An Analysis of the Recent Financial Performance of the Laotian Banking Sector during 2005-2010

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Received: December 2, 2011 Accepted: January 9, 2012 Published: April 1, 2012
doi:10.5539/ijef.v4n4p148 URL: http://dx.doi.org/10.5539/ijef.v4n4p148

Abstract

Following the adoption of the New Economic Mechanism, banking sector reform was initiated as one of key components of economic reform policy in Laos. Since the process of reform began in Laos, banking sector has undergone significant changes and the performance of banks has improved significantly, especially in recent years. The banking sector reform, which was initiated by the Bank of the Lao PDR in the late 1980s, has brought a competitive environment for banking industry and banks are now offering a wide range of financial services and products to the public. In light of this development, this paper provides an overview of evolution and current structure and developments of the banking sector in the context of reform measures taken over the past two decades. The paper also analyses the financial performance of the banking sector by firstly examining the key financial development indicators and then uses a widely-used CAMEL framework surrounding capital adequacy, asset quality, management efficiency, earnings and profitability and liquidity to evaluate the financial performance. The results of this study is useful for assisting central bankers to know the strengths and weaknesses for formulating strategies and polices that will promote an effective and sound banking system.

Keywords: Laotian Banking sector, Financial performance, Financial analysis, CAMEL framework

1. Introduction

During the last two decades of economic development, financial sector reforms have been implemented in many countries. The motivation for these reforms varies from one country to another and the essence of reform has differed from time to time depending on the development strategy and ideology of the time. In many developing countries, important reasons for financial reforms, have been the need to establish a modern and sound financial sector of acting as the “backbone of the economy” and allocating the economy’ savings in the most productive manner among different potential investments.

Recognizing the important role of financial sector, many developing countries implemented financial reforms as a part of broader market –based economic reforms since the late 1980s. The key parts of financial reforms entailed financial deregulation and institutional reforms to systems of prudential regulations and supervision. The central objectives of the reforms are to build more efficient, robust and deeper financial systems, which can foster the economic development and encourage private sector enterprises.

This is also similar situation in Laos. Laos, being a country in transition, has taken a gradual step to reform her financial sector, especially the banking sector. It is widely viewed that banks in a market-oriented economy plays a key role in the monetary payment mechanism, mobilization, intermediation and allocation of capital. Therefore, sound and efficient banking system would promote the socio-economic development by channeling funds from those who have saved surplus funds to those who needs these funds to engage in productive investment opportunities. The financial sector reform in Laos took place following the waves of economic and financial reforms in many countries, particularly in developing countries and transition economies during the late1980s.

For a long period of reform, the process of reform in Laos was carried out like trial and error. The results are mixed. During the process of transition, the performance of banking sector has gradually improved. The assets of commercial banks have risen from 139.2 billion Kip in 1992 to 3,829 billion Kip in 2000. In the meantime, the ratios of deposits have also increased from 6.4 percent in 1992 to almost 20 percent in 2000. Financial intermediation, as measured by M2 to GDP, was also increased from 9 percent in 1992 to almost 20 percent during

the same period. However, it was considered less successful outcome taking into account of the efficiency, financial viability, increased competitive banking environment and the financial demands for promoting financial development. Furthermore, the state-owned commercial banks (SOCBs), which serve as the driving force in the financial sector of Laos, had suffered large losses arised from high level of non-performing loans (NPLs) associated with directed-lending to SOEs. The NPL ratios of SOCBs ranged from more than 20 percent to about 50 percent during 1990s, and accounted for 3 percent of GDP in 2003(Unteroberdoerster, 2004). Until the early 2000s the Lao authorities decided to re-strengthen Laotian banking sector by another round of merging SOCBs and carried out internal restructuring of SOCBs. Following many attempts, banking sector, until recently, has managed to demonstrate significant improvements. Commercial banks in Laos controlled their lending growth, boosted their capitalization levels and implemented several measures to support their soundness, stability and safety. Besides, the commercial banks in Laos recorded high growth rates in recent years. For instance, the average growth rate of assets was 28 percent, the average growth rate of deposits was 21.4 percent, and the average growth rate of loans was 15.3 percent. In addition, The quality of assets of commercial banks has improved as NPLs were brought under control as represented by the average ratio of non-performing loan of banking sector was 4.24 percent in 2008, 3.28 percent in 2009 and 3.88 percent in 2010 consecutively(annual report, 2008, 2009, 2010). The operations of SOCBs were allowed to operate based on commercial-oriented basis and the number of banks and financial institutions has risen. Overall, banking sector as a whole has shown a constant pace of development and soundness.

To better understand the nature of financial sector development in Laos, this study focuses on key features of banking sector development since it is the core part of financial system of any economy, including Laos following the launch of market-based reforms in the late 1980s. In spite of financial performance of commercial banks has been widely reported in a number of studies, there is unfortunate that a small literature dealing with financial performance of banks in Laos is reported. Therefore, this study attempts to fill in the literature gap. This study brings an evaluation first time to make an empirical analysis on the most recent financial performance of banks in Laos. The banks under study are classified as follows: state-owned commercial banks, joint-stock banks, private banks and branches of foreign banks, in order to evaluate the financial performance of the commercial banks more accurately. More specifically, the objective of this paper is to analyze the financial performance of Lao banking sector in the recent times after economic and financial reforms. In order to evaluate the overall progress of financial and banking sector development in Laos, financial development indicators are firstly examined and CAMEL framework is then used to assess the financial performance of banks using data from the commercial banks' financial statements. The remainder of this paper proceeds as follows. Section 1 provides a literature review. The next section gives a brief overview of evolution and current structure and developments of banking sector in Laos. Section 4 assesses the most recent financial performance of Laotian banking sector during 2005-2010 and conclusion is drawn in section 5.

