Research on the Impact of Urban Resident Income Level on Consumption Level

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Abstract: This study adopts an empirical approach to analyze the impact of urban residents' income level on their consumption level, and based on this, proposes strategies to improve their consumption level. After research, it has been found that income distribution, social security, consumption environment, and policy precision all have a significant impact on consumption. In this regard, it is necessary to attach importance to reforming income distribution, improving social security, optimizing the consumption environment, and implementing precise policies in order to better promote the improvement of consumption levels. Overall, it is necessary to work together from multiple dimensions and establish a systematic promotion mechanism in order to continuously unleash consumption potential, promote high-quality economic development, and better meet people's aspirations for a better life.

1. Introduction

As China's economy enters a stage of high-quality development, consumption, as the primary driving force of economic growth, is becoming increasingly important. However, the current growth of urban residents' consumption faces many challenges, such as a large income distribution gap, an imperfect social security system, many problems in the consumption environment, and insufficient satisfaction of the consumption needs of different groups. These factors collectively limit the release of consumption potential and affect economic transformation and upgrading. In this situation, conducting in-depth research on the influencing factors and mechanisms of urban residents' consumption levels, and exploring feasible paths for improvement, has important theoretical value and practical significance. Previous studies have mostly focused on the impact of a single factor on consumption, lacking systematic analysis. This article is based on micro survey data and uses empirical methods to study in detail the impact path of income distribution, social security, consumption environment, and policy precision on urban residents' consumption, and establish a multidimensional collaborative policy framework. This study not only contributes to enriching the theory of consumer economy, but also provides scientific basis for the government to formulate effective policies to promote consumption, promote the formation of a new consumption led economic growth model, and better meet the growing needs of the people for a better life.

2. Research design and data foundation

2.1 Hybrid Data Architecture

Table 1 Hybrid Data Architecture

Data type	Data sources	Time Span	Sample size
Micro survey data	CFPS	2010-2024	50000+
Macro panel data	National Bureau of Statistics, Wind database	2010-2024	31×15
Digital Economy Indicators	Peking University Digital Inclusive Finance Index	2011-2024	Provincial level

This study integrates micro household tracking data with provincial-level macro panel data to construct a "micro behavior macro environment" linkage analysis framework. This architecture

preserves individual decision-making details while capturing exogenous shocks in the policy environment, providing data support for accurately identifying the structural characteristics of income consumption relationships [1-2]. See Table 1 for details.

2.2 Variable operationalization innovation

(1) Income stratification indicators

Using quantile regression to determine the critical point, where the low-income group is in the<30% percentile; The middle-income group accounts for 30% -70%; The high-income group accounts for over 70%.

(2) Institutional constraint variables:

Constructing a housing pressure index=mortgage expenses/disposable income; Design the education healthcare burden ratio=(education expenditure+medical expenditure)/total revenue.

(3) Digital Empowerment Variables:

Digital payment penetration rate=mobile payment transaction volume/GDP.

2.3 Optimization of econometric models

Using system GMM estimation to address endogeneity issues, the model is set as follows:

$C_{it}=\alpha+\beta_1 Income_{it}+\beta_2 Stratification_{it}+\beta_3 Institution_{it}+\beta_4 Digital_{it}+\gamma X_{it}+\varepsilon_{it}$

Among them, $Stratification_{it}$ represents the income stratification dummy variable matrix; $Institution_{it}$ represents the comprehensive index of institutional constraints; $Digital_{it}$ represents the level of development of the digital economy.

3. Empirical results

3.1 Benchmark regression results

The GMM estimation of the system indicates that income level has a significant positive impact on consumption ($\beta=0.52$), but the income stratification effect is significantly negative ($\beta=-0.21$), confirming that high-income groups have lower marginal propensity to consume. For every 1 unit increase in housing pressure, the consumption elasticity decreases by 0.18, highlighting the inhibitory effect of institutional constraints. The increase in digital payment penetration rate produces a positive moderating effect ($\beta=0.09$), partially offsetting institutional barriers. In the controlled variables, the education and medical burden ratio is significantly negatively correlated with consumption ($\beta=-0.15$). The specific benchmark regression results are shown in Table 2.

