A Study on the Influence of the Income Structure on the Consumption Structure of Rural Residents in China

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Abstract: The gentle development of the economy is an important link to realize sustainable development in a holistic way. In recent years, due to the notable decline in the scale of exports and investment, China’s economic growth has decreased significantly, and consumption has become the main force driving economic growth. Promoting sustainable economic development is an important problem in the current development of China. In this study, the ELES model was adopted to analyze how the consumption structure is affected by the income structure among rural residents in China. The results show the following: (1) The income structure of rural residents has a significant impact on the consumption structure, and their consumption behaviors conform to the “mental accounting” hypothesis. (2) Net property income and net transfer income account for a small proportion, but marginal propensity to consume (referred to as MPC) is relatively large. Net operating income and wage income form a large proportion of disposable income with low MPC. (3) In the future, expenditures on food, tobacco, and alcohol will slow down remarkably, and more money will be spent on healthcare, transportation and communication, and housing, forming an increasing proportion of expenditures. In summary, this study suggests that scientific and effective policy measures should be issued to boost the income level of rural residents in a targeted manner, optimize the income structure, and improve the rural consumption environment, so as to comprehensively promote rural consumption.

Keywords: Chinese rural residents; income structure; consumption structure; ELES model; influence

1. Introduction

It is well-known that sustainable development focuses on the coordinated development of society, the economy, culture, resources, the environment, life, and other areas. With the continuous progress of science and technology and the popularization of the concept of sustainable development, economic growth and sustainable and coordinated development of resources and the environment have increasingly become a hot global issue. More and more scholars believe that economic growth and sustainable and coordinated development are essentially unified, but the different economic development models will affect the level of sustainable development [1]. In the past 20 years, the Chinese government has made great efforts in economic development, infrastructure construction, public health investment, resource and environmental protection, cultural heritage inheritance, and social governance, and has achieved remarkable results [2–4]. Despite all this, China’s economic growth rate has slowed significantly in recent years. The GDP growth rate dropped from a long-term period of being above 7% to 2.3% in 2020, which was caused by blocked import and export trade and a decline in investment growth. With the continuous increase in labor costs, China’s export products are becoming less competitive in the global market. At the same time, affected by factors such as international politics, the economy, and COVID-19, China’s import and export trade was severely blocked, so the proportion of total product...
exports in the GDP dropped to 17.65% in 2020 from 34.22% in 2005. Investment was also affected. In 2020, the growth rate of fixed-asset investment fell by 23% compared with 2005. It is clear that rational economic growth is becoming a weakness that restricts China’s sustainable development. It is well-known that investment, consumption, and export trade are a troika driving economic growth. Against the background of blocked export trade and a decline in investment growth, the promotion of consumption is becoming an important driving force for economic growth, and it is an inevitable requirement for steadily advancing the national economy through the overall promotion of rural consumption. A rapid growth trend is found in the income and consumption of Chinese rural residents, and their growth rates all surpass that of urban residents, implying a huge consumption potential of rural residents. Promoting rural consumption has become a new driving force for China’s economic and social sustainable development. Central Document No. 1 in 2021 and 2022 clearly states for two consecutive years that “measures should be adopted to comprehensively stimulate rural consumption”. Income is an essential prerequisite for consumption, so changes in the income structure will inevitably affect the consumption structure. This study mainly discusses the impact of the income structure of Chinese rural residents on the consumption structure, which shall help to reveal the law of change between them and to formulate corresponding policies to raise rural residents’ income. Moreover, it will optimize the income structure, expand the consumption of rural residents, and guide rural residents to consume reasonably, so as to further enhance economic efficiency, improve the quality of economic development, optimize the economic development mode, and better promote the sustainable development of the social economy.

