# Equitable Distribution of Income with Growth in an Islamic Economy

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# Presentation Outline

- Introduction
- Effects of Zakat on Wealth Redistribution
- Effects of Islamic Inheritance Laws on Wealth Redistribution
- Achieving Egalitarian Income Distribution in Islamic Economy
- Removing Extractive Institutions for Reducing Inequalities

# Introduction: Rise in Inequality

- Income distribution has worsened in recent decades.
  - 60% of the increase in US national income in the 30 years after 1977 went to just the top 1% of earners (Piketty, 2014).
  - The only section of the US population that has done better than the top 1% is the top 10th of that 1% (Piketty, 2014).
  - Top 0.1% of Americans claim 9% of income which is up from 2% at the middle of the twentieth century (Piketty, 2014).
  - The top 0.1% holds a near-record 22% of the wealth while the top 0.01% claim a bigger income share than any other time in the history (Piketty, 2014).

# Introduction: Rise in Inequality

- Corporate profits have swelled in post WWII period and the average CEO earns as much as earnings of 331 workers, up from a 24 to 1 ratio in the 1960s.

- While the top 10% have amassed more wealth in the last 50 years, America's bottom 90% is falling deeper and deeper into debt.

- Income inequality even in OECD (Organization for Economic Cooperation & Development) countries is at its highest level for the past half century.

- The average income of the richest 10% of the population is about nine times that of the poorest 10% across the OECD, up from seven times 25 years ago.

# Introduction : Rise in Inequality

- Past growth experience of Japan and USA or even recent growth experience of India and China has shown increase in income inequality in these countries.
- Economic growth has failed to improve income distribution in these countries.
- In this backdrop, we identify specific institutions in Islam that can help in achieving egalitarian distribution of income along with continued growth.

# Introduction: Growth-Inequality Nexus

- In classical and neoclassical growth theory, it is argued that inequality is necessary to kick-start economic growth.
- In the Lewis model (1954), the capitalist class is expected to instigate economic growth through production in modern manufacturing sector.
- Kuznets (1955) argues that economic growth will trickle down to the masses as economic growth is sustained and allowed to mature.

# Introduction: Growth-Inequality Nexus

- Explaining the reason why income inequality in the initial stages of development may be necessary, Persson & Tabellini (1991) explain through a model that people with sufficiently low income do not accumulate any capital per worker.

- Hence, at very low levels of development, redistributing income towards the rich may increase aggregate savings and hence lead to more rapid growth, if the rich have a higher marginal propensity to save than the poor.

# Introduction: Growth-Inequality Nexus

- In literature, productivity changes, differential savings behavior, exploitation of workers etc are some of the variables suggested to explain Kuznet U hypothesis (Robinson, 1976).

- But, in the empirical economic literature on the relationship between inequality and growth, we have no definite conclusive theory.

# Introduction: Growth-Inequality Nexus

- Some studies do point out the growth-enhancing function of income inequalities.

- Forbes (2000) suggests that in the short and medium term, an increase in a country's level of income inequality has a significant positive relationship with subsequent economic growth.

# Introduction: Growth-Inequality Nexus

- Barro (2000) in an empirical study shows little overall relation between income inequality and rates of growth and investment.

- His results indicate that higher inequality tends to retard growth in poor countries and encourage growth in richer places.

- However, this relation does not explain the bulk of variations in inequality across countries or over time.

# Introduction: Growth-Inequality Nexus

- On the political economy of income inequality, Persson & Tabellini (1991) suggest that to begin the economic growth process, restricting the political participation of the poor is a useful and effective policy tool since such restrictions were common in the political history of the Western democracies.

- A stiffer limit on political participation would prevent the distributional conflict from manifesting itself in policies that limit the incentives for accumulation, and could thus keep up growth even in the presence of acute inequality.

- As development progresses and inequality is reduced, political rights could be extended to larger fractions of the society without endangering economic growth.

# Introduction: Growth-Inequality Nexus

- Aghion et al (1999) maintain that temporary reduction in after-tax inequality that would foster investment incentives and growth in the short run would result in a rise in inequality as a consequence of the induced technical progress.

- What is needed is a permanent redistribution policy in order to control inequality and foster social mobility and growth.

# Introduction: Growth-Inequality Nexus

- However, the empirical evidence especially in recent decades challenges the pro-growth function of income inequality.

- As against the inverted U-hypothesis, even the successful growth stories of OECD countries, North America and parts of Asia are not able to avoid unequal distribution of resources.

# Introduction: Growth-Inequality Nexus

- Lucas (1993) presents an interesting case study of South Korea and Philippines. Both countries were similar with respect to GDP per capita, population, urbanization and school enrollments.

- However, despite the identical point of beginning, Korea experienced 'miraculous' growth averaging about 6% per year, while the Philippines stagnated at about 2% per year over the next quarter century.

# Introduction: Growth-Inequality Nexus

- Lucas (1993) argues that looking beyond the aggregate indicators in these countries; the initial conditions were in fact quite different.
- The income distribution was relatively more unequal in the Philippines.
- Hence, it shows that high inequality of income can hamper growth which is against the conventional Kuznet curve hypothesis.

