities, it does not support real needs and can be hard for the very poor to access this housing (ACHR 2018). Also, *"there is the tendency of the developers to jack up the prices on socialized housing—i.e. the land is too expensive, material costs keep going up, our profits are draining away, we just can't deliver at that price. So to sweeten the deal, the government arbitrarily jacked up prices"* (AHCR 2018 p.84). A similar experience has been noted in the Philippines based on the case study of balanced housing compliance in Davao city. The study noted that the *"developers have tweaked the policy resulting in a considerable loss of housing units in Davao City due to the policy's ambiguous application. The fragmented and the lack of collaboration between the city government and the Housing and Land Use Regulatory Board, have likewise caused a failure in the compliance and monitoring efforts"* (Pampanga, Majid and Angel, 2015 p.93).

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[16] Some LGUs recorded their ILT collection under special assessments (Orijola 2019)

For the poor and low-income households, interest subsidies and tax incentives to housing developers will not work. An ownership-focused program implies that the government needs to subsidize at least 70% of the housing cost per household, which covers the land cost and site development. The problem with ownership is that the assets of the government and the returns to investments are mainly captured by the beneficiaries and government loses control over the property rights on these assets and the rights to reclaim and transfer to another eligible household when the beneficiary household has acquired properties of their own. This further constrains the government to find land in cities for affordable housing development. In contrast, a land lease and rental housing arrangement enable the government to maximize the use of the assets and reduce overtime the cost of financing housing for the poor.

The practice of separating land and the building for affordable housing also provides government flexibility in appropriating land for affordable housing. Housing units can be purchased, transferred but government retains ownership of the land. Government can retain an inventory of affordable lands that can be taken out from the real estate market and will be used mainly for development or redevelopment of affordable housing. Government can assign these lands under the management of non-profit organizations through a community land trust scheme.

Studies have noted that income inequality and housing access are correlated. An increase in income inequality leads to housing inequality as richer households tend to drive increased demand for quality housing and consequently prices. The Philippines has moved to middle income status, but it has been noted that income inequalities have also worsened further exacerbated by the pandemic. Future research should look into income inequalities as a factor in rising housing inequalities to further support policy reforms in the land and housing sector.

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