タイトル	Financial Inclusion in Thailand : Innovations and Challenges
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引用	季刊北海学園大学経済論集, 64(4): 19-43
発行日	2017-03-31

《特別寄稿》

Financial Inclusion in Thailand: Innovations and Challenges

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Abstract

Although Thailand has a high level of financial inclusion, with most households are able to access most services, there are pockets who do not have access. These pockets tend to be among the urban poor, who have low levels of social capital as well as low levels of wealth or assets. In other areas of the country, government programs may have lowered the interest rate to the degree that it encourages indebtedness. However, indebtedness has been falling among the Thai poor and middle income households, even as it has been rising among the wealthiest households.

Financial innovations such as the counter-pay service at 7-11, high dispersion of ATMs throughout the country, and informal methods for transferring money across borders have improved the lives of millions of poor people, but the opportunities moving forward are even greater. The use of private smart cards for payments is now available although not yet popular. The government is currently exploring options for the unbanked to make electronic payments via an electronic PromptPay service. The paper suggests improved savings and insurance options should be investigated further.

JEL classifications: G21, G23, O31

Keywords: Financial Inclusion, Microfinance, Financial Innovations

1. Introduction

Financial inclusion is defined as delivery of financial services at affordable costs to sections of disadvantaged and low income segments of the country. According to Demirguc-Kunt et al. (2014), financial inclusion was an important factor in achieving poverty reduction and inclusive economic growth. From the latest survey of the Bank of Thailand in 2013, 88 percent of Thai households

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used financial services, 8 percent chose not to use financial services, and 4.2 percent could not access to any financial service providers. The majority of households with lower level of access were in the low to middle income group (Financial Access Survey (2013)). The Thai Government, for a long time, has promoted financial inclusion by using specialized financial institutions (SFIs) to provide financial services. Furthermore, it launched the Village Fund Project in 2001 to give 1 million baht (USD 22,500) to every village in Thailand. From the Financial Access Survey (2013), financial access was also one of the major policies in the Bank of Thailand's Financial Sector Master Plan.

Thailand has a high level of financial inclusion. According to Camara and Tuesta (2014), it was ranked as number 21 from 82 countries, higher than other countries in Southeast Asia. Even with a high level of financial inclusion, the country faces other problems such as a high level of household debt, and fragmented regulations. In this paper, I will focus on innovations and challenges that Thailand has regarding financial inclusion. Innovations will be in the areas of payments and remittances, while challenges will be about the high level of indebtedness of households and regulations.

The structure of the paper will be as follows. In section 2, we will summarize the status of financial inclusion in Thailand. The problem of the high level of indebtedness of households will be elaborated on in section 3. The fragmented regulations and their consequences will be summarized in section 4. In section 5, we will discuss the innovations of financial services in the country. The last section will include conclusions.

2. Status of Financial Inclusion in Thailand

According to Table 1, 78.1 percent of Thai people have accounts with financial institutions. Despite the high level of usage of smart phones, only 1.3 percent have mobile accounts with financial institutions. These numbers are higher, however, than the average of countries in East Asia and Pacific. In 2014, the number of those who had debit cards was 54.8 percent, higher than the level in 2011. This resulted from the efforts of commercial banks that encouraged clients to switch from ATM cards to debit cards. About 62 percent of Thai people use automated teller machines (ATMs) when they withdraw their money. Only 8.3 percent of Thais receive wages through their bank accounts. (About 40 percent of all Thais receive formal paychecks, and most wages are paid informally.) Meanwhile 9 percent of Thais use their accounts to receive government transfers. Only 1.7 percent of Thai people use their bank accounts to pay utility bills, which is a very low level compared to the average in East Asia & Pacific.

Table 2 shows the usage of payments and remittances in the country. The usage of credit and debit cards to make payments in Thailand is lower than in East Asia & Pacific. Only 7.9 percent of Thais use debit cards to make payments, while 3.7 percent use credit cards to make payments. Even though the use of the smart phones is widespread, only 4.4 percent use the internet to pay bills. Thais seem to prefer to take cash out by ATMs and pay the bills directly at numerous Point

Table 1 Account Usage in Thailand in 2014

	Thailand	East Asia & Pacific
Account (percent age 15+)	78.1	69
Mobile Account (percent age 15+)	1.3	0.4
Access to Financial Institution Account (percent age 15+)		
Has debit card	54.8	42.9
Has debit card, 2011	43.1	34.7
ATM is the main mode of withdrawal (percent with an account)	62.3	53.3
ATM is the main mode of withdrawal, 2011 (percent with an account)	59.3	37
Use of Account in the past year (percent age 15+)		
Use an account to receive wages	8.3	15.1
Use an account to receive government transfers	9	8.1
Use a financial institution account to pay utility bills	1.7	11.8

Source: Global Findex, the World Bank, 2014.

Table 2 Payments and Remittances Usage in Thailand

Other digital payments in the past year (percent age 15+)	Thailand	East Asia & Pacific
Used a debit card to make payments	7.9	14.8
Used a credit card to make payments	3.7	10.8
Used the internet to pay bills	4.4	15.6
Domestic Remittances in the past year (percent with an account)		
Sent remittances (percent senders)	36.7	16.6
Sent remittances via a financial institution (percent senders)	35.6	36.9
Sent remittances via a mobile phone (percent senders)	2	8.7
Received remittances	46.4	20.6
Received remittances via a financial institution (percent recipients)	28.6	29
Received remittances via a mobile phone (percent recipients)	1.2	4.9

Source: Global Findex, the World Bank, 2014

of Sales (POS) terminals. In Thailand, since there are not enough jobs in the rural areas because agricultural jobs are seasonal, working age persons will find jobs in Bangkok or at industrial estates, and send the money home to their parents, and in many cases, to their children in the villages. (It is difficult to keep children in Bangkok due to lack of childcare and rules about admissions to public schools.) Around one-third of the people send remittances through financial institutions, and 28.6 percent receive remittances through financial institutions. In 2014, only 2 percent of Thai people send remittances via mobile phones, and 1.2 percent received remittances through mobile phones.

In Table 3, the information about savings and credit are shown. About 40.6 percent of Thais saved

Table 3 Savings and Credit in Thailand

	Thailand	East Asia & Pacific
Savings in the past year (2013) (percent age 15+)		
Saved at a financial institution	40.6	36.5
Saved at a financial institution in 2011	42.8	28.5
Saved using a savings club	8.4	6
Credit in past year (2013) (percent age 15+)		
Borrowed from a financial institution	15.4	11
Borrowed from a financial institution in 2011	19.4	8.6
Borrowed from family or friends	31.1	28.3
Borrow from private informal lender	9.1	2.5

Source: Global Findex, the World Bank, 2014.

at financial institutions, while 8.4 percent saved using saving clubs. These numbers are higher than the average numbers of East Asia & Pacific. In 2013, only 15.4 percent borrowed from financial institutions and 31.1 percent borrowed from family and friends. Finally, 9.1 percent of Thais borrowed from private informal lenders.

From the financial services providers' side, according to the Financial Stability Report (2016) of the Bank of Thailand, there are 31 commercial banks in Thailand. The four largest banks are, namely, Bangkok Bank, Siam Commercial Bank, Kasikorn Bank and Krung Thai Bank. In addition to commercial banks, there are 6 SFIs, comprised of the Government Savings Bank (GSB), the Bank for Agriculture and Agricultural Cooperatives (BAAC), the Government Housing Bank (GHB), the Islamic Bank (IBank) of Thailand, the Export Import Bank of Thailand (EXIM Bank) and the Small and Medium Enterprises (SME) Bank. GSB, BAAC and GHB are 3 major SFIs supporting the expansion of credit following the government's policies. According to the Bank of Thailand, the most important depository institutions are commercial banks and SFIs, which have the share of total assets 46.7 percent and 15.3 percent, respectively. They also have extensive services. At the end of 2014, both commercial banks and SFIs have 9,664 branches and 61,839 ATMs serving the people in the country. Another category of financial institutions under the supervision of the Bank of Thailand is called non-bank financial institutions (NBFIs). The NBFI category is comprised of 36 credit card and personal loans companies.

Furthermore, as of 2016, there are 1,419 saving cooperatives and credit unions, which accounts for 6.3 percent of total assets of financial institutions. Saving cooperatives are financial institutions that are set up by members of the same occupation, or by those who live in the same area in order to help each other. Credit unions are typically confined to a company or an institution and provide attractive mortgages for their members. They are under the supervision of the Ministry of Agriculture and Agricultural Cooperatives.

