

# Estimating Economy wide Potential Zakāt Collection in Pakistan

Salman Ahmed Shaikh<sup>1</sup>

## Abstract

*Islamic economics literature is rich in highlighting the welfare potential of Zakat, but very few empirical studies have undertaken the quantitative estimation of potential Zakat collection. In this study, we attempt to estimate potential Zakat collection at economy wide level to explore the welfare potential of the institution of Zakat in Pakistan. We attempt to estimate economy wide Zakat collection by including heads like Zakat on agriculture produce, value of livestock, tradable inventory, currency in circulation, foreign exchange reserves, estimated gold and silver deposits and financial assets like investments in National Savings Scheme (NSS), mutual funds, stock market capitalization, pension schemes and remunerative bank deposits. Our estimates suggest that approximately Zakat collection in Pakistan could reach up to 7.25% of GDP depending upon which approach is used to institutionalize Zakat in the economy. We argue that the Zakat collectible can be adequate in effectively dealing with poverty gap funding deficit in Pakistan. We also discuss that the institution of Zakat system can also have positive effects on capital formation and economic stabilization.*

**Keywords:** Zakāt, Welfare, Fiscal Policy, Public Finance

**JEL Codes:** E6, H2, H3

## 1. Introduction

Naveed and Ali (2012) in a study conclude that as many as 58.7 million people in Pakistan are living in multidimensional poverty with 46% of the rural population and 18% of the urban households falling below the poverty line. The recent United Nations

---

<sup>1</sup> Salman Ahmed Shaikh is a PhD scholar in Economics. He can be contacted at: salman@siswa.ukm.edu.my

Development Programme (2016) report reveals that multi-dimensional poverty in Pakistan stands at 38.8% in 2016. It is natural to ask what the government is doing for these poor people and how much it can expend to end extreme poverty in Pakistan. If we look at the fiscal position of the government, we see that Pakistan has a very low tax to GDP ratio at 9%. As a result of low tax to GDP ratio and high current expenditure, the government is suffering from a large budget deficit. Often, the development spending is curtailed to contain the large budget deficit due to high non-discretionary current expenditures in debt servicing and defense expenditure.

Expenditure on health and education is not even 5% of GDP in Pakistan. Due to such a low expenditure on developing human capital and maintaining health of the masses, poor people remain uneducated and unhealthy and hence they find it very difficult to get out of the poverty trap.

After deregulation of the banking sector in the 1990s, a lot of commercial banks started operations in the private sector. But, their outreach is very low in rural areas where most of the poverty exists. Microfinance penetration is also very low in Pakistan. According to Pakistan Bureau of Statistics, 2.8 million people out of 58.7 million poor people are served with Microfinance. It shows that only 4% of the potential target market is currently served with Microfinance. Hence, there is a need to mobilize more resources to end extreme poverty in Pakistan.

In this paper, we discuss how the institution of Zakāt can help in generating development funds and contribute in reducing poverty. We estimate the potential aggregate Zakāt collectible in Pakistan economy and compare it with the poverty gap. In Section 2, we present brief review of theoretical and empirical literature on Zakāt. In Section 3, we present the effects of Zakāt on wealth redistribution. In Section 4, we discuss issues in the estimation of Zakāt. In Section 5, we present the estimation results. Finally, in Section 6, we discuss the economic effects of the institution of Zakāt on capital formation and economic stabilization.

## **2. Brief Literature Review**

Zakāt is an important institution in an Islamic economic framework for poverty alleviation and economic welfare. In Islam, Zakāt is a religious obligation to pay a part of wealth and production to the government. As per Islamic injunctions, the government has to spend the Zakāt funds on specified heads mentioned in Qur'ān (Chapter Tauba, Verse 60). Wahid (1986) explains that Zakāt is a compulsory payment on the part of Muslims as a share to the poor and it has a wide variety of economic and social ramifications.

In its economic character, Zakāt is a combination of a net worth levy and a production levy. In early empirical literature on welfare potential of Infaq to alleviate poverty in Pakistan, Malik et al. (1994) use micro data to establish that Infaq does have significant impact on reducing poverty gap. In a recent empirical study for OIC countries, Shirazi and Amin (2009) estimate the resources required for poverty elimination under US \$1.25 a day and US \$2.0 a day respectively. Their estimates for Pakistan suggest that Pakistan needs 1% of GDP for poverty elimination under US \$1.25 a day and needs 6.77% of GDP for poverty elimination under US \$2 a day. For Pakistan, Kahf (1989) use different Zakāt categories and according to his estimate, Zakāt collection can be between 1.6% of GDP to 4.4% of GDP.

In a more recent study, Azam et al. (2014) in an empirical study for Pakistan establish that Zakāt significantly enhances the welfare of the households. M. Akram and Afzal (2014) in an empirical study for Pakistan argue that Zakāt disbursement among the poor, needy, destitute, orphans and widows has played a significant role in poverty alleviation. Their results show that there is an inverse relationship between poverty and Zakāt disbursement both in the short run and in the long run.

In another empirical study for Bangladesh, Hassan & Jauanyed (2007) estimate that Zakāt funds can replace the government budgetary expenditures ranging from 21% of Annual Development Plan (ADP) in 1983-84 to 43% of ADP in 2004-2005. For Malaysia, Sadeq (1996) finds that about 73% of the estimated potential Zakāt collection will be needed annually to change the status of hard-core households to a status of non-poor households in Malaysia. Ibrahim (2006) contends in an empirical study for Malaysia that Zakāt distribution reduces income inequality. His analysis reveals that Zakāt distribution reduces poverty incidence, reduces the extent of poverty and lessens the severity of poverty. Firdaus et al. (2012) estimate the potential of Zakāt in Indonesia by surveying 345 households. Their results show that Zakāt collection could reach 3.4% of Indonesia's GDP.

