



Advance Journal of Econometrics and Finance

Vol-4, Issue-1, 2026

Advance Journal of Econometrics and Finance

Online ISSN

2959-8990

Print ISSN

2959-8982

<https://ajeaf.com/index.php/Journal/About> s://ajeaf.

Name of Publisher: SCHOLAR CRAFT EDUCATION & RESEARCH HUB

Review Type: Double Blind Peer Review

Jurnal Frequency: Quarterly Research Journal



The Role of Inflation, Per Capita Income and Education on Household Consumption in Pakistan

Shahid Munir^{1*}, Husna², Sabeera Safdar¹, Muhammad Abdullah¹

	Abstract
<p>Shahid Munir* Department of Economics, Government Postgraduate College Kohat, 26000, KP, Pakistan. Email: shahidmunirshahid@gamil.com</p> <p>Husna Department of Economics, Government Postgraduate College Kohat, 26000, KP, Pakistan.</p> <p>Sabeera Safdar Department of Economics, Government Postgraduate College Kohat, 26000, KP, Pakistan.</p> <p>Muhammad Abdullah Department of Economics, Government Postgraduate College Kohat, 26000, KP, Pakistan.</p>	<p>This research study focuses on the impact of economic variables, in particular Inflation, Per capita income and Education on Household expenditure. The study uses time series data from 1990 to 2024. One of the influential benchmarks of economic welfare is household consumption, to which many macroeconomic and socio-economic factors are associated. Inflation plays a role of an independent variable, which impacts negatively on consumption, declining household buying power and decreasing the real income of individuals. In addition, to raise the income level and potential to earn in future both Per capita income and education come forward in a positive relationship with Household Consumption. The various Empirical tools employed in this research study included autoregressive distributed lag models, and different preliminary tests of all the variables, which include normality, multicollinearity, autocorrelation and specification bias test to examine the relationship between all the variables. The statistical results reveal that there is a positive effect of per capita income and education on Household consumption, whereas inflation has a negative effect on the dependent variable. These observations have highlighted how important price stability, rise in income, and investments in education are, to guarantee the household spending and sustainable economic growth.</p>
<p>Keywords:</p>	<p>Household Consumption; Inflation; Per Capita Income; School Enrollment; Education</p>



Advance Journal of Econometrics and Finance

Vol-4, Issue-1, 2026

Introduction

One of the major indices of economic wellbeing is household expenditure (Kinanti et al., 2024). It is the money that everyone spends on the economy (Dilanchiev & Taktakishvili, 2021). It shows how well people can handle their basic needs, maintain a decent way of life, and adjust to changes in the economy. Consumption is a major indicator, which has a large share in improving economic development and growth of a country because it covers a higher portion of the GDP (Jallow & Hamadou, 2024). Consequently, it is crucial that the drivers influence the consumption pattern of a household be comprehended in a manner that allows good economic policymaking in the respective economies that inherit their attributes because of volatility in income and prices. Inflation is a prolonged rise in the general price level of goods and services that decreases purchasing power and alters consumption behavior, particularly in nations with volatile financial systems and lower average incomes (Tremblay, 2023). A consistent increase in the general price level causes customers to change their consumption behavior and select basics over non-compulsory commodities (Jain, 2025). This concept has a notable impact on the buying capacity of a community, influencing how much individuals can buy with their money (Ali et al., 2025). Such effects tend to be stronger among low- and middle-income households that have less flexible consumption baskets and have less ability to counter price shocks. In Pakistan the inflation is a problem that holds a fundamental influence on wide ranging economic and societal consequences. (Bashir, 2011). Since the problem of Inflation is a key contributor to social and economic instability and chaos (Zou et al., 2011). In developing nations, where household members spend a large amount of their money on basic compulsory products, the need for such concepts arises (Jain, 2025). The economy of Pakistan also has repeated inflationary outbreaks caused by supply side shocks, currency depreciation, energy price fluctuations, and fiscal imbalances. Empirical research highlights that an increase in general price levels usually decreases real household income, promotes precautionary savings, and results in need-based or discounted goods changes (Lakshmanamoorthy and Athinarayanan, 2024; Aloqab et al., 2023; Munir et al., 2025).