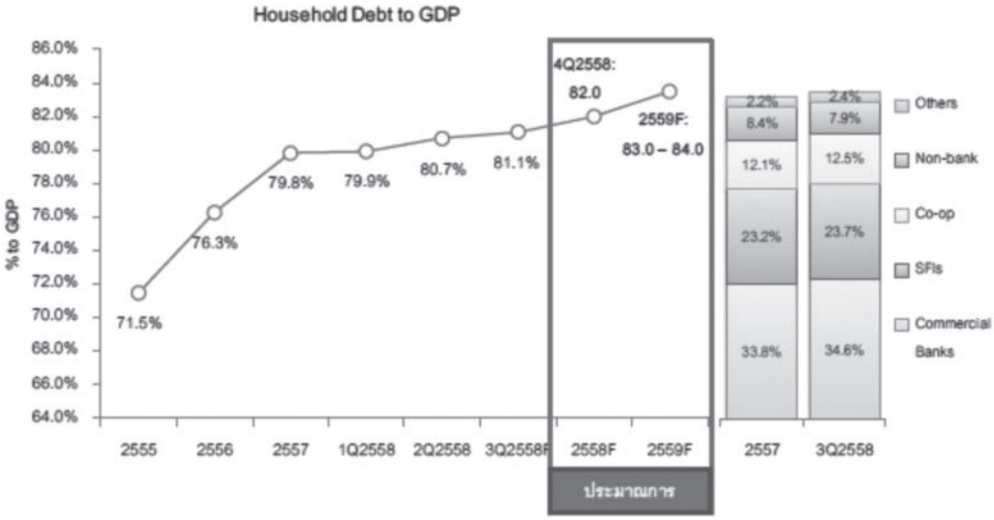
In addition, there are 2 main categories of semi-formal financial institutions. They are, namely, savings groups and Village Funds. The model of a savings group was introduced by Department of Community Development in 1974. They are set up by community leaders to promote savings among members, to provide credit to improve the livelihoods of members, and to provide necessary funds at times of emergencies. The Village Fund Project was launched in 2001 as a key government policy aimed at providing access to credit to low income groups. The idea was to set up local financial associations which would take deposits from members, provide rotating credit for occupational development, and provide social services to members or people in the local communities (villages). There are 79,255 Village Funds across Thailand.

3. Problems of High Level of Indebtedness

Thailand's household debt-to-GDP ratio increased from 55 percent in 2007 to 84 percent in 2014. (IMF Country Report 2015) Commercial Banks hold most of the debt in Bangkok and the Central region, but for much of the rest of the country, SFIs and NBFIs are important actors in providing loans. Macroeconomists are concerned that high levels of household debt will lead to macroeconomic stability, especially if there is a recession. Therefore there have been suggestions that these levels of debt be reduced in the future.

Generally high levels of debt are a result of the purchase of houses and cars. In Figure 2 below, we can see that Thailand differs from other countries in that higher debt level than average comes from credit cards and personal loans. This may be due to the ease with which people can use cars and other collateral to obtain loans from finance companies in Thailand.

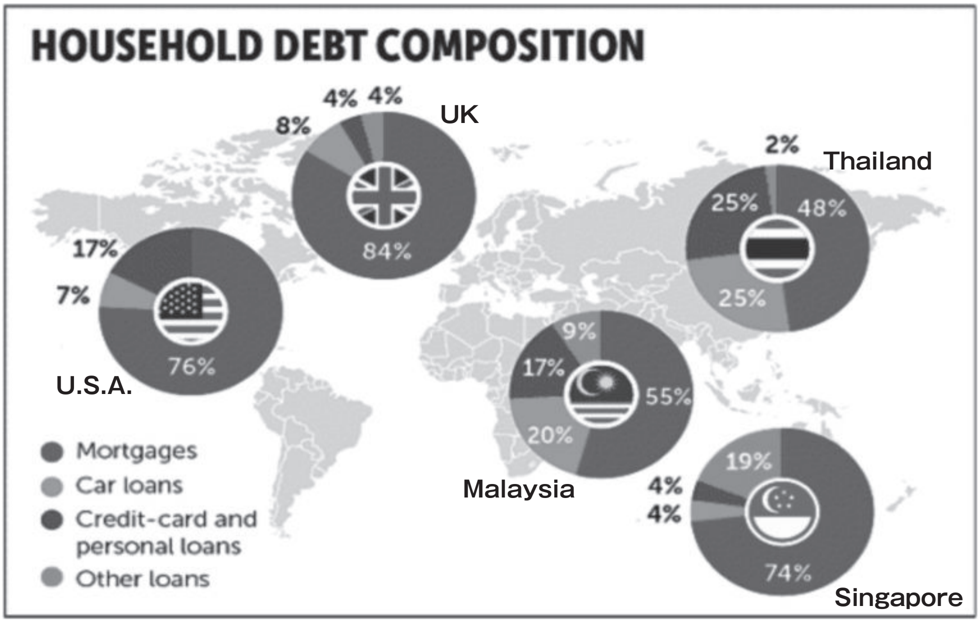
Figure 1 Level of Indebtedness in Thailand



Note: Thailand uses the Buddhism calendar whose origin year is 543 years B.C. by western calendar. Therefore, 2016A.C. by western calendar is year 2559 by Buddhism calendar.

Source: TMB Research http://thaipublica.org/wp-content/uploads/2015/12/

Figure 2 Household Debt Composition



Source: TMB Analytics　POSTgraphics

Microfinance Alternatives for Loans

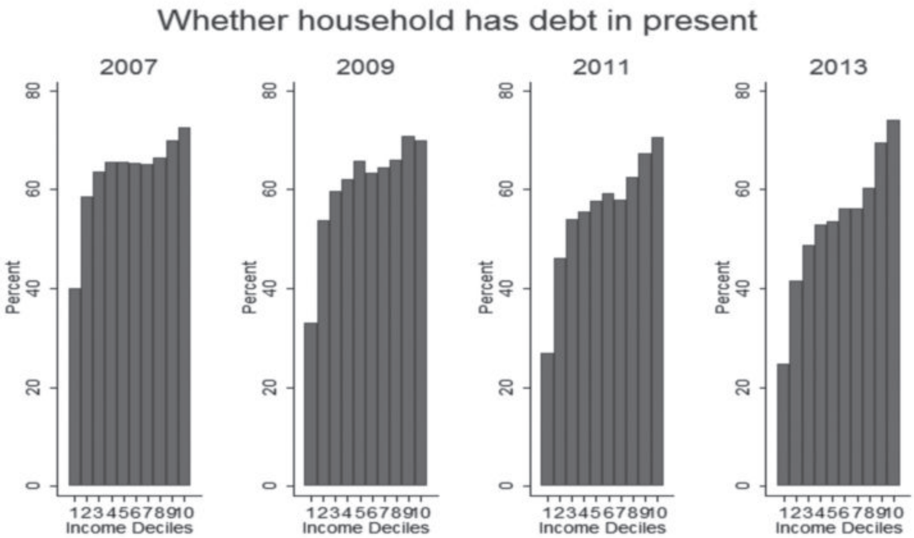
SFIs typically provide government subsidized loans at interest rates ranging from 6-10 percent while NBFIs are private, for-profit companies making loans at government mandated 28 percent interest rates. At these later interest rates, profits are good, and there is much advertising and competition to provide loans. Large commercial banks are not interested in making loans of less than 200,000 baht ($6,000 USD) (personal interview) and so these two alternative lending sources make up most of the loans to the lower 80 percent of households. In terms of the number of loans, around 2/3 of the loans are for consumption, farming and business, while 1/3 of the loans are for real estates and land. (IMF 2015)

Explanation for High Level of Indebtedness

Although the total level of debt in Thailand has increased to 84 percent in 2014, it should be observed that this mostly reflects increased borrowing by the wealthiest 20 percent of the population. Explanations for the increased borrowing are likely the large jump in housing prices over this period and the government-sponsored first-car policy that eliminated a 25 percent tax on a family's first car.

