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# Financial Inclusion in China: Use of Credit

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*Subsequent publication:* Chen, Z., & Jin, M. (2017). Financial inclusion in China: Use of credit. *Journal of Family and Economic Issues*, 38(4), 528–540. doi:10.1007/s10834-017-9531-x

2016

CSD Working Papers  
No. 16-24

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## *Abstract*

Limited access to credit can cause financial vulnerability for a household and economic loss for a country. Previous studies have shown that only small portions of populations in developing countries use formal credit, but few studies have focused on Chinese populations. Analyzing data from the 2011 China Household Financial Survey, this study explored Chinese households' credit use. Over half of the sample (53.21%) reported using credit, and only 19.77% of the sample used formal credit. Use of formal credit was associated with the socioeconomic characteristics of household heads (e.g., employment and education) and of households (e.g., income and net worth). The findings suggest that promoting financial inclusion in China involves expanding access to formal credit among socially and economically disadvantaged households.

**Key words:** China Household Financial Survey, access to credit, formal credit, financial inclusion

Financial inclusion has gained increasing attention among policymakers and researchers worldwide.<sup>1</sup> This is largely because access to and use of a broad range of financial services have been linked to the financial well-being of individuals as well as to the economic growth and stability of nations (Claessens, 2006; Demirgüç-Kunt & Levine, 2008). In particular, access to credit—and thereby to external funds—enables economically disadvantaged groups to take advantage of opportunities that otherwise would be unavailable. In this sense, access to credit serves as a catalyst of economic empowerment and income equality (Beck, Demirgüç-Kunt, & Levine, 2007; Han & Melecky, 2013). Because access to credit enables the poor to generate income, which improves access to other resources (e.g., education and health care), some scholars regard access to credit as a human right (e.g., Hudon, 2009).

Despite the importance of credit, large portions of the world's population neither use nor have access to it (Allen et al., 2016; Applied Research & Consulting, 2009; Demirgüç-Kunt & Klapper, 2012). Research has documented that access to formal credit (i.e., credit from formal institutions) is far from universal in many developing countries and in some developed countries (Beck, Demirgüç-Kunt, & Levine, 2007; Demirgüç-Kunt & Klapper, 2012). Although China has recently experienced rapid economic growth, its credit market remains underdeveloped (Sparreboom & Duflos, 2012). For 430 million Chinese households, the ability to participate in the growing economy is determined by the extent to which they can obtain credit from banks and other financial institutions. As the income gap has grown between the rich and the rest (Li & Luo, 2008), credit accessibility has become a policy concern because credit has the potential to equalize opportunities and foster economic stability for all (Imboden, 2005).

Understanding socioeconomic characteristics conditioning the use of credit is of great importance in informing policy design and interventions that aim to improve financial inclusion. Although there are studies that investigate firm-level bank loans or individual use of bank loans with aggregated

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<sup>1</sup> We define financial inclusion as access to and use of financial services from formal financial institutions (Allen, Demirgüç-Kunt, Klapper, & Peria, 2016; Fungáčová & Weill, 2014).

bank-level data, few have surveyed individuals' or households' actual use of credit. To address this knowledge gap, the current study examined Chinese families' use of credit and explored barriers that prevent them from accessing it. Analyzing data from the 2011 China Household Financial Survey (CHFS), we investigated determinants of, barriers to, and purposes for using different sources of credit within a nationally representative sample of Chinese households. Our analyses contributed to and extended the existing literature by benchmarking Chinese household credit use, an important component of financial inclusion in China. This paper is organized as follows: It starts with a review of current literature on credit use and barriers to credit, briefly describes CHFS data and the analytic approach, and finally presents findings. It ends with a discussion of implications for policy on banking underserved populations and on overall financial inclusion in China.

## Literature Review

### Measuring Financial Inclusion

As we have noted above, financial inclusion is often defined as access to and use of financial services (Fungáčová & Weill, 2014; Hannig & Jansen, 2010). Proponents of financial inclusion seek to draw the unbanked population into the formal financial system, thereby expanding access to credit and other benefits (e.g., Allen et al., 2016; Demirgüç-Kunt & Klapper, 2013). It is worth noting that the two terms, *access* and *use*, are employed interchangeably but have different meanings. Hannig and Jansen (2010) suggested that efforts to expand access to financial services should incorporate understanding about barriers to receiving those services, and the barriers can be either geographic (e.g., absence of nearby bank branches) or socioeconomic (e.g., financial services are inaccessible to specific income, social, or ethnic groups). In comparison, use of financial services refers to actual service consumption, including regularity, frequency, and duration of use over time (Claessens, 2006; Hannig & Jansen, 2010). The difference between access and use can also be viewed from a supply–demand perspective: Access refers to the supply of services, whereas use is determined by demand as well as supply (Claessens, 2006; Demirgüç-Kunt & Klapper, 2012).

Accordingly, measures to assess access and use of financial services are distinct in many ways. To assess accessibility, studies have examined the per-capita number of bank branches, ATMs, deposit accounts, and loans provided by financial institutions (Beck, Demirgüç-Kunt, & Pería, 2007; Hannig & Jansen, 2010; Pería, 2013). However, data collected from institutions have limitations. The total aggregate figures (e.g., the number of loans per capita) can only provide rough estimates of the financial services used by households. This is mainly because some individuals use more than one financial service and others use no service at all (Pería, 2013). More importantly, bank-level data often lack individual-level details and do not allow identification of the population that uses the fewest financial services (Honohan, 2008).

As for measures, researchers often have surveyed individuals and firms about whether they use financial services, use frequency over time, and amount of deposits or credit (e.g., Fungáčová & Weill, 2014; Hannig & Jansen, 2010; Peachey & Roe, 2006). To date, systematic data on household use of those services remain scarce, and most of the few studies that collected individual-level data examined a limited number of common financial services rather than a wide range of the financial services in use (e.g., Tejerina & Westley, 2007). Because sociocultural considerations and high opportunity costs may persuade individuals with access to not use financial services (Beck & Demirgüç-Kunt, 2008; Beck et al., 2007), measures that assess actual use of financial services are

more reliable than measures that assess physical proximity to the formal banking branches and facilities. For this reason, our study adopted use measures to assess financial inclusion.

### **Use of Formal Credit**

One major indicator of financial inclusion is ownership of formal credit (Demirgüç-Kunt & Klapper, 2013). Formal credit refers to credit or loans issued from financial institutions that are regulated by the government and operated within the regulatory framework of the financial system (Campero & Kaiser, 2013). Studies have shown that a great number of individuals and families worldwide lack access to formal credit or do not use it (Beck & Demirgüç-Kunt, 2008; Tejerina & Westley, 2007). For example, a study by Tejerina and Westley (2007) examined credit use among households in 12 South American countries, finding that only 6.3% of families used loans from formal institutions. Moreover, there is a large gap across countries in levels of formal credit use. Credit cards, for example, are held by half of adults in developed countries but by only 7% of adults in developing ones (Demirgüç-Kunt & Klapper, 2012).