Another key determinant of household consumption is income level, which is usually calculated by measuring per capita income. Per Capita income is the average income per population (Ali et al., 2024; Azra et al., 2023; Khalid et al., 2023). It is commonly used as an explanatory variable in both theoretical and empirical studies, and its size distribution has been a major focus of economic research for a long time (Lazear & Michael, 1981). When applied to the situation in Pakistan, where income inequality and poverty have become relevant issues of concern, the modification in per capita income may have a considerable impact on the aggregate consumption level and how households in the country can handle the effects of inflation (Munir et al., 2022; Munir et al., 2025). Besides inflation and income, education has a significant but, in most cases, unexplored effect on determining the consumption behavior of the household. Education is an important factor in building society and a career. (Kiani et al., 2020). Education boosts human capital, socioeconomic levels, and employment rates, leading to increased and stable income in the long run. Humans with a high level of education have a greater chance of getting a job and better income compared to those with lower education; therefore, consumption will be high in such economies. (Hutajulu & Rahmadana, 2017). Education has also been found to have a positive association with household consumption, and higher education levels are mostly related to higher income levels and higher consumption potential in the long run (Gasimli et al., 2022).

In the framework of the economy of Pakistan, field evidence emphasizes unexplored areas. (Imran Ali, 2024). Most research has concentrated on developed or progressive economies. Sustainable consumption is essential to achieve the world's sustainability objectives (Arias Puentes et al., 2025). However, any kind of research that has been done previously means that the role played by inflation within consumption has not been sufficiently addressed when considering the joint effect of income and education-based factors. The results of this study will contribute to the literature by demonstrating country-specific evidence concerning the inflation-consumption nexus and emphasizing the contribution of income and education in influencing household consumption decisions (Haq et al., 2024). On policy matters, the findings can be of use to policymakers in devising effective policies to curb inflation, boost income, and education policies to enhance the welfare of households in the country and result in sustainable economic growth in Pakistan.

Literature review:

The most popular indicator of aggregate demand in Pakistan is household consumption, which is a key channel through which macroeconomic shocks translate into welfare changes at the micro level (Shaikh et al., 2015). So, we can say that it is considered one of the most important critical benchmarks for the assessment of the welfare of economies, whether they are developed or developing. According to the general theory of employment, interest, and money by John Maynard Keynes (1936), consumption expenditure is a primary component of aggregate demand and is largely influenced by current income levels. Similarly, Franco Modigliani and Richard Brumberg (1954) developed the life cycle hypothesis, which explains human consumption behavior over a lifetime. By knowing what motivates people for household consumption, we can create better policies to stabilize the economy, reduce poverty, and help individuals improve their lives. In the analysis of empirical work on household consumption in Pakistan, household consumption strongly highlights the significant influence of per capita income, inflation (price pressures), and education (schooling). Different studies, micro and macro level, that use government surveys looking at household money and direct surveys show how various factors affect how much households spend in Pakistan (Mohammed et al., 2023; Munir et al., 2026).

Empirical evidence based on data for Pakistan reveals that consumption decisions by households are significantly influenced by a multiplicity of economic, demographic and social determinants that may differ across space, income groups and commodity types (Hayat et al., 2023). In addition to these, factors such as inflation, income and education level are important for explaining variation in household consumption as they are reflective of economic growth, skills of the labor force and human development.

Household Consumption and Inflation

In Pakistan, Inflation has a statistically significant and negative impact on real private consumption expenditure in both the short and long run (Malik and Chowdhury, 2001). Inflation affects consumption mainly by eroding the real purchasing power and worsening food insecurity. Similarly, Mahmood et al. (2023) used the Pakistan Panel Household Survey (PPHS-2010) to investigate the association between price variability and food insecurity at household level. The results clearly indicate a statistically significant positive relationship between inflationary pressure and household food insecurity (Munir et al., 2026). Higher per capita income and education of the household reduce food insecurity. High and volatile prices erode the real purchasing power of households and force them to make continuous adjustments in their consumption plans (Deaton, 1992). Here, political stability does not directly depress food production; however, it act as a catalyst, sharply fuels inflation which in turn lowers real incomes and hampers access to food especially for the vulnerable segments of the society (Shahid, 2023). Micro-level data gathered from specific population groups reinforce following results. Tufail et al. (2025) surveyed women of reproductive age in Rawalpindi/Islamabad, revealed the sharp food inflation of 2024 led nearly half of those surveyed to reduce their consumption on key food groups, fruits (48.1%), dairy (45%), and meat (42%), implying a substitution away from nutrient-dense items toward more affordable but less nourishing options. Findings from both Qualitative and survey-based work also emphasize that inflationary pressure steadily weakens purchasing power and induces households to reduce essential consumption (Saha, 2022; Ahmad, 2025).