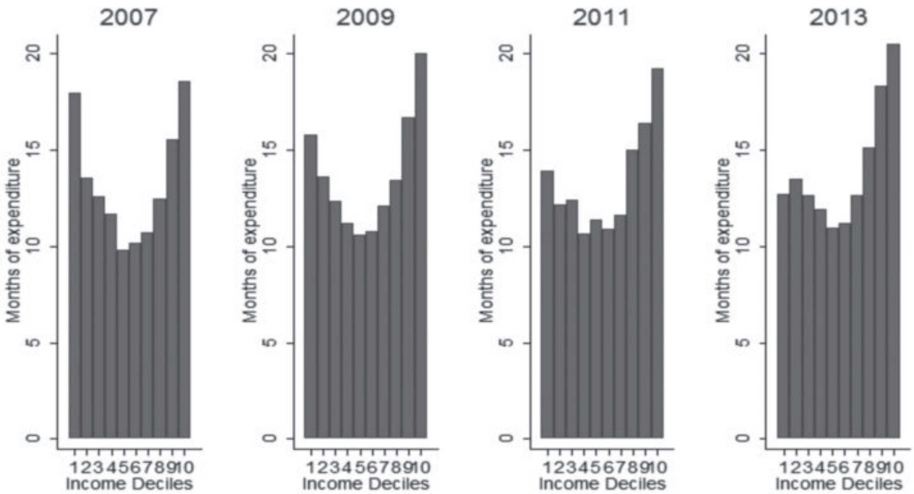
Data from the Socio-economic Survey (SES) from 2007-2013 in the figure below show that the share of households in debt have decreased for all but the wealthiest two deciles of the population.

Figure 3 Household Debt in Thailand



Source: Thai Socioeconomic Surveys 2007-2013, the National Statistics Office, Thailand

Figure 4 Amount of Debt Relative to Monthly Cash Expenditure: Only Indebted Households



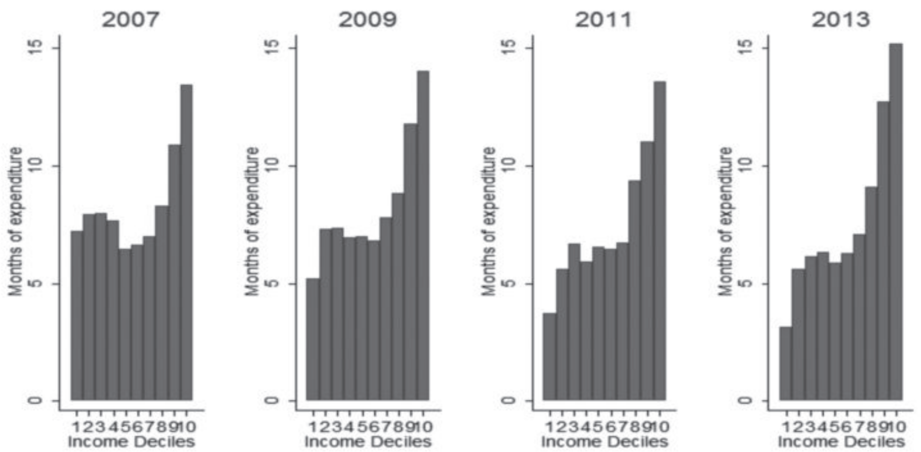
Source: Thai Socioeconomic Surveys 2007-2013, the National Statistics Office, Thailand

Nevertheless, household debt levels remain stubbornly high for much of the population. Figure 4 shows a rough measure of the debt coverage ratio, the amount of debt relative to monthly cash expenditure of only indebted households. (Households with zero debt are not included in the average). The average debt coverage is about 12 months of expenditure, except for the wealthiest deciles, and has been rising for the wealthiest 3 deciles. Although debt coverage for the poorest 70 percent of households has been coming down in recent years, the level is still quite high, leaving households at risk.

Figure 5 shows the debt coverage ratio, averaged for all households including those who have zero debt. This is the significant statistic to use from a macroeconomic point of view. Is the country at risk from too much debt? From this statistic, it is clear that the wealthiest households are the ones that are creating the risk in the economy. A fall in housing prices would be the most obvious risk to this group of indebted persons.

Figure 6 shows a geographical representation of debt levels by province. The share of household in debt is highest in the north and the northeast, which are the poorest regions. The percentage of households in debt have been coming down over time. The aggregate debt in Bangkok should be by far the greatest in the country, but the share of households in debt in Bangkok is still quite low

Figure 5 Amount of Debt Relative to Monthly Cash Expenditure: All Households



Source: Thai Socioeconomic Surveys 2007-2013, the National Statistics Office, Thailand

Table 4 Who Borrows Where?

Source of Debt	Borrowers
Commercial Banks	Commerce, Industry and wealthy retail customers
Bank for Agriculture and Agricultural Cooperatives	Farmers
Government Housing Bank/Government Savings Bank	Housing loans, and for people in towns
Other Finance Companies and NBFIs	Middle class customers
Savings Cooperatives and Credit Unions	People in the same workplaces
Village Funds	The poorest villagers
Persons outside the households	Those who need emergency loans

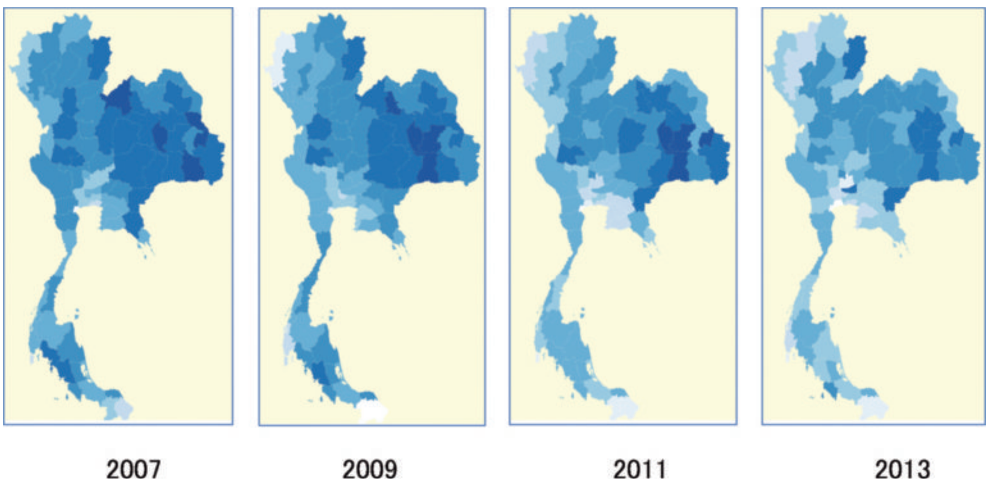
Source: Thai Socioeconomic Survey 2013, the National Statistics Office, Thailand

(light colors), reflecting the dominance of the working classes in the total population.
Figure 7 shows a geographical distribution for the markets for loans. There seem to be three different markets for loans based on loan size and duration. Commercial banks, the Government Housing Bank (GHB), the Government Savings Bank (GSB) and cooperatives make large long term loans, probably for houses and cars. The Bank for Agriculture and Agricultural Cooperatives (BAAC) and the NBFIs make loans with a median of 80,000–90,000 baht ($3,000 USD) for time frames of one to three year. The Village Fund and Informal Money Lenders make loans of 10,000–20,000 baht ($300–700 USD) mostly for periods of a year or less.

Only a small percent of households have large loans, so the maps for the largest class are mostly blank. In the middle range, geographical locations seems to determine the source of funding, with the North and the Northeast making heavy use of BAAC. (Actually according to the SES, only 50 percent of the loans by BAAC are to farmers.) In the South and the Central regions, borrowers are more likely to go to the NBFIs. Finally for small loans, mostly borrowers are going to the Village Fund, while the Informal Loan market has mostly dried up due to the easy access to loans from NBFIs and SFIs at much lower interest rates. We can see the shrinkage of the Informal Loan market in Figure 8 below.

