How Does the Composition of Asset Portfolios Affect Household Consumption: Evidence from China Based on Micro Data

Hongyun Han * and Fan Si

China Academy for Rural Development, The School of Public Affairs, Zhejiang University, Hangzhou 310027, China; 11620063@zju.edu.cn
* Correspondence: hongyunhan@zju.edu.cn

Received: 25 February 2020; Accepted: 30 March 2020; Published: 7 April 2020

Abstract: To pursue sustainable and balanced economic development, it is urgent to transform the economic development models from investment-driven to consumption-led. Factors underlying the consumption pattern of households in China, especially the rising wealth and its impact, deserve special attention from both policy makers and academic researchers. This paper aims to investigate how asset portfolios, consisting of housing asset, financial asset, production asset, durable asset, and vehicle asset affect consumption behavior based on household panel data. It is proved that the composition of asset portfolios significantly affects consumption of households. Asset levels and asset prices have positive influences on household consumption. Furthermore, various household assets have different impacts on household consumption patterns, divided into living type, developing type, and enjoying type of consumption, especially there is a larger wealth effect on developing type of consumption. More importantly, it shows a pattern of urban and rural dual economic structure. The disparity is even higher from a wealth perspective. The availability to wealth is of great importance. Therefore, the findings suggest inclusive financial reforms to create conditions for promoting property income and facilitating financial capacity of households, which is necessary for policy formation of Chinese economic transition.

Keywords: asset level; inclusive financial system; financial innovation; CHFS; sustainable development goals; household consumption

1. Introduction

Since the past 40 years of Reform and Opening-up, China has made tremendous achievements in economy and social development, with a continuing GDP growth rate around approximate 10%. The number of rural people living in poverty dropped from 770 million in 1978 to 30.46 million at the end of 2017, and the incidence of poverty dropped from 97.5% to 3.1% [1]. Although the Chinese government has spared no effort to eliminate poverty, many households still experience extreme poverty [2]. Besides, economic growth in the price of the rising income inequality, widening urban-rural disparity, and environmental pollution [3–6] has raised concerns on the sustainability of government-led, investment-driven growth pattern. The World Bank shows a declining trend that the proportion of household and final consumption expenditure in GDP dropped from 51.1% in 1989 to the lowest level of 35.4% in 2010, and rebounded to 38.7% in 2017. Compared to other developed countries, for example, a level of 68.4% in United States in 2017, 66.1% in United Kingdom, 55.7% in European Union, China’s household consumption in GDP is at a relatively low level.

According to the 2030 Agenda for Sustainable Development, adopted by the United Nations (UN) members in September 2015, China failed to achieve the Sustainable Development Goals (SDGs) due
to the inequity and environmental degradation [7–9]. To pursue sustainable and balanced economic development, it is urgent to transform the economic development models from investment-oriented to consumer-oriented. A plan has been introduced recently to improve the system and mechanism for promoting consumption (2018–2020) by the General Office of the State Council. The reasons for China's insufficient consumption has drawn lots of attention from researchers. It is believed that imperfect financial markets [10,11], cultural, customs and habits [12,13], and growing unbalanced sex ratios [14] could partially explain the insufficient consumption of households. However, the aspect of household wealth is rarely considered.

As a source of cash for consumption [15], it is believed that consumption might be differently affected by various types of wealth due to uncertain expectation of wealth differences in liquidity, different motives associated with owning an asset, expected permanency of changes, and psychological factors named as “mental account” [16]. Asset distribution is much more unequal than income distribution [17]. In the presence of capital market imperfections, individuals with low endowments may be stuck in a poverty trap. Whenever the policy objective is to level the playing field, wealth redistribution may be an effective alternative to income redistribution, particularly if a minimum endowment reinforces the sense of responsibility of individuals and their attitude to pursue more efficient behaviors [18]. The labor component of the wealth portfolio grows at a slower rate than average wealth, therefore poor agents need to accumulate assets at a faster rate in order to attain their desired rate of growth of consumption [19]. The incompleteness of formal financial markets and the ubiquity of credit and liquidity constraints in less developed economies have provoked a number of inquiries into households' capacity to smooth consumption in the presence of borrowing constraints [20], the lack of assets might further prevent households from taking risky actions that could imply a future increase in household income [21].

The effects of asset building on ability to meet future consumption needs have been the focus [17,22], and some researchers further distinguish between the wealth effects of stock and housing wealth [23–25]. Mixed conclusions have been drawn in terms of impacts on consumption for different developed countries. Moreover, previous work mainly focuses on the United States and other developed OECD countries [26]. Relatively little is known about how people consume when faced with financial deprivation [27]. As a response to the rising wealth inequality in China over the last couple of decades [3–6], a "New Rural Campaign" to promote property income had been proposed at the Seventeenth Communist Party National People’s Congress in 2007 for the first time to narrow the rising income gap between rural and urban households [28]. The experience of developed countries proves that when the per capita GDP breaks through $2000, property income, including bank deposits, valuable securities and other movable properties and houses, and real estate such as land will gradually emerge as a new source of income for all residents [29]. Although the proportion of property income to total income is still relatively low, the gaps of the contribution of property income to the total income between rural and urban areas is expanding [5,30,31], the uneven process of financial development and other socio-economic structures might entail adverse impacts on economic equality in China [32], which in turn will inevitably aggravate consumption inadequacy.

In the context of a substantial wealth accumulation after the reform policy, what are the effects of assets on consumption patterns? Due to the lack of data regarding household assets, previous research mainly focuses on housing wealth and financial wealth in developed countries, how and to what extents different assets will affect household consumption in developing China have not attracted enough attention. This paper tries to consider various types of assets between urban and rural households. Understanding the influence of asset portfolios on consumption is of great interest for policy makers and researchers trying to understand household consumption and saving behavior. To examine the impacts of assets on non-durable consumption expenditures for Chinese households, this paper exploits a 3 period panel data set with information on wealth, consumption, income, and households’ characteristics in 2013, 2015, and 2017. By using micro data, we will investigate the link between various assets and consumption for subgroups of the population. Specifically, we can detail
2. The Model and Data

2.1. The Model

The level of money, goods, and services received as income is an adequate measure of household welfare [17]. Income fails to represent the full amount of available resources, assets, and liabilities that are fundamental to smoothing out consumption when income is volatile [18]. Based on the model of Bewley [33,34], we simply feature the dynamics of an agent’s behavior as follows:

\[ w_{t+1} = (1 + r)w_t + y_t - c_t, \quad w_{t+1} \geq w, \]

where \( c_t \) denotes consumption at age \( t \); \( w_t \) is the asset stock; \( y_t \) is the realization of the stochastic labor earnings; and \( r \) is the return to the single risk-free asset. In each period \( t \), the household allocates total available resources between current consumption and next period’s assets, subject to the borrowing limit \( w \). Individual consumption is affected by age, current asset stock, expected asset value, labor income, and the interest rate.