Advance Journal of Econometrics and Finance

Vol-4, Issue-1, 2026

Household Consumption and per capita income:

The relationship between household consumption and national income is broadly supported by the Keynesian theory i.e. When income increases, spending also increases. This pattern was confirmed by evaluating primary data for 400 households in Bagh (Azad Jammu and Kashmir), Khan et al. (2024) found consistent and positive relationship between household income and household consumption, and between family size and consumption. Friedman's (1957) permanent income hypothesis posits that consumption is determined not by current income alone but by the longer-run expected income of the household. Using PSLM-HIES 2018-2019, Zehra et al. (2023) found that the household consumption share for most food and non-food groups increases with per capita income but at a decreasing rate, implying a diminishing marginal propensity to consume (Zehra et al.,2023). At the nutrient level, Shabnam et al. (2021) estimated calories and nutrients via income elasticities (0.29-0.65), concluded that higher household income improves micro-and macronutrient consumption and can help reduce malnutrition (Shabnam et al.,2021). Similarly, income variations produce major changes in nutritional intake patterns(Hayat et al.,2022).Using macro time series (1985-2011),it is concluded that household final consumption expenditure is the largest contributor to GDP changes in Pakistan, with an implied marginal propensity to consume of 0.21 and a high consumption multiplier of 5.57, highlighting the macroeconomic centrality of household consumption (Shaikh et al., 2015; Munir et al., 2025).

Household Consumption and Education

Education influences both income and consumption levels. In 2024, Khan and his colleagues evaluated a report on Bagh (AJ&K) and concluded that household education is positively related to total household consumption, indicating that more educated households spend more than less educated ones (Khan et al., 2024). Using HIES (Household integrated economic survey) 2015-2016, It was found that higher parental education, specially maternal education and paid employment, significantly improves household food security, indirectly supporting better consumption outcomes (Akbar et al., 2020).Education also drives cleaner and higher-quality energy use: better educated, wealthier rural households are more likely to adopt modern cooking fuels such as natural gas (Rahul et al., 2019; Awan et al., 2023). Macro-social evidence suggests that insufficient public spending on education contributes to weaker human capital and constrains long-run improvements in household education and welfare spending (Munawwer et al., 2024).

Research Methodology:

Data and variables:

This research uses annual data for Pakistan from 1990 - 2024, taken from the World Development Indicators (WDI, 2025). The aim of this research is to examine the factors that influence the living standard of households, which is measured through household consumption expenditure and is used as the dependent variable. Three important variables are included as independent variables: per capita income (PCI), school enrollment (SE), as an indicator of higher education and inflation (INF). Per capita income quantifies the average individual income in a specific region, and it is a measure that is employed in measuring living standards and quality of life of the citizens. (Kenton, 2025). It also helps to explain how an income level determines the consumption patterns of households. One of the measures of human capital investment is school enrollment, which are partly used in contributing to the long-run economic growth and providing better livelihood to citizens (Barro, 1991). Inflation shows how rising prices impact households' ability to afford the things they need. It is a complex phenomenon that comes with the loss of the market value of money not only price increments. (Aurangzeb and Haq, 2012). These variables together provide a simple and clear way to understand the economic and social factors that affect household welfare in Pakistan. All the variables' definitions and where they come from are listed in Table 1.

