THE ROLE OF THE FINANCIAL SECTOR IN ENHANCING ECONOMIC GROWTH IN THE LAO PEOPLE’S DEMOCRATIC REPUBLIC

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The financial sector of the Lao People’s Democratic Republic has been developing rapidly in recent years in terms of financial depth, intermediation and distribution. A developed financial sector is the basis for dynamic economic growth. Yet, unsustainable financial liberalization and growth poses risks to financial sector stability. The present report scrutinizes the role of the financial sector in enhancing economic growth in the Lao People’s Democratic Republic and aims to answer the question of adequate financial sector supervision with respect to the economy’s development. It is argued that only a prudentially supervised financial sector can enhance the economic growth performance of the country in the medium and long term.

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I. INTRODUCTION

If and how the financial sector can promote economic growth, the so-called finance-growth nexus, is widely discussed in literature. In particular, the issue of causality – whether finance drives growth or vice versa – is controversial topic of discussion.1 However, there is a broad consensus that a sustainably developed and supervised financial sector enhances economic growth.

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1 See Levine (2004) for an overview of the theoretical and empirical research concerning the connections and relationship of finance and growth.
In the late 1980s, the Lao People’s Democratic Republic initiated a transition process to liberalize its goods and financial markets. Despite this process, the financial sector remains underdeveloped and shallow. In developed economies the financial sector comprises various sources of funding, while in the Lao People’s Democratic Republic, the sector is mainly bank-based. Currently, only three companies (Banque pour le Commerce Exterieur Laos Public (BCEL), EDL-Generation Public Company and Lao World Public Company) are listed on the stock market, which opened in 2011.

The financial sector is bank-centred and dominated by State-owned commercial banks. It only began to be gradually liberalized in the mid-2000s and following the enactment of the new Law on Commercial Banks 2007, a considerable number of private and foreign banks have entered the market. Since then, the development of the financial sector has made a great leap forward in terms of financial deepening, intermediation and distribution. However, from an historical perspective, financial liberalization in South-East Asia appears to be closely linked to financial turbulence. To ensure sustainable economic development in the medium and long term, financial liberalization must be accompanied by prudential financial sector supervision.

The aim of the present report is to show the empirical and causal relationship between financial market development and economic growth. It has already been shown that sustainable long-term growth must be achieved through qualitative loan growth and investment. Previous boom and bust cycles have revealed that pure quantitative and widely unregulated growth of the financial sector is likely to harm the economy. Thus, the report focuses on the importance of a sound and efficiently supervised financial sector development in order to gain long-term growth.

The remainder of the study is organized as follows. Section II reviews the theoretical and empirical literature on the finance-growth nexus and the functions of the financial sector. Possible transmission channels from the financial sector to growth based on financial development indicators are analysed. In section III,
challenges and the impact of the currently large capital inflows, as well as recent developments of the financial sector are assessed. In section IV, attention is drawn to prudential financial sector regulation and the supervision capacity of the Bank of the Lao People’s Democratic Republic (BOL). Section V summarizes and concludes.

II. FINANCE-GROWTH NEXUS THEORETICAL BACKGROUND

The debate on whether the financial sector development contributes to economic growth and if so how it does is not new. Schumpeter (1912) argued that the banker was an intermediary who brings the entrepreneur with a new business idea together with the financier. This stimulates economic development. Mises (1953) comprehensively analysed the functions of the banking system, its role as credit intermediary on the one side and as credit creator on the other. He stated that by accumulating and efficiently allocating voluntary savings, the financial sector had supplied the funding for investments which, in the classical theory, was directly associated with growth. This idea was reflected in early growth models that explain economic growth by the rate of savings and capital productivity (Harrod, 1939; Domar, 1946). Later models accounted for productivity growth by adding technological progress (Solow, 1956).

The finance-growth nexus has been subject to various empirical investigations. In 1969, using financial asset to gross national product (GNP) ratios as proxies for financial development, Goldsmith (1969) found correlations between financial development and growth. Subsequent work in this field was strongly influenced by King and Levine (1993). Using financial market indicators (financial depth, intermediation and distribution) and economic growth indicators (level of investment, per capita gross domestic product (GDP) growth rates and the capital stock), they provided empirical evidence that financial development promoted growth. The evidence indicated that economies with a deeper financial sector and high levels of intermediation and distribution tended to grow faster than economies with less developed financial markets. King and Levine (1993) concluded that financial development had contributed considerably to economic growth as increasing capital accumulation and allocation efficiency promoted technological progress.

Furthermore, Greenwood and Jovanovic (1990) emphasized the financial sector’s role to collect and evaluate information and allocate capital to the most

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5 For a detailed overview of the theoretical literature, see, for example, Koivu (2002); Zhuang and others (2009); Stolbov (2013).
6 In contrast to the GDP, GNP also accounts for net income from assets/income abroad.
7 This result was approved by numerous subsequent studies (see, for example, Levine, Loayza and Beck (1999); Levine (2004); Demirgüç-Kunt and Levine (2008); Čihák and others (2013)).
profitable investment projects. Rajan and Zingales (1998) found that a developed financial sector had reduced the external costs of finance. This directly benefited existing firms but also encouraged new firms to enter the market, which spurred innovation, competition and growth.\(^8\)

With a specific focus on emerging and developing economies, IMF (2012a) finds that undeveloped financial markets do not provide a sufficient shock absorption mechanism to external shocks. Deeper financial markets foster growth as they reduce volatility arising from liquidity constraints. The study pays particular attention to the surveillance of the financial sector, as unsustainable growth of the financial sector creates new sources of instability. Barajas, Chami and Yousefi (2013) confirm the positive relationship of financial development and growth in developing countries, but emphasize that the magnitude of the effect is heterogeneous across regions, national income levels and between oil exporting and non-oil exporting countries. The authors stress that limited access to financial services, lacking competition and insufficient financial supervision in low income countries hinder growth despite financial deepening.

Korner and Schnabel (2010) show that a State-owned bank dominated financial sector in combination with a shallow financial market and poor institutional quality has negative growth effects. Law, Azman-Saini and Ibrahim (2013) find that due to the lack of institutional quality, until a certain development threshold, the finance-growth nexus is non-existent.

