

Measurement and Determinants of Housing Cost Overburden for Middle-aged and Elderly Tenants: Focus on comparing the rent-to-income ratio and residual income approach

주거비과부담 중고령 임차가계의 과부담 측정 및 결정요인 분석: 소득비율측정방식(RIR)과 잔여소득측정방식(RIA)의 비교를 중심으로

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초록

주거비 부담의 적정성은 가계의 주거권 확보에 매우 중요한 요인이다. 특히 가계소득 대비 과도한 임차료를 부담하고 있는 주거비 과부담 가계는 주택 임대료 상승 시 주거복지가 악화할 우려가 크다. 따라서 중고령 임차가계의 주거비 과부담 특성 및 결정요인을 분석하여 이들의 경제적 복지를 점검하고 주거복지정책에 반영할 필요가 있다.

국내 임차가구는 전세, 보증부월세, 월세 등 다양한 계약형태를 가지고 있으므로 유량과 저량을 조합하여 다양한 방식으로 주거비과부담을 측정할 필요가 있다. 본 연구는 주거비과부담 중고령 가계의 변화 양상을 파악하고 정책적 함의를 도출하기 위하여 노후보장패널 자료(2005년-2015년)를 분석하였다. 이를 위해 주거비과부담 측정방식 중 소득비율측정방식(RIR)과 잔여소득평가방식(RIA)을 비교하여 적절한 측정방법을 확인하고, 중고령임차가계의 주거비과부담 결정요인을 밝히고자 하였다.

연구결과는 다음과 같다. 첫째, 주거비과부담 중고령 임차가계를 RIR과 RIA 방식으로 각각 분석한 결과, 시계열 변화 추이와 비중에 확연한 차이가 있었다. 글로벌금융위기 전후 주거비과부담을 측정한 결과 RIR방식으로는 주거비과부담 가계 비율이 1.1% 감소하였으나 RIA 측정 시 주거비과부담 가계 비율이 6.1% 증가하여 RIA방식을 사용할 때 글로벌 금융위기로 인한 주거비과부담 변화를 더 정교하게 측정할 수 있음을 확인하였다. 둘째, 측정 방법에 따른 주거비과부담 가계의 미스매치를 비교한 결과 분류를 명확히 하기 위해 RIA를 사용하는 것이 적절하다는 결론을 내릴 수 있다. 셋째, 고 RIA집단에 영향을 미치는 가장 큰 요인은 대도시 거주로 나타났다. 이 결과는 거주지역이 중심부로 갈수록 생계비를 고려한 주거비부담이 집중되어 주거비 부담에 있어서 양극화가 진행되고 있음을 보여주는 것으로 판단된다.

주제어: 주거비과부담, Rent-to-Income Ratio, RIR, Residual Income Approach, RIA, 주거비부담, 중고령 임차가계, 가계경제구조

I. Introduction

Poor residential environments and impossibly high housing costs threaten human well-being and dignity.

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The right to adequate housing concerns privacy, space, safety, lighting and ventilation, basic infrastructure, location conditions, and other material conditions. However, these can be guaranteed only when housing costs are reasonable (UN-Habitat, 2003). Korea's Housing Act, enacted in 2015, aims to guarantee the right to adequate housing, based on the principle that "people's housing cost should be maintained at a level that can be borne, through the provision of housing and support of housing costs according to income level, life cycle, etc." (Lim, 2016). In other words, it is recognized at the highest level that housing affordability is critical in securing the right to adequate housing.

Rapid fluctuations in prices or changes in housing policies in the real estate market have a significant impact on the financial health and financial well-being of households. In particular, it is difficult for low-income and elderly households to lead a stable retired life if they are burdened with heavy housing costs. In the case of the low-income class, an increase in not only the total housing cost but also the number of overburdened households is a serious problem (Cho & Kim, 2014, 2020).

Middle-aged and elderly households that own their homes may not have to worry about their place of residence or housing costs, as they can use their homes as assets in their old age. On the contrary, middle-aged and elderly households in rental homes are likely to suffer increasing rental price hardships as house prices increase. In recent years, the already high rent paid by middle-aged and elderly tenants (hereinafter referred to as "tenants") have risen further with rising real estate prices. Additionally, long-term rental housing with lump-sum deposits (i.e., jeonse) is becoming less common, while the proportion of month-to-month rental leases (i.e., wolsse) are rising. For these reasons, refining the measurement of housing cost burden and examining its determinants is an urgent task and is very important for housing welfare policy.