Table 1: Descriptions Of Variables:

Variable	Abbreviation	Description	Source
Household Consumption	CON	Measure of living standards; used as the dependent variable	WDI (2025)
Inflation	INF	Annual percentage change in consumer prices	WDI (2025)
Per Capita Income	PCI	Income per person reflects economic capacity	WDI (2025)
School Enrollment (Higher Education)	SE	Enrollment rate; proxy for human capital and education level	WDI (2025)

Estimation techniques:

Non-normality, multicollinearity, heteroscedasticity, and autocorrelation are the common matters associated with time series data. To handle these issues, different econometric and several diagnostic tests were applied. The stationarity of the data was initially verified through the application of the ADF test, as proposed by Dickey and Fuller (1979). The results concluded that Inflation is stationary at level I(0), while Per Capita Income, School Enrollment, and Consumption are stationary at first difference I (1). This study is expected to enrich the existing literature by providing nation-level empirical evidence. To verify the long and short run relationship among variables, two statistical methods (ARDL and ECM) have been applied. This helps in verifying cointegration and to check how instantly system returns to the equilibrium after a shock. Moreover, several diagnostic tests were performed: the Jarque–Bera test for normality, Variance Inflation Factor (VIF) for multicollinearity, the Breusch–Pagan test for heteroscedasticity, and the Breusch–Godfrey LM test for serial autocorrelation. For model specification errors The Ramsey RESET test was also conducted.

Econometric Model:

$$CON = B_0 + \beta_1 INF + \beta_2 PCI + \beta_3 SE + ET$$

Whereas, CON is Household Consumption, INF is Inflation, PCI is Per capita income, SE is School Enrollment (higher education proxy) and Et is Error term.

The unit root test (Stationarity test) results show that Inflation (INF) is stationary at level, meaning it is I (0) variable. On the other hand, Consumption (CON), Per Capita Income (PCI) and School Enrollment (SE) are stationary only after first differencing and hence classified as I(1). Since the variables are the combinations of I (0) and I (1) and none belong to I (2), here an Autoregressive Distributed Lag (ARDL) model will be the most suitable estimation technique. The ARDL method finds out the cointegrating relationships between series at varying levels of integration, and the reparametrized result offers both the long run the interaction and brief run dynamics of the variables. (Nkoro and Uko, 2016). This approach assists us in studying the effects of inflation, income and education on household consumption over a period and whether the effect is experienced immediately or must take a long time to be experienced.

Table 2: ADF Test:

Variables	Level t - statistics	Level prob	1 st diff t- statistics	1 st diff prob	Result at 1 st diff	Order of integration
CON	1.36	0.99	-7.61	0.00	Stationary	I(1)
INF	-3.02	0.04	-	-	Stationary	I(0)
PCI	-0.29	0.91	-6.66	0.00	Stationary	I(1)
SE	-2.45	0.13	-10.06	0.00	Stationary	I(1)

The coefficient estimates of the ARDL model show that inflation (LINF) and consumption have a strong negative relationship with coefficient of a negative value of about 0.25, meaning that an increase of 1 percent in inflation can expectedly decline the consumption by about 0.25%. On the contrary, there is a positive and significant impact of per capita income on the dependent variable, as one percent increase in income leads to an increase in consumption by 1.36 percent. Education (LSE) also affects consumption positively in the long run, denoting that the level of education is the encoder of high consumption. The error-correction negative term, LCON (-1) is found to be significant and negative in the short run, thus indicating that it will adjust to long-run equilibrium without any error. Lagged inflation and lagged consumption lead to decreased current consumption, implying short-run contractionary effect, whereas modifications in per capita income (D (LPCI)) and count of consumption by prior year factors (D (LPCI (-1))) are their impacts, that are strong and highly significant, which implies that fluctuations in income have a direct and significant effect on short-run consumption. In all, inflation reduces consumption meanwhile, income and education encourage consumption both in the long run and in the short run. The detailed results of the ARDL model are presented in Table 3 and Table 4.