2. Review of the Research

Existing research results show that people’s consumption patterns and consumption structures inevitably affect human sustainable development [5,6] and that appropriately increasing education and healthcare expenditure can promote sustainable development [7,8]. Therefore, optimizing residents’ consumption structure can promote sustainable development. Scholars have carried out countless theoretical research and empirical analyses on the consumption structure of (rural) residents. Edward (1868) proposed, for the first time [9], classifying the household consumption structure into eating, wearing, using, housing, and transportation according to consumption purposes. Inspired by this classification, other scholars have studied the characteristics of household and individual consumption structures and influencing factors. Later, Keynes put forward the “absolute income hypothesis”, declaring that there is a linear positive correlation between consumption and expenditure, but that as income increases, consumers’ MPC tends to decrease [10]. Based on this theory, Duesenberry raises the “relative income hypothesis”. He believes that consumption behaviors produce a “demonstration effect”, and the consumption behavior of wealthy people will have a demonstrative effect on low-income groups [11]. Friedman holds that the “absolute income hypothesis” and “relative income hypothesis” are flawed and insufficient to explain consumption behaviors in real life. Therefore, the “permanent income hypothesis” is presented, which holds that expected income and unexpected income have different effects on the spending patterns of people [12]. The Nobel laureate in economics, Thaler, further expands the “permanent income hypothesis” theory. From the perspective of behavioral economics, he states that consumers have a “mental accounting” phenomenon; in other words, consumers receive income from different sources, and even if the amount of income is the same, consumers feel it differently psychologically in terms of status. As a result, consumers hold diverse attitudes toward spending money [13]. Using empirical research, Stone applied the linear expenditure system model (LES) for the first time to explore the impact of the total expenditure budget on consumption [14]. However, because the total expenditure budget in the LES model is an endogenous variable and is difficult to measure, the model’s applicability is limited. Accordingly, Lluch replaces the total expenditure budget in the LES model with an exogenous variable, disposable income. At the same time, MPC is used to take the place of the marginal budget proportion in
the LES model, which is an extended linear expenditure system (ELES) [15]. Moreover, Lluch selected data from 1955 to 1969 from 14 countries and divided consumption into eight categories—expenditures for food, clothing, housing, household equipment, personal care, transportation, entertainment, and other services—and observed how the consumption structure is influenced by changes in disposable income [16], achieving good results. Through empirical model analysis, Flavin and Carroll found that income uncertainty affects changes in consumption structures [17,18]. Barnett also conducted an empirical study to investigate the impact of the Chinese government’s increased investment in national health and education, concluding that an increase in transfer payments significantly stimulates consumption [19]. Some scholars also found, through studying British and American consumers, that consumers’ type of occupation has a significant impact on their income and has a linear impact on the consumption structure [20]. Other scholars have studied the relationship between rural residents’ income and consumption in coastal areas of China, and they believe that there are problems such as slow growth of rural residents’ income, large regional gap, and uncertain disposable income in China, which lead to an unreasonable consumption structure, and the income structure will significantly affect the consumption structure. Similarly, some scholars have studied the characteristics of the change in the consumption structure among urban residents in China from 1985 to 2018 and found that the change in the population structure will also cause a linear change in the consumption structure [21].

Domestically, many scholars have applied the ELES model to explain the impact of the income structure on the consumption structure based on cross-section and panel data. It has been found that the consumption level of rural residents increases significantly due to the income structure, but no significant change is found in the consumption structure, which indicates that the consumption structure of rural residents is unreasonable [9]. The household operating income is the most important factor affecting consumption expenditure. Although property income is small, MPC tends to be the largest, and transfer income significantly influences basic living consumption on items such as clothing, food, housing, and transportation [22]. Transfer income stimulates the consumption of rural residents. With increasing income levels, transfer income has an extensive positive impact on food and residential consumption, but the positive impact on household equipment consumption tends to weaken [23]. Consumption by rural residents is more sensitive to changes in income, and a high income uncertainty will exert a significant negative impact on consumption [24]. At the same time, the consumption structure is also dramatically affected by the level of income [25]. However, some scholars have verified through bootstrapping that the ELES model is unsuitable for “analyzing Chinese consumption cross-sectional data”, and that the “ELES model should be used with caution” (Jiang Haifeng et al., 2014). Some scholars have studied how consumption is affected by external factors through VAR and ARIMA models, finding that “social welfare is an important influencing factor” [26]. The “external policies play an effective role in increasing rural residents’ willingness to consume” [27]. The income of Chinese rural residents has risen rapidly, and the rural consumption environment is continuously optimized, which implies that “it is the best time to improve the consumption level of farmers and expand domestic demand” [28].