Estrada, Park and Ramayandi (2010) focus on the finance-growth nexus in developing Asia. The main result from the empirical analysis is a positive and significant effect of financial sector development on real GDP per capita growth. The authors find that the effect for developing Asia is stronger than for the rest of the world. However, the experience of the Asian financial crisis shows that medium- and long-term growth can only be achieved with a stable and developed financial sector.

The “more finance, more growth” hypothesis must be revised to “better finance, more growth” by shifting the focus from purely quantitative credit growth to efficiently channelling funds into high-quality investments (Estrada, Park and Ramayandi, 2010; Beck, 2013; Law, Asman-Saini and Ibrahim, 2013).

**Finance-growth transmission channels**

The task of a financial sector is to mobilize funds for investment and to support economic activity. As an intermediary, it transforms and allocates capital from market

\(^8\) For a broad review of the empirical literature, see, for example, Moshin and Senhadji (2000); Thiel (2001); Levine (2004); Fink, Haiss and Mantler (2005); Zhuang and others (2009).
participants to investment projects (IMF, 2004). To fulfil this purpose, Demirgüç-Kunt and Levine (2008) identify five core functions of the financial sector. The first is to accumulate savings from individuals and pool them for investments. Second, information about potential investments must be collected and capital must be allocated to its most productive use (selection and screening process). The third task is to monitor if the provided capital is used in the intended way. Fourth, the financial sector provides knowhow and opportunities to reduce and manage risks, such as liquidity risks, diversified portfolios and better loan management. Finally, it facilitates the exchange of goods and services by lowering transaction costs (Demirgüç-Kunt and Levine, 2008).

By developing and executing those functions, the financial sector can enhance medium- and long-term economic growth. The transmission channels from finance to growth can be derived from a simple growth model, where output is dependent on capital productivity and the capital stock.

\[ Y_t = AK_t \]  
\( (Y_t – \text{output}; K_t – \text{capital}; A – \text{capital productivity}) \) (Pagano, 1993). The capital stock is assumed to depreciate at a constant rate \( (d) \). Investment \( (I_t) \) in period \( t \) is determined by the difference of the capital stock in two subsequent periods.

\[ I_t = K_{t+1} - (1 - d)K_t \]  
But due to inefficiency reasons, Pagano (1993) assumes that a certain fraction \( (0 \leq \delta \leq 1) \) of savings \( (S) \) is lost during the process of financial intermediation.

\[ I_t = \delta * S \]  
Given the growth rate from (1) \( g_{t+1} = Y_{t+1}/Y_t - 1 \) and assuming that in the steady state output and the capital stock grow at the same rate \( Y_{t+1}/Y_t - 1 = K_{t+1}/K_t - 1 \). Inserting transposed equation (1) \( (1/K_t = A/Y_t) \) and equation (2) \( (K_{t+1} = I_t + (1 - d)K_t) \) in \( g = (K_{t+1}/K_t - 1) \) yields the steady state growth rate (g):

\[ g = A * I/Y - d \]  
Which, with aggregate savings rate \( S/Y \) being denoted as \( s \), can be approximated as

\[ g = A * \delta * s - d \]  
Based on equation (5), three possible transmission channels from finance to growth can be derived. The term \( \delta \), which determines the loss of resources while savings are transformed into investment, the capital productivity \( A \) and the savings rate \( s \). The first transmission channel (\( \delta \)) concerns the financial sector’s ability to efficiently channel savings into investments. Competition and advanced technologies
reduce banking service fees, overhead costs and thereby the interest rate spread. As during the transformation process costs are reduced and, more savings can be transformed into investments (Pagano, 1993).

The capital productivity A stresses that a developed financial sector is able to collect sufficient information to evaluate investment projects and allocate capital to the projects with the highest marginal productivity. A larger number of financial intermediaries allow for better risk sharing by depositors (Pagano, 1993). In contrast to the first two channels, the effect of financial development on the savings rates is ambiguous. Due to risk reduction and reduced liquidity constraints, the savings rate might decline. In contrast, McKinnon (1973) and Shaw (1973) argue that a liberalized financial sector increases the savings rate by the removal of repressive interest rate ceilings on deposits. Liberalized interest rates are likely to generate higher deposit revenues and thus stimulate savings.

Following the approach of King and Levine (1993), (i) financial depth, (ii) intermediation and (iii) distribution are used as development indicators to evaluate the development of the financial sector in the Lao People’s Democratic Republic. (i) A deeper financial sector benefits from economies of scale, as fixed costs are reduced (Fitzgerald, 2006). Financial sector participants profit from network externalities as more market information can be gathered by the financial intermediaries, which improves capital allocation (Greenwood and Jovanovic, 1990). A deep and diversified financial sector reduces capital constraints, external shock exposure and risks (Fitzgerald, 2006). Thus, size is a crucial indicator for the degree of development of the financial sector. (ii) However, from quantitative financial sector development alone, one cannot conclude whether the sector is functioning effectively. Therefore, as a proxy for the quality of lending, the ratio of private to public financial intermediaries is used. It can be assumed that private financial intermediation is more market oriented than that of public institutions and thus capital allocation will be more efficient (Demirgüç-Kunt and Levine, 2008; Kawai and Prasad, 2011). (iii) Similarly, Kawai and Prasad (2011) argue that credit channelled to the private sector is more productive than lending to State-owned enterprises. In particular for transition economies with a tradition of politically biased lending, the distribution criterion is an important development indicator. Due to a lack of microeconomic data the analysis is limited to the macroeconomic level. The data used are mainly provided by BOL which, according to the report of World

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9 Demirgüç-Kunt and Levine (2008) argue that if the banking sector expands too quickly, a boom is likely to be followed by a bust. It is important to differentiate between the banking sector serving as credit negotiator, which is associated with economic growth and the banking sector as credit creator, which contains potential destabilizing risks (Mises, 1953). In the latter case, a rapidly expanding financial sector is not an indicator for positive growth impulses but implies potential overheating and distortions.
Bank (2009, p. 13) on observance of standards and codes, lacks the “most basic requirements of modern accounting and financial reporting” with issued statements being “hardly useful for decision-making”.  

