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THE EFFECT OF SOCIAL SECURITY PROGRAMS AND PER CAPITA INCOME ON HOUSEHOLD CONSUMPTION: AN EMPIRICAL ANALYSIS IN INDONESIA

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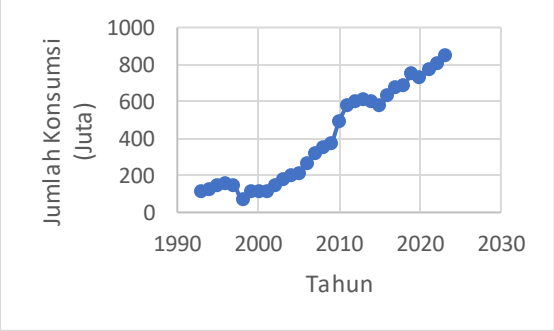
Abstract
This study aims to analyze the effect of per capita income and social security programs on household consumption in Indonesia. The background of this study is based on the importance of consumption as a key component in economic growth, as well as the role of social security in strengthening people's purchasing power. The study uses a quantitative approach with time-series data for the period 1993–2023 and multiple linear regression methods. To overcome violations of classical assumptions such as heteroscedasticity and autocorrelation, robust standard error estimation and Newey-West are used. The results of the F test show that simultaneously, per capita income and social security have a significant effect on household consumption. However, the partial t-test showed that only per capita income had a positive and significant effect, while social security programs were insignificant. An R-squared value of 0.9298 indicates that the model has a very high descriptive power. These findings support Keynes' theory of consumption, which emphasizes the role of income in determining consumption. Conversely, these results also indicate the need for further evaluation of the effectiveness of social security programs in improving household welfare. Therefore, policies to increase real income through job creation and productivity are more relevant to encourage sustainable household consumption.

INTRODUCTION

Indonesia, with a population of more than 273 million people, faces considerable challenges in realizing equitable socio-economic welfare for its citizens. Although the national economy is showing steady growth with an average increase in Gross Domestic Product (GDP) of 5.02% over the past decade, income inequality is still high. The Gini Index of 0.381 in 2022 shows that the distribution of income is still uneven, causing a disparity in household consumption between regions (BPS, 2023; World Bank, 2023). (Palupi, 2024)

In this socio-economic context, the Indonesian government has implemented the **National Health Insurance (JKN)** program managed by **BPJS Kesehatan**, which in 2022 has covered almost 84% of the total population. This program aims to reduce unexpected health expenditures and strengthen household purchasing power, thus potentially affecting household consumption patterns. Research from other developing countries provides evidence that the expansion of national health insurance is effective in increasing household consumption by reducing the risk of large expenditures on its own. (Heradhyaksa & Hikmah, 2019) (Wagstaff et al., 2016)

Table 1.1
Indonesian Household Consumption Graph 1993-2023



Source: BPS and World Bank

Similar findings were also found in Indonesia. For example, a study by showed that households that participated in JKN experienced a significant decrease in direct health expenditure in line with an increase in spending on primary needs, especially among low-income families. Data from the 2015–2019 National Socio-Economic Survey (Susenas) also confirms that households registered with BPJS Kesehatan have a more stable and sustainable consumption pattern compared to those who do not have insurance. These findings highlight the importance of social protection systems such as BPJS in strengthening economic resilience at the household level. (Harimurti et al., 2013)

In addition to social protection, household income remains the main factor affecting total consumption. Keynesian economic theory emphasizes that consumption is determined primarily by disposable income at present. In Keynes's view, households tend to increase their consumption as income increases, although not proportionally, as a portion of the additional income will be saved. Longitudinal data from BPS (2023) shows a strong and positive correlation between household income and consumption, especially in low- and middle-income groups. These findings reinforce Keynes' view that increased incomes directly drive growth in household consumption, making incomes increase policies an important instrument in driving economic activity through the demand side.