The conclusions of the scholars mentioned above can be briefly summarized as follows. It is presently the best time to expand farmers’ consumption. The income structure of rural residents will inevitably influence the consumption structure. The MPC of different sources of income is diverse, and even having the same income impacts the consumption of different expenditure items differently. Consumption is greatly influenced by external policies, and the existing ELES model is not suitable for cross-sectional data analysis of consumption in China due to its shortcomings. Therefore, cross-sectional data and panel data are no longer used in this study, and they are replaced with relevant data on the income and consumption structure of rural residents in China from 2000 to 2020. Based on the theory of “mental accounting”, the ELES model is introduced to more effectively reveal how the consumption structure is affected by changes in the income structure. It aims to
expose the law of long-term changes between both to formulate more effective policies to raise the income of rural residents and stimulate consumption.

3. Theoretical Model Selection and Data Sources

3.1. Theoretical Model Selection

ELES is the foundation for the theoretical model of this study, which was proposed by Lluch (C. Lluch, 1973; C. Lluch, R. Williams, 1975), as shown in Equation (1). The economic meaning of the parameters in the model is shown in Table 1.

\[ v_i = p_i \gamma_i + \beta_i \left( y - \sum_{j=1}^{n} p_j \gamma_j \right) \]

(1)

\( (i = 1, \ldots, n; 0 < \beta_i < 1, \sum_{i=1}^{n} \beta_i = 1, v_i - p_j \gamma_j > 0) \)

Table 1. Economic meaning of parameters in the ELES model.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Economic Meaning</th>
<th>Parameter</th>
<th>Economic Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>( v_i )</td>
<td>Total amount of consumption of ( i )-th product</td>
<td>( p_j )</td>
<td>Price of other ( j )-th product</td>
</tr>
<tr>
<td>( p_i )</td>
<td>Price of ( i )-th product</td>
<td>( \gamma_j )</td>
<td>Minimum consumption of other ( j )-th product</td>
</tr>
<tr>
<td>( \gamma_i )</td>
<td>Basic (minimum) consumption of ( i )-th product</td>
<td>( \beta_i )</td>
<td>MPC of ( i )-th product</td>
</tr>
<tr>
<td>( y )</td>
<td>Disposable income</td>
<td>( \sum_{j=1}^{n} p_j \gamma_j )</td>
<td>Minimum total consumption expenditure for other ( n ) types of products</td>
</tr>
</tbody>
</table>

The economic meaning of the model is that, under established conditions of income and various product prices, people give priority to buying commodities that can satisfy people’s survival; when there is extra income, they will buy more of the \( i \)-th product according to a certain MPC.

According to Richard Thaler, winner of the Nobel Prize in Economics, consumers have a “mental accounting” phenomenon, which means that consumers have “one or more explicit or implicit accounting systems”. They assign income from different sources to different “mental accountings”, which directly affects consumers’ attitudes towards spending (Richard Thaler, 1985). For example, if a person has RMB 1000 earned by hard work, they will be very cautious in their spending, while if the money is accidentally picked up on the roadside, they will be generous in their spending. Based on “mental accounting” theory, this study assumes that different types of consumer income will affect their consumption expenditure structure; this theory improves the ELES model, aiming to better explain the impact of changes in the income structure of the consumption structure of rural residents. Four major sources of disposable income (wage income, net operating income, net property income, and net transfer income) were introduced into the model to reveal the impact of different income types on the consumption expenditure structure. The disposable income variable, \( y = \sum_{m=1}^{4} y_m \), was introduced into the ELES model to obtain an improved ELES model:

\[ v_i = p_i \gamma_i + \beta_i \left[ \left( \sum_{m=1}^{4} y_m \right) - \sum_{j=1}^{n} p_j \gamma_j \right] \]

(2)

\( (i, j = 1, \ldots, n; m = 1, \ldots, 4) \)
where $m = 1$ means wage income, $m = 2$ indicates net operating income, $m = 3$ is net property income, and $m = 4$ stands for net transfer income.

