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CAPITALIZING ON ECONOMIC FUNCTION OF THE INSTITUTION OF *ZAKĀT IN MODERN ECONOMY*

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PRESENTATION OUTLINE

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- Zakāt and Sustainable Development Goals
- Zakāt and Wealth Redistribution: Model
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STATE OF DEVELOPMENT IN MUSLIM WORLD

Development Indicators	High Income	Middle Income	Muslim Countries
Economic			
GDP Per Person Employed (Constant 2011 PPP$)	76,507	29,631	40,341
Poverty Ratio at PPP $1.90 a Day (% of Population)	0.56	5.95	24.58
Education			
Literacy Rate (% of Adult Population)	98.46	93.22	73.46
Net Enrolment Ratio in Primary (%)	96.92	92.34	85.55
Health			
Hospital Beds (Per 1,000 People)	5.18	3.37	1.98
Sanitation Facilities (% People with Access)	97.14	81.85	64.53
Improved Water Source (% People with Access)	99.28	91.89	82.04

Source: World Development Indicators, 2015

TOP 20 OIC COUNTRIES BY HDI

Country	HDI Value	World Rank	OIC Rank
Brunei Darussalam	0.8556	31	1
Qatar	0.8498	33	2
Saudi Arabia	0.8373	39	3
United Arab Emirates	0.8355	41	4
Kuwait	0.8163	48	5
Oman	0.7930	52	6
Kazakhstan	0.7880	56	7
Malaysia	0.7792	62	8
Lebanon	0.7689	68	9
Iran	0.7656	70	10
Turkey	0.7611	72	11
Azerbaijan	0.7511	78	12
Jordan	0.7483	80	13
Algeria	0.7356	83	14
Albania	0.7328	85	15
Bosnia and Herzegovina	0.7325	87	16
Libya	0.7245	95	17
Tunisia	0.7212	96	18
Suriname	0.7143	103	19
Maldives	0.7064	104	20

Source: World Development Indicators, 2015

REDISTRIBUTIVE INSTITUTIONS: ZAKĀT

SDG	SDG Goal	Intervention Strategy through Zakāt
1	End poverty in all its forms everywhere.	Income transfers to Fuqarah and Masakeen having aggregate assets below the Nisāb value.
2	End hunger, achieve food security and improved nutrition and promote sustainable agriculture.	Food stipends to food insecure people from the Zakāt.
3	Ensure healthy lives and promote well-being for all at all ages.	Providing medical care sponsorship to patients from the Zakāt.
4	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.	Providing educational scholarships to students from the Zakāt.
5	Achieve gender equality and empower all women and girls.	Providing income support from the Zakāt to widows or women who do not have a Kafeel.
8	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.	Sponsoring business inventory, small equipment for small scale entrepreneurs from the Zakāt.
10	Reduce inequality within and among countries.	Zakāt transfers from those having wealth above Nisāb to those having wealth below Nisāb.
17	Strengthen the means of implementation and revitalize the global partnership for sustainable development.	Zakāt in the centralized collection and disbursement can ensure that it reaches the regions where people have more pressing need.

WEALTH ZAKĀT FUNCTION

The institution of *Zakat* in an Islamic economy encourages investment and provide a disincentive for hoarding wealth. For a particular individual, net *Zakat* wealth at a point in time is given by:

$$A_t = (1 - ROZ) * (A_{t-1} + Y_t - C_t)$$

Here, Y_t represents the income of an individual in period t. A_{t-1} represents the total value of endowments carried forward from the last period. C_t represents the consumption expenditure in time period 't'. ROZ represents the rate of *Zakat*, which is 2.5% on surplus wealth. Further expansion yields:

$$A_t = A_{t-1} + Y_t - C_t - ROZ(A_{t-1} + Y_t - C_t)$$

$$A_t = A_{t-1} + Y_t - C_t - 0.025(A_{t-1} + Y_t - C_t)$$

$$A_t = 0.975A_{t-1} + 0.975Y_t - 0.975C_t$$

WEALTH ZAKĀT FUNCTION

If the equation is expanded iteratively forward, it becomes:

$$A_{t+1} = A_t + Y_{t+1} - C_{t+1} - 0.025(A_t + Y_{t+1} - C_{t+1})$$

$$A_{t+1} = 0.975A_t + 0.975Y_{t+1} - 0.975C_{t+1}$$

$$A_{t+1} = 0.975(0.975A_{t-1} + 0.975Y_t - 0.975C_t) + 0.975(Y_{t+1} - C_{t+1})$$

$$A_{t+1} = 0.950625(A_{t-1} + Y_{t-1} - C_{t+1}) + 0.975(Y_{t+1} - C_{t+1})$$

The wealth function will reduce A_{t-1} in the subsequent time period. The increase in wealth only depends on enhancing Y_t or reducing C_t. This shows that only labor income or financial income which involves productive enterprise and risk taking along with moderation in consumption can enhance the wealth.

