Household Consumption Behavior in Pakistan under the Shadow of Personal Insecurity

Hina, Hafsa

Pakistan Institute of Development Economics

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HAFSA HINA*

Abstract

Terrorism in Pakistan has become a main and highly critical phenomenon in recent years. It is affecting the economy significantly. This study aims to determine the effect of personal sense of insecurity on household consumption pattern of Pakistan. Pakistan Panel Household Survey (PPHS) 2010, conducted by Pakistan Institute of Development Economics and World Bank are used for the analysis. The empirical results suggest that personal sense of insecurity alters the households' consumption expenditure significantly. Households adjust their consumption expenditure when they sense insecurity by increasing the expenditure on food items and cut their expenditure on non-food durable and non-food non-durable commodities.

JEL classification: D1.

Keywords: Terrorism, Personal sense of insecurity, Consumption Pattern, Pakistan.

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* Hafsa Hina <hafsahina@pide.org.pk, Office Telephone # 092519248047> is Assistant Professor at Department of Econometrics, Pakistan Institute of Development Economics, Islamabad, Pakistan.

1. INTRODUCTION

Consumer behavior is very complex. It is not only determined by the self -related deterministic factors such as personal income, family size, education level, age etc., but also responsive to social influence i.e., what is happening in consumers' surroundings. Specially, when consumers are living in the community which is suffering from crime and terrorism, it prompts them to undertake measures to protect themselves. Therefore, personal insecurity is an important factor to alter the consumption patterns both at individual and at macro level.

Pakistan has a long and intense history of terrorism; however, it received relatively little academic attention. Similarly, Consumption patterns in Pakistan at household level have been explored by several studies, for example, Ali (1981, 1986); Siddiqui (1982); Malik (1982, 1985, 1988); Burney and Khan (1991); Begum *et al.* (2012); Amir and Bilal (2012) and Safdar and Ahmed (2012) among others. But unfortunately (due to non-availability of data) no one touch the boundary of social influence of personal insecurity on household consumption pattern. This gap motivates the author to carry out this study and explore the effect of personal insecurity on consumption patterns of Pakistani households.

Following this introduction the rest of the paper is organized as follows. Section 2 provides the literature review. Section 3 formulates the model of consumption function. Next two sections are devoted to describe the data and construction of variable and present the scenario of personal sense of insecurity in Pakistan. Results and findings of the study are reported in section 6. A final section provides some concluding remarks.

2. LITERATURE RIVIEW

Consumption function plays a significant role in economic booms and recessions. Because, household consumption expenditures contribute more than 60 percent of aggregate demand (Dornbusch and Fischer, 2005). It also plays an important role in formulating the macroeconomic indicators such as saving rate, investment and the level of economic well-being. The need for investigating the determinants of consumption pattern is, therefore, necessary.

Keynes (1936) has introduced the famous theory of consumption and described that current income is the main determinant of consumption. Accordingly, on average, per unit increase in income tends to increase the consumption level, but not by the same rate as the income increases. Thus marginal propensity to consume ranges between zero and one. In addition, the consumption is not a fixed proportion of income. The fraction of consumption to income (average propensity to consume) declines as income raises. Studies that empirically investigated the Keynesian consumption function by considering the household cross sectional data and short period time series data have successfully confirmed the Keynes's conjectures (Ackley, 1960). Kuznet (1952) has considered long period time series data from 1869 to 1938 and found no evidence for the

average propensity to consume (APC) to decline as income increases over time. To solve this puzzle Friedman (1957) has presented permanent income hypothesis (PIH) and Modigliani and Brumberg (1954) have introduced Life Cycle Hypothesis (LCH). Many economists use PIH and LCH interchangeably. Both of these theories consider the time preference for consumption. They assume that consumer maximizes their utility by take into account both current and future consumption subject to their lifetime budget constraint and prefers to keep smooth consumption over time. These theories believe that current consumption is only influenced by the permanent change in income. However, changes in income that have short term effects are mainly saved rather than to influence the current consumption. Consequently, the fraction of income saved is independent of income. It contradicts the Keynes's speculation that at higher level of income APC is decline and average propensity save increases.

Hall (1978) has combined rational expectations with the PIH. He argues that taking income as a determinant of consumption function would bias the result due to the endogenous nature of income. Therefore, he provides an alternative approach by considering consumption as a random walk. Accordingly, changes in consumption over time are unpredictable and current consumption is not related to any other economic variables such as current income, wealth and interest rate. As consumption follows a random walk, therefore, current consumption contains all the information to forecast the future consumption.

