

The role of freedom of religion and political regime for human development indices

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Nov 12, 2019, Jakarta

The 7th International Islam and Liberty
Conference

OUTLINE

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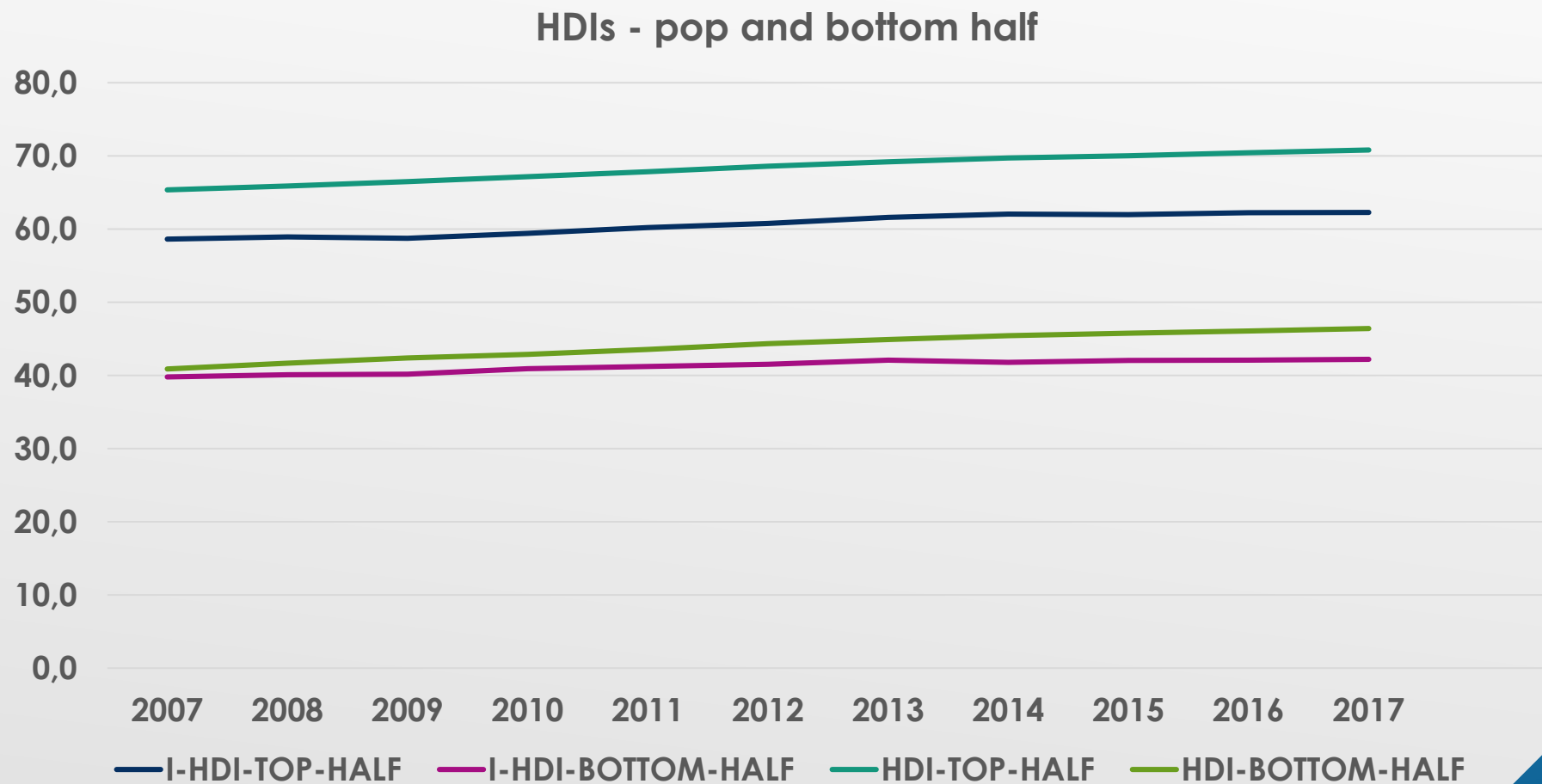
1. MOTIVATION

- ▶ Religious, political and economic freedoms are connected even they do not show total correspondence (cf. Russia, China, many oil-rich countries)
- ▶ Numerous studies have demonstrated well-being (GDP, HDI, education, health, ect) going hand-in-hand most-often with economic freedoms and democracy.
- ▶ Measures of religious freedoms are argued to work as a proxy for (business-)culture and country risk
- ▶ Religious freedoms also lead to inclusiveness and larger markets for exchange.
- ▶ We study how religious freedoms is related to other freedoms and human development index in 33 Islamic countries, 2006-2017.

