

A Start to Highlighting Inequality and Creating Equal Growth

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Over the years, there has been continuous discussion of whether GDP encompasses enough to accurately determine a given country's developmental growth and daily living standard (Taqi et al., 2021, 261). Although there have been many decades of debate, there is no obvious answer to the perfect measure for developmental growth and sustainability. However, in 1990 the United Nations Development Program developed the Human Development Index to capture a more accurate/helpful picture of well-being/development (Taqi et al., 2021, 261). The inspiration behind this measure was that there was evidence that despite, at times, income per capita increasing, it didn't mean that the people in that area were, as a result living better off (Taqi et al., 2021, 261). The Human Development Index was created to encompass a country's development through its people and capabilities instead of income (*Human Development Index (HDI) | Human Development Reports*, n.d.). This index attempts to create a summary measure of average achievement in key dimensions of human development (*Human Development Index (HDI) | Human Development Reports*, n.d.). It also allows for increased examination of policies in place already. If two countries have similar overall income but very different quality of life or Human Development Index scores, it raises the question: what policies are causing the difference? (*Human Development Index*, n.d.) The Human Development Index, overall is an improvement in assessing a country's global standing, and is quite vital in ongoing development, but it also is not the all encompassing index that will measure every single complex feature that may affect a country's overall advancement.

The Human Development Index score comes from three key areas of measurement. These three areas of focus are long & healthy life, access to education, and a decent standard of living (Roser, 2014). The way that "long and healthy life" is measured is through the life expectancy index (Roser, 2014). For education, the score is the arithmetic mean of expected years of school and average years of schooling (Roser, 2014). And finally, the last measure, "decent standard of living," is taken from gross national income (GNI) per capita (Roser, 2014). So putting this all together, the Human Development Index is the

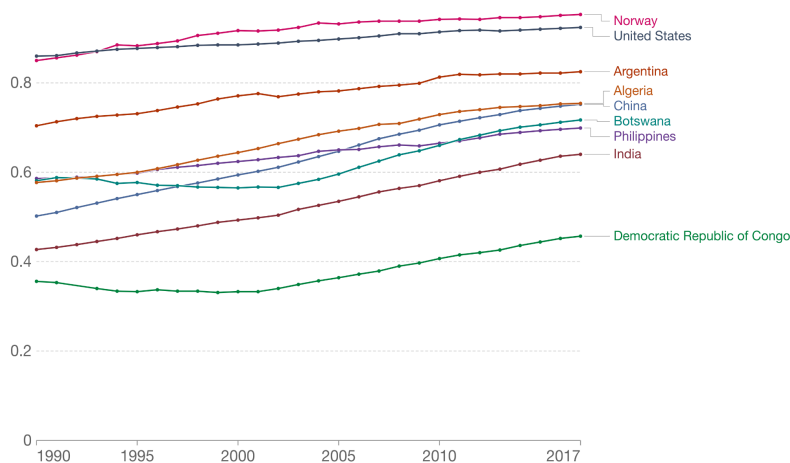
geometric mean of life expectancy, education, and GNI per capita (Roser, 2014). So, “HDI [Human Development Index] = $(I_{\text{Health}} * I_{\text{Education}} * I_{\text{Income}})^{1/3}$ ” (Roser, 2014). This index particularly tries to give a fuller picture of development as life expectancy or education level potentially gives a much better idea of daily quality of life and ongoing advancement than simply looking at the level of income. Especially as a high GDP per capita doesn't necessarily apply to the whole population where GDP doesn't allow for analysis of how well advancement in the standard of living or social class is reaching the entire population of a country.

A start to understanding the importance of the Human Development Index and how it can start to raise questions about policies that work versus don't is through the exploration of comparing a few country's gross national income and human development indices. The following graphics portray the Human Development Index and gross national income scores from 1990 to 2017.

Figure 1: Human Development Index, 1990 to 2017 **Figure 2: Gross National Income per Capita**

Human Development Index, 1990 to 2017

The Human Development Index (HDI) is a summary measure of key dimensions of human development: a long and healthy life, a good education, and having a decent standard of living.



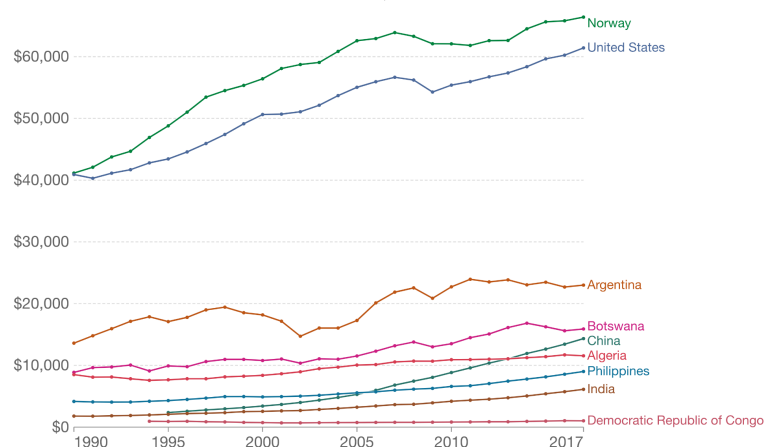
Source: Roser, 2014

When looking at these development measurements, questions, particularly around policies, quickly arise. This is due to inconsistencies that show up by comparing the same set of countries for each index. For example, it is interesting that while the Human Development Index score of the Democratic Republic of

1990 to 2017

Gross national income per capita, 1990 to 2017

Gross National Income (GNI) per capita is adjusted for price changes over time (inflation) and price differences between countries – it is measured in constant international-\$.