This study analyzed panel data from the Korean Retirement and Income Study (KReIS) covering 10 years from 2005 to 2015, and predicted that

socio-economic events such as the global financial crisis included in this period had a significant impact on the housing cost burden of middle-aged and elderly tenants. This study has two purposes: 1) to compare two commonly used methods—the rent-to-income ratio (RIR) and residual income approach (RIA)—to determine which is more effective in identifying households in housing cost overburden, and 2) to identify the determinants of tenants' housing cost overburden.

The results of this study are expected to refine the method of analyzing the housing cost overburden of tenants and provide basic insights and implications for housing stabilization measures for middle-aged and elderly tenants.

II. Background

1. Measurement of housing cost overburden

Unstable housing conditions lead to hardships in many areas, including health, education, and employment (Arthurson & Jacobs, 2003). The key criterion for measuring housing poverty is affordability. Housing costs include loan-related expenses, lighting and heating costs, and maintenance costs. The burden that housing costs represent varies, depending on the household's income level. Households facing similar costs would perceive their burden differently, but objective measurements are much more valuable when formulating policy. Housing cost overburden is objectively identified by two methods: the RIR and RIA. In many countries, housing cost overburden is determined by the ratio of housing costs to income, mainly because it is easy to calculate. However, the RIR method has a flaw in that it does not consider non-housing costs, which can vary appreciably between households. The RIA, on the other hand, measures housing affordability according to whether the occupants are owners or tenants and whether they can afford basic living expenses (food, education, medical expenses, etc.) after paying for their

housing, which must be of a size and quality that meets minimum housing standards. The problem of housing cost overburden is usually found to affect low-income families (Bae & Kim, 2013).

Since the late 19th century, the concept of “one week’s wage for one month’s rent” has been considered an appropriate measure of housing relative to income. However, as the management cost of public rental housing in the US increased in the 1920s and 1930s, rent amounted to as much as 80% of tenants’ income. Accordingly, in 1965, the US Administration’s Housing and Home Finance Agency proposed 20% as an appropriate RIR. It also began to implement various housing support policies because it considered a ratio greater than 20% a strain for households (Herbert et al., 2018; Hulchanski, 1995; Pelletiere, 2008). This shows that the appropriate level of RIR has been determined by rule of thumb, rather than by objective criteria, and has been defined differently according to region and time. The National Association of Realtors (using the housing costs income ratio; HCIR) states that the 25% criterion was enacted in the United States in 1969, and it rose to 30% in 1981 (Lerman & Reeder, 1987). In the meantime, Canada also followed a 20% criterion until the 1950s, after which a 25% criterion emerged, only to be replaced by a 30% criterion in the 1980s (Hulchanski, 1995). Generally, if the RIR is more than 30%, the housing is categorized as unaffordable (Bae & Kim, 2013; Downs, 1993; Kwon & Choi, 2015; Lim, 2016; Marks & Sedfwick, 2008; Moore & Skaburskis, 2004; Park et al., 2015). Recently, a 50% criterion has started to be used, along with the 25%, 30%, and 33% criteria, to determine whether households are experiencing severe housing hardships (Bae & Kim, 2013; Bogdon & Can, 1997; Schwartz, 2015).

2. Housing affordability measurement methods: RIR vs. RIA

The RIR, calculated as monthly rental expenditure relative to income, is the most frequently cited indicator for measuring the housing cost burden of domestic

tenants due to its easy calculation. Previous studies have measured the RIR using data on household income and housing costs from nationwide household-level surveys such as the Korea Housing Survey, KoWePS(Korea Welfare Panel Study), and KReIS(Korean Retirement and Income Study) to reveal the housing cost burden, changes in housing cost, and determinants of housing cost burden (Cho & Kim, 2014, 2020; Kwon & Choi, 2015; Lim & Park, 2017; Jang & Kwon, 2018; Kim, 2019; Park et al., 2015; Yoo & Jeong, 2017).

