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Kong Wing, Clement CHOW
ckwchow@ln.edu.hk

Ka Yiu, Michael FUNG

Hang Yue NGO

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**Consumption Patterns of
Entrepreneurs in the People's
Republic of China**

*Clement Kong Wing Chow
Hong Kong Institute of Business Studies and
Department of Marketing
Lingnan College*

*Michael Ka Yiu Fung
Dept of Decision Sciences & Managerial Economics
Chinese University of Hong Kong*

and

*H.Y. Ngo
Dept of Management
Faculty of Business Administration
Chinese University of Hong Kong*

Hong Kong Institute of Business Studies
Lingnan College
Tuen Mun
New Territories
Hong Kong
Tel: (852) 2616 8373
Fax: (852) 2572 4171

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Clement Kong Wing Chow
Hong Kong Institute of Business Studies and
Department of Marketing
Lingnan College
Tuen Mun, Hong Kong
Telephone: (852) 2616 8370
Fax: (852) 2572 4171
E-mail: ckwchow@ln.edu.hk

Michael Ka Yiu Fung
Dept of Decision Sciences & Managerial Economics
Chinese University of Hong Kong
Shatin, Hong Kong
Telephone: (852) 2609 7819
Fax: (852) 2603 5104 or 2603 6840

and

H.Y. Ngo
Dept of Management
Faculty of Business Administration
Chinese University of Hong Kong

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ABSTRACT

Since the implementation of economic reforms in 1978 in the People's Republic of China, entrepreneurs have emerged as a new consumer group. With rising income and high consumption power, entrepreneurs have become major consumers for expensive goods and services. However, little research has been carried out to understand their consumption decisions. In this paper, we study the consumption patterns of small business owners, *getihu*, in China by using a set of large-scale, nation-wide survey data. Their consumption is postulated to be affected by (1) risk factors which include failure risk and financial (leverage) risk, (2) household variables such as the household size, financial and labor resources in the family, (3) the future plans of their business, and (4) home ownership. The effects of these factors on consumption patterns are evaluated. Our empirical results, based on regression and Tobit analysis, showed that all these factors are important in the consumption decisions of the entrepreneurs' households. In particular, risk and household factors are statistically significant in accounting for the variations in their consumption patterns. The marketing implications are also discussed.

INTRODUCTION

Since the implementation of economic reforms in 1978, the Chinese economy has been growing rapidly at an annual rate of 9 percent over the past two decades. The consumer market in China has also expanded considerably, so that it is now one of the largest markets in the world. In view of the country's massive population and the rising income level of Chinese consumers, both researchers and marketers have paid more and more attention to China. A number of studies have been conducted in recent years on the nature and determinants of consumption decisions of Chinese consumers (e.g., Chern and Wang, 1994; Fan et al., 1995; Gao et. al., 1996; Li, 1998; Qin, 1991; Wang, 1995). However, these studies mainly focused on aggregate consumption patterns. Little research has been carried out to investigate the micro aspects of consumption decisions, which can provide detailed and valuable marketing information. Such information is particularly important in the context of China, given the diversity and heterogeneity among households and market segments in the economy.

In China, marketers cannot find such a nation-wide consumer market composed mainly of the middle class as in Japan, the United States, and other developed countries. Instead, the consumption behavior of the Chinese tends to vary greatly according to regions, cohorts, social class, educational attainment, income level, and occupational types (Cui, 1997; Li, 1998; Wu and Wu, 1997). These socio-demographic characteristics often determine who adopts which lifestyles and who purchases the more expensive products. Among the various consumer groups in China, the emerging private entrepreneur class deserves close scrutiny. In 1995, there were 26 million private business owners registered in the country (Young, 1998). According to Cui (1997), these private entrepreneurs are less risk-averse and more willing to try new products and new brands. Additionally, they are more likely to purchase luxury items than ordinary consumers, not just because they earn more but also due to the demand for conspicuous consumption (Li, 1998; Ram, 1994). Despite their high consumption power as well as their role as primary consumers for expensive goods and services, to the best knowledge of the authors, no research has been undertaken to understand their consumption patterns.

Utilizing a large-scale data set covering more than five thousand *getihu* (individual household businesses), we investigated the consumption decisions of entrepreneurs in China.

Although there is a huge body of literature on individual consumption patterns, little research attention has been paid to the consumption patterns of entrepreneurs who are exposed to high income risk due to their economic role. Unlike the wage-earners, self-employed persons or employers hold different resources and face different constraints, which are likely to influence their consumption decisions. It should be noted that, for wage-earners, an unpredictable change in their income (due to unemployment, job moves, promotion or demotion) constitutes the major risk to their economic well-being. On the other hand, for the entrepreneurs, there are at least two types of risk that inevitably affect their income and wealth. First is the risk of failure in their businesses, and second is the financial risk which measures the risk of running into illiquidity or even insolvency. In view of the above, the first objective of this study is to evaluate the impacts of the above two types of risk on consumption patterns of Chinese entrepreneurs.

Other than the risk factors, the effects of household factors will also be examined, given the fact that *getihu* in China is largely a family business owned and operated by the whole family. Previous studies have also highlighted the importance of the family (a central unit in Chinese society) in purchase decisions (Ford et al., 1995; King and McDaniel, 1989). According to the household production model formulated by economists (Becker, 1965; Deaton and Muelbauer, 1980; Michael and Becker, 1973), consumption decisions made by entrepreneurs are affected by both business profits and the household's earned income. As time is an important input for household production, consumption patterns in the entrepreneurs' families are also contingent upon both the entrepreneurs' hours of work in their own businesses as well as the household members' decisions on labor supply. Given these important considerations, we investigated how the resources (i.e., financial, labor and time) allocation within the household affect the entrepreneurs' consumption decisions. The empirical results of this study will provide useful information for marketers to understand the specific resources, constraints, and needs of Chinese entrepreneurs. By using this information, marketers can devise effective marketing strategies to target this group of consumers.

The paper is organized as follows. The second section reviews some major theories on consumption decisions that are pertinent to entrepreneurs' households in China. The third

section discusses our data set and research methodology. The fourth section reports the empirical results. The last section is the discussion and conclusion.

THEORIES OF CONSUMPTION DECISIONS

In China, most of the private businesses, especially *getihu*, are owned and operated by the whole family. Major purchase decisions are also made at the household level. Thus, we adopt the household production model to study the consumption decisions made by these entrepreneurs' households (Becker, 1965; Deaton and Muelbauer, 1980; Michael and Becker, 1973). The model in our study, however, is different from that proposed by Becker (1965) in one key aspect: the household decision process is "sequential" such that household members first start their business or enter into the labor force to attain a certain income level, and then they make household expenditure decisions in accordance with their household income and the pre-committed labor supply constraints (see also Lewis and Andrews, 1989 for a similar approach). This sequential model is deemed appropriate in the Chinese context because the labor market there was not fully liberalized in the early 1990s, the period of interest in our study. At that time, job switching and matching processes were still subject to many institutional constraints. In particular, the state-owned enterprises were not allowed to hire or fire workers at will. Apart from the standard constraint on hours of work, most workers, especially those employed in the state sector, could not change jobs freely because of the barriers to mobility and imperfect information in the labor market. In view of the above, the labor supply of household members is viewed as pre-determined and fixed when the expenditure decisions are made.

According to Deaton and Muelbauer (1980), the household production model is particularly appropriate for analyzing the consumption decisions in family farming and small businesses like the *getihu* in China. They mention that, for family businesses like the *getihu*, there is a clear distinction between production and consumption. With regard to production, efficiency is achieved when the small firm or shop maximizes its profit (i.e., income generated from the business) for any given inputs. As far as consumption is concerned, the entrepreneur's household will try to maximize utility by taking as given the total household income, including

business profit. All in all, under the sequential decision model, both the labor supply allocation within the family and the household income are considered to be given when the households make the consumption decisions.

The theories of consumption under uncertainty also provide additional insights into our research topic as entrepreneurs face different types of risk in their business operations. Based on the permanent income hypothesis, the consumption expenditure is more sensitive to the change in permanent income than to the change in transitory income (Gardes and Madre, 1990; Miles, 1997). As the profit generated from the small business can be seen as transitory, which is more volatile than income earned from formal employment, the business profit gained by the entrepreneurs may have insignificant effects on household consumption patterns. However, it is also plausible that the business profit, given its transitory nature, may be associated with conspicuous consumption. Entrepreneurs who earn more profit from their businesses may thus spend more on sumptuous meals, traveling, private education for children, and luxury items.

