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**First Estimates for
household debt and
indebtedness in Pakistan**

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Abstract

This study provides the first-ever estimates of the size of household debt, indebtedness and financial solvency of indebted households at national and subnational level as well as for different income quintiles in Pakistan. The estimates are based on household data from different rounds of Household Integrated Economic Survey (HIES) conducted from 1998-99 to 2018-19. Our estimates show that the total stock of household debt in Pakistan increased more than five times and stood Rs. 1162.78 billion in 2018-19 compared to 227.80 billion in 1999. Over the same period, the annual volume of household debt increased more than nine folds. Most importantly, 85% to 95% of borrowing was done from informal credit market.

On average, one-fifth of the households were found to have been in debt over the period of 2005-06 to 2018-19. Estimates for 2018-19 show that incurrence of borrowing in poorest 20% population was 2.45 times higher than richest 20%. Only one fourth (26.48%) of indebted households were able to repay the debt in 2017-18 whereas the rest three fourth defaulted. This shows a serious level of financial stress in indebted households. Around one-fifth (19.33%) of households, who have borrowed, are overindebted. The number of overindebted households in the poorest 20% is 2.45 times higher than the richest 20%.

Alarming, around half of the total household debts (47.5%) are unsustainable. The debt-to-income ratio for these households is greater than 30%. The government needs to design targeted interventions to support the poor households trapped in debt. The patterns and structures of household debt have implications for monetary policy. The State Bank of Pakistan, therefore, must integrate the data into its decision-making process/models. The robust and reliable data and research on household debt and indebtedness is in fact the need of hour.

Keywords: Household debt in Pakistan; household indebtedness; debt sustainability; over-indebtedness

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1. Introduction

This study provides the first-ever estimates of the size of household debt and indebtedness over the last two decades (1999-2019) in Pakistan. Information on household debt is used to calculate the total number of households engaged in borrowing. The borrowing transactions are then multiplied with average and median size of the loan per transaction to calculate the total household debt. Calculated at household level, these estimates are adjusted for income levels, regions and area of residence.

The study also estimates household indebtedness showing financial solvency of households in debt. Debt Servicing to Income Ratio (DSIR) and Debt to Income Ratio (DIR) and are calculated to assess the vulnerability of the indebted households and debt sustainability, respectively. A higher DSIR denotes higher vulnerability and chances of default or bankruptcy in the face of any socioeconomic or climatic shock. We use DSIR above 30% as a measure of over-indebtedness and higher vulnerability². To assess the sustainability of debt, we calculated DIR using data from the total outstanding debt of the household and total income at the time of survey. A higher DIR denotes that households may face difficulties in repaying the debt. Households who have both the higher DSIR and DIR are thus highly vulnerable to many kinds of shocks.

Data for the analysis is extracted from rounds of Households Integrated Economic Survey (HIES) conducted between 1998/1999 and 2018/19 (Pakistan Bureau of Statistics [PBS]). We were not able to calculate debt to asset ratio for two primary reasons. First, HIES does not provide any information on value of assets held by the household. Second, it does not provide any specific information helping to attach a value to the assets. For example, a household reports to have a bike or car. The make and year of these assets may vary by different income groups and within income groups which leaves us unable to attach any price tag to these assets. However, we argue that DIR can serve as good measure as we calculated income from wage and non-wage sources. The later includes the return on assets³.

2. Prevalence of household debt in Pakistan (HIES 2018)

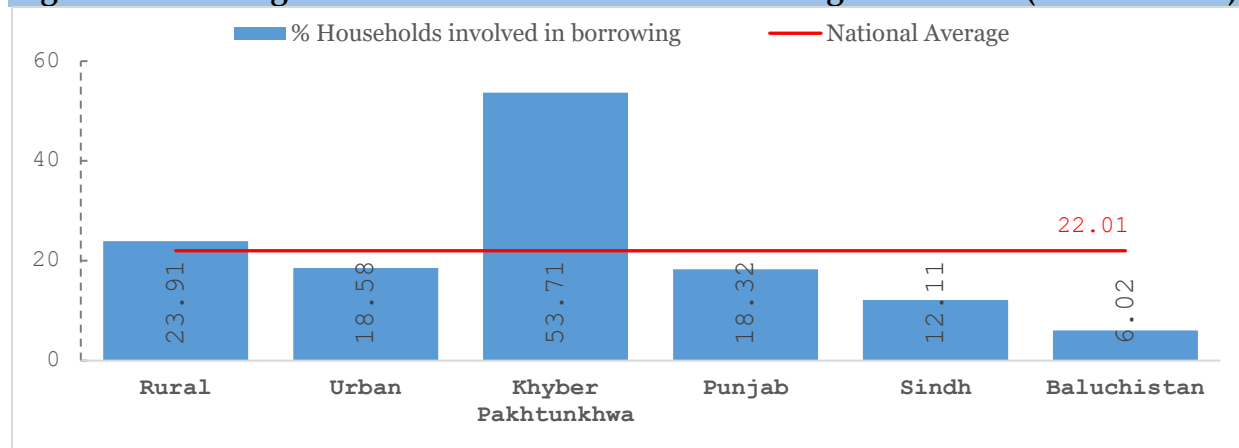
Figure 1 provides estimates for the prevalence of household borrowing in Pakistan at national and provincial level. Prevalence is calculated as the percentage of households who were indebted at the time of survey to the total number of households surveyed. A higher ratio suggests a higher prevalence. On average, one-fifth of households (22.01%)

² Based on Giovanni and Iezzi's (2016) 'cost of servicing debt' criteria, households allocating 30% or more of their income to repay debts are considered 'over-indebted'.

³ Total Annual Income of Household= Income from main occupation + Income from second Occupation + Income from any other work + income received from selling assets + received in kind + Pension + any other. Monthly income was multiplied with 12 to calculate annual income.

in Pakistan are in debt. It means approximately 7 million households out of 31.64 million have borrowed a loan which is yet to be paid⁴.

Figure 1: Percentage of household involved in borrowing in Pakistan (HIES 2018-19)



Note: Households have been asked that “How much loans are currently owed by the HH?”. HIES 2018-19 Sample Size: (N)=24806; Rural Area=15936; Urban Area=8873; Khyber Pakhtunkhwa=4485; Punjab=11781; Sindh=6216; Balochistan=2327.