Source: Roser, 2014

Congo has risen since 1990, their gross national income per capita has stayed relatively steady. Or for example, when looking at Algeria and China, it is seen that by 2017 the two areas had reached a similar human development score. However, their gross national income levels have looked quite different between 1990 and 2017, where China was significantly behind Algeria till the mid-2010s before taking over in gross national income. Yet, the two countries have had a reasonably similar trend in Human Development Index score increases. These patterns can quickly allow the question to arise about what policies or efforts in advancements are working and which are not working. Particularly when looking at, for example, the United States. Despite a steady upward trend in gross national income per capita, it has had a fairly limited yearly increase in Human Development Index scores. This highlights the importance of the Human Development Index as if one chooses to only focus on GDP; it seems like the United States is progressing. However, the Human Development Index allows one to see that there are policies/systems in place that are not achieving what they should, as, despite an increase in income, quality of life is not improving. This only strengthens the ongoing discussion that GDP does not fully represent development and sustainability.

In particular, it is helpful to take the time to calculate HDI rank to compare to rankings calculated exclusively from income because it highlights three possible situations (Dasic et al., 2020, 3). The first possible outcome is that the HDI rank is close to the GDP per capita ranking. This tells economists that the country is in harmony between using existing resources and making developmental improvements (Dasic et al., 2020, 3). The second is that HDI rank is higher than GDP per capita ranking, meaning that resource usage for developmental policies is being used in the best possible way and benefitting the entire population (Dasic et al., 2020, 3). Or lastly, if the HDI is lower than the GDP per capita rank, it means the allocation of resources is not used in the best possible way, and instead of favoring the entire population, it primarily benefits the ruling classes (Dasic et al., 2020, 3). All three of these outcomes' meanings are essential to know. This is because it allows other countries to model some of their policies based on other countries' policies that effectively use resources for entire population development. And it also highlights

which countries have enormous inequality and are hindering themselves in overall growth (Dasic et al., 2020, 3).

Research has determined that human development is a critical factor in economic growth/development. A study examining the effect of the Human Development Index on economic growth in Pakistan from the period 1980 to 2018, through performing regression analysis on the variables Gross Domestic Growth per Capita (GDPPC), capital formation (GCF), final Government consumption, exports of goods and services, and Human Development Index found that "if HDI increases, then the economic growth also increases... it indicates that if 1% increase in HDI then 30% increases in the financial enlargement of these states" (Taqi et al., 2021, 269). The fact that there is such an increase in growth simply from Pakistan's HDI score increasing 1% is quite drastic and emphasizes the importance of paying attention to advancing human development across the entire population. Especially if large portions of lower-income individuals still do not receive education or the gap in life expectancy widens between lower and upper-class individuals, this will be reflected in the HDI score meaning a hindering in economic growth. This rang particularly true when examining the experiences of developed countries and the history of the Western Balkans. It was found that the key factors in the Human Development Index needed to reach faster economic growth and stability are "improvement of the conditions of education and literacy of the adult population (Kulic, Milacic, & Duric, 2015). [As] knowledge is a mechanism for raising people from poverty, increasing living standards and promoting economic growth (UN, 2017)" (Dasic et al., 2020, 10).

While the best-known approach to creating an index that begins to communicate the inconsistencies between ranking countries based on per-capita GDP and actual quality of life is the Human Development Index, there are certain flaws in the weighting of specific measurements used in the calculation of Human Development Index scoring. For example, "adding the *logarithm* of per-capita GDP to the *level* of life expectancy (as done by the Human Development Index) implicitly values an additional year of life expectancy in the United States as worth 20 times an additional year of life in India" (Stiglitz et al., 2010). This is an enormous difference in weighted values and causes not an entirely accurate

analysis. Similarly, this index does not fully consider the massive variety of individual standards of living in a population. For example, you can take a group of people, say even a population of college students in the same university, and have an enormous variety of quality of life, and because it's averaged out, the outliers creating this massive difference won't be reflected. (Stiglitz et al., 2010).

A proposal to reduce this issue is to include the "measur[ing] of people's psychological health, feelings and evaluations" (Stiglitz et al., 2010). Adding this type of measure could potentially give a more accurate impression of the quality of life in a country because life expectancy or physical health, education, and income are not the only determinants of well-being and daily quality of life. These factors play a vital role in how we move through society and different stages of our life, but it doesn't encompass the need for humanity's need for mental well-being.

Overall, this exploration of the benefits/issues of the Human Development Index is a small percentage of this complicated issue, and it's a significant reason for the decades of debate. This Human Development Index is a better measurement of development than plainly assessing GDP per capita, but it is also not all-encompassing. There's the issue of a lack of mental well-being and a need to portray better the wide ranges of not only quality of life but even just income level and education opportunities when assessing a country's scoring. And there's also the ongoing general issue that the Human Development Index alone will not give the entire picture necessary to fully accessing a country's overall standing. This is because there are other issues besides income distribution and quality of life, such as a need to measure our impact on the environment and actions towards sustainability, as these factors also have an ongoing impact on a country's ability to thrive and develop long term. This however is not intending to discredit the improvement the Human Development Index has brought in starting to recognize the massive inequality everywhere, however, just like everything else in life, there's always room for improvement.

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