An Understanding of Poverty in Terms of Adjusted Disposable Income

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Disposable income poverty: concept and limitations

Market income and disposable income are the two most often-used variables when it comes to measuring income distribution and income poverty. Market income consists of earnings, business income, property income and private transfers. Disposable income is the sum of market income and public transfers minus tax and social security contributions. The difference between market income poverty and disposable income poverty is generally attributed to government interventions. Disposable income, the amount of income households have at their disposal, although it reveals some aspects of poverty, fails to capture the real conditions of poverty. This is because households with similarly low levels of income may face different levels of consumption constraints depending on the composition and level of social benefits they receive. Likewise, countries with similar levels of poverty rate (at the threshold of 60 percent the median disposable income) may have starkly different levels of household expenditures on basic needs.

[Table 1] Household expenditures on basic needs in selected countries

	Sweden	Germany	UK	Korea
Poverty rate (60% of median disposable income, 2015)	17.0	16.8	17.9	19.1
Private spending on education (as % of GDP)	0.2	0.6	2.0	1.7
Household expenditures on healthcare (as % of GDP)	3.3	1.8	1.5	5.1
Household expenditures housing (as % of GDP)	19.6	20.4	23.7	15.2
Household expenditures on long-term care (as % of GDP)	0.2	0.6	0.6	0.4

Sources: KOSIS (http://kosis.kr/index/index.do)
OECD Data. Private spending on education (https://data.oecd.org/eduresource/private-spending-on-education.htm)
OECD (2017) How's Life? p. 361
OECD Stat (https://stats.oecd.org)

Income as a proxy variable is limited in its use for representing people's actual living conditions in that, even in the same income bracket, one household's needs may to a great extent be different from another's. Korean households with a disposable income of 40~50 percent of the median are found to spend, on average, KRW37.7 thousand on monthly rent, KRW76.3 thousand on healthcare, 6.1 thousand on primary and secondary education, and KRW11.3 thousand for primary, secondary and tertiary education. The monthly household expenditures ranged widely, however, from nil to as much as KRW424.3 thousand on rent,[1] from nil to KRW898.4 thousand on healthcare, from nil to KRW203.6 thousand on primary and secondary education, and from nil to over KRW2.3 million on primary, secondary and tertiary education.[2]

1 The definition of housing costs varies across studies. Housing costs may be calculated in terms mostly of rent expenditures, or they may include costs incurred by homeowners, such as mortgage interest costs. The composition of housing costs is a choice that should be made based on considering housing expenditures as a share of disposable income and the prevalent modes of tenure in a given society.

2 Hyon-Joo Lee, Jin Kim, John Hudson, Ji-Hyun Jun (2018). The Composition and Impact of Public Cash and In-kind Transfers (p.

One may consider using adjusted disposable income as a way to overcome the limitations of disposable income. Disposable income can be adjusted largely in two ways to account for poverty and inequality. It can be adjusted either by including the estimated monetary value of social transfers in kind or by excluding the costs households incur to meet their basic needs, such as housing.

The UK and OECD countries represent examples where adjusted disposable income includes social transfers in kind.[3] From the early 2000s on, Korea also has been active in analyzing the poverty-reducing impact of tax-financed social expenditures using this extended concept of disposable income as the final measure of income. According to Statistics Korea's publication in November 2018 of income distribution indicators for 2016, the effect of social transfers in-kind was to reduce the Gini coefficient by 13.9 percent (from 0.357 to 0,307), the income quintile share ratio by 33.3 percent (from 7.06 to 4.71), and the relative poverty rate by 31.4 percent (from 17.9 percent to 12.2 percent).

[Table 2] Income distribution for 2016, with or without in-kind social transfers

	Disposable income, without in-kind social transfers	Disposable income, with social transfers	Decrease (%)
Gini coefficient	0.367	0.307	13.9
Income quintile share ratio	7.06	4.71	33.3
Relative poverty rate (%)	17.9	12.2	31.4
Poverty rate for those aged 65 and older	45.1	35.9	20.3

Source: Statistics Korea (2018)

Households' adjusted disposable income is disposable income plus the value of social transfers in kind that are provided to households. Statistics Korea's measure of adjusted disposable income is estimated, relying on various administrative data including budget and expenditure figures, by allocating the value of social transfers in kind to individuals to whom these services are delivered. The benefits in kind this study takes into account are of six categories: healthcare, education, childcare, public rental housing, national scholarship, and voucher program. The extended concept of disposable income helps better understand the impact of social expenditures. Adjusted disposable income may not entirely be sensible in that it treats as income those services that are not imputed as income. In this concept, if a household with a monthly income of KRW500 thousand receives free medical treatment worth KRW1 million, then the household is taken to have a disposable income of KRW1.5 million. Even if the same household spends an additional KRW500 thousand out of pocket on medical treatment, it will still be treated as having a disposable income of KRW1.5 million. This version of adjusted disposable income runs the risk of overstating people's actual living conditions, not least in countries where social benefits in kind are provided at levels considerably below those required to meet basic needs in housing, healthcare, and education. On the other hand, social transfers in kind are regarded to have a significant positive impact on income distribution if, as in some countries, they are delivered selectively to those in dire need.

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162). Korea Institute for Health and Social Affairs.