ZAKĀT AND REDISTRIBUTION: SIMULATION

- Suppose we have an interest free economy that comprises 10 rich people each having wealth of RM 1,010.

- We also assume that there are 50 poor people each having subsistence level of wealth of RM 10.

- For simplicity, we suppose perfect wealth equality between the people in each of the group.

- For the sake of highlighting the effect of wealth redistribution of wealth transfers, we assume that income is generated randomly in this interest free economy with no interest based lending allowed.

- Furthermore, we assume that income earned is consumed in that period to enable us to focus our attention on the wealth redistribution effect of *Zakāt* in an interest free economy.

ZAKĀT AND REDISTRIBUTION: SIMULATION

Year	W_R	Wealth Transfer (R to P)	W_P	W_R to W_P Multiple Per Person
0	10,100.00		500	101.00
1	9,850.00	250.00	750	28.14
2	9,606.25	243.75	993.75	16.18
3	9,368.59	237.66	1,231.4	11.27
4	9,136.88	231.71	1,463.1	8.59
5	8,910.96	225.92	1,689.0	6.91
6	8,690.68	220.27	1,909.3	5.76
7	8,475.92	214.77	2,124.0	4.92
8	8,266.52	209.40	2,333.4	4.28
9	8,062.36	204.16	2,537.6	3.77
10	7,863.30	199.06	2,736.7	3.37
11	7,669.21	194.08	2,930.7	3.03
12	7,479.98	189.23	3,120.0	2.75
13	7,295.48	184.50	3,304.5	2.51
14	7,115.60	179.89	3,484.4	2.31
15	6,940.21	175.39	3,659.7	2.13
16	6,769.20	171.01	3,830.8	1.97
17	6,602.47	166.73	3,997.5	1.84
18	6,439.91	162.56	4,160.0	1.71
19	6,281.41	158.50	4,318.5	1.60
20	6,126.88	154.54	4,473.1	1.50
21	5,976.20	150.67	4,623.8	1.41
22	5,829.30	146.91	4,770.7	1.33
23	5,686.07	143.23	4,913.9	1.26
24	5,546.42	139.65	5,053.5	1.19
25	5,410.26	136.16	5,189.7	1.13
26	5,277.50	132.76	5,322.5	1.07
27	5,148.06	129.44	5,451.9	1.02

ZAKĀT AND REDISTRIBUTION: SIMULATION

- It can be seen that after around 27 years, the wealth multiple will drastically go down from 101 to almost 1 for the two groups as a whole.

- Eventually, the wealth recipients will become ineligible for *Zakāt* receipts and rather will become part of the *Zakāt* payer group.

ZAKĀT AND AGGREGATE DEMAND

Year	W_R	Wealth Transfer (R to P)	W_P	W_R to W_P Multiple Per Person	Boost in AD
0	10,100.00		500	101	
1	10,339.88	252.50	752.50	68.70	227.25
2	10,585.45	258.50	1,011.00	52.35	232.65
3	10,836.85	264.64	1,275.63	42.48	238.17
4	11,094.23	270.92	1,546.55	35.87	243.83
5	11,357.71	277.36	1,823.91	31.14	249.62
6	11,627.46	283.94	2,107.85	27.58	255.55
7	11,903.61	290.69	2,398.54	24.81	261.62
8	12,186.32	297.59	2,696.13	22.60	267.83
9	12,475.75	304.66	3,000.79	20.79	274.19
10	12,772.05	311.89	3,312.68	19.28	280.70
11	13,075.38	319.30	3,631.98	18.00	287.37
12	13,385.92	326.88	3,958.87	16.91	294.20
13	13,703.84	334.65	4,293.52	15.96	301.18
14	14,029.31	342.60	4,636.11	15.13	308.34
15	14,362.50	350.73	4,986.84	14.40	315.66
16	14,703.61	359.06	5,345.91	13.75	323.16
17	15,052.82	367.59	5,713.50	13.17	330.83
18	15,410.33	376.32	6,089.82	12.65	338.69
19	15,776.32	385.26	6,475.08	12.18	346.73
20	16,151.01	394.41	6,869.48	11.76	354.97
21	16,534.60	403.78	7,273.26	11.37	363.40
22	16,927.29	413.36	7,686.62	11.01	372.03
23	17,329.32	423.18	8,109.81	10.68	380.86
24	17,740.89	433.23	8,543.04	10.38	389.91
25	18,162.23	443.52	8,986.56	10.11	399.17
26	18,593.59	454.06	9,440.62	9.85	408.65
27	19,035.18	464.84	9,905.46	9.61	418.36