Some studies also show the comparative potential of Zakāt as a superior tool for poverty alleviation. Debnath et al. (2013) assess the effectiveness of Zakāt as an alternative to microcredit in alleviating poverty in Bangladesh. Through the Propensity Score Matching (PSM) techniques, the study reveals that the impact of Zakāt scheme is greater than the microcredit programs. Besides that, the study also highlights that Zakāt scheme significantly increases both income and expenditure of the recipients in comparison to the microcredit programs.

In making effective use of Zakāt collection, Nadzri et al. (2012) recommend integrating the various poverty alleviation and redistribution tools for creating synergies. The effectiveness of Zakāt institutions may improve by collaborating with other institutions such as Microfinance institutions. Shirazi (2014) suggests that the institutions of Zakāt and Waqf need to be integrated into the poverty reduction strategy of the IDB member countries. The proceeds of these institutions should be made as part of their pro-poor budgetary expenditures. Hassan (2010) suggests a model which combines Islamic Microfinance with two traditional Islamic tools of poverty alleviation, such as Zakāt and Waqf in an institutional setup. Hassan (2010) argues that the poor borrowers will have less debt burden as their capital investments will be partly met by funds from Zakāt that does not require any repayment.

The institution of Zakāt is very dynamic and flexible. In Umer (rta) and Abu Bakar (rta) period of government, Zakāt was collected by the government. But, in Usman (rta) period, people were allowed to pay Zakāt privately (Kuran, 2003). Horses were exempted from Zakāt in Prophet's time, but, Umer (rta) brought them in the Zakāt net in his period. Similarly, Mahmud (2001) argues that the institution of Zakāt is flexible to a certain degree as evidenced from the example that Umer (rta) levied Zakāt on horses and skins and at the time when Arab was hit with a drought and famine, he exempted poor from Zakāt and suspended Zakāt from the rich. Usman (rta) also levied Zakāt on the production in forests which was not the case in the earlier period (Nadvi, 1996). Hence, a policy maker in a modern economy can use this institution flexibly to maximize the welfare benefits of the Zakāt system.

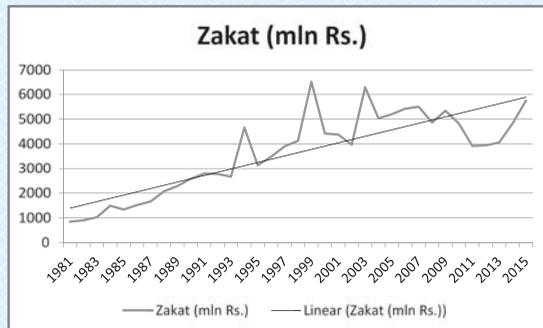
Nevertheless, Zakāt is not collected by the government nowadays in most countries and is not considered a compulsory payment to the government (Powell, 2009). Abo Bakar et al. (2007) argue that there may be lack of proper implementation of Zakāt in Muslim countries which limits the success of the noble aims of Zakāt. Yusoff (2011) urges that every Muslim country must organize Zakāt collection and Zakāt spending in the most effective and efficient manner. Azam et al. (2014) also suggest that there is a need to institutionalize the Zakāt collection system to increase the overall Zakāt collection.

One of the potential reasons for this state of affairs is that the mainstream Islamic scholarship allows taxes to be levied other than Zakāt for mobilizing public finance. Maududi (1970) argues that Zakāt is a religious obligation and is not a substitute of tax. Taxes other than Zakāt can be imposed in an Islamic economy if these taxes are levied by the legislative council and used for public welfare. He contends that the

taxes discouraged in Ahadith were those which were imposed by the autocratic kings for their own lavish consumption and this kind of usurpation of public property was discouraged in Islam.

Apart from weak administration and implementation of Zakāt system, another reason why Zakāt collection is low at the central level in Pakistan is that there is a big and growing trust deficit between the central government and the people. This trust deficit is reflected in the meager Zakāt collection at the government level. As can be seen from Figure 1, Zakāt collection and its disbursement is very low in Pakistan at the government level. In year 2015, Rs 5.74 billion (US\$ 54 million) Zakāt was received by the central public Zakāt agency. Nonetheless, the total charitable giving is much higher due to predominant share of charitable giving by individuals in their private capacities. According to Pakistan Center for Philanthropy (PCP), the total estimated charitable giving in Pakistan stands at Rs. 300 billion (US\$2.8 billion) in 2015. In the provincial studies, the amount contributed in the year 2013 stood at Rs. 67.9 billion (US\$0.65 billion) in Sindh and Rs. 103.69 billion (US\$1 billion) in Punjab, according to PCP reports for individual philanthropy in Sindh and Punjab. A recent estimate by Pakistan Peace Initiative (2017) contends that people in Pakistan pay around Rs. 554 billion (US \$5.31 billion) in charity every year.

Figure 1: Zakat Receipts (in mln Rs.)



Source: Handbook of Pakistan Economy 2015

In this study, we attempt to estimate potential Zakāt collection at the economy wide level to explore the welfare potential of the institution of Zakāt.