Domestic micro-studies focus on the level of wealth analysis based on limited household surveyed data. Huang and Tu [35] first used household survey data (China Health and Nutrition Survey, CHNS) to investigate the relationship between housing wealth and consumption. They proved a significant positive elasticity of 0.08–0.12 associated with housing asset on durable consumption without consideration of financial wealth effect and durable consumption. Zhang and Cao [36] investigated the impact of different types of assets on both durable consumption and non-durable consumption using cross-sectional data from China Household Finance Survey (CHFS). Li and Chen [11] used Chinese urban household surveyed data of the National Bureau of Statistics in 2009 to investigate the effect of asset on household consumption. However, cross-sectional data has some limitations, such as omitted variables. Compared to CFPS, CHFS provides more detailed information on household wealth, and therefore is more suitable for us to analyze how asset portfolios affect household consumption. By constructing a 3 periods micro panel data, we estimate how consumption behavior responds to asset levels and asset price changes. Specifically, we analyze the impact of housing asset, financial asset, production asset, vehicle asset, and durable asset on consumption. The model is specified as follows:

\[ C_{it} = \alpha + \beta' W_{it} + \gamma' Z_{it} + \eta_i + \lambda_t + \epsilon_{it}, \]

where \( C_{it} \) is consumption expenditure of household \( i \) at time \( t \); \( \eta_i \) and \( \lambda_t \) are individual and year effects, respectively; \( W_{it} \) represents household net wealth measured by present market value of assets with debt deducted; \( Z_{it} \) are the control variables, and \( \epsilon_{it} \) is a residual term.

Further, we disaggregate \( W_{it} \) into financial asset, housing asset, production asset, vehicle asset, and durable asset on consumption. The model is specified as follows:

\[ \Delta \text{asset}_t = \text{asset}_t - \text{asset}_{t-2}, \]

the impact of housing asset, financial asset, production asset, vehicle asset, and durable asset on consumption. The study proceeds as follows. Section 2 outlines the model and describes the data. Section 3 presents the empirical results and analysis. Section 4 sums up and concludes.
where $\Delta \text{asset}_t$ comes from two parts: One is household investment from household savings, the other is from asset price movements. We use the difference between total income (i.e., labor income, production income, transfer income, and investment income) and total consumption (i.e., expenditures on both durables and non-durables) to represent household savings. Thus, we roughly attribute average prices of assets to represent asset price changes:

$$\Delta p_{it} = \Delta \text{asset}_{it} - \text{savings}_{it},$$  \hfill (4)

We first present our regression of asset levels, which is based on Equation (2). Then, we investigate how changes on asset price affect household consumption. More precisely, we estimate:

$$C_{it} = \beta_0 + \beta_1 \Delta p_{it} + \beta_2 W_{it} + \gamma' Z_{it} + \eta_i + \lambda_t + \epsilon_{it},$$  \hfill (5)

where $\Delta p_{it}$ represents changes in asset price.

One specification issue is whether to use expenditure on total consumption or non-durable consumption. Most of the existing empirical studies focus on non-durable consumption, considering that consumption is assumed to occur at the same time as expenditure, while services from durable goods are consumed largely after the time period when the expenditure occurred and the exact flow of services is difficult to measure. Therefore, this paper focuses on non-durable consumption. Further, this paper will estimate whether various assets have impact on consumption patterns. According to the level of consumption to meet consumers’ needs, it can be divided into living type, developing type, and enjoying type. Living type of consumption is mainly to meet consumers’ physiological needs, such as food, clothes, energy use (water, electricity, fuel, heating) and daily necessities (detergent, soap, toothpaste, toothbrushes, and other toiletries). Developing type of consumption refers to consumers pursuing better development, such as education and training, medical, transportation and communication, and household services (nannies, hourly workers, drivers, and other household services). Enjoying type of consumption refers to leisure and entertainment (newspapers, magazines, CD’s, movie and show tickets, night clubs, cybercafe, and other entertainment related activities), tourism, and luxury goods consumption (designer handbags, calligraphy/art, etc.).

Another specification issue is whether consumption functions should be estimated in levels or logarithms. We estimate Equations (2) and (5) in levels because many negative values of changes in asset price make logarithm transformation no longer applicable. Although there exist some approaches dealing with zero or negative values in log transformations [38,39], the interpretation becomes murky when we perform regression on transformed data. Therefore, the results provided in this paper are interpreted as the marginal propensities to consume (MPCs), which measure by how many Chinese yuan consumption increases if wealth increases by one Chinese yuan.

### 2.2. The Data

The micro dataset used in this paper is China Household Finance Survey (CHFS) [40]. It has been run on an annual basis since 2011, and the sample has been expended every other year. There were 8438 households in 2011, 28,141 households in 2013, 37,289 households in 2015, 40,011 households in 2017, respectively.

The survey consists of four parts: Demographics, assets and liabilities, insurance and social security, expenditure and income. Information of labor income and personal and family characteristics are acquired from individual questioning. Personal characteristics of household head are gender, age, educational year, marriage status, and political affiliation. Family characteristics are household size, ratio of people aged under 23, and ratio of people aged over 55. Chinese traditional division of population of working ages is between 15 and 64 years old. Females’ working ages are between 16 and 54 years old. However, given the current situation in China, students are generally over 15, and the student groups aged under 24 are more likely to be less productive before they graduate. As a result, we choose 23 years old to be the boundary.
Apart from the control variables above-mentioned, total income includes labor income, agricultural and business production income, and transfer income. Transfer income mainly comes from non-family members (during spring festival, birthday, weddings, and funerals, etc.), government subsidies (such as welfare grant, One-Child incentives, five guarantee grants, pensions, relief funds, forestation grants, etc.), and insurance subsidies. Property income comes from all kinds of asset profits. Because of the possibility that property income is correlated with wealth variables, we exclude it from current income.

The indicators of household consumption and wealth are drawn from a household survey, which was asked at household level. One advantage of using CHFS is that it provides detailed information on household wealth, especially on rural households, which asked about livestock for agricultural production, all kinds of machinery, and various types of land asset. Besides, financial wealth has been divided into specific categories, i.e., stocks, bonds, funds, financial products, non-RMB, precious metal and current deposit, fixed deposit, cash, and loan. Special attention should be given to the definition of household wealth, which is data gathered at the time, usually from July to August, while consumption and income data are measured at former year. To be specific, wealth variable at $t$ year is unavailable, and in the same period dataset, we actually get consumption and income at $t$ year, but wealth data at $t+1$ year. Simply use wealth data and consumption in the same year dataset might have endogenous issue. Therefore, we use wealth data at former period dataset ($W_{t-1}$).

The imbalanced urban-rural development is one of the most important and realistic problems in China. Therefore, there is a need to investigate between rural and urban households. Total consumption and its gap between rural and urban households are increasing over time. Table 1 shows detailed information for rural households and urban households in 3 years respectively. As have suggested above, this paper divide consumption into basic living type, developing type, and enjoy type of consumption. In general, living type of consumption still makes up the biggest proportion of consumption and is around 63% for both rural households and urban households, and developing type of consumption makes up higher for rural households, but enjoying type of consumption makes up higher for urban households. The level of consumption shows that urban households spend around twice as much as rural ones, and the gap is expanding. For living type of consumption, the gap has risen from 1.75 times in 2010 to 1.84 times in 2014. For developing type of consumption, the gap has widened from 1.36 to 1.47. The biggest gap is enjoying type of consumption including spending on entertainment, travelling, and luxury goods, which has widened from 3.20 to 6.54 times. The data is in line with China’s reality that, with the development of economic growth and increasing of income, people are pursuing better living standards. These years have witnessed a tourism boom in China, and there is an increasing trend of people’s enthusiasm in travelling.