Further empirical studies support this idea. emphasized that income levels significantly affect the structure of food consumption in Indonesia. Low-income households show higher food spending elasticity, which means that small changes in income lead to a relatively large shift in consumption. This highlights the transformative potential of income support such as social security in improving the quality and quantity of consumption, especially among vulnerable populations. (Baladina et al., 2024) (Tambunan & Arka, 2024)

The study Huda & Kurnia, (2022) provides a comparative perspective between Malaysia and Indonesia, showing that Malaysia's social insurance system integrates investment functions into its fund management, while Indonesia has not yet reached that stage. Social insurance is often used as a fiscal policy tool, which serves not only as a welfare mechanism but also as a means to increase state

revenues and stimulate national development. (FATIMAH et al., 2024)

Theoretically, the existence of social security is expected to increase household purchasing power and consumption through income transfer, thereby encouraging economic growth and reducing inequality. Behavioral economics models also show that social protection programs affect how households allocate income between consumption and savings, while reducing economic uncertainty. However, the empirical findings are still mixed. For example, using the Vector Error Correction Model (VECM) approach for the period 2016–2023, no direct significant relationship was found between social security participation and household consumption in aggregate. Nonetheless, social protection programs still have the potential to improve household resilience and long-term economic behavior. (Nuryadin et al., 2025) (Heradhyaksa & Hikmah, 2019) (Palupi, 2024)

The main problem identified in this context is **the gap** between normative expectations (*das sollen*) that social security should effectively increase consumption and savings and empirical realities (*das sein*) that show limited or inconsistent impacts on household behavior. Some local studies, such as those in Yogyakarta and Maluku, found that programs such as the Family Hope Program (PKH) and the Non-Cash Food Assistance (BPNT) significantly increased food consumption among low-income households, although their impact on household savings and long-term consumption remains unclear and highly dependent on program design, scale, and sustainability. (Nuryadin et al., 2025)

The novelty of this study lies in its efforts to integrate macro and micro-level analyses of the impact of social security and income on household consumption and saving behavior in Indonesia. Previous research has often focused on specific dimensions such as food consumption or poverty alleviation, and has rarely analysed the simultaneous relationship between consumption and savings in the context of social protection. This study enriches the literature by using the latest data and a more comprehensive empirical approach, especially by considering post-pandemic socioeconomic dynamics and shifts in social protection policies in Indonesia.

Therefore, this study aims to address the empirical gap by examining the macroeconomic relationship between **social security participation** and **household consumption** in Indonesia from 1993 to 2023. This study offers important policy insights into how social security shapes household economic behavior over time, contributing to the increased effectiveness and sustainability of social protection systems in Indonesia.

METHODOLOGY

3.1 Types and Approaches to Research

This study uses a quantitative approach. Quantitative research is a scientific method to obtain valid data with the aim of uncovering facts, identifying problems, and analyzing data using statistical formulas and numerical analysis to draw conclusions (Gujarati & Porter, 2013). The method used is explanatory research, which aims to elucidate the causal relationship between independent and dependent variables.

3.2 Place and Time of Research

This research was conducted in Indonesia, with an analysis unit in the form of national-scale macroeconomic variables. The research period ranges from 1993 to 2023, based on the availability and completeness of time-series data relevant to the research variables.

3.3 Data Types and Sources

This study uses quantitative secondary data in the form of time-series data. The data sources used include:

- Central Statistics Agency (BPS) for household consumption and per capita income data;
- BPJS Kesehatan for data on the number of social security participants;
- Other credible sources such as the World Bank and the Ministry of Finance to support macroeconomic indicators.

3.4 Data Collection Techniques

The data collection technique used in this study is literature research, where researchers collect data by reviewing official documents, statistical publications, and institutional reports related to the variables being studied.