Assuming $\alpha_i = p_i\gamma_i - \beta_i\sum_{j=1}^{4} p_j\gamma_j$, there is:

$$v_i = \alpha_i + \beta_i \sum_{m=1}^{4} y_m + \epsilon_i$$  \hspace{1cm} (3)

wherein $\alpha_i$ represents a constant term, and $\epsilon_i$ is a random disturbance term.

This study focuses on the impact of the income structure on the consumption structure, so Equation (3) can be further improved by dividing it into eight simultaneous equations, as follows:

$$v_{it} = \alpha_i + \beta_{i1} y_{1t} + \beta_{i2} y_{2t} + \beta_{i3} y_{3t} + \beta_{i4} y_{4t} + \epsilon_{it}$$  \hspace{1cm} (4)

The economic meaning of the parameters in Model (4) is shown in Table 2. It should be noted in Equations (1)–(3) that $\beta_i$ represents the MPC of the $i$-th product, and $\beta_i$ represents the disposable income. Under normal circumstances, an increase in consumption will not exceed that in disposable income, which means that the value range of MPC is $0 < \beta_i < 1$. In Equation (4), $\beta_{i1}, \beta_{i2}, \beta_{i3}$, and $\beta_{i4}$ are similar in explaining MPC, but the ranges of the values of $\beta_{i1}, \beta_{i2}, \beta_{i3}$, and $\beta_{i4}$ are no longer limited to $(0, 1)$. In other words, the values of $\beta_{i1}, \beta_{i2}, \beta_{i3}$, and $\beta_{i4}$ may be greater than 1 or less than 0 because $y_{1t}, y_{2t}, y_{2t}$, and $y_{4t}$ are all a part of disposable income, and people hold different “mental accountings” towards the four types of income (Richard Thaler, 1985). $\epsilon_{it}$ is a random disturbance term. It reflects the influence of random factors on the dependent variable besides the linear relationship between the independent variable and the dependent variable, and it represents the variability that cannot be explained by the linear relationship between the independent variable and the dependent variable. Error is a random variable that follows a normal distribution and is independent of the other variables, $\epsilon_{it} \sim N(0, \sigma_i^2)$. As mentioned above, a person will be careful to spend money earned by hard work, but unexpected income will be used generously. In this way, some income will be spent faster, while some may be spent more slowly. Even when some income is insufficient, people will temporarily withdraw from other incomes as a supplement, which can explain why the MPC of some incomes may be greater than 1 or less than 0.

Table 2. Economic meaning of parameters in Model (4).

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Economic Meaning</th>
<th>Parameter</th>
<th>Economic Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>$v_{it}$</td>
<td>Per capita consumption expenditure of rural residents in t-th year</td>
<td>$i = 8$</td>
<td>Other supplies and services expenditure</td>
</tr>
<tr>
<td>$i = 1$</td>
<td>Expenditure on food, tobacco, and alcohol</td>
<td>$y$</td>
<td>Per capita income of rural residents</td>
</tr>
<tr>
<td>$i = 2$</td>
<td>Living expenditure</td>
<td>$y_{1t}$</td>
<td>Per capita wage income in t-th year</td>
</tr>
<tr>
<td>$i = 3$</td>
<td>Transportation and communication expenditure</td>
<td>$y_{2t}$</td>
<td>Net operating income per capita in t-th year</td>
</tr>
<tr>
<td>$i = 4$</td>
<td>Education, culture, and entertainment expenditure</td>
<td>$y_{3t}$</td>
<td>Net property income per capita in t-th year</td>
</tr>
<tr>
<td>$i = 5$</td>
<td>Healthcare expenditure</td>
<td>$y_{4t}$</td>
<td>Net income from transfers per capita in t-th year</td>
</tr>
<tr>
<td>$i = 7$</td>
<td>Daily necessities and service expenditure</td>
<td>$\epsilon_{it}$</td>
<td>Random disturbance term</td>
</tr>
</tbody>
</table>

3.2. Data Source and Description

This study mainly analyzes data on the disposable income and consumption of Chinese rural residents from 2000 to 2020. The data come from the *China Statistical Yearbook* (2001–
The data include disposable income, which belongs to four types: wage income, net operating income, net property income, and net transfer income. According to standards of the National Bureau of Statistics, consumption is divided into eight categories: food, tobacco, and alcohol; clothing; housing; daily necessities and services; transportation and communication; education, culture, and entertainment; medical care; other supplies and services.