However, due to the specificity of Korean housing, it is not appropriate to calculate the housing cost only with RIR as a flow measurement method. Since domestic tenants have various contract types such as jeonse, monthly rent with guarantee, and monthly rent, there is a limitation that the RIR is calculated only as a percentage of income. Therefore, when measuring the tenants’ housing cost burden, it is reasonable to combine the indicators of flow and stocks. From the same point of view, Joo et al.(2017) analyzed the housing cost burden by dividing it three ways into monthly rent burden, monthly rent and interest burden, and deposit burden. Kim(2019) developed a KoRIR index that supplemented the limitations of the RIR to measure the housing cost burden. The limitations of the RIR can be summarized in two ways. First, it cannot reflect the actual burden of housing costs paid in large deposits by Korean tenants. Second, households at the extreme ends may deviate from the RIR level by using the actual amount of housing costs of individual households. To address these issues, an indicator that can replace the limit of the RIR is the RIA. The RIA is a method that evaluates whether households can finance their living expenses with the remaining residual income after paying the necessary expenses to live in their own or rented house from their income.

Kim and Kim(2008) measured the housing cost by calculating the minimum rent required to meet the minimum housing standard of the Ministry of Land, without using the housing cost of individual households. Lee(2010) compared the housing welfare levels of disabled and non-disabled households and calculated the

housing cost for each household characteristic separately based on the minimum housing standard. Oh and Oh(2018) measured the appropriate consumption level using the number of bedrooms, living rooms, kitchens, and occupied areas suggested in the Seoul Citizen Welfare Standards, and calculated the rent for this consumption level through the hedonic price model. (Kim & Kim, 2008; Lee, 2010; Oh & Oh, 2018). In these previous studies, the minimum housing standard or the minimum cost of living are commonly used to calculate the appropriate housing cost. This study aims to help determine the suitability of the housing cost burden measurement method by comparing the housing cost burden levels of households using RIR and RIA respectively.

3. Determinants of housing burden

Determinants of housing burden include gender, age, area of residence, and housing area. In general, female-headed households most likely fail to meet minimum housing standards (Lim, 2015). While some studies have found that the weight of housing burden varies depending on the type of housing, family structure, and gender of the household head (Kwon & Choi, 2015; Park & Lee, 2015), other studies have shown that the probability of housing burden increases significantly when the head of the household is male (Lim, 2016). However, studies also show that gender has no significant effect on housing affordability (Park et al., 2015).

Research opinion about the effect of age on housing burden is divided. Some argue that housing burden is heavier in higher age groups (Bae & Kim, 2013), whereas others maintain that housing burden is lighter in higher age groups (Park & Lee, 2015). According to one view, based on causality models, age has no significant effect on housing affordability (Lim, 2016; Park et al., 2015). There may be a non-linear effect in that, as people age, their housing type changes, and so does their risk of living in unaffordable housing. Park et al.(2015) and Lim(2016) identified a negative

relationship between household income and housing poverty, finding that a high-income household can bear high housing costs and have a lower likelihood of living in substandard housing or in housing that it cannot afford. Although the absolute rent paid by low-income earners is relatively small, rent as a proportion of their income is relatively high.

Homeowners are less likely to live in houses that fall below minimum standards, because they are able to buy houses more suitable for their needs with the expectation that their house will serve as their long-term residence. Tenant households are more likely to live in houses reaching only minimum standards (Park et al., 2015). In Korea, there are two types of home rental methods: *wolse* (household pays monthly rent) and *jeonse* (households pay the property owner a refundable long-term deposit for the whole period but do not pay monthly rent). The property owner makes a return by investing the deposit and retaining all the interest it earns. Typically, the annual rate of interest on the deposit is 4.75%, as against the average bank mortgage loan interest rate of 2.76 - 3.09% (Financial News, "Top 5 Bank Credit Loan Rate Drops to 2% in 6 Months", 2020), which means that tenant households that pay monthly rent have to bear a higher housing burden than homeowning households. This has been shown empirically (Kwon & Choi, 2015).

