The Lao People`s Democratic Republic
National Institute for Economic Research

The Lao People`s Democratic Republic

Joint Policy Research and Dialogue Program for Fiscal Stabilization in Lao PDR

Final Report

March 2020

Japan International Cooperation Agency (JICA)

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FOREWORD

The cooperation program entitled "Joint Policy Research and Dialogue Program for Fiscal Stabilization in Lao PDR" (hereinafter referred to as "the Program") was conducted in response to the request from His Excellency Dr. Thongloun SISOULITH, Prime Minister of Lao People's Democratic Republic (Lao PDR), to his Japanese counterpart, His Excellency Mr. Shinzo ABE, in 2016.

Japan International Cooperation Agency (JICA) and the National Institute for Economic Research (NIER) signed the Memorandum of Understanding to cooperate on the Program in March 2018 as a result of a series of discussions with NIER, and other relevant governmental organizations, including the Ministry of Finance, the Ministry of Planning and Investment, the Bank of Lao PDR and the National University of Laos. The Program was implemented based on the joint implementation structure, which involves researchers and officials specializing in fiscal and financial policy from both Japan and Lao PDR.

Researchers and officials from both Japan and Lao P.D.R. worked closely in the four Working Groups, 1)Fiscal and Debt Management, 2)Resource Export Management, 3)Balance of Payment and Foreign Reserve Management, and 4)Financial System Development under the guidance of the National Committee in Lao PDR, and elaborated research reports of each Working Group and seven Policy Proposals.

The seven Policy Proposals focuses on current and projected issues on fiscal stabilization in Lao PDR, and provides policy settings for the 9th National Socio Economic Development Plan (2021-2025) and other policies to secure fiscal consolidation in Lao PDR.

Finally, I wish to express my sincere appreciation to all who extended valuable contributions to the Program and hope these close collaboration also contributed to fostering trust and friendship between Japan and the Lao PDR. I sincerely hope that this Report ant the Policy Proposal will serve the purpose and be put into policy and be implemented.

March 2020

Shigenori OGAWA
Director General
Southeast Asia and Pacific Department
Japan International Cooperation Agency

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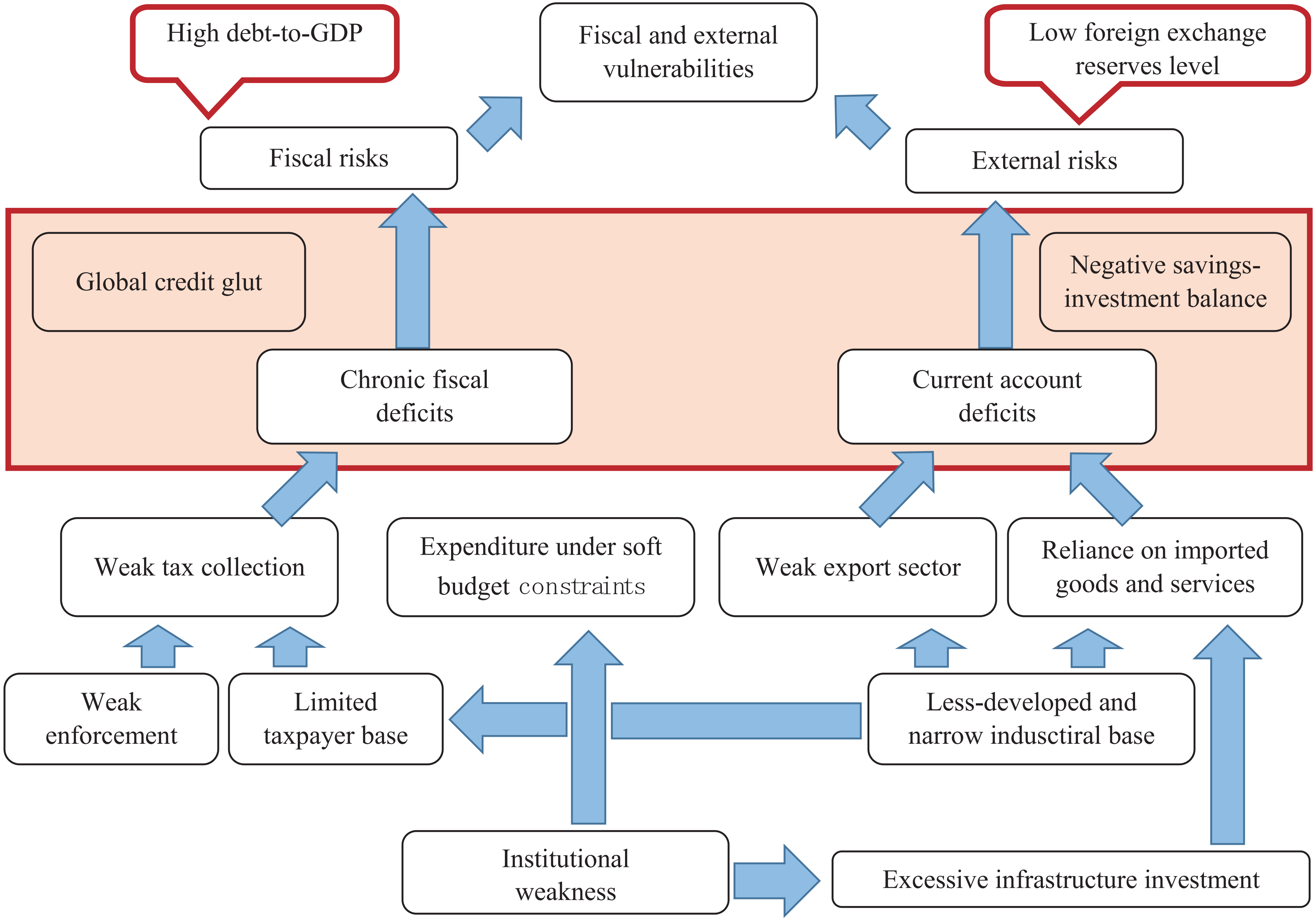

Policy Proposals under the Joint Policy Research and Dialogue Program for Fiscal Stabilization in Lao PDR

	Near-term action recommended
1. Strengthening public finance management and governance	Create a well-functioning platform involving the Ministry of Planning and Investment (MPI) and the Ministry of Finance (MOF)
2. Raising tax revenues by strengthening enforcement and broadening the taxpayer base	Increase value-added tax (VAT) collection from large-scale enterprises and to minimize the scope of tax exemptions
3. Maximizing efficiency gains and positive externalities of fiscal expenditures	Establish an improved public procurement practice
4. Implementing effective public debt management	Ensure rollover of foreign-currency-denominated external debt at reasonable cost
5. Minimizing fiscal risks due to contingent liabilities	Enhance commercial viability of the existing and ongoing investments—in particular mega infrastructure projects
6. Creating the institutional base for a well-functioning financial system	Develop the government bond market for a stable and sustainable issuance of government debt securities at reasonable cost
7. Improving the use of fiscal and related statistics for policy monitoring and planning purposes	Make fiscal and related statistics broadly available on a regular and timely basis

- Some policies have immediate or short-term effects and others only bring results over the medium or long term. Despite such time lags, policy measures need to be designed, implemented, and maintained or adjusted to bring about the intended outcomes within their respective timeframes.
- Biannual meetings of a small group of experts from Lao PDR and Japan should be organized in conformity with the budgetary cycle to facilitate monitoring and assessing of the effectiveness of policy measures for fiscal stabilization.

I. Policy Proposals

UNDER THE JOINT POLICY RESEARCH AND DIALOGUE PROGRAM FOR FISCAL STABILIZATION IN LAO PDR

Prime Minister Shinzo Abe announced the Japan-Lao PDR Joint Development Cooperation Plan for the Sustainable Development of Lao PDR at the Japan-Lao PDR Summit Meeting with Prime Minister Thongloun Sisoulith in September 2016. The Prime Ministers expect that specific initiatives under the Cooperation Plan will contribute to the formulation of Lao PDR's 9th Five-Year National Socio-Economic Development Plan (2021-2025). As one of the initiatives under the Cooperation Plan, the Joint Policy Research and Dialogue Program for Fiscal Stabilization in Lao PDR was launched in March 2018. Under the Program, four working groups consisting of experts from Lao PDR and Japan were formed to cover respective issues with implications for fiscal stabilization[1]. A set of draft policy proposals was presented for discussion at the mid-term report meeting on March 20, 2019 in Vientiane and was revised based on the discussion and a suggestion separately made by Prime Minister Thongloun to address immediate challenges concerning tax revenue and foreign exchange reserves. A few rounds of discussions following the mid-term report meeting helped elaborate on the proposals and articulate their rationale and timeframes.

I – 1. Timeframes for proposed policy actions

Each policy action proposed under the Joint Policy Research and Dialogue Program for Fiscal Stabilization in Lao PDR has a different timeframe. A time lag between a given policy action and its results is inevitable. Some policies have immediate or short-term effects while others only bring results over the medium or long term. Despite such time lags, policy measures need to be designed, implemented, and maintained or adjusted to bring about the intended outcomes within their respective timeframes. Furthermore, the effectiveness of a policy depends on the credibility of the government commitment to implementing it. Excessive discretion should be avoided in order to achieve medium- and long-term outcomes.

I – 2. Policy proposals

1. **Strengthening public finance management and governance**. The government should continue implementing policy measures in line with its comprehensive public finance management development strategy[2] to achieve fiscal and debt sustainability. More specifically, a public investment management framework should be introduced to reduce fiscal vulnerabilities and to maximize the efficiency and effectiveness of fiscal operations over the longer term. To help achieve this goal, the government should create a well-functioning platform involving the Ministry of Planning and Investment (MPI) and the Ministry of Finance (MOF) to enhance coordinated investment planning, strengthened project appraisals, and well-timed monitoring with a view to securing quality investment for capital formation. Soft budget constraints should be avoided.

2. **Raising tax revenues by strengthening enforcement and broadening the taxpayer base**. The government should raise tax revenues by strengthening enforcement through comprehensive tax administration reform and by adopting a selection and concentration strategy. The immediate priority is to increase value-added tax (VAT) collection from large-scale enterprises and to

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[1] Four working groups cover fiscal and debt management (WG1), resource export management (WG2), balance-of-payments and foreign reserve management (WG3), and financial system development (WG4).

[2] As defined in the *Vision to 2030 and Public Finance Development Strategy to 2025* approved and promulgated by Decree 204/PM dated July 4, 2017.

minimize the scope of tax exemptions. In order to broaden the taxpayer base over the long term, the government should promote a gradual transformation of the resource-based economy into a more diversified economy by creating a better business environment for both local and foreign entrepreneurs. Policies to promote SMEs and micro enterprises, including the introduction of innovative financing mechanisms, also could contribute to broadening the taxpayer base.

3. **Maximizing efficiency gains and positive externalities of fiscal expenditures**. The government should maximize efficiency gains by optimizing budget allocation to priority sectors. An improved public procurement practice should be in place to promote budget execution efficiency. Also, fiscal expenditures should maximize positive externalities to generate economic and social returns, which would contribute to strengthening the taxable capacity of the economy and society. In this context, the government should aim for sustainable and equitable income growth by means of developing human capital while preserving environmental and cultural assets.

4. **Implementing effective public debt management**. The government should take effective measures under a comprehensive public debt management strategy developed in accordance with the Law on Public Debt Management[3]. Efforts should be made to deal with risks due to currency and maturity mismatches entailed in public sector liabilities. The portfolio of foreign currency-denominated external debt should be managed to secure investor confidence and gradually shifted towards one to help contain debt services. Over the long term, foreign exchange reserves could be increased by maintaining an adequate level of real exchange rates under a more flexible exchange rate regime, which would contribute to enhancing transactions to increase net foreign exchange earnings. A *gradual* approach in increasing foreign exchange rate flexibility is appropriate in light of potential negative impacts on external debt service burden in kip terms. For the short term, rollover of foreign-currency-denominated external debt at reasonable cost—in particular the outstanding bonds issued in the Thai capital market—is key to maintaining foreign exchange reserves.

5. **Minimizing fiscal risks due to contingent liabilities**. The government should introduce measures to minimize fiscal risks entailed in contingent liabilities[4]. For infrastructure investment, fiscal risks in Public-Private Partnerships (PPPs) or the BOT scheme should be carefully examined. The existing and ongoing investments— in particular mega infrastructure projects involving state-owned enterprises (SOEs) —should be reinforced to enhance their commercial viability and to generate higher economic and social returns[5]. Performance of SOEs should be strengthened if feasible, and otherwise poor-performing SOEs should be restructured or abolished. Power sector SOEs' heavy reliance on the power demand in neighboring countries as well as on the shared water resources requires careful consideration of *supply and demand conditions* in the Mekong region. Also, measures to address non-performing loans (NPLs) held by state-owned banks should be introduced.

6. **Creating the institutional base for a well-functioning financial system**. The government should promote a well-functioning financial system to mobilize domestic savings over the long term to serve productive investment. The immediate priority is government bond market development to enable a stable and sustainable issuance of government debt securities at reasonable cost. Steps should be taken to rationalize primary market development, followed by secondary market development and diversification of the domestic investor base over the long term.

7. **Improving the use of fiscal and related statistics for policy monitoring and planning purposes**. The government should make fiscal and related statistics broadly available on a regular and timely

[3] Approved by the National Assembly on June 18, 2018.

[4] Government contingent liabilities include unforeseeable budget allocations as part of post-disaster reconstruction efforts, which are implicit in nature and mostly beyond government control.

[5] This approach is in line with the *G20 Principles for Quality Infrastructure Investment*, which was endorsed on June 29, 2019 as one of the supplementary documents to the *G20 Osaka Leaders' Declaration*.

basis within the government to strengthen its monitoring and planning capacity. The government should also make these statistics available to the public with a view toward maintaining the credibility of government commitment.

I – 3. Follow-up actions

1. The government should be responsible for monitoring and assessing the effectiveness of policy measures adopted or to be adopted in line with the policy proposals given under the Joint Policy Research and Dialogue Program for Fiscal Stabilization in Lao PDR.
2. The National Committee[6] established to oversee the Joint Policy Research and Dialogue Program for Fiscal Stabilization in Lao PDR should be transformed to serve as a monitoring body.
3. Biannual meetings of a small group of experts from Lao PDR and Japan should be organized in conformity with the budgetary cycle to facilitate monitoring and assessing of the effectiveness of policy measures for fiscal stabilization.

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[6] Decision to appoint National Committee for Joint Policy Research and Dialogue Program for Fiscal Stabilization in Lao PDR was made by Decree 56/PM dated August 15, 2018.

II. Executive Summary of Four Working Groups[7]

1. The Lao economy has grown rapidly thanks to foreign direct investment in the natural resources sector, but it faces vulnerabilities in the fiscal and external sectors.
2. Heightened fiscal risks caused by the increasing amount of foreign currency-denominated external debt and the growing government contingent liabilities are due to chronic fiscal deficits, reflecting a large negative savings–investment balance in the economy. Overly ambitious investment in infrastructure widened the gap to be filled by external liabilities. Global credit glut enabled a rapid accumulation of such government liabilities without increasing apparent funding costs over the past years.
3. Liabilities owed by the Lao government have reached at a level that is susceptible to factors beyond government control. On the asset side, financial and non-financial returns are less certain than the cost of liabilities exposed to downside risks, including currency and maturity mismatches. Such asymmetry between assets and liabilities on the government balance sheet needs to be accommodated by annual fiscal operations in line with the long-term fiscal policy framework. The efficiency and effectiveness of fiscal expenditures is key to addressing fiscal consolidation while revenue enhancing efforts need to be maintained.
4. The Lao government faces a dilemma in terms of public investment for long-term economic development versus reliance on external debt. Laos needs to maximize net investment returns from the ongoing and future investment carried out by external borrowing in the infrastructure and natural resources sectors.
5. While the long-term prospects appear positive, the ongoing investment in Laos needs a gestation period over a few decades to bear fruit. One of the immediate challenges facing Laos is how to address the concern during the gestation period over fiscal risks caused by the high level of external debt. Mitigating fiscal vulnerabilities to external shocks is of increasing urgency for Laos because of rising risks and uncertain prospects in the global economy.
6. Mitigation measures are needed to deal with downside risks due to currency and maturity mismatches entailed in government liabilities. Laos may not be faced with the immediate risk of an external debt crisis, but its external position remains vulnerable to terms-of-trade deterioration and investor sentiment due to a low level of foreign exchange reserves under the less flexible exchange rate regime.
7. Positive net investment returns from ongoing and future infrastructure investment can only be secured through sound project planning and implementation. The key ingredients are improved efficiency and effectiveness of fiscal expenditure and enhanced commercial viability of ongoing mega infrastructure projects. Rational and efficient use of fiscal resources is a fundamental building block for fiscal stabilization.
8. For the expenditure composition to be effective, the long-term fiscal framework should address long-term goals of triple capital formation focusing on physical, human, and institutional capital.

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[7] Four working groups (WGs) are in place to cover fiscal and debt management (WG1) headed by Prof. Toshiro Nishizawa (The University of Tokyo) as the lead researcher; resource export management (WG2) by Prof. Terukazu Suruga (Okayama Shoka University); balance-of-payments and foreign reserve management (WG3) by Prof. Takuji Kinkyo (Kobe University) and Prof. Kazue Demachi (Tokyo University of Foreign Studies); and financial system development (WG4) by Fumiharu Mieno (Kyoto University) under the Program to conduct research on respective issues with implications for fiscal stabilization.
Prof. Toshiro Nishizawa, the lead researcher of Working Group 1, drafted this report with input from other Working Groups, JICA experts, and the JICA Laos Office, as well as with the support of the National Institute for Economic Research (NIER) serving as the implementation secretariat.

Quality investment for capital formation should be secured with a coordinated overall planning, strengthened project appraisals and well-timed monitoring.

9. Effective measures with strengthened enforcement to mobilize fiscal revenues should be in place against the backdrop of declining tax revenues in the past few years. Value added tax (VAT) and excise duties have been a relatively stable source of tax revenues and represent the largest shares among major tax categories. One of the structural constraints to increasing tax revenues is a limited taxpayer base due to the less-developed and narrow industrial base.

10. A time lag between a given policy action and its results is inevitable. Some policies have immediate or short-term effects while others only bring results over the medium or long term. Despite such time lags, policy measures need to be designed, implemented, and maintained or adjusted to bring about the intended outcomes within their respective timeframes. The effectiveness of a policy depends on the credibility of the government commitment to implement it. Excessive discretion should be avoided in order to achieve medium- and long-term outcomes.

11. Suggested policy options are: strengthening public finance management and governance; raising tax revenues by strengthening enforcement and broadening the taxpayer base; maximizing efficiency gains and positive externalities of fiscal expenditures; implementing effective public debt management; minimizing fiscal risks due to contingent liabilities; creating the institutional base for a well-functioning financial system; and improving the use of fiscal and related statistics for policy monitoring and planning purposes.

12. Monitoring mechanisms should be in place in conformity with the budgetary cycle to assess the effectiveness of policy measures for fiscal stabilization.

II – 1. Background

1. **The Lao economy has grown rapidly thanks to foreign direct investment in the natural resources sector since the mid-2000s despite its structural disadvantages and weaknesses** (Figure 1). Laos is a landlocked country, and most of its territory is mountainous and thickly forested. It has a population of about seven million, with its density being one of the lowest in Southeast Asia. Annual economic growth averaged over 7% during the last decade—among the strongest in Asia—with a GDP per capita of US$2,455 in 2017[8]. Agriculture, dominated by rice cultivation in lowland areas, accounts for about 20% of GDP and 70% of total employment. The economy has become more dependent on capital-intensive natural resource exports, benefiting from foreign direct investment in the hydropower and mining sectors. Some concern persists concerning environmental impacts. Infrastructure remains underdeveloped, particularly in rural areas. The government is faced with challenges in attracting a wider range of foreign investors, other than those in the natural resources sector, due to such constraints as a limited labor pool, a small domestic market, and ongoing problems with business environment as indicated by the World Bank's ease of doing business ranking placing Laos at 154th out of 190 countries in 2019[9].

[8] IMF WEO database (October 2019).

[9] The World Bank Group. Doing Business 2019, 16th edition.

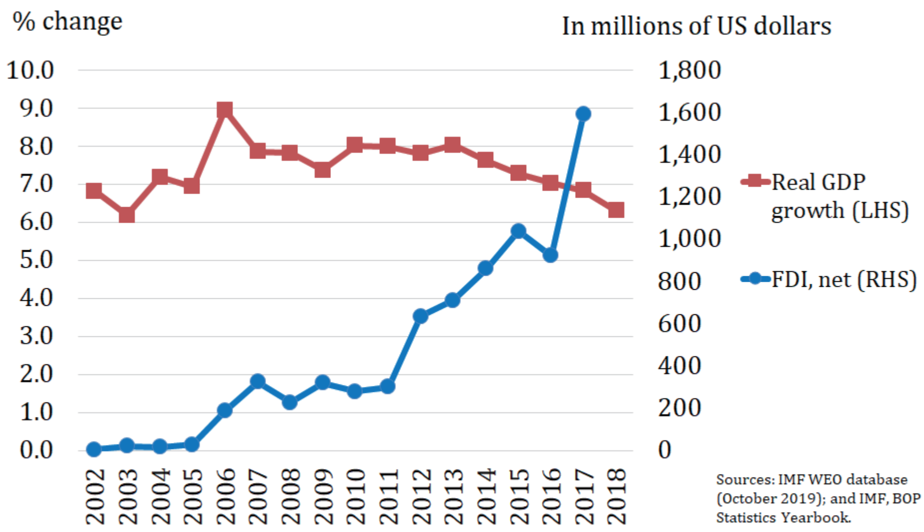

Figure 1. Lao PDR: FDI and Real GDP Growth, 2002-2018

2. **Accelerated growth in the last decade of the Lao economy has been accompanied by heightened vulnerabilities in the fiscal and external sectors.** The Lao government led by Prime Minister Thongloun Sisoulith recognizes the high levels of external debt and low levels of foreign exchange reserves as the main sources of these vulnerabilities and seeks to minimize economic risks[10].

3. **The bilateral ties between Japan and Laos have deepened and the importance of Laos for Japan as a "strategic partner" is growing**. Laos has been attracting attention as an investment destination for Japanese firms because of its key position in relation to connectivity in the Mekong region. In May 2016, the Japan-Laos Air Services Agreement entered into force with the aim of establishing a legal framework to open scheduled airline routes between Japan and Laos.

4. **Prime Minister Shinzo Abe announced the Japan-Lao PDR Joint Development Cooperation Plan for the Sustainable Development of Lao PDR ("Cooperation Plan") at the Japan-Lao PDR Summit Meeting with Prime Minister Thongloun Sisoulith on September 6, 2016**[11]. The Prime Ministers expect that specific initiatives under the Cooperation Plan will contribute to the formulation of Lao PDR's 9th Five-Year National Socio-Economic Development Plan (2021-2025) ("9th Five-Year Plan"). The Cooperation Plan has three pillars—first, to strengthen connectivity with countries in the region on tangible and intangible fronts; second, to develop industrial human resources in order to diversify Lao PDR's industries and enhance their competitiveness; and third, to rectify disparity through balanced urban and regional development that considers environmental and cultural preservation.

5. **As one of the initiatives under the Cooperation Plan, the Joint Policy Research and Dialogue Program for Fiscal Stabilization in Lao PDR ("Program") was launched in March 2018**[12]. The shared recognition of fiscal stabilization as a vital foundation for the steady implementation of

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[10] At a meeting held with selected WG members prior to the mid-term report meeting on March 20, 2019, Prime Minister Thongloun Sisoulith expressed his determination to address these challenges with a view to minimizing economic risks.

[11] The Cooperation Plan's objective is to clarify a future vision for Lao PDR and the direction of cooperation between the two countries to achieve the vision. See the website of the Ministry of Foreign Affairs of Japan: https://www.mofa.go.jp/ic/cap1/page22e_000791.html.

[12] Memorandum of Understanding between National Institute for Economic Research and Japan International Cooperation Agency was signed on March 27, 2018.

the Cooperation Plan led to the launch of the Program. Four working groups (WGs) are in place to cover fiscal and debt management (WG1), resource export management (WG2), balance-of-payments and foreign reserve management (WG3), and financial system development (WG4) respectively under the Program. The objective is to conduct research on issues with implications for fiscal stabilization.

6. **Working Group 1 ("WG1"), one of the four working groups under the Program, covers issues related to fiscal and debt management.** WG1 aims to assess fiscal risks, identify challenges in fiscal and debt management, indicate policy imperatives for fiscal stabilization, and suggest feasible policy options with a view to contributing to the formulation of the 9th Five-Year Plan. Additionally, WG1 covers immediate challenges concerning tax revenue and foreign exchange reserves in the context of improving debt servicing capacity as suggested by Prime Minister Thongloun prior to the mid-term report meeting on March 20, 2019 in Vientiane.

II – 2. Assessment of Fiscal Conditions

1. **The Lao government has recorded chronic fiscal deficits at around 4-10% of GDP** (Figure 2). The fiscal deficits shown in a conventional format with external grants as a revenue item have been around 2-6% of GDP (Figure 3), which is broadly in line with the fiscal management achievements described in Vision to 2030 and Public Finance Development Strategy to 2025 ("Public Finance Development Strategy") dated July 4, 2017.

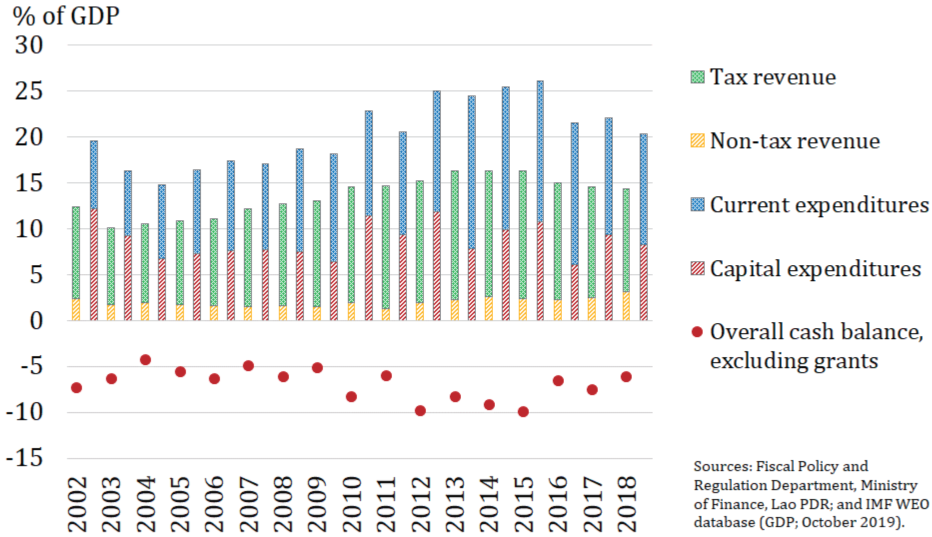

Figure 2. Lao PDR: Fiscal Revenue and Expenditures, 200-2018

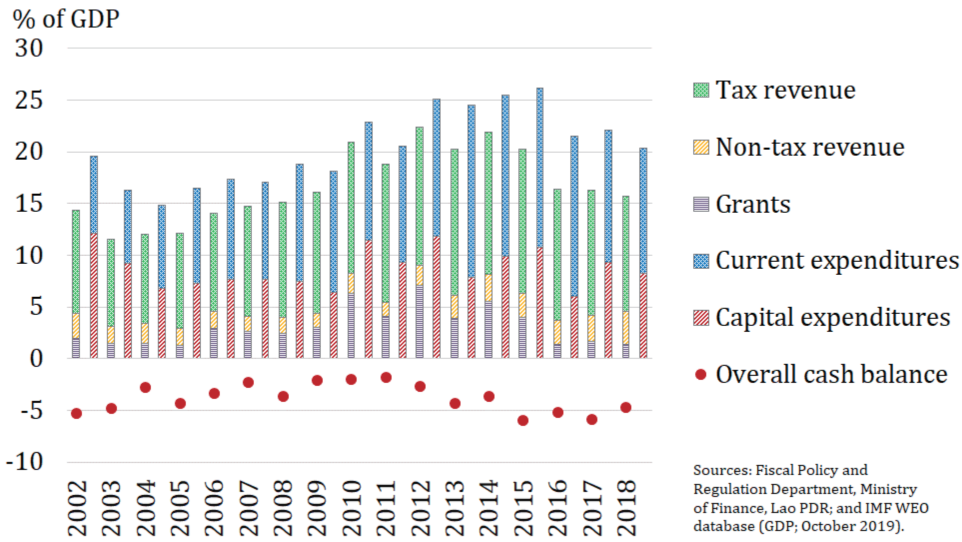

Figure 3. Lao PDR: Fiscal Revenue and Expenditures, 2002-2018

2. **Revenues have been declining since 2016, reaching 14% of GDP due to decreasing tax revenues in the past three years** (Figure 4). As a percentage of GDP, profit taxes were 1.4%, import duties 0.7%, and natural resources taxes 0.4% in 2018 as compared to 2.6% and 1.4% in 2011 and 0.8% in 2014 respectively. Value added tax (VAT) and excise duties have been a relatively stable source of tax revenues and represented the largest shares at 3.4% and 3.1% respectively in 2018.

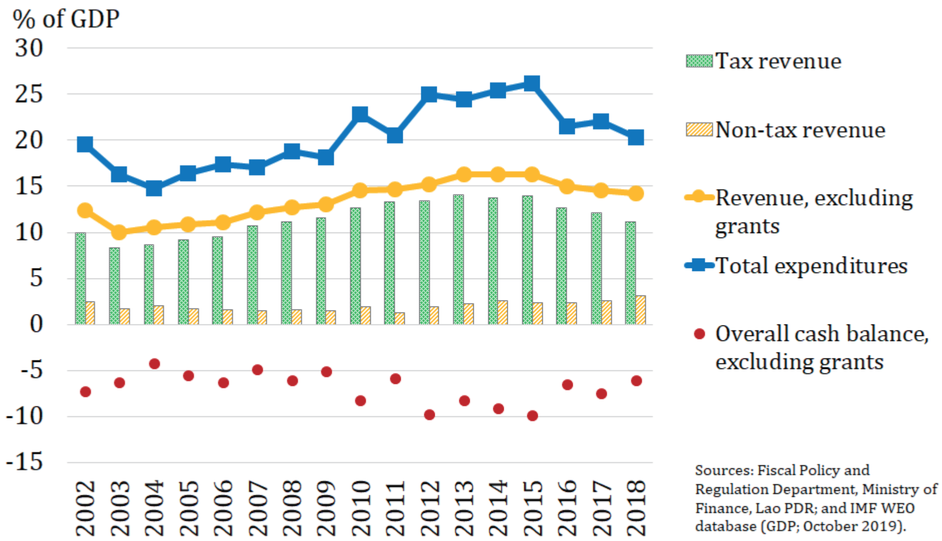

Figure 4. Lao PDR: Fiscal Revenue Composition, 2002-2018

3. **Expenditures were lower at 20-22% of GDP in 2016-2018 compared with 25-26% in 2012-2015 in response to lower levels of revenue** (Figure 5). The heightened levels of expenditures in 2012-2015 were due to an increase in current expenditures led by payments of wages and salaries (Figure 6). The lower levels of expenditures in 2016-2018 were made possible by a reduction in other current expenditures while wages and salaries remained at about the same level.

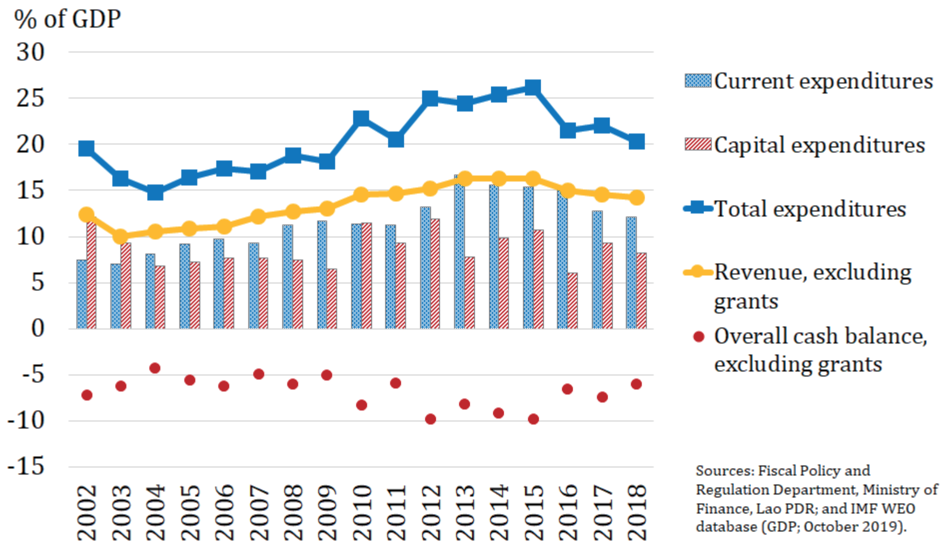

Figure 5. Lao PDR: Fiscal Expenditures Composition, 2002-2018

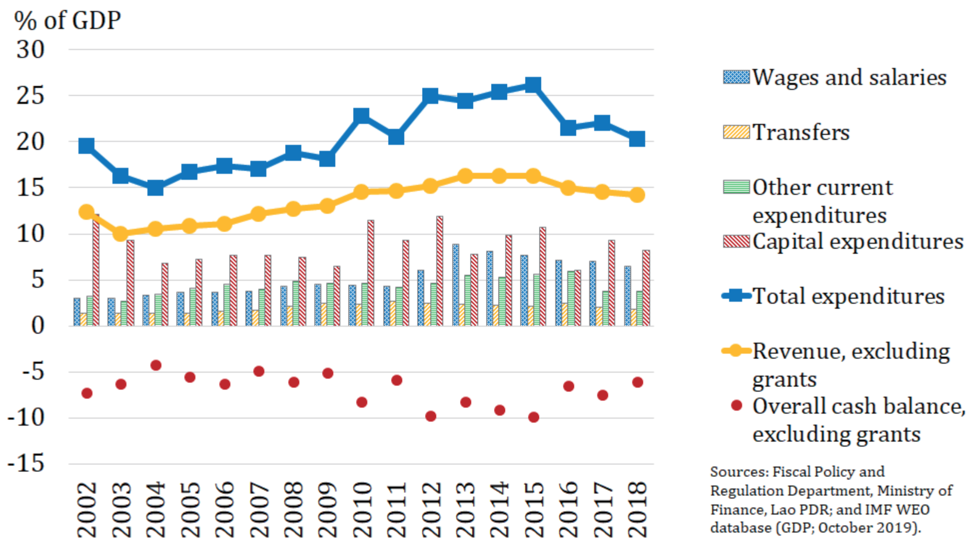

Figure 6. Lao PDR: Fiscal Expenditures Composition, 2002-2018

4. **Capital expenditures appear to have moved in parallel with the levels of available foreign finance** (Figure 7). Availability of foreign finance serves as a hard budget constraint or a spending limit for budgetary capital expenditures. Off-budget capital expenditures enabled mainly by the so-called "B-to-B model" (see paragraph 2.13), however, negate hard budget constraints and gave rise to an increasing amount of implicit government contingent liabilities.

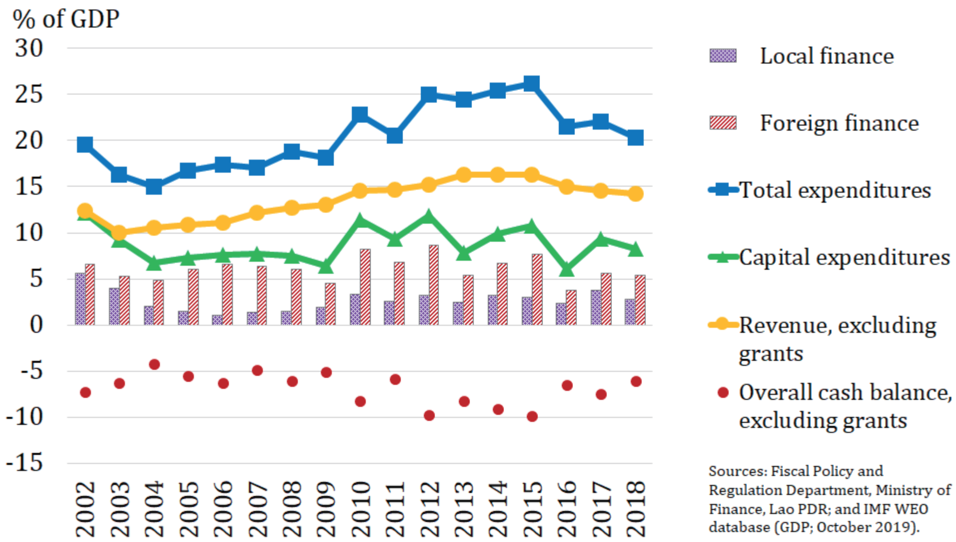

Figure 7. Lao PDR: Capital Expenditures Composition, 2002-2018

5. **External grants and borrowing have been the major sources of financing while domestic sources have been available only recently** (Figure 8). In anticipation of graduation from Least Developed Country (LDC) status, the level of grants is likely to decline and an increasing share of borrowing is expected to be provided on less concessional terms over the medium- and long-term.