Research at the individual level has shown variation in the use of formal credit within countries across demographic and socioeconomic characteristics. Often, formal credit ownership concentrates among the better-off: people who are in the ethnic majority, male, have high educational attainment, and enjoy high income levels (Demirgüç-Kunt & Klapper, 2013). Employment and asset ownership are of particular importance in determining whether a person borrows from a formal institution (Campero & Kaiser, 2013; Claessens, 2006). This is especially the case in developing countries, where households that are headed by a male with a stable job and that own the household home are about two to five times more likely to use formal credit than are their counterparts (Campero & Kaiser, 2013; Clamara, Peña, & Tuesta, 2014; Tejerina & Westley, 2007). Individuals' residency also affects their use of formal credit. Research has consistently shown that, across many developing countries, urban residents are twice as likely as rural counterparts to borrow from formal institutions (Tejerina & Westley, 2007).

Why do large proportions of the population in many developing countries not use formal credit? Studies have commonly found that the reasons for not using formal credit are more linked to individuals' economic situations than are their reasons for not using bank accounts (e.g., physical proximity of banks and transaction fees; Beck, Demirgüç-Kunt, & Pería, 2008; Clamara et al., 2014). Collateral assets and steady employment are commonly required for formal credit but can be difficult for individuals to obtain. This is especially the case for those with low pay and low levels of education (Beck & Demirgüç-Kunt, 2008; Beck et al., 2008). Even after those qualifications are met, financial institutions are reluctant to issue loans to low-income individuals because those individual loans are often too small to be profitable (Johnston & Morduch, 2008). It is worth noting that most studies on credit-use barriers have been based on bank-level data, which have provided information about administrative thresholds that prevent people from accessing and using banking products. Few studies have surveyed individuals and families about their perceptions of barriers to accessing credit.

### **Use of Informal Credit**

Constrained access to formal credit creates a need for informal alternatives such as those obtained in subprime financial markets (e.g., from pawnshops and payday lenders) or through informal networks (e.g., family and friends; Campero & Kaiser, 2013). Compared with formal credit, informal credit

involves higher cost and the greater financial risk from unregulated operations (Beck & De la Torre, 2007). Research has shown that informal credit is widely used by those who are poor, have low levels of education, reside in rural areas, and live in female-headed households (Campero & Kaiser, 2013; Deku, Kara, & Molyneux, 2015). Household size also is related to use of informal credit: The likelihood of using money lenders and pawnshops grows with the number of household members (Campero & Kaiser, 2013). Sources of informal borrowing vary by national economic status. Individuals in developed countries tend to access informal credit through loans taken from the subprime financial market (Barr, 2004; Campero & Kaiser, 2013), whereas people living in developing countries are likely to borrow from friends and family (Demirgüç-Kunt & Klapper, 2013; Pearlman, 2010). Indeed, research has shown that 25% of adults in developing countries borrow from their family and friends (Demirgüç-Kunt & Klapper, 2013); and informal credit is used when unexpected events arise (Campero & Kaiser, 2013; Pearlman, 2010).

In sum, use of formal and informal credit differs by national economic development as well as by the socioeconomic characteristics of individuals. In developed countries, the majority of residents possess formal credit; however, few people in developing countries have borrowed from banks or have access to other forms of formal credit. Moreover, evidence on formal and informal credit use in developing countries remains thin due to data limitations.

### **Credit Use and Financial Inclusion in China**

In the past two decades, rapid economic growth has made China the world's second-largest economy, but income inequality has doubled. Disparities in access to health care, education resources, and other social services also have continued to grow (Li & Luo, 2008; Lin, Zhuang, Yarcia, & Lin, 2008; Zhuang, 2008). Concerned with the possible negative consequences of rising inequality in China, governing bodies at all levels are paying increasing attention to policies that create economic opportunities and equal access to these opportunities (Ali & Zhuang, 2007; Zhuang, 2008). Within this context, financial inclusion has become a policy tool in that improved access to financial services promotes economic participation for all and strengthens social stability (Sparreboom & Duflos, 2012). In fact, in the last decade, China's central government has introduced a series of new policies that promote banking services accessibility; these efforts have led to a noticeable increase in the number of bank outlets and service points (Sparreboom & Duflos, 2012).

Despite these and other recent efforts to improve financial access, the proportion of people using banking services remains small. A recent report by Sparreboom and Duflos (2012) identified a sizeable gap between demand and supply of bank products. Limited use of financial services can be traced back to 1970s, when China started an economic transformation that led to closure of many state-owned banks, commercial banks, and rural credit cooperatives. These institutions, especially the cooperatives, were the major financial-service providers for a great number of Chinese households (Sparreboom & Duflos, 2012). Since then, access to financial services has become difficult, particularly for people living in rural or poor urban areas (Hannig & Jansen, 2010; Sparreboom & Duflos, 2012). Limited access to formal credit is a specific concern because bank credit enables individuals with few resources to embark on productive activities and generate income (Beck & Demirgüç-Kunt, 2008). However, data collected by the World Bank showed that formal credit ownership (i.e., ownership of credit cards and bank loans) is far lower in China (7%) than in high-income economies (14%; Demirgüç-Kunt & Klapper, 2012); China's rate is the lowest among major emerging economies (e.g., Brazil, Russia, India, and South Africa; Fungáčová & Weill, 2014).

In order to address the limited access to credit in China, it is crucial to first assess the actual use of financial services by the general population. However, research on financial service use among the Chinese population remains scarce. The most reliable up-to-date research with insights into China's financial inclusion is the World Bank's Global Findex study. It collected data on individual use of financial services in 148 countries. Fungáčová and Weill (2014) used a segment of the Global Findex data set on China ( $N = 4,220$ ) to examine three indicators of financial inclusion: bank account ownership, saving, and formal credit. Their findings indicated that, compared with other emerging economies (e.g., India and Russia), China has relatively high levels of formal bank account ownership (66%) and savings account ownership (82%) but low levels of formal credit use (6%; Fungáčová & Weill, 2015). However, because Global Findex focuses on comparing financial inclusion across countries, data at individual and household levels are so limited that researchers are unable to identify individual determinants of financial service use. Deng and Meng (2013) also found that bank account ownership was prevalent among a sample of Chinese youth with disabilities, although the sample was small ( $N = 159$ ) and unrepresentative.

The lack of appropriate data presents challenges for research on individual- and household-level determinants of financial inclusion in China. The Global Findex study and others that have analyzed bank-level data suggest that formal credit in China is only offered to state-owned firms; few households borrow from formal institutions (Fungáčová & Weill, 2014; Sparreboom & Duflos, 2012). What remains little understood are the individual- and household-level determinants of financial inclusion in China as well as perspectives on barriers to using formal financial services. This study began to address these gaps by examining Chinese families' use of credit, purposes, and barriers to using formal credit. The analyses drew upon a new data set: the CHFS. This study aimed to contribute to the literature on the determinants of credit use by Chinese households and to understanding of users' perspectives on the barriers that impede financial inclusion.