Campbell and Mankiw (1989) suggest another consumption theory by segregating the consumers into two groups. First group consumers consume according to PIH. Whereas, the second group follow Keynesian consumption function and consume on the bases of their current income. Therefore, their consumption function nested the Keynesian consumption function and PIH. They confirmed the empirical validity of their consumption function by running regression on aggregate postwar U.S. data from 1953:1 to 1985:4. Based on the regression results they documented that about 50% of the consumers are significantly departing from the PIH.

The analysis of household's consumption pattern in Pakistan is not new. A lot of studies have been done to analyze the consumer behaviors both at micro as well as at macro level. Few studies are found to examine the consumption function at aggregate level by utilizing time series data. For example, Khalid (1994) has assessed the Hall's random walk hypothesis by considering annual time series data over the period 1960 to 1992. The results do not support the existence of Hall's random walk hypothesis in case of Pakistan. He also suggested the possible reason for the rejection is the lack of the well-established financial and capital markets in developing counties. Khan and Memon (2012) have empirically tested the Cambell and Mankiw (1989) consumption function and concluded that 32% consumers are following PIH and remaining 68% consumers of total population are consuming according to absolute income hypothesis.

As far as, the cross sectional analysis of the consumption pattern is concern a several studies have been found in literature. These includes the studies by Ali (1981, 1986); Siddiqui (1982);

Malik (1982, 1985,1988); Burney and Khan (1991); Begum *et al.* (2012); Amir and Bilal (2012) and Safdar and Ahmed (2012) among others. Most of these studies are based on the Household Income and Expenditure Survey (HIES) data. The main focus of these studies was to explore the validity of Engel's Law on different commodities across different regions in a single year. Engel's Law describes that with an increase in income the proportion of expenditure on food in total household expenditure tends to decrease, that on clothing, fuel and lighting remains same and that on luxury goods increases (Siddiqui, 1982).

Ajmair and Akhtar (2012) have analyzed the important factors of household consumption function for Bhimber district in year 2001-02. These factors are such income, family size, expenditure on basic needs, education level, gender, age and family structure. The study shows that all variables are positively related to consumption except age. This negative relationship confirms the Life cycle hypothesis, accordingly, when age increase saving of individual rises more rapidly this will leads to decline in consumption.

The review of above literature makes it clear that income, wealth, household size, education level, age are the important determinants of consumption pattern as long as there is peace and no violence in the society. The economist beliefs that political instability, war and terrorism significantly damage the economies in which they take place (Persitz, 2007). Recent economic literature has probed the consequences of terrorism on different macroeconomic variables. For example, Drakos and Kutan (2003) have established negative effects of terrorist attacks on tourism, Enders and Sandler (1996) on foreign direct investment and Nitsch and Schumacher (2004) on foreign trade. Becker and Rubinstein (2004) have inspected the adverse effects of terrorism on Israeli's labor supply and wages. Eckstein and Tsiddon (2004) have utilized quarterly data from 1950 to 2003 for Israel and find that terrorist activity has significant negative impact on GDP, investment, consumption and exports. Mahmood (2014) has studied the impact of terrorism on the macroeconomy of Pakistan and reported that terrorism has cost Pakistan around 33.02% of its real national income from 1973 to 2010.

Christelis and Georgarakos (2009) has investigated the effects of 9/11 terrorist attack on the household stock investment and spending patterns. Personal sense of insecurity and expectations about terrorism are used as a measure of terrorism from 2002 US Health and Retirement study. The results of their analysis suggests that insecurity due to terrorism has significant negative impact effects on household stock investment and individuals have shifted their spending from recreation and travel activities toward commodities that might help to handle with the consequences of terrorism materially (car and house) or psychologically (personal care products). Haj-Yehia (2003) has conducted a comprehensive study on the same subject. He segregates the effects of temporary and permanent terrorist casualties on the durables, nondurables and irreversible investment. He has considered a database on Israeli consumption and terror casualties for the period 1980-2002. The results suggest that temporary increase in the number of terror fatalities decreases the durables and irreversible investment due to hording of

purchases in future periods, however, the consumption of non-durables remain the same. A permanent increase in the number of terror casualties causes a one-time drop in consumption.

Unfortunately, Pakistan has been facing a high and volatile level of terrorism. However, no significant effort has been made to test the effects of personal sense of insecurity due to crime and terrorism on household consumption patterns. This study will attempt to fill that gap in. For this, the study is undertaken with following specific objectives: Firstly, it develops an econometric model of the consumption function in Pakistan that includes the personal sense of insecurity variable along the conventional variables of consumption function determination. Secondly, it examines the impact of personal insecurity on food and non-food durable and non-food non-durable consumption expenditure for Pakistan and across provinces of Pakistan.

