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Preface I

We are delighted to write this preface for the soon to be published *Research Report of China Household Finance Survey · 2012.*

Mencius, one of the most famous philosophers in Chinese history, once stated that 'A dynasty is based on a nation, while a nation is based on families'. In China, households form the basic social unit. Understanding household financial behaviors is important to macro financial policy-making, corporate product planning, and household financial decisions. The Survey and Research Center for China Household Finance conducted the first and the only nationally representative survey on household finances in China, the China Household Finance Survey (CHFS). Researchers can use this data to track and study household financial behavior and its macroeconomic effects in China. The dataset presents a unique and promising research opportunity in China.

Great universities have great dreams. Southwestern University of Finance and Economics (SWUFE) has a unique and strong background in the finance area in China. SWUFE is widely considered as one of the most important intellectual, academic, and education centers in the finance area in China. The national "985" Innovation Platform for Financial Sector is aimed at improving the state of finance in China, and integrating the research and education in finance in China. The China Household Finance Survey (CHFS) is an important part of these programs. Director of the Survey and Research Center for China Household Finance, Professor Li Gan said 'When making policies, China has good intentions, and the policy-making agencies are careful in their thinking. However, without appropriate data, their good intentions may not have good effects.' CHFS provides detailed and accurate infrastructure-type data that will be shown to be very useful in both policy and academic research. SWUFE is a pioneer in pushing boundaries in the pursuit of knowledge, with imagination, precision, and practicality.

The China Household Finance Survey is a project that requires hard work and long term commitment. We are very proud of this project and appreciate the selfless help from every sector of society and the diligence of professors, students, and staff

members. SWUFE will continue its strong support of this survey. We believe through working together we can produce a lot of exciting academic research and contribute to China's economic development.

This preface represents our sincerest thoughts and beliefs.

Southwestern University of Finance and Economics (SWUFE)
Chengdu, People's Republic of China
December, 2012

Dewu Zhao, Party Secretary

Zongyi Zhang, President

Preface II

Since the summer of 2009, my colleagues and I have been working on China Household Finance Survey (CHFS), the only nationally representative survey in China focusing on China's household assets. After three and half years of hard work, we proudly present some of the findings from the survey, The *Research Report of China Household Finance · 2012*.

The book, as you may see, contains many findings from the survey. However, the most distinctive finding, in my view, is the income and wealth disparity within China. According to the CHFS data, the Gini coefficient, widely used to measure inequality, is 0.61, one of the highest in the world. The Gini Coefficient among city residents is 0.56, and the Gini Coefficient among the rural residents is 0.61.

We find that income inequality is the key reason for China's low consumption rate. The rich hold the vast majority of Chinese savings. The top 10 % of households have 66.2 % of the total savings, and average saving rate for these households is a staggering 66.5 %. Conversely, about half of the Chinese households surveyed have negligible savings. China's rich are already spending what they need, and pocketing most of the rest. The low savings rate of most Chinese households surveyed suggests they simply don't have the money to spend. To move toward a consumer-based economy, therefore, raising the income – and spending – levels for the poor is key.

Typical thinking is to attack the problem from the income side by increasing the tax on the rich and redistribute it to the poor. Although information on this measure is still limited, it is likely to focus on the income side by regulating market wages – a disappointment if it were true. Additional regulation will not only create market inefficiencies, it simply may not work – if the past is any example, firms will find ways to circumvent regulation.

An effective approach to reduce the inequality and to boost consumption, however, is to shift government spending priorities away from massive infrastructure development – roads, railroads and airports – and toward social welfare investment.

Studies have shown that spending on social welfare can have a substantial effect on consumption. In the case of health insurance, each one dollar the government spends would increase consumption by $2.36 dollars for rural health insurance

or $4.16 for urban employee health insurance, according to a series studies my colleagues and I did in 2010.

Although 90 % of Chinese population is currently covered by three basic health insurance systems, benefits differ substantially across the three systems because of different levels of contributions made by the government to the insurance premiums. The benefit level of the rural insurance is much lower than that of urban insurance.

Another important step that the government can take is to establish an effective unemployment insurance system. So far, the coverage rate of the unemployment insurance is only 30 % of that of health insurance. It also pays too little: unemployment benefit is only 17 % of the average salary compared to 47 % in the US and 60 % in Germany.