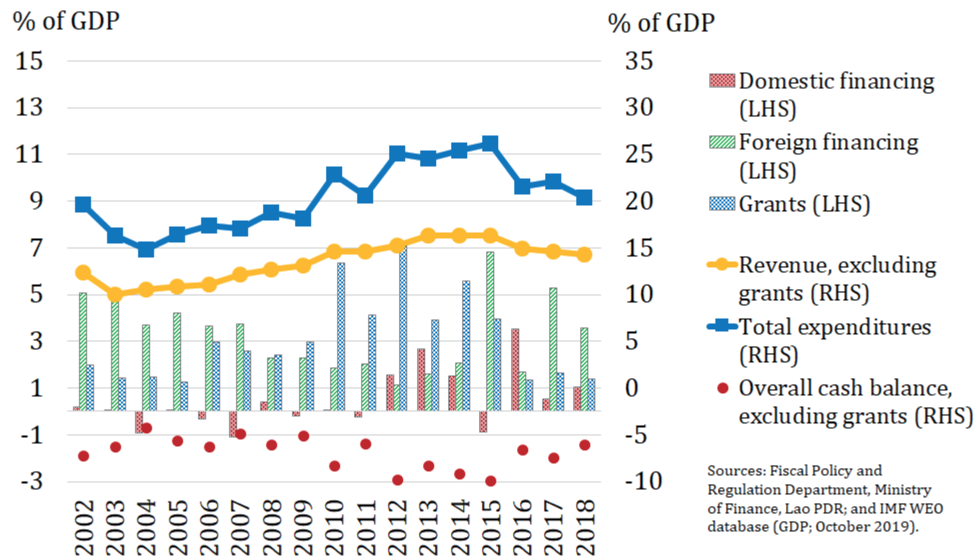

Figure 8. Lao PDR: Sources of Fiscal Operations, 2002-2018

6. **The chronic fiscal deficit is a reflection of the large negative savings–investment balance of the Lao economy**. Current account balance, a measure of the difference between national savings and investment, has stayed negative within a range of 9% to 27% of GDP over the past 17 years[13] (Figure 9). For Laos, a country with more investment opportunities than it can afford to undertake with its own domestic savings, the continued current account deficit coinciding with the chronic fiscal deficit is a natural phenomenon and could potentially bring about future productive gains (e.g., hydropower exports).

[13] IMF WEO database (October 2019).

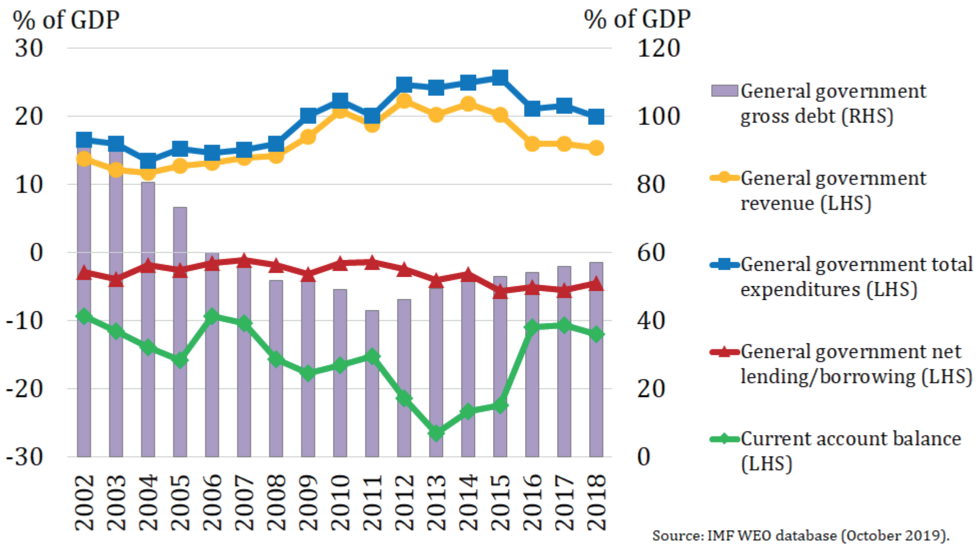

Figure 9. Lao PDR: Fiscal and Current Account Balances, 2002-2018

7. **Widened gaps between current account and fiscal deficits in 2012-2015 reflect investment over domestic savings by entities beyond the scope of general government** (Figure 9). These gaps may imply an emergence of implicit government contingent liabilities associated with massive investment in the natural resources sector. Balance of payments data provided by Bank of the Lao PDR show that widened current account deficits in 2014 and 2015 were matched with relatively high levels of capital inflows (net). (Figure 10)

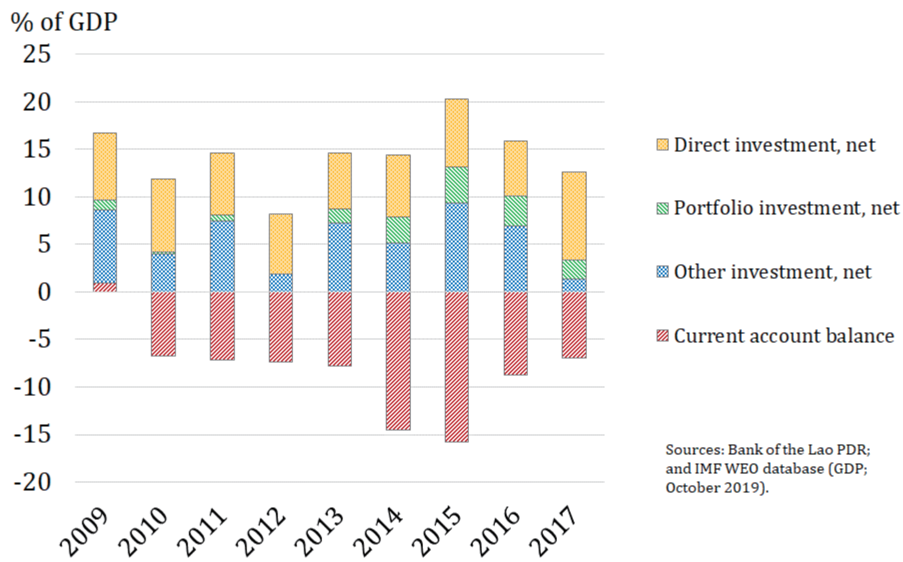

Figure 10. Lao PDR: Current and Financial Accounts, 2009-2017

8. **Lao PDR faces fiscal risks due to the increasing amount of foreign currency-denominated external debt as well as the growing government contingent liabilities**. Its total public and publicly-guaranteed (PPG) external debt is 51% of GDP at end-2018, of which about 60%[14] is

[14] IMF. Lao People's Democratic Republic—2017 Article IV Consultation. IMF Country Report

denominated in US dollars, while total PPG debt, both domestic and external, amounts to 57% of GDP[15] (Figure 11). The current debt portfolio indicates vulnerabilities of the fiscal conditions to external shocks. Implicit contingent liabilities arising from off-budget public sector operations are beyond the scope of PPG debt statistics. Given the large number of Public-Private Partnership (PPP) projects, IMF estimates that total private external debt is 42% of GDP at end-2018[16].

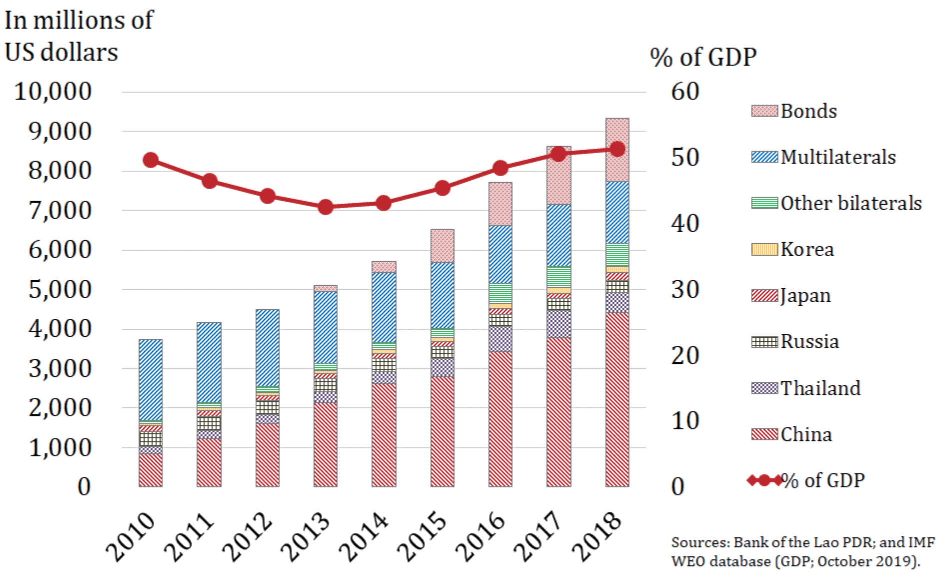

Figure 11. Lao PDR: PPG External Debt, 2010-2018

9. **Three favorable external factors explain a rapid accumulation of government liabilities, both direct and contingent, without increasing *apparent* funding costs over the past years**. These factors are abundant liquidity in the global financial markets (or global credit glut), increasing investment from China, and reliance on the so-called “B to B” model[17].

10. **Abundant liquidity in the global financial markets since the aftermath of the Global Financial Crisis in 2008 has allowed the Lao government to keep issuing foreign currency-denominated sovereign bonds in the Thai bond market since 2013**. The first issuance of such bonds was in Thai baht in May 2013, followed by 18 issuances through November 2018. In December 2015 the Lao government issued its first US dollar-denominated bonds with the LIBOR- based floating rate. The bond proceeds have financed the budget deficit and the government share in power projects. As of end-December 2018, the outstanding stock of foreign-currency-denominated sovereign bonds amounted to THB41.9 billion (US$1,338 million) and US$182 million. On June 28, 2019, Thailand’s TRIS Rating, Co., Ltd. announced the downgrading of the sovereign rating and the ratings of outstanding senior unsecured bonds of the Lao PDR to “BBB” with “stable” outlook

No.18/84, March 2018.

[15] IMF. Lao People’s Democratic Republic—2019 Article IV Consultation. IMF Country Report No.19/267, August 2019.

[16] IMF. Lao People’s Democratic Republic—2019 Article IV Consultation. IMF Country Report No.19/267, August 2019.

[17] In the context of the Jakarta-Bandung high-speed train project in Indonesia, a senior official from the Indonesian government described the project as “a business-to-business project” according to The Jakarta Post, February 20, 2018 (“Jakarta-Bandung high speed train fares may reach Rp500,000”). The project is developed by PT Kereta Cepat Indonesia China, a joint venture formed in October 2015 between a consortium of Indonesian state-owned companies (60% share) and China Railway International (40% share).

from “BBB+” with “negative” outlook[18]. In addition to the Lao government itself, Électricité du *Laos* (*EDL*)—one of the state-owned corporations in *Laos* that owns and operates the country’s electricity generation, transmission and distribution assets—issued both baht- and US dollar-denominated bonds in the Thai bond market.

11. **An increasing share of outstanding bonds owed by Lao issuers may lead to an action by the relevant Thai authorities to safeguard Thai investors**. Lao issuers have been the most active among foreign issuers in the Thai bond market since 2013 and were the only non-Thai issuers in 2017 and 2018[19].

12. **Increasing investment and lending by China on the eve of and since the launching of the Belt and Road Initiative (BRI) have enabled the Lao government to initiate mega infrastructure projects.** Among these are the Vientiane-Kunming railway project, the Vientiane-Boten expressway project, and the first phase of the Vientiane expressway from Thatluang SEZ to Xaythany District.

13. **Introduction of the so-called “B to B” model for infrastructure investment has helped ease concerns on the surface about the government fiscal burden arising from massive public investment.** Similar to the Jakarta-Bandung high-speed train project in Indonesia, the Vientiane-Kunming railway project—a section of the proposed Kunming-Singapore Trans Asian Railway project—is being developed by a joint venture company formed between a consortium of Lao state-owned companies and their counterparts from China. The construction of a 420-km single-track electrified rail line from Vientiane to the border with China started in 2017 and is expected to be completed in 2021 with a total cost of US$5.9 billion[20]. This scheme does not require an explicit sovereign guarantee by the Lao government for its borrowing from the Export-Import Bank of China.

14. **Opportunities in natural resources development have been a pull factor in bringing about a rapid accumulation of government liabilities, both direct and contingent.** Potential in the hydropower sector backed by abundant water resources in Laos has attracted foreign investments and encouraged the government and state-owned enterprises to mobilize external debt for investment. A larger portion of external debt for investment, however, is outside fiscal oversight and may constitute government contingent liabilities, both explicit and implicit.

15. **On the domestic front, the Lao government plans to assume debts in exchange for commercial banks’ loan assets related to public infrastructure projects.** While such transactions as the resolution to domestic arrears would help strengthen commercial banks’ balance sheets, this is a typical case of implicit government contingent liabilities adding to government direct liabilities. According to the IMF, the maximum amount of commercial banks’ loan assets is equivalent to 2.1% of GDP for 2018[21], which would be exchanged for government bonds with a 5% coupon to be amortized from the capital expenditure budget in equal installments over 10 years. Another realization of implicit government contingent liabilities could arise from recapitalization for state-owned banks. State-owned enterprises (SOEs) could also bring about an increased fiscal burden.

16. **Fiscal and external vulnerabilities are due to fiscal and external risks, most visibly perceived through the high debt-to-GDP ratio and low foreign exchange reserves level, respectively** (Figure 12). Their underlying causes are chronic fiscal deficits and current account deficits, a reflection of the large negative savings–investment balance of the Lao economy. Three favorable external factors, including global credit glut, enabled a rapid accumulation of government external

[18] TRIS Rating Co., Ltd. Credit News No. 102/2019. June 28, 2019.
[19] Thai Bond Market Association. 2018 Thai Bond Market Review.
[20] IMF. Lao People’s Democratic Republic—2019 Article IV Consultation. IMF Country Report No.19/267, August 2019.
[21] IMF. Lao People’s Democratic Republic—2017 Article IV Consultation. IMF Country Report No.18/84, March 2018.

liabilities, both direct and contingent, without increasing apparent funding costs over the past years.

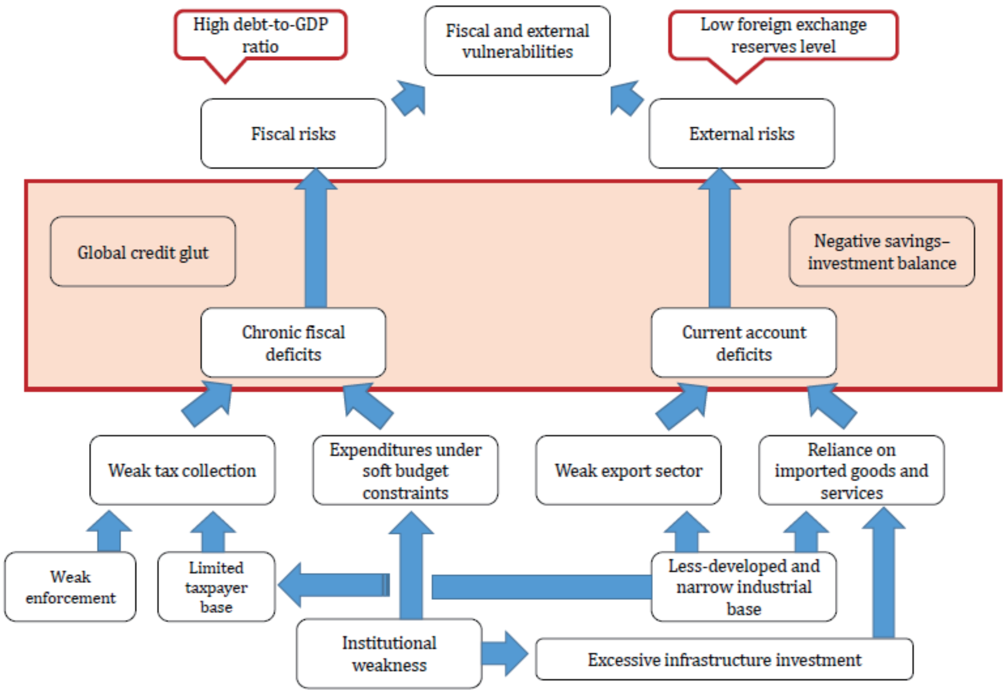

Figure 12. Lao PDR: Sources of Fiscal and External Vulnerabilities

II – 3. Fiscal Analytics

1. **Fiscal risks faced by the Lao government can be understood conceptually as asymmetry between assets and liabilities on the government balance sheet** (Figure 13). The government balance sheet generally shows liabilities exceeding assets with the government power to tax expected to fill the gap.

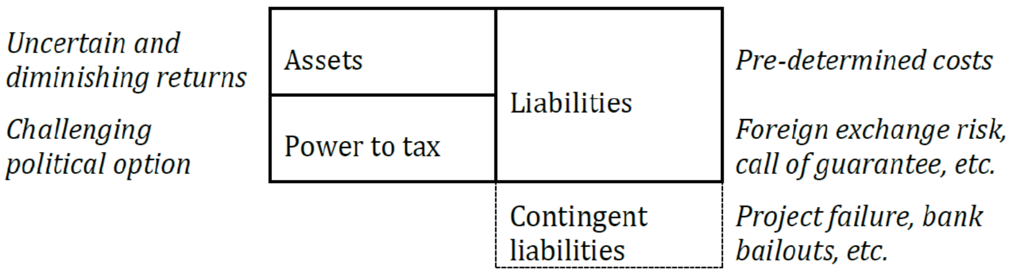

Figure 13. Lao PDR: Asymmetry between Assets and Liabilities on the Government Balance Sheet

2. **Liabilities owed by the Lao government have reached a level that is susceptible to factors beyond government control.** As of end-2018, the Lao government's liabilities consist of PPG debt, both domestic and external, amounting to 57% of GDP, of which 90 % is PPG external debt (equivalent to 51% of GDP) (see paragraph 2.8). The costs of these liabilities are pre-determined with their external portion exposed to foreign exchange risks. In addition, a larger portion of non-PPG debt in infrastructure investment may constitute implicit government contingent liabilities

together with a possible *fiscal cost of bank bailouts* in cases where increasing non-performing loans continue to undermine the soundness of the banking sector.

3. **The scope of government contingent liabilities ranges from explicit government guarantees to implicit government commitments.** The size of implicit government contingent liabilities due to external borrowing could be estimated, as a first approximation, as the difference between total foreign currency-denominated external debt and the PPG external debt. Total private external debt estimated by the IMF is 42% of GDP at end-2018, indicating that the size of implicit government contingent liabilities due to external borrowing could be close to that of the PPG external debt (see paragraph 2.8).

4. **On the assets side, financial and non-financial returns are even more uncertain than the cost of liabilities and equally exposed to downside risks.** Assets entail uncertainties on the expected level of return, and the government has a limited capacity to capture positive externalities gained from the assets through taxation. Furthermore, marginal returns of additional investments tend to become lower, and the government power to tax is a challenging political option to exercise.

5. **Asymmetry between liabilities and assets on the government balance sheet needs to be accommodated by annual fiscal operations in line with the long-term fiscal policy framework**. In this context, the government should take policy measures in line with its comprehensive public finance management development strategy as defined in the Vision to 2030 and Public Finance Development Strategy to 2025 approved and promulgated by Decree 204/PM dated July 4, 2017, to achieve fiscal and debt sustainability.

6. **Enforcement in tax collection needs to be strengthened in order to expand tax revenues.** More specifically, enforcement should be strengthened through comprehensive tax administration reform and by adopting a selection and concentration strategy.

7. **The efficiency and effectiveness of fiscal expenditures are key to addressing fiscal consolidation, but is not easy to measure because of methodological complications, limited data availability, and the impact of exogenous factors** [22]. Measuring the efficiency and effectiveness of fiscal expenditure requires information on input, output and the final outcomes of such expenditure. The government should maximize efficiency gains by optimizing budget allocation to priority sectors. An improved public procurement practice should be in place to promote budget execution efficiency. Also, fiscal expenditures should maximize positive externalities to generate economic and social returns, which would contribute to strengthening the taxable capacity of the economy and society. In this context, the government should aim at sustainable and equitable income growth by means of developing human capital while preserving environmental and cultural assets.

8. **One of the prerequisites for creating future gains is whether foreign capital flows or foreign savings to finance the deficits, both in fiscal and external accounts, are used productively for investment purposes**. For this reason, how to allocate fiscal resources between current and capital expenditures is of critical importance while a larger portion of foreign capital inflows should be outside fiscal oversight. Relatively lower levels of the capital expenditure/current expenditure ratio since 2013 as compared to the preceding years with a spike in the interest payments/capital expenditure ratio implies a concern about the quality of investment. (Figure 14)

[22] Sisa-ad, Vilyna. Improving the Efficiency of Government Expenditure in Lao PDR. September 28, 2018. https://www.mof.go.jp/pri/international_exchange/visiting_scholar_program/Vilyna2.pdf

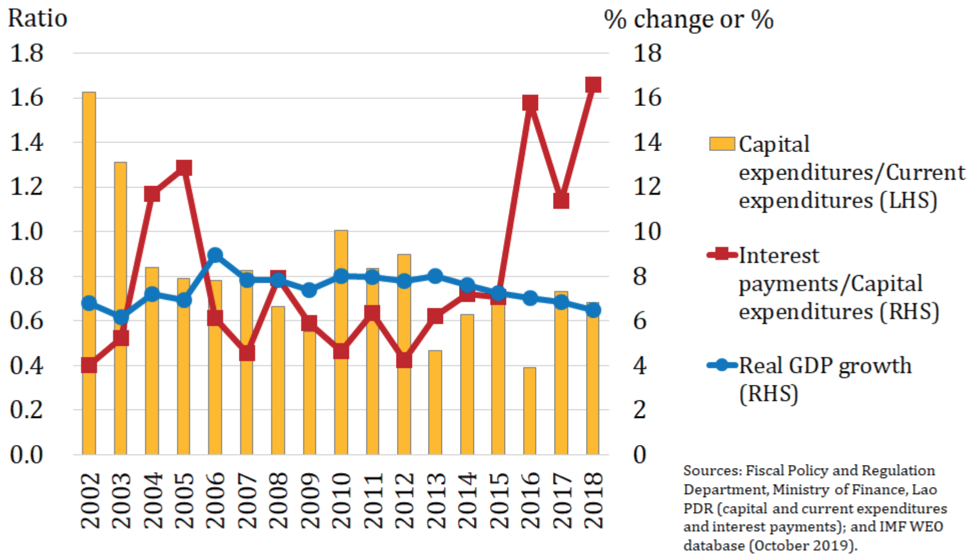

Figure 14. Lao PDR: Capital, Interest and Real GDP Growth, 2002-2018

9. **Pro-cyclicality caused by the boom in the resources sector does not seem to be an immediate policy challenge**. In light of the declining share of fiscal revenues from the mining sector, pro-cyclicality of fiscal operations might not be seen as an important policy challenge as in the past. Also, the lack of accurate and timely fiscal information is a constraint to coming up with meaningful policy suggestions to deal with pro-cyclicality.

II – 4. Challenges for Fiscal and Debt Management

1. **The Lao government faces a dilemma of public investment for long-term economic development versus reliance on external debt.** Laos' reliance on external debt is due to chronic fiscal deficits arising from the need for investment in infrastructure and in the natural resources sector, which put debt sustainability at risk. Fiscal stabilization efforts, public investment, and fiscal and debt management strategies need to be understood and designed given this backdrop.

2. **Future returns from ongoing investment could eventually help relieve Laos' reliance on external debt.** Laos is rich in natural resources. The country's economic development could be aided by maximizing the potential in natural resources, most notably its abundant water resources. Within a few decades, investments in large resource projects, particularly in the hydropower sector, could generate more domestic value added with net foreign exchange earnings. Future gains from the hydropower sector as a result of the ongoing investment could turn the current account deficit into a surplus (a positive savings–investment balance) over the long term to relieve Laos of reliance on foreign savings. Notwithstanding possible future gains, heavy reliance on the hydropower sector entails risks due to the shared water resources with neighboring countries and s*upply and demand conditions* in the Mekong region as a whole. Although abundant, water resources are not an unlimited source of income and growth.

3. **Laos needs to maximize net investment returns from ongoing and future investment carried out via external borrowing in infrastructure as well as in the natural resources sector.** Investment has a positive relationship with income generation but with diminishing returns. The impact of additional investment declines as the level of investment rises, while the borrowing costs tend to increase as the level of debt becomes higher.

4. **Gains from the hydropower sector need to be shared by the government ("The Angel's share") to help mitigate vulnerabilities of the fiscal conditions to external shocks and to**

promote population welfare over the long term. The rationale for the Angel's share rests on fiscal stabilization as a vital foundation for a steady implementation of policies and population welfare promotion as the eventual goal for government policies.

5. **While the long-term prospects appear positive, the ongoing investment in Laos will need a gestation period over a few decades to bear fruit.** As investment continues by means of external borrowing, investment costs increase in total, as well as at the margin most likely. On the other hand, investment returns from individual projects vary in terms of level and harvest time. Since future returns from investments tend to be uncertain, net investment returns might not be secured fully as planned. As a corollary to this sequence, government interest payments increase as the debt continues to accumulate, while gains from government investment using borrowed funds might not bear fruit in the form of higher economic growth (Figure 15).

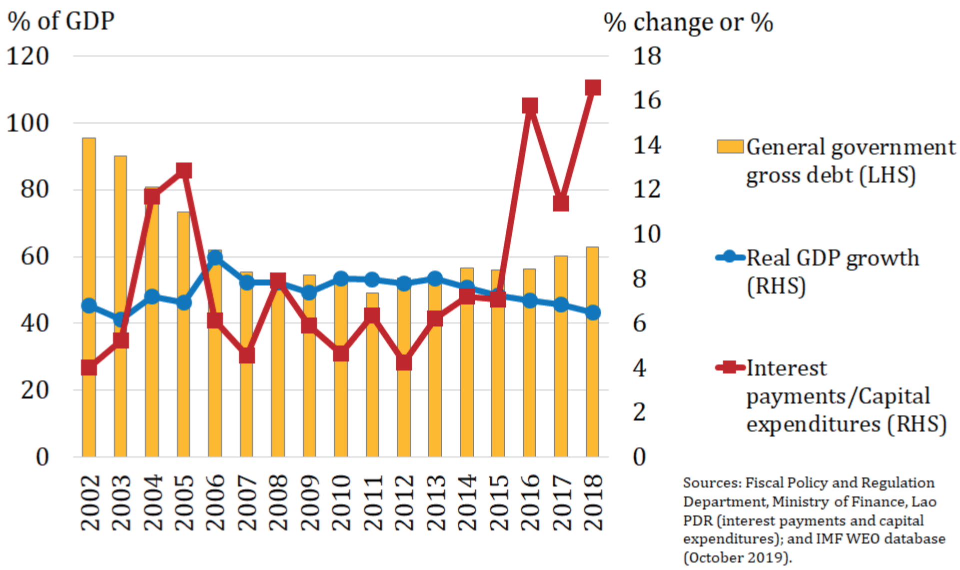

Figure 15. Lao PDR: Government Debt Cost and Real GDP Growth, 2002-2018

6. **One of the immediate challenges faced by Laos is how to address the concern during the gestation period over fiscal risks caused by the high level of external debt while making productive use of its external borrowing**. The Lao government needs to "buy time" over the next few decades before maximizing the country's potential in rich natural resources for the benefit of the population. This approach requires the government to keep servicing existing debts by introducing a long-term fiscal framework that consists of enhanced revenue mobilization plans, expenditure rationalization, and an effective debt management strategy.

7. **A sound long-term fiscal framework would help Laos maintain donor and market confidence, which is necessary to get the debt rolled over during the long gestation period**. Private investors in the market are more sensitive to risks than bilateral and multilateral donors and lenders. Country risk—the risk that a *government* will default on its bonds or other financial commitments—is perceived on the basis of the evaluation of policy commitment, performance, and track record. Government commitment to a long-term fiscal framework and the track record to prove it is one of the most effective means to maintain donor and market confidence.

8. **Mitigating vulnerabilities of the fiscal conditions to external shocks is of increasing urgency for Laos because of rising risks and uncertain prospects in the global economy**.[23] Favorable

[23] "High debt burdens leave governments, companies, and households more exposed to sudden tightening of financial conditions. Such potential shifts could trigger market corrections, debt sustainability concerns, and capital flow reversals in emerging market economies." ("Sustaining

external environments for Laos are likely to fade partially as interest rates rise and financial conditions tighten with the possible monetary policy normalization in the future by major central banks in advanced countries.

9. **Positive net investment returns from ongoing and future infrastructure investment can only be secured through sound investment planning and project implementation**. Marginal net returns of additional investments tend to be lower. Seemingly favorable external environments such as massive inflows of investments into the country could mislead investment decisions while investment costs increase for sure in total and at the margin most likely.

10. **Improved investment returns can only be achieved with improved efficiency and effectiveness of fiscal expenditures and by enhanced commercial viability of the ongoing mega infrastructure projects**. In this context, institutional reform aligned with fiscal and project management is of critical importance. The existing and ongoing mega infrastructure projects, involving state-owned enterprises (SOEs), should be reinforced to enhance their commercial viability and to generate higher economic and social returns. Performance of SOEs should be strengthened if feasible, and otherwise poor-performing SOEs should be restructured or abolished. Soft budget constraints should be avoided.

II – 5. Policy Imperatives for Fiscal Stabilization

1. **Rational and efficient use of fiscal resources is a fundamental building block for fiscal stabilization**. Tax revenues, supplemented with grants and borrowed funds, need to achieve positive net financial returns unless justified by social and economics returns such as those reflecting positive externalities over the long term. Rational and efficient use of fiscal resources is only possible with a well-designed fiscal framework and public investment management practices in place.

2. **The fiscal framework should be designed to enhance efficiency and effectiveness of fiscal expenditures in terms of its level, development over time, and composition**. For the expenditures composition to be effective, the long-term fiscal framework should address long-term goals of triple capital formation focusing on physical, human, and institutional capital. Physical capital (infrastructure) should be developed by mobilizing domestic savings for financing it while the complementary use of foreign savings (external borrowing) is warranted. Human capital development through education and training should be a priority area for allocating fiscal resources because it will enhance productivity and thus help generate higher income. Enhanced revenue mobilization plans, expenditure rationalization and an effective debt management strategy cannot be achieved without strengthening institutional capital.

3. **Quality investment for capital formation should be secured with coordinated overall planning, strengthened project appraisals, and well-timed monitoring**. To this end, it is necessary to establish a well-functioning platform that enables the Ministry of Planning and Investment (MPI) and the Ministry of Finance (MOF) to coordinate and provide clear public investment management guidance and practices. Existing and ongoing investments, especially mega infrastructure projects, should be reinforced to enhance their commercial viability with a view to minimizing the risk implications for fiscal and debt management.

4. **Policy measures need to be designed, implemented, and maintained or adjusted to bring about the intended outcomes within their respective timeframes**. Each government policy action has a different timeframe. A time lag between a given policy action and its results is inevitable. Some policies have immediate or short-term effects while others only bring results over the medium or long term. Despite such time lags, policy measures need to be designed, implemented, and

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Momentum in Uncertain Times: Policy Priorities for the Global Economy" by Mitsuhiro Furusawa, IMF Deputy Managing Director, Czech National Bank, Prague, June 28, 2018) maintained or adjusted to bring about the intended outcomes within their respective timeframes.

II – 6. Scenarios

1. **Favorable scenario**. With sound and effective policy measures in place, the Lao government would be able to maintain donor and market confidence, which would enable the rollover of foreign currency-denominated external debt at reasonable cost over the medium- and long-term.
2. **Debt-trap scenario**. Without sound and effective policy measures in place, the Lao government would be faced with uncertainties, under which any trigger event to undermine confidence could force the government to seek either conventional or unconventional debt restructuring options.
3. **Conventional debt restructuring scenario**. At the request of the Lao government, both bilateral and multilateral creditors would decide to gather to discuss terms of debt restructuring, where the IMF normally provides a framework by means of IMF-supported program with conditionality agreed on macroeconomic and structural policies.
4. **Unconventional debt restructuring scenario**. Since the major portion of public and publicly-guaranteed external debt and, most likely, implicit contingent liabilities arising from off-budget public sector operations are both owed to China, a single creditor country with the greatest exposure. Against this background, bilateral debt treatment by means of a debt-to-equity conversion, as well as a swap arrangement for liquidity support might be a feasible option. With this option, however, the Lao government would weaken *its bargaining position furthermore vis-à-vis the creditor.*

II – 7. Suggested Policy Options

1. **Strengthening public finance management and governance**. The government should continue implementing policy measures in line with its comprehensive public finance management development strategy [24] to achieve fiscal and debt sustainability. More specifically, a public investment management framework should be introduced to reduce fiscal vulnerabilities and to maximize the efficiency and effectiveness of fiscal operations over the longer term. To help achieve this goal, the government should create a well-functioning platform involving the Ministry of Planning and Investment (MPI) and the Ministry of Finance (MOF) to enhance coordinated investment planning, strengthened project appraisals, and well-timed monitoring with a view to securing quality investment for capital formation. Soft budget constraints should be avoided.
2. **Raising tax revenues by strengthening enforcement and broadening the taxpayer base**. The government should raise tax revenues by strengthening enforcement through a comprehensive tax administration reform and by adopting a selection and concentration strategy. The immediate priority is to increase value added tax (VAT) collection from large-scale enterprises and to minimize the scope of tax exemptions. In order to broaden the taxpayer base over the long term, the government should promote a gradual transformation of the resource-based economy into a more diversified economy by creating a better business environment for both local and foreign entrepreneurs. Policies to promote SMEs and micro enterprises, including the introduction of innovative financing mechanisms, also could contribute to broadening the taxpayer base.
3. **Maximizing efficiency gains and positive externalities of fiscal expenditures**. The government should maximize efficiency gains by optimizing budget allocation to priority sectors. An improved public procurement practice should be in place to promote budget execution efficiency. Also, fiscal expenditures should maximize positive externalities to generate economic and social returns, which would contribute to strengthening the taxable capacity of the economy and society. In this context, the government should aim for sustainable and equitable income growth by means of developing

[24] As defined in the Vision to 2030 and Public Finance Development Strategy to 2025 approved and promulgated by the Decree 204/PM dated July 4, 2017.

human capital while preserving environmental and cultural assets.

4. **Implementing effective public debt management**. The government should take effective measures under a comprehensive public debt management strategy developed in accordance with the Law on Public Debt Management[25]. Efforts should be made to deal with risks due to currency and maturity mismatches entailed in public sector liabilities. The portfolio of foreign currency-denominated external debt should be managed to secure investor confidence and gradually shifted towards one to help contain debt services. Over the long term, foreign exchange reserves could be increased by maintaining an adequate level of real exchange rates under a more flexible exchange rate regime, which would contribute to enhancing transactions to increase net foreign exchange earnings. A *gradual* approach in increasing foreign exchange rate flexibility is appropriate in light of potential negative impacts on external debt service burden in kip terms. For the short term, rollover of foreign-currency-denominated external debt at reasonable cost—in particular the outstanding bonds issued in the Thai capital market—is key to maintaining foreign exchange reserves.

5. **Minimizing fiscal risks due to contingent liabilities**. The government should introduce measures to minimize fiscal risks entailed in contingent liabilities[26]. For infrastructure investment, fiscal risks in Public-Private Partnerships (PPPs) or the BOT scheme should be carefully examined. The existing and ongoing investments, in particular mega infrastructure projects involving state-owned enterprises (SOEs), should be reinforced to enhance their commercial viability and to generate higher economic and social returns[27]. Performance of SOEs should be strengthened if feasible, and otherwise poor-performing SOEs should be restructured or abolished. Power sector SOEs' heavy reliance on the power demand in neighboring countries as well as on the shared water resources require a careful consideration of *supply and demand conditions* in the Mekong region. Also, measures to address non-performing loans (NPLs) held by state-owned banks should be introduced.

6. **Creating the institutional base for a well-functioning financial system**. The government should promote a well-functioning financial system to mobilize domestic savings over the long term to serve productive investment. The immediate priority is government bond market development to enable a stable and sustainable issuance of government debt securities at reasonable cost. Steps should be taken to rationalize primary market development, followed by secondary market development and diversification of the domestic investor base over the long term.

7. **Improving the use of fiscal and related statistics for policy monitoring and planning purposes**. The government should make fiscal and related statistics broadly available on a regular and timely basis within the government to strengthen its monitoring and planning capacity. The government should also make these statistics available to the public with a view toward maintaining the credibility of government commitment.

II – 8. Follow-up actions

1. **Monitoring mechanisms should be in place in conformity with the budgetary cycle to assess the effectiveness of policy measures for fiscal stabilization**. The effectiveness of a policy depends on the credibility of the government commitment to implement it. Excessive discretion should be avoided in order to achieve medium- and long-term outcomes.

2. **The government should be responsible for monitoring and assessing the effectiveness of policy**

[25] Approved by the National Assembly on June 18, 2018.

