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Analysis of Household Useable Income After Essential Expenditure

People with People in Mind

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Introduction

I Introduction

Income inequality is worsening around the world. International organizations such as the International Monetary Fund (IMF) and Organisation for Economic Cooperation and Development (OECD), which have spearheaded neoliberalism over the last decades, now agree that growing inequality and poverty are threatening economic growth. These organizations stress that sustainable growth requires equality of access to markets and resources and more equal distribution of the fruits of growth. Nevertheless, these organizations still prioritize growth above all else and maintain that the current inequality and long-term recession have nothing to do with the structure of neoliberalism (Yun, 2018). In that regard, the IMF and OECD differ from the International Labour Organization (ILO), which has been advocating income-led (inclusive) and wage-led growth. Income-led growth is a response born directly out of the criticism that the neoliberal growth strategy since the 1970s has engendered today's inequality and poverty, while raising debts to an unsustainable level (Yun, 2018). The ILO and other proponents of income-led growth therefore call for powerful labor unions, strong market regulation, expansion of public infrastructure, wage increases, and income security policy as

necessary for growth (Yun, 2018).

Lavoie and Stockhammer (2012) divides distribution policies between pro-capital ones and pro-labor ones. The authors explain that policies of the former kind generally weaken collective bargaining, labor unions, and employment security laws, with the goal of maximizing labor market or wage flexibility. These policy measures generally favor capital and the wealthy by exempting capital gains from income taxes and lowering corporate income taxes, while inhibiting wage growth. Pro-labor policy measures, on the other hand, seek to increase returns to workers by increasing unemployment benefits and raising the minimum wage, with the goal of increasing workers' real income and reducing income inequality.

Lavoie and Stockhammer (2012) also explains profit-led and wage-led economies. The former occurs when income distribution is structured to favor profits, while the latter is the case when income distribution disfavors profits. We can combine these types of economies with the different approaches to distribution to develop a matrix of four possible models of economic growth. In particular, the profit-led growth process will result when a profit-led economy is matched with a pro-capital distribution policy. Lavoie and Stockhammer call this model "neoliberalism in theory" (2012, p. 6). A traditional wage-led economy combined with a pro-labor distribution policy will create a wage-led model of economic growth, which rose to

prominence in the postwar period as the standard of welfare states. An increase in real wages in this model serves to enhance labor productivity, which, in turn, increases profits, thereby benefitting both employers and workers.

Lavoie and Stockhammer (2012) propose a wage-led growth strategy as an alternative to neoliberalism. The authors emphasize that, in an economic crisis, state intervention in the market should increase, rather than decrease, in order to foster effective demand. Wage growth holds the key to this desired outcome.

South Korea is about the only member state of the OECD that has officially embraced the wage-led growth model as a matter of national policy. The Moon Jae-in government, which came to power in 2017, proposed income-led growth, a variant of the wage-led growth model, centered on three policy goals: namely, raising household income, reducing household expenditure, and strengthening the social security net. This report focuses on the second goal, i.e., reducing household expenditure. Even if disposable household income were to increase thanks to the market and/or redistribution, neither would the actual standard of living improve nor effective demand be generated insofar as households have to spend significant sums of money on essential goods and services, such as housing, healthcare, and education.

In this report, we define essential household expenditure as

consisting of the healthcare, educational, daycare, housing and housing-related debt expenses of households, and analyze how much burden such essential expenditure is imposing on Korean households. We introduce the concept of useable income to define the proportion of household disposable income that remains after essential expenditure on healthcare, education, daycare, and housing has been subtracted. We compare Korean households' useable income to those of other welfare states to provide a horizontal comparison of the actual income that households enjoy under different welfare regimes. The countries compared are Korea, the United States, Japan, Germany, and Sweden.

Ⅱ

Useable Income and Research Trend

Ⅱ Useable Income and Research Trend

Researchers use truly diverse concepts of income, including household income, business income, earned or employment income, market income, disposable income, adjusted disposable income, discretionary income, and social income. Before defining useable income, let us first survey these various concepts so that we may better understand the significance of useable income, as used in this study.

The Canberra Group Handbook, which has come to serve as a global standard for household income, identifies four components of household income: (1) income from employment, including employee income and income from self-employment; (2) property income; (3) income from household production of services for own consumption; and (4) current transfers received (United Nations, 2011: pp. 9-10). The ILO (2003) offers the same exact list of the types of household income.

Statistics Korea (2015), in reference to both the Canberra Group and ILO, offers a six-category scheme of household income comprised of: employment income, business income (income from self-employment), financial income, real property income, public transfers received, and private transfers received. Statistics Korea's typology omits income from house-

hold production of services for own consumption, which the organization explained as a result of the difficulty of appraising the value of such production.

Taking these discussions into account, we may conceptualize household income along six dimensions: income from employment, income from production, primary income, total income, disposable income, and adjusted disposable income.[1] While re-categorizing the types of income in consideration of different types of expenditure, we may need additional concepts of income (ILO, 2003; United Nations, 2011; Statistics Korea, 2015). Disposable income, which usually refers to total income minus taxes, contributions to social insurances, and other types of non-consumptive expenditure, is particularly important as it is usually equated with how much households can afford to spend.

However, some argue that even disposable income is incapable of representing the actual standard of living house-

1) Income from employment = earned income + business (self-employment) income
Income from production = income from employment + income from household production for own consumption + estimated rent accruing on the value of real properties owned
Primary income = income from production + financial income + real property income
Total income = primary income + public transfers received + private transfers received
Disposable income = total income − contributions to social insurances − taxes − other non-consumptive expenditure
Adjusted disposable income = disposable income + public transfers received in kind + private transfers received in kind

holds enjoy (Lee, 2019). Suppose there are two households with equal amounts of disposable income. Their living standards, however, may not be the same because they have very different needs to satisfy with different spending styles. The concept of adjusted disposable income has been introduced in response to this shortcoming.[2] However, there is not yet a universal definition of adjusted disposable income, although some use it to refer to disposable income equivalized by the number of household members (Smeeding, 2002; Smeeding and Sandstorm, 2005).

More commonly, though, adjusted disposable income generally refers to disposable income plus the value of public services provided for households. The scope of services counted toward adjusted disposable income varies somewhat from study to study. Some (OECD, 2019a) include all goods and services, including healthcare, education, and housing, provided from public sources, while others (Hoeller, Jourmard, Bloch, and Pisu, 2012) count healthcare and education only.

With respect to adjusted disposable income, we need also to understand the concepts of social wage and discretionary

2) Lee (2019) explains that adjusted disposable income can mean two very different things. On the one hand, it represents "the sum of disposable income and public benefits and services converted into a cash value." On the other, it is understood as "disposable income from which basic household expenditures, such as housing expenses, have been subtracted." To avoid confusion, this study uses adjusted disposable income only in the first sense. As for the latter, this study will use alternative terms, i.e., discretionary income or useable income.

income. Social wage is distinct from the market income that workers earn from their employers; it refers to the total amount of benefits that the state distributes to workers. While the concept may be of some use in gauging the actual standard of living households enjoy, there are also households that do not receive sufficient social wages and/or struggle with significantly greater essential expenditure than other households.

