FINANCIAL DEEPENING AND INFLUENTIAL FACTORS THE CASE OF VIETNAMESE HOUSEHOLDS

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1. Problem

Researching factors affecting financial development has been an interesting subject for economists. Most of the past studies have been carried out at a macroeconomic level, such as those of La Porta et al. (1997, 1998), Beck et al. (2003), Rajan and Zingales (1998), and Stulz and Williamson (2003). Beck et al. (2003) point out that political regime does affect the financial development. Rajan and Zingales (1998) conclude that politics has impacts on the financial development. Others, such as Stulz and Williamson (2003), prove that culture, openness, inflation, legal aspects (La Porta et al. 1997, 1998), policies (Hung and Temple, 2005) are decisive factors in the financial development. Gelb (1989) uses data from 34 nations in the years 1965-85 and financial development index, M3/GDP, to study this problem and conclude that the inflation influences more strongly the financial development than interest rates.

At the microeconomic level, however, researchers have not tried their best to solve this problem. There are only some case studies of agricultural models by Guiso et al. (2010), Yadal and colleagues in Nepal; and Dương (2002), Quách et al. (2006) in Vietnam. Guiso et al. (2010) use data gathered from some 8,000 households in Italy to discover importance of social capital to the financial development. They conclude that the social capital plays an important role in increases in Italian financial quality. Yadav et al. (1992) examine data from Nepalese families and conclude that the size of the family is the decisive factor in borrowings from informal market while the size of crops and irrigation are important factors in the organized market. Dương and Izumida (2002) investigate 300 families in North, Central and South Vietnam to find factors that decide their borrowings from rural financial market. They conclude that farming area and value of animals are decisive factors in organized markets. They also say that big number of dependant members of the family and farming area force the family to borrow bigger loans from the informal market. Quách and Mullineux (2006), after examining data gathered from 2,108 Vietnamese families in 1997-98, conclude that education, saving and farming area determine the need for loans of families.

Thus, some problems have not been examined properly although many authors have carried out researches on this aspect at both macro and micro levels. These studies only point out some factors, such as policy, institution, inflation, interest rate, and culture, that affect the financial development. Many others, such as assets and social relations have not been discussed. This paper, therefore, tries to examine and clarifies factors that affect the financial development in more detail. Particularly, the paper tries to establish some new indicators of financial deepening in an effort to reflect

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more exactly and fully the financial system as compared with previous indicators.

2. Indicators of financial deepening

Previous researches have developed and employed indicators of financial deepening. At first, M1/GDP, M2/GDP and M3/GDP were widely used (La Porta et al., 1997 and 1998; Beck et al., 2003; Rajan and Zingales, 1998; and Stulz and Williamson, 2003), but some authors think they cannot reflect exactly the financial development because cash represents a very big share in the financial system in developing countries. To overcome this shortcoming, economists introduced the ratios of credit supplied to the private sector to the GDP (Rajan and Zingales, 1998), and of deposit or bank loans to the GDP to measure the financial deepening. However, they failed to reflect fully the role of the financial system in economic activities.

The paper suggests here three more indicators of financial development:

$$1.\ FD_1 = \frac{D + VSE + VFA}{I}$$

D = deposit; VSE = value of securities exchange; VFA = value of finance company assets; I = income

$$2.\ FD_2 = \frac{L + VSE + VFA}{I}$$

L = bank loan

$$3.\ FD_3 = \frac{TB + VSE + TFC}{I}$$

TB = banks' revenue; TFC = finance companies' revenue.

These indicators can reflect roles of banking system, stock markets and finance companies. D, L and TB reflect the role of banking system; VSE" stock markets; and VFA and TFC: finance companies. Thus, these indicators may measure fully the role of financial system.