2. Literature Review

In assessing the financial performance of commercial banks, several empirical works usually use standard quantitative indicators for a number of countries such as the bank assets to GDP, bank deposit to GDP, broad money (M2)/GDP, total number of banks, branches and outlets, which allow us to compare and analyze the development of banking sector across the countries and over time. Beyond the key financial indicators, many previous studies employ micro-prudential ratios or CAMEL framework to analyze the financial soundness of banking sector such as capital adequacy, asset quality, management efficiency, earning and liquidity. To measure the financial soundness of banks based on CAMEL framework, there are financial indicators that we can obtain information from monetary statistics. Mohieldin, M., & Nasr, S (2007) assess the performance of the state-owned banks versus private banks over the period 1995–2005 in Egypt by using micro-prudential indicators, such as capital adequacy, asset quality, earnings, and profitability. Their findings reveal that state-owned banks lag behind in terms of efficiency and performance, compared to their private counterparts. Results also suggest that retaining government ownership can adversely affect banks performance. Other international agencies, bank regulators and researchers tend to use a CAMEL framework to assess the financial performance of banks. The International Monetary Fund (IMF, 2002) also develops a hand book on financial sector assessment to assist member countries to evaluate their financial sector performance, especially banks, which encompasses quantitative indicators of financial structure, development, and soundness. Particularly speaking about quantitative indicators of financial soundness which specifically measure the financial health and soundness of the financial institutions and cover major areas such as capital adequacy, asset quality, earning and profitability, liquidity and exposure to foreign exchange risk. In order to measure these five areas, similar financial ratios as indicated in the following section of this study are suggested. In recent time, several studies have been carried out by a number of researchers (Mohi-ud-Din and Tabassum, 2010). They also analyze financial performance of commercial banks in India using a CAMEL Model. Using this model, their results indicate

that the position of banks under study is sound and satisfactory so far as their capital adequacy, asset quality, management efficiency and liquidity is concerned. A similar framework is also used to analyze the banking sector in the Northern Cyprus. Atikoğulları M(2009) uses a CAMEL framework to assess the financial performance of five major banks in the post period of 2001, the results suggest that the profitability of banks and management quality have improved whereas capital adequacy and liquidity level, have deteriorated which requires a special attention for the future of the banking sector in the country. By exploring a number of empirical studies, this is strongly confirmed that a CAMEL framework is widely used to evaluate financial performance of banks.

3. The Evolution and Current Structure & Developments of the Laotian Banking Sector

3.1 Evolution of the Laotian Banking System

The Laotian banking system has been transformed through various stages during the last decades. Going back to October 1968, when the PatheLao Bank was established in the revolutionary zone. Since 1968-1975 the PatheLao Bank had mainly served as the national treasury for the government in the liberated zone in Houaphane province. After declaration of independence in 1975, the PatheLao Bank came to take over Vientiane front-led Bank in Vientiane Capital and renamed as the National Bank in March 1976. In 1981, the National Bank was further renamed as the State Bank of Laos (SBL) following the enactment of the Law on the state-monopolistic banking activity of the People's Supreme Council. During the period of 1975-1985, the role of National Bank or State Bank of Laos acted as mono-banking system, performing both central and commercial banking functions. In order to perform both functions, SBL expanded its 19 regional branches nationwide from Vientiane capital to cover different regions of the country (see figure 1). Serving as a central bank, SBL issued banknotes, regulated currency in circulation, handled payment system and remained as a national treasury. As a function of commercial bank, SBL accepted some deposits from society and lent money to state-owned enterprises according to central planner's instruction. Through a long period of performing the afore-mentioned role, however, the banking sector was unable to effectively perform its tasks, resulting in liquidity shortage, lack of efficiency and weak governance.

The late 1980s marked the beginning of a new era of financial sector reform in Laos. This attempt was made as a part of an open-door policy-known as New Economic Mechanism (NEM). In March 1988, Ministerial Council's Decree No.11 on the banking sector transformation was passed, setting a stage for officially transforming the Lao banking sector from a mono-bank system into a two-tier banking system. This legal framework also sets a milestone for comprehensive transformation of the banking sector in Laos and it was allowed for the first time to have a separate function between central bank and commercial banks. To implement the law effectively, former 19 branches of the State Bank of Laos were transformed into autonomous seven state-owned commercial banks in 1989, namely Banque pour le Commerce Exterieur Laos or BCEL, Sethathirath Bank, Lane Xang Bank, Lao May Bank, AlounMay Bank and Paktai Bank. The new setting was grouped based on geographical feature. These banks were permitted to perform a full commercial banking businesses such as accepting saving deposits from enterprises, public sector, individuals and granting credit to state entities, joint venture companies and individuals for capital investment and business start-ups or expansion. In June 1990, Central Bank Law No. 4 was enacted, establishing the Bank of the Lao PDR as the Central Bank. Under this Law, the central Bank assumes responsibility for supervising macro tasks such as formulation of monetary and exchange rate policies, regulation and supervision of commercial banks, managing foreign exchange reserves, issuance and supervision of money supply, granting bank license, management of the monetary and credit system.

During the period of transition, the banking reform in Laos was carried out like a trial and error. The banking sector was heavily regulated with respect to entry and interest rates before the mid-1990s. By using the interventionist approach, the outcome was mixed and considered less successful in promoting financial development. SOCBs lent to state-owned enterprises and priority projects at below-market interest rates. Large amount of directed lending to SOEs were not repaid, making some were financially vulnerable and this is clearly affecting the health of financial sector. As a result, the operations of the SOCBs were once faced with weak balance sheets (Unteroberdoerster, 2004), reflecting largely the problem of non-performing loans (NPLs) associated with directed lending to state-owned enterprises (SOE). This is called triangular debts (Note 2) Approximately, two-third of the NPLs belonged to SOEs, which is related to directed loans and policy- oriented purpose. The NPL ratios ranged from more than 20 percent to average 50 percent across the SOCBs during 1990s, of which around 50 percent of all NPLs is state-related lending (loans to SOEs and policy purpose). During 1994-1997, following unsatisfactory performance of SOCBs due to means of funding public priority projects, as well as budget deficits, the banking system was characterized with lack of competition, limited financial innovation, low level of financial intermediation, weak governance structure, and lack of managerial autonomy. Therefore, in order to address these problems, the Lao authorities decided to remodel their financial systems to ensure that resources were allocated efficiently, supporting their financial development strategies. They undertook a series of steps to deregulate the financial system. Among

the key steps were removal of interest rate restrictions, reduction of government direct lending, greater autonomy, increased capital requirements, promoted bank mergers and restructuring. During 1997-98, in particular, the consolidation and restructuring of SOCBs was carried out as a part of financial reforms under financial and technical support of the Asian Development Bank. The seven SOCBs were merged into four banks namely Lao May Bank, Lane Xang Bank, while BCEL and APB remained and were subject to internal restruturing. The Lao May Bank was the outcome of merging Lao May Bank, PakTai Bank and Nakhonluang Bank, while Lane Xang Bank is a result of merging Sethathirath, AlounMay Bank and Lane Xang Bank. Nervertheless, attempt to reform SOCBs further continued. In March 2003 Lao May Bank and Lane Xang Bank were merged and named as Lao Development Bank for for the second round. Therefore, the number of SOCBs declined as the result of consolidation during the late 1990s and early 2000s.

3.2 Overview of Current Banking System and Developments

Laotian financial industry consists of the central bank (Bank of the Lao PDR), state-owned commercial banks, private banks, joint stock banks, and branches of foreign banks and non-bank financial institutions. Since we concentrate on the performance of commercial banks, the central bank, as well as non-bank financial institutions are excluded from this study.