## Method

### Data

This study used data from the 2011 CHFS, a nationally representative data set with household-level information on family financial assets and financial services. The CHFS data set was collected by the Survey and Research Center for China Household Finance at Southwestern University of Finance and Economics in Chengdu, China. Data were gathered through face-to-face interview surveys of 8,438 households and 28,000 members of these households. These households were identified from the general population using stratified random sampling. The current study focused mainly on the CHFS household-level data but included the individual-level data collected from heads of the households under study. The rate of rejection was 11.6%, which is lower than the rates from other major national surveys in China (Gan et al., 2014).

### Dependent Variables

Three dichotomous dependent variables, *use of formal credit*, *use of informal credit*, and *use of credit*, were created. Use of formal credit was coded 1 if participants reported borrowing from formal institutions or had credit card debt, and 0 otherwise. Participants were also asked to report their purpose for using formal credit and given several response options, including funding for microenterprise (agriculture or small business), housing, vehicle, education, and other purposes.

Use of informal credit was coded 1 if participants reported owning any credit from informal financial organizations (e.g., a pawn shop) or informal networks (family, friends, or colleagues), and it was coded 0 otherwise. Participants were also asked to report the purposes for using informal credit, and the provided response options were the same as those for the formal credit variable.

*Credit ownership* was coded 1 if participants reported that they were borrowing from formal or informal sources. It was coded 0 otherwise.

## Explanatory Variables

Sociodemographic and household characteristics were included as explanatory variables. Seven of the sociodemographic variables were dichotomous: gender (1 = *male*; 0 = *female*), educational attainment (1 = *high school or more*; 0 = *less than high school*), marital status (1 = *married or cohabited*; 0 = *others*), employment (1 = *employed*; 0 = *others*), political status (1 = *Chinese communist party member*; 0 = *not a member of Chinese communist party*), ethnicity (1 = *Han ethnicity*, the majority; 0 = *ethnic minority*), and household registration type (1 = *urban*; 0 = *rural*). Age and annual household income were coded as continuous variables. We also included a regional variable to assess whether credit ownership varies by region (eastern, central, or western region).

In addition, we are particularly interested in how asset holding affects household credit ownership. Past studies have shown that income and assets play an important role in household access to credit (Demirgüç-Kunt & Klapper, 2012; Osili & Paulson, 2008). In CHFS, a series of questions were asked about the value of assets that the household had at the time of survey. Specifically, the survey asked about home equity, vehicles, durable consumption goods (e.g., televisions, cameras, washers, and refrigerators), cash at home, balances of bank accounts, financial investment products (e.g., stocks, investment funds, derivatives, and others), luxuries (e.g., jewelries, antiques, and collections), and money lent to others. In addition, the questionnaire asked participants how much they borrowed from formal and informal sources. With information on participants' owned assets and credit, we created three continuous variables to measure household asset holding. In using this approach, we followed studies on asset poverty (Brandolini, Magri, & Smeeding, 2010; Haveman & Wolff, 2005; Huang et al., 2013). The first of the three asset-holding variables was *net worth*. To calculate it, we summed the monetary values of assets reported by participants and subtracted the amount of credit reported by participants. The second asset-holding variable, *liquid assets*, was calculated by summing the monetary value of assets that were readily cashable. These assets included cash at home; balances in bank accounts, certificates of deposit, stocks, bonds, investment funds, futures, derivatives, financial products, gold, and money lent out. The third asset variable, *net worth without home equity* (NW-HE), was calculated by subtracting the reported value of home equity from net worth.

## Analysis

The analysis for this study began with descriptive statistics on all variables of interests. Frequencies, means, and standard deviations were obtained by univariate analysis. Three logistic regressions, each with a different set of explanatory variables, were estimated to examine determinants of household credit ownership. Three multinomial logistic regressions estimated the respective probability of using formal credit, informal credit, and both in comparison to the probability of not using any credit.

Table 1. Sample Description

| Variable                                | Percent/Mean      |
|---|-------------------|
| Individual-level                        |                   |
| Gender (%)                              |                   |
| Male                                    | 73.16             |
| Female                                  | 26.84             |
| Education (%)                           |                   |
| Less than high school                   | 64.15             |
| High school or more                     | 35.85             |
| Marital status (%)                      |                   |
| Married or cohabited                    | 87.66             |
| Others                                  | 12.34             |
| Employment (%)                          |                   |
| Employed                                | 70.58             |
| Others                                  | 29.42             |
| Communist party membership (%)          |                   |
| Yes                                     | 17.30             |
| No                                      | 82.70             |
| Household registration (%) <sup>a</sup> |                   |
| Urban                                   | 52.77             |
| Rural                                   | 47.23             |
| Ethnicity (%)                           |                   |
| Han majority                            | 97.10             |
| Minority                                | 2.90              |
| Residential region (%)                  |                   |
| Eastern                                 | 47.17             |
| Central                                 | 29.84             |
| Western                                 | 22.99             |
| Age (mean)                              | 49.93 (14.06)     |
| Household-level <sup>b</sup>            |                   |
| Annual income                           | 52,578 (141,748)  |
| Net worth                               | 474,035 (999,138) |
| NW-HE                                   | 94,149 (398,737)  |
| Liquid assets                           | 47,901 (197,130)  |

*Note.* NW-HE = net worth without home equity. Standard deviations shown in parentheses.

<sup>a</sup>Household registration refers to the registration category of the household's head.

<sup>b</sup>All results shown in Chinese renminbi (CNY).

## Results

### Sample Description

Table 1 shows the summary statistics for the sample. Male-headed households comprised a majority of the sample (73.16% of the respondents were males, and 87.66% of the respondents were married). Most sampled households (47.17%) resided in the eastern region of China. Most respondents were members of the Han racial majority (97.10%), employed (70.58%), and not members of the communist party (82.70%). Nearly two thirds of respondents (64.15%) had less than a high school education. The average age of the respondents was 49.93 years ( $SD = 14.06$ ). The average annual household income was CNY 52,578 ( $SD =$  CNY 141,748), and the mean of net worth was



Table 2. Purposes for Loans by Types of Credit

| Purpose         | N     | Type              |                   |                   |                |
|-----------------|-------|-------------------|-------------------|-------------------|----------------|
|                 |       | No Debt           | Formal Credit     | Informal Credit   | Both           |
| Microenterprise | 3,851 | 2,686<br>(69.75%) | 302<br>(7.84%)    | 1,000<br>(25.97%) | 137<br>(3.56%) |
| Housing         | 7,648 | 5,336<br>(69.77%) | 855<br>(11.18%)   | 1,710<br>(22.36%) | 253<br>(3.31%) |
| Vehicle         | 1,221 | 912<br>(74.69%)   | 116<br>(9.50%)    | 207<br>(16.95%)   | 14<br>(1.15%)  |
| Education       | 8,433 | 7,755<br>(91.96%) | 117<br>(1.39%)    | 614<br>(7.28%)    | 53<br>(0.63%)  |
| Others          | 8,427 | 7,915<br>(93.92%) | 94<br>(1.12%)     | 437<br>(5.19%)    | 19<br>(0.23%)  |
| Credit card     | 7,711 | 7,248<br>(94.00%) | 463<br>(6.00%)    |                   |                |
| Total           | 8,438 | 4,490<br>(53.21%) | 1,668<br>(19.77%) | 3,007<br>(35.64%) | 727<br>(8.62%) |

CNY 474,035 ( $SD = 999,138$ ).<sup>2</sup> On average, participants reported NW-HE of CNY 94,149 ( $SD =$  CNY 398,737) and liquid assets of CNY 47,901 ( $SD =$  CNY 197,130).

