Estimation of Potential Aggregate Zakat Collection: Evidence from Pakistan

Preliminary Research Idea

Prepared by

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Estimation of Potential Aggregate Zakat Collection: Primary Survey Evidence from Pakistan

Salman Ahmed Shaikh

1. Introduction

Zakat is a religious obligation to pay a part of wealth and production in the way of Allah. In its economic character, Zakat is a combination of a net worth levy and production levy.

As can be seen from Figure 1, Zakah collection and its disbursement is very low in Pakistan at the federal level. Hence, there is a need to estimate Zakat potential using micro data and other secondary sources since very little amount of total Zakat paid in society is actually paid to the government in Pakistan.

Figure 1: Zakat Receipts

There are have been research studies done in past on estimation of Zakat at the aggregate level. Firdaus et al (2012) estimate the potential of Zakat in Indonesia by surveying 345 households and their results show that total of all Zakat potential in Indonesia from various sources is approximately 217 trillion rupiah. This number is equal to 3.4% of Indonesia’s 2010 GDP.

For Pakistan, Kahf (1989) use different Zakat categories and according to his estimate, Zakat collection can be between 1.6 percent of GDP to 4.4 percent of GDP.
2. **Problem Statement**

Estimate potential Zakat collection at economy wide level to document the welfare potential of the institution of Zakat.

3. **Importance of the Study**

Islamic economics literature is rich in welfare potential of Zakat, but very few empirical studies have undertaken the quantitative estimation of potential Zakat collection. Zakat is one important distinct institution in Islamic economics and hence a micro-founded study focused on potential Zakat collection will enrich the literature and help policymakers to incorporate the institution of Zakat as a support to funding and organizing welfare programs.

4. **Research Objectives**

The study has following important objectives:

- **a)** To estimate the potential Zakat collection using micro data at individual level.
- **b)** To assess in quantitative terms the welfare potential of Zakat by comparing it with poverty gap in Pakistan.
- **c)** To identify particular characteristics of an individual with regards to monetary and demographic variables which potentially increase the Zakat collection.
- **d)** To identify and rank regions in terms of how much Zakat can be collected from particular regions and compare this ranking with ranking of regions based on income.

5. **Research Methodology**

5.1. **Mathematical Computation**

Lifetime wealth Zakat function for an individual ‘i’ can be represented as:

\[ Z_i = \sum_{t=1}^{n} 0.025 (NZW_t) \]

Here,

- \( Z_i \) is Zakat liability of an individual ‘i’.
- Time period ‘t’ runs from \( t=1 \) (current time period) to ‘n’ (terminal point of life).
- \( NZW_t \) represents net Zakat wealth. It is computed as \( (W_t - N_t) \).

Where \( W_t \) is gross amount of wealth and \( N_t \) is value of Nisab amount.
Nisab is minimum threshold of wealth which is not subject to Zakat.

Zakat function of an economy can be represented as:

$$Z_T = \sum_{i=1}^{n} 0.025 \ (NZW_i)$$

For a particular individual ‘i’, net Zakat wealth at a point in time is given by:

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

Here,

$I_t$ is income of individual ‘i’ 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’.

For estimating Zakat at aggregate level, we will have to compute Zakat collectible from agriculture produce, industrial tradable inventory, financial securities etc. For this purpose, Economic Survey of Pakistan and published reports of State Bank of Pakistan, Ministry of Finance and Pakistan Bureau of Statistics will be consulted.

The final estimation table will have estimation of Zakat collected in these heads as reported in Table 1.
Table 1: Estimation of Zakat