### Table 1. Means and Proportions of Wealth and Consumption (yuan).

|                | Rural Household 2010 | Rural Household 2012 | Rural Household 2014 | Urban Household 2010 | Urban Household 2012 | Urban Household 2014 |
|----------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
|                | mean                 | %                    | mean                 | %                    | mean                 | %                    |
| total income   | 24,480               | 29,472               | 30,194               | 40,586               | 49,925               | 55,127               |
| living type    | 14,390               | 19,161               | 18,677               | 25,185               | 31,885               | 34,459               |
| developing type| 9159                 | 9631                 | 10,783               | 12,423               | 14,331               | 15,870               |
| enjoying type | 930                  | 680                  | 734                  | 2,43                 | 7,34                 | 7,43                 |
| total asset    | 25,2200              | 242,366              | 304,157              | 752,332              | 854,410              | 1,090,565            |
| housing asset  | 157,934              | 124,432              | 184,800              | 557,441              | 741,300              | 792,562              |
| financial asset| 25,408               | 23,475               | 26,839               | 92,722               | 98,747               | 101,487              |
| vehicle asset  | 6882                 | 7643                 | 13,557               | 21,933               | 24,251               | 36,223               |
| durable asset  | 5566                 | 7516                 | 9776                 | 18,790               | 21,752               | 28,248               |
| total income   | 17,254               | 29,897               | 30,884               | 55,520               | 76,338               | 82,273               |
| number of observations | 3244               | 8932                 | 11,654               | 5194                 | 19,209               | 25,635               |
When it comes to the level of wealth, there is a remarkable difference between rural and urban households. Urban households’ total wealth was 2.95 times greater than that of rural households in 2010, and the gap widened to 4.28 times in 2014. The gap between urban and rural households was widest on housing asset and financial asset. The gap of housing asset widened from 3.6 times to 5.1 times, and the gap of financial asset widened from 3.65 times to 6.36 times. Production asset has the smallest gap, which is around 1.5 times. The pattern of asset distribution is closely related to the pattern of income distribution, in that those with low incomes tend to have few assets and those with high incomes tend to have many assets.

As for the wealth proportion, computed by the ratio of average asset composition to total asset, housing wealth is the most important family wealth, and the proportion for urban households is larger than that of rural households. It was 74.10% in 2010, 73.82% in 2012, and 72.67% in 2014, respectively. Financial wealth makes up the second largest proportion of total assets for urban households, which is around 12.52% for urban households and 9.53% for rural households. The possibility to use housing assets as a supplementary source for welfare is also becoming increasingly relevant for post-socialist countries, where the pressures of an aging population are considerable and where public welfare budgets have been substantially reduced during the transitional period. Housing in these countries seems to represent a huge potential because home-ownership rates are very high in comparison to most Western countries [41].

Production asset consists of land, agricultural, and business assets. It is the second largest component of rural family wealth (22.37% in 2010, 31.89% in 2012, 22.74% in 2014). According to the definition of the database, vehicle asset is the present value of cars, trucks, tricycles, battery carts, and bicycles owned by a family, which excludes transport machine of business. The proportion of vehicle asset is around 3.72% for rural households and 3.03% for urban households. Initially poorer agents pursue a defensive portfolio strategy that is characterized by both income smoothing and by what we term asset smoothing. Despite their cheap labor-based competitive advantage in using productive assets, poor agents smooth income by accumulating a portfolio intensive in the low-return buffer asset. In contrast to wealthier agents, they respond to shocks by destabilizing consumption in order to defend or smooth their asset base [20].

Durable asset includes durable goods (i.e., camera, television, refrigerator, washing machine, mobile phone, computer, furniture, instrument, microwave oven, etc.) and luxury goods (i.e., antiques, precious metal, artwork, high-end handbags, designer clothes, etc.). Durable asset only makes up a small proportion for both rural households and urban households.

The importance of wealth as an indicator of well-being status in society has been proved all over the world. More importantly, wealth was more unevenly distributed than income [15,42]. This happened in China. The gap of property distribution of Chinese residents shows a trend of rapid and obvious expansion [5,30]. The level and growth rate of asset of rural residents are much lower than that of urban residents with respect to both net worth and financial assets, as well as the rate of property accumulation (see Table 1). China consistently exhibits higher rates of income inequality than most developed nations, arguably due to the nation’s relatively enhanced support of free immature property market.

Barriers and constraints that limit poor households’ access to the assets they own and that limit the returns on such assets include lack of education, lack of formal employment, lack of access to financial services, as well as gender-biased inheritance and strict traditional laws [26]. Some empirical analyses, mainly on developed countries, have been conducted to figure out possible impacts of different assets on household consumption. Different from [43] and Davis and Palumbo [44], Lettau and Ludvigson [45] find that a surprisingly small fraction of the variation in household net worth is related to variation in aggregate consumer spending in the U.S., but no effect of transitory wealth in the stock market component of wealth. Case, Quigley, and Shiller [23] report a higher coefficient estimate for housing wealth than for stock market wealth in U.S. and OECD countries, while Dvornak and Kohler [45] stress that in Australia, both housing wealth and stock wealth exert significant long-run
impacts on consumption, and the marginal propensity to consume out of stock market wealth is larger than that of housing wealth. Ludwig and Sløk [25] find a long-run relationship between stock market prices and consumption for 16 OECD countries; however, it is unclear with respect to house prices. Slacalek [46] finds the effect of housing wealth is greater than that of financial wealth for the US and the UK. De Bonis and Silvestrini [47] find that the propensity to consume from net financial wealth is larger than from real wealth for 11 OECD countries. Low income fails to identify those who are unable to participate in their societies due to lack of resources [48]. To what extent can asset accumulation affect consumption in China? An empirical analysis will be conducted to carefully examine the impact of asset portfolios on the pattern of household consumption, which provides a basis for policy formation to facilitate economic transformation from investment-driven to consumption-led.

3. Regression Result Analysis

3.1. Results of Wealth Effects

Firstly, specification (1) and (2) in Table 2 show the result of pooled ordinary least regressions. There is a significant marginal propensity to consume (MPC) for total wealth of 0.002 and income of 0.074. When it comes to wealth component (i.e., housing asset, financial asset, production asset, vehicle asset, and durable asset) in specification (2), it indicates that various households’ wealth could differently influence the behavior of consumption. For the fixed-effects estimate, we find a negative and insignificant MPC for total asset of -0.001 in specification (3) without controlling price changes. In specification (4), we include price changes of household asset (Δp) to find a significant effect of 0.007. Considering households with different levels of assets may respond differently to price changes (Δp), we include both asset level and Δp in specification (5). The coefficient of both asset levels and price changes become significant. Household consumption is sensitive to price changes in consideration of the benefits from asset investment. It is suggested that consumption behavior depends not only on income, but also on asset as well as wealth prices.