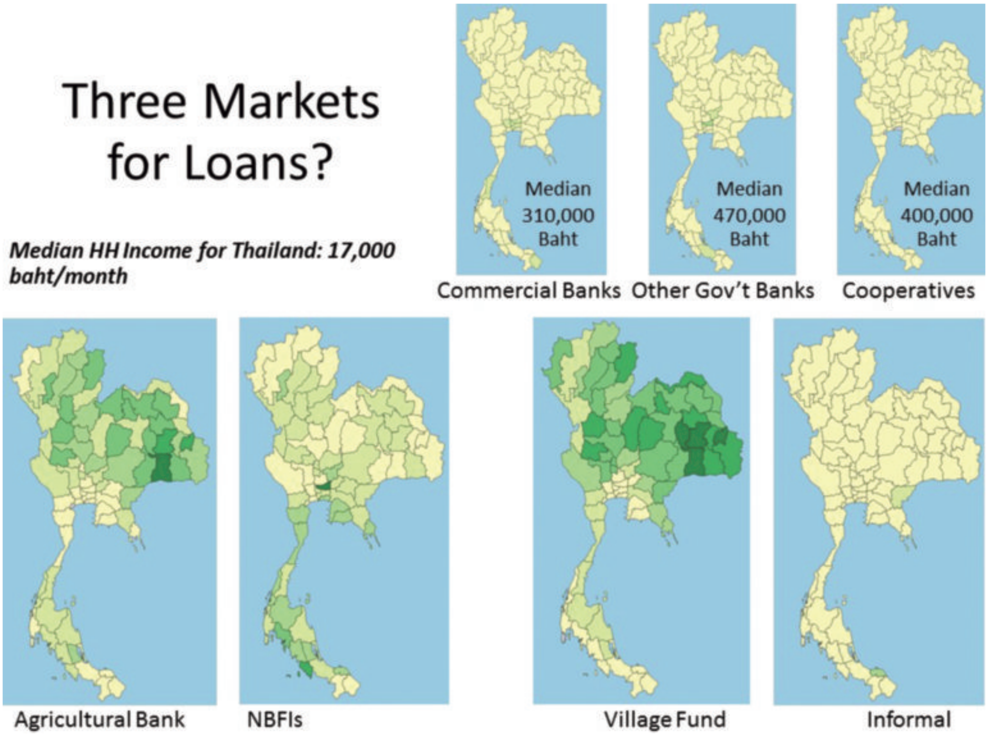
As can be seen in Figure 8, loans by Informal Money Lenders have declined significantly and steadily from 2007 to 2013. Typical interest rates for Informal lenders are 5 percent per month or about 80 percent annually, while the annual rate for NBFIs is 28 percent and the typical rate for the state-subsidized SFIs is only 6-10 percent. As stated above, at 28 percent private for-profit NBFIs are very profitable and compete actively with each other for loans. Furthermore, the

Figure 6 Share of Household in Debt



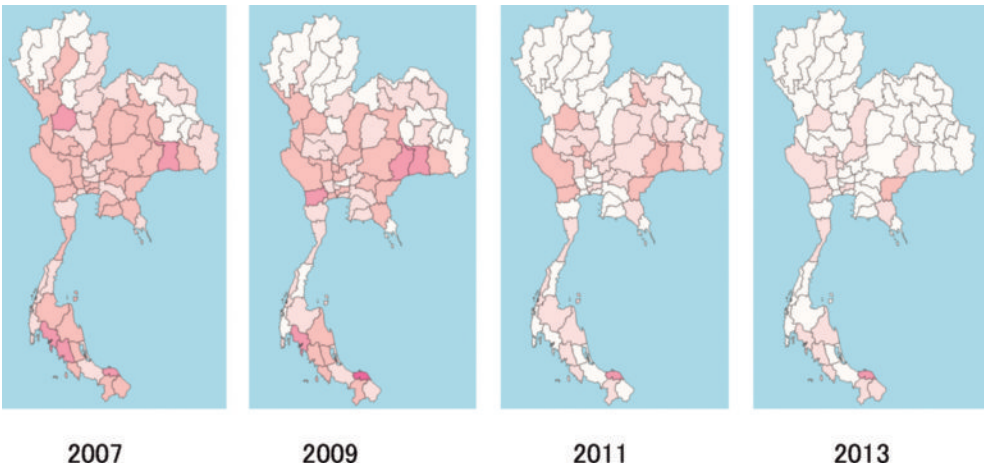
Source: Thai Socioeconomic Surveys 2007–2013, the National Statistics Office, Thailand

Figure 7 Three Markets for Loans



Source: derived from Thai Socioeconomic Surveys 2007-2013, the National Statistics Office, Thailand

Figure 8 Loans by Informal Money Lenders



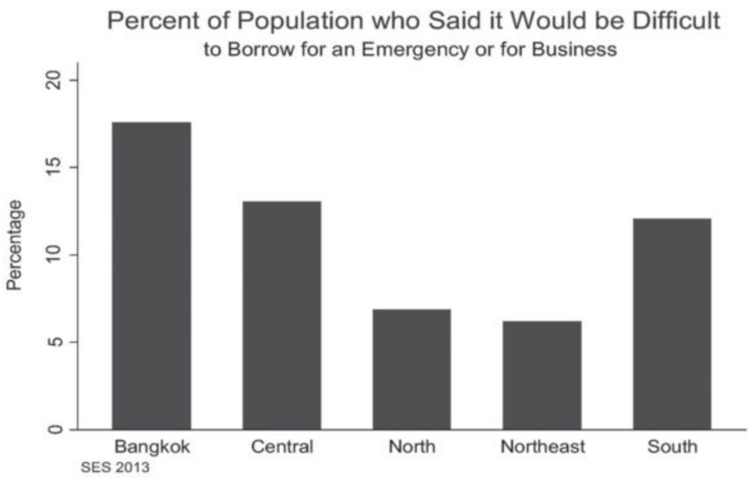
Source: Thai Socioeconomic Surveys 2007-2013, the National Statistics Office, Thailand

Village Fund and some SFIs have a mandate to provide loans to the very poorest members of society. Nonetheless there are likely some persons who are not eligible for loans as the default risk is too high, either because they may leave the area, or they are very old, or they are very poor. The following figures investigate those who said that they would have trouble obtaining a loan for an emergency or for a business.

Surprisingly, the people in the north and the northeast, which are the poorest regions, had the least trouble with access to loans. Meanwhile Bangkokians had the most trouble with almost 20 percent saying that they would have trouble borrowing in an emergency for a business or both. The reason for this is that Bangkokians are very footloose. If they have debt, they can easily disappear to another part of Bangkok or go back home, leaving their debt as a Non-Performing Loans (NPL). In academic terms they have both low physical and low social capital. In a small town, everyone knows you, and your assets are obvious. To run away from your loans in a small village means leaving your family and your community. The implication of this chart is that if there is a need for further microfinance opportunities in Thailand, it is likely for urban dwellers rather than rural dwellers.

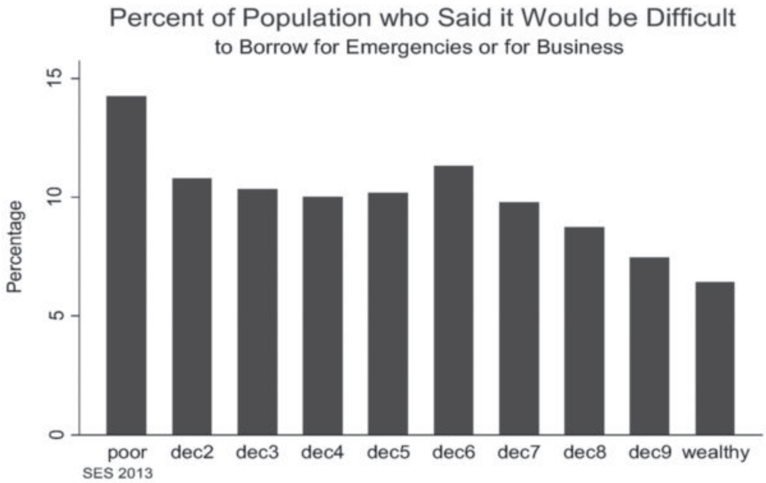
Figure 10 looks at the same issue in terms of income level. As expected, the poorest decile had the most trouble with obtaining loans, but thereafter the level was constant at about 10 percent through decile 7. Even for the poorest group, the problem was not as high as the average for Bangkokians in Figure 9. The implication from this graph is that access to microfinance is surprisingly not very linked to income level. Although it is popular to characterize low access to loans as a problem for the poor and rural people, the evidence does not support that stereotype in Thailand.

