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### Is happiness in the hands of women?

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#### Abstract

In the context of recent emergence of a huge research and policy interest in the determinants of happiness, this paper analyses the role of women's political empowerment on the citizen's subjective well-being from a global perspective. After discussing some transmission channels through which this relationship can be ascertained in the light of attendant literature, we estimate a cross-sectional model consisting of 144 countries. Overall the findings reveal that women's political empowerment promotes subjective well-being. The established nexus withstands various robustness tests.

# 1 Introduction

In recent decades, women empowerment has become a central element of development policy. From 2005, it became fundamental in the United Nations' Millennium Development Goals (MDGs)<sup>1</sup> and from a contemporary standpoint, is an integral part of each of the 17 objectives pertaining to Sustainable Development Goals (SDGs) that the world leaders adopted in 2015 for 2030, and which constitute a roadmap for progress towards long term development that leaves no one behind (UN, 2018). However, efforts are still needed to achieve these objectives, particularly at the political level. Indeed, women are largely underrepresented in the parliaments of most countries of the world and at the administrative and political levels of government. According to the 2019 United Nations Women Report (UN-Women, 2019), there is in average only 5.2 % of women heads of government (i.e. 10/193 states considered), 19.7 % women speakers of parliament (i.e. 55/279) and 28.2 % of women deputy speakers of parliament (i.e. 180/638). Furthermore, out of 1412 portfolios in 188 countries, there are on average 109 portfolios in social affairs held by Women Ministers against only 5 portfolios in parliamentary affairs. This low trend in women's participation in parliament is particularly pronounced in the Pacific, Middle East and North Africa, and Asia sub-regions.

Yet increasing women's participation in leadership and decision making has proven to be good for economic and social development around the world. Studies found that women political empowerment (WPE) reduces infant mortality (Caldwell and Caldwell, 1993; Kumar and Prakash, 2017), domestic violence (Schuler et al., 2018), early marriage of young girls (Delprato et al., 2015; Solanke, 2015), poverty (Mayoux, 2001; Chant, 2016) and improves children's education (Hatlebakk and Gurung, 2016), economic growth (Duflo, 2012) and life satisfaction (Bjørnskov et al., 2007; York and Bell, 2014).

This paper, which follows this literature on the social implications of empowering women, attempts to investigate the impact of WPE on subjective well-being. Our main hypothesis is that, having a significant number of women in positions of power will result in policy output that could more attuned to the interests of human social well-being concern.

The interest of this study can be seen at least on three levels. First, this study discuss on the basis of theoretical and empirical lessons, the channels through which this plausible relationship could pass. In this respect, we argue that the empowerment of women globally improve the living conditions of households by increasing their income and reducing poverty; the well-being of children through their health and education; and the well-being of girls by limiting early marriage as well as violence against women. Second it contributes

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<sup>1</sup>Achieving gender equality is a "prerequisite" to achieving the MDGs, including eliminating poverty, reducing infant mortality, achieving universal education, and eliminating the gender gap in education (UN, 2005).

to the existing literature on the challenges of promoting the empowerment of women in our societies by providing empirical evidence at the macro level of the impact this could have on the population's well-being. To this end, results have shown that women's representation in parliament has a significant effect on subjective well-being. Third, on a purely social level, addressing issues of women's empowerment and gender inequalities is important for the simple reason that, as international organizations recognize, everyone has the right to the same opportunities and opportunities.

After this introduction, the article is organized as follows: section 2 discusses the transmission channels, section 3 presents the methodology and the data, section 4 analyses the empirical results and section 5 concludes.

## 2 How women's political empowerment affects well-being ?

Without claiming to be exhaustive, we discuss three main transmission channels whose foundations are found in the economic literature. These are children well-being (education and health), the women/girls well-being (domestic violence and early marriage) and overall household well-being (poverty and income per capita).