[26] Government contingent liabilities include unforeseeable budget allocations, as part of post-disaster reconstruction efforts, which are implicit in nature and mostly beyond government control.

[27] This approach is in line with the G20 Principles for Quality Infrastructure Investment, which was endorsed on June 29, 2019 as one of the supplementary documents to the G20 Osaka Leaders' Declaration.

measures adopted or to be adopted in line with the policy proposals. The National Committee[28] established to oversee the Joint Policy Research and Dialogue Program for Fiscal Stabilization in Lao PDR should be transformed to serve as a monitoring body. Biannual meetings of a small group of experts from Lao PDR and Japan should be organized in conformity with the budgetary cycle to facilitate the monitoring and assessing of the effectiveness of policy measures for fiscal stabilization.

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[28] The decision to appoint the National Committee for the Joint Policy Research and Dialogue Program for Fiscal Stabilization in Lao PDR was made by Decree 56/PM dated August 15, 2018.

II – 9. Tables

Table 1. Lao PDR: FDI and Real GDP Growth, 2002-2018

	2002	2003	2004	2005	2006	2007	2008	2009	2010
FDI, net In millions of US dollars	4	19	17	28	187	324	228	319	279
Real GDP growth Percentage change	6.8	6.2	7.2	6.9	9.0	7.9	7.8	7.4	8.0

	2011	2012	2013	2014	2015	2016	2017	2018
FDI, net In millions of US dollars	301	635	710	861	1,038	920	1,590	…
Real GDP growth Percentage change	8.0	7.8	8.0	7.6	7.3	7.0	6.8	6.3

Sources: IMF WEO database (October 2019); and IMF, BOP Statistics Yearbook.

Table 2. Lao PDR: Fiscal Revenue and Expenditures, 2002-2018

In percent of GDP	2002	2003	2004	2005	2006	2007	2008	2009	2010
Revenue and grants	14.3	11.5	12.0	12.1	14.1	14.7	15.1	16.0	20.9
Tax revenue	10.0	8.4	8.6	9.2	9.5	10.7	11.1	11.6	12.6
Non-tax revenue	2.4	1.7	2.0	1.7	1.6	1.4	1.6	1.4	2.0
Grants	2.0	1.5	1.5	1.3	3.0	2.6	2.4	3.0	6.3
Current expenditures	7.5	7.0	8.0	9.2	9.8	9.3	11.3	11.7	11.4
Capital expenditures	12.1	9.2	6.8	7.3	7.6	7.7	7.5	6.4	11.5
Overall cash balance, excluding grants	-7.2	-6.2	-4.2	-5.6	-6.3	-4.9	-6.0	-5.1	-8.3

In percent of GDP	2011	2012	2013	2014	2015	2016	2017	2018
Revenue and grants	18.8	22.4	20.2	21.9	20.2	16.3	16.2	15.7
Tax revenue	13.3	13.4	14.1	13.7	13.9	12.7	12.1	11.2
Non-tax revenue	1.3	1.9	2.2	2.5	2.4	2.3	2.5	3.1
Grants	4.1	7.1	3.9	5.6	3.9	1.4	1.7	1.4
Current expenditures	11.2	13.2	16.7	15.6	15.4	15.5	12.7	12.1
Capital expenditures	9.3	11.9	7.8	9.8	10.8	6.1	9.3	8.2
Overall cash balance, excluding grants	-5.9	-9.8	-8.2	-9.2	-9.9	-6.5	-7.5	-6.0

Sources: Fiscal Policy and Regulation Department, Ministry of Finance, Lao PDR; and IMF WEO database (GDP; October 2019).

Table 3. Lao PDR: Fiscal Revenue and Expenditures, 2002-2018

In percent of GDP	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
Revenue and grants	14.3	11.5	12.0	12.1	14.1	14.7	15.1	16.0	20.9
Tax revenue	10.0	8.4	8.6	9.2	9.5	10.7	11.1	11.6	12.6
Non-tax revenue	2.4	1.7	2.0	1.7	1.6	1.4	1.6	1.4	2.0
Grants	2.0	1.5	1.5	1.3	3.0	2.6	2.4	3.0	6.3
Current expenditures	7.5	7.0	8.0	9.2	9.8	9.3	11.3	11.7	11.4
Capital expenditures	12.1	9.2	6.8	7.3	7.6	7.7	7.5	6.4	11.5
Overall cash balance	-5.3	-4.8	-2.8	-4.3	-3.3	-2.3	-3.6	-2.1	-1.9

In percent of GDP	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Revenue and grants	18.8	22.4	20.2	21.9	20.2	16.3	16.2	15.7
Tax revenue	13.3	13.4	14.1	13.7	13.9	12.7	12.1	11.2
Non-tax revenue	1.3	1.9	2.2	2.5	2.4	2.3	2.5	3.1
Grants	4.1	7.1	3.9	5.6	3.9	1.4	1.7	1.4
Current expenditures	11.2	13.2	16.7	15.6	15.4	15.5	12.7	12.1
Capital expenditures	9.3	11.9	7.8	9.8	10.8	6.1	9.3	8.2
Overall cash balance	-1.8	-2.7	-4.3	-3.6	-5.9	-5.2	-5.8	-4.6

Sources: Fiscal Policy and Regulation Department, Ministry of Finance, Lao PDR; and IMF WEO database (GDP; October 2019).

Table 4. Lao PDR: Fiscal Revenue Composition, 2002-2018

In percent of GDP	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
Revenue and grants	14.3	11.5	12.0	12.1	14.1	14.7	15.1	16.0	20.9
Revenue, excluding grants	12.4	10.1	10.6	10.9	11.1	12.1	12.7	13.1	14.6
Tax revenue	10.0	8.4	8.6	9.2	9.5	10.7	11.1	11.6	12.6
Non-tax revenue	2.4	1.7	2.0	1.7	1.6	1.4	1.6	1.4	2.0
Grants	2.0	1.5	1.5	1.3	3.0	2.6	2.4	3.0	6.3
Current expenditures	7.5	7.0	8.0	9.2	9.8	9.3	11.3	11.7	11.4
Capital expenditures	12.1	9.2	6.8	7.3	7.6	7.7	7.5	6.4	11.5
Overall cash balance	-5.3	-4.8	-2.8	-4.3	-3.3	-2.3	-3.6	-2.1	-1.9
Overall cash balance, excluding grants	-7.2	-6.2	-4.2	-5.6	-6.3	-4.9	-6.0	-5.1	-8.3
Total expenditures	19.6	16.3	14.8	16.4	17.4	17.0	18.7	18.1	22.9

In percent of GDP	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Revenue and grants	18.8	22.4	20.2	21.9	20.2	16.3	16.2	15.7
Revenue, excluding grants	14.6	15.3	16.3	16.3	16.3	15.0	14.6	14.3
Tax revenue	13.3	13.4	14.1	13.7	13.9	12.7	12.1	11.2
Non-tax revenue	1.3	1.9	2.2	2.5	2.4	2.3	2.5	3.1
Grants	4.1	7.1	3.9	5.6	3.9	1.4	1.7	1.4
Current expenditures	11.2	13.2	16.7	15.6	15.4	15.5	12.7	12.1
Capital expenditures	9.3	11.9	7.8	9.8	10.8	6.1	9.3	8.2
Overall cash balance	-1.8	-2.7	-4.3	-3.6	-5.9	-5.2	-5.8	-4.6
Overall cash balance, excluding grants	-5.9	-9.8	-8.2	-9.2	-9.9	-6.5	-7.5	-6.0
Total expenditures	20.5	25.0	24.5	25.5	26.1	21.5	22.1	20.3

Sources: Fiscal Policy and Regulation Department, Ministry of Finance, Lao PDR; and IMF WEO database (GDP; October 2019).

Table 5: Lao PDR: Fiscal Expenditures Composition, 2002-2018

In percent of GDP	2002	2003	2004	2005	2006	2007	2008	2009	2010
Revenue, excluding grants	12.4	10.1	10.6	10.9	11.1	12.1	12.7	13.1	14.6
Tax revenue	10.0	8.4	8.6	9.2	9.5	10.7	11.1	11.6	12.6
Non-tax revenue	2.4	1.7	2.0	1.7	1.6	1.4	1.6	1.4	2.0
Total expenditures	19.6	16.3	14.8	16.4	17.4	17.0	18.7	18.1	22.9
Current expenditures	7.5	7.0	8.0	9.2	9.8	9.3	11.3	11.7	11.4
Capital expenditures	12.1	9.2	6.8	7.3	7.6	7.7	7.5	6.4	11.5
Overall cash balance, excluding grants	-7.2	-6.2	-4.2	-5.6	-6.3	-4.9	-6.0	-5.1	-8.3

In percent of GDP	2011	2012	2013	2014	2015	2016	2017	2018
Revenue, excluding grants	14.6	15.3	16.3	16.3	16.3	15.0	14.6	14.3
Tax revenue	13.3	13.4	14.1	13.7	13.9	12.7	12.1	11.2
Non-tax revenue	1.3	1.9	2.2	2.5	2.4	2.3	2.5	3.1
Total expenditures	20.5	25.0	24.5	25.5	26.1	21.5	22.1	20.3
Current expenditures	11.2	13.2	16.7	15.6	15.4	15.5	12.7	12.1
Capital expenditures	9.3	11.9	7.8	9.8	10.8	6.1	9.3	8.2
Overall cash balance, excluding grants	-5.9	-9.8	-8.2	-9.2	-9.9	-6.5	-7.5	-6.0

Sources: Fiscal Policy and Regulation Department, Ministry of Finance, Lao PDR; and IMF WEO database (GDP; October 2019).

Table 6: Lao PDR: Fiscal Expenditures Composition, 2002-2018

In percent of GDP	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
Total expenditures	19.6	16.3	15.0	16.7	17.4	17.0	18.7	18.1	22.9
Current expenditures	7.5	7.0	8.0	9.2	9.8	9.3	11.3	11.7	11.4
Wages and salaries	2.9	3.0	3.4	3.7	3.6	3.7	4.3	4.6	4.4
Transfers	1.3	1.4	1.3	1.4	1.6	1.6	2.1	2.5	2.3
Other current expenditures	3.2	2.7	3.4	4.1	4.5	4.0	4.9	4.6	4.7
Capital expenditures	12.1	9.2	6.8	7.3	7.6	7.7	7.5	6.4	11.5
Revenue and grants	14.3	11.5	12.0	12.1	14.1	14.7	15.1	16.0	20.9
Revenue, excluding grants	12.4	10.1	10.6	10.9	11.1	12.1	12.7	13.1	14.6
Overall cash balance, excluding grants	-7.2	-6.2	-4.2	-5.6	-6.3	-4.9	-6.0	-5.1	-8.3

In percent of GDP	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Total expenditures	20.5	25.0	24.5	25.5	26.1	21.5	22.1	20.3
Current expenditures	11.2	13.2	16.7	15.6	15.4	15.5	12.7	12.1
Wages and salaries	4.3	6.0	8.9	8.1	7.7	7.1	7.0	6.5
Transfers	2.6	2.5	2.4	2.2	2.1	2.4	2.0	1.8
Other current expenditures	4.2	4.7	5.5	5.3	5.6	5.9	3.7	3.8
Capital expenditures	9.3	11.9	7.8	9.8	10.8	6.1	9.3	8.2
Revenue and grants	18.8	22.4	20.2	21.9	20.2	16.3	16.2	15.7
Revenue, excluding grants	14.6	15.3	16.3	16.3	16.3	15.0	14.6	14.3
Overall cash balance, excluding grants	-5.9	-9.8	-8.2	-9.2	-9.9	-6.5	-7.5	-6.0

Sources: Fiscal Policy and Regulation Department, Ministry of Finance, Lao PDR; and IMF WEO database (GDP; October 2019).

Table 7. Lao PDR: Capital Expenditures Composition, 2002-2018

In percent of GDP	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
Total expenditures	19.6	16.3	15.0	16.7	17.4	17.0	18.7	18.1	22.9
Current expenditures	7.5	7.0	8.0	9.2	9.8	9.3	11.3	11.7	11.4
Wages and salaries	2.9	3.0	3.4	3.7	3.6	3.7	4.3	4.6	4.4
Transfers	1.3	1.4	1.3	1.4	1.6	1.6	2.1	2.5	2.3
Other current expenditures	3.2	2.7	3.4	4.1	4.5	4.0	4.9	4.6	4.7
Capital expenditures	12.1	9.2	6.8	7.3	7.6	7.7	7.5	6.4	11.5
Local finance	5.6	4.0	2.0	1.5	1.1	1.3	1.5	1.9	3.3
Foreign finance	6.5	5.3	4.9	6.0	6.6	6.4	6.0	4.6	8.2
Revenue and grants	14.3	11.5	12.0	12.1	14.1	14.7	15.1	16.0	20.9
Revenue, excluding grants	12.4	10.1	10.6	10.9	11.1	12.1	12.7	13.1	14.6
Overall cash balance, excluding grants	-7.2	-6.2	-4.2	-5.6	-6.3	-4.9	-6.0	-5.1	-8.3

In percent of GDP	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Total expenditures	20.5	25.0	24.5	25.5	26.1	21.5	22.1	20.3
Current expenditures	11.2	13.2	16.7	15.6	15.4	15.5	12.7	12.1
Wages and salaries	4.3	6.0	8.9	8.1	7.7	7.1	7.0	6.5
Transfers	2.6	2.5	2.4	2.2	2.1	2.4	2.0	1.8
Other current expenditures	4.2	4.7	5.5	5.3	5.6	5.9	3.7	3.8
Capital expenditures	9.3	11.9	7.8	9.8	10.8	6.1	9.3	8.2
Local finance	2.5	3.2	2.4	3.2	3.0	2.3	3.7	2.8
Foreign finance	6.8	8.6	5.4	6.7	7.7	3.8	5.6	5.4
Revenue and grants	18.8	22.4	20.2	21.9	20.2	16.3	16.2	15.7
Revenue, excluding grants	14.6	15.3	16.3	16.3	16.3	15.0	14.6	14.3
Overall cash balance, excluding grants	-5.9	-9.8	-8.2	-9.2	-9.9	-6.5	-7.5	-6.0

Sources: Fiscal Policy and Regulation Department, Ministry of Finance, Lao PDR; and IMF WEO database (GDP; October 2019).

Table 8. Lao PDR: Sources of Fiscal Operations, 2002-2018

In percent of GDP	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
Revenue, excluding grants,	12.4	10.1	10.6	10.9	11.1	12.1	12.7	13.1	14.6
Total expenditures	19.6	16.3	14.8	16.4	17.4	17.0	18.7	18.1	22.9
Overall cash balance, excluding grants	-7.2	-6.2	-4.2	-5.6	-6.3	-4.9	-6.0	-5.1	-8.3
Grants	2.0	1.5	1.5	1.3	3.0	2.6	2.4	3.0	6.3
Domestic financing	0.2	0.0	-0.9	0.1	-0.3	-1.1	0.4	-0.2	0.1
Foreign financing	5.1	4.8	3.7	4.2	3.7	3.7	2.3	2.3	1.9

In percent of GDP	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Revenue, excluding grants	14.6	15.3	16.3	16.3	16.3	15.0	14.6	14.3
Total expenditures	20.5	25.0	24.5	25.5	26.1	21.5	22.1	20.3
Overall cash balance, excluding grants	-5.9	-9.8	-8.2	-9.2	-9.9	-6.5	-7.5	-6.0
Grants	4.1	7.1	3.9	5.6	3.9	1.4	1.7	1.4
Domestic financing	-0.2	1.5	2.7	1.5	-0.9	3.5	0.5	1.1
Foreign financing	2.0	1.1	1.6	2.1	6.8	1.7	5.3	3.6

Sources: Fiscal Policy and Regulation Department, Ministry of Finance, Lao PDR; and IMF WEO database (GDP; October 2019).

Table 9. Lao PDR: Fiscal and Current Account Balances, 2002-2018

In percent of GDP	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
General government revenue	13.8	12.2	11.8	12.8	13.2	14.0	14.2	17.0	20.9
General government total expenditures	16.6	16.0	13.6	15.3	14.7	15.1	16.1	20.1	22.4
General government net lending/borrowing	-2.9	-3.9	-1.8	-2.5	-1.5	-1.1	-1.9	-3.1	-1.5
General government gross debt	95.3	90.1	80.7	73.2	60.0	55.9	51.7	51.8	49.3
Current account balance	-9.3	-11.6	-13.9	-15.8	-9.3	-10.4	-15.6	-17.8	-16.5

In percent of GDP	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
General government revenue	18.8	22.4	20.2	21.9	20.2	16.0	16.1	15.5
General government total expenditures	20.2	24.7	24.2	25.0	25.8	21.1	21.6	19.9
General government net lending/borrowing	-1.4	-2.3	-4.0	-3.1	-5.6	-5.1	-5.5	-4.4
General government gross debt	43.0	46.1	49.5	53.5	53.1	54.2	55.8	57.2
Current account balance	-15.3	-21.3	-26.5	-23.3	-22.4	-11.0	-10.6	-12.0

Source: IMF WEO database (October 2019).

Table 10. Lao PDR: Current and Financial Accounts, 2009-2017

In percent of GDP	2009	2010	2011	2012	2013	2014	2015	2016	2017
Current account balance	0.9	-6.8	-7.2	-7.3	-7.8	-14.5	-15.8	-8.7	-7.0
Direct investment, net	7.1	7.7	6.5	6.2	5.9	6.5	7.2	5.8	9.3
Portfolio investment, net	1.0	0.2	0.7	0.0	1.4	2.8	3.7	3.2	1.9
Other investment, net	7.7	4.0	7.4	1.9	7.3	5.1	9.4	6.9	1.4

Sources: Bank of the Lao PDR; and IMF WEO database (GDP; October 2019).

Table 11. Lao PDR: PPG External Debt, 2010-2018

In millions of US dollars	2010	2011	2012	2013	2014	2015	2016	2017	2018
China	845	1,233	1,618	2,144	2,630	2,803	3,443	3,784	4,418
Thailand	187	191	213	266	297	445	620	688	516
Russia	366	359	351	342	332	321	310	299	287
Japan	151	159	139	111	118	110	138	137	216
Korea	54	68	84	95	101	110	143	146	147
Other bilaterals	78	120	151	167	181	217	502	539	584
Multilaterals	2,054	2,046	1,945	1,825	1,764	1,671	1,478	1,552	1,563
Bonds	0	0	0	143	300	838	1,081	1,482	1,590
Total	3,734	4,174	4,501	5,094	5,723	6,516	7,715	8,627	9,320
% of GDP	49.8	46.6	44.1	42.5	43.1	45.4	48.5	50.5	51.4
GDP, current prices	7,504	8,963	10,195	11,974	13,266	14,363	15,916	17,069	18,120

Sources: Bank of the Lao PDR; and IMF WEO database (GDP; October 2019).

Table 12. Lao PDR: Capital and Real GDP Growth, 2002-2018

	2002	2003	2004	2005	2006	2007	2008	2009	2010
Capital expenditures /Current expenditures	1.6	1.3	0.8	0.8	0.8	0.8	0.7	0.6	1.0
Real GDP growth Percentage change	6.8	6.2	7.2	6.9	9.0	7.9	7.8	7.4	8.0
Interest payments /Capital expenditures In percent	4.0	5.2	11.7	12.9	6.1	4.6	7.9	5.9	4.7

	2011	2012	2013	2014	2015	2016	2017	2018
Capital expenditures /Current expenditures	0.8	0.9	0.5	0.6	0.7	0.4	0.7	0.7
Real GDP growth Percentage change	8.0	7.8	8.0	7.6	7.3	7.0	6.8	6.5
Interest payments /Capital expenditures In percent	6.4	4.2	6.2	7.2	7.1	15.8	11.4	16.6

Sources: Fiscal Policy and Regulation Department, Ministry of Finance, Lao PDR (capital and current expenditures and interest payments); and IMF WEO database (October 2019).

Table 13. Lao PDR: Government Debt Cost and Real GDP Growth, 2002-2018

	2002	2003	2004	2005	2006	2007	2008	2009	2010
General government gross debt In percent of GDP	95.4	90.2	80.7	73.2	62.0	55.4	52.0	54.5	53.5
Real GDP growth Percentage change	6.8	6.2	7.2	6.9	9.0	7.9	7.8	7.4	8.0
Interest payments /Capital expenditures In percent	4.0	5.2	11.7	12.9	6.1	4.6	7.9	5.9	4.7

	2011	2012	2013	2014	2015	2016	2017	2018
General government gross debt In percent of GDP	49.0	53.6	54.3	56.5	56.0	56.4	60.3	63.0
Real GDP growth Percentage change	8.0	7.8	8.0	7.6	7.3	7.0	6.8	6.5
Interest payments /Capital expenditures In percent	6.4	4.2	6.2	7.2	7.1	15.8	11.4	16.6

Sources: Fiscal Policy and Regulation Department, Ministry of Finance, Lao PDR (interest payments and capital expenditures); and IMF WEO database (October 2019).

III. Reports of Working Groups

III – 1. WORKING GROUP 1: FISCAL AND DEBT MANAGEMENT

III – 1 - 1. Executive Summary

1. The Lao economy has grown rapidly thanks to foreign direct investment in the natural resources sector, but it faces vulnerabilities in the fiscal and external sectors.
2. Heightened fiscal risks caused by the increasing amount of foreign currency-denominated external debt and the growing government contingent liabilities are due to chronic fiscal deficits, reflecting a large negative savings–investment balance in the economy. Overly ambitious investment in infrastructure widened the gap to be filled by external liabilities. Global credit glut enabled a rapid accumulation of such government liabilities without increasing apparent funding costs over the past years.
3. Liabilities owed by the Lao government have reached at a level that is susceptible to factors beyond government control. On the asset side, financial and non-financial returns are less certain than the cost of liabilities exposed to downside risks, including currency and maturity mismatches. Such asymmetry between assets and liabilities on the government balance sheet needs to be accommodated by annual fiscal operations in line with the long-term fiscal policy framework. The efficiency and effectiveness of fiscal expenditures is key to addressing fiscal consolidation while revenue enhancing efforts need to be maintained.
4. The Lao government faces a dilemma in terms of public investment for long-term economic development versus reliance on external debt. Laos needs to maximize net investment returns from the ongoing and future investment carried out by external borrowing in the infrastructure and natural resources sectors.
5. While the long-term prospects appear positive, the ongoing investment in Laos needs a gestation period over a few decades to bear fruit. One of the immediate challenges facing Laos is how to address the concern during the gestation period over fiscal risks caused by the high level of external debt. Mitigating fiscal vulnerabilities to external shocks is of increasing urgency for Laos because of rising risks and uncertain prospects in the global economy.
6. Mitigation measures are needed to deal with downside risks due to currency and maturity mismatches entailed in government liabilities. Laos may not be faced with the immediate risk of an external debt crisis, but its external position remains vulnerable to terms-of-trade deterioration and investor sentiment due to a low level of foreign exchange reserves under the less flexible exchange rate regime.
7. Positive net investment returns from ongoing and future infrastructure investment can only be secured through sound project planning and implementation. The key ingredients are improved efficiency and effectiveness of fiscal expenditure and enhanced commercial viability of ongoing mega infrastructure projects. Rational and efficient use of fiscal resources is a fundamental building block for fiscal stabilization.
8. For the expenditure composition to be effective, the long-term fiscal framework should address long-term goals of triple capital formation focusing on physical, human, and institutional capital. Quality investment for capital formation should be secured with a coordinated overall planning, strengthened project appraisals and well-timed monitoring.
9. Effective measures with strengthened enforcement to mobilize fiscal revenues should be in place against the backdrop of declining tax revenues in the past few years. Value added tax (VAT) and excise duties have been a relatively stable source of tax revenues and represent the largest shares among major tax categories. One of the structural constraints to increasing tax revenues is a limited

taxpayer base due to the less-developed and narrow industrial base.

10. A time lag between a given policy action and its results is inevitable. Some policies have immediate or short-term effects while others only bring results over the medium or long term. Despite such time lags, policy measures need to be designed, implemented, and maintained or adjusted to bring about the intended outcomes within their respective timeframes. The effectiveness of a policy depends on the credibility of the government commitment to implement it. Excessive discretion should be avoided in order to achieve medium- and long-term outcomes.

11. Suggested policy options are: strengthening public finance management and governance; raising tax revenues by strengthening enforcement and broadening the taxpayer base; maximizing efficiency gains and positive externalities of fiscal expenditures; implementing effective public debt management; minimizing fiscal risks due to contingent liabilities; creating the institutional base for a well-functioning financial system; and improving the use of fiscal and related statistics for policy monitoring and planning purposes.

12. Monitoring mechanisms should be in place in conformity with the budgetary cycle to assess the effectiveness of policy measures for fiscal stabilization.

III – 1 - 2. Background

1. **The Lao economy has grown rapidly thanks to foreign direct investment in the natural resources sector since the mid-2000s despite its structural disadvantages and weaknesses** (Figure 1). Laos is a landlocked country, and most of its territory is mountainous and thickly forested. It has a population of about seven million, with its density being one of the lowest in Southeast Asia. Annual economic growth averaged over 7% during the last decade—among the strongest in Asia—with a GDP per capita of US$2,455 in 2017[1]. Agriculture, dominated by rice cultivation in lowland areas, accounts for about 20% of GDP and 70% of total employment. The economy has become more dependent on capital-intensive natural resource exports, benefiting from foreign direct investment in the hydropower and mining sectors. Some concern persists concerning environmental impacts. Infrastructure remains underdeveloped, particularly in rural areas. The government is faced with challenges in attracting a wider range of foreign investors, other than those in the natural resources sector, due to such constraints as a limited labor pool, a small domestic market, and ongoing problems with business environment as indicated by the World Bank's ease of doing business ranking placing Laos at 154th out of 190 countries in 2019[2].

[1] IMF WEO database (October 2019).

[2] The World Bank Group. Doing Business 2019, 16th edition.

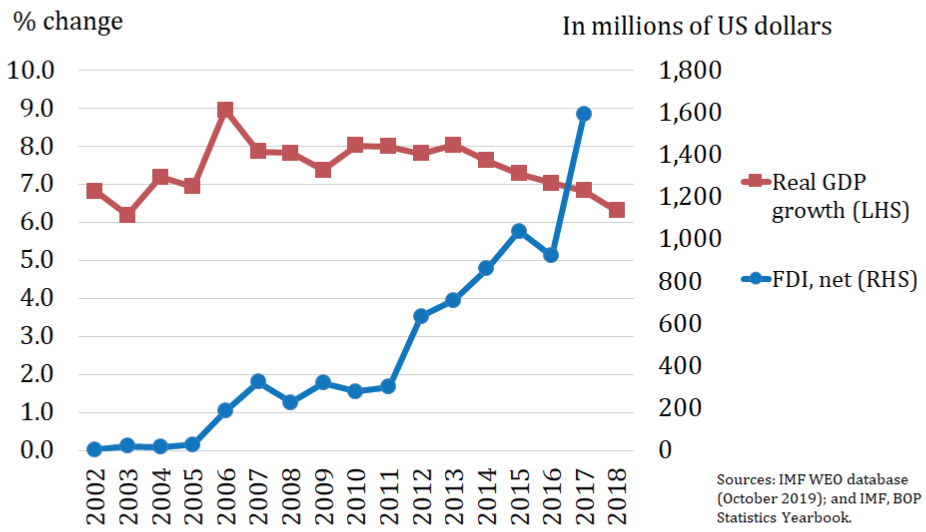

Figure 1. Lao PDR: FDI and Real GDP Growth, 2002-2018

2. **Accelerated growth in the last decade of the Lao economy has been accompanied by heightened vulnerabilities in the fiscal and external sectors.** The Lao government led by Prime Minister Thongloun Sisoulith recognizes the high levels of external debt and low levels of foreign exchange reserves as the main sources of these vulnerabilities and seeks to minimize economic risks[3].

3. **The bilateral ties between Japan and Laos have deepened and the importance of Laos for Japan as a "strategic partner" is growing**. Laos has been attracting attention as an investment destination for Japanese firms because of its key position in relation to connectivity in the Mekong region. In May 2016, the Japan-Laos Air Services Agreement entered into force with the aim of establishing a legal framework to open scheduled airline routes between Japan and Laos.

4. **Prime Minister Shinzo Abe announced the Japan-Lao PDR Joint Development Cooperation Plan for the Sustainable Development of Lao PDR ("Cooperation Plan") at the Japan-Lao PDR Summit Meeting with Prime Minister Thongloun Sisoulith on September 6, 2016**[4]. The Prime Ministers expect that specific initiatives under the Cooperation Plan will contribute to the formulation of Lao PDR's 9th Five-Year National Socio-Economic Development Plan (2021-2025) ("9th Five-Year Plan"). The Cooperation Plan has three pillars—first, to strengthen connectivity with countries in the region on tangible and intangible fronts; second, to develop industrial human resources in order to diversify Lao PDR's industries and enhance their competitiveness; and third, to rectify disparity through balanced urban and regional development that considers environmental and cultural preservation.

5. **As one of the initiatives under the Cooperation Plan, the Joint Policy Research and Dialogue Program for Fiscal Stabilization in Lao PDR ("Program") was launched in March 2018**[5]. The

[3] At a meeting held with selected WG members prior to the mid-term report meeting on March 20, 2019, Prime Minister Thongloun Sisoulith expressed his determination to address these challenges with a view to minimizing economic risks.

[4] The Cooperation Plan's objective is to clarify a future vision for Lao PDR and the direction of cooperation between the two countries to achieve the vision. See the website of the Ministry of Foreign Affairs of Japan: https://www.mofa.go.jp/ic/cap1/page22e_000791.html.

[5] Memorandum of Understanding between National Institute for Economic Research and Japan International Cooperation Agency was signed on March 27, 2018.

shared recognition of fiscal stabilization as a vital foundation for the steady implementation of the Cooperation Plan led to the launch of the Program. Four working groups (WGs) are in place to cover fiscal and debt management (WG1), resource export management (WG2), balance-of-payments and foreign reserve management (WG3), and financial system development (WG4) respectively under the Program. The objective is to conduct research on issues with implications for fiscal stabilization.

6. **Working Group 1 ("WG1"), one of the four working groups under the Program, covers issues related to fiscal and debt management.** WG1 aims to assess fiscal risks, identify challenges in fiscal and debt management, indicate policy imperatives for fiscal stabilization, and suggest feasible policy options with a view to contributing to the formulation of the 9th Five-Year Plan. Additionally, WG1 covers immediate challenges concerning tax revenue and foreign exchange reserves in the context of improving debt servicing capacity as suggested by Prime Minister Thongloun prior to the mid-term report meeting on March 20, 2019 in Vientiane.

III – 1 - 3. Assessment of Fiscal Conditions

1. **The Lao government has recorded chronic fiscal deficits at around 4-10% of GDP** (Figure 2). The fiscal deficits shown in a conventional format with external grants as a revenue item have been around 2-6% of GDP (Figure 3), which is broadly in line with the fiscal management achievements described in Vision to 2030 and Public Finance Development Strategy to 2025 ("Public Finance Development Strategy") dated July 4, 2017.

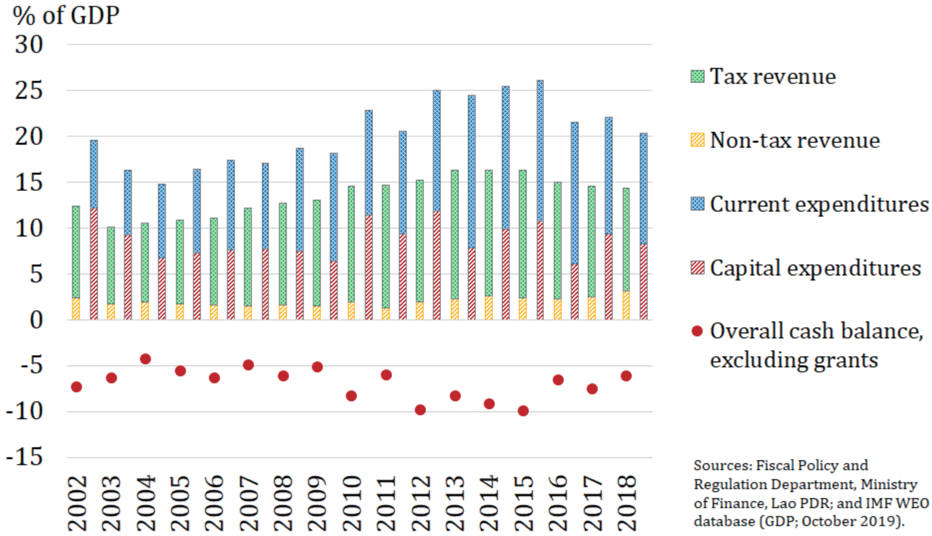

Figure 2. Lao PDR: Fiscal Revenue and Expenditures, 200-2018

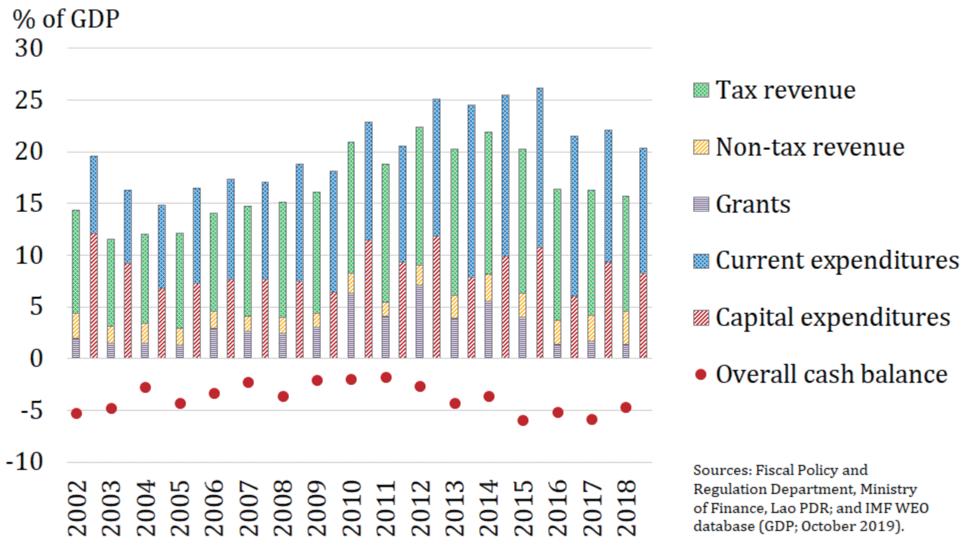

Figure 3. Lao PDR: Fiscal Revenue and Expenditures, 2002-2018

2. **Revenues have been declining since 2016, reaching 14% of GDP due to decreasing tax revenues in the past three years** (Figure 4). As a percentage of GDP, profit taxes were 1.4%, import duties 0.7%, and natural resources taxes 0.4% in 2018 as compared to 2.6% and 1.4% in 2011 and 0.8% in 2014 respectively. Value added tax (VAT) and excise duties have been a relatively stable source of tax revenues and represented the largest shares at 3.4% and 3.1% respectively in 2018.

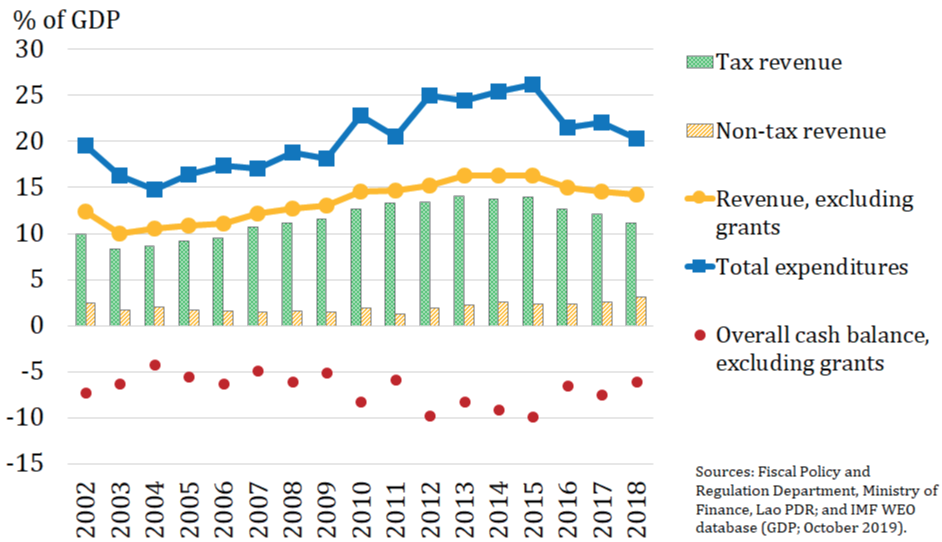

Figure 4. Lao PDR: Fiscal Revenue Composition, 2002-2018

3. **Expenditures were lower at 20-22% of GDP in 2016-2018 compared with 25-26% in 2012-2015 in response to lower levels of revenue** (Figure 5). The heightened levels of expenditures in 2012-2015 were due to an increase in current expenditures led by payments of wages and salaries (Figure 6). The lower levels of expenditures in 2016-2018 were made possible by a reduction in other current expenditures while wages and salaries remained at about the same level.