ZAKĀT AND AGGREGATE DEMAND

- Now, assume that there is a uniform 5% growth in endowments that rich and poor people experience. It can be seen that this growth does not affect wealth distribution. The redistribution is impactful both without and also with growth.

- Thus, redistribution is not dependent on business cycle or growth. Even if growth happens, it is egalitarian in this interest free economy in the presence of the institution of *Zakāt*.

- The marginal increase in surplus wealth would mostly be saved by the rich. Since this wealth is transferred to the poor with little endowments, it is likely to be consumed.

- This boost in aggregate demand would support the business cycle against economic slumps. Finally, this boost in aggregate demand is not a function of loose monetary or expansionary fiscal policy. Thus, it will not create the problem of inflation or crowding out in the economy.
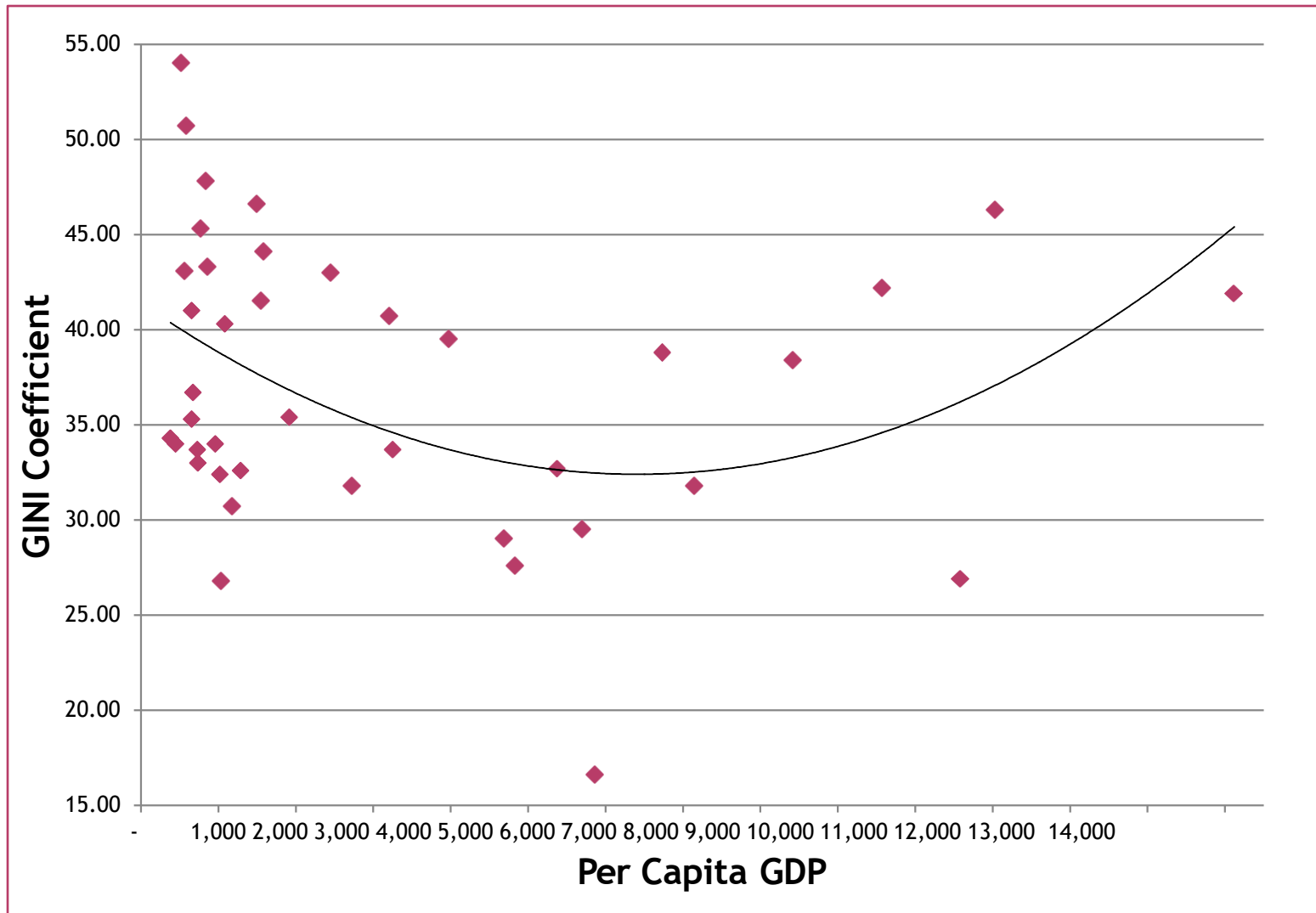
INCOME INEQUALITY IN MUSLIM WORLD

