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Economic Policy and Rural Household Financial Stability in Maharashtra

Evidence from Household Income and Expenditure Data, March 2025

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Abstract: *The present paper attempts to examine the relations of household income and expenditure levels with financial stress of rural households in Maharashtra. It is based on the Rural worksheet of the provided March 2025 household data which includes 3,040 observations from 29 districts. The empirical approach takes mixed methods of descriptive statistics, income-quintile comparison, heteroskedasticity robust ordinary least squares (OLS), median quantile regression, an auxiliary food-expenditure model and binary logistic regression. The average of the recorded household incomes is ₹40,949 and the average of the total recorded household expenditures is ₹18,766; the median of the household incomes recorded is ₹25,015 and the median of the total household expenditures recorded is ₹17,538. The ratio of median expenditure to income is 0.69 and 28.1% of households have spent more than they have earned. This is the highest rate among the poorest 1/5 (87.4%) and the lowest rate among the richest 1/5 (0.7%). The variance of the primary log-expenditure model is 49.3% (adjusted R^2=0.486) and the coefficient for income is positive and statistically significant but not large very (β=0.0329, $p<0.001$). Additionally, there is an income association as seen by median quantile regression (β=0.0212, $p<0.001$). Household composition and the occupation are important correlates of expenditure pressure, according to logistic estimates. The results pointed to the need to adopt a policy approach to economic stabilization and livelihood diversification alongside social protection and responsible financial inclusion and district sensitiveness. Due to the absence of savings and debt, assets, arrears and insurance and credit-access variables from the , financial stability is not measured by a full financial resilience indicator but using income–expenditure proxies instead. The paper merges the consumption-function approach with an indicator of the cash-flow pressure on households. It distinguishes between the relationship between the income and expenditure and that between household characteristics and expenditure in excess of record income. The difference between the two is important in that the latter is a proxy screening test and cannot in itself establish indebtedness or financial distress or insolvency.*

Keywords: Economic policy, household expenditure, financial stability, financial inclusion, rural households, and adequacy of income, which are used in the analysis of the paper.

I. INTRODUCTION

Financial stability of rural households is key to inclusive economic growth. It increases the inability of households to cover basic consumption expenditures, absorb income shocks, invest in education and health, and be able to engage in the local market. Income might be seasonal, informal or related to agriculture and allied activities in rural economies. So, a family might not have so much money but still be financially vulnerable. Economic policy is hence a design of

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the relationship between income and expenditure.Economic policy can impact on financial resilience in a variety of ways. Employment and livelihood policies have consequences on income generation, while agricultural and rural infrastructure policies on productivity and market access, food and health interventions on essential expenditure and financial inclusion policies on financial access to savings, credit, insurance and pensions and payment systems. Household financial stability depends on having a bank account, as well. It also includes the capacity to manage cash-flow swings, to cover the basic needs, to get access to appropriate financial services, and to avoid unsustainable borrowing.

Financial inclusion, and increased interaction with formal financial services, in general, is given a new policy framework in the National Strategy for Financial Inclusion (NSFI) 2025-30. Likewise, the All India Rural Financial Inclusion Survey (NAFIS) 2021-22 by NABARD highlights the importance of saving, borrowing and insurance in understanding financial behaviour of the rural households. The national evidence provides useful background information but does not necessarily provide estimates that can be directly compared with the current household evidence, without harmonising definitions and sampling approaches.

1.1 Research problem

The information on aggregate income and expenditure may mask a lot of variation between rural households. There may be a gap between income and necessary expenditure in particular, for families at the bottom of the income distribution. This discrepancy could be covered by savings, borrowing, transfers, asset sale or income that is not included in the statistics. The policy challenge then is to pinpoint the household groups experiencing recorded levels of expenditure pressure, and to delineate the socio-economic relationships of expenditure patterns.

1.2 Research objectives

Analyze Rural Household Income and□1. Expenditure Profile Based on Household Data March, 2025, Maharashtra.
Analyse the distribution of the□2. recorded stress of income-expenditure and the amount of stress by income quintiles.
3.Estimate the relationship between the total expenditure and household income, after controlling for demographic, socio-economic and district characteristics.
4.Identify policy options that can improve financial resilience of rural households and enhance financial stability for all households.