### 2.1 The channel of children well-being

Even if the trend seems to improve over time, the target of international organizations for the well-being of children is far from being reached. Regarding child health conditions, an average of 15,000 children under the age of 5 die every day (UNICEF, 2019). As for children's education, around 263 billion children, adolescents and young people worldwide are out of school (UNESCO, 2018). These deplorable statistics are prompting more scientists to take an interest in the factors that should be of interest to policy makers to reverse this trend. Among other factors, the WPE seems to be unanimous among researchers. Indeed, a large body of studies suggest an association between women's empowerment and better health, nutrition, and educational outcomes of children. It is recognised that maternal and child health care outcomes can improve significantly when the wife is the main decision-maker (Kumar and Prakash, 2017; Homan, 2017). Furthermore, improving women parity with men in state legislatures would significantly reduce age of child out of school (Beaman et al., 2012; Hatlebakk and Gurung, 2016). These arguments are to some extent corroborated by figure 1.

In this figure, we observe a negative correlation between WPE and child mortality, and a positive correlation between WPE and child education. This analysis, although purely descriptive, strongly suggests that when women are politically empowered to exert

their voice and influence, they may tend to take some measures or regulations concerning nutrition, hygiene and treatment of illnesses, which in turn may contribute to improving children well-being. Otherwise, low child mortality allows women to have time flexibility and thus be more productive, which improves the overall well-being of society. In addition, well-educated children lighten the burden on parents, because early on they cease to be a burden on their families, but rather on providers.