3. Model Formulation

In the light of literature review, it is cleared that the important factors of household consumption (***C***) function are household income (***Y***), wealth (***W***), family size (***S***), age (***A***) and personal sense of insecurity (***T***). Therefore, to capture the effect of these factors on household consumption the following mathematical model is formed

$$C_i = f(Y_i, W_i, S_i, A_i, T_i) \qquad i = 1,2,...,N \qquad (1)$$

The corresponding econometric model is

$$C_i = \beta_o + \beta_1 Y_i + \beta_2 W_i + \beta_3 S_i + \beta_4 A_i + \beta_5 T_i + \varepsilon_i \qquad (2)$$

Where β_o is the intercept coefficient , β_1 to β_5 are the slope coefficient of the respective variables and ε_i is the residual of the model. It is expected that all variables are positively related to consumption except age and personal sense of insecurity. The negative relationship between the age and consumption explains the Life cycle hypothesis, in view of that, when age increases saving of individual raises more rapidly this will tends to decline the consumption.

4. Data and Construction of Variables

The data for this study is taken from Pakistan Panel Household Survey (PPHS) 2010, conducted by Pakistan Institute of Development Economics and World Bank, consisting of 3243 households. To account the effect of personal sense of insecurity among other determinants on the consumption expenditure, two types of consumption expenditure i.e., consumption expenditure on food and non-food consumption expenditure which is further categorized into non-food expenditure on durables and non-food expenditure on nondurables items are taken. Items in each consumption expenditure group are provided in Appendix 1. Frequency of food items data in PPHS 2010 is varying from daily to annually purchase. In order to get the annual

data on household total food consumption all available frequencies of consumption (daily, twice a week, three times a week, weekly, every two weeks, monthly , every two months , quarterly, twice a year) are first converted into annual information and then all these groups are aggregated. Therefore, the dependent variables are the natural log of annual expenditure on food items, non-food durable, non-food non-durable items.

Household annual income is computed by aggregating annual income and annual rental income (bonus, rental income from urban properties, and rental income from fish/poultry).

Household annual wealth is calculated by combining present value of inherited land, present value of the residential house, present value of urban property, present value of household savings (deposit with any bank, gold/silver jewelry, national saving schemes, prize bond, others),present value of livestock ownership and present value of farm assets.

Household size is taken as the numbers of individuals living in the single house. Age is the age of head of household.

4.1 Construction of Personal Sense of Insecurity

The key variable of this study is personal sense of insecurity. It is measured by constructing an index by employing principal component analysis (Child 1970). This method allows to express the different dimensions of personal sense of insecurity in term of a single index which is able to capture most of the information from the original data set. The different dimensions which have been considered for the construction of index are presented in Appendix 2 and let call them Q3. , Q4., Q5. and Q6. The composition of the overall personal sense of insecurity index can be expressed as

$$T_i = w_1 Q3_i + w_2 Q4_i + w_3 Q5_i + w_4 Q6_i \qquad (3)$$

Where w_i 's represents the weight of each component given by respective eigenvector of selected principal component. The eigenvalues and eigenvectors of the correlation matrix of the overall personal sense of insecurity are given in Table 1.

Table 1: Eigenvalues and Eigenvectors of Correlation Matrix of *T* Variables

Variables	**Eigen Vector (λ_k)**			
	u_1	u_2	u_3	u_4
$Q3_i$	0.76	-0.06	-0.64	0.15
$Q4_i$	0.47	0.87	0.12	0.03
$Q5_i$	0.83	-0.18	0.13	-0.51
$Q6_i$	0.78	-0.28	0.41	0.38
Eigen values(λ_k)	2.09	0.88	0.60	0.43
Variability %	52.21	21.95	15.05	10.80
Cumulative %	52.21	74.15	89.20	100

Table 1 shows that the first principal component captures almost 52.21 percent variation of the data set as [$\sum \lambda_k$ =2.09+0.88+0.60+0.43=4, λ_1 = (2.08/4)*100 = 52.21]. It captures the highest correlation as compared to the remaining eigenvectors. Now substitute the normalized components of first eigen vector for $w_i s$ in Eq. (3) and calculate the overall personal sense of insecurity of head of household index as

$$T_i = 0.27\ Q3_i + 0.17\ Q4_i + 0.29\ Q5_i + 0.27\ Q6_i \qquad (4)$$

The calculated vales of overall personal sense of insecurity index varying between 1.65 and 4.50. Based on the results, overall personal sense of insecurity is scale as

0 – 1 completely secure
1 – 2 very secure
2 – 3 somewhat secure
3 – 4 somewhat insecure
4 – 5 very insecure and
>5 completely insecure

Note for caution, the first and the last scales are deliberately included to show that no one in the society is completely secure when society is at the risk of terror and have some other conflicts. Similarly, no household occur in the last group as if someone is completely insecure he is in the state of indecision and hesitate to response the survey in the approved manner.