Furthermore, the theory of precautionary savings asserts that risk factors play an important role in saving and consumption decisions. Due to precautionary motives, an individual may curtail current consumption and increase savings. For the entrepreneurs, a perceived increase in any type of risk involved in their businesses would reduce their household consumption but increase their savings. This argument stems from the theory of precautionary savings which suggests that households will use their savings as a buffer against any unexpected income volatility so as to smooth out their consumption level over time (Horioka and Watanabe, 1997; Leland, 1968; Sandmo, 1970). Thus, entrepreneurial households that are expected to face higher risks in running their businesses would want to increase their precautionary savings, so that they can use these savings to buffer against any future sudden drop in household income. To sum up, for the entrepreneurs, risk factors involved in their businesses are likely to exert negative effects on their household consumption. Below we evaluate the impact of risk and household factors on the consumption patterns of entrepreneurs in China.

DATA AND METHODOLOGY

Data

Information on entrepreneurs and their households in China is scarce and fragmented. Only a few reliable, systematic, and large-scale data collections have been made. A significant one is a nationwide survey conducted in 1991 by the State Economic System Reform Committee and State Industry and Commerce Administration. The survey covered a sample of private business firms of both *getihu* (small individual household businesses) and *siying qiye* (larger private enterprises) in all provinces of China. It recorded production and consumption information on the entrepreneurs' households, in addition to the basic socio-demographic characteristics of the entrepreneurs. The raw data were released to the University Service Center of the Chinese University of Hong Kong in 1995. With the permission and help of that research center, a sub-sample of 5,071 *getihu* was randomly selected from the original data and formed the base of our data analysis. Only the *getihu* not the *siying qiye*, are included because *getihu* is a much simpler form of business, which can provide a good starting point for us to study entrepreneurs' consumption decisions.

Selection of Dependent Variables

The dependent variables are the average monthly household living expenditure and its shares on seven major consumption categories: food, socializing activities, medical care, children's education, transport, entertainment, and unclassified others. These seven categories are the common types of expenditure in a typical Chinese household. It should be noted that expenditure on socializing activities is different from entertainment expenses in that socializing activities are indirectly related to the entrepreneur's business as they help building social networks or *guanxi* with business-related persons such as suppliers and local officials by means of offering gifts and favors (Abramson and Ai, 1997). Thus, for the entrepreneurs' households in China, socializing expenses is a necessary item. Expenditure on transport in some sense is related to the business, particularly when the entrepreneur needs to travel around to make business deals. Although expenditure on medical care and children's education is not directly related to the business, it can be considered as human capital investment in the household.

Selection of Independent Variables

We include five major groups of independent variables in this study: (1) control variables, (2) risk factors, (3) household variables, (4) future business development plans, and (5) home ownership. These different groups of factors help identify the sources of changes that may shift the household demand for goods and services. The hypothesized effects of all independent variables on consumption expenditure are summarized in Table 1. Below we provide the explanations for each of them.

Control Variables. These variables include the geographical location of the households and the socio-demographic characteristics of the entrepreneurs such as their gender, age, educational level, previous work experience and skills. These factors are supposed to have significant effects on the tastes and preferences of the entrepreneurs and hence affect their consumption patterns.

Risk Factors. Two types of risk factors are identified, namely, failure risk and financial risk. Previous studies have shown that firm size and years in business (i.e., the age of the firms) are inversely related to the risk of failure (Audretsch and Mahmood, 1994; Dunne et al., 1989; Mansfield, 1962; Mata and Portugal, 1994; Wagner, 1994). Generally, a younger firm or a smaller firm is subject to higher risk of failure in the initial stage of firm growth. Hence, two variables, EXPE and SIZE, are used to capture the effect of failure risk. With regard to financial risk, firms with higher debt-equity ratio (DE) are likely to have a higher risk of running into insolvency. It is expected that an increase in any type of risk would reduce household consumption but increase savings.

Household Variables. These variables include the following: (1) Annual business profit, PROFIT, which serves as transitory income for the entrepreneurs' households. It is measured by the net revenue generated from the business after deducting expenditure on various fees, donations, subsidies, and capital re-investment. (2) Annual household earned income, INCOME, which is measured by the total amount of annual income earned by all household members (exclude PROFIT). (3) Household size, HDSIZE, is simply the total number of household members. INCOME and HDSIZE are expected to have a positive effect on

consumption. (4) Average daily working hours, HOUR, is the total number of hours a day the entrepreneur on average spent on the business. (5) FTSWK is the total number of household members working for the family business on a full-time basis. (6) FTOWK is the total number of household members who have a full-time job outside. HOUR, FTSWK, and FTOWK, indicating the labor supply conditions in the household, have uncertain effects on consumption, as it depends on whether they act as substitutes for or complements of market goods and services.

Future Business Plans. This group of variables include nine possible future business plans as reported by the entrepreneurs. Their effects on consumption are quite complicated. These nine strategic acts would affect the business operations in the future and exert both short-term and long-term impacts on household consumption. For example, F1 (intend to expand the business operation) may have two opposing effects on consumption: (1) the expansion may signal a higher permanent income and thus induce the entrepreneurial household to increase its current consumption; and (2) to expand the business, the entrepreneurial household may reduce its current consumption in order to accumulate sufficient capital to enlarge the existing scale of operation. This is especially true when entrepreneurs face difficulty in raising capital for future investment. Thus, the final effect of this variable on consumption will depend on which of the above two effects is dominant. F2 (intend to maintain the status quo) will have a positive effect on consumption because the business concerned is already on track and will generate a steady cash flow in the future. It is likely that a further increase in household financial resources will induce consumption. On the other hand, F3 (intend to downsize the business operation) may have two opposing effects on consumption: (1) the reduction in the scale of operation can help the firm re-focus its core business and improve its future prospects. This will raise the household permanent income in the long run and hence increase current consumption; and (2) a reduction in operation scale may signal a reduction in permanent income resulting from business loss and this would lead to less household consumption. F4 (intend to close the business) has an ambiguous effect on consumption. If the termination of the business leads to a permanent loss of income, the household consumption will be reduced. However, if an entrepreneur is closing the existing business for the sake of opening up another one or shifting his or her employment status from self-employed to employee, terminating the business may lead to a gain (or a loss) in household income permanently, and this will result in an increase (or

a decrease) in consumption. F5 (plan to line up the business with state-owned and collective-owned enterprises) is expected to have a positive effect on consumption because such a plan would benefit the business and improve its prospects. F6 (plan to change the business direction) is likely to have an ambiguous effect on consumption. In the short run, a change in the business direction may lead to a drop in sales and profits, since it takes time for the firm to adapt to the new business environment. As a result, the entrepreneurs would cut back current consumption in order to prepare for a worse financial situation later. However, in the long run, its effect on consumption will depend on whether this strategic act is successful or not and hence increases (or decreases) the permanent income of the households. F7 (plan to strengthen the firm's horizontal integration) signals business success and growth, and this act would facilitate the firm to gain market power, which in turn would result in higher profits in the future. If so, it will have a positive effect on consumption. For F8 (plan to cooperate with foreign firms), the same explanation as for F5 can be applied, which would lead to more consumption in the family. Finally, no specific prediction will be made for the last business plan, F9 (other unspecified business plans).

Home Ownership. This factor is expected to affect the household consumption in a subtle way. With the commercialization of housing and the desire to improve the home environment, home ownership has become popular in China in the last decade (Li, 1998). However, it is worth noting that home owners are often burdened by cash outlays for the mortgage payments whereas renters' cash outflows are relatively smaller. Thus, the disposable income of renters will be higher, and they are likely to spend more on daily consumption. As the purchase of a housing property requires a continual cash outflows, households would not make such a decision unless they expect sufficient income in the future. The decision itself, and the associated optimistic expectation, is expected to affect the consumption decisions in the household. Furthermore, households that plan to build, renovate or buy a new living place are also likely to depress their current consumption.

