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PEACE AND DEVELOPMENT: TWO SIDES OF THE SAME COIN?

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PEACE AND DEVELOPMENT: TWO SIDES OF THE SAME COIN?

ABSTRACT

There is the notion that peace and development are positively correlated, that peace drives development and that development drives peace, for Galtung (1985: 147) Peace and Development should be regarded as two sides of the same coin and considers development in relation to peace. This paper shows that peace and development are uncorrelated in several countries where there is peace without development or development without peace. The use of quantitative models as a tool for the analysis is a plus for the findings because most of the related theories are qualitative.

Keywords: Peace, Development, welfare, wellbeing.

INTRODUCTION

Galtung's theory of peace is based on one underlying principle that "peace is the absence of violence" (1969:167). Negative peace: the absence of war, direct violence and other violations of personal

sovereignty, positive peace: social justice and structural violence. Peace is the absence of both direct and structural violence.

Galtung's (1985:146) notion of structural violence is a concern for "basic human needs" provision, informed by the basic needs approach to development that emerged in the mid-1970s.

For Galtung, structural violence could just well be taken as a point of departure for development studies as for peace studies. The two are very similar, and should be regarded as two sides of the same coin (1985:147). "This represents an initial point of departure for considering development in relation to peace" Potomäki (2001:726)

Galtung's (1985) "six cosmologies" approach to peace and development, is somewhat abstract and offers little in the way of steps towards transformation (Barnett, 2008)

For Sen (1994:4), people will "develop" as they fit given sufficient "economic opportunities, political liberties, social powers, and the enabling conditions of good health, basic education, and the encouragement and the cultivation of initiatives".



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These opportunities are, in Sen's words, "freedoms" and it is freedom, he argues, that should be both the means (how to attain) as well as the ends (the goal) of the development. "People behave in common ways (to maximize material gain) regardless of location, and ignoring the particularities of in situ institutions" (Brohman, 1995).

"Synthesizing Sen's development as freedom with Galtung's theory of peace leads to a definition of peace as the goal and process of expanding people's freedom" (Barnett, 2008). Barnett argues that academic tinkering about the intersections of peace and development arguably reached its zenith in the 1980s (Galtung, 1989; Hettne, 1983; Sørensen, (1985). Through the Brandt (IDCI, 1983) and Palmer (ICDSI, 1982) reports which investigated the economic and social opportunity costs of the military - industrial complex and relationships between economic growth and military spending.

This paper pretends show the correlation between peace and development by using quantitative models so corroborate the qualitative theories or reject them.

For this, will be compared two main indicators, the Global Peace Index and the Human Development Index.

The Global Peace Index (GPI) is the world's leading measure of national peacefulness. From 1996, it ranks 162 nations according to their "absence of violence".

The Institute of Economics and Peace (IEP) develop the GPI under the guidance of an international panel of independent experts with data partly collated and calculated by the Economist Intelligence (EIU).

It is composed of 22 indicators, ranging from a nation's level of military expenditure to its relations with neighbouring countries and the percentage of prison population.

The data is sourced from a wide range of respected sources, including the International Institute of Strategic Studies, The World Bank, various UN Agencies, peace institutes and the EIU. The index has been tested against a range of potential "drivers" or determinants of peace-including levels of democracy and transparency, education and national wellbeing.

The GPI is intended to contribute significantly to the public debate on peace. The project's ambition is to go beyond a crude measure of wars-and-systematically explore the texture of peace.

Many international organisations, governments and NGOs including the World Bank, the OCDE, and the United Nations currently use the Index.

METHOD

The present paper will compare the Global Peace Index to the Human Development Index so find the correlation between peace and development using a quantitative method with 153 countries from both reports of the year 2014.



Global Peace Index (GPI) from the Institute of Economics and Peace (IEP), since 1996 ranks 162 countries.

It is composed of 22 indicators, ranging from a nation's level of military expenditure to its relations with neighbouring countries and the percentage of prison population.