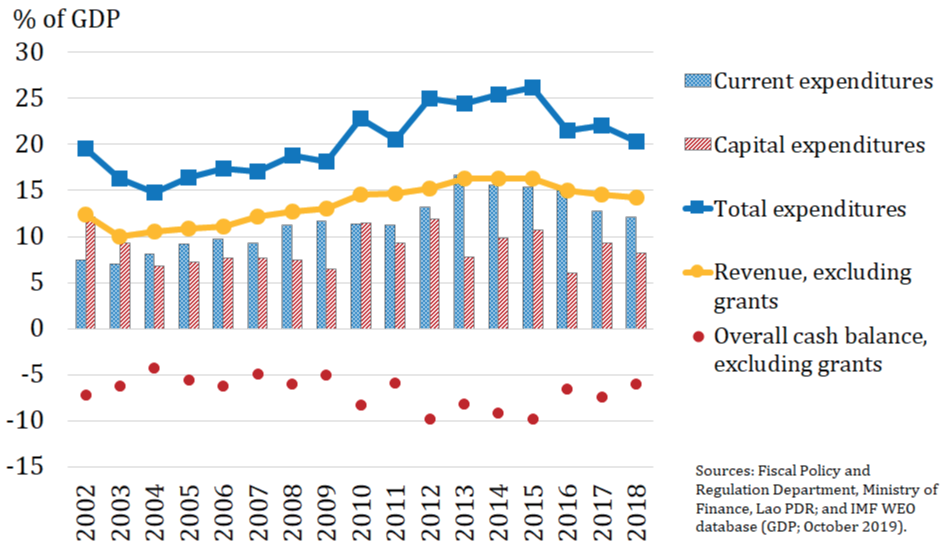

Figure 5. Lao PDR: Fiscal Expenditures Composition, 2002-2018

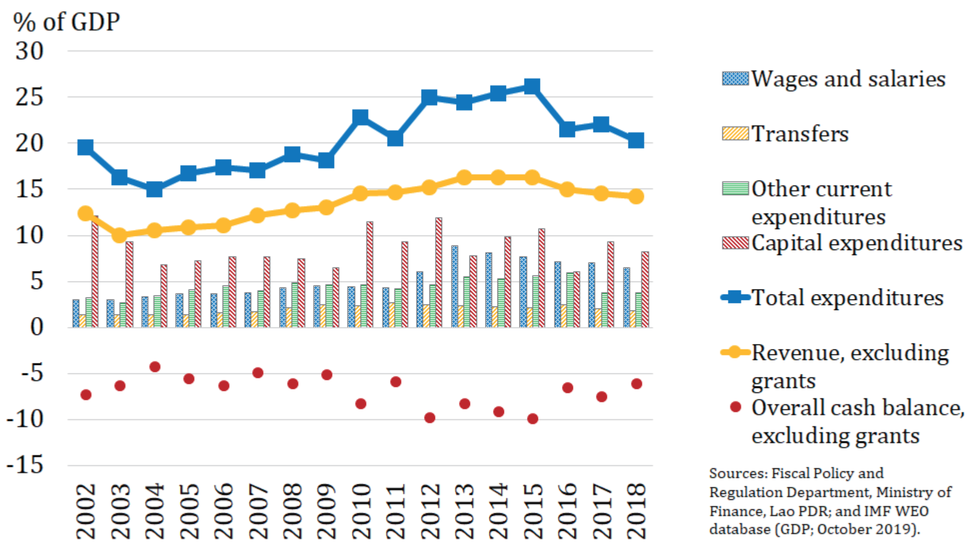

Figure 6. Lao PDR: Fiscal Expenditures Composition, 2002-2018

4. **Capital expenditures appear to have moved in parallel with the levels of available foreign finance** (Figure 7). Availability of foreign finance serves as a hard budget constraint or a spending limit for budgetary capital expenditures. Off-budget capital expenditures enabled mainly by the so-called "B-to-B model" (see paragraph 2.13), however, negate hard budget constraints and gave rise to an increasing amount of implicit government contingent liabilities.

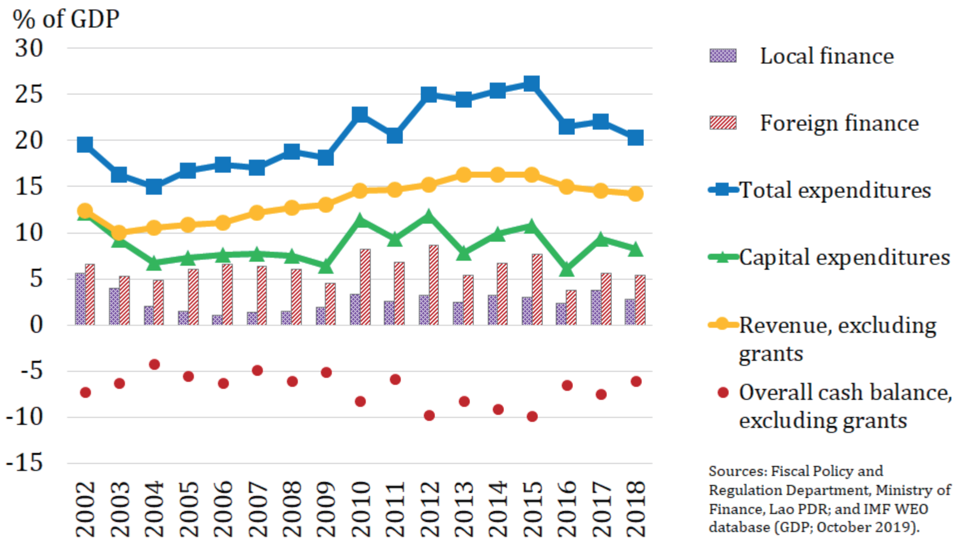

Figure 7. Lao PDR: Capital Expenditures Composition, 2002-2018

5. **External grants and borrowing have been the major sources of financing while domestic sources have been available only recently** (Figure 8). In anticipation of graduation from Least Developed Country (LDC) status, the level of grants is likely to decline and an increasing share of borrowing is expected to be provided on less concessional terms over the medium- and long-term.

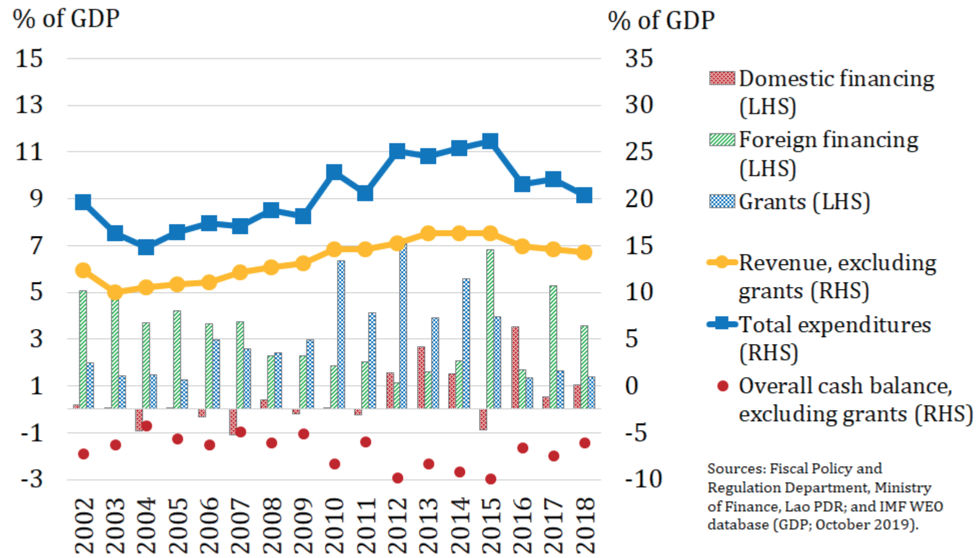

Figure 8. Lao PDR: Sources of Fiscal Operations, 2002-2018

6. **The chronic fiscal deficit is a reflection of the large negative savings–investment balance of the Lao economy**. Current account balance, a measure of the difference between national savings and investment, has stayed negative within a range of 9% to 27% of GDP over the past 17 years[6] (Figure 9). For Laos, a country with more investment opportunities than it can afford to undertake with its own domestic savings, the continued current account deficit coinciding with the chronic fiscal deficit is a natural phenomenon and could potentially bring about future productive gains (e.g., hydropower exports).

[6] IMF WEO database (October 2019).

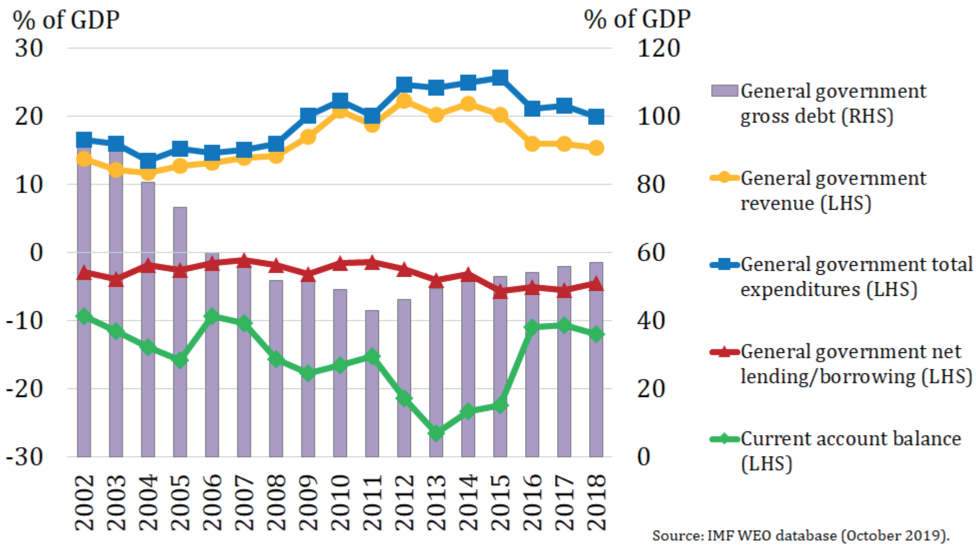

Figure 9. Lao PDR: Fiscal and Current Account Balances, 2002-2018

7. **Widened gaps between current account and fiscal deficits in 2012-2015 reflect investment over domestic savings by entities beyond the scope of general government** (Figure 9). These gaps may imply an emergence of implicit government contingent liabilities associated with massive investment in the natural resources sector. Balance of payments data provided by Bank of the Lao PDR show that widened current account deficits in 2014 and 2015 were matched with relatively high levels of capital inflows (net). (Figure 10)

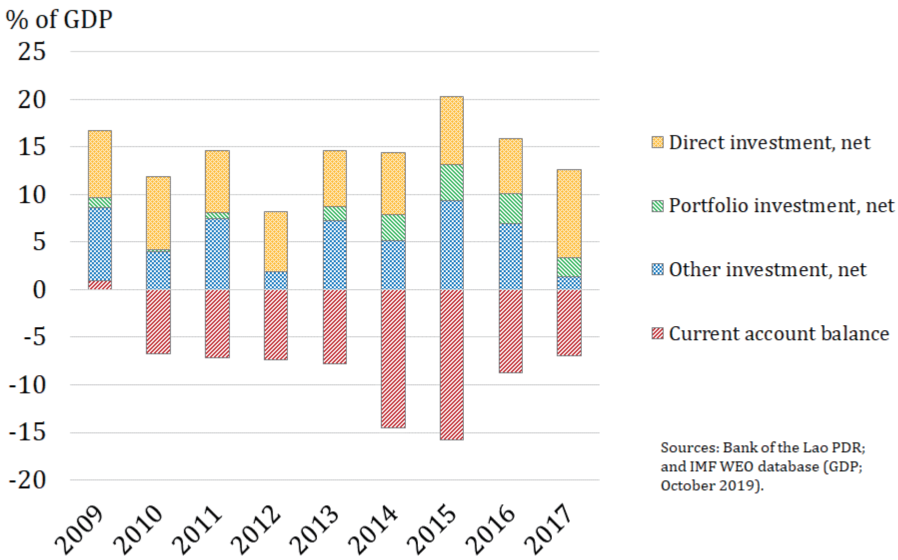

Figure 10. Lao PDR: Current and Financial Accounts, 2009-2017

8. **Lao PDR faces fiscal risks due to the increasing amount of foreign currency-denominated external debt as well as the growing government contingent liabilities**. Its total public and publicly-guaranteed (PPG) external debt is 51% of GDP at end-2018, of which about 60%[7] is

[7] IMF. Lao People's Democratic Republic—2017 Article IV Consultation. IMF Country Report No.18/84, March 2018.

denominated in US dollars, while total PPG debt, both domestic and external, amounts to 57% of GDP[8] (Figure 11). The current debt portfolio indicates vulnerabilities of the fiscal conditions to external shocks. Implicit contingent liabilities arising from off-budget public sector operations are beyond the scope of PPG debt statistics. Given the large number of Public-Private Partnership (PPP) projects, IMF estimates that total private external debt is 42% of GDP at end-2018[9].

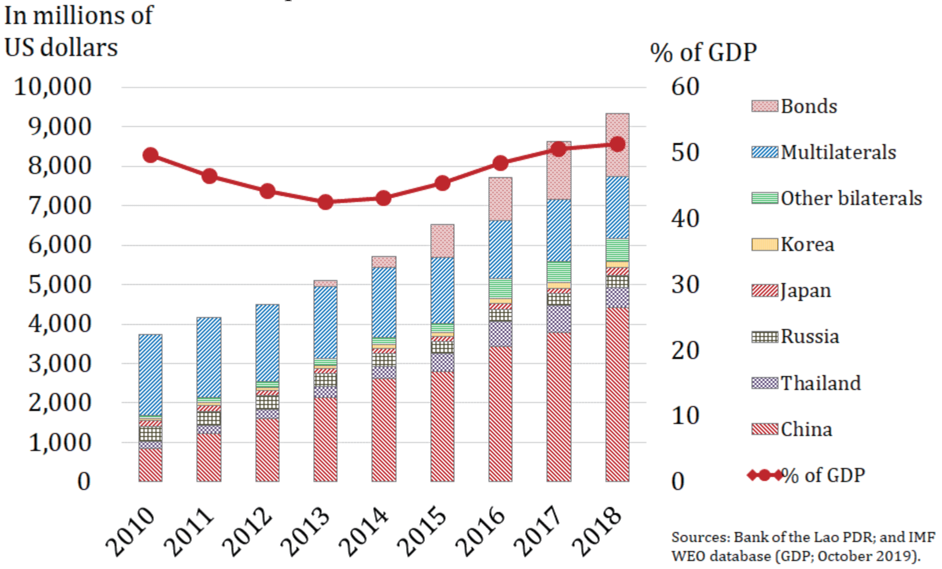

Figure 11. Lao PDR: PPG External Debt, 2010-2018

9. **Three favorable external factors explain a rapid accumulation of government liabilities, both direct and contingent, without increasing *apparent* funding costs over the past years**. These factors are abundant liquidity in the global financial markets (or global credit glut), increasing investment from China, and reliance on the so-called "B to B" model[10].

10. **Abundant liquidity in the global financial markets since the aftermath of the Global Financial Crisis in 2008 has allowed the Lao government to keep issuing foreign currency-denominated sovereign bonds in the Thai bond market since 2013**. The first issuance of such bonds was in Thai baht in May 2013, followed by 18 issuances through November 2018. In December 2015 the Lao government issued its first US dollar-denominated bonds with the LIBOR- based floating rate. The bond proceeds have financed the budget deficit and the government share in power projects. As of end-December 2018, the outstanding stock of foreign-currency-denominated sovereign bonds amounted to THB41.9 billion (US$1,338 million) and US$182 million. On June 28, 2019, Thailand's TRIS Rating, Co., Ltd. announced the downgrading of the sovereign rating and the ratings of outstanding senior unsecured bonds of the Lao PDR to "BBB" with "stable" outlook from "BBB+" with "negative" outlook[11]. In addition to the Lao government itself, Électricité

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[8] IMF. Lao People's Democratic Republic—2019 Article IV Consultation. IMF Country Report No.19/267, August 2019.

[9] IMF. Lao People's Democratic Republic—2019 Article IV Consultation. IMF Country Report No.19/267, August 2019.

[10] In the context of the Jakarta-Bandung high-speed train project in Indonesia, a senior official from the Indonesian government described the project as "a business-to-business project" according to The Jakarta Post, February 20, 2018 ("Jakarta-Bandung high speed train fares may reach Rp500,000"). The project is developed by PT Kereta Cepat Indonesia China, a joint venture formed in October 2015 between a consortium of Indonesian state-owned companies (60% share) and China Railway International (40% share).

[11] TRIS Rating Co., Ltd. Credit News No. 102/2019. June 28, 2019.

du *Laos* (*EDL*)—one of the state-owned corporations in *Laos* that owns and operates the country's electricity generation, transmission and distribution assets—issued both baht- and US dollar-denominated bonds in the Thai bond market.

11. **An increasing share of outstanding bonds owed by Lao issuers may lead to an action by the relevant Thai authorities to safeguard Thai investors**. Lao issuers have been the most active among foreign issuers in the Thai bond market since 2013 and were the only non-Thai issuers in 2017 and 2018[12].

12. **Increasing investment and lending by China on the eve of and since the launching of the Belt and Road Initiative (BRI) have enabled the Lao government to initiate mega infrastructure projects.** Among these are the Vientiane-Kunming railway project, the Vientiane-Boten expressway project, and the first phase of the Vientiane expressway from Thatluang SEZ to Xaythany District.

13. **Introduction of the so-called "B to B" model for infrastructure investment has helped ease concerns on the surface about the government fiscal burden arising from massive public investment.** Similar to the Jakarta-Bandung high-speed train project in Indonesia, the Vientiane-Kunming railway project—a section of the proposed Kunming-Singapore Trans Asian Railway project—is being developed by a joint venture company formed between a consortium of Lao state-owned companies and their counterparts from China. The construction of a 420-km single-track electrified rail line from Vientiane to the border with China started in 2017 and is expected to be completed in 2021 with a total cost of US$5.9 billion[13]. This scheme does not require an explicit sovereign guarantee by the Lao government for its borrowing from the Export-Import Bank of China.

14. **Opportunities in natural resources development have been a pull factor in bringing about a rapid accumulation of government liabilities, both direct and contingent.** Potential in the hydropower sector backed by abundant water resources in Laos has attracted foreign investments and encouraged the government and state-owned enterprises to mobilize external debt for investment. A larger portion of external debt for investment, however, is outside fiscal oversight and may constitute government contingent liabilities, both explicit and implicit.

15. **On the domestic front, the Lao government plans to assume debts in exchange for commercial banks' loan assets related to public infrastructure projects.** While such transactions as the resolution to domestic arrears would help strengthen commercial banks' balance sheets, this is a typical case of implicit government contingent liabilities adding to government direct liabilities. According to the IMF, the maximum amount of commercial banks' loan assets is equivalent to 2.1% of GDP for 2018[14], which would be exchanged for government bonds with a 5% coupon to be amortized from the capital expenditure budget in equal installments over 10 years. Another realization of implicit government contingent liabilities could arise from recapitalization for state-owned banks. State-owned enterprises (SOEs) could also bring about an increased fiscal burden.

16. **Fiscal and external vulnerabilities are due to fiscal and external risks, most visibly perceived through the high debt-to-GDP ratio and low foreign exchange reserves level, respectively** (Figure 12). Their underlying causes are chronic fiscal deficits and current account deficits, a reflection of the large negative savings–investment balance of the Lao economy. Three favorable external factors, including global credit glut, enabled a rapid accumulation of government external liabilities, both direct and contingent, without increasing apparent funding costs over the past years.

[12] Thai Bond Market Association. 2018 Thai Bond Market Review.
[13] IMF. Lao People's Democratic Republic—2019 Article IV Consultation. IMF Country Report No.19/267, August 2019.
[14] IMF. Lao People's Democratic Republic—2017 Article IV Consultation. IMF Country Report No.18/84, March 2018.

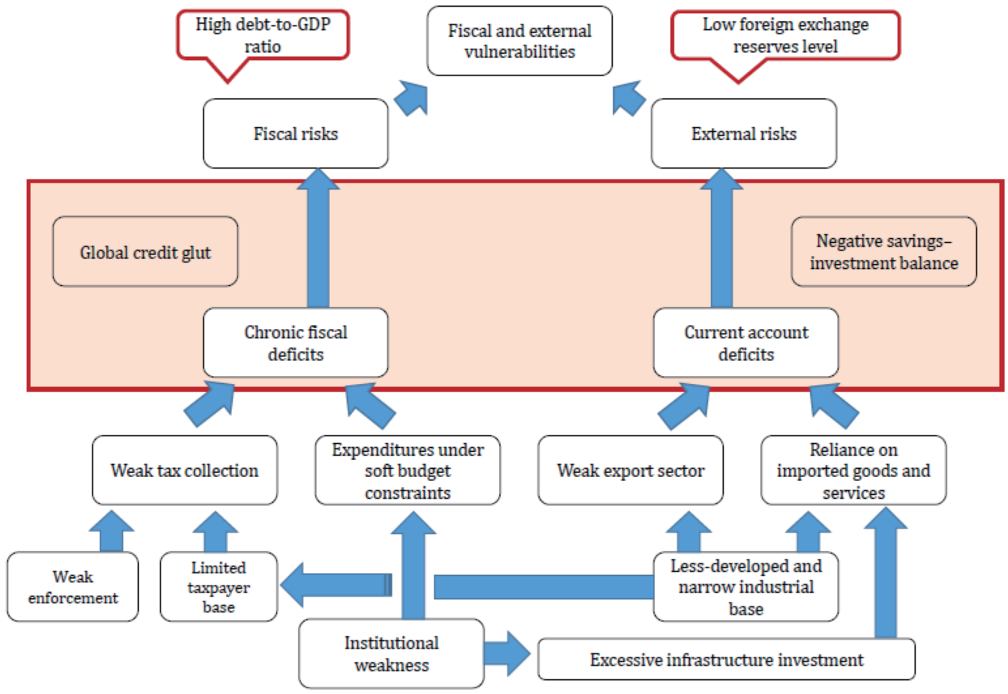

Figure 12. Lao PDR: Sources of Fiscal and External Vulnerabilities

III – 1 - 4. Fiscal Analytics

1. **Fiscal risks faced by the Lao government can be understood conceptually as asymmetry between assets and liabilities on the government balance sheet** (Figure 13). The government balance sheet generally shows liabilities exceeding assets with the government power to tax expected to fill the gap.

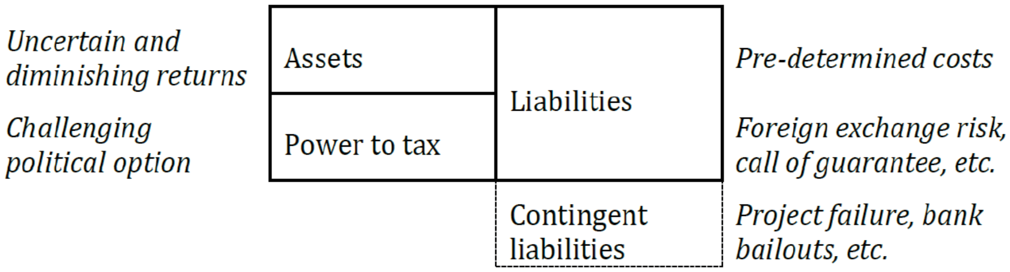

Figure 13. Lao PDR: Asymmetry between Assets and Liabilities on the Government Balance Sheet

2. **Liabilities owed by the Lao government have reached a level that is susceptible to factors beyond government control.** As of end-2018, the Lao government's liabilities consist of PPG debt, both domestic and external, amounting to 57% of GDP, of which 90 % is PPG external debt (equivalent to 51% of GDP) (see paragraph 2.8). The costs of these liabilities are pre-determined with their external portion exposed to foreign exchange risks. In addition, a larger portion of non-PPG debt in infrastructure investment may constitute implicit government contingent liabilities together with a possible *fiscal cost of bank bailouts* in cases where increasing non-performing loans

continue to undermine the soundness of the banking sector.

3. **The scope of government contingent liabilities ranges from explicit government guarantees to implicit government commitments.** The size of implicit government contingent liabilities due to external borrowing could be estimated, as a first approximation, as the difference between total foreign currency-denominated external debt and the PPG external debt. Total private external debt estimated by the IMF is 42% of GDP at end-2018, indicating that the size of implicit government contingent liabilities due to external borrowing could be close to that of the PPG external debt (see paragraph 2.8).

4. **On the assets side, financial and non-financial returns are even more uncertain than the cost of liabilities and equally exposed to downside risks.** Assets entail uncertainties on the expected level of return, and the government has a limited capacity to capture positive externalities gained from the assets through taxation. Furthermore, marginal returns of additional investments tend to become lower, and the government power to tax is a challenging political option to exercise.

5. **Asymmetry between liabilities and assets on the government balance sheet needs to be accommodated by annual fiscal operations in line with the long-term fiscal policy framework**. In this context, the government should take policy measures in line with its comprehensive public finance management development strategy as defined in the Vision to 2030 and Public Finance Development Strategy to 2025 approved and promulgated by Decree 204/PM dated July 4, 2017, to achieve fiscal and debt sustainability.

6. **Enforcement in tax collection needs to be strengthened in order to expand tax revenues.** More specifically, enforcement should be strengthened through comprehensive tax administration reform and by adopting a selection and concentration strategy.

7. **The efficiency and effectiveness of fiscal expenditures are key to addressing fiscal consolidation, but is not easy to measure because of methodological complications, limited data availability, and the impact of exogenous factors**[15]. Measuring the efficiency and effectiveness of fiscal expenditure requires information on input, output and the final outcomes of such expenditure. The government should maximize efficiency gains by optimizing budget allocation to priority sectors. An improved public procurement practice should be in place to promote budget execution efficiency. Also, fiscal expenditures should maximize positive externalities to generate economic and social returns, which would contribute to strengthening the taxable capacity of the economy and society. In this context, the government should aim at sustainable and equitable income growth by means of developing human capital while preserving environmental and cultural assets.

8. **One of the prerequisites for creating future gains is whether foreign capital flows or foreign savings to finance the deficits, both in fiscal and external accounts, are used productively for investment purposes**. For this reason, how to allocate fiscal resources between current and capital expenditures is of critical importance while a larger portion of foreign capital inflows should be outside fiscal oversight. Relatively lower levels of the capital expenditure/current expenditure ratio since 2013 as compared to the preceding years with a spike in the interest payments/capital expenditure ratio implies a concern about the quality of investment. (Figure 14)

[15] Sisa-ad, Vilyna. Improving the Efficiency of Government Expenditure in Lao PDR. September 28, 2018. https://www.mof.go.jp/pri/international_exchange/visiting_scholar_program/Vilyna2.pdf

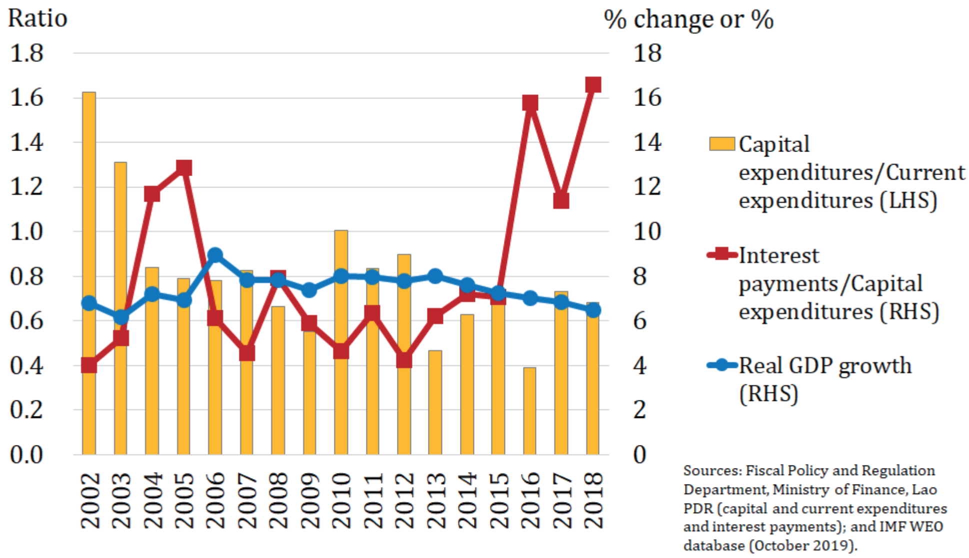

Figure 14. Lao PDR: Capital, Interest and Real GDP Growth, 2002-2018

9. **Pro-cyclicality caused by the boom in the resources sector does not seem to be an immediate policy challenge**. In light of the declining share of fiscal revenues from the mining sector, pro-cyclicality of fiscal operations might not be seen as an important policy challenge as in the past. Also, the lack of accurate and timely fiscal information is a constraint to coming up with meaningful policy suggestions to deal with pro-cyclicality.

III – 1 - 5. Challenges for Fiscal and Debt Management

1. **The Lao government faces a dilemma of public investment for long-term economic development versus reliance on external debt.** Laos' reliance on external debt is due to chronic fiscal deficits arising from the need for investment in infrastructure and in the natural resources sector, which put debt sustainability at risk. Fiscal stabilization efforts, public investment, and fiscal and debt management strategies need to be understood and designed given this backdrop.

2. **Future returns from ongoing investment could eventually help relieve Laos' reliance on external debt.** Laos is rich in natural resources. The country's economic development could be aided by maximizing the potential in natural resources, most notably its abundant water resources. Within a few decades, investments in large resource projects, particularly in the hydropower sector, could generate more domestic value added with net foreign exchange earnings. Future gains from the hydropower sector as a result of the ongoing investment could turn the current account deficit into a surplus (a positive savings–investment balance) over the long term to relieve Laos of reliance on foreign savings. Notwithstanding possible future gains, heavy reliance on the hydropower sector entails risks due to the shared water resources with neighboring countries and s*upply and demand conditions* in the Mekong region as a whole. Although abundant, water resources are not an unlimited source of income and growth.

3. **Laos needs to maximize net investment returns from ongoing and future investment carried out via external borrowing in infrastructure as well as in the natural resources sector.** Investment has a positive relationship with income generation but with diminishing returns. The impact of additional investment declines as the level of investment rises, while the borrowing costs tend to increase as the level of debt becomes higher.

4. **Gains from the hydropower sector need to be shared by the government ("The Angel's share") to help mitigate vulnerabilities of the fiscal conditions to external shocks and to**

promote population welfare over the long term. The rationale for the Angel's share rests on fiscal stabilization as a vital foundation for a steady implementation of policies and population welfare promotion as the eventual goal for government policies.

5. **While the long-term prospects appear positive, the ongoing investment in Laos will need a gestation period over a few decades to bear fruit.** As investment continues by means of external borrowing, investment costs increase in total, as well as at the margin most likely. On the other hand, investment returns from individual projects vary in terms of level and harvest time. Since future returns from investments tend to be uncertain, net investment returns might not be secured fully as planned. As a corollary to this sequence, government interest payments increase as the debt continues to accumulate, while gains from government investment using borrowed funds might not bear fruit in the form of higher economic growth (Figure 15).

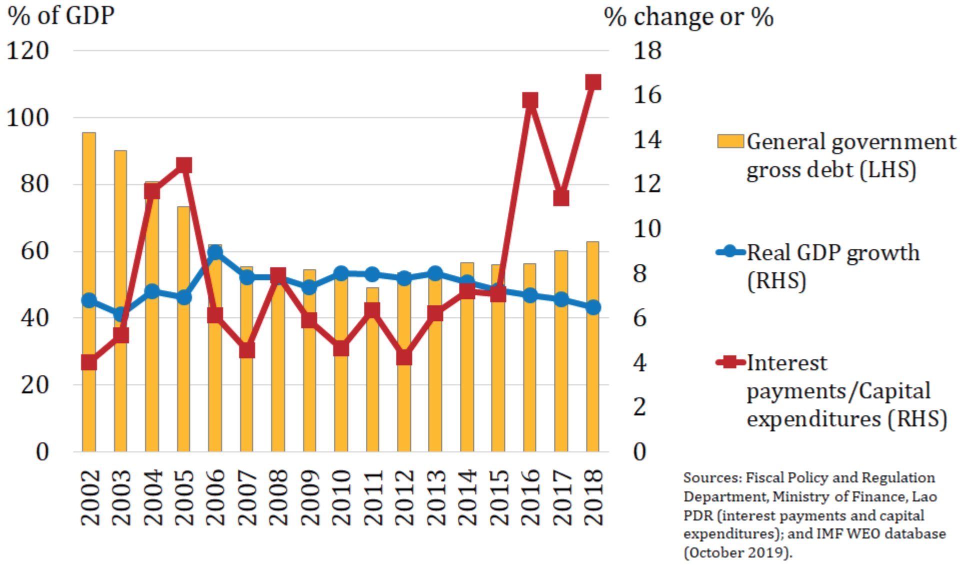

Figure 15. Lao PDR: Government Debt Cost and Real GDP Growth, 2002-2018

6. **One of the immediate challenges faced by Laos is how to address the concern during the gestation period over fiscal risks caused by the high level of external debt while making productive use of its external borrowing**. The Lao government needs to "buy time" over the next few decades before maximizing the country's potential in rich natural resources for the benefit of the population. This approach requires the government to keep servicing existing debts by introducing a long-term fiscal framework that consists of enhanced revenue mobilization plans, expenditure rationalization, and an effective debt management strategy.

7. **A sound long-term fiscal framework would help Laos maintain donor and market confidence, which is necessary to get the debt rolled over during the long gestation period**. Private investors in the market are more sensitive to risks than bilateral and multilateral donors and lenders. Country risk—the risk that a *government* will default on its bonds or other financial commitments—is perceived on the basis of the evaluation of policy commitment, performance, and track record. Government commitment to a long-term fiscal framework and the track record to prove it is one of the most effective means to maintain donor and market confidence.

8. **Mitigating vulnerabilities of the fiscal conditions to external shocks is of increasing urgency for Laos because of rising risks and uncertain prospects in the global economy**.[16] Favorable

[16] "High debt burdens leave governments, companies, and households more exposed to sudden tightening of financial conditions. Such potential shifts could trigger market corrections, debt sustainability concerns, and capital flow reversals in emerging market economies." ("Sustaining

external environments for Laos are likely to fade partially as interest rates rise and financial conditions tighten with the possible monetary policy normalization in the future by major central banks in advanced countries.

9. **Positive net investment returns from ongoing and future infrastructure investment can only be secured through sound investment planning and project implementation**. Marginal net returns of additional investments tend to be lower. Seemingly favorable external environments such as massive inflows of investments into the country could mislead investment decisions while investment costs increase for sure in total and at the margin most likely.

10. **Improved investment returns can only be achieved with improved efficiency and effectiveness of fiscal expenditures and by enhanced commercial viability of the ongoing mega infrastructure projects**. In this context, institutional reform aligned with fiscal and project management is of critical importance. The existing and ongoing mega infrastructure projects, involving state-owned enterprises (SOEs), should be reinforced to enhance their commercial viability and to generate higher economic and social returns. Performance of SOEs should be strengthened if feasible, and otherwise poor-performing SOEs should be restructured or abolished. Soft budget constraints should be avoided.

III – 1 - 6. Policy Imperatives for Fiscal Stabilization

1. **Rational and efficient use of fiscal resources is a fundamental building block for fiscal stabilization**. Tax revenues, supplemented with grants and borrowed funds, need to achieve positive net financial returns unless justified by social and economics returns such as those reflecting positive externalities over the long term. Rational and efficient use of fiscal resources is only possible with a well-designed fiscal framework and public investment management practices in place.

2. **The fiscal framework should be designed to enhance efficiency and effectiveness of fiscal expenditures in terms of its level, development over time, and composition**. For the expenditures composition to be effective, the long-term fiscal framework should address long-term goals of triple capital formation focusing on physical, human, and institutional capital. Physical capital (infrastructure) should be developed by mobilizing domestic savings for financing it while the complementary use of foreign savings (external borrowing) is warranted. Human capital development through education and training should be a priority area for allocating fiscal resources because it will enhance productivity and thus help generate higher income. Enhanced revenue mobilization plans, expenditure rationalization and an effective debt management strategy cannot be achieved without strengthening institutional capital.

3. **Quality investment for capital formation should be secured with coordinated overall planning, strengthened project appraisals, and well-timed monitoring**. To this end, it is necessary to establish a well-functioning platform that enables the Ministry of Planning and Investment (MPI) and the Ministry of Finance (MOF) to coordinate and provide clear public investment management guidance and practices. Existing and ongoing investments, especially mega infrastructure projects, should be reinforced to enhance their commercial viability with a view to minimizing the risk implications for fiscal and debt management.

4. **Policy measures need to be designed, implemented, and maintained or adjusted to bring about the intended outcomes within their respective timeframes**. Each government policy action has a different timeframe. A time lag between a given policy action and its results is inevitable. Some policies have immediate or short-term effects while others only bring results over the medium or long term. Despite such time lags, policy measures need to be designed, implemented, and

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Momentum in Uncertain Times: Policy Priorities for the Global Economy" by Mitsuhiro Furusawa, IMF Deputy Managing Director, Czech National Bank, Prague, June 28, 2018) maintained or adjusted to bring about the intended outcomes within their respective timeframes.

