Self-employment, financial development and well-being: evidence from China, Russia and Ukraine

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Abstract

This paper investigates the impact of financial development on entrepreneurs' well-being. Using longitudinal data from China, Russia and Ukraine, we find that Chinese and Russian entrepreneurs experience a higher level of well-being while the Ukrainian self-employed are prone to dissatisfaction. We also observe that the extent to which financial development can improve entrepreneurs' utility differs across countries. First, the development of formal financial sector does not affect Chinese entrepreneurs' happiness. Second, the improvement of banking sector increases the job satisfaction experienced by Ukrainian entrepreneurs outside Kyiv. Third, greater financial development decreases Russian entrepreneurs' job satisfaction while partially increases life satisfaction of rural entrepreneurs. The results suggest that financial development could affect well-being through both monetary and nonmonetary channels.

JEL classification: J24; J28; O16

Keywords: Entrepreneurship, self-employment, satisfaction, financial development

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Highlights

- The self-employed in Ukraine are less happy compared to the paid employees.
- Chinese and Russian entrepreneurs experience a higher level of satisfaction.
- Chinese entrepreneurs' satisfaction is not affected by financial development.
- In Ukraine, financial development decreases satisfaction of non-Kyiv entrepreneurs.
- Financial development leads to job dissatisfaction among Russian entrepreneurs in general while improves life satisfaction of rural peers.

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1 Introduction

Entrepreneurs are generally recognized as successful and iconic figures and they are romanticized by the public (The Economist, 2014). They get great support from the government, politicians and school textbooks praise them, resulting in a growing number of start-ups every year (Bergmann et al., 2016). However, in reality, being entrepreneurs is a difficult work because of the high failure rate. Even successful entrepreneurs have to face different challenges at various stages of their venture development. Further, it has been observed that entrepreneurs do not have work-life balance and they neglect their own well-being (Louie, 2016). Given the fact that entrepreneurs' well-being is closely related to their business performance and the development of the whole economy, a large number of studies have examined the factors affecting entrepreneurs' satisfaction.

Some studies find the positive relationship between self-employment and well-being and explain it through a number of socio-demographic factors. More specifically, entrepreneurs' big-five personality traits have a positive influence on their job satisfaction (Berglund et al., 2016; Heller et al., 2002).[1] Entrepreneurial satisfaction is also related to job independence, including flexibility and autonomy in creating and shaping jobs, as well as job self-efficacy (Lange, 2012; Schneck, 2014). Another reason is the lower expectation about jobs exhibited by entrepreneurs, which makes the self-employed easier to be satisfied compared to the paid workers (Millán et al., 2013). Self-employed individuals also report less work-related stress (Hessels et al., 2017), resulting in the lower level of depression and higher satisfaction level (Bradley and Roberts, 2003).

[1] Big-five personality traits include extraversion (involves going out with friends and being energetic), agreeableness, conscientiousness (planning rather than being spontaneous), emotional stability, and openness to experience.

Nonetheless, self-employed individuals are not always happier than the wage employees as the level of satisfaction is determined not only by employment types but also by employment motivation. For example, Block and Koellinger (2009) find dissatisfaction among necessity entrepreneurs who experienced a long period of unemployment before starting their own businesses. Similarly, Indonesian self-employed are less happy with their jobs compared to the paid employees because of involuntary self-employment (Kwon and Sohn, 2017). In addition, Cassar (2010) argues that the self-employed in Chile experience the higher level of job satisfaction compared to the wage earners only when job protection and occupational hazard are taken into account.

However, the factors affecting entrepreneurial satisfaction could go beyond psychological factors and work environment. As suggested by Thai and Turkina (2014), entrepreneurship is also closely related to institutional setup and economic conditions like economic opportunities and the quality of governance. Thus, one would expect the change in entrepreneurial utility in response to the change in business environment such as a growing number of competitors or the increase in growth opportunities. Given that these changes could be induced by financial development in general (Beck and Demirguc-Kunt, 2006; Bonaccorsi di Patti and Dell'Ariccia, 2004) and access to finance in particular (Ayyagari et al., 2008), we aim to examine the relationship between local financial development and entrepreneurs' well-being.

This study builds upon the work of Bianchi (2012) who first finds that financial development increases entrepreneurs' satisfaction through a higher level of job independence. Yet, our study is different in a number of ways. First, Bianchi (2012) explains the positive effect of financial development on entrepreneurial utility through the non-monetary benefits such as job independence. However, we argue that financial development could affect satisfaction of the self-employed through both monetary channels like economic growth and nonmonetary channels such as easing the credit constraints. Second, Bianchi (2012) employs job satisfaction as an indicator of entrepreneurial utility. Given job satisfaction and life satisfaction are two separate conceptual entities (Schjoedt and Shaver, 2007), we

document both two types of satisfaction to provide a broader picture of entrepreneurs' well-being. Third, results from Bianchi's study might be driven by the predominance of individuals in developed countries that have high quality of life and strong economy. In this study, we investigate entrepreneurial utility in the context of emerging economies with lower levels of living standard and economic development. Fourth, Bianchi (2012) measures financial development at country-level that might not necessarily reflect the development at regional levels. Instead, we focus on local financial development within a single country to control for (1) country-specific characteristics and (2) the variation in the effect of financial development across regions within a country.

We examine the level of entrepreneurs' satisfaction in three emerging economies including China, Ukraine and Russia. We choose these countries for several reasons. First, all three countries experience a significant change in entrepreneurship and in financial system following economic reforms in 1990s. However, different reform paths were adopted, resulting in the differences in levels of financial and entrepreneurship development. This provides a unique setting for comparing the effect of financial development on entrepreneurial satisfaction. Second, the fast-economic changes in these countries offer an ideal case to test the hypothesis that financial development could affect satisfaction by relaxing financial constraints. It is because the individuals in these countries are less likely to have significant personal wealth for their business (Earle and Sakova, 2000). Hence, in most cases, they have to rely on external finance during the venture development. Third, data from World Values Survey suggest that the relationship between financial development and entrepreneurs' well-being in these countries is in line with the trend in other countries.[2] Thus, results from our study are not country-specific but can be generalized to other emerging economies.

Data in this study are collected from three sources including the 2013 China Household Income Project, the 2012 wave of Ukrainian Longitudinal Monitoring Survey and the 2013 wave of Russian

[2] See Online Appendix A

Longitudinal Monitoring Survey. The self-reported level of satisfaction in the surveys allows us to assess individuals' life satisfaction and job satisfaction.[3] These datasets also provide comprehensive information about individuals' demographic factors as well as information relating to individuals' jobs that might affect individuals' utility. Our estimation sample consists of 3,368 individuals in Ukraine, 8,946 individuals in China and 9,698 individuals in Russia.

Our findings suggest the heterogeneity in entrepreneurial satisfaction across countries. In particular, entrepreneurs in China and urban Russia are happier compared to the paid employees while the opposite is observed in Ukraine. Further examination shows that the impact of financial development on entrepreneurial utility varies across countries. While financial development does not affect Chinese entrepreneurs' satisfaction, it reduces job satisfaction but partially improves life satisfaction among Russian entrepreneurs. In Ukraine, financial development could lead to unhappiness among non-Kyiv entrepreneurs. We also find that rural – urban division plays an important role in determining entrepreneurial well-being. These results are interpreted in the following ways. First, Chinese entrepreneurs are more likely to rely on external finance from informal sector. Thus, the development of formal financial sector is not associated with entrepreneurial well-being. Second, financial development could affect well-being through both monetary and nonmonetary factors, resulting in different effects on life and job satisfaction. On the one side, the higher level of financial development could boost economic growth, making all individuals better off. On the other side, greater financial development could result in more credit availability and better credit allocation that might relax the financial constraints and encourage individuals to enter self-employment. As a result, the level of competition in the market increases, making existing entrepreneurs less satisfied at work. These impacts are then strengthened by the differences between rural and urban areas in terms of economic conditions or business environment. In the case of Ukraine where resources are unequally distributed

[3] Job satisfaction is reported in the Ukrainian and Russian surveys. Life satisfaction is reported in surveys in all three countries.

between Kyiv and other regions, the negative impact of financial development on well-being is more profound among non-Kyiv entrepreneurs.

The rest of this paper is organized as follows. Section 2 reviews the literature on occupational choice and entrepreneurs' satisfaction. Section 3 gives an overview about entrepreneurship in Ukraine, China and Russia. Section 4 illustrates the empirical strategy and data summary. Section 5 discusses empirical results. Section 6 concludes and provides implications.

2 Literature review

2.1 What makes an entrepreneur?

What factors drive individuals' choice of entering self-employment? This question has been well documented in previous economics research that can be divided into three main strands. The first strand has assessed utility maximization as a key driver of self-employed motivation (Douglas and Shepherd, 2002; Eisenhauer, 1995). It is argued that an individual chooses to be self-employed if the utility from self-employment is higher than the utility from paid employment. In Eisenhauer's model (1995), entrepreneurial utility depends on both wealth and working conditions. Consequently, individuals choose to be entrepreneurs if self-employment can help them improve wealth and provide better working conditions compared to paid employment. Using a job utility function of income, risk, required work effort and independence, Douglas and Shepherd (2000) argue that an individual decides to be self-employed if the expected total utility derived from self-employment is higher than that derived from the best employment option. Lévesque et al. (2002) extend this entrepreneurial intention model with a variation in individuals' attitudes to employment attributes to explain the changes in a person's job status over time. More specifically, a person starting career as a salaried employee might get most utility from shifting to self-employment due to the income difference. However, the marginal utility of self-employment reduces with ages. Hence, this person might shift back to salaried employment at the final stage of career to derive most utility.

The second strand focuses on "*pull*" or "*push*" factors that affect occupational choice (Block and Koellinger, 2009; Earle and Sakova, 2000; Van Stel et al., 2007). Studies on "*push*" factors suggest that individuals are pushed into self-employment due to negative external forces such as the lack of paid job opportunities (Earle and Sakova, 2000) or the failure in looking for a paid job (Carrasco, 1999; Evans and Leighton, 1989). This type of self-employment is referred to as necessity entrepreneurship. In contrast, some individuals become entrepreneurs because of "*pull*" factors such as market opportunities (Liu and Huang, 2016; Shane, 2000) or the desire of creativity and independence at work (Block and Koellinger, 2009). These entrepreneurs are referred to as opportunity entrepreneurs.

The third strand of literature suggests that access to finance is another important determinant of entrepreneurship. Conventional argument is that financial constraints are binding on the self-employment entry and stay. As a consequence, easing financial constraints could rise the rate of entry. For example, it is suggested that family or personal wealth increases the probability of being self-employed (Evans and Leighton, 1989; Johansson, 2000). Additional evidence for the liquidity constraints on potential entrepreneurs is found in later studies when personal finance is documented by inheritance or gift (Blanchflower and Oswald, 1998) or windfall gains (Lindh and Ohlsson, 1996). More specifically, windfall gains increase the probability of entering into self-employment and the value of the gains is significantly related to this probability (Schäfer et al., 2011). Furthermore, distinguishing the effects of individual wealth and family financial resources on transition into self-employment from paid employment, Dunn and Holtz-Eakin (2000) find a greater influence of parents' wealth. This is explained by the impartation of entrepreneurial skills from parents to offspring.

2.2 Entrepreneurial satisfaction

Given that self-employment motivation might be driven by the expected utility, a growing literature has compared the level of satisfaction or happiness between the wage employees and the self-employed. Most studies find that entrepreneurs report a higher level of total utility or job satisfaction compared to regular employees (e.g., Bianchi, 2012; Blanchflower and Oswald, 1998). This

entrepreneurial utility might be explained by a number of socio-demographic factors. Blanchflower and Oswald (1998) show that self-employed individuals might be more optimistic and cheerful, resulting in a higher level of happiness. Although big-five personality traits have positive effects on job satisfaction of both the self-employed and the paid workers (Berglund et al., 2016; Heller et al., 2002), some traits like emotional stability matter more for entrepreneurial utility. Berglund et al. (2016) indicate that self-employment implies high demands for social contracts, meaning that the high degrees of extraversion and agreeableness are important for job satisfaction. In addition, entrepreneurs are connected with needs for achievement and goal orientation, indicating that a high level of conscientiousness is the key factor to achieve a higher degree of job satisfaction.

Entrepreneurial satisfaction is also related to job independence, including flexibility and autonomy in creating and shaping jobs as well as job self-efficacy. More specifically, procedural utility theory (Benz and Frey, 2004, 2008) suggests that people do not only value the outcomes of the job but also the process leading to the outcomes. Using data from Germany, UK and Sweden, Benz and Frey (2008) find a higher level of job satisfaction among the self-employed after controlling for job characteristics such as income or working hours. This utility is explained by the independence role at work enjoyed by the self-employed. The positive impact of procedural freedom and autonomy on entrepreneurs' satisfaction is also documented by Lange (2012) and Schneck (2014). In particular, Lange (2012) observes that personality traits and values do not drive the utility difference between self-employment and paid-employment. In contrast, the ability to perform freedom, creativity and autonomy at work leads to a higher level of entrepreneurial utility.

The satisfaction of entrepreneurs could be also explained by the discrepancy theory documenting the gap between actual outcomes and individuals' goals or expectations (e.g., Locke, 1976). Millán et al. (2013) suggest that the self-employed tend to have a lower expectation, thus it is easier for entrepreneurs to be satisfied compared to the paid workers. However, the higher initial expectation might lead to higher entrepreneurs' satisfaction later. This relationship is possibly driven by the

positive attitudes towards businesses regardless of performance (Cooper and Artz, 1995). Furthermore, entrepreneurs' well-being might be related to job security. The self-employed could have a higher expectation on job security due to the belief of survival ability (Hundley, 2001). If this positive expectation is not met in practice, entrepreneurs would be less happy compared to the wage employees (Millán et al., 2013). Additionally, the self-employed often report less work-related stress (Hessels et al., 2017), resulting in the lower level of depression and the higher satisfaction level (Bradley and Roberts, 2003).

Recent studies by Hanglberger and Merz (2015) or Georgellis and Yusuf (2016) show that the positive impact of self-employment on satisfaction is only temporary. More specifically, entering self-employment increases individuals' job satisfaction but the level of satisfaction is likely to decline over time. This finding is in line with the literature about the relationship between job change and job satisfaction (e.g., Boswell et al., 2005; 2009). The short-term effect of self-employment on job satisfaction is then explained by the set-point theory suggesting that each individual has a set-point level of well-being and this set point could be influenced by life events (Headey and Wearing, 1989). However, since individuals have capacity to adapt to the changes, their happiness tends to return to the predetermined level over time (Cummins, 2000).

3 Entrepreneurship in China, Ukraine and Russia

The labour markets in Ukraine, China and Russia share some comparable features as they all experience the shift from centralized economies to market-oriented economies in 1990s. Before the economic reforms, the large and inefficient state-owned enterprises dominated these economies and full employment was an ideological goal (Lo, 2000). In contrast, the social norms relating to the Communist ascendancy prevented people from entrepreneurial works. In 1990s, these countries adopted economic reforms which results in the growth of entrepreneurship.

Private ownership in China was introduced in 1980s then fully legitimized after 1992. The development of self-employment in China is different from Ukraine and Russia in the way that it is partially mediated by the household registration system. The system in which each citizen has a registration status, classified as either urban or rural, is used to prevent the rural-to-urban migratory flows. Under this social structure, non-urban residents are not eligible for social welfare and other rights that are available for the urban class. Given this fact, rural residents are motivated to be self-employed as earning money is the only way to overcome the disadvantages they face. Different from them, urban residents have opportunities to enter self-employment due to the economic and political advancement (Wu, 2006).

Although entrepreneurial activities did exist in Russia and Ukraine during the Soviet Union era, they were considered as shadow, or illegal economy. Entrepreneurship in these two countries was legitimated following the collapse of Soviet Union and economic reforms, resulting in a significant growth of entrepreneurship. However, the self-employed often report that the business environment is unfavourable. For example, Russian entrepreneurs face the issues relating to cultural values and practices like tax avoidance or bureaucratic problems like political network reliance (Puffer et al., 2010). Similarly, most Ukrainian entrepreneurs have to pay the unofficial payment related to enterprise registration to the government (Johnson et al., 2000). Additionally, the different paces of reform process within countries have led to differences between rural and urban entrepreneurs (Kalantaridis et al., 2004; 2007). More specifically, individuals in rural areas are discouraged to become self-employed due to local resistance. Hence, entrepreneurial activities in rural areas are less diverse and are more influenced by the traditional norms and behaviours.

These above facts offer some insights into self-employment participation in China, Russia and Ukraine. More specifically, there are differences in the motivations of becoming entrepreneurs across and within three countries. Although Chinese entrepreneurs tend to be “pulled” entrepreneurs, rural entrepreneurs are more likely to be motivated by monetary factors like higher income while urban

peers are more motivated by opportunities to run businesses. In Ukraine and Russia, there is a rural – urban division among entrepreneurs and entrepreneurship rely largely on business environment.

Previous studies have shown some similarities among entrepreneurs in China, Russia and Ukraine. For example, entrepreneurs in these countries are more likely to be male, married and well-educated (Ahlstrom and Ding, 2014; Hisrich and Grachev, 1995; Smallbone and Welter, 2001). Also, the self-employed in three countries often report limited external finance as one of the major obstacles impeding their venture development (Ahlstrom and Ding, 2014; Johnson et al., 2010; Smallbone et al., 2010). However, entrepreneurship in each country also has its homogeneity. Chinese entrepreneurs tend to be innovative, greedy, risk-taking and overly optimistic (Tan, 2001; Djankov et al., 2006). As most Russian entrepreneurs are opportunity entrepreneurs (Ageev et al., 1995), they are confident, energetic, more opportunistic and competitive (Puffer and McCarthy, 2001). In Ukraine, the collapse of state socialism resulted in the decline in military good demand that led to the increasing number of dismissed workers working for military good producers. Thus, highly educated people were pushed into running their own businesses (Roberts and Tholen, 1998; Solesvik et al., 2012; Williams et al., 2009). Besides, the improvement in income also motivates Ukrainian individuals to enter self-employment (Aidis et al., 2007; Smallbone and Welter, 2001).