Housing affordability also varies depending on whether the household lives in a city, a rural area, a capital city area, or a non-capital area (Jo & Kim, 2015; Kwon & Choi, 2015; Noh & Lee, 2009; Park et al., 2015). Previous studies suggest that housing affordability is lowest in the city (Noh & Lee, 2009), and that households bearing a heavy rent burden, especially low-income households, are sometimes compelled to move to cheaper accommodation. Based on previous studies, gender, age, income, and residential area variables were input to the logistic regression model to figure out which factors determine the overburden of housing costs for middle-aged and elderly tenants.

III. Methods

1. Research questions

This study compares the results of measuring the overburden of housing expenses by two methods (RIR and RIA) and tries to find out which factors determine households with overburdened housing costs using the RIA method.

Research Question 1. What is the result of measuring the housing cost overburden of middle-aged and elderly tenants with RIR and RIA?

Research Question 2. What are determinants of housing cost overburdens for the middle-aged and elderly tenants?

2. Empirical framework

1) RIR

The word “rent” in the term “rent-to-income ratio” refers to rent-related expenses, which comprises not only the monthly rent but also the opportunity cost of paying that rent, as well as the monthly interest paid on any debt taken to meet the rent. The RIR of tenant households thus represents the share of the households’ average monthly income accounted for by rent-related expenses:

$$RIR = (\text{monthly rent expense} / \text{average monthly income}) \times 100 \dots\dots\dots(1)$$

$$\text{Monthly rent expense} = (\text{long-term lease deposit} \times 0.03 / 12) + \text{monthly rent}$$

Cho and Kim(2014) acknowledged this feature of Korea’s lease terms, by adding the opportunity cost of the long-term lease deposit to the monthly rent expense to derive the monthly expenses, as shown in Eq. (1). In addition, the Korean consumer price index was used to deflate housing costs by year.

When formulating policy, public institutions in Korea assume a level of housing burden, as measured by the RIR, of 20 - 30% (or slightly more) of income, and regard 30% as the acceptable maximum. A household with a RIR of 50% or more is considered to be bearing a very serious level of risk.

2) RIA

The RIA evaluates whether a household will have enough residual income to pay for a minimum level of living expenses after paying for the costs associated with owning or renting a home of a certain size and quality.

$$RIA = (\text{disposable income} - \text{housing cost}) - \text{Minimum cost of living} \quad (2)$$

If $RIA \geq 0$, the household has the capacity to bear the housing burden by household size.

If $RIA < 0$, the household does not have the capacity to bear the housing burden by household size.

Here, minimum cost of living includes expenses for food, clothing, health care, transportation and communication, education, and cultural entertainment.

For RIA, the minimum cost of living was based on calculations by the Ministry of Health and Welfare. As of 2015, the minimum cost of living was 617,281 KRW (514 USD) for a single household, 1,051,048 KRW (875 USD) for a two-person household, and 1,359,688 KRW (1,133 USD) for a three-person household, as well as 1,668,329 KRW (1,390 USD), 1,976,970 KRW (1,647 USD), and 2,285,610 KRW (1,904 USD) for over four-person households, respectively (1,200 KRW = 1 USD).

3) Determinants of unaffordable housing

$$\ln\{p/(1-p)\} = b0 + b1X_1 + b2X_2 + b3X_3 + b4X_4 \quad (3)$$

p = Probability of unaffordable housing

X_1 = gender

X_2 = age

X_3 = $\ln(\text{equivalized income})$

X_4 = city size

The logistic regression function of the determinants of unaffordable housing is shown in Eq. (3). The dependent variable is the probability of unaffordable housing, and the independent variables are gender (male = 1), age (continuous variable), equivalized income ($\ln[\text{household monthly income} / \sqrt{\text{number of household members}}]$), and city size.

3. Data and sample

In this study, the data used were from the first (2005) to the sixth (2015) years of the National Pension Research Institute's KReIS panel. KReIS is a longitudinal survey of 5,110 Korean households consisting of household members aged 50 and over, and it is suitable for identifying the characteristics and distribution of assets and income of middle-aged and elderly households.

Samples of middle-aged and elderly tenants were extracted using KReIS data excluding homeownership households and those living in other types of housing, such as dormitories and company housing. The sample sizes from the first to the sixth years were 550, 528, 525, 526, 522, and 515 households, respectively. Tenant households with extreme levels of assets or income and those supplying dubious responses were excluded. Cross-tab, t-test, ANOVA, and logistic regression analysis were performed.