5. Overall personal sense of insecurity (OPSIS) across provinces and region of Pakistan

Overall personal sense of insecurity (OPSIS) across provinces is compared by bar chart under Figure 1. Mostly numbers of households are occurring in somewhat secure (2 – 3) and somewhat insecure groups. Among these groups majority of households in all provinces except KPK have fall into the category of somewhat insecure groups. In the urban rural comparison (see Figure 2), households in Pakistan urban is somewhat secure and household in Pakistan rural is somewhat insecure. In urban group, households in Punjab urban group are somewhat secure as compare to other provinces. Similarly, household in KPK rural is somewhat secure as compare to other provinces. A self-explanatory table is reported in Appendix 3 to compare the count and proportion of households' OPSIS across provinces and region.

Figure 1: OPSIS across Provinces

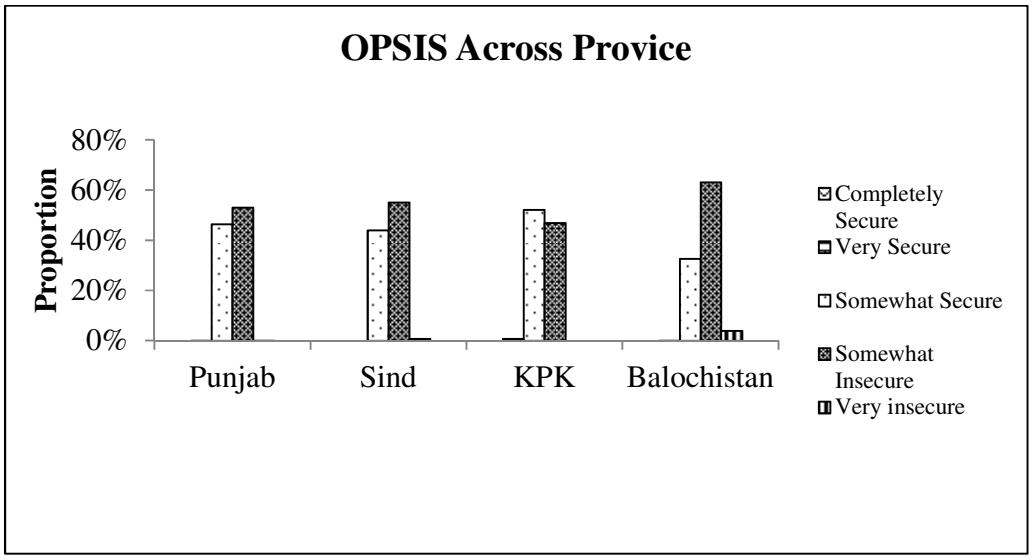
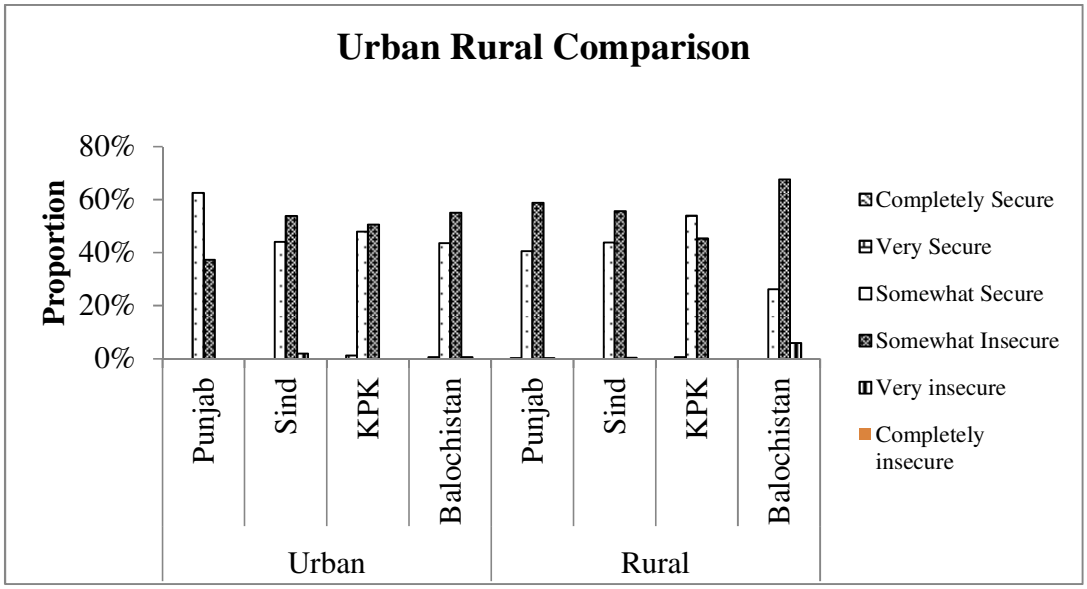