Figure 1: Correlation between WPE and child mortality and child education

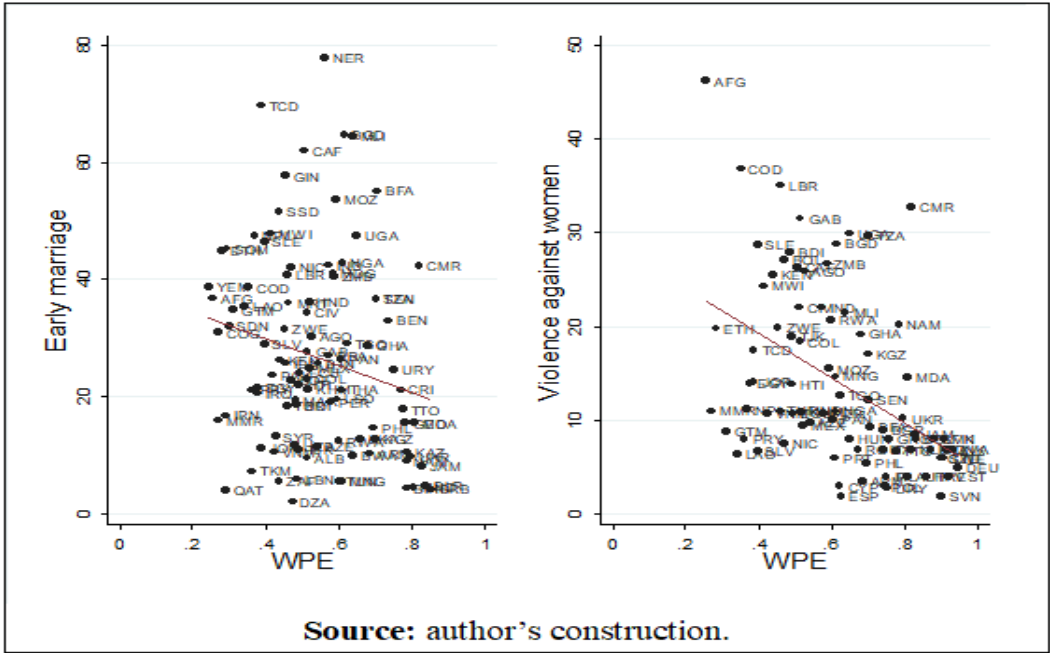


### 2.2 The channel of girls/women well-being

In addition to the positive effect on the education and health of children, the WPE also reduces certain practices against the well-being of women such as early marriage and domestic violence. Although the legal age of marriage is defined as 18 years in most countries, the practice of child marriage remains widespread. 20 % girls worldwide is married or in union before the age of 18. In developing countries, the statistics are even larger: 40 % of girls are married before the age of 18 and 12 % before the age of 15 (UNFPA, 2019). Much more, according to UN-Women (2019), up to 70 % of women have experienced physical and/or sexual violence from an intimate partner during their lifetime. These practices are some obstacles to the achievement of the objectives of development and it has a negative health consequences for victims, especially with respect to the reproductive health of women and the physical, emotional, and mental health of their children (Solanke, 2015; Schuler et al., 2018). Since the measures to combat these practices often require specific legislation, resolute commitments on the part of policy makers it is undeniable that women have an important role to play. Increasing women's political participation and leadership are vital mechanisms that support women to realize

their human rights. We can also observe in figure 2 a negative correlation between WPE and early marriage of the girl, as well as WPE and violence against women.

Figure 2: Correlation between WPE and early marriage and violence against women

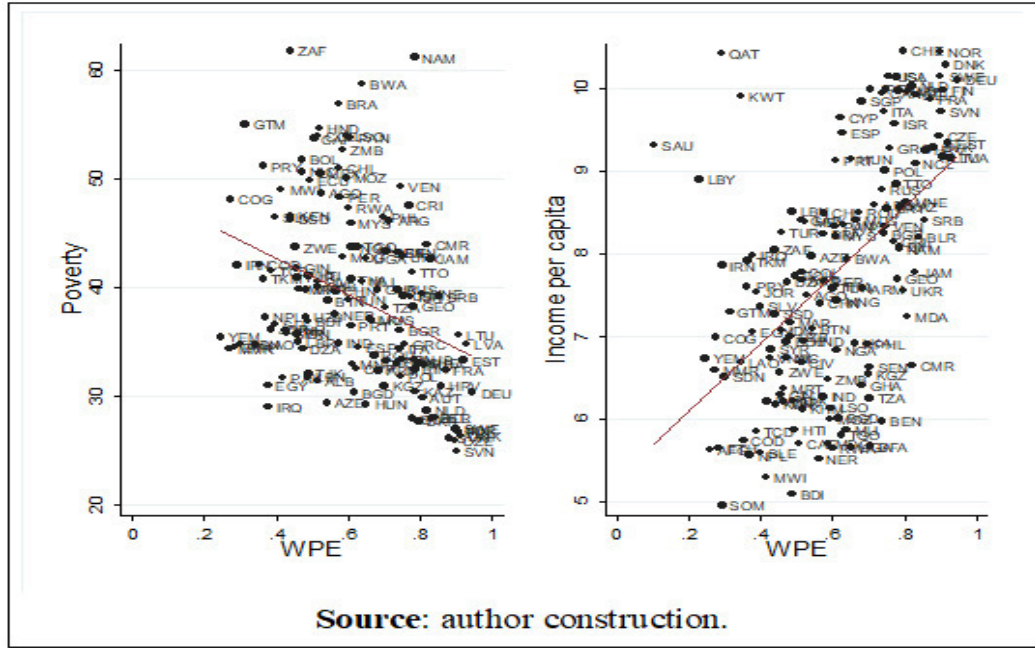


This can be explained by the fact that early marriage limits the possibilities for a woman's self-fulfillment, who works for a man or a family. In correlation with the children who arise, this practice can only diminish the political empowerment of women, who cannot have the time necessary to continue their studies and get involved in the political life of their country. Furthermore, reducing violence against women is another channel to encourage the women empowerment around the world. An abused woman experiences poor health and has a limited ability to make decisions. She is politically excluded, which reduces her well-being and that of society as a whole.

**2.3 The channel of household well-being**

The benefits of WPE go beyond improving the living conditions of children and girls. They also have a positive impact on household economic conditions. In the literature of growth theory (e.g. Galor and Weil (1993)) and economic history (e.g. Geddes and Lueck (2002)), improvements in the status of women are presented as effects of the onset of sustained growth in per capita income. Evidence shown that when women have more control over the household budget, there is a larger impact on family's income and resources (Duflo, 2012; Doepke et al., 2012; Langer et al., 2015). As Duflo (2012) shown, there is a positive correlation between women's rights and the per capita GDP in terms of a cost benefit calculus. Economic pressure and household expenses are forcing them to break away their traditional roles of housewives into wage earners.