4. Characteristics of respondents

General and financial characteristics of the respondents are as follows. Based on data from the sixth year (2015), gender ratio of the survey subjects was 51.8% men and 48.2% women, with an average age of 68.3 years. The average household annual income was

20.423 million KRW (standard deviation = 22,222.8), and the residential area was 27.1% in Seoul, 30.3% in six metropolitan cities, and 42.6% in regional provinces.

IV. Results

1. The housing cost overburden

1) Changes in the ratio of households in unaffordable housing

An analysis of the results showed clear differences in the trends and proportion of tenant households in unaffordable housing between the RIR (30% or more) and the RIA (<0 ; Figure 1). In the results measured based on the RIR, a deviation of 2.63 times was observed between 2005 (11.1%) and 2015 (29.2%). On the other hand, when measured by the RIA method that considers both the income and minimum cost of living, the overburdened household ratio rises to more than 50% over the entire period, from 51.7% in 2005 to 62.4% in 2009 and 59.2% in 2015.

Comparing before and after the global financial crisis between 2007 and 2008, when measured by RIR, the ratio of households overburdened with housing expenses decreased to 25.8% (2007) \rightarrow 24.7% (2009), and when measured by RIA, it was found to be 56.3% (2007) \rightarrow 62.4% (2009), indicating that the proportion of households overburdened with housing expenses increased by 6.1%.

These results show the increase in households overburdened with housing costs due to the global financial crisis, and they clearly indicate that measuring with RIA can determine the burden of housing costs more clearly.

2) Criteria for classifying households in housing overburden

Given four definitions of housing overburden (RIR 20%, RIR 30%, RIR 50%, and RIA), as shown in Table 1, a comparison was made to determine which

measurement method was most suitable for classifying households as living in unaffordable housing. Using 2015 data, it was found that 80 households had an RIR of 30% or more and were classified as living in unaffordable housing. Based on an RIR of 50% or more, 30 households were found to be living in unaffordable housing, but that figure rose to 158 households when the RIA was used.

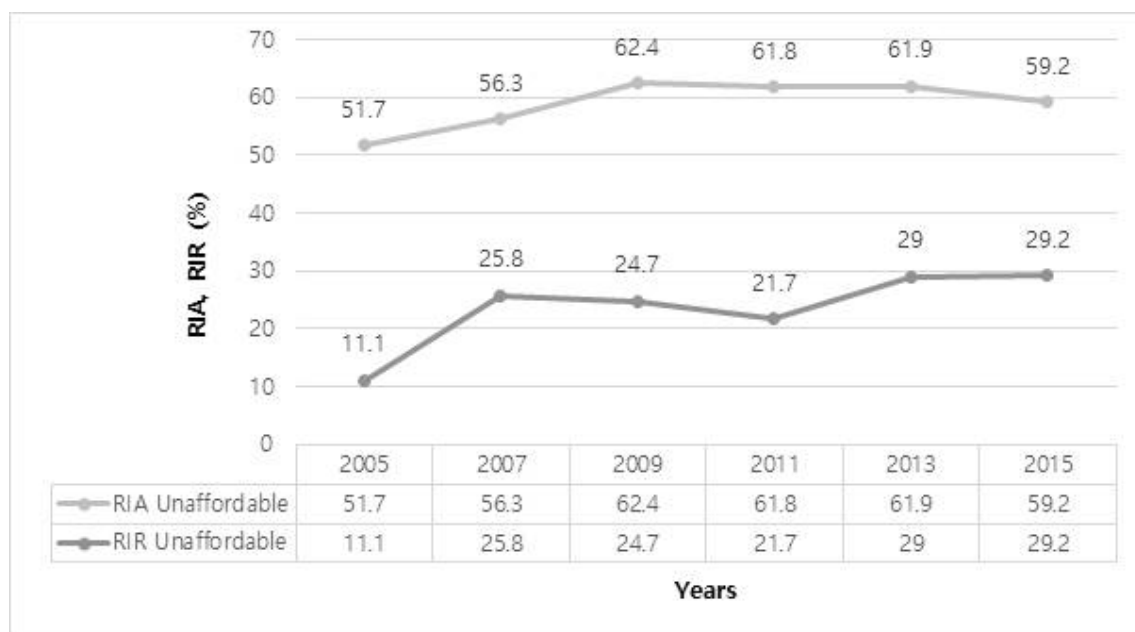
In other words, more households were classified as living in unaffordable housing when the RIA was used.