Discretionary income, which may help us overcome the shortcomings of adjusted disposable income, is defined as "income that remains in the household after all basic and routine expenditures" (Linden, Green, and Coder, 1988). The concept, however, has been more commonly used in marketing and consumer behavior analysis, rather than in social and policy studies concerned with improving the standard of living and quality of life for households. This may explain the absolute lack of studies on the redistributive implications of discretionary income.

There have been attempts to subtract essential expenditure from disposable income to gauge the true level of wealth that households enjoy. The UK Department of Work and Pensions, for example, calculates after housing cost income (AHCI) in producing statistics on low-income households to measure the poverty rate and other indicators of income inequality. In the United Kingdom, healthcare is public and free, as is much of public education (except for postsecondary school). As a result,

UK policymakers may regard AHCI as representing the effective and real income of households. However, the concept cannot be readily applied to Korea's case.

Only a few studies have been done that examine household income minus essential expenditure. As there is not yet an established concept that addresses this topic, this study introduces its own conceptual tool, i.e., useable income. There are a few reasons for devising this new concept to understand the actual level of income and wealth that households in Korea enjoy.

First, the conventional approach to household income overlooks the amount of disposable income that households can actually afford to spend after their mandatory expenditure on housing, healthcare, education, and so forth. Although we generally understand household income minus taxes and mandatory public dues as "disposable," we seldom pay attention to the fixed expenses that households must pay, such as those for housing, healthcare, education, and activities of household production, in order to survive.

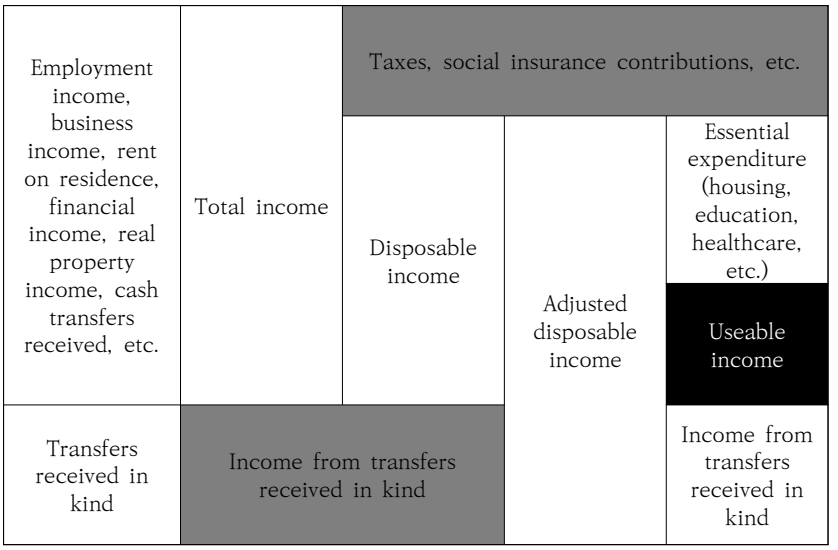
Second, either adjusted disposable income or social wage can help us measure increases made to household income from public services and benefits. In other words, these concepts enable us to gauge the redistributive function of the welfare state. Yet it is impossible to measure, using either or both of these concepts, the financial implications of the limits of the welfare state on households. For example, the two concepts can be

used to determine how Korea's National Health Insurance (NHI) and its benefits help households financially; however, neither concept can tell us how the limited scope of NHI benefits burden households and compromise their actual standard of living.

Third, the Korean welfare state gained its structure only in the 1990s, and has since grown rapidly. Nevertheless, Korean households still struggle with steep housing costs as well as hefty medical bills for services not covered by the country's public healthcare system. Koreans also spend significant sums of money on private lessons and postsecondary education for their children. In Northern European welfare states, universal healthcare and education significantly reduce the financial burdens on households. We need a conceptual tool to help us measure the differences created by the different welfare types.

Let us now clarify the concept of useable income. For our purposes, useable income refers to the portion of disposable household income that remains after essential expenditure on housing, healthcare, education, and daycare for preschool children. Housing expenditure includes the principal and interest of mortgage loans or other types of housing loans that Koreans pay to own or rent their residence.

〈Table 2-1〉 Useable Income



Source: Statistics Korea (2015), Household Finance and Welfare Panel Survey: Statistics Report, p. 99, Table 3-5 (modified by the author).

To understand useable income, we need to understand what essential expenditure entails. First and foremost, it includes the housing cost. The housing cost includes not only monthly rent but also the costs of home maintenance and utility bills (electricity, heating, and water). It also includes the principal and interest of mortgage loans.

Healthcare expenses are also included in essential household expenditure. These include the costs of hospitalization and outpatient care, drugs, private nursing services, and checkups. The cost of private medical insurance is not included. However, the fact that 66.3 percent of Koreans have private medical in-

surances and that the premiums they pay amounted to KRW 3.5 trillion as of 2014 (Oh, 2015) suggests that the premiums and benefits of these insurances likely exert significant impacts on household expenditure on healthcare. Nevertheless, insurance-related cost variables are not included in our analysis due to the lack of available data, both in Korea and around the world.

Education expenses are divided between those on the public school system and others for private education. Our analysis includes the former only. Given the impact that the cost of private education has on many Korean households, it would be important to include the latter in the analysis as well. Opinions still differ, however, on whether the cost of private education should be counted toward a household's essential expenditure. We leave it out of our analysis on the ground that the price elasticity of private education is well above two (Woo et al., 2004). However, we do include the cost of daycare for preschool children.

Principal and interest of housing-related debts are also included in essential expenditure. Non-housing-related principal and interest have been excluded. These other debts include business debts, which do not constitute essential household expenditure proper.

The costs of groceries, transportation, and communications are excluded from our analysis, but this is a tentative decision.

There is no doubt that these expenses are essential for any household. However, whereas housing, healthcare, education, and daycare are typical concerns of social policy, groceries, transportation, and communications are not normally targets of policy intervention. We therefore leave it up to future studies to measure essential household expenditure and useable income by accounting for these expenses. That such expenses are excluded from analysis amounts to a shortcoming of this study, which focuses on analyzing Korean households' useable income, in a comparative context, in relation to housing, healthcare, education, and daycare expenses to which policy can make significant differences.

Ⅲ

Research Method

1. Korea
2. Japan
3. United States
4. Germany
5. Sweden

Ⅲ Research Method

For the purpose of our comparative analysis, we need to find the most fitting datasets available on Korea and the four other countries. We base our analysis on the Korean Welfare Panel Surveys of the Korea Institute for Health and Social Affairs (KIHASA), the Japan-Keio Household Panel Surveys (JHPS), the University of Michigan's Panel Study of Income Dynamics (PSID), the *Einkommens und Verbrauchsstichprobe* (EVS, or Income and Expenditure Sample Survey) of the German Federal Statistical Office, and the Household Budget Surveys (HUT, *Hushållens utgifter*) of Statistics Sweden.