Country	GINI Index	Country	GINI Index
Mozambique	54.00	Sudan	35.40
Guinea-Bissau	50.70	Burkina Faso	35.30
Benin	47.80	Niger	34.30
Cameroon	46.60	Sierra Leone	34.00
Malaysia	46.30	Tajikistan	34.00
Comoros	45.30	Guinea	33.70
Djibouti	44.10	Jordan	33.70
Chad	43.30	Mali	33.00
Togo	43.10	Bosnia	32.70
Nigeria	43.00	Mauritania	32.60
Gabon	42.20	Bangladesh	32.40
Turkey	41.90	Egypt	31.80
Cote d'Ivoire	41.50	Lebanon	31.80
Uganda	41.00	Pakistan	30.70
Morocco	40.70	Iraq	29.50
Senegal	40.30	Albania	29.00
Indonesia	39.50	Algeria	27.60
Iran	38.80	Kazakhstan	26.90
Maldives	38.40	Kyrgyz Republic	26.80
Yemen	36.70	Azerbaijan	16.60

INCOME INEQUALITY IN MUSLIM WORLD

- 34 out of 40 OIC countries have Gini coefficient greater than 30%.

- As many as 16 countries have Gini coefficient in excess of 40%.

- Except Turkey and Malaysia, most of these countries belong to African continent and they are suffering both economic underdevelopment and income inequality together.

GINI COEFFICIENT AND PER CAPITA GDP

INCOME INEQUALITY IN MUSLIM WORLD

- A plot of Gini coefficient against per capita GDP in reveals that the usual inverted Kuznet curve is not confirmed by the evidence.

- The empirical evidence from 40 OIC member countries reveal that the quadratic trend line between Gini coefficient and per capita GDP is a U shaped curve.

- There are 10 OIC member countries in the sample with a per capita GDP in excess of USD 5,000.

- In these countries, as many as 7 countries have Gini coefficient in excess of 30%.

$$Gini = \beta_0 + \beta_1 gdppc + \beta_2 gdppc^2 + \mu$$

VARIABLES	GINI
Dependent Variable: GINI	
GDPPC	-0.00281***
	(-2.863)
GDPPC Square	0.00000022***
	(2.965)
Constant	41.44***
	(20.28)
Observations	40
R-squared	0.166

Note: *** p-value < 0.01, ** p-value < 0.05

The results reveal that both β_1 and β_2 are statistically significant. It is found that β_2 is positive and statistically significant at 1% level of significance. This result further confirms the finding that income inequality does not improve with economic growth as conjectured by Kuznet.

REDISTRIBUTIVE INSTITUTIONS: ZAKĀT

- In institution of *Zakāt*, the payer of *Zakāt* and the receiver of *Zakāt* belong to two different income classes.

- The payer of *Zakāt* is a non-poor person with surplus wealth above *Nisāb*.

- The receiver of *Zakāt* is usually a poor person with no surplus wealth above *Nisāb*.

- The threshold wealth of *Nisāb* makes a distinction between the payer and the receiver and helps to achieve targeted wealth transfer to the people who are usually the poor people.

REDISTRIBUTIVE INSTITUTIONS: ZAKĀT

- *Zakāt* can achieve the redistribution objectives more effectively and consistently since wealth fluctuates much less than income over the business cycles.