Figure 3: Correlation between WPE and poverty and income per capita



This stylized fact is statistically observed in figure 3 which highlights a negative correlation between WPE and poverty and a positive correlation with per capita income. From this point of view, the integration of women into the production circuit generates additional income which facilitates access for families to basic needs. As a result, the political empowerment of women presents itself as a factor in reducing poverty, but also as a factor in creating wealth.

### 3 Women's political empowerment and subjective well-being: empirical evidence

The empirical strategy used in this paper is a cross-sectional model based on global sample of 144 countries<sup>2</sup>. It follows previous work of [Lv and Yang \(2018\)](#) in the case of panel data on the impact of women political empowerment on female labor participation rates. The following equation is specified:

$$SWB_i = \gamma WPE_i + X_i\beta + d_i + \varepsilon_i \quad (1)$$

Where  $\varepsilon_i$  is the residual term,  $d_i$  is the regional dummies, and  $i$  specifies the country.

The dependent variable  $SWB_i$  is the average level of subjective wellbeing of the population of country  $i$ . This measure is approximated by the life ladder index, one

<sup>2</sup>The complete list of countries as well as the sources of all the variables used are presented in the appendix.

of the most used measures in the literature of happiness (Ram, 2017; Njangang, 2019; Mignamissi and Malah, 2020). This index come from the *World Database of Happiness* (2017)<sup>3</sup> which ranks 156 countries, measured as the level of happiness perception of their citizens. It is obtained by inviting respondents to think of their lives as a ladder, with the worst possible life for them as 0, and the best possible life as 10.

The independent variable of interest  $WPE_i$  is the women political empowerment index, defined as a process of increasing capacity for women, leading to greater choice, agency, and participation in societal decision-making. This index is among the most comprehensive measures of women’s empowerment available<sup>4</sup>. The data come from the Varieties of Democracy (V-Dem) dataset Version 10 which spanning from 1789 for 202 countries.

The vector  $X$  gathers the control variables represented by the potential determinants of subjective well-being as suggested by the literature<sup>5</sup>. This includes GDP per capital as proxy of the economic development, inflation rate, unemployment rate, population growth, life expectancy at birth as proxy of health and the human capital index as a proxy of education. According to Easterlin (2001); Frey et al. (2018), people with higher income unambiguously consider themselves to be more satisfied with their lives than persons with low income. Di Tella et al. (2001); Frey and Stutzer (2002) show that people appear to be happier when inflation and unemployment are low. Chen (2012) show that education leads to a better quality of life, which results from relatively higher income and stable job status. Helliwell et al. (2018) found that countries with higher healthy life expectancy at birth have also been documented to be associated with higher level of happiness.

Based on a cross-sectional perspective<sup>6</sup>, the results are obtained with the ordinary least square (OLS) estimator with heteroscedasticity-consistent standard errors and with a full set of regional dummies. We also introduce into the regression control variables in order to limit the bias of omitted variables.

Table 1 reports the main characteristics of the variables. The study of the first two moments show that the subjective wellbeing and women’s political empowerment index are relatively less dispersed with regard to their proportionality between standard deviation and mean value. Which means in average that these index are relatively grouped around their average (5.33 and 0.60 respectively). Regarding the control variables, GDP per capita, health conditions (life expectancy at birth) are relatively stable, while inflation

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<sup>3</sup>The primary source for this database comes from Gallup World Poll surveys which ask the respondents in each country to rate their happiness (subjective well-being) on a 0–10 scale.

<sup>4</sup>See Sundström et al. (2017); Coppedge et al. (2019) for the methodology of construction of this index.

<sup>5</sup>See Mignamissi and Malah (2020) for a selective review of the literature on the determinants of happiness.