When the economy is in transition, unemployment rate will likely rise and more people will need help. If a stronger social safety net is developed for its citizens, Chinese workers will feel less pressure to save for health emergencies, unemployment and retirement, and more likely to buy goods and services – and create a mature consumer-driven economy.

So far, compared with western countries, Chinese government spent too little on social welfare programs. The percentage that Chinese government spend on social welfare programs is 12.3 % (not including social security) while the similar percentage in the US is 36.6 %. A massive increase in social welfare spending is not only a polity of helping the poor, but also a policy of ensuring continued economic growth for the next decade.

The China Household Finance Survey (www.chfsdata.org) collects micro-level information about household housing and financial assets, debts and credit constraints, income and expenditures, social welfare and insurance, intergenerational and interpersonal transfer payments, demographics, and employment. The sample households are located in 320 communities (urban and rural) in 80 counties (districts and cities) in 25 provinces (municipality). The survey sample consists of 8438 families and more than 29,000 individuals. The first wave of face-to-face interview was carried out in July, 2011, and quarterly survey was taken on the same households since 2012.

The survey is fully financed by the Southwestern University of Finance and Economics (SWUFE) in Chengdu, China. The entire leadership of the university, in particular Professors Feng Xide, Dewu Zhao, Zongyi Zhang, Ma Xiao, and Bian Huimin, have given tremendous encouragement and support throughout the project, and their commitment of continuous support will certainly help the project to grow in the future.

I am also deeply grateful for the selfless help from the Survey of Consumer Finance (SCF) of Federal Reserve, National Opinion Research Center (NORC) at the University of Chicago, Survey Research Center (SRC) at the University of Michigan, The China Health and Retirement Longitudinal Study (CHARLS), China Family Panel Studies (CFPS) of Peking University, China General Social Survey (CGSS) of Renmin University and many other organizations for ultimately making this whole thing possible.

Gratitude is also due to countless others, including but not limited to Zhang Jianhua, Chang Li and Ji Min from the People's Bank of China; Pan Jiancheng from National Bureau of Statistics; Xie Yu from University of Michigan; Professor Li Hongbin from Tsinghua University; Professors Zhao Yaohui, Ren Qiang, Qiu Zeqi, Shen Mingming of Peking University; Professor Wang Weidong from Renmin University; Professors Li Wei and Wang Guangzhou from Chinese Academy of Social Sciences (CASS). Moreover, experts from abroad also always give us constructive advices. I would like to express heartfelt thanks to Arthur B. Kennickell and Kevin Moore from Federal Reserve; Catherine Haggerty, senior survey director of National Opinion Research Center at University of Chicago; Beth-Ellen Pennell, director of Survey Research Operations at the Survey Research Center, Institute for Social Research, University of Michigan; Gina-Qian Cheung, the chief technology officer at the Survey Research Center (SRC), University of Michigan.

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February, 2013

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Secondly, I am deeply indebted to all of our respondent households for their generous cooperation and local community staff for their warmhearted support.

I also wish to sincerely thank my colleagues Zhang Chao, Yang Ju and Hou Yongzhen who devoted their time and energy to the proofreading work of this book.

Last but not least, my thanks would go to my beloved family for their loving considerations and great confidence in me all through these years.

Li Gan

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Chapter 1
Survey Design

1.1 Sampling Design

The sampling design for the China Household Finance Survey (CHFS) comprises two major components, an overall sampling scheme and an onsite sampling scheme based on mapping. This design has two objectives: first, to draw a random sample that is representative of all Chinese households; and second, to provide sufficient data to answer important research questions such as household asset allocation, consumption, and saving. To achieve these goals, the sampling design has the following four features. First, we oversample observations from relatively wealthy regions. Second, we oversample observations from urban areas. Third, the sample is representative of the diverse geographic regions of China. Fourth, if all else is equal, we choose the least costly procedures.

1.1.1 The Overall Sampling Scheme

This project employs a stratified three-stage probability proportion to size (PPS) random sample design. The primary sampling units (PSU) include 2,585 counties (including county level cities and districts) from all provinces (including municipalities) in China except Tibet, Xinjiang, Inner Mongolia, Hong Kong, Macau, and Taiwan. The second stage of sampling involves selecting residential committees/villages from the counties/cities selected in the earlier stage. Meanwhile, the last stage involves selecting households from the residential committees/villages chosen in the previous stage. Every stage of sampling is performed with the PPS method and weighted by its population size. Consequently, the sample size is between 8,000 and 8,500 households.