Figure 2: OPSIS across Region



6. Empirical Results and Findings

This section investigates whether or not personal sense of insecurity alters the households' consumption and which type of expenditure among food, non-food durable, non-food durable items are more resistant to personal sense of insecurity. To serve this purpose pooled regression model is estimated by using White heteroskedasticity-consistent standard errors and covariance in ordinary least square (OLS) regression. All variables are expressed in log form except the age variable. Reginal dummy variable (D_{RU} with rural as base category) is also used as an explanatory variable. Results of the consumption expenditure for overall Pakistan, Punjab, Sind KPK and Balochistan province are presented in Table 2, 3, 4, 5and 6.

The positive and significant coefficient of household size variable is conveying the effect of economies of scale. Economies of scale effect may occur because some the consumption items can be shared within the household. Among the categories of consumption items non-food durable commodities depict higher size elasticities in overall and across the province (except Punjab). Therefore, economies of scale attain more from non-food durable commodities as compare to food commodities and non-food non-durable commodities.

The results of age variable represents that as age of household increases they are more inclined toward the consumption of non-food durable commodities and non-durable commodities against the food commodities (which is negative and insignificant).These results also confirm the life cycle hypothesis for overall Pakistan and across the province (except Balochistan).

Results of income and wealth variables show that it is more responsive to increase the non-food expenditure. The positive significant coefficient of dummy variable indicates that households belonging to urban region experiencing more consumption expenditure as compare to rural region. It may be due to higher cost of commodities in urban area.

The effect of overall personal sense of insecurity on consumption expenditure is come out negative. It confirms that household adjusts their consumption expenditure when they sense insecurity. Interestingly, results show that as personal sense of insecurity raises households induce to increase the expenditure on food items and cut their expenditure on non-food durable and non-food non-durable commodities significantly. The elasticity of food consumption is more or less unit elastic, indicates perfectly responsive to changes in personal sense of insecurity. The negative and high (small) size elasticities of non-food durables (non- durable) commodities make them elastic (inelastic) with respect to personal sense of insecurity. In Balochistan province the consumption behavior of households are slightly different as compare to other provinces. They increase the consumption expenditure on non-food non-durable commodities when personal sense of insecurity increases and expenditure on food commodities is irresponsive to insecurity.

Table 2: Consumption Expenditure of Overall Pakistan

Variables	**Total Consumption Expenditure (a+b+c)**	**Consumption Expenditure on**			
		Food and Non-Durables (b+c)	**Durables (a)**	**Food (b)**	**Non-durables (c)**
C	12.130* (127.78)	12.012* (144.998)	5.019* (6.443)	11.496* (65.427)	10.127* (67.541)
S	0.372* (15.254)	0.316* (15.739)	1.287* (8.471)	0.419* (6.620)	0.449* (18.246)
A	0.004* (5.545)	0.004* (5.208)	0.033* (6.292)	-0.001 (-0.067)	0.007* (6.546)
T	-0.209** (-2.270)	-0.076 (-1.073)	-4.561* (-6.287)	0.337** (2.439)	-0.343*** (-3.369)
Y	0.106* (7.615)	0.081* (6.95)	0.821* (8.714)	0.009 (0.310)	0.238* (11.010)
W	0.001 (0.480)	0.001 (0.282)	0.032** (2.092)	-0.007*** (-1.602)	0.016* (5.630)
Adj-R^2	0.10	0.093	0.055	0.016	0.161
F-Stat	71.172* [0.000]	69.269* [0.000]	39.487* [0.000]	12.036* [0.000]	128.469* [0.000]
Sample	3243	3243	3247	3243	3247

*, ** and *** represents the significant at 1%, 5% and 10%. t-stat is reported in the round brackets and P-values in the square brackets.