<sup>6</sup>Noted that since the data on the index of subjective well-being is available in cross section, all the variables have also been transcribed into cross-sectional data, this by calculating for each variable the average over the entire available period.



rate is relatively volatile. Concerning the collinearity diagnostic, it appears that regressors in the model are free from collinearity, as the variance inflation factor is less than 10 and/or the tolerance value is greater than 0.1. Similarly, the correlation matrix indicates a positive link between women’s political empowerment index and wellbeing as well as health and GDP per capita. But unemployment and inflation are negatively correlated with SWB in the sample.

Table 1: **Summary statistics**

Variables	Panel A: summary statistic					Panel B: VIF test		Panel C: Correlation matrix					
	Obs	Mean	S.D.	Min	Max	VIF	1/VIF	SWB	WPE	Health	GDP per capita	Unemploy	Inflation
SWB	144	5.33	1.14	2.90	7.63	-	-	1.00					
WPE	144	0.60	0.19	0.10	0.95	1.44	0.70	0.47	1.00				
Health	144	65.81	10.89	41.30	80.63	1.47	0.68	0.78	0.55	1.00			
GDP per capita	144	11.06	2.44	5.68	18.10	1.06	0.94	0.04	-0.04	-0.05	1.00		
Unemployment	142	8.01	5.57	0.84	30.94	1.09	0.92	-0.06	0.12	0.18	-0.23	1.00	
Inflation	138	33.11	80.41	1.07	675.85	1.02	0.98	-0.09	-0.02	-0.08	-0.07	-0.07	1.00

Notes: author’s calculation. S.D, VIF and TV denote standard deviation, variance inflation factor and tolerance value, respectively. Mean VIF = 1.22.

## 4 Results and discussions

### 4.1 Preliminary evidence

Table 2 presents the results of the estimation of the effect of WPE on subjective wellbeing. For all the different specifications, we find a positive and statistically significant effect of the WPE index on life ladder index. This result validates our basic hypothesis and confirm previous works of Bjørnskov et al. (2007); York and Bell (2014) who show a positive correlation between WPE and levels of life satisfaction. The measurement of subjective well-being being global (i.e. including that of men and that of women), activating that of the sociological component that is the worst-off in terms of well-being with regard to the discriminations that enduring women in society seems to be a fundamental concern. Furthermore, the definition of well-being would be sensitive to the laws that shape a republic, legislation being a question of representativeness. More women in politics could influence existing laws and direct new measures for the levelling of gender in terms of wages, education, access to land, etc. Thus, the political empowerment of women cannot exclusively benefit women, given their involvement in the social conditions of the family, especially in developing countries.



Table 2: Effect of women’s political empowerment on subjective wellbeing

	Dependent variable : Subjective well-being index					
	(1)	(2)	(3)	(4)	(5)	(6)
WPE index	1.152*** (0.386)	0.422* (0.241)	0.437** (0.214)	0.548** (0.264)	0.651** (0.283)	0.537** (0.295)
Health		0.079*** (0.006)	0.079*** (0.006)	0.083*** (0.005)	0.084*** (0.005)	0.089*** (0.006)
GDP per capita			0.034 (0.022)	0.013 (0.023)	0.014 (0.023)	0.010 (0.023)
Unemployment				-0.043*** (0.009)	-0.045*** (0.010)	-0.041*** (0.009)
Inflation					-0.000 (0.001)	-0.000 (0.001)
Sub regional dummies	No	No	No	No	No	Yes
Constant	4.471*** (0.298)	-0.188 (0.378)	-0.592 (0.473)	-0.307 (0.476)	-0.457 (0.499)	-1.014* (0.554)
Countries	143	143	143	141	136	136
R-squared	0.061	0.611	0.616	0.657	0.670	0.682

Note: Author’s estimates. Regional dummies (Sub-Saharan Africa, Middle East and North Africa, Latin America and Caribbean, Commonwealth of Independent States, North America and ANZ, Western Europe, Middle East and North Africa, South Asia and Central and Eastern Europe) have been included in the regressions but are not displayed. Robust standard errors in parentheses. \*p < 0.10, \*\*p < 0.05, \*\*\*p < 0.010.