Commercial banks refer to those enterprise legal persons that are established to provide financial services such as accept deposits, issue loans, arrange settlements of accounts, and engage in other businesses in accordance with the Law on Commercial Banks enacted in December 2006 (No 03/LNA). According to Laos' commercial banks' structure, commercial banks can be further divided into state-owned commercial banks, private commercial banks, joint venture banks, foreign commercial banks' branches, etc.

It could be seen that, the current structure of Lao banking system is a product of several transformations that took place during the last two decades. As like financial system in developing countries or transition economies, banking sector plays a major role in the Laotian financial sector. The banking sector, which accounts for more than 80 percent of the financial system's assets and liabilities, is dominated by public ownership in terms of assets, deposits, loans and numbers of branches and service outlets. By the end of 2010, there were 25 commercial banks operating in Laos with their head offices based in Vientiane Capital (see Table2). Among 25 commercial banks, there were 4 state-owned commercial banks, which one of them is called a policy-based bank and the rest were 2 joint venture banks, 8 private banks, 11 foreign bank's branches and 1 representative office respectively. These banks carry out their operations through a network of 83 branches, 203 service units and 246 ATMs throughout the country as of December 2010.

In light of Lao banking financial developments, total assets of banking sector is amounted to 27.896,81 billion Kip or almost 50 percent of GDP as of December 2010. Total bank deposits and loans amounted 17.287,77 billion Kip and 12.768,66 billion Kip and represent 30.5 percent of GDP and 22.5 percent of GDP in 2010. Collectively, state-owned commercial banks account for almost 60 percent of total assets, 67.7 percent of deposits, 60.5 percent of loans and 85 percent of branch network and ATM service in 2010 (see table 1 & 2). The large share of SOCBs was the result of a deliberate government policy of developing the domestic financial sector, under which foreign banks had been restricted to open new branches during the initial stage of financial reforms. The three largest banks namely BCEL and Lao Development Bank and Agricultural Promotion Bank are owned by the government. Among these banks, BCEL maintains a leading position accounting for around half of total deposits and almost 40 percent of total loans in the banking system as of December, 2010. However, the share of assets, deposits and loans of state-owned commercial banks slightly declined in recent times as they are now facing intense competition with more banks coming into marketplace. The declining trend was replaced by private banks which are increasingly playing an important role as they are putting more active promotions to attract more clients. Although their market share of assets, deposits and loans, which is 17.95 percent, 19.67 percent and 20.23 percent respectively, was still relatively small. They have maintained a high growth momentum in recent years, with the annual growth of their assets, deposits and loans all exceeding 25 percent. Meanwhile the growth of joint venture banks and foreign banks' branches accounted for less than 15 percent in assets, deposits and loans. Although, the ratio of total asset of the banking sector to GDP has gradually increased from 30.7 percent in 2008, 40 percent in 2009 and 49.3 percent in 2010 respectively. However, banking sector is considered a relatively small size when compared with the size of the Lao economy, especially a country with a non-diversified financial system. Since the country is still at the early stage of capital market development, the banking sector is the main source of funding for industrial and commercial businesses. In addition, there have been also several important technological developments in the banking industry in recent years. Commercial banks have started to modernize all their operations and have introduced Automatic Teller Machines (ATMs), online system of communication and mobile banking. They have also changed their product mix to enhance their financial performance.

Apart from commercial banks playing the major role in financial sector, there are now other non bank financial institutions. These institutions include 9 deposit-taking microfinance institutions (MFIs), 15 non-deposit taking MFIs, 16 credit and saving unions, 25 pawnshops and 5 leasing companies under jurisdiction of the Bank of the Lao PDR. These institutions are widely spread and account for less than 5 percent of total assets of the banking industry. In addition, there are non-banking financial institutions, such as insurance companies and securities companies.

It is truly said that Laos has a relatively short experience of modern banking development. The commercial banks were not emerged until the late 1980s, and many of them have been in banking operations less than 10 years. As a result, banking sector is comparatively unsophisticated and most of commercial banks in Laos can only provide such basic financial service such as deposit taking, lending, payment, foreign exchange and clearing. Other sophisticated and value added services such as credit cards, gold trading, and etc; are beginning to be offered by some banks, but the volume of transactions remains extremely low. Overall, the lack of expertise, capacity and industry infrastructure, such as modern payment system, has impeded the rapid growth of new products and services.

4. An Analysis of the Financial Performance of Laotian Banking Sector

4.1 Source of Data and Study Methodology

In order to achieve the main objectives of this study, the data for this study was obtained from secondary sources- the banking statistics as published in the quarterly Monetary Statistics (2000-2010) and the annual report of the Bank of the Lao PDR via the Bank of Lao PDR's website. These data were used to compute key financial indicators of Laotian commercial banks for aforementioned period, as well as to assess the financial performance of the banking sector. According to official classification of the commercial banks in Laos (Annual report 2010), there are 25 banks which is composed of state-owned commercial banks, joint venture banks, private banks and foreign bank branches with different levels of market share. This study uses descriptive financial analysis to explain the financial situation of the Laotian commercial banks by examining the key financial development indicators. In addition, micro-prudential ratios or CAMEL framework, which can provide a rough indication of areas of vulnerabilities and weaknesses in the banking system, are further assessed. In this section, I undertake an analysis of financial performance of commercial banks in Laos. The following financial ratios are used in this study to measure financial performance.

Capital Adequacy = (i) (Total capital/ Total assets) X 100

(ii) (Total loans/ Total capital) X 100

Asset Quality = (i) (Total loans/ Total assets) X 100

Management Quality = (i) (Operating expenses/Total assets) X 100

(ii) (Interest expenses/Total deposits) X 100

Earnings Ability = (i) (Net income/Total assets) X 100

(ii) (Interest income/Total assets) X 100

Liquidity = (i) (Liquid assets/ Total assets) X 100

(ii) (Liquid assets/Total deposits) X 100

(iii) (Deposits/Total loans) X 100

4.2 Results and Discussions

Since the launch of financial sector reforms in second half of the 1980s, banking sector has gone through drastic changes. The banking sector has completely transformed from a mono-banking system into a complete form of a two tier banking system. The number of banks has increased from mainly seven state-owned commercial banks at the period of transformation to current number of 25 banks with more private banks , joint venture banks and foreign banks' branches attempted to penetrate in the Lao banking business. Commercial banks have improved their efficiency, financial services and expanded their network nationwide. Financial system has gradually shown a diversified financial structure. Presently, the banking business environment in Laos is very competitive with many banks entered in the marketplace to provide a variety of financial services and this seems to be the most suitable for studying the effect of financial deregulation policy. Originally, banks were concentrated only in Vientiane Capital, reluctant to expand their banking service to other provinces. Banks do not only open their branches but they also open their service units, introduced a ATM network widely to facilitate their banking operations. Banking sector, which used to be largely subject to public intervention, lack of innovation, low efficiency and high levels of NPLs is now progressing well. In particular, in recent years, the levels of NPLs have been under control with the ratio of less than 5 percent of total net lending. In sum, it could be said that banking sector in Laos is at the important juncture

