RESEARCH ISSUE Brief

What Does Global Data Say about a Country's HDI, Its Fertility Rate and National Minimum Wage? Insight for Nigeria

Terfa Abraham, **PhD**

Key Message

1. Nigeria has one of the lowest national minimum wages hence the debate to revisit the national minimum wage is a welcome development. Whereas marginal productivity play a significant role in determining wage negotiation, data availability issues for Nigeria necessitates alternative method of analysis around the minimum wage question for Nigeria. Using global data on Human Development Index (HDI), fertility rate and national minimum wages, this data brief attempts to make some extrapolations. It was found that:

    i. Countries with Higher HDI have lesser Fertility Rate, while those with relatively lower HDI have much higher fertility rate;

    ii. National Minimum wage is higher in most countries with lower fertility rate and high HDI, while it is lower in countries with higher fertility rate and low HDI;

    iii. Using the plot of countries minimum wage against their fertility rate and HDI; countries in the same cluster with Nigeria are Kenya, Ghana, Madagascar, Senegal, Mozambique and Angola. Taking an average of the national minimum wage of these countries suggests that Nigeria could adopt N20,310, as its national minimum wage against the N18,000 currently in place;

    iv. Despite the limitation of the method used in this brief in determining the wage, it suggests that a minimum wage way beyond US$55 for Nigeria, without a corresponding national policy on population and labour marginal productivity, would only translate increase in national minimum wage to increase in the number of children.

2. The general impression from a cross section of countries is that, there is a negative relationship between Human Development Index (HDI) and fertility rate (see Figure 1). Countries with higher

HDI have less fertility rate and higher minimum wages. Whereas countries with lower HDI have higher fertility rate with lower minimum wage. Increasing the minimum wage in countries with lower HDI and high fertility rate without due consideration on marginal productivity of labour, would only translate to increase in birth rate. Whereas in countries with lower fertility rate, increasing the national minimum wage would lead to increase in HDI.