1.3 Hypotheses

H1:The relationship between Household income and Total household expenditure is positive, after adjusting for socio-economic characteristics.
H2: Lower income households feel the income and expenditure stress to a greater extent than higher income households.
H3: There are significant differences in household expenditure patterns by occupation, education, age composition, gender composition and household size by district.

1.4 Rationale for the study

The study falls under the topic of “Future-Ready Finance: Innovation, Risk, and Resilience for Sustainable Economic Development” as it explores financial vulnerabilities of rural households in Maharashtra. It is based on data from 3,040 households in 29 districts, and examines income–expenditure patterns and identifies financial pressure among the economically weaker households. The research underlines the critical need to maintain income stability, diversify livelihoods, make financial services accessible, promote savings and responsible access to credit to build household resilience. The study highlights the importance of inclusive economic policies for managing financial risks and fostering sustainable and equitable economic development, by offering econometric evidence of financial vulnerability in the rural areas.

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II. REVIEW OF LITERATURE AND THEORETICAL FRAMEWORK

2.1 Keynesian consumption function

As per absolute income hypothesis, consumption is directly proportional to the present level of disposable income and the proportion between the consumption and the disposable income is less than one (one less than one) in the economy (Keynes, 1936). This gives the simple theoretical justification for modelling the expenditure of households as a function of income. Controlling district differences and household characteristics, the relationship between adjusted household income and adjusted total expenditure is tested in the present study.

2.2 The life-cycle and permanent income approaches.

The life-cycle hypothesis is that households seek to smooth out their consumption over time, as a function of the resources they can anticipate during the life of the household (Modigliani & Brumberg, 1954). According to the permanent income hypothesis, the movement of income can be divided into transitory and the longer term expected income (Friedman, 1957). The viewpoints are applicable to rural households because cash flows might not be consistent throughout the year due to crop production cycles, job availability, weather and informal jobs. A one month cross-section cannot measure the actual smoothing of consumption over time, but can measure the relationship between what is actually spent and what is earned and who is in the home at the time of the survey.

2.3 Accessibility to finance and the resilience of households

Financial inclusion, not just opening an account, can help to increase the resilience of households by providing appropriate financial savings, credit, insurance products and pension and payment services. As per NABARD's NAFIS 2021-22, 66% of the rural households have saved while 52% of the rural households were under debt. The figures illustrate the importance of savings and indebtedness to be analysed together to evaluate financial resilience. These are the country indicators in the survey and should not be interpreted as estimates for this sample in Maharashtra.

2.4 Conceptual framework

The study combines a Keynesian-type consumption function with a view on the household budget-constraint. The initial analytical link between income and expenditure. The second is a descriptive cash-flow indicator, PRESSURE=1 if adjusted total expenditure>adjusted total income. The expenditure-pressure model shows the characteristics that go hand-in-hand with the gap observed, whereas the OLS and quantile models estimate the income–expenditure association.

Table 1:

Theoretical perspective	Core proposition	Application in this study
Keynesian consumption function	Consumption responds positively to current income.	Log total expenditure is modelled against log total income and controls.
Life-cycle hypothesis	Households smooth consumption over expected lifetime resources.	Age and household composition are included as controls; longitudinal smoothing cannot be tested.
Permanent income hypothesis	Transitory income may not fully determine consumption.	Current income is interpreted cautiously in a single-month cross-section.
Household budget constraint	Expenditure must be financed by current income or other resources.	EXP>INC is used as a proxy for potential cash-flow pressure.
Financial inclusion	Savings, credit and insurance can support shock management.	Policy implications are developed, while missing finance variables are acknowledged.

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2.5 Research gap

The analysis fills an empirical gap in the practical sense by analyzing the income and expenditures of the rural households at the household-level, comparing the financial pressure among the income quintiles and estimating the conditional association between the financial pressure and the socio-economic and district controls. The information contained in the data set is not suitable for a detailed analysis of debt sustainability, savings sufficiency or impact of a specific policy. It is thus not an in-depth financial-stability assessment, but a screening analysis based on income and expenditure.