# Introduction: Growth-Inequality Nexus

- Aghion et al (1999) list three reasons why inequality may have a direct negative effect on growth.

  - First, inequality reduces investment opportunities.
  - Second, inequality worsens borrowers' incentives.
  - Third, inequality generates macro-economic volatility.

# Introduction: Growth-Inequality Nexus

- Aghion et al (1999) suggest that redistribution to the less endowed, by reducing inequality, can therefore be growth enhancing in such an economic environment.

- Persson & Tabellini (1991) contend that inequality is harmful for growth. They argue that a society where distributional conflict is more important, political decisions are more likely to produce economic policies that allow private individuals to seek rents.

# What Islamic Economics Has to Offer?

# Effects of Zakat on Wealth Distribution

- In this section, we present a simple illustration of how the institution of Zakat in an Islamic economy reduces wealth concentration. For a particular individual, net Zakat wealth at a point in time is given by equation (i):

$$W_t = I_t - 0.025(NZW_{t-1}) + W_{t-1} - C_t \quad \text{----} \; (\text{i})$$

- Here,
- '$I_t$' is income of individual in time period 't'.
- '$NZW_{t-1}$'is the base of wealth that will be used for Zakat deduction.
- '$W_{t-1}$'is the wealth of individual 'i' in previous time period.
- '$C_t$' is the consumption in time period 't'.

# Effects of Zakat on Wealth Distribution

- Simplifying equation (i), we get:

$$W_t = I_t - 0.025(W_{t-1} - N_{t-1}) + W_{t-1} - C_t$$
$$W_t = I_t - 0.025W_{t-1} + W_{t-1} + 0.025N_{t-1} - C_t$$
$$W_t = I_t + 0.975W_{t-1} + 0.025N_{t-1} - C_t$$

- Expanding it iteratively forward, we get1

$$W_{t+1} = I_{t+1} + W_t - 0.025(W_t - N_t) - C_{t+1}$$
$$W_{t+1} = I_{t+1} + 0.975W_t + 0.025N_t - C_{t+1}$$
$$W_{t+1} = I_{t+1} + 0.975(I_t + 0.975W_{t-1} + 0.025N_{t-1} - C_t) + 0.025N_t - C_{t+1}$$
$$W_{t+1} = I_{t+1} + 0.975I_t + 0.950625W_{t-1} + 0.024375N_{t-1} + 0.025N_t - 0.975C_t - C_{t+1}$$

# Effects of Zakat on Wealth Distribution

- It can be seen that the wealth function will decumulate base year wealth and overall wealth can only increase with increase in income, labor plus non-labor.

$$W_{t+1} = I_{t+1} + 0.975I_t + 0.950625W_{t-1} + 0.024375N_{t-1} + 0.025N_t - 0.975C_t - C_{t+1}$$

- Hence, the institution of Zakat can be very effective in reducing wealth inequality.

# Effects of Islamic Inheritance Laws on Wealth Redistribution

- In this section, we present a simple two-period lifecycle model which illustrates the effects of Islamic laws of inheritance and Zakat on reducing wealth inequalities. We start with two equations that describe the budget constraint for the head of household.

$$P_1 C_1^H + 0.975 A_1^H = Y_1^H + (1 + p_r) A_0^H \qquad \text{---- (ii)}$$

$$P_2 C_2^H + 0.975 A_2^H = Y_2^H + (1 + p_r) A_1^H \qquad \text{---- (iii)}$$

- Here,
- '$P_1$' and '$P_2$'and are prices of aggregate consumption goods in period 1 and 2.
- $C_1^H$ and $C_2^H$ are consumption by the head of household in period 1 and 2.
- $A_0^H$ and $A_1^H$ are the wealth / assets brought in the beginning of period 1 and 2 respectively.

# Effects of Islamic Inheritance Laws on Wealth Redistribution

- Equations (ii) and (iii) describe the lifetime consumption cycle for the head of household in a two-period model. We assume that the head of household lives for two periods.

- The person allocates lifetime resources earned through labor income and non-labor income on lifetime consumption.

- Left hand sides of the equations (ii) and (iii) describe the value of lifetime expenditure and right hand sides of the equations (ii) and (iii) describe the value of life time resources.

# Effects of Islamic Inheritance Laws on Wealth Redistribution

- '$P_r$' is the ex post average rate of return on an investment opportunity in the real sector of the economy.

- $A_1^H$ represents the value of net assets at the end of period 1. The head of household will have to pay 2.5% Zakat on these assets and hence, only the value of $0.975A_1^H$ worth of assets will be transferred to period 2 from period 1.

- Likewise, $A_2^H$ represents the value of assets / wealth in the ownership of head of household at the end of period 2 (the terminal period of life). Hence, the value of $A_2^H$ will equal the value of bequests, $B^H$.