### 3. Mathematical Presentation of Zakāt

Now, we present a simple mathematical representation of the effects of Zakāt on wealth redistribution. To begin with, we can represent lifetime wealth Zakāt function for an individual 'i' as:

$$Z_i = \sum_{t=1}^n 0.025 (NZW_t) \quad \text{--- (1)}$$

Here is Zakāt liability of an individual ‘i’. Time period ‘t’ runs from t=1 (current time period) to ‘n’ (terminal point of life). represents net Zakāt wealth. It is computed as (. Where is the gross amount of wealth and is the value of Nisāb amount. Nisāb is the minimum threshold level of wealth which is not subject to Zakāt. Zakāt function of an economy for a particular year can be represented as:

$$Z_T = \sum_{i=1}^n 0.025 (NZW_i) \quad \text{--- (2)}$$

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

$$W_t = I_t - 0.025(NZW_{t-1}) + W_{t-1} - C_t \quad \text{--- (3)}$$

Here is the income of individual ‘i’ in time period ‘t’. is the base of wealth that will be used for Zakāt deduction. is the wealth of individual ‘i’ in the previous time period. is the consumption in time period ‘t’. Simplifying the above equation, we get:

$$W_t = I_t - 0.025(W_{t-1} - N_{t-1}) + W_{t-1} - C_t \quad \text{--- (4)}$$

$$W_t = I_t - 0.025W_{t-1} + W_{t-1} + 0.025N_{t-1} - C_t \quad \text{--- (5)}$$

$$W_t = I_t + 0.975W_{t-1} + 0.025N_{t-1} - C_t \quad \text{--- (6)}$$

Expanding it iteratively forward, we get

$$W_{t+1} = I_{t+1} + W_t - 0.025(W_t - N_t) - C_{t+1} \quad \text{--- (7)}$$

$$W_{t+1} = I_{t+1} + 0.975W_t + 0.025N_t - C_{t+1} \quad \text{--- (8)}$$

$$W_{t+1} = I_{t+1} + 0.975(I_t + 0.975W_{t-1} + 0.025N_{t-1} - C_t) + 0.025N_t - C_{t+1} \quad \text{--- (9)}$$

$$W_{t+1} = I_{t+1} + 0.975I_t + 0.95W_{t-1} + 0.024375N_{t-1} + 0.025N_t - 0.975C_t - C_{t+1} \quad \text{--- (10)}$$

It can be seen that the wealth function will diminish base year wealth overtime and overall wealth can only increase with increase in labor income plus non-labor interest-free income.

#### 4. Issues in the Estimation of Zakāt

Shirazi and Amin (2009) argue that since there is no agreement among the scholars on the new wealth that may be brought under the Zakāt net, there is an urgent need for

the general agreement on the definition of the items, which may be taken as Zakātable items. This requires Ijmā of the ulama and other contemporary scholars on the issue.

On the need for extending the Zakāt net by including all forms of wealth and produce, Qardawi (1999, p. 333) applies the methodology of qiyās (analogical reasoning) and reasons that the emerging and increasing types of wealth in modern times, such as bank deposits and financial securities like shares and bonds are also Zakātable (Qaradawi, 1999). Abo Bakar et al. (2007) also suggest that the ‘illah’ (rationale) for Zakātable should no longer be productive property, but any property which is in excess of one’s personal use. That is why; wealth or assets subject to Zakāt should include cash in hand or at bank, gold and silver, held-for-trade inventory, real estate purchased for the purpose of resale and all types of financial investments in stocks, bonds, debentures, national saving schemes and mutual funds.

Likewise, production is not limited to agriculture nowadays. The major part of production comes from industries as well as services sector. Therefore, income from the industrial production could also be taxed just like agriculture. Services income could also be taxed on the same principle.

To summarize, Zakāt should be levied as per the ceiling rates defined for each category of wealth or production. The classification is as follows:

- *2.5% on cash, wholesale value of held for trade inventory and wealth in excess of Nisāb. It is payable once a year at a particular set date.*
- *5% on production value or any other income generating activity using both labor and capital. It is charged at the completion of the production process or realization of earned income. Modern day analogous extension could be to use that to collect Zakāt from manufacturing and service industries.*
- *10% on production or any other income generating activity using either labor or capital. It is charged at the completion of the production process or realization of earned income. Modern day analogous extension could be to use that to collect Zakāt from income of self-employed practitioners, like lawyers, doctors, consultants, teachers and engineers. It could also include income from such sources where only capital is invested like equity investments in stocks, mutual funds and Real Estate Investment Trusts (REITs), for instance.*
- *20% on production using neither labor nor capital. This is applicable on treasure or any other natural gift obtained without using labor or capital. Modern day analogous extension could be to use that to collect Zakāt from royalty income, for instance.*

The derivation for production tax comes from the fact that the produce from rain-fed lands was subject to a 10% production tax; whereas, the produce from irrigated land (which had to be provided with capital) was subject to a 5% production tax in Prophet's (pbuh) time.

Next, we discuss another important question that whether investment in financial instruments shall be subject to wealth Zakāt on total investment value or only the income from such financial investments shall be subject to income Zakāt. Khan (2005) contends that investment in stocks should be interpreted as any other investment with some means of earning income. Investment in a stock is a means of earning dividend income or capital gains. Just like means of production/income are exempted from Zakāt, investment in stocks should be exempted from wealth Zakāt. Therefore, any income arising from investment in stocks must be subject to income Zakāt. Similarly, this argument could be extended to introduce income Zakāt on earnings from mutual funds, investment in National Savings Schemes (NSS), debentures and bonds. Furthermore, if a real estate is leased, the real estate becomes the means of earning rent for the owner. Hence, income Zakāt could also be introduced on rental income. However, if employees or directors are given bonuses in the form of stock ownership, they will have to pay 5% Zakāt on income from investment in stocks. It is due to the fact that in this case, the participation in the business venture is not only by way of providing capital, but also by providing labor. One crucial advantage to this is that the directors will be willing to make the company grow and own its stock so as to benefit not only from dividend/capital gains, but also be able to pay less tax on that income, i.e. 5% rather than 10%. This will effectively deal with the agency problem.