Table 3: Consumption Expenditure of Punjab

Variables	**Total Consumption Expenditure (a+b+c)**	**Consumption Expenditure on**			
		Food and Non-Durables (b+c)	**Durables (a)**	**Food (b)**	**Non-durables (c)**
C	9.872* (24.830)	9.903* (26.616)	8.015* (3.097)	10.521* (21.209)	6.359* (11.318)
S	0.367* (4.919)	0.361* (6.005)	0.355 (1.451)	0.622* (4.257)	0.419* (6.103)
A	0.003** (2.163)	0.003* (2.345)	0.015** (1.953)	-0.004 (-1.414)	0.005* (2.494)
T	-0.219 (-1.239)	0.060 (0.883)	-3.898* (-2.990)	0.994* (3.109)	-0.807* (-3.805)
Y	0.118* (4.816)	0.096* (4.534)	0.088** (2.316)	0.038 (0.686)	0.225* (5.982)
D_{RU}	0.428* (6.927)	0.349* (8.221)	1.847 (5.669)	0.544* (11.238)	0.296* (3.863)
W	0.058* (4.387)	0.043* (3.639)	0.128* (5.748)	0.015*** (1.582)	0.136* (7.024)
Adj-R^2	0.174	0.160	0.019	0.06	0.323
F-Stat	29.811* [0.000]	27.025* [0.000]	19.927* [0.000]	10.410* [0.000]	66.04* [0.000]
Sample	1137	1137	532	1133	1137

*, ** and *** represents the significant at 1%, 5% and 10%. t-stat is reported in the round brackets and P-values in the square brackets.

Table 4: Consumption Expenditure of Sind

Variables	**Total Consumption Expenditure (a+b+c)**	**Consumption Expenditure on**			
		Food and Non-Durables (b+c)	**Durables (a)**	**Food (b)**	**Non-durables (c)**
C	11.298* (53.232)	11.324* (58.635)	-1.071 (-0.684)	10.247* (28.794)	9.789* (36.395)
S	0.390* (10.227)	0.385* (10.041)	0.908* (4.56)	0.428* (4.630)	0.548* (15.114)
A	0.003* (2.644)	0.003* (2.489)	0.018** (1.987)	0.002 (0.913)	0.003** (2.040)
T	0.165 (0.839)	0.267 (1.379)	0.585 (0.386)	0.937* (2.485)	-0.511** (-2.105)
Y	0.090* (4.006)	0.055* (2.975)	0.496* (3.103)	-0.016 (-0.368)	0.219* (7.257)

D_{RU}	0.421* (12.156)	0.426* (12.611)	0.230 (0.696)	0.599* (7.520)	0.401* (7.051)
W	0.007** (1.965)	0.003 (0.959)	0.130* (4.635)	-0.007 (-0.885)	0.033* (6.163)
Adj-R^2	0.160	0.157	0.052	0.07	0.271
F-Stat	38.163* [0.000]	37.239* [0.000]	11.737* [0.000]	14.257* [0.000]	73.361* [0.000]
Sample	1176	1176	1178	1176	1177

*, ** and *** represents the significant at 1%, 5% and 10%. t-stat is reported in the round brackets and P-values in the square brackets.

Table 5: Consumption Expenditure of KPK

Variables	**Total Consumption Expenditure (a+b+c)**	**Consumption Expenditure on**			
		Food and Non-Durables (b+c)	**Durables (a)**	**Food (b)**	**Non-durables (c)**
C	11.556* (85.283)	11.660* (95.536)	2.617** (1.967)	11.996* (41.166)	8.540* (41.207)
S	0.416* (8.681)	0.413* (8.847)	1.021* (4.243)	0.461** (2.216)	0.506* (9.624)
A	0.003** (2.204)	0.003* (2.483)	0.022** (2.208)	-0.001 (-0.229)	0.006* (2.784)
T	-0.069 (-0.151)	0.199 (0.454)	-0.296 (-0.102)	1.344*** (1.683)	-1.944* (-1.89)
Y	0.109* (2.670)	0.072** (1.904)	0.637** (2.316)	-0.052 (-0.694)	0.231* (4.953)
D_{RU}	0.225* (3.365)	0.206* (4.986)	1.046*** (1.688)	0.427* (5.500)	0.114 (1.235)
W	0.027** (2.236)	0.023* (1.907)	0.021 (0.569)	0.035 (1.533)	0.056* (4.319)
Adj-R^2	0.188	0.191	0.06	0.03	0.374
F-Stat	20.047* [0.000]	20.467* [0.000]	6.578* [0.000]	3.469* [0.002]	51.160* [0.000]
Sample	483	483	483	483	483

*, ** and *** represents the significant at 1%, 5% and 10%. t-stat is reported in the round brackets and P-values in the square brackets.