Figure 9 People Who Had Difficulty Borrowing (by regions)



Source: Thai Socioeconomic Survey 2013, the National Statistics Office, Thailand

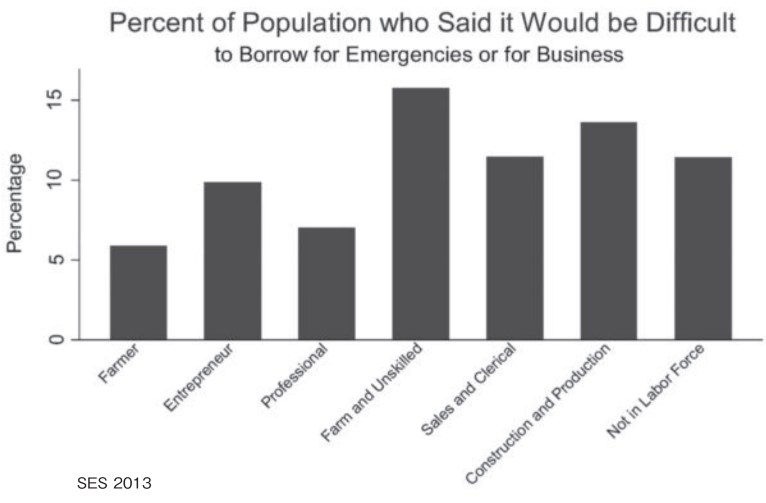
Figure 10 People Who Had Difficulty Borrowing (by income level)



Source: Thai Socioeconomic Survey 2013, the National Statistics Office, Thailand

Figure 11 takes yet another look at the same data, this time by profession. It is clear that profession has much more explanatory power in terms of who could easily get a loan. Farm and Unskilled group refers to a class of low skilled blue collar workers, who clearly have the hardest time obtaining loans. Entrepreneurs, which would be the class presumably applying for business loans, had less than average difficulty applying for loans. Farmers had the easiest time obtaining loans, reflecting the very successful work of BAAC in releasing credit. Others with some difficulty in obtaining loans were Construction and Production Workers, those who are old (who have left

Figure 11 People Who Had Difficulty Borrowing (by occupation)



Source: Thai Socioeconomic Survey 2013, the National Statistics Office, Thailand

the labor force), and to some extent, Sales and Clerical Workers.

4. Financial Regulations

Introduction

The Bank of Thailand, the central bank, maintains firm control over commercial banks, financial markets and the foreign exchange market. Inflation targeting is used and is closely adhered to, while interest rates remain low although the spread is a bit higher than could be wished, and the value of the Baht has been fairly stable against world currencies for the past ten years. Generally it could be said that Thailand runs a tight ship when it comes to macroeconomic regulations and policies.

However, this tight control cannot be said to extend to the elected government, and parts of the financial system that are supervised by them are either not as tightly controlled or actively manipulated to achieve political aims. Many of these political aims are well meaning or for the more cynical, using policy to attract the votes of the poor, but it adds an element of instability to the otherwise tight control over the Thai financial system.

The most abuse of control is in the case of SFIs where the state-owned banks are clearly used to lead government populist policies without fiduciary responsibility to the institutions or the country to maintain profitability or even to keep costs within rough boundaries. There is an implicit or explicit understanding that any of these banks which follow state directives will be bailed out using tax payers' money.

In 2016, the laws regulating SFIs has been changed to allow the Bank of Thailand to more directly regulate SFIs. This is a clear and strong improvement in financial regulations, but it remains to be seen if the Bank of Thailand is actually able to instill any binding financial constraints on SFIs, which are broadly perceived to be policy arms of the government.

NBFIs are the recent addition to the Thai financial markets and are lightly regulated if at all. The largest NBFIs are under the direct supervision of the Bank of Thailand, but that still leaves 1000 or so smaller NBFIs which are subject to interest rate caps and a requirement to register, but not much else. Interest rates for lending are capped (28 percent business or 35 percent personal), but are clearly generous enough to attract a lot of competition in this sector, so that borrowing is seldom a problem for Thais — at least those who have enough physical or social capital that they cannot simply flee their debts.

To give a better intuitive idea of the role different financial institutions play in the Thai economy, below is a stylized table of Financial Service Providers and their primary roles in the financial sector, with a special emphasis on financial inclusion.

Commercial Banks

Commercial banks in Thailand are not very involved in financial Inclusion. Most loans are made to companies or to wealthy individuals. The banks do not find it worthwhile to make loans under 200,000 baht (7,000 USD) which excludes most areas of microfinance. There are not too many

Table 5 Financial Services Providers: Roles and Requirements

Institution	Services	Governing laws	Key requirements	Supervision
Commercial bank	Full service banking	Financial Institution Business Act Deposit Protection Agency Act	Minimum capital: THB 5 bill 28 percent cap (interest and fees) for microfinance	Bank of Thailand
Retail bank	Limited banking	Financial Institution Business Act Deposit Protection Agency Act	Minimum capital: THB 250 mill 28 percent cap (interest and fees) for microfinance	Bank of Thailand
SFI	Banking and policy lending	SFI acts	State Enterprises Policy Office's KPIs (and adapted Bank of Thailand standards) and public sector accounting	Ministry of Finance (with Bank of Thailand)
NBFI	Credit	Notification of Ministry of Finance on personal loans	Minimum capital: THB 50 mill 28 percent cap (interest and fees)	Bank of Thailand for largest NBFIs — others very little
E-money provider	E-money: stored value, mobile phone banking	Electronic Transactions Act & Regulations	Electronic Transactions Commission permission for e-money	Bank of Thailand

Source: Patrick Meagher, ADB Microfinance report

Table 6 Financial Service Provided By Different Types of Service Providers

Institution	Consumer Loans	Microfinance Loans	Deposits	Remittances	Payments Collection
Commercial Banks	✓✓✓	✓	✓✓✓	✓✓✓	✓
SFI: BAAC	✓✓✓	✓✓✓	✓✓	✓	✓
SFI: GSB & GHB	✓		✓✓✓	✓	
NBFIs	✓✓✓	✓✓✓			
Credit Unions/Co-Ops	✓✓	✓	✓✓		
Village Fund	✓	✓✓✓	✓		
Money Lenders/Pawn Shops	✓	✓✓			
Post Office				✓✓	✓
7-11/Modern Trade					✓✓✓

✓✓✓ Indicates a dominant role, ✓✓ a moderate role and ✓ a small role in providing a financial service
Source: Sukanda Lewis et. al., ADB Microfinance Supply Side Report

commercial banks so no one has found it worthwhile to go into microloans which would be less profitable than the big loans they currently make. Microfinance loans are essentially only in response to direct intervention from the government — "suggesting" that a certain amount of capital be set aside for microloans, or using an incentive scheme to encourage microloans, or in the case of Krung Thai bank which is majority owned by the government, direct intervention can be used to force the bank to be involved in Microfinance to some degree.

Although there is precedence and the opportunity for regulations to ensure better financial loan coverage by the commercial banks, this has seldom played a meaningful role in the microfinance market.

SFIs

SFIs were set up to facilitate the implementation of government economic and development policies and objectives. At present, there are a total of eight SFIs, six of which operate as commercial banks and two of which provide other financial services.

As government agencies, SFIs are the biggest formal players in the microfinance market in Thailand, carrying out various government schemes and initiatives regarding microfinance. Two SFIs who are the most prominent providers of microfinance services are the Bank for Agriculture and Agricultural Cooperatives (BAAC), and the Government Savings Bank (GSB). While both BAAC and GSB target low income groups, BAAC's main customer base is farmers, while GSB has a larger share of urban customers. The Islamic Bank of Thailand (IBank) has only recently been targeting the low-income market, while the Government Housing Bank (GHB) is related to the microfinance market through government policies that aim to provide affordable housing to lower income groups. IBank's core customers are Muslims, while GHB specializes in home loans.

Although these banks are responsible for many policies that benefit the country, they are not subject to the financial controls of a private corporation, because if they need a capital influx, they simply request more funds from the government. At the same time, the government can hide government debt by leaving it on the balance sheets of SFIs.

It is obvious, that at the very least, reporting standards need to be improved to clearly reflect the macroeconomic situation of the country. Furthermore, some sort of financial discipline and oversight should occur to protect the citizens from non-transparent and expensive policy options. SFIs are designed as policy vehicles, and at times the government may wish to fund projects that do not make a profit — nonetheless, the current system does not put any economic oversight as to whether the program makes sense, nor does it put caps on how much can be lost before the program needs to request voting or a referendum on increased spending.

NBFIs

NBFIs make loans generally secured by some movable asset of the borrower. An example would be Cars-for-Cash which uses the title of a car as collateral for a short term loan. Even more common, are loans secured by motorcycle titles, or secured by any assets including jewelry and mobile phones. As such, the smallest NBFIs differ little from pawnshops, while the larger ones look like banks that use movable property rather than immovable property as collateral.