Table 3: ARDL Long Run Coefficient:

Variable	Coefficient	Std.Error	t-Statistics	Prob
LogINF	-0.25	0.10	-2.36	0.03
LogPCI	1.36	0.07	19.28	0.00
LogSE	0.25	0.11	2.28	0.03

Table 4: ARDL short Run:

Variable	Coefficient	Std. Error	t. statistics	prob
C	3.44	1.51	2.27	0.03
CON(-1)*	-0.02	0.09	-2.10	0.05
DlogINF(-1)	-0.05	0.01	-3.67	0.00
D(logCON(-1))	-0.77	0.17	-4.59	0.00
D(logPCI)	1.10	0.03	28.97	0.00
D(logPCI(-1))	0.82	0.18	4.40	0.00
D(LSE(-2))	-0.03	0.01	-2.28	0.03

The ARDL Bound Test found the F-statistics of 8.42, which is greater than all the upper critical values for I (1) at the 10%, 5%, 2.5%, and even at the 1% significance levels. This means we are rejecting the idea that there is no long-run relationship between the variables. In other words, the test confirms that consumption, inflation, per capita income, and education move together over time and have a stable long-run cointegrating relationship.

Table 5: ARDL Bound Test:

T-Statistics	Value	Sign	I(0)	I(1)
F-statistic	8.42	10%	2.37	3.2
k	3	5%	2.79	3.67
		2.5%	3.15	4.08
		1%	3.65	4.66

Diagnostic Tests:

The results of various diagnostics tests are depicted in table 6 and 7. There is statistical reliability of the diagnostic outcomes which indicates the model. The test of normality ensures that the data in the residuals follows a normal distribution, whereas the heteroskedasticity and autocorrelation tests suggest that the model does not include such issues as uneven error variances or autocorrelation (errors are evenly spread). The test specification is also used to indicate whether the model is specified in the right manner i.e. not missing any major variable. The VIF values have been low, and this indicates that the independent variables do not have a multicollinearity and thus indicates that the contribution of each variable is meaningful in the model.

Table 6. Multicollinearity result

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
logINF	0.0007	42.17	1.2
logPCI	0.0004	236.42	1.35
logSE	0.0004	34.11	1.67

Table 7. Various Diagnostic Tests Results

Tests	F-Statistics	P-Value	Conclusion
Normality Test	0.85	0.65	Residuals are normally distributed
Heteroscedasticity	0.80	0.66	No heteroscedasticity
Autocorrelation	0.79	0.47	No Autocorrelation
Specification Bias	0.006	0.93	Model is correctly specified



Advance Journal of Econometrics and Finance

Vol-4, Issue-1, 2026

Conclusion:

This research study analyzed the impact of inflation, per capita income and education on Household consumption using annual time series data from 1990 to 2024, and to evaluate both long-run and short-run interaction between these variables, we apply the ARDL Bound test approach. The test highlighted that increase in inflation can reduce household consumption by 0.25, proving that high prices erode the real income and decrease spending. Per capita income is the strongest influential determinant of Household consumption with a coefficient of 1.36, illustrating to more than a proportionate increase in consumption, backed by income growth. Education also has a significant positive contribution in broadening consumer capacity with the coefficient of 0.25. These findings are further evaluated through valid error correction model, verifying convergence towards long-run equilibrium. In view of these conclusions, it is suggested that policy makers should focus on overcoming inflation through valid monetary policy, boosting inclusive economic growth and investing on human capital to sustainably enhance Household consumption and overall economic welfare.

Policy Recommendations:

The recommended policies are as follow; First, The State Bank of Pakistan and Government should strengthen the monetary policy to control inflation, as the persistent and continuous increase in price level significantly influence the purchasing power of household members. Second, Per capita income appeared as the most consequential driver of consumption, there should be applicable policies towards wage growth, i.e., minimum wage law, Employment generation and sustainable economic growth to increase the living standard of all income groups. To reduce income inequality and unequal distribution of wealth among population, policy makers should pay special attention to these severe economic diseases. Third investing in public education should strongly be advocated, as higher rate of school enrollment positively influences Human capital development, productivity, which ultimately boost Household consumption level. This involves enhancing access to education to good quality, lowering the rate of dropouts and broadening vocational and technical work programs. All these policy interventions, when strategically and sustainably put in place, can make a very big positive impact in the welfare of the household and trigger a long-run process of improving economic performance in Pakistan.