Table 6: Consumption Expenditure of Balochistan

Variables	**Total Consumption Expenditure (a+b+c)**	**Consumption Expenditure on**			
		Food and Non-Durables (b+c)	**Durables (a)**	**Food (b)**	**Non-durables (c)**
C	11.951* (71.151)	11.929* (71.310)	2.438 (1.409)	11.784* (55.58)	8.252* (9.086)

S	0.226* (6.097)	0.216* (5.795)	1.008* (3.122)	0.138*** (1.625)	0.337* (4.196)
A	0.004* (3.954)	0.004* (3.934)	0.010 (0.796)	0.006* (4.693)	0.001 (0.284)
T	-0.044 (-0.315)	-0.010 (-0.072)	-2.707*** (-1.633)	-0.029 (-0.161)	0.825*** (1.775)
Y	0.010 (0.569)	0.009 (0.528)	0.028 (0.133)	-0.035*** (-1.658)	0.221* (3.074)
D_{RU}	0.171* (4.880)	0.174* (5.025)	-0.416 (-1.081)	0.170* (3.838)	0.495* (4.296)
W	0.006** (2.06)	0.006** (2.110)	-0.043 (-1.291)	0.006 (1.585)	0.014** (1.975)
Adj-R^2	0.206	0.196	0.030	0.07	0.133
F-Stat	20.536* [0.000]	19.354* [0.000]	3.337* [0.003]	7.021* [0.000]	12.525* [0.000]
Sample	447	447	447	447	447

*, ** and *** represents the significant at 1%, 5% and 10%. t-stat is reported in the round brackets and P-values in the square brackets.

7. CONCLUDING REMARKS

This study estimates the effect of personal sense of insecurity among the other determinants of consumption on the consumption expenditure of the households of Pakistan. The data for this purpose is taken from Pakistan Panel Household Survey (2010). The analysis is performed for overall Pakistan and across province also. The consumption expenditure is divided into three categories that is consumption expenditure on food item, non-food durable and non-food non-durable items. The household size analysis confirms the presence of economies of scale for non-food durable commodities. Life cycle hypothesis is approves from the coefficient of age variable, as age increases households disinclined toward the consumption of food items. Households are more responsive to increase the non-food expenditure when there is raise in their income and wealth. Urban households are doing more consumption expenditure as compare to urban households. At the last personal sense of insecurity alters the consumer behavior significantly. Increase in personal sense of insecurity induces the households to increase the expenditure on food items and cut their expenditure on non-food durable and non-food non-durable commodities.

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Appendix 1:

Items of food consumption expenditure:

49 food items are considered under food consumption expenditure, these are:

Atta, Wheat grain (not used as Atta), Maida, Maize flour, Basmati Rice, Other Rice, Other Grains, Chick peas Dal, Masoor Dal, Mung dal, Mash dal, Other dal, Vegetable Oil, Dalda, Ghee, Fresh Milk, Yoghurt, Lassi, Cheese, Butter, Milk Powder, Other Milk Products, Baby Formula, Sugar, Gur, Mutton, Beef/Buffalo, Chicken, Eggs, Other poultry birds (ducks, quail, etc.), Fish, Onion, Potatoes, Sag, Other Vegetables, Bananas, Other Fruits, Bottled & Canned Prod., Biscuits & Cakes, Spices, Tea, Bread, buns, Other baked products, Soft Drinks, Kerosene, Charcoal, Firewood, Dung Cakes, Match box.

Items of Non-food consumption expenditure:

Non-food consumption expenditure on durables

Items under this group are:

Urban Property/Urban investment, Household appliances, Purchase/repair of furniture, Construction/Repair of dwelling, Planting trees, Purchase/repair of Agriculture Tools and Implements.

Non-food consumption expenditure on Non-durables

Items under this group are:

Electricity, Gas/Cylender, Telephone, Travelling, Can/Cigarettes/Tobacco, Cloths/ Shoes/ cloth material, Soap/ Laundry/ hygiene and cosmetics, Education/ Books/ Newspapers, Cinema/ Sports/ Entertainment, Medical care/ Medicines, cash wages (for staff/ servants), Taxes/ Water rates, Permit/ Visa travelling (abroad), Purchase of Fodder, Expenditure on other non-food items.

Appendix 2: The different dimensions of personal sense of insecurity.

Q3. Compared with the last 12 months, have you felt more unsafe with regards to your person or property?

1. More unsafe
2. Less unsafe
3. As safe as 12 months ago

Q4. On a scale from 1 to 10, with 1 being the least unsafe and 10 being the most, how unsafe do you feel in your community?

1	2	3	4	5	6	7	8	9	10

Q5.

In the past 12 months have you …	1 = Yes 2 = No 3 = Did not feel unsafe 4 = NA
5.1) … decreased the amount of time spent outside of the household because you felt unsafe?	
5.2)… canceled or postponed travel outside of your community because you felt unsafe?	
5.3)… canceled or postponed participating in employment/training opportunities because you felt unsafe?	
5.4)… canceled or delayed participating in investment opportunities because you felt unsafe or worried about the safety of your investment?	
5.5)… canceled or postponed participating in school activities, on average day when school was open, because you felt unsafe?	