NBFIs are made up of several types, classified primarily by scale and the degree to which they are regulated. The BOT has a list of large NBFIs which they refer to as "NBFIs". They also record the existence of approximately 1000 other smaller financial companies registered with the Ministry of Commerce and uncountable smaller companies that are not registered anywhere. All of these companies might fall under the classification of NBFIs under the general international terminology, but only the first group is referred to as NBFIs in Thailand.

NBFIs are most common in municipal areas or in the city. They are a form of banking for those who do not have land to use as collateral, as is true for many urban dwellers. They also require ownership of possessions of value —again more common in municipal areas. The SES shows that NBFIs have expanded rapidly in recent years, somewhat at the expense of more traditional forms of informal microfinance such as pawnshops and moneylenders. It is likely that the poor are well served by this transition, as NBFIs would be likely to offer somewhat lower interest rates (capped at 28 percent business loans and 35 percent personal loans), more professional management, and more of a reputation to lose if they abuse a client resulting in greater consumer protection. This is especially true of the large NBFIs regulated by BOT as BOT has a financial consumer protection center which receives complaints from disgruntled customers.

Nevertheless the ugly side of too-easy-access-to-credit is also evident in Thailand, with high levels of personal debt, a high percentage of loans being for consumer goods rather than productive investments, and heavy advertising campaigns with companies actively pushing debt on persons who did not request it.

NBFIs cannot accept deposits by law, and are financed in a variety of ways including 1) investment by a wealthy individual or group, and 2) acting as subsidiary of a larger organization including commercial banks (e.g. Bank of Ayudhya (BAY)) or foreign finance companies (AEON), simply taking out corporate loans which they will repay by payments by their clients).

In terms of regulation, there is presently little regulation of NBFIs and especially the many smaller NBFIs. Given the high level of competition in this sector, firstly, it would seem that the interest rate cap could be lowered to perhaps 25 percent. Although SFIs supply loans to farmers at 6 percent per annum, interest rates for urban dwellers are generally 35 percent from the NBFIs. This is a huge and likely unnecessary gap to compensate for increased risk in the urban area.

Secondly, as NBFIs become larger, they can also affect the economy if they collapse. Were a large number of loans to fail due to an economic downturn, these non-bank lenders could get in trouble. Who would be responsible for bailing them out or providing bridge loans, if anyone? Some NBFIS are a bit like your local mafia — they ensure repayment partly through intimidation. It seems that there should be some sort of small claims court or bankruptcy proceedings to solve disagreements between the institution and clients.

Village Fund

The Village Fund was designed to provide short term financing for the very poor at the discretion of village elders. Loans were to be for no more than 1 year. In one sense, the Village Fund does an excellent job of reaching its target audience, and is the most common source of borrowing for the poorest group of consumers. On the other hand, it does not actually provide short term funding, as most borrowers roll over their debt year over year by paying the amount back at the end of the year, and borrowing it all back again the next day. Interest rates are low, and it is better to keep the loan floating than to use scarce capital to pay it back. If there is extra capital it may be used to pay back other loans with higher interest rates. Therefore there is virtually no money coming into the system for fresh loans as the 1 million baht allocated per village has been used up. Essentially this made the initial arrangement a grant, albeit one that requires repeated interest payments each year.

To help remedy this problem, new injections have been made into the Village Fund. In 2012, the capital of the Village Fund was doubled to 2 million baht per village and this acted as a second one time influx into the community. Then again, in 2015, another 1 million was added per village. If the Village Fund were to truly act as stop-gate financing for the very poor, the design would have to be changed to forbid repeated loans to the same person or family.

5. Innovations in Financial Services Applicable to Microfinance

Any ID/PromptPay

The national e-payment master plan was approved by the cabinet in December 2015. There are 5 parts in the master plan. (Nation, May 9, 2016)

1) The Any ID and Any ID payment system,
2) Expansion of the use of electronic cards,
3) E-tax system and E-transaction documents,
4) E-payment of government entities, and
5) Building awareness.

The Any ID transfer system would facilitate transactions for people in rural areas where branches of commercial banks are scarce. The first Any ID service will be available starting in September 2016. Each person will have a 13 digit ID number for money transfers, bill payments and other transactions. (Nation, March 28, 2016)

The registration process for the national e-payment scheme to link a single bank account with a mobile phone number or citizen's ID card number started in July 2016. A bank account that is used regularly can be linked with an ID card number or a mobile phone number. It is likely more convenient to link to the mobile phone.

On June 15, 2016, it was resolved to rename the Any ID program to PromptPay to emphasize the transfer facilities of the card as opposed to the ID, which might frighten people away. As a special incentive for using PromptPay, banking transfer fees will be eliminated or seriously reduced for transfers done through the system. For transfers of less than 5000 baht there will no transfer fee at all, while transfers from 5000–30000 baht (200–1000 USD) will pay a fee of 2 baht (0.05 USD), etc. This compares to a regular transfer fee of 30 baht (1 USD) per transaction. (Bangkok Post, June 16, 2016)

It is hoped that the PromptPay will facilitate online banking and money transfers. During the registration process, persons will be required to link phone numbers, citizens' id number, and a savings account or current account number. The implication is that the government may be interested primarily in bringing the undocumented financial transfers and payments in much of the countryside under the scrutiny of the government. This may or may not be a positive development.

OTC Payment Services

Until 10–20 years ago, bill payments had to be made either at the office of the service provider (e.g. Electricity at the Provincial Electric Authority) or at a bank at which you had an account. Since that time, the option to pay via a credit card has been made available, though it is not popular. Obtaining a credit card depends on having a documentable source of income, with the credit limit typically set at two months' salary. In addition, credit cards often are available to those with a minimum income level. For the best cards, this limit might be 35,000 baht, while less established cards use an income limit of 15,000 baht a month. By way of comparison, the median *household* income is about 17,000 baht which by itself would exclude eligibility to about half of all Thais.

However, a bigger problem with credit cards are that most wages and salaries do not go through any formal accounting protocol with only 20 percent of Thai's filing income tax, and approximately 10 percent of others with some sort of documentation about income. Therefore most Thais would not have the documentation to obtain a credit card.

Debit cards are easier to obtain as they are often tied to the owner's ATM card. Some bills can be paid for at the ATM machine. Paying money to an individual is often done by transferring money to their account at an ATM machine. By far the most common way to pay bills is using the Over the Counter Service (OTC) initiated at 7-eleven convenience stores (fee: 15 baht or 0.5 USD). OTC service has since spread to many other shops. This has made making payments extremely convenient.

The most recent innovation, however, has been the advent of dedicated payment machines, especially by phone operators. In Thailand these machines might be located at a sales outlet or at a True coffee shops (True, a telecommunication company, uses coffee shops as a way to sell coffee but also as a showroom and sales outlet for phones and services.) Payments may be made either in cash or with a card. The machine does not give change, rather keeping the change towards the next month's balance. Machines are primarily located in metropolitan areas. They are very fast and convenient.

Cash Transfers via ATM

Typically rural dwellers will send a son or daughter to Bangkok to work and send money home. Money would be sent monthly to the family, most frequently 1,000 baht (30 USD), but sometimes 500 or 2,000 baht or other amounts. (SES 2013) As recently as 10-20 years ago, money was sent via the cash transfer service of the post office. This was expensive and time consuming with a trip to the post office on both ends. Being able to transfer money from one ATM account to another at all ATM branches has made the process of transfer within the country almost effortless. ATM fees are generally 15 baht (0.5 USD). This is a financial innovation that has very tangible benefits to many households.

Cash Transfers Overseas

In juxtaposition to this, transferring money across borders is still very difficult and very expensive. There are still many Thais living abroad, but mostly they are living in high income countries and can handle the large transfer fees. Much more common are the several millions of foreign workers living in Thailand both legally and illegally. Their salaries are low, but they need to transfer funds back to their home countries — generally Myanmar, the Philippines, Laos and Cambodia. Informal money services have developed to transfer this cash by aggregating it, and either hand carrying it, or transferring it in bulk across borders. Although these services are cheaper and require less documentation than commercial banks, they are still expensive and potentially risky. Thus a cheaper and simpler way of transferring money across borders would be very advantageous for many poor people. It is not clear how this could be regulated to allow capital controls and foreign currency restrictions to apply.