2. DATA

HDI	Human Development Index (United Nations)
I-HDI	Islamic Human Development Index (own calculations) based on Rama & Burhnuddin (2019)
GDPperCap	(World Bank) in PPP terms and current USD
GRI	(Pew Research Center) Government restrictions on religion
Democracy	(EIU) Index of electoral process and pluralism/ functioning government/ political participation/ political culture/civil liberties
Economic Freedoms	(Fraser Institute) Areas: 1) size of government; 2) legal structures and property rights; 3) sound money; 4) freedom to trade; and 5) regulation of credit, labor, and business
Political Freedoms	(Freedom House) Focus is on effective rights, not merely constitutional guarantees. Those rights include expression and belief; association and organizational rights; rule of law and human rights; and personal autonomy and economic rights.
Civil Liberties	

HDI AND I-HDI BEHAVE SIMILARLY OVER TIME



ISLAMIC HUMAN DEVELOPMENT INDEX

Following Rama & Burhnuddin (2019):
Construction of Islamic Human Development Index. *Islamic Econ.* Vol. 32, No. 1, pp. 43-64

Sub-indices:

(i) Religion index = $(\text{zakah} + \text{crime} + \text{corruption})/3$

(ii) Life index = $(\text{life} + \text{work} + \text{freedom} + \text{lack of poverty} + \text{consumption})/5$

(iii) Intellect index = $(\text{educational institution} + \text{educational output})/2$

(iv) Family index = $(\text{fertility} + \text{mortality})/2$

(v) Wealth index = $(\text{ownership} + \text{wealth growth} + \text{distribution})/3$

The Islamic Human development index, I-HDI:

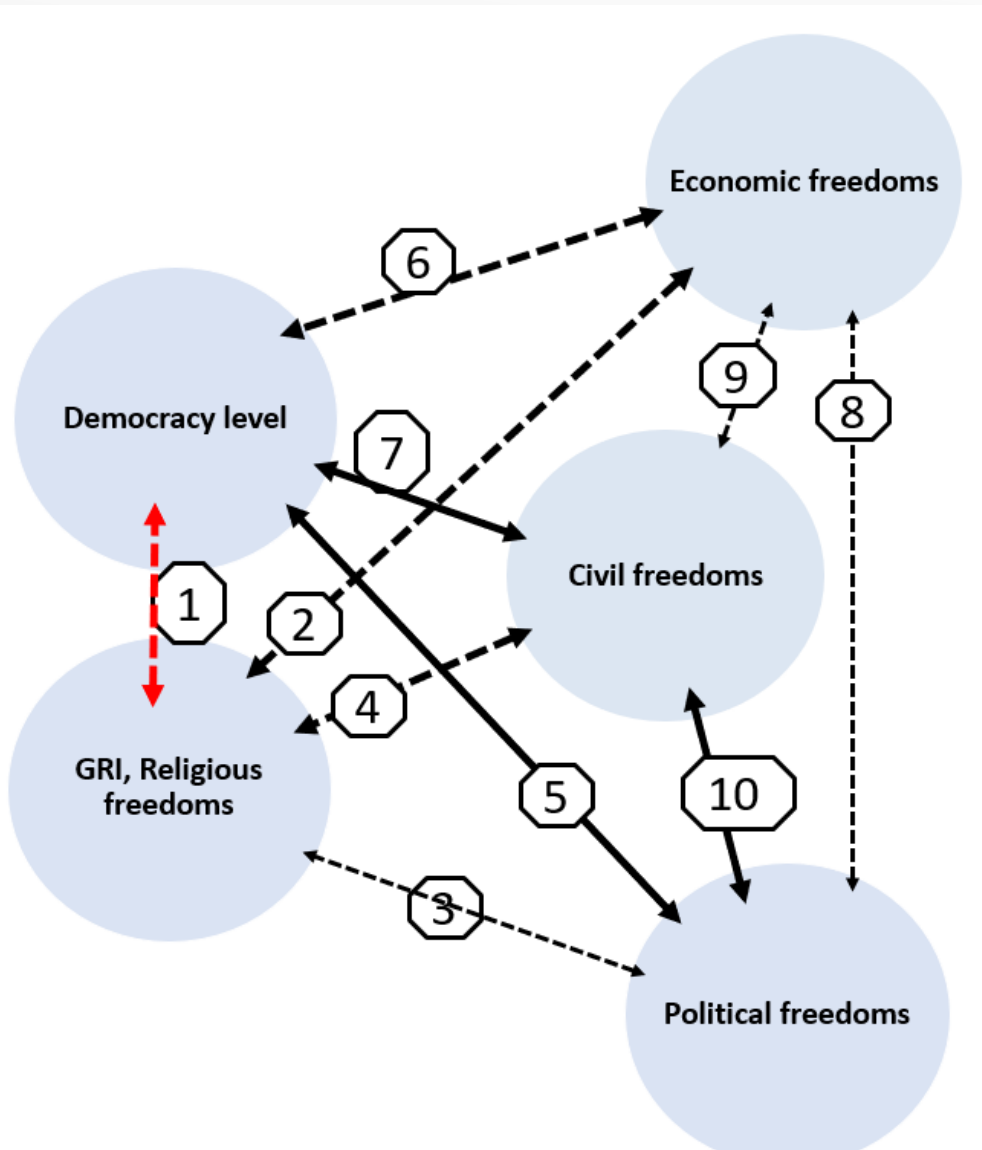
$I\text{-HDI} = (\text{religion index} * \text{life index} * \text{intellect index} * \text{family index} * \text{wealth index})^{(1/5)}$