- *Zakāt* system has an inbuilt mechanism to reach the right targets in terms of *Zakāt* collection and disbursement.

- Zakāt targets accumulated wealth and transfers it to the poor. If the world's average wealth to income ratio is taken as 5, then the estimated global wealth will reach $500 trillion by 2020. It is sufficient to give one dollar a day to 767 million poor people for 1,786 years. Annually, 2.5% *Zakāt* on it $500 trillion will provide dollar a day to 767 million poor for 45 years.

REDISTRIBUTIVE INSTITUTIONS: ZAKĀT

- FAO estimates that food per capita availability has increased since the 1970s, but still close to 800 million people suffer from hunger.

- Unfettered Capitalism results in unmet needs as well as unused resources.

- *Zakāt* helps in wealth transfer as well as wealth circulation in the real economy to enhance employment of labor and non-labor resources and provide sustainable incomes to the poor.

- *Zakāt* could help in providing income support to the poor people who are food insecure due to lower and unsustainable incomes.

REDISTRIBUTIVE INSTITUTIONS: ZAKĀT

- Oxfam reports that 8 individual persons have as much wealth as bottom 50% of the entire global population.

- Their combined wealth is $426.2 billion as of end-2016.

- As per World Bank, there are 767 million people below the poverty line of $1.90/day.

- It means that poverty gap is $531.9 billion (1.90 x 767,000,000 x 365) per year.

REDISTRIBUTIVE INSTITUTIONS: ZAKĀT

- Nearly 50 percent of the people living in extreme poverty are 18 years old or younger.

- A significant portion of our global population would not have a fair start to achieve socio-economic mobility.

- Proper nourishment, basic medicines and vaccinations are necessary to avoid ill-health, stunting and loss of capacities for independent productive living in adulthood.

- Unless effective redistribution happens, the purchasing power cannot be enhanced which is vital to afford even the basic necessities today, such as food, water and medicines.

REDISTRIBUTIVE INSTITUTIONS: ZAKĀT

- *Zakāt* from endowment surplus households (those having higher wealth than *Nisāb*) to the endowment deficient households can help in providing income support and affordability for skills enhancement programs.

- *Zakāt* could also be used to provide funding for educational and health institutions, thereby contributing to human capital development which can provide decent work.

- *Zakāt* would ensure circulation of wealth in the productive enterprise, thereby directing capital to go in the real sector of the economy rather than sitting idle in the hands of the wealthy individuals.

- Poor people be provided with *Zakāt* as transfer payment for a necessary number of periods so that they can survive as well as permanently move to the status of non-poor.

- Public sector educational and health institutions need to provide effective and affordable services with state of the art quality so that the income earning capacity of these poor people can be enhanced along with ensuring their survival and meeting the basic physiological needs of life.

- The close interaction between the *Zakāt* disbursement agency and the Islamic microfinance institutions is also vital. Microfinance institutions can help in identifying targets that require immediate help in meeting consumption expenditure requirements which can be met through *Zakāt* transfers.

INSTITUTIONALIZING ZAKĀT IN ECONOMY

- For effective organization and with the objective of maximizing the benefits of *Zakāt*, it is appropriate to disburse *Zakāt* at the federal level. This way the regional disparities can be reduced more effectively.

- To gain the trust and confidence of people, it is vital to improve governance and transparency. Collection and disbursement details shall be reported in a standard way periodically.

- It is important to modify the accounting standards to achieve transparent computation, assessment and collection.

- It is vital to improve the capacity of the public sector officials to scrutinize accounts for transparent and efficient *Zakāt* assessment.

- Pooling resources by transferring surplus *Zakāt* funds from the rich countries to the poor countries with lower wealth ownership can assist in reducing poverty in the members of Organization of Islamic Cooperation countries (Shirazi & Amin, 2009).

- The timing for wealth *Zakāt* is especially important. It is better to have an equal number of people paying *Zakāt* every quarter rather than all paying at a single time of the year. This will help in reducing any possible arbitrage and enable the government to have *Zakāt* funds available at all times of the year.

- In direct transfers, it is vital to give enough *Zakāt* per person so that the person can come out of poverty and the objective of social mobility can be achieved (Mahmud & Haneef, 2012).

THANK YOU

Questions, Feedback & Suggestions

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