The above five groups of predictors are expected to exert different effects on the consumption patterns of entrepreneurial households. Regression analysis and Tobit analysis will be employed to study the relationships involved.

EMPIRICAL RESULTS

Descriptive Statistics

[Insert Table 2 and 3]

Table 2 displays the frequency statistics of the dummy variables in our study. Concerning the geographical location, about 10% of the sample are located in the cities and the remaining 90% are in rural areas. In addition, 54% of them are located in provinces along the coastline. As regards the socio-demographic characteristics of the entrepreneurs, 72.7% are males and 27.3% are females. Approximately 80% of them were unskilled workers or peasants before starting their own businesses. Only 0.6% of them had been the heads of their work units in their previous job and thus possessed managerial experience and skills. Furthermore, 4%, 1.9%, 3.1%, and 5.7% of these entrepreneurs were originally professional workers, clerical workers, service workers, and blue-collar workers respectively.

Concerning the future business plans, more than 70% of the entrepreneurs reported that they intend to maintain the current scale of their businesses. On the other hand, 16.4% of them plan to expand their businesses, while 4.6% of them plan to downsize the business and 3.5% of them plan to close the business. These figures indicate that not many small business owners are eager to expand their businesses, probably because of the uncertain and turbulent business environment in the early 1990s as well as the limited capacity of the primitive, small-scale retail and personal service businesses (Young, 1998). With regard to future business scope and directions, 4.5% of the entrepreneurs have a plan to change their business line. Another 1.8% of them intend to link up with state-owned or collective-owned enterprises. In addition, 1.3% of them intend to strengthen the firm's horizontal integration, and only 0.3% intend to cooperate with foreign firms. Lastly, home ownership is very common among these entrepreneurs, as 84.5% of them already own their living place. This reflects the wealth possessed by this group of people. In addition, 15.5% of them have a plan to build, renovate, or buy a new living place for their families.

Table 3 presents the descriptive statistics of other independent variables. The average age of the entrepreneurs in our sample is 38.2, with a standard deviation of 11.23. Their average

educational level is 2.76, which is somewhere between elementary and junior high school education. For the measure of failure risk, the average life of their businesses is 4.4 years as indicated by EXPE, with a standard deviation of 2.63 years. The average size of their businesses is very small with only 0.53 person employed other than the household members. However, the standard deviation of this variable is very large (i.e., 1.69 persons), suggesting that the firm size of these small businesses varies considerably. Although small firm size may induce a higher risk of failure, it can be compensated for by more years of operation, which may reduce such type of risk. In terms of financial risk, the average debt-equity ratio is 1.43 with a very large standard deviation of 59.2, which shows that debt-equity ratios vary substantially among these firms.

The variations are also very large for the measures of financial resources in the household. The average annual profits of these small businesses is -8283.34 yuan, with a standard deviation of 766,124.31 yuan. This suggests that annual profits generated from the businesses are extremely volatile. Some of them suffer from a lose. In addition, the annual household's earned income (that excluded business profit) is 2219.2 yuan while its standard deviation is very large (i.e., 4050.91 yuan). Regarding their working hours, these entrepreneurs spend nearly 9 hours a day in their businesses, which is longer than the average worker in China. The average household size in these entrepreneurs' families is 3.8 persons with a standard deviation of 2.56. This indicates that the nuclear form of the family is common among the entrepreneurs. Within their households, on average 0.62 members are working full time in their own business units while 0.46 members are working outside on a full-time basis. From above one can see that the entrepreneur households are fairly heterogeneous in terms of financial and labor resources.

The mean of the average monthly household consumption expenditure is 314.9 yuan, with a very large standard deviation of 358.4 yuan. Among the seven consumption categories, food expenditure is the largest (58.4%), followed by socializing expenses (14.4%), children's education (9.7%), medical care (6.7%), transport (4.4%), other miscellaneous items (4.0%), and entertainment (2.4%). Even though these entrepreneurs have higher income and own more assets (as shown by a high percentage of home ownership) than ordinary people, they still spend more than half of their expenditure on food. It should be noted that this category include

spending on eating out and alcohol which are often expensive. As mentioned before, socializing activities are related to the business in the sense that they help building social networks or *guanxi* with persons who have a stake in the business. For that reason, in the entrepreneurs' households, socializing expenses are the second largest item. It should also be noted that, except for the categories of food and socializing activities, the standard deviations for other expenditure categories are relatively large as compared with their respective means. In other words, great variations are found in the household consumption patterns.

[Insert Table 4]

The entrepreneurs' households are further classified into ten groups according to their total annual household income, which consists of annual profits generated from the business and the earned income of all household members. In Table 4, the expenditure shares by household income are reported. The largest expenditure share is food, which accounts for 50-60% of monthly expenditure. In general, higher income households (i.e., those with positive household income) tend to spend more on food than lower income groups (i.e., those with negative household income), though the variation among households is not large. On the other hand, lower income groups tend to spend a greater proportion of expenditure on socializing activities, medical care, and children's education than their higher income counterparts. For other expenditure categories, no obvious patterns can be observed. Moreover, except for food and socializing activities, the standard deviations are relatively large for other expenditure categories.

Regression Analysis of Consumption Expenditure

As mentioned above, regression analysis is employed to evaluate the effects of independent variables on monthly household expenditure, the dependent variable in this study. The empirical results are displayed in Table 5. Here we consider one unrestricted model and four restricted models on which several linear restrictions are imposed. The four restricted models provide four different F tests on the effects of failure risk, household variables, future business plans, and home ownership respectively on household expenditure.

Risk Factors. As shown in Table 5, for the two indicators of failure risk, EXPE and SIZE, only the estimate of firm size (SIZE) is positive and significant at 1% level in the unrestricted model. The F test statistic for the restricted model I, FT1, is used to test whether the coefficients of EXPE and SIZE can be restricted to zero, which implies the absence of any effect of failure risk on the level of consumption. The result reveals an unambiguous rejection of the zero restrictions. In sum, it is found that larger firm size indicates that a smaller failure risk is associated with more consumption in the household. On the other hand, the estimate of financial risk, debt-equity ratio (DE), is found to be statistically insignificant in almost all models. In other words, financial risk induced by a higher leverage has a negligible impact on the consumption level of entrepreneurial households.

Household Variables. For the six household variables, all estimates are found to be positive and statistically significant (though at different levels). In addition, compared with the restricted model II, the F statistic, FT2, is highly significant at 1% level. This implies the zero restrictions imposed on all six household variables are rejected unambiguously. Interestingly, the estimate of business profits, PROFIT, appears to be very small (i.e., a one million yuan increase in annual business profit only increases monthly household expenditure by 6 yuan on average), probably because of the transitory nature of business profits. In contrast, the effect of the annual household's earned income, INCOME, on consumption is much larger (i.e., a one hundred dollar increase in annual earned income raises monthly household consumption by 1.2 yuans). Moreover, the coefficient of entrepreneur's daily working hours, HOUR, is positive and significant in all unrestricted and restricted models. This finding suggests that entrepreneurs' consumption is a gross substitute for their working hours in their own businesses, as an increase in daily working hours will reduce the time available for household labor, and this calls for more consumption of market goods and services to compensate for the time loss. A similar interpretation can also be applied to the positive estimates of the number of household members working in the business unit (FTSWK) and number of household members employed outside (FTOWK). When more household members are working on a full-time basis, less household labor is available, and this leads to a greater demand for market goods and services. Finally, the estimate of household size, HDSIZE, is positive, simply suggesting more consumption in a larger household.

Future Business Plans. For all the dummy measures of future business plans, none of the estimates are statistically significant on their own in the unrestricted model. Only F1 is marginally significant at 10% level in the restricted model III. However, the F statistic, FT3, is found to be significant at 1% level, suggesting that zero restrictions on these eight dummy variables are rejected unambiguously. In other words, though individually these variables are not statistically significant, as a group they do account for some variations in the household expenditure.

Home Ownership. Finally, the estimates of dummy variables of home ownership (HOME) and intention to buy a new home (BYHOME) are statistically insignificant in the unrestricted model, even though they are significant at 10% level in some restricted models. Compared with restricted model IV, the F statistic, FT4, is insignificant, suggesting that the zero restrictions imposed on these two variables are not rejected. In other words, the model allows the absence of these two variables. It seems that home ownership plays little role in explaining the monthly consumption expenditure in the entrepreneurs' households.