Q6.

In terms of security from crime or terrorism, how secure did you feel while…	1 = Very insecure 2 = Somewhat insecure 3 = Somewhat secure 4 = Very secure 5 = N/A
6.1)… driving or riding in a personal vehicle/motorcycle/cycle in the last 12 months?	
6.2)… using public transit (bus/wagon/rickshaw) in the last 12 months?	
6.3)… going to the market place in the last 12 months?	
6.4)… going to public offices/government buildings in the last 12 months?	

In order to bring the coherence among the scale of above questions (except question 4), scales are redefined with the lower scale being the least unsafe and the higher scale being the most

unsafe. The new scales for question 3 are 0 for as safe as 12 months ago, 1 for less unsafe and 2 for more unsafe. For question 5 rescaling is done as 1 for -no, did not feel unsafe and NA- and 2 for yes responses. Question 6 responses are rescaled as 0 for N/A, 1 for Very secure, 2 for somewhat secure, 3 for somewhat insecure and 4 for very insecure. Once rescaling is done then averages the responses for subparts of question 5 and question 6.

Appendix 3

Count and Proportion of Households' Overall Personal Sense of Insecurity

Province			0-1	1 to 2	2 to 3	3 to 4	4 to 5	> 5	Total
Punjab			**0**	**2**	**529**	**604**	**2**	**0**	**1137**
			0%	**0%**	**47%**	**53%**	**0%**	**0%**	
	Urban		0	0	192	115	0	0	307
			0%	0%	63%	37%	0%	0%	
		PE	0	0	11	13	0	0	24
			0%	0%	46%	54%	0%	0%	
		NPE	0	0	181	102	0	0	283
			0%	0%	64%	36%	0%	0%	
	Rural		0	2	337	489	2	0	830
			0%	0%	41%	59%	0%	0%	
		PE	0	0	20	27	0	0	47
			0%	0%	43%	57%	0%	0%	
		NPE	0	2	317	462	2	0	783
			0%	0%	40%	59%	0%	0%	
Sind			**0**	**0**	**517**	**649**	**10**	**0**	**1176**
			0%	**0%**	**44%**	**55%**	**1%**	**0%**	
	Urban		0	0	150	183	7	0	340
			0%	0%	44%	54%	2%	0%	
		PE	0	0	0	7	0	0	7
			0%	0%	0%	100%	0%	0%	
		NPE	0	0	150	176	7	0	333
			0%	0%	45%	53%	2%	0%	
	Rural		0	0	367	466	3	0	836
			0%	0%	44%	56%	0%	0%	
		PE	0	0	6	8	0	0	14
			0%	0%	43%	57%	0%	0%	
		NPE	0	0	361	458	3	0	822
			0%	0%	44%	56%	0%	0%	
KPK			**0**	**4**	**252**	**227**	**0**	**0**	**483**
			0%	**1%**	**52%**	**47%**	**0%**	**0%**	
	Urban		0	2	71	75	0	0	148
			0%	1%	48%	51%	0%	0%	
		PE	0	2	25	4	0	0	31
			0%	6%	81%	13%	0%	0%	
		NPE	0	0	46	71	0	0	117
			0%	0%	39%	61%	0%	0%	
	Rural		0	2	181	152	0	0	335
			0%	1%	54%	45%	0%	0%	
		PE	0	2	17	4	0	0	23
			0%	9%	74%	17%	0%	0%	
		NPE	0	0	164	148	0	0	312
			0%	0%	53%	47%	0%	0%	
Balochistan			**0**	**1**	**146**	**282**	**18**	**0**	**447**
			0%	0%	33%	63%	4%	0%	
	Urban		0	1	72	91	1	0	165
			0%	1%	44%	55%	1%	0%	
		PE	0	0	0	0	0	0	0
			0%	0%	0%	0%	0%	0%	
		NPE	0	1	72	91	1	0	165
			0%	1%	44%	55%	1%	0%	
	Rural		0	0	74	191	17	0	282
			0%	0%	26%	68%	6%	0%	
		PE	0	0	0	1	0	0	1

		NPE	0% 0 0%	0% 0 0%	0% 74 26%	100% 190 68%	0% 17 6%	0% 0 0%	281
Pakistan			**0** **0%**	**7** **0%**	**1444** **45%**	**1762** **54%**	**30** **1%**	**0** **0%**	**3243**

*PE= personally experienced injury or property damage due to an incident of conflict in your community

0 – 1 completely secure, 1 – 2 very secure, 2 – 3 somewhat secure, 3 – 4 somewhat insecure, 4 – 5 very insecure and >5 completely insecure.