III. FINANCE AND GROWTH IN THE LAO PEOPLE’S DEMOCRATIC REPUBLIC

Capital inflows

Despite the transition process, the Lao People’s Democratic Republic political system is still characterized as being a one-party system. The country’s political and economic development is widely based on the politburo’s decisions. As its northern and eastern neighbours, China and Viet Nam, the Lao People’s Democratic Republic is governed in a top-down fashion with little civil society engagement. The financial as well as the real sector are dominated by State-owned enterprises (Andriesse, 2014). Despite an increasing amount of investments flowing in the country, in particular, small- and medium-sized private enterprises face difficulties accessing formal sources of finance. A GIZ (2014) report states that less than half (41.61 per cent) of the small and medium enterprises have access to external finance. Main obstacles are the complex documentation, high collateral requirements, insufficient accounting records and an often unclear legal status. Alternative sources of finance are family and friends, money lenders, traders and traditional *houay*.  

The obstacles regarding access to financial services and the legal inadequacy are also reflected in a World Bank report on doing business (2014). The Lao People’s Democratic Republic overall rank is 148 out of 189 rated countries. In the category “getting credit”, the Lao People’s Democratic Republic ranks 116, whereas its neighbours Cambodia, Thailand and Viet Nam rank 12, 89 and 36, respectively. Only, Myanmar, which is undergoing an economic transformation, ranks worse (171). In particular the investors’ protection is a problem (rank 178) in the Lao People’s Democratic Republic (World Bank, 2014).

An important driver for financial sector development in emerging and developing economies is capital inflows. According to IMF (2012a), capital inflows reduce interest rates, enhance investment, diversify financial risks and facilitate technology

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10 Due to the lack of reliable data, the study is limited in coverage and depth. For background information, expert interviews and secondary data are used. Furthermore, given the data constraint of the study, only the development of financial depth, intermediation and distribution are covered. Other important factors for a sustained financial development are access, efficiency and stability. As the financial system is multidimensional, the exclusive analysis of the quantitative development does not entirely cover the issue (Čihák and others, 2013).

11 A traditional form of informal finance between colleagues and friends. A free translation is “lending with interest”.

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and managerial knowhow spillovers. However, capital flows also bear potential risks as they tend to be pro-cyclical and volatile. Periods of inflows are often followed by sudden stops and capital flow reversals (Kaminsky, Reinhart and Végh, 2005; Balakrishnan and others, 2012; Forbes and Warnock, 2012; Ghosh, 2012).

Kawai and Lamberte (2010) argue that capital flows are likely to cause macroeconomic and financial instability. During the inflow period excess capital supply is likely to lead to overheating, credit booms, inflation and (real) currency appreciation (Hoffmann and Schnabl, 2014). Financial instability is caused by a currency and/or maturity mismatch as due to shallow financial markets developing countries can neither borrow in their domestic currency nor long term on international capital markets (Eichengreen and Hausmann, 1999).\(^{12}\)

The domestic financial sector, as the intermediary, transforms short-term foreign-currency-denominated debt into longer term investments, often denominated in domestic currency. The financial sector bears the maturity and currency risk in case of a shock (exchange rate depreciation and/or a sudden stop). Balakrishnan and others (2012) show that more than 60 per cent of capital inflow periods to emerging Asian countries ended in a sudden stop. Risks associated with capital flows amplify with increasing international financial market integration, as capital flows are becoming larger and increasingly volatile due to the expansive monetary policy stances of large industrialized countries (Balakrishnan and others, 2012; Forbes and Warnock, 2012).

In contrast to most other South-East Asian economies, the Lao People’s Democratic Republic has a positive financial and negative current account. The financial account is driven by foreign direct investment (FDI) and other investment\(^{13}\) inflows. Due to the underdeveloped financial market and limited investment opportunities, portfolio capital inflows are negligible (left hand panel of figure 1). More than 70 per cent of FDI inflows are invested into large mining and hydropower projects (IMF, 2013). Other investment flows to the country are mainly (about 90 per cent in 2012) “bank related”, which is often short-term and volatile capital (BOL, 2012b; IMF, 2012c). The other investment position contains official development assistance (ODA) credits which are not captured as current transfers. ODA is largely used to finance trade and government budget deficits (BOL, 2012a, p. 18).

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\(^{12}\) Foreign capital inflows are mainly denominated in foreign currency and are targeted at short-term investment, as long-term investment is often considered to be too risky in immature and instable financial markets. Domestic banks convert the short term foreign investments into long-term credits denominated in local currency and lend to domestic borrowers. Thus, domestic banks bear the risk of sudden investment stops and/or reversals and of exchange rate changes.

\(^{13}\) Other investment is a residual category of the financial account covering trade credits, loans to the central government, monetary authorities and banks (IMF Balance of Payments Manual).
The negative current account balance is mainly driven by the negative trade balance as imports exceed exports. Services and current transfers, which include workers’ remittances and ODA, are positive and stable (right hand panel of figure 1).

Figure 1. Current and financial account of Lao People’s Democratic Republic

![Graph showing current and financial account](image)

**Source:** IMF (IFS).

**Note:** Current and financial accounts are balanced by the change in reserves and errors and omissions. In particular, since 2006, errors and omissions are unusually large (accounting for about 25 per cent of the balance of payments in 2012). This might be an indicator for unrecorded capital flows and/or the inaccuracy of the data in general.

The relatively high capital inflows to the Lao People’s Democratic Republic since the early 2000s have put appreciation pressure on the Lao kip. To stabilize the exchange rate, BOL has frequently intervened in the foreign exchange market and accumulated foreign reserves. Figure 2 shows that, in particular, the amount of foreign reserves strongly increased between 2006 and 2008. During the subprime crisis, reserves fell slightly and increased again in 2011 and 2012. The bank’s foreign exchange purchases have led to an increased monetary base. Through the commercial bank’s money multiplier function, this is likely to lead to an expansion of the total amount of money and thus, according to the quantity theory of money, to inflation and undue credit growth.

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14 The increase in foreign reserves is also reflected in the rising net foreign asset position in the BOL balance sheet shown in figure 3.