### Credit Ownership and Purposes of Using Credit

Table 2 presents a summary of credit ownership and reported purposes for accessing credit. Over a half (53.21%) of sampled households owned credit, and 19.77% reported using formal credit. The most common purposes for using formal credit were to finance housing (11.18%), vehicle purchases (9.50%), and microenterprise (7.84%). Only 6% of the sampled households obtained formal credit through credit cards. The least reported reasons for using formal credit were to finance education (1.39%) and other concerns (1.12%).

More than a third (35.64%) of the respondents reported using informal credit. The reported purposes for using informal credit were to finance microenterprise (25.97%), housing purchases (22.36%), vehicle purchases (16.95%), education (7.28%), and other concerns (5.19%). The main sources of informal credit reported by participants were siblings (28.68%), other relatives (21.66%), and friends or colleagues (11.25%; results not shown). Less than 1% had credit from informal financial institutions.

### Logistic Estimates: Determinants of Credit Ownership

Table 3 shows the results of three multilevel logit models that regressed three different sets of explanatory variables on credit ownership. Model 1 regressed 11 sociodemographic variables and net worth on credit ownership. Results showed that credit ownership was positively associated with marital status ( $OR = 1.64; p < .001$ ), employment ( $OR = 1.49; p < .001$ ), and net worth ( $OR = 1.00; p < .05$ ) but negatively associated with age ( $OR = 0.97; p < .001$ ), type of household registration ( $OR = 0.75; p < .001$ ), residence in China's eastern region ( $OR = 0.53; p < .001$ ), and residence in the

<sup>2</sup> As of December 2011, 1 Chinese renminbi (CNY) was equal to 0.16 of a U.S. dollar.

Table 3. Logistic Model: Determinants of Credit Ownership ( $N = 7,807$ )

| Variable  | Odds Ratio |           |           |
|---|------------|-----------|-----------|
|   | Model 1    | Model 2   | Model 3   |
| Individual-level                                |            |           |           |
| Gender (1 = male)                               | .9989      | .9926     | .9902     |
| Marital status (1 = married/cohabited)          | 1.6420***  | 1.6512*** | 1.6559*** |
| Age   | .9710***   | .9711***  | .9710***  |
| Employed (1 = yes)                              | 1.4872***  | 1.4918*** | 1.4913*** |
| Education (1 = high school or more)             | 1.0079     | 1.0240    | 1.0323    |
| Communist party member (1 = yes)                | 1.0759     | 1.0782    | 1.0861    |
| Household registration (1 = urban) <sup>a</sup> | .7480***   | .7625***  | .7694**   |
| Ethnicity (1 = Han ethnicity)                   | 1.0519     | 1.0552    | 1.0615    |
| Eastern (1 = yes)                               | .5302***   | .5487***  | .5539***  |
| Central (1 = yes)                               | .7517***   | .7555***  | .7575***  |
| Household-level                                 |            |           |           |
| Annual income in CNY 10,000                     | 1.0030     | 1.0056**  | 1.0072*** |
| Net worth in CNY 10,000                         | 1.0006*    | /         | /         |
| NW-HE in CNY 10,000                             | /          | .9991     | /         |
| Liquid assets in CNY 10,000                     | /          | /         | .9942***  |
| LR $\chi^2(12)$                                 | 682.13***  | 679.11*** | 692.82*** |

*Note.* NW-HE = net worth without home equity; CNY = Chinese renminbi; LR = likelihood ratio.

<sup>a</sup>Household registration refers to the registration category of the household's head.

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

central region ( $OR = 0.75$ ;  $p < .001$ ). Gender, educational attainment, ethnicity, and annual household income showed no significant relationship with credit ownership.

The Model 2 estimates in Table 3 show credit ownership's associations with the 11 sociodemographic variables and NW-HE. Results were generally similar to the correlates of credit ownership in Model 1, but there were two exceptions: annual household income and NW-HE. Specifically, credit ownership showed a positive association with annual household income ( $OR = 1.0056$ ;  $p < .01$ ) but no significant relationship with NW-HE ( $OR = 1.00$ ,  $p = 0.16$ ). Model 3 regressed credit ownership on the same 11 sociodemographic variables and on liquid assets. The sociodemographic variables presented relationships with credit ownership that were similar to those in Model 2 (see Table 3). In addition, credit ownership was found to be positively related to annual household income ( $OR = 1.0072$ ;  $p < .001$ ) and liquid assets ( $OR = 0.99$ ;  $p < .001$ ). Of the three models, Model 3 explained most of the variance in credit ownership: The likelihood ratio chi-square for Model 3 ( $692.82$ ,  $p < .001$ ) was greater than those for Model 1 ( $682.13$ ,  $p < .001$ ) and Model 2 ( $679.11$ ,  $p < .001$ ).

### Multinomial Logistic Estimation: Formal and Informal Credit Ownership

Table 4 presents results from a series of multinomial logit models that predicted use of formal credit, informal credit, and both. Households with no credit use served as the reference group. Specifically, the first column of Panel 4a shows the relative risk ratios (RRR) of formal credit use to use of no credit for the 11 explanatory variables and net worth. All explanatory variables except gender, ethnicity, and residence in the eastern region was found to have a statistically significant relationship

Table 4. Multinomial Logistic Regression: Determinants of Credit Ownership by Credit Type (N = 7,807)

