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How the combination of income and the quality of local conditions affects well-being in old age

Contemporaneous income and the quality of local living conditions have both received recognition in the literature as important determinants of subjective well-being. However, little is known about their joint impact and the possible moderating influence each may have on the relationship with the well-being of the other. In a recent study (Myck et al. 2025) we investigate the role of income and quality of local area on different dimensions of well-being of older adults in Poland. Our findings show that a higher quality of local conditions amplifies the association between income and well-being, which implies that high-income older individuals tend to benefit more from improved local conditions. Our findings suggest that low incomes may constrain older people from taking advantage of local public services, and thus draw attention to policies aimed at improving access to these services, especially in low-income, peripheral areas. While the results also point towards broad benefits of targeted income transfers, it is notable that their effective translation into higher well-being strongly varies with the quality of municipal local conditions.



Introduction

As most developed countries face rapid population ageing, governments continue to seek effective policies to support older adults. Identifying effective policy solutions remains vital in supporting different population groups, including the growing group of older citizens. In this brief, we present a summary of results from a recent study (Myck et al. 2025), in which we examine the role of the combination of incomes and local conditions for the well-being of older individuals. The analysis is conducted on data from Poland, a country characterised by rapid population ageing and a recent prioritisation of monetary transfers in the policy mix, with much less attention given to the financing of local and centrally funded public services. The analysis aims at understanding the role of the quality of local conditions for the well-being of older individuals, and at identifying how the level of income modifies this role. In other words, we examine if higher income affects individual well-being differently in high- compared to low-quality regions.

Subjective well-being has for a long time been examined in relation to individual socio-economic characteristics, like education, health, material conditions and social relations (Layard 2006, Dolan *et al.* 2008). Many authors have also stressed the importance of the local environment and the quality of public services (Aslam and Corrado 2012), although the influence of local conditions on well-being has been documented mostly at high levels of aggregation (countries or large sub-national regions; Perovic and Golem 2010; Colombo et al. 2018). Principally, though, the combined implications of local conditions and the material situation at the individual level on well-

being remain largely underexplored. In our study we explore granular local conditions at the level of municipalities, allowing us to examine the relationship accounting for significant within-country differences in a shared institutional framework. Such disaggregation seems especially important in analysing the quality of life of the older population due to the likely relevance of local health and care services, high-quality transport options, local safety, green spaces and other public services.

Individual and local factors

To examine the direct and moderating roles of local conditions on well-being and their relation with income, we rely on a combination of individual- and local-level data (for methodological details, see Myck et al., 2025).

The individual-level data comes from the Polish part of the Survey of Health, Ageing and Retirement in Europe (SHARE). This dataset provides detailed information on health, labour market activity, material situation and social relations of individuals aged 50 years and above for almost all European countries. In addition to the usual socio-demographic information (age, gender, education, marital status, and income), SHARE collects several self-reported measures of physical and mental health, as well as a number of broad dimensions of quality of life. One such measure is CASP, which aims to capture the quality of life among older individuals in four important dimensions: Control, Autonomy, Self-realisation and Pleasure. With twelve questions (three for each dimension), each participant evaluates how often they feel in a certain way or experience certain situations. The final outcome is a summed score in



the range of 12 to 48, with higher values indicating a higher quality of life.

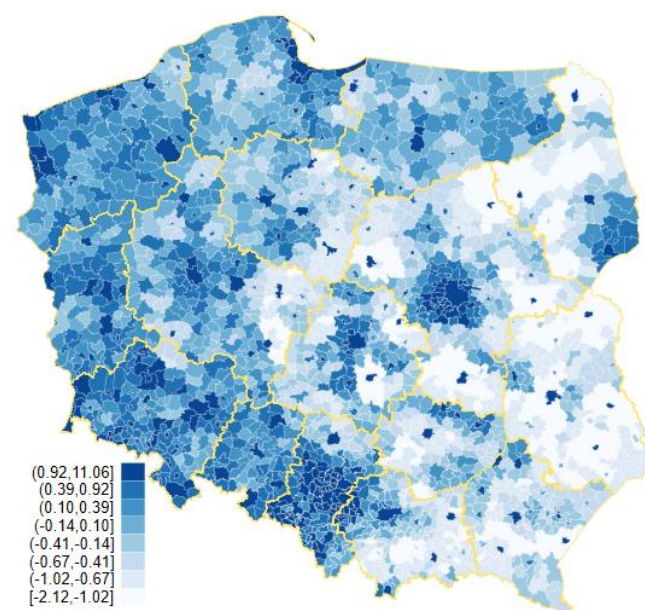
For the purpose of our analysis, the individual dataset has been augmented with regional-level information. To capture as much variation in the quality of local conditions as possible, we rely on 14 indicators collected either at the municipal or county level (respectively, the bottom and middle tiers of the administrative division of Poland). They represent the quality of localities in terms of economic factors, housing infrastructure, green spaces and health services. Given the high correlation between these regional variables, they have been combined into a single local quality index using principal component analysis (PCA). The index is calculated on the municipality level, with higher values representing better quality of local conditions. Figure 1 below shows the spatial distribution of the index across all Polish municipalities, highlighting significant regional differences in the local quality of life in Poland, particularly between the Western and Eastern parts of the country.