<table>
<thead>
<tr>
<th>Report Date</th>
<th>Category</th>
<th>Quantity</th>
<th>Amount (Min Rs.)</th>
<th>Zakat Collectible (Min Rs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>End-Jun 2013</td>
<td>Zakat on Wealth</td>
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<td>Gold</td>
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<tr>
<td>End-Jun 2013</td>
<td>Currency in Circulation</td>
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<td>15-Mar-14</td>
<td>KSE Market Capitalization</td>
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<td>18-Mar-14</td>
<td>Open End Funds</td>
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<td>18-Mar-14</td>
<td>Closed End Funds</td>
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<td>18-Mar-14</td>
<td>Pension Schemes</td>
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<td>End-Jun 2012</td>
<td>NSS</td>
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<td>14-Mar-14</td>
<td>Foreign Exchange Reserves</td>
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<tr>
<td>End Jun 2013</td>
<td>Changes in Stocks/Inventories</td>
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<td>End-Jun 2013</td>
<td>Livestock Value (Cattle at Rs 40,000/Unit)</td>
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<tr>
<td>End-Jun 2013</td>
<td>Livestock Value (Buffalo at Rs 40,000/Unit)</td>
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<tr>
<td>End-Jun 2013</td>
<td>Livestock Value (Sheep at Rs 10,000/Unit)</td>
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<tr>
<td>End-Jun 2013</td>
<td>Livestock Value (Goat at Rs 10,000/Unit)</td>
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<tr>
<td>End-Jun 2013</td>
<td>Livestock Value (Camel at Rs 40,000/Unit)</td>
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<td>Less: Nisab Amount (P_{MNA} \times MNA)^1</td>
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<td>Net Amount Subject to Zakat</td>
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<td><strong>Total Wealth Zakat</strong></td>
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<td><strong>Zakat on Produce</strong></td>
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<td>End-Jun 2013</td>
<td>Produce on Rain-fed Land</td>
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<td>Khums</td>
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<td>End-Jun 2013</td>
<td>Produce on Irrigated Land</td>
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<td><strong>Total Zakat Collection by Classical Method</strong></td>
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</tbody>
</table>

5.2. Nature of Data

Primary data will be collected from 1,000 people. Data will be collected through structured questionnaire. Questionnaire will be filled in person and over internet.

5.3. Sampling Unit

Sample unit will be individual persons who are earning regular income from some source or have Zakatable assets.

\(^1\) P_{MNA} is population with minimum Nisab amount. MNA is value of minimum Nisab amount.
5.4. **Sampling Methodology**

For sampling, a mix of convenience and quota sampling will be used. For this Survey, major cities of Pakistan including Karachi, Hyderabad, Sukkur, Lahore and Islamabad etc are selected.

5.5. **Methods**

For analysis of data, descriptive and inferential tools will be used including parametric and non-parametric tests. Linear probability model, Logit model and Probit model will be used for assessing the probabilities of success in binary dependent variables. Contingency tables will also enable us to highlight possible relationships between different factors in the study.

6. **Potential Output from Research**

In terms of practical and social implications, this will be the first research in the case of Pakistan to actually use micro data to come up with economy wide estimation of potential Zakat collection. A lot of literature has focused on welfare, fiscal and redistribution potential of Zakat descriptively and theoretically, but very few studies had actually estimated the potential Zakat collectible in quantitative terms. This study will provide evidence on its potential and by comparing the results with WDI poverty gap measures, the extent of need fulfillment with Zakat can be analyzed and documented.

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**References**


Appendix I: Pilot Questionnaire

Pilot Survey Questionnaire for the Study “Savings Behavior in Pakistan”

Note: Please take some time out and fill the survey. This survey is solely for the purpose of an academic study. The response will remain highly confidential and will not be used for any other purpose. Your identity is not required to be known for the study and hence no personal identification including name, contact, address etc is required.

1. Location of Residence:

- [ ] Karachi
- [ ] Hyderabad
- [ ] Islamabad
- [ ] Lahore
- [ ] Faisalabad
- [ ] Sukkur
- [ ] Multan
- [ ] Peshawar
- [ ] Quetta
- [ ] Other (please specify) [ ]

[Logo: Islamic Economics Project]
2. Assets in Ownership (Select Approximate Value in Column):

<table>
<thead>
<tr>
<th>Type of Asset</th>
<th>Not Applicable</th>
<th>Less than Rs 1 million</th>
<th>Rs 1 million - Rs 2.5 million</th>
<th>Rs 2.5 million - Rs 5 million</th>
<th>Rs 5 million - Rs 10 million</th>
<th>Rs 10 million - Rs 25 million</th>
<th>Rs 25 million - Rs 50 million</th>
<th>Rs 50 million - Rs 100 million</th>
<th>More than Rs 100 million</th>
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<tr>
<td>Personal Car</td>
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<td>Other Real Estate Than Personal Home</td>
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<td>Total Value of Consumer Electronics</td>
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3. How Much Assets You Hold as Cash or in Bank Account on Average?