Tobit Analysis of Expenditure Shares

In this part, we are interested in explaining the share of expenditure on seven consumption categories in the entrepreneurial households. However, there is a problem when the households do not spend any money on one category, which thus takes on a zero value. For example, households without children will spend no money on children's education. This is a standard censored dependent variable problem and the ordinary least squares estimation cannot be applied. To deal with this issue properly, a Tobit model which is shown below should be employed instead:

$$\begin{aligned} y_i^* &= b'x_i + e_i \\ y_i &= 0 \quad \text{if } y_i^* \leq 0 \\ y_i &= y_i^* \quad \text{if } y_i^* > 0 \end{aligned}$$

y_i^* is the index variable or the latent variable and the observed dependent variable is y_i . When the latent variable takes values below zero, only zeros are observed. Therefore, the data are always censored in this way. The vector of independent variables, x_i , includes all the five groups of explanatory variables described in the earlier section. b_i is the vector of parameters of

interest corresponding to the set of independent variables. e_i is the random error with zero mean and finite variance. We use the Tobit procedure in the LIMDEP (version 7.0) to estimate our model of consumption. The results of this analysis are reported in Tables 6a and b. The estimated coefficients are different from those reported in Table 5, which are based on regression analysis. Some variations are found across various expenditure categories. For the sake of parsimony, we concentrate our discussion on those estimates which are statistically significant in the models.

[Insert Tables 6a and b]

Risk Factors. In general, the impacts of the two risk factors are limited. Only failure risk (as indicated by EXPE and SIZE) has significant effects on some categories, while financial risk (as indicated by DE) has no effect at all. More specifically, for food expenditure, the estimate of SIZE is negative and significant at 1% level, implying that the share of food consumption increases with greater failure risk (i.e., smaller firm size). Since food is a basic necessity, in case of high failure risk in their businesses, households will try to reduce the total household expenditure (a finding shown in Table 5) by cutting back expenditure in other categories. This will end up with a higher share in food consumption. For socializing expenses, only the estimate of SIZE is positive and significant at 10%. Larger firms with smaller failure risk are likely to spend more on socializing activities, as they may consider such activities to be an important kind of investment, for the sake of building important business networks. For children's education and transport expenses, households that have a longer duration of business operation (EXPE) tend to spend more on these two items. A lower level of failure risk in business may encourage the entrepreneurs to spend more on children's education as a major form of human capital investment in the household, and to spend more on traveling to look for business opportunities.

Household Variables. Overall, the effects of household variables on expenditure shares are strong. First of all, for food expenditure, the estimates of HOUR and HDSIZE are positive and significant at 5% and 10% level respectively, while the estimates of INCOME and FTSWK are negative and significant at 1% and 5% level respectively. It is also found that the effect of business profit (PROFIT) on food consumption is relatively small, probably due to the

transitory nature of business profit. The more time the entrepreneurs spend on the business, the more will be spent on food in the household. One explanation for this is that increasing working hours reduces the labor available for domestic duties such as food preparation and leads to eating out more often, which, in effect, raises the food consumption share. A similar explanation can also be given for the positive relationship between the number of household members working full time in their own business units and the food consumption share. The negative relationship between household earned income and food consumption share can be explained as follows: households are likely to move away from necessities like food and spend more on other categories, when they have more stable income. Secondly, for socializing expenses, only the estimate of INCOME is positive and significant at 5%, suggesting that higher household income may result in a larger share of socializing expenses. Thirdly, for medical expenses, longer working hours (HOUR) results in more medical expenses as the estimate of HOUR is positive and significant at 1% level. Fourthly, for expenditure on children's education, households with more earned income or those which are larger tend to spend more on this category. This suggests that human capital investment on children is closely related to resources available in the family. When more household members are employed on a full-time basis, the households tend to spend less on children's education. This may be due to the fact that time inputs by household members are essential complements to expenditure on children's education. Such a relationship may also reflect the family life cycle stage. Fifthly, it is found that proportionally more is spent on transport when more household members are working full time in the family business. Finally, the more household members working full time either inside or outside their own business units, the larger the proportion of entertainment expenditure. This is because there are more adult members in these families who are likely to spend more money on leisure activities. However, an increase in household size (HDSIZE) leads to a reduction in the expenditure share of entertainment consumption.

Future Business Plans. We turn to the effect of future plans on the expenditure shares of different categories of consumption items. For food expenditure, the estimates of F1 (intend to expand the business operation), F2 (intend to maintain the status quo), F3 (intend to downsize the business), F4 (intend to close the business) and F6 (intend to change the business direction) are all positive and significant at 1% level. The positive estimate of F1 indicates that entrepreneurial households who intend to expand their businesses may perceive that their

permanent income will increase. Therefore, they increase their current food expenditure. The positive estimate of F2 confirms the previous discussion above. The positive estimate of F3 suggests that downsizing or reduction of operation scale leads to improved business prospects and a higher permanent income. In addition, the positive estimate of F4 suggests that closing down the business does not actually lead to any loss but to an increase in living standards. The positive estimate of F6 shows that the long-term improvement of business prospects dominates the short-term adjustment difficulties and leads to an increase in current consumption. For socializing expenses, F1, F2, F3, F4 and F5 (intend to line up with state-owned and collective-owned enterprises) are positive and significant at 1%. The positive estimate of F5 is fairly straightforward: When the entrepreneurs intend to network with state- and collective-owned enterprises, they obviously need to spend more on socializing activities to build connections with people working in the target enterprises. For medical expenses, all the estimates of F1 to F5 are positive and significant at 10%, 5% and 1% level. For expenditure on children's education, only the estimates of F6 and F8 (intend to cooperate with foreign firms) are positive and significant at 10% and 1% level. For entertainment expenses, the estimate of F8 is positive and significant at 10% level, indicating that entrepreneurs who intend to cooperate with foreign companies spend more on entertainment.

Home Ownership. Finally, we discuss how the set of home ownership variables affects the expenditure share. For food expenditure, the estimate of BYHOME (intention of buying a house) is negative and significant at 10% level. This may be caused by the increased desire to save, which reduces the food consumption share. For socializing expenses, the estimate of home ownership is positive and significant at 1%, indicating that households with home ownership spend more on socializing activities. For medical expenses, home ownership leads to more medical expenses as the estimate is positive and significant at 1% level. For expenditure on children's education and transport, home ownership also has a positive effect. However, home ownership is negatively related to the expenditure share of entertainment expenses.

[Insert Table 7]

To test for the relative effects of different sets of variables (including risk factors, household variables, future business plan, and home ownership) on different categories of consumption expenses, we conduct several Wald tests. The results are reported in Table 7. First of all, the effect of failure risk (as indicated by EXPE and SIZE) is only present in food, socializing activities, transport, and other miscellaneous items, but not in the remaining categories of consumption. The effect of financial risk is not analyzed here because its indicator, DE, is found to be not statistically significant in the Tobit models. Additionally, as shown in Table 5, this variable is statistically insignificant in the regression analysis of household expenditure. This result, however, is not surprising because financial leverage does not affect the market value of the firm according to Modigliani-Miller Theorem (1958). Evidence in the U.S. also shows that reliance upon debt capital at the point of business start-up is clearly not associated with business weakness nor with a higher risk of business failure (Bates 1990). In view of this observation, financial leverage may pose negligible risk on the value of firms, and thus it does not affect the consumption level of the entrepreneurial households. Overall, our empirical tests and estimations confirm that entrepreneurs' household consumption is negatively related to failure risk. The precautionary motive of saving is likely to be a major reason for these households to cut back their consumption, particularly when they face higher risks in their businesses. For the set of household variables, a significant effect is present in food, children's education, entertainment, and other miscellaneous items. It should be noted that, among various household variables, the estimate of PROFIT is smaller than that of INCOME in all Tobit models. This indicates the transitory nature of business profits and that its effect on consumption patterns of entrepreneur households is minimal. This gives empirical support to the permanent income hypothesis. Finally, the effect of future business plan is present in all expenditure categories, while the effect of home ownership is present in almost all expense categories except food. It seems that these two sets of factors are important considerations when the households make their consumption decisions.