4 Empirical strategy and data description

4.1 Empirical strategy

The main empirical model employed in this study is as follows:

$$Satisfaction_i = \beta_0 + \beta_1 Self - employed_i + \beta_2 FinDev_r + \beta_3 Self - employed_i * FinDev_r + X_i\beta_4 + \varepsilon_i \quad (1)$$

where *i* refers to an individual and *r* refers to a region. We document two types of satisfaction including *Life satisfaction* and *Job satisfaction*. These variables are ranging from one to five. One indicates individuals who are "very dissatisfied" while five indicates the "very satisfied" status of individuals.

Self-employed is a dummy which equals one if the person is self-employed, zero if the person is a paid employee. *FinDev* is the index of financial development of the region where the respondent lives. Adopting the World Bank's Global Financial Development Framework (2017a), we employ two different financial development indices. The first index is the relative loans to GDP ratio (*Loans/GDP*), calculated as the natural logarithm of *Loans/GDP* in a region minus the natural logarithm of the sample average *Loans/GDP*. The second index is the relative deposits to GDP ratio (*Deposits/GDP*), calculated as the natural logarithm of *Deposits/GDP* in a region minus the natural logarithm of the sample average *Deposits/GDP*. The former index indicates the level of credit supply while the latter shows the level of credit availability. We use the relative instead of absolute term to examine whether an entrepreneur locating in a region where financial development level is below average is less happy than the peer locating in a region where financial development level is average. Using relative term also makes it easier to interpret the results.

Vector *X* includes other variables controlling for different individual, job and regional characteristics. The U-shaped relationship between age and well-being suggested in previous studies (Blanchflower and Oswald, 2008; Clark et al., 1996) is captured by *Age* (the natural logarithm of an individual's age in the interviewing year) and *Age squared*. Following existing literature (e.g., Millán et al., 2013), we also control for gender (*Female*), educational attainment (*Education*), cohabiting status (*Married*) and health status (*Health*). More specifically, *Female* equals one if the individual is female, zero otherwise; *Married* equals one if the individual is married or cohabited, zero otherwise; *Health* is a vector of dummy variables indicating the individual's health condition with bad condition as the reference group. *Education* is a vector of dummy variables indicating the individual' highest educational level with secondary school or lower as the reference group. As working time is directly related to worker's health and well-being (Wooden et al., 2009), we include the natural logarithm of the average working hour per day (*Working hours*). *Urban* is a dummy variable that equals 1 if the respondents live in urban areas, 0 if the respondents live rural areas. Finally, ε_i is the error term.

We estimate model (1) using ordered logit estimator with standard errors clustered at regional level.[4] We first exclude *FinDev* and its interaction with *Self-employed* to test the difference in the level of satisfaction between the self-employed and the paid employees.[5] Next, model (1) is estimated with *FinDev* and its interaction with *Self-employed* to examine the role of financial development in facilitating entrepreneurial satisfaction.

4.2 Data and sample

We employ data from three sources including the 2013 wave of the China Household Income Project, the 2012 wave of the Ukrainian Longitudinal Monitoring Survey and the 2013 wave of Russian Longitudinal Monitoring Survey. These datasets provide comprehensive information about individuals' demographic factors as well as information relating to individuals' jobs that might affect individuals' well-being. Sample for each country is constructed using the following process. First, we categorize respondents according to their labour market status which is (1) wage employed, (2) self-employed and (3) unpaid employed and restrict the sample to include only the first and second categories. Second, we only keep observations that the respondent is in working age. After screening, our final sample consists of 3,368 individuals in Ukraine, 8,946 individuals in China and 9,698 individuals in Russia.

Table 1 presents descriptive statistics for our estimation samples. In general, the level of life satisfaction and job satisfaction among individuals in China, Russia and Ukraine is just above average at about 3.4 – 3.8. In all three countries, entrepreneurs account for less than 20 per cent of total employed individuals. The average age of employed individuals in Ukraine, China and Russia is about 37-45 years old. In addition, the number of female workers in China is significantly lower than the number of female counterparts in Ukraine and Russia. More specifically, only about 13 per cent of

[4] Estimation using robust standard errors yield similar results.
[5] We exclude China from regressions with *Job satisfaction* as the dependent variable as this variable is not reported in the survey.

Chinese workers are females while this number in Ukraine and Russia is about 50 per cent. The number of married individuals in China accounts for about 90 per cent of Chinese individuals in the sample while the numbers of married Ukrainian and married Russian are about 70 per cent and 58 per cent, respectively. Many employed individuals in these countries do not have university education. To be precise, only 8.2 per cent of Chinese individuals have bachelor degree whereas the figures in Ukraine and Russia are 17.8 per cent and 30.8 per cent, respectively. The negative relative *Loans/GDP* ratio suggests that most regions in our samples have lower levels of access to credit relatively to the average. Notably, on average, the levels of access to finance in Ukraine, China and Russia are about 2.5 per cent, 4.8 per cent and 6.8 per cent lower than the relative sample mean, respectively. In contrast, many Ukrainian regions in our sample have the higher level of credit availability compared to the average as the relative *Deposits/GDP* ratio is positive. The opposite is observed in China and Russia given the negative *Deposits/GDP* ratios in these countries.

(Table 1 here)

Table 2 presents summary statistics for sub-samples of self-employment and wage employment in each country. We observe that self-employment increases satisfaction in China and Russia while decreases the level of satisfaction in Ukraine. Moreover, females in Ukraine and Russia tend to work as paid employees while most entrepreneurs in these two countries are males. In contrast, the proportion of Chinese women taking part in labour market is significantly lower than male counterparts, regardless of labour types. Individuals with higher educational level are less likely to become entrepreneurs. It might be because better-educated people have higher chance to be promoted as the wage employees, which encourages them to enter paid-employment. These characteristics are in line with previous studies which document entrepreneurship in China, Russia and Ukraine (e.g., Ahlstrom and Ding, 2014; Hisrich and Grachev, 1995; Smallbone et al., 2010). Further, individuals in rural China are discouraged from becoming self-employed, which could be caused by the geographic isolation as well as the lack of opportunities, human and economic resources (North and Smallbone,

2000; Sorenson and Audia, 2000). Meanwhile, we do not observe the significant rural-urban difference in the level of entrepreneurship in Ukraine and Russia. Moreover, Ukrainian entrepreneurs spend more time at work which is similar to the pattern in other countries (e.g., Berglund et al., 2016). In terms of access to credit and size of financial intermediaries, there is no difference between Ukrainian entrepreneurs and wage workers while Russian entrepreneurs are more likely to be located in regions with higher levels of credit supply. Conversely, most Chinese entrepreneurs locate in less financially developed regions. This could be explained by the fact that rural Chinese individuals are motivated to be self-employed to overcome local disadvantages such as low level of financial development or poor economic conditions.

(Table 2 here)

Table 3 shows the distribution of different levels of life and job satisfaction by job status and living areas. In Ukraine, about 15 per cent of the self-employed report that they are "very dissatisfied" in life while only about 8 per cent of the paid employees are "very dissatisfied". The proportions of individuals reporting "dissatisfied" are around 16-18 per cent for both self-employed and paid-employed groups. The dissatisfaction seems to be more severe in rural Ukraine as the percentage of "very dissatisfied" rural entrepreneurs are as twice as that of urban peers. The dissatisfaction among Ukrainian individuals is not surprising as it is acknowledged in other studies which employ data from the European Social Survey (Schneck, 2014) or the Living Conditions, Lifestyles and Health Project (Abbott and Sapsford, 2006). A recent study by Djankov et al. (2016) also shows that over the 2006-2014 period, less than 40 per cent of Ukrainian individuals are happy in life. In contrast, the individuals in China and Russia seem to be happier with around 50 per cent of individuals reporting that they are "satisfied" with life. There is also not much difference in terms of satisfaction between rural and urban individuals in both China and Russia. This is in line with previous studies such as Appleton and Song (2008) or Knight et al. (2009) who also observe that very few individuals in both rural and urban China exhibit the lowest level of life satisfaction. In terms of job satisfaction, the majority of Russian

individuals report that they are happy with work regardless of job status. By contrast, the job dissatisfaction among Ukrainian self-employed is observed. In particular, about 30 per cent of rural Ukrainian entrepreneurs are not satisfied with work while this number is about 17 per cent among urban entrepreneurs.

(Table 3 here)

5 Result discussion

5.1 Self-employment, financial development and well-being

In the first part of our analysis, we examine the relationship between self-employment and individuals' well-being, documented by job and life satisfactions, by estimating the reduced-form of model (1) (Table 4). Next, we estimate model (1) with all variables to investigate the impact of financial development on entrepreneurial utility (Tables 5 and 6).[6]

We find the job dissatisfaction among Ukrainian self-employed, which is consistent with findings from previous studies such as Abbott and Sapsford (2006) and Schneck (2014). This result suggests that the self-employed might not necessarily be happier than the paid workers if the individuals enter self-employment just to avoid unemployment or the individuals fail to find a paid job. Further, the coefficients on *Self-employed* are positive but insignificant for the sample of Russian individuals regardless of satisfaction types. On the contrary, Chinese entrepreneurs are happier in life compared to the employees. Our result is largely in line with the other studies that also find the positive effect of self-employment on well-being (e.g., Bianchi, 2012; Blanchflower, 2000).

(Table 4 here)

Financial development does not have significant impacts on life satisfaction of individuals in all three countries while has a negative and significant influence on job satisfaction of Russian individuals.

[6] The marginal effects are presented in figures in Online Appendix C.

Given the *Deposits/GDP* ratio indicates resources available for lending (Beck et al., 2010), the higher *Deposits/GDP* ratio could imply a higher level of regional economic growth as well as greater lending capacity. Hence, the result suggests the monetary channel through which financial development could affect well-being. The coefficient on the interaction term between *Self-employed* and relative *Deposits/GDP* is negatively significant, suggesting that Russian entrepreneurs are less happy at work with greater financial development. Again, we do not observe the significant effects of financial development on improving entrepreneurial for the samples of Ukrainian and Chinese individuals. More specifically, if the *Deposits/GDP* ratio is 50 per cent below average, being self-employed in Russia could lead to a growth of about three or five percentage points in the probability of being "very happy" or "happy", respectively. In contrast, if the self-employed locate in a Russian region where the *Deposits/GDP* ratio is 50 per cent above sample average, the likelihood of being either "very happy" of "happy" at work will decline by one to 2.5 percentage points.

(Tables 5 and 6 here)

We explain the results in a number of ways. First, the insignificant role of financial development in improving Chinese entrepreneurs' well-being could be explained by the reliance on informal loans. In comparison with other developing countries, Chinese firms, especially small enterprises, tend to borrow from informal sector and the underground lending channels (Allen et al., 2005; Ayyagari et al., 2010; Beck et al., 2015; Hussain et al., 2006). Further, Tsai (2004) acknowledges that Chinese business owners often rely on interpersonal lending such as borrowing from family or friends and trade credit, to meet their short-term liquidity shortage. Therefore, the development of formal credit sector in China might not be related to entrepreneurial utility.

Second, greater credit supply induced by financial development could relax financial constraints (Beck et al., 2007; Burgess and Pande, 2005) which are often faced by entrepreneurs (e.g., Evans and Jovanovic, 1989; Dunn and Holtz-Eakin, 2000). Since the constraints are no longer binding, individuals have incentives to become entrepreneurs, enhancing competition among businesses

(Bianchi, 2012; Guiso et al., 2004). Further, greater *Deposits/GDP* ratio indicates greater available credit, signalling more financing opportunities for businesses. As Russian entrepreneurs are more competitive (Puffer and McCarthy, 2001) and they tend to use available information to form their expectation (Senik, 2008), the competition from new entrants might make existing entrepreneurs less happy at work as they expect to face more difficulties in running business and earn less. In addition, as posited earlier, it could be the case that Ukrainian entrepreneurs enter self-employment because of necessity. Thus, greater business opportunities brought by financial development might not necessarily affect Ukrainian entrepreneurs' satisfaction.

Regarding other factors, we find that longer working time makes individuals less happy with both life and work. Females in Russia seem to be happier at work while are less likely to be happy in life compared to males. Married individuals tend to report a higher level of both life and job satisfaction. Individuals with higher educational levels and better health condition also experience the higher level of happiness in both life and work. Furthermore, we acknowledge a U-shaped relationship between age and well-being, which is consistent with previous studies (e.g., Millán et al., 2013).

5.2 Control for other effects[7]

5.2.1 Rural-urban division

Research on well-being has identified the satisfaction difference between rural and urban individuals (e.g. Han, 2015; Shucksmith et al., 2009; Sørensen, 2014). Notably, individuals living in urban areas usually experience a higher level of living standard and income as well as better access to social services such as education and health care. As a result, urban individuals tend to be happier than those in rural area are (Knight and Gunatilaka, 2010; Wang et al., 2015). To address this difference in well-being among rural – urban individuals, we re-estimate model (1) on the sub-samples of rural and urban areas.

[7] For the sake of space, in this section we only report tables with main variables of interest. Full tables of results are reported in Online Appendix B.

We find the job dissatisfaction experienced by Ukrainian entrepreneurs in both rural and urban areas while there is a difference in well-being of Russian and Chinese entrepreneurs in rural and urban areas (Panels A and B of Tables 7 and 8). In particular, Chinese self-employed living in rural areas are generally happier in life than the paid employees while Russian entrepreneurs in urban centres enjoy a higher level of happiness compared to the paid workers. These results confirm the argument that Ukrainian individuals become self-employed because they are pushed out from paid jobs.

(Tables 7 and 8 here)

Furthermore, the effects of financial development on Russian entrepreneurs' well-being are different between rural and urban areas. To be precise, the increase in the relative *Loans/GDP* ratio leads to the improvement in life satisfaction of rural Russian entrepreneurs. Being self-employed in a region where the *Loans/GDP* ratio is 50 per cent below average makes individuals less happy by about 2.5 percentage points. However, being self-employed in a region where the *Loans/GDP* ratio is 50 per cent above average could indeed increase the probability of being "very satisfied" by nearly seven percentage points. By contrast, greater financial development is negatively related to job satisfaction of urban Russian entrepreneurs. For instance, if the *Deposits/GDP* ratio is 50 per cent below average, being self-employed increases the likelihood of being "very happy" by about five percentage points. However, if the *Deposits/GDP* ratio is 50 per cent above average, self-employment leads to a drop of two percentage points in the probability of being "very satisfied".

These results suggest both monetary and non-monetary channels through which financial development can influence entrepreneurial satisfaction. There is also a difference in the roles of each factor in determining rural and urban entrepreneurial well-being. More specifically, satisfaction of urban entrepreneurs is more likely to be driven by non-monetary factors while satisfaction of rural entrepreneurs tends to be affected by monetary factors. Particularly, greater financial development could boost the economic growth (Beck and Levine, 2004) that is beneficial to all individuals. Additionally, the improvement in credit availability and credit supply could ease the financial

constraints, thus facilitating firm growth and providing individuals with more opportunities to start their own business (e.g., Burgess and Pande, 2005). Consequently, the level of competition in urban Russia, where the competition among entrepreneurs is already high, will be enhanced, leading to lower profits and more difficulties in running business. Therefore, urban entrepreneurs in Russia experience a lower level of satisfaction at work. On the contrary, the self-employed in rural areas where business environment is less favourable compared to the one in urban areas could enjoy the benefits brought by greater financial development and become happier in life.

5.2.2 Income effect

Previous studies have suggested that income could be an important indicator of individuals' well-being (e.g., Easterlin, 2001; Ferrer-i-Carbonell, 2005; Stevenson and Wolfers, 2013). Income could also serve as a channel through which financial development affects well-being as the positive link between financial development and economic growth has been widely documented (Beck et al., 2000; Calderón and Liu, 2003). However, it has been shown that the individuals might have incentives to misreport their income due to the fear of being taxed (Becchetti and Conzo, 2017; Okulicz-Kozaryn, 2012), which might result in biased results (Cao et al., 2014). To account for the income effect and overcome the limitation, we re-estimate model (1) for the samples of high-income and low-income individuals using the income median as a threshold. Estimated results are presented in Panels C and D of Tables 7 and 8.

We observe that Ukrainian entrepreneurs are dissatisfied with their jobs regardless of income levels, strengthening our previous suggestion about the existence of necessity entrepreneurs in Ukraine. In contrast, higher income brings higher levels of life satisfaction for Chinese entrepreneurs and that of job satisfaction for Ukrainian entrepreneurs. Moreover, the role of financial development on improving entrepreneurial well-being stays insignificant in Ukraine and China irrespective of income levels. Greater credit availability, however, is negatively related to job satisfaction of both high-income and low-income Russian entrepreneurs. Further analysis shows that holding all other predictors at their

means, the marginal effects of *Self-employed* on the likelihood of being "very satisfied" and "satisfied" at works at different levels of financial development are quite similar for high-income and low-income groups. In other words, we find consistent and negative impacts of financial development on Russian entrepreneurs' job satisfaction even when controlling for income effect. This suggests that the job satisfaction of Russian self-employed is more likely to be moderated through the non-monetary channels.

5.2.3 Gender effect

The prior literature has also suggested gender differences in self-employment participation as well as motivations, which in turn can affect entrepreneurial well-being (e.g., DeMartino and Barbato, 2003; Noseleit, 2014; Patrick et al., 2016; Scott, 1986). Women are more often pushed into entrepreneurship as a result of lower wages, lack of progress in the workplace (glass ceiling) and family-related issues such as work-family balance and child care (Orhan and Scott, 2001). On the contrary, men tend to be more motivated by pull factors such as monetary factors and a desire for independence, autonomy and greater controls (Shinnar and Young, 2008). In addition, women usually place more emphasis on non-monetary aspects of entrepreneurship (e.g., time flexibility) but less on financial motivations (Clain, 2000). To account for the differences between females and males, we re-estimate model (1) for the sub-samples of female and male individuals (Panels A and B of Tables 9 and 10).