The financial system plays an important role in economic activities of households because it points out financial assets of the household. In Vietnam, these assets usually include bank deposits, bank loans, bonds/ securities, and insurance. Thus, ratio and volume of financial assets used for analyzing and measuring the financial development at the households level is as follows:

$$FD = \frac{D + B(S) + IS}{I}$$

B(S) = bonds and securities; IS = insurance

LnDBSI = Log (D + B(S) + IS)

LnLBSI = Log (L + B(S) + IS)

These indicators of financial deepening are better than the previous ones because they reflect and evaluate directly the amount of financial assets held by households. In addition, household savings in Vietnam in the past is usually turned into non-productive assets, such as gold, because the financial system was poorly developed. The reform in financial system launched in 1988 helped the public change from the habit of saving to holding financial assets, which was good for them and the economy as well. Common financial assets of Vietnamese households are bank deposits, bank loans, bonds/ securities, and insurance, therefore, these indicators reflect the financial development in Vietnam more reasonably.

3. Research model

The paper employ models suggested by La Porta et al. (1997, 1998), Gelb (1989), Beck et al. (2003), Rajan and Zingales (1998), Stulz and Williamson (2003), Huang and Temple (2005), Dương and Izumida (2002), and Quách and Mullineux (2006) to built a new model of its own that is as follows:

$y_i = \alpha + \beta X_i + u_i$

where y_i means indicators of financial development and X_i comprise dependant members of the household. Householders' education is measured by their schooling years, size of the household is determined by number of its members. Other variables are householders' age and squared householder's age, householder's sex, bank lending rate, fixed assets, health caring expenditure, and social relationships. There are dummy variables for urban/rural area, ethnicity and locality. And u_i is statistical error.

Explanation of these explanatory variables included in the research is as follows:

- Dependant members of the household affect the financial development because they generate no income and moreover, they lower the per capita income of the household, thus reducing need for financial services and ability to hold financial assets.

- Householder's education and size of the household are variables that increase the need for financial services and ability to hold financial assets because householders of better education know how to do well their business and earn more money, and bigger households tend to demand more financial services.

- In the first stage of one's lifetime, the demand for money increases when income is limited, therefore the need for financial assets is very low, which hinders the financial development. In next stages, householders usually need more financial services when they earn much more money and gain more knowledge and experience, which supports development of the financial system. That is why the squared householder's age is included in the model.

- Interest rate may be an obstacle to the financial development because higher interest rate prevents householders from holding financial assets or use financial services. Households with more fixed assets tend to use more financial services.

- Dummy variables are used for determining whether householders' gender, their ethnicity, and locality they live affect favorably the financial development or not.

The difference between this model and others is that it has two more variables for expenditure on health care and social relationship. The first variable means that the better the health of the household, the higher its contribution to the financial development. The second one is included in the model because business performance in Vietnam usually depends on householder's social relationships. This is because of not only the Vietnamese culture but also widespread corruption in this country.

It is difficult to quantify the social relationship because illegal practices are usually deliberately concealed. Luckily, the author can gather some data about expenditures of the households on parties, banquets and gifts and use them to measure the social relationship because householders with influential friends and acquaintances tend to spend much more money on banquets and gifts.

4. Data and methodology

This research project employs data about 40,438 households from the 2004 Living Standard Survey conducted by the GSO. However, only 5,233 households are asked about financial matters and all surveyed households with no financial assets are excluded from the research. Thus, this project can only employ data about 1,685 households from the GSO source.

As for the variables measuring the financial deepening, they are based on data about bank deposits, bank loans, insurance premiums, and bonds/securities. Value of variable "gender" is 1 for male and 0 otherwise. Similarly, variable "ethnicity" is valued at 1 for householders of ethnic minority and 0 otherwise; and variable "locality" at 1 for urban area and 0 otherwise. As for other variables, GSO supplies detailed and clear data in its questionnaires and attached files.

The research employs OLS regression method to estimate factors affecting the financial development. The Breusch-Pagan test is used for checking for heteroskedasticity and White method is used to solve this problem.

5. Results

Running the OLS regression for three equations with the three indicators of financial development produces results in the Table 1. The Table 1 shows that regression result 1 is not as good as results 2 and 3. In the regression result 1, only one coefficient is statistically significant compared with five coefficients in the result 2 and eight in the result 3.