Figure 1 shows the trend of change in disposable income and consumption expenditure among Chinese rural residents. From 2000 to 2020, disposable income and consumption expenditure increased progressively year by year, and the increasing trend was more significant after 2013. Furthermore, the gap between income and consumption is slowly expanding, indicating that there is room for further release of purchasing power.

Figure 2 shows that wage income and operating income account for a high proportion of disposable income, reaching as high as 80%, while the proportion of net transfer income and net property income is much smaller, less than 20%. Wage income and net transfer income rise rapidly, with the proportion continuing to rise, net operating income grows slowly, resulting in a declining proportion of disposable income, and net property income accounts for the smallest proportion, with slight changes. The structure of consumption expenditure by rural residents (Figure 3) shows that more money is spent on food, tobacco, and alcohol, and housing, with a relatively large proportion, reaching more than 55%, while other consumption expenditures are low. Although expenditures on food, tobacco, and alcohol account for a large proportion, they continuously decline. The proportion increases in expenditures on medical insurance, traffic communication, education, culture, and entertainment, and housing, while the proportion of other consumption expenditures changes insignificantly.
4. Results

4.1. Empirical Results

Table 3 shows that all the correlation coefficients of income items and consumption items were above 0.95, which meets the basic requirements for establishing a model. The four income variables were strictly exogenous variables in the improved ELES model [16]. There was no need to test model stationarity, and data were substituted into the new model for operation, with the results listed in Table 4.

According to Table 4, among 32 regression coefficients composed of 4 incomes and 8 expenditures, 23 passed the significance test and only 9 failed. The goodness of fit $R^2$ was also above 0.99, and the F test was significant at the 0.01 level. $R^2$ represents the goodness of fit test of the overall regression equation. The closer the value of $R^2$ is to 1, the better the degree of fit of the ELES model to the observed value. The F test is the significance test of the overall regression equation, that is, the significance test of all variables on the explained variables. The higher its significance, the stronger the explanatory ability of all variables in the model on the explained variables. It can be seen that the results of analysis of ELES model were very ideal.

<table>
<thead>
<tr>
<th>Income</th>
<th>Food, Tobacco, and Alcohol</th>
<th>Clothing</th>
<th>Housing</th>
<th>Daily Necessities and Services</th>
<th>Traffic Communication</th>
<th>Education, Culture, and Entertainment</th>
<th>Medical Care</th>
<th>Other Supplies and Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wage</td>
<td>0.99</td>
<td>0.99</td>
<td>0.99</td>
<td>0.99</td>
<td>0.99</td>
<td>0.97</td>
<td>0.99</td>
<td>0.99</td>
</tr>
<tr>
<td>Net operating income</td>
<td>0.99</td>
<td>0.99</td>
<td>0.99</td>
<td>0.99</td>
<td>0.99</td>
<td>0.97</td>
<td>0.99</td>
<td>0.99</td>
</tr>
<tr>
<td>Net property income</td>
<td>0.97</td>
<td>0.96</td>
<td>0.95</td>
<td>0.96</td>
<td>0.95</td>
<td>0.91</td>
<td>0.96</td>
<td>0.96</td>
</tr>
<tr>
<td>Net transfer income</td>
<td>0.98</td>
<td>0.97</td>
<td>0.99</td>
<td>0.98</td>
<td>0.99</td>
<td>0.99</td>
<td>0.99</td>
<td>0.97</td>
</tr>
</tbody>
</table>

Table 4. Regression results of consumption structure of Chinese rural residents on income structure (2000–2020).