Again, we find job dissatisfaction among both female and male Ukrainian entrepreneurs and greater financial development could not improve their well-being. Similarly, the higher levels of credit supply and credit availability play insignificant role in enhancing Chinese entrepreneurs' satisfaction. In contrast, the increase in relative *Loans/GDP* and *Deposits/GDP* ratios leads to the reduction in job satisfaction of both male and female entrepreneurs in Russia. Being self-employed in the region of which the level of credit supply is 50 per cent lower than the average could improve job satisfaction of both women and men by two percentage points. However, being self-employed brings no satisfaction to both women and men in the region where the level of financial development is 50 per

cent above average. In the case financial development is indicated by credit availability (relative *Deposits/GDP*), male entrepreneurs' job satisfaction indeed declines with financial development.

(Tables 9 and 10 here)

5.2.4 Big city effect

One would argue that individuals living in big cities or more financially developed regions might have more favourable conditions to set up their own business, resulting in the domination of the self-employed in these cities/regions. Hence, our main results might be driven by the relationship between self-employment and satisfaction in big or more financially developed cities and regions. To empirically address this concern, we re-estimate model (1) by excluding Kyiv from the Ukrainian sample, Moscow and St Petersburg from the Russian sample and Beijing from the Chinese sample.[8] These cities are also excluded from our financial development measures. Estimations after dropping big cities from the samples provide consistent, if not stronger, results (Panel C of Tables 9-10). Particularly, we observe the job and life dissatisfaction among Ukrainian entrepreneurs. On the contrary, entrepreneurs in Russia and China experience a higher level of satisfaction than the paid-employees.

Regarding the interaction between *Self-employed* and *FinDev*, the insignificant effects of financial development on Chinese entrepreneurs are confirmed. Oppositely, we observe the negative impact of financial development on entrepreneurs' job satisfaction in both Russia and Ukraine. In particular, greater credit availability and credit supply result in the decline in job satisfaction among Ukrainian entrepreneurs. Similarly, higher relative *Deposits/GDP* ratio leads to job dissatisfaction among Russian self-employed (Table 9). However, better credit supply could improve life satisfaction of Russian entrepreneurs living outside big cities (Table 10).

[8] Shanghai is not included in CHIP survey.

While results for the samples of Chinese and Russian individuals are quantitatively similar to previous findings, results for the sample of Ukrainian individuals are interesting which provide insights into the financial development and entrepreneurship in Ukraine. Our results, to some extent, suggest that the financial sources are disproportionally distributed towards Kyiv which incentivizes individuals to start businesses whereas individuals living in other regions enter self-employment simply because they cannot find paid jobs. Thus, the dissatisfaction is more severe among non-Kyiv entrepreneurs compared to Kyiv peers. Given all these factors, greater (but disproportional) local financial development could then increase dissatisfaction of non-Kyiv entrepreneurs.

Overall, our results suggest that financial development works through both monetary and nonmonetary aspects of satisfaction. More specifically, the level of life satisfaction is more likely to be driven by monetary factors like higher economic growth brought by greater financial development. The positive impact of financial development on life satisfaction is more pronounced among low-income entrepreneurs or rural entrepreneurs whose income is much lower compared to urban counterparts' due to the huge inter-regional income disparity (Remington, 2011; 2015). The effect of financial development on job satisfaction, however, tends to be moderated by the nonmonetary factors related to the business environment such as competition among businesses (Bianchi, 2012). This is especially true for urban entrepreneurs because the competition among businesses in urban areas is more intensive than that in rural areas (Renski, 2008; Rijkers et al., 2010). As greater financial development might ease the financial constraints, thus, boost entry into self-employment, the level of competition in urban areas will be even higher. This might lead to (1) lower potential profits of existing entrepreneurs and (2) more difficulties in running business such as lack of customers. Consequently, urban entrepreneurs are more likely to be negatively affected by greater financial development. The impact of financial development on entrepreneurial utility through non-monetary channels is also more profound in small or less developed areas where the business environment is less favourable. This could explain the increased job dissatisfaction among Ukrainian entrepreneurs who live outside Kyiv.

6 Conclusions and implications

In this study, we employ data from household surveys in Ukraine, China and Russia to distinguish the well-being differences between the self-employed and the wage workers. We find that on average, the self-employed in China and Russia are happier in life compared to the salaried employees. Russian entrepreneurs also experience a higher degree of job satisfaction. These results are in line with previous literature on entrepreneurial utility (e.g., Blanchflower, 2000; Blanchflower and Oswald, 1998). In contrast, Ukrainian entrepreneurs are less happy than the paid counterparts. Furthermore, the job dissatisfaction is more pronounced than the life dissatisfaction. The dissatisfaction of Ukrainian self-employed is also found by Bianchi (2012) and Schneck (2014) although the coefficients in these studies are not statistically significant.

In the next part of the analysis, we investigate the relationship between financial development and entrepreneurial satisfaction. We find that financial development of formal sector does not affect entrepreneurs' life satisfaction in China where entrepreneurs rely more on informal finance. However, financial development has different effects on entrepreneurial satisfaction in Ukraine and Russia. In Ukraine, greater financial development could lead to job dissatisfaction among non-Kyiv entrepreneurs. In Russia, financial development reduces job satisfaction of Russian self-employed, especially the urban ones, while improves life satisfaction of rural entrepreneurs. We interpret these findings by arguing that financial development could affect entrepreneurs' well-being through both monetary and nonmonetary aspects. First, financial development is positively related to economic growth, which makes individuals better off and makes them happier in life. This could also explain why the positive link between financial development and life satisfaction is most pronounced among rural entrepreneurs. Second, the increase in credit availability and credit supply makes it easier to obtain bank loans. In other words, financial constraints faced by start-ups are no longer binding, creating incentives for individuals to start their own businesses and increasing competition in the market. For this reason, existing entrepreneurs, especially those in urban areas where the competition

is already fierce, might be less satisfied at work. Third, in the countries like Ukraine, entrepreneurs living outside capital and major cities are more likely to be necessity (and thus, unhappy) ones. This, coupled with the urban – rural division, leads to the more pronounced negative impacts of local financial development on entrepreneurial happiness in non-capital and non-major cities.

Our results suggest that any policies regarding entrepreneurship and well-being should not be isolated from the country's uniqueness. The results also offer some implications as follows. First, formal credit sector, especially in the countries like China, should be improved to be more attractive. As a result, individuals would use formal credit more and could benefit from the development of formal credit sector. Second, there is a need for a redistributive mechanism through which financial capital is distributed more equally between rural – urban areas and between big cities – small cities. In addition, advanced training and education could be also provided to strengthen entrepreneurial ability of the self-employed in less developed areas, thus improving their success rate. These policies, if implemented successfully, could encourage more opportunity entrepreneurs who contribute to local economic growth and job creation. Consequently, more paid jobs will be available to local citizens, thus reducing the number of "pushed" (and unhappy) self-employed. This implication is expected to have greater influence in the countries where rural - urban and major – small regions divisions are more profound.

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Table 1. Descriptive statistics

	Ukraine			China			Russia		
	Mean	SD	Obs.	Mean	SD	Obs.	Mean	SD	Obs.
Life satisfaction	3.503	1.262	3,342	3.687	0.804	9,524	3.444	0.996	8,903
Job satisfaction	3.838	1.032	3,294				3.688	0.923	8,891
Self-employed	0.116	0.320	3,368	0.184	0.388	9,698	0.143	0.351	8,946
Female	0.494	0.500	3,368	0.132	0.338	9,698	0.518	0.500	8,946
Age	3.637	0.316	3,368	3.791	0.199	9,698	3.639	0.303	8,946
Married	0.696	0.460	3,368	0.932	0.251	9,698	0.583	0.493	8,946
Education									
High school or college	0.639	0.480	3,368	0.763	0.425	9,698	0.647	0.478	8,946
Bachelor or higher	0.178	0.382	3,368	0.082	0.275	9,698	0.308	0.462	8,946
Health									
Average	0.469	0.499	3,368	0.170	0.375	9,698	0.530	0.499	8,946
Good	0.480	0.500	3,368	0.800	0.400	9,698	0.427	0.495	8,946
Working hour	2.128	0.364	3,368	2.120	0.199	9,698	2.188	0.345	8,946
Urban	0.534	0.499	3,368	0.405	0.491	9,698	0.719	0.450	8,946
Deposits/GDP	0.041	0.319	3,368	-0.074	0.347	9,698	-0.015	0.353	8,946
Loans/GDP	-0.025	0.639	3,368	-0.048	0.278	9,698	-0.068	0.485	8,946

This table presents descriptive statistics for data taken from the 2013 wave of the China Household Income Project, the 2012 wave of the Ukrainian Longitudinal Monitoring Survey and the 2013 Russian Longitudinal Monitoring Survey. *Job satisfaction* and *Life satisfaction* are categorical variables that take values from one to five (1-very unsatisfied, 2-unsatisfied, 3-neutral, 4-quite satisfied, 5-fully satisfied). *Female* is a dummy variable that equals one if the individual is female, zero otherwise. *Age* is the natural logarithm of an individual's age in the interviewing year. *Working hours* is the natural logarithm of the average working hour per day. *Education* reports dummies for the individual' highest educational level with secondary school or lower as the reference group. *Married* is a dummy variable that equals one if the individual is married or cohabited, zero otherwise. *Health* reports dummies for the individual's health condition with bad condition as the reference group. *Deposits/GDP* is the relative Deposits/GDP ratio compared to the sample average. *Loans/GDP* is the relative Loans/GDP ratio compared to the sample average.

Table 2. Descriptive statistics by job status

	Paid employees			Self-employed			Difference	
	Mean	SD	Obs.	Mean	SD	Obs.		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
				Panel A. Ukraine				
Life satisfaction	3.523	1.254	2,954	3.351	1.308	388	0.173	***
Job satisfaction	3.899	0.992	2,911	3.379	1.198	383	0.520	***
Female	0.515	0.500	2,977	0.338	0.473	391	0.177	***
Age	3.631	0.318	2,977	3.678	0.295	391	-0.047	***
Married	0.690	0.463	2,977	0.739	0.440	391	-0.049	***
Education								
High school or college	0.634	0.482	2,977	0.673	0.470	391	-0.038	
Bachelor or higher	0.190	0.392	2,977	0.084	0.278	391	0.106	***
Health								
Average	0.470	0.499	2,977	0.460	0.499	391	0.010	
Good	0.481	0.500	2,977	0.473	0.500	391	0.008	
Working hour	2.113	0.311	2,977	2.243	0.624	391	-0.130	***
Urban	0.536	0.499	2,977	0.512	0.501	391	0.025	
Deposits/GDP	0.042	0.322	2,977	0.031	0.296	391	0.011	
Loans/GDP	-0.029	0.644	2,977	0.002	0.597	391	-0.031	
				Panel B. China				
Life satisfaction	3.673	0.805	7,761	3.749	0.796	1,763	-0.076	***
Female	0.141	0.348	7,912	0.091	0.288	1,786	0.050	***
Age	3.788	0.203	7,912	3.803	0.181	1,786	-0.015	***
Married	0.925	0.263	7,912	0.962	0.190	1,786	-0.037	***
Education								
High school or college	0.753	0.432	7,912	0.810	0.392	1,786	-0.058	***
Bachelor or higher	0.098	0.297	7,912	0.013	0.113	1,786	0.085	***
Health								
Average	0.175	0.380	7,912	0.148	0.355	1,786	0.027	***
Good	0.795	0.404	7,912	0.824	0.381	1,786	-0.029	***
Working hour	2.120	0.170	7,912	2.118	0.293	1,786	0.002	
Urban	0.430	0.495	7,912	0.293	0.455	1,786	0.137	***
Deposits/GDP	-0.065	0.357	7,912	-0.113	0.292	1,786	0.048	***
Loans/GDP	-0.043	0.283	7,912	-0.072	0.252	1,786	0.029	***
				Panel C. Russia				
Life satisfaction	3.436	0.995	7,623	3.491	0.998	1,280	-0.056	*
Job satisfaction	3.684	0.920	7,625	3.717	0.940	1,266	-0.034	
Female	0.533	0.499	7,663	0.430	0.495	1,283	0.103	***
Age	3.646	0.304	7,663	3.598	0.292	1,283	0.047	***
Married	0.587	0.492	7,663	0.559	0.497	1,283	0.028	**
Education								
High school or college	0.639	0.480	7,663	0.699	0.459	1,283	-0.060	***
Bachelor or higher	0.319	0.466	7,663	0.242	0.429	1,283	0.077	***
Health								
Average	0.542	0.498	7,663	0.457	0.498	1,283	0.085	***
Good	0.415	0.493	7,663	0.496	0.500	1,283	-0.081	***
Working hour	2.191	0.351	7,663	2.174	0.307	1,283	0.017	
Urban	0.722	0.448	7,663	0.700	0.458	1,283	0.022	
Deposits/GDP	-0.014	0.355	7,663	-0.020	0.338	1,283	0.006	
Loans/GDP	-0.073	0.490	7,663	-0.035	0.451	1,283	-0.038	***

This table presents descriptive statistics by job status for data taken from the 2013 wave of the China Household Income Project, the 2012 wave of the Ukrainian Longitudinal Monitoring Survey and the 2013 Russian Longitudinal Monitoring Survey. Columns (1) – (3) show mean, standard deviation and number of observations for the paid employees, respectively. Columns (4) – (6) show mean, standard deviation and number of observations for the self-employed, respectively. Column (7) shows mean difference between two groups. *Job satisfaction* and *Life satisfaction* are categorical variables that take values from one to five (1-very unsatisfied, 2-unsatisfied, 3-neutral, 4-quite satisfied, 5-fully satisfied). *Female* is a dummy variable that equals one if the individual is female, zero otherwise. *Age* is the natural logarithm of an individual's age in the interviewing year. *Working hours* is the natural logarithm of the average working hour per day. *Education* reports dummies for the individual' highest educational level with secondary school or lower as the reference group. *Married* is a dummy variable that equals one if the individual is married or cohabited, zero otherwise. *Health* reports dummies for the individual's health condition with bad condition as the reference group. *Deposits/GDP* is the relative Deposits/GDP ratio compared to the sample average. *Loans/GDP* is the relative Loans/GDP ratio compared to the sample average. $*$, $**$, and $***$ denote 10%, 5%, and 1% significance level, respectively.

Table 3. Level of satisfaction

	Ukraine		China		Russia	
	Paid-employees	Self-employed	Paid-employees	Self-employed	Paid-employees	Self-employed
	(1)	(2)	(3)	(4)	(5)	(6)
			Life satisfaction			
			Panel A. Rural area			
Very dissatisfied	8.2%	15.2%	1.0%	0.9%	4.1%	4.2%
Dissatisfied	16.2%	17.8%	5.0%	4.0%	15.4%	15.2%
Neutral	21.3%	24.1%	38.8%	29.5%	23.9%	18.6%
Satisfied	28.0%	20.4%	42.7%	50.1%	47.2%	54.5%
Fully satisfied	26.4%	22.5%	12.5%	15.6%	9.3%	7.6%
			Panel B. Urban area			
Very dissatisfied	7.1%	6.1%	0.7%	0.8%	4.1%	4.0%
Dissatisfied	15.9%	16.2%	3.4%	4.9%	14.8%	14.4%
Neutral	19.3%	24.9%	31.4%	27.4%	24.3%	20.5%
Satisfied	29.4%	24.9%	47.5%	51.5%	46.6%	49.4%
Fully satisfied	28.3%	27.9%	17.0%	15.5%	10.2%	11.7%
			Job satisfaction			
			Panel A. Rural area			
Very dissatisfied	3.3%	14.4%			3.0%	4.1%
Dissatisfied	7.0%	15.0%			9.5%	8.1%
Neutral	17.5%	23.0%			23.7%	20.6%
Satisfied	42.1%	32.6%			51.4%	58.0%
Fully satisfied	30.1%	15.0%			12.4%	9.2%
			Panel B. Urban area			
Very dissatisfied	2.2%	5.6%			2.1%	1.9%
Dissatisfied	7.1%	11.2%			8.5%	8.6%
Neutral	17.2%	23.5%			22.4%	22.3%
Satisfied	44.6%	40.8%			50.1%	45.6%
Fully satisfied	28.9%	18.9%			16.9%	21.6%

This table presents distribution of the level of life and job satisfaction of paid-employees and self-employed in Ukraine, China and Russia in our sample. Panel A reports the summary statistics for rural sub-sample, while Panel B shows the summary statistics for urban sub-sample.

Table 4. Self-employment and satisfaction

	Job satisfaction		Life satisfaction		
	Ukraine	Russia	Ukraine	China	Russia
	(1)	(2)	(3)	(5)	(4)
Self-employed	-0.804***	0.111	-0.130	0.235***	0.124
	(0.180)	(0.071)	(0.160)	(0.070)	(0.083)
Female	0.121	0.144***	-0.012	0.093	-0.101***
	(0.110)	(0.040)	(0.080)	(0.087)	(0.039)
Age	0.523	-9.153***	-16.590***	-6.927**	-11.046***
	(2.120)	(1.501)	(1.782)	(3.314)	(1.757)
Age squared	-0.012	1.303***	2.285***	0.944**	1.487***
	(0.299)	(0.208)	(0.251)	(0.441)	(0.244)
Married	0.240***	0.177***	0.576***	1.149***	0.648***
	(0.082)	(0.045)	(0.109)	(0.119)	(0.057)
Education					
High school or college	0.281***	0.151	0.241**	0.175***	0.300***
	(0.065)	(0.100)	(0.103)	(0.064)	(0.094)
Bachelor or higher	0.491***	0.484***	0.821***	0.641***	0.656***
	(0.097)	(0.118)	(0.129)	(0.098)	(0.103)
Health					
Average	0.534***	0.435***	0.746***	0.241	0.515***
	(0.179)	(0.134)	(0.128)	(0.166)	(0.100)
Good	0.884***	0.974***	1.234***	1.007***	1.260***
	(0.183)	(0.142)	(0.175)	(0.153)	(0.111)
Working hour	-0.195*	-0.214***	-0.112	-0.131	-0.165***
	(0.114)	(0.072)	(0.102)	(0.095)	(0.057)
Cut-off point 1	-0.949	-18.944***	-31.003***	-15.540**	-22.443***
	(3.724)	(2.728)	(3.175)	(6.165)	(3.182)
Cut-off point 2	0.319	-17.296***	-29.647***	-13.695**	-20.684***
	(3.757)	(2.730)	(3.173)	(6.168)	(3.177)
Cut-off point 3	1.540	-15.858***	-28.648***	-11.095*	-19.455***
	(3.720)	(2.740)	(3.193)	(6.171)	(3.172)
Cut-off point 4	3.426	-13.454***	-27.374***	-8.825	-16.820***
	(3.727)	(2.743)	(3.186)	(6.191)	(3.085)
Obs.	3,294	8,891	3,342	9,524	8,903

This table reports the ordered logit regression of self-employment and satisfaction in China, Ukraine and Russia for reduced-form of model (1). Standard errors clustered at regional level are reported in parentheses. Dummy variable *Urban* is included but not reported. Columns (1) - (2) show results for job satisfaction in Ukraine and Russia, respectively, while columns (3) - (5) show results for life satisfaction in Ukraine, China and Russia, respectively. *Job satisfaction* and *Life satisfaction* are categorical variables that take values from one to five (1-very unsatisfied, 2-unsatisfied, 3-neutral, 4-quite satisfied, 5-fully satisfied). *Female* is a dummy variable that equals one if the individual is female, zero otherwise. *Age* is the natural logarithm of an individual's age in the interviewing year. *Working hours* is the natural logarithm of the average working hour per day. *Education* reports dummies for the individual' highest educational level with secondary school or lower as the reference group. *Married* is a dummy variable that equals one if the individual is married or cohabited, zero

otherwise. *Health* reports dummies for the individual's health condition with bad condition as the reference group. ∗, ∗∗, and ∗∗∗ denote 10%, 5%, and 1% significance level, respectively.