All scores for each indicator are normalized on a scale of 1-5, whereby qualitative indicators are banded into five groupings or rounded to the first decimal point. The Economist Intelligence Unit's team of country analysts has scored seven of the eight qualitative indicators and also provided estimates where there have been gaps in the quantitative data.

a) Internal Peace Indicators: level of perceived criminality in society, number of internal security officers and police per 100.000 people, number of homicides per 100.000 people, number of jailed population per 100.000 people, ease of access to small arms and light weapons, level of organised conflict (internal), likelihood of violent demonstrations, level of violent crime, political instability, political terror scale, volume of transfer of major conventional weapons, as recipient (imports) per 100.000 people, terrorist activity, number of deaths from organised conflict (internal).

b) External Peace Indicators: military expenditure as a percentage of GDP, number of armed services personnel per 100.000 people,

financial contribution to UN peacekeeping missions, nuclear and heavy weapons capabilities, volume of transfer of major conventional weapons as supplier (exports) per 100.000 people, number of refugees and displaced people as a percentage of the population, relations with neighbouring countries, number of external and internal conflicts, number of deaths from organised conflict (external).

Human Development Index (HDI) from the United Nations Development Programme (UNDP)

The HDI was created to emphasize that people and their capabilities should be the ultimate criteria for assessing the development of a country, not economic growth alone. The HDI can also be used to question national policy choices, asking how two countries with the same level of Gross Net Income –GNI- per capita can end up with different human development outcomes.

The Human Development Index (HDI) is a summary measure of average achievement in key dimensions of human development: a long and healthy life, being knowledgeable and have a decent standard of living. The HDI is the geometric mean of normalized indices for each of the three dimensions.

a) The health dimension is assessed by life expectancy at birth component of the HDI is calculated using a minimum value of 20 years