3.5 Variable Operational Definition

Table 3.1
Variable Operational Definition

Variabel	Kind	Indicator/ Unit
Household Consumption (Y)	Depends	Total household consumption in Indonesia (IDR)
Income per Capita (X_1)	Self-sufficient	Per capita income (IDR)
Social Security (X_2)	Self-sufficient	Number of BPJS Kesehatan participants (%)

3.6 Data Analysis Techniques

The data analysis technique used in this study is multiple linear regression with the following functional equations:

$$Consumtion_t = \beta_0 + \beta_1 . SocialSecurity_t + \beta_2 . Income_t + \varepsilon_t$$

Where:

- Y = Household Consumption
- x_1= Per Capita Income
- x_2= Social Security (BPJS membership)
- β_0= Constant
- $\beta_1\beta_2$= Regression Coefficient
- ε = Term Error

The data will be processed using STATA 17, and the analysis will include:

- Coefficient of Determination (R^2)
- F Test (Simultaneous Test)
- T test (Partial test)

The study also includes tests of classical assumptions such as normality, multicollinearity, heteroscedasticity, and autocorrelation. If heteroscedasticity is detected, a strong standard error estimate will be used.

RESULTS AND DISCUSSION

Result

Descriptive statistics during the period 1993–2024 show a consistent trend of increase in both household consumption and social security participation in Indonesia. The number of participants in the national health insurance system (BPJS Kesehatan) has increased significantly, reflecting the government's efforts to expand coverage as part of the Universal Health Coverage (UHC) agenda (Chetty & Looney, 2013). Meanwhile, household consumption levels show a positive growth trend, albeit with fluctuations in certain years—especially around 2020–2021—coinciding with the economic impact of the COVID-19 pandemic (Akbar et al., 2023) .

Especially in times of crisis or reduced income, the social security system plays a key role in maintaining the stability of household consumption. A number of studies have shown that in difficult economic times, people's purchasing power can be supported by adequate social security (MRRC, 2020; Hurd & Rohwedder, 2015). Although the implementation of social security programs for the entire Indonesian population has been guaranteed by the constitutional mandate, in practice there are still many obstacles that must be overcome, both in terms of the coverage of participants and the effectiveness of services. (Panjaitan et al., 2024)

The low participation of disadvantaged community groups, such as migrant workers, in the BPJS program is one of the problems that is still in the spotlight. This low participation has a direct impact on their families' financial security and makes household consumption vulnerable to shocks. However, there is empirical evidence that BPJS ownership and employment status remain positively correlated with higher consumption, especially among informal workers. This suggests that social security can strengthen consumers'

sense of security regarding their consumption expenditures (Shalihah & Alviah, 2023) (Calista et al., n.d.)

In line with this, (Le Faou, 2003) shows that social security programs such as Pension Insurance (JP), Work Accident Insurance (JKK), and Job Loss Insurance (JKP) contribute to maintaining household economic stability, especially during crises. Although the coverage is not evenly distributed, especially for informal workers, the expansion of membership is seen as important in supporting household consumption more evenly and sustainably.

However, the sustainability problem of this system is still very large. The long-term stability of social security funds can be threatened by mismatches between contributions and claims, especially from non-wage earners. Weak legal and administrative protections, which often lead to delayed benefits and even loss of protection for active participants, including state civil servants (ASN), exacerbate this scenario and thus reduce household expenditure. (Pratiwi, 2024) (Johansyah & Hoesin, 2022)

Preventive legal protections and adaptable social security programs are needed in times of crisis, such as a pandemic or rising inflation. According to , the goal is for households to continue to meet their basic needs, especially those belonging to vulnerable groups. Studies showing that public insurance subsidies can increase household asset ownership and boost consumption support the effectiveness of social security programs globally. Innovations such as digital insurance premiums have been proven to have an impact on people's spending habits because they offer convenience and flexibility in terms of financial security. (Amriyati et al., 2024) (Garbarino et al., 2024) (Soleymanian et al., 2024)

Social assistance programs such as BPNT and PKH, especially in Indonesia, have a considerable impact on maintaining low-income household consumption by providing basic needs (Ma'ruf & Prasetyo, 2023). Social support becomes even more important when people face economic difficulties, as it can maintain the purchasing power of vulnerable groups during times of emergency. (King & van Lent, 2024)