Table 5. Self-employment, financial development and job satisfaction

	Ukraine		Russia	
	Deposits	Loans	Deposits	Loans
	(1)	(2)	(3)	(4)
Self-employed	-0.808***	-0.798***	0.100	0.104
	(0.182)	(0.179)	(0.062)	(0.071)
FinDev	-0.176	-0.134***	0.221*	-0.015
	(0.152)	(0.049)	(0.129)	(0.148)
Self-employed*FinDev	0.102	-0.062	-0.517***	-0.184
	(0.516)	(0.265)	(0.165)	(0.114)
Female	0.122	0.121	0.147***	0.143***
	(0.110)	(0.111)	(0.042)	(0.041)
Age	0.348	0.253	-9.126***	-9.145***
	(2.109)	(2.106)	(1.497)	(1.483)
Age squared	0.013	0.027	1.299***	1.302***
	(0.299)	(0.298)	(0.207)	(0.205)
Married	0.239***	0.231***	0.180***	0.176***
	(0.081)	(0.080)	(0.044)	(0.045)
Education				
High school or college	0.284***	0.279***	0.159	0.152
	(0.066)	(0.067)	(0.099)	(0.100)
Bachelor or higher	0.505***	0.505***	0.491***	0.489***
	(0.101)	(0.100)	(0.118)	(0.118)
Health				
Average	0.541***	0.539***	0.437***	0.437***
	(0.180)	(0.177)	(0.138)	(0.131)
Good	0.888***	0.889***	0.977***	0.980***
	(0.184)	(0.183)	(0.144)	(0.133)
Working hours	-0.188*	-0.183	-0.212***	-0.216***
	(0.113)	(0.113)	(0.071)	(0.073)
Cut-off point 1	-1.231	-1.372	-18.892***	-18.926***
	(3.686)	(3.680)	(2.724)	(2.702)
Cut-off point 2	0.037	-0.103	-17.244***	-17.278***
	(3.717)	(3.713)	(2.726)	(2.703)
Cut-off point 3	1.259	1.120	-15.805***	-15.838***
	(3.678)	(3.674)	(2.736)	(2.713)
Cut-off point 4	3.147	3.010	-13.397***	-13.434***
	(3.684)	(3.680)	(2.740)	(2.714)
Obs.	3,294	3,294	8,891	8,891

This table reports the ordered logit regressions for model (1) with *Job satisfaction* as the dependent variable. Standard errors clustered at regional level are reported in parentheses. Dummy variable *Urban* is included but not reported. Columns (1) - (2) show results for sample of Ukrainian individuals with *Deposits/GDP* and *Loans/GDP* as the measure of financial development, respectively. Columns (3) - (4) show results for sample of Russian individuals with *Deposits/GDP* and *Loans/GDP* as the measure of financial development, respectively. *Job satisfaction* is a categorical variable that takes values from one to five (1-very unsatisfied, 2-unsatisfied, 3-neutral, 4-quite satisfied, 5-fully satisfied). *Female* is a dummy variable that equals one if the individual is female, zero otherwise. *Age* is the natural logarithm of an individual's age in the interviewing year. *Working hours* is the natural logarithm of the average working hour per day. *Education* reports

dummies for the individual' highest educational level with secondary school or lower as the reference group. *Married* is a dummy variable that equals one if the individual is married or cohabited, zero otherwise. *Health* reports dummies for the individual's health condition with bad condition as the reference group. *Deposits/GDP* is the relative Deposits/GDP ratio compared to the sample average. *Loans/GDP* is the relative Loans/GDP ratio compared to the sample average. ∗, ∗∗, and ∗∗∗ denote 10%, 5%, and 1% significance level, respectively.

Table 6. Self-employment, financial development and life satisfaction

	Ukraine		China		Russia	
	Deposits	Loans	Deposits	Loans	Deposits	Loans
	(1)	(2)	(3)	(4)	(5)	(6)
Self-employed	-0.137	-0.130	0.212***	0.225***	0.119	0.141
	(0.143)	(0.153)	(0.070)	(0.072)	(0.078)	(0.088)
FinDev	0.179	0.060	-0.026	-0.034	-0.143	-0.381
	(0.223)	(0.100)	(0.216)	(0.265)	(0.225)	(0.259)
Self-employed*FinDev	0.380	0.226	-0.194	-0.132	-0.262	0.097
	(0.666)	(0.322)	(0.180)	(0.247)	(0.166)	(0.209)
Female	-0.007	-0.009	0.095	0.095	-0.107***	-0.111***
	(0.084)	(0.082)	(0.090)	(0.091)	(0.039)	(0.038)
Age	-16.552***	-16.543***	-6.946**	-6.919**	-11.095***	-11.384***
	(1.870)	(1.844)	(3.381)	(3.321)	(1.736)	(1.648)
Age squared	2.279***	2.278***	0.947**	0.943**	1.495***	1.536***
	(0.264)	(0.260)	(0.450)	(0.442)	(0.241)	(0.228)
Married	0.579***	0.584***	1.149***	1.149***	0.647***	0.651***
	(0.109)	(0.107)	(0.119)	(0.118)	(0.057)	(0.059)
Education						
High school or college	0.232**	0.242**	0.174***	0.172***	0.301***	0.312***
	(0.101)	(0.100)	(0.063)	(0.059)	(0.094)	(0.102)
Bachelor or higher	0.802***	0.816***	0.643***	0.641***	0.667***	0.683***
	(0.131)	(0.129)	(0.105)	(0.101)	(0.104)	(0.112)
Health						
Average	0.743***	0.749***	0.241	0.241	0.509***	0.518***
	(0.130)	(0.130)	(0.166)	(0.165)	(0.103)	(0.104)
Good	1.235***	1.237***	1.007***	1.007***	1.258***	1.279***
	(0.177)	(0.177)	(0.154)	(0.154)	(0.111)	(0.103)
Working hours	-0.124	-0.120	-0.127	-0.130	-0.169***	-0.158***
	(0.104)	(0.104)	(0.096)	(0.095)	(0.058)	(0.056)
Cut-off point 1	-30.974***	-30.941***	-15.566**	-15.524**	-22.513***	-22.982***
	(3.311)	(3.277)	(6.285)	(6.176)	(3.151)	(3.014)
Cut-off point 2	-29.619***	-29.585***	-13.722**	-13.679**	-20.753***	-21.221***
	(3.304)	(3.271)	(6.287)	(6.179)	(3.147)	(3.014)
Cut-off point 3	-28.619***	-28.585***	-11.121*	-11.079*	-19.524***	-19.990***
	(3.326)	(3.292)	(6.290)	(6.181)	(3.143)	(3.012)
Cut-off point 4	-27.343***	-27.310***	-8.851	-8.809	-16.885***	-17.337***
	(3.319)	(3.286)	(6.310)	(6.201)	(3.058)	(2.945)
Obs.	3,342	3,342	9,524	9,524	8,903	8,903

This table reports the ordered logit regressions for model (1) with *Life satisfaction* as the dependent variable. Standard errors clustered at regional level are reported in parentheses. Dummy variable *Urban* is included but not reported. Columns (1) - (2) show results for sample of Ukrainian individuals with *Deposits/GDP* and *Loans/GDP* as the measure of financial development, respectively. Columns (3) - (4) show results for sample of Chinese individuals with *Deposits/GDP* and *Loans/GDP* as the measure of financial development, respectively. Columns (5) - (6) show results for sample of Russian individuals with *Deposits/GDP* and *Loans/GDP* as the measure of financial development, respectively. *Life satisfaction* is a categorical variable that takes values from one to five (1-very unsatisfied, 2-unsatisfied, 3-neutral, 4-quite satisfied, 5-fully satisfied). *FinDev* is the financial development indicator measured by either *Deposits/GDP or Loans/GDP*.

Deposits/GDP is the relative Deposits/GDP ratio compared to the sample average. *Loans/GDP* is the relative Loans/GDP ratio compared to the sample average. *Female* is a dummy variable that equals one if the individual is female, zero otherwise. *Age* is the natural logarithm of an individual's age in the interviewing year. *Working hours* is the natural logarithm of the average working hour per day. *Education* reports dummies for the individual' highest educational level with secondary school or lower as the reference group. *Married* is a dummy variable that equals one if the individual is married or cohabited, zero otherwise. *Health* reports dummies for the individual's health condition with bad condition as the reference group. *Urban* equals 1 if the respondent live in urban areas, 0 if the respondents live in rural areas. $*$, $**$, and $***$ denote 10%, 5%, and 1% significance level, respectively.

Table 7. Self-employment, financial development and job satisfaction: effects of rural – urban division and income

	Ukraine		Russia	
	Deposits	Loans	Deposits	Loans
	(1)	(2)	(3)	(4)
	Panel A. Rural areas			
Self-employed	-1.012***	-1.030***	-0.108	0.022
	(0.317)	(0.321)	(0.115)	(0.127)
FinDev	0.148	0.046	0.507	0.326
	(0.295)	(0.131)	(0.415)	(0.323)
Self-employed*FinDev	-0.202	-0.289	-1.222**	0.229
	(0.925)	(0.454)	(0.571)	(0.471)
Obs.	1,538	1,538	2,481	2,481
	Panel B. Urban areas			
Self-employed	-0.613***	-0.615***	0.155**	0.132
	(0.116)	(0.106)	(0.073)	(0.086)
FinDev	-0.419***	-0.243***	0.187	-0.059
	(0.137)	(0.055)	(0.141)	(0.149)
Self-employed*FinDev	0.031	0.003	-0.498***	-0.213
	(0.269)	(0.138)	(0.144)	(0.137)
Obs.	1,756	1,756	6,410	6,410
	Panel C. High income individuals			
Self-employed	-0.712***	-0.669***	0.199**	0.171*
	(0.247)	(0.230)	(0.101)	(0.103)
FinDev	-0.546***	-0.299***	0.153	-0.003
	(0.181)	(0.086)	(0.107)	(0.060)
Self-employed*FinDev	0.417	0.018	-0.531*	-0.226
	(0.540)	(0.347)	(0.298)	(0.181)
Obs.	1,316	1,316	4,161	4,161
	Panel D. Low income individuals			
Self-employed	-1.243***	-1.295***	-0.088	-0.030
	(0.349)	(0.361)	(0.091)	(0.112)
FinDev	-0.150	-0.103	0.039	-0.033
	(0.212)	(0.076)	(0.244)	(0.193)
Self-employed*FinDev	-0.878	-0.645	-0.672**	-0.077
	(0.990)	(0.639)	(0.303)	(0.235)
Obs.	1,351	1,351	4,205	4,205

This table reports the ordered logit regressions for model (1) with *Job satisfaction* as the dependent variable, taking into account the effects of rural-urban division and income. Standard errors clustered at regional level are reported in parentheses. Columns (1) - (2) show results for sample of Ukrainian individuals with *Deposits/GDP* and *Loans/GDP* as the measure of financial development, respectively. Columns (3) - (4) show results for sample of Russian individuals with *Deposits/GDP* and *Loans/GDP* as the measure of financial development, respectively. Panels A- B present results for sub-samples of rural area and urban area, respectively. Panels C- D present results for sub-samples of high- and low-income individuals, respectively. *Job satisfaction* is a categorical variable that takes values from one to five (1-very unsatisfied, 2-unsatisfied, 3-neutral, 4-quite satisfied, 5-fully satisfied). *FinDev* is the financial development indicator measured by either

Deposits/GDP or Loans/GDP. *Deposits/GDP* is the relative Deposits/GDP ratio compared to the sample average. *Loans/GDP* is the relative Loans/GDP ratio compared to the sample average. ∗, ∗∗, and ∗∗∗ denote 10%, 5%, and 1% significance level, respectively.

Table 8. Self-employment, financial development and life satisfaction: effects of rural – urban division and income

	Ukraine		China		Russia	
	Deposits	Loans	Deposits	Loans	Deposits	Loans
	(1)	(2)	(3)	(4)	(5)	(6)
	Panel A. Rural areas					
Self-employed	-0.299	-0.299	0.296***	0.319***	0.029	0.074
	(0.285)	(0.304)	(0.081)	(0.085)	(0.147)	(0.122)
FinDev	0.224	0.048	0.014	0.052	0.014	0.000
	(0.293)	(0.180)	(0.380)	(0.389)	(0.400)	(0.326)
Self-employed*FinDev	0.031	0.084	-0.320	-0.235	-0.446	1.290***
	(1.320)	(0.683)	(0.230)	(0.292)	(0.544)	(0.385)
Obs.	1,564	1,564	5,092	5,092	2,490	2,490
	Panel B. Urban areas					
Self-employed	-0.034	-0.016	0.078	0.075	0.149*	0.152
	(0.158)	(0.154)	(0.121)	(0.107)	(0.088)	(0.097)
FinDev	0.153	0.066	-0.041	-0.082	-0.156	-0.435
	(0.193)	(0.087)	(0.118)	(0.161)	(0.246)	(0.282)
Self-employed*FinDev	0.455	0.247	-0.014	-0.065	-0.278	-0.036
	(0.361)	(0.157)	(0.481)	(0.524)	(0.174)	(0.200)
Obs.	1,778	1,778	3,844	3,844	6,413	6,413
	Panel C. High income individuals					
Self-employed	0.057	0.078	0.235***	0.258***	0.110	0.126
	(0.164)	(0.171)	(0.090)	(0.097)	(0.110)	(0.106)
FinDev	-0.000	0.015	-0.120	-0.144	-0.248	-0.507*
	(0.280)	(0.132)	(0.141)	(0.178)	(0.245)	(0.282)
Self-employed*FinDev	0.470	0.197	-0.287	-0.132	-0.147	0.230
	(0.587)	(0.332)	(0.191)	(0.322)	(0.217)	(0.289)
Obs.	1,326	1,326	4,239	4,239	4,163	4,163
	Panel D. Low income individuals					
Self-employed	-0.244	-0.250	0.096	0.092	0.008	0.066
	(0.211)	(0.215)	(0.094)	(0.094)	(0.124)	(0.149)
FinDev	0.314	0.090	0.061	0.027	-0.304	-0.207
	(0.279)	(0.138)	(0.307)	(0.345)	(0.236)	(0.151)
Self-employed*FinDev	-1.087	-0.396	-0.047	-0.105	-0.508	-0.062
	(0.973)	(0.597)	(0.209)	(0.203)	(0.483)	(0.384)
Obs.	1,382	1,382	4,383	4,383	4,216	4,216

This table reports the ordered logit regressions for model (1) with *Life satisfaction* as the dependent variable, taking into account the effects of rural-urban division and income. Standard errors clustered at regional level are reported in parentheses. Columns (1) - (2) show results for sample of Ukrainian individuals with *Deposits/GDP* and *Loans/GDP* as the measure of financial development, respectively. Columns (3) - (4) show results for sample of Chinese individuals with *Deposits/GDP* and *Loans/GDP* as the measure of financial development, respectively. Columns (5) - (6) show results for sample of Russian individuals with *Deposits/GDP* and *Loans/GDP* as the measure of financial development, respectively. Panels A- B present results for sub-samples of rural area and urban area, respectively. *Life satisfaction* is a categorical variable that takes values from one to five (1-very unsatisfied, 2-unsatisfied, 3-neutral, 4-quite satisfied, 5-fully satisfied).

FinDev is the financial development indicator measured by either *Deposits/GDP or Loans/GDP*. *Deposits/GDP* is the relative Deposits/GDP ratio compared to the sample average. *Loans/GDP* is the relative Loans/GDP ratio compared to the sample average. ∗, ∗∗, and ∗∗∗ denote 10%, 5%, and 1% significance level, respectively.