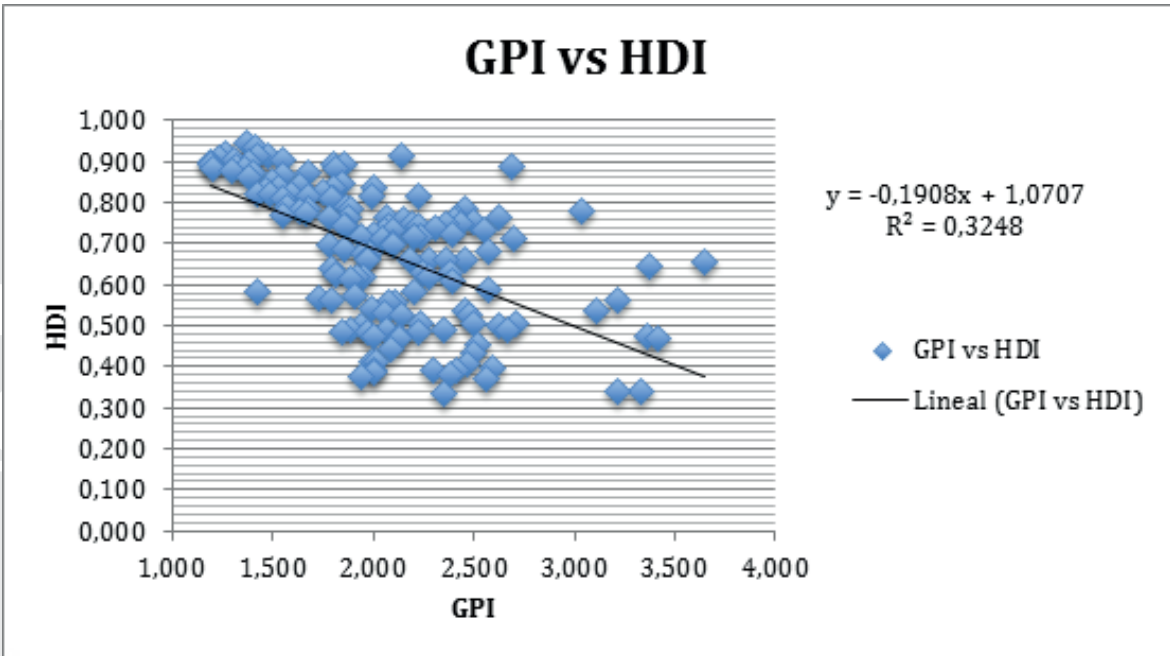


and maximum value of 85 years. The education component of the HDI is measured by mean of years of schooling for adults aged 25 years and expected years of schooling for children of school entering age. Mean years of schooling is estimated by UNESCO Institute for Statistics based on educational attainment data from censuses and surveys available in its database. Expected years of schooling estimates are based on enrolment by age at all levels of education. This indicator is produced by UNESCO Institute for Statistics. Expected years of schooling is capped at 18 years. The indicators are normalized using a minimum value of zero and maximum aspirational values of 15 and 18 years respectively. The two indices are combined into an education index using arithmetic mean.

b) The standard of living dimension is measured by gross national income per capita. The goalpost for minimum income is \$100 (PPP) and the maximum is \$75,000 (PPP). The minimum value for GNI per capita, set at \$100, is justified by the considerable amount of unmeasured subsistence and nonmarket production in economies close to the minimum that is not captured in the official data. The HDI uses the logarithm of income, to reflect the diminishing importance of income with increasing GNI. The scores for the three HDI dimension indices are then aggregated into a composite index using geometric mean. Refer to Technical notes for more details.

RESULTS

Figure 1. Global Peace Index (GPI) Vs. Human Development Index (HDI) 2014



Source: Author's calculations with GPI and HDI data.

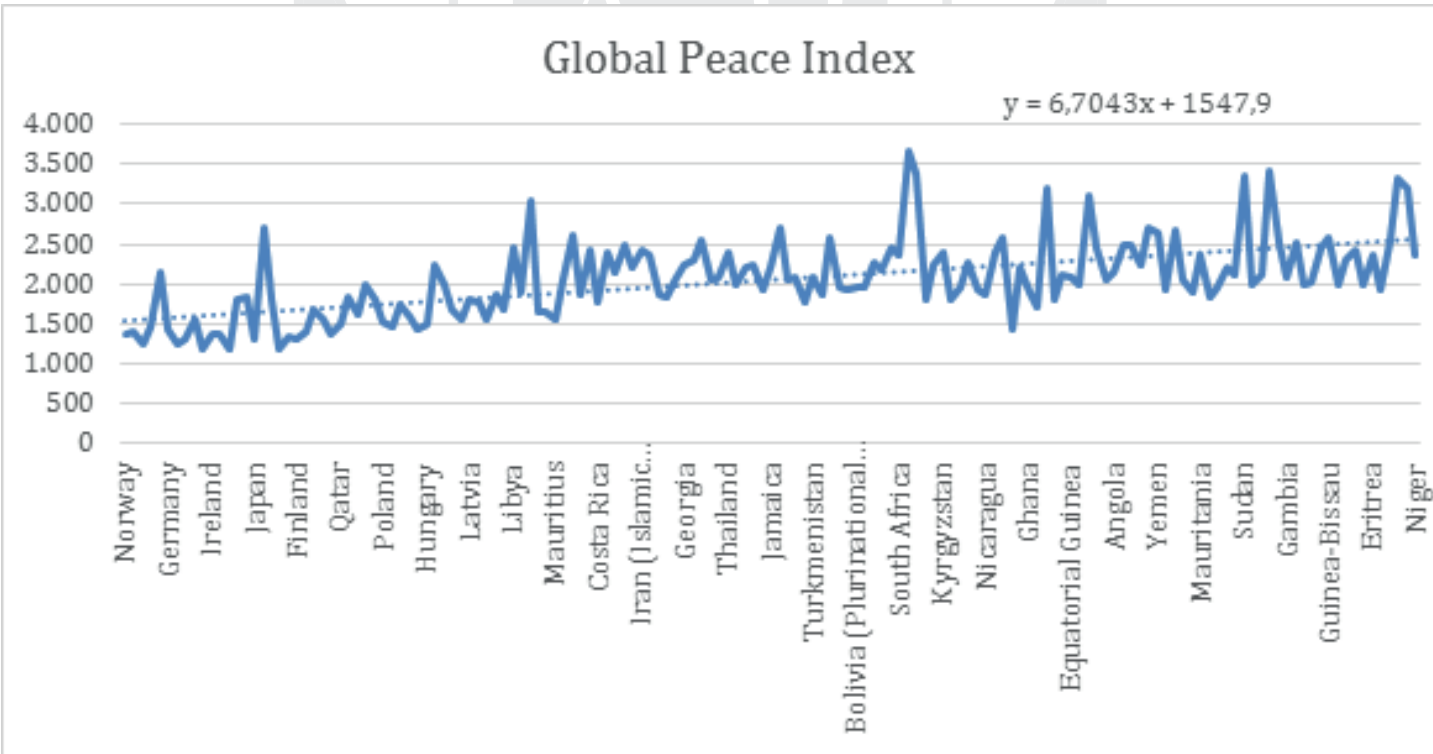
Even the tendency is that when the Global Peace Index goes down from 1 (peace) to 4 (violence) the Human Development Index gets down from 1 (more developed) to 0 (undeveloped), there are a great dispersion of the data from the tendency line, and most of the countries in peace has low Human development.