Interestingly, number of households in debt is 2.44 times higher in Khyber Pakhtunkhwa (53.71%) than the national average (22.01%) (figure 1). It is lowest (6.02%) in Balochistan, which is 3.56 times lower than the national average. Sindh (12.11%) has a prevalence of household borrowing double than Balochistan but half of the national average. Comparing across provinces, households borrowing Balochistan, and Sindh is 8.92 times and 4.43 times less than Khyber Pakhtunkhwa. The prevalence of household borrowing in the Punjab is almost one-third of that in Khyber Pakhtunkhwa.

No specific information is available on reasons for higher prevalence of borrowing in Khyber Pakhtunkhwa compared to other provinces. Availability of borrowing may be one reason for higher prevalence. Further, lagged impact of increased terrorism in the province which affected the livelihoods may also explain the outcome. It is highly likely that the households who have borrowed during terrorism period continue to be in debt. We, however, recommend a deeper analysis in this regard.

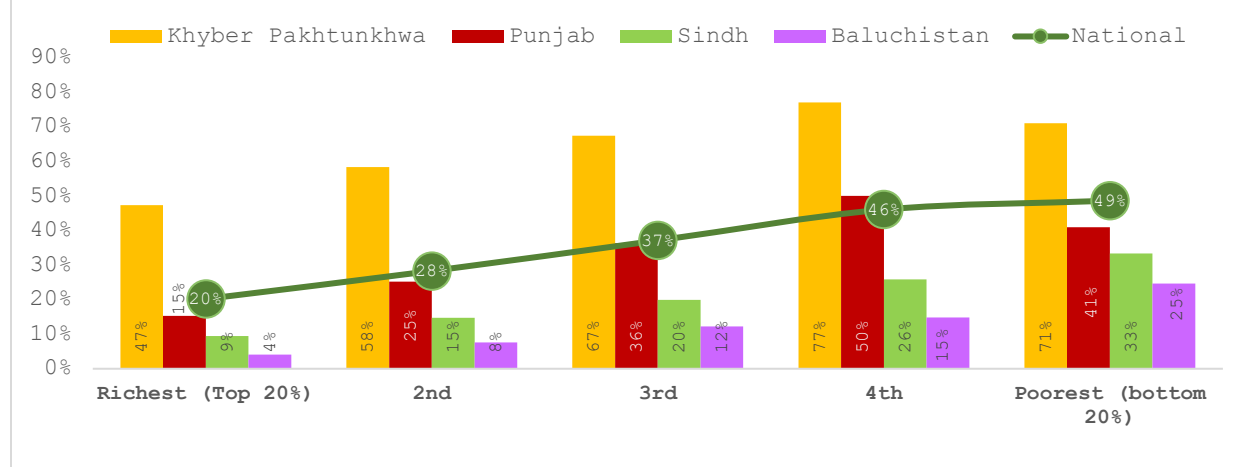
2.1 Household Borrowing by income quintiles

Prevalence of household borrowing for different quintiles is also assessed. Households in debt were divided into five equal portions, each having 20% of the population. Bottom 20% denotes the poorest while the top 20% denote richest of the household as per their income. Figure 2 provides the results. For a quick comparison, the national average for each income quintile is also provided (line graph). As expected, around half of the poorest

⁴ According to Pakistan Census 2017, total number of households in Pakistan are 31646732.

households, the bottom 20%, are in debt compared to richest 20%. In other words, borrowing is 2.5 times higher in the poorest households compared to the richest.

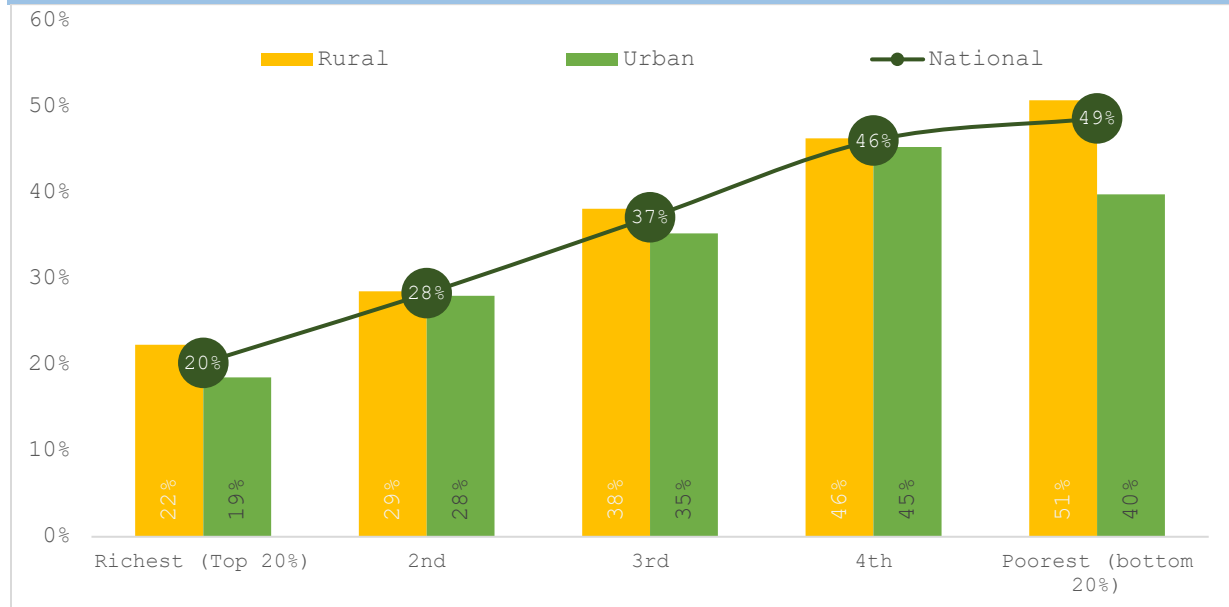
Figure 2: Percentage of households involved in borrowing by income quintiles



Note: Household reporting zero income were dropped from sample as we were not able to identify which of the income quintiles, they may belong to. Full Sample=15058; Khyber Pakhtunkhwa=3681; Punjab=6516; Sindh=3640; Balochistan=1221

A similar trend is observed for the 2nd quintile, i.e. the poor, where 46% households were in debt which is 1.64 times higher than the counterpart rich quintile (26%). Overall, the participation in borrowing increases as we move from the richest to the poorest quintile. A similar trend persists across provinces which is robust across areas of residence, rural or urban (figure 3) where borrowing is slightly higher in rural areas.