Table 9. Self-employment, financial development and job satisfaction: effects of gender and big cities

	Ukraine		Russia	
	Deposits	Loans	Deposits	Loans
	(1)	(2)	(3)	(4)
	Panel A. Female individuals			
Self-employed	-1.106***	-1.117***	0.109	0.111
	(0.289)	(0.297)	(0.069)	(0.072)
FinDev	-0.147	-0.114	0.276*	0.026
	(0.224)	(0.087)	(0.143)	(0.152)
Self-employed*FinDev	0.249	-0.074	-0.227*	-0.104
	(0.740)	(0.375)	(0.134)	(0.135)
Obs.	1,622	1,622	4,614	4,614
	Panel B. Male individuals			
Self-employed	-0.660***	-0.653***	0.105	0.105
	(0.163)	(0.158)	(0.097)	(0.107)
FinDev	-0.227*	-0.163***	0.175	-0.054
	(0.123)	(0.059)	(0.131)	(0.150)
Self-employed*FinDev	-0.055	-0.104	-0.740**	-0.231
	(0.459)	(0.245)	(0.299)	(0.153)
Obs.	1,672	1,672	4,277	4,277
	Panel C. Dropping big cities			
Self-employed	-0.823***	-0.835***	0.161**	0.189**
	(0.186)	(0.175)	(0.071)	(0.077)
FinDev	0.077	-0.080	-0.128	-0.172
	(0.246)	(0.067)	(0.271)	(0.138)
Self-employed*FinDev	-1.055*	-0.491*	-0.632***	-0.033
	(0.604)	(0.275)	(0.235)	(0.126)
Obs.	3,012	3,012	7,467	7,467

This table reports the ordered logit regressions for model (1) with *Job satisfaction* as the dependent variable, taking into account gender effect and big city effect. Panels A-B present results for sub-samples of female and male individuals, respectively. In Panel C, big cities (Kyiv, Moscow, St Petersburg and Beijing) are excluded from the samples. Standard errors clustered at regional level are reported in parentheses. Dummy variable *Urban* is included but not reported. Columns (1) - (2) show results for sample of Ukrainian individuals with *Deposits/GDP* and *Loans/GDP* as the measure of financial development, respectively. Columns (3) - (4) show results for sample of Russian individuals with *Deposits/GDP* and *Loans/GDP* as the measure of financial development, respectively. *Job satisfaction* is a categorical variable that takes values from one to five (1-very unsatisfied, 2-unsatisfied, 3-neutral, 4-quite satisfied, 5-fully satisfied). *FinDev* is the financial development indicator measured by either *Deposits/GDP or Loans/GDP*. *Deposits/GDP* is the relative Deposits/GDP ratio compared to the sample average. *Loans/GDP* is the relative Loans/GDP ratio compared to the sample average. ∗, ∗∗, and ∗∗∗ denote 10%, 5%, and 1% significance level, respectively.

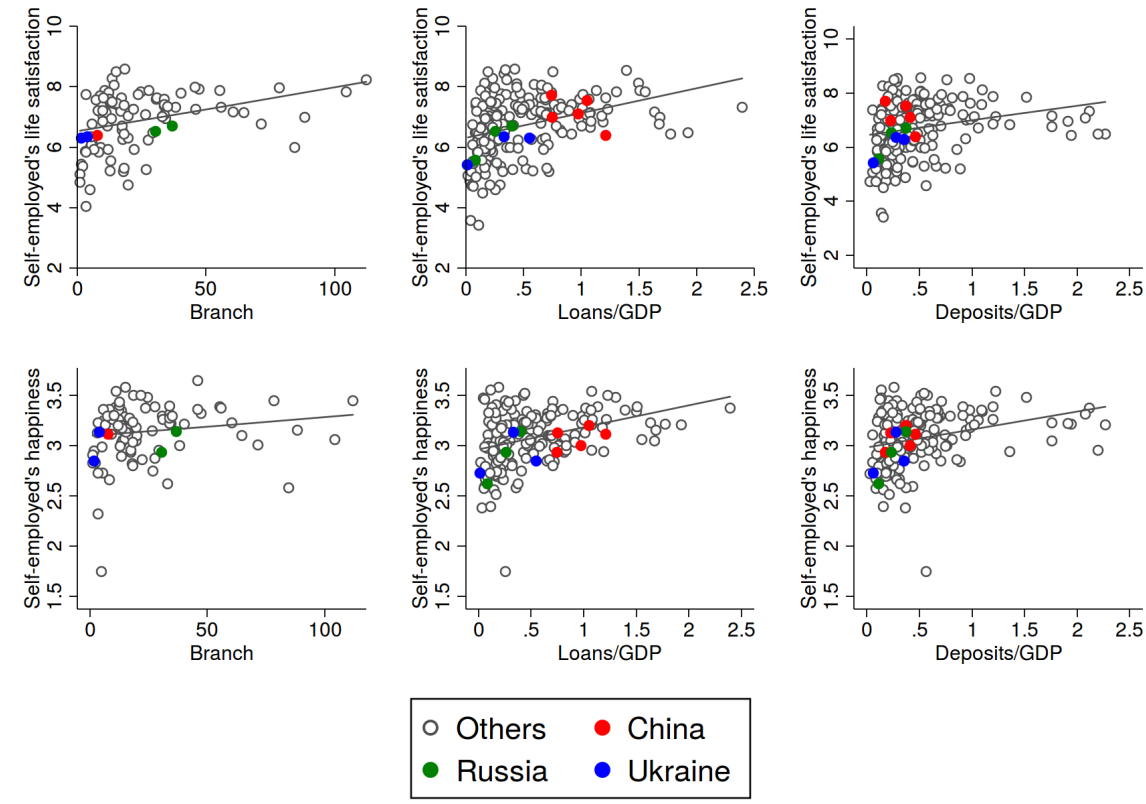
Table 10. Self-employment, financial development and life satisfaction: effects of gender and big cities

	Ukraine		China		Russia	
	Deposits	Loans	Deposits	Loans	Deposits	Loans
	(1)	(2)	(3)	(4)	(5)	(6)
	Panel A. Female individuals					
Self-employed	0.017	-0.011	0.075	0.064	0.142	0.171
	(0.237)	(0.239)	(0.189)	(0.166)	(0.110)	(0.116)
FinDev	0.366*	0.136*	-0.102	-0.095	-0.123	-0.399
	(0.195)	(0.083)	(0.207)	(0.266)	(0.251)	(0.304)
Self-employed*FinDev	-0.036	-0.094	-0.062	-0.394	-0.130	0.106
	(1.058)	(0.435)	(0.743)	(0.788)	(0.293)	(0.261)
Obs.	1,650	1,650	1,251	1,251	4,616	4,616
	Panel B. Male individuals					
Self-employed	-0.234	-0.203	0.228***	0.245***	0.103	0.119
	(0.150)	(0.153)	(0.084)	(0.085)	(0.096)	(0.102)
FinDev	-0.055	-0.036	-0.008	-0.022	-0.170	-0.357
	(0.269)	(0.135)	(0.224)	(0.279)	(0.205)	(0.218)
Self-employed*FinDev	0.759	0.432	-0.217	-0.108	-0.376*	0.088
	(0.581)	(0.295)	(0.260)	(0.338)	(0.211)	(0.220)
Obs.	1,692	1,692	8,273	8,273	4,287	4,287
	Panel C. Dropping big cities					
Self-employed	-0.199	-0.226*	0.212***	0.225***	0.204**	0.243***
	(0.129)	(0.137)	(0.070)	(0.072)	(0.085)	(0.082)
FinDev	0.575*	0.154	-0.026	-0.034	-0.745**	-0.595**
	(0.309)	(0.143)	(0.216)	(0.265)	(0.330)	(0.261)
Self-employed*FinDev	-1.088	-0.192	-0.194	-0.132	0.203	0.380*
	(0.792)	(0.482)	(0.180)	(0.247)	(0.338)	(0.229)
Obs.	3,057	3,057	9,524	9,524	7,481	7,481

This table reports the ordered logit regressions for model (1) with *Life satisfaction* as the dependent variable, taking into account gender effect and big city effect. Panels A-B present results for sub-samples of female and male individuals, respectively. In Panel C, big cities (Kyiv, Moscow, St Petersburg and Beijing) are excluded from the samples. Standard errors clustered at regional level are reported in parentheses. Dummy variable *Urban* is included but not reported. Columns (1) - (2) show results for sample of Ukrainian individuals with *Deposits/GDP* and *Loans/GDP* as the measure of financial development, respectively. Columns (3) - (4) show results for sample of Chinese individuals with *Deposits/GDP* and *Loans/GDP* as the measure of financial development, respectively. Columns (5) - (6) show results for sample of Russian individuals with *Deposits/GDP* and *Loans/GDP* as the measure of financial development, respectively. *Life satisfaction* is a categorical variable that takes values from one to five (1-very unsatisfied, 2-unsatisfied, 3-neutral, 4-quite satisfied, 5-fully satisfied). *FinDev* is the financial development indicator measured by either *Deposits/GDP or Loans/GDP*. *Deposits/GDP* is the relative Deposits/GDP ratio compared to the sample average. *Loans/GDP* is the relative Loans/GDP ratio compared to the sample average. *, **, and *** denote 10%, 5%, and 1% significance level, respectively.

Online Appendix A.

Figure A1 Correlation between self-employed' satisfaction and financial development



Data source: World Value Surveys

This figure shows the correlation between entrepreneurs' satisfaction and financial development in Ukraine, China, Russia and other countries. Data are taken from World Values Survey 1981-2014 Longitudinal Data.

Online Appendix B.

Table B1 Self-employment, financial development and job satisfaction: rural - urban division effect

	Ukraine		Russia	
	Deposits	Loans	Deposits	Loans
	(1)	(2)	(3)	(4)
	Panel A. Rural areas			
Self-employed	-1.012***	-1.030***	-0.108	0.022
	(0.317)	(0.321)	(0.115)	(0.127)
FinDev	0.148	0.046	0.507	0.326
	(0.295)	(0.131)	(0.415)	(0.323)
Self-employed*FinDev	-0.202	-0.289	-1.222**	0.229
	(0.925)	(0.454)	(0.571)	(0.471)
Female	0.165	0.160	0.204***	0.200***
	(0.120)	(0.122)	(0.059)	(0.054)
Age	0.880	0.945	-4.230	-3.654
	(3.687)	(3.711)	(3.735)	(3.662)
Age squared	-0.067	-0.077	0.609	0.526
	(0.516)	(0.519)	(0.507)	(0.494)
Married	0.257	0.257	0.190**	0.193**
	(0.159)	(0.157)	(0.082)	(0.079)
Education				
High school or college	0.300***	0.307***	0.186	0.166
	(0.106)	(0.106)	(0.115)	(0.111)
Bachelor or higher	0.694***	0.704***	0.464***	0.439***
	(0.168)	(0.170)	(0.124)	(0.120)
Health				
Average	0.445*	0.434*	0.589***	0.563***
	(0.240)	(0.240)	(0.222)	(0.218)
Good	0.734***	0.717***	1.045***	1.007***
	(0.248)	(0.250)	(0.200)	(0.194)
Working hours	-0.153	-0.147	-0.055	-0.053
	(0.202)	(0.202)	(0.125)	(0.124)
Cut-off point 1	-0.160	-0.060	-9.682	-8.692
	(6.638)	(6.690)	(6.748)	(6.668)
Cut-off point 2	0.965	1.065	-8.208	-7.217
	(6.651)	(6.706)	(6.771)	(6.691)
Cut-off point 3	2.147	2.248	-6.816	-5.825
	(6.583)	(6.635)	(6.784)	(6.705)
Cut-off point 4	3.971	4.072	-4.176	-3.186
	(6.582)	(6.633)	(6.908)	(6.835)
Obs.	1,538	1,538	2,481	2,481
	Panel B. Urban areas			
Self-employed	-0.613***	-0.615***	0.155**	0.132
	(0.116)	(0.106)	(0.073)	(0.086)
FinDev	-0.419***	-0.243***	0.187	-0.059
	(0.137)	(0.055)	(0.141)	(0.149)
Self-employed*FinDev	0.031	0.003	-0.498***	-0.213
	(0.269)	(0.138)	(0.144)	(0.137)
Female	0.087	0.089	0.124**	0.118**
	(0.135)	(0.136)	(0.057)	(0.054)
Age	-0.360	-0.460	-10.778***	-10.819***
	(3.320)	(3.244)	(1.457)	(1.444)

Age squared	0.121	0.135	1.534***	1.541***
	(0.473)	(0.462)	(0.206)	(0.204)
Married	0.223**	0.206**	0.178***	0.175***
	(0.090)	(0.090)	(0.055)	(0.057)
Education				
High school or college	0.253**	0.244**	0.144	0.134
	(0.112)	(0.113)	(0.134)	(0.136)
Bachelor or higher	0.366***	0.363***	0.490***	0.489***
	(0.127)	(0.126)	(0.161)	(0.160)
Health				
Average	0.635**	0.643**	0.386**	0.386***
	(0.267)	(0.265)	(0.156)	(0.148)
Good	1.043***	1.055***	0.961***	0.970***
	(0.259)	(0.256)	(0.173)	(0.159)
Working hours	-0.200	-0.197	-0.279***	-0.282***
	(0.126)	(0.128)	(0.091)	(0.093)
Cut-off point 1	-2.699	-2.855	-22.253***	-22.324***
	(5.572)	(5.435)	(2.540)	(2.526)
Cut-off point 2	-1.239	-1.394	-20.515***	-20.586***
	(5.612)	(5.478)	(2.551)	(2.534)
Cut-off point 3	0.032	-0.122	-19.055***	-19.124***
	(5.603)	(5.470)	(2.564)	(2.547)
Cut-off point 4	1.989	1.839	-16.721***	-16.792***
	(5.613)	(5.481)	(2.539)	(2.517)
Obs.	1,756	1,756	6,410	6,410

This table reports the ordered logit regressions for model (1) with *Job satisfaction* as the dependent variable, taking into account rural-urban division effect. Standard errors clustered at regional level are reported in parentheses. Columns (1) - (2) show results for the sample of Ukrainian individuals with *Deposits/GDP* and *Loans/GDP* as the financial development indicator, respectively. Columns (3) - (4) show results for the sample of Russian individuals with *Deposits/GDP* and *Loans/GDP* as the financial development indicator, respectively. Panels A- B present results for rural area and urban area, respectively. *Job satisfaction* is a categorical variable that takes values from one to five (1-very unsatisfied, 2-unsatisfied, 3-neutral, 4-quite satisfied, 5-fully satisfied). *Deposits/GDP* is the relative Deposits/GDP ratio compared to the sample average. *Loans/GDP* is the relative Loans/GDP ratio compared to the sample average. *Female* is a dummy variable that equals one if the individual is female, zero otherwise. *Age* is the natural logarithm of an individual's age in the interviewing year. *Working hours* is the natural logarithm of the average working hour per day. *Education* reports dummies for the individual' highest educational level with secondary school or lower as the reference group. *Married* is a dummy variable that equals one if the individual is married or cohabited, zero otherwise. *Health* reports dummies for the individual's health condition with bad condition as the reference group. *, **, and *** denote 10%, 5%, and 1% significance level, respectively.

Table B2 Self-employment, financial development and life satisfaction: rural - urban division effect

	Ukraine		China		Russia	
	Deposits	Loans	Deposits	Loans	Deposits	Loans
	(1)	(2)	(3)	(4)	(5)	(6)
	Panel A. Rural areas					
Self-employed	-0.299	-0.299	0.296***	0.319***	0.029	0.074
	(0.285)	(0.304)	(0.081)	(0.085)	(0.147)	(0.122)
FinDev	0.224	0.048	0.014	0.052	0.014	0.000
	(0.293)	(0.180)	(0.380)	(0.389)	(0.400)	(0.326)
Self-employed*FinDev	0.031	0.084	-0.320	-0.235	-0.446	1.290***
	(1.320)	(0.683)	(0.230)	(0.292)	(0.544)	(0.385)
Female	-0.082	-0.083	0.100	0.099	-0.261***	-0.266***
	(0.069)	(0.069)	(0.195)	(0.198)	(0.068)	(0.067)
Age	-18.332***	-18.404***	-5.091	-5.116	-11.335**	-11.494**
	(3.678)	(3.595)	(4.120)	(4.027)	(4.749)	(4.611)
Age squared	2.541***	2.551***	0.719	0.722	1.545**	1.566**
	(0.509)	(0.496)	(0.552)	(0.539)	(0.649)	(0.627)
Married	0.666***	0.667***	1.270***	1.271***	0.548***	0.554***
	(0.141)	(0.137)	(0.175)	(0.175)	(0.137)	(0.134)
Education						
High school or college	0.258*	0.268*	0.171**	0.172***	0.322**	0.315*
	(0.149)	(0.147)	(0.068)	(0.064)	(0.152)	(0.163)
Bachelor or higher	0.666***	0.687***	0.730**	0.723**	0.683***	0.677***
	(0.217)	(0.211)	(0.313)	(0.321)	(0.180)	(0.187)
Health						
Average	0.497**	0.504***	0.644***	0.643***	0.768***	0.739***
	(0.198)	(0.195)	(0.175)	(0.175)	(0.209)	(0.216)
Good	0.909***	0.907***	1.243***	1.242***	1.392***	1.351***
	(0.277)	(0.277)	(0.150)	(0.150)	(0.214)	(0.215)
Working hours	-0.264	-0.255	0.033	0.033	-0.204	-0.196
	(0.188)	(0.185)	(0.121)	(0.120)	(0.132)	(0.128)
Cut-off point 1	-34.448***	-34.553***	-11.120	-11.173	-22.752***	-23.076***
	(6.551)	(6.428)	(7.550)	(7.383)	(8.592)	(8.392)
Cut-off point 2	-33.170***	-33.276***	-9.255	-9.308	-20.971**	-21.290**
	(6.540)	(6.419)	(7.554)	(7.390)	(8.623)	(8.423)
Cut-off point 3	-32.157***	-32.262***	-6.646	-6.699	-19.787**	-20.102**
	(6.531)	(6.410)	(7.531)	(7.366)	(8.616)	(8.416)
Cut-off point 4	-30.915***	-31.022***	-4.394	-4.447	-17.069**	-17.377**
	(6.541)	(6.420)	(7.565)	(7.400)	(8.544)	(8.340)
Obs.	1,564	1,564	5,092	5,092	2,490	2,490
	Panel B. Urban areas					
Self-employed	-0.034	-0.016	0.078	0.075	0.149*	0.152
	(0.158)	(0.154)	(0.121)	(0.107)	(0.088)	(0.097)
FinDev	0.153	0.066	-0.041	-0.082	-0.156	-0.435
	(0.193)	(0.087)	(0.118)	(0.161)	(0.246)	(0.282)
Self-employed*FinDev	0.455	0.247	-0.014	-0.065	-0.278	-0.036
	(0.361)	(0.157)	(0.481)	(0.524)	(0.174)	(0.200)
Female	0.064	0.063	0.103	0.105	-0.047	-0.057
	(0.117)	(0.116)	(0.114)	(0.114)	(0.046)	(0.046)
Age	-16.118***	-16.075***	-9.293	-9.345	-10.890***	-11.207***
	(2.454)	(2.434)	(6.272)	(6.215)	(1.811)	(1.714)
Age squared	2.207***	2.201***	1.235	1.243	1.461***	1.506***
	(0.350)	(0.348)	(0.842)	(0.834)	(0.256)	(0.241)

