

Impact of Household Income on Personal Consumption in India

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Abstract

Housing is an important component of the national economy and contributes maximum to household's net wealth in most countries. Adequate housing is essential for human survival with dignity. The relationship between household income and personal consumption has been an area of interest for many countries in the past. While several countries like Sweden, Great Britain, USA and UK have been studied, India has so far not been a part of these studies to the best of our knowledge. The present study aims to primarily discuss the impact of household income on personal consumption in India using the ARIMA model for the period from 1990-2015. The results from our analysis suggest that income levels and house price to income ratio have a significant effect on the personal consumption of people in India

Rationale for the Study

- Housing sector in India saw a rapid change in the last decade.
- Institutional finance has shown an upward trend attracting more players in the field.
- Growth was recorded as 7.3% in 2015 to 7.5% in 2016.
- Housing finance emerged as major business leading to more requirement for home loans.
- After facing a recessionary phase, analyzing the fluctuations in house prices on the buying behavior of people is an interesting study.

Literature Review

Literature	Independent Variable	Country Studied
Raphael Bostic, Stuart Gabriel, Gary Painter (2015)	Income and Financial wealth	US
Lance A. Fisher, Glenn Otto (2013)	Non- financial wealth	Australia
Sungwon Cho (2014)	House price to income ratio	China
Richard Disney, Andrew Henley, Gary Stears (2008)	Stock wealth and income	Great Britain
Kul Bhatia, Chris Mitchell (2014)	Interest rate, stock wealth and loan to value ratio	Canada
John Y. Campbell, Joao F. Cocco (2013)	Financial wealth and interest rate	UK
Todd A. Gormley (2009)	EMI to income ratio	US

Data Description (Source: World Bank)

Variable	Definition
House price to income ratio	House price to familial disposable income ratio
Loan to value ratio	Percentage of property mortgaged to amount one owns
EMI to income ratio	Debt to income ratio
Household income	Net income of people sharing a particular household
Personal consumption	Consumer spending on goods and services

Research Methodology

- Since all the variables are time series variables, each of them was tested for stationarity using Augmented Dickey-Fuller test.
- To study the impact of all the independent variables on personal consumption, an ARIMAX model was estimated.
- Relationship between consumption and income along with other variables were estimated using two models-
 - Total income as an independent variable.
Consumption = f (total income, stock wealth, house price to income ratio, loan to value ratio, EMI to income ratio)
 - Low income as an independent variable.
Consumption = f (income, low income, stock wealth, house price to income ratio, loan to value ratio, EMI to income ratio)

Results

	(0,0)	(0,1)	(1,0)	(1,1)	(1,2)	(2,1)	(2,2)
Constant	15153	25007	12207	13307	18892	11407	16007
L1.ar			1.00	0.92	0.90		
L2.ar						-0.68	-0.53
L1.ma		0.93		0.99		1.00	
L2.ma					1.00		0.99
AIC	-328	-321	-318	-312	-305	-307	-305

Based on the criteria mentioned in methodology, ARIMAX model (2, 0, 1) was selected. This ARIMAX model was further used for estimation of the consumption function.

Variable	Model - 1	Model - 2
Income	0.001**	0.000***
Low-income	-	0.000***
Stock wealth	0.061	0.913
House price to income ratio	0.005**	0.146
Loan to value ratio	0.856	0.079
EMI to income ratio	0.914	0.714

Note: Significance level for coefficients are indicated by *** and ** for 1% and 5% level of significance respectively.

Conclusion

Housing sector contributes significantly to the economy of various countries and India is no exception. Developments in this sector has led to more employment options along with huge investments. Due to an increasing shift of rural people to urban cities will lead to a massive flow of funds to the housing sector in general.

Limitation

The current study has a lot of limitations which provides scope for further study. The data is collected for the period from 1995 to 2015 excluding some of the variables because of the non-availability of data. Further comparative studies can be done taking into picture the results from other countries and extending the model to a panel data set.

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