15 Assuming the velocity of money relatively constant and the increase of output less than the increase in money supply.
Figure 2 shows the declining coverage of imports by foreign reserves. The reserves to months of imports ratio is a common measure to assess an economy’s ability to absorb external shocks. Reserves to months of imports hit a low of about 0.8 months of imports in June 2013. With the decline of reserves to months of imports ratio, macroeconomic vulnerability is increasing. IMF (2013) is of the view that the foreign exchange reserves of the Lao People’s Democratic Republic’s foreign reserves are inadequate for precautionary measures and raises concerns about a foreign currency liquidity shortage.16

![Figure 2. Foreign reserves and import expenditure](image)

**Source:** IMF (IFS) and IMF Article IV (various issues).

**Note:** 2013 up to June only.

To partially sterilize the monetary effects of foreign reserve accumulation, BOL among other things, has sold Lao kip-denominated bonds to the domestic banking sector. This is reflected in the central banks’ expanding position in securities that are classified as “shares”. The accounting exchange on the liability side enables BOL to keep the increasing currency in circulation under control (figure 3). To not stifle growth, BOL did not follow the advice of IMF (2013) to raise commercial banks’ reserve

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16 An appropriate stock of reserves would cover three to four months of imports. In comparison with other South-East Asian low income countries, the Lao People’s Democratic Republic ranks last in terms of reserves in months of imports (IMF, 2013).
requirements to further slow money supply growth. When, between 2008 and 2010, net foreign assets declined, pressure for sterilization eased. However, at the same time, the claims of BOL on non-public financial institutions considerably rose. This can be explained by new commercial banks entering the financial sector. A prerequisite to operate a bank or a bank’s branch in the country is a minimum of registered capital of no less than 100 billion Lao kip (KN) ($12 million) and KN50 billion, respectively (BOL, 2007, Article 13). Of the registered capital, 25 per cent must be deposited with BOL (BOL, 2001a). In return for the commercial banks’ reserve deposits BOL provides liquidity through open market operations, which supply the banks with capital to not suppress lending.

The resulting increase in the claims on non-public financial institutions is mirrored on the passive side of the BOL balance sheet in bank deposits, which reflect the new commercial banks’ minimum reserve deposits. The overall liquidity stance of the reserve depositing and subsequent open market operations is neutral, but the measure supports lending in Lao kip and thereby de-dollarization.¹⁷ New

¹⁷ The government and BOL widely promote the Lao kip as the “only currency used in Lao PDR” to further stimulate de-dollarization.
(mainly foreign) banks and branches entering the Lao People’s Democratic Republic financial sector are likely to fulfil their reserve requirements in part by depositing foreign-currency-denominated capital at BOL. In return, BOL supplies the banks with Lao kip by conducting open market operations.

All in all, capital inflows and an increasing number of commercial banks have led to an increase in money supply and lending. On the one hand, this is due to domestic money creation as reflected in the BOL balance sheet. On the other side, in a highly dollarized country, it is possible that foreign-currency-denominated capital inflows do not fully accumulate in the central bank, but instead are directly channelled into the private sector as foreign-currency-denominated credit.

A decreasing reserves to months of imports ratio in combination with rising foreign debt, a comparatively high public debt to GDP ratio of about 50 per cent (including publicly guaranteed) (IMF, 2013) and a negative current account makes the Lao People’s Democratic Republic vulnerable to exchange rate fluctuations. The appreciation of the currency would deteriorate the trade balance further and foreign debt service would become more difficult while on the other hand, the depreciation of the currency would considerably increase the external debt burden in terms of domestic currency. Thus, to stabilize financial markets and growth, BOL has to keep the exchange rate relatively stable.

Given the important role of the Thai baht and the United States dollar in the economy of the Lao People’s Democratic Republic, the exchange rates against both currencies are of particular importance. Figure 4 shows the exchange rate of the Lao kip against the dollar and the Thai baht since 1990. Before the Asian financial crisis, the Lao kip (as the Thai baht) was tightly pegged to the dollar. During the Asian financial crisis, the Lao kip and the Thai baht depreciated strongly against the dollar. In the early 2000s, the exchange rates stabilized. Since mid-2006, the Lao kip has followed an appreciation path against the dollar whereas the exchange rate against the Thai baht has fluctuated between 240 and 280 Lao kip.

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18 New banks entering the financial sector are mainly foreign banks and branches with their parent banks operating in the neighboring countries, such as Thailand, Cambodia, Viet Nam and China.

19 In the Lao People’s Democratic Republic exchange rate stabilization is a particularly critical issue as the country faces a multicurrency problem. In 2010, about 50 per cent of the currency in circulation were Lao kip, 30 per cent were Thai baht and 20 per cent were US dollars (Klär and Kooths, 2010). The high share of foreign currencies limit monetary policy independence and the central bank’s ability to act as lender of last resort (Menon, 2010). The money supply in the Lao People’s Democratic Republic at least partly depends on the monetary policy decisions in the United States and Thailand.
While most South-East and East Asian currencies strongly depreciated against the dollar during the turmoil of the subprime crisis, the Lao kip continued to appreciate. From early 2011 to late 2012, the Lao kip/US dollar exchange rate was kept relatively stable, before it started to appreciate again. Within half a year the value of the Lao kip gained about 4 per cent against the US dollar. In June 2013 the trend reversed and since then the Lao kip has lost value. The real exchange rate on the other hand continues to appreciate due to increasing labour costs and inflationary pressure (IMF, 2013).

**Figure 4. Exchange rate of the Lao kip against the United States dollar and the Thai baht**

Source: IMF (IFS).

**Financial sector development**

Sustained capital inflows and the market entry of private and foreign commercial banks after the introduction of the Law on Commercial Banks in 2007 accelerated domestic money supply growth. Starting from a very narrow base of broad money, the money supply (M2)\(^2\) in percentage of GDP expanded from 20 per cent in 2006 to almost 50 per cent in 2012 (figure 5). A higher M2 to GDP ratio indicates financial deepening and higher monetization of the economy, as a relatively high rate of money and quasi-money can be easily transformed into investment and consumption. The

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\(^2\) M2 is defined as broad money supply and consists of the currency in circulation and Lao kip and foreign-denominated deposits (BOL, 2012a).
increased money supply went along with rapid credit expansion. Between 2007 and 2012, the average annual credit growth rate clearly exceeded 20 per cent. Overall credit (from the central bank and commercial banks to the economy) increased from 11 per cent of GDP in 2004 to 35 per cent of GDP in 2012.