Figure 3: Percentage of households involved in borrowing by income quintiles and residence

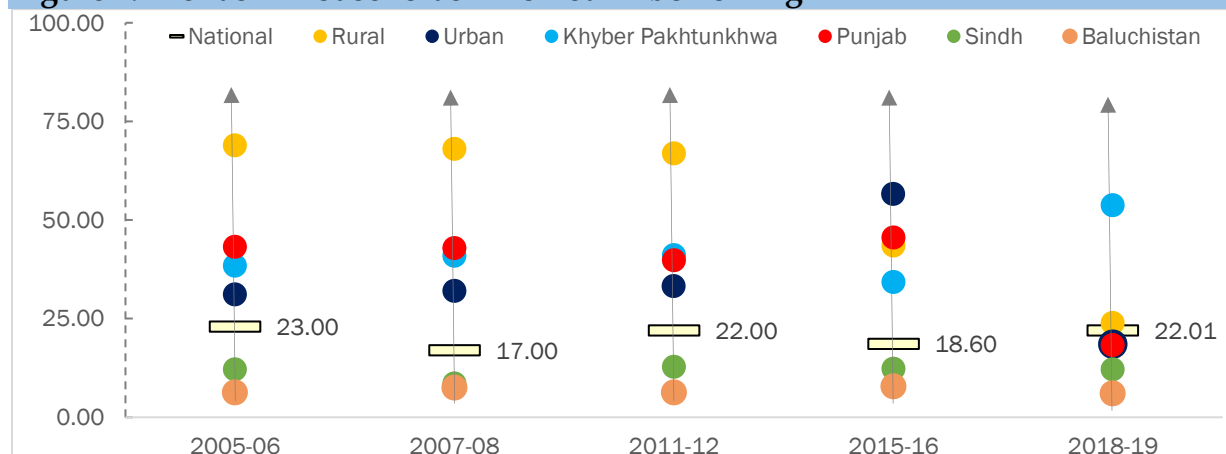


Note: Household reporting zero income were dropped from sample as we were not able to identify which income quintile, they may belong to⁵. Full Sample=15058; Khyber Pakhtunkhwa=3681; Punjab=6516; Sindh=3640; Balochistan=1221.

2.2 Trends in household borrowing (2005-06 to 2018-19)

We also assess the changes in patterns of prevalence of household borrowing in Pakistan over time from 2005 to 2018. The results are reported in figure 4. Alongside national estimates, we also provide trend for provinces and rural-urban areas.

Figure 4: Trends in households involved in borrowing



Note: Trends for 2005-2016 have been taken from Javed et al., 2019 (tables 1-2; page 7-8. The calculation for 2018-19 are from HIES 2018-19).

National average (bold dash) hovered around 20% with range from 17% to 23% of household participating in borrowing over the last 15 years (figure 4). The provincial analysis, however, shows some significant changes in the pattern. The Punjab and Khyber Pakhtunkhwa were having almost similar prevalence of borrowing during 2005/06 to 2012/13. However, Khyber Pakhtunkhwa surpassed the Punjab by a large margin and documented highest ratio of households involved in borrowing in 2018-19. Another prominent shift is that rural households were leading the participation in borrowing till 2012/13 but the share dropped steeply in 2012-13 and 2018-19.

While we do not have any evidence from HIES on these patterns, the findings from quintile analysis may guide us to speculate that poverty may also be one of the drivers behind the changing patterns of borrowing. As poor quintiles are involved disproportionately in borrowing, changing patterns of poverty may change patterns of borrowing. Also, as highlighted already availability of credit and better social capital⁶ may also lead to higher number of households engaged in borrowing. The explanation to change in patterns may also be contextual and may not suffice. For example, we think that lower prevalence in Balochistan and Sindh may be a combination of both persistent

⁵ibid.

⁶ As suggested Mr. Ali Kemal, one of the discussants, at SDPI seminar

poverty status, no changes over time, and unavailability of borrowing. Finally, changes in the financial inclusion of the population may also change these patterns.

3. Size of household debt in Pakistan

3.1. Stock of household debt

We estimate the size of the household debt using the total number of households participating in borrowing and the size of borrowing transactions. We use median and average size of debt per household. As average may be sensitive to extremely lower or larger values of borrowed amounts, the outliers, data on 2.5% transactions from top and bottom of the distribution were dropped. Further, the average for the total sample may be significantly different from subgroups by income and region, so we also provide estimates based on income quintiles.

We calculate the size of debt using average and median values for income quintiles. Table 1 shows the results. It is important to note on the very onset that the median value may underestimate the size of debt as largest number of transactions is documented for poor 40% of population, which generally borrow smaller amounts compared to rich 40%.

Table 1: Crude estimates for stock of household debt in Pakistan (2018-19)

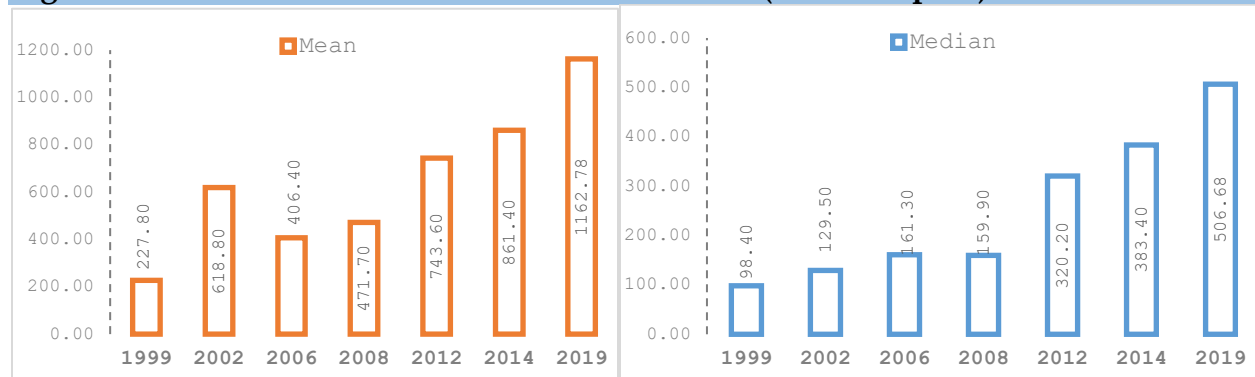
	House holds in debt (%)	Number of households (million) Census,2017	Total Households in debt (million)	Median debt (Rs. 000) (HIES-2018-19)	Average debt (Rs. 000) (HIES-2018-19)	Size of debt based on median (Rs. billions)	Size of debt (based on average) (Rs. billions)
A	B	C	D=B*C	E	F	G=(D*E)/10 ⁹	H=D*F/10 ⁹
Full Sample²	22.01	31.6	7.0	65.0	167.9	452.75	1169.78
By Quintiles							
Richest	11.80%	6.3	0.7	150	378	111.74	281.57
2nd	17.90%	6.3	1.1	100	190.2	113.53	215.93
3rd	23.10%	6.3	1.5	70	150.3	102.33	219.67
4th	28.30%	6.3	1.8	50	108	89.54	193.47
Poorest	28.30%	6.3	1.8	50	140.8	89.54	252.14
Total						506.68	1162.78