DISCUSSION AND CONCLUSION

Since the implementation of economic reforms in 1978, the private sector in the Chinese economy has been growing rapidly. Simultaneously, the consumer market in China has also

been expanding vigorously. Private entrepreneurs, whose wealth has accumulated substantially overtime, have been a major targeted group of consumers for many domestic and overseas marketers. However, not much is known about what these private entrepreneurs consume and what factors determine their consumption patterns. Although there has been a huge body of literature studying consumption patterns, little research has focused on entrepreneur households, which have more financial resources and are exposed to financial risks other than unemployment risk. Almost all existing studies consider wage-earners' consumption decisions, and the consumption patterns of small business owners are largely neglected. Therefore, our paper makes a major contribution to the literature by providing an empirical analysis on the consumption patterns of entrepreneurs' households in China. In fact, private entrepreneurs face more than one type of risk (i.e., failure risk and financial risk). These risk factors are likely to affect their household resources and consumption. Their effects on the household's decision on consumption are investigated in this study. Failure risk is found to be an important determinant while financial risk is found to have little impact on household consumption. This result is consistent with the research finding by Bates (1990) that financial leverage poses negligible risk on the market value of a firm. For this reason, even under high financial risk, the entrepreneurs may perceive no change in their wealth and thus make no change in their consumption patterns. On the other hand, risk of failure is found to have statistically significant effect: The higher the levels of this type of risk, the lower will be the consumption expenditure in the entrepreneurs' households. This result is consistent with the findings in the existing literature that business owners would like to reduce their consumption and increase their savings if they face a higher failure risk.

In addition to risk factors, the effects of household factors, future business plans, and home ownership have also been evaluated in the present study. The set of household variables is shown to be crucial to the consumption decisions made by entrepreneurs in China. This result gives strong support to the application of the household production model in understanding the consumption behavior of entrepreneurs in China. More specifically, changes in their households' resources or labor supply decisions will generate changes in consumption patterns in these households. Furthermore, the factors of future business plans and home ownership are also shown to influence the consumption patterns of entrepreneurial households, as their effects

on the expenditure shares of consumption categories are shown to be statistically significant in most cases.

A number of marketing implications can be drawn from the present study. First of all, for the entrepreneurial households, it is found that food consumption constitutes the largest share of expenditure (i.e., 58.4%), even though these households have more financial resources than an average household in China. This implies that there is a huge market potential for food, drinks, and catering. Given such a great demand, more marketing effort is needed to promote healthy and quality foodstuffs, imported alcoholic drinks, and decent restaurants to cater to this group of consumers. We also found that socializing and children's education expenses are the second and third largest component of their spending (i.e., 14.4% and 9.7%). According to Li (1998), there has been an increasing demand for private schooling and luxury items as gifts to friends and business partners. Hence, marketing strategies should be designed to address the special needs of these households.

The new leader in the PRC's government, Premier Zhu Ronji, is pushing for a faster and deeper reform of the economy. Findings of this study may provide useful implications for these reform policies. First, as the consumption patterns of entrepreneurs are significantly affected by the risk involved in their businesses, further reforms in the banking sector may affect these households' consumption decisions. The reforms in the financial sector mean that more bank loans are available to enterprises in the non-state sector, including the *getihu*. This is likely to reduce the failure risk encountered by the entrepreneurs as liquidity problems faced by enterprises in the private sector has been one of the major reasons for the failure of private businesses in China. Our findings suggest that this reduction in risk exerts a positive effect on consumption by the entrepreneurs in China. Second, as household factors are important in the consumption decisions of these entrepreneurial households, recent labor reforms may also have important bearings on their consumption patterns. A large number of workers have been laid off or forced to retire earlier from state-owned enterprises. Some of these workers who are family members or relatives of the entrepreneurs are likely to be absorbed by their *getihu*. Our findings suggest that more family members working full time for the business on a full-time basis leads to a positive effect on the household consumption as less household labor is available for household production. This, in turn, leads to a greater demand for market goods

and services. Moreover, these additional workers may add fuel for further development of the private businesses, which in turn, may affect the investment and consumption decisions of the households. Finally, as home ownership is shown to be a significant factor in the consumption decisions of entrepreneurial households, the proposed housing reform is also likely to have effects on the consumption patterns. More residential housing will be available to ordinary people for purchase under the proposed reform. According to our findings, the intention of buying a house or a living place has a significant impact on the expenditure share of most major consumption items. Home ownership has positive effects on the expenditure shares of socializing, medical care, children's education and transportation while it has negative effects on the shares of food and entertainment expenses. In view of the above, marketers of different products may adjust their strategies in face of these predicted changes in consumption patterns of this group of consumers.

There are three limitations of our study, however. First of all, we restricted our analysis to small business owners, *getihu*, rather than all kinds of entrepreneurs in China. Thus, the generalizability of our findings may be limited. Our approach, however, can readily be extended to study other groups of consumers in China, such as professional and managerial workers, who also have high income and consumption power. Second, our study relied on a cross-sectional design. Although such design is good in the sense that we can ignore the over-time changes in income and prices of goods and services, it prevents inferences about causal directions. Longitudinal data, which is rarely available in China, are likely to provide better information on the consumer behavior of this group of consumers. Third, our paper has not considered the impact of risk factors originating in the social and political arenas. For example, private entrepreneurs in China were subjected to constant harassment from local or regional government officials. In addition, during the period of rapid economic transformation, many private entrepreneurs feared the loss of their private property in political backlashes and hesitated to invest too much in their businesses under the threat of "fat big policy" — the state waits until their businesses grow larger and then takes them over (Young 1991). Further research should be undertaken to investigate the impacts of social and political risk factors on entrepreneurs' investment and consumption behavior.

The present study has paved the way for further research on consumption patterns of entrepreneur households in contemporary China. In particular, we have revealed the important role played by (1) risks and uncertainties faced by Chinese consumers in their economic life during a period of economic transformation; and (2) the household circumstance particularly financial resources and labor allocation within the family in determining their consumption decisions. Given their importance, these factors should not be ignored in future studies of Chinese consumers.

Table 1. Hypothetical Effects of Independent Variables on Household Expenditures

Independent Variables	Expected Impact on Household Expenditures
Socio-demographic Characteristics	
Urban area	Positive
Coastal region	Positive
Sex (female=1; male=0)	Positive
Age	Positive
Educational level	Positive
Previous Job	Varies according to type of job
Risk Factors	
Risk of Failure	
Years of business ownership	Positive
Firm size	Positive
Financial Risk	
Debt-equity ratio	Negative
Household Variables	
Annual business profit	Negligible
Annual earned income	Positive
Hours of work in business	Varies depending on substitute/complement relationship
Household members working full time within the business unit	Varies depending on substitute/complement relationship
Household members working full time outside the business unit	Varies depending on substitute/complement relationship
Household size	Positive
Future business plans	Varies depending on specific plan
Home ownership	Negative

Table 2. Frequency Statistics of Dummy Variables

Variables	Definition	Value Label	Percent
URBAN	The location of household in urban (or rural) area	Rural	89.9
		Urban	10.1
COAST	The location of household in coastal (or inner) region	Inner	46.0
		Coastal	54.0
SEX	The gender of the entrepreneur	Male	72.7
		Female	27.3
SKILL	Unskilled worker or peasant in previous employment	No	21.0
		Yes	79.0
PRF	Professional worker in previous employment	No	96.0
		Yes	4.0
HED	Head of work unit in previous employment	No	99.4
		Yes	0.6
CLE	Clerical worker in previous employment	No	98.1
		Yes	1.9
SRV	Commerce or service worker in previous employment	No	96.9
		Yes	3.1
MWK	Production or transportation worker in previous employment	No	94.3
		Yes	5.7
OWK	Other types of worker or laborer in previous employment	No	94.3
		Yes	5.7
F1	Have a plan to expand the business operation	No	83.6
		Yes	16.4
F2	Have a plan to maintain the current state of business	No	29.7
		Yes	70.3
F3	Have a plan to downsize the business operation	No	95.4
		Yes	4.6
F4	Have a plan to close the business	No	96.5
		Yes	3.5
F5	Have a plan to line up with state- and collective-owned enterprises	No	98.2
		Yes	1.8
F6	Have a plan to change the business direction	No	95.5
		Yes	4.5
F7	Have a plan to strengthen horizontal integration	No	98.7
		Yes	1.3
F8	Have a plan to cooperate with foreign firms	No	99.7
		Yes	0.3
HOME	Ownership of one home	No	15.9
		Yes	84.1
BYHOME	Have a plan to build, renovate or buy a new living place	No	84.5
		Yes	15.5