III. DATA AND METHODOLOGY

The study uses secondary household-level data from the Consumer Pyramids Household Survey (CPHS) by Centre for Monitoring Indian Economy (CMIE). The analysis is based on the rural household records from March 2025 which includes 3,040 households in 29 districts of Maharashtra.

The March 2025 selection gives a recent cross sectional view of the economic situation of rural households and reflects income and expenditure trends in the post-pandemic economic era. It provides a chance to evaluate household financial stability and income adequacy and expenditure pressures in the changing economic environment, livelihoods and financial inclusion programs. This is a very important time period for evaluating the current link between household incomes and consumption expenditure.

Rural Maharashtra has been chosen due to the unique economic problems faced by rural households, such as dependence on agriculture, reliance on seasonal work, informal employment, income volatility and differential access to financial services. Moreover, there are significant socio-economic and occupational disparities between districts, which makes Maharashtra a relevant geographical context for the issue of financial vulnerability faced by the rural households. Household level data for 29 districts can be analysed to get a picture of expenditure pressures and inter-segmental differences related to income. The results can help inform evidence-based economic policies that target livelihood diversification, income stability, financial inclusion and enhanced financial resilience of rural households.It is the rural dwelling household record in Maharashtra in March 2025, which comprises 29 districts and 3,040 rural household records. Nashik (n=231), Jalgaon (n=198), Nagpur (n=194) and Aurangabad (n=186) have the largest samples in the district. There is unequal sample sizes between the districts. Analysis is unweighted due to the lack of survey weights, strata and cluster identifiers. Thus, results do not necessarily represent the population of all rural Maharashtra, and should not be considered as such automatically.

The household labels were linked to the household category and district labels, using a labelled household worksheet. It features age group, occupation, education, gender-composition and household size, adjusted total income, adjusted total expenditure, food and non-food expenditure, recreation, restaurant expenditure, vacation expenditure and health expenditure.3.2 Variables and operational definitions.

Table 1: Description, Operationalisation and Role of Variables Used in the Econometric Analysis

Variable	Operational definition	Role
Total income	ADJ_TOT_INC	Main explanatory variable
Total expenditure	ADJ_TOT_EXP	Main consumption outcome
Net recorded balance	Income minus expenditure	Descriptive cash-flow proxy
Expenditure-to-income ratio	Total expenditure / total income	Budget-pressure proxy
Pressure indicator	1 if expenditure exceeds income; 0 otherwise	Binary logit outcome
Food expenditure	ADJ_EXP_FOOD	Essential consumption outcome
Household characteristics	Age, occupation, education, gender composition, size	Controls
District	District category	Geographic fixed effects

Source: Authors' analysis based on the Centre for Monitoring Indian Economy (CMIE), Consumer Pyramids Household Survey (CPHS), March 2025, Rural Maharashtra .

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Two observations have zero recorded income. They are retained in descriptive counts but excluded from the expenditure-to-income ratio. For log-income regression, ln(max(income,1)) is used to avoid taking the logarithm of zero. The expenditure-pressure flag is based on the direct comparison ADJ_TOT_EXP>ADJ_TOT_INC.

3.3 Econometric specifications

Primary OLS model: $\ln(EXP_i)=\beta_0+\beta_1\ln(INC_i)+\beta_2X_i+\delta d+\varepsilon_i$, where X_i includes age composition, occupation, education, gender composition and household size, and δd represents district fixed effects. HC3 heteroskedasticity-consistent standard errors are reported.

Median quantile regression: $Q_{0.5}[\ln(EXP_i)|X_i]=\theta_{0.5}+\theta_{1.5}\ln(INC_i)+\theta_{2.5}X_i+\delta d$. This tests whether the income association is also present at the conditional median.

Food expenditure model: $\ln(FOOD_i)=\gamma_0+\gamma_1\ln(INC_i)+\gamma_2X_i+\delta d+u_i$.

Binary logit model:

$Pr(PRESSURE_i=1)=\Lambda(\alpha_0+\alpha_1AGE_i+\alpha_2OCC_i+\alpha_3EDU_i+\alpha_4GENDER_i+\alpha_5SIZE_i)$. Income and expenditure are not included as predictors in the logit because they mechanically define the dependent variable.