Siam Commercial Bank (SCB) introduced an SCB ATM fund transfer service for Burmese nationals in Thailand in 2013. If a Burmese worker has a work permit and can open an account with a Thai Bank, especially SCB (or Kasikorn Bank), they can use the ATM machine to transfer money back to Myanmar. The link is to Kanbawza bank in Myanmar. Some SCB ATM machines can be used in the Burmese language. The fee is 200 baht (6 USD) per transfer up to a maximum of 20,000 baht, but the amount cannot be more than what is shown on their payment slip for one month. The Myanmar side is not required to have a bank account, as the contact may be through mobile phone. (SCB 2013) This process, although not cheap for a working class Burmese, is still much cheaper than a traditional bank transfer. The service can help facilitate the process of money transfer for those Burmese who are hired through official channels by large companies.

Kubo (2015) looks at the issue of transfers of Myanmar workers back to Myanmar, and finds that many Burmeses use informal remittance methods to transfer money. Burmese workers will often use an ATM to transfer money to the ATM account of a transfer service operator in Thailand. These transfers are either aggregated and transferred in bulk, or netted out with debt by Burmeses in Thailand, or hand carried across the border especially in border towns such as Mae Sot, where the money can be exchanged on the black market and deposited in the ATM of a Burmese bank. This was only possible after 2012 when the Burmese banking system was liberalized. Kubo argues that increasing the bank branches of border towns and liberalizing the banking system has been influential in increasing competition of informal transfer services and bringing down the cost of transferring money to Burma. Burmese workers are thought to prefer informal methods of transfer because of 1) their legal status in Thailand, 2) language barriers, and 3) convenience for recipients. The informal methods are presented in the figure below.

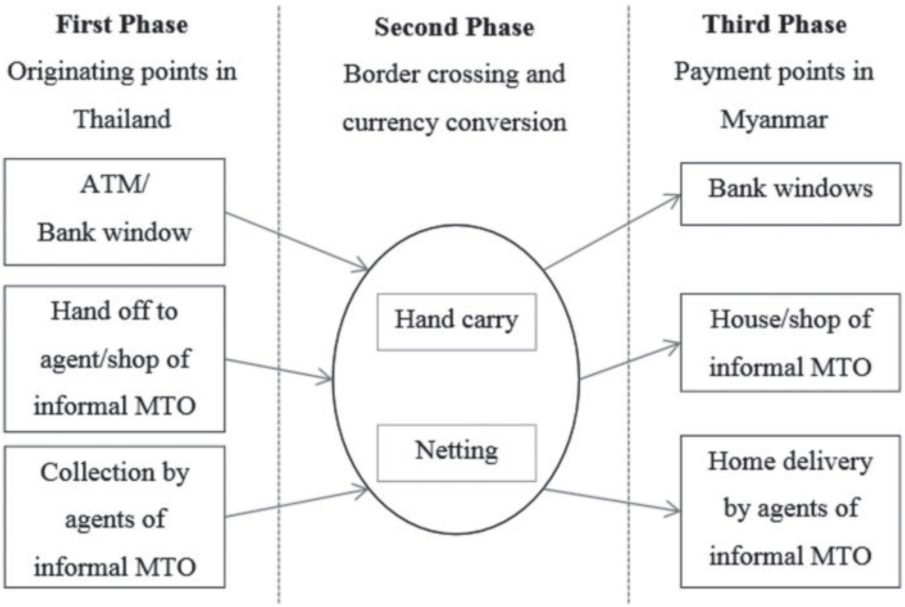
Smart Cards/Stored-Value Cash Cards

A stored-value card is a type of electronic bank debit card in which the monetary value is stored on the card itself. Another major difference from debit cards is that stored-value cards are usually anonymous, while debit cards are usually issued in the name of individual account holders. Typically, stored-value cards are used by public transport systems and in schools and universities, where the card user deposits an amount of money on the card, and simply taps or swipes the card when making a payment. Currently in Thailand, there are two widely used stored-value cards — the Smart Purse card and the Rabbit card.

The main advantages of stored-value cards are convenience, safety, and the speed of transaction at the point-of-sale, as well as the conversion of cash and paper transactions to electronic transfers. These eliminate the cost of securing, transporting, and accounting for cash, and also reduces the risk exposure of the shop to theft and loss. Advantages over a debit card include the simplified administrative processes for issuing to individuals, which does not require a bank account, credit history, or annual fees. Therefore, the card is not linked to any personal information, which increases protection against identity theft. Other than security and convenience, the stored-value card may assist the user to budget his spending as the card has a fixed amount of credit that is loaded to it at a time.

These cards also have some disadvantages. Since no ID verification is required to use the card, the funds stored on the card might easily be drained when stolen. However, the risk of loss is only the fixed amount of money put in the card, which is usually not very much. The limitation of use is also

Figure 12 Decomposition of Remittance Processes of Myanmar Migrant Workers



Note: MTO refers to money transfer operator.
Source: Kubo 2015

vital, as currently in Thailand, most restaurants and merchants will not accept the use of these store-valued cards. Thus, an expansion of retailer's acceptance and an improvement of the card system will increase user convenience and enhance quality of life.

There are two primary stored-value issuers in Thailand.

The *Smart Purse* card is issued by Thai Smart Card Co., Ltd, a subsidiary of C.P. Group. C.P. Group is the owner of many leading companies ranging from an operator of convenience store chains, telecommunication firms as well as well-known financial institutions. Smart Purse Digital Cash Card is easy to use. The cardholder can simply flash the Smart Purse card at the contactless reader, and then the Smart Terminal will deduct the amount. The Smart Terminal will also print a slip to confirm the purchase in order to verify accuracy, and the cardholder can also check the available remaining balance from the slip.

A Smart Purse card can be used for three years with no minimum amount per payment. It can be purchased at 7-Eleven stores or from other participating merchants, priced at 190 Baht (6 USD) per card. Besides, the card can be topped up at 7-Eleven stores and other merchants with the minimum amount of 50 Baht and the maximum amount of 10,000 Baht. Smart Purse offers the Smart Plus Rewards program, where card users collect points from each payment made via the Smart Purse card, and the accumulated points can be used for rewards redemption or used as cash (50 points = 1 Baht) to buy products and services.

The Rabbit card is another type of stored-value card issued by Bangkok Smartcard System Co. (BSS), Ltd, a subsidiary of BTS Group Holdings Plc. Under the regulations of the Bank of Thailand and the Ministry of Finance, the Rabbit card is the only means of electronic payment that can be used for public transport. BSS is supported by two transit companies, which are Bangkok Mass Transit System Plc. (BTSC), the operator of the BTS sky train, and Bangkok Metro Plc. (BMCL), the operator of the MRT underground train. The company is also supported by a financial institution, which is Bangkok Bank Plc., Thailand's largest bank with an extensive network of branches throughout the country.

Using Rabbit card is equally simple. First, the cardholder needs to deposit money to Rabbit card

Figure 13 Steps to Use the Smart Purse Card

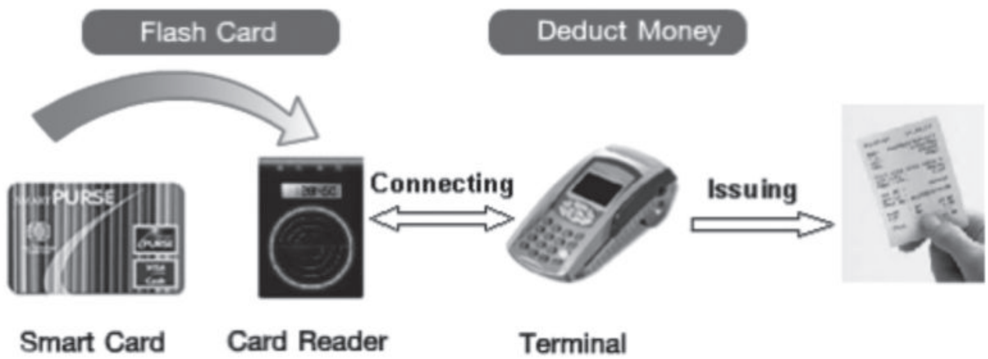


Figure 14 Steps to Use the Rabbit Card

with a credit or debit card or other accepted payment such as cash. To make a purchase, the cardholder simply taps his Rabbit card on the Rabbit reader until the transaction is completed.