Married	0.526***	0.532***	1.195***	1.195***	0.684***	0.694***
	(0.129)	(0.127)	(0.138)	(0.138)	(0.063)	(0.069)
Education						
High school or college	0.219**	0.227**	0.287	0.284	0.280**	0.286**
	(0.103)	(0.103)	(0.226)	(0.223)	(0.122)	(0.130)
Bachelor or higher	0.878***	0.887***	0.719***	0.718***	0.645***	0.661***
	(0.122)	(0.122)	(0.249)	(0.245)	(0.135)	(0.144)
Health						
Average	0.947***	0.949***	-0.497**	-0.497**	0.423***	0.431***
	(0.267)	(0.265)	(0.236)	(0.238)	(0.108)	(0.110)
Good	1.510***	1.511***	0.494**	0.493**	1.224***	1.253***
	(0.297)	(0.293)	(0.232)	(0.233)	(0.126)	(0.112)
Working hours	0.025	0.026	-0.371**	-0.372**	-0.161**	-0.146**
	(0.115)	(0.115)	(0.151)	(0.150)	(0.065)	(0.061)
Cut-off point 1	-30.002***	-29.913***	-21.505*	-21.603*	-22.298***	-22.770***
	(4.122)	(4.093)	(11.530)	(11.419)	(3.186)	(3.048)
Cut-off point 2	-28.556***	-28.466***	-19.662*	-19.761*	-20.547***	-21.015***
	(4.140)	(4.112)	(11.550)	(11.442)	(3.171)	(3.036)
Cut-off point 3	-27.561***	-27.471***	-17.045	-17.143	-19.297***	-19.762***
	(4.138)	(4.111)	(11.552)	(11.443)	(3.169)	(3.037)
Cut-off point 4	-26.248***	-26.159***	-14.718	-14.816	-16.684***	-17.123***
	(4.123)	(4.097)	(11.570)	(11.461)	(3.089)	(2.978)
Obs.	1,778	1,778	3,844	3,844	6,413	6,413

This table reports the ordered logit regressions for model (1) with *Life satisfaction* as the dependent variable, taking into account rural-urban division effect. Standard errors clustered at regional level are reported in parentheses. Columns (1) – (2) show results for the sample of Ukrainian individuals with *Deposits/GDP* and *Loans/GDP* as the financial development indicator, respectively. Columns (3) – (4) show results for the sample of Chinese individuals with *Deposits/GDP* and *Loans/GDP* as the financial development indicator, respectively. Columns (4) – (5) show results for the sample of Russian individuals with *Deposits/GDP* and *Loans/GDP* as the financial development indicator, respectively. Panels A- B present results for rural area and urban area, respectively. *Life satisfaction* is a categorical variable that takes values from one to five (1-very unsatisfied, 2-unsatisfied, 3-neutral, 4-quite satisfied, 5-fully satisfied). *Deposits/GDP* is the relative Deposits/GDP ratio compared to the sample average. *Loans/GDP* is the relative Loans/GDP ratio compared to the sample average. *Female* is a dummy variable that equals one if the individual is female, zero otherwise. *Age* is the natural logarithm of an individual's age in the interviewing year. *Working hours* is the natural logarithm of the average working hour per day. *Education* reports dummies for the individual' highest educational level with secondary school or lower as the reference group. *Married* is a dummy variable that equals one if the individual is married or cohabited, zero otherwise. *Health* reports dummies for the individual's health condition with bad condition as the reference group. *, **, and *** denote 10%, 5%, and 1% significance level, respectively.

Table B3 Self-employment, financial development and job satisfaction: income effect

	Ukraine		Russia	
	Deposits	Loans	Deposits	Loans
	(1)	(2)	(3)	(4)
	Panel A. High income individuals			
Self-employed	-0.712***	-0.669***	0.199**	0.171*
	(0.247)	(0.230)	(0.101)	(0.103)
FinDev	-0.546***	-0.299***	0.153	-0.003
	(0.181)	(0.086)	(0.107)	(0.060)
Self-employed*FinDev	0.417	0.018	-0.531*	-0.226
	(0.540)	(0.347)	(0.298)	(0.181)
Female	0.410***	0.406***	0.422***	0.424***
	(0.146)	(0.145)	(0.057)	(0.058)
Age	1.576	1.232	-10.980***	-11.044***
	(3.669)	(3.620)	(2.351)	(2.375)
Age squared	-0.132	-0.083	1.532***	1.542***
	(0.494)	(0.487)	(0.329)	(0.332)
Married	-0.052	-0.066	0.124**	0.119*
	(0.109)	(0.109)	(0.061)	(0.061)
Education				
High school or college	0.032	0.025	0.055	0.032
	(0.107)	(0.107)	(0.172)	(0.169)
Bachelor or higher	0.113	0.109	0.107	0.085
	(0.126)	(0.123)	(0.182)	(0.178)
Health				
Average	0.234	0.239	0.404	0.400
	(0.261)	(0.262)	(0.285)	(0.277)
Good	0.633**	0.650**	0.950***	0.951***
	(0.260)	(0.265)	(0.273)	(0.264)
Working hours	-0.533**	-0.529**	-0.311***	-0.315***
	(0.229)	(0.230)	(0.111)	(0.112)
Cut-off point 1	-1.165	-1.719	-23.463***	-23.596***
	(7.026)	(6.927)	(4.138)	(4.166)
Cut-off point 2	0.160	-0.393	-21.725***	-21.858***
	(6.934)	(6.841)	(4.144)	(4.171)
Cut-off point 3	1.537	0.986	-20.152***	-20.285***
	(6.898)	(6.805)	(4.166)	(4.194)
Cut-off point 4	3.651	3.105	-17.671***	-17.806***
	(6.903)	(6.809)	(4.114)	(4.143)
Obs.	1,316	1,316	4,161	4,161
	Panel B. Low income individuals			
Self-employed	-1.243***	-1.295***	-0.088	-0.030
	(0.349)	(0.361)	(0.091)	(0.112)
FinDev	-0.150	-0.103	0.039	-0.033
	(0.212)	(0.076)	(0.244)	(0.193)
Self-employed*FinDev	-0.878	-0.645	-0.672**	-0.077
	(0.990)	(0.639)	(0.303)	(0.235)
Female	0.285**	0.282**	0.286***	0.288***
	(0.113)	(0.117)	(0.059)	(0.059)
Age	-7.185	-7.185	-12.911***	-13.006***
	(4.626)	(4.674)	(2.416)	(2.387)
Age squared	1.052*	1.052	1.849***	1.862***
	(0.637)	(0.644)	(0.338)	(0.334)

Married	0.265*	0.255*	0.259***	0.257***
	(0.154)	(0.153)	(0.068)	(0.068)
Education				
High school or college	0.214**	0.207**	0.078	0.074
	(0.106)	(0.105)	(0.129)	(0.124)
Bachelor or higher	0.296**	0.283**	0.434***	0.425***
	(0.145)	(0.138)	(0.149)	(0.141)
Health				
Average	1.005***	1.000***	0.414***	0.415***
	(0.305)	(0.295)	(0.117)	(0.117)
Good	1.213***	1.207***	0.930***	0.935***
	(0.275)	(0.263)	(0.156)	(0.154)
Working hours	-0.201	-0.196	-0.214**	-0.213**
	(0.189)	(0.192)	(0.094)	(0.096)
Cut-off point 1	-14.227*	-14.230*	-25.096***	-25.265***
	(8.402)	(8.461)	(4.287)	(4.232)
Cut-off point 2	-12.873	-12.872	-23.451***	-23.621***
	(8.449)	(8.511)	(4.279)	(4.223)
Cut-off point 3	-11.586	-11.583	-22.051***	-22.221***
	(8.388)	(8.450)	(4.268)	(4.211)
Cut-off point 4	-9.630	-9.627	-19.604***	-19.776***
	(8.376)	(8.439)	(4.278)	(4.222)
Obs.	1,351	1,351	4,205	4,205

This table reports the ordered logit regressions for model (1) with *Job satisfaction* as the dependent variable, taking into account income effect. Standard errors clustered at regional level are reported in parentheses. Dummy variable *Urban* is included but not reported. Columns (1) - (2) show results for the sample of Ukrainian individuals with *Deposits/GDP* and *Loans/GDP* as the financial development indicator, respectively. Columns (3) - (4) show results for the sample of Russian individuals with *Deposits/GDP* and *Loans/GDP* as the financial development indicator, respectively. Panels A- B present results for high- and low-income individuals, respectively. *Job satisfaction* is a categorical variable that takes values from one to five (1-very unsatisfied, 2-unsatisfied, 3-neutral, 4-quite satisfied, 5-fully satisfied). *Deposits/GDP* is the relative Deposits/GDP ratio compared to the sample average. *Loans/GDP* is the relative Loans/GDP ratio compared to the sample average. *Female* is a dummy variable that equals one if the individual is female, zero otherwise. *Age* is the natural logarithm of an individual's age in the interviewing year. *Working hours* is the natural logarithm of the average working hour per day. *Education* reports dummies for the individual' highest educational level with secondary school or lower as the reference group. *Married* is a dummy variable that equals one if the individual is married or cohabited, zero otherwise. *Health* reports dummies for the individual's health condition with bad condition as the reference group. ∗, ∗∗, and ∗∗∗ denote 10%, 5%, and 1% significance level, respectively.

Table B4 Self-employment, financial development and life satisfaction: income effect

	Ukraine		China		Russia	
	Deposits	Loans	Deposits	Loans	Deposits	Loans
	(1)	(2)	(3)	(4)	(5)	(6)
	Panel A. High income individuals					
Self-employed	0.057	0.078	0.235***	0.258***	0.110	0.126
	(0.164)	(0.171)	(0.090)	(0.097)	(0.110)	(0.106)
FinDev	-0.000	0.015	-0.120	-0.144	-0.248	-0.507*
	(0.280)	(0.132)	(0.141)	(0.178)	(0.245)	(0.282)
Self-employed*FinDev	0.470	0.197	-0.287	-0.132	-0.147	0.230
	(0.587)	(0.332)	(0.191)	(0.322)	(0.217)	(0.289)
Female	0.013	0.008	0.052	0.050	0.017	0.008
	(0.116)	(0.112)	(0.111)	(0.112)	(0.084)	(0.075)
Age	-14.863***	-14.749***	-10.674**	-10.550**	-15.006***	-15.194***
	(4.095)	(4.004)	(5.290)	(5.263)	(2.460)	(2.465)
Age squared	2.031***	2.015***	1.434**	1.418**	2.046***	2.073***
	(0.583)	(0.569)	(0.715)	(0.711)	(0.342)	(0.341)
Married	0.443***	0.446***	1.058***	1.055***	0.573***	0.572***
	(0.136)	(0.133)	(0.140)	(0.139)	(0.050)	(0.055)
Education						
High school or college	0.008	0.012	-0.047	-0.050	-0.010	-0.035
	(0.134)	(0.131)	(0.156)	(0.157)	(0.180)	(0.183)
Bachelor or higher	0.521**	0.524**	0.241	0.236	0.215	0.199
	(0.230)	(0.225)	(0.209)	(0.208)	(0.159)	(0.172)
Health						
Average	0.760**	0.764**	-0.002	-0.008	0.258	0.273
	(0.358)	(0.359)	(0.443)	(0.442)	(0.226)	(0.219)
Good	1.270***	1.273***	0.887*	0.884*	1.005***	1.041***
	(0.330)	(0.333)	(0.455)	(0.454)	(0.266)	(0.243)
Working hours	-0.590***	-0.591***	-0.561***	-0.571***	-0.319***	-0.290***
	(0.167)	(0.172)	(0.163)	(0.161)	(0.110)	(0.104)
Cut-off point 1	-29.949***	-29.744***	-24.206**	-23.997**	-30.792***	-31.081***
	(6.925)	(6.770)	(9.694)	(9.640)	(4.514)	(4.589)
Cut-off point 2	-28.529***	-28.324***	-22.627**	-22.418**	-28.960***	-29.246***
	(6.898)	(6.743)	(9.659)	(9.609)	(4.474)	(4.551)
Cut-off point 3	-27.600***	-27.395***	-19.848**	-19.639**	-27.604***	-27.887***
	(6.918)	(6.761)	(9.643)	(9.592)	(4.469)	(4.552)
Cut-off point 4	-26.274***	-26.069***	-17.463*	-17.256*	-24.968***	-25.218***
	(6.898)	(6.743)	(9.667)	(9.616)	(4.341)	(4.438)
Obs.	1,326	1,326	4,239	4,239	4,163	4,163
	Panel B. Low income individuals					
Self-employed	-0.244	-0.250	0.096	0.092	0.008	0.066
	(0.211)	(0.215)	(0.094)	(0.094)	(0.124)	(0.149)
FinDev	0.314	0.090	0.061	0.027	-0.304	-0.207
	(0.279)	(0.138)	(0.307)	(0.345)	(0.236)	(0.151)
Self-employed*FinDev	-1.087	-0.396	-0.047	-0.105	-0.508	-0.062
	(0.973)	(0.597)	(0.209)	(0.203)	(0.483)	(0.384)
Female	0.087	0.093	0.209	0.211	0.016	0.021
	(0.119)	(0.120)	(0.131)	(0.133)	(0.071)	(0.069)
Age	-21.516***	-21.627***	-2.886	-2.859	-13.742***	-14.003***

	(3.497)	(3.474)	(4.863)	(4.818)	(2.424)	(2.495)
Age squared	2.981***	2.997***	0.457	0.454	1.868***	1.905***
	(0.480)	(0.477)	(0.638)	(0.631)	(0.332)	(0.342)
Married	0.535***	0.535***	1.178***	1.177***	0.728***	0.730***
	(0.149)	(0.146)	(0.182)	(0.183)	(0.087)	(0.087)
Education						
High school or college	0.122	0.130	0.223***	0.222***	0.400***	0.413***
	(0.108)	(0.109)	(0.067)	(0.062)	(0.113)	(0.112)
Bachelor or higher	0.697***	0.709***	0.902***	0.906***	0.681***	0.690***
	(0.206)	(0.206)	(0.237)	(0.228)	(0.127)	(0.125)
Health						
Average	0.823***	0.827***	0.269	0.269	0.560***	0.562***
	(0.226)	(0.228)	(0.183)	(0.183)	(0.127)	(0.127)
Good	1.236***	1.230***	0.943***	0.943***	1.310***	1.323***
	(0.253)	(0.253)	(0.159)	(0.160)	(0.138)	(0.143)
Working hours	0.073	0.077	-0.064	-0.065	-0.120	-0.114
	(0.155)	(0.150)	(0.126)	(0.126)	(0.095)	(0.093)
Cut-off point 1	-39.138***	-39.311***	-7.012	-6.958	-26.600***	-27.049***
	(6.386)	(6.359)	(9.156)	(9.083)	(4.353)	(4.463)
Cut-off point 2	-37.819***	-37.993***	-5.001	-4.946	-24.854***	-25.303***
	(6.372)	(6.346)	(9.164)	(9.090)	(4.376)	(4.485)
Cut-off point 3	-36.722***	-36.895***	-2.496	-2.442	-23.693***	-24.143***
	(6.363)	(6.337)	(9.175)	(9.101)	(4.370)	(4.478)
Cut-off point 4	-35.382***	-35.559***	-0.275	-0.221	-20.964***	-21.417***
	(6.354)	(6.331)	(9.191)	(9.116)	(4.338)	(4.448)
Obs.	1,382	1,382	4,383	4,383	4,216	4,216

This table reports the ordered logit regressions for model (1) with *Life satisfaction* as the dependent variable, taking into account income effect. Standard errors clustered at regional level are reported in parentheses. Dummy variable *Urban* is included but not reported. Columns (1) – (2) show results for the sample of Ukrainian individuals with *Deposits/GDP* and *Loans/GDP* as the financial development indicator, respectively. Columns (3) – (4) show results for the sample of Chinese individuals with *Deposits/GDP* and *Loans/GDP* as the financial development indicator, respectively. Columns (4) – (5) show results for the sample of Russian individuals with *Deposits/GDP* and *Loans/GDP* as the financial development indicator, respectively. Panels A- B present results for high- and low-income individuals, respectively. *Life satisfaction* is a categorical variable that takes values from one to five (1-very unsatisfied, 2-unsatisfied, 3-neutral, 4-quite satisfied, 5-fully satisfied). *Deposits/GDP* is the relative Deposits/GDP ratio compared to the sample average. *Loans/GDP* is the relative Loans/GDP ratio compared to the sample average. *Female* is a dummy variable that equals one if the individual is female, zero otherwise. *Age* is the natural logarithm of an individual's age in the interviewing year. *Working hours* is the natural logarithm of the average working hour per day. *Education* reports dummies for the individual' highest educational level with secondary school or lower as the reference group. *Married* is a dummy variable that equals one if the individual is married or cohabited, zero otherwise. *Health* reports dummies for the individual's health condition with bad condition as the reference group. ∗, ∗∗, and ∗∗∗ denote 10%, 5%, and 1% significance level, respectively.