For this latitudinal comparison, we held a total of five full panel meetings. The discussions were organized to determine which of the variables presented in the datasets should be included in, or omitted from, our analysis. Due to institutional differences, the lists of the variables used in the different datasets did not exactly cohere. For example, the JHPS does not distinguish between public and private education expenses. After much deliberation, we decided to include the JHPS' variable, without alteration, in our analysis as a single public education expense variable. Notwithstanding the differences in variables, with some datasets offering more variables than neces-

sary for our analysis while omitting the necessary ones, we made sure to apply three rules: namely, (1) that income and expenditure be equivalized by the square roots of the numbers of household members; (2) that income and expenditure data be converted into a monthly basis; and (3) that disposable income be used, with useable income estimated by subtracting essential expenditure from disposable income.

Recall that essential household expenditure as used in our analysis is the sum of housing, healthcare, and education and daycare expenses, as well as housing-related debts. We examine the percentages of these different types of expenses in household disposable income by household type. There are three main types of households in our analysis: those with underage children (under 18); those with seniors aged 65 or older; and those with young adults aged 19 to 34. We divide elderly households further into single-person households and two-person (married) households, and compare them to a category of non-elderly households. We also divide households with young adults into three subcategories, i.e., single-person households, two-person (married) households, and households with a married couple and at least one child. See Table 3-1 for operationalizations of these household types, which are applied to datasets from all the compared countries.

〈Table 3-1〉 Household Types

Type		Operationalization
All		All households
Households with children		Households with underage children (under 18)
Elderly households		Households of seniors aged 65+
	Single-person	Single-person households of seniors
	Two-person	Two-person households with at least one senior
Non-elderly households		Households in general without seniors
Young adult households		Households of young adults aged 19 to 34
	Single-person	Single-person households of adults aged 19 to 34
	Two-person	Two-person households of married adults aged 19 to 34
	Three+-person	Three- or more-person households of married adults aged 19 to 34 with at least one child

1. Korea

Underlying our analysis of disposable income in Korea are the Korean Welfare Panel Surveys (KOWEPS) conducted by KIHASA and the Seoul National University Institute of Social Welfare. The KOWEPS surveys household income, expenditure, assets, and debts nationwide, providing appropriate data with which we can measure how much of their income Korean households can afford to spend. The KOWEPS is based on a sample of some 7,000 households. Our analysis is based on data spanning the years 2006 (pertaining to income and expenditure in 2005) through 2018 (pertaining to income and expenditure in 2017).

Our KOWEPS-based analysis identifies housing, medical, ed-

ucation, and housing-related debt expenses as essential household expenditure. Housing costs include monthly rent, home maintenance and repair costs, and utilities, while education costs include the costs of daycare and public school education. The cost of private education has been omitted to make international comparison easier. Debt-related expenses include the principal and interest on housing-related loans.

〈Table 3-2〉 Variables of KOWEPS Analysis

Expense	Operationalization
Housing	Monthly rent + home maintenance and repair costs + monthly utilities
Medical	Medical expenses (monthly)
Education	Monthly daycare cost + public school education cost
Housing debt	(Annual total of principal and interest on housing-related loans) / 12 months
Disposable income	Disposable household income
Useable income	Disposable household income − housing cost − medical cost − education cost − housing debt cost

2. Japan

Our analysis of useable household income in Japan is based on the Japan-Keio Household Panel Surveys (JHPS), a leading panel survey on the demographic composition and economic activity throughout the country. The JHPS specifically surveys income, expenditure, employment, housing, education, and health and healthcare, handily providing all the variables required by our analysis, i.e., disposable income, hous-

ing/medical/education expenses, and housing debt costs. Our analysis specifically draws upon the 2017 survey, the latest to date.

We first estimate housing cost by adding up monthly rent, utilities, and maintenance and repair costs. As the JHPS lists only the sums of medical and education expenses without distinguishing between subcategories, we cite those sums unaltered in our analysis. For housing debt cost, we refer to the mortgage loans (principal and interest) being repaid, while calculating disposable income in reference to the annual take-home income. Useable income is obtained by converting all the categories of expenses and income into monthly averages and then subtracting the housing, medical, education, and housing debt costs from monthly disposable income.

〈Table 3-3〉 Variables of JHPS Analysis

Expense	Operationalization
Housing	Monthly rent + home maintenance and repair costs + utilities (in thousand JPY/month)
Medical	Total medical expenses (in 1,000 JPY/month)
Education	Total education expenses (in 1,000 JPY/month)
Housing debt	(Annual total of principal and interest on housing-related loans) / 12 months
Disposable income	Previous year's take-home income / 12 months
Useable income	Disposable household income − housing cost − medical cost − education cost − housing debt cost

3. United States

Our analysis of American useable income is based upon the Panel Study of Income Dynamics (PSID). Of the various nationwide household surveys conducted in the United States, the PSID is the most fitting dataset for this study as it provides much information on the income, expenditure, and welfare benefits of American households. It also has an added advantage in that its sample is designed so that sample losses from year to year do not undermine the representativeness of the study's findings.

The expense variables used in our analysis again include the housing, housing debt, medical, and education and daycare costs of households. Housing cost is calculated by adding up monthly rent, utilities (electricity, water, and gas for heating), municipal sanitation cost (garbage removal, etc.), and home maintenance and repair costs. The housing debt cost consists of the principal and interest of the mortgage loan on one's main residence, calculated in monthly terms. The medical cost includes the costs of hospitalization and nursing home services, consultations with doctors, prescription drugs, and private health insurances and co-payments for insured services. The education cost includes tuition fees, lesson fees, boarding fees, costs of textbook and uniform purchases, costs of computer and software purchases for educational purposes, and daycare

costs. The total household expenditure is therefore the sum of all these costs. Our analysis again relies on the 2017 study, the latest conducted to date.

〈Table 3-4〉 Variables of PSID Analysis

Expense	Operationalization
Housing	Monthly rent + municipal sanitation + home maintenance and repair costs + utilities (electricity, water, and gas for heating)
Medical	Costs of hospitalization, nursing home services, medical consultations, prescriptions, private health insurances and co-payments
Education	Costs of daycare, tuition fees, and related purchases
Housing debt	Monthly repayments of mortgage loans (principal and interest)
Disposable income	Disposable household income
Useable income	Disposable household income − housing cost − medical cost − education cost − housing debt cost

4. Germany

The basis of our analysis of useable income in Germany is the 2013 EVS (*Einkommens und Verbrauchsstichprobe*). The EVS is designed to comprehensively survey the income and spending of the German population in relation to different socioeconomic variables, so as to amass information necessary to make decisions on poverty-reducing and wealth-distributing polices. The findings of the EVS indeed form important evidence for various areas of policymaking, including social, family, economic, and taxation policies. In particular, those find-

ings form the statistical basis of Germany's minimum livelihood security benefits, consumer price index, and national accounting.

As the EVS lists household income and expenditure statistics on a quarterly basis, we levelized household expenditure (housing, medical, education, and housing debt costs) and disposable income, and divided them by three (months). We estimate useable income by subtracting the monthly housing, medical, education, and housing debt costs from the levelized monthly disposable household income.