Figure 5. Money supply and credit to the economy (private and public sectors)

The ratio of central bank assets and commercial banks assets to GDP is another important indicator of financial depth as a broader base of banking assets reflects less credit constrains (Beck, Demirgüç-Kunt and Levine, 1999). On the other hand, the ratio between the two types of assets sheds light on the sector’s efficiency. A higher commercial bank share is assumed to indicate higher efficiency as private capital allocation prevails over political considerations and thus lending can be assumed to be channelled to more productive investments (Demirgüç-Kunt and Levine, 2008; Kawai and Prasad, 2011). Figure 6 shows that since 2008, the commercial bank asset to GDP ratio rose considerably more than the central bank asset to GDP ratio, reflecting the market entry of (mainly) foreign private commercial banks and thereby increasing efficiency. However, as the three biggest commercial banks in Lao People’s Democratic Republic – with a market share of 50-60 per cent\(^{21}\) – are State-owned, this indicator must be treated with caution.

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\(^{21}\) The market share relates to the asset, deposit and loan share of the State-owned commercial banks in relation to quasi-private banks (BOL Monetary Statistics, various issues).
Besides depth and intermediation, the distribution of capital – between the private and public sector – is an important factor in evaluating the development of the financial sector (for example, King and Levine, 1993). Credit to the private sector to GDP ratio is particularly interesting for transition economies, which have a tendency to lend to State-owned enterprises. Figure 7 shows that since 2007, credit to the private sector in relation to credit to State-owned enterprises increased significantly. Since then, the gap between credit to the private sector and credit to State-owned enterprises gradually widened, indicating rising efficiency in credit allocation.

In the past, the Lao People’s Democratic Republic financial sector was characterized to a large extent by government directed lending to State-owned enterprises, mainly through State-owned banks. Those loans followed political interest rather than efficiency considerations, which resulted in high non-performing loan (NPL) ratios (Unteroberdoerster, 2004). The increase in lending to State-owned enterprises since 2008 raises questions concerning the sustainability and the performance of the loans (IMF, 2012b).

22 The onset of the rise reflects again the promulgation of the new Law on Commercial Banks and the resulting increase in new private and foreign commercial banks.

23 The ratio reflects the share of NPLs to overall loans.
Figure 7. Lending to the private sector versus lending to State-owned enterprises

Sources: BOL Monetary Statistics (various issues) (credit); and IMF (GDP).

Figure 8 shows the size of lending to the private sector compared with the size of lending to State-owned enterprises, as well as to State-owned enterprises by bank ownership. Overall lending increased by a factor of ten from KN1.95 trillion in 2004 to KN20.7 trillion in 2012. The share of lending to the State-owned enterprises of overall lending declined from 22 per cent to 7 per cent. Striking is the change in the composition of the type of bank which is lending to State-owned enterprises. The share of the State-owned banks declined by 11 percentage points, whereas the share of foreign bank branches increased by 12 percentage points. Foreign bank branches now account for one third of commercial bank lending to State-owned enterprises.\(^{24}\)

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\(^{24}\) Reportedly, one reason is that many of the foreign bank branches have just recently entered the market which is becoming more competitive and thus they finance investment projects that are not necessarily top tier. This could also be a possible explanation for the high NPL ratio of foreign bank branches (see figure 10).
The structure of lending to the private sector versus lending to State-owned enterprises, as well as the composition of the ownership of banks that lend to State-owned enterprises has changed considerably, when taking into account central bank lending (figure 9). Although the share of credit to State-owned enterprises out of overall credit decreased by 10 percentage points, it still accounts for more than a quarter of total lending in 2012. In absolute terms, lending to State-owned enterprises increased by a factor of seven (from about KN1 trillion to KN7 trillion). Notably, the share of the commercial banks (especially the State-owned commercial banks) in financing State-owned enterprises was halved (from 40 per cent to 20 per cent). Commercial bank lending was replaced by an increasing share of direct central bank lending, which accounts for almost 80 per cent (or KN5.550 trillion) of lending to State-owned enterprises.

The Government increasingly uses BOL to directly finance Government projects. Between 2006 and 2012, Government priority projects worth 8.4 per cent of GDP were financed by BOL. About 75 per cent of public funding went into infrastructure projects. By the 2015, public investment is planned to be further increased and to account for at least 12 per cent of GDP (Ministry of Planning and Investment, 2011, p. 207, p. 111).
Increased direct central bank lending is argued to be due to the fact that State-owned Commercial Banks increasingly operate based on efficiency considerations and are less willing to lend to unprofitable investments. To fulfil the Government’s socioeconomic plan, BOL has to step in. In the case of loan default, NPLs would not show up in the balance sheets of the State-owned commercial banks, but account as a central bank loss and as Government expenditure in case BOL has to be recapitalized.

The NPL ratio in the Lao banking sector declined from about 70 per cent in 2004 to below 6 per cent since 2007 (IMF, 2008, 2012b). The decline is due to large publicly financed write-offs during the bank restructuring process. As a result, the NPL ratio of State-owned commercial banks is considerably lower than the ratio of quasi-private banks. In particular, foreign bank branches show a comparatively high NPL ratio (figure 10). In addition to the write-offs, the currently relatively low overall NPL ratio is likely to be due to a credit boom (see figure 7). Excessive risk taking and deteriorated banks’ balance sheets only become apparent with a time lag when capital flows are reversed (Ocampo, 2003; IMF, 2012b).
IV. CRISIS RISKS AND PREVENTION

The Asian financial crisis as a wake-up call

In the wake of the Asian financial crisis, Stiglitz (1998, p. 32) argues that “financial market liberalization preceding the development of adequate regulatory capacity is likely to lead to an enhanced likelihood of a financial crisis”. The experiences of the Asian financial crisis are of particular relevance for the financial sector development and liberalization process of the Lao People’s Democratic Republic as the current development of the financial sector to some extent resembles development in other South-East Asian economies in the run-up to the Asian financial crisis.

The causes for the Asian financial crisis are many. A broad consensus exists that the combination of buoyant capital inflows, financial sector liberalization and poor financial sector supervision contributed to the unsustainable development (for example, Brownbridge and Kirkpatrick, 1999; Stiglitz, 1998; Corbett, Irwin and Vines, 2001; Estrada, Park and Ramayandi, 2010). In the late 1980s, many South-East Asian countries began to liberalize their financial markets by opening up capital accounts, reducing constraints on banking activities and liberalizing foreign bank entry (Brownbridge and Kirkpatrick, 1999). High growth rates in South-East Asia and
low interest rates in large industrial economies as in Japan and the United States led to large-scale carry trades\(^25\) (Hoffmann and Schnabl, 2008).