Note: Calculated as, households currently taken debt out of total households covered in survey (N=24806). Households have been asked that "How much loans are currently owed by the HH?" (Male Questionnaire: Section 9M: Part-B; Code 963); "2' Population of FATA has been Excluded.

Source Table 1: Provisional province-wise population by sex and rural/urban, Census 2017 Pakistan.

The full sample here refers to Pakistan as a whole. The total size of household debt in Pakistan, without using different income quintiles is Rs 1169.78 billion based on the average size of debt per household. Using data for income quintiles, the household debt in the country is estimated to be Rs 1162.78 billion (table 1). Given the higher prevalence of borrowing in bottom 40%, the median values may underestimate the total size. We therefore think the size of debt calculated from average, after adjusting for extreme values, is better indicator of household debt in Pakistan.

Figure 5: Total stock of household debt in Pakistan (billion rupees)



Note: Total number of household for respective year= Total population/average household size. Average household size= 6.04 for 1999-2014 (Population Census of 1998); Average household size= 6 for 2019.

Total size of the household borrowing, or debt market, increased manifold over the period of 1999 to 2019. The estimates are sum of total debts by different income quintiles (figure 5). The estimates based on medium debt show that total stock of household debt increased more than fivefold, from Rs 227.8 billion in 1999 to Rs 1162.78 billion in 2019. Though smaller in size, a fivefold increase is evident from estimates based on median⁷.

3.2. Annual volume of household debt

To have better understanding of the annual household borrowing in Pakistan, we estimated annual debt size using information “the amount borrowed last year preceding the survey” as asked in HIES. Results are presented in table 2. Based on average debt per household, annual household debt stood around Rs 601.14 billion. A comparison of household debt in 2017-18 and total stock in 2018-19 suggests that most of the debts are short-term.

Table 2: Annual volume of household debt in Pakistan (year=2017-18)

	Households in debt ¹ (%)	Number of households (million) Census,2017	Total Households in debt (million)	Median debt Rs. (Rs. 000) (HIES-2018-19)	Average debt (Rs. 000) (HIES-2018-19)	Size of debt based on median ¹ (billions)	Size of debt (based on average) ¹ (billions)
A	B	C	D=B*C	E	F	G=(D*E)/10 ⁹	H=D*F/10 ⁹
Full Sample ²	16.5%	31.6	5.2	50.00	114.92	261.55	601.14
By Quintiles							
Richest	8.80%	6.3	0.6	120	301.68	67.04	168.55
2 nd	12.80%	6.3	0.8	60	136.6	48.75	111
3 rd	17.10%	6.3	1.1	50	108.37	54.21	117.5
4 th	22.20%	6.3	1.4	40	66.88	56.12	93.84
Poorest	21.70%	6.3	1.4	40	80.34	54.9	110.27

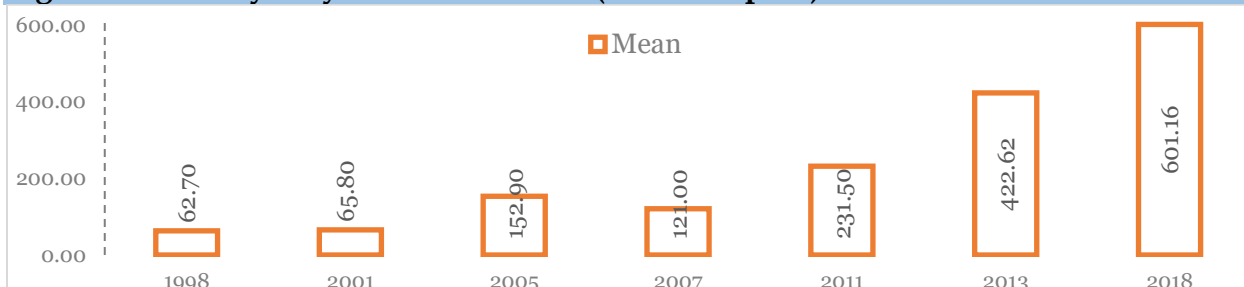
⁷ Estimates using median size of debt are just provided for reference and show process of calculation. From onward, we will provide estimates using average size of debt per household as it is better indicator.

Total						281.03	601.16
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Note: '1' Calculated as, households currently taken debt out of total households covered in survey (N=24806). Households have been asked, "How much loans are owed by the HH Last year?" (Male Questionnaire: Section 9M: Part-B; Code 964); "2' Population of FATA has been Excluded. Source Table - 1: Provisional province wise population by sex and rural/urban, Census 2017 Pakistan. For more details on samples please see Table A, annexure.

Figure 6 provides trend for annual flow of household debt in Pakistan. The annual household debt in Pakistan, based on average size of debt per household, increased from Rs. 62.70 billion in 1998 to 601.16 billion in 2018.