#### 4.1 Calculation of Nisab for Individuals (Exemption Amount)

In Table 1, we show Nisāb computation. Nisāb amount is computed by taking the market value of 612 grams of silver in Pakistan at the end of 2013, 2014 and 2015.

**Table 1: Nisab Computation**

Nisāb Computation for Silver	2013	2014	2015
Price of Silver (1 Gram) in Rs.	72.35	55.66	51.25
Nisāb of Zakāt in Silver (612 Grams) in Rs.	44,276	34,065	31,367

#### 4.2. Zakāt Computation on Gold

It is difficult to obtain micro data on gold holdings in Pakistan from aggregate indicators. We make an assumption that given a family owns a housing unit with minimum 3 rooms in an urban locality, it will possess on average 200 grams of gold. Most definitely, some

families will own more or less than this. But, for Pakistan, this assumption seems to be close to the mean value based on the survey results of 100 families in the city of Karachi. Table 2 gives an estimate of private ownership of gold at the aggregate level.

**Table 2: Estimation of Zakāt in Gold**

<b>Imputed Value of Private Gold Ownership</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
Total Housing Units in Pakistan (1998 Census)	19,211,738		
Estimated Housing Units in 2013 at 2% Growth	25,856,470	26,373,600	26,901,071
Share of Urban Dwellings (1998 Census)	31.39%		
Share of Urban Houses with Minimum 3 Rooms	37.95%		
Total Houses (Urban) with Minimum 3 Rooms	3,080,153	3,141,756	3,204,591
Gold Holdings (Grams) Per Housing Unit	200	200	200
Total Amount of Gold in Grams	537,675,600	628,351,200	640,918,200
Price of 1 gram Gold (Rs.)	Rs. 4,910	Rs. 4,650	Rs. 4,401
Amount of Gold Value (in million Rs.)	Rs. 2,639,987	Rs. 2,921,833	Rs. 2,820,681

### 4.3. Zakāt Computation on Tradable Inventory

It is difficult to compute the value of unsold inventory at a particular date for the whole economy. Wholesale and retail trade comprises 17% of total national income in Pakistan. Moreover, most of the informal sector is engaged in trading and that contribution does not usually show up in national income accounts.

To get a minimum estimate, we take the head ‘change in inventories’ from national income accounts. In national income accounting, ‘inventory investment’ represents value of production in a particular year that remains unsold during that year. It is assumed that the firm has itself purchased unsold inventory from itself. However, that figure in national income accounts gives an estimate of tradable inventory for production that had taken place only in that year. The actual tradable inventory could be much more than that. In Table 3 as well as in Table 4, we report the estimation of Zakāt on tradable inventory. We apply 2.5% rate of Zakāt on the estimated value of tradable inventory.

### 4.4 Zakāt Computation on Value of Produce

In the classical method, potential Zakāt collection is estimated using the convention that the absolute values of all asset holdings like cash, bank deposits, equity investments, mutual fund investments, annuities investments and fixed income securities investments are subject to wealth Zakāt. For estimating the value invested in stocks, mutual funds

and national saving schemes, we take KSE market capitalization, Assets Under Management (AUM) of mutual funds and outstanding balance of national saving schemes respectively.

On the other hand, if an alternative method is applied, the results could further enhance the potential Zakāt collectible. In the proposed method, invested capital will be considered a means of earning income and only income from that invested capital shall be subject to Ushr (i.e. a 10% levy). Likewise, produce from agriculture, industry and services shall also be subject to a 5% levy or Ushr. The production from irrigated lands shall be subject to a 5% levy. The production from rain-fed lands shall be subject to Ushr (i.e. a 10% levy). Since industries (manufacturing as well as services) are both labor and capital intensive, industrial production shall be subject to a 5% levy.

#### 4.5. Zakāt on Livestock

There are different rates of Zakāt on different types of livestock. But, at least 2.5% Zakāt is applied on different categories of livestock. Hence, we apply the conservative rate of 2.5% on livestock for ease of presentation.

### 5. Estimation of Aggregate Zakāt

#### 5.1. Classical Method

In Table 3, we show the computation of aggregate Zakāt from the classical method. Data on mutual funds assets is taken from Mutual Funds Association of Pakistan (MUFAP). Data on KSE market capitalization is taken from Pakistan Stock Exchange (PSE). Data on currency in circulation, outstanding volume of national savings scheme, livestock population and agricultural produce is taken from Handbook of Pakistan Economy 2015.