# Effects of Islamic Inheritance Laws on Wealth Redistribution

- According to Islamic law, the leftover assets of the deceased are distributed among the close relatives including parents, spouse, children and siblings.
- Each one of those close relatives gets a prescribed share.
- We denote the share by $\alpha_i$. Hence, we can write $B^H$ as:

$$B^H = \sum_i^n \alpha_i B^H \qquad \text{----} (iv)$$

# Effects of Islamic Inheritance Laws on Wealth Redistribution

- This presentation of lifetime resource allocation on consumption shows that in an Islamic economy, there is no risk free non-labor income.

- The only way a person can add to lifetime resources beyond his labor income is through profit on entrepreneurial investment in either one's own business or by participating in other's business via the partnership modes of Mudarabah and Musharakah.

# Effects of Islamic Inheritance Laws on Wealth Redistribution

- Secondly, this model also shows that if a person keeps investible wealth idle, then Zakat will decumulate the idle capital.
- Hence, in an Islamic economy, the system of Zakat ensures circulation of wealth in productive use and increase the supply of investible wealth in the production sector of the economy.
- The subsequent increase in investible wealth will increase employment opportunities and hence provides a market based solution to kick start economic growth in the economy.

# Effects of Islamic Inheritance Laws on Wealth Redistribution

- The model shows that during the lifetime, wealth concentration is reduced through disallowing provision of risk-free non labor income as a function of wealth.

- Wealth concentration is also checked through Zakat on idle investible wealth.

- Lastly, the leftover wealth after the lifetime will be distributed among the close relatives. This also systematically and permanently checks wealth concentration in each household across space and time at the most micro level possible.

# Effects of Islamic Inheritance Laws on Wealth Redistribution

- Hence, when wealth distribution gets equitable, the income distribution too is expected to become more equitable in an interest free economy.

- With prohibition of interest based earnings, the wealth can only be invested in productive enterprise.

- What expedites this investment is the fact that if wealth is not invested in a productive enterprise, wealth Zakat would automatically take the part of idle wealth from the wealth owner and distribute it in society among the people who need it and who can make productive use of it.

# Effects of Islamic Inheritance Laws on Wealth Redistribution

- Hence, not only the income and wealth distribution become more equitable, the efficiency in use of productive resources also increases in an Islamic economy.

- It is important to note that these are the mechanisms which perform their work without the intervention of the state and use of any clever discretionary ad-hoc policy.

# Achieving Egalitarian Income Distribution in an Islamic Economy

- Income function of an individual in Islamic economy can be represented by:

$$I_t = wL_t + E(\pi_t) + \ rA \qquad \text{--- (i)}$$

- Where,

- 'r' is the rent on physical asset holdings 'A'.
- Market wage is 'w'
- Labor supply is $L_t$.

- $L_t$ is expected to be higher in an Islamic economy than in a capitalist economy. The reason is that the feasible income sources in an Islamic economy will not allow a perpetual income source which is a direct function of past accumulated wealth.

# Achieving Egalitarian Income Distribution in an Islamic Economy

- $E(\pi_t)$ is income from direct and indirect participation in entrepreneurial activities for individual in time period 't'.

$$E(\pi_t) = \sum_{j=1}^{k} p_j \pi_j \qquad \text{--- (ii)}$$

- Provided that $0 < p_j < 1$.
- '$p_j$' is the profit sharing ratio in project 'j' agreed for time period 't' at time period 't-1'.
- '$\pi_j$' is the profit in project 'j'.
- If a person is the sole entrepreneur in some project 'j', then $p_j$ will be equal to unity.

# Achieving Egalitarian Income Distribution in an Islamic Economy

- It can be seen that in an Islamic economy, there is no provision for risk-free income.

- The legitimate sources to earn include income from providing factor services like labor, land in ownership, possession and risk and any other income from entrepreneurial undertakings in investment opportunities in the real sector of the economy.

# Achieving Egalitarian Income Distribution in an Islamic Economy

- If the average ex post realized return from investment opportunities is low, the household will have to increase labor supply to compensate for the lower income from entrepreneurial investments.

- Increase in labor supply will reduce wage bill for the production sector and hence it will increase the ex post realized rate of return from entrepreneurial investments.

# Achieving Egalitarian Income Distribution in an Islamic Economy

- Hence, this adjustment process of capital mobility and labor market transitions will lead to an equilibrium state where the share in income of the workers and capitalists are closer to each other except for differences in risk tolerance, risk preference, effort and skills.

# Extractive Institutions in Capitalism Causing the Great Gap

- Islam removes the extractive institutions that perpetuate income and wealth inequality in an economy, especially the institution of interest and freedom to devise tax policy for elite interest groups in capitalistic democracies that put the welfare of future generations in jeopardy by excessive deficit financing and inflation tax.

- A uniform Zakat levy on wealth and produce can result in tax rate smoothing, automatic stabilization of business cycle and hence encourage long term investments and decision making without leaving the long term planner in the private sector to worry about fiscal policy reversals (i.e. Ricardian equivalence).

# Thank You

For any queries, feedback & suggestions

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