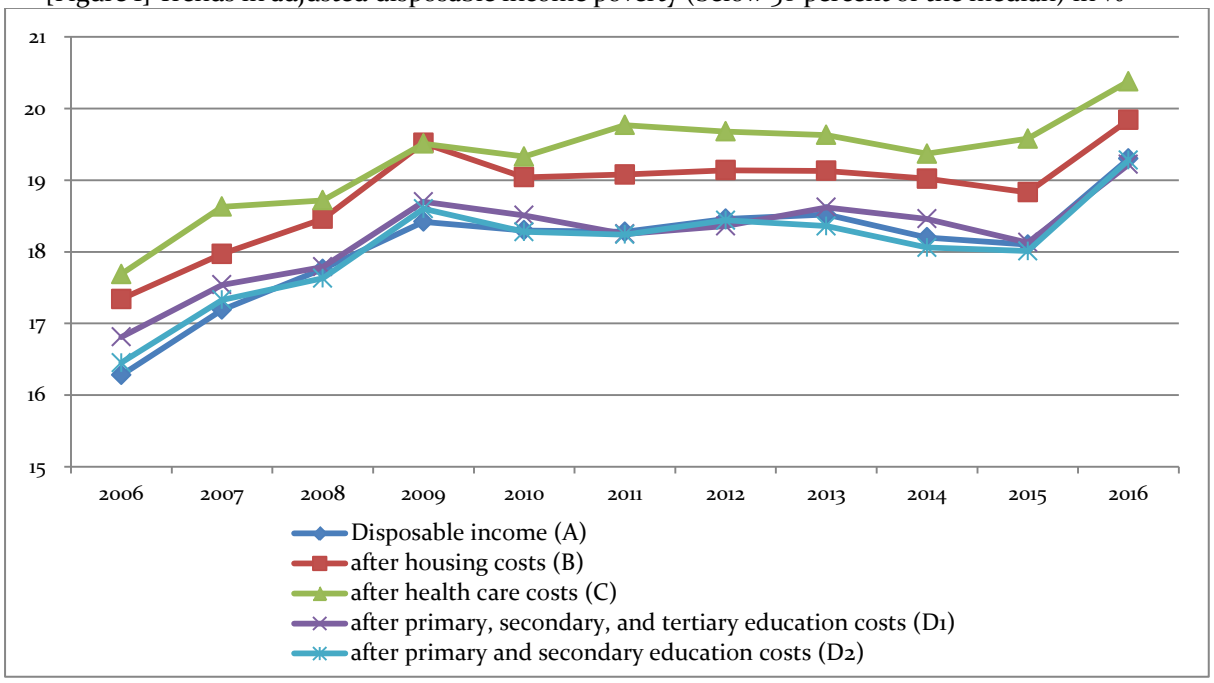
[3] OECD has observed in a 2011 report that social transfers in kind, such as education, basic health care, and other care services, although their primary goal is not redistribution, are redistributive in effect. The same report finds that OECD countries on average spend about 13 percent of GDP on these social services, which, in effect, reduce income inequality by one-fifth. OECD. (2001) An Overview of Growing Income Inequalities in OECD Countries: Main Findings. P. 38.

Adjusted disposable income after housing and other basic needs

In its annually published "Households below Average Income", the UK Department for Work and Pensions considers poverty indicators in terms of before and after housing costs.[4] In countries like Korea, where households incur substantial costs for basic needs, poverty and income distribution are subjects that need to be understood based on not only adjusted disposable income after housing costs but also adjusted disposable income net of healthcare and education costs.

The proportion of the population with income below a given poverty line is larger when measured in terms of adjusted disposable income less housing and healthcare costs than when measured in terms of adjusted disposable income. For example, there was a 0.54-percentage-point difference between before- and after-housing poverty rates for 2016. A gap of 1.08-percentage points was observed between before- and after-healthcare poverty rates. The difference in adjusted disposable income poverty rate was greater between before- and after-healthcare costs than between before- and after-housing costs and between before- and after-education costs. The effect of deducting education costs from adjusted disposable income was not to increase but, if anything, to decrease the poverty rate, an outcome presumably linked to the low child poverty rates in Korea.

[Figure 1] Trends in adjusted disposable income poverty (below 50 percent of the median) in %



Source: Household Income and Expenditure Survey (for each year), Statistics Korea

France showed a 0.33-percentage-point difference in adjusted disposable income poverty rate (for 2010) between before- and after- healthcare costs, in comparison of which Korea's 1.04-percentage-point difference (for 2016) suggests that for those in poverty, healthcare costs account for a greater share of disposable income in Korea than in France.[5] It should be noted

4 Chris Belfield, Jonathan Dribb, Andrew Hood, Robert Joyce. (2016). Living Standards, Poverty and Equality in the UK: 2016. Institute for Fiscal Studies. pp. 63-68.

5 LIS Cross-National Data Center in Luxembourg. Luxembourg Income Study Database. http://www.lisdatacenter.org; Household Income and Expenditure Survey (2016), Statistics Korea

that the difference in adjusted disposable income poverty rate between before and after housing costs was greater in France and other advanced welfare states than in Korea.[6]

Concluding remarks

Further analysis of poverty and income distribution should take consumption indicators into account, as income as a proxy for poverty is limited in capturing the actual standards of living. Also, some alternative ways should be sought of using adjusted disposable income and adjusted disposable income net of expenditures on basic needs.

6 Housing costs refer to actual rent paid; healthcare costs are the sum of household expenditures on outpatient and inpatient care.