Table 2. Estimation results of wealth effects.

|                      | (1)   | (2)   | (3)   | (4)   | (5)   | (6)   |
|----------------------|-------|-------|-------|-------|-------|-------|
| asset(t − 1)         | 0.002 * | -0.001 | 0.015 *** | 0.007 *** | 0.012 *** |
|                      | (0.001) | (0.001) | (0.004) | (0.001) | (0.002) |
| Δp                   |       |       |       |       |       |       |
|                      | 0.007 *** | 0.012 *** | 0.012 *** |       |       |       |
|                      | (0.001) | (0.002) | (0.002) |       |       |       |
| housing asset(t − 1) | 0.041 *** | 0.016 * | 0.015 *** | 0.093 *** | 0.023 * |
|                      | (0.006) | (0.007) | (0.004) | (0.018) | (0.011) |
| financial asset(t − 1)| 0.006 * | 0.015 *** | 0.026 *** |       |       |       |
|                      | (0.003) | (0.004) | (0.006) |       |       |       |
| production asset(t − 1)| 0.093 *** |       |       |       |       |       |
|                      | (0.018) |       |       |       |       |       |
| vehicle asset(t − 1) | 0.021 |       |       |       |       |       |
|                      | (0.011) |       |       |       |       |       |
| durable asset(t − 1) | 0.061 *** | 0.020 ** | 0.083 *** | 0.123 *** | 0.123 *** |
|                      | (0.011) | (0.008) | (0.014) | (0.026) | (0.026) |
| income               | 0.074 *** | 0.061 *** | 0.020 ** | 0.083 *** | 0.123 *** |
|                      | (0.012) | (0.011) | (0.008) | (0.014) | (0.026) |
| age                  | -0.013 *** | -0.011 *** | -0.003 | -0.010 | -0.008 | -0.008 |
Table 2. Cont.

|                           | (1)     | (2)     | (3)     | (4)     | (5)     | (6)     |
|---------------------------|---------|---------|---------|---------|---------|---------|
| gender                    | 0.335***| 0.315***| 0.086   | 0.139   | 0.248   | 0.260   |
|                           | (0.068) | (0.065) | (0.573) | (0.627) | (0.544) | (0.541) |
| educational year          | 0.150***| 0.112***| 0.155   | 0.133   | 0.124   | 0.126   |
|                           | (0.011) | (0.010) | (0.098) | (0.100) | (0.091) | (0.090) |
| _Imarriage_2              | 0.429   | *       | 0.317   | 0.095   | 0.863   | 1.137   |
|                           | (0.174) | (0.172) | (0.280) | (0.253) | (0.223) | (0.222) |
| _Imarriage_3              | 0.179   | 0.170   | 0.095   | 0.863   | 1.137   | 1.083   |
|                           | (0.370) | (0.361) | (0.679) | (0.651) | (0.807) | (0.784) |
| _Imarriage_4              | −0.442  | −0.737 **| −0.030  | −0.067  | −0.247  | −0.267  |
|                           | (0.320) | (0.346) | (0.621) | (0.576) | (0.517) | (0.518) |
| _Imarriage_5              | −0.653 ***| −0.662 ***| −0.495  | −0.466  | −0.463  | −0.487  |
|                           | (0.197) | (0.196) | (0.720) | (0.617) | (0.545) | (0.544) |
| _Imarriage_6              | 0.184   | 0.123   | 0.074   | −0.012  | −0.218  | −0.215  |
| _Iparty_2                 | −0.267 ***| −0.198 **| 0.160   | 0.174   | 0.180   | 0.178   |
|                           | (0.075) | (0.072) | (0.188) | (0.172) | (0.159) | (0.159) |
| _Iparty_3                 | 0.265   | 0.436   | 0.635   | 1.027   | 0.701   | 0.725   |
|                           | (0.677) | (0.631) | (0.493) | (0.446) | (0.370) | (0.371) |
| _Iparty_4                 | −0.446 ***| −0.324 ***| 0.199   | 0.285   | 0.119   | 0.129   |
|                           | (0.085) | (0.082) | (0.346) | (0.316) | (0.287) | (0.286) |
| ratio of people aged under 23 | 1.046 ***| 0.964 ***| 0.675   | 0.579   | 0.354   | 0.361   |
|                           | (0.176) | (0.168) | (0.681) | (0.637) | (0.665) | (0.658) |
| ratio of people aged over 55 | −0.643 ***| −0.600 ***| −2.169 ***| −1.614 **| −1.295 * | −1.277 * |
|                           | (0.155) | (0.151) | (0.595) | (0.546) | (0.562) | (0.538) |
| family size               | 0.182   | 0.176 ***| 0.124   | 0.086   | 0.070   | 0.070   |
|                           | (0.021) | (0.021) | (0.088) | (0.082) | (0.080) | (0.080) |
| rural                     | −1.174 ***| −1.054 ***| −0.271  | −0.170  | −0.048  | −0.043  |
|                           | (0.062) | (0.052) | (0.199) | (0.198) | (0.209) | (0.212) |
| _cons                     | 1.856 ***| 1.822 ***| 1.996   | 2.228   | 1.258   | 1.233   |
|                           | (0.269) | (0.260) | (1.650) | (1.915) | (1.569) | (1.557) |
| year fixed effect         | No      | No      | Yes     | Yes     | Yes     | Yes     |
| observations              | 27,435  | 27,435  | 27,435  | 27,435  | 27,435  | 27,435  |
| R²                        | 0.183   | 0.241   | 0.018   | 0.108   | 0.157   | 0.159   |

Note: *, **, and *** indicate significant at the 5%, 1%, and 0.1% level, respectively. The standard errors shown in parentheses are corrected for heteroscedasticity and first order serial correlation. Dependent variables are non-durable consumption in Table 1. Income, consumption, and asset variables are adjusted by regional consumer price index (CPI) released by National Bureau of Statistics of China. Control variables include personal characteristics of household head (i.e., gender, age, educational year, marriage status, and political affiliation) and family characteristics (i.e., household size, ratio of people aged under 23, and ratio of people aged over 55).

Further, we analyze to what extent of consumption can be explained by various asset components in specification (6). It shows positive and significant MPCs associated with various household wealth. Although durable asset and vehicle asset makes up a small amount of total household wealth, it shows a larger asset effect for these two kinds of asset. There is a potential that the rising vehicle asset and durable asset might promote expenditures on services and goods associated with entertainment, which can be reflected in Table 3. When investigating consumption patterns, it shows that vehicle asset contribute most to developing type of consumption, and durable asset contribute most to developing type and enjoying type of consumption.
Table 3. Estimation results between rural households and urban households.

|                          | (1)       | (2)       | (3)       | (4)       | (5)       | (6)       |
|--------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Panel A: Rural Households|           |           |           |           |           |           |
| asset \((t - 1)\)        | 0.009 **  | 0.016 **  | 0.001 **  | 0.009 *** | 0.012 *** | 0.000 *** |
| (0.003)                  | (0.005)   | (0.000)   | (0.003)   | (0.004)   | (0.000)   | (0.000)   |
| \(\Delta p\)            | 0.008 *** | 0.012 **  | 0.000 *** | 0.008 *** | 0.012 *** | 0.000 *** |
| (0.002)                  | (0.004)   | (0.000)   | (0.002)   | (0.004)   | (0.000)   | (0.000)   |
| housing asset \((t - 1)\)| 0.009 *** | 0.015 **  | 0.001 *** | 0.009 *** | 0.015 **  | 0.001 *** |
| (0.002)                  | (0.005)   | (0.000)   | (0.002)   | (0.005)   | (0.000)   | (0.000)   |
| financial asset \((t - 1)\)| 0.011 *** | 0.016 **  | 0.000      | 0.011 *** | 0.016 **  | 0.000      |
| (0.003)                  | (0.006)   | (0.000)   | (0.003)   | (0.006)   | (0.000)   | (0.000)   |
| production asset \((t - 1)\)| 0.011 *** | 0.016 **  | 0.000      | 0.011 *** | 0.016 **  | 0.000      |
| (0.003)                  | (0.006)   | (0.000)   | (0.003)   | (0.006)   | (0.000)   | (0.000)   |
| vehicle asset \((t - 1)\)| 0.011     | 0.026 **  | 0.001      | 0.011     | 0.026 **  | 0.001      |
| (0.008)                  | (0.008)   | (0.000)   | (0.008)   | (0.008)   | (0.000)   | (0.000)   |
| durable asset \((t - 1)\)| -0.042    | -0.046    | -0.008     | -0.042    | -0.046    | -0.008     |
| (0.048)                  | (0.056)   | (0.007)   | (0.048)   | (0.056)   | (0.007)   | (0.007)   |
| income                   | 0.084 *** | 0.116 *** | 0.006 *** | 0.084 *** | 0.116 *** | 0.006 *** |
| (0.017)                  | (0.030)   | (0.001)   | (0.018)   | (0.031)   | (0.001)   | (0.001)   |
| observations             | 9966      | 9966      | 9966      | 9966      | 9966      | 9966      |