In practice, we selected about 80 counties from the PSU, then four residential communities from each county, and then 20–50 households from each residential community depending on level of urbanization and economic development.

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An average of 25 households were selected from each residential community. This produces a sample size of 8,000 ($4 \times 25 \times 80 = 8{,}000$).

1.1.1.1 The First-Stage Sampling

The first-stage sampling selects 80 counties from the 2,585 PSUs. Ideally, the 80 counties should not only cover diverse geographic regions but should also contain enough observations from relatively wealthy areas in China to be a representative sample. To achieve this outcome, the 2,585 counties are sorted into 10 strata based on their GDP per capita. In each stratum, eight counties are randomly drawn with PPS and individual counties are weighted by their population size. This method obtained 80 counties covering 25 provinces in China. Table 1.1 compares descriptive statistics of GDP per capita for the selected 80 counties with national statistics, and reveals that they are very close.

To examine the geographic distribution of the selected counties based on the abovementioned sampling scheme, we repeated the PPS sampling procedure by random simulation 1,000 times and compared the average with the national statistics. The small standard deviations shown in Table 1.2 suggest that the current sampling scheme produced consistent geographic distributions of the selected counties across trials. On average, the ratio for selected counties in Eastern, Central, and Western China is about 37:30:33. Comparing the counties selected using the scheme to national statistics, the former obtained a slightly higher proportion of counties in Eastern China. However, this does not pose a serious problem because our priority is to achieve a geographically balanced distribution of counties/cities from across China. In the final sample of 80 counties/cities from 25 provinces, the ratio for selected counties in Eastern, Central, and Western China is 32:27:21.

Table 1.1 The GDP per capita of the overall PSU and the 80 sampled counties (Unit: yuan)

GDP per capita	Mean	Standard deviation	Median	Q25	Q75	Kurtosis	Skewness
Overall	17334.8	17736.9	11,370	7,173	20,263	3.2	17.64
Sample	17809.2	19336.3	11,349	7,232	21,143	3.5	20.41

Note: Q25 and Q75 are quartiles of 25 % and 75 % respectively

Table 1.2 The geographic distribution of the overall PSU and the 80 sampled counties

	Overall			Sample (Simulation: 1,000 times)		
	East	Central	West	East	Central	West
Mean	0.343	0.272	0.384	0.367	0.306	0.327
Standard deviation	–	–	–	0.023	0.023	0.023

Table 1.3 The sampling distribution of urban residential communities

Urban communities	Frequency	Percent (%)
0	15	18.75
1	10	12.50
2	15	18.75
3	15	18.75
4	25	31.25

1.1.1.2 The Second-Stage Sampling

During this stage, we select residential communities from the sampled counties. The key is to decide the ratio of urban residential committees to rural ones. If the sample is drawn based on household registration, it produces a sample with fewer observations from urban areas. One of the key purposes of the survey is to study household assets, and since urban residents are likely to have more assets we oversample the urban population by the following procedures.

First, we sort the counties according to the proportion of non-agricultural population and divide them into five groups, i.e., quintiles.
Second, for counties in the top quintile with the highest non-agricultural population, the ratio of the sampled residential communities from urban areas to rural ones is 4:0.
Third, for counties in the quintile below the top one, the ratio of sampled residential communities from urban areas to sampled villages from rural areas is 3:1.
Fourth, accordingly, for counties in the bottom quintile with the lowest level of non-agricultural population, the ratio of sampled residential communities from urban areas to sampled villages from rural areas is 0:4.

Following the above scheme, we obtained two distinct urban and rural sampling frames. Given the numbers of residential communities or villages to be drawn from each sampling frame, we then conducted PPS sampling according to the number of households in each residential community. Table 1.3 illustrates the distribution of urban residential communities in the 80 counties.

Table 1.3 shows that no urban residential community was drawn in 15 out of the 80 counties. These counties account for 18.75 % of the county level sample. In comparison, no rural village was drawn in 25 counties, accounting for 31.25 % of the sample. This outcome meets our goal of oversampling the urban population. Accordingly, among the 320 selected residential communities involved in the second-stage sampling, the ratio of urban to rural communities was 181:139.

1.1.1.3 The Third-Stage Sampling

The last stage of sampling in the CHFS was to select households from the chosen residential communities. In each rural village, we randomly drew 20 households; whereas in the urban areas, the number of households selected varied according to average housing price in the selected residential community. Based on the average