for constant development and growth. Beyond the descriptive explanation of banking development in Laos, the improvements can be shown up based on some important financial development indicators. Now, let's look at the first four conventional financial indicators available, i.e., assets to GDP, the ratio of deposits to GDP, the ratio of loans to GDP, and the broad money (M2) to GDP. It is observed that the scale of assets in banking sector of Laos grew rapidly over the last decade. As observed from table 3, the assets-to-GDP ratio rose from 20.3 percent in 1992 to almost 50 percent in 2010 and meanwhile the deposit-to GDP ratio also rose from 8.6 percent to about 30 percent during the same period, while loans-to-GDP ratio remained more or less constant in between 10-12 percent in some years but rose to 22.8 percent in 2010. Furthermore, to better understand the evolution process of financial development in Laos, another important financial indicator, i.e., broad money (M2) as share of GDP, which measures the level of financial development or financial deepening, increased from around 10 percent in 1992 to almost 40 percent in 2010(table 3). These important figures illustrate that there are some financial improvements in Laos as a result of financial sector reforms initiated in the late 1980s. However, on average, the degree of financial development in Laos remains underdeveloped and narrow scope of activities.

For comparative perspective, it is useful to compare Laos with its close neighboring countries namely Cambodia, and Vietnam, China and Thailand, especially countries like Cambodia and Vietnam implemented financial sector reforms at similar period as Laos, while China and Thailand proceeded much earlier. By looking at one of the most indicators of the financial sector developments in these countries indicate surely a pace of progress and developments. Financial deepening as measured by the ratio of M2-to-GDP apparently rose from 5 percent in 1992 to 22 percent in Cambodia and around 23 percent in 1992 to 133 percent in Vietnam in 2010 (figure 2). Among late reformers like Laos and Cambodia, Vietnam is perhaps viewed as a country with faster progress in financial sector developments. However, when compared to its neighboring countries like Vietnam, Thailand and China, it suggests that Laos and Cambodia's financial sector development still far lag behind in terms of financial deepening. Therefore, it is clearly evidenced that financial sector in Laos and Cambodia is still in early stage of development. This ratio when compared with a ratio of 117 percent in Thailand, 182 percent in China and 133 percent where the financial system is well developed and diversified.

Financial Performance of Lao Commercial Banks Using CAMEL Framework

Besides the examination of key financial ratios of the banking development discussed above, CAMEL framework is also used to measure the financial performance of banking sector in Laos during 2006-2010. This framework is widely used to analyze the financial performance of financial institutions, especially banks, to determine their overall financial strength in many countries (Mohieldin and Nasr, 2007). The framework usually encompasses five key areas such as capital adequacy, asset quality, management quality, earning ability and liquidity

A. Capital Adequacy (C)

Capital adequacy is a measure of the overall financial strength of a bank. It is vital for maintaining soundness of the banking system since it acts as a cushion against panic or bank run or uncertainties. There are two financial ratios commonly used to measure the capital adequacy of banks. The first ratio is total capital as a share of total assets (capital/assets) which reflects the ability of a bank to absorb the unanticipated risks or losses and continue honoring claims. This ratio is positively related to the financial soundness of the bank, thus, it is negatively related with a possible failure. In other words, as this ratio becomes higher, it means that there is more capital to absorb unanticipated losses such as immediate deposit withdrawal caused by a bank-run or systematic shocks. The second ratio of the capital adequacy is total loans as a share of total capital (loans/capital). This ratio indicates the resistance of a bank to loan losses. Loan losses more than expected may cause a serious deterioration of the equity capital. Unlike the first ratio, this one has a positive relation with the risk of failure.

Figure 3 depicts two financial ratios, namely capital-to-total assets ratio and loans-to-capital ratio of commercial banks for 2005-2010, which provides a deep insight into the financial position of bank, and reveals their resistance against unexpected losses during 2005-2010. The figure indicates that commercial banks in Laos have continued to improve in terms of the level of capital using both financial ratios, especially in recent times. The Capital/Assets ratio shows a rising trend from a below 5 percent level in 2005 to about 15 percent in 2010, implying that commercial banks in Laos are less prone to possible unexpected losses than before. However, by examining the Loans/Capital ratio, which is another ratio used to assess the capital adequacy, the results show that the banking sector, in general, was deteriorating from the period 2007 to 2010 in terms of capital adequacy, especially from the standpoint of defending against loan losses. According to the result, the bank's capital strength against loan losses decreases significantly from 2007 to 2010 with an increased size of total loans from 7 to 34 times of the capital in 2010.

Apart from financial ratios used to measure the level of capital adequacy, it is also very important to examine the minimum capital adequacy ratio (CAR). Based on the international banking regulators (Basel Committee for Banking supervision), the minimum capital adequacy ratio(CAR) is 8 percent. In Laos, this minimum CAR at 8 percent of risky-weighted assets is also applied as stipulated in the Bank of the Lao PDR's regulation on capital adequacy(No 135/BOL, March 2007). Based on the recent data of the Bank of the Lao PDR, the capital adequacy ratio(CAR) of the commercial banks in Laos stood at 9.45 percent in 2008, 13.82% in 2009 and 23.47% in 2010 respectively. These figures, on aggregate level, appears to suggest that commercial banks have fulfilled capital adequacy standards and have a sufficient level of capital of bank to encounter with any potential shocks. However, the level of capital of some commercial banks may be remained low due to the recent regulatory changes which require commercial banks and branches of foreign banks to increase the minimum registered capital for from 100 billion Kip to 300 billion Kip or equivalent to US$ 38 million until 2014. The existing branches of foreign banks are required to increase a minimum registered capital from 50 billion Kip to 100 billion Kip until 2013(Decision No. 141/PM, 2009).

B. Asset quality (A)

In order to measure the asset quality of commercial banks, the ratio of total loans to total assets (Loans/Assets) was commonly used. This ratio also shows how much the banks dedicate of available funds to lending. Loans are the riskiest assets and usually account for the majority of a bank's assets. A high share of loans to total assets ratio indicates a more sensitive structure to total loan losses and may be a result of underestimating the possible loan losses. The higher the value of non-performing loans means a lower asset quality, which poses a risk to the bank's profitability and financial viability.