Beta index of -0,1908 means that each 0,10 of increase in Global Peace Index, the Human Development Index decrease 0,1908, so there are an asymmetry in the behavior of the indexes.

R2 is the square of the coefficient of correlation between the results of the sample and the predict values, it takes values form 0 (independents variables) and 1 (perfect relation between the variables), this coefficient is 0,32484, it shows that the variables are more independent than dependents. Also, it means that If we know the Global Peace Index of a country it only let us improve our forecast of Human Development Index in 32,48%.

Figure 2. The Global Peace Index ordered by Human Development Index Ranking.

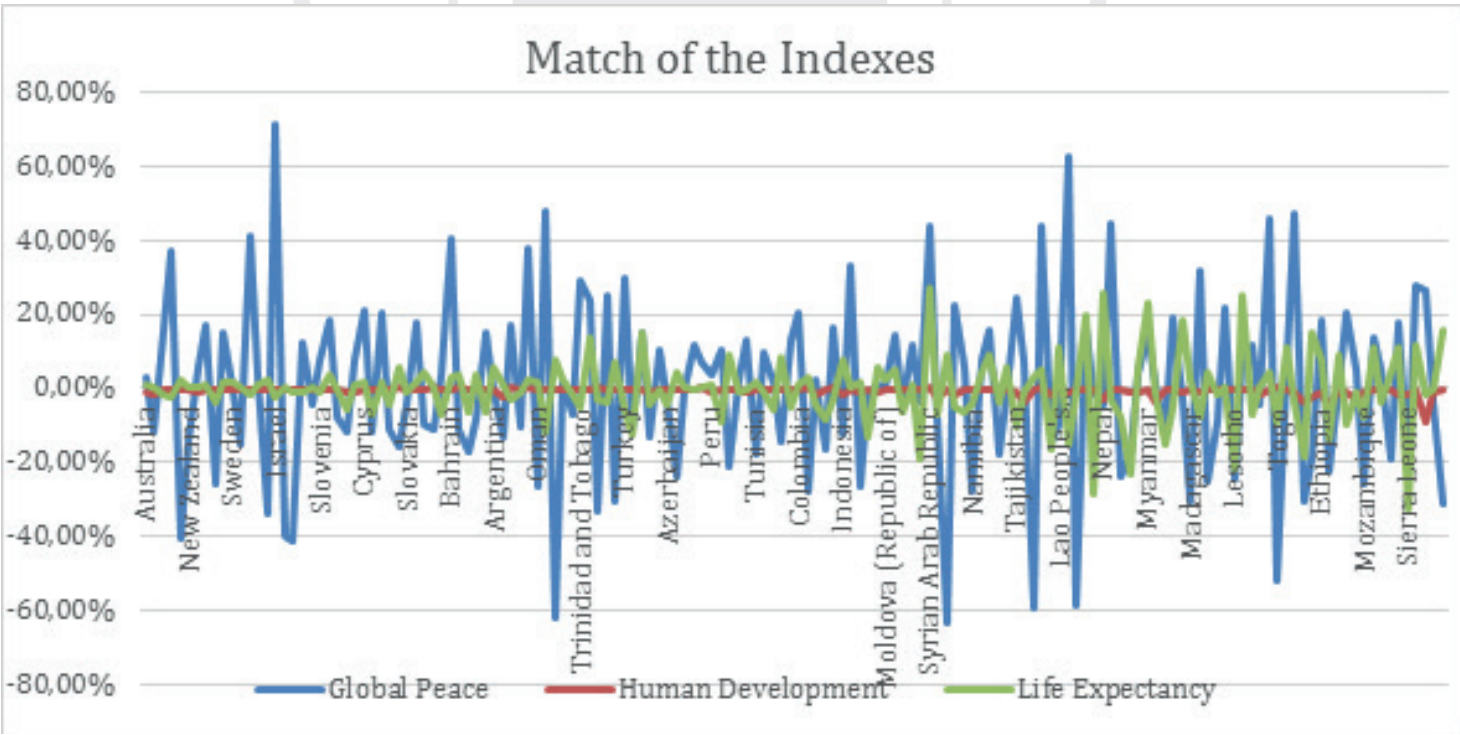




Source: Author's calculations with GPI and HDI data.

The countries are ordered in the X axis from the best Human Development Index (Norway) to the worst (Niger) the Y axis is the Global Peace Index, it shows that several countries are very dispersed up and down from the tendency line and the beta index (slope) of 6,704 means that for each point of decrease of the Human Development Ranking position, the Global Peace Index increase 6,7 points.

Figure 3. Match of the Indexes





Source: Author's calculations with GPI, HDI and Life Expectancy data.

If the Global Peace Index of a country matches with the Human Development index the percentage of match will be 0%, but if there are variations of 60% down and 70% up, it demonstrates the asymmetry of the behavior of the variables. Using a control variable like Life Expectancy used by Amartya Sen (1999) in the book Development as freedom.

CHART 1. COEFFICIENT OF CORRELATION

COEFFICIENT OF CORRELATION		
	GPI	HDI
GPI	1	
HDI	-0,569945531	1

Source: Author's calculations with GPI and

Source: Author's calculations with GPI and HDI data.

A coefficient of correlation of -1 will be a perfect negative correlation, it means that as more the peace in a country the more of human development there, but this correlation only is 56,99% between the 153 countries studied.

CHART 2. COMPARED UNCORRELATED GPI VS HDI RANKING OF SOME COUNTRIES.

Global Peace Index Ranking

Human Development Index Ranking

Less Pacific with good Human Development

101	United Sates	5
149	Israel	19
80	Saudi Arabia	34
40	United Arab Emirates	40
Perfect Match		
75	Cuba	44
133	Libya	55
152	Russian Federation	57
146	Lebanon	65
129	Venezuela (Bolivarian R)	67
128	Turkey	69
138	Mexico	71
131	Iran (Islamic Republic of)	75



123	Azerbaijan	76
141	Ukraine	83
126	Thailand	89
150	Colombia	98

Pacific with bad Human Development

16	Bhutan	136
38	Lao People's Democratic	139
47	Zambia	141
66	Madagascar	155
90	Papua New Guinea	157
50	Lesotho	162
72	Senegal	163
80	Togo	166
77	Malawi	174
84	Liberia	175
82	Mozambique	178
82	Burkina Faso	181
66	Sierra Leone	183

Source: Author's calculations with GPI and HDI data.

DISCUSSION

There are no evidence that peace and development are the two sides of the same coin because several pacific countries without Human Development and several countries with Human Development without peace.

The Global Peace Index and the Human Development Index shows more independency between peace and development that dependency, the coefficient of correlation and the square of the coefficient of correlation (R2) indicate that one variable cannot be explained enough by the other one.

The GPI and the HDI Ranking do not match, for example USA is the 5th in Human Development and the 101st in Peace. Buthan is the 16th in peace and the 136 in Human Development. 29 countries have huge differences between this pair of indexes, only one –United Arab Emirates- match at the 40th position. The rest 123 countries have difference between the indexes.

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