3.4 Estimation and inference

Descriptive statistics, comparisons of income quintiles, OLS with HC3 robust standard errors, median quantile regression and binary logistic regression are used for the analysis. The estimates are only associations, not causes. There is no policy treatment, instrumental variable, or panel structure or panel longitudinal variation available to be used for causal identification.

The fourth section provides descriptive results of the income, expenditure and financial pressure.

4.1 Household Income and Expenditure Profile

The average income of the household is ₹40,949 and the average expenditure is ₹18,766. The median income is ₹25,015 whereas the median expenditure is ₹17,538. The difference between the mean and the median indicates that the distribution of incomes is skewed to the right and that there are relatively few observations with large income values which are raising the value of the mean. For this sample it is helpful to use median values to describe the typical household.

Table 2: Descriptive Statistics of Rural Household Income and Expenditure in Maharashtra (March 2025)

Indicator	Mean (₹)	Median (₹)
Adjusted total income	40,949	25,015
Adjusted total expenditure	18,766	17,538
Food expenditure	8,663	8,049
Net recorded balance	22,183	7,286

Source: Authors' analysis based on the Centre for Monitoring Indian Economy (CMIE), Consumer Pyramids Household Survey (CPHS), March 2025, Rural Maharashtra .

Food expenditure averages ₹8,663 and represents approximately 48.0% of total expenditure on average. The median household food share is also reported as 48.0%. Average recorded health expenditure is ₹565. The listed expenditure categories should not be assumed to exhaust total household expenditure.

4.2 Income–expenditure pressure

The mean and median spending to income ratios are both 0.66, indicating that the median observation spent about 69% of its recorded income. However, 28.1% of the sample (854 households) have expenditure that surpass their recorded income. The median of the balances recorded is ₹7286. When combined with a large minority having expenditure greater than income there is considerable heterogeneity when a positive median balance is added to the majority with expenditure greater than income.

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This indicator is not used as a specific measure of financial distress and is merely used as a screening indicator. Doesn't discriminate between savings, borrowing, transfers, asset sales or unrecorded income to fill the gap. Signals groups that may be under cash flow stress and groups that may be in need of emergency liquidity and/or income smoothing.

4.3 Financial pressure by income quintile

Table 3: Distribution of Rural Household Financial Pressure Across Income Quintiles in Maharashtra (March 2025)

Income quintile	n	Median income (₹)	Median expenditure (₹)	EXP>INC (%)
Q1 – lowest	610	4,005	15,096	87.4
Q2	606	16,200	14,927	42.9
Q3	610	25,050	17,324	7.2
Q4	606	40,375	19,242	2.1
Q5 – highest	608	96,825	20,740	0.7

Source: Compiled by the authors based on CMIE, Consumer Pyramids Household Survey (CPHS), March 2025, Rural Maharashtra . Financial pressure is measured as the percentage of households whose total expenditure exceeds their recorded total income (EXP>INC).

It does have a high concentration. 87.4% of the poorest fifth of households spend more than they earn, while only 42.9% of the second fifth of households do so. This percentage drops to 7.2% for the middle quintile, 2.1% for the fourth quintile and 0.7% for the top quintile. This high gradient should be used to remind readers of the importance of not assuming that average vulnerabilities within all aggregate policy groups are the same, as there may be considerable vulnerability within lower income subgroups.

4.4 Interpretation

The income adequacy is a clear indicator of the quintile dimension with clear indication that this is a key dimension of financial resilience of the rural households. However, a shortfall in income and expenditure is not considered to be an indication of insolvency. It also may be a harbinger of dissaving and borrowing and timing of income and/or the omission of resource flows. More financial factors are required to discriminate these mechanisms.

5.1 Primary OLS model

The total number of observations for the primary OLS model is 3040 with an R-squared of 49.32% and an Adjusted R-squared of 0.486. The coefficient on log income is 0.0329 (HC3 standard error=0.0052; $p=3.6\times10^{-10}$; 95% confidence interval [0.0226, 0.0431]). That means that with the district and household controls that are included in the model, total expenditure rises by 0.033% for every 1% increase in income. Both the magnitude and the statistical significance of the relationship is small and positive.