References:

- Ahmad, B., Hussain, A., Bibi, N., & Saeed, A. (2025). International Oil Price Shocks and Monetary Policy Nexus: Understanding Inflation Dynamics in Pakistan through New Keynesian framework. *International Journal of Business and Management Sciences*, 6(1), 166-191.
- Akbar, M., Niaz, R., & Amjad, M. (2020). Determinants of households' food insecurity with severity dimensions in Pakistan: Varying estimates using partial proportional odds model. *Health & Social Care in the Community*, 28(5), 1698-1709.
- Ali, A., Mottaleb, K. A., & Aryal, J. P. (2019). Wealth, education and cooking-fuel choices among rural households in Pakistan. *Energy Strategy Reviews*, 24, 236-243.
- Ali, H., Shafiq, H., & Saeed, K. (2025). Evaluating the Interplay between Inflation and Socioeconomic Variables: Implications for Household Consumption and Economic Stability in Pakistan. *Journal of Development and Social Sciences*, 6(1), 01-13.
- Ali, I. (2024). Socioeconomic determinants of per capita GDP growth in Pakistan: an econometric analysis. *South Asian Journal of Finance*, 4(2).
- Aloqab, A., Hu, W., Al-Sharafi, M., Al-Barakani, A., Elayah, W., & Munir, S. (2023). The impact of technological innovation and financial development on environmental pollution in gulf cooperation council—A linear and nonlinear ARDL approach. *Environmental Science and Pollution Research*, 30(53), 114294-114309.
- Andrade, P., Gautier, E., & Mengus, E. (2023). What matters in households' inflation expectations? *Journal of Monetary Economics*, 138, 50-68.
- Arias Puentes, C. P., & Trujillo, C. A. (2025). The role of online experiments in the understanding of sustainable consumption behaviors: A systematic methodological literature review. *International Journal of Consumer Studies*. <https://doi.org/10.1111/ijcs.XXXX>
- Aurangzeb, A. U. H., & Haq, U. A. (2012). Determinants of inflation in Pakistan. *Universal Journal of Management and Social Sciences*, 2(4), 89–96. https://www.researchgate.net/publication/299576180_Determinants_of_Inflation_in_Pakistan_Demand_and_Supply_Side_Analysis.
- Awan, A., Bilgili, F., & Rahut, D. B. (2023). Household fuel choices and consumption intensity in Pakistan: evidence from HIES data 2001–2019. *Environmental Science and Pollution Research*, 1-16.
- Azra, A., Munir, S., Abbas, K., Khalid, M. H., & Ul Haq, I. (2023). Empirical investigation of the impact of energy intensity and financial institutions efficiency on environmental degradation in Pakistan. *International Journal of Energy Economics and Policy*, 13(1), 413-420.
- Barro, R. J. (1991). Economic growth in a cross section of countries. *The Quarterly Journal of Economics*, 106(2), 407–443. <https://doi.org/10.2307/2937943>.
- Bashir, D. F. (2011). Determinants of inflation in Pakistan: An econometric analysis using Johansen co-integration approach. *Australian Journal of Business and Management Research*.
- Burke, M. A., & Ozdagli, A. (2023). Household inflation expectations and consumer spending: evidence from panel data. *Review of Economics and Statistics*, 105(4), 948-961.
- Gasimli, O., Haq, I. U., Munir, S., Khalid, M. H., Gamage, S. K. N., Khan, A., & Ishtiaq, M. (2022). Globalization and sustainable development: empirical evidence from CIS countries. *Sustainability*, 14(22), 14684.
- Halim, H., Astuty, P., & Hubeis, M. (2022). Effect of inflation, consumption credit on purchase power of the community. *International research journal of management, IT and social sciences*, 9(2), 226-234.
- Haq, I. U., Pardaev, J., Allayarov, P., & Munir, S. (2024). The impact of financial innovation and infrastructure on inbound tourism in Central Asia. *Journal of Open Innovation: Technology, Market, and Complexity*, 10(1), 100175.
- Hayat, N., Mustafa, G., Alotaibi, B. A., & Traore, A. (2022). Nutritional demand and consumption pattern: A Case Study of Pakistan. *Sustainability*, 14(12), 7068.
- Hayat, N., Mustafa, G., Alotaibi, B. A., Nayak, R. K., & Naeem, M. (2023). Household's food consumption pattern in Pakistan: Evidence from recent household integrated economic survey. *Heliyon*, 9(9).
- Hutajulu, N., & Rahmadana, M. F. (2017). Effect of Education Level, Income, Inflation on Community Consumption Pattern in North Sumatera Province.
- Imran Ali (2024). Investigating the Inflation-Economic Growth Nexus in Pakistan from 1990 to 2020, *International Journal of Economics and Business Administration* Volume XII Issue 2, 71-90
- Jain, A. (2025). Analyzing the impact of inflation on household spending patterns. *International Journal for Research Publication and Seminar*, 16(3), 1–15.