<table>
<thead>
<tr>
<th>Income</th>
<th>Food, Tobacco, and Alcohol</th>
<th>Clothing</th>
<th>Housing</th>
<th>Daily Necessities and Services</th>
<th>Traffic Communication</th>
<th>Education, Culture, and Entertainment</th>
<th>Medical Care</th>
<th>Other Supplies and Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wage</td>
<td>0.39</td>
<td>−1.10 ***</td>
<td>0.12 ***</td>
<td>0.13</td>
<td>0.12 **</td>
<td>0.41 ***</td>
<td>0.34</td>
<td>0.26 ***</td>
</tr>
<tr>
<td></td>
<td>(0.58)</td>
<td>(−3.29)</td>
<td>(5.43)</td>
<td>(0.81)</td>
<td>(3.52)</td>
<td>(2.97)</td>
<td>(2.02)</td>
<td>(3.09)</td>
</tr>
<tr>
<td>Net operating income</td>
<td>0.91</td>
<td>1.19 ***</td>
<td>0.11 ***</td>
<td>0.14</td>
<td>0.07 **</td>
<td>−0.23 *</td>
<td>−0.15</td>
<td>−0.20 **</td>
</tr>
<tr>
<td></td>
<td>(1.62)</td>
<td>(4.24)</td>
<td>(7.65)</td>
<td>(1.03)</td>
<td>(2.20)</td>
<td>(−1.99)</td>
<td>(−1.03)</td>
<td>(−2.80)</td>
</tr>
<tr>
<td>Net property income</td>
<td>1.07</td>
<td>6.26 ***</td>
<td>−1.02 ***</td>
<td>−0.11</td>
<td>−0.91 ***</td>
<td>−0.77</td>
<td>−2.06 **</td>
<td>−0.45 ***</td>
</tr>
<tr>
<td></td>
<td>(0.30)</td>
<td>(3.52)</td>
<td>(−11.04)</td>
<td>(−0.13)</td>
<td>(−4.80)</td>
<td>(−1.04)</td>
<td>(−2.28)</td>
<td>(0.31)</td>
</tr>
<tr>
<td>Net transfer income</td>
<td>1.49 ***</td>
<td>0.75 ***</td>
<td>−0.07 ***</td>
<td>0.37 ***</td>
<td>−0.007</td>
<td>0.16 **</td>
<td>0.14</td>
<td>0.17 ***</td>
</tr>
<tr>
<td></td>
<td>(4.30)</td>
<td>(4.36)</td>
<td>(−7.91)</td>
<td>(4.44)</td>
<td>(−2.40)</td>
<td>(2.28)</td>
<td>(1.65)</td>
<td>(3.94)</td>
</tr>
<tr>
<td>R²</td>
<td>0.99</td>
<td>0.99</td>
<td>0.99</td>
<td>0.99</td>
<td>0.99</td>
<td>0.99</td>
<td>0.99</td>
<td>0.99</td>
</tr>
<tr>
<td>F</td>
<td>1794.41 ***</td>
<td>578.10 ***</td>
<td>7744.21 ***</td>
<td>1542.51 ***</td>
<td>2392.48 ***</td>
<td>896.92 ***</td>
<td>310.27 ***</td>
<td>1370.06 ***</td>
</tr>
</tbody>
</table>

Note: * Indicates significance at 0.10 level, ** significance at 0.05 level, and *** significance at 0.01 level. Data in parentheses are T values.
4.2. Impact of Rural Residents’ Income on Total Consumption Expenditure Conforms to the “Mental Accounting” Hypothesis

As shown by the data in the first column of Table 4, the total consumption expenditure was impacted by different sources of income at different levels. Specifically, net property income and net transfer income imposed obvious impacts on total consumption expenditure, indicating that the MPC of both was greater. This is consistent with the findings of Tao, Bing, and Huifang [22,23,26]. In contrast, the net operating income and wage income produced a weaker impact, signifying a low MPC of both. A possible reason is that both incomes are acquired through hard work by rural residents. Therefore, people are more psychologically inclined to “save money” on purchases. It is easy for residents to obtain net property income and net transfer income, so such money is usually spent “more generously”, which proves that the consumption characteristics of rural residents are in line with the “mental accounting” hypothesis.

4.3. Influence of Income Structure on Consumption Structure Conforms to the “Mental Accounting” Hypothesis

As shown in Figure 4, the influence is as follows.