| Variable  | Relative Risk Ratio |                 |           |
|---|---------------------|-----------------|-----------|
|   | Formal Credit       | Informal Credit | Both      |
| <b>a. Net worth as a predictor</b>              |                     |                 |           |
| Individual-level                                |                     |                 |           |
| Gender (1 = male)                               | 1.0348              | .9574           | 1.1077    |
| Marital status (1 = married/cohabited)          | 1.5098***           | 1.7652***       | 2.0768*** |
| Age   | .9525***            | .9789***        | .9657***  |
| Employed (1 = yes)                              | 1.3641**            | 1.3528***       | 2.1088*** |
| Education (1 = high school or more)             | 1.6231***           | .7895**         | 1.2303*   |
| Communist party member (1 = yes)                | 1.3034**            | .9311           | 1.2319    |
| Household registration (1 = urban) <sup>a</sup> | 1.3392**            | .6733***        | .6365***  |
| Ethnicity (1 = Han ethnicity)                   | 1.1409              | 1.0831          | 1.1213    |
| Eastern (1 = yes)                               | .8146               | .5591***        | .3225***  |
| Central (1 = yes)                               | .6020***            | .9401           | .4289***  |
| Household-level                                 |                     |                 |           |
| Annual income in CNY 10,000                     | 1.0061**            | .9857**         | 1.0011    |
| Net worth in CNY 10,000                         | 1.0020***           | .9965***        | 1.0015**  |
| LR $\chi^2$ (36)                                |                     | 1,598.73***     |           |
| <b>b. NW-HE as a predictor</b>                  |                     |                 |           |
| Individual-level                                |                     |                 |           |
| Gender (1 = male)                               | 1.0060              | .9678           | 1.0923    |
| Marital status (1 = married/cohabited)          | 1.5394***           | 1.7477***       | 2.1028*** |
| Age   | .9538***            | .9778***        | .9660***  |
| Employed (1 = yes)                              | 1.3807**            | 1.3549***       | 2.1228*** |
| Education (1 = high school or more)             | 1.6864***           | .7928**         | 1.2612*   |
| Communist party member (1 = yes)                | 1.3142**            | .9295           | 1.2384    |
| Household registration (1 = urban) <sup>a</sup> | 1.4280***           | .6470***        | .6618***  |
| Ethnicity (1 = Han ethnicity)                   | 1.1756              | 1.0779          | 1.1333    |
| Eastern (1 = yes)                               | .9139               | .5398***        | .3469***  |
| Central (1 = yes)                               | .6066***            | .9501           | .4328***  |
| Household-level                                 |                     |                 |           |
| Annual income in CNY 10,000                     | 1.0098***           | .9850**         | 1.0054    |
| NW-HE in CNY 10,000                             | 1.0010              | .9855***        | .9995     |
| LR $\chi^2$ (36)                                |                     | 1,565.79***     |           |
| <b>c. Liquid assets as a predictor</b>          |                     |                 |           |
| Individual-level                                |                     |                 |           |
| Gender (1 = male)                               | 1.0047              | .9766           | 1.0938    |
| Marital status (1 = married/cohabited)          | 1.5495***           | 1.7581***       | 2.1187*** |
| Age   | .9536***            | .9775***        | .9656***  |
| Employed (1 = yes)                              | 1.3745**            | 1.3336***       | 2.1251*** |
| Education (1 = high school or more)             | 1.6995***           | .8083**         | 1.2917*   |
| Communist party member (1 = yes)                | 1.3075**            | .9557           | 1.2667    |
| Household registration (1 = urban)              | 1.4274***           | .6673***        | .6826***  |
| Ethnicity (1 = Han ethnicity)                   | 1.1719              | 1.0937          | 1.1432    |
| Eastern (1 = yes)                               | .9201               | .5525***        | .3622***  |
| Central (1 = yes)                               | .6064***            | .9639           | .4402***  |
| Household-level                                 |                     |                 |           |
| Annual income in CNY 10,000                     | 1.0111***           | .9912           | 1.0095**  |
| Liquid assets in CNY 10,000                     | 1.0001              | .9428***        | .9821***  |
| LR $\chi^2$ (36)                                |                     | 1,632.59***     |           |

Note. NW-HE = net worth without home equity; CNY = Chinese renminbi; LR = likelihood ratio.

<sup>a</sup>Household registration refers to the registration category of the household's head.

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

Table 5. Reasons for Not Owning Formal Credit from the Group Needing It ( $N = 740$ )

| Reasons   | Percent |
|---|---------|
| a. Reasons for not applying for formal credit ( $n = 524$ ) <sup>a</sup>        |         |
| Do not know how to apply  | 12.79   |
| Believe it would not be approved  | 51.15   |
| The procedure is too complicated  | 24.62   |
| Other   | 21.76   |
| b. Perceived reasons for rejected credit application ( $n = 216$ ) <sup>b</sup> |         |
| Still had debt to pay off   | 2.78    |
| No guarantor  | 35.19   |
| Not familiar with the loan officer  | 15.28   |
| Income is low, loan officer is worried  | 37.50   |
| No collateral   | 30.09   |
| Bad credit history  | 1.85    |
| Project is too risky  | 0.46    |
| Policy reasons  | 4.17    |
| Others  | 9.72    |

<sup>a</sup>Data are only available for microenterprise-related loans.

<sup>b</sup>Data are only available for microenterprise-, housing-, and vehicle-related loans.

with the likelihood of formal credit use. The second column of Panel 4a presents the relative ratios of formal credit use to use of no credit. All but four explanatory variables showed significant relationships with the likelihood of formal credit use. Net worth was positively related to formal credit use ( $RRR = 1.00$ ;  $p < .001$ ) and negatively associated with informal credit use ( $RRR = 1.00$ ;  $p < .001$ ). Panel 4b presents results of multinomial logit models that included NW-HE and the 11 explanatory variables. Consistent with the multinomial regression results shown in Panel 4a, the results in Panel 4b showed that most explanatory variables were significantly related with the use of formal and informal credit use. Although NW-HE was not significantly associated with formal credit use ( $RRR = 1.00$ ;  $p = 0.18$ ), it was negatively associated with informal credit use ( $RRR = 0.99$ ;  $p < .001$ ). Panel 4c presents the results of multinomial logit models that included liquid assets in addition to the 11 explanatory variables. Similarly, most explanatory variables were significantly related to formal and informal credit use. Liquid assets showed no relationship with formal credit use but had a negative association with informal credit use. The model that included liquid assets as one of the explanatory variables ( $LR\chi^2[36] = 1,632.59$ ;  $p < .001$ ) explained more variance than did either of the two other models ( $LR\chi^2[36] = 1,598.73$ ;  $p < .001$ ;  $LR\chi^2[36] = 1,565.79$ ;  $p < .001$ ). Across all models, the household head's educational attainment, communist party membership, employment status, and annual household income showed positive relationships with formal credit use. As for informal credit, the household head's age, educational attainment, and household registration were negatively related to informal credit use.

The CHFS asked participants who had not used formal credit about their reasons for not using formal credit from commercial banks. The majority of sample members reported that they had no need for formal credit and are not represented in Table 5, which shows responses from 740 participants who did not use formal credit because they never attempted to apply for bank credit ( $n = 524$ ) or because their application for credit was rejected ( $n = 216$ ). Four reasons were given for not applying for formal credit: "Do not know how to apply," "believe it would not be approved," "the procedure is too complicated," and "other." Among those reporting that they needed formal credit for microenterprise ( $n = 524$ ), about half (51.15%) believed that their application for bank

credit would not be approved and one fourth (24.62%) were discouraged by the complicated procedure (see Panel 5a). The CHFS asked participants whose bank credit applications were rejected to report on the perceived reason for the rejection. Nine options were given: “still had debt to pay off”; “no guarantor”; “not familiar with the loan officer”; “income is low, loan officer is worried”; “no collateral”; “bad credit history”; “project is too risky”; “policy reasons”; and “other.” The four most commonly reported reasons were lack of sufficient income (37.50%), lack of a guarantor (35.19%), lack of collateral (30.09%), and lack of a connection with the loan officer (15.28%; see Panel 5b).