A cross-tab analysis was performed to verify the differences between the results according to the classification criteria. There were 47 households whose housing costs, as a proportion of income, were classified as “appropriate” according to the 20% RIR criterion, but the same households were classified as “overburdened” (i.e., their monthly income excluding housing costs did not cover their minimum cost of living) according to the RIA criterion. On the other hand, 15 households were classified as “overburdened” according to the 20% RIR criterion, but whose housing costs were classified as “appropriate” according to the

RIA criterion. In addition, housing costs were classified as “appropriate” according to the 30% RIR criterion for 80 households (more than the 47 classified as such according to the 20% RIR criterion), which were classified as “overburdened” according to the RIA criterion. Only two households that were classified as “overburdened” according to the 30% RIR criterion faced housing costs that were “appropriate” according to the RIA criterion. Finally, when the 50% RIR criterion was applied, the housing costs of 128 households were classified as “appropriate” even though their monthly income, excluding housing costs, according to the RIA criterion, fell short of their minimum cost of living expenses. It was concluded that the RIA criterion can more clearly identify those households living in unaffordable housing.

2. Determinants of housing burdens for the high-RIA middle-aged and elderly tenants

For effective analysis, characteristics of middle-aged and elderly tenants in housing cost overburden were



[Figure 1] Changes in the Percentage of Households in Unaffordable Housing by Year in Korea: Comparison between the RIR 30% and RIA

〈Table 1〉 Households in Unaffordable Housing: Comparison of RIR 20%, RIR 30%, and RIA (n)

2015			RIA		Total
			Overburdened	Appropriate	
RIR	RIR_20%	Overburdened	111	15	80
		Appropriate	47	94	187
	RIR_30%	Overburdened	78	2	80
		Appropriate	80	107	1
	RIR_50%	Overburdened	30	0	30
		Appropriate	128	109	237
Total			158	109	267

Note: RIR: Rent-to-income Ratio; RIA: Residual Income Approach.

analyzed for the first, third, fifth, and sixth years, based on the RIA criterion.

An analysis of the data for 2005, 2009, 2013, and 2015 showed that the housing-burden determinants for the middle-aged and elderly tenants varied by year. Of the independent variables used in the regression model, the determinant factors of housing burden for the middle-aged and elderly tenants were equalized household income, city size (Seoul), and age.

The most important factor that determined a household's inclusion in the high-RIA group was the

residential area variable. Residents living in Seoul had a higher probability of falling into the high-RIA group than those in small cities, by a factor of 4.115 in 2005, 2.157 in 2009, 2.392 in 2013, and 2.686 in 2015. As shown in Table 2, the magnitude of the impact became smaller in 2009 than in 2005 but was on the rise. Real income was also a very significant determinant. Age showed a positive impact in the 2005 data, but it did not show a significant impact in the subsequent years.

Note:

〈Table 2〉 Determinants of Housing Burden for High-RIA Middle-Aged and Elderly Tenants

Variable	1st Year (2005)				3rd Year (2009)				5th Year (2013)				6th Year (2015)			
	B	S.E.	Significance probability	Exp (B)	B	S.E.	Significance probability	Exp (B)	B	S.E.	Significance probability	Exp(B)	B	S.E.	Significance probability	Exp (B)
Gender	0.143	0.440	0.745	1.154	-0.553	0.432	0.201	0.575	-0.563	0.366	0.124	0.570	0.042	0.364	0.909	1.042
Age	0.050	0.022	0.024	1.051	0.028	0.021	0.177	1.028	0.009	0.017	0.591	1.009	-0.004	0.019	0.841	0.996
In(equivalized income)	-1.261	0.363	0.001	0.283	-2.210	0.486	0.000	0.110	-2.676	0.408	0.000	0.069	-2.896	0.416	0.000	0.055
City size _Seoul	1.415	0.595	0.017	4.115	0.769	0.527	0.144	2.157	0.872	0.450	0.052	2.392	0.988	0.440	0.025	2.686
City size _Metropolitan city	0.064	0.532	0.904	1.066	-0.184	0.476	0.699	0.832	-0.457	0.390	0.241	0.633	-0.668	0.406	0.100	0.513
Constant term	6.387	4.054	0.115	7.884	17.306	4.721	0.000	1.696	23.227	4.106	0.000	7.299	25.276	4.320	0.000	1.377
-2 log-likelihood	211.841				150.213				215.008				138.779			
Cox and Snell's R2	0.339				0.209				0.303				0.262			
Nagelkerke R2	0.484				0.311				0.433				0.389			
Chi-square	110.723***				39.874***				92.179***				51.874***			