These observations support the hypothesis that expanding social security coverage has the potential to improve consumption stability among households, especially during periods of economic shock. Similar findings were reported by , which argues that social protection mechanisms serve as an effective tool to facilitate consumption, especially among low-income groups. (Heradhyaksa & Hikmah, 2019)

In addition to the social security component, per capita income plays an important role in determining consumption. People's consumption patterns and purchasing power have increased along with increasing income. This is in accordance with the Keynesian theory of the function of consumption, which is supported by concrete evidence in Indonesia (Yustika, 2022). In fact, the share of income in household spending tends to be constant over time, which indicates that the increase in household consumption coincides with economic expansion. To ensure that aid programs are effectively directed to the most vulnerable, it is critical to consider equitable distribution during policy formulation (Laitner et al., n.d.) (Côté et al., 2025)

Before data analysis, a classical assumption test was first carried out as a condition before the analysis was carried out with simple linear regression. The purpose of the classical assumption test is to ensure that the resulting regression equation is not odd, the estimate is accurate, and consistent. If all classical assumption tests have been met, then the analysis model is declared feasible to be applied. (Sihotang, 2023)

Table 4.1
Results of Multiple Linear Regression Analysis

Variabel	Coefficin	Std. Error	t-Count	Significance
Konstanta	-350.482	56.16596	-6.24	0.000

Variabel	Coefficin	Std. Error	t-Count	Significance
X1	.1437395	.0093678	15.34	0.000
X2	-.0232224	.0502085	-0.46	0.647
R-squared	0.9298			
F-statistic	185.44			0.000

Source: Stata Regression Data Processing Results

Based on the results of multiple linear regression on two independent variables (x1 and x2) on dependent variables (y), a determination coefficient value (R-squared) of 0.9289 was obtained. This shows that the regression model is able to explain 92.89% of the variation that occurs in the y variable, while the remaining 7.11% is explained by other factors outside the model. The Adjusted R-squared value of 0.9248 also indicates that the model still has good predictive capabilities, although the number of independent variables is limited. A statistical F-value of 185.44 with a probability value (Prob > F) of 0.0000 indicates that the regression model is simultaneously significant, meaning that the variables x1 and x2 together have an effect on y.

Partially, the variable x1 has a coefficient of 143.74 and a pvalue of 0.000. This shows that x1 has a significant effect on y at a significance level of 5%, because the value of p < 0.05. This means that every one unit increase on x1 will increase the value of y by 143.74 units, assuming x2 is constant. Meanwhile, the x2 variable has a coefficient of -0.2322 with a pvalue of 0.647, which means that it is not statistically significant because the p-value > 0.05. Thus, partially, x2 does not exert a significant influence on y in this model. A constant value of -350.48 indicates that when x1 and x2 are equal to zero, then the value of y is estimated to be -350.48 units.

Overall, this model is worth analyzing because it is simultaneously significant and has a very high *goodness of fit*. Nevertheless, only the x1 variable was proven to be partially significant. To ensure the feasibility of the model econometrically, further classical assumption tests such as multicollinearity, heteroscedasticity, and residual normality tests are required.

Table 4.2
Autocorrelation test (Breusch Godfrey LM test)

lags (p)	chi2	df	Prob > chi2
1	20.448	1	0.0000
H0: no serial correlation			

Source: Stata Regression Data Processing Results

To find out if there is an autocorrelation in the regression model, a Breusch-Godfrey test with a 1st lag is performed. Based on the test results, a chi-square statistical value of 20.448 with a free degree of 1, and a probability value of 0.0000 were obtained. Because the probability value is smaller than the significance level of 5% (0.05), the null (H_0) hypothesis that there is no autocorrelation is rejected.

Thus, it can be concluded that the regression model has an autocorrelation problem. This means that there is a correlation between the current residual and the previous residual, which can cause parameter estimation to be inefficient and the statistical test results to be invalid.