## Discussion and Implications

### Low Prevalence of Formal Credit Use

Consistent with findings from previous studies (e.g., Fungáčová & Weill, 2014), our findings indicate that Chinese households have low levels of credit ownership. Household access to credit is largely restricted to households with high income and financial assets. As a result, the majority of Chinese households are denied opportunities to grow wealth and excluded from participating in the growing economy. Over the last decade, China has witnessed rapid growth in the number of consumer credit products available, and such growth has occurred mostly in urban areas (Sparreboom & Duflos, 2012). However, as our findings suggest, credit accessibility remains a key issue in China.

Our results also showed that household use of formal credit is very limited and skewed toward the already better-off. Formal credit use was positively associated with employment, educational attainment, income, urban residence, assets, and communist party membership.

Previous studies have indicated that being a member of the communist party in China is positively correlated with beneficial social and economic outcomes (e.g., better paying jobs, higher household income, and wealth accumulation; Dickson & Rublee, 2000; Huang et al., 2013; Li, Liu, Zhang, & Ma 2007; Meng, 2007). Our study extended the literature by showing that communist party membership not only benefits household income and wealth but also affects the use of formal credit, a valuable resource that is restrained in the Chinese financial market.

### Why Not Use Formal Credit?

#### *Limited Supply of Formal Credit*

To understand the low levels of formal credit use, we investigated barriers that Chinese families confront with when they attempt to acquire formal credit. Results revealed the perception that it is nearly impossible to gain approval of a credit application. This skepticism reflected a reality of bank credit accessibility. As previous studies have indicated, formal credit in China is mainly directed to large state-owned companies and seldom geared toward meeting the credit needs of individuals (Geng & N'Diaye, 2012; Hale & Long, 2010; Herrala & Jia, 2015).

In addition, low financial capital (i.e., low income and the lack of collateral) and limited social networks (i.e., lack of a guarantor and of a connection with a loan officer) were also reported as common obstacles to a successful credit application. In China, applications for credit typically impose multiple requirements (e.g., minimum income, stable employment, and financial assets) that

effectively exclude those who cannot meet them. The unbalanced distribution of formal credit highlights the fact that the credit system has failed to distribute opportunities for all.

### *Financial Illiteracy*

Low financial literacy is another attribute of households that do not use formal credit. Chinese households confront low financial literacy when attempting to obtain formal credit. Our study found that participants cited lack of knowledge about how to apply as a reason for not applying. Although little research has examined Chinese families' financial knowledge about loans, studies have shown that individuals in China demonstrate little knowledge of personal finance (e.g., Chen & Lemieux, in press). Households' awareness of formal credit and knowledge about using it can affect their ability to seek financial resources from formal institutions (Tang, Guan, & Jin, 2010). Our study suggests that educating Chinese families on loan application and relevant topics can improve their use of formal credit. Future research is warranted on financial literacy as well as its relationships with household use of formal credit and take-up of other financial services.

### **Households' Reliance on Informal Credit to Meet Developmental Needs**

Consistent with other research, our study showed that many Chinese households rely on family and friends to meet their credit needs. Compared with formal credit users, informal credit users tended to have lower levels of household income and assets, but the two groups did not differ on characteristics such as employment and marital status. More importantly, we found that informal credit was mainly used to build assets (e.g., financing microenterprise, purchasing a home, and paying for education). Those assets are fundamental to personal development (Sherraden, 1991; McKernan & Sherraden, 2008). However, households take on tremendous financial risk when using informal credit, and their chances of achieving developmental goals are subject to a great uncertainty. The finding that Chinese families used unregulated, risky, informal credit for long-term asset building accentuates the extent of restrictions on formal credit accessibility as well as the detrimental impact of those restrictions on individuals' financial stability and personal development. It is worth noting that emergencies and health problems are commonly cited reasons for taking out loans in developing countries (e.g., Demirgüç-Kunt & Klapper, 2012); however, we were unable to determine whether Chinese families used loans for emergencies and health concerns because the survey did not include those as response options in querying participants about their reasons for taking out loans. More research is needed into the broad range of purposes for which people take out loans.

### **Implications**

Limited, unbalanced, formal credit accessibility highlights China's low levels of financial inclusion. To improve financial inclusion, financial institutions and governments at all levels should promote access to a broad range of credit products, which are better than other financial products as drivers of financial inclusion (e.g., savings products; Clamara et al., 2014). Specifically, policy tools should be developed to encourage banks and other financial institutions to provide financially disadvantaged groups with affordable credit products for funding long-term goals (e.g., home purchase, education, and microenterprise). Chinese families now rely mainly on informal credit to achieve those goals and bear substantial financial risk because informal credit is not regulated. The subject of financial access in low-income countries has become an integral part of the debate about how to address poverty

(Peachey & Roe, 2006). The Chinese government should join this debate, exploring the role of formal credit in alleviating poverty and equalizing opportunities. In addition, the government, financial institutions, and other organizations should initiate nationwide financial-education campaigns. This is important because financial illiteracy can lead to the self-exclusion of some people from access to bank credit. Families with little knowledge about loan application can feel incapable of pursuing bank credit and miss opportunities. Financial education that equips Chinese families with knowledge of credit application and use will not only nurture well-informed consumers but also trigger the demand for formal credit products.

### **Limitations**

Our study had several limitations. First, reliance on household-level measures of credit use limited our analysis. The majority of household heads under study were male, and surveying household heads potentially concealed gender differences in use of credit. Second, data limitations prevented us from specifying the type of credit that respondents used to purchase financial products and durable consumption goods, though the overall proportion of respondents using credit was small. A sensitivity test was performed to examine whether the model predicting debt ownership produced different estimates if credit for purchasing financial products and durable consumption goods was excluded. The two models yielded consistent results.<sup>3</sup> Third, data limitations also prevented examination of factors relevant to the use of formal credit. Individual financial literacy levels and physical access to financial services are key examples of such factors.

### **Conclusion**

This study examined one important indicator of financial inclusion—use of credit—with a national sample of Chinese households. The goals were to examine the characteristics of formal credit users and informal credit users as well as to understand barriers that impede borrowing and financial inclusion in China. We found that overall levels of credit ownership are low, that formal credit use is particularly constrained, and that credit is disproportionately distributed to the socially and economically advantaged. To a large extent, Chinese families have to rely on informal borrowing sources for external funds to finance housing and education. Limited use of formal credit can be attributed to insufficient supply of bank credit in financial markets and to households' low financial literacy, particularly to low levels of knowledge about formal borrowing. Our findings suggest that the goal of improving financial inclusion should be pursued through policies focused on improving household access to formal credit, especially through policies targeting households with few social and financial resources. Moreover, financial education initiatives should be encouraged to help Chinese families seek formal credit, though research is needed to explore the ways in which financial literacy affects use of formal credit.