Table 2 Analysis of benchmark regression results (AR (2) test p=0.12, Hansen test p=0.31)

Variable	Coefficient	Standard error	z-value	P value
Income level	0.52***	0.08	6.50	0.000
Income stratification effect	-0.21***	0.06	-3.50	0.000
Housing pressure index	-0.18***	0.05	-3.60	0.000
Digital payment penetration rate	0.09***	0.03	3.00	0.003
Education and healthcare burden ratio	-0.15***	0.04	-3.75	0.000

Note:***p<0.01,**p<0.05,*p<0.1

From the Table 2 data, it can be found that: 1) The income stratification effect is significantly negative, indicating that high-income groups have a lower propensity to consume; 2) For every 1 percentage point increase in housing pressure, consumer elasticity decreases by 0.18; 3) The application of digital technology can partially offset the negative impact of institutional constraints.

3.2 Heterogeneity analysis

The study found that there were significant regional and group differences in consumption response: the digital economy dividend in the eastern region was more significant (0.05 higher elasticity), reflecting the innovation of consumption scenarios brought about by the improvement of Internet infrastructure; The housing pressure in the central and western regions has a stronger

inhibitory effect on consumption (with a coefficient of 0.08), highlighting the deep-seated contradiction of insufficient basic guarantees in the process of urbanization. At the intergenerational level, the consumption elasticity of digital natives born in the 1990s reached 0.21, far exceeding the 0.07 of those born in the 1960s, confirming that the application of new technologies is reshaping the decision-making patterns of young people. In terms of income structure, for every 10% increase in the proportion of property income, total consumption increases by 2.3%, while operating income has the strongest driving effect on service consumption (elasticity 0.35), revealing the key role of wealth composition in consumption upgrading.

3.3 Mechanism verification

To verify the pathways of income stratification, institutional constraints, and digital empowerment, this paper uses a mediation effect model for systematic testing: 1) Preventive savings mechanism: high-income groups have a significantly higher proportion of housing expenditure ($\beta=0.31$), which squeezes out consumer expenditure, and this effect is stronger in groups with high mortgage pressure (interaction term $\beta=0.15$), confirming the transmission effect of asset rigidity constraints; 2) Digital empowerment mechanism: For every 10% increase in digital payment usage, the marginal propensity to consume increases by 0.08 ($\beta=0.08$), and this effect is more significant in the low education group (heterogeneity $\beta=0.12$), indicating that technological applications can alleviate information asymmetry; 3) Intergenerational transmission mechanism: Parents' education level indirectly promotes consumption upgrading by improving their children's digital literacy ($\beta=0.22$), but the direct impact on traditional consumption is not significant ($\beta=0.03$),revealing a new channel for human capital accumulation.

4. Countermeasures and suggestions for the consumption level of urban residents

Improving the consumption level of urban residents is a systematic project that urgently requires multidimensional coordination and joint efforts, such as reforming the income distribution system, improving the social security system, optimizing the consumption field environment, and implementing targeted policies and interventions. Only by establishing a long-term support mechanism to promote consumption can we continuously unleash the consumption potential of residents and provide a strong core driving force for high-quality economic development. In the future stage, we should strengthen policy coordination and linkage, consolidate and form policy synergy, promote the expansion of consumption scale and the improvement of quality, and better meet the growing needs of the people for a better life.

4.1 Reforming the income distribution system

The government should accelerate the process of deepening the reform of the income distribution system and consolidate the foundation of consumption growth. Firstly, we should improve the structure of the initial distribution mechanism, focus on increasing the proportion of labor remuneration in the national income distribution pattern, improve the mechanism for regulating normal wage growth, and pay special attention to the issue of income security for the new business model employees; Secondly, the government should strengthen its redistributive and regulatory functions, optimize the design of the personal income tax system, expand the coverage of comprehensive collection, and alleviate the tax burden pressure on the middle and low-income groups; Thirdly, the government should improve the framework of the third distribution system, perfect tax incentives for charitable donations, and guide high-income groups to actively participate in social welfare and charity undertakings[3]. By constructing an olive shaped income distribution social structure, expanding the size of the middle-income group, and fundamentally enhancing the foundation of residents' consumption ability.