〈Table 3-5〉 Variables of EVS Analysis

Expense	Operationalization
Housing	[Monthly rent (including co-ownership fees) + energy cost + home maintenance cost (all in EUR)] / 3 months
Medical	[Costs of drugs + medical supplies + orthopedic shoes + dentures + medical equipment and repair or maintenance + therapeutic equipment and tools + medical consultations + medical services + hospitalization + dental care + medical equipment rental + non-hospital medical services (all in EUR)] / 3 months
Education	[Preschool education cost (except for meal plans) + tuition and examination fees (all in EUR)] / 3 months
Housing debt	[Principal and interest on mortgage loan (on one's main residence/property) (all in EUR)] / 3 months
Disposable income	[Disposable income (all in EUR)] / 3 months
Useable income	Disposable household income − housing cost − medical cost − education cost − housing debt cost

5. Sweden

Our analysis of the useable income of Swedish households draws upon the Household Budget Survey (*Hushållens utgifter: HUT*) provided by Statistics Sweden. Statistics Sweden conducted these surveys annually from 2003 through 2009, but has been gathering and updating the HUT data every four years since 2010. The latest data available are the HUT 2012 data, which were collected by surveying 7,500 households (with members aged zero to 79, and with a response rate of 38 percent from 2,871 participating households). Compared to the data spanning HUT 2003 to 2009, however, the HUT 2012 data are poorer in quality, with some inaccuracies in the survey results. Statistics Sweden therefore does not publish all of the data gathered by that year's survey, and makes only part of the data available via officials in charge. Caution is therefore advised in interpreting our analysis on these data.

Much of education in Sweden is public and free of charge. The education cost we estimate for Swedish households therefore reflects only the cost of daycare. We estimate the medical cost based on the cost of healthcare (*hälsovård*), and the housing cost on *bostad*. While the *bostad* variable includes housing-related debts (*räntor: brutto*), we separate that category from the rest of the housing cost variable to give it an independent variable status as the housing debt cost.

〈Table 3-6〉 Variables of HUT Analysis

Expense	Operationalization
Housing	Monthly rent + utilities + home maintenance and repair (in 1,000 SEK/month)
Medical	Total medical expenses (in 1,000 SEK/month)
Education	Total education expenses (in 1,000 SEK/month)
Housing debt	Housing debt (in 1,000 SEK/month)
Disposable income	Disposable household income (in 1,000 SEK/month)
Useable income	Disposable household income − housing cost − medical cost − education cost − housing debt cost

Ⅳ

Comparison of Indicators of Ability to Afford Spending

Ⅳ Comparison of Indicators of Ability to Afford Spending

Let us turn to the comparison of Korea, Japan, the United States, Germany, and Sweden in terms of essential household expenditure and useable income. Our goal is to compare the five countries side by side, latitudinally. Also, there is an additional indicator that ought to be considered in Korea's case. Korea has a unique home rental system known as *jeonse* that has almost no equivalent elsewhere around the world. *Jeonse* refers to an arrangement in which the tenant pays a large sum of money up front to the landlord in exchange for the right to lease in the latter's property for a fixed period of time. The landlord returns the lump-sum deposit, again up front, to the tenant upon the expiry of the lease (Yun, 2000). Having paid the lump-sum deposit, the tenant pays no monthly rent throughout their lease. In 2015, Koreans exchanged a total of KRW 455 trillion (380 billion US dollar) as *jeonse* deposits (*Kyunghyang Sinmun*, 2015).

The widespread practice of *jeonse* means that Koreans spend considerably less on monthly rent than people in societies without such practice. The Korea Appraisal Board (KAB, 2019) estimated that the *jeonse*-monthly rent conversion ratio was 6.3 percent on average as of December 2017. This means that,

for every KRW 100 million Koreans paid up front as a *jeonse* deposit, they could save KRW 6.3 million in monthly rent per year. Accordingly, we estimate the monthly housing cost of Korean households by dividing 6.3 percent of the *jeonse* deposits by 12 months.

In Table 4-1, the figures in the "Korea I" column are based on statistics that do not reflect *jeonse*-monthly rent conversions. Those in the "Korea II" column reflect the conversions. Two additional points should be raised before we proceed with interpreting these data. First, the *jeonse* deposits Koreans pay come with opportunity costs. Tenants in other countries could invest the same sums of money elsewhere to generate additional income. Whether we account for the particularity of *jeonse* in Korea (Korea II) or not (Korea I), our ability to compare Korea to other countries is necessarily limited. Second, the KOWEPS underlying our analysis of Korean household income and expenditure requires respondents to enter the amounts of *jeonse* deposits they had made on the homes they actually occupied. If, for example, a Korean family let the house they owned, with a mortgage, to another family for a *jeonse* deposit, and used the *jeonse* deposit they received to lease another home in which they actually lived, that family would be required to write their housing debt cost down as zero. Given the fact that a significant percentage of home-owning Korean families actually lease homes other

than their own properties using the *jeonse* deposits, it is possible that the KOWEPS underestimates the housing debt cost.

〈Table 4-1〉 Percentages of Useable Income by Country

(Units: percentage, USD/month)

Subject		Korea I	Korea II	Sweden	Germany	Japan	USA
%	Useable income	82.4	79.4	77.4	74.2	74.2	70.0
	Housing cost	7.1	10.1	15.7	13.5	12.6	13.6
	Medical cost	4.7	4.7	1.9	4.6	3.0	5.9
	Education cost	2.1	2.1	0.3	0.5	2.4	2.4
	Housing debt cost	3.7	3.7	4.7	7.2	7.8	8.0
	Disposable income	100.0	100.0	100.0	100.0	100.0	100.0
In PPP	Disposable income	2,898.8	2,898.8	3,608.6	3,105.5	2,421.8	3,675.0
	Useable income	2,389.6	2,301.4	2,794.1	2,304.5	1,797.9	2,571.0

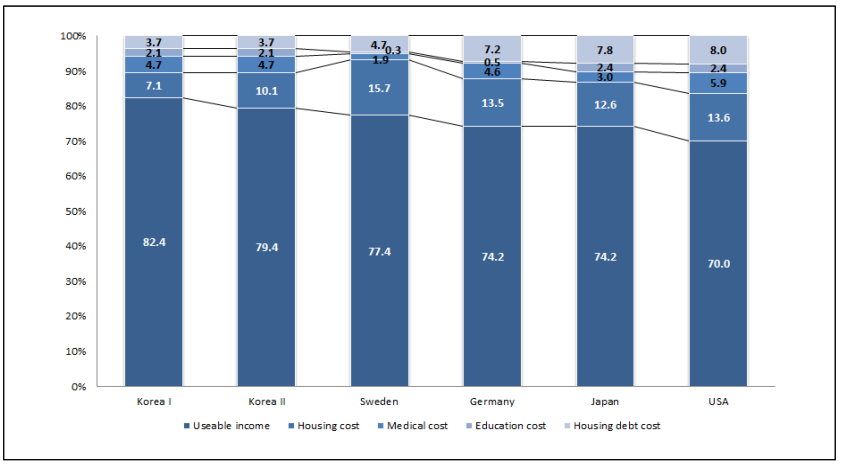
Sources: The respective panel studies chosen for the compared countries.