Figure 6: Size of yearly debt in Pakistan (billion rupees)

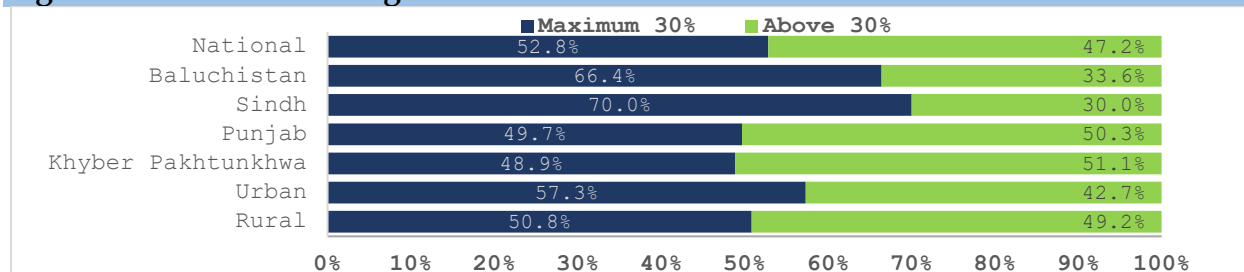


Note: Total number of household for respective year= Total population/average household size
Average household size = 6.04 for 1999-2014 (Population Census of 1998); Average household size= 6 for 2019.

4. Sustainability of debts: Total outstanding debt to income ratio

Debt to Income Ratio (DIR) is calculated as a ratio of total debt to income of last year⁸ (figure 7). A higher DIR shows unsustainable debts and households with higher DIR are more likely to face to run into trouble making monthly payments. They may face two types of problems. One, they must pay a higher absolute amount in repayments, or they must ask for an extension of repaying period. Both have implications. In the former case, debt repayment may take an overwhelmingly larger share of monthly/quarterly income leaving limiting the household's capacity for other expenditures, including but not limited to, education, health, and food. In later case, the lender may increase the lending rate or add extra installments to be paid above and beyond already agreed installments. Either way, cost of borrowing inflates.

Figure 7: Total outstanding debt to income ratio

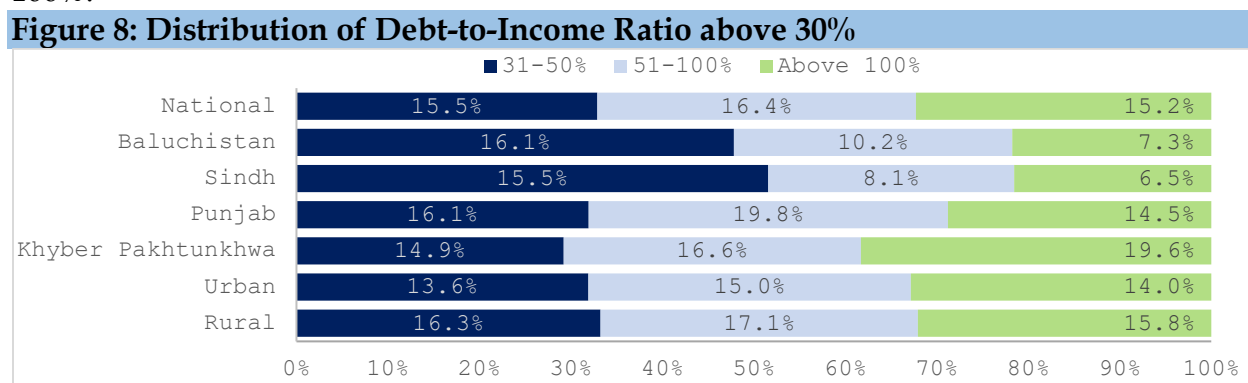


Note: Calculated from households providing information on debt currently taken (Male Questionnaire: Section 9M: Part-B; Code 963) out of households providing information on total annual income of last year (Section 1M; Part-B).

⁸ HIES provides information on income in last year (before the year of survey).

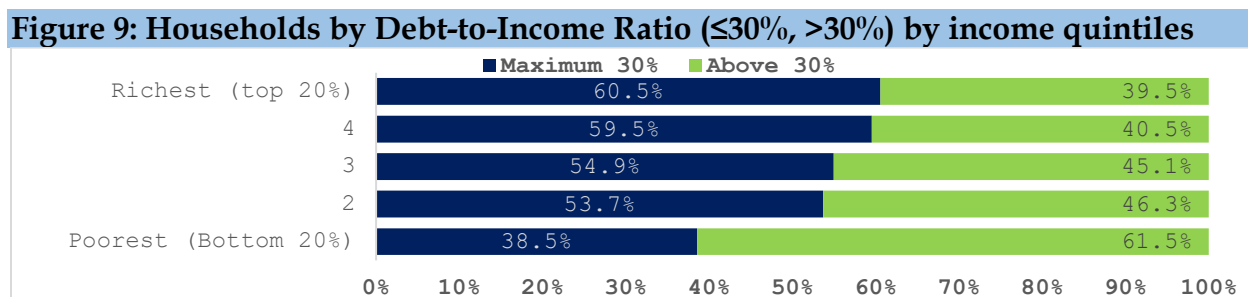
Sample Size National=4994; Rural=3452; Urban=1542; Khyber Pakhtunkhwa=2090; Punjab=2023; Sindh=744; Balochistan=137.

Figure 7 shows higher DIR for majority of borrowing households. Around half of the households (47.0%) have unsustainable debts, DIR is above 30%. The highest share of unsustainable debt is documented for Khyber Pakhtunkhwa (51%) and the Punjab (50%) while the share is lowest in Sindh (30%) followed by Balochistan (34%). One possible explanation may be the availability of lower size debt in Sindh and Balochistan in addition to a lower prevalence of borrowing. Also, the sample size is smaller for Balochistan (N=137) and Sindh (745) compared to other provinces. Figure 8 provides further breakup of DIR above 30%. On average, 16% of households have DIR of 50% to 100%.



Note: Calculated from households providing information on debt currently taken (Male Questionnaire: Section 9M: Part-B; Code 963) out of households providing information on total annual income of last year (Section 1M; Part-B). Sample Size National=4994; Rural=3452; Urban=1542; Khyber Pakhtunkhwa=2090; Punjab=2023; Sindh=744; Balochistan=137.

Around three-fourths of indebted households (62%) from the lowest income quintile have DIR more than 30% which is 1.77 times higher than the households from the highest income quintile (40%) (figure 9). The ratio of households having DIR higher than 30% declines as we move from the poorest income quintile to the richest income quintile. The trend has some implications. Over-indebtedness, DIR more than 30%, in poor households imposes i) cut in expenditures on necessities ii) delayed payments or iii) defaults.