Advance Journal of Econometrics and Finance

Vol-4, Issue-1, 2026

- Jallow, M., & Hamadou, I. (2024). Do macroeconomic factors influence household consumption expenditure in the Gambia? ARDL-error correction regression approach. *The Eastasouth Journal of Social Science and Humanities*, 3(1), 45–62.
- Kaplan, G., & Schulhofer-Wohl, S. (2017). Inflation at the household level. *Journal of Monetary Economics*, 91, 19-38.
- Kenton, W. (2025, October 1). Per capita income explained: Uses, limitations & real-world examples. Investopedia. <https://www.investopedia.com/terms/i/income-per-capita.asp>.
- Keynes, J. M. (2018). *The general theory of employment, interest, and money*. Springer.
- Khalid, M., Khan, A., ul Haq, I., Munir, S., & Taj, H. (2023). Impact of Good Governance on Domestic Investment: Empirical Study for Pakistan. *International Journal of Business and Economic Affairs*, 8(2), 121-129.
- Khan, W. M., Kalsoom, U., Sultana, F., & Akhtar, N. (2024). An Analytical Study on Household Income and Consumption Patterns in District Bagh, Azad Jammu & Kashmir. *Al-Qamar*, 97-134.
- Kiani, A., Muhammad, I., & Hussain, I. (2020). The Impact of Education on Consumer Behavior in District Dir Lower. *Foundation University Journal of Business & Economics*, 5(2), 52-62.
- Kinanti, A. F., Maulana, M. S., Yasin, M., Semolowaru, J., No.45, Menur Pumpungan, K., Sukolilo, K., & Surabaya Jawa, T. (2024). Analisis pola konsumsi di Indonesia sebagai indikator peningkatan kesejahteraan masyarakat. *Digital Bisnis: Jurnal Publikasi Ilmu Manajemen dan E-Commerce*
- Kostyshyna, O., & Petersen, L. (2024). The effect of inflation uncertainty on household expectations and spending (No. w32939). National Bureau of Economic Research.
- Lakshmanamoorthy, S., & Athinarayanan, S. (2024). Balancing Act: Exploring the Relationship between Inflation and Consumer Behaviour. *Shanlax International Journal of Economics*. <https://doi.org/10.34293/economics.v12i2.7194>
- Lazear, E. P., & Michael, R. T. (1981). Family size and the distribution of per capita income (No. w0230). National Bureau of Economic Research.
- Mahmood, T., Kumar, R., Ali, T. M., Naeem, N., & Pongpanich, S. (2023). Determinants of the food insecurity at household level in Pakistan: A multilevel model approach. *Plos one*, <https://doi.org/10.1371/journal.pone.0291343>.
- Mallik, G., & Chowdhury, A. (2001). Inflation and economic growth: evidence from four south Asian countries. *Asia-Pacific development journal*, 8(1), 123-135.
- Martini, A., & Spataro, L. (2024). At the origins of the life cycle hypothesis of Franco Modigliani and Richard Brumberg: an attempt at analysis. *The European Journal of the History of Economic Thought*, 31(1), 77-110.
- Mohammed, O., Erbao, C., Munir, S., & Elayah, W. (2023). Impact of tourism on sustainable development in Bahrain. *International Journal of Business and Economic Affairs*, 8(3), 127-135.
- Munawwer, J., Bilal, M., Rafiq, A., & Abbas, Z. (2024). What is happening to the social development down to the household level? *Interdisciplinary Journal of Emerging and Social Sciences*, 5(1), 1–15. DOI: 10.62460/IJEASS/2024.005.