Table 4: OLS Regression Estimates of the Determinants of Rural Household Expenditure in Maharashtra (March 2025)

Predictor / contrast	Coefficient	HC3 SE	p-value	95% CI
Log household income	0.0329	0.0052	<0.001	[0.0226, 0.0431]
Senior-dominant age composition	-0.1176	0.0290	<0.001	[-0.1745, -0.0608]
Self-employed / entrepreneur	0.1394	0.0118	<0.001	[0.1163, 0.1626]
White-collar / management	0.1520	0.0190	<0.001	[0.1148, 0.1893]
Highly educated	0.1392	0.0178	<0.001	[0.1044, 0.1741]
Moderately educated	0.0910	0.0116	<0.001	[0.0683, 0.1137]
Exclusively female or male	-0.3133	0.0228	<0.001	[-0.3579, -0.2686]
Female-dominant	0.0483	0.0155	0.002	[0.0179, 0.0786]
Male-dominant	0.0814	0.0121	<0.001	[0.0578, 0.1050]

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Medium-sized household	-0.0814	0.0166	<0.001	[-0.1139, -0.0489]
Small household	-0.2210	0.0186	<0.001	[-0.2575, -0.1845]

Source: Based on authiors' analysis of secondary data Data compiled by the authors, based on the CMIE, Consumer Pyramids Household Survey (CPHS), March 2025, Rural Maharashtra

Note: dependent variable is the log of adjusted total household expenditure. The standard errors are heteroskedasticity consistent (HC3). District fixed effects are included in the estimates. The categorical coefficients are compared to the corresponding reference categories. Results that are statistically significant at the 1% level ($p < 0.01$) are presented.

Categorical coefficients are relative to the reference categories that have been omitted: balanced-age households, blue-collar workers, educationally homogeneous households, balanced gender composition and large households. There are district fixed effects but they are omitted from the table. The coefficients are log points and should be interpreted other variables being held constant.

The five steps for interpreting OLS estimates are:The five steps to interpreting OLS estimates are:

Conditional spending by self employed and white collar households is higher than blue collar households. When comparing the expenditure in the categories of education to the reference category (a group of educationally homogeneous individuals), the categories show positive correlations. The conditional expenditure of senior dominated households and of small households are lower relative to their reference groups. Gender-composition categories are not equal to balanced-gender group. The results indicate that the household composition and the socio-economic situation influence the expenditure pattern, apart from current income.

5.3 Median quantile regression

The median value of the log-incomes coefficient is 0.0212 ($p=1.04\times10^{-5}$). For the association of income and expenditure, the positive and statistically significant coefficient provides evidence of the association existing at the conditional median as well. Its size is smaller than OLS coefficient (0.0329) which means that the conditional relationship changes along the expenditure distribution. This provides a valuable robustness perspective, but not the cross-sectional or omitted variable concerns.

Additional models and diagnostic tests will be provided.Other models and diagnostics will be provided.

6.1 Food expenditure model

The R2 value for the supplementary log model of food expenditure is 0.526 and adjusted R2 value is 0.520. The log-income coefficient is 0.0383 (HC3 standard error=0.0047; $p=4.56\times10^{-16}$). The positive coefficient indicates that the more food expenditure of a household, the higher the income of the households involved, controlling for household characteristics. The estimated elasticity is still rather limited. Consistent with a necessity of food consumption in households' budgets, the data does not contain indicators of food prices or quantities, which could be used for testing the quality of food consumption and/or its substitutability.

6.2 Binary logistic regression: expenditure pressure

The binary outcome will take the value 1 if the modified total expenditure is greater than the modified total income. 854 households (28.1%) are in this situation. This is the demographic-and-occupation logit model, which is jointly significant (likelihood-ratio $p=5.4\times10^{-}64$), with McFadden pseudo-$R^2=0.093$. The right hand side is missing income to avoid mech. relationship with outcome.