Table 3. Descriptive Statistics of Independent Variables

Variables	Description	Mean	S. D.
AGE	Age of the entrepreneur	38.21	11.30
EDUC	Education level of the entrepreneur	2.80	0.83
EXPE	Number of years in business	4.41	2.63
SIZE	Number of helpers and apprentices in the business	0.53	1.69
DE	Debt-equity ratio	1.43	59.22
PROFIT	Annual business profit	-8283.34	766124.31
INCOME	Annual earned income in the household	2219.24	4050.91
HDINCOME	Total annual household income	-6064.10	766103.00
HOUR	Total number of hours a day spent on business by the entrepreneur	8.97	4.11
FTSWK	Number of household members who work full time in the business	0.62	0.93
FTOWK	Number of household members who have full-time jobs outside the business	0.46	0.92
HDSIZE	Total number of household members	3.80	2.56
EXP	Average monthly household consumption	314.90	358.38
FOOD	Proportion of expenditure on food	0.58	0.20
SOC	Proportion of expenditure on socializing activities	0.14	0.12
MED	Proportion of expenditure on medical care	0.07	0.07
EDU	Proportion of expenditure on children's education	0.10	0.12
TRN	Proportion of expenditure on transport	0.04	0.07
ENT	Proportion of expenditure on entertainment	0.02	0.05
OTH	Proportion of expenditure on other miscellaneous items	0.04	0.10

Table 4. Categories of monthly expenditure share by annual household income group

Household Income (\$)		Socializing			Children			Others
		Food	Activities	Medical	Education	Transport	Entertainment	
Lowest thru - 10000	mean	0.49	0.20	0.09	0.12	0.04	0.03	0.03
	S.D.	(0.21)	(0.12)	(0.07)	(0.14)	(0.05)	(0.05)	(0.07)
-9999.99 to - 7500	mean	0.52	0.19	0.10	0.14	0.05	0.01	0.04
	S.D.	(0.23)	(0.15)	(0.12)	(0.21)	(0.08)	(0.02)	(0.06)
-7499.99 to - 5000	mean	0.49	0.14	0.06	0.18	0.06	0.01	0.06
	S.D.	(0.20)	(0.12)	(0.07)	(0.20)	(0.09)	(0.03)	(0.14)
-4999.99 to - 2500	mean	0.52	0.18	0.05	0.11	0.09	0.03	0.03
	S.D.	(0.19)	(0.12)	(0.05)	(0.10)	(0.20)	(0.04)	(0.07)
-2499.99 to - 0.01	mean	0.53	0.16	0.07	0.11	0.06	0.04	0.03
	S.D.	(0.19)	(0.14)	(0.08)	(0.13)	(0.09)	(0.06)	(0.08)
0 to 2499.99	mean	0.59	0.14	0.08	0.10	0.05	0.02	0.04
	S.D.	(0.21)	(0.12)	(0.08)	(0.12)	(0.08)	(0.04)	(0.11)
2500 to 4999.99	mean	0.59	0.14	0.07	0.10	0.04	0.02	0.04
	S.D.	(0.20)	(0.12)	(0.08)	(0.12)	(0.07)	(0.04)	(0.09)
5000 to 7499.99	mean	0.60	0.14	0.06	0.09	0.04	0.03	0.05
	S.D.	(0.19)	(0.11)	(0.05)	(0.11)	(0.08)	(0.07)	(0.11)
7500 to 9999.99	mean	0.59	0.13	0.06	0.10	0.04	0.03	0.05
	S.D.	(0.20)	(0.11)	(0.06)	(0.12)	(0.08)	(0.04)	(0.11)
10000 thru highest	mean	0.57	0.16	0.06	0.09	0.04	0.03	0.05
	S.D.	(0.19)	(0.13)	(0.06)	(0.10)	(0.07)	(0.05)	(0.10)

Table 5. Regression Analysis of the Monthly Household Expenditure

Variables	Unrestricted model		Restricted Model I		Restricted Model II		Restricted Model III		Restricted Model IV	
URBAN	87.11**	(9.63)	88.48**	(9.52)	92.87**	(9.83)	87.33**	(9.65)	86.69**	(9.69)
COAST	54.97**	(18.05)	63.70**	(17.83)	66.36**	(18.08)	55.28**	(18.11)	56.38**	(17.87)
SEX	16.96#	(9.84)	14.27	(9.98)	39.10**	(9.67)	13.21	(9.71)	16.55#	(9.89)
AGE	1.03*	(0.42)	1.16**	(0.40)	1.87**	(0.42)	0.75*	(0.38)	0.88*	(0.41)
EDUC	17.21**	(5.19)	21.20**	(5.52)	22.59**	(5.23)	17.45**	(4.46)	15.64**	(5.10)
PRF	36.47	(22.92)	53.17*	(22.38)	43.83#	(23.74)	43.72*	(21.99)	39.81#	(22.65)
HED	-69.29	(58.43)	-18.93	(42.28)	-45.06	(54.47)	-58.88	(58.72)	-65.48	(58.95)
CLE	20.25	(34.67)	40.37	(32.30)	44.62	(34.53)	21.69	(34.76)	23.81	(34.10)
SRV	124.6*	(53.78)	133.00*	(54.52)	136.73*	(54.00)	125.21*	(54.09)	129.50*	(52.96)
MWK	73.04**	(22.89)	82.86**	(25.94)	88.61**	(23.48)	74.01**	(23.13)	76.58**	(23.07)
OWK	12.26	(21.37)	14.65	(21.49)	31.02	(23.97)	12.40	(21.54)	13.29	(21.35)
EXPE	3.09	(1.99)			5.58**	(2.07)	3.26	(1.99)	2.96	(1.971)
SIZE	29.92**	(10.13)			37.87**	(9.29)	30.65**	(10.02)	30.23**	(10.24)
FT1			53.56**							
DE	-0.02	(0.02)	-0.03	(0.02)	-0.03	(0.02)	0.01*	(0.01)	-0.02	(0.02)
PROFIT	0.6x10 ⁻⁵ *	(0.3x10 ⁻⁵)	0.7x10 ⁻⁵ *	(0.3x10 ⁻⁵)			0.4x10 ⁻⁵ #	(0.2x10 ⁻⁵)	0.6x10 ⁻⁵ *	(0.3x10 ⁻⁵)
INCOME	0.01**	(0.003)	0.01**	(0.003)			0.01**	(0.003)	0.01**	(0.003)
HOURL	4.12**	(1.20)	4.49**	(1.19)			4.19**	(1.20)	4.12**	(1.20)
FTSWK	28.70**	(9.36)	39.23**	(8.78)			30.09**	(9.56)	28.99**	(9.35)
FTOWK	12.44#	(7.27)	12.20#	(7.34)			13.43#	(7.36)	12.96#	(7.25)
HDSIZE	13.98**	(2.99)	14.34**	(3.18)			13.73**	(3.02)	13.62**	(2.95)
FT2					49.17**					
F1	21.32	(24.46)	27.04	(24.56)	45.87#	(24.88)			19.22	(23.84)
F2	-22.76	(21.35)	-23.84	(21.30)	-7.46	(21.72)			-26.66	(20.84)
F3	-15.30	(27.61)	-11.77	(27.99)	-7.00	(28.00)			-18.95	(27.33)
F4	-1.64	(34.62)	-5.580	(35.61)	17.18	(35.74)			-4.30	(34.58)
F5	-35.28	(39.95)	-13.45	(38.57)	-37.86	(41.14)			-35.43	(40.05)
F6	23.16	(31.39)	20.22	(31.25)	35.83	(32.37)			23.66	(31.22)
F7	120.73	(81.32)	132.29	(82.80)	136.79	(89.43)			120.42	(81.55)
F8	127.97	(97.20)	141.50	(100.88)	179.77	(113.83)			131.67	(98.52)
FT3							3.76**			
HOME	-21.56#	(11.86)	-23.26#	(12.85)	5.85	(11.77)	-22.22#	(11.92)		
BYHOME	19.87	(15.31)	26.44	(16.18)	30.74#	(15.76)	27.15#	(14.83)		
FT4									2.56	
Adj. R ²	0.14		0.12		0.09		0.13		0.14	
N	5071		5071		5071		5071		5071	

Note: The values in parentheses are the standard errors of the corresponding estimates (on the left) and they have been corrected for the presence of heteroskedasticity under White (1978) method. '#', '*', and '**', indicate that the estimates are statistically significant at 10%, 5% and 1% level respectively.