| Panel B: Urban Households|           |           |           |           |           |           |
| asset \((t - 1)\)        | 0.003 *   | 0.007 *   | 0.002 *** | 0.003 *** | 0.006 **  | 0.002 *** |
| (0.002)                  | (0.003)   | (0.001)   | (0.002)   | (0.003)   | (0.001)   | (0.001)   |
| \(\Delta p\)            | 0.003 *** | 0.005 **  | 0.002 *** | 0.003 *** | 0.006 **  | 0.002 *** |
| (0.001)                  | (0.002)   | (0.000)   | (0.001)   | (0.002)   | (0.000)   | (0.000)   |
| housing asset \((t - 1)\)| 0.002     | 0.006     | 0.002 **  | 0.002     | 0.006     | 0.002 **  |
| (0.002)                  | (0.004)   | (0.001)   | (0.002)   | (0.004)   | (0.001)   | (0.001)   |
| financial asset \((t - 1)\)| 0.008 *   | 0.005     | 0.002 *   | 0.008 *   | 0.005     | 0.002 *   |
| (0.004)                  | (0.004)   | (0.001)   | (0.004)   | (0.004)   | (0.001)   | (0.001)   |
| production asset \((t - 1)\)| 0.001     | 0.010 **  | 0.002 **  | 0.001     | 0.010 **  | 0.002 **  |
| (0.002)                  | (0.003)   | (0.001)   | (0.002)   | (0.003)   | (0.001)   | (0.001)   |
| vehicle asset \((t - 1)\)| 0.007     | 0.017     | -0.002    | 0.007     | 0.017     | -0.002    |
| (0.007)                  | (0.009)   | (0.003)   | (0.007)   | (0.009)   | (0.003)   | (0.003)   |
| durable asset \((t - 1)\)| 0.008 **  | 0.009 *   | 0.009 **  | 0.008 **  | 0.009 *   | 0.009 **  |
| (0.003)                  | (0.004)   | (0.003)   | (0.003)   | (0.004)   | (0.003)   | (0.003)   |
| income                   | 0.035 *** | 0.054 **  | 0.018 *** | 0.035 *** | 0.055 **  | 0.018 *** |
| (0.010)                  | (0.021)   | (0.004)   | (0.010)   | (0.021)   | (0.004)   | (0.004)   |
| observations             | 17,469    | 17,469    | 17,469    | 17,469    | 17,469    | 17,469    |
| control variables        | Yes       | Yes       | Yes       | Yes       | Yes       | Yes       |
| year fixed effect        | Yes       | Yes       | Yes       | Yes       | Yes       | Yes       |

Note: *, **, and *** indicate significant at the 5%, 1%, and 0.1% level, respectively. The standard errors shown in parentheses are corrected for heteroscedasticity and first order serial correlation. Dependent variables are non-durable consumption in Table 1. Income, consumption, and asset variables are adjusted by regional consumer price index (CPI) released by National Bureau of Statistics of China. Control variables are same with Table 2 and not reported here, which include personal characteristics of household head (i.e., gender, age, educational year, marriage status, and political affiliation) and family characteristics (i.e., household size, ratio of people aged under 23, and ratio of people aged over 55). More specific information is shown in Appendix A.

Housing asset and production asset have relatively low liquidity with an MPC of 0.013 and 0.016. Housing asset is not only a consumer good, but also an investment good with rental income. One of the channels through which the housing market affects the overall macroeconomic activity is through its impact on the household balance sheet [49]. Housing is the dominant component of households’ wealth, 55% of total gross wealth was held as housing wealth in Denmark, while holding financial assets is much less common, with 1/4 of the population holding stocks, and less than 1/10 owning bonds [50]. It shows an MPC of 0.016 for financial asset, a little bit higher than housing asset. Although financial asset has a small impact on consumption nowadays, its proportion to total wealth has been growing gradually, and the effect on consumption cannot be ignored.
3.2. Results between Rural Households and Urban Households

As have mentioned above, there is an obvious rural-urban gap with respect to household wealth and consumption shown in Table 1. Therefore, in this section we further investigate how rural and urban households’ consumption patterns respond to asset and price changes by using subsamples of rural households and urban households based on their place of residence.

Table 3 presents similar results that both asset levels and asset price changes have significant impact on household consumption and a larger wealth effect on developing type of consumption, followed by living type of consumption and enjoying type of consumption. When distinguishing among various households’ wealth, for rural households, it shows that production asset has a larger and significant MPC of 0.011 for living type of consumption because agricultural and business production behavior such as self-employment and small handicraft business are important for them to make a living, and it is shown in Table 1 that production asset accounts for the second largest component of rural family wealth. Vehicle asset, including cars, trucks, tricycles, battery carts, and bicycles, has a largest MPC for developing type of consumption, not only for rural households, but also for urban households. The convenience brought by vehicle asset could increase people’s expenditures on transportation and other kinds of services. Additionally, for rural households, it is difficult to rule out the possibility for agricultural or small business use. Financial asset has a largest MPC of 0.006 for enjoying type of consumption for rural households, while it has a largest MPC for living type of consumption for urban households. It shows that urban households’ enjoying type of consumption is more promoted by durable asset. Durable asset includes not only goods for daily use, but also for status display, such as antique, treasured collections, and luxury goods. One possible reason is that durable asset can also be an investment good, which could bring future income from the appreciation of collectibles.

Income is still the most important variable influencing household consumption. Low-income households lack assets as well as access to the institutional mechanisms that may promote asset accumulation. More inclusive asset-based policies are required, which could expand access of low-income households to structures that support asset accumulation [22]. This happened in rural China, and it is reflected by different asset portfolios among rural and urban households. According to the communiqué of the Third Plenum of the 18th CPC Central Committee, land reform in China is pushed forward to give farmers more property rights, and establish a unified land market for urban and rural construction [51]. Inclusive financial systems—those that allow broad access to appropriate financial services—are likely to benefit poor people and other disadvantaged groups [52]. Financial innovation, such as the availability of home equity loans, is a type of loan in which the borrower uses the equity of his or her home as collateral. It is likely to increase the liquidity of housing assets and to further promote major expenses.

4. Discussion

Few previous researches in Chinese using similar household data mainly investigate how household wealth levels affect consumption and find a larger housing wealth effect on consumption [36,53], while Li and Chen [11] find little effect associated with housing wealth and insignificant effect associated with housing price changes. Housing wealth has attributes of both consumption goods and investment goods. Li and Chen [11] propose that Chinese households treat housing asset as more like consumption goods than investment goods. However, in this paper, it shows that housing asset still has significant positive influence on household consumption, even though the MPC of housing asset is relatively low compared to other household assets. Considering the liquidity of housing asset means it is difficult to be cashed in immediately, we think the small MPC of housing asset is reasonable. Sherfin and Thaler [16] incorporate self-control and mental accounting into the analysis consumption behavior, which are usually missing in economic analysis. Their key assumption is that households treat components of their wealth as nonfungible. Current income with greatest temptation to spend should have a larger MPC, and future income or wealth with low liquidity
having the least temptation should have a smaller MPC. By distinguishing among various assets, it indeed shows wealth and its composition have significant influence on household consumption. More importantly, it shows a pattern of urban and rural dual economic structure. The disparity is even higher from a wealth perspective. Peasants’ limited access to resources greatly constrains the viability of their livelihoods. It is different types of assets that make livelihood strategies possible, meaningful, and viable [54]. The availability of wealth is of great importance. Therefore, the findings suggest inclusive financial reforms to create conditions for promoting property income and facilitating financial capacity of households, which is necessary for policy formation of Chinese economic transition. Services may be in the form of credits and insurance to enhance people’s ability to acquire assets and generate income, particularly in rural areas where traditional banking facilities are not available.