Note: Calculated from households providing information on debt currently taken (Male Questionnaire: Section 9M: Part-B; Code 963) out of households providing information on total annual income of last year (Section 1M; Part-B). Sample Size National=4994; Rural=3452; Urban=1542; Khyber Pakhtunkhwa=2090; Punjab=2023; Sindh=744; Balochistan=137.

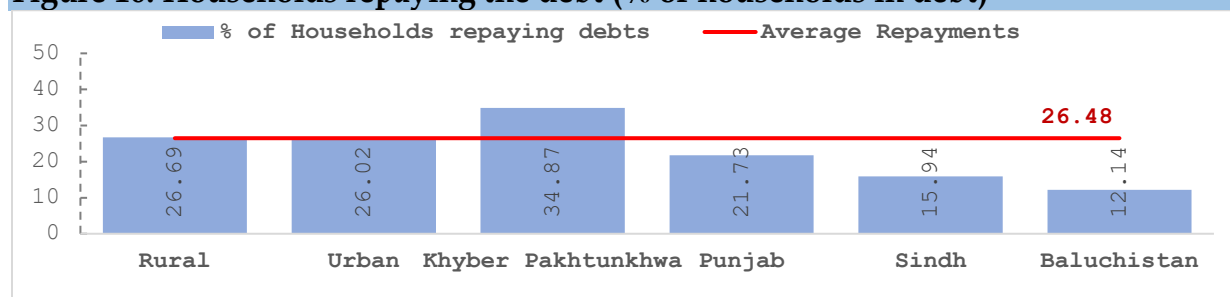
While HIES 2018-19 is silent on the outcome of higher DIR and associated implications, one of the possible implications is to cut expenditures to ensure debt repayments. The evidence suggests that expenditures cut mainly falls on food, health, and education of children, particularly lifting the children from school. Girls are the first point for lifting from schools. Most importantly, the biggest cut is documented for the health and food intake of women (Javed et al. 2019).

The delayed payments lead to an exponential increase in the cost of debt. Households must pay extra markup, additional installments, and unpaid labour in some cases. Defaults may impose higher costs, including the sale of borrower's assets, forced marriages, and fleeing from the areas permanently (Javed et al. 2019). While the decision to borrow or not is mainly made by men of the household, the burden of repayment heavily falls on women. They are mainly responsible to ensure the repayment. It is in this context that debt burden is skewed against the females (Javed et al. 2019).

5. Financial Solvency of households: Ability to repay the debt

Repayment of debt shows the ability of households to sustain their debts. Figure 10 provides the estimates of households, who were able to repay debts using data from HIES 2018-19. Alarming, only fourth (26.48%) of households in debt were able to repay the debt. In other words, three-fourths households who have borrowed were not able to pay the debt installment. This is a huge number of defaulting households indicating higher financial distress. The lowest ratio of households repaying the debt (12.14%) was observed for Balochistan. It is important to note that defaults are involuntary as no household would like to default which has serious social and economic costs⁹.

Figure 10: Households repaying the debt (% of households in debt)



Note: Households have been asked "How much was repaid during the last 1 year?" (Male Questionnaire: Section 9M: Part-B; Code 965). Households currently borrowing; Full Sample=5460; Rural=3811; Urban=1649; Khyber Pakhtunkhwa=2409; Punjab=2158; Sindh=753; Balochistan=140 (Male Questionnaire: Section 9M: Part-B; Code 963, HIES 2018-19). For more details on samples please see Table-B in Annexure.

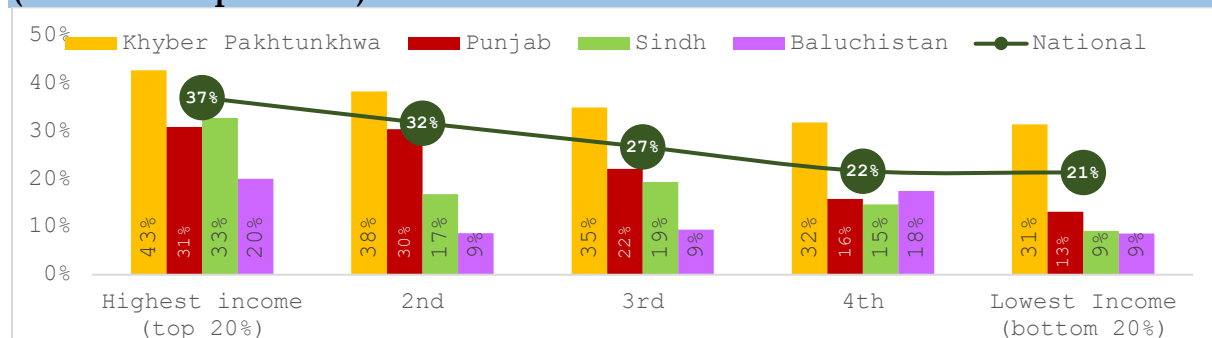
This highlights a serious situation where households were not able to pay the loans back. And this comes at a certain cost. Though HIES is silent on these costs, another study (Javed et al. 2019) shows that defaulting on payment of debt/instalment leads to public insult, extra mark up, unpaid work, and extra instalments up and above the due amount and forced marriages in some cases.

⁹ See Javed et al. (2019) for a detailed assessment of cost of defaulting the repayment of loan.

5.1 Households debt repayment by income quintiles

Figure 11 exhibits that default on repayment of debts is mainly driven by poverty or poor financial situation of the household. Only one fifth (21%) of the poorest households were able to pay the loans back which is 2.7 times lower than the richest quintile where 57% of households were able to repay the debts.