**Table 3: Estimation of Zakāt Based on Classical Approach (Amount in mln Rs.)**

Category	2013	2014	2015
<b>Zakāt on Wealth</b>	<b>(mln Rs.)</b>	<b>(mln Rs.)</b>	<b>(mln Rs.)</b>
Gold	2,639,987	2,921,833	2,820,681
Currency in Circulation	2,086,655	2,301,599	2,554,749
Deposits in Personal Category	3,693,162	4,176,832	4,749,553
KSE Market Capitalization	6,056,506	7,380,532	6,928,498
AUM in Open End Funds	332,702	386,568	411,655
AUM in Closed End Funds	24,165	21,417	18,231

AUM in Pension Schemes	4,822	8,175	13,585
Outstanding Amount in National Savings Scheme	2,395,842	2,602,824	2,939,884
Net Foreign Exchange Reserves with Banks	529,515	543,165	523,950
Changes in Stocks/Inventories	402,701	439,890	473,566
Livestock Value (Cattle at Rs 40,000/Unit)	1,717,961	1,783,115	1,850,741
Livestock Value (Buffalo at Rs 40,000/Unit)	1,468,552	1,512,711	1,558,198
Livestock Value (Sheep at Rs 10,000/Unit)	298,830	302,442	306,097
Livestock Value (Goat at Rs 10,000/Unit)	702,534	721,532	741,045
Livestock Value (Camel at Rs 40,000/Unit)	40,500	40,980	41,465
Less: Nisāb Amount ( $P_{MNA} \times MNA$ )	(534,411)	(409,393)	(382,928)
Net Amount Subject to Zakāt	21,860,023	24,734,222	25,548,970
<b>Total Wealth Zakāt Collectible</b>	<b>546,501</b>	<b>618,356</b>	<b>638,724</b>
<b>Zakāt on Produce</b>			
Produce on Rain-fed Land (25% Land is Rain-Fed)	1,494,054	1,640,708	1,760,218
Produce on Irrigated Land (75% Land is Irrigated)	4,482,163	4,922,124	5,280,655
Ushr on Produce from Rain-fed Land	149,405	164,071	176,022
Khamsa on Produce from Irrigated Land	224,108	246,106	264,033
<b>Total Zakāt Collectible in Classical Method</b>	<b>920,014</b>	<b>1,028,533</b>	<b>1,078,779</b>
<b>Zakāt to GDP Ratio in Classical Method</b>	<b>3.66%</b>	<b>3.74%</b>	<b>3.64%</b>

## 5.2. Proposed Method

In Table 4, we show the computation of aggregate Zakāt from the proposed method. In this method, the only change is that income from invested capital in bank accounts, stock market, mutual funds and national savings scheme is subject to Ushr (i.e. a 10% levy) rather than a 2.5% wealth Zakāt on absolute value.

**Table 4: Estimation of Zakāt Based on Proposed Approach**

Category	2013	2014	2015
Zakāt on Wealth	(mln Rs.)	(mln Rs.)	(mln Rs.)
Gold	2,639,987	2,921,833	2,820,681
Currency in Circulation	2,086,655	2,301,599	2,554,749
Net Foreign Exchange Reserves with Banks	529,515	543,165	523,950
Changes in Stocks/Inventories	402,701	439,890	473,566
Livestock Value (Cattle at Rs 40,000/Unit)	1,717,961	1,783,115	1,850,741
Livestock Value (Buffalo at Rs 40,000/Unit)	1,468,552	1,512,711	1,558,198
Livestock Value (Sheep at Rs 10,000/Unit)	298,830	302,442	306,097

Livestock Value (Goat at Rs 10,000/Unit)	702,534	721,532	741,045
Livestock Value (Camel at Rs 40,000/Unit)	40,500	40,980	41,465
Less: Nisāb Amount ( $P_{MNA} \times MNA$ )	(534,411)	(409,393)	(382,928)
Net Amount Subject to Zakāt	9,352,824	10,157,874	10,487,564
<b>Total Wealth Zakāt Collectible</b>	<b>233,821</b>	<b>253,947</b>	<b>262,189</b>
<b>Zakāt on Income/Production</b>			
<b>Ushr on Returns / Produce</b>			
Deposits in Personal Category	264,800	303,656	283,548
KSE Market Capitalization	2,580,072	1,851,037	307,625
AUM in Open End Funds	71,582	74,268	63,501
AUM in Closed End Funds	12,143	7,540	758
AUM in Pension Schemes	1,488	1,319	1,990
Outstanding Amount in National Savings Scheme	223,292	257,419	209,320
Produce on Rain-fed Land	1,494,054	1,640,708	1,760,218
<b>Total Ushr Collectible</b>	<b>464,743</b>	<b>413,595</b>	<b>262,696</b>
<b>Production Value / Income Subject to 5%</b>			
Produce on Irrigated Land	4,482,163	4,922,124	5,280,655
Khamsa on Industry	5,040,094	5,217,366	5,347,977
Khamsa on Services	13,012,586	14,359,575	15,516,241
<b>Total Khamsa Collectible</b>	<b>1,126,742</b>	<b>1,224,953</b>	<b>1,307,244</b>
<b>Total Zakāt Collectible in Proposed Method</b>	<b>1,825,306</b>	<b>1,892,495</b>	<b>1,832,129</b>
<b>Zakāt to GDP Ratio in Proposed Method</b>	<b>7.25%</b>	<b>6.88%</b>	<b>6.19%</b>

The weighted average deposit rate of 7.17%, 7.27% and 5.97% are used for 2013, 2014 and 2015 respectively as taken from Thomson Reuters Data Stream. Hence, we apply Ushr on this average yearly return on bank deposits in the personal category. Annual returns on KSE 100 index has remained at 42.60%, 25.08% and 4.44% during 2013, 2014 and 2015 respectively. Hence, we apply Ushr on this average yearly return. We use ex-post realized returns on various categories of open end, closed end and pension funds as available at MUFAP website. Lastly, since national savings schemes are issued by the government, we apply Ushr on average return of government treasury securities during 2013, 2014 and 2015 in computing Ushr on national savings schemes.