Dimension	Indicators	Data used by Rama et al (2019) [3]	Our data [source]	acr.
Religion	Worship	Zakāh Collection/GDP	Zakat%GDP [Shirazi et al, 2017 [10]]	V1
	Morals (negative)	Number of crimes/total population	*Intentional homicides (per 100,000 people) [World Bank]	V2
		Corruption Perception Index	Control of Corruption Index [World Bank]	V3
Life	Life Expectancy	Life expectancy rate	Life expectancy at birth (years) [UNDP (UNDESA)]	V4
	Employment Opportunity	Unemployment rate	*Unemployment total (% of labor force) [UNDP (ILO)]	V5
	Freedom	Democracy Index	Democracy Index [Economist Intelligence Unit]	V6
	Basic Needs Provision	Poverty rate	*Poverty ratio at \$3.20 a day (2011 PPP) [World Bank]	V7
Average Expenditure		Consumption per capita (const. 2010 US\$) [World Bank]	V8	
Intellect	Access to Educational Institution	Number of Schools/Population	*Pupil-teacher ratio, primary school [UNDP (UNESCO)]	V9
	Educational outcomes	Literacy Rate	Literacy rate, adult (% ages 15 & older) [UNDP (UNESCO)]	V10
Family	Positive	Fertility Rate	Fertility rate, total (births per woman) [World Bank]	V11
	Negative	Divorce Rate	-	-
		Infant Mortality Rate	*Mortality rate, infant (per 1000 births) [UNDP]	V12
Wealth	Wealth ownership	GDP per capita	GDP per capita, PPP (const. 2011 international \$) [World Bank]	V13
	Wealth growth	Economic growth rate	GDP growth (annual %) [World Bank]	V14
	Wealth distribution	Gini ratio	*GINI index (World Bank estimate) [World Bank]	V15

*negative indicators are reversed by multiplying standardized values by -1

3. RELATIONSHIP OF FREEDOMS

- ▶ **Religious freedom** MODERATELY connected to economic and political freedoms, but NOT to democracy
- ▶ **Democracy** STRONGLY connected to civil and political freedoms, and MODERATELY to economic freedoms
- ▶ Political and civil freedoms go hand-in-hand



	R square	Significance F	Coefficient	P value
1. GRI vs Dem	0,002	0,447	-0,008	0,447
2. GRI vs Econ	0,096	0,000	1,250	0,000
3. GRI vs Pol	0,048	0,000	0,376	0,000
4. GRI vs Civ	0,181	0,000	0,949	0,000
5. Dem vs Econ	0,251	0,000	0,024	0,000
6. Dem vs Pol	0,564	0,000	-6,821	0,000
7. Dem vs Civ	0,509	0,000	-8,427	0,000
8. Econ vs Pol	0,027	0,005	-0,073	0,005
9. Econ vs Civ	0,032	0,002	-0,109	0,002
10. Pol vs Civ	0,687	0,000	1,078	0,000

4. REGRESSION ANALYSIS

- ▶ We tested the explanatory power of freedoms and democracy
- ▶ Logarithmic transformation on all data => coefficients can be interpreted: %-change from independent variable to dependent variable (HDI, I-HDI, GDP)
- ▶ Tested model:

HDI (/I-HDI/GDP)

$$\begin{aligned} &= a + b*\text{Rel_freedoms} + c*\text{Econ_freedoms} \\ &+ d*\text{Pol_freedoms_} + e*\text{Civ_freedoms} + f*\text{Democracy} \end{aligned}$$

HDI		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1,645	,298		5,523	,000
	GRI	,042	,009	,272	4,637	,000
	Democracy	-,033	,056	-,046	-,590	,556
	Economic Freedoms	1,253	,148	,507	8,491	,000
	Political Freedoms	-,079	,058	-,110	-1,368	,173
	Civil Liberties	,199	,088	,203	2,270	,024

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics		
					R Square Change	F Change	df1
1	,655 ^a	,429	,418	,1999040	,429	40,348	5

I-HDI		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.313	,243		5.393	,000
	GRI	,052	,007	,351	7,106	,000
	Democracy	,112	,046	,168	2.441	,015
	Economic Freedoms	1,100	,121	,464	9,063	,000
	Political Freedoms	-,052	,044	-,081	-1.193	,234
	Civil Liberties	,156	,070	,166	2,225	,027

GDP		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.645	,298		5.523	,000
	GRI	,042	,009	,272	4,637	,000
	Democracy	-,033	,056	-,046	-,590	,556
	Economic Freedoms	1,253	,148	,507	8,491	,000
	Political Freedoms	-,079	,058	-,110	-1,368	,173
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CONCLUSIONS

- ▶ While religious freedom and democracy have been shown important explaining variable of well-being, particularly GDP, with whole world as a sample, their importance is weaker in Islamic countries, although larger for HDI than GDP
- ▶ Further research is needed to reveal the mechanics and causality from between freedoms and well-being in Islamic countries
- ▶ Islamic human development index was constructed for years 2006-2017, which behaved rather similarly to the UN's HDI. It can be used in later studies.