To address this autocorrelation, it is recommended that the model be improved, for example by using robust estimation methods of autocorrelation such as Newey-West standard errors, or by reformulating the model using an autoregressive approach or other transformations such as first-difference.

Table 4.3
Autocorrelation Test Results (Newey-West)

Variable	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
x1	-0,14374	0,011281	12,74	0	0,120631	0,166848

x2	-0,002322	0,073581	-0,32	0,755	-0,173951	0,127501
_cons	-350,482	77,5418	-4,52	0	-509,319	-191,645

Source: Stata Regression Data Processing Results

Based on the regression results using the Newey-West method, the dependent variable y was influenced by two independent variables, x1 and x2, with 31 observations and corrections for autocorrelation and heteroscedasticity (lag 1). Simultaneously, significant models (F = 112.11; Prob > F = 0.0000), indicating that x1 and x2 together affect y. Partially, only x1 is significant (coefficient = 0.1437; p = 0.000), while x2 is insignificant (p = 0.755). The coefficient of the constant is -350.482 and is significant. Thus, this model shows that only x1 has an effect on y, while x2 does not.

After the Newey-West method was applied, the variable x2 remained insignificant to y.

Table 4.4
Normality Test (Curtosis Slope)

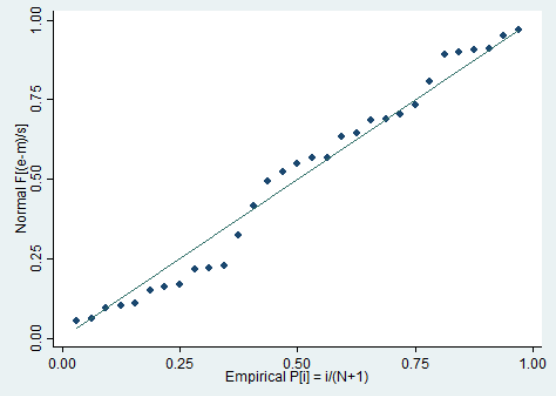
Variabel	Obs	Pr(Skewness)	Pr(Kurtosis)	Joint	
				adj chi2 (2)	Prob >chi2
and	31	0.7928	0.0738	3.58	0.1671

Source: Stata Regression Data Processing Results

To ensure that the regression model used meets classical assumptions, a residual normality test is carried out using the Skewness/Kurtosis Test. The test results showed a Prob value of > chi² of 0.1671, which is greater than the significance level of 5% (α = 0.05). Thus, there is not enough evidence to reject the zero (H_0) hypothesis that residual is normally distributed.

These results indicate that the residual model is statistically normally distributed, so the assumption of normality in the regression model has been met. Residual normality is essential to guarantee the validity of statistical inferences, particularly in drawing conclusions that depend on error distribution. Therefore, the regression model used can be said to be feasible in terms of normality assumptions.

Chart 4.1
Normal Probability



Source: Stata Regression Data Processing Results

Table 4.5
Multicollinearity Test (VIF)

Variable	BRIGHT	1/LIVE
x1	1.52	0.657773
x2	1.52	0.657773
Mean VIF	1.52	

Source: Regression Data Processing Results

To find out if there is a problem of multicollinearity between independent variables in the regression model, a test was carried out using the Variance Inflation Factor (VIF). The test results showed that the VIF values for x1 and x2 were 1.52 respectively, with the Mean VIF also 1.52.

In general, multicollinearity is considered not to be a problem if the VIF value is < 10, or even < 5 as a conservative boundary. In this context, since the entire VIF value is well below that limit, it can be concluded that there is no symptom of multicollinearity between the free variables x1 and x2.

These results show that each independent variable in the model has the ability to explain the dependent variable independently, without a high correlation between independent variables. Thus, the

assumption of the absence of multicollinearity in the model has been fulfilled, which further strengthens the validity of the regression model used.