The South-East Asian economies recorded strong capital inflows during the first half of the 1990s (BIS, 1997). Driven by capital inflows domestic lending expanded rapidly but due to limited knowhow and inadequate risk assessment, the underdeveloped financial markets were not able to allocate capital efficiently (Estrada, Park and Ramayandi, 2010). Lending was directed to privileged domestic firms (mainly export oriented) and insufficient collateral was compensated by government guarantees (either implicit or explicit) (Corbett, Irwin and Vines, 2001). This led to an investment structure which was characterized by high volumes but low quality (Estrada, Park and Ramayandi, 2010).

Overinvestment and increasing competition in the financial sector had led to deteriorating returns on investment. Deregulation had enabled banks to expand their activities to riskier sectors with potentially higher returns, such as real estate investments. To maximize profits, banks have tended to undertake riskier projects than depositors would have approved. This was possible because of the following: (i) depositors lacked correct and complete information\(^{26}\) about the banks’ investment projects; (ii) banks implicitly assumed a public bailout in case of bank failure (to protect the depositors and to prevent contagion effects) (BIS, 1997; Brownbridge and Kirkpatrick, 1999); and (iii) financial sector supervision was insufficient.

The rapid financial development has outpaced the regulators’ capacity to efficiently oversee the sector. Thus, economic optimism during the boom and inadequate risk evaluation led to the underestimation of financial risks by borrowers, banks and regulators alike (Ocampo, 2003). When foreign capital inflows slowed down (and later reversed) unprofitable investment projects and rising NPLs put pressure on bank balance sheets. The maturity and currency mismatch of loans increased the

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\(^{25}\) Carry trading is an interest rate and currency speculation. Investors borrow in countries with low interest rates and invest in countries with high interest and growth rates. The investors’ profit is the spread between borrowing and lending costs. Carry trades to South-East Asian economies were particularly attractive as the exchange rates were pegged to the US dollar which nullified the exchange rate risk. Carry trades are highly speculative, volatile and mainly for a short period. Capital can be transferred quickly in and out of a country.

\(^{26}\) Asymmetric information results if one party has better information than the other. In this case, banks can select investment projects adversely as the lender cannot distinguish between low-risk and high-risk projects. As riskier projects offer higher returns and possible losses are borne by the lender, banks have an incentive to engage in riskier projects. Asymmetric information is in particular an issue in underdeveloped financial markets as information costs are higher due to a lack in transparency (weak disclosure policies) and low legal enforcement standards (Brownbridge and Kirkpatrick, 1998). Another issue is the free rider problem as due to the typically large number of small depositors of a bank it is rational for a depositor not to pay to gain information as costs would outrun the profit (Mishkin, 2001).
banks’ distress (McKinnon and Schnabl, 2004). In 1997 the “Asian Miracle” ended with numerous bankruptcies of banks, large-scale currency depreciations and depressed growth.

Driven by large capital inflows, the Lao People’s Democratic Republic financial sector is growing rapidly; however, it remains underdeveloped and vulnerable to external shocks. If financial sector liberalization and deepening continue to outpace the capacity of the regulating authorities, financial fragility may increase with potential negative effects as experienced during the Asian financial crisis. In particular, the rapid credit expansion is viewed critically as it could cause vulnerabilities to the financial sector (IMF, 2012b).

Table 1 compares the credit expansion in South-East Asian economies six years prior to the outbreak of the Asian financial crisis with developments in the Lao People’s Democratic Republic over the last six years. With respect to annual real growth, annual loan growth and loan growth to GDP growth, the development of the Lao People’s Democratic Republic financial sector exhibits similar characteristics to the South-East Asian economies prior to the Asian financial crisis. Domestic credit to GDP is, however, considerably smaller than in the other South-East Asian economies, which suggests a different level effect (at a lower level of financial development, credit to the private sector grows more rapidly).

<table>
<thead>
<tr>
<th>Country</th>
<th>Annual GDP growth</th>
<th>Annual credit growth</th>
<th>Annual credit growth/annual GDP growth</th>
<th>Domestic credit/GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesia</td>
<td>17</td>
<td>20</td>
<td>118</td>
<td>45</td>
</tr>
<tr>
<td>Republic of Korea</td>
<td>14</td>
<td>17</td>
<td>121</td>
<td>68</td>
</tr>
<tr>
<td>Malaysia</td>
<td>13</td>
<td>18</td>
<td>138</td>
<td>80</td>
</tr>
<tr>
<td>Philippines</td>
<td>13</td>
<td>33</td>
<td>254</td>
<td>26</td>
</tr>
<tr>
<td>Thailand</td>
<td>14</td>
<td>24</td>
<td>171</td>
<td>84</td>
</tr>
</tbody>
</table>

Sources: Brownbridge and Kirkpatrick (1999); BOL Monetary Statistics; and ADB estimations (Lao People’s Democratic Republic data).

Note: The data for the Lao People’s Democratic Republic comprise loans denominate in Lao kip, Thai baht and US dollar.
The rapid credit expansion and an increasing number of new borrowers pose a challenge to commercial banks to evaluate future returns of investment projects, process credit applications and monitor the use of funding. If credit growth was to outpace the ability of commercial banks to evaluate the risk of projects and monitor their clients, rising NPLs would become likely. Furthermore, the increasing number of new commercial banks increases competition. To gain market share and to fulfill the loan to deposit ratio requirement of 60-80 per cent set by BOL, financing of projects with lower profitability becomes likely. This, on the one hand, reduces the individual bank’s returns on investment as observed by Keovongvichith (2012), but on the other hand, it deteriorates the loan portfolio quality.27

The increasing number of commercial banks and the rapid credit expansion also require that the supervision authority exercise more diligence in overseeing the financial sector. However, despite BOL requiring regular public disclosure statements of the commercial banks’ balance sheets and business operations (BOL, 2007, Article 57), data disclosure remains poor (Kronenberg, 2011; IMF, 2013). Poor commercial bank data, limited capacities and its broad spectrum of tasks makes it difficult for BOL to efficiently supervise the rapidly expanding financial sector. In addition, plans of the Lao People’s Democratic Republic to join the ASEAN Economic Community, will put a further burden on this. Two points on the agenda of the ASEAN Economic Community are free investments flows and the freer flow of capital. The former comprises the ASEAN Investment Agreement, which provided for general liberalization of investment and improved investors protection. The later aims to strengthen the ASEAN capital market development and integration by allowing greater capital mobility, such as in the form of FDI, but also portfolio investment liberalization (ASEAN, 2008). Region-wide operating banks are more difficult to supervise for national regulators, particularly for branches of banks headquartered in advanced economies, such as Malaysia or Singapore, that offer more complex and sophisticated financial products as to what is up to now common in Lao People’s Democratic Republic.