Overall, the control variables highlight expected signs. Health condition has a positive effect on subjective wellbeing. According to [Helliwell et al. \(2018\)](#), countries with higher healthy life expectancy at birth are documented to be associated with higher level of happiness. This means that subjective nature of happiness is also a matter of apprehension. Far from financial concerns, being in good health guarantees good physical condition, which allows individuals to deploy vigorously in their social activities. Health is thus understood as an essential dimension of human capital which enables man to achieve his aspirations and achieve his goals. In addition and as [Di Tella et al. \(2001\)](#); [Frey and Stutzer \(2002\)](#), we find that unemployment is negatively associated with subjective wellbeing. Unemployment is economically associated with a lack of economic activity, which in the long term prevents human development. Furthermore, due to stigma and other discrimination, the unemployment rate for women is generally higher than that for men. In this context which inflates the overall unemployment rate, possibilities for remuneration and capital accumulation are reduced, which could negatively impact subjective wellbeing. Although not significant, inflation could decrease subjective wellbeing by eroding the purchasing power of households, which has a significant impact on the consumption basket. From a time perspective, it could decrease the profitability of financial investments within the meaning of the Fisher relationship.

## 4.2 Robustness check: alternative measures of WPE

We explore whether our main finding is conditional to the choice of WPE measures. For this purpose, we use for sensitivity checks, the women’s political participation, the civil liberty and the civil society indexes as alternative measure ([Coppedge et al., 2019](#)). These

measures take into account legislative presence of women in the political sphere and also their freedoms from discussion, participation in civil society organizations, forced labor, property rights, and access to justice. The results obtained are summarized in Table 3.

Table 3: **Robustness checks: other measures of WPE**

	Countries income level		WLS	TOBIT	Alternative WPE index		
	Low	High			(5)	(6)	(7)
	(1)	(2)					
<b>WPE</b>	<b>0.570*</b>	<b>1.261**</b>	<b>0.537**</b>	<b>0.537**</b>			
	(0.340)	(0.642)	(0.251)	(0.245)			
Health	0.091***	0.082***	0.089***	0.089***	0.078***	0.084***	0.084***
	(0.006)	(0.015)	(0.006)	(0.006)	(0.008)	(0.007)	(0.007)
GDP per capita	0.028	0.038	0.010	0.010	0.005	0.008	0.006
	(0.041)	(0.160)	(0.024)	(0.023)	(0.022)	(0.023)	(0.023)
Unemployment	-0.044***	-0.007	-0.041***	-0.041***	-0.038***	-0.040***	-0.039***
	(0.010)	(0.025)	(0.011)	(0.011)	(0.009)	(0.009)	(0.009)
Inflation	-0.000	0.002	-0.000	-0.000	-0.000	0.000	-0.000
	(0.001)	(0.014)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
<b>Women's civil liberty</b>					<b>0.656**</b>		
					(0.252)		
<b>Women's civil society</b>						<b>0.572*</b>	
						(0.298)	
<b>Women's political participation</b>							<b>0.570*</b>
							(0.309)
Constant	-1.172*	-0.653	-1.011*	-1.014*	-0.154	-0.631	-0.656
	(0.644)	(2.428)	(0.536)	(0.522)	(0.595)	(0.550)	(0.551)
Sub regional dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Countries	89	47	136	136	136	136	136
R-squared	0.681	0.774	0.682		0.689	0.682	0.683

Note: Author's estimates. Regional dummies have been included in the regressions but are not displayed. Robust standard errors in parenthesis. (1-2) and (5-7) are based on OLS regression. WLS estimate is based on the absolute value of residual. A double censored Tobit model is used with 1 as lower limit and 10 as upper limit.