Different from some research investigating the relationship between house prices or stock prices and consumption behavior [24,25,37,50], this paper constructs a variable (Δp) to proxy household total asset price changes. The significant impact of asset price changes on consumption implies the importance of a stable mechanism of market price, which is one of the most important macro-economic policy goals of the State. In particular, the fluctuation of stock market and housing market might have a deeper influence on people’s lives. There is a substantial increase in housing prices in China since the housing commercialization reform in 1998. Property prices decline for the first time in 2008. As real estate prices plunge, people may face the rise of liquidity constraints and repayment pressure, crimping a major artery of spending [35].

5. Conclusions

Using micro level data from China Household Finance Survey (CHFS), this paper has constructed a 3 periods panel data to examine the effect of various types of asset on household consumption, with particular attention to asset levels and asset price changes. The findings can be concluded as following aspects:

Firstly, it is not only asset levels, but also asset price changes that can exert significantly positive impacts on consumption behavior. Taking into account the price changes of financial asset, durable asset, and vehicle asset are difficult to measure, this paper can roughly construct a variable Δp to represent wealth price changes. For total households, it shows an MPC of 0.015 associated with total net household wealth, and an MPC of 0.012 with respect to wealth price changes.

Secondly, various household assets have different impacts on consumption patterns. It shows a larger wealth effect on developing type of consumption with an MPC of 0.009, followed by living type of consumption and enjoying type of consumption. This paper investigates consumption patterns which are distinguished into living type, developing type, and enjoying type. However, with the upgrading of consumption structure, household environmentally friendly consumption behavior will attract more attention. Environmental sustainability not only connects with the harmony of the society, but also concerns an individual or a family [55]. Whether household environmentally friendly consumption responds to household assets needs further investigation.
Thirdly, the obvious rural-urban gap with respect to household wealth and consumption suggest
to distinguish between rural households and urban households. To be specific, for rural households,
production asset is the most important asset affecting households’ living. Housing asset is the most
important asset affecting households’ enjoying type of consumption. For urban households, financial
asset and durable asset are the most important assets affecting households’ living. Production asset
affects mostly household’s developing type of consumption. Durable asset is the most important asset
affecting enjoying type of consumption. Therefore, in order to promote consumption upgrading, it is
important to guarantee the acquisition of assets. More inclusive asset-based policies are required, which
could expand access of low-income households to structures that support asset accumulation [22].
Inclusive financial systems—those that allow broad access to appropriate financial services—are
likely to benefit poor people and other disadvantaged groups [52]. Financial innovation, such as the
availability of home equity loans, is a type of loan in which the borrower uses the equity of his or
her home as collateral. It is likely to increase the liquidity of housing assets and to further promote
major expenses.

Chinese traditional economic growth model is in the price of inequity and environment pollution.
To pursue sustainable and balanced economic development, it is urgent to transform the economic
development models from investment-oriented to consumer-oriented. In consideration of China’s
current reality of deficient consumption, investigating how assets affect consumption is of great
significance. This paper might be a complementary research on the explanation of insufficient
consumption demand in China. This paper mainly focuses on what the effect of various household
asset on consumption while lack empirical analysis on the mechanism of why various household assets
have different impacts on consumption. Part of the explanation is given. Therefore, the investigation
of mechanisms needs to be explored and improved in the future.

Author Contributions: H.H. designed research, refined the structure of the article and writing—review and
editing. F.S. analyzed the data and writing—original draft. All authors have read and agreed to the published
version of the manuscript.

Funding: The authors declared no funding with respect to this article.

Acknowledgments: The authors would like to express their sincere thanks to the China Household Finance
Survey (CHFS) conducted by the Survey and Research Center for China Household Finance at the Southwestern
University of Finance and Economics (SWUFE), many people who give us valuable advice, and our reviewers.

Conflicts of Interest: The authors declare no conflict of interest.

Appendix A
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| asset\(t - 1\) | 0.009 ** | 0.016 ** | 0.001 ** | 0.003 | 0.007 | 0.002 *** | 0.003 *** | 0.006 ** | 0.002 *** |
| \(Ap\) | (0.003) | (0.005) | (0.001) | (0.002) | (0.003) | (0.001) | (0.002) | (0.001) | (0.002) | (0.001) | (0.002) |
| housing asset\(t - 1\) | 0.009 *** | 0.015 ** | 0.001 *** | 0.002 | 0.006 | 0.002 ** | 0.003 *** | 0.005 ** | 0.002 *** |
| \(\Delta p\) | (0.002) | (0.005) | (0.001) | (0.002) | (0.004) | (0.001) | (0.002) | (0.001) | (0.004) | (0.001) | (0.004) |
| production asset\(t - 1\) | 0.011*** | 0.016 ** | 0.000 | 0.001 | 0.010 ** | 0.002 ** | 0.003 *** | 0.005 ** | 0.002 *** |
| durable asset\(t - 1\) | -0.042 | -0.036 | -0.001 | -0.006 | -0.038 | -0.001 | -0.006 | -0.001 | -0.012 | -0.002 | -0.001 |
| income | 0.084 *** | 0.116 *** | 0.006 *** | 0.084 *** | 0.116 *** | 0.006 *** | 0.035 *** | 0.054 ** | 0.018 *** | 0.005 *** | 0.018 *** |
| age | 0.005 | 0.007 | -0.001 | -0.006 | 0.007 | -0.001 | -0.011 | 0.002 | -0.001 | -0.012 | 0.002 |
| gender | 0.554 | 1.002 | -0.059 | 0.448 | 0.976 | -0.051 | -0.004 | -0.310 | -0.228 | -0.199 | -0.226 |
| educational year | 0.045 | 0.206 | 0.003 | 0.040 | 0.208 | 0.004 | -0.028 | 0.998 | 0.006 | -0.032 | 0.006 |
| \_Imarriage\_2 | -0.308 | 0.025 | 0.028 | -0.328 | 0.014 | 0.029 | 0.029 | 0.193 | 0.144 | 0.047 | 0.175 |
| \_Imarriage\_3 | 0.304 | 2.511 | 0.027 | 0.733 | 2.518 | -0.020 | 0.431 | 0.487 | 0.151 | 0.442 | 0.160 |
| \_Imarriage\_4 | 0.076 | (2.743) | (2.743) | (2.743) | (2.743) | (2.743) | (2.743) | (2.743) | (2.743) | (2.743) | (2.743) |
| \_Imarriage\_5 | 0.002 | 0.169 | 0.057 | -0.052 | 0.150 | 0.060 | -0.749 * | -0.766 | 0.199 * | -0.741 * | -0.802 |
| \_Imarriage\_6 | -0.324 | 0.057 | 0.031 | -0.351 | 0.059 | 0.032 | -0.069 | -0.499 | 0.199 * | -0.092 | -0.515 |
| \_Iparty\_2 | 0.075 | 1.134 | -0.043 | 0.031 | 0.126 | -0.039 | -0.034 | 0.255 | -0.023 | -0.027 | 0.243 |
| \_Iparty\_3 | 0.324 | 0.709 | 0.063 | 0.397 | 0.722 | -0.065 | -0.156 | 0.662 | 0.137 | -0.097 | 0.676 |
| \_Iparty\_4 | 0.061 | 0.164 | -0.069 | 0.048 | 0.168 | -0.067 | -0.169 | 0.328 | -0.046 | -0.142 | 0.316 |
| \_Iparty\_5 | (0.209) | (0.223) | (0.061) | (0.220) | (0.053) | (0.151) | (0.343) | (0.060) | (0.152) | (0.341) | (0.060) |
Table A1. Cont.

| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-------|
|     | Living Con. | Rural Households | Urban Households |     |     |     |     |     |       |       |       |
|     | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |     |       |       |       |
|     |     | Living Con. | Enjoying Con. | Living Con. | Developing Con. | Living Con. | Developing Con. | Living Con. | Developing Con. | Enjoying Con. | Living Con. | Developing Con. | Enjoying Con. |
| ratio of people aged under 23 | −0.002 | 0.472 | 0.008 | −0.039 | 0.478 | 0.006 | −0.196 | 0.573 | 0.011 | −0.146 | 0.509 | 0.023 |
| (0.436) | (0.488) | (0.076) | (0.436) | (0.493) | (0.068) | (0.531) | (0.814) | (0.161) | (0.514) | (0.815) | (0.161) |
| ratio of people aged over 55 | −0.706 | −0.419 | 0.005 | −0.717 | −0.398 | 0.008 | −0.562 | −1.011 | −0.038 | −0.571 | −0.978 | −0.041 |
| (0.467) | (0.561) | (0.062) | (0.466) | (0.563) | (0.062) | (0.347) | (0.586) | (0.093) | (0.346) | (0.581) | (0.094) |
| family size | 0.140 * | −0.015 | −0.014 * | 0.136 * | −0.015 | −0.014 | 0.085 | −0.095 | −0.030 | 0.083 | −0.095 | −0.028 |
| (0.055) | (0.076) | (0.076) | (0.056) | (0.076) | (0.007) | (0.111) | (0.082) | (0.037) | (0.110) | (0.083) | (0.037) |
| _cons | 0.278 | −2.856 | 0.185 | 0.648 | −2.802 | 0.159 | 3.166 ** | −0.219 | 0.376 | 3.285 ** | −0.217 | 0.341 |
| (1.001) | (2.325) | (0.132) | (1.028) | (2.262) | (0.131) | (0.993) | (1.322) | (0.416) | (1.036) | (1.222) | (0.413) |
| year fixed effect | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| N | 9966 | 9966 | 9966 | 9966 | 9966 | 9966 | 17,469 | 17,469 | 17,469 | 17,469 | 17,469 | 17,469 |
| R² | 0.142 | 0.166 | 0.030 | 0.163 | 0.168 | 0.043 | 0.057 | 0.070 | 0.089 | 0.063 | 0.073 | 0.095 |

Note: *, ** and *** indicate significant at the 5%, 1% and 0.1% level, respectively. The standard errors shown in parentheses are corrected for heteroscedasticity and first order serial correlation. Dependent variables are non-durable consumption in Table 1. Income, consumption and asset variables are adjusted by regional consumer price index (CPI) released by National Bureau of Statistics of China.
References

1. Chinese Rural Investigation Team of National Bureau of Statistics. *Poverty Monitoring Report of Rural China (2018)*; China Statistics Press: Beijing, China, 2018.

2. Wang, M.; Yang, Y.; Zhang, B.; Liu, M.; Liu, Q. How Does Targeted Poverty Alleviation Policy Influence Residents’ Perceptions of Rural Living Conditions? A Study of 16 Villages in Gansu Province, Northwest China. *Sustainability* 2019, 11, 6944. [CrossRef]

3. Khan, A.R.; Riskin, C. Income and Inequality in China: Composition, Distribution and Growth of Household Income, 1988 to 1995. *China Q.* 1998, 154, 221–253. [CrossRef]

4. Gustafsson, B.; Shi, L.; Zhong, W. The distribution of wealth in urban China and in China as a whole in 1995. *Rev. Income Wealth* 2006, 52, 173–188. [CrossRef]

5. Li, S.; Wei, Z.; Gustafsson, B. Distribution of wealth among urban and township households in China. *Jingji Yanjiu (Econ. Res. J.)* 2000, 3, 16–23.

6. Meng, X. Wealth Accumulation and Distribution in Urban China. *Econ. Dev. Cult. Chang.* 2007, 55, 761–791. [CrossRef]

7. United Nations General Assembly Transforming Our World: The 2030 Agenda for Sustainable Development. Available online: https://sustainabledevelopment.un.org/post2015/transformingourworld/publication (accessed on 17 March 2020).

8. Somanje, A.N.; Mohan, G.; Lopes, J.; Mensah, A. Challenges and Potential Solutions for Sustainable Urban-Rural Linkages in a Ghanaian Context. *Sustainability* 2020, 12, 507. [CrossRef]

9. Koch, F.; Krellenberg, K. How to Contextualize SDG 11? Looking at Indicators for Sustainable Urban Development in Germany. *ISPRS Int. J. Geo Inf.* 2018, 7, 464. [CrossRef]

10. Wan, G.; Zhang, Y.; Niu, J. Liquidity constraints, uncertainty and household consumption in China. *Jingji Yanjiu (Econ. Res. J.)* 2001, 11, 35–44.

11. Li, T.; Chen, B. Real assets, wealth effect and household consumption: Analysis based on China household survey data. *Jingji Yanjiu (Econ. Res. J.)* 2014, 3, 62–75.

12. Hang, B. Rural households’ buffer-stock saving with habit formation. *Jingji Yanjiu (Econ. Res. J.)* 2009, 1, 96–105.

13. Cheng, L.; Zhang, Y. Does famine experience in childhood influence one’s saving decision? A new explanation of China’s high household saving rate. *Jingji Yanjiu (Econ. Res. J.)* 2011, 8, 119–132.

14. Wei, S.-J.; Zhang, X. The Competitive Saving Motive: Evidence from Rising Sex Ratios and Savings Rates in China. *J. Political Econ.* 2011, 119, 511–564. [CrossRef]

15. Caner, A.; Wolff, E.N. Asset poverty in the United States: Its Persistence in an Expansionary Economy. Available online: http://www.wealthandwant.com/issues/assetpoverty/ap_in_us_persistence.htm (accessed on 25 November 2019).