- Munir, S., Bibi, H., Abdurrehman., Khattak, K. (2026). Do Remittance Reduce Poverty? The Role of Education, Inflation, And Unemployment. Time Series Evidence from Pakistan. (2026). *Advance Journal of Econometrics and Finance*, 4(1), 1787-1795. <https://doi.org/10.63075/0kwqs380>.
- Munir, S., Gamage, S. K. N., Hewage, K. N., & ul Haq, I. (2022). Terrorism and Tourism Demand in Terror Affected Island. *CARC Research in Social Sciences*, 1(2), 38-40.
- Munir, S., Haq, I. U., Cheema, A. N., Almanjahie, I. M., & Khan, D. (2025). The Role of Tourists, Infrastructure and Institutions in Sustainable Tourism: A Structural Equation Modeling Approach. *Sustainability*, 17(7), 2841.
- Munir, S., ul Haq, I., Taj, H., & Gul, H. (2025). The Role of Tourism Potential, Community Attachment and Infrastructure in Tourism Development in Tirah Valley, Khyber Pakhtunkhwa, Pakistan. *International Journal of Business and Economic Affairs*, 10(2), 22-33.
- Nkoro, E., & Uko, A. K. (2016). Autoregressive distributed lag (ARDL) cointegration technique: Application and interpretation. *Journal of Statistical and Econometric Methods*, 5(4), 63–91. https://econpapers.repec.org/RePEc:spt:stecon:v:5:y:2016:i:4:f:5_4_3.
- ODonoghue, C., Amjad, B., Linden, J., Lustig, N., Sologon, D., & Wang, Y. (2023). The Distributional Impact of Inflation in Pakistan: A Case Study of a New Price Focused Microsimulation Framework, PRICES. arXiv preprint arXiv: 2310.00231.
- Saha, A. (2022). Impact of inflation on consumption pattern of households. *PRAGATI: Journal of Indian Economy*, 9(2), 66-78.
- Shabnam, N., Ashraf, M. A., Laar, R. A., & Ashraf, R. (2021). Increased household income improves nutrient consumption in Pakistan: a cross-sectional study. *Frontiers in nutrition*, 8, 672754.
- Shahid Munir, Ihtisham ul Haq, & Adnan Khan. (2026). The Role of Globalisation and Governance in Income Inequality: An Empirical Study for Pakistan. *Dialogue Social Science Review (DSSR)*, 4(2), 308–325.
- Shahid, I. (2023). Analysis of the decreasing food security situation and impact on household in Pakistan (Doctoral dissertation, Universidade de São Paulo).
- Shaikh, N. A., Perveen, S. H. A. H., & Najaf, S. H. A. H. (2015). Empirical estimation of GDP determinants, household consumption expenditure and the consumption multiplier in Pakistan (1985-2011). *Journal of Economics and Political Economy*, 2(2), 317-330.
- Tremblay, N. (2025). The Impact of Inflation on Household Consumption: An Econometric Analysis from Emerging Markets. *OTS Canadian Journal*, 4(5), 20-30.
- Tufail, K. B., Nusrat, E., & Wahid, A. (2025). Impact of food inflation 2024 on food consumption pattern of women of reproductive age (15–49 years) in Rawalpindi/Islamabad. *Journal of Social & Organizational Matters*, 4(2), 1–14. (<https://doi.org/10.56976/jsom.v4i2.200>)
- World Bank. (2025). Available online; <https://databank.worldbank.org/source/world-development-indicators>: (Accessed on 4 Nov, 2025).
- Zehra, N., Javed, S., & Fatima, A. (2023). HOUSEHOLD FOOD AND NON-FOOD CONSUMPTION BEHAVIOUR IN PAKISTAN. *Pakistan Journal of International Affairs*, 6(2).
- Zou, H. F., L. Gong, and X. Zeng, 2011. Inflation aversion. *Annals of Economics and Finance* 12(1), 1–11.