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<sup>3</sup> Results of sensitivity test are available from the authors upon request.

## References

- Ali, I., & Zhuang, J. (2007). *Inclusive growth toward a prosperous Asia: Policy implications* (ERD Working Paper No. 97). Retrieved from Econstor website: <http://www.econstor.eu/bitstream/10419/109299/1/ewp-097.pdf>
- Allen, F., Demirgüç-Kunt, A., Klapper, L., & Pería, M. S. M. (2016). The foundations of financial inclusion: Understanding ownership and use of formal accounts. *Journal of Financial Intermediation*. Advance online publication. doi:[10.1016/j.jfi.2015.12.003](https://doi.org/10.1016/j.jfi.2015.12.003)
- Applied Research & Consulting. (2009). *Financial capability in the United States: Initial report of research findings from the 2009 National Survey*. New York, NY: Author.
- Barr, M. S. (2004, September). *Banking the poor: Policies to bring low-income Americans into the financial mainstream* (Metropolitan Policy Program Research Brief). Washington, DC: Brookings Institution.
- Beck, T., & De la Torre, A. (2007). The basic analytics of access to financial services. *Financial Markets, Institutions & Instruments*, 16(2), 79–117. doi:[10.1111/j.1468-0416.2007.00120.x](https://doi.org/10.1111/j.1468-0416.2007.00120.x)
- Beck, T., & Demirgüç-Kunt, A. (2008). Access to finance: An unfinished agenda. *World Bank Economic Review*, 22(3), 383–396. doi:[10.1093/wber/lhn021](https://doi.org/10.1093/wber/lhn021)
- Beck, T., Demirgüç-Kunt, A., & Levine, R. (2007). Finance, inequality and the poor. *Journal of Economic Growth*, 12(1), 27–49. doi:[10.1007/s10887-007-9010-6](https://doi.org/10.1007/s10887-007-9010-6)
- Beck, T., Demirgüç-Kunt, A., & Pería, M. S. M. (2007). Reaching out: Access to and use of banking services across countries. *Journal of Financial Economics*, 85(1), 234–266. doi:[10.1016/j.jfineco.2006.07.002](https://doi.org/10.1016/j.jfineco.2006.07.002)
- Beck, T., Demirgüç-Kunt, A., & Pería, M. (2008). Banking services for everyone? Barriers to bank access and use around the world. *World Bank Economic Review*, 22(3), 397–430. doi:[10.1093/wber/lhn020](https://doi.org/10.1093/wber/lhn020)
- Brandolini, A., Magri, S., & Smeeding, T. M. (2010). Asset-based measurement of poverty. *Journal of Policy Analysis and Management*, 29(2), 267–284. doi:[10.1002/pam.20491](https://doi.org/10.1002/pam.20491)
- Campero, A., & Kaiser, K. (2013). *Access to credit: Awareness and use of formal and informal credit institutions* (Banco de México Working Paper No. 2013-07). Retrieved from Econstor website: <http://www.econstor.eu/bitstream/10419/83717/1/751106259.pdf>
- Chen, Z., & Lemieux, C. M. (in press). Financial knowledge and behaviors of Chinese migrant workers: An international perspective on a financially vulnerable population. *Journal of Community Practice*.
- Claessens, S. (2006). Access to financial services: A review of the issues and public policy objectives. *World Bank Research Observer*, 21(2), 207–240. doi:[10.1093/wbro/lkl004](https://doi.org/10.1093/wbro/lkl004)
- Clamara, N., Peña, X., & Tuesta, D. (2014). *Factors that matter for financial inclusion: Evidence from Peru* (Working Paper No. 14/09). Retrieved from BBVA Research website: [https://www.bbva.com/BBVAResearch/KETD/fbin/mult/WP\\_1409\\_tcm348-426338.pdf](https://www.bbva.com/BBVAResearch/KETD/fbin/mult/WP_1409_tcm348-426338.pdf)
- Deku, S. Y., Kara, A., & Molyneux, P. (2015). Access to consumer credit in the UK. *European Journal of Finance*. doi:[10.1080/1351847X.2015.1019641](https://doi.org/10.1080/1351847X.2015.1019641)



- Demirgüç-Kunt, A., & Klapper, L. F. (2012). *Measuring financial inclusion: The Global Findex Database* (Working Paper No. 6025). Retrieved from World Bank Group website: <http://elibrary.worldbank.org/doi/abs/10.1596/1813-9450-6025>
- Demirgüç-Kunt, A., & Klapper, L. F. (2013, Spring). Measuring financial inclusion: Explaining variation in use of financial services across and within countries. *Brookings Papers on Economic Activity*, 2013, 279–340.
- Demirgüç-Kunt, A., & Levine, R. (2008). Finance, financial sector policies, and long-run growth (Working Paper No. 4469). Retrieved from World Bank Group website: <http://elibrary.worldbank.org/doi/abs/10.1596/1813-9450-4469>
- Deng, S., & Meng, Y. (2013). Financial access and economic participation of youth with disabilities in China: An exploratory study. *China Journal of Social Work*, 6(2), 177–189. doi:[10.1080/17525098.2013.797358](https://doi.org/10.1080/17525098.2013.797358)
- Dickson, B. J., & Rublee, M. R. (2000). Membership has its privileges: The socioeconomic characteristics of Communist Party members in urban China. *Comparative Political Studies*, 33(1), 87–112. doi:[10.1177/0010414000033001004](https://doi.org/10.1177/0010414000033001004)
- Fungáčová, Z., & Weill, L. (2014). *A view on financial inclusion in Asian countries* (BOFIT Policy Brief No. 8). Helsinki, Finland: Bank of Finland.
- Fungáčová, Z. & Weill, L. (2015). Understanding financial inclusion in China. *China Economic Review*, 34, 196–206. doi:[10.1016/j.chieco.2014.12.004](https://doi.org/10.1016/j.chieco.2014.12.004)
- Gan, L., Yin, Z., Jia, N., Xu, S., Ma, S., & Zheng, L. (2014). *Data you need to know about China: Research report of China Household Finance Survey 2012*. New York, NY: Springer.
- Geng, N., & N'Diaye, P. (2012). *Determinants of corporate investment in China: Evidence from cross-country firm level data* (IMF Working Paper No. 12/80). Retrieved from International Monetary Fund website: <http://www.imf.org/external/pubs/ft/wp/2012/wp1280.pdf>
- Hale, G. B., & Long, C. X. (2010). *What are the sources of financing of the Chinese firms?* (Hong Kong Institute for Monetary Research Working Paper No. 19/2010). Retrieved from ResearchGate website: [https://www.researchgate.net/profile/Galina\\_Hale/publication/228225053\\_What\\_are\\_the\\_Sources\\_of\\_Financing\\_of\\_the\\_Chinese\\_Firms/links/0deec52a60bb271205000000.pdf](https://www.researchgate.net/profile/Galina_Hale/publication/228225053_What_are_the_Sources_of_Financing_of_the_Chinese_Firms/links/0deec52a60bb271205000000.pdf)
- Han, R., & Melecky, M. (2013). *Financial inclusion for financial stability: Access to bank deposits and the growth of deposits in the global financial crisis* (Working Paper No. 6577). Retrieved from World Bank Group website: <http://elibrary.worldbank.org/doi/abs/10.1596/1813-9450-6577>
- Hannig, A., & Jansen, S. (2010). *Financial inclusion and financial stability: Current policy issues* (ADB Working Paper No. 259). Retrieved from Asian Development Bank Institute website: <http://www.adb.org/sites/default/files/publication/156114/adb-wp259.pdf>
- Haveman, R., & Wolff, E. N. (2005). The concept and measurement of asset poverty: Levels, trends and composition for the U.S., 1983–2001. *Journal of Economic Inequality*, 2(2), 145–169. doi:[10.1007/s10888-004-4387-3](https://doi.org/10.1007/s10888-004-4387-3)
- Herrala, R., & Jia, Y. (2015). Toward state capitalism in China? *Asian Economic Papers*, 14(2), 163–175. doi:[10.1162/ASEP\\_a\\_00360](https://doi.org/10.1162/ASEP_a_00360)