Table 5: Binary Logistic Regression Estimates of the Determinants of Rural Household Financial Pressure in Maharashtra (March 2025)

Household characteristic	Odds ratio	95% CI	p-value
Younger-member-dominant household	1.68	[1.15, 2.44]	0.007
Miscellaneous / other occupation	6.00	[4.21, 8.54]	<0.001
Self-employed / entrepreneur	4.71	[3.70, 5.98]	<0.001
Male-dominant household	0.79	[0.64, 0.97]	0.027

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Small household	1.48	[1.08, 2.04]	0.016

Source: Based on authors' analysis of secondary data Data compiled by the authors, based on the CMIE, Consumer Pyramids Household Survey (CPHS), March 2025, Rural Maharashtra

Note: The dependent variable is the financial pressure indicator, which is coded as 1 if the adjusted total household expenditure is higher than the adjusted total household income, and as 0 if they are not. An odds ratio >1 means that there is an increased likelihood of an expenditure being higher than the income; an odds ratio <1 means that there is a decreased likelihood of the expenditure being higher than the income. CI = confidence interval.

The estimated odds of expenditure being more than income in households with younger members as the predominant group is greater than in other omitted households, as is the case for self-employed households, for miscellaneous-occupation households, and for small households. The chances are reduced for male-dominated households. The best indicators are the occupational groups. Odds ratios are not a measure of probability ratios or causal effects. The logit model is a screening specification and the outcome is a cash-flow proxy rather than a measure of debt distress and/or insolvency.

6.3 Model diagnostics

The Breusch–Pagan test supports the hypothesis that HC3 robust standard errors should be used in the OLS model as both tests reject homoskedasticity (LM p=0.000915; F p=0.000830). Possible functional-form misspecification ($F=18.50$, $p=1.756\times10^{-5}$) indicated by the Ramsey RESET test. The log transformation and quantile regression are good robustness tests and the result of RESET test shows that the model should not be considered as a full structural consumption equation.

6.4 Overall hypothesis assessment

Table 6: Summary of Hypothesis Testing and Empirical Findings

Hypothesis	Evidence	Assessment
H1: Income positively associated with expenditure	OLS $\beta=0.0329$, $p<0.001$; median quantile $\beta=0.0212$, $p<0.001$	Supported directionally
H2: Pressure concentrated among lower-income households	EXP>INC: 87.4% in Q1 versus 0.7% in Q5	Supported descriptively
H3: Household characteristics associated with expenditure	Several occupation, education, age, gender and size contrasts significant	Partially supported

Source: Based on authiors' analysis of secondary data Data compiled by the authors, based on the CMIE, Consumer Pyramids Household Survey (CPHS), March 2025, Rural Maharashtra

Note: The assessment of the H1 is based on the OLS and median quantile regression estimates, while the assessment for H2 is based on comparisons of expenditure over income per income quintile and the assessment of H3 is based on the significance of a number of socio-economic and demographic household variables in the regression analysis.

VII. DISCUSSION: ECONOMIC POLICY AND FINANCIAL STABILITY IMPLICATIONS

Distributional: High incidence of rural households reporting their expenditure is greater than their income and this is concentrated at the lower income quintiles. The regression analysis also reveals that income and occupation, education and household composition and district are related to expenditure patterns. It can therefore be inferred from these results that the financial stability policy should not only be related to aggregate income growth or account ownership, but to the ability and resilience of the household to cash-flow.

7.1 Ensuring income stability and livelihood diversification are key areas.Income stability and livelihood diversification are key areas

Enhancing the income seasonality and volatility of the poorest households is worth smoothing expenditures for these households, which is particularly relevant given the high degree of expenditure pressure. Key areas of focus include:

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predictable wage employment in rural areas, timely wage payments, skill development, support for non-farm businesses, producer collectives and local value-chain development and market access. There is a need to provide irrigation facilities and storage facilities for agricultural households, as well as crop insurance, weather and institutional credit. The above are policy implications based on the real pressures observed rather than the econometric models.

7.2 Targeted financial inclusion and financial emergency liquidity

Financial inclusion needs to be more than just access indicators, but also purposeful use and resilience results. There is a need for easily available products for saving money, business-correspondent services that are reliable, transparent, small-credit and emergency liquidity to assist households to deal with temporary income shortfalls, and it is important that these exist. National Strategy for Financial Inclusion 2025–30 is a policy that sets out the direction for formal financial services to be more widely available and used responsibly. Policy design should avoid unearthing credit, over-indebtedness, confusion about costs and cyber criminals.