The Asian financial crisis serves as a painful reminder of the threat of capital account liberalization without sufficient regulations. In particular, an underdeveloped,

27 This could, as in the South-East Asian economies before the crisis, raise the incentive of banks to expand their activities to more profitable but also riskier activities. This is not only the case for private banks but also for State-owned banks as the increased competition threatens their market share. To attract customers, new products and services comparable to those of private banks must be offered. Furthermore, the increased risk and potential loses of the large State-owned banks are implicitly backed by the government. So far, the Lao People’s Democratic Republic financial sector offers only limited investment products beyond traditional banking operations. However, this situation could change in 2015 when the country joins the ASEAN Economic Community. With the opening up of the financial sector, new financial products and opportunities are likely to arise, exceeding national regulators’ capacities.
bank-centred financial sector, as in the Lao People’s Democratic Republic, is prone to rising macroeconomic instability due to increased capital flows. The shallow financial market cannot efficiently absorb increased capital inflows. Because of limited investment opportunities and inefficient financial institutions, excess funds are likely to be channelled into real estate, which, in turn, could result building up a bubble. Capital flows tend to be pro-cyclical. In the case of deteriorating business sentiments, they might stop or even reverse. The effects on the financial and real markets would be destructive as witnessed during the Asian financial crisis.

Structural distortions in the Asian financial markets became obvious as capital inflows slowed down. More recently, when the former chairman of the U.S. Federal Reserve, Ben Bernanke (2013), in June 2013 hinted a possible ending of the its quantitative easing some South-East Asian economies went under fierce depreciation pressure when capital flows started to reverse. Kawai and Lamberte (2010) argue that countries with current account deficits, high inflation rates and foreign currency-denominated debt are particularly vulnerable to capital outflows. In Asia, in particular India, Indonesia and the Lao People’s Democratic Republic match these characteristics. All three faced fierce currency depreciation pressure after the announcement. The Lao kip devaluated from about KN7.700 per US dollar in June to almost KN8.000 per US dollar in September 2013 (see figure 4).

The IMF (2013) risk assessment for the Lao People’s Democratic Republic states that there is a high likelihood that the end of the unconventional monetary policy measures in the United States will trigger a capital flow reversal, which would increase the foreign currency liquidity strains. Shrinking foreign reserves would help build devaluation pressure on the Lao kip. Foreign capital drain and a devaluation of the Lao kip would negatively affect banks’ and companies’ balance sheets. Financial sector distress is likely to lead to a loss of confidence in the domestic banking system, capital flight and a reacceleration of dollarization (IMF, 2013).

**Propositions for improved financial sector supervision**

Financial sector development is often accompanied by financial liberalization, which includes, among other things, the opening up of the capital account, the dismantling of restrictions on private or foreign banking operations and the removal of interest rate ceilings, (Brownbridge and Kirkpatrick, 1998). In particular, with regard

28 All three countries have current account deficits, which were sustained by hot money inflows prior to the crisis, but with the prospect of an imminent end to U.S. quantitative easing, investors’ confidence in the sustainability of the economies is shrinking and capital is withdrawn. The Indian rupee and Indonesian rupiah lost more than 15 per cent within four months after the announcement of Bernanke.
to the formation of the ASEAN Economic Community in late 2015,\textsuperscript{29} the Lao People’s Democratic Republic faces severe challenges concerning financial development and supervision. To achieve a stable structure, the member States of the ASEAN Economic Community must establish common licensing standards for financial institutions, a cross-border payment settlement scheme and deposit insurance system, a regional credit rating scheme and an enhanced system for consumer protection. To efficiently supervise the financial activities, a regional financial supervisory authority is advisable (Lee and Takagi, 2014). However, given the heterogeneous character in terms of the development stage and the political and economic systems of the ASEAN member countries, common standards and regulatory frameworks are difficult to implement. To gradually close the gap to the more advanced economies, the Lao People’s Democratic Republic has to deepen and liberalize its financial market. Financial liberalization, however, has its drawbacks. The frequent occurrence of banking crises in the aftermath of the financial liberalization in several developing economies in the 1980s and 1990s indicate a link between financial liberalization and financial fragility (for example, Stiglitz, 1998; Rossi, 1999; Kaminsky and Reinhart, 1999; Rajan, 2005).\textsuperscript{30} To ensure sound financial sector development, Mishkin (2001) proposes several measures to ensure prudential supervision. For the still underdeveloped Lao People’s Democratic Republic financial sector, some measures, such as restrictions on risky asset holdings or the separation of the banking sector from other financial services, are not yet crucial. Instead, capital and disclosure requirements, as well as bank examination practices are of particular importance.

Capital requirements aim to prevent excessive risk taking as an increase in the share of equity capital rises, the bank owners’ loss in case of bankruptcy.\textsuperscript{31} In line with Basel I, commercial banks operating in the Lao People’s Democratic Republic financial sector are required to maintain a capital adequacy ratio of at least 8 per cent (total capital to total risk weighted assets) and a 5 per cent ratio of the tier I capital to total risk weighted assets (BOL, 2001b, Article 4). Despite far reaching

\textsuperscript{29} Given the current development and commitment of the ASEAN economies it is unlikely that the ASEAN Economic Community’s goal of a single market will be achieved by that time (Lee and Takagi, 2014).

\textsuperscript{30} Rossi (1999) and Demirgüç-Kunt and Detragiache (1998) find a significant positive relationship between financial liberalization and financial crises, in particular in developing economies with weak banking sector regulation. The link does not only apply for developing countries. A major reason for the subprime crisis in the United States and Europe was the combination of new complex investment products with insufficient regulation (Financial Crisis Inquiry Commission, 2011).

