

Paper proposal in reply to the Call for Papers “International Productivity Monitor Symposium on Productivity and Well-being – Measurement and Linkages”

Proposed title: A measure of well-being productivity based on the World Happiness Report

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Background:

Traditional economic thinking elevated GDP per capita to the single-most important indicator of quality of life. However, evidence has accumulated over recent decades that demonstrates economic growth does not necessarily improve people’s lives and, when prioritized and mismanaged, it may even contribute negatively (Sarracino and O’Connor, 2021a, 2021b). This evidence invites us to expand our focus, from the singular dimension of economic output towards a more holistic concept of quality of life. Indeed, it has now been more than 12 years since international institutions, backed by authoritative thinkers, have called upon us to go “beyond GDP” to conceptualize and measure well-being (e.g., Fleurbaey, 2009; Stiglitz et al., 2009). Which measures could support such a shift? Which output should be maximized? And how should scarce resources be allocated to that end? **We propose to use subjective well-being, a single measure summarizing the many economic and non-economic aspects of what makes a life worth living, and to assess countries’ productivity of subjective well-being using as inputs the determinants identified in the series of World Happiness Reports (WHRs), and non-parametric techniques.** We believe that identifying underperforming countries and leading examples can provide useful information to policy makers.

Our contribution:

Numerous studies make the case for subjective well-being as a measure of economic and social development (e.g., Helliwell et al., 2013 and OECD, 2013). The WHRs demonstrate that six factors (real GDP per capita, healthy life expectancy, having someone to count on, perceived freedom to make life choices, freedom from corruption, and generosity) explain about three-quarters of the variation in subjective well-being around the world (Helliwell et al. 2013). The composition of factors illustrates the encompassing nature of subjective well-being as a measure of output.

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The WHR reports also document the residual components of subjective well-being by country, but generally do not attempt to explain them. We know certain groups of countries have higher or lower than expected subjective well-being, given their observable characteristics (consider, for instance, Latin America and post-communist states). However, little is known about why. Perhaps Latin American countries are more efficient in transforming their inputs into well-being? We are not aware of any studies that document and explain well-being productivity around the world.

We compare approximately 150 countries based on their ability to turn inputs into subjective well-being, and to explain the differences in productivity observed. The large number of countries, in particular less-developed ones, is particularly relevant because they have fewer economic resources to invest, suggesting they may have more to gain from productivity analysis. We will then decompose well-being productivity to identify areas of intervention in which countries can invest to increase subjective well-being.

Data and method:

Aggregate subjective well-being data are available for approximately 150 countries in the WHRs. The particular measure of subjective well-being is the Cantril Ladder obtained from the Gallup World Poll, which is similar to life satisfaction. We intend to use the most recent report, which provides subjective well-being scores by country averaged over the years 2018-2019 (Helliwell et al., 2021). Data on the six factors are also contained in the WHRs.

To compute well-being productivity, we use Data Envelopment Analysis (DEA), a non-parametric frontier technique widely used to compute productive efficiency and total factor productivity in management and economic studies (see, for instance, Lafuente et al., 2016). DEA allows researchers to model production activities without needing to specify the functional form of the production process. This is possible under the assumption that production units have similar technologies, that are described by production possibility sets (collection of inputs–output). Productivity is then measured as the “distance” in output from a best-practice frontier (or efficient frontier). Performing DEA analysis requires the assumption that countries have similar “production technologies” to transform resources into subjective well-being, which is not realistic. To overcome this difficulty, we will conduct our analysis by sub-groups of culturally homogeneous countries based on Welzel (2013). This within-group approach also accounts for cultural differences that might

otherwise confound productivity differences across culturally distinct groups. After computing well-being productivity scores, we intend to explain the differences across countries using additional non-parametric techniques, such as cluster analysis or classification trees.

Expected results:

We aim to provide a measure of well-being productivity that goes beyond income. Such a measure has significant advantages over traditional productivity measures: our productivity scores indicate how well countries transform inputs into subjective well-being, a valid and reliable measure of how people fare with their lives as a whole. The idea that subjective well-being can be produced more or less efficiently, and that this efficiency can be measured is novel. Current subjective well-being policy advice generally discusses the amount of inputs, not how well they are used. Perhaps the Nordic countries, who generally rank among the countries in the world with the highest subjective well-being, do so because they have the greatest amount of inputs, but are the set of inputs used effectively? Our research addresses this kind of question.

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