For all of these three index, we find a positive effect on subjective well-being. However, results are slightly overestimated compared to the initial measurement and the index of civil liberties of women has the highest relative significance. The other control variables keeping the same relation with WPE. Overall, these results are in line with those of previous studies which show that the average wellbeing of people is generally higher in nations where democracy and democratic participation, personal freedom, individualism and low economic inequality are strong (Veenhoven, 2005; Winkelmann and Winkelmann, 2010).

## 5 Conclusion

It is concluded from the above discussions that women political empowerment improves population's subjective wellbeing. We arrive at this result after discussing a few transmission channels through which this relationship could pass. Notably the improvement of the living conditions of households by increasing their income and reducing poverty, the wellbeing of children through their health and education, and the wellbeing of girls by limiting early marriage as well as violence against women.

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# Appendix

Table 4: Definitions and data sources

Variables	Definitions	Sources
Subjective wellbeing index	Subjective wellbeing obtained by inviting respondents to think of their lives as a ladder, with the worst possible life for them as 0, and the best possible life as 10.	WHR
Women political empowerment index	Process of increasing capacity for women, leading to greater choice, agency, and participation in societal decision-making.	V-DEM
Women civil liberty index	Composite index of women's freedom of domestic movement, freedom from forced labor, property rights, and access to justice.	V-DEM
Women civil society index	Composite index of women's freedom of discussion, participation in civil society organizations, and representation in the ranks of journalists.	V-DEM
Women political participation index	Composite index of the legislative presence of women and political power distribution by gender.	V-DEM
GDP per capita	GDP per capita is gross domestic product divided by midyear population.	WDI
Health	Life expectancy at birth.	WDI
Unemployment	Unemployment refers to the share of the labor force that is without work but available for and seeking employment.	ILOSTAT
Inflation	Inflation as measured by the consumer price index reflects the annual %age change in the cost to the average consumer of acquiring a basket of goods and services that may be fixed or changed at specified intervals such as yearly.	WDI
Poverty	Proportion of population pushed below the \$1.90 (\$ 2011 PPP) poverty line by out-of-pocket health care expenditure.	WHO
Child education	Ratio of total enrollment, regardless of age, to the population of the age group that officially corresponds to the level of primary school.	UNESCO
Children mortality	Number of infants dying before reaching one year of age, per 1,000 live births in a given year.	UNESCO
Violence against women	Proportion of women subjected to physical and/or sexual violence in the last 12 months is the %age of ever partnered women age 15-49 who are subjected to physical violence, sexual violence or both by a current or former intimate partner in the last 12 months.	UNSD
Early marriage	%age of women ages 20-24 who were first married by age 15.	DHS

**Note:** author's construction. WHD, V-DEM, WDI, WHO, ILOSTAT, UNESCO, UNSD and DHS respectively designates Happiness Database, Varieties of Democracy, World Development Indicators, World Health Organization, Institute of Statistics, United Nations Educational, Scientific and Cultural Organization, United Nations Statistics Division and Demog and Health Surveys.