The results show that "education" has a positive relation with "financial development." This proves that the householder's education supports the financial development. This corresponds with results of the research by Quách and Mullineux (2006).

The "size of household" is statistically significant with reliability of 99% and positive estimated coefficient. This means that demand for credit will be higher in bigger households, and lenders also prefer these households because they can charge higher interest rates.

Table 1: Regression of factors affecting the financial development

Dependent variable	FD	LnDBSI	LnLBSI
Independent variable	-1	-2	-3
Constant	-10.4664	5.2894***	6.6030***
	-0.524	0	0
Dependant	-0.3694	-0.03587	-0.0389
	-0.51	-0.676	-0.245
Householder's education	0.2856	0.0248	0.0244***
	-0.353	-0.208	-0.001
Size of household	-0.4184	0.0245	0.0891***
	-0.235	-0.714	0
Householder's age	-0.2439	-0.1141***	-0.0511***
	-0.341	-0.002	0
Squared householder's age	0.0021	0.0010***	0.0010***
	-0.341	-0.003	-0.001
Gender	2.3574	0.0398	0.0551
	-0.198	-0.826	-0.471
Interest rate	-0.0153	-0.0037*	0.0002
	-0.232	-0.071	-0.843
Fixed assets	0.6504	0.0512	0.1003***
	-0.205	-0.273	0
Social relationship	1.4553*	0.3204***	0.3346***
	-0.07	0	0
Expenditure on health care	0.9795	-0.0162	0.0223
	-0.127	-0.733	-0.215
Locality (dummy variable)	3.2317	0.3723**	0.2539***
	-0.228	-0.041	-0.005
Ethnicity (dummy variable)	15.2131	0.3016	-0.2912***
	(0.263	-0.449	-0.002
Region (dummy variable)	Effective	Effective	Effective
R_squared	0.0573	0.0622	0.2342
Samples observed	939	939	1685

Notes: * = statistically significant at 10%; ** = statistically significant at 5%; *** = statistically significant at 1%; P-values in bracket.

"Fixed asset" also has a positive relation with financial development because households with valuable fixed assets can secure big bank loans when they mortgage their assets.

"Social relationships play an important role in the financial development. This means that the financial development of households depends on not only their own characteristics but also their social relationships. This result corresponds with Vietnamese business culture. For example, a good re-

lation with bank managers can ensure big and easy bank loans.

Another interesting fact in this result is a negative relation between householder's age and financial development of the household while the squared householder's age has a positive one. This shows that middle-aged householders hold less financial assets than older householders do because in Vietnam, old persons are considered as more trustworthy. Age is also the first factor taken into consideration when making decision of promotion in public services. The youth tend to respect older persons because of their better knowledge and experience.

"Locality" has a positive sign and statistical significance. This means that the location of households plays an important role in the financial development because most financial institutions in Vietnam have branches in big cities and towns where the demand for financial services is high. Variable "Ethnicity" also has a negative sign and statistical significance, which shows that Vietnamese Kinh people contribute better to the financial development.

6. Conclusion

From results of the research, the paper finds that social relationship, locality, fixed asset, size of household, householder's age and education, and householder's ethnic group are basic factors that determine the financial development of the household. This means that the Government should recognize and protect ownership of fixed assets, support public education and create a good social environment to encourage social relationships, thereby helping the financial system develop.

In addition, most state-owned companies suffer poor business performance because few laborers care about it while the Government failed to privatize them actively in recent years. In the coming years, the Government should accelerate the privatization to improve their business performance and develop the financial market because this program allows private persons to hold more financial assets.

Competition among banks is not keen and fair enough to improve quantity and quality of financial services as required by the market. The bank lending rate is high in comparison with rates offered by banks in the world and Southeast Asia as well. The Government can allow private persons and companies to take a more active part in the banking system to enhance the competition and service quality■

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