Table B5 Self-employment, financial development and job satisfaction: gender effect

	Ukraine		Russia	
	Deposits	Loans	Deposits	Loans
	(1)	(2)	(3)	(4)
Panel A. Female individuals				
Self-employed	-1.106***	-1.117***	0.109	0.111
	(0.289)	(0.297)	(0.069)	(0.072)
Findev	-0.147	-0.114	0.276*	0.026
	(0.224)	(0.087)	(0.143)	(0.152)
Self-employed*FinDev	0.249	-0.074	-0.227*	-0.104
	(0.740)	(0.375)	(0.134)	(0.135)
Age	-1.582	-1.633	-10.054***	-10.017***
	(3.730)	(3.785)	(2.354)	(2.343)
Age squared	0.313	0.322	1.441***	1.437***
	(0.517)	(0.525)	(0.324)	(0.322)
Married	0.214*	0.207*	0.150**	0.149**
	(0.117)	(0.117)	(0.063)	(0.065)
Education				
High school or college	0.421***	0.420***	0.266	0.249
	(0.134)	(0.134)	(0.162)	(0.162)
Bachelor or higher	0.691***	0.699***	0.682***	0.673***
	(0.145)	(0.143)	(0.175)	(0.174)
Health				
Average	0.733***	0.726***	0.223	0.224
	(0.229)	(0.225)	(0.156)	(0.152)
Good	1.077***	1.076***	0.760***	0.763***
	(0.271)	(0.269)	(0.143)	(0.137)
Working hours	-0.234*	-0.230*	-0.210**	-0.209*
	(0.125)	(0.125)	(0.106)	(0.107)
Cut-off point 1	-4.380	-4.437	-20.647***	-20.547***
	(6.889)	(6.978)	(4.240)	(4.217)
Cut-off point 2	-3.010	-3.066	-18.991***	-18.891***
	(6.891)	(6.981)	(4.260)	(4.236)
Cut-off point 3	-1.717	-1.773	-17.551***	-17.451***
	(6.854)	(6.944)	(4.265)	(4.242)
Cut-off point 4	0.095	0.040	-15.194***	-15.099***
	(6.847)	(6.938)	(4.265)	(4.240)
Observations	1,622	1,622	4,614	4,614
Panel B. Male individuals				
Self-employed	-0.660***	-0.653***	0.105	0.105
	(0.163)	(0.158)	(0.097)	(0.107)
FinDev	-0.227*	-0.163***	0.175	-0.054
	(0.123)	(0.059)	(0.131)	(0.150)
Self-employed*FinDev	-0.055	-0.104	-0.740**	-0.231
	(0.459)	(0.245)	(0.299)	(0.153)
Age	2.111	1.941	-8.331***	-8.365***
	(2.458)	(2.476)	(1.431)	(1.415)
Age squared	-0.261	-0.236	1.172***	1.177***
	(0.341)	(0.344)	(0.199)	(0.197)
Married	0.314***	0.301***	0.236***	0.234***
	(0.113)	(0.110)	(0.052)	(0.053)
Education				
High school or college	0.153	0.143	0.093	0.087

	(0.101)	(0.102)	(0.124)	(0.123)
Bachelor or higher	0.345**	0.333**	0.321**	0.319**
	(0.159)	(0.156)	(0.144)	(0.142)
Health				
Average	0.267	0.269	0.808***	0.805***
	(0.241)	(0.238)	(0.200)	(0.200)
Good	0.617***	0.621***	1.343***	1.345***
	(0.233)	(0.229)	(0.218)	(0.215)
Working hours	-0.145	-0.140	-0.189*	-0.204**
	(0.154)	(0.155)	(0.104)	(0.104)
Cut-off point 1	1.459	1.177	-17.310***	-17.406***
	(4.145)	(4.174)	(2.705)	(2.682)
Cut-off point 2	2.654	2.373	-15.666***	-15.762***
	(4.183)	(4.213)	(2.693)	(2.670)
Cut-off point 3	3.823	3.544	-14.221***	-14.317***
	(4.195)	(4.227)	(2.708)	(2.682)
Cut-off point 4	5.796	5.520	-11.747***	-11.846***
	(4.226)	(4.258)	(2.714)	(2.683)
Observations	1,672	1,672	4,277	4,277

This table reports the ordered logit regressions for model (1) with *Job satisfaction* as the dependent variable, taking into account gender effect. Standard errors clustered at regional level are reported in parentheses. Columns (1) - (2) show results for the sample of Ukrainian individuals with *Deposits/GDP* and *Loans/GDP* as the financial development indicator, respectively. Columns (3) - (4) show results for the sample of Russian individuals with *Deposits/GDP* and *Loans/GDP* as the financial development indicator, respectively. Panels A- B present results for female and male sub-samples, respectively. *Job satisfaction* is a categorical variable that takes values from one to five (1-very unsatisfied, 2-unsatisfied, 3-neutral, 4-quite satisfied, 5-fully satisfied). *Deposits/GDP* is the relative Deposits/GDP ratio compared to the sample average. *Loans/GDP* is the relative Loans/GDP ratio compared to the sample average. *Age* is the natural logarithm of an individual's age in the interviewing year. *Working hours* is the natural logarithm of the average working hour per day. *Education* reports dummies for the individual' highest educational level with secondary school or lower as the reference group. *Married* is a dummy variable that equals one if the individual is married or cohabited, zero otherwise. *Health* reports dummies for the individual's health condition with bad condition as the reference group. *, **, and *** denote 10%, 5%, and 1% significance level, respectively.

Table B6 Self-employment, financial development and life satisfaction: gender effect

	Ukraine		China		Russia	
	Deposits	Loans	Deposits	Loans	Deposits	Loans
	(1)	(2)	(3)	(4)	(5)	(6)
	Panel A. Female individuals					
Self-employed	0.017	-0.011	0.075	0.064	0.142	0.171
	(0.237)	(0.239)	(0.189)	(0.166)	(0.110)	(0.116)
FinDev	0.366*	0.136*	-0.102	-0.095	-0.123	-0.399
	(0.195)	(0.083)	(0.207)	(0.266)	(0.251)	(0.304)
Self-employed *FinDev	-0.036	-0.094	-0.062	-0.394	-0.130	0.106
	(1.058)	(0.435)	(0.743)	(0.788)	(0.293)	(0.261)
Age	-21.344***	-21.566***	-12.305	-12.390	-12.004***	-12.172***
	(2.266)	(2.269)	(12.267)	(12.219)	(2.604)	(2.557)
Age squared	2.944***	2.974***	1.684	1.694	1.622***	1.647***
	(0.314)	(0.314)	(1.659)	(1.652)	(0.361)	(0.353)
Married	0.550***	0.552***	1.172***	1.176***	0.664***	0.672***
	(0.118)	(0.116)	(0.138)	(0.138)	(0.077)	(0.079)
Education						
High school or college	0.278**	0.293**	0.513***	0.504***	0.261*	0.281*
	(0.122)	(0.121)	(0.167)	(0.172)	(0.141)	(0.152)
Bachelor or higher	0.950***	0.966***	0.938***	0.918***	0.581***	0.609***
	(0.180)	(0.178)	(0.254)	(0.256)	(0.147)	(0.156)
Health						
Average	1.032***	1.037***	0.014	0.014	0.617***	0.644***
	(0.173)	(0.175)	(0.425)	(0.421)	(0.150)	(0.163)
Good	1.460***	1.458***	0.824*	0.824*	1.420***	1.460***
	(0.222)	(0.222)	(0.444)	(0.441)	(0.123)	(0.127)
Working hours	0.001	0.006	-0.335	-0.338	-0.289***	-0.265***
	(0.157)	(0.155)	(0.281)	(0.280)	(0.092)	(0.087)
Cut-off point 1	-39.042***	-39.429***	-25.873	-26.050	-24.181***	-24.361***
	(4.202)	(4.213)	(22.294)	(22.258)	(4.739)	(4.701)
Cut-off point 2	-37.683***	-38.069***	-23.828	-24.004	-22.391***	-22.569***
	(4.209)	(4.222)	(22.315)	(22.282)	(4.732)	(4.695)
Cut-off point 3	-36.601***	-36.988***	-21.229	-21.405	-21.143***	-21.318***
	(4.217)	(4.229)	(22.327)	(22.292)	(4.723)	(4.689)
Cut-off point 4	-35.313***	-35.703***	-18.971	-19.146	-18.507***	-18.663***
	(4.219)	(4.230)	(22.371)	(22.336)	(4.643)	(4.624)
Observations	1,650	1,650	1,251	1,251	4,616	4,616
	Panel B. Male individuals					
Self-employed	-0.234	-0.203	0.228***	0.245***	0.103	0.119
	(0.150)	(0.153)	(0.084)	(0.085)	(0.096)	(0.102)
FinDev	-0.055	-0.036	-0.008	-0.022	-0.170	-0.357
	(0.269)	(0.135)	(0.224)	(0.279)	(0.205)	(0.218)
Self-employed *FinDev	0.759	0.432	-0.217	-0.108	-0.376*	0.088
	(0.581)	(0.295)	(0.260)	(0.338)	(0.211)	(0.220)
Age	-11.614***	-11.505***	-6.090*	-6.082*	-9.816***	-10.190***
	(2.991)	(2.975)	(3.676)	(3.646)	(1.812)	(1.780)
Age squared	1.586***	1.571***	0.832*	0.831*	1.315***	1.368***
	(0.420)	(0.418)	(0.493)	(0.489)	(0.254)	(0.249)
Married	0.615***	0.616***	1.141***	1.140***	0.618***	0.621***
	(0.138)	(0.137)	(0.148)	(0.148)	(0.071)	(0.072)

Education						
High school or college	0.209*	0.218*	0.147**	0.147**	0.322**	0.323**
	(0.119)	(0.118)	(0.072)	(0.067)	(0.145)	(0.147)
Bachelor or higher	0.662***	0.675***	0.629***	0.629***	0.740***	0.743***
	(0.159)	(0.155)	(0.125)	(0.123)	(0.150)	(0.154)
Health						
Average	0.291	0.292	0.270	0.271	0.311	0.301
	(0.201)	(0.201)	(0.192)	(0.192)	(0.192)	(0.200)
Good	0.855***	0.856***	1.029***	1.030***	1.007***	1.009***
	(0.224)	(0.224)	(0.170)	(0.170)	(0.238)	(0.237)
Working hours	-0.266*	-0.261*	-0.089	-0.092	-0.040	-0.043
	(0.147)	(0.148)	(0.110)	(0.110)	(0.080)	(0.082)
Cut-off point 1	-22.944***	-22.723***	-13.865**	-13.856**	-20.188***	-20.869***
	(5.144)	(5.119)	(6.747)	(6.694)	(3.218)	(3.154)
Cut-off point 2	-21.584***	-21.363***	-12.050*	-12.041*	-18.466***	-19.146***
	(5.141)	(5.117)	(6.743)	(6.691)	(3.212)	(3.156)
Cut-off point 3	-20.657***	-20.435***	-9.448	-9.439	-17.255***	-17.934***
	(5.156)	(5.132)	(6.747)	(6.696)	(3.210)	(3.154)
Cut-off point 4	-19.381***	-19.158***	-7.174	-7.166	-14.610***	-15.281***
	(5.142)	(5.118)	(6.771)	(6.719)	(3.176)	(3.135)
Observations	1,692	1,692	8,273	8,273	4,287	4,287

This table reports the ordered logit regressions for model (1) with *Life satisfaction* as the dependent variable, taking into account gender effect. Standard errors clustered at regional level are reported in parentheses. Columns (1) – (2) show results for the sample of Ukrainian individuals with *Deposits/GDP* and *Loans/GDP* as the financial development indicator, respectively. Columns (3) – (4) show results for the sample of Chinese individuals with *Deposits/GDP* and *Loans/GDP* as the financial development indicator, respectively. Columns (4) – (5) show results for the sample of Russian individuals with *Deposits/GDP* and *Loans/GDP* as the financial development indicator, respectively. Panels A- B present results for female and male sub-samples, respectively. *Life satisfaction* is a categorical variable that takes values from one to five (1-very unsatisfied, 2-unsatisfied, 3-neutral, 4-quite satisfied, 5-fully satisfied). *Deposits/GDP* is the relative Deposits/GDP ratio compared to the sample average. *Loans/GDP* is the relative Loans/GDP ratio compared to the sample average. *Age* is the natural logarithm of an individual's age in the interviewing year. *Working hours* is the natural logarithm of the average working hour per day. *Education* reports dummies for the individual' highest educational level with secondary school or lower as the reference group. *Married* is a dummy variable that equals one if the individual is married or cohabited, zero otherwise. *Health* reports dummies for the individual's health condition with bad condition as the reference group. ∗, ∗∗, and ∗∗∗ denote 10%, 5%, and 1% significance level, respectively.

Table B7 Self-employment, financial development and job satisfaction: big city effect

	Ukraine		Russia	
	Deposits	Loans	Deposits	Loans
	(1)	(2)	(3)	(4)
Self-employed	-0.823***	-0.835***	0.161**	0.189**
	(0.186)	(0.175)	(0.071)	(0.077)
FinDev	0.077	-0.080	-0.128	-0.172
	(0.246)	(0.067)	(0.271)	(0.138)
Self-employed*FinDev	-1.055*	-0.491*	-0.632***	-0.033
	(0.604)	(0.275)	(0.235)	(0.126)
Female	0.129	0.130	0.128***	0.129***
	(0.119)	(0.120)	(0.044)	(0.045)
Age	0.529	0.314	-7.945***	-8.156***
	(2.329)	(2.322)	(1.596)	(1.599)
Age squared	-0.021	0.009	1.140***	1.170***
	(0.329)	(0.327)	(0.226)	(0.226)
Married	0.226***	0.213**	0.217***	0.216***
	(0.087)	(0.087)	(0.050)	(0.050)
Education				
High school or college	0.285***	0.278***	0.147	0.140
	(0.071)	(0.073)	(0.098)	(0.097)
Bachelor or higher	0.499***	0.498***	0.501***	0.493***
	(0.107)	(0.109)	(0.122)	(0.121)
Health				
Average	0.538***	0.534***	0.322***	0.329***
	(0.187)	(0.183)	(0.110)	(0.108)
Good	0.874***	0.867***	0.854***	0.868***
	(0.196)	(0.191)	(0.123)	(0.117)
Working hours	-0.156	-0.157	-0.259***	-0.253***
	(0.117)	(0.117)	(0.067)	(0.069)
Cut-off point 1	-0.928	-1.329	-16.831***	-17.195***
	(4.081)	(4.062)	(2.824)	(2.831)
Cut-off point 2	0.313	-0.086	-15.174***	-15.538***
	(4.116)	(4.100)	(2.823)	(2.827)
Cut-off point 3	1.504	1.109	-13.710***	-14.072***
	(4.078)	(4.061)	(2.824)	(2.826)
Cut-off point 4	3.368	2.974	-11.258***	-11.619***
	(4.085)	(4.069)	(2.825)	(2.819)
Obs.	3,012	3,012	7,467	7,467

This table reports the ordered logit regressions for model (1) with *Job satisfaction* as the dependent variable, taking into account big city effect. Big cities (Kyiv, Moscow, St Petersburg and Beijing) are excluded from the samples. Standard errors clustered at regional level are reported in parentheses. Dummy variable *Urban* is included but not reported. Columns (1) - (2) show results for the sample of Ukrainian individuals with *Deposits/GDP* and *Loans/GDP* as the financial development indicator, respectively. Columns (3) - (4) show results for the sample of Russian individuals with *Deposits/GDP* and *Loans/GDP* as the financial development indicator, respectively. *Job satisfaction* is a categorical variable that takes values from one to five (1-very unsatisfied, 2-unsatisfied, 3-neutral, 4-quite satisfied, 5-fully satisfied). *Female* is a dummy variable that equals one if the individual is female, zero otherwise. *Age* is the natural logarithm of an

individual's age in the interviewing year. *Working hours* is the natural logarithm of the average working hour per day. *Education* reports dummies for the individual' highest educational level with secondary school or lower as the reference group. *Married* is a dummy variable that equals one if the individual is married or cohabited, zero otherwise. *Health* reports dummies for the individual's health condition with bad condition as the reference group. *Deposits/GDP* is the relative Deposits/GDP ratio compared to the sample average. *Loans/GDP* is the relative Loans/GDP ratio compared to the sample average. $*$, $**$, and $***$ denote 10%, 5%, and 1% significance level, respectively.