The role of income and local conditions for individual well-being

We examine the relationship between well-being, contemporaneous household income, and local conditions in a panel random effects regression, controlling for an extensive vector of covariates. Our results confirm a strong positive association between income and well-being, with a 100 per cent increase in disposable income corresponding to increases of up to 0.66 points on the CASP scale. While this may seem small, given the scale of the CASP measure, the effect is similar to that of being

employed relative to being retired (0.56 CASP points), married relative to being widowed (0.78), and very close to the average difference in CASP between men and women, conditional on other controls (0.57).

Figure 1. Distribution of the index capturing the quality of local conditions at the municipality level in Poland



Note: Municipality borders are in white, regional borders in yellow. Source: Myck et al. (2025).

We also find that the regional index is positively correlated with well-being. Importantly, though, since income and the quality of regional conditions are strongly correlated, we examine the importance of their interaction in the well-being regression. This facilitates the investigation of the differential reaction of well-being to income for different values of the index (and vice versa). In Figures 2a and 2b we present average marginal effects of each one of the variables as calculated at different percentile levels of the other.

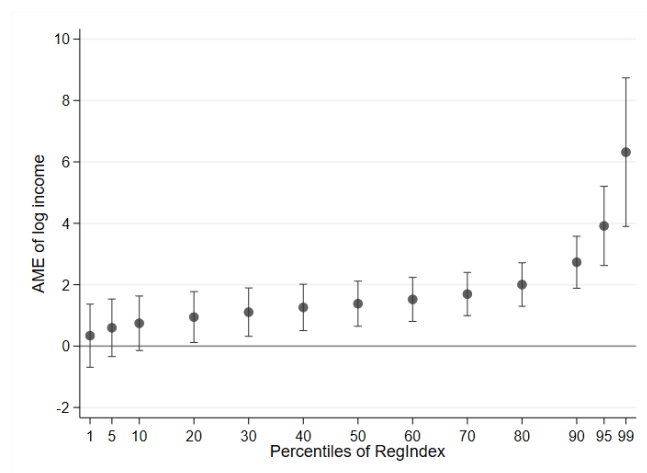
The results indicate noticeable variation in the strength of the association between income and well-being, depending on the quality of local



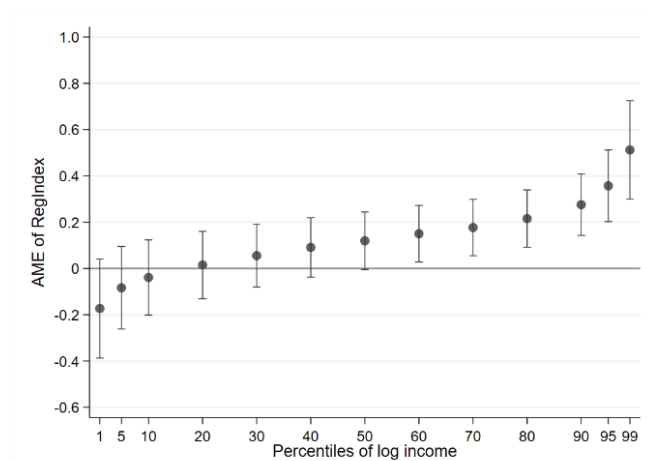
conditions (Fig. 2a). Income seems to matter little at the lower end of the distribution of the regional index and much more in localities of better quality.

Figure 2. Average marginal effects (AME) of income and the regional index on well-being

a) *AME of $\log(\text{Income})$ across distribution of the regional index*



b) *AME of the regional index across the distribution of $\log(\text{Income})$*



Note: Figures show point estimates of AMEs and the corresponding 90% confidence intervals. Well-being is measured with a CASP score of 12-48.

Source: Myck et al. (2025).

While the growing role of income as local conditions improve might seem surprising, it well aligns with the fact that consumption of some publicly provided goods and services is dependent

on or related to income: apart from the obvious examples such as culture, more important dimension of access to public services might relate to the areas where rich and poor people live, the quality of public transport and easy access to highly localized public services.

Strong positive effects of regional quality on well-being are also observed among respondents with the highest incomes (Fig. 2b). The association for low-income individuals cannot be statistically differentiated from zero.

Conclusion

The results of our study suggest that for high-income older individuals in Poland, better local conditions are reflected more strongly in their well-being compared to that of low-income residents. For the poorest older individuals, improvements in local conditions have little or no bearing on their well-being. At the same time, increases in income are associated more strongly with well-being in areas with the highest levels of quality of local conditions.

The policy implications of our results thus highlight the detrimental consequences of the combination of low income and poor quality local conditions for individual well-being and the challenges to improving the latter. Our results suggest that effective policies aimed at increasing the well-being of older adults require a careful combination of direct and indirect measures, or otherwise a combination of support focused on income transfers with provision of, and better access to, the relevant range of public goods and services.

Our results also point towards targeted rather than simple universal income transfers: greater income



increases are needed in low-quality areas compared to top-quality ones to secure the same change in well-being. Moreover, the fact that local quality translates differently into well-being for the rich and the poor suggests that there are significant disparities in access to local services by income level. This, in turn, calls for developments in access and mobility opportunities and investments in local public services to ensure better access to these services among low-income residents. Local policies in high-quality areas should become more sensitive to the needs of poorer older inhabitants, while improvement of local conditions in low-quality regions needs to accompany direct transfer policies for these to effectively translate into a higher quality of life of older individuals.

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