To deduct the Nisāb amount at the aggregate level, we have to make an estimate of how many people have total wealth which is in excess of Nisāb amount, i.e. population with minimum Nisāb amount ( $P_{MNA}$ ). We take a conservative route to assume that people in the top income quintile of the labor force will have wealth exceeding Nisāb amount.

If we assume that top 20% people in the labor force have the wealth exceeding Nisāb amount; then:

$$P_{MNA} = \text{Number of people in the labor force} \times 20\%$$

$$P_{MNA} = 60,035,000 \times 20\%$$

$$P_{MNA} = 12,070,000$$

$$MNA = \text{Rs. } 44,276 \text{ (as calculated above in Table 2 for 2013)}$$

From Zakātable assets that are subject to wealth Zakāt, we have to deduct the product  $[P_{MNA} \times MNA]$ ,  $P_{MNA} \times MNA = \text{Rs } 534,411 \text{ Billion}$ . We make this deduction in the computation of Zakātable value of assets and wealth for 2013 as well as for other years.

We see that in the proposed approach, the total Zakāt collection comes to be as much as 7.25% of GDP in Pakistan. Since the heads of Zakāt include poor and destitute, it will force the government to use this spending on the welfare of the poor masses and by establishing educational and health institutions for the poor in society. This can help the government to scale up its welfare spending on the poor. If we use the simple methodology adopted by Ahmed (2004), the potential Zakāt collection can meet the need of actual funds required for poverty alleviation in Pakistan. Ahmed (2004) uses a conservative crude measure of poverty gap by multiplying the number of poor people with the average minimum annual income of \$365 or dollar a day per non-poor person. This is a conservative measure since it assumes that poor people have zero annual income (Shirazi & Amin, 2009).

According to World Bank, Poverty headcount ratio at \$3.10 a day (2011 PPP) for Pakistan is 36.90%. On the other hand, Poverty headcount ratio at \$1.90 a day (2011 PPP) for Pakistan is 6.1%. We take total officially reported population figures from World Development Indicators. Table 5 gives the comparison of potential Zakāt collectible and poverty gap funding requirement at two different poverty lines of US\$ 1.90 a day and US\$ 3.1 a day. It seems that Zakāt collectible would be adequate to deal with chronic poverty. If the disbursement is effectively targeted, it will help in reducing poverty burden overtime and enable poverty exit for poor people and decrease their vulnerability to a significant extent.

**Table 5: Comparison of Zakāt Collectible and Poverty Gap Funding Requirements (in mln Rs.)**

Year	Potential Zakāt Collectible	Poverty Gap (\$1.90/Day)	Poverty Gap (\$3.1/Day)
2013	1,825,306	804,834	7,943,480
2014	1,892,495	821,942	8,112,335
2015	1,832,129	839,179	8,282,460

## 6. Economics of the Proposed Zakāt Based Taxation System

Adam Smith in his monumental work “An inquiry into the nature and causes of wealth of nations” discusses the cannons of taxation. The Zakāt based taxation system goes very well with Adam Smith’s cannons of taxation. It has a proportional tax and it does not tax production heavily. It is also simple and certain. It is convenient to collect and more so, because it is a religious obligation than just an involuntary tool for fetching wealth. It only taxes those who have the ability to pay, i.e. it does not tax those who do not reach a minimum threshold of wealth in their hands. It can be appreciated from the classification of rates on production value tax that there is least Zakāt on value of production which intensively use inputs and most Zakāt when the production comes from the negligible use of inputs (Siddiqui, 1982).

On the macroeconomic front, the proportional Zakāt linked with income can act as an automatic stabilizer (Yusoff, 2010). When aggregate personal disposable income increases in economic booms, more Zakāt can be collected and more amount will become available to the government for increasing transfer payments to Fuqarah (poor and needy), Masakeen (extremely poor and needy) and Gharimeen (borrowers in trouble). When aggregate personal disposable income decreases in recessions, obligatory Zakāt would also decrease and thereby provide an automatic relief to the income earners when the incomes decline.

Besides the proportional income levy, Zakāt on wealth could redistribute wealth and reduce wealth concentration. So, if an economy is in disequilibrium and policies fail to immediately recover and boost incomes, wealth Zakāt could enable the distributive allocation that would work independently of the business cycle and it would help in stabilizing the extremes of the business cycles. In this way, wealth Zakāt could act as a permanent stabilizer.

When the personal disposable incomes decline in recessions, more people would become eligible for Zakāt. Since Zakāt is levied on both income and wealth, the redistribution

of wealth would always be functional and operative in an Islamic economy due to wealth Zakāt. Transfer payments to the unemployed, poor, needy and debtors would continue even when the economy faces a recession.

Besides this, a consistent and credible low tax rate policy with broader Zakāt base could help to minimize distortions, boost aggregate demand, encourage investment by decreasing costs of doing business and this could also simultaneously solve the microeconomic problems of imperfection in markets by increasing competition and reducing market power.

A uniform Zakāt levy on wealth and produce could result in tax rate smoothing, stabilization of business cycle and 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).

One possible question may arise here as to how such lenient tax rates would increase substantial public revenue. The answer to this is given by the Laffer curve. Laffer (2004), a supply side economist, himself noted that Muslim philosopher Ibn-e-Khaldun wrote about it in "The Muqaddimah". Higher tax rates discourage entrepreneurship as they decrease the incentive to produce. Lower tax rates encourage entrepreneurship and hence increase the size of the production sector and hence production. With the increase in production, tax revenue in absolute amount increases because of a larger base. Hence, lower tax rates can still ensure high tax to GDP ratio.