As mentioned, the Rabbit card can be used as an alternative to cash for public transport and at some retail shops. Although it is the unique transport cash card, the Rabbit card is only accepted at BTS, excluding most forms of public transport in Bangkok. Most aggravating is that it cannot yet be used with the other common rapid rail transit, the MRT, because of arguments between the owners. It cannot be used with the public bus network which still mostly relies on cash, or by taxis, motorcycle taxis or any of the many modes of public transport in Bangkok and Thailand. (Pattanavimon 2013)

Low Penetration of Mobile/Online Banking

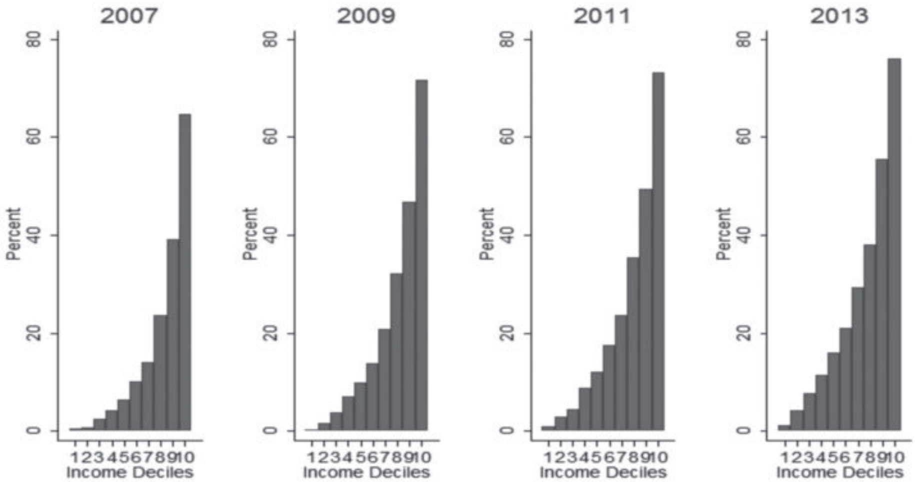
Internet and mobile banking has not been widely adopted in Thailand. According to Global Findex (2014) only 1.3 percent of Thais make use of mobile banking. Online purchases have also been slow to catch on, something that PromptPay hopes to alleviate. The fact remains, however, that credit and debit cards are not widely used despite the efforts of banks to turn ATM cards to function as such.

Bank branches are very widely dispersed throughout Thailand and so it will take a long time to convert brick and mortar branches to online banks. Banks are open 10 am.-7:30 pm., so going to a bank branch is convenient. Online banking usage is probably low since banks are easily accessible. They probably need to adjust simultaneously.

As mentioned earlier, obtaining a credit card is a little bit difficult in Thailand. International payment methods such as PayPal have not caught on, although some local variations are increasing in popularity as they fight for that niche, and so online purchases is mostly confined to Bangkok, except for airlines, online gaming, and informal shopping methods. These last two are very strong growth industries and are likely to help increase the use of cards at a rapid pace, especially among the youngest adults. The government's attempts at instituting a PromptPay card is supposed to act as a Thai version of PayPal, and may make online payments easier.

Computer ownership is not widespread in Thailand, concentrated primarily in the wealthier deciles. In the figure below, even in the most recent survey in 2013, only about 20 percent of households had computers in their homes.

Figure 15 Ownership of Home Computers by Income Decile



Source: Thai Socioeconomic Surveys 2007-2013, the National Statistics Office, Thailand

Mobile or Smart phones, however, are ubiquitous and the ownership is higher than 90 percent of households for all but the poorest decile (which still has household ownership of more than 60 percent.) Therefore, whenever the internet is accessed in Thailand, it is likely that it is being accessed through the use of smart phones. Responsive design is critical for web designers. Because smartphones are so omnipresent, phone companies have been eager to make them operate as payment devices as well, through some sort of smart chip. So far that has not happened, but may occur in the near future.

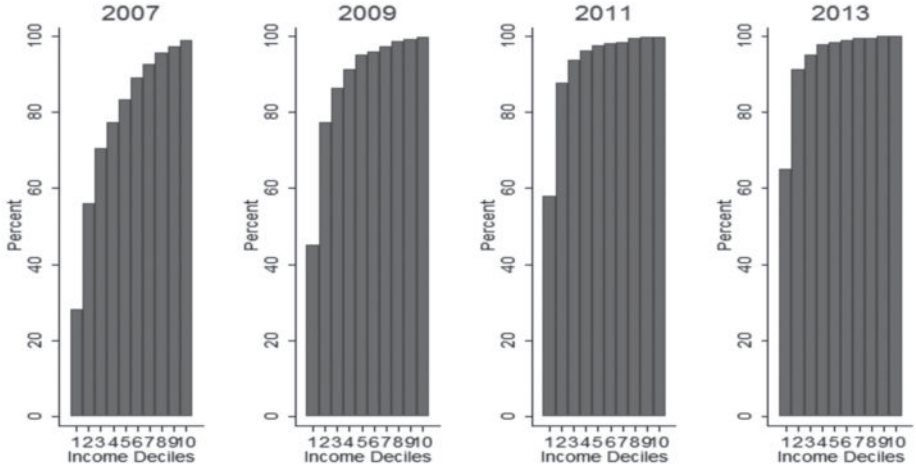
Generally, it is better not to mix the "smart" part of smart phones with the "dumb" part. In other words, we do not want biometric information about our health records on the same card we use to buy groceries or use for rapid transit as they can be lost, broken or stolen. Smart phones are more likely to be kept on one's person, but almost everyone has had the experience of leaving one in an internet café. Having the phone out for transactions increases this risk.

As for online transactions, Thais have been slow to use the internet for purchasing goods and services. The likely opening will come from teenagers buying games and clothing, travelers buying tickets and hotel reservations, and people reserving and eventually paying for Uber or other taxi rides. However this trend seems to lag other countries for the moment.

6. Conclusions

Due to the development of the banking sector and the expansion of state-own financial institutions in the past twenty years, Thailand seems to have a high level of financial inclusion. Almost 80 percent of Thais have accounts with financial institutions. Around 62 percent of those who have

Figure 16 Ownership of Mobile Phones by Income Decile



Source: Thai Socioeconomic Surveys 2007–2013, the National Statistics Office, Thailand

accounts use ATMs as the main mode of withdrawal, following the extension of ATMs network to the rural areas. Although a lot of people have access to financial accounts, there was limit usage. Less than 10 percent of Thais use those accounts to receive wages or government transfers, and around 2 percent of the people in Thailand use the accounts to pay utility bills.

The use of credit cards and debit cards is also limited. Only around 4 percent of Thais use credit cards to make payments, and 8 percent use debit cards to pay for their bills and other transactions. Regarding domestic remittances, 36 percent of account holders at financial institutions send remittances while 29 percent receive remittances using their financial accounts. Sending and receiving domestic remittances by mobile phones are relatively unpopular, with the percentage of senders and recipients around 2 percent each.

One challenge for financial inclusion is the high level of household debt, which is more than 80 percent of GDP. From the SES data (2007-2013), households are still at risk from high household debt and the share of households in debt is highest in the poorest regions of north and northeast. The main source of loans in these regions is BAAC. With regards to access to credit, people who live in Bangkok have the most trouble due to low physical and social capital. By profession, low skilled blue collar workers have the hardest time getting loans.

Another challenge is the fragmented regulations. The supervision of commercial banks, SFIs, and NBFIs are under the jurisdiction of the Bank of Thailand, while the supervision of the cooperatives is done by the Ministry of Agriculture and Agricultural Cooperatives. Following the embezzlement case of a large credit union cooperative in 2013, the issue of regulation of cooperatives became the public concern. In addition, according to the Financial Stability Report (2016) from the Bank of Thailand, as of November 2016, the total assets of cooperatives increased 8 percent from the same period last year because the interest rates and the dividend rates of cooperative were higher than the commercial bank deposit rates. Furthermore, some smaller cooperatives borrow short-term while lend long-term, there can be higher probability of liquidity risk, if the short-term lenders think that those smaller cooperatives might be in trouble. Finally, since the cooperatives sector is larger and is highly connected with other financial institutions, the stronger regulations and better supervision are urgently needed.

Innovations in financial services in Thailand are in the areas of OTC payment services and cash transfers. The easiest way to pay bills is at convenience stores due to an extensive network of convenience stores which are located both in towns and rural villages. In addition, cash transfers through ATMs make remittances cheap and convenient. The latest development is the effort by the Government to introduce the national e-payment master plan in 2016. However, it is still too soon the see the effect.

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