With the particular housing situation in Korea in mind, Table 4-1 compares the five countries in terms of essential household expenditure as a percentage of useable household income. The table shows that Korean households' useable income is significantly higher than its counterparts elsewhere, whether the *jeonse* deposits are not converted into monthly rents (Korea I, 82.4 percent) or are converted (Korea II, 79.4 percent). Sweden was found to have the second-highest level of useable house-

hold income (77.4 percent), followed by Germany and Japan (74.2 percent), with the United States coming in last (70.0 percent). Useable income is so high in Korea mainly thanks to the relatively low burden of the housing cost. Whereas the housing cost easily exceeds 10 percent of disposable income in the other four countries, it reaches only 10.1 percent in Korea, even after the *jeonse* deposits are converted into monthly rent. Korean households also spend considerably less (3.7 percent) on housing debts, less than one-half of what American and Japanese households spend. The percentage of useable income was unexpectedly low in Sweden, a well-known universal welfare state. There, the education and medical costs are relatively small, while the housing cost and housing debt cost amount to 15.7 percent and 4.7 percent, respectively, well over 20 percent when combined. Households in all four countries except Korea spend well over 20 percent on housing.

[Figure 4-1] Useable Household Income Ratio by Country

(Unit: percentage)



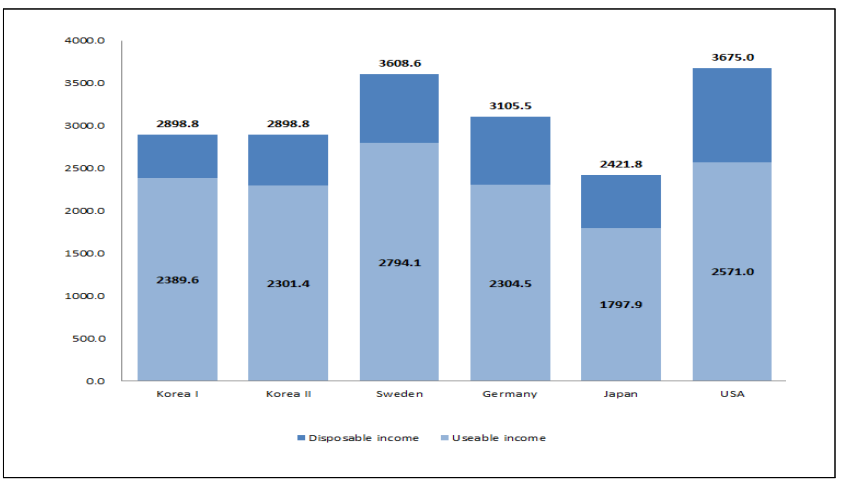
On the other hand, Korean households had the second-highest medical cost (4.7 percent) next to Americans (5.9 percent) and the third-highest education cost (2.1 percent) after Americans and Japanese (both 2.4 percent). This appears to reflect the lack of universality or generosity in healthcare and education in Korea. Yet the overall essential expenditure remains low in Korea, notwithstanding these relatively high levels of medical and education costs, thanks to the low housing and housing debt costs.

Figure 4-2 compares the disposable and useable income of the five countries in terms of purchasing parity power (PPP). Korean households' disposable income is the second-lowest next to Japan's, but the disparity with other countries is minimal in terms of useable income. For example, Korean house-

holds have less disposable income, but more useable income, than German households (Korea I).

[Figure 4-2] Useable and Disposable Income in PPP by Country

(Unit: USD/month)



Korea fares relatively well even in terms of useable income of households with underage children, once again thanks to its significantly low housing cost. Note that, in terms of PPP, the income, whether disposable or useable, of Korean households with children was the second-highest among the countries compared, except Sweden. The child poverty rate in Korea, at seven percent or so, is significantly lower than the OECD average (13 percent) (Thevenon, 2018). Korean children enjoy relatively affluence because low-income households tend to have a lower birth rate, keeping the overall birth rate in Korea low.

〈Table 4-2〉 Percentages of Useable Income by Country: Households with Underage Children

(Units: percentage, USD/month)

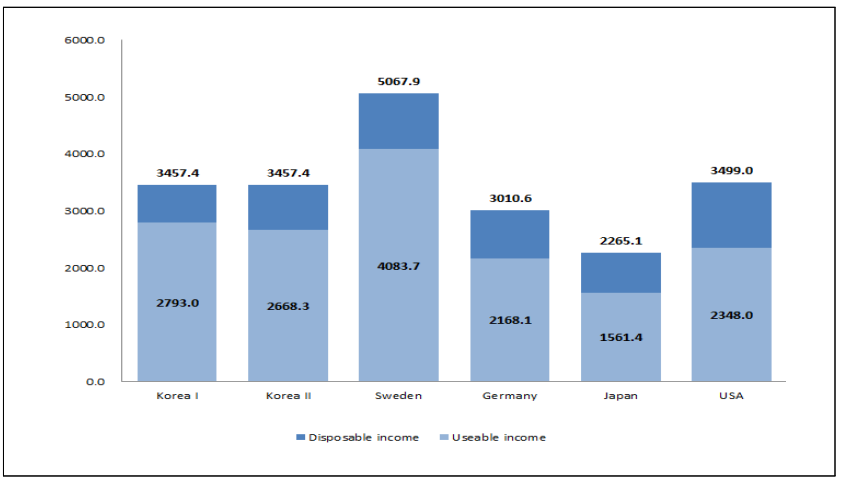
Subject		Korea Ⅰ	Korea Ⅱ	Sweden	Germany	Japan	USA
%	Useable income	80.7	77.2	80.6	72.0	67.1	67.1
	Housing cost	5.3	8.9	13.2	10.9	12.8	12.1
	Medical cost	3.1	3.1	1.3	3.2	2.2	5.6
	Education cost	4.4	4.3	0.4	1.2	5.3	4.7
	Housing debt cost	6.5	6.5	4.5	12.7	12.6	10.5
	Disposable income	100.0	100.0	100.0	100.0	100.0	100.0
In PPP	Disposable income	3,457.4	3,457.4	5,067.9	3,010.6	2189.1	3,499.0
	Useable income	2,793.0	2,668.3	4,083.7	2,168.1	1469.6	2,348.0

Sources: The respective panel studies chosen for the compared countries.

Child poverty rates are high in other countries because low-income households give birth to more children, unlike Korea. The relatively high level of disposable and useable income in Korean households with underage children should be understood in that context.

[Figure 4-3] Useable and Disposable Income in PPP by Country
: Households with Underage Children

(Unit: USD/month)



The percentages of useable income are also relatively higher in Korea than elsewhere, but the disparity between Korea and other countries is not as significant, mainly because of the narrower difference in housing and housing debt costs. Moreover, Korean elderly households have a medical expense ratio of 9.2 percent, higher than their American counterparts (6.9 percent). Elderly households in the United States have a considerably lowe4-r medical cost thanks to federal Medicare. American elderly households also have quite a high level of disposable income to begin with. The relatively high rate of co-payments, on the other hand, appears to cause elderly households in Korea to spend significant portions of their disposable income on medical costs.

Elderly households in Sweden have the highest percentage of useable income at 79.6 percent. Although Swedish seniors have the highest housing-related costs, along with Americans, at 18.4 percent, they enjoy more useable income because the percentage of their medical cost is kept as low as 1.7 percent.