Table 6a. Results of Tobit Analysis for Various Categories of Expenditures

Variables	FOOD		SOC		MED		EDU	
URBAN	0.074**	(0.006)	-0.011**	(0.004)	-0.012**	(0.002)	-0.017**	(0.004)
COAST	0.027**	(0.010)	-0.007	(0.007)	-0.003	(0.004)	-0.007	(0.008)
SEX	0.088**	(0.006)	-0.8x10 ⁻³	(0.004)	0.003	(0.002)	0.011*	(0.005)
AGE	0.004**	(0.2x10 ⁻³)	0.9x10 ^{-3**}	(0.2x10 ⁻³)	0.5x10 ^{-3**}	(0.1x10 ⁻³)	0.4x10 ^{-3*}	(0.2x10 ⁻³)
EDUC	0.054**	(0.003)	0.017**	(0.002)	0.001	(0.001)	0.003	(0.002)
PRF	-0.034*	(0.015)	0.006	(0.010)	-0.002	(0.006)	-0.021#	(0.012)
HED	-0.048	(0.039)	0.013	(0.025)	-0.030#	(0.016)	-0.019	(0.030)
CLE	0.006	(0.022)	-0.020	(0.014)	-0.009	(0.009)	-0.027	(0.017)
SRV	-0.013	(0.017)	-0.014	(0.011)	-0.013#	(0.007)	0.009	(0.013)
MWK	-0.015	(0.013)	-0.004	(0.008)	0.009#	(0.005)	-0.2x10 ⁻³	(0.010)
OWK	-0.023#	(0.013)	0.015#	(0.008)	0.007	(0.005)	-0.007	(0.010)
EXPE	0.3x10 ⁻³	(0.001)	0.2x10 ⁻³	(0.8x10 ⁻³)	-0.2x10 ⁻³	(0.5x10 ⁻³)	0.002*	(0.8x10 ⁻³)
SIZE	-0.005**	(0.002)	0.003#	(0.001)	0.2x10 ⁻⁴	(0.7x10 ⁻³)	0.1x10 ⁻³	(0.001)
DE	0.6x10 ⁻⁵	(0.5x10 ⁻⁴)	-0.2x10 ⁻⁴	(0.3x10 ⁻⁴)	0.9x10 ⁻⁵	(0.2x10 ⁻⁴)	0.1x10 ⁻⁴	(0.4x10 ⁻⁴)
PROFIT	0.8x10 ^{-8*}	(0.4x10 ⁻⁸)	-0.5x10 ⁻⁹	(0.2x10 ⁻⁹)	-0.2x10 ⁻⁸	(0.2x10 ⁻⁸)	-0.7x10 ^{-8*}	(0.3x10 ⁻⁸)
INCOME	-0.3x10 ^{-5**}	(0.7x10 ⁻⁶)	0.1x10 ^{-5*}	(0.5x10 ⁻⁶)	-0.4x10 ⁻⁶	(0.3x10 ⁻⁶)	0.1x10 ^{-5*}	(0.6x10 ⁻⁶)
HOUR	0.003**	(0.7x10 ⁻³)	-0.2x10 ⁻³	(0.5x10 ⁻³)	0.7x10 ^{-3*}	(0.3x10 ⁻³)	-0.2x10 ⁻³	(0.5x10 ⁻³)
FTSWK	-0.007*	(0.003)	-0.9x10 ⁻³	(0.002)	-0.5x10 ⁻³	(0.001)	-0.007**	(0.003)
FTOWK	-0.1x10 ⁻³	(0.003)	-0.9x10 ⁻³	(0.002)	-0.001	(0.001)	-0.009**	(0.003)
HDSIZE	0.006**	(0.001)	-0.001	(0.8x10 ⁻³)	0.2x10 ⁻³	(0.5x10 ⁻³)	0.005**	(0.001)
F1	0.079**	(0.012)	0.050**	(0.008)	0.019**	(0.005)	-0.012	(0.009)
F2	0.095**	(0.011)	0.037**	(0.007)	0.016**	(0.005)	0.006	(0.008)
F3	0.069**	(0.016)	0.032**	(0.011)	0.012#	(0.007)	0.007	(0.012)
F4	0.063**	(0.018)	0.054**	(0.012)	0.023**	(0.007)	-0.008	(0.014)
F5	0.029	(0.022)	0.043**	(0.014)	0.022*	(0.009)	0.004	(0.016)
F6	0.039**	(0.015)	0.004	(0.010)	-0.003	(0.006)	0.021#	(0.011)
F7	-0.001	(0.026)	-0.010	(0.017)	-0.009	(0.011)	0.013	(0.020)
F8	-0.045	(0.051)	0.033	(0.033)	0.006	(0.021)	0.074#	(0.038)
HOME	0.005	(0.008)	0.027**	(0.005)	0.022**	(0.003)	0.021**	(0.006)
BYHOME	-0.014#	(0.008)	0.007	(0.005)	-0.9x10 ⁻³	(0.003)	0.008	(0.006)
LRT	482.80**		3166.04**		4874.18**		6284.55**	
σ	0.205**	(0.002)	0.132**	(0.001)	0.083**	(0.9x10 ⁻³)	0.149**	(0.002)
N	5071		5071		5071		5071	

- Note:
1. '#', '*' and '**' indicate that the corresponding estimates are statistically significant at ten, five and one percent level respectively.
 2. Due to the presence of heteroskedasticity, the reported asymptotic standard errors are heteroskedasticity consistent estimates according to White (1978) procedure.
 3. LRT is the likelihood ratio test statistic of imposing zero restrictions on all coefficients of the explanatory variables.