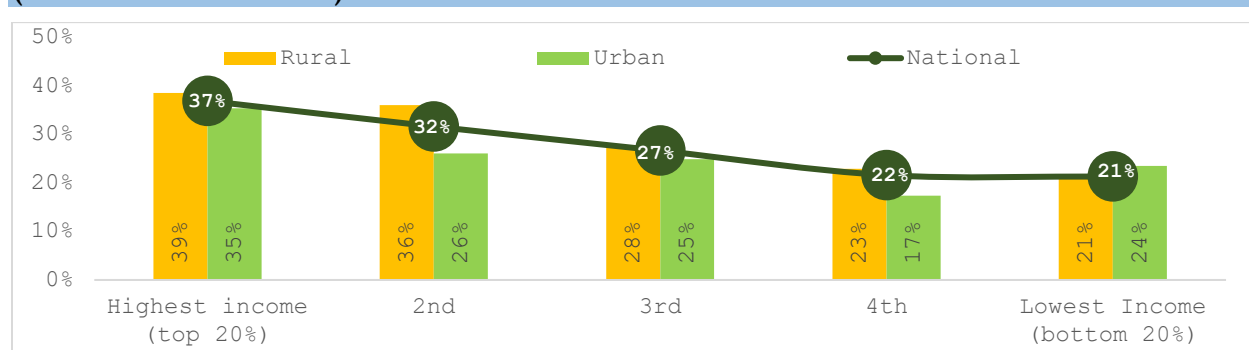
Figure 11: Households repaying the debt (% of households in debt) by income quintile (national and provinces)



Note: Information on repayments have been computed in each quintile out of total households currently indebted in respective income quintile. Household head has been asked "How much was repaid during the last 1 year by the HH?" (Male Questionnaire: Section 9M: Part-B; Code 965). Household in debt; Full Sample=5428; Khyber Pakhtunkhwa=1404; Punjab=1404; Sindh=890 & Balochistan=584 (Male Questionnaire: Section 9M: Part-B; Code 963). For more details on samples please see Table C & D at (Appendix).

This argument gets further support from the numbers for provinces. Only 10 out of 100 households (9%) of the poorest households were able to repay the debts in Sindh and Balochistan. The other 90% defaulted (figure 11). A similar trend is observed for rural and urban areas (figure 12). Overall, the ratio of households repaying the debt increases as we move from the poorest quintile to the richest quintile.

Figure 12: Households repaying the debt (% of households in debt) by income quintile (rural and urban areas)

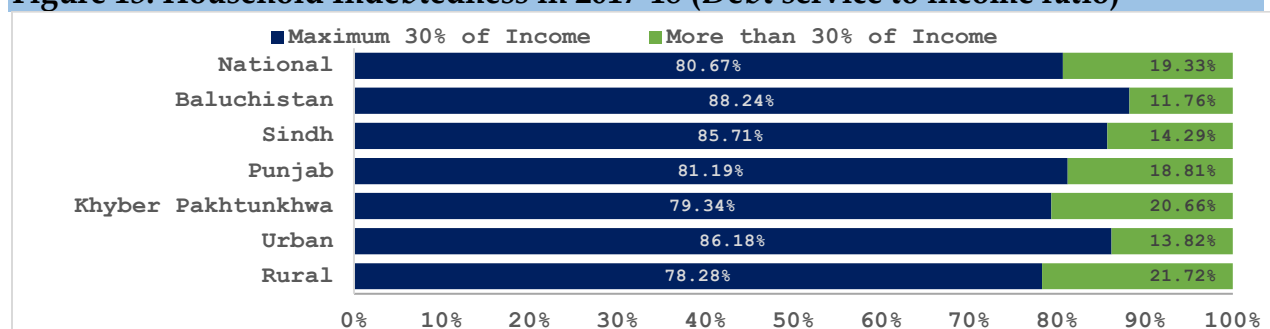


Note: Information on repayments have been computed in each quintile out of total households currently indebted in respective income quintile. Household head has been asked "How much was repaid during the last 1 year by the HH?" (Male Questionnaire: Section 9M: Part-B; Code 965). Household in debt; Full Sample=5428; Khyber Pakhtunkhwa=1404; Punjab=1404; Sindh=890 & Balochistan=584 (Male Questionnaire: Section 9M: Part-B; Code 963). For more details on samples please see Table C & D at (Appendix).

6. Household indebtedness: debt repayment to income ratio

As shown in figure 13, around one fifth (19.33%) of households in Pakistan are overindebted and pay more than 30% of their income to clear the debt installment. It is important to note that these estimates may be higher as around three-fourths of households were not in the position to repay the debts.

Figure 13: Household Indebtedness in 2017-18 (Debt service to income ratio)

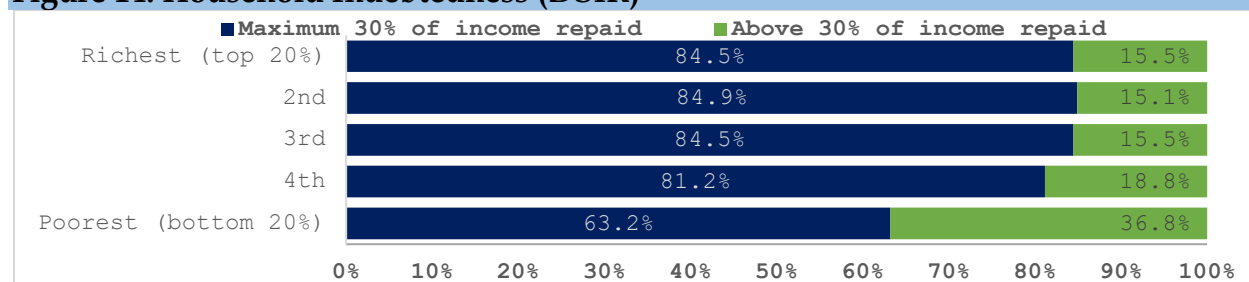


Note: Based on Giovanni and Iezzi's (2016) 'cost of servicing debt' criteria, households allocating 30% or more of their income to repay debts are 'over-indebted'. **Denominator:** Full Sample=1319; Rural Area=921; Urban Area=398; Khyber Pakhtunkhwa Province=731; Punjab Province =452; Sindh Province =119; Balochistan Province =17 households repaid debts last year (Male Questionnaire: Section 9M: Part-B; Code 965) HIES 2018-19. Households who were not able to repay the loans last year get dropped from analysis.

6.1 Households' indebtedness by income quintiles

Household indebtedness may exponentially inflate for poor households, who face lower income and higher debts simultaneously. To get a better understanding of who shares the burden of over-indebtedness, we undertook a quintile analysis in figure 15. Contrary to national leverage of 19.33%, 36.30% of households from the lowest income quintile (bottom 20%; poorest) experience over-indebtedness. The ratio is 2.4 times higher than the highest income quintile, the richest where 15.50% of households face higher indebtedness (figure 14).