Table 4 below shows the ratios of the loans to total assets of commercial banks in Laos in order to asset the banks' asset quality. As can be seen from the table, the loans-to-assets ratios of commercial banks in Laos remain moderate with the average ratio of 37 percent during 2005-2010. This figure implies that commercial banks in Laos are generally managed to absorb possible loan losses that may be occurred. On aggregate level, the ratio of loans to total assets decreases from 2005 to 2007 in 2010 from 36.8 percent to 26.5 percent, indicating an increase in asset quality. Nevertheless, the ratio has continuously increases after that, reaching more than 40 percent in 2009 and 2010. In addition to examining the loans to total assets ratio, the volume of NPLs of banks also indicates how efficient the banks manage the asset quality. According to the recent publication of the Bank of the Lao PDR (annual report 2009-2010) the commercial banks were able to bring the quality of assets under control as shown by the declining level of NPLs, which were reduced from 10.52 percent in 2006 to 6.20 percent in 2007, 4.42 percent in 2008, 3.28 percent in 2009 and 3.88 percent in 2010 consecutively (annual report, 2008, 2009&2010) and provisions for loan losses were made almost 100 percent by all commercial banks. This figure is considered comparatively low by the international standard of commercial banks. For example, leading Chinese banks, namely ICBC's NPL ratios was 2.74 percent , 3.1 percent for BOC, 2.6 percent for CCB and 2.1 percent for BOCOM at the end of 2007(Hwa, E.C(2008).

C. Management quality/efficiency ratio (M)

In fact, it is not an easy task to measure the management quality since it is not solely dependent on the current financial performance. This component includes a wide range of issues such as the education level and expertise of the management. From financial data available, the most appropriate measures to evaluate the management quality are operating efficiency and the cost of management over deposits. In this regard, there are two types of indicators usually used for evaluating the management quality. These include the operating expenses as a share of total assets (Operating Expenses/ assets), the deposit interest expenses as a share of total deposits (interest expenses/deposits).

In terms of management indicators, operating expenses/ assets; interest expenses/deposits as shown in figure 4 on aggregate level, the banking system is sufficient to maintain a stable position in terms of operational efficiency. By examining both ratios, banks maintain a slightly decreasing trend during 2005 to 2010. The Operating Expenses/Assets ratio is on average kept under control of 1 percent during six years, indicating that the management quality of the banks with respect to operating efficiency is maintaining quite reasonable level in spite of the large investment in innovations and the introduction of new financial service of state-owned commercial banks during the last 4-5 years. Another ratio to evaluate the management quality is concerned with the cost management of the bank over deposits. Overall picture of the trends indicates that the cost management over deposits has improved and declined since 2005. Banks can maintain the interest expenses as a share of total deposits below 3 percent over the last five years.

In addition, it is also observed that the interest rate spread between deposit and lending rates was once very high, indicating that the banks lack of efficiency due to higher operating costs. For example, saving account interest rate

for one year was 14-16 percent in early 1990s and short-term lending rate was 24-30 percent per annum, making the spread even wider. However, the deposit and lending rates have substantially dropped to about 9 and 14 percent recently(table 3.4). This generally implies that there is an improvement in operational efficiency of banks. Nevertheless, the interest rate spread of commercial banks is considered relatively large, implying that commercial banks in Laos need to improve and manage the operating costs further. In a country with modern and efficient banking sector, the interest rate spread could be narrow, not more than 2-3 percent. Expense ratio is probably higher for state-owned banks compared to private banks due to overstaffing in these banks, lack of performance assessment system and performance incentives.

D. Earnings and profitability (E)

The future viability of a bank depends on its ability to generate a sufficient level of return on its assets. Earning ability provides the means to a bank to expand its funding, maintain its competitive position and increase its capital. It is the most important factor determining the performance. To measure the earning ability of a bank, two ratios are used to evaluate the earning ability of banks. The first one is the net income as a share of total assets (Net income/Assets) which is also known as "return on assets" or ROE. The second ratio is the net interest income as a share of total assets (net interest income/Assets). So both ratios are positively related with the financial performance of the bank and negatively related to failure of possibility.

The Net income/Assets ratios and net interest income/Assets ratios are shown in the figure5. According to the figure, banks experience a downward trend for both ratios, indicating that the earning ability of the banks declines. Trends of the banks' Interest Income/Assets ratio particularly shows lots of ups and downs during2005-2010 but banks are still able to manage to generate profit on aggregate basis between 3 to 2 percent. However, profitability ratio of commercial banks may be low compared with international standard. For example, some international banks can record the highest ratio of ROE more than 10 percent.

E. Liquidity (L)

Liquidity management is very important task for the banks always care about it. Lack of liquidity of a bank can seriously damage the profitability and confidence, hence increase the likelihood of a bank failure. Liquidity reflects the ability of a bank to meet its financial obligations as they come due without incurring unacceptable losses, especially deposit withdrawal and daily payment of a bank. Managing liquidity is a daily process requiring bank managers to monitor and project cash flows to ensure adequate liquidity is maintained. Therefore, maintaining a balance between short-term assets and short-term liabilities is critical.

There are three indicators often used to assess the liquidity of commercial banks. This includes total liquid assets as a share of total assets, total liquid assets as a share of total deposits and total deposits as a share of total loans. First, the total liquid assets to total assets (Liquid Assets/Assets) reflects the ability to pay off its liabilities. Second, total liquid assets as a share of total deposits is to measure the capacity of the bank to meet unexpected deposit withdrawal. Third, the total deposits as a share of total loans(Deposits/Loans) that measure the deposit withdrawal was the last ratio to assess the liquidity.

According to the figure 6, the Liquid Assets/ Assets ratios and Liquid Assets/deposits ratios show that banks have maintained a more liquid position and shown a generally more stable position during the same period. During 2005-2010, the Liquid Assets/ Assets ratio for banks account for more than 50 percent, revealing that the banks are still in a better shape of liquidity and this may be considered that the operation of banks will be stable in the future. For the Liquid Assets/Deposits ratios, which enable banks to cover unexpected deposit withdrawals, almost indicates the same trend and shows the high and stable position. The trend shows that the bank has kept a relatively stable liquidity position throughout the sample period, maintaining ratios between 60 to 70 percent. Thus, this can be concluded that the bank has maintained its ability to cover any possible unexpected deposit withdrawal. Another important ratio used to assess the liquidity of the banks is the Deposits/Loans ratio. As can be observed in the figure, banks have showed a higher capitalization rate. This situation is shown by deposit-to loan ratio- a proxy for liquidity- shows that the banking sector average at more than 100 percent during 2005-2010. Nevertheless, the Deposits/Loans ratio have generally followed a decreasing trend, the ratio of deposits to loans increased from 180 percent to more than 200 percent between 2005 to 2007, then decreased sharply to about 130 percent in 2009 and has remained stable for the rest of the sample period.