Table 6b. Results of Tobit Analysis for Various Categories of Expenditures

Variables	TRN		ENT		OTH	
URBAN	-0.020**	(0.004)	-0.004	(0.003)	-0.018#	(0.010)
COAST	0.006	(0.007)	0.013**	(0.005)	-0.026	(0.018)
SEX	-0.007#	(0.004)	0.002	(0.003)	-0.029**	(0.010)
AGE	-0.4x10 ^{-3*}	(0.2x10 ⁻³)	-0.7x10 ^{-3**}	(0.1x10 ⁻³)	-0.002**	(0.4x10 ⁻³)
EDUC	0.003#	(0.002)	0.005**	(0.001)	-0.023**	(0.005)
PRF	0.002	(0.010)	0.011	(0.007)	0.031	(0.026)
HED	-0.013	(0.025)	0.047**	(0.017)	0.103#	(0.059)
CLE	-0.005	(0.014)	0.014	(0.010)	0.068#	(0.035)
SRV	-0.6x10 ⁻³	(0.011)	0.014#	(0.008)	0.064*	(0.028)
MWK	-0.013	(0.008)	0.014*	(0.006)	0.028	(0.022)
OWK	0.004	(0.008)	-0.006	(0.006)	0.018	(0.021)
EXPE	0.002**	(0.8x10 ⁻³)	0.1x10 ⁻³	(0.5x10 ⁻³)	0.002	(0.002)
SIZE	0.002	(0.001)	0.5x10 ⁻³	(0.8x10 ⁻³)	0.007*	(0.003)
DE	0.3x10 ⁻⁴	(0.3x10 ⁻⁴)	0.2x10 ⁻⁴	(0.2x10 ⁻⁴)	0.8x10 ⁻⁴	(0.7x10 ⁻⁴)
PROFIT	0.1x10 ⁻⁸	(0.3x10 ⁻⁸)	0.1x10 ⁻⁸	(0.2x10 ⁻⁸)	0.5x10 ⁻⁸	(0.8x10 ⁻⁸)
INCOME	0.2x10 ⁻⁶	(0.5x10 ⁻⁶)	0.5x10 ⁻⁶	(0.3x10 ⁻⁶)	0.3x10 ^{-5**}	(0.1x10 ⁻⁵)
HOUR	-0.4x10 ⁻³	(0.5x10 ⁻³)	0.1x10 ⁻³	(0.3x10 ⁻³)	-0.5x10 ⁻³	(0.001)
FTSWK	0.007**	(0.002)	0.005**	(0.002)	0.011#	(0.006)
FTOWK	-0.4x10 ⁻³	(0.002)	0.005**	(0.002)	0.015**	(0.006)
HDSIZE	-0.7x10 ⁻³	(0.8x10 ⁻³)	-0.001*	(0.6x10 ⁻³)	-0.3x10 ⁻³	(0.002)
F1	0.013	(0.008)	0.008	(0.006)	-0.023	(0.021)
F2	-0.006	(0.007)	-0.009#	(0.005)	-0.031	(0.019)
F3	0.014	(0.010)	-0.008	(0.008)	-0.022	(0.028)
F4	0.001	(0.012)	-0.002	(0.008)	0.014	(0.029)
F5	0.1x10 ⁻³	(0.014)	-0.002	(0.010)	-0.148**	(0.044)
F6	0.004	(0.010)	0.003	(0.007)	-0.009	(0.025)
F7	0.005	(0.016)	0.006	(0.012)	0.077#	(0.041)
F8	-0.002	(0.032)	-0.048#	(0.025)	-0.004	(0.082)
HOME	0.013*	(0.005)	-0.008*	(0.004)	0.1x10 ⁻³	(0.014)
BYHOME	0.007	(0.005)	0.006	(0.004)	0.044**	(0.013)
LRT	11657.3**		15677.3**		12284.2**	
σ	0.121**	(0.002)	0.084**	(0.001)	0.272**	(0.006)
N	5071		5071		5071	

- Note: 1. '#', '*' and '**' indicate that the corresponding estimates are statistically significant at ten, five and one percent level respectively.
2. Due to the presence of heteroskedasticity, the reported asymptotic standard errors are heteroskedasticity consistent estimates according to White (1978) procedure.
3. LRT is the likelihood ratio test statistic of imposing zero restrictions on all coefficients of the explanatory variables.

Table 7. Wald Tests for Different Sets of Variables in Tobit Model

Variable sets	Food	Socializing expenses	Medical	Children Education	Transport	Entertainment	Others
Failure risk	7.74*	4.83 [#]	0.15	4.54	10.72**	0.43	6.16*
Household variables	57.71**	7.63	9.18	50.04**	9.38	20.95**	24.29**
Future Business plan	76.51**	50.25**	24.02**	16.44*	18.03*	25.54**	17.58*
Home ownership	3.47	29.85**	44.38**	13.18**	7.64*	7.02*	10.89**

Note: 1. [#], * and ** indicate that the corresponding estimates are statistically significant at ten, five and one percent level respectively.

REFERENCES

- Abramson, Neil R., and Ai, Janet X.: Using Guanxi-Style Buyer-Seller Relationships in China: Reducing Uncertainty and Improving Performance Outcomes. *The International Executive* 39 (November/December 1997): 765-804.
- Audretsch, David B., and Mahmood, Talat.: The Rate of Hazard Confronting New Firms and Plants in U.S. Manufacturing. *Review of Industrial Organization* 9 (February 1994): 41-56.
- Bates, Timothy: Entrepreneur Human Capital Inputs and Small Business Longevity. *Review of Economics and Statistics* 72 (November 1990): 551-559.
- Becker, Gary S.: A Theory of the Allocation of Time. *Economic Journal* 75 (September 1965): 493-517.
- Chern, Wan S., and Wang, Guijing: The Engel Function and Complete Food Demand for Chinese Urban Households. *China Economic Review* 5 (Spring 1994): 35-57.
- Cui, Geng: The Different Faces of the Chinese Consumer. *The Chinese Business Review* (July-August 1997): 34-38.
- Deaton, Angus, and Muelbauer, John.: *Economics and Consumer Behavior*, Cambridge University Press, Cambridge, MA. 1980.
- Dunne, Timothy, Roberts, Mark J., and Samuelson, Larry: The Growth and Failure of US Manufacturing. *Quarterly Journal of Economics* 104 (November 1989): 671-698.
- Fan, Shenggen, Wailes, Eric J., and Cramer, Gail L.: Household Demand in Rural China: A Two-Stage LES-AIDS Model. *American Journal of Agricultural Economics* 77 (February 1995): 54-62.
- Ford, John B., LaTour, Michael S., and Henthorne, Tony L.: Perception of Marital Roles in Purchase Decision Processes: A Cross-Cultural Study. *Journal of the Academy of Marketing Science* 23 (Spring 1995): 120-131.
- Gao, X. M., Wailes, Eric J., and Cramer, Gail L.: A Two-Stage Rural Household Demand. *Journal of Agricultural Economics* 78 (August 1996): 604-613.
- Gardes, F., and Madre, J.L.: Consumption and Transitory Income: An Estimation on a Panel of French Data. *Economics Letters* 34 (October 1990): 197-202.
- Horioka, Charles Y., and Watanabe, Wakō: Why do People Save? A Micro-Analysis of Motives for Household Saving in Japan. *Economic Journal* 107 (May 1997): 537-551.
- King, Adam C., and McDaniel, Stephen W.: China Consumer Market: How Are U.S. Products Perceived? *Journal of Consumer Marketing* 6 (Fall 1989): 51-59.
- Leland, Hayne E.: Saving and Uncertainty: the Precautionary Demand for Saving. *Quarterly Journal of Economics* 82 (August 1968): 465-473.
- Lewis, Philip, and Andrews, Neil: Household Demand in China. *Applied Economics* 21 (June 1989): 793-807.
- Li, C.: *China: The Consumer Revolution*, John Wiley & Son., Singapore. 1998.

- Mansfield, Edwin: Entry, Gibrat Law, Innovation and the Growth of Firms. *American Economic Review* 52 (December 1962): 1022-1051.
- Mata, Jose, and Portugal, Pedro: Life Duration of New Firms. *Journal of Industrial Economics* 42 (September 1994): 227-243.
- Michael, Robert T., and Becker, Gary S.: On the New Theory of Consumer Behavior. *Swedish Journal of Economics* 75 (1973): 378-396.
- Miles, David: A Household Level Study of the Determinants of Incomes and Consumption. *Economic Journal* 107 (January 1997): 1-25.
- Modigliani, Franco, and Miller, Merton H.: The Cost of Capital, Corporation Finance and the Theory of Investment. *American Economic Review* 48 (June 1958): 261-297.
- Qin, Duo: Aggregate Consumption and Income in China: An Econometric Study. *Journal of Comparative Economics* 15 (March 1991): 132-141.
- Ram, Jane: Luxury Goods Firms Find a Haven in Asia. *Asian Business* 30 (July, 1994): 52-53.
- Sandmo, Agnar: The Effect of Uncertainty on Saving Decision. *Review of Economic Studies* 37 (July 1970): 353-360.
- Wang, Yan: Permanent Income and Wealth Accumulation: A Cross-Sectional Study of Chinese Urban and Rural Households. *Economic Development and Cultural Change* 43 (April 1995): 523-550.
- Wagner, Joachim: The Post-Entry Performance of New Small Firms in German Manufacturing Industries. *Journal of Industrial Economics* 42 (September 1994): 141-154.
- Wu, Yanrui, and Wu, Harry X.: Household Gain Consumption in China: Effects of Income, Price and Urbanization. *Asian Economic Journal* 11 (September 1997): 325-342.
- Young, Susan.: Policy, Practice and the Private Sector in China. *Australian Journal of Chinese Affairs* 21 (January 1989): 57-80.
- Young, Susan: Wealth But Not Security: Attitude Towards Private Businesses in China in the 1990s. *Australian Journal of Chinese Affairs* 25 (January 1991): 115-137.
- Young, Susan: The Chinese Private Sector in Two Decades of Reform. *Journal of the Asia Pacific Economy* 3 (1998): 80-103.