7.3 Social protection and essential expenditure

On average, this sample spends about 48% of its expenditures on food. Food security interventions can therefore help to protect disposable income, available for other basic needs. Health shocks can also have a negative impact on household budgets. The provision of better public health care, health insurance information, early access to benefits and pension payments will reduce the need for distress borrowing or selling assets to support a household's needs. Figures for savings, debt and insurance presented in NAFIS evidence provide a national perspective, but should be interpreted as such only after harmonising the definitions.

7.4 District-sensitive implementation

All the models adjust for geographic differences (district fixed effects). Data on crop patterns should be collected and monitored together with the monitoring of household incomes and expenditures, in the context of the seasonality of employment, access to banks, health facilities, insurance coverage and indebtedness in the district level policy planning. The results below should not be used mechanically for ranking districts or allocating resources as the sample sizes in districts are not equal and results are not weighted. A representative district level survey would be needed to decide such things.

This unit aims to equip learners with an understanding of financial capability and consumer protection.

Financial capability programmes should include financial decision-making in the real world: saving for seasonal income, saving for unexpected expenses, comparing the cost of loans, knowledge of what insurance provides, what it doesn't, avoiding fraudulent links, and access to grievance redressal methods. There must be local-language support and Assisted-service channels and digital access must not be offered without them. These interventions are best complimented with suitable products and effective consumer protection.

VIII. CONCLUSION

The present paper focuses on the economic policies and financial security of rural households (March 2025) in 29 districts having 3040 rural household records in Maharashtra. There are significant distributional differences behind mean income and spending. Approximately half of all households (28.1%) spend more than their income level; while median expenditure is about 69% of median income. The highest incidence is in the lowest income quintile (87.4%) and the lowest incidence is in the highest quintile (0.7%).

Based on the econometric analysis, the conditional correlation between income and expenditure is positive, but small. The variance explained by the primary OLS model is 49.32% for log expenditure and the conditional median of the median quantile regression shows that there is a positive income association. The positive income coefficient is also seen in the supplementary food-expenditure model. The results of the binary logit model suggest that expenditure pressure is associated with some of the occupational and household features, such as being self-employed, working in miscellaneous occupations, household with younger member dominance and small household size.

The results back an integrated rural approach to economic policies based on stable rural livelihoods, protection of essential services, access to appropriate formal credit facilities, access to saving and insurance, financial abilities,

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consumer protection and district-specific implementation. An empirical contribution of the paper is to combine an income–expenditure model with an explicit indicator of cash-flow pressure and explore the distribution of this indicator across income groups.

The following is a list of limitations that led the authors to the need for further research:

Seasonal patterns and income volatility or changes over time cannot be assessed as the data are for a single month (March 2025).

There are no options for saving, the amount of outstanding debt, assets, repayments of loans, arrears, insurance coverage, receipts and transfers of pension, or access to credit in the workbook. These are crucial to a financial-stability index.

There were no weights provided for the surveys and no stratification or cluster identifiers were provided; estimates are based on information provided and not necessarily representative of the population.

The definition and the transformation of all the income and expenditure variables (currency, time unit etc.) should be compared to the original documentation of the data.

The EXP>INC is not an absolute indicator that someone is insolvent, but it can be a sign of dissaving, borrowing, timing, and/or of unrecorded income.

There is some evidence of misspecification of the functional form (RESET). Other functional forms and additional robustness checks are merited.

Household-level data on debt, savings, and insurance and credit access should be included in future research as should be survey weights, multiple months and years of inflation adjusted variables, and agricultural/non-agricultural status.

9.1 Further econometric development

A more financially-stable model could be built that captures a multi-dimentional outcome that encompasses savings adequacy, the debt-service burden, defaults, insurance coverage, and tendency to borrow or access formal credit in an emergency. Repeatedly observing panels could be used to evaluate the impact of income shocks and policy changes. Having weighted estimates and comparisons at the district level would be more defensible with a representative sampling design. The results presented here are tentative correlations in the cross-sectional data available at the time of this report until other data are available.

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