Zakāt is an important tool for redistributing income and it can also increase aggregate spending. Metwally (1983) argues that Zakāt has a wider base and it is applicable on both the incomes and wealth. He emphasizes that the Zakāt system has an inbuilt mechanism to reach the right targets in terms of Zakāt collection and disbursement. This ensures increasing the propensity to consume more emphatically and quickly.

Ahmad (1987) shows in a Keynesian model of aggregate economy that expenditure multiplier in the presence of Zakāt and Infaq (charity) institutions will be higher than in a capitalist economy. Since Zakāt redistributes income from rich to the poor with direct incidence, the higher MPC for poor can also increase aggregate spending. Carroll and Kimball (1996) argue that when the income uncertainty is introduced in the standardized optimization problem, the consumption function becomes concave. Keynes (1935, p. 31) notes that the MPC is weaker in a wealthy community and as wealth increases, the MPC starts to diminish. Empirical studies such as Souleles (1995) and Lusardi (1992) also find similar results and conclude that the MPC is considerably higher for

consumers with low wealth or low income as compared to consumers with high wealth or high income. Murugasu et al. (2013) in a study in Malaysia find that MPC for lower income groups is higher than MPC for higher income households. Jappelli and Pistaferri (2014) provide empirical evidence from Italy which shows that households with low cash-on-hand exhibit a much higher MPC than affluent households. Hence, the redistribution from people with lower MPC to people with higher MPC will boost aggregate spending even with same level of income.

Lastly, there will be downward pressure on the prices of durable goods with wealth tax on tradable inventory while allowing exemption on assets in use. For instance, if a furniture, consumer appliance or residential facility is unsold at year-end, the seller will have to pay Zakāt on it. But, if the asset is sold to the buyer before the due date of Zakāt, then the subsequent owner while using such assets personally will not have to pay Zakāt on these assets. This will help in checking inflation, clearing markets and promoting efficient production processes to reduce inventory cost including physical cost and potential fiscal levy on unsold inventory at year-end. However, to avoid Zakāt arbitrage, the government has to randomly assign Zakāt due date for different retailers. It can also enact a policy to levy wealth Zakāt on tradable inventory as an average of ending and beginning inventory to counter Zakāt arbitrage.

### **Conclusions and Recommendations**

Islamic economics literature is rich in describing the welfare potential of Zakāt, but very few empirical studies have undertaken the quantitative estimation of potential Zakāt collection. In this study, we attempted to estimate potential Zakāt collection at the economy wide level to document the welfare potential of the institution of Zakāt. In our estimation exercise, we attempted to estimate economy wide Zakāt collection by including heads like Zakāt on agriculture produce, value of livestock, tradable inventory, currency in circulation, foreign exchange reserves, estimated gold and silver deposits and financial assets like investments in National Savings Scheme (NSS), mutual funds, stock market capitalization, pension schemes and bank deposits. Our estimates suggest that approximately Zakāt collection in Pakistan could reach 7.25% of total GDP and is sufficient for covering poverty gap in Pakistan at the poverty line of \$1.90 a day. Therefore, this institution can enable the government to redistribute income and wealth without raising new taxes or raising expenditure ad crowding out private sector investment.

We outline some recommendations at the policy and implementation level so that the institution of Zakāt can be effectively utilized to contribute in poverty alleviation.

- *It is necessary that the poor people are 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. In this regard, the 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.*
- *It is highly important that the scale and efficiency of public sector institutions in health and education are improved and poor people are provided with education, vocational training, and basic health facilities at affordable cost. In this regard, the institution of Waqf (charitable trust) can also be very effective in helping the government to increase its scale of welfare programs and outreach. Social mobility rests on effective income and capacity enhancing support programs rather than just on direct cash transfers.*
- *Sufficient collection of Zakāt for filling poverty gap is not enough to end poverty. It is important that Zakāt funds be disbursed to the right people and through right channels. It is also important to utilize the existing welfare programs for Zakāt disbursement so that the right targets can be reached more efficiently.*
- *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.*
- *Timing for wealth Zakāt is especially important. It is better to have 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.*
- *While there is Zakāt on assets in personal use, the government in consultation with Islamic scholars has to legislate what comprises regular and ordinary cost of living per person for different income groups. While the government shall not intervene in restraining consumption; at the same time, it shall also not allow people to avoid Zakāt by maintaining an extra ordinary living standard.*
- *Zakāt funds can be utilized for funding institutions that will provide welfare services to the poor. Since organizations can have economies of scope and cost and administrative synergies, it will make the institution of Zakāt more effective.*