III – 1 - 7. Scenarios

1. **Favorable scenario**. With sound and effective policy measures in place, the Lao government would be able to maintain donor and market confidence, which would enable the rollover of foreign currency-denominated external debt at reasonable cost over the medium- and long-term.
2. **Debt-trap scenario**. Without sound and effective policy measures in place, the Lao government would be faced with uncertainties, under which any trigger event to undermine confidence could force the government to seek either conventional or unconventional debt restructuring options.
3. **Conventional debt restructuring scenario**. At the request of the Lao government, both bilateral and multilateral creditors would decide to gather to discuss terms of debt restructuring, where the IMF normally provides a framework by means of IMF-supported program with conditionality agreed on macroeconomic and structural policies.
4. **Unconventional debt restructuring scenario**. Since the major portion of public and publicly-guaranteed external debt and, most likely, implicit contingent liabilities arising from off-budget public sector operations are both owed to China, a single creditor country with the greatest exposure. Against this background, bilateral debt treatment by means of a debt-to-equity conversion, as well as a swap arrangement for liquidity support might be a feasible option. With this option, however, the Lao government would weaken *its bargaining position furthermore vis-à-vis the creditor.*

III – 1 - 8. Suggested Policy Options

1. **Strengthening public finance management and governance**. The government should continue implementing policy measures in line with its comprehensive public finance management development strategy [17] to achieve fiscal and debt sustainability. More specifically, a public investment management framework should be introduced to reduce fiscal vulnerabilities and to maximize the efficiency and effectiveness of fiscal operations over the longer term. To help achieve this goal, the government should create a well-functioning platform involving the Ministry of Planning and Investment (MPI) and the Ministry of Finance (MOF) to enhance coordinated investment planning, strengthened project appraisals, and well-timed monitoring with a view to securing quality investment for capital formation. Soft budget constraints should be avoided.
2. **Raising tax revenues by strengthening enforcement and broadening the taxpayer base**. The government should raise tax revenues by strengthening enforcement through a comprehensive tax administration reform and by adopting a selection and concentration strategy. The immediate priority is to increase value added tax (VAT) collection from large-scale enterprises and to minimize the scope of tax exemptions. In order to broaden the taxpayer base over the long term, the government should promote a gradual transformation of the resource-based economy into a more diversified economy by creating a better business environment for both local and foreign entrepreneurs. Policies to promote SMEs and micro enterprises, including the introduction of innovative financing mechanisms, also could contribute to broadening the taxpayer base.
3. **Maximizing efficiency gains and positive externalities of fiscal expenditures**. The government should maximize efficiency gains by optimizing budget allocation to priority sectors. An improved public procurement practice should be in place to promote budget execution efficiency. Also, fiscal expenditures should maximize positive externalities to generate economic and social returns, which would contribute to strengthening the taxable capacity of the economy and society. In this context, the government should aim for sustainable and equitable income growth by means of developing

[17] As defined in the Vision to 2030 and Public Finance Development Strategy to 2025 approved and promulgated by the Decree 204/PM dated July 4, 2017.

human capital while preserving environmental and cultural assets.

4. **Implementing effective public debt management**. The government should take effective measures under a comprehensive public debt management strategy developed in accordance with the Law on Public Debt Management[18]. Efforts should be made to deal with risks due to currency and maturity mismatches entailed in public sector liabilities. The portfolio of foreign currency-denominated external debt should be managed to secure investor confidence and gradually shifted towards one to help contain debt services. Over the long term, foreign exchange reserves could be increased by maintaining an adequate level of real exchange rates under a more flexible exchange rate regime, which would contribute to enhancing transactions to increase net foreign exchange earnings. A *gradual* approach in increasing foreign exchange rate flexibility is appropriate in light of potential negative impacts on external debt service burden in kip terms. For the short term, rollover of foreign-currency-denominated external debt at reasonable cost—in particular the outstanding bonds issued in the Thai capital market—is key to maintaining foreign exchange reserves.
5. **Minimizing fiscal risks due to contingent liabilities**. The government should introduce measures to minimize fiscal risks entailed in contingent liabilities[19]. For infrastructure investment, fiscal risks in Public-Private Partnerships (PPPs) or the BOT scheme should be carefully examined. The existing and ongoing investments, in particular mega infrastructure projects involving state-owned enterprises (SOEs), should be reinforced to enhance their commercial viability and to generate higher economic and social returns[20]. Performance of SOEs should be strengthened if feasible, and otherwise poor-performing SOEs should be restructured or abolished. Power sector SOEs' heavy reliance on the power demand in neighboring countries as well as on the shared water resources require a careful consideration of *supply and demand conditions* in the Mekong region. Also, measures to address non-performing loans (NPLs) held by state-owned banks should be introduced.
6. **Creating the institutional base for a well-functioning financial system**. The government should promote a well-functioning financial system to mobilize domestic savings over the long term to serve productive investment. The immediate priority is government bond market development to enable a stable and sustainable issuance of government debt securities at reasonable cost. Steps should be taken to rationalize primary market development, followed by secondary market development and diversification of the domestic investor base over the long term.
7. **Improving the use of fiscal and related statistics for policy monitoring and planning purposes**. The government should make fiscal and related statistics broadly available on a regular and timely basis within the government to strengthen its monitoring and planning capacity. The government should also make these statistics available to the public with a view toward maintaining the credibility of government commitment.

III – 1 - 9. Follow-up actions

1. **Monitoring mechanisms should be in place in conformity with the budgetary cycle to assess the effectiveness of policy measures for fiscal stabilization**. The effectiveness of a policy depends on the credibility of the government commitment to implement it. Excessive discretion should be avoided in order to achieve medium- and long-term outcomes.
2. **The government should be responsible for monitoring and assessing the effectiveness of policy**

[18] Approved by the National Assembly on June 18, 2018.

[19] Government contingent liabilities include unforeseeable budget allocations, as part of post-disaster reconstruction efforts, which are implicit in nature and mostly beyond government control.

[20] This approach is in line with the G20 Principles for Quality Infrastructure Investment, which was endorsed on June 29, 2019 as one of the supplementary documents to the G20 Osaka Leaders' Declaration.

measures adopted or to be adopted in line with the policy proposals. The National Committee[21] established to oversee the Joint Policy Research and Dialogue Program for Fiscal Stabilization in Lao PDR should be transformed to serve as a monitoring body. Biannual meetings of a small group of experts from Lao PDR and Japan should be organized in conformity with the budgetary cycle to facilitate the monitoring and assessing of the effectiveness of policy measures for fiscal stabilization.

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[21] The decision to appoint the National Committee for the Joint Policy Research and Dialogue Program for Fiscal Stabilization in Lao PDR was made by Decree 56/PM dated August 15, 2018.

III – 1 - 10. Tables

Table 1. Lao PDR: FDI and Real GDP Growth, 2002-2018

	2002	2003	2004	2005	2006	2007	2008	2009	2010
FDI, net In millions of US dollars	4	19	17	28	187	324	228	319	279
Real GDP growth Percentage change	6.8	6.2	7.2	6.9	9.0	7.9	7.8	7.4	8.0

	2011	2012	2013	2014	2015	2016	2017	2018
FDI, net In millions of US dollars	301	635	710	861	1,038	920	1,590	…
Real GDP growth Percentage change	8.0	7.8	8.0	7.6	7.3	7.0	6.8	6.3

Sources: IMF WEO database (October 2019); and IMF, BOP Statistics Yearbook.

Table 2. Lao PDR: Fiscal Revenue and Expenditures, 2002-2018

In percent of GDP	2002	2003	2004	2005	2006	2007	2008	2009	2010
Revenue and grants	14.3	11.5	12.0	12.1	14.1	14.7	15.1	16.0	20.9
Tax revenue	10.0	8.4	8.6	9.2	9.5	10.7	11.1	11.6	12.6
Non-tax revenue	2.4	1.7	2.0	1.7	1.6	1.4	1.6	1.4	2.0
Grants	2.0	1.5	1.5	1.3	3.0	2.6	2.4	3.0	6.3
Current expenditures	7.5	7.0	8.0	9.2	9.8	9.3	11.3	11.7	11.4
Capital expenditures	12.1	9.2	6.8	7.3	7.6	7.7	7.5	6.4	11.5
Overall cash balance, excluding grants	-7.2	-6.2	-4.2	-5.6	-6.3	-4.9	-6.0	-5.1	-8.3

In percent of GDP	2011	2012	2013	2014	2015	2016	2017	2018
Revenue and grants	18.8	22.4	20.2	21.9	20.2	16.3	16.2	15.7
Tax revenue	13.3	13.4	14.1	13.7	13.9	12.7	12.1	11.2
Non-tax revenue	1.3	1.9	2.2	2.5	2.4	2.3	2.5	3.1
Grants	4.1	7.1	3.9	5.6	3.9	1.4	1.7	1.4
Current expenditures	11.2	13.2	16.7	15.6	15.4	15.5	12.7	12.1
Capital expenditures	9.3	11.9	7.8	9.8	10.8	6.1	9.3	8.2
Overall cash balance, excluding grants	-5.9	-9.8	-8.2	-9.2	-9.9	-6.5	-7.5	-6.0

Sources: Fiscal Policy and Regulation Department, Ministry of Finance, Lao PDR; and IMF WEO database (GDP; October 2019).

Table 3. Lao PDR: Fiscal Revenue and Expenditures, 2002-2018

In percent of GDP	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
Revenue and grants	14.3	11.5	12.0	12.1	14.1	14.7	15.1	16.0	20.9
Tax revenue	10.0	8.4	8.6	9.2	9.5	10.7	11.1	11.6	12.6
Non-tax revenue	2.4	1.7	2.0	1.7	1.6	1.4	1.6	1.4	2.0
Grants	2.0	1.5	1.5	1.3	3.0	2.6	2.4	3.0	6.3
Current expenditures	7.5	7.0	8.0	9.2	9.8	9.3	11.3	11.7	11.4
Capital expenditures	12.1	9.2	6.8	7.3	7.6	7.7	7.5	6.4	11.5
Overall cash balance	-5.3	-4.8	-2.8	-4.3	-3.3	-2.3	-3.6	-2.1	-1.9

In percent of GDP	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Revenue and grants	18.8	22.4	20.2	21.9	20.2	16.3	16.2	15.7
Tax revenue	13.3	13.4	14.1	13.7	13.9	12.7	12.1	11.2
Non-tax revenue	1.3	1.9	2.2	2.5	2.4	2.3	2.5	3.1
Grants	4.1	7.1	3.9	5.6	3.9	1.4	1.7	1.4
Current expenditures	11.2	13.2	16.7	15.6	15.4	15.5	12.7	12.1
Capital expenditures	9.3	11.9	7.8	9.8	10.8	6.1	9.3	8.2
Overall cash balance	-1.8	-2.7	-4.3	-3.6	-5.9	-5.2	-5.8	-4.6

Sources: Fiscal Policy and Regulation Department, Ministry of Finance, Lao PDR; and IMF WEO database (GDP; October 2019).

Table 4. Lao PDR: Fiscal Revenue Composition, 2002-2018

In percent of GDP	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
Revenue and grants	14.3	11.5	12.0	12.1	14.1	14.7	15.1	16.0	20.9
Revenue, excluding grants	12.4	10.1	10.6	10.9	11.1	12.1	12.7	13.1	14.6
Tax revenue	10.0	8.4	8.6	9.2	9.5	10.7	11.1	11.6	12.6
Non-tax revenue	2.4	1.7	2.0	1.7	1.6	1.4	1.6	1.4	2.0
Grants	2.0	1.5	1.5	1.3	3.0	2.6	2.4	3.0	6.3
Current expenditures	7.5	7.0	8.0	9.2	9.8	9.3	11.3	11.7	11.4
Capital expenditures	12.1	9.2	6.8	7.3	7.6	7.7	7.5	6.4	11.5
Overall cash balance	-5.3	-4.8	-2.8	-4.3	-3.3	-2.3	-3.6	-2.1	-1.9
Overall cash balance, excluding grants	-7.2	-6.2	-4.2	-5.6	-6.3	-4.9	-6.0	-5.1	-8.3
Total expenditures	19.6	16.3	14.8	16.4	17.4	17.0	18.7	18.1	22.9

In percent of GDP	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Revenue and grants	18.8	22.4	20.2	21.9	20.2	16.3	16.2	15.7
Revenue, excluding grants	14.6	15.3	16.3	16.3	16.3	15.0	14.6	14.3
Tax revenue	13.3	13.4	14.1	13.7	13.9	12.7	12.1	11.2
Non-tax revenue	1.3	1.9	2.2	2.5	2.4	2.3	2.5	3.1
Grants	4.1	7.1	3.9	5.6	3.9	1.4	1.7	1.4
Current expenditures	11.2	13.2	16.7	15.6	15.4	15.5	12.7	12.1
Capital expenditures	9.3	11.9	7.8	9.8	10.8	6.1	9.3	8.2
Overall cash balance	-1.8	-2.7	-4.3	-3.6	-5.9	-5.2	-5.8	-4.6
Overall cash balance, excluding grants	-5.9	-9.8	-8.2	-9.2	-9.9	-6.5	-7.5	-6.0
Total expenditures	20.5	25.0	24.5	25.5	26.1	21.5	22.1	20.3

Sources: Fiscal Policy and Regulation Department, Ministry of Finance, Lao PDR; and IMF WEO database (GDP; October 2019).

Table 5: Lao PDR: Fiscal Expenditures Composition, 2002-2018

In percent of GDP	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
Revenue, excluding grants	12.4	10.1	10.6	10.9	11.1	12.1	12.7	13.1	14.6
Tax revenue	10.0	8.4	8.6	9.2	9.5	10.7	11.1	11.6	12.6
Non-tax revenue	2.4	1.7	2.0	1.7	1.6	1.4	1.6	1.4	2.0
Total expenditures	19.6	16.3	14.8	16.4	17.4	17.0	18.7	18.1	22.9
Current expenditures	7.5	7.0	8.0	9.2	9.8	9.3	11.3	11.7	11.4
Capital expenditures	12.1	9.2	6.8	7.3	7.6	7.7	7.5	6.4	11.5
Overall cash balance, excluding grants	-7.2	-6.2	-4.2	-5.6	-6.3	-4.9	-6.0	-5.1	-8.3

In percent of GDP	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Revenue, excluding grants	14.6	15.3	16.3	16.3	16.3	15.0	14.6	14.3
Tax revenue	13.3	13.4	14.1	13.7	13.9	12.7	12.1	11.2
Non-tax revenue	1.3	1.9	2.2	2.5	2.4	2.3	2.5	3.1
Total expenditures	20.5	25.0	24.5	25.5	26.1	21.5	22.1	20.3
Current expenditures	11.2	13.2	16.7	15.6	15.4	15.5	12.7	12.1
Capital expenditures	9.3	11.9	7.8	9.8	10.8	6.1	9.3	8.2
Overall cash balance, excluding grants	-5.9	-9.8	-8.2	-9.2	-9.9	-6.5	-7.5	-6.0

Sources: Fiscal Policy and Regulation Department, Ministry of Finance, Lao PDR; and IMF WEO database (GDP; October 2019).

Table 6: Lao PDR: Fiscal Expenditures Composition, 2002-2018

In percent of GDP	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
Total expenditures	19.6	16.3	15.0	16.7	17.4	17.0	18.7	18.1	22.9
Current expenditures	7.5	7.0	8.0	9.2	9.8	9.3	11.3	11.7	11.4
Wages and salaries	2.9	3.0	3.4	3.7	3.6	3.7	4.3	4.6	4.4
Transfers	1.3	1.4	1.3	1.4	1.6	1.6	2.1	2.5	2.3
Other current expenditures	3.2	2.7	3.4	4.1	4.5	4.0	4.9	4.6	4.7
Capital expenditures	12.1	9.2	6.8	7.3	7.6	7.7	7.5	6.4	11.5
Revenue and grants	14.3	11.5	12.0	12.1	14.1	14.7	15.1	16.0	20.9
Revenue, excluding grants	12.4	10.1	10.6	10.9	11.1	12.1	12.7	13.1	14.6
Overall cash balance, excluding grants	-7.2	-6.2	-4.2	-5.6	-6.3	-4.9	-6.0	-5.1	-8.3

In percent of GDP	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Total expenditures	20.5	25.0	24.5	25.5	26.1	21.5	22.1	20.3
Current expenditures	11.2	13.2	16.7	15.6	15.4	15.5	12.7	12.1
Wages and salaries	4.3	6.0	8.9	8.1	7.7	7.1	7.0	6.5
Transfers	2.6	2.5	2.4	2.2	2.1	2.4	2.0	1.8
Other current expenditures	4.2	4.7	5.5	5.3	5.6	5.9	3.7	3.8
Capital expenditures	9.3	11.9	7.8	9.8	10.8	6.1	9.3	8.2
Revenue and grants	18.8	22.4	20.2	21.9	20.2	16.3	16.2	15.7
Revenue, excluding grants	14.6	15.3	16.3	16.3	16.3	15.0	14.6	14.3
Overall cash balance, excluding grants	-5.9	-9.8	-8.2	-9.2	-9.9	-6.5	-7.5	-6.0

Sources: Fiscal Policy and Regulation Department, Ministry of Finance, Lao PDR; and IMF WEO database (GDP; October 2019).

Table 7. Lao PDR: Capital Expenditures Composition, 2002-2018

In percent of GDP	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
Total expenditures	19.6	16.3	15.0	16.7	17.4	17.0	18.7	18.1	22.9
Current expenditures	7.5	7.0	8.0	9.2	9.8	9.3	11.3	11.7	11.4
Wages and salaries	2.9	3.0	3.4	3.7	3.6	3.7	4.3	4.6	4.4
Transfers	1.3	1.4	1.3	1.4	1.6	1.6	2.1	2.5	2.3
Other current expenditures	3.2	2.7	3.4	4.1	4.5	4.0	4.9	4.6	4.7
Capital expenditures	12.1	9.2	6.8	7.3	7.6	7.7	7.5	6.4	11.5
Local finance	5.6	4.0	2.0	1.5	1.1	1.3	1.5	1.9	3.3
Foreign finance	6.5	5.3	4.9	6.0	6.6	6.4	6.0	4.6	8.2
Revenue and grants	14.3	11.5	12.0	12.1	14.1	14.7	15.1	16.0	20.9
Revenue, excluding grants	12.4	10.1	10.6	10.9	11.1	12.1	12.7	13.1	14.6
Overall cash balance, excluding grants	-7.2	-6.2	-4.2	-5.6	-6.3	-4.9	-6.0	-5.1	-8.3

In percent of GDP	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Total expenditures	20.5	25.0	24.5	25.5	26.1	21.5	22.1	20.3
Current expenditures	11.2	13.2	16.7	15.6	15.4	15.5	12.7	12.1
Wages and salaries	4.3	6.0	8.9	8.1	7.7	7.1	7.0	6.5
Transfers	2.6	2.5	2.4	2.2	2.1	2.4	2.0	1.8
Other current expenditures	4.2	4.7	5.5	5.3	5.6	5.9	3.7	3.8
Capital expenditures	9.3	11.9	7.8	9.8	10.8	6.1	9.3	8.2
Local finance	2.5	3.2	2.4	3.2	3.0	2.3	3.7	2.8
Foreign finance	6.8	8.6	5.4	6.7	7.7	3.8	5.6	5.4
Revenue and grants	18.8	22.4	20.2	21.9	20.2	16.3	16.2	15.7
Revenue, excluding grants	14.6	15.3	16.3	16.3	16.3	15.0	14.6	14.3
Overall cash balance, excluding grants	-5.9	-9.8	-8.2	-9.2	-9.9	-6.5	-7.5	-6.0

Sources: Fiscal Policy and Regulation Department, Ministry of Finance, Lao PDR; and IMF WEO database (GDP; October 2019).

Table 8. Lao PDR: Sources of Fiscal Operations, 2002-2018

In percent of GDP	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
Revenue, excluding grants,	12.4	10.1	10.6	10.9	11.1	12.1	12.7	13.1	14.6
Total expenditures	19.6	16.3	14.8	16.4	17.4	17.0	18.7	18.1	22.9
Overall cash balance, excluding grants	-7.2	-6.2	-4.2	-5.6	-6.3	-4.9	-6.0	-5.1	-8.3
Grants	2.0	1.5	1.5	1.3	3.0	2.6	2.4	3.0	6.3
Domestic financing	0.2	0.0	-0.9	0.1	-0.3	-1.1	0.4	-0.2	0.1
Foreign financing	5.1	4.8	3.7	4.2	3.7	3.7	2.3	2.3	1.9

In percent of GDP	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Revenue, excluding grants	14.6	15.3	16.3	16.3	16.3	15.0	14.6	14.3
Total expenditures	20.5	25.0	24.5	25.5	26.1	21.5	22.1	20.3
Overall cash balance, excluding grants	-5.9	-9.8	-8.2	-9.2	-9.9	-6.5	-7.5	-6.0
Grants	4.1	7.1	3.9	5.6	3.9	1.4	1.7	1.4
Domestic financing	-0.2	1.5	2.7	1.5	-0.9	3.5	0.5	1.1
Foreign financing	2.0	1.1	1.6	2.1	6.8	1.7	5.3	3.6

Sources: Fiscal Policy and Regulation Department, Ministry of Finance, Lao PDR; and IMF WEO database (GDP; October 2019).

Table 9. Lao PDR: Fiscal and Current Account Balances, 2002-2018

In percent of GDP	2002	2003	2004	2005	2006	2007	2008	2009	2010
General government revenue	13.8	12.2	11.8	12.8	13.2	14.0	14.2	17.0	20.9
General government total expenditures	16.6	16.0	13.6	15.3	14.7	15.1	16.1	20.1	22.4
General government net lending/borrowing	-2.9	-3.9	-1.8	-2.5	-1.5	-1.1	-1.9	-3.1	-1.5
General government gross debt	95.3	90.1	80.7	73.2	60.0	55.9	51.7	51.8	49.3
Current account balance	-9.3	-11.6	-13.9	-15.8	-9.3	-10.4	-15.6	-17.8	-16.5
In percent of GDP	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	
General government revenue	18.8	22.4	20.2	21.9	20.2	16.0	16.1	15.5	
General government total expenditures	20.2	24.7	24.2	25.0	25.8	21.1	21.6	19.9	
General government net lending/borrowing	-1.4	-2.3	-4.0	-3.1	-5.6	-5.1	-5.5	-4.4	
General government gross debt	43.0	46.1	49.5	53.5	53.1	54.2	55.8	57.2	
Current account balance	-15.3	-21.3	-26.5	-23.3	-22.4	-11.0	-10.6	-12.0	

Source: IMF WEO database (October 2019).

Table 10. Lao PDR: Current and Financial Accounts, 2009-2017

In percent of GDP	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
Current account balance	0.9	-6.8	-7.2	-7.3	-7.8	-14.5	-15.8	-8.7	-7.0
Direct investment, net	7.1	7.7	6.5	6.2	5.9	6.5	7.2	5.8	9.3
Portfolio investment, net	1.0	0.2	0.7	0.0	1.4	2.8	3.7	3.2	1.9
Other investment, net	7.7	4.0	7.4	1.9	7.3	5.1	9.4	6.9	1.4

Sources: Bank of the Lao PDR; and IMF WEO database (GDP; October 2019).

Table 11. Lao PDR: PPG External Debt, 2010-2018

In millions of US dollars	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
China	845	1,233	1,618	2,144	2,630	2,803	3,443	3,784	4,418
Thailand	187	191	213	266	297	445	620	688	516
Russia	366	359	351	342	332	321	310	299	287
Japan	151	159	139	111	118	110	138	137	216
Korea	54	68	84	95	101	110	143	146	147
Other bilaterals	78	120	151	167	181	217	502	539	584
Multilaterals	2,054	2,046	1,945	1,825	1,764	1,671	1,478	1,552	1,563
Bonds	0	0	0	143	300	838	1,081	1,482	1,590
Total	3,734	4,174	4,501	5,094	5,723	6,516	7,715	8,627	9,320
% of GDP	49.8	46.6	44.1	42.5	43.1	45.4	48.5	50.5	51.4
GDP, current prices	7,504	8,963	10,195	11,974	13,266	14,363	15,916	17,069	18,120

Sources: Bank of the Lao PDR; and IMF WEO database (GDP; October 2019).

Table 12. Lao PDR: Capital and Real GDP Growth, 2002-2018

	2002	2003	2004	2005	2006	2007	2008	2009	2010
Capital expenditures /Current expenditures	1.6	1.3	0.8	0.8	0.8	0.8	0.7	0.6	1.0
Real GDP growth Percentage change	6.8	6.2	7.2	6.9	9.0	7.9	7.8	7.4	8.0
Interest payments /Capital expenditures In percent	4.0	5.2	11.7	12.9	6.1	4.6	7.9	5.9	4.7

	2011	2012	2013	2014	2015	2016	2017	2018
Capital expenditures /Current expenditures	0.8	0.9	0.5	0.6	0.7	0.4	0.7	0.7
Real GDP growth Percentage change	8.0	7.8	8.0	7.6	7.3	7.0	6.8	6.5
Interest payments /Capital expenditures In percent	6.4	4.2	6.2	7.2	7.1	15.8	11.4	16.6

Sources: Fiscal Policy and Regulation Department, Ministry of Finance, Lao PDR (capital and current expenditures and interest payments); and IMF WEO database (October 2019).

Table 13. Lao PDR: Government Debt Cost and Real GDP Growth, 2002-2018

	2002	2003	2004	2005	2006	2007	2008	2009	2010
General government gross debt In percent of GDP	95.4	90.2	80.7	73.2	62.0	55.4	52.0	54.5	53.5
Real GDP growth Percentage change	6.8	6.2	7.2	6.9	9.0	7.9	7.8	7.4	8.0
Interest payments /Capital expenditures In percent	4.0	5.2	11.7	12.9	6.1	4.6	7.9	5.9	4.7

	2011	2012	2013	2014	2015	2016	2017	2018
General government gross debt In percent of GDP	49.0	53.6	54.3	56.5	56.0	56.4	60.3	63.0
Real GDP growth Percentage change	8.0	7.8	8.0	7.6	7.3	7.0	6.8	6.5
Interest payments /Capital expenditures In percent	6.4	4.2	6.2	7.2	7.1	15.8	11.4	16.6

Sources: Fiscal Policy and Regulation Department, Ministry of Finance, Lao PDR (interest payments and capital expenditures); and IMF WEO database (October 2019).

III – 2. WORKING GROUP 2: NATURAL RESOURCE MANAGEMENT

III – 2 – 1. Executive Summary

The mining and power sectors have played an important role in economic growth, export, and government revenues in Lao PDR. However, Laos faces several issues in these sectors. This report analyzes the two sectors' issues. The results of the analysis are as follows.

1. We analyze the Lao PDR's experiences of mineral production and the natural resource boom from 2004 to 2014. Revenues from minerals are temporary and Lao PDR is a capital-scarce country. They should be accordingly used for domestic investments such as education, health or infrastructure. According to our data analysis, the revenues from minerals were not necessarily used for domestic investments which generate future income in Lao PDR. The government should use them for education, health or infrastructure which produce future income for further economic growth if new minerals are developed.

2. Lao PDR is very successful on exporting the power using foreign capital (IPPs(e)) but faces a problem in the management of domestic power demand and supply. MEM and EDL have forecast an excessive power demand and thus IPPs(d) have constructed or is in the process of constructing many plants. EDL must buy all power produced by IPPs(d) because of the contract, even if EDL cannot sell it to customers. The government is trying to find foreign customers and must export the surplus power as soon as possible. Otherwise EDL will accumulate huge losses.

EDL has been making operational losses and current losses and also has a huge amount of debt. Since the interest payments are huge, EDL cannot repay the debt. The government should make a plan to restructure EDL and to make EDL a strong company. If the government provides help easily without conditions, EDL will not become a strong company. Firstly, EDL has to make a restructuring plan by itself in consultation with MEM. Then the government can provide help to EDL, under the condition that the plan is implemented, through the injection of money and a moderate increase in electricity tariff.

3. Land concessions were approved for approximately 250 companies; however, many companies do not pay concession tax, and many companies do not actually implement prospecting or exploration because they do not have mining technology or mining experience. Since Lao PDR does not have experience or capacity in the management of mining, these types of issue occur. The production of bauxite is a hopeful prospect for Lao PDR, but there are several obstacles to realizing the production. The Lao PDR government should train bauxite and aluminum management professionals to develop this resource appropriately.

4. Large amounts of investment capital inflowed quickly into the mining and power production sectors. While quick capital inflow promotes economic growth and exports, the capacity to manage the capital inflow becomes a bottleneck. Accordingly, Lao PDR encountered big problems in the two sectors. The management capacity in the natural resource sectors cannot be imported from abroad and thus this kind of capacity, including human capital, should be developed.

III – 2 – 2. Introduction

The mining and power production sectors have played an important role in Lao PDR. The production of these two sectors and Foreign Direct Investment (FDI), which is accelerated by the two sectors' production, promote economic growth. Additionally, these two sectors contribute to exports and the acquisition of foreign currency. According to BOL (2018), the share of mining exports to total exports is 28.9% (7.9% to GDP) and the share of power exports is 26.3% (6.6% to GDP) in 2017. The combined contribution of the two sectors to total exports is 55.2% (14.5% to GDP). The mining and power production sectors also contribute to government revenues, the contribution of the mining sector is 6.3%, while that of the power production sector is 5.5% and the total contribution of the two sectors is 11.8% in 2016.

Mineral production in Lao PDR started in December 2002 when Lane Xang Minerals Limited started to produce gold in Savannakhet Province. This company started copper production in 2005. Another big mining company, Phu Bia Mine Limited started gold production in 2006 and copper production in 2008. These two mining companies produced most of the share of minerals.

The natural resource boom occurred and the price of copper increased since 2004. The historical movement of international copper price is shown in Figure 1. This boom was interrupted by the global financial crisis in 2008; however, the price of copper increased again from 2010 to 2011. And the price started to gradually decrease from 2012 to 2016. Accordingly, during the boom periods from 2004 to 2008 and 2010 to 2014, the mining sector contributed enormously to exports and government revenues. Lane Xang Minerals Limited has, however, stopped copper production and the revenues from the mining sector are expected to decrease gradually in the near future. The mining sector faced the problem that the Lao PDR government could not select appropriate companies, with high technology and sufficient mining experience, for land concessions. Subsequently, the Lao PDR government implemented a moratorium on land concessions. This fact showed that the Lao PDR government did not have enough capacity or human capital to manage quick capital inflow to the mining sector, which became a bottleneck for the efficient use of investments.

Power exports have been increasing and are expected to soon exceed mineral exports. Since the production of minerals will decline, power production is the next sector that is expected to promote economic growth and a large number of power plants have been recently constructed or planned. Approximately 80% of the power is exported. More than 90% of power exports are conducted by export-oriented independent power producers (IPPs (e)), with most exported power sent directly to the Electricity Generation Authority of Thailand (EGAT). These IPPs (e) are profitable and have been successfully managed. Domestic power management is controlled by Electricite Du Laos (EDL) and various aspects of this management are problematic. Since the forecast domestic power demand was excessive, too many power plants for domestic users have been constructed or are under construction. EDL is contracted to buy all of the power produced by these plants even if they cannot find any customers. Accordingly, EDL must find new customers in the domestic market or foreign countries as quickly as possible or they will accumulate a huge loss. This fact also shows that the Lao PDR government does not have sufficient capacity or human capital to manage the quick inflow of capital to the power sector.

According to the IMF (2019), the Lao PDR government had public and public guaranteed debt equivalent to 54.2% of GDP in 2016 and external public and public guaranteed debt equivalent to 46.2% of GDP. Approximately half of the external public debt is related to EDL. EDL has made a loss on power operation since fiscal year 2015 and has made a loss on recurring income since fiscal year 2016. Accordingly, EDL cannot pay the debt and simply convert old loans to new loans. In addition, there is a high possibility that these losses will increase in the future due to excess supply for domestic users and huge interest payments.

We analyze the recent Lao PDR experience of the resource boom with the start of mineral production and test whether or not Lao PDR properly utilized the mining revenues in Section 2. Although power export has been very successful for independent power producers (IPPs(e)), the government encounters problems in the management of domestic power conducted by EDL (Lao public power company). We discuss these problems in Section 3 and the current situation of the mining sector in Section 4. Our conclusions and policy suggestions are discussed in Section 4.

III – 2 – 3. Analysis of the Experience of Resource Boom

We firstly analyze the Lao PDR's experiences of mineral production and the natural resource boom from 2004 to 2014 from the viewpoint of macroeconomics. The Lao PDR government receives revenues from mining as profit tax, land concession tax, royalties and dividends. Among these, profit tax is the major contributor to Lao PDR's revenue. The Lao PDR government also receives revenues from the power sector as profit tax, royalties and dividends. According to Table 1, the government revenues from mining started to increase from 2005 and the ratio to total government revenue increased to 1.7% in 2005, 16.4% in 2007, and 20.3% in 2008. The ratio declined to 11.3% in 2009 and 2010 because of the global financial crisis. After the crisis, the ratio recovered to approximately 16–17% until 2012 and then decreased from 2013 because of the growth of other revenue sources. These data are from IMF Article Four and grants are excluded on total government revenue.

The contribution of the mining sector to exports is also huge. The ratio of mining exports to total exports overtook that of the apparel industry and accounted for 39.2% of exports, which was the largest share among sectors, in 2005. This position, as the largest exporter, was maintained from 2005 until the present. Recently, however, the power sector has reached a similar level. The peak share of mining exports was 59.9% in 2007, a second peak of 56.7% occurred in 2011.
Since it is expected that mineral production will decrease in the near future, we can recognize that the revenues from the mining sector in Lao PDR are temporary and that they will only continue for a short time. Because mineral revenues are an asset not only for the current generation but also for future generations, the temporary revenues from mining should theoretically be saved for future expenditure to smooth consumption or be used for investment that increases future income.

Methods of managing resource revenues in developing economies are discussed by Collier et. al. (2010) and van der Ploeg and Venables (2011). The benchmark theory on temporary revenue is the permanent income hypothesis. According to the theory, temporary income should be saved to smooth the consumption for all generations and the creation of a Sovereign Wealth Fund (SWF) is recommended as a policy rule. This theory and the policy rule are, however, only appropriate for developed countries and are not appropriate for capital-scarce developing countries such as Lao PDR. The citizens of the current generation in Lao PDR are poor, while the economic growth rate is reasonably high. This means that future generations will be richer than the current generation. Accordingly, mining revenues should be used to increase the consumption of the current generation more than for future generations. Collier et. al. (2010) state, "It is therefore appropriate for a developing country to use some of its resource revenues to raise consumption up towards the level of the distant future, rather than to use them to raise the level of consumption in that distant future." Furthermore, since capital is scarce in Lao PDR, mining revenues should not be used to acquire foreign assets but should be used for investment within the country with a higher rate of return on investment.

If the amount of capital inflow and growth rate of investment increases rapidly because of a natural resource boom, it is unlikely that the country will have relevant experience or have accumulated appropriate managerial skills. Thus, a bottleneck may occur. This bottleneck decreases the rate of return on investment and hinders further growth. To avoid this type of problem, countries should first invest in human capital for management of natural resources and projects, as this type of capacity cannot be imported. Additionally, it is important to utilize the natural resource revenues to develop new industries for further growth. If the country wants to develop manufacturing or service sectors, higher levels of human capital are required.

Actually, The Lao PDR government has attempted to invite more foreign direct investment (FDI) in special economic zones (SEZs); however, according to a World Bank investment climate survey, most companies reply that the biggest constraint for them is the problem of the employment of an adequately educated workforce.

The World Bank (2019) developed the Human Capital Index (HCI), which measures "the amount of human capital that a child born today can expect to attain by age of 18, given the current status of health and education in the country." The index of Lao PDR has improved over time, but is still lower than that of the neighboring countries such as Cambodia and Myanmar.
According to the economic theory of temporary income, the increase in mining revenues should be used to increase the saving rate, investment in infrastructure, educational investment or health investment. We investigate the relationship between the historical movements of revenues from mining and the saving rate, government investment, gross capital formation, share of capital expenditure in total government expenditure, government expenditure on education and government expenditure on health.

Data were obtained from the following sources: the gross saving rate, gross capital formation, government investment and government expenditure on education were obtained from the World Bank's World Development Indicators; the government capital expenditure was obtained from the ADB's key indicators; and the government expenditure on health was obtained from the WTO's data set. These data are presented in Table 1. We investigated the correlation between these variables and the share of mining revenues to GDP by drawing graphs.