〈Table 4-3〉 Percentages of Useable Income by Country: Elderly Households

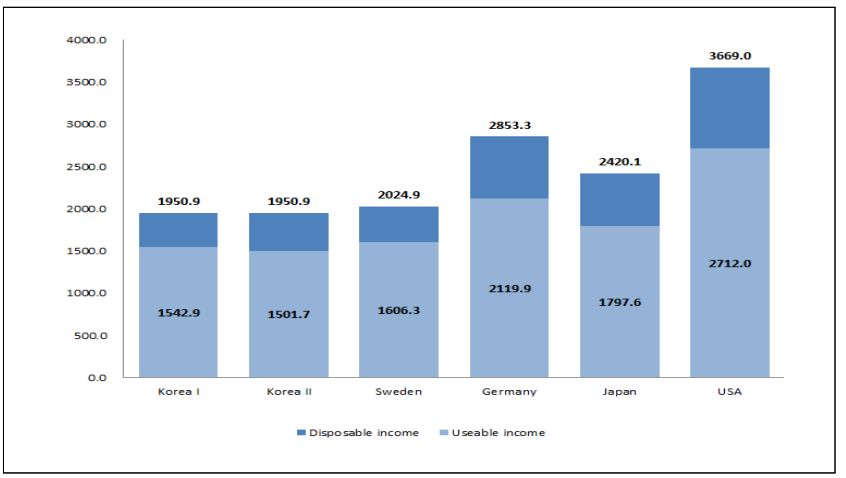
(Units: percentage, USD/month)

Subject		Korea I	Korea II	Sweden	Germany	Japan	USA
%	Useable income	79.1	77.0	79.6	74.3	77.7	73.9
	Housing cost	9.7	11.8	16.2	14.9	12.8	12.7
	Medical cost	9.2	9.2	1.7	8.1	4.0	6.9
	Education cost	0.7	0.7	0.3	0.0	1.0	0.3
	Housing debt cost	1.3	1.3	2.2	2.7	4.5	5.7
	Disposable income	100.0	100.0	100.0	100.0	100.0	100.0
In PPP	Disposable income	1,950.9	1,950.9	2,024.9	2,853.3	2194.0	3,669.0
	Useable income	1,542.9	1,501.7	1,606.3	2,119.9	1705.6	2,712.0

Sources: The respective panel studies chosen for the compared countries.

[Figure 4-4] Useable and Disposable Income in PPP by Country
: Elderly Households

(Unit: USD/month)



We can also compare the useable income of households that own and rent their homes. Homeowning households in Korea have a manifestly higher level of useable income than in other countries. The housing cost of these households is identical whether in Korea I or Korea II. Homeownership means that there is no *jeonse* deposit to be converted into monthly rent. The low housing and housing debt costs were enough to offset the relatively high medical cost these households have in Korea.

〈Table 4-4〉 Useable Income by Homeownership Status: Renting Households

(Unit: percentage)

Subject		Korea I	Korea II	Sweden	Germany	Japan	USA
%	Useable income	82.5	73.1	65.9	68.9	69.4	63.2
	Housing cost	9.8	19.2	24.9	25.6	25.4	28.4
	Medical cost	3.8	3.8	1.7	4.4	2.8	5.6
	Education cost	2.3	2.3	2.6	0.6	1.9	2.8
	Housing debt cost	1.6	1.6	4.9	0.5	0.5	0.0
	Disposable income	100.0	100.0	100.0	100.0	100.0	100.0

Sources: The respective panel studies chosen for the compared countries.

Among Korean households renting their homes, on the other hand, the statistics varied widely between Korea I and Korea II. Converting the *jeonse* deposits into monthly rents raised these households' housing cost by nearly 10 percentage points. In other words, *jeonse* appears to provide some financial relief for most tenant households in Korea. Nevertheless, as some speculate (Yun, 2000), amid the persistently low and stable interest rate and the Korean public's fading expectation that the value of their homes will rise over time, *jeonse* will likely decrease, along with the financial stability it provides for tenant households.

We can also compare the useable income of households by income quintile. Korean households in the lowest (first) income quintile had the lowest housing cost (20.1 percent) and the

highest medical cost (12.2 percent). The consistently high percentages of housing costs in other countries meant that first-quintile households in Korea have higher useable income than their counterparts elsewhere. A similar pattern is observed in relation to Korean households in the second quintile, with their housing cost kept relatively low and medical cost relatively high, and also with their useable income higher than their counterparts in other countries.

〈Table 4-5〉 Percentages of Useable Income by Income Quintile: Quintile 1

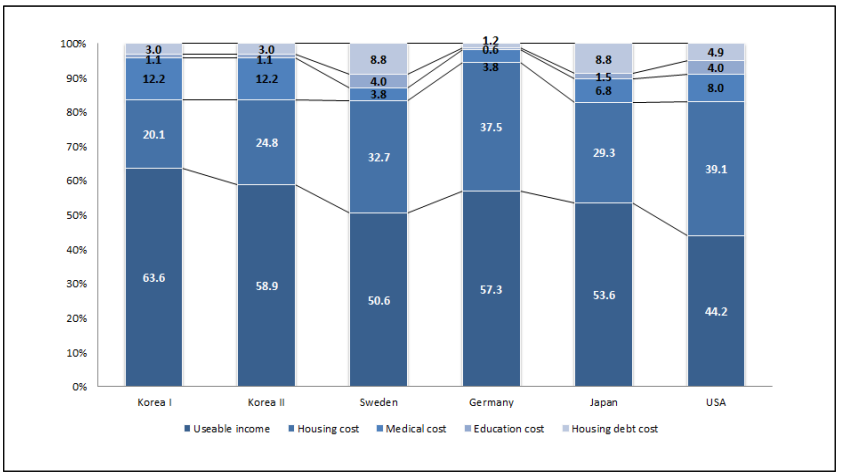
(Unit: percentage)

Subject		Korea I	Korea II	Sweden	Germany	Japan	USA
%	Useable income	63.6	58.9	50.6	57.3	53.6	44.2
	Housing cost	20.1	24.8	32.7	37.5	29.3	39.1
	Medical cost	12.2	12.2	3.8	3.8	6.8	8.0
	Education cost	1.1	1.1	4.0	0.6	1.5	4.0
	Housing debt cost	3.0	3.0	8.8	1.2	8.8	4.9
	Disposable income	100.0	100.0	100.0	100.0	100.0	100.0

Sources: The respective panel studies chosen for the compared countries.

[Figure 4-5] Percentages of Useable Income by Income Quintile: Quintile 1

(Unit: percentage)



Korean households in the third quintile—the middle of the income distribution—also retain a relatively low housing cost, and their medical cost is also comparatively lower than those of households in the earlier two quintiles. As a result, these households are able to retain a significantly higher level of useable income than their counterparts in other countries. It should be noted, however, that Statistics Sweden provides data on only four income quantiles, rather than five. For third-quintile households in Sweden, we therefore analyze the means of the values observed in second- and third-quintile households.

〈Table 4-6〉 Percentages of Useable Income by Income Quintile: Quintile 3

(Unit: percentage)

Subject		Korea I	Korea II	Sweden	Germany	Japan	USA
%	Useable income	81.7	78.3	71.7	74.9	72.0	64.1
	Housing cost	7.9	11.3	16.6	14.5	13.1	17.4
	Medical cost	5.0	5.0	2.1	3.7	3.0	8.3
	Education cost	2.6	2.6	2.8	0.5	2.4	2.4
	Housing debt cost	2.7	2.7	7.1	6.4	9.5	8.0
	Disposable income	100.0	100.0	100.0	100.0	100.0	100.0

Sources: The respective panel studies chosen for the compared countries.