Figure 14: Household Indebtedness (DSIR)



Note: Based on Giovanni and Iezzi's (2016) 'cost of servicing debt' criteria, households allocating 30% or more of their income to repay debts are 'over-indebted'. **Denominator:** Households repaid debts last year; Full Sample=1319; (Male Questionnaire: Section 9M: Part-B; Code 965) HIES 2018-19

7. Conclusions and Policy Recommendations

Based on HIES 2018-19, the size of household debt in Pakistan stood Rs 1162.78 billion. Around one-fifth of the households in Pakistan are in debt. The trend is consistent over

the period of analysis, i.e. 2005-06 to 2018-19. Prevalence of debt is highest in Khyber Pakhtunkhwa where more than half (53.71%) of the total household were in debt. The ratio is 18.32% for the Punjab and 6.02% in Balochistan. Around half of the poorest households, the bottom 20%, are in debt compared to one fifth from the top 20%. Only one fourth of the households were able to repay their debt in 2017-18. In other words, three fourth of the households in debt were not able to repay their debts.

The number of over-indebted households in poorest, the bottom 20%, is 2.4 times higher than the top 20%. Alarming, around half of the total household debts (47.5%) are unsustainable in Pakistan. The debt-to-income ratio for these households is greater than 30%. Most importantly, the debt-to-income ratio is between 50% to 100% for one-fifth of these households. Again, the poorest 20% face the highest burden where 63.5% of households have unsustainable debts. This may explain the higher rate of default amongst poor households. One-fifth of indebted households in Pakistan have unsustainable debts as well as unsustainable debt servicing.

Despite a lower total debt in absolute terms, Pakistan has higher levels of household indebtedness. Overwhelmingly majority of poor quintiles, which have highest prevalence of borrowing, are in serious financial distress and not able to honour their repayment commitments, which have serious social and economic implications. The government must, therefore, take immediate steps to support the poor households who are trapped in debt. While the government must focus on expanding opportunities of sustained livelihoods, BISP, particularly under Ehsaas program, must design targeted interventions in this regard. Program on financial literacy, such as Financial Inclusion Strategy of State Bank of Pakistan (SBP), must prioritize debt literacy as it is significantly associated with debt load. Finally, SBP must also integrate data on household and indebtedness in its decision-making¹⁰.

We feel that the true size of informal debt may be even higher. Around 86% of borrowing takes place in the informal credit market. The taboos of attaching household borrowing with lower social status may result in borrowing less than actual demand on the one hand or lead to under-reporting of borrowing on the other. The financial inclusion of masses may increase the size of household debt in Pakistan.

We faced some limitations which can be incorporated in upcoming rounds of HIES. First, we were not able to calculate debt to asset ratio, which is a better indicator of debt sustainability. Presently, one can only calculate assets index using Principal Component Analysis (PCA) as the survey does not provide information on the monetary value of assets. Second, we were not able to assess the reasons for borrowing as HIES provides only two categories namely i) household expenditures and others. Both these categories need to be further disaggregated as in PPHS. Third, and most importantly, HIES does not ask about the source of borrowing which leaves us unable to calculate the size of formal and informal borrowing and associated debt.

¹⁰ We provide a detailed analysis and option in this regard in our upcoming study.

References

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2. Javed, SA, Ali, W & Baig, I 2019, *Household debt in Pakistan Conflict, borrowing and structural indebtedness*, SLRC Working Paper No. 86.
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APPENDIX

Table A: No of households covered in HIES 2018-19 provided information on Last Year Debt Taken

Income Quintile	Khyber Pakhtunkhwa	Punjab	Sindh	Balochistan	Rural	Urban	Total
QUINTILE 1	255	139	34	10	221	217	438
QUINTILE 2	327	211	74	25	359	278	637
QUINTILE 3	403	303	115	29	560	290	850
QUINTILE 4	466	414	185	35	845	255	1100
QUINTILE 5	580	314	152	30	909	167	1076
Total	2031	1381	560	129	2894	1207	4101

Note: (Male Questionnaire: Section 9M: Part-B; Code 964) HIES 2018-19. Quintile 1 being highest income households and accordingly quintile 5 is the lowest income households.

Table B: No of households covered in HIES 2018-19 provided information on Debt Taken in current year.

Income Quintile	Khyber Pakhtunkhwa	Punjab	Sindh	Balochistan	Rural	Urban	Total
QUINTILE 1	302	214	58	10	285	299	584
QUINTILE 2	405	349	113	23	496	394	890
QUINTILE 3	475	479	160	32	761	385	1146
QUINTILE 4	525	614	225	40	1071	333	1404
QUINTILE 5	685	487	197	35	1183	221	1404
Total	2392	2143	753	140	3796	1632	5428

Note: (Male Questionnaire: Section 9M: Part-B; Code 963) HIES 2018-19. Quintile 1 being highest income households and accordingly quintile 5 is the lowest income households.

Table C: No of households covered in HIES 2018-19 provided information on Total Annual Income.

Income Quintile	Khyber Pakhtunkhwa	Punjab	Sindh	Balochistan	Rural	Urban	Total
QUINTILE 1	638	1396	611	246	1276	1615	2891
QUINTILE 2	694	1383	767	301	1739	1406	3145
QUINTILE 3	704	1319	802	262	1995	1092	3087
QUINTILE 4	681	1228	869	270	2313	735	3048
QUINTILE 5	964	1190	591	142	2332	555	2887
Total	3681	6516	3640	1221	9655	5403	15058

Note: Male Questionnaire: Section 1M; Part-B: HIES 2018-19. Quintile 1 being highest income households and accordingly quintile 5 is the lowest income households.

Table D: No of households covered in HIES 2018-19 provided information on Last Year Debt Repaid

Income Quintile	Khyber Pakhtunkhwa	Punjab	Sindh	Balochistan	Rural	Urban	Total
QUINTILE 1	129	69	19	2	110	109	219
QUINTILE 2	155	109	19	2	181	104	285
QUINTILE 3	166	109	31	3	211	98	309
QUINTILE 4	167	106	33	7	255	58	313
QUINTILE 5	215	71	18	3	254	53	307
Total	832	464	120	17	1011	422	1433

Note: (Male Questionnaire: Section 9M: Part-B; Code 965) HIES 2018-19. Quintile 1 being highest income households and accordingly quintile 5 is the lowest income households.