Table 5: List of countries selected for the study

Country	SWB Index	WPE Index	Country	SWB Index	WPE Index	Country	SWB Index	WPE Index	Country	SWB Index	WPE Index
Afghanistan	3.63	0.78	Dominican Rep.	5.30	0.89	Lebanon	5.20	0.81	Rwanda	3.41	0.39
Albania	4.59	0.90	Ecuador	5.97	0.89	Lesotho	3.81	0.91	Saudi Ara.	6.37	0.06
Algeria	5.29	0.49	Egypt	4.42	0.26	Liberia	3.50	0.92	Senegal	4.63	0.91
Angola	3.79	0.75	El Salvador	6.17	0.91	Libya	5.57	0.60	Serbia	5.40	0.76
Argentina	6.39	0.95	Estonia	5.74	0.95	Lithuania	5.95	0.92	Sierra Leo.	4.57	0.84
Armenia	4.32	0.93	Ethiopia	4.35	0.58	Madagascar	3.77	0.92	Singapore	6.34	0.63
Australia	7.27	0.94	Finland	7.63	0.93	Malawi	3.59	0.86	Slovakia	6.17	0.91
Austria	7.14	0.92	France	6.49	0.94	Malaysia	6.32	0.83	Slovenia	5.95	0.92
Azerbaijan	5.20	0.40	Gabon	4.76	0.72	Mali	4.45	0.87	Somalia	4.98	0.61
Bangladesh	4.50	0.64	Georgia	4.34	0.93	Mauritania	4.36	0.62	South Afr.	4.72	0.92
Belarus	5.48	0.47	Germany	6.96	0.93	Mauritius	5.89	0.94	South Sud.	3.25	0.56
Belgium	6.93	0.93	Ghana	4.66	0.92	Mexico	6.49	0.91	Spain	6.31	0.94
Benin	4.14	0.88	Greece	5.36	0.95	Moldova	5.64	0.84	Sri Lanka	4.47	0.92
Bhutan	5.08	0.74	Guatemala	6.38	0.87	Mongolia	5.12	0.90	Sudan	4.14	0.45
Bolivia	5.75	0.85	Guinea	3.96	0.78	Montenegro	5.35	0.91	Sweden	7.31	0.95
Bosnia	5.13	0.88	Haiti	3.58	0.87	Morocco	5.25	0.76	Switzerland	7.49	0.95
Botswana	3.59	0.91	Honduras	5.50	0.89	Mozambique	4.42	0.86	Syria	3.46	0.12
Brazil	6.42	0.91	Hungary	5.62	0.76	Myanmar	4.31	0.67	Tajikistan	5.35	0.17
Bulgaria	4.93	0.92	Iceland	7.50	0.93	Namibia	4.44	0.90	Tanzania	3.30	0.75
Burkina Faso	4.42	0.86	India	4.19	0.81	Nepal	4.88	0.89	Thailand	6.07	0.32
Burundi	2.90	0.70	Indonesia	5.09	0.84	Netherlands	7.44	0.93	Togo	4.00	0.59
Cambodia	4.43	0.40	Iran	4.71	0.21	New Zealand	7.32	0.93	Trinidad	6.19	0.93
Cameroon	4.98	0.72	Iraq	4.46	0.71	Nicaragua	6.14	0.33	Tunisia	4.59	0.91
Canada	7.33	0.93	Ireland	6.98	0.95	Niger	4.17	0.84	Turkey	5.48	0.66
Central A. R.	3.08	0.74	Israel	7.19	0.85	Nigeria	5.16	0.89	Turkmenistan	5.64	0.11
Chad	4.30	0.65	Italy	6.00	0.95	Norway	7.59	0.95	Uganda	4.16	0.68
Chile	6.48	0.92	Ivory Coast	4.67	0.87	Pakistan	5.47	0.77	Ukraine	4.10	0.73
China	5.25	0.13	Jamaica	5.89	0.93	Panama	6.43	0.92	United Kingdom	6.81	0.94
Colombia	6.26	0.95	Japan	5.92	0.94	Paraguay	5.68	0.90	United States	6.89	0.97
Congo Braz.	4.56	0.62	Jordan	5.16	0.68	Peru	5.66	0.93	Uruguay	6.38	0.93
Congo Kin.	4.24	0.61	Kazakhstan	5.79	0.28	Philippines	5.52	0.80	Uzbekistan	6.10	0.24
Costa Rica	7.07	0.95	Kenya	4.41	0.81	Poland	6.12	0.89	Venezuela	4.81	0.40
Croatia	5.32	0.89	Kuwait	6.08	0.17	Portugal	5.41	0.94	Vietnam	5.10	0.11
Cyprus	5.76	0.93	Kyrgyzstan	5.13	0.72	Qatar	6.37	0.10	Yemen	3.35	0.32
Czech Rep.	6.71	0.93	Laos	4.62	0.14	Romania	5.95	0.86	Zambia	4.38	0.69
Denmark	7.56	0.96	Latvia	5.93	0.95	Russia	5.81	0.37	Zimbabwe	3.69	0.71

Note: author's construction.