Among Korean households in the fifth, and highest, income quintile, the housing cost rises by 2.7 percentage points when the *jeonse* deposits are converted into monthly rent. The margin of increase is still less than the 4.7 percentage points noted in the first quintile and the 3.4 percentage points in the third. This may also have to do with the particular housing situation in Korea.

〈Table 4-7〉 Percentages of Useable Income by Income Quintile: Quintile 5

(Unit: percentage)

Subject		Korea I	Korea II	Sweden	Germany	Japan	USA
%	Useable income	86.8	84.1	82.4	78.1	80.5	76.9
	Housing cost	3.8	6.5	10.4	6.5	7.4	7.9
	Medical cost	2.9	2.9	1.2	5.9	1.8	4.3
	Education cost	2.1	2.1	1.8	0.3	2.8	2.3
	Housing debt cost	4.5	4.5	4.2	9.2	7.4	8.4
	Disposable income	100.0	100.0	100.0	100.0	100.0	100.0

Sources: The respective panel studies chosen for the compared countries.

In other words, a significant number of Korean households in the top-20 percent of income distribution live in rented *jeonse* homes. And a significant number of these renting and affluent households likely rent their own homes out for *jeonse* or monthly rent. There is some likelihood that the KOWEPS underestimates the housing debt cost involved in this practice, which may have served to increase the useable income of Korean households as analyzed herein.

V

Conclusion

V Conclusion

Our analysis of Korean households' useable income contradicts the pervasive belief in Korea that the country is an "expensive" society with high housing, medical, and education costs. The percentage of useable income in Korean disposable household income surpassed those of other countries across almost all household types. This pattern remained intact even after we converted the *jeonse* deposits into monthly rent and added them to the housing cost. The main reason for this is because Korean households bear a significantly lesser burden in terms of housing costs than households in other comparable countries. The percentage of the housing cost in disposable household income amounted to a meager 7.1 percent (or 10.1 percent, with *jeonse* deposits converted into monthly rent) in Korea, as opposed to Sweden's 15.7 percent, Germany's 13.5 percent, Japan's 12.6 percent, and the United States' 13.6 percent. Korean households, furthermore, spend considerably less on housing related debts, i.e., 3.7 percent of their disposable income, compared to Sweden's 4.7 percent, Germany's 7.2 percent, Japan's 7.8 percent, and the United States' 8.0 percent. Given the fact that housing tends to be the biggest spending item of households around the world, the relatively

low financial burden of housing in Korea holds the key to Korean households' relatively high useable income.

Our analysis is consistent with the findings of other international comparative studies. OECD (2019b) includes housing as one of the 10 core indicators of quality of life in its Better Life Index, and Korea was named one of the countries with a very favorable housing environment. According to OECD (2019b), the housing cost in Korea is approximately 15 percent of the gross adjusted disposable income, which is the lowest among all OECD member states compared, and particularly lower than the United Kingdom and New Zealand, where the percentage rises as high as 26 percent. The OECD average was 20 percent. One possible reason may be related to the fact that many Koreans live in substandard housing, such as *gosichon* or *jjokbang*. OECD (2019b)'s statistics, however, rebut this assumption. The Better Life Index takes the quality of housing into account as well. With the average number of rooms per capita at 1.5, Korea lagged slightly behind the OECD average (1.8), but came in 23rd among the 40 countries compared. Moreover, 97.5 percent of Koreans were found to live in homes with access to modern indoor washrooms, which is higher than the OECD average (95.6 percent). (But that percentage puts Korea in 26th place among the countries compared.) On the overall rankings combining all three housing-related variables, Korea came in fifth.

Notwithstanding the OECD's favorable evaluation of the housing situation in Korea, many Koreans would find it counterintuitive to think that their housing burden is significantly less than the housing burdens in other countries. There appears to be mainly five possible causes of these findings.

First, it is unclear whether OECD (2019b) included the true cost of *jeonse* in its calculation of housing costs in Korea; the report is silent on this point. In our study, we have seen that converting *jeonse* deposits into monthly rent and adding them to Korean households' housing cost raises the percentage of housing cost in disposable income by three percentage points. Even so, the percentage of the housing cost in disposable income remains quite low in Korea. Roughly speaking, if we applied our conversion to OECD (2019b)'s findings, Koreans' housing burden would rise from 15 percent to 18 percent, which would still be the fifth-lowest among the countries compared.

Second, housing prices in Korea are around the middle level among developed countries (Lee, Kim, and Cho, 2012) and have remained relatively stable since 2010, when housing prices in other welfare states began to rise much more steeply (OECD, 2019c). According to Lee et al. (2012), the price-income ratio (PIR) is an important indicator of how high or low housing prices are in a given society. Korea's PIR was 4.4 as of 2010, higher than the United States' (3.5) and Canada's (3.4),

but lower than Australia's (6.1) and the United Kingdom's (5.2). The PIR in the central metropolitan region surrounding and including Seoul, however, was 5.9, but that is still lower than the greater New York area (6.1), greater Sydney area (9.6), and greater London area (7.2). Whether the PIR and other commonly used indicators of housing prices are appropriate has been widely debated (Park, 2014), so we should use these findings for reference purposes only.

OECD (2019c) found, by positing the PIR of each country in 2010 at 100, that Korea's PIR actually fell from 110.6 in 2000 to 95.2 in 2018, which is in contrast with the rise of the OECD average from 96.9 to 106.0 over the same period. Sweden's PIR, in particular, skyrocketed from 62.4 to 105.3. The United States' PIR also rose, from 105.8 to 107.4, while Germany and Japan's fell, like Korea's, from 113.4 to 112.1 and from 132.2 to 101.5, respectively. According to this standard, we may say that Korea has a relatively stable housing market.

Third, some argue that rents in Korea are low compared to rents in other countries. The price-to-rent ratio (PRR) in Seoul is 74.7, significantly higher than in London (35.1), New York City (19.4), Tokyo (40.9), and Singapore (43.6) (NH Investment & Securities, 2019; quoted in *Hankyoreh*, 2019). In other words, supposing housing prices in Korea are stable, rents are quite low. The OECD report notes that it is difficult to make a simple comparison between rents in Korea and those in other coun-

tries because of the *jeonse* practice. We need additional analysis to determine whether the perceived low rents in Korea are true.

Fourth, utilities, including electricity, are also quite cheap in Korea. The residential electricity tariff rate in Korea was 8.47 pence (KRW 125) per kilowatt-hour (kWh) as of 2017, almost equal to Canada's 8.46 pence, which was the lowest among OECD member states (Yonhap News, 2018). In contrast, the rate in Germany, at 26.68 pence per kWh, was more than three times Korea's. Korea also offers the lowest water tariff rate among OECD member states (OECD, 2013). Daejeon, a major city in Korea, had the lowest municipal water tariff rate at USD 0.66 per cubic meter. Five of Korea's major cities had rates below USD 1 per cubic meter. The rates, however, were USD 2.08 in Stockholm, USD 6.30 across Germany, USD 2.47 in Tokyo, and USD 2.48 in Washington D.C.