16. Shefrin, H.M.; Thaler, R.H. The Behavioral Life-Cycle Hypothesis. *Econ. Inq.* 1988, 26, 609–643. [CrossRef]

17. Sherraden, M. Stakeholding: Notes on a Theory of Welfare Based on Assets. *Soc. Serv. Rev.* 1990, 64, 580–601. [CrossRef]

18. Brandolini, A.; Magri, S.; Smeeding, T.M. Asset-based measurement of poverty: Asset-Based Measurement of Poverty. *J. Pol. Anal. Manag.* 2010, 29, 267–284. [CrossRef]

19. Obiols-Homs, F.; Urrutia, C. Transitional Dynamics and the Distribution of Assets. *Econ. Theory* 2005, 25, 381–400. [CrossRef]

20. Zimmerman, F.J.; Carter, M.R. Asset smoothing, consumption smoothing and the reproduction of inequality under risk and subsistence constraints. *J. Dev. Econ.* 2003, 71, 233–260. [CrossRef]

21. Azpitarte, F. Measurement and identification of asset-poor households: A cross-national comparison of Spain and the United Kingdom. *J. Econ. Inequal.* 2011, 9, 87–110. [CrossRef]

22. Han, J.; Hayashi, Y.; Cao, X. Evaluating Land-Use Change in Rapidly Urbanizing China: Case Study of Shanghai. *J. Urban Plan. Dev.* 2009, 135, 166–171. [CrossRef]

23. Case, K.E.; Quigley, J.M.; Shiller, R.J. Comparing Wealth Effects: The Stock Market versus the Housing Market. *Adv. Macroecon.* 2005, 5, 1235. [CrossRef]

24. Dvornak, N.; Kohler, M. Housing Wealth, Stock Market Wealth and Consumption: A Panel Analysis for Australia. *Econ. Rec.* 2007, 83, 117–130. [CrossRef]
25. Ludwig, A.; Sløk, T. The Relationship between Stock Prices, House Prices and Consumption in OECD Countries. *Top. Macroecon.* 2004, 4. [CrossRef]

26. Chow, G.A.; Masa, R.D.; Sherraden, M. Wealth Effects of an Asset-Building Intervention Among Rural Households in Sub-Saharan Africa. *J. Soc. Soc. Work Res.* 2012, 3, 329–345. [CrossRef]

27. Sharma, E.; Alter, A.L. Financial Deprivation Prompts Consumers to Seek Scarce Goods. *J. Consum. Res.* 2012, 39, 545–560. [CrossRef]

28. Jia, X.; Guo, P. Evolution of Rural Finance in China: Institutional “Lock In” or Gradualism? *Sav. Dev.* 2008, 32, 279–299.

29. NBSC (China National Bureau of Statistics). *China Statistical Yearbook 2008*; China Statistics Press: Beijing, China, 2009.

30. Li, S.; Wei, Z.; Ding, S. Empirical analysis on the inequality and the reason of China residents’ property distribution. *Jingji Yanjiu (Econ. Res. J.)* 2005, 6, 4–15.

31. Chi, W.; Cai, X. Capital income and income inequality in urban area of China. *Shuliang Jingji Jishu Yanjiu (J. Quant. Tech. Econ.)* 2012, 2, 100–112.

32. Liang, Y. Financial Reform, Property Income Growth and the Potential Impacts on Inequality in China. *J. Econ. Issues* 2009, 43, 389–401. [CrossRef]

33. Bewley, T. The permanent income hypothesis: A theoretical formulation. *J. Econ. Theory* 1977, 16, 252–292. [CrossRef]

34. Bewley, T. A Difficulty with the Optimum Quantity of Money. *Econometrica* 1983, 51, 1485–1504. [CrossRef]

35. Huang, J.; Tu, M. Housing wealth and consumption: Evidence from micro household data. *Guanli Shijie (Manag. World)* 2009, 7, 42–52.

36. Zhang, D.; Cao, H. Wealth effect on consumption: Evidence from China’s household survey data. *Jingji Yanjiu (Econ. Res.)* 2012, 51, 53–65.

37. Campbell, J.Y.; Cocco, J.F. How do house prices affect consumption? Evidence from micro data. *J. Monet. Econ.* 2007, 54, 591–621. [CrossRef]

38. Johnson, S.R.; Rausser, G.C. Effects of Misspecifications of Log-Linear Functions When Sample Values Are Zero or Negative: Reply. *Am. J. Agric. Econ.* 1971, 53, 673–674. [CrossRef]

39. Ekwaru, J.P.; Veugelers, P.J. The Overlooked Importance of Constants Added in Log Transformation of Independent Variables with Zero Values: A Proposed Approach for Determining an Optimal Constant. *Stat. Biopharm. Res.* 2018, 10, 26–29. [CrossRef]

40. The Data Source of this Paper is from China Household Finance Survey(CHFS) conducted by the Survey and Research Center for China Household Finance at the Southwestern University of Finance and Economics(SWUFE), China. Available online: [https://chfs.swufe.edu.cn/](https://chfs.swufe.edu.cn/) (accessed on 30 March 2020).

41. Mandić, S. The changing role of housing assets in post-socialist countries. *J. Hous. Built Environ.* 2010, 25, 213–226. [CrossRef]

42. Oliver, M.L.; Shapiro, T.M. Wealth of a Nation: A Reassessment of Asset Inequality in America Shows at Least One Third of Households Are Asset-Poor. *Am. J. Econ. Sociol.* 1990, 49, 129–151. [CrossRef]

43. Mehra, Y.P. *The Wealth Effect in Empirical Life-Cycle Aggregate Consumption Equations*; Social Science Research Network: Rochester, NY, USA, 2001.

44. Davis, M.A.; Palumbo, M. *A Primer on the Economics and Time Series Econometrics of Wealth Effects*; Social Science Research Network: Rochester, NY, USA, 2001.

45. Lettau, M.; Ludvigson, S.C. Understanding Trend and Cycle in Asset Values: Reevaluating the Wealth Effect on Consumption. *Am. Econ. Rev.* 2004, 94, 276–299. [CrossRef]

46. Slacalek, J. *What Drives Personal Consumption? The Role of Housing and Financial Wealth*; Social Science Research Network: Rochester, NY, USA, 2009.

47. De Bonis, R.; Silvestrini, A. The effects of financial and real wealth on consumption: New evidence from OECD countries. *Appl. Financ. Econ.* 2012, 22, 409–425. [CrossRef]

48. Nolan, B.; Whelan, C.T. Using Non-Monetary Deprivation Indicators to Analyze Poverty and Social Exclusion: Lessons from Europe? *J. Policy Anal. Manag.* 2010, 29, 305–325. [CrossRef]

49. Kishor, N.; Kumari, S. Consumption-Wealth Ratio and Expected Housing Return. *J. Real Estate Res.* 2014, 36, 87–108.

50. Browning, M.; Gørtz, M.; Leth-Petersen, S. Housing Wealth and Consumption: A Micro Panel Study. *Econ. J.* 2013, 123, 401–428. [CrossRef]
51. Liu, Q. China will Increase Farmers’ Property Rights. Available online: http://www.china.org.cn/china/2013-11/14/content_30599289.htm (accessed on 25 November 2019).

52. Demirgüç-Kunt, A.; Klapper, L. Measuring Financial Inclusion: Explaining Variation in Use of Financial Services across and within Countries. *Brook. Pap. Econ. Act.* 2013, 2013, 279–340. [CrossRef]

53. Zhang, H.; Yi, X.; Zhou, C. Changes in value of housing, consumption of urban residents and heterogeneity of wealth effects: Analysis based on the data of CFPS. *Jinrong Yanjiu (J. Financ. Res.)* 2017, 8, 50–66.

54. Bebbington, A. Capitals and Capabilities: A Framework for Analyzing Peasant Viability, Rural Livelihoods and Poverty. *World Dev.* 1999, 27, 2021–2044. [CrossRef]

55. Núñez-Cacho, P.; Molina-Moreno, V.; Corpas-Iglesias, F.A.; Corteés-García, F.J. Family Businesses Transitioning to a Circular Economy Model: The Case of “Mercadona”. *Sustainability* 2018, 10, 538.

© 2020 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (http://creativecommons.org/licenses/by/4.0/).