- Less than Rs 20,000
- Rs 20,000 - Rs 30,000
- Rs 30,000 - Rs 40,000
- Rs 40,000 - Rs 50,000
- Rs 50,000 - Rs 75,000
- Rs 75,000 - Rs 100,000
- Rs 100,000 - Rs 150,000
- Rs 150,000 - Rs 200,000
- Rs 200,000 - Rs 250,000
- Rs 250,000 - Rs 300,000
- Rs 300,000 - Rs 400,000
- Rs 400,000 - Rs 500,000
- More than Rs 500,000
Other (please specify) 

4. Have You Invested Any Wealth in Stock Market, Mutual Fund, National Savings Schemes?

<table>
<thead>
<tr>
<th></th>
<th>No</th>
<th>Less than Rs 20,000</th>
<th>Rs 20,000 - Rs 40,000</th>
<th>Rs 40,000 - Rs 70,000</th>
<th>Rs 70,000 - Rs 100,000</th>
<th>Rs 100,000 - Rs 200,000</th>
<th>Rs 200,000 - Rs 500,000</th>
<th>More than Rs 500,000</th>
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<td>Stock Market</td>
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<td>Insurance Policies</td>
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<td>BC System of Savings</td>
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Other (please specify) 

5. Monthly Income:

- Less than Rs 20,000
- Rs 20,000 - Rs 30,000
- Rs 30,000 - Rs 40,000
- Rs 40,000 - Rs 50,000
- Rs 50,000 - Rs 75,000
- Rs 75,000 - Rs 100,000
- Rs 100,000 - Rs 150,000
- Rs 150,000 - Rs 200,000
- Rs 200,000 - Rs 250,000
- Rs 250,000 - Rs 300,000
- Rs 300,000 - Rs 400,000
- Rs 400,000 - Rs 500,000
- More than Rs 500,000
6. Monthly Expenditure:

- Less than Rs 20,000
- Rs 20,000 - Rs 30,000
- Rs 30,000 - Rs 40,000
- Rs 40,000 - Rs 50,000
- Rs 50,000 - Rs 75,000
- Rs 75,000 - Rs 100,000
- Rs 100,000 - Rs 150,000
- Rs 150,000 - Rs 200,000
- Rs 200,000 - Rs 250,000
- Rs 250,000 - Rs 300,000
- Rs 300,000 - Rs 400,000
- Rs 400,000 - Rs 500,000
- More than Rs 500,000

Other (please specify)

7. Do You Own Other Ornaments/Jewellery? (Tick More Than One If Appropriate)

<table>
<thead>
<tr>
<th></th>
<th>0 - 10 Gram</th>
<th>10 - 30 Gram</th>
<th>30 - 50 Gram</th>
<th>50 - 75 Gram</th>
<th>75 - 100 Gram</th>
<th>100 - 150 Gram</th>
<th>150 - 200 Gram</th>
<th>200 - 500 Gram</th>
<th>500 - 1000 Gram</th>
<th>More than 1 KG</th>
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</thead>
<tbody>
<tr>
<td>Gold</td>
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<td>Other Precious Stones</td>
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Other (please specify)
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8. Annual Zakat Payment:

☐ Less than Rs 20,000
☐ Rs 20,000 - Rs 30,000
☐ Rs 30,000 - Rs 40,000
☐ Rs 40,000 - Rs 50,000
☐ Rs 50,000 - Rs 75,000
☐ Rs 75,000 - Rs 100,000
☐ Rs 100,000 - Rs 150,000
☐ Rs 150,000 - Rs 200,000
☐ Rs 200,000 - Rs 250,000
☐ Rs 250,000 - Rs 300,000
☐ Rs 300,000 - Rs 400,000
☐ Rs 400,000 - Rs 500,000
☐ More than Rs 500,000

9. Do You Make Charity Payments Other than Zakat in a Year?

☐ No
☐ If Yes (please specify how much in Rs.)


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10. To Whom Do You Make Zakat Payments?

<table>
<thead>
<tr>
<th>Category</th>
<th>Zero</th>
<th>5% - 10%</th>
<th>10% - 20%</th>
<th>20% - 30%</th>
<th>30% - 50%</th>
<th>50% - 75%</th>
<th>75% - 100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Religious Schools (Madaris)</td>
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<td>Other NGOs &amp; Trusts for Education</td>
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<td>Other NGOs &amp; Trusts for Health</td>
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<td>Poor Relatives</td>
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<td>Poor Non-Relatives</td>
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<td>Endowments (Auqaf)</td>
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<td>Government Institution</td>
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<td>Deducted at Source from Banks</td>
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Other (please specify)