Table 4.6
Uji Heteroskedastisitas (Breusch-Pagan dan Glejser)

Test	Ho	Variabel	Chi2(1)	Prob > chi2
Breusch-Pagan / Cook-Weisberg test for heteroskedasticity	Constant variance	fitted values of y	6.20	0.0128

Source: Stata Regression Data Processing Results

Testing for the assumption of homocedasticity (constant of variance error) was performed using the Breusch-Pagan/Cook-Weisberg test. From the test results, a chi² value of 6.20 was obtained with a probability value (Prob > chi²) of 0.0128.

Since the probability value is less than 0.05, the null (H_0) hypothesis that the residual variance is constant is rejected. This means that there is sufficient evidence to conclude that the regression model has a heteroscedasticity problem, i.e. an error variance that is not constant across observations.

This condition can cause the estimation of the regression coefficient to remain unbiased, but inefficient. Thus, statistical inference such as t and F values are no longer reliable because standard errors can be miscalculated. As a corrective step, regression with robust standard errors has been done before to overcome this problem.

Because of the indication of heteroscedasticity, it is necessary to use a strong error standard so that the results of the t-test and p-value are valid.

Table 4.7
Robust Test - Standard Error

Variabel	Coefi cin	Std. Error	t	P>|t|	[95% Conf. Interval] Below	[95% Conf. Interval] Above
x1	.1437395	.0088695	16.21	0.000	.1255712	.1619078
x2	-.023224	.0613673	-0.38	0.708	-.1489276	.1024828
cons	-352482	60.57433	-5.79	0.000	-474.5629	-226.4011

Source: Stata Regression Data Processing Results

After it was known that the model underwent autocorrelation based on the Breusch-Godfrey test, a regression was carried out using robust standard errors. The goal is to obtain a valid standard error estimate, so that the results of the statistical test can still be interpreted legitimately.

Based on the regression results using the robust method, the R-squared value of 0.9298 indicates that the model can explain 92.98% of the variation in the dependent variable (y), while the remaining 7.02% is explained by other factors outside the model. An F-statistical value of 192.97 with a probability value of 0.0000 indicates that the model remains simultaneously significant, i.e. the variables x1 and x2 together have an effect on y.

Partially, the x1 variable has a coefficient of 143.7395 with a p-value of 0.000, which means significant at the significance level of 5%. This means that every one unit increase on x1 will increase the y-value by 143.74 units, assuming the other variables are constant. Meanwhile, the variable x2 has a coefficient of -0.2322 with a p-value of 0.708, which indicates that this variable has no significant effect on y partially.

A constant value of -350.48 indicates that when x1 and x2 are equal to zero, then

the value of y is estimated to be -350.48 units. The use of robust standard errors ensures that the results of the t-test and F-test remain valid despite the presence of autocorrelation or heteroscedasticity in the model.

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Table 4.8
Determination Coefficient Test Analysis

Variabel	Coef icin	Std. Error	t	P >|t|	[95% Conf. Interval]	
x1	.1437395	.0088695	16.21	0.000	.1255712	.1619078
x2	-.0232224	.0613673	-0.38	0.708	-.1489276	.1024828
_cons	-350.482	60.57433	-5.74	0.000	-474.5629	-226.4011

Source: Stata Regression Data Processing Results

From the results of multiple linear regression with robust standard error, an R-squared value of 0.9298 was obtained, which means that about 92.98% of the variation in the dependent variable (y) can be explained by the variation of the two independent variables (x1 and x2) used in the model.

This value indicates that the model has a very high goodness-of-fit. In other words, the regression model used is very capable of explaining the relationship between independent variables and dependent variables statistically.

Although there is one variable that is not partially significant (x2), the overall model remains simultaneously significant and has strong predictive power, as reflected by the high R-squared value. To ensure the stability and efficiency of the model estimation, robust regression was performed in response to the discovery of heteroscedasticity in previous tests.