Table B8 Robustness checks for effects on life satisfaction, dropping big cities

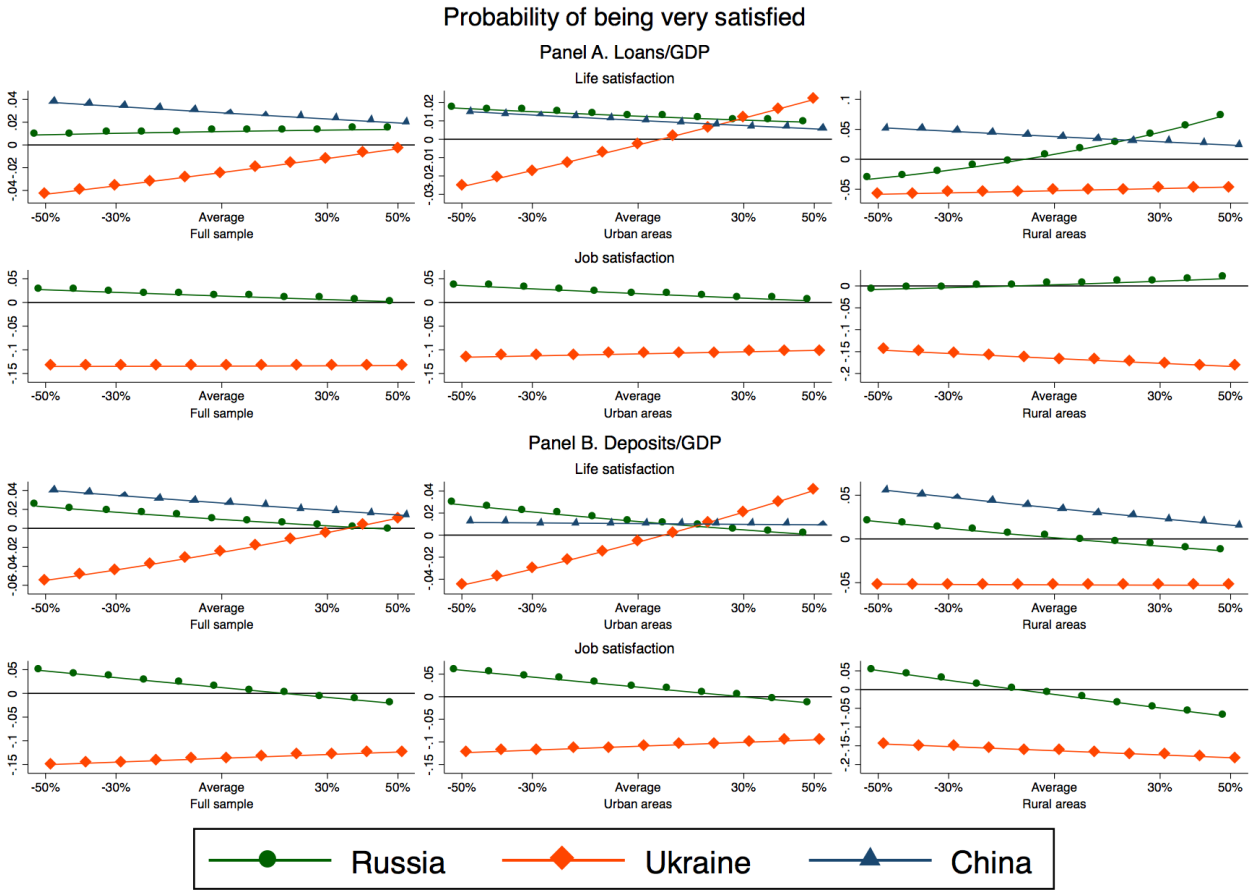
	Ukraine		China		Russia	
	Deposits	Loans	Deposits	Loans	Deposits	Loans
	(1)	(2)	(3)	(4)	(5)	(6)
Self-employed	-0.199	-0.226*	0.212***	0.225***	0.204**	0.243***
	(0.129)	(0.137)	(0.070)	(0.072)	(0.085)	(0.082)
FinDev	0.575*	0.154	-0.026	-0.034	-0.745**	-0.595**
	(0.309)	(0.143)	(0.216)	(0.265)	(0.330)	(0.261)
Self-employed *FinDev	-1.088	-0.192	-0.194	-0.132	0.203	0.380*
	(0.792)	(0.482)	(0.180)	(0.247)	(0.338)	(0.229)
Female	-0.046	-0.046	0.095	0.095	-0.116***	-0.114**
	(0.076)	(0.076)	(0.090)	(0.091)	(0.044)	(0.045)
Age	-16.022***	-16.071***	-6.946**	-6.919**	-10.175***	-10.655***
	(1.962)	(1.934)	(3.381)	(3.321)	(1.842)	(1.725)
Age squared	2.201***	2.207***	0.947**	0.943**	1.365***	1.433***
	(0.275)	(0.271)	(0.450)	(0.442)	(0.259)	(0.242)
Married	0.587***	0.588***	1.149***	1.149***	0.675***	0.682***
	(0.120)	(0.118)	(0.119)	(0.118)	(0.065)	(0.067)
Education						
High school or college	0.198*	0.208**	0.174***	0.172***	0.338***	0.362***
	(0.103)	(0.102)	(0.063)	(0.059)	(0.103)	(0.113)
Bachelor or higher	0.742***	0.761***	0.643***	0.641***	0.702***	0.729***
	(0.128)	(0.126)	(0.105)	(0.101)	(0.116)	(0.125)
Health						
Average	0.708***	0.727***	0.241	0.241	0.520***	0.531***
	(0.138)	(0.139)	(0.166)	(0.165)	(0.104)	(0.104)
Good	1.194***	1.196***	1.007***	1.007***	1.247***	1.278***
	(0.190)	(0.188)	(0.154)	(0.154)	(0.126)	(0.117)
Working hours	-0.138	-0.137	-0.127	-0.130	-0.176***	-0.149**
	(0.107)	(0.106)	(0.096)	(0.095)	(0.068)	(0.067)
Cut-off point 1	-30.191***	-30.277***	-15.566**	-15.524**	-20.766***	-21.543***
	(3.547)	(3.508)	(6.285)	(6.176)	(3.260)	(3.077)
Cut-off point 2	-28.876***	-28.964***	-13.722**	-13.679**	-18.992***	-19.767***
	(3.547)	(3.508)	(6.287)	(6.179)	(3.239)	(3.061)
Cut-off point 3	-27.843***	-27.932***	-11.121*	-11.079*	-17.772***	-18.544***
	(3.562)	(3.523)	(6.290)	(6.181)	(3.235)	(3.059)
Cut-off point 4	-26.579***	-26.671***	-8.851	-8.809	-15.171***	-15.923***
	(3.555)	(3.517)	(6.310)	(6.201)	(3.139)	(2.985)
Obs.	3,057	3,057	9,524	9,524	7,481	7,481

This table reports the ordered logit regressions for model (1) with *Life satisfaction* as the dependent variable, taking into account big city effect. Big cities (Kyiv, Moscow, St Petersburg and Beijing) are excluded from the samples. Standard errors clustered at regional level are reported in parentheses. Dummy variable *Urban* is included but not reported. Columns (1) – (2) show results for the sample of Ukrainian individuals with *Deposits/GDP* and *Loans/GDP* as the financial development indicator, respectively. Columns (3) – (4) show results for the sample of Chinese individuals with *Deposits/GDP* and *Loans/GDP* as the financial development indicator, respectively. Columns (4) – (5) show results for the sample of Russian individuals with *Deposits/GDP* and *Loans/GDP* as the financial development indicator, respectively. *Life satisfaction* is a categorical variable that takes values from one to five (1-very unsatisfied, 2-unsatisfied, 3-neutral, 4-

quite satisfied, 5-fully satisfied). *Female* is a dummy variable that equals one if the individual is female, zero otherwise. *Age* is the natural logarithm of an individual's age in the interviewing year. *Working hours* is the natural logarithm of the average working hour per day. *Education* reports dummies for the individual' highest educational level with secondary school or lower as the reference group. *Married* is a dummy variable that equals one if the individual is married or cohabited, zero otherwise. *Health* reports dummies for the individual's health condition with bad condition as the reference group. *Deposits/GDP* is the relative Deposits/GDP ratio compared to the sample average. *Loans/GDP* is the relative Loans/GDP ratio compared to the sample average. ∗, ∗∗, and ∗∗∗ denote 10%, 5%, and 1% significance level, respectively.

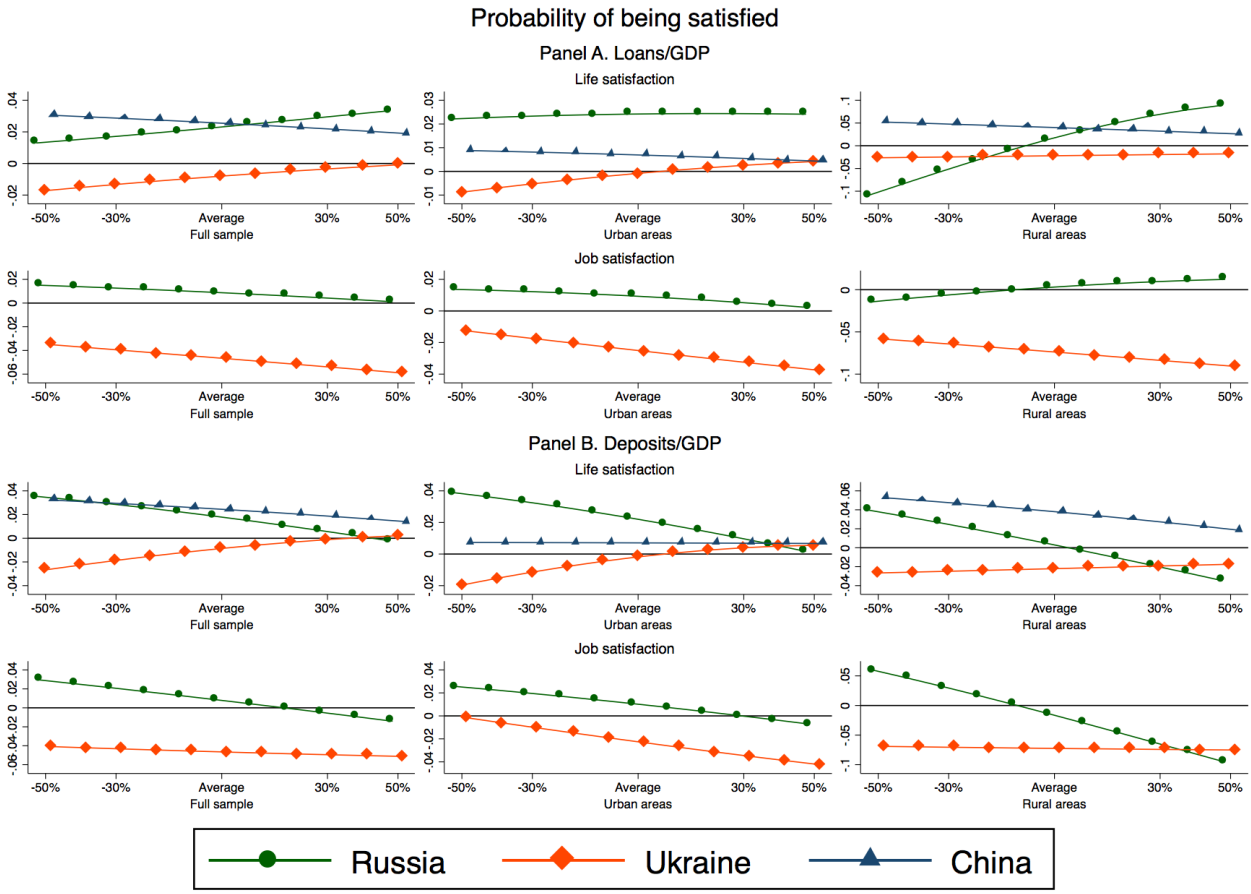
Online Appendix C.

Figure C1 Marginal effects of self-employment on satisfaction at different levels financial development (Outcome: Probability of being very satisfied)



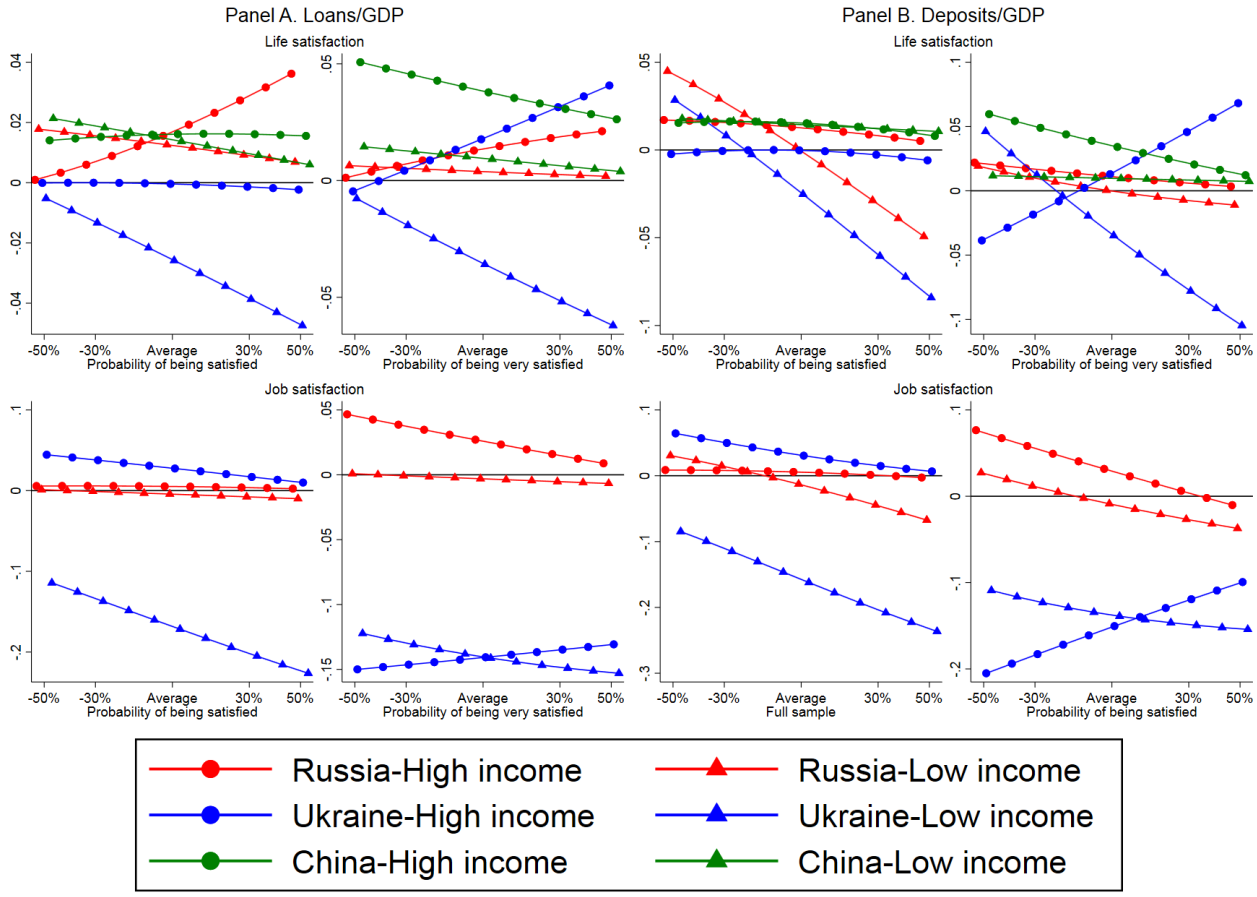
This figure shows the marginal effects of *Self-employed* on satisfaction in China, Russia and Ukraine at different levels of financial development, holding other variables at their means. Panels A and B show marginal effects with *Loans/GDP* and *Deposits/GDP* as financial development indicator, respectively. The outcome is probability of being very satisfied.

Figure C2 Marginal effects of self-employment on satisfaction at different levels financial development (Outcome: Probability of being satisfied)



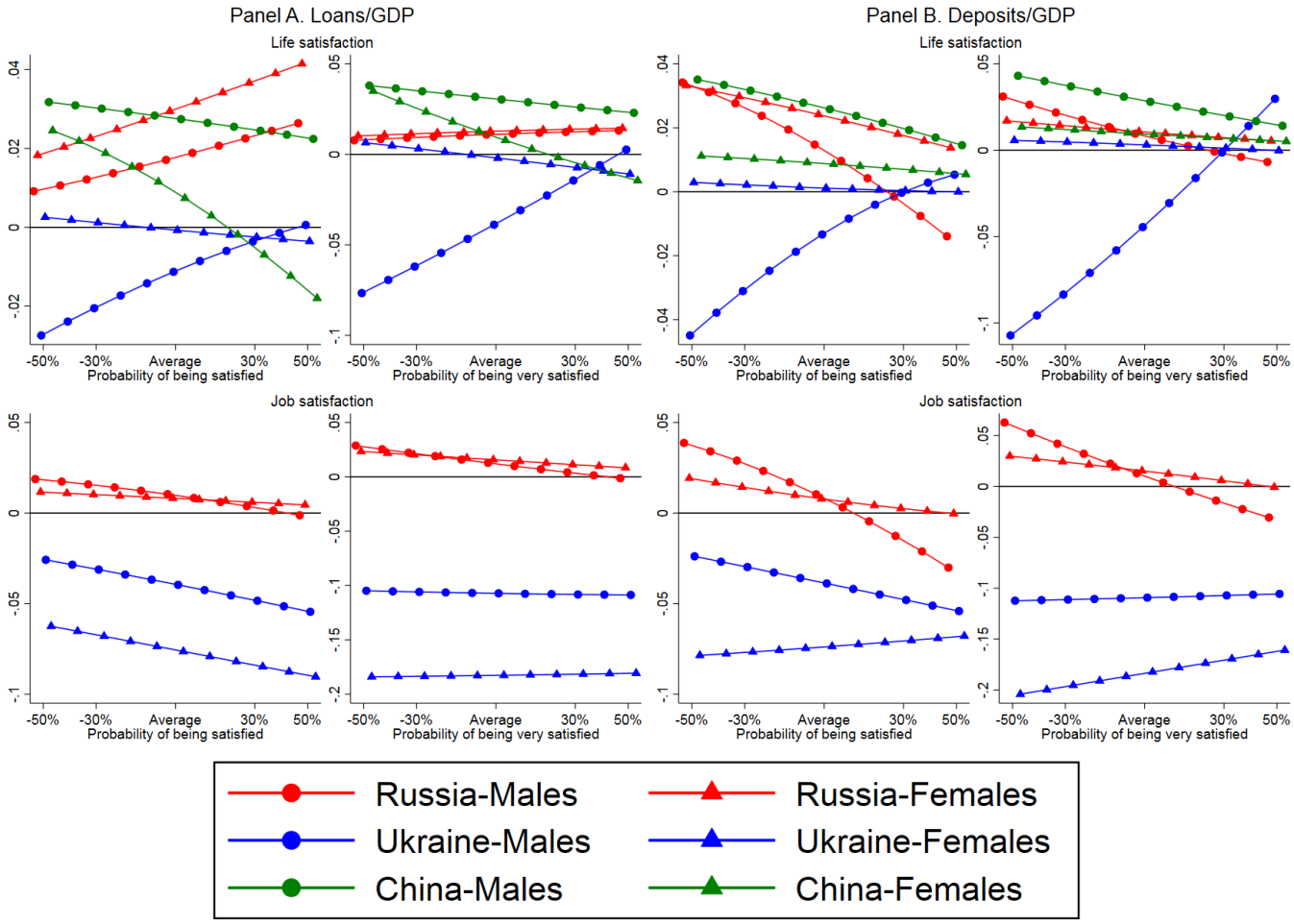
This figure shows the marginal effects of *Self-employed* on satisfaction in China, Russia and Ukraine at different levels of financial development, holding other variables at their means. Panels A and B show marginal effects with *Loans/GDP* and *Deposits/GDP* as financial development indicator, respectively. The outcome is probability of being satisfied.

Figure C3 Marginal effects of Self-employed on satisfaction at different levels of financial development, controlling for income effect



This figure shows the marginal effects of *Self-employed* on satisfaction in China, Russia and Ukraine at different levels of financial development, controlling for income effect and holding other variables at their means. Panels A and B show marginal effects with *Loans/GDP* and *Deposits/GDP* as financial development indicator, respectively.

Figure C4 Marginal effects of Self-employed on satisfaction at different levels of financial development, controlling for gender effect



This figure shows the marginal effects of *Self-employed* on satisfaction in China, Russia and Ukraine at different levels of financial development, controlling for gender effect and holding other variables at their means. Panels A and B show marginal effects with *Loans/GDP* and *Deposits/GDP* as financial development indicator, respectively.