The high concentration of apartment buildings, the dominant type of housing in urban areas in Korea, may also help keep utility costs low. As individual units are stacked on top of another and side by side and share the same building, tenants can save significantly on heating and other utility costs. The simple structure of apartment buildings may also minimize the cost of home maintenance and repair.

We need to consider all these possible reasons for the low housing cost in Korea because the findings of our analysis and

other international reports run directly contrary to the widespread perception among Koreans, undoubtedly shaped by the soaring prices of apartment-type housing in Seoul and nearby cities, that housing is particularly expensive in their country.

At any rate, the low housing cost in Korea has helped keep Korean households' useable income higher compared to other welfare states. This, however, has nothing to do with the income-led growth policy pursued by the Korean government since 2017. Rather, this study shows that the structure of housing and related infrastructure in Korea has helped Korean households manage their expenses and keep their housing burden low for quite some time.

Nevertheless, our analysis of Korean households' essential expenditure and useable income by household type and income quintile reveals a number of important issues and tasks faced by the income-led growth policy.

First, compared to other welfare states, medical costs in Korea remain quite high. The percentage of the medical cost in Korean households' disposable income is 4.7 percent, the second-highest after the United States (5.9 percent). This is all the more striking because the United States has no public healthcare system akin to Korea's. It therefore shows that Korea's public healthcare system fails to cover all the medical needs and expenses of Koreans. Korea is ranked fourth among OECD member states in terms of co-payment rates, while the Korean

public healthcare system's coverage of medical expenses falls short of the OECD average. Considering the fact that the Korean population is aging rapidly, the financial burden of healthcare on Korean households may only grow larger. Elderly single- and two-person households in Korea, in particular, struggle with even greater medical cost burdens (11.4 percent and 11.1 percent, respectively) than do their American counterparts. Although the Korean government has recently begun to expand the coverage of the NHI program, more active policy intervention is needed to prevent the financial burden of healthcare on seniors from spiraling out of control. Notwithstanding the policy efforts to expand the coverage of the NHI, the percentage of Korean households crushed by "catastrophic" medical expenses has remained largely unchanged (Kim, 2019). The proportion of households struggling with such "catastrophic" medical expenses is larger in the lower income groups, except those in the bottom three percent. Families whose breadwinners fall ill and are therefore at risk of losing their main income struggle desperately both to make up for the lost income and to pay the medical expenses involved. The policy limit on co-payments required of low-income patients and households should be reinforced, and sick allowances should be provided for struggling households.

Second, education also imposes significant financial strains on households in Korea. Although the education cost as a per-

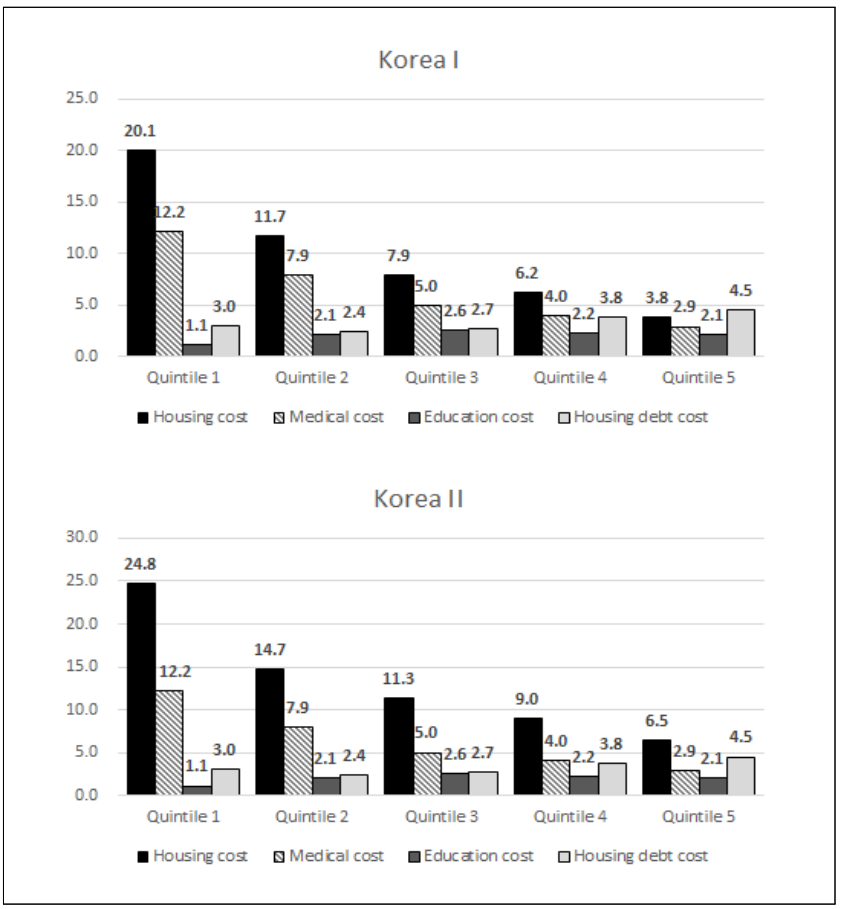
centage of disposable household income in Korea is 2.1 percent, lower than 2.4 percent in the United States or Japan, it is still much higher than in Sweden (0.3 percent) and Germany (0.5 percent). Public spending on education in Korea is about middle-level among OECD member states (OECD, 2019d). Note that our analysis does not account for any of the considerable amounts of money Korean households spend on private education, out of the belief that private education is not an essential good. Household spending on private education still varies widely according to parents' socioeconomic status. It is, however, also true that private education is a significant source of financial strain for many households in Korea. Given the correlation between the financial burden of private education and the quality of public education, the Korean government should increase spending on public education so as to alleviate this burden on households.

Third, elderly households, particularly single-person senior households, in Korea require more policy attention. Although useable household income in Korea is higher than in other welfare states across almost all household types, single-person elderly households are an exception. With *jeonse* deposits converted into monthly rent, the useable income of these households falls to 68 percent of disposable income, the lowest among all the countries compared. The useable income of American single-person elderly households, by comparison, is

70.1 percent. Policy support should thus be increased to alleviate the financial burdens of housing and healthcare on seniors living alone in Korea.

Fourth, efforts are also needed to increase the useable income of low-income households. It is true that Korean households in the first income quintile enjoy a relatively high level of useable income compared to their counterparts in other countries. Nonetheless, income distribution should be enhanced to substantially improve the standard of living of the poor and enable them to spend more, toward strengthening the business cycle, in Korea. Figure 5-1 shows the respective percentages of expenses making up essential household expenditure by income quintile. It shows that medical and housing costs make up significantly greater percentages among low-income households than other households.

[Figure 5-1] Percentages of Housing, Medical, Education, and Housing Debt Costs by Income Quintile (Above: Korea I / Below: Korea II)



Our analysis carries important implications for other welfare states as well, including Sweden, the United States, Japan, and Germany. In all four of these countries, households spend excessively on housing. The financial burden imposed by such high housing costs could lower households' actual income and

ability to spend. The governments of these countries, too, thus need to devise policy interventions to lower the burden of housing costs on households.

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