Overall, comparing the banking performance during pre and post periods of the banking sector reform, it is clearly evidenced that financial reforms initiated by the Bank of the Lao PDR bring positive impact on the entire banking performance. Prior to financial reform, banking sector in Laos was characterized with poor performance, lack of efficiency, weak governance, lack of autonomy, low capital adequacy ratio, high level of non-performing loans associated with state-owned commercial banks' policy lending, wide spread of interest rate, lack of competition and

limited financial products and services. As a result of the reform measures as taken by the Bank of the Lao PDR over a decade, there has been significant changes in the landscape and financial performance. Some of the positive results achieved during the post period of reform are as follows:

The overall size of financial sector as measured by the total assets of banking sector to gross domestic product(GDP), has significantly increased from 20.3 percent in 1992 to almost 50 percent in 2010. The ratio of broad money to GDP (M2 to GDP), which measures financial deepening, has also increased from 11.2 percent to almost 40 percent in 2010. The ratio of bank deposits to GDP also rose from 8.6 percent to lamost 31 percent during the same period. In addition, number of banks has increased from less than 15 banks in the 2000s to more than 25 banks presently operating in the Lao PDR, with a variety of financial products and services and nationwide networks of branches, service units and ATMs. Financial sector has improved its diversification in terms of structure and products. Currently, besides the banks, there are also non bank financial institutions, namely deposit-taking MFIs, non deposit taking MFIs, credit and saving unions, pawnshops and leasing companies and securities companies under jurisdiction of the Bank of Lao PDR. Banks have now started to modernize all their operations and have introduced a nationwide network of ATMs, and mobile banking. They have also changed their product mix to help improve financial performance. By using financial soundness indicators, their financial performance has noticeably improved. The growth of assets and deposits has significantly increased. The quality of asset of commercial banks has also improved as indicated by a small size of non-performing loans (NPLs). The most recent figures suggest that commercial banks in Laos are managed to bring NPLs under control of less than 5 percent, which is consistent with international banks' practices.

Overall financial strength of banks has gradually improved. Examining the level of capital adequacy of banks based on the international prudential norms, the minimum capital adequacy ratio is set at 8 percent. During the period of 2008-2010, the ratio of banks in Laos stood at 9.45 percent in 2008, 13.82 percent in 2009 and 23.47 percent in 2010. These figures demonstrate that commercial banks in Laos have fulfilled capital adequacy standard and have a sufficient level of capital to encounter with any potential risks. Although, earning and profitability of banks appears to be low by international standard, but banks continue to make profit continuously. Banks manage to bring the expenses under control and the levels of interest rates and the level of interest rates and spread between deposits and lending have declined. These positive results reflect some effective outcomes achieved by the Lao authorities after financial reform implemented over a decade.

5. Concluding Remarks

Lao banking sector has undergone significant developments and has now grown impressively. The banking sector reform initiated in the late 1980s has brought a competitive environment and many banks are now attempting to offer a wide range of financial service and products to their clients. By analyzing the financial performance of banks using CAMEL framework, this suggests that commercial banks in Laos have financially improved, including sufficient level of capital adequacy, good quality assets as indicated by low level of NPLs, improved efficiency of management, improved profitability and sufficient liquidity. However, there are some areas of deficiencies in the banking sector, especially the state-owned commercial banks, including a relatively low capital adequacy ratio, modest earning and profitability. On aggregate level, the financial sector is characterized by high degree of public ownership, relatively low level of financial intermediation, limited financial market depth and breadth, large interest rate spread very few formal financial institutions (FIs) have shown capacity to provide financial service to the small-scale entrepreneurs and rural operators. Formal FIs in Laos generally focus on support of trade and service-related activities. Furthermore, the range of financial institutions and products is narrow and the operation of the banks is constrained by the lack of relevant management skills.

In light of some deficiencies mentioned above, the agenda for strengthening the Laotian banking sector shall include policies and measures designed to improve the efficiency and competitiveness of the financial sector and intermediation process, especially improve the performance of state-owned commercial banks; improve the legal, regulatory and supervisory framework; implement policies and measures to improve the institutional and human capacity of the financial sector; mobilize managerial and technical skills of personnel; expand the structure of the sector and its financial instruments; improve payment systems; promote the efficiency and development of money, banking and capital markets; provide the legal, regulatory framework for the development of capital markets and encourage technological modernization of the sector. These are some of the major elements of a comprehensive financial sector reform agenda in Laos in the near future for enhancing a sound and effective financial sector.

This study would contribute to the design of policy to generate a sound and efficient financial sector development, help construct a set of performance measures to evaluate the policy, and serve as useful indicator of progress over times. The results of this study should help to provide bank managers with understanding of activities that would

require to enhance their financial performance as well as to design an appropriate financial strategy for attaining the desired financial outcome.

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Notes

Note 1. The views expressed in this paper are those of the author and do not necessarily reflect the official views or positions of the Bank of the Lao PDR. The first draft of the paper was prepared in 2008 when the author was joining ASEAN financial sector development conference at Nanyang Technical University of (NTU), Singapore. Enquiries may be contacted at keophetsa@bol.gov.la.

Note 2. Triangular debts refer to the debts involved with three parties: government, borrowers (SOEs) and SOCBs. First, SOEs borrowed money from SOCBs in advance to finance priority public projects, hoping to reimburse from the state budget. Unfortunately, when the project is completed, the budget is not ready to pay for the construction companies, the fiscal agent owes the construction companies, borrowers owe the banks, and the banks also faced the bad debts. In sum, the debts incurred with three parties.