\textsuperscript{31} Capital requirements can be based on the leverage ratio (equity capital divided by assets) or on risk associated with certain off-balance-sheets activities. International recommendations for capital requirements are covered under the Basel Accords where banks are required to hold certain minimum requirements according to their risk-weighted asset holdings and activities.
recapitalization measures and ongoing financial support, two of the four State-owned commercial banks remain below the regulatory minimum (Kronenberg, 2011). Furthermore, reportedly many assets held by the commercial banks do not comply with the regulations as they are difficult to liquidate in case of a shock (for example, domestic government bonds). Overall, the capital adequacy of commercial banks (measured by loan to capital ratio) has deteriorated since 2007 (Keovongvichith, 2012).

For the supervision authority as well as for stockholders, creditors and depositors of commercial banks, a regular and comprehensive disclosure of information on the bank’s portfolio, activities and risk exposure is crucial for monitoring it. The disclosure of information reduces the banks’ advantages of asymmetric information and increases market discipline and financial stability. Currently, the enforcement of the disclosure policy in the Lao People’s Democratic Republic financial sector is very weak. While BOL requires regular disclosure of the financial statements of all commercial banks (BOL, 2007, Article 57), public access to that information is limited. Also, national auditing standards do not meet international requirements and data released are of poor quality and inadequate for market decision making (World Bank, 2009). Kronenberg (2011) argues that if international recognized standards were to be applied, the overall picture of the health of the banking sector could change considerably.

In addition to the public disclosure of banking information, regular bank examinations are important to strengthen banking supervision and monitoring. Although on- and off-site examinations in the Lao People’s Democratic Republic are conducted, risks are not addressed adequately as examinations are mainly compliance based and not risk-focused (Kronenberg, 2011; IMF, 2013). On-site examinations take place annually with the same number of staff and timeframe for every bank regardless of the bank’s size or risk exposure. Data gathered are insufficient as they lack a risk focused quality assessment. Given limited risk management capacity, exchange rate risks or interest rate risks are not evaluated, while others such as liquidity risks are insufficiently addressed. The time lag between examination and the use of the data is too long for efficient decision making. Off-site examinations are also seen as being insufficient, owing to inexperienced and the limited number of staff (Kronenberg, 2011).

The State-owned commercial banks receive “capitalization bonds” and “bonds for settlement of defaulted LC” (letter of credit) issued by the Ministry of Finance. For instance, in 2010, BCEL (the largest State-owned commercial bank) received KN608 billion/KN40 billion, respectively (BCEL Annual Report 2011).

On-site examination refer to BOL staff visiting the premises of commercial banks, to assess their business operations and the state of the property. Off-site examination imply the monitoring and analysis of the financial condition of the commercial banks on the basis of regularly business reports.
In the Lao People’s Democratic Republic, the financial sector supervision falls to BOL: “The Bank of the Lao People’s Democratic Republic shall review and comment on the regulations on credit and other regulations of the commercial banks and financial institutions under its supervision including the implementation of these regulations” (Lao People’s Democratic Republic, 1995, (new) Article 42). To enhance the supervision of the financial sector, BOL has reorganized and strengthened its banking supervision.\(^{34}\) Despite improvements, its supervisory ability is still limited, in particular given the current financial sector development with an increasing number of banks, strong capital inflows, rapid credit expansion and the upcoming accession to the ASEAN Economic Community. Furthermore, supervising the financial sector is not the only task of BOL. Kronenberg (2011) argues that BOL might face conflicting interests carrying out its assigned tasks (maintaining the stability of the Lao kip, supporting the government’s development goals and supervising the financial sector). This is the case when the BOL channels credit to State-owned enterprises to finance government projects as discussed above and is critical for two reasons. First, direct lending is closely related to NPLs as decision making on credit provision is not based on efficiency reasoning but is politically motivated. This has caused unsustainable high NPL levels in the country. Those had to be written off at high costs to the government (Unteroberdoerster, 2004). Second, with BOL being the supervising authority, direct central bank lending (which accounts for about 15 per cent of GDP) is not subject to any further control.

V. HOW TO MOVE FORWARD

With respect to financial depth, intermediation and distribution, the financial sector in the Lao People’s Democratic Republic has seen a rapid catch-up in recent years. Money supply increased the market share of commercial banks in comparison with that of the central bank rose and credit is increasingly being channelled to the private sector.

However, financial development and credit growth are to a large extent driven by high foreign capital inflows, State-owned commercial banks – which still dominate the banking sector – and by direct central bank lending. Politically biased lending and overinvestment are likely to lead to declining returns on investments and a rising NPL ratio. The large share of credit denominated in foreign currency makes the country vulnerable to exchange rate depreciations. With its comparatively

\(^{34}\) In November 2010, the former Financial Institution Supervision Department was split into two departments, which are independent of each other: the Commercial Bank Supervision Department and Financial Institutions Supervision Department. The objective is to increase the effectiveness of supervision in each market segment (BOL, 2012d).
low level of international reserves, BOL may not be able to stabilize the exchange rate if confronted with sustained devaluation pressure. As the current financial sector development is driven by quantitative rather than qualitative factors, the financial development may outpace the regulators’ capacity, which would increase the risk of macroeconomic instability. Thus, it is of utmost importance to enhance prudential financial sector regulation.

To avoid an Asian financial crisis-like scenario in the Lao People’s Democratic Republic and to transform the developments of the financial sector into a sustainable medium to long-term growth, the sequencing and pace of financial development and regulation are crucial. In response to the Asian financial crisis, Brownbridge and Kirkpatrick (1999) drew four lessons for prudential regulation which are of particular interest for the Lao People’s Democratic Republic. First, given increased capital inflows, regulators must constrain financial institutions’ foreign currency exposures to limit the vulnerability to exchange rate changes and foreign capital outflows. For the Lao People’s Democratic Republic, this point is of particular concern due to its relatively high capital inflows and the multicurrency problem. Second, BOL must enforce existing regulations. Supervision regulations are in place, but are poorly enforced. Third, financial institutions should be encouraged to use international standards of credit classification to reveal their financial situation. This would provide BOL with the necessary data basis for financial sector supervision. It would also be an important step, with regard to the accession to the ASEAN Economic Community, to harmonize banking and reporting standards in the region. Fourth, to reduce the moral hazard of banks, a government bailout in the case of failure must be credibly ruled out. This is especially important for the Lao People’s Democratic Republic financial sector as the largest banks are State-owned and thus face an implicit bailout guarantee which could raise the incentive for riskier actions.
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