*p<.05, **p<.01, ***p<.00

V. Discussion

This study investigated, by using the data on Korean middle-aged and elderly households, how different definitions of housing affordability determine whether tenant households live in unaffordable housing and analyzed the characteristics and determinants of households facing housing cost overburden.

First, it found a marked difference in the proportion of middle-aged and elderly tenants living in unaffordable housing, depending on whether the RIR (30%) or RIA methods were used. The trends over the analyzed period also varied according to the method used. It was concluded that the RIA better reflected the changes in tenant housing affordability caused by the global financial crisis and measured the housing cost burden more precisely.

Second, comparing the differences arising from the different criteria for classifying households as living in housing cost overburden showed that the RIA method was more appropriate to identify households with housing burdens. In particular, as the RIA accounts for not only housing costs but also the minimum cost of living expenses, it was shown as the more appropriate method for determining housing affordability, especially in the case of low-income households; this confirms the results of previous studies (Chun et al., 2016).

Third, the largest determinant of housing unaffordability for those in the high-RIA group was their residence in Seoul. The impact of the residential area variable was the largest in 2005 and lower in 2009, but it has been growing since that year. In other words, it appears that the closer the area of residence is to the capital city, the heavier is the housing burden, once the minimum cost of living expenses are considered. This indicates a growing source of inequality, with the areas of heaviest housing burden being concentrated in the capital city.

The RIA analysis method validated in this study can provide more information than the RIR in that it includes the minimum cost of living expenses. Although this study attempted to provide a timely analysis with

sample data from middle-aged and elderly tenants, which are the households most vulnerable to housing unaffordability in Korea (having the world's most rapidly aging population), it was limited by the omission of variables necessary for calculating the cost of living and minimum cost of living expenses.

This study analyzed secondary data at the national level to secure the publicity of the results. However, there is a limitation in not including the latest data due to time constraints on data release. In a follow-up study, it is necessary to verify the validity of the results by accumulating the latest analysis results. In addition, it is necessary to examine the characteristics of each group by categorizing households according to the burden of housing costs.

The significance of this study is as follows. Appropriate measures of housing affordability can help improve the financial well-being of individual households and help establish effective housing welfare policies. Identifying those whose housing is unaffordable could help them improve their financial well-being. In addition, whether or not they currently fall into that category, their potential financial problems can be anticipated and prevented from occurring. Reducing the housing burden of vulnerable households is a very important task, as the financial well-being of urban households is falling owing to high housing costs—a worldwide phenomenon. Moreover, since this vulnerability was shown to vary according to the life cycle and income cycle of middle-aged and elderly tenants, further studies on households facing housing cost overburden could better identify and help resolve the problems of those most at risk.

In Korea, the Korea Housing Finance Corporation, the Housing Finance Credit Guarantee Fund, and the Housing and Urban Fund run housing stabilization fund support programs and support programs for financially vulnerable groups. They aim to facilitate access to finance for vulnerable groups and reduce their financial costs. Housing welfare policies for low-income tenant households include provision of a jeonse lease mortgage loan of up to 80 million KRW, or 70% of the lease

deposit, for low-income households that do not own their homes and whose combined annual income is less than 50 million KRW. A rental housing leasing loan of up to 20 million KRW is also available to meet the housing expenses of low-credit, low-income tenant households.

Keywords: Housing Cost Overburden, Rent-to-Income Ratio, RIR, Residual Income Approach, RIA, Middle-aged and Elderly Tenants, Household Economic Structure

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