Table 1. Financial statistics for commercial banks in Laos (end of 2010)

Type of Bank	Total Assets (Kip billion)	Market share(%)	Total deposits (Kip billion)	Market share(%)	Total loans (Kip billion)	Market share(%)
SOCBs (4)	16548.56	59.3	11,654	67.4	7719.47	60.5
Private Banks(9)	5007.92	18.0	3,401	19.7	2583.62	20.2
Joint venture banks(2)	3363.38	12.1	1,248	7.2	946.09	7.4
Branches of foreign banks(11)	2976.95	10.7	985	5.7	1519.48	11.9
Total	**27896.81**	**100**	**17,288**	**100**	**12768.66**	**100**

Source: Quarterly Statistics Review of Bank of Lao PDR(Various issues)

Table 2. Number of commercial banks in Laos as of December 2010

Name of Banks	Established	Branches	Service units	Money Changer	ATM
State-owned commercial banks					
1. Banque pour le Commerce Extrieur Lao	1-Nov-89	18	21	11	140
2. Lao Development Bank	18-Dec-02	18	43	19	63
3. Agricultural Promotion Bank	19-Jun-93	17	58	1	0
1. Nayoby Bank	15-Sep-06	6	46	6	0
Joint venture Banks					
1. Lao - Viet Bank	31-Mar-00	4	1	0	10
2. Banque Franco - Lao Ltd	16-Jul-10	0	0	0	0
Private Banks					
1. Joint Development Bank	17-Jul-89	0	2	0	27
2. Phongsavanh Bank	2-Feb-07	4	11	0	45
3. ST Bank	22-May-09	2	9	0	19
4. Indochina Bank	28-Nov-08	0	1	0	12
5. Booyong Lao Bank	14-Sep-09	0	0	0	0
6. ANZV Bank	2-Aug-08	2	0	0	13
7. ACleda Bank	8-Jul-08	4	10	0	14
8. International Commercial Bank	2-Oct-08	1	0	0	0
Foreign Bank Branches					
1. Siam Commercial Bank	30-Nov-92	0	0	0	0
2. Thai military Bank	1-Feb-92	0	0	0	0
3. Bangkok Bank	7-Sep-92	0	0	0	0
4. Krungthai Bank	25-Feb-93	0	1	1	0
5. Ayudhya Bank	26-Feb-93	1	0	0	0
6. Ayudhya Bank Savanakhet Branch	24-Jun-09	1	0	0	0
7. Public Bank	10-Apr-95	1	0	0	1
8. Public Bank Sikhai Branch	25-Feb-08	1	0	0	1
9. Public Bank Savanakhet Branch	25-Feb-08	1	0	0	1
10. Sacom Bank	9-Dec-08	1	0	0	0
11. Military Commercial Joint Stock Bank Lao Branch	22-Dec-10	1	0	0	0
Representative Office					
1. Standard chartered bank	2-Jul-97	0	0	0	0
Total		**83**	**203**	**38**	**346**

Source: Monetary Statistics Review of the Bank of Lao PDR, 2010.

Table 3. Key financial indicators of banking sector in Laos,1992-2010

Year	Deposits/GDP	Loans/GDP	Assets/GDP	M2/GDP
1992	8.6	8.3	20.3	11.2
1993	14.3	11.5	31.9	17.4
1994	17.9	15.5	35.6	21.3
1995	11.7	11.4	25.1	13.5
1996	13.5	10.4	26.3	14.2
1997	18.1	14.0	32.4	18.4
1998	21.2	13.5	35.4	20.4
1999	14.2	9.2	29.5	15.0
2000	14.6	9.6	29.6	17.4
2001	15.2	11.7	26.6	18.2
2002	16.4	9.9	26.1	19.4
2003	19.0	8.7	26.7	20.1
2004	18.1	7.8	24.8	19.9
2005	16.3	8.7	23.7	18.7
2006	16.5	6.6	23.0	19.6
2007	21.9	7.5	28.3	24.4
2008	20.7	11.3	30.7	25.4
2009	26.1	19.1	39.7	32.4
2010	30.6	22.8	49.7	37.4
Average	17.6	11.4	29.8	20.2

Source: Bank of Lao PDR's website

Table 4. Loans to total assets of commercial banks in Laos, 2005-2010

Year	Loans	Assets	Loans/Assets
2005	2525.3	6858.7	36.8
2006	2370.4	8281.0	28.6
2007	3005.7	11362.3	26.5
2008	5161.6	13995.0	36.9
2009	8936.1	18560.1	48.1
2010	12903.2	28096.3	45.9
Average	1648.5	4484.8	37.1

Source: Quarterly Statistics Review of Bank of Lao PDR(Various issues)

Table 5. Commercial Bank Interest Rate Spread, 2003-2010(In Kip)

Year	Deposit Rate(%)	Lending Rate(%)	Spread(%)
2003	15.37	18.83	3.47
2004	13.05	20.82	7.77
2005	11.17	19.48	8.31
2006	10.79	19.04	8.25
2007	10.67	18.79	8.12
2008	10.28	17.55	7.26
2009	9.56	15.29	5.73
2010	9.15	14.42	5.27

Source: Annual report of the Bank of the Lao PDR(various issues)

National Bank(1976-81) or
State Bank of Laos (1981- 88)

In Vientiane Capital
- Kampheng Bank (I)
- Kampheng Bank (II)
- BCEL

In the Norther part
- Xiengkhoang Branch
- Luangprabang Branch
- Phongsaly Branch
- Sayabouly Branch
- Bokeo Branch
- Oudomsay Branch
- Luangnamtha Branch
- Huaphanh Branch

In the central part
- Vientiane Branch
- Bolikhamsay Branch
- Khammoune Branch
- Savanhnakeht Branch

In southern part
- Champasak Branch
- Saravan Branch
- Sekong Branch
- Attapeu Branch

Figure 1. Banking structure prior to economic reform ,1976-1988 (monobank system)