Table 4.9
F-Test Analysis (Simultaneous)

Variable	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
x1	0,143374	0,008887	16,21	0	0,125571	0,161908
x2	-0,023222	0,061367	-0,38	0,708	-0,148893	0,102483
_cons	-350,482	60,57433	-5,79	0	-474,563	-226,401

Source: Stata Regression Data Processing Results

The F test is used to find out whether independently variables together (simultaneously) have a significant influence on the dependent variables in the regression model. Based on the results of the robust regression, an F-statistical value of 192.97 was obtained with a probability value (Prob > F) of 0.0000.

Since the probability value is much smaller than the significance level of 5% ($\alpha = 0.05$), the null (H_0) hypothesis stating that there is no simultaneous influence of independent variables on dependent variables is rejected. That is, statistically there is a statistically significant simultaneous influence of the variables x1 and x2 on the variable y.

These results indicate that the regression model used is feasible overall, as the two independent variables together are able to explain the variation in the bound variables significantly.

Table 4.10
T-Test Analysis (Partial)

Variabel	Coef icin	Std. Error	t	P >|t|	[95% Conf. Interval]	
x1	.1437395	.0088695	16.21	0.000	.1255712	.1619078
x2	-.0232224	.0613673	-0.38	0.708	-.1489276	.1024828

Variabel	Coeficin	Std. Error	t	P>|t|	[95% Conf. Interval]	
_cons	-350.482	60.57433	-5.74	0.000	-474.5629	-226.4011

Source: Stata Regression Data Processing Results

Based on the results of regression with robust standard error, a partial test (t-test) was carried out on two independent variables, namely x1 and x2, to determine the influence of each variable on the dependent variable (y).

The test results showed that the x1 variable had a coefficient value of 0.1437395 and a p-value of 0.000, which means it was smaller than the significance level of 5% (α = 0.05). Thus, it can be concluded that x1 has a partial significant effect on the variable y. That is, every increase of x1 by one unit will increase the value of y by 0.1437395 units, assuming that the x2 variable remains constant.

Meanwhile, the x2 variable has a coefficient of -0.0232224 with a p-value of 0.708, which is much greater than 0.05. This shows that x2 has no partial significant effect on the y variable. Thus, changes in the x2 variable do not provide a statistically strong enough influence on the dependent variables in this model.

Table 4.11
Regression Equation Analysis

Variabel	Coeficin	Std. Error	t	P>|t|	[95% Conf. Interval]	
x1	.1437395	.0088695	16.21	0.000	.1255712	.1619078
x2	-.0232224	.0613673	-0.38	0.708	-.1489276	.1024828
_cons	-350.482	60.57433	-5.74	0.000	-474.5629	-226.4011

Source: Stata Regression Data Processing Results

Based on the results of multiple linear regression, the following equation is obtained:

$$Y = -350.482 + 0{,}1437395_{X1}\, 0{,}0232224_{X2}$$

The equation shows that:

Every 1 unit increase in the Per Capita Income (X1) variable will increase Household Consumption (Y) by 0.1437395 units, assuming the X2 variable is fixed. This coefficient is statistically significant (p-value = 0.000 < 0.05), which means that X1 has a real effect on Y.

On the other hand, an increase of 1 unit in the Social Security Program variable (X2) actually lowered the Y value by 0.0232224 units. However, this effect was not statistically significant (p-value = 0.708 > 0.05), so there is insufficient evidence to conclude that X2 partially affects household consumption in this model.

An intercept constant of –350.482 indicates the predicted Y value when X1 and X2 are zero. Although this value is significant (p-value = 0.000), the interpretation must be contextualized, as the conditions of X1 and X2 being zero-value may not be realistic in the real world.

Thus, this regression model explains that Per Capita Income is a factor that has a significant influence on household consumption, while the Social Security Program has not been shown to have a partial effect.

DISCUSSION

This study aims to analyze the effect of Income per Capita (X1) and Social Security Program (X2) on Household Consumption (Y) in Indonesia by using multiple linear regression methods adjusted to robust standard errors to overcome potential violations of classical assumptions, especially heteroscedasticity.