## **References**

- Ahmad, A. (1987). "Income Determination in an Islamic Economy", Jeddah: Scientific Publishing Centre, KAAU.
- Abo Baker, N. B. & A. Rahman, A. Rahim (2007). "A Comparative Study of Zakāt and Modern Taxation", Journal of King Abdul Aziz University: Islamic Economics, 20(1): 25 – 40.
- Ahmed, H. (2004). "Role of Zakāt and Awqaf in Poverty Alleviation", Islamic Research and Training Institute, Islamic Development Bank Group, Jeddah. (Occasional Paper No. 8).
- Azam, M., Iqbal, N. & Tayyab, M. (2014). "Zakāt and Economic Development: Micro and Macro Level Evidence from Pakistan", Bulletin of Business and Economics, 3(2): 85 – 95.
- Carroll, C. D. & Kimball, M. S. (1996). "On the Concavity of the Consumption Function", *Econometrica*, 64(4): 981 – 992.
- Debnath, S. C.; Islam, M. T. & Mahmud, K. T (2013). "The Potential of Zakāt Scheme as an Alternative of Microcredit to Alleviate Poverty in Bangladesh", 9th International Conference on Islamic Economics and Finance, QFIS, Doha, Qatar.
- Hassan, M. K. & Jauanyed, M. K. (2007). "Zakāt, External Debt and Poverty Reduction Strategy in Bangladesh", Journal of Economic Cooperation, 28(4): 1 – 38.
- Hassan, M. K. (2010). "An Integrated Poverty Alleviation Model Combining Zakāt, Awqaf and Microfinance", in Seventh International Conference-The Tawhidi Epistemology: Zakāt and Waqf Economy, Bangi, Malaysia.
- Ibrahim, P. (2006). "Economic Role of Zakāt in Reducing Income Inequality and Poverty in Selangor", PhD Thesis, Universiti Putra Malaysia.
- Jappelli, T. & Pistaferri, L. (2014). "Fiscal policy and MPC heterogeneity", *American Economic Journal: Macroeconomics*, 6(4): 107 – 136.
- Keynes, J. M. (1935). "The General Theory of Employment, Interest, and Money". San Diego, New York, London: Harvest/HBJ, 1964.
- Khan, M. A. (2005). "Comments on A. Azim Islahi & M. Obaidullah: Zakāt on Stocks: Some Unsettled Issues", Journal of King Abdul Aziz University: Islamic Economics, 18(1): 41 – 42.
- Kuran, T. (2003). "Islamic Redistribution through Zakāt: Historical Record and Modern Realities. Poverty and Charity in Middle Eastern Contexts, 275 – 293.
- Laffer, A. B. (2004). "The Laffer Curve: Past, Present, and Future". Heritage Foundation Backgrounder, 1765.
- Lusardi, A. (1992). "Permanent Income, Current Income, and Consumption: Evidence from Panel Data", Manuscript, Dartmouth College.
- M. Akram, M. & Afzal, M. (2014). "Dynamic Role of Zakāt in Alleviating Poverty: A Case Study of Pakistan", University Library of Munich, Germany.
- Malik, S. J; Hussain, M. & Shirazi, N. S. (1994). "Role of Infaq in Poverty Alleviation in Pakistan", *The Pakistan Development Review*, 33(4): 935 – 952.
- Maududi, S. A. A. (1970) *Ma'ashiyat-e Islam [Economic System of Islam]*, Lahore: Islamic Publications.
- Metwally, M. M. (1983). "Fiscal Policy & Resource Allocation in Islam", Islamabad: Institute of Policy Studies.

- Murugasu, D., Ang, J. W. & Tng, B. H. (2013). "Marginal Propensity to Consume Across Household Income Groups", Bank Negara Malaysia, Working Paper No.WP2/2013.
- Nadvi, S. M. (1996). "Taareekh-e-Islam [History of Islam]". Lahore: Maktaba-e-Rehmania.
- Nadzri, F. A. A. Rehman, R. A. & Omar, N. (2012). "Zakāt and Poverty Alleviation: Roles of Zakāt Institutions in Malaysia", *International Journal of Arts and Commerce*, 1(7): 61 – 72.
- Naveed, A. & Ali, N. (2012), *Clustered Deprivation - District Profile of Poverty in Pakistan*, Social Development Policy Institute.
- Pakistan Center for Philanthropy (2013). *Individual Philanthropy in the Sindh*, Pakistan Center for Philanthropy.
- Pakistan Center for Philanthropy (2010). *Individual Philanthropy in the Punjab*, Pakistan Center for Philanthropy.
- Pakistan Peace Collective (2017). *Pakistan Peace Collective Project*, Federal Ministry of Information and Broadcast.
- Powell, R. (2009). "Zakāt: Drawing Insights for Legal Theory and Economic Policy from Islamic Jurisprudence", *Pittsburgh Tax Review*, 7(43): 10 – 17.
- Qaradawi, Y. A. (1999). "Fiqh az-Zakāt: A Comparative Study-The Rules, Regulations and Philosophy of Zakāt in the Light of the Qur'an and Sunnah", Dar Al Taqwa Ltd: London.
- Sadeq, A. H. M. (1996). "Ethico-Economic Institution of Zakāt: An Instrument of Self Reliance and Sustainable Grassroots Development", *IIUM Journal of Economics and Management*, 12(2): 47 – 69.
- Shirazi, N. S. (2014). "Integrating Zakāt and Waqf into the Poverty Reduction Strategy of the IDB Member Countries", *Islamic Economic Studies*, 22(1): 79 – 108.
- Shirazi, N. S. & Amin, M. F. (2009). "Poverty Elimination through Potential Zakāt Collection in the OIC-member Countries: Revisited", *The Pakistan Development Review*, 48(4): 739 – 754.
- Siddiqui, S. A. (1982). "Public Finance in Islam". New Delhi: Adnan Publishers & Distributors.
- Souleles, N. S. (1995). "The Response of Household Consumption to Income Tax Refunds". Manuscript, Massachusetts Institute of Technology.
- United National Development Programme (2016). *Multi-Dimensional Poverty in Pakistan*. UNDP Pakistan.
- Wahid, A. N. M. (1986). "The Economic Implications of Zakāt", *Contemporary Review*, 248 (1440), p. 10.
- Yusoff, M. B. (2011). "Zakāt Expenditure, School Enrollment, and Economic Growth in Malaysia", *International Journal of Business and Social Science*, 2(6): 175 – 181.
- Yusoff, M. B. (2010). "An Analysis of Zakāt Expenditure and Real Output: Theory and Evidence", *Management and Accounting*, 18(2): 139 – 160.