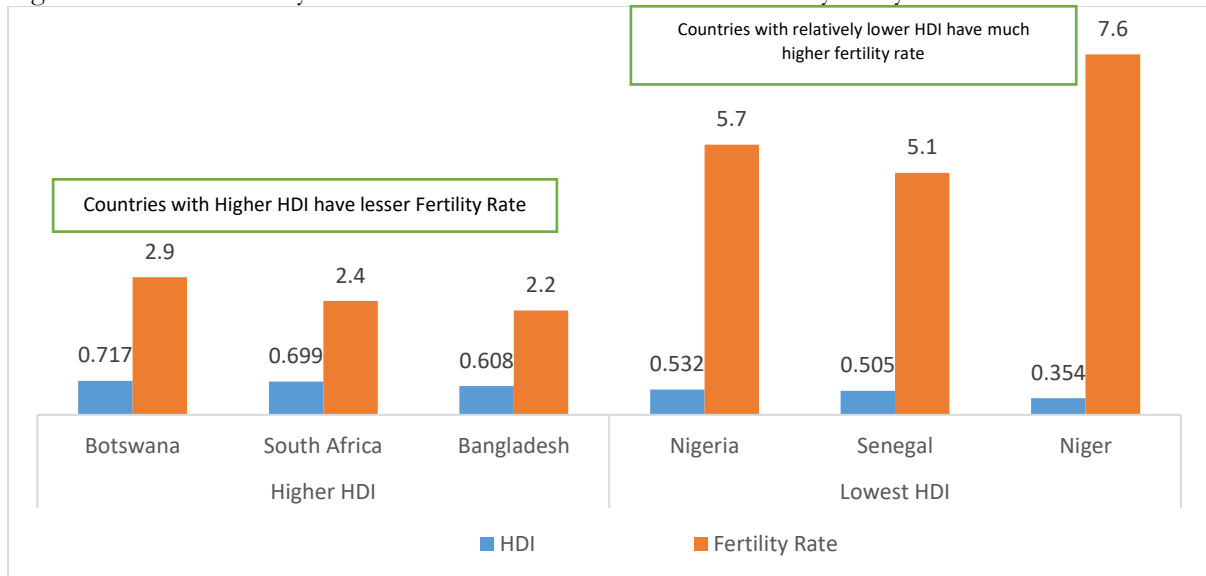Figure 1: Scattered Plots of HDI and Fertlity Rate for Selected Developing and Emerging Countries
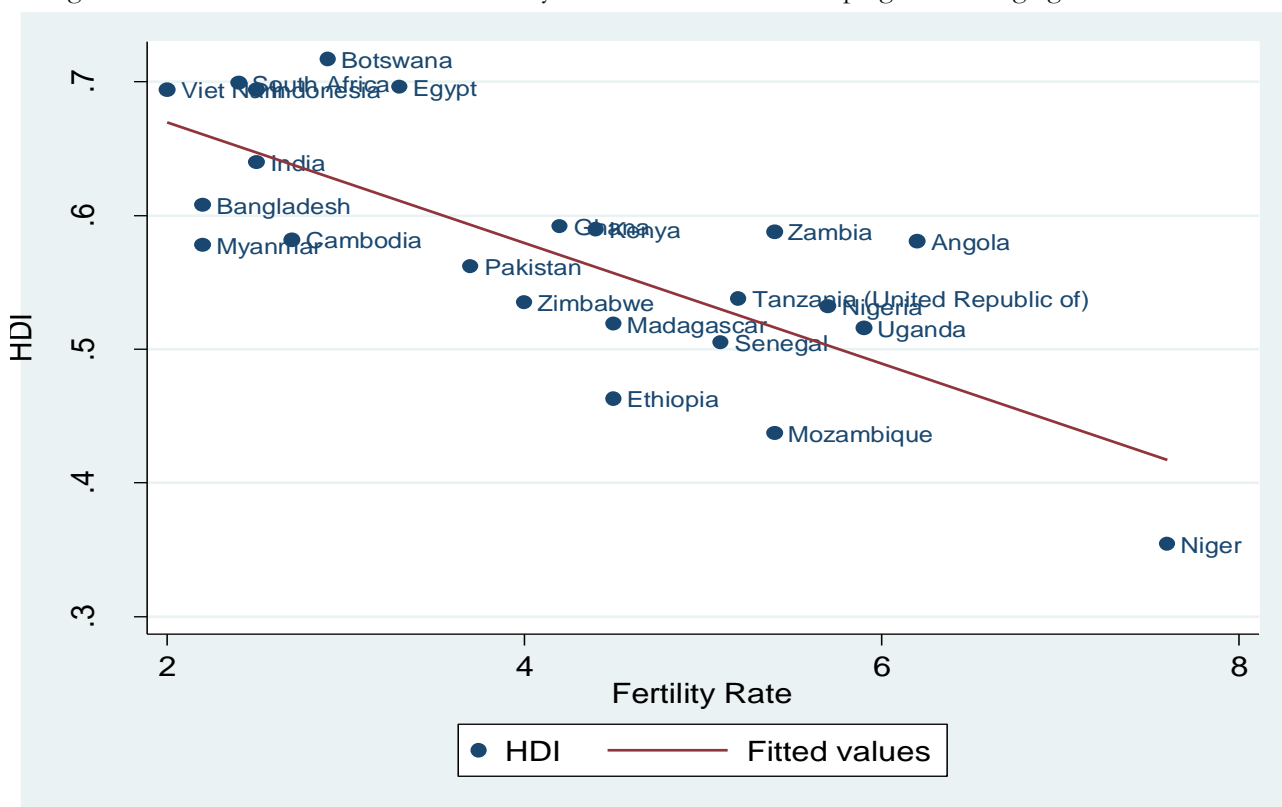
Source: UNDP, 2017

3. Data for HDI and fertility rate shows that countries with high HDI have lower fertility rates (see Figure 2). These countries include: Botswana, South Africa and Bangladesh. Botswana has a HDI rate of 0.717 and a fertility rate of 2.9. Similarly, South Africa has a HDI of 0.699 and a fertility rate of 2.4 while Bangladesh with a HDI of 0.608, has a fertility rate of 2.2. On the other hand, Nigeria, Senegal and Niger have HDI of 0.532, 0.505 and 0.354 respectively. Though these countries have HDI that is less than Botswana, South Africa and Bangladesh, their fertility rate is way higher. The fertility rate for Nigeria, Senegal and Botswana is 5.7, 5.1 and 7.6 respectively.