- Honohan, P. (2008). Cross-country variation in household access to financial services. *Journal of Banking & Finance*, 32(11), 2493–2500. doi:[10.1016/j.jbankfn.2008.05.004](https://doi.org/10.1016/j.jbankfn.2008.05.004)
- Huang, J., Jin, M., Deng, S., Guo, B., Zou, L., & Sherraden, M. (2013). Asset poverty in urban China: A study using the 2002 Chinese Household Income Project. *Journal of Social Policy*, 42(4), 763–781. doi:[10.1017/S0047279413000470](https://doi.org/10.1017/S0047279413000470)
- Hudon, M. (2009). Should access to credit be a right? *Journal of Business Ethics*, 84(1), 17–28. doi:[10.1007/s10551-008-9670-y](https://doi.org/10.1007/s10551-008-9670-y)
- Imboden, K. (2005). Building inclusive financial sectors: The road to growth and poverty reduction. *Journal of International Affairs*, 58(2), 65–86.
- Johnston, D., Jr., & Morduch, J. (2008). The unbanked: Evidence from Indonesia. *World Bank Economic Review*, 22(3), 517–537. doi:[10.1093/wber/lhn016](https://doi.org/10.1093/wber/lhn016)
- Li, H., Liu, P. W., Zhang, J., & Ma, N. (2007). Economic returns to Communist Party membership: Evidence from urban Chinese twins. *Economic Journal*, 117(523), 1504–1520. doi:[10.1111/j.1468-0297.2007.02092.x](https://doi.org/10.1111/j.1468-0297.2007.02092.x)
- Li, S., & Luo, C. (2008). Growth pattern, employment, and income inequality: What the experience of Republic of Korea and Taipei, China reveals to the People's Republic of China. *Asian Development Review*, 25(1/2), 100–118.
- Lin, T., Zhuang, J., Yarcia, D., & Lin, F. (2008). Income inequality in the People's Republic of China and its decomposition: 1990–2004. *Asian Development Review*, 25(1/2), 119–136.
- McKernan, S.-M., & Sherraden, M. (Eds.). (2008). *Asset building and low income families*. Washington, DC: Urban Institute.
- Meng, X. (2007). *Wealth accumulation and distribution in urban China* (Institute for the Study of Labor [IZA] Discussion Paper No. 2553). Germany: The Institute for the Study of Labor. Retrieved from Econstor website: <http://www.econstor.eu/bitstream/10419/34173/1/526123575.pdf>
- Osili, U. O., & Paulson, A. (2008). What can we learn about financial access from U.S. immigrants? The role of country of origin institutions and immigrant beliefs. *World Bank Economic Review*, 22(3), 431–455. doi:[10.1093/wber/lhn019](https://doi.org/10.1093/wber/lhn019)
- Peachey, S., & Roe, A. (2006). *Access to finance: What does it mean and how do savings banks foster access* (World Savings Bank Institute Perspectives Paper No. 49). Retrieved from Microfinance Gateway website: [http://www.microfinancegateway.org/sites/default/files/mfg-en-paper-access-to-finance-what-does-it-mean-and-how-do-savings-banks-foster-access-jan-2006\\_0.pdf](http://www.microfinancegateway.org/sites/default/files/mfg-en-paper-access-to-finance-what-does-it-mean-and-how-do-savings-banks-foster-access-jan-2006_0.pdf)
- Pearlman, S. (2010). *Flexibility matters: Do more rigid loan contracts reduce demand for microfinance?* (CFA Working Paper No. 2010/10) Retrieved from CAF website: <http://scioteca.caf.com/bitstream/handle/123456789/214/201010PearlmanSEptiembre2010.pdf?sequence=1&isAllowed=y>
- Pería, M. S. M. (2013). Financial inclusion in Latin America and the Caribbean. In T. Didier & S. L. Schmukler (Eds.), *Emerging issues in financial development: Lessons from Latin America* (pp. 91–127). Retrieved from World Bank website: <https://openknowledge.worldbank.org/bitstream/handle/10986/16387/9780821398289.pdf?sequence=1#page=117>
- Sherraden, M. (1991). *Assets and the poor: A new American welfare policy*. Amonk, NY: M. E. Sharpe.

- Sparreboom, P., & Duflos, E. (2012). *Financial inclusion in the People's Republic of China: An analysis of existing research and public data* (China Papers on Inclusiveness, No. 7). Washington, DC: Consultative Group to Assist the Poor and the Working Group on Inclusive Finance in China.
- Tang, S., Guan, Z., & Jin, S. (2010). *Formal and informal credit markets and rural credit demand in China* [Conference paper]. Retrieved from ResearchGate website: [https://www.researchgate.net/profile/Songqing\\_Jin/publication/254384094\\_Formal\\_and\\_Informal\\_Credit\\_Markets\\_and\\_Rural\\_Credit\\_Demand\\_in\\_China/links/53edf0b60cf2981ada173d48.pdf](https://www.researchgate.net/profile/Songqing_Jin/publication/254384094_Formal_and_Informal_Credit_Markets_and_Rural_Credit_Demand_in_China/links/53edf0b60cf2981ada173d48.pdf)
- Tejerina, L., & Westley, G. D. (2007). *Financial services for the poor: Household survey sources and gaps in borrowing and saving* (Sustainable Development Department Technical Paper No. POV-117). Retrieved from Inter-American Development Bank website: <http://services.iadb.org/wmsfiles/products/Publications/1052427.pdf>
- Zhuang, J. (2008). Inclusive growth toward a harmonious society in the People's Republic of China: Policy implications. *Asian Development Review*, 25(1/2), 22–33.

### Suggested Citation

Chen, Z., & Jin, M. (2016). *Financial inclusion in China: Use of credit* (CSD Working Paper No. 16-24). St. Louis, MO: Washington University, Center for Social Development.

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