4.2 Establish a sound social security system

The government should focus on promoting and implementing the following measures to eliminate concerns about consumer behavior: firstly, expand the coverage boundaries of the social

security system, and include flexible employment forms and workers in new business sectors in the coverage scope of the social security system; Secondly, we will enhance the level of equal supply of basic public services, strengthen financial investment in key areas of people's livelihood such as education, healthcare, and elderly care services, and reduce the burden on residents' lives; Thirdly, improve the housing security policy system, increase the effective supply of affordable housing through multiple channels, and alleviate the crowding out effect of housing related expenditures on consumption[4]; Fourthly, developing commercial insurance as an important supplementary form of protection to meet the diverse and differentiated protection needs of members of society. By weaving and strengthening the social security protection network, we aim to enhance residents' confidence and expectations in consumption.

4.3 Optimizing the consumption field environment

The government should vigorously create a safe, reliable, reassuring and convenient consumption environment, and specifically focus on the following aspects: firstly, strengthen market supervision and law enforcement, severely punish and crack down on illegal business activities such as the production and sales of counterfeit and shoddy goods, false advertising, etc., and maintain a fair and orderly market competition order pattern; Secondly, improve the system for protecting consumer rights and interests, smooth the feedback channels for complaints and reports, and enhance the efficiency and effectiveness of handling rights protection; Thirdly, promote the construction of a credit system in the consumer sector, establish and improve a joint punishment and restraint mechanism for dishonest behavior; Fourthly, accelerate the development of emerging consumer formats and innovative business models, promote the deep integration and connection of online and offline consumption scenarios, and enhance the convenience and experience of consumer behavior; Fifth, strengthen investment in the construction and layout of consumer infrastructure networks, with a focus on improving the coverage density and service level of consumer networks in rural and underdeveloped areas[5]. By optimizing the construction of the consumption field environment, we can fully unleash the potential consumption space of residents.

4.4 Implementing precise policies

There are significant differences in the consumption characteristics of residents from different income groups, age groups, and regions. The government needs to guide targeted measures to address these issues. Firstly, for high-income groups, the main focus is on developing high-quality, personalized, and customized consumption to meet their demand for high-end goods and services; Secondly, for the middle-income group, increase the supply of high-quality goods and services to meet their pursuit of a better life; Thirdly, for low-income groups, improve basic living security and enhance their consumption ability; Fourthly, for the young population, vigorously develop new consumption models such as digital consumption and green consumption; Fifth, for the elderly population, develop products and services suitable for them to meet their special needs; Sixth, for different regions, formulate consumption promotion policies based on local conditions to promote coordinated development of regional consumption[6]. By implementing such precise policies, we can achieve differentiation, precision, and effectiveness in consumer policies.

5. Conclusion

This study is based on actual data analysis, systematically exploring the influencing factors of urban residents' consumption level and how they work, and proposing multi-faceted collaborative policy recommendations. The research results indicate that optimizing income distribution, improving social security, enhancing the consumption environment, and implementing precise policies are key ways to promote consumption growth and enhance quality. In the future, when formulating policies, we should pay attention to overall considerations, instead of strengthening the consumption foundation through reforming income distribution, improving social security to eliminate worries, optimizing the consumption environment to unleash market vitality, and implementing precise policies to meet various needs. At the same time, we should continue to pay

attention to changes in consumption trends, adjust policy directions in a timely manner, and ensure that policy measures can keep up with changes in residents' consumption behavior, in order to continuously unleash the consumption potential of urban residents, promote high-quality economic development, and better meet the growing needs of the people for a better life.

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