National Institute for Legislative and Democratic Studies
National Assembly

Figure 2: HDI and Fertlity Rate for Selected Countrieswith Commentary Analysis

An interesting dimension to this discourse is when the minimum wage of these countries are rationalized against their fertility rate and HDI, the general trend is that there is an inverse relationship between statutory national minimum wages and fertility rate (see Figure 3). South Africa, Bangladesh and Botswana are three countries Nigeria can learn from. Whereas South Africa has a

4. An interesting dimension to this discourse is when the minimum wage of these countries are rationalized against their fertility rate and HDI, the general trend is that there is an inverse relationship between statutory national minimum wages and fertility rate (see Figure 3). South Africa, Bangladesh and Botswana are three countries Nigeria can learn from. Whereas South Africa has a HDI of 0.699 and fertility rate of 2.4, its minimum wage is US$181. On the contrary, Bangladesh with a HDI of 0.608 maintains a low national minimum wage of US$18. Botswana therefore provides a median example for Nigeria to learn from. With a HDI of 0.717 and a fertility rate of 2.9, the minimum wage in Botswana is US$66.

Figure 3: Scattered Plots of Fertlity Rate and National Minimum Wage for Selected Countries
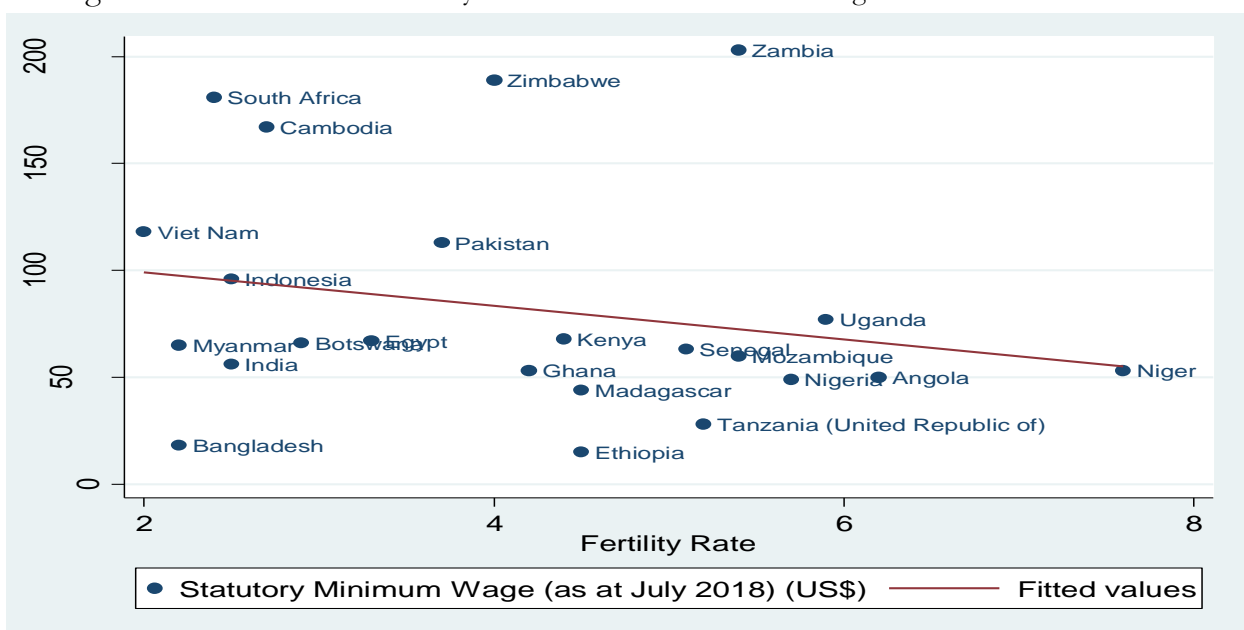
Source: UNDP, 2017