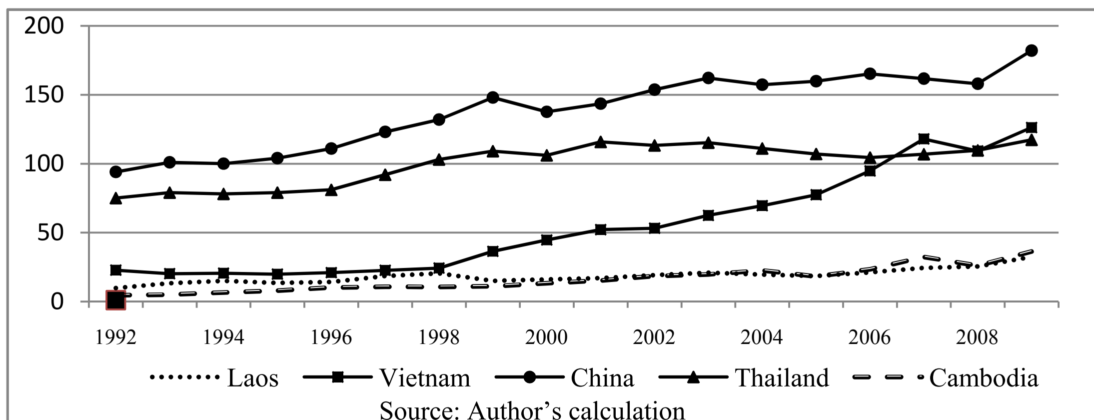
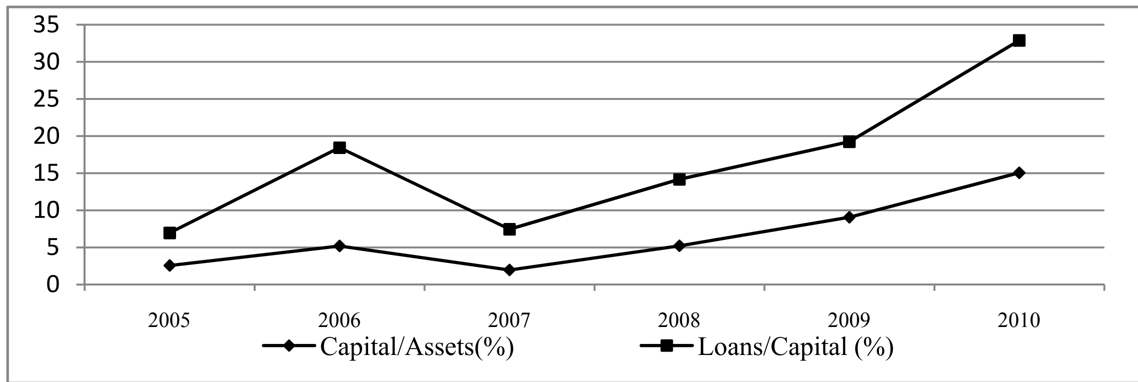
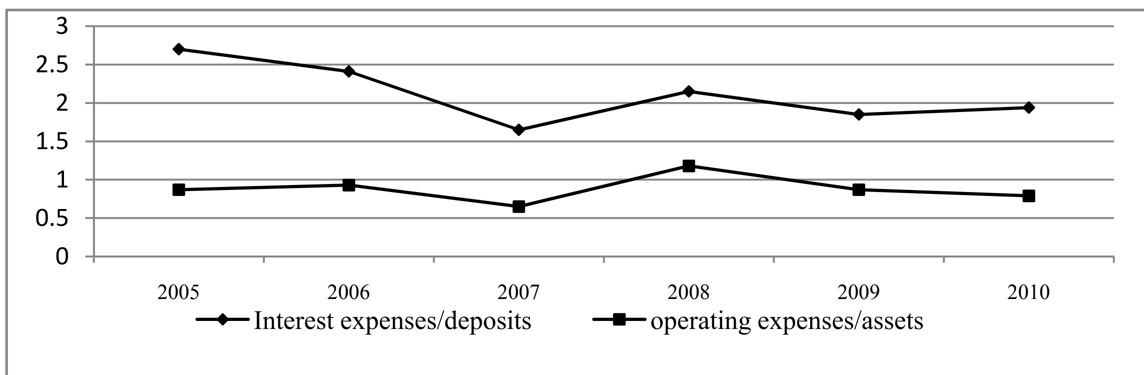


Figure 2. Financial Depth of Laos and its Neighboring countries, 1992-2010



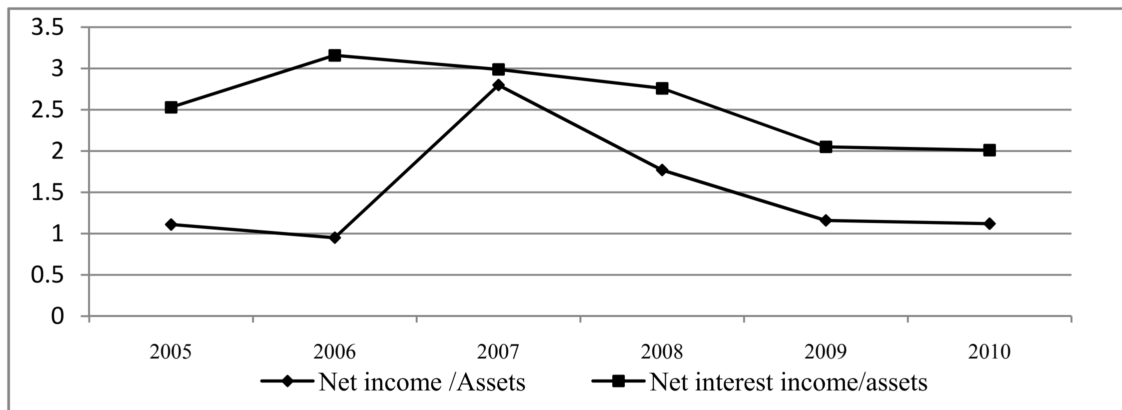
Source: Author's calculation is based on a Quarterly monetary statistics, Bank of Lao PDR

Figure 3. Capital Adequacy ratio as measured by capital/assets and loans/capital (%)



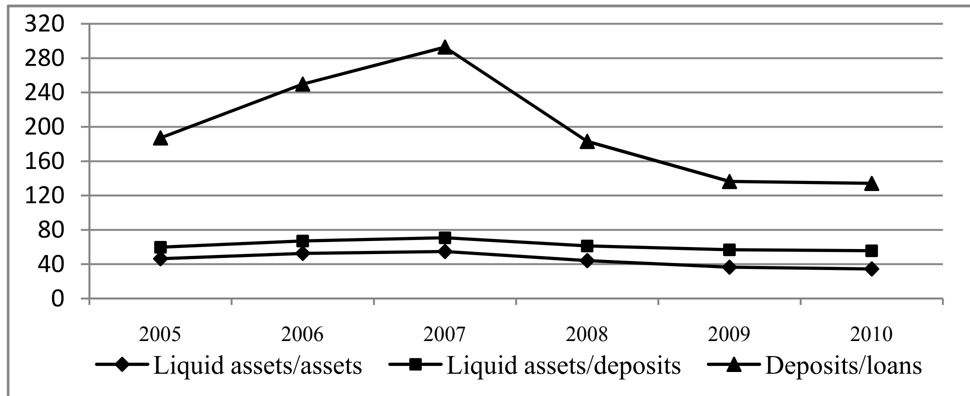
Source: Author's calculation is based on a Quarterly monetary statistics, Bank of Lao PDR

Figure 4. Management quality ratio as measured by operating expenses as a share of total assets and interest expenses as a share of total deposits,2005-2010



Source: Author's calculation is based on a Quarterly monetary statistics, Bank of Lao PDR

Figure 5. Earnings ratios of commercial banks in Laos, as measured by net income/assets and net interest income/assets, 2005-2010



Source: Author's calculation is based on a Quarterly monetary statistics, Bank of Lao PDR

Figure 6. Liquidity ratios of commercial banks in Laos, as measured by liquid assets to total assets, liquid assets to total deposits and deposits to loans ,2005-2010