The findings of this study are in line with Keynes' Theory of Consumption which states that household consumption is strongly influenced by the income spent. According to Keynes, the higher the household income, the greater the consumption, because individuals tend to use most of their income for basic consumption needs before setting aside the rest for savings. (Keynes, 1937)

Based on the results of the regression that has been carried out, the following model equations are obtained:

$$Y = -350.482 + 0{,}1437395_{X1}\, 0{,}0232224_{X2}$$

This equation shows that when another variable is considered constant:

- A one-unit increase in Per Capita Income (X1) will increase Household Consumption (Y) by 0.1437 units.
- Meanwhile, a one-unit increase in the Social Security Program (X2) actually reduced household consumption by 0.0232 units, although this effect was not statistically significant.

A constant value of -350.482 indicates the predicted value of household consumption when both independent variables are zero. Practically, this interpretation is theoretical because the zero values for X1 and X2 are not realistic conditions in the socioeconomic context in Indonesia.

The results of the simultaneous F test showed that this regression model was significant overall. This is evidenced by the Prob value > F of 0.0000, which is smaller than the significance level of 5%. This means that the variables of Per Capita Income and Social Security Programs together have a significant influence on Household Consumption.

Furthermore, based on the partial t-test:

- The Per Capita Income (X1) variable has a p-value of 0.000, which is well below 0.05. This shows that X1 has a positive and significant influence on household consumption.
- Meanwhile, the Social Security Program variable (X2) shows a p-value of 0.708, which is greater than 0.05. This means that X2 has no partial significant effect on household consumption.

In terms of the model's ability to explain the dependent variables, an R-squared value of 0.9298 and an Adjusted R-squared of 0.9248 were obtained, which shows that 92.98% of the variation in household consumption can be explained by the two independent variables in the model, while the remaining 7.02% is explained by other variables outside the model.

The multicollinearity test showed that the VIF values for X1 and X2 were 1.52, which means that there was no indication of multicollinearity. This shows that there is no high linear relationship between independent variables, so the model can be said to be free of such interference.

However, the results of the heteroscedasticity test using the Breusch-Pagan/Cook-Weisberg test showed a Prob > chi2 value of 0.0128, which means that there is a heteroscedasticity problem in the model. To overcome this problem, a robust standard error approach is used, so that the coefficients obtained can still be interpreted validly.

Meanwhile, the results of the residual normality test using the Skewness/Kurtosis test produced a Prob > chi2 value of 0.1671, which is greater than 0.05. This indicates that the residual distribution has met the assumption of normality.

Overall, the results of this analysis show that Per Capita Income is a factor that significantly affects Household Consumption in Indonesia, both statistically and economically. In contrast, even if the Social Security Program is included in the model, its effect is not partially significant, although it simultaneously explains the model. This implies that the policy of increasing people's income has a more direct impact on household consumption patterns than social intervention in the form of social security.

CONCLUSION

This study aims to analyze the effect of per capita income and social security programs on household consumption in Indonesia over a long period of time. Through multiple linear regression approaches and testing with robust standard errors, it was found that the model used simultaneously was significant and able to explain the relationship between the two independent variables and the dependent variables.

Partially, per capita income has been proven to have a positive and significant influence on household consumption. This is in line with Keynes' theory of consumption which states that household consumption is largely determined by the level of income received. Meanwhile, social security programs, although simultaneously contributing to the model, did not show a partially significant influence

on household consumption in the context of the data and periods analyzed.

The regression model built shows excellent explainability, as can be seen from the high proportion of variations in household consumption that can be explained by income and social security variables. Although there are some violations of classical assumptions such as autocorrelation and heteroscedasticity, improvements have been made through a robust approach, so that the results of the estimates can still be interpreted legally and validly.

These findings confirm the importance of increasing people's incomes as a key factor in encouraging household consumption, while the effectiveness of social security programs in the context of consumption needs to be continuously evaluated and improved. Thus, economic policies oriented towards increasing real household income can be a more effective strategy in strengthening domestic demand and people's welfare.

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