In the case of the gross saving rate, the value increased from 2003 to 2006 and the values reached more than 20% with the increase in mining revenues but showed a trend toward a decline from 2007, with some fluctuations. An unexpected increase in income from mining revenues can be expected to increase the saving rate; however, when the continuation of mining income comes to be considered as permanent, the saving rate would decrease. Gross capital formation includes both public and private investment. The rate of gross capital formation to GDP had already increased in 2002, before the start of mineral production and the values increased by approximately 4% with the natural resources boom. The values remained high, even after the end of the boom. The share of public educational expenditure to GDP increased from 2.4% in 2004 to 3.1% in 2007 with the start of the natural resources boom but soon decreased to 1.7–1.8% from 2009 to 2012. The share increased again to approximately 3% from 2013. The share of public health expenditure to GDP has shown a clear decline with the natural resources boom. During the period before the natural resources boom, capital expenditure accounted for a higher proportion of government expenditure than during the boom period. We can find some signs of good usage of temporary income in the first two or three years of the natural resource boom; however, on the whole, the revenues from natural resources are not used efficiently.

III – 2 – 4. Management of Power Production

The amount of power exported by Lao PDR has been increasing. In particular, the large hydro-power plants, Nam Theun 2 and Nam Ngum 2, started operation in 2010 and the Hongsa lignite power plant started operation in 2015. These large plants increased power exports. The share of power exports to total exports also increased from 6.5% in 2010 to 24.5% in 2016. It is expected that the power exports will soon overtake mining exports to become the largest export item.

Export-oriented independent power producers (IPPs (e)), IPPs for domestic demand (IPPs (d)), EDL-Gen and EDL produce power in Lao PDR. IPPs(e) are huge in size and their number is limited. Foreign investors have majority ownership in IPPs and a small part of the ownership is possessed by state-owned enterprises (SOEs), such as EDL, EDL-Gen (EDL-Generation public company) and LHSE (Lao Holdings State Enterprise). These SOEs borrow money to invest in IPPs (mainly from Thai banks or through the issuance of bonds through the Thai financial market). They also borrow money from Chinese banks and international assistance organizations, such as the World Bank, Asian Development Bank, etc.

IPPs (e) export approximately 95% of their power production directly to EGAT or EVN (Vietnam Electricity) and sell 5% of it to EDL. EGAT and EDL are synchronized. Accordingly, if EDL cannot sell the power to domestic users, EGAT accepts EDL's surplus power, within its limited capacity. Since IPPs (e) stably supply power to EGAT but EDL supplies power unstably to EGAT, the selling price of EDL is cheaper than that of the IPPs (e). EDL's exports accounted for less than 10% of the total power exports in 2018. IPPs (e) significantly contribute to exports and make profits. Lamphayphan et.al. (2015) analyzed the effects of the export of power from Lao PDR to Thailand using a model that included the economies of both Lao PDR and Thailand and their findings from a simulation demonstrated that these power exports have positive effects on the Lao PDR economy.

EDL buys all of the power produced by EDL-Gen and IPPs (d), part of the power produced by IPPs (e) and import power from abroad and sell it (mainly to domestic users). The purchase prices from EDL-Gen and IPPs (d) are determined to cover all investment and other operational costs with an internal rate of return of 10–13%. Accordingly, IPPs (d) and EDL-Gen can make profits if they do not have an exchange rate risk.

According to the 2018 MEM Electricity statistics, the current installed capacity of power production is 82 power plants and 7,422 MW, including one thermal power plant with 1,878 MW capacity, nine solar power plants and three power biomass plants. There are 69 hydro power plants and their installed capacity is 5,472 MW. According to Vientiane Times, the total capacity of hydro-power plants will expand to 13,062 MW and there will be 100 plants by 2020-2021. IPPs plan to operate a large number of hydro-power plants in the near future.

Neither the domestic demand or supply are well planned. Regarding demand, the forecast domestic demand was too high; thus, too many power plants for domestic user were constructed or are under construction. EDL is facing the problem of having to buy too much power without users because of contractual obligations. On the supply side, a huge amount of power is produced in the wet season and thus there is an imbalance in power production between the wet and dry seasons. Run-off-river type hydropower plants can be constructed more cheaply than reservoir type plants mainly produce power in the wet season. Too many run-off-river plants were approved for construction by the Lao PDR government.

1. Issues Regarding Domestic Demand Forecast for Power

The power demand forecast is very crucial for planning the construction of new power plants, because it takes five years to complete the construction of a new plants and it is almost impossible to cancel construction that has already started.

Since the power demand forecast by MEM and EDL was excessive, IPPs (d) have completed construction of a large number of plants since 2015, and have planned the construction of more plants. This domestic demand forecast was revised in 2019, and is not yet open to the public. While the forecast power demand for 2030 was approximately 6,000MW in the previous forecast, it is approximately 3,000MW in the revised version. The difference, from the viewpoint of the revised forecast, is 100%. Of course, whether or not the revised forecast is correct is not clear because no aspects of the revision have been explained.

According to "Electricity Demand Forecast and Supply 2016-2030" by MEM and EDL, the method for forecasting the domestic power demand is as follows. The domestic power demand forecast is constituted of two major sectors: general users and large consumer. General users are divided into Residential and Non-residential sectors, with the latter sector constituted of seven groups (i.e., small industries, general business, entertainment facilities, sports and educational facilities, government offices, international organizations and irrigation facilities). Large consumers include large shopping malls, large industrial plants, processing industries, mining, special economic zones (SEZs) and the Laos-China railway project.

The power demand of the residential sector is estimated using a model. The model utilizes the estimated values of the regional population, the number of households in the region, electrification rates, electricity consumption per household and electricity losses. The power demand of the non-residential sector is estimated based on the forecast gross domestic product (GDP) growth rates in the agriculture, industry and service sectors. These values are derived from the five-year National Socio-economic Development Plan. Three different GDP growth rates are utilized to forecast the demand.

The method used to forecast the demand of large consumers is not explained in detail in the report. MEM and EDL (2016) only mention that it depends upon the strategic development of SEZs and the large consumers' requests for electricity usage. This problematic method is the main reason for the overestimation. Firstly, the demand of the mining sector was overestimated. According to the explanation by EDL and MEM, the demand forecast includes a huge electricity demand for the production of aluminum from bauxite. This volume is 900MW. In addition, although a moratorium on land concession for minerals has been implemented since 2012, the demand of the mining sector was overestimated. Secondly, many SEZs were established to invite FDI. Not so many enterprises however invest actually in SEZs as the government expected. Even if many investments in SEZs are approved, the investments are not necessarily implemented or the realized amount of investment may be less than was planned. Furthermore, these enterprises requested more electricity than they actually required.

Accordingly, the demand of the SEZs was overestimated. The electricity demand of a railway project has also been overestimated. These overestimations accumulated to reach a huge amount. The gap between the forecasted demand and the existing capacity should be fulfilled by new plants. This incorrect forecast led to the planning of too many power plants for domestic demand. We generally estimate future power demand based on many assumptions. Accordingly, if some assumptions are not appropriate, due to changes of economic circumstances, we have to change the forecast. The power demand of large consumers will be affected by the development of bauxite, the production of minerals, the actual amount of foreign direct investment (FDI) in SEZs. These parameters are

influenced by the international economic environment, including commodity prices and government policies, such as tax policies in relation to FDI. In the case of the residential sector, it is assumed that a change in the power price will not affect the power demand. However, if the power price is drastically changed, it is a possibility that it will have long-term effects on the power demand due to power saving behavior.
It is required for the departments concerned with the power demand forecast to flexibly revise the demand forecast if there are drastic changes in government policies or economic circumstances.

MEM and EDL can compare the forecast values and actual values and investigate the differences. If the differences are large, they should try to revise the forecast values.
The authorities should also make public the methods used to forecast demand and the values forecast for each demand item. It is likely that only a few staff members knew about the details of the demand forecast and it would therefore take to recognize the overestimation. The sharing of information is very important for avoiding such huge mistakes. If these values are open to the public, individuals can point out inappropriate forecast values.

2. EDL's sales and purchases of power

Many IPPs (d) have recently started operations or are under construction. Since EDL will have to buy a large amount of power in the future and domestic demand will be limited, EDL has to find new foreign customers or restrict the volume of purchases. EGAT buys the surplus power that EDL cannot sell to domestic users but the purchase price is not high. However, it is said that EGAT's solar power production capacity is sufficient. EGAT and EDL agreed that substations and transmission lines between their facilities will not be expanded until 2020. This means that EDL has to abandon the surplus power that cannot be sent to EGAT by the existing facilities.

MEM is attempting to sell surplus power to neighbor countries. Fortunately, Vietnam and Cambodia have a strong demand for power and they want to buy it from Lao PDR at reasonable prices. However, in order to send power to the two countries, the construction of transmission lines is required. It is not so difficult to construct transmission lines within Lao PDR; however, there are problems associated with constructing such transmission lines within the territories of Vietnam and Cambodia. It is possible that the construction of transmission lines within the territories of these two countries will take more time. High-ranking politicians should negotiate with the governments of these countries to approve the construction of transmission lines.

We summarize the electricity purchases and sales of EDL in Table 2 and the purchase prices and selling prices of EDL in Table 3. From Table 2, we realize that the electricity purchased from IPPs has quickly increased since 2016 and that the volume overtook that of EDL-Gen in 2016. The amount of power purchased from IPPs was 1,853 million kWh in 2015. This more than doubled to 3,912 million kWh in 2016. Besides the exports of EDL have increased and imports have quickly decreased since 2016. Although the power imports of EDL were larger than the exports of EDL until 2015, the exports have been larger than the imports since 2016.
Since the power purchases agreement between EDL and power suppliers is mainly 'take or pay', EDL has to pay for the contracted amount of power whether it is utilized or not. Accordingly, this contract increases the possibility that EDL will make more losses in the future because it will be very difficult to sell the surplus power for a few years.

The purchase prices from power suppliers were determined as covering all investment and operational costs and, according to Table 3, the average purchase price from IPPs has increased quickly, from 4.40 cents per million kWh in 2014 to 6.10 cents in 2017 and 5.89 cents in 2018. In the case of the average price in 2017, one plant's price was especially expensive. This plant was affected by a dam failure and could not produce power for several months. This plant, however, received the scheduled amount of money and thus the average price was expensive. It is not clear whether or not the payment was subsequently adjusted. If we exclude the plant, the average purchase price changes to 5.53 cents.

The purchase prices from IPPs and SPP are ironically more expensive than the import price of 3.97 from EGAT. The increase in EDL's exports and the decrease in its imports make a trade surplus and it seems to be very good for EDL's financial condition. However, since the export price to EGAT is approximately 4 cents and the purchase price from IPPs is 5.89 cents, an increase in power exports means an increase in losses. This price agreement was changed in 2019. The average selling price of EDL to EGAT is now THB 1.63 (USD 0.0532 cents, USD 1 = 30.6345 Thai baht) and the average purchase price of EDL is THB 1.73 (USD 0.0565). The sale price has improved but is still lower than the price of purchasing electricity from IPPs; thus, EDL makes a loss on exports. These prices are based on a one-year contract and change according to oil prices.

Since the price elasticity of demand is low, if domestic tariffs increase, EDL's revenues will be expected to increase and improve its profitability. In spite of the World Bank's recommendation of a moderate increase in domestic tariffs, the Lao PDR government made decision to reduce domestic tariffs. The details have not yet been determined. The Lao PDR government expects that the reduction of tariffs will invite an increase in domestic demand and more FDI. It is considered difficult to increase domestic demand by reducing tariffs due to the low price-elasticity or to invite more FDI due to the poor investment climate in Lao PDR.

The measures to improve the increase in losses are as follows:

1. EDL should negotiate with IPPs to change the current power purchase agreement (PPA) of 'take or pay' to a 'take and pay' contract, meaning it would pay for the amount of power actually utilized. Of course, this change would be difficult to achieve.
2. EDL should negotiate with IPPs on the purchase price of power from IPPs (d), especially in the wet season. EDL recently set a cap for prices of electricity purchases from newly constructed plants, and the prices differ between the wet and dry seasons. EDL should try to reduce the maximum price and apply it to all IPPs.
3. Vietnam and Cambodia want to buy power from Lao PDR. The government should sign a carefully considered contract on power export agreements and make an effort to construct transmission lines to send power as soon as possible.

3. Exchange-rate risk of EDL

EDL has a huge amount of foreign debt and US dollar-denominated loans predominate among its loans. According to EDL's 2016 financial report, EDL has also loans in baht, yuan and yen and has borrowed small amounts of money from the Bank of Lao in Laos kip (LAK) and BCEL in USD. Sixty percent of the debt has been borrowed by the government from foreign banks and lent to EDL at higher interest rates. The rest of debt is also expected to be guaranteed by the government. Since the electricity revenue is mainly paid in LAK, the debt burden will become heavier if the LAK depreciates in the future. In addition, since EDL probably buys a considerable portion of the power from IPPs on a US dollar or Thai baht basis, the profits will be negatively affected by depreciation in the LAK. Although there is an exchange rate risk in EDLs' financial structure, EDL does not hedge for this risk.

4. Recent increase in debt

Revenues, costs and liabilities are shown in Table 4. According to the Table, the amount of long-term liabilities was LAK 11,260 billion (USD 1.41 billion, USD 1 = 8028) in December 2013. This expanded to LAK 33,270 billion (USD 3.99 billion, USD 1 = 8338) in December 2016 and LAK 38,277 billion (USD 4.61 billion, USD 1 = 8307) in December 2017. The liabilities increased by USD 3.2 billion in only four years, with a marked increase in 2016. The majority of borrowings are considered to be used for investments in transmission lines and new power plants. The problem is whether these investments in transmission lines are conducted based on a proper master plan and whether these transmission lines produce benefits commensurate with the amount of investment. If these investments are rational from the viewpoint of a cost-benefit analysis and a reason for making losses, then the government should pay for the investments.

According to ADB Key Indicators, the nominal GDP of Lao PDR was LAK 129,279.1 billion in 2016 and LAK 140,749.1 billion in 2017; thus, the EDL's long-term liabilities amounted to 25.7% of GDP in 2016 and 27.2% in 2017. External public and publicly guaranteed long-term debt were 7301.5 million US dollars in 2016 and thus EDL's liabilities amounted to 54.6% of the public debt. EDL's total liabilities, including long-term liabilities and short-term liabilities were LAK 40,458 billion (USD 4.85 billion) in 2016 and LAK 53,594 billion (USD 6.45 billion) in 2017 and amounted to 31.3% of GDP in 2016 and 38.1% in 2017.

EDL owns 75% of EDL-Gen's shares and receives large amounts in dividends from the company. However, the amount of interest payments is larger than the amount of other income because of an increase in investments. It is almost impossible for EDL to repay the huge liabilities by itself without official help.

5. Establishment of EDL-T

There is an idea that the transmission business will be separated from EDL and a new company, EDL-T, will be established. China Southern Power Grid Company (CSG) proposed a plan for the establishment of EDL-T to the Lao PDR government. The Lao PDR government asked the World Bank to review the plan and World Bank raised numerous questions on unclear points. The problem is whether the Lao PDR government can obtain sufficient benefit from the establishment of EDL-T.

There are several unclear points on the plan for the establishment of EDL-T proposed by CSG. First, the Lao PDR government should have the initiative to determine the new construction of transmission lines and the user fees for transmission lines. The Lao PDR side accordingly have to own more than 51% of the new company. However, it is not certain whether the Lao PDR government has sufficient funds or assets to obtain this share. The transmission of power is an economy of scale and this is the core part of the power business. If a foreign company can control this transmission, national security is not guaranteed. Secondly, the plan calls for the power management of EDL and CSG to be synchronized and for EDL to be disconnected from EGAT. EDL wants to sell the surplus power to CSG in the wet season. It is said that China prohibits the importation of power. An alternative method should be considered, such as a deposit method in which EDL deposits the surplus power in the wet season and withdraws it in the dry season. It is uncertain whether or not it will be possible to realize this plan.

Thirdly, EDL wants to transfer the debt for transmission lines to the new company and decrease the burden of debt. The issue is how much debt EDL-T can accept.

The other benefit of EDL-T is that it can use PPP framework and invite foreign investment for transmission construction. Of course, a reliable master plan for transmission lines is required to make a proper decision on new investments in transmission and the location of new power plants.

The establishment of EDL-T should improve the management of EDL and would be helpful for rational decision-making in relation to investment in transmission lines. Another problem is that the transmission business should be profitable to invite CSG. If the government guarantees that the business will be sufficiently profitable, there is a possibility that only foreign investors will profit and that EDL will again make losses.

Although it is very difficult to find alternative candidate except for CSG who invest in the EDL-T, it is preferable to be transparent on the investment in EDL-T and competitive for selecting a proper plan.

6. Increase in Employees

Since the separation of EDL-Gen from EDL in 2011, the number of employees has been expanding from 3,583 in 2012 to 6,188 in 2017 and 6,285 in 2018. The rate of increase from 2012 to 2017 was 73%. In addition, the main increase has been in the number of clerks, not engineers. It is considered that labor efficiency has decreased.

EDL-Gen simply manages the generation of existing plants and does not develop new power generation plants. Accordingly, EDL has to cover many fields of power operation. EDL should completely transfer the power generation business to EDL-Gen. EDL should probably retrench its employees to improve profitability. Because they are semi-public workers and working in EDL has high status, they do not want to move to other SOEs. EDL has to explain the situation of EDL to these workers and transfer them to other SOEs or separate a part of business to establish a new company with the employees.

7. Restructuring of EDL

According to Table 4, EDL has been making operational losses since 2015 and the loss is LAK 817 billion (USD 98 million) in 2018. The interest expenses have also increased, especially since 2016 and reached LAK 1,671 billion (USD 200 million) in 2018. The difference between revenues and the cost of power purchase has been narrowing. It is impossible for EDL to make an operational profit and current profit and to repay the huge liabilities by itself. Currently, EDL cannot pay the cost required to purchase power from IPPs and the unpaid amount, at the end of the first half of 2019, was approximately 400 million US dollars. The only method to solve the problem of unpaid debt would be for the new government borrowings from abroad.

First, EDL should create a restructuring plan for cost reduction by itself under the supervision of MEM because the employees know more about the reasons underlying X-inefficiencies in the company. EDL should postpone unnecessary investments, retrench employees, reduce expenses and renegotiate the PPA with IPPs to prevent the losses from worsening. However, these measures are not sufficient to solve the current issues of debts and losses. There are two measures to fundamentally solve the problems of losses: the first one is to raise the electricity price; and the second one is for the government to infuse tax money into EDL.

Since the electricity projects are implemented at the sacrifice of citizens lives (dam failure, resettlement of villagers, changes in the natural environment, etc.), it is very difficult to increase the electricity price sharply. Although the current decision regarding the reduction in domestic tariffs was good for citizens and companies, it has had negative effects on EDL’s debt. If the electricity price is kept at a cheap level to improve the welfare of citizens, the public company will make losses because the profits cannot cover the fixed costs. In such a case, the government theoretically has to subsidize the losses. However, if the government pays the fixed cost too easily, then EDL will not have an incentive to save on fixed costs and will continue to invest huge amounts.

Accordingly, the Lao PDR government should help EDL with tax-money under the condition that EDL implements a reasonable restructuring plan to cut costs. The tariff should be moderately increased under the condition that power services improve.

8. Other Issues

Many ministries pay for only a small portion (10%) of their electricity consumption. This is considered a very bad custom among state institutes. EDL should stop supplying electricity to the ministries that do not pay the power tariff.

The introduction of a bidding system is included in the Revised Energy Law. However, MOUs have already been signed in relation to most of the promising locations for hydro-power generation.

After signing an MOU, the company must conduct a feasibility study (FS) within a given period; however, several companies do not actually conduct FSs. Consequently, if such types of MOUs can be canceled, the government can choose a company for the construction of a hydropower plant by using a bidding system. The bidding system is expected to prevent good locations from being sold at a cheap price.

IPPs are constructed under the build, operate and transfer (BOT) system and thus these power plants will be transferred to the government after 25 years of operation. Since the transfer will probably start in 2023, the government should utilize it effectively.

III – 2 – 5. Management of the mining sector

1. Land concession for mining and land concession tax

According to the Ministry of Finance's data on the payment of land concession tax in 2016, 257 companies received land concessions but more than 100 companies did not need to pay concession tax. I expect that these companies will probably try to extend their contracts but this has not been approved yet. Even when required to pay the concession tax, many mining companies have not met the payment deadline. Only 64% of 146 companies (prospecting, exploration and mining) have completed the payment; the remaining 36% have not. Eleven percent have partly paid the concession tax, while 24.7% have made no payment at all. Among 69 mining companies, 65.2% have completed the payment, while 34.8% have not. Among these, 14.5% have partly paid the concession tax, while 20.3% have not paid it at all. The tax rates differ largely between prospecting or exploration companies and mining companies.
According to Phonvisay and Manolom (2019), the total amount of unpaid mining concession tax was 4.5 million US dollars in 2016 and the ratio of debt to the total land concession tax revenue was 84%.

Many companies were approved for land concessions but have not actually implemented the planned prospecting or exploration. This is because the government approved land concessions to companies without investigating them in detail. The government judged the companies based solely on their submitted documents. After the approval, the government recognized that some companies had not conducted business related to mining and did not have any professional knowledge about mining. It was impossible for them to explore for minerals, and they did not actually undertake exploration. Since investment in exploration is risky, it is rational that they receive the land concession and wait for the results of exploration in the neighboring area. If minerals are found in a neighboring area, the risk of investment to find minerals decreases and they can sell the area at a higher price.

This fact shows that the Lao PDR government does not have the capacity to manage the quick inflow of investment in the mining sector. It is natural that Lao PDR has not had experience in the production of minerals as it did not become a nation-state until 1975
The officers at MEM explained that they recently require more documents that show a company's technological level and experience in mining. However, the government has in principle suspended

the approval of land concession since 2012. Several land concessions have been approved as an exception after 2012. The government has tried to prepare a revised mining law and the procedure for the approval on land concessions. Since we do not have sufficient data on the approval procedure, we cannot judge whether or not the government has selected appropriate companies for land concessions or whether the moratorium has been completely lifted. A bidding system has been introduced in the revised mining law. Land concessions that were previously approved but for which there was no actual exploration for minerals should be cancelled and the bidding system should be applied to subsequent land concessions.
It has been ruled that if the companies do not pay the land concession tax before the deadline, they will be required to pay 10% interest per month. However, this penalty has not been applied in any case.

2. Exports and royalty

According to the ministries concerned, royalties are properly paid by the mining companies. Mining companies submit the export quantity to MEM and it is approved by MEM. Provincial officers in the department of energy and mining and the concerned departments attend the inspection to confirm the declared weight of mineral. Subsequently, if the provincial officers are honest, then the companies will not be able to cheat in relation to the export quantity or royalty payment. If the provincial officers collude, it would be possible for companies to export larger amounts than are registered and to pay a lower royalty.

3. Possibility of bauxite production

China has the world's largest share of aluminum production and aluminum consumption, at approximately 55% in the world market. China used to mainly import bauxite from Indonesia until 2013; however, Indonesia prohibited the export of raw materials to focus on the export of processed mineral products. This prohibition was recently relaxed and the high-quality bauxite has been approved for export. After Indonesia, China imported bauxite from Malaysia; however, illegal exploitation occurred and induced natural environmental pollution. Accordingly, Malaysia prohibited the export of bauxite in 2016. Since then, China has mainly imported bauxite from Guinea, which has the biggest bauxite deposits in the world. Of course, China has constantly imported a substantial amount of bauxite from Australia.

It is hoped that the production of bauxite will be undertaken in Lao PDR; however, there are several obstacles that must be overcome to realize the production. The deposits in Lao PDR are expected to amount to 10% of the world's total deposits and its quality is expected to be high. At present there the supply of aluminum is sufficient to fulfil the world's demand; however, it is possible that the demand will increase in the future due to weight saving in automobiles and other applications. The one problem is whether or not the government will approve the export of raw materials. The government probably wants to export processed mineral products rather than raw materials. However, it is easier to export bauxite as a raw material. The production of aluminum hydroxide, alumina or aluminum will take longer and involve huge investment. Since red mud is also produced in the production process, environmental pollution will be created.

Even if the government approves the export of bauxite, companies will need to find how to send it to a harbor and secure deposits that are sufficient to make the enterprise profitable. In order to appropriately develop their bauxite production resources, the Lao PDR government should train bauxite and aluminum management professionals.

III – 2 – 6. Conclusion and policy recommendations

1. Large amounts of investment capital have inflowed quickly into the mining and power production sectors in the Lao PDR with increased production of the two sectors. While the quick capital inflow promotes economic growth, exports and government revenues, the capacity to manage the capital inflow becomes a bottleneck and thus Lao PDR has encountered major problems in the two sectors. The mining sector has a problem in that the government cannot select appropriate companies for land concessions for mining. Since IPPs(e) export their power directly to Thailand and are managed by a Thai company, the power exports are successful. However, Lao PDR has encountered problems in the management of the domestic power supply and demand, including an excess supply for domestic use because of overestimations in the demand forecast, the imbalance of the power supply between the wet and dry seasons, overinvestment in transmission lines and other reasons. The natural resource sector management capacity cannot be imported from abroad and thus this type of capacity, including human capital, should be formed based on a long-term viewpoint.

2. The Lao PDR government should make an appropriate plan to balance the domestic electricity supply and demand. First, an appropriate forecast of the electricity demand is necessary and should be flexibly revised according to changes in economic policy and the international economic environment. Detailed information on the forecast methods and estimated values should be open to the public. The sharing of information is important to prevent huge mistakes. Secondly, new power plants should be carefully planned to fill the gap between the forecasted demand and the current supply capacity. Thirdly, investment in transmission lines should be conducted based on a proper master plan and should be efficient and effective.

3. EDL accounts for approximately half of Lao PDR's external public debt and it is impossible for EDL to repay it because of the huge interest payments and continuous losses. In addition, there is a high possibility that the losses will continue for some time. Accordingly, the government should make a plan to restructure EDL and to make it a strong company in the near future. If the government easily helps EDL without conditions, then EDL cannot become a strong company. Firstly, EDL has to make a restructuring plan in consultation with MEM in order to decrease costs and X-inefficiencies. The government should help EDL with the conditions of its implementation by injecting tax money and with a moderate increase in the electricity tariff.

4. Revenues from minerals are temporary and Lao PDR is a capital-scarce country. Accordingly, they should be used for domestic investments in sectors such as education, health or infrastructure. The experience of the mineral production and natural resource booms from 2004 to 2014 show that the revenues from minerals are not necessarily used for domestic investments that generate future income. Education and health are especially important for Lao PDR to develop the capacity to manage the capital inflow and develop new industries that earn foreign currency. Since bauxite production is a future possibility, the revenue that it generates should be used to promote education and health.

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III – 2 – 8. Tables and Figures

Table 1. Lao PDR macroeconomic statistics

		2000	2001	2002	2003	2004	2005	2006	2007	2008
Resource revenue	% GDP	0	0	0	0	0.1	0.6	1.7	2.5	3.1
Mining revenue	% GDP	0	0	0	0	0	0.2	1.4	2.3	2.9
Gross savings	% GDP	8.5	1.4	18.4	10.6	14.7	20.2	22.6	19.1	14
Gross capital formation	% GDP	13.4	13.5	29	27.8	31.8	34.1	30.1	32.3	31.7
Public E on Education	% GDP	1.5	2	2.8	-	2.4	2.4	3	3.1	2.3
Public E on Education	% Tgov ex	7.3	9.1	16.2	-	16.2	13.7	17.5	17.4	14
Share of capital exp	% Tgov ex	60.9	62.8	58.3	60.5	45.9	45.8	47.7	45.2	41.4
G health E	% T gov ex	6.7	6.7	6.8	6.4	6.1	5.8	4.3	3.6	3.7
G health E	% GDP	1.5	1.5	1.2	1.2	0.9	1	0.7	0.6	0.6
		2009	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	
Resource revenue	% GDP	2.6	2.6	3.4	3.7	3.1	3	2.2	2.1	
Mining revenue	% GDP	1.8	1.8	2.7	3	2.2	2	1.3	0.9	
Gross savings	% GDP	16.6	9.7	12.8	6.6	5.4	10	10.5	18.6	
Gross capital formation	% GDP	33.9	27.5	28.1	32.5	30.6	29.8	31.6	29	
Public E on Education	% GDP	1.7	1.7	1.8	1.8	3.2	2.9			
Public E on Education	% Tgov ex	8.1	7.3	8	8.6	12.8	12.2			
Share of capital exp	% Tgov ex	35	48.6	47.7	48	35.6	36.3	37.8		
G health E	% T gov ex	6.5	3	1.8	2.1	2.8	2.8	3.8		
G health E	% GDP	1.4	0.7	0.4	0.5	0.8	0.8	1		

Table 2. Electricity purchases and sales of EDL (m.kWh)

	2014	2015	2016	2017	2018
EDL-Gen	1,996.10	2,206.30	2,628.80	2,609.90	2,760.40
EDL	25.4	12.4	13	238.7	421.4
IPP	1,735.30	1,852.60	3,912.40	4,560.40	5,667.40
SPP	129.5	138.4	181	451.5	540.7
Import	1,486.50	1,750.40	793	430.5	300.5
Total purchases	5,372.80	5,960.10	7,528.20	8,291.00	9,690.40
Domestic Consumption	3,791.30	4,239.20	4,660.10	4,966.30	5,416.60
Export	444.6	655.4	1,538.30	1,837.40	2,630.00
Total sales	4,236.00	4,894.60	6,198.50	6,803.70	8,046.60

Data Source: EDL Electricity Statistics 2018

Table 3. Electricity prices of EDL for purchases and sales (cents per kWh)

	2014	2015	2016	2017	2018	2019
IPP	4.4	4.83	5.28	6.1	5.89	
SPP	6.61	6.6	6.7	6.58	6.65	
Import	5.12	4.98	5.54	5.73	5.14	
Domestic tariff	8.56	8.69	8.8	8.75	8.59	
Export	3.93	3.73	3.76	3.92	3.93	
Import from EGAT	4.19	4.13	4.02	3.97	4.2	5.65

Data Source: EDL Electricity Statistics 2018

Table 4. EDL revenue and costs (billion Lao kip)

	2013	2014	2015	2016	2017
Revenue	2,881	3,277	3,696	4,274	4,657
Cost of sales	1,948	2,082	3,068	3,752	4,241
Administrative expenses	782	881	960	912	1,233
Profit from operations	151	313	-323	-390	-817
Other income	344	349	645	904	1,078
Gain on exchange rate	-39	-61	74	-172	-801
Interest expense	-243	-253	-328	-605	-1,115
Profit for the year	186	324	28	-313	-1,671
Non-current liabilities	9,266	13,199	13,540	33,270	38,277
Current liabilities	5,122	13,787	13,829	7,189	15,317

Data Source: EDL Financial Report

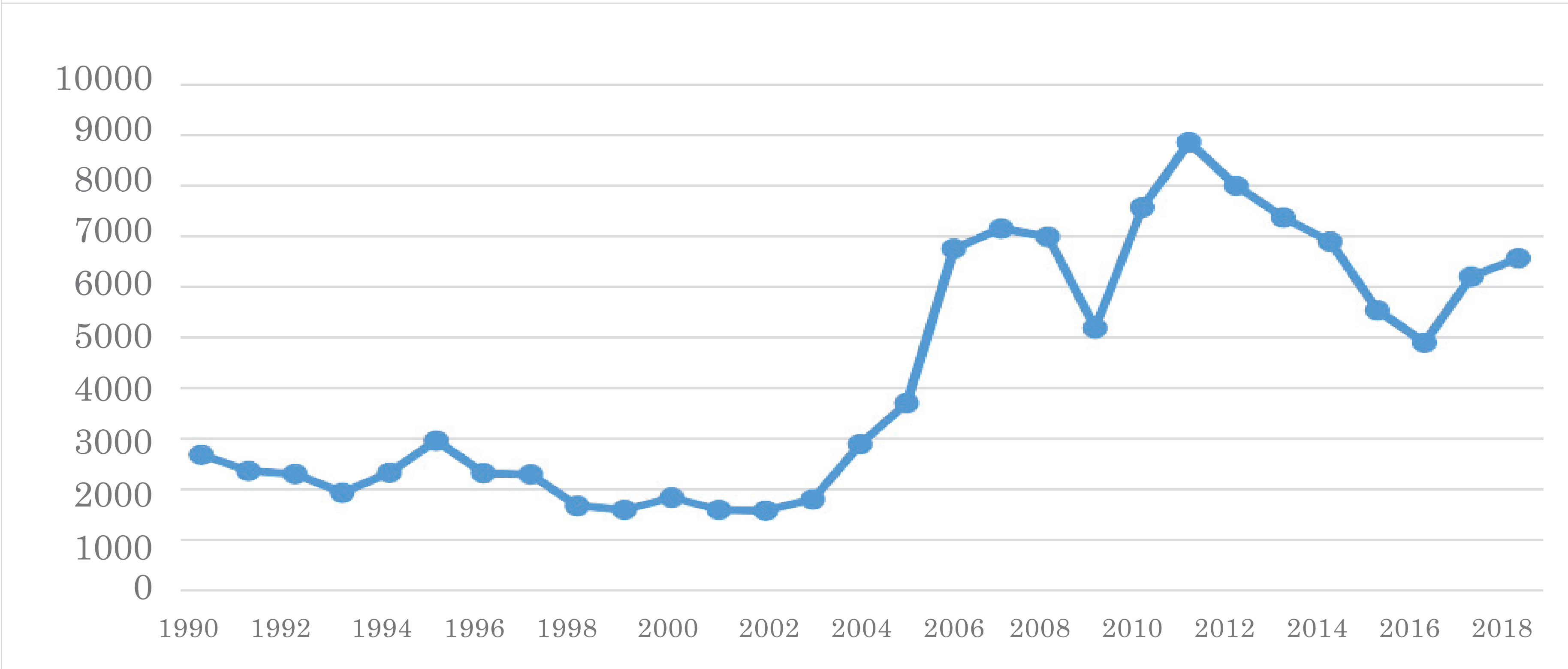

Figure 1. movement of copper price (USD/t)

