

博士学位請求論文要旨

相場大樹

一橋大学大学院経済学研究科博士課程

Summary of doctoral dissertation

2017年7月

In the literature of economic development, financial development is thought of as one of the significant factors which drive economic growth in a country. Development of financial system largely depends on initial historical and institutional backgrounds of each country. In last decades, a lot of developing and developed countries have introduced a series of reforms in their financial systems to foster financial development and stability. Since then, financial systems across countries have been developed through different paths, and some of developing countries faces emerging issues in their financial systems.

This dissertation empirically investigates emerging issues in financial developments of the Cambodian financial market. Cambodia has also unique historical and institutional backgrounds in its financial sector. After Cambodia started to transform from a planned economy into a market-oriented one in early 1990s, its financial sector became open to allow private banks to operate in Cambodia. Therefore, even though Cambodia is still a low-income country, the growth of its economy and financial sector have been outstanding and have attracted foreign direct investments

and the other forms of capital. This Cambodia's unique growth trajectory provide some unique issues in financial development from the academic and policy-making perspective. One of the unique environments in Cambodian financial sector is immaturity of regulatory frameworks in its financial sector. Although there has been a number of new local and foreign-owned entrants in its banking sector, there is a rising concern about overbanking. However, the Cambodian government has still imposed a few restrictions on bank's behaviors, and there exist no quantitative evaluations. Another uniqueness in its financial sector is "dollarization." At the same time when Cambodia started to transform, a flood of USD currency flowed into Cambodia in the form of development aids. The Cambodian economy has since been highly dollarized and economic agents somehow manage to live in the environment of multiple currencies circulating. Although a lot of existing studies point out the risk of the dollarization to financial resilience, why households and firms choose USD instead of local currency remains unclear in the literature, and there are only a few studies done in other dollarized countries.

Even though the Cambodian financial sector has those distinct intuitional features, there is almost no studies which empirically investigate the Cambodian financial market. In this dissertation, I devote myself to investigate the Cambodia financial market from the various aspects, such as households, firms, and financial institutions. Using unique micro data, I empirically investigate the behaviors of those economic agents. In brief, my dissertation can be divided largely into two parts: (1) efficiency and fragility of the Cambodian banking sector; (2) dollarization in households and firms. Both topics are common and centered on financial issues in developing countries, and the accumulation of empirical evidences remains low.

In Chapter 1, I present the overview of the Cambodian financial market, to provide the basics of Cambodian institutional features before providing profound analyses. I describe

historical development and the current institutional setting of the Cambodian economy and financial market. In addition, I present the general introduction of the dollarization issue in Cambodia, which I further investigate in Chapter 4 and 5.

In Chapter 2 and 3, I investigate the Cambodian banking system from the perspectives of efficiency and fragility of financial institutions.

In Chapter 2, I study the efficiency of major financial institutions in Cambodia. The rapid growth of Cambodian economy has attracted the foreign direct investments, and in its banking sector, there has been an increasing number of entrants from domestic and foreign markets in recent years. Despite its importance, there is no studies on the efficiency of financial institutions. Regarding the efficiency in the banking sector, the literature shows the mixed results, and whether or not foreign banks have a positive effect is still unclear. In this regard, I attempt to investigate the operational efficiency of individual financial institutions in Chapter 2. To do so, I employ the econometric approaches which is called as “data envelopment analysis”, and further examine potential factors which could affect the efficiency. I empirically show the evolution of operational efficiency from 2006 to 2014 in Cambodian financial institutions, and further examine the relationship between operational efficiency and characteristics of financial institutions. As a result, I find that the foreign ownership did not improve the bank efficiency, and the banks with foreign ownership are even inferior to the banks with local ownership. The results may suggest that the recent entries of foreign-owned banks do not lead to improvement of the Cambodian banking sector, probably because those foreign-owned banks mainly came from the neighboring countries, such as Thailand, Korea, Vietnamese, and Malaysia, not from developed countries.

In Chapter 3, I study the potential vulnerability in the Cambodian financial system by investigating the depositor’s behaviors in the case of the large deposit withdrawals. The deposit

withdrawals were triggered by an increase in political instability after the national election in 2013. I empirically test the hypotheses of depositors' behaviors during bank panic by exploiting the unique data of regional deposit amounts of individual financial institutions on a quarterly basis. The results reveal that the deposit withdrawals happened regardless of whether or not banks have good fundamentals, suggesting that the deposit withdrawals in 2013 were a type of coordinate failure problem. Furthermore, I found that the regional election results also affected the extent of deposit withdrawals, implying that people are more likely to run if people expect the conflicts or macroeconomic shock due to an increase in political instability. This result also suggests the deposit withdrawals triggered by political instability was inefficient, and could be potential vulnerability in financial sector against external shocks. Therefore, a certain preventative measures is required to reduce the potential risks of bank failure in the case of Cambodia.

In Chapter 4 and 5, I study on dollarization, which is one of the distinct characteristics of the Cambodian financial market. Although Cambodia is exceptionally highly dollarized even compared with other dollarized economies, there is no studies which employs micro data. Therefore, empirical evidences of household's and firm's behavior in dollarization is still unclear.

In this regard, in Chapter 4, I investigate determinants of foreign currency borrowing behaviors of households in Cambodia using survey-based data of households; this allows me to use the currency-wise information in households' financial activities. I employ Probit estimation as household's choice of currency denomination in loans is a dependent variable. As results of the estimation, I find that Cambodian households are engaged in risk-hedging behaviors against exchange rate risks, and they are likely to borrow in foreign currency if foreign currency makes up the major portion of their income stream. In the previous literature, Beer et al. (2010) argue that the retail loans in FX currency is taken by the households who seek lower interest rates and do not

take exchange rate risks (i.e. the carry-trade behavior). However, my findings support the view that FX borrowing can be explained by the risk-hedging behaviors, suggesting that dollarization in Cambodian households is not necessarily caused by carry-trade behaviors by households argued by Beer et al. I also find that expectation of depreciation of local currency leads households to take out local currency loans in line with prediction from the previous theoretical model. Furthermore, I find that education plays a role in the choice of currency in loans, and the better-educated households are more likely to engage in risk-hedging behaviors and to match the currency composition between their loans and incomes than the low-educated are. The results might suggest that the financial literacy works to enhance the risk-hedging behaviors against exchange rate risks for Cambodian households.

In Chapter 5, given a paucity of empirical analysis on Cambodian firms, I study how and where firms borrow their debt. In particular, I focus on how the dollarized environment affect the firm's capital structure, apart from the factors explained by the traditional theory in corporate finance literature, such as trade-off theory, agency cost approach, and pecking order hypothesis. Specifically, I hypothesize that local currency income might prevent firms from raising capital due to the exchange rate risk, since there is no local currency loans available for firms and there is no other hedging instruments. As a result, I find that the traditional factors can explain how the Cambodian firms take out bank loans. On the other hand, I find only partial evidence that foreign currency income affects the firm's borrowing behaviors. On the other hand, I couldn't find the strong evidence to support our hypothesis that foreign currency income affects the firm's borrowing behaviors, although I find that firms tend to care the currency mismatch risks only if firm's profitability is high. The results suggest that the long-lasting exchange rate stability makes firms with low-profitability careless to the exchange rate risks.

In the final chapter, I summarize the insights drew from Chapter 2-5, and concludes this dissertation.