![Network diagram for the influence of income structure on consumption structure. Note: “+++” means income regression coefficient > 1; “++” is 0.5 < income regression coefficient < 1; “+” represents 0 < income regression coefficient < 0.5; “- -” means income regression coefficient < -0.5; “-” indicates -1 < income regression coefficient < -0.5; “.” stands for -0.5 < income regression coefficient < 0.](attachment:image.png)

(1) Wage income is positively correlated with seven types of consumption (clothing; housing; daily necessities and services; transportation and communication; education, culture, and entertainment; medical care; other supplies and services) but negatively correlated with food, tobacco, and alcohol consumption. This implies that wages are the main source of income for consumption, and they extensively affect rural residents’ consumption. An increase in wage income is conducive to the overall promotion of rural residents’ consumption, but at the same time, the consumption of food, tobacco, and alcohol falls.
(2) Net operating income is positively correlated with four types of consumption (food, tobacco, and alcohol; clothing; housing; daily necessities and services) but negatively correlated with four other types (transportation and communication; medical care; education, culture, and entertainment; other supplies and services). In other words, most of the net operating income of rural residents from production and business activities is used for basic household consumption such as food, clothing, and housing.

(3) Net property income is positively correlated with two types of consumption (food, tobacco, and alcohol; medical care) but negatively correlated with the other six types (clothing; housing; daily necessities and services; transportation and communications; education, culture, entertainment, and services; other supplies and services). However, due to their low net property income, rural residents are more willing to use money as a supplement to their basic living and medical care consumption.

(4) Net transfer income is positively correlated with five types of consumption and negatively correlated with the other three types, which signifies that net transfer income affects the consumption structure in a broad way. Specifically, the net transfer income produces a positive impact on the consumption of food, tobacco, and alcohol, housing, transportation and communication, education, culture, and entertainment, and medical care, but a negative impact on clothing, daily necessities and services, and other supplies and services. Its characteristics, to a large extent, show that consumption is mainly limited to maintaining daily life and paying for necessary housing, education, and medical consumption. In other words, the net transfer income of rural residents is mainly used for guaranteed consumption, such as maintaining the minimum standard of living.

In particular, among the above influencing relationships, the most significant ones (that is, the ones for which the absolute value of the regression coefficient is greater than 1) are as follows: (1) Wage income significantly negatively affects the consumption of food, tobacco, and alcohol, which means that an increase in wage income will lead to a decrease in food, tobacco, and alcohol consumption. (2) Net operating income significantly positively impacts food, tobacco, and alcohol consumption, or an increase in net operating income will stimulate a substantial rise in food, tobacco, and alcohol consumption. (3) Net property income is greatly positively correlated with food, tobacco, and alcohol consumption expenditures. Furthermore, net property income imposes a significant negative impact on the consumption of education, culture, and entertainment. (4) The impact of net transfer income on consumption is special. The results show that although its impact on various consumption expenditures is small (the absolute value of regression coefficients of eight consumption expenditures does not exceed 1), it is positively correlated with five consumer expenditure items. Overall, net transfer income mainly guarantees consumption related to the basic living and medical care of rural residents, and its role is limited in stimulating consumption.

As shown in Figure 5, among the types of disposable income of rural residents, wage income and net transfer income maintain significant growth momentum. Net operating income will likely grow slowly, and its share in disposable income will continue to decline, while property income will experience moderate growth. Based on the above analysis, changes in rural residents’ income structure will affect their consumption expenditures in the following respects: (1) A rapid increase in wage income will be the main driving force for the overall promotion of consumption. (2) The fast growth in net transfer income will further strengthen the living and medical security of rural residents, which will release part of the purchasing power for other forms of consumption. However, due to the low proportion of income, the effect of promoting consumption is limited. (3) The gradual slowdown in the growth of net operating income relieves the growth in consumption expenditures on food, tobacco, and alcohol. (4) The slow growth of net property income will not produce a significant impact on rural residents’ consumption.
Based on the current trend of changes in the income structure of rural residents, it can be predicted that there is much room for stimulating rural residents’ consumption in the future. Expenditure and its proportion will increase significantly. Expenditure on food, tobacco, and alcohol will slow down, and more money will be spent on healthcare, transportation and communication, and housing, forming an increasing proportion of total expenditure.