Figure 4: Fertlity Rate and National Minimum Wage for Selected Countries, with Commentary
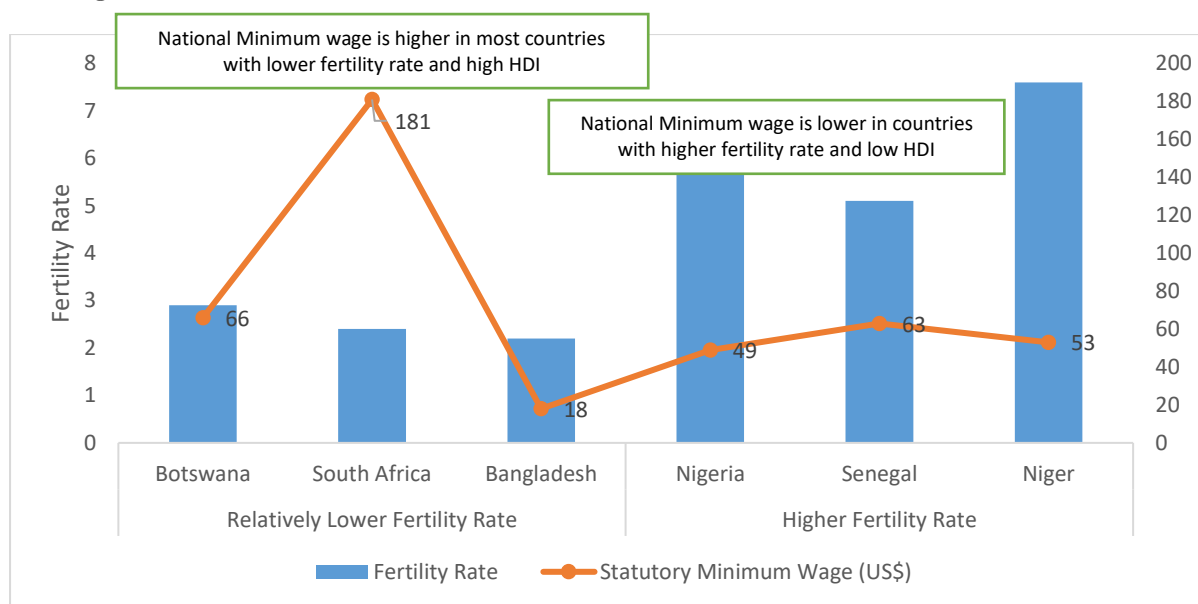
5. The observation from Figure 4 is that National Minimum wage is higher in most countries with lower fertility rate and high HDI, while it is lower in countries with higher fertility rate but low HDI.

6. Using the plot of countries minimum wage against their fertility rate, countries in the same cluster with Nigeria were identified. These countries are Kenya, Ghana, Madagascar, Senegal, Mozambique and Angola. Taking an average of the national minimum wage of these countries suggests that Nigeria could adopt US$55, which translates to N20,310, as its national minimum wage (see Table 1). Despite the limitation of this method of determining the minimum wage, which uses graphical method to find cluster country's that Nigeria comes closest to, it suggests that a minimum wage way beyond US$55 for Nigeria, without a corresponding national policy on population and labour marginal productivity, would only translate increase in national minimum wage to increase in the number of children.

Table 1: HDI, Fertility Rate and National Minimum Wage for Selected Countries as at 2018

Country	HDI	Fertility Rate	Statutory Minimum Wage
Ghana	0.592	4.2	53
Kenya	0.590	4.4	68
Angola	0.581	6.2	50
Nigeria	0.532	5.7	49
Madagascar	0.519	4.5	44
Senegal	0.505	5.1	63
Mozambique	0.437	5.4	60
Average	0.537	5	55

Source: UNDP

The views expressed in this Research Issue Brief are those of the author(s) and do not necessarily represent the views of the Institute and its Management.

Contact
National Institute for Legislative and Democratic Studies (National Assembly)
14/18 Danube Street, Off IBB Way, Maitama
Abuja, Nigeria.
Email: info@nils.gov.ng
Website: http://nils.gov.ng/
Tweeter: @nilsnigeria

NILDS
National Institute For Legislative and Democratic Studies