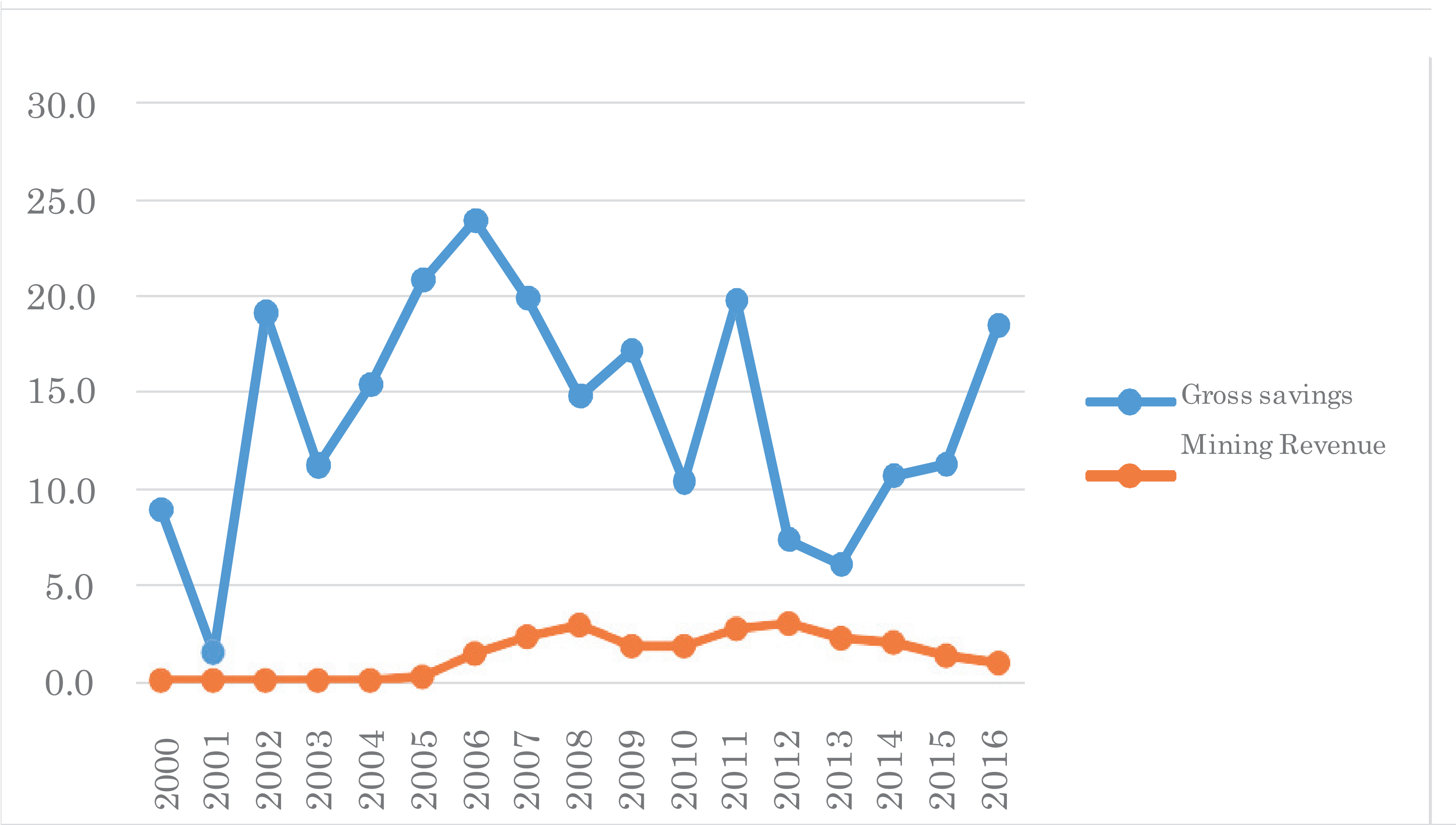

Figure 2. Gross Savings and Mining Revenue

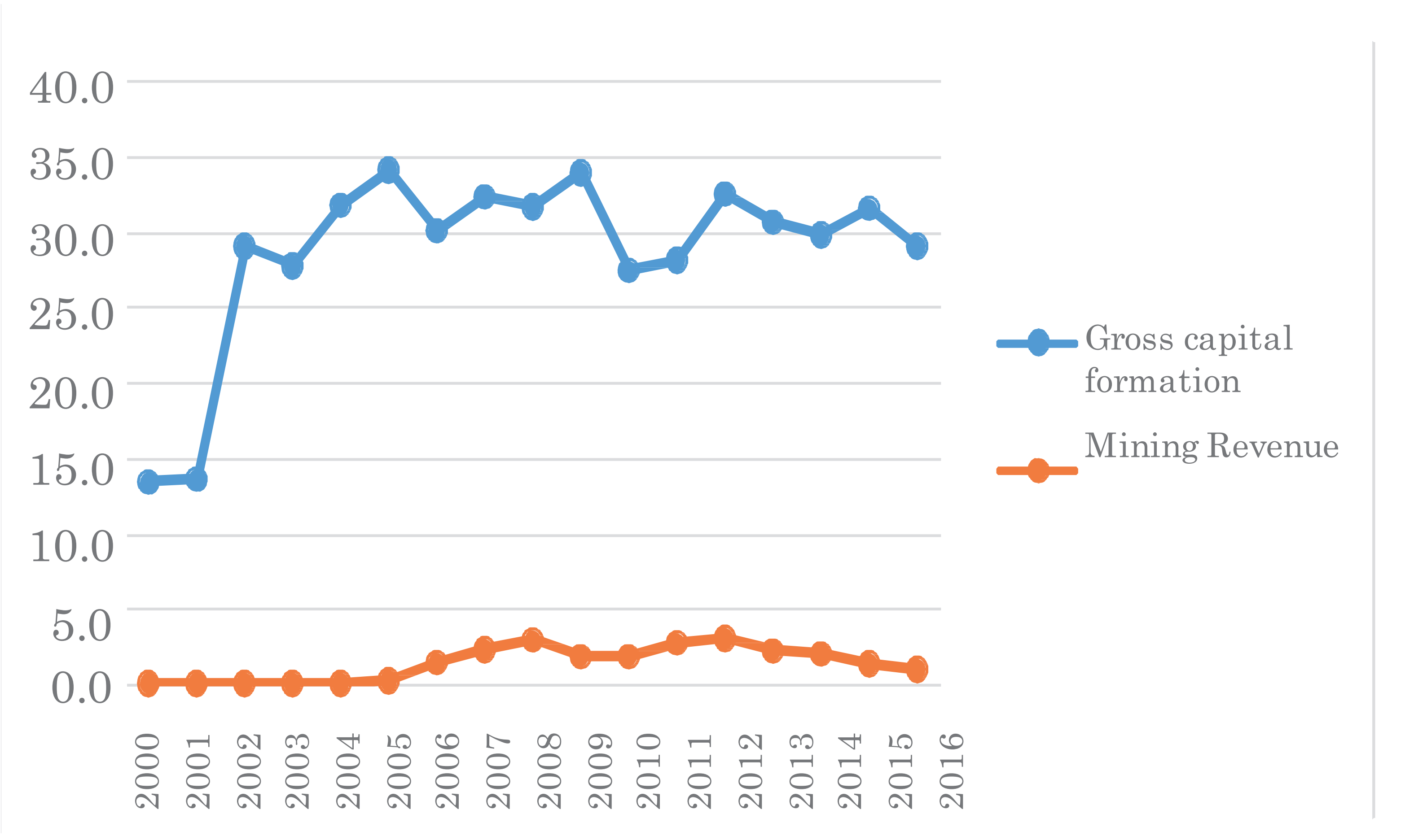

Figure 3. Gross Capital Formation and Mining Revenue

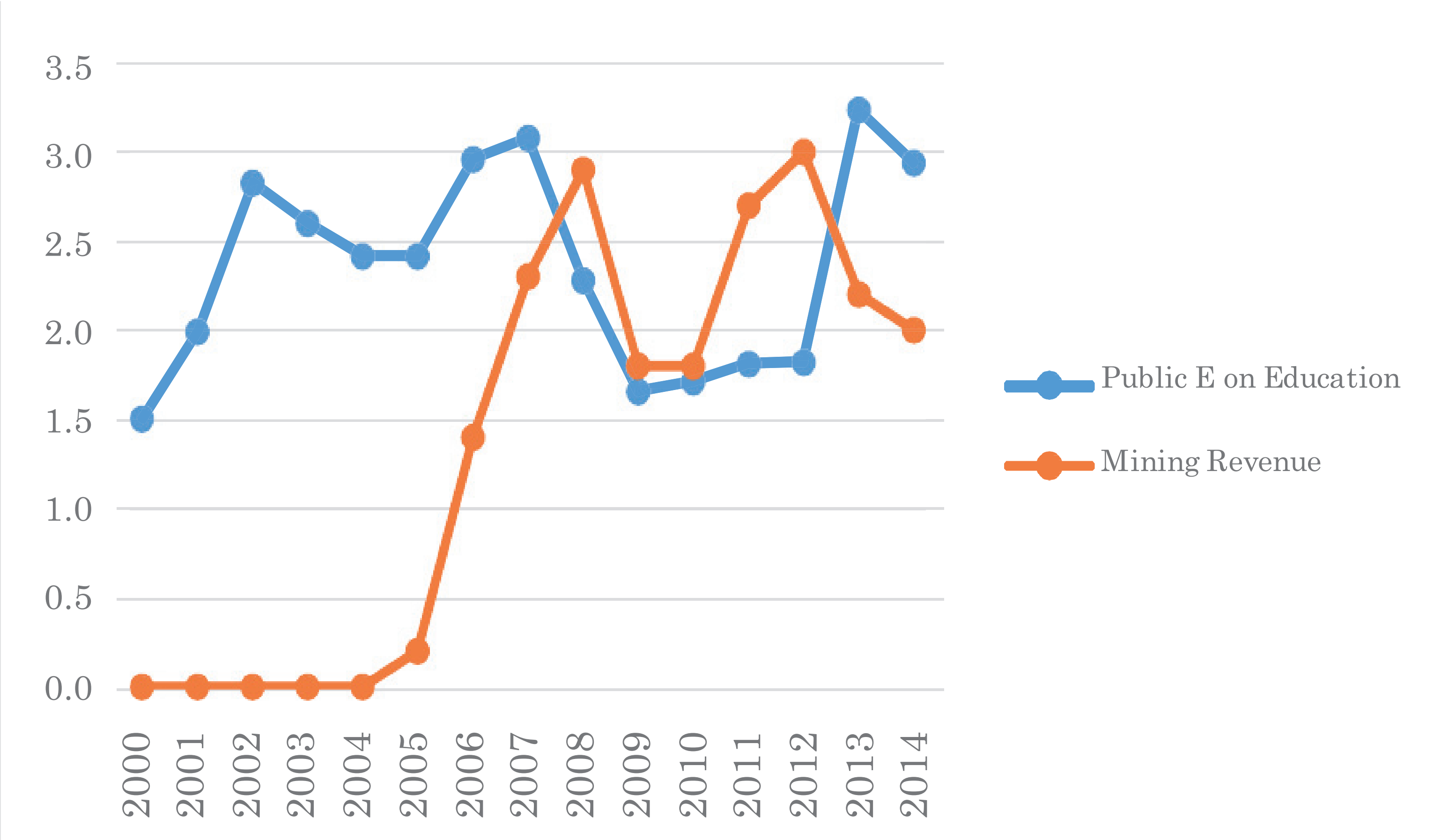

Figure 4. Public Expenditure on Education and Mining Revenue

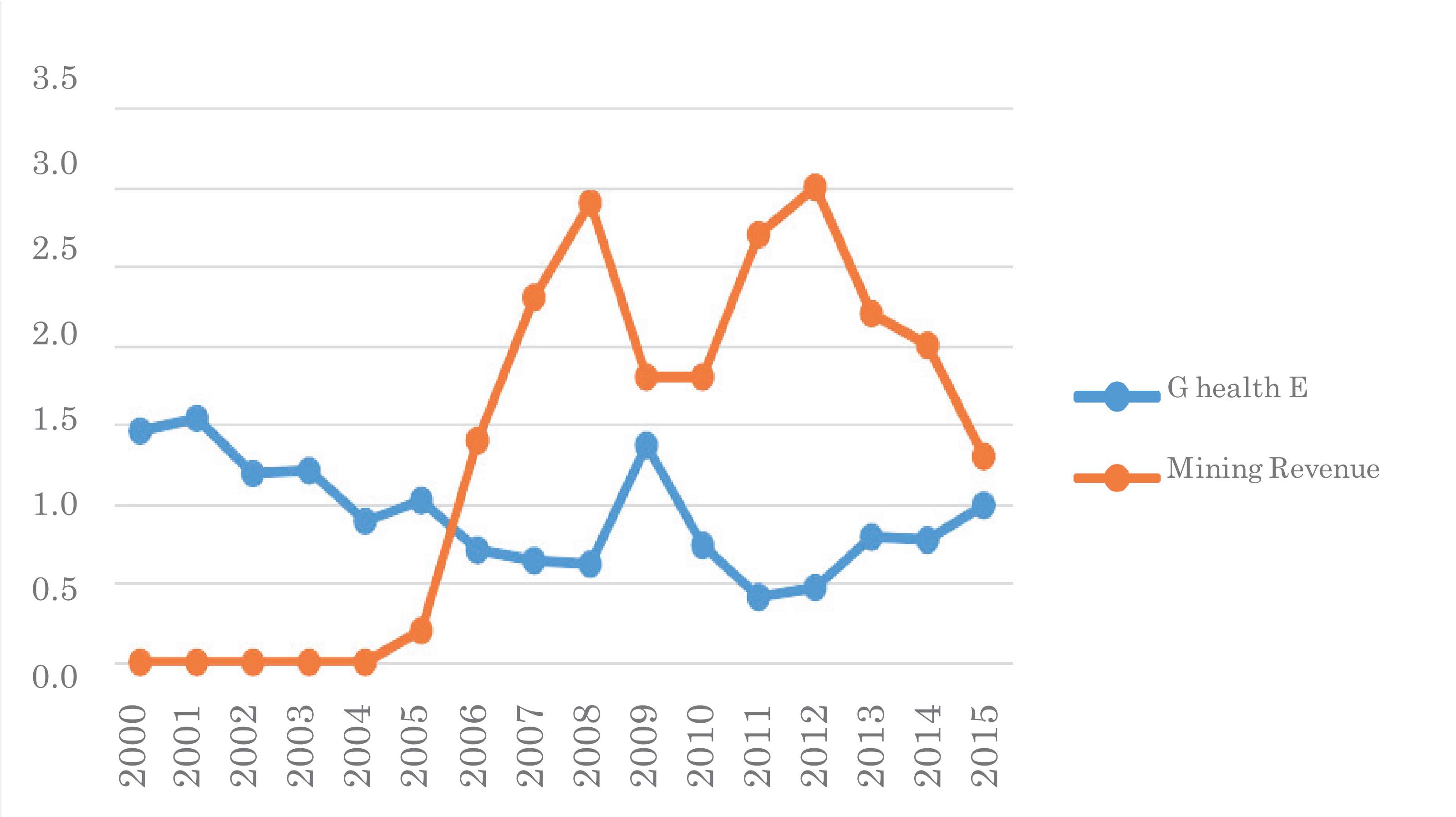

Figure 5. Government Health Expenditure and Mining Revenue

III – 3. WORKING GROUP 3: BALANCE-OF-PAYMENTS AND FOREIGN RESERVE MANAGEMENT

III – 3 - 1. Executive Summary[50]

- Transactions in the interbank market enable the monetary authority to intervene and guide the financial sector and implement policies such as inflation targeting and regulations in the banking sector.

- The interbank market and actors therein play an essential role in achieving efficiency in the financial market.

- Transparency and efficiency in the financial market, both for local currency and foreign currencies, are required for the smooth circulation of money.

- The current situation of the banks in the Lao economy is such that the banks do not have information about the credibility of other banks in the market. Thus, the low number of transaction between the banks results in inefficiency with the hoarding of capitals/excess liquidity both in local and foreign currencies.

- The sequence of economic liberalization is crucial. Interest rate liberalization and active transactions in the interbank market need to precede with a liberalization of the exchange rate, which will lead to sound foreign reserve management.

III – 3 - 2. Overview

Policies of the Bank of Lao and the government have achieved macroeconomic stabilization, especially in terms of price stability. Gradual policy changes have also promoted financial de-dollarization in the domestic economy. In the meantime, the efficiency of the financial market and the methods of policy intervention to the market can be improved to foster further stable economic growth.

One of the main concerns to achieve this goal is the management of the foreign reserve. Sound management of foreign exchange will prevent unnecessary losses but will never increases the reserve. However, a smoother foreign reserve circulation and re-allocation to economic actors can be achieved through an active interbank market, which will also strengthen the influence and control of the monetary authority to the financial institutions and the market. Open market intervention through an interbank market will be a credible policy tool for the authority to adjust the amount of money flow and inflation rates. In addition to reforms in the authority, fostering the development of an active and transparent interbank market will serve to improve the efficiency of domestic banks and help to gain the confidence of the market.

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[50] This report was prepared by Kazue Demachi (Tokyo University of Foreign Studies), a member of Working Group 3 under the Joint Policy Research and Dialogue Program for Fiscal Stabilization in Lao PDR. The views expressed in this paper are those of author and do not reflect the views of any particular organization.

The current interbank market in Lao PDR is limited to foreign currencies, and transactions in the market are not active. This may be because the market and system just started several years ago, but as discussed below, there seem to be other reasons. On the other hand, experiences by other countries, especially those of emerging economies, suggest that there are points to be discussed and re-addressed by the Lao authority.

This report is organized as follows. The next section briefly overviews the functions and importance of the interbank/money market. Section 3 introduces the experiences of other emerging economies to foster the development of an interbank market for policy implementation. Section 4 discusses the current situation of the interbank market in Lao PDR and its challenges. The final section concludes with some recommendations.

III – 3 – 3. Role of an interbank market

An interbank market is the core of a country's financial system, and it is where banks manage their short-term excess liquidity, mainly of the local currency, but also in foreign currency. At the same time, an interbank market is a place where the central bank intervenes to influence the domestic financial market. Laurens et al. (2005) note that more and more emerging and developing countries authorities adopt monetary policy operations through their interbank market. The existence of an active interbank market means that there are opportunities for the banks and other financial institutions to manage assets efficiently, which in turn leads to the efficiency of financial systems and the economy. On the other hand, the absence of an active interbank market implies inefficiency in the financial institutions and limited policy measures for authorities.

An interbank market for the local currency enables the monetary authority to adjust the liquidity circulation in the economy. This implies that macroeconomic policies such as inflation targeting require a well-functioning interbank market. The interbank market for foreign currency, on the other hand, enables the monetary authority to intervene in the foreign exchange market and influence the exchange rate. Moreover, in most interbank markets, securities such as government bonds are traded as collateral. Thus, the development of an interbank market for local currency needs to be in tandem with the functioning of the capital market and foreign exchange market.

IMF Article IV consultations for Lao PDR (International Monetary Fund 2018; 2019b) suggest a necessity to develop an interbank market by mentioning that improvement of the functioning of the interbank market and domestic debt market is a precondition for greater exchange rate flexibility and de-dollarization. A well-functioning interbank market also functions to foster the domestic activities of the financial institutions. It is theoretically not surprising that banks try to maximize their profits by investing their excess liquidity in the international interbank market when the domestic interbank market is absent. In that case, it is also reasonable that banks prefer to hold their assets in foreign currency rather than in local currency. This implies that the absence of an active interbank market can be a crucial factor in financial dollarization.

Some emerging countries, such as Thailand, have started to develop a repurchase market as early as 1979 (Mehran et al. 1996). However, the market scale is still smaller than that of developed economies. McCauley and Zukunft (2008) discuss how banks in countries such as the Philippines, Malaysia, and Thailand were, in fact, the net creditors to the international interbank market. This again implies that the absence of a developed local interbank market may lead to the outflow of money.

In high-income countries, the history of interbank market development paralleled the collapse of the Bretton Woods system, the liberalization of international capital flows and exchange rates, and the expansion of the euro currency market through the 1970s and 1980s. However, the interbank markets in several countries such as the United Kingdom (London)and Japan have relatively long historical roots. For example, Shima (1985) notes that the call market in Japan evolved from bill exchanges around the end of the 19th century. Later in the 1980s, the interbank market in Japan started to expand, when the government increased the issuance of bonds, leading to the development of the open security market. At the same time, fluctuations of interest rates due to inflation during the high-growth period, as well as the oil crises, fostered the expansion of the interbank market. The increased international capital flow due to the liberalization of the exchange rate also pushed the activities in the interbank market. It is worth noting that bill-brokers (short-term capital companies) in Japan still play an essential role in the functioning of the money market today. Similarly, in the United States, bond houses (bill brokers and dealers) played an important role in the "innovation" and development of the interbank market, with the authority trying to adjust regulations based on the market development (Minsky 1957).

While an interbank market enhances and fosters economic activities, there are also risks. During the international financial crisis in 2007 to 2009, liquidity hoarding behavior was observed in the international interbank market, leading to higher interest rates and a stagnation of market activities (Heider et al. 2015). This suggests the existence of a risk that arises due to the interconnections of the financial market and institutions.

Loretan and Wooldridge (2008), in turn, discuss that the interbank markets in Asian countries are relatively underdeveloped, but this was an advantage during the international financial crisis because the segmentation of the market prevented the transmission of effects from the shocks that originated in the more developed markets. The existence of a risk, however, shall not be a reason to avoid the development of an interbank market.

III – 3 – 4. Experiences of emerging economies

This section briefly reviews the experiences of selected emerging and developing economies in ASEAN and Sub-Saharan Africa. The development history of interbank markets and the environment of developed economies are quite different from those of Lao PDR. On the other hand, many emerging and developing countries also face similar difficulties and challenges to Lao PDR.

III – 3 – 4 - 1. Thailand

The interbank market of Thailand consists of the exchange of unsecured call, repurchases, and negotiable certificates of deposit, in addition to the markets for other securities (Kirakul 1996). However, the main markets today are the repurchase market and the foreign exchange market, and the share of call transactions among money markets is still relatively small (EMEAP Working Group on Financial Markets 2018). The repurchase market in Thailand began operation in 1979. Kirakul (1996) refers to the small market size and low liquidity of the securities secondary market as the reason for the development of the repurchase market in Thailand. The existence of particular dealers is not mentioned in any available report, and the central bank operates as the counterpart of buying and selling. Kirakul (1996) mentions that in addition to hosting and operating the interbank market, the Bank of Thailand provided foreign exchanges to the banks using the Exchange Equalization Fund to stabilize the exchange rate. The authorities had implemented a financial liberalization program in the late 1980s, which included a reduction in government expenditure, tax increases, a self-imposed ceilings on foreign borrowings, and a devaluation of the currency. This program resulted in a significant decline in current account deficits, from 5.3 to 1.6% of the GDP in the late 1980s (Kirakul 1996: 91). It is worth noting that Thailand had started a gradual interest liberalization in 1989, which was completed in 1992. The Thai baht exchange regime was dollar-pegged until the Asian financial crisis forced the authority to float the currency. However, it is remarkable that they have completed the set up of an interbank market as well as domestic interest rate liberalization before the liberalization of foreign exchange control and exchange rates.

III – 3 – 4 - 2. Cambodia

In Cambodia, where the economy is highly dollarized, the government has been trying to develop an interbank market with support from international financial institutions and donors (IMF 2006).

In Cambodia, the development of the interbank market has long been planned and was gradually developed by the authorities (Royal Government of Cambodia 2012). In 2017, the authorities introduced Negotiable Certificates of Deposit (NCD) to promote transactions in the interbank market. The introduction of NCD was also coupled with the introduction of a facility, the Liquidity-Providing Collateralized Operation (LPCO).

The LPCO was introduced to promote the usage of local currency and de-dollarization while keeping the changes in exchange rate moderate (World Bank 2018: 23). The circulation of local currency is gradually growing, though an active interbank market operation is still to come (Khou and Okuda 2017; World Bank 2018). Gradual reforms in the Cambodian financial sector so far have achieved the goal of lowering the domestic interest rates of loans in the local currency while avoiding lowering the value of currency externally.

Given the fact that dollarization has been an issue of the financial system in the Cambodian economy for many years, there should be some lessons from which Lao PDR can learn. Recently, Cambodian authorities announced the fourth research cooperation with the Central Bank of Korea to research for interbank development (Chan 2019).

III – 3 – 4 - 3. Gambia

Several African countries also introduced monetary policies through interbank operations. One of most the remarkable examples is in The Gambia. The Gambian government started the program to liberalize the financial market in 1986. Gambian financial market development was relatively “minimal,” but liberalization was fairly successful (Galbis 1993). The Gambia is an example of the country which included money changers (exchange bureaus) in the implementation of its monetary policy because the money changers were very influential, and they were a “preferred depository or source of exchange (Laurens et al. 2005; 45).

In The Gambia, where cash transactions prevailed, exchange bureaus played a vital role in economic activities. Laurens et al. (2005) suggest that this resulted in major traders owning the exchange bureaus. Given the importance of exchange bureaus in The Gambia, the authorities allowed the (representatives of) exchange bureaus to participate in the interbank market and auctions (Laurens et al. 2005). Given the fact that in developing countries the rates set by money changers and the gap between those rates from official exchange rates sometimes reflect the real demand for the currencies, the situation in The Gambian seems quite rational.

The IMF Annual Report on Exchange Arrangements and Exchange Restriction 2018 reports that several countries, including The Gambia, had imposed a compulsory exchange surrender and repatriation requirements as a monetary policy during the phases of balance of payment pressure (IMF 2019a). However, the same IMF report also notes that some countries, including The Gambia, relaxed or abolished the surrender requirements in 2017 to 2018.

The Gambian experience suggests that authorities should take various financial institutions and market participants into consideration through the process of interbank market development. In particular, to support foreign reserve management, other policy options such as compulsory exchange surrender can also be employed.

III – 3 – 4 - 4. Ghana

Ghana is one of the west African countries that has continued relatively stable financial development despite economic dependency on the export of a few major commodities such as cacao, gold, and recently, crude oil. The interbank market in Ghana is still limited to foreign exchange, but it is functioning as a place where the Bank of Ghana intervenes in the market. A remarkable point about Ghana is that the country also uses foreign exchange surrender policy. Given the relatively stable economic growth since the 2000s, the Ghanaian government succeeded in a series of issuance of Euro bonds.

However, the increasing amount of external debt stock requires the authority to keep the foreign exchange surrender policy to a semi-parastatal institution, the Ghana Cocoa Board, to surrender the export sales of cacao. This can be viewed in a way where the institutions responsible for the main export commodity of the country are also held responsible for the stabilization of foreign exchange supply for the economy and repayment of foreign debt (IMF 2018).

The experiences of emerging and developing countries highlight the importance and interconnections of issues such as domestic interest rate liberalization, money market development, foreign reserve management, and foreign exchange rate liberalization.

III – 3 – 5. Interbank market in Laos

In Lao PDR, the interbank market is still limited to foreign exchange, and transactions are not active. In addition, there seem to be no transactions in the interbank market for kip. However, an active interbank market for foreign exchange will enhance the mobility and efficiency of foreign exchange reallocation in the domestic economy.

III – 3 – 5 - 1. Participants in the financial market

Current transactions of foreign exchange in Laos seem to be stagnant due to the tendency of banks and individuals to prefer to hold foreign currency without converting it to the local currency. Previous studies on dollarization in Laos, such as Kyophilavong (2010) and Keovongvichith (2017), argue that this is due to the weak local currency and macroeconomic instability represented by high inflation. While the de-dollarization of bank deposits is in progress, the ratio of deposits in foreign currencies still exceeds 50% of all deposit. A relevant question here is how and where the deposit-takers currently invest the assets they receive as deposits. Given the fact that the domestic interbank foreign exchange market is not very active and the local currency market is absent, banks may be investing in money markets overseas. If this is the case, pulling back the money to the domestic market will serve to foster the money market in Lao PDR.

While it is not easy to determine the reasons why interbank market transactions in Lao PDR are inactive, there are several possible causes. First, the financial market, as well as the operations of participants, lack transparency, and this results in high cost for monitoring, evaluation, and risk control, not only for customers, but also for peer financial institutions; that is, banks and other market participants do not know the condition of other financial institutions. In this situation, trust between the financial institutions is hard to establish, which in turn restrains the transactions between financial institutions. Economic analyses such as Akhigbe et al. (2013) discuss the transparency and performance of bank holding companies and argue that transparency has a positive influence on the profit efficiency of commercial banks.

Moreover, an inactive interbank market weakens the influence of interventions by the authorities for policy implementation. The low frequesncy of transactions between banks and authorities results in the hoarding of local and foreign capital by the financial institutions, especially profitable ones, which causes inefficiency in the financial market and the economy. Another possibility is the premature capital market in Lao PDR. Development of the long-term capital market is crucial in fostering enterprises, but a capital market, which are typically markets for treasury bills and government bonds are also necessary for the development of a short-term money market.

III – 3 – 5 - 2. Current trends of interbank market transactions

In Lao PDR, the current interbank foreign exchange transaction system started operation in 2017. In addition, the Bank of Laos offered a platform for financial institutions to buy and sell foreign exchange, namely, the U.S. dollar or Thai baht, in exchange for Lao kip. Available interbank transaction data imply there is a correlation between the transaction volumes of U.S. dollars (dollar) and Thai baht (Table 1) . The transaction volumes of the U.S. dollar are correlated with the usd/kip exchange rate of the previous month, while the usd/kip exchange rate is correlated with its monthly volatility calculated as monthly standard deviations based on daily exchange rate changes. The current foreign exchange regime of Laos is defined as “crawl-like arrangements” by the IMF, and the correlation matrix suggests that the exchange rate is correlated with the transaction volumes of the U.S. dollar and exchange rate volatility.

The volatility of the baht/kip exchange rate is correlated with the volatility of the usd/kip exchange rate. On the other hand, given the rigid interest rate in the domestic market, the correlation between interest rate changes and transaction amount or exchange rates cannot be calculated.

When tested with monthly data, transaction amounts are not correlated with any macro indicators such as trade volumes (goods imports, exports) and changes in international interest rates such as the U.S. T-bill rate, or interest rate of Thailand interbank market (Table 2). These should be interpreted that most of the interbank transactions in Lao PDR are not determined by the market condition. A possible explanation is that the discrete conditions of individual banks are reflected in the market activity. Because banks are isolated from each other, their individual activities do not form any statistically meaningful market trends.

Table 1: Correlations between monthly transaction amounts and exchange rates in the Lao Interbank forex market: January 2017 to July 2019

	dollar	baht	D.usd	D.thb	LD.usd	LD.thb	sd.usd	sd.thb	L.sd.usd
baht	0.640*	1.000							
	0.000								
D.usd	-0.225	-0.182	1.0000						
	0.231	0.336							
D.thb	-0.191	-0.288	-0.430	1.000					
	0.3121	0.123	0.018						
LD.usd	-0.511*	-0.324	0.153	-0.132	1.000				
	0.005	0.086	0.427	0.496					
LD.thb	0.222	0.074	-0.062	0.013	-0.431	1.000			
	0.247	0.702	0.748	0.948	0.020				
sd.usd	-0.350	-0.286	0.613*	-0.013	0.304	-0.084	1.000		
	0.054	0.119	0.000	0.945	0.109	0.665			
sd.thb	-0.219	-0.107	0.226	0.305	0.222	-0.062	0.636*	1.000	
	0.237	0.568	0.229	0.101	0.247	0.751	0.000		
L.sd.usd	-0.398	-0.264	-0.050	-0.123	0.622*	-0.013	0.182	0.019	1.000
	0.029	0.159	0.793	0.518	0.000	0.947	0.335	0.922	
L.sd.thb	-0.111	-0.164	-0.134	-0.244	0.249	0.303	-0.136	-0.331	0.640*
	0.559	0.387	0.479	0.194	0.194	0.110	0.475	0.074	0.000

Note: Pairwise correlations. Standard deviations are in the second rows. ”dollar” and “baht” denote the amount of monthly transaction of U.S. dollar and Thai baht. “usd” and “thb” denote the exchange rates of each currency, kip/usd and kip/thb. The prefixes “D” “L” “sd” denote the first difference (changes from the previous month), lag (one month), and monthly standard deviation, respectively. Monthly standard deviations are calculated using daily data. Based on the results of the Dickey-Fuller test for unit root, the time series data are used in first-difference to make the series stationary, where necessary. * denotes 1% significance level.
Data source: Bank of Lao PDR.

The simple correlation matrices highlight the rigidity of domestic interest rates in Laos. According to IMF (2019b), the interest rate caps in Laos were removed in February 2019, and the changes are still to come. However, so far, the interest rates set by the banks are not sensitive to market conditions. A wide margin between lending and deposit rate provides the banks with opportunities to be profitable. Japanese experience in the post-war period suggests that a wide loan-deposit rate spread would provide banks with the opportunity to consolidate the management stability, but that structure should not last long once the banking sector is stabilized for the market to develop (Hoshi and Kashyap 2001). A possible explanation for the rigid interest rate in Laos is the low competition in the banking sector due to lack of market transparency on one side, and the existing financial regulations which protect the existing banks, on the other. This point requires further analysis, but it is clear that competition between the financial institutions needs to be fostered to achieve an efficient financial market and welfare of customers.

Table 2: Correlations between monthly transaction amounts and exchange rates in the Lao Interbank forex market, with other economic indicators: January 2017 to July 2019

	usd	thb	D.usd	D.thb	D.ustb3m	D.bibor3m	D.imp	D.exp	LD.imp
D.ustb3m	0.323	0.308	-0.111	-0.201	1.000				
	0.082	0.098	0.558	0.286					
D.bibor3m	0.292	0.166	-0.115	0.376	-0.101	1.000			
	0.117	0.380	0.547	0.041	0.595				
D.imp	0.118	0.352	-0.151	-0.200	0.105	-0.061	1.000		
	0.542	0.061	0.434	0.299	0.588	0.754			
D.exp	0.012	-0.023	-0.043	0.045	0.130	0.277	0.234	1.000	
	0.951	0.908	0.824	0.815	0.501	0.146	0.222		
LD.imp	-0.164	0.009	0.208	0.204	-0.029	0.093	-0.007	0.085	1.000
	0.394	0.965	0.278	0.288	0.880	0.630	0.972	0.668	
LD.exp	-0.030	0.103	-0.157	0.205	0.066	0.006	0.055	-0.197	0.234
	0.877	0.594	0.417	0.286	0.735	0.977	0.782	0.315	0.222

Note: Pairwise correlations. Standard deviations are in the second rows. “usd” and “thb” denote the exchange rates of each currency, kip/usd and kip/thb. The prefixes “D” “L” “sd” denote the first difference (changes from the previous month), lag (one month), and monthly standard deviation, respectively. “ustb3m” and “bibor3m” denote 3-month U.S. treasury bill rate and 3-month Bangkok Interbank Offered Rate (BIBOR), receptively, and “imp” and “exp” denote imports and exports, respectively. Monthly goods trade statistics are obtained from the UN Commodity Trade database (2019), and US T-bill rate data is obtained from the U.S. Federal Reserve Bank of St. Louis (2019). BIBOR data is obtained from the Bank of Thailand (2019). Based on the results of the Dickey-Fuller test for unit root, the time series data are used in first-difference to make the series stationary, where necessary. * denotes 1% significance level.
Data source: Bank of Lao PDR.

According to the Bank of Laos, when an investor cannot find a matched seller in the interbank foreign exchange market, an auction takes place between the investor and the central bank. The auction record and statistics are not available and cannot be statistically analyzed here, but as long as there seem to be more buyers than sellers in the interbank market, these auctions may not be especially rare in Laos. If this is the case, regularly scheduled auctioning will enhance market transparency and future predictability for participants. Other countries’ experiences also suggest that advance announcements of open market operations help the market to plan their purchases and sales, which in turn leads to activate the active transaction in the interbank market (EMEAP 2018).

III – 3 – 5 - 3. Concluding remarks and recommendations

Laurens et al. (2005: 5) highlights that several initial conditions need to be met for the money market to operate efficiently. These conditions include a competitive financial system and institutional autonomy. Laurens et al. (2005) further point out that even if an interbank market exists, it will not contribute to the development of the financial market if the interbank market does not fully function. The current function of the interbank market in Lao PDR are limited to foreign exchange, and the transaction frequency is low, so for the interbank market to foster development of the financial market in Lao PDR, gradual but influential reforms in enhancing market transparency and financial institutions are required. Building up trust between the banks and market, coupled with the enhancement of market conditions to motivate the banks to compete, will lead to a more efficient market.

For the development of an interbank market, the liberalization of interest rates is crucial. Japanese experience tells us that even under the interest rate restriction in the whole economy, interbank market transactions become active if free interest rate formation is allowed in the interbank market, and the market offers opportunities for market participants to make a profit (Shima 1985). Mehran et al. (1996) discusses the sequencing of the liberalizing interest rates, namely, the deposit rate first or loan rate first. Studies suggest that many countries liberalized the domestic interest rates simultaneously, while some countries, such as Thailand, Korea, and Turkey, did not. The experiences of various countries tell that there is no one correct answer, and each country has reformed their market based on the local context, history, and circumstances of the country. In the liberalization process, some countries did suffer from market destruction or speculative transactions. For example, in Thailand, as the interest rate was first liberalized, some financial institutions faced solvency problems, which led to a macroeconomic problem, and the authority was forced to suspend the financial market reform (Mehran et al. 1996). This type of financial turbulence due to policy reform needs to be carefully prevented, but difficulties during the transition should also be expected.

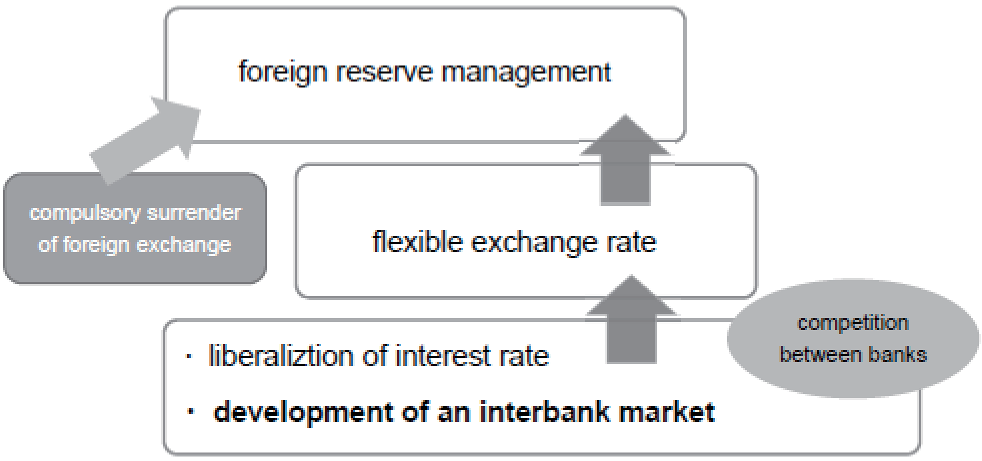

Figure 1: Sequence for sound foreign reserve management

Finally, to achieve sound and efficient foreign reserve management, a widely accepted measure is to enhance the flexibility of the exchange rate, which will serve as an automatic safety valve at a deficit in the international balance because depreciation of the local currency will reduce the speed of import growth, while the weaker exchange rate will enhance the competitiveness of exports. In regard to the gradual liberalization of the exchange rate, again, the sequence of liberalization becomes a crucial issue. Other countries' experiences show that the liberalization of the domestic financial market should precede external liberalization (Figure 1). Additionally, the compulsory surrender of foreign currency earnings can also be considered as one option, since many countries in the world adopt the policy. However, the policy should be careful and selective, such as in the case of Ghana discussed above; otherwise, it will lead to capital outflow.

III – 3 – 5 - 4. References

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III – 4. WORKING GROUP 4: FINANCIAL SYSTEM DEVELOPMENT

III – 4 – 1. Part 1 General Remarks

Chapter 1 Research Summary & Policy Recommendation

1. Executive Summary

1.1. Focus

The purpose of the Program for Joint Research for Fiscal Stabilization in Lao PDR is to propose policy recommendation on how to stabilize the fiscal condition of Lao PDR. Its centered issues are focused on the technical aspect of the tax system and public expenditure management. From a wider perspective, however, the macro economy, key sectors and financial system are also essential elements for improving the fiscal condition. In fact, plenty of challenges remain in each element of the present Lao economy.