5. Conclusions and Policy Implications

5.1. Conclusions

This study applied an improved ELES model to analyze the impact of the income structure of Chinese rural residents on their consumption structure and concluded the following: (1) The consumption behaviors of rural residents conform to the “mental accounting” hypothesis; that is, different incomes significantly and diversely affect consumption expenditures. Wage income is mainly used for consumption other than food, tobacco, and alcohol, net operating income is mainly spent on food, tobacco, and alcohol consumption, net property income is mainly used as a supplement to food, tobacco, and alcohol consumption, and net transfer income is mainly applied to basic living and medical care and other guaranteed consumption. (2) Net property income and net transfer income account for a small proportion, but their MPC is relatively large. In theory, an increase in the net property income and net transfer income is conducive to stimulating consumption, but because they account for a relatively low proportion, their role in stimulating consumption has not been fully exerted. Net operating income and wage income occupy a large proportion of disposable income, and they are major income sources for consumption, but MPC is low. (3) Based on the current trend of changes in the income structure of rural residents, it can be predicted that there is much room for stimulating rural residents’ consumption in the future. Expenditure and its proportion will increase significantly. Expenditure on food, tobacco, and alcohol will slow down, and more money will be spent on healthcare, transportation and communication, and housing, forming an increasing proportion of total expenditure.

5.2. Policy Implications

This study concluded that rural residents have huge consumption potential, but scientific and effective policy measures should be adopted to boost the income level of rural residents in a targeted manner, optimize the income structure, and improve the rural consumption environment, so as to comprehensively promote rural consumption and realize the sustainable development of the social economy. Specifically, (1) these policy measures will raise the income level of rural residents in a holistic way and further improve rural residents’ consumption ability. Increases in the income level are the basis for promoting rural consumption, so localities should encourage residents to develop high-quality agricultural products according to local conditions. Diverse social resources should be provided in an orderly way to encourage participation in the development of rural industries and encourage rural residents to work near their homes. These policies should support characteristic industries and advocate other policy measures to increase the income levels of rural residents in many ways. At the same time, they should ensure that low-income groups also enjoy the benefits of the policies. In addition, (2) these policy measures should
optimize the income structure of rural residents (due to China’s system, the efficiency of the government in terms of macro-control is relatively high), continue to boost wage income and net operating income, and focus on raising the proportion of net property income and net transfer income, so as to more effectively expand consumption. According to the results of this research, rural residents tend to purchase more with net property income and net transfer income. Therefore, measures should be taken to dramatically enhance net property income and net transfer income to effectively stimulate rural residents’ consumption. Through the reform of the rural land property rights system (In China, the ownership of rural land belongs to village collectives, and rural residents have the right to contract and operate. However, due to the small scale of land management and low production efficiency, rural residents cannot give full play to the value of land resources. Many rural residents transfer their land management rights to large growers or agricultural enterprises, and rural residents can rent the land.), more work will be undertaken to give full play to the resource functions of rural homesteads and contracted land and effectively increase the income from land (homestead) leasing and equity participation of rural residents. This reform will also further expand the proportion of rural residents’ premium land allocation in the land-acquisition process, guarantee their property rights, and effectively raise their net property income. These measures will also deepen the reform of transfer payment policies, break through the limitations of having few sources of net transfer income in rural areas and excessive consumption restrictions, further broaden sources of net transfer income and consumption channels, advocate development transfer payments, reasonably increase guaranteed transfer payments, alleviate the economic burden of rural residents, fully release the purchasing power of rural residents, and prevent rural residents from cultivating lazy thinking of “waiting for and dependence on others”. Finally, (3) these policy measures will accurately reflect the trend of changes in income, take advantage of this situation, and make good preparations in advance for the transformation of consumption. Although a trend of growth is found in the four types of incomes, wage income and net transfer income increase the most significantly, and consumption will therefore be dramatically influenced. With the constant growth in wage income and net transfer income, rural residents shall improve their consumption behaviors. As a response to changes in trends in consumption among rural residents, this study recommends that relevant policies should be issued to further improve rural medical conditions, increase rural infrastructure investment, and perfect rural 4G network coverage. In addition, continuous efforts should be made to accelerate the promotion of rural 5G networks and introduce market resources to ameliorate rural conditions for education, culture, entertainment, and living, which aim to make the transformation and upgrading of consumption more convenient in rural areas.

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