Concerning the financial system, the central issue must be the function for financing fiscal deficit at the macroeconomic level. The structural problem in Lao PDR in this regard is that most of the fiscal deficit is financed through external sources. This relates to two policy challenges. Firstly, high dependence on external sources in foreign currency exposes the economy to risks associated with international financial conditions, in particular with volatility of the exchange rate. In coping with this, the effort to stabilize the exchange rate based on sufficient foreign reserve becomes significant. Foreign exchange market development or adequate control of dollarization are in the focus of policy discussion. In the program, these issues are examined in Working Group 3.

Secondly, the domestic financial system needs to be deepened in the long run in order to weaken dependence on external finance accompanying various risks. Policies on institutional building at the technical level such as fostering the government bond market as a direct gateway for finance for fiscal deficit is, needless to say, important. As a more essential effort, however, the policies to stabilize and develop the financial sector should be implemented. The development of the financial sector, in particular of the commercial banking sector, is a basis to realize financial deepening by expanding deposit mobilization, and by fulfilling demand for funding in public and private sectors.

The major obstacle for financial deepening is a distorted condition known as "financial repression". The policy effort should be designed to minimize the environment of financial repression, to lead prudential operation of financial institutions, and to decrease the transaction cost in the whole financial system, in order to impel overall development of the financial system. This is the main focus of our Working Group.

Besides, we also focus on the issues associated with state-owned enterprises (SOEs). The operation of SOEs is linked both to the fiscal condition and financial system. The SOEs' performance is directly linked to the fiscal balance. And the issue is linked to financial development since finance is essential for corporate sector development. More often than not, small and medium enterprises (SMEs) have been focused in the context of Laos' corporate sector. In relation with concern about the fiscal condition, however, the structure in rather large firm layers including SOEs should be located at the center. And as one of the vital arguments about large firms and the financial system, it is worth focusing on the issue for fostering the securities market which is currently being developed as a sprout stage. In particular, the possible role of the securities market in improvement of SOEs' performance should be a specific policy agenda.

Working Group 4 focuses on (1) financial deepening for enlarging financing for fiscal deficit, and (2) SOEs Reform and the role of the securities market. Our working group implemented three types of basic survey on (a) banking sector, (b) microfinance and saving groups, and (c) corporate fundraising, to understand the present situation. Based on the collected information there, the report aims to propose policy recommendations on two policy issues.

The report is organized as follows. The rest of Chapter 1 summarizes policy recommendation associated with two issues. Chapter 2 reports the key developments in the current commercial banking sector, and basic findings from our banking sector survey. Chapter 3 is a background report to summarize current situation of the microfinance and saving group sector based on our short survey. Chapter 4 is a report to summarize our corporate fundraising survey. The facts found in Chapter 2, 3 and 4 depict the present snapshot of the Lao financial system which is the basis of our policy recommendation[51].

1.2. Summary of Policy Recommendation

Shift from External Debt Financing to Domestic Debt Financing

In the present Laos PDR, most of the fiscal deficit is financed through external debt. Among the total financing of fiscal deficit, the domestic debt occupies only 27.7 % on average for 2015-2018 (Figure 1-1). The remaining external debt consists of concessional loans, most of which is presumed to be foreign official aid, and external bonds issued in the bond market in Thailand in terms of Thai Baht, and US Dollar. To ameliorate the situation, it should be encouraged to consider the risk contained in external debt and work for rebalancing toward domestic debt.

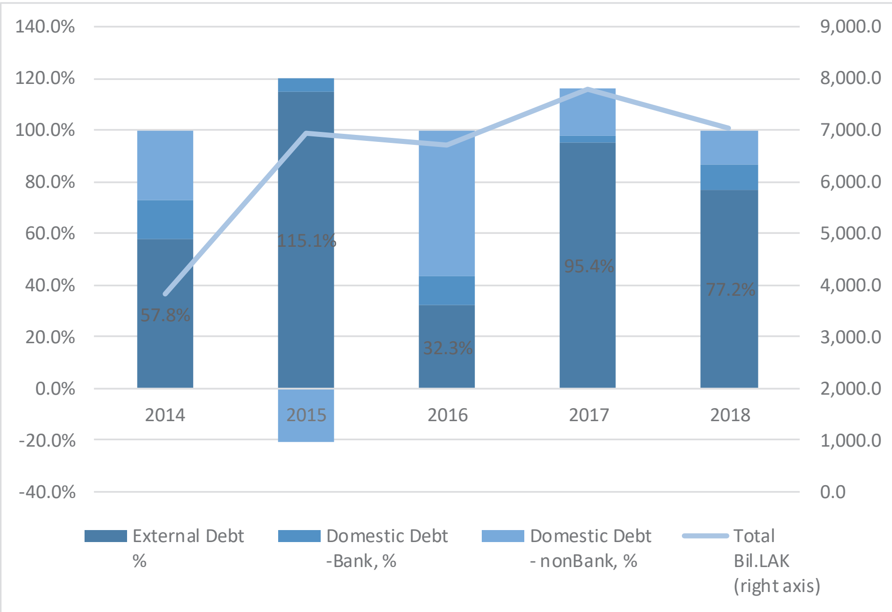


Figure 1-1. Financing Fiscal Deficit

Source: Ministry of Finance, in cooperation with Hideyuki Matsui

Deposit Mobilization, Financial Deepening and Financial Repression

For financing fiscal deficit through domestic sources, institution building of the bond market

[51] Original data on banks and corporation collected in our survey will be stored in forms of appendix tables in the secretariat of the project as undisclosed information.

under the securities market is important. Traditionally, the Lao government has intermittently issued treasury bonds or other types of government bonds, and allocated them to commercial banks. The effort to convert the issuance process to a more market-based one should be continued.

Apart from the technical institution building, however, the more essential element for enlarging domestic finance is to induce financial deepening in the whole financial system, in ways to mobilize domestic saving into deposits of financial institutions. In international comparison, the Lao economy still contains potential for further expansion of financial deposits. The Vietnamese experience can be seen as a reference for Laos where deposits rapidly increased and eliminated dollarization in the economic growth process (Figure1- 2 and 1-3).

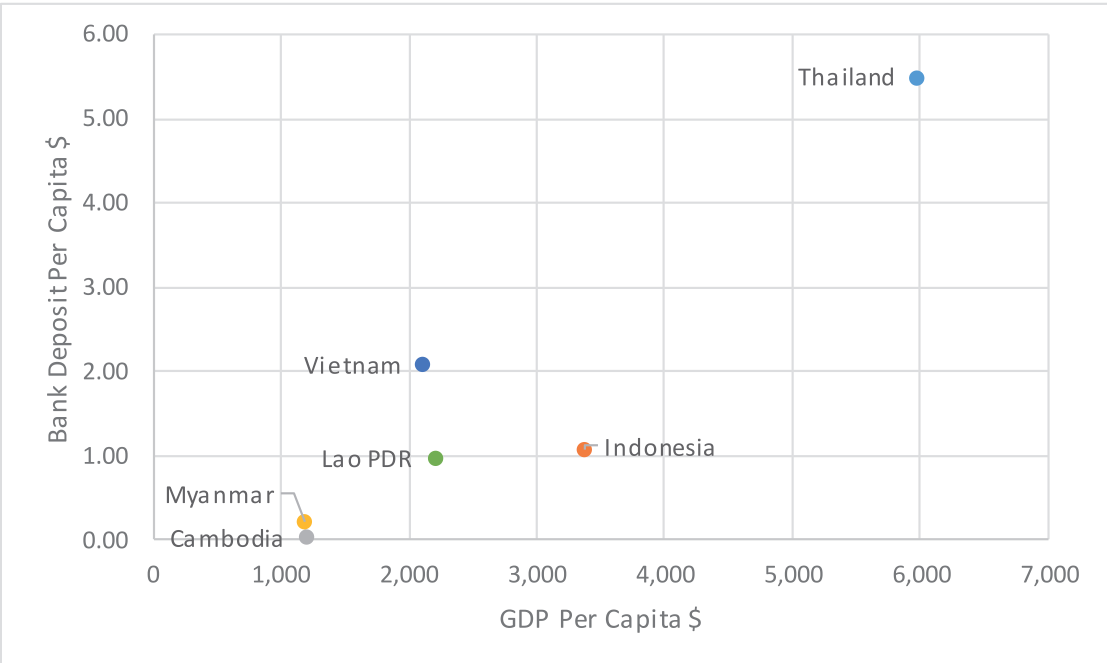
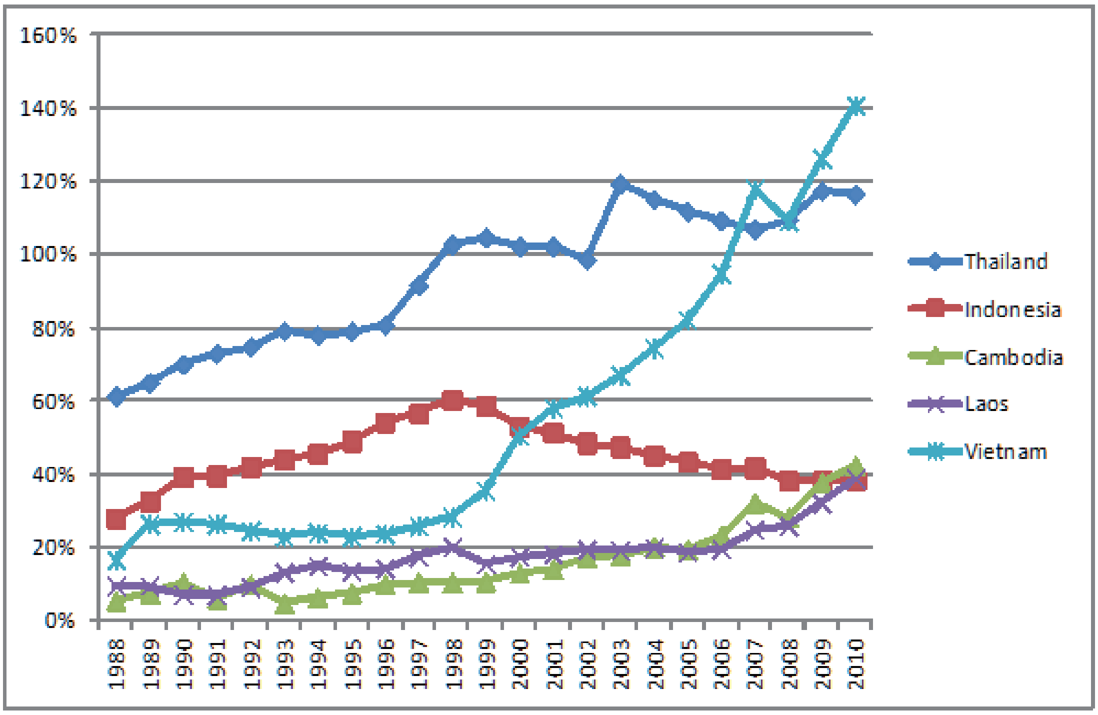


Figure 1-2 Per Capita Bank Deposit

Source: ADB, Key Indicators

M2 / GDP of selected countries



Note: M2 = Cash + Demand Deposit & Time Deposit

Figure 1-3 Trend of Financial Deepening

Source: ADB, Key Indicators

The practical substance of financial deepening is an activation of financial intermediation based on enhancing financial infrastructure such as a branch network, or lending capability of banks. The prerequisite for it is to realize the environment for efficient, stable and healthy operation of financial institutions. In the reality of most developing economies, the structure known as “financial repression” generally impedes growth of financial institutions. “Financial repression” refers to any forms of structure to exploit wealth in financial institutions (and ultimately in the whole household in the private sector) by government. Most typical and standard forms of the repression are policies of low interest rate regulation and inflation induction in order to repress the real interest rate below zero, which have the effect to transfer the wealth in financial institutions and households to government. Of course, the financial repression structure appears in various ways in different countries, beyond the typical form.

Financial Repression in Laos

Lao PDR has a financial repression structure of the standard type as well as of a unique type to its economic context. As the standard type of financial repression, the low interest rate policy introduced in the 2010s harms the commercial bank's capacity for deposit mobilization. Also, the semi-compulsory allocation of low yield government bonds to commercial banks hurts their profitability. As a standard solution to this, the government should make an effort to redress interest rate structure by loosening the regulation, and to construct the rules and institutions to issue government bonds with appropriate coupon pricing. In fact, recent policy effort has gradually gone in this line since the late 2018. The deregulation of interest rate and fair coupon pricing should be further promoted.

On the other hand, the unique structural problems in the Laotian context are found mainly in two points. The first is the problem of so-called "triangle bond" that was adopted in 2018 as a method to solve the government arrears to private construction sectors that emerged from mismanagement in public expenditure in the early 2010s. While the scheme seems effective to some degree as an emergency response, it is presumed to seriously damage banks' operation and profit. "Triangle bonds" should be eliminated in the long run, replaced by "normal" government bonds in the process of enlarging market-based government bond issuance.

The second and more serious structure is that the fiscal cost associated with financial repression seems unevenly burdened to particular state banks. Besides the general cost load under regulated low interest rate and low coupon bond holding, some state banks have been imposed with the load related to policy-based directed credit. These banks are presumed to be seriously embarrassed, even to face insolvency. It should be encouraged to examine the possibility of drastic restructuring including systematic re-capitalization for such problematic banks.

Industrial Organization of Lao Financial Sector

Apart from the problems associated with "financial repression", the banking sector in Laos faces various challenges related to competition conditions or industrial organization. While Banque Pour Le Commerce Exterieur (BCEL), the by far largest state bank equipped with sophisticated capacity, controls the market by its oligopolistic power, , an enormous number of small private banks operate in the same market. The profit and cost structure of many private banks are weak, probably due to the lack of economies of scale. Bank of Lao (BOL) have worked to fulfill and upgrade standard prudential regulations under the framework of Basel I and II regulations. But without a certain systematic reorganization of the sector to realize adequate operational scale and competition conditions, the private banks seem to have difficulty in stabilizing their business conditions and satisfying the prudential criteria.

In the banking sector in Laos, foreign capital presence is extremely large. This is due not just to the presence of many foreign owned banks, but also to the fact that there is one extremely big bank which potentially has the capacity to control the market. These characteristics of foreign presence in the banking sector possibly cause the delay of deposit mobilization and financial intermediation as a financial system. The authority should consider its strategy for regulation on foreign owned banks, aiming to utilize their assets for financial intermediation as well as prevent them from having too great a market power.

Possibility of Microfinance, Credit and Saving Union, and Village Banks

The Non-bank sector consisting of microfinance, credit and saving unions and village banks has potential to contribute deposit mobilization, in particular in rural area. Quasi-deposits at village banks should be institutionalized and become linked to the banking sector. Institutionalization of credit and saving unions and village banks should be promoted. Also, building facilities for connecting their deposits to the banking sector may contribute to market integration, resulting in further financial deepening.

State-owned Enterprise Reform

In order to minimize the burden of the government budget, the effort to improve the efficiency of SOEs should be systematically continued. Privatization or equalization is one of the policy options for improving SOEs' transparency.

So far, privatization of SOEs is usually practiced through accepting investment from foreign 'strategic partners' in Laos. In the long run, however, the process should be designed to be consistent with the growth of domestic private capital, thus to be open and market-based. The securities market is expected to play a crucial role for institutionalizing open participation for investment in SOEs. The role of securities market for the reform of SOEs should be examined.

Information Transparency

Lastly, general lack of transparency in financial sectors impedes systematic understanding and analysis of forward policy recommendation. In particular, policy discussion should be conveyed with more transparent information on some state banks, commercial bank's NPL, as well as the details of "triangle bond" issuance and distribution.

2. Policy Recommendation 1

Financial Deepening to Enlarge Domestic Financial Capacity

This section focuses on the issue of financial deepening for enhancing the capacity of financing fiscal deficit, to rebalance from excess dependence on external finance in Lao PDR. The essential element for enlarging domestic finance is to induce financial deepening in the whole financial system, in ways to mobilize domestic saving to deposits of financial institutions.

The practical substance of financial deepening is an activation of financial intermediation based on expanding financial infrastructure such as branch networks, or enhancing banks' lending capability. The major challenge in this regard lies in two different types of shortcoming in the Lao financial system. The first is associated with correcting financial repression structures that have prevailed in various dimensions of commercial banking sector. The second is associated with the problem of the industrial organization of banking sector such as competition conditions and entry policy.

2.1. Financial Repression and Banking Sector

Generally, in developing economies, "financial repression" structure exploits financial institutions (and ultimately private sectors), which impedes financial development. The structure is a kind of taxation on financial institutions and depositors, and causes the delay of financial deepening. Most typical forms of repression are negative real interest rate setting by interest rate ceiling and/or inflation through money printing, resulting in the transfer of the wealth of financial institutions or the private sector into government.

However, in reality, financial repression appears in various forms. In order to lead efficient, stable and healthy development of financial institutions, the government needs to identify the elements bringing the repression structures, and to remove them. In the case of Lao PDR, at least three major elements should be pointed out as follows.

(1) Interest Rate Ceiling and Treasury Bond Allocation

Firstly, as a standard type of financial repression, the low interest rate policy strengthened in the mid-2010s (Ch.2, Sec. 2.3) has hindered the deposit mobilization of banks. The interest rate ceiling policy consisting of deposit rate cap and spread cap seemingly aims to repress the cost for debt of the public sector primarily, and of the corporate sector peripherally. Yet, the policy has discouraged household and private sectors from depositing, and eroded the banks' capacity of risk absorption, resulting in hindering of financial deepening.

Under these low interest rate regulations, the government issues treasury bonds and other government bonds at the coupon rate lower than the deposit rate, and allocates them to commercial banks (Ch.2, Sec.2.5). In fact, the commercial banks are capable of accepting government bonds to a degree since their balance sheet conditions are in a state of excess deposit due to inactive lending. Meanwhile the structure surely bears operational loss for banks. A large portion of government bonds are accepted by state banks. BCEL seems to absorb this operational loss by its relatively strong earning base, while it is presumed that other state banks seriously suffer from the structure (Subsection (3) of this this chapter). Although there is no clear information on how many private banks hold government bonds, it can be pointed out that this structure partially causes private banks' low profit nature, being a remote obstacle to fulfil the capital adequacy ratio under Basel I and II (Ch.2, Section 1) that BOL have eagerly worked to satisfy as prudential regulation framework.

It is a matter to be welcomed that these distorted interest rate structures and the framework of semi-enforced allocation of government bonds have gradually been corrected. The authority prepared the treasury bond issues through the Lao Stock Exchange (LSX) under market-based distribution and pricing in late 2018 and the early 2019. In the process of the preparation, deposit and spread cap for banks were waived, and the coupon rates were set at a slightly higher level than deposit rates. These efforts to marketize and normalize interest rate structure should be continued and accelerated.

(2) Government Arrears and Triangle Bond

Secondly, the issuance of the "triangle bond" with enforced allocation to commercial banks replacing their NPL to construction sectors, is apparently a certain form of financial repression.

In the mid-2010s the poorly managed expansion of public expenditure by central and local government incurred government arrears to the companies in the construction sector. The arrears led to another delinquency of the construction sector on repayment to bank credit, which in turn brought about an increase of NPLs and worsened the profit in banking sector. The problem of an unstable banking sector was pointed out by IMF article IV report 2016. Lao government recognized the problem in at the latest 2014, and have worked to improve the public expenditure management.

The "triangle bond" was developed and introduced as a tentative solution of the clogged chain of debt relations. Since 2018, the government provides "triangle bond" to the banks replacing the cancelation of their credit to the construction sector related to government arrears. Through the scheme, the government transferred their debt to the construction sector into the debt in forms of “triangle bond” in banks. The banking sector too benefited a little; since their NPL was replaced by the government bond, their NPL ratio declined in surface.

It is true that this scheme contributes to a degree to restore the credit channels in the financial and fiscal system that have been clogged by the delinquency chain, but in essence it is merely a reschedule of the government debt repayment. Also, the cost occurred in the scheme was mostly burdened by the banking sector. The duration of most bonds is reported to be a ten-year term, which means the government virtually forces banks to accept ten years postponement of loan repayment.

The coupon rates of the bonds are reported to be 6.0% for ten-year term, 4.8% for three-year term[52]. The coupon rates are lower than those of regular government bonds, and far below the deposit rates. Banks expect to continue to accept profit loss for a relatively long period, and furthermore, by devaluing their credit they are virtually enforced to accept cancelation of a certain portion of their claims.

The “triangle bond” was issued at the amount of 3,250 Billion LAK as of August 2018, mostly the same amount as the scheduled amount of “regular” treasury bond (3,300 Billion LAK) in the same year. It is not clear whether the issued “triangle bond” replaced all the arrears or not, and how much was allocated to each bank.

Calculating based on the balance sheet information of BCEL, the assets classified to “other bonds” (other than treasury bond and corporate bond) suddenly rose in 2018, counting an increase of 1,318 Billion LAK, occupying 40% of the total “triangle bond” amount. Considering the share of BCEL occupies only 29% of the whole banking system in terms of total assets, the figure suggests that BCEL burdens a relatively larger portion of the cost of government arrears.

Needless to say, this scheme works as “financial repression” in the sense that the fiscal cost associated with the arrears is loaded on commercial banks. The scheme should be modified in ways to minimize the commercial banks’ burden in the near future. As mentioned above, marketization of treasury bond issue has been promoted since the late 2018. At an appropriate timing, the interest rate distortion in the “triangle bond” should be corrected through replacement by regular treasury bonds. In the long run, the development of secondary market of treasury bonds

52 Nomura Research Institute, Ltd. “Government Bond Market Development: Roadmap 2018-2025”, presentation material at ASEAN + 3 Bond Market Initiative.

will release the load of commercial banks since they will come to have a choice to dispose of bonds to the market before the maturity arrives.

(3) Difficulty in Operation of State Banks with Large Load of Fiscal Cost

Thirdly, another appearance of "financial repression" is found in state banks. Seemingly a few banks among state banks except BCEL (Lao Development Bank: LDB, Agricultural Promotion Bank: APB, Nayoby Bank) continue to load large costs of policy intervention and its failure. A drastic reform or an overhaul including re-capitalization will possibly become needed in the future. Since the information on the three banks is generally undisclosed, our understanding depends on observations from segmented information we collected. Even from this, we can describe the outline of the problem.

According to our estimation in the banking sector survey (Ch.2, Sec 3), LDB is relatively large, occupying about 10% share of the whole banking sector. Apart from one branch of foreign bank (ICBC, China), LDB is the second largest bank in Laos. Agricultural Promotion Bank (APB) occupies 3%, comparable to medium-sized private banks in terms of total assets. (Ch 2. Sec 2). Nayoby bank is a policy-based bank which split from the former APB in the mid-2000s. Judging from its credit size of 3,178 billion LAK in 2017, the size is presumed to be similar to or a little larger than APB. They all play a role of policy- based directed credit; LDB is mainly in charge of SME finance in addition to their traditional development finance for infrastructure. APB was originally established as an agricultural financial institution, but recently diversified their lending into SME finance and infrastructure. Nayoby bank involves various types of policy -lending.

To understand the operational situation of the three state banks, there is no way but to presume it through comparing aggregated statistics and the figures of relatively well-disclosed banks (BCEL and most private and foreign banks). As pointed out in Ch.2 (Table 2-1, calculation A), our estimation shows that in 2016, 34.7% of total bonds outstanding are held by BCEL, while only 3.8% are held by all the private banks we surveyed. Although 8% of total bonds outstanding are reported to be held by three public funds[53], the possessors of the rest, about 54.5%, are unknown. Since there is no doubt that domestic institutional investors are mostly limited to commercial banks, they are presumed to be some of the three state banks. A large portion of "triangle bond" is also presumed to be allocated to these banks in the same ways, causing serious embarrassment of operation.

53 Nomura Research Institute, Ltd., above mentioned.

Various segmented and internal sources suggest that some state banks hold extremely high NPLs and are facing the possibility of insolvency. If this is the case, this difficult situation does not seem transitory nature but has been incurred from a long-time burden of the cost of fiscal deficit under financial repression, and of the cost associated with policy-based finance. The drastic reforms including the overhaul of the missions, and even re-capitalization of some of the three state banks are possible objects of argument.

(4) Role of Bond Market Development

As discussed above, the traditional system and rules on government bonds with low coupon rate and semi-enforced allocation, have harmed operation of commercial banks. Also, the recent "triangle bond" scheme worsened the situation. On the other hand, the government started the effort of market-based issuance under foreign technical assistance. Market based issuances were implemented in December 2018 and March 2019. In the new scheme, the coupon rate was set at a slightly higher level than that of bank deposit rate. At the same timing, the interest rate ceiling both on deposit rate cap and spread rate cap were waived. The distortion of interest rate structure sustainably loosened.

The important point experienced in this process is that development and intuitional building of the government bond market involves the process of correcting distortions in interest rate structure of the whole financial system including the banking sector. In other words, bond market development exerts synergy or externality effect on banking sector development. The effort should be further promoted with the prospect of fostering the secondary market. It will also contribute to terminating the "triangle bond" problem.

2.2. Competition Condition and Commercial Banking Sector

(1) Oligopolistic Industrial Structure with Lack of Economies of Scale

As discussed in Section 3 of Chapter 2, the industrial organization of the commercial banking sector in Laos is unusual. It is a so called "Gulliver type oligopoly", where BCEL, the largest bank, occupies about 30% of the whole sector (44% domestic bank), and 40%, (60%) if taking into account its subsidiaries of three joint state banks. The performance of BCEL is good and stable, and the three joint state banks are superior to private or foreign banks in their profit structure.

On the other hand, the size of private banks (here the means 16 banks classified as Private Bank or (foreign) Subsidiary Bank) is extremely small, their operational expenditure rates are high, and their profit rates are low. Net interest income in most private banks is lower than operational cost. Positive profit is usually realized depending on relatively large fee income consisting of commission of remittance and foreign exchange (Ch.2, Sec.2).

The private banking sector is seriously inefficient in terms of economies of scale, suggesting the necessity of decreasing the number of banks and increasing operational size of individual banks in order to improve profit condition and to gain stability, which is a prerequisite for active financial intermediation. At present, the abuse from the structure of BCEL oligopoly is not apparently shown. In the future, however, it is ideal to consider the arrangement of competition conditions where BCEL is exposed to higher competition by the existence of other competent banks.

(2) Too Large Presence of Foreign Bank and Capital

Another problem associated with industrial organization in the commercial banking sector in Laos is the too large presence of foreign capital. The foreign banks (combining (foreign) subsidiary banks and foreign bank branches) amounts to 25 banks and 35.5% of total assets in the whole sector. Besides, at least 2 private banks out of 7 are owned by foreigners[54]. Combining all together, about 40% of the commercial bank total assets are owned by foreign capital. Among the foreign owned banks, a single branch of Industrial and Commercial Bank of China (ICBC) is remarkable in terms of asset size, counted to be 19.8% of the whole banking sector, which is the second largest, next to BCEL (Ch.2, Section 2).

In general, the participation of foreign banks contains positive aspects in ways of gaining investment resources, particularly in the economy where the domestic resource is scarce, and of realizing technology transfer in financial business. On the other hand, a too large foreign presence may become a bottleneck for spontaneous development of the domestic financial sector.

The authorities need regularly to examine the advantages and demerits of the large presence of foreign banks, and continue to update the regulation on their operational size, cross-border transaction of funds and usage of currency. At the same time, it is recommended that the authorities consider the policy to encourage them to utilize their abundant resources more on domestic demand. As shown in Chapter 2, relatively large non-working assets remain in foreign banks, which possibly can be utilized for financing the fiscal deficit through allocating government bonds.

[54] In addition, three joint state banks are semi-foreign owned.

(3) Enhancing Interbank Market and Branch Network

Apart from the challenges associated with correcting financial repression and improving industrial organizations above, the construction of financial infrastructure should be promoted. Encouraging banks to expand branch networks in particular into rural areas is a key for deposit mobilization. Also, lack of an inter-bank market channel seems a major obstacle for efficient management of banks' fund. Upgrading and activating the money market should be prioritized.

2.3. Deposit Mobilization through Non-Bank Financial Institution Sector

As discussed in Chapter 3, the non-bank sector has shown substantial growth in urban and rural areas in the last two decades. The total size of the non-banking sector is still trivial compared to the commercial bank sector. However, the Deposit Taking Microfinance sector has actively provided deposit and credit service, and Village Banks (VB/VSGs) under supervision by BOL or Lao Women's Union currently maintain about 4,000 operating offices or communities in rural areas. With well-designed policy schemes, they possibly can function as vital infrastructure for the whole financial system.

In the non-banking sector, recently the loan - deposit ratio declined after a period of boom. The ratio dropped below 100% (Ch.3, Sec.2) which means the sector faces an excess deposit situation. In fact, most VB/VSGs in rural areas are rarely accessible to banks, being disconnected from the financial system. As a result, the deposit usually remains useless.

Comprehensive policy perspective should be constructed going forward, connecting markets of commercial banks and non-banks. Constructing the money market between them, and organizing central institutions for VB/VSGs are possible policy actions. Encouragement for upgrading various layers such as VB/VSGs to DT-Microfinance institutions, and DT-Microfinance institutions to commercial banks is another policy agenda.

3. Policy Recommendation 2

SOE Reform and Role of Securities Market – a Short Comment

3.1. SOE Reform

In order to minimize the burden on the government budget, the effort to improve the efficiency of SOEs should be systematically continued. Privatization or equalization is a key policy direction in the long drive to improve SOEs' transparency.

Table 1-1 State-owned Enterprises

<table>
<tr><th>Total Number</th><th colspan="2">Government Share</th><th colspan="2">Supervised by</th><th>Supervised by MOF</th></tr>
<tr><td rowspan="4">187</td><td rowspan="2">>51%</td><td rowspan="2">133</td><td>Local Government</td><td>76</td><td></td></tr>
<tr><td rowspan="2">Central Government</td><td>57</td><td>45</td></tr>
<tr><td rowspan="2"><50%</td><td rowspan="2">54</td><td rowspan="2"></td><td>15</td></tr>
<tr><td>Local Government</td><td></td></tr>
</table>

Source: SOE supervision department, Ministry of Finance

At present 187 SOEs operate in Lao PDR. As shown in Table 1-1, 133 (71%) of them are owned by the government as a majority stakeholder, and the major 60 are under supervision of the Ministry of Finance. The major 60 SOEs hold total assets of 113,314 billion LAK, bear 1.19% of ROA, and realize a dividend of 909 billion LAK as of 2017. Roughly speaking, major SOEs carry a surplus and are contributors to the public finances.

According to appraisals of the Lao government, 34 of the major 60 SOEs are evaluated to be well managed and stable in their performance. Basically, the major 60 SOEs consist of many profitable SOEs and a few facing operational difficulty. In particular, 5 SOEs in the financial, logistic, energy and trade sectors seem to be facing serious difficulty.

These problematic SOEs are particularly significant with widespread social impact. In our program, these issues are examined separately (the issue of state banks is addressed in Section 2 of this chapter, and the electricity industry is examined in Working Group 2).

The policy agendas for the remaining major SOEs are the issues of how to enhance their transparency, and how to realize further development through privatization in the long run. Since most major SOEs seem capable of being privatized and are already equitized, the policy should be directed toward how to lease their share to the public. In the process, the role of the securities market should be considered.

For the non-major 127 firms, the key issues appear to be a matter of management authority allotment between central and local governments, and among line ministries within central government. The jurisdiction associated with SOEs should be centralized as far as possible, and transparency should be further enhanced.

3.2. Fundraising, Securities Market and SOE Reform

As observed in Chapter 4, large firms in Laos are basically self-finance oriented, and usage of bank credit is very inactive among them. Also, observation and estimation (Ch.4, Appendix 1) suggest that usage of bank credit is particularly inactive in SOEs compared with the firms in the private sector.

According to our hearing, the government has recently been supervising the banks and SOEs, minimizing bank loans to SOEs for the purpose of preventing SOEs from loosening operational discipline. However, since the operational conditions of SOEs varies, the policy to restrict bank lending to SOEs should be weakened, while controlling for a few problematic SOEs. Active credit transaction should be encouraged for many well performing SOEs.

In order to reform and transparentize SOEs, it is crucially important to enhance operational discipline or governance. Certain sequences should be considered for constructing governance regimes. Equitizing the entities is the first step. In Laos most major SOEs have already become equitized. Then next possible step is to strengthen governance through monitoring by banks (governance by debt). For this purpose, the bank credit borrowing by SOEs should generally be encouraged. In this sense, however, the capability of monitoring in the banking sector is its prerequisite. Currently, the monitoring capability of major banks seems insufficient, except for BCEL. In this sense, for better SOEs governance, the banking sector's operational development is also key.

Another stage of governance regime for the SOEs is to expose them to the capital market. By becoming public companies, even with government keeping a large share, the SOEs will become more transparent and better governed through the market. As shown in Chapter 2 (Appendix 2), going public enables firms' further growth through large sized fundraising and tax exemption, in addition to the enhancement in governance quality.

Chapter 4 finds that the debt and bank borrowing ratios are lower in foreign firms, which seemingly suggests, in the Laotian context, that SOEs with foreign strategic partners are particularly dependent on the fund channel of the foreign partners. This is another aspect of external debt dependence in Lao economy. In order to change such a situation, it is desirable to promote bank credit transaction and participation in the capital market for even such SOEs.

4. Concluding Remarks

As general remarks, this Chapter posed several policy recommendations associated with financial system development, based on basic research in Chapter 2-4. We discussed the policy direction forward financial development, and indicated significant impediments for this, identifying the factors of "financial repression" in the Laotian context, namely the interest rate ceiling, government bond allocation, "triangle bond" problem, and operational difficulties of state-owned banks.

We also pointed out the necessity of improvement of the market competition conditions of the commercial banking sector, as well as the potential role of non-banking financial institutions for accelerating deposit mobilization from rural areas.

Lastly, we gave a short comment on the present situation of the SOE sector, suggesting the possible operational improvement through the mechanism of the financial system, in particular the capital market.

These policy recommendations, inevitably, remain very general arguments, which aim to be platforms for further examination at the implementation stage.

III – 4 – 1. Part 2 Research Report

Chapter 2 Bank Survey Report

1. Introduction

This chapter consists of two parts. Section 2 will overview the banking sector in Lao PDR, and discuss and understand the recent policy arguments. Section 3 will report the findings from the banking survey conducted in the program. The information in both sections gives a basic platform for the policy recommendations discussed in Chapter 1.

2. Banking Sector in Lao PDR

2. 1. Recent Financial Development

The Lao financial sector is highly dominated by commercial banks. The commercial bank assets amount to approximately 90%[55] of the financial sector in total assets. Financial institutions have gradually diversified since the 2000s, and currently 43 banks[56] operate in the country, which consist of 3 state-owned commercial banks, 1 specialized bank (policy bank providing credits to support poverty eradication policy), 3 joint state commercial banks, 8 private banks, 9 subsidiary banks, and 19 foreign branch banks. The sector holds 510 service units, 37 exchange bureaus, and 1,176 ATM machines in total. Major financial institutions other than commercial banks are 186 non-banks[57] (Bank of the Lao PDR, 2017), 1 postal savings institute, and the Lao Securities Exchange (Lao Securities Exchange, 2018).

[55] Author's calculation based on data from Bank of the Lao PDR
[56] As of Quarter 2 of 2018
[57] Of which, there are 19 deposit-taking microfinance institutions, 74 non-deposit-taking microfinance institutions, 30 savings and credit unions, 29 leasing companies, 29 pawn shops, and 5 transfer agencies.

Since the late 2000s, the banking business environment in the Lao PDR has been competitive due to the increasing number of banks, especially of foreign banks. The new entries of commercial banks centered around the foreign banks has been activated since 2007 by enacting the commercial bank law, and deregulating the reserve requirement from 8% to 5% on LAK account and 15% to 10% on foreign currency account.

Despite recent briskness in the banking sector, however, the function of the financial system is still at a primitive stage. It is characterized by (1) low level of financial depth, and (2) wildly prevailing circulation of foreign currency. Financial intermediaries still remain inactive, being 54.0% of M_2 to GDP ratio in 2017, although the figure substantially increased from 17.4% in 2000 (Bank of the Lao PDR, 2002). The total credit of commercial banks remains only 47.56% of GDP (Bank of the Lao PDR, 2017). The financial sector holds foreign currency in the environment that the regulation on holding foreign assets is relatively loose, and the Lao economy is highly dollarized, where 53% of total deposits are foreign currency term as for quarter 2 of 2018 (Monetary Policy Department, 2018).

2.2. Banking Sector

2.2.1. Asset Size, Deposit and Credit

The banking sector remains at an initial stage of development. In 2017, total banking assets recorded at 122,408.25 billion LAK (or approximately 15.3 billion USD), accounted for about 87% of GDP (Bank of the Lao PDR, 2017)[58]. Four state-owned banks (three commercial banks and one specialized bank) account for about 44%. In terms of total deposits and credit, the three state commercial banks accounted for 56.7% in the total deposit of LAK 68,032.49 billion LAK (or 8.5 Billion USD), and, 4 state-banks occupy about 50.0% in the total credits of commercial banks, 66,939.31 Billion LAK (approximately 8.37 Billion USD).

Credit to deposit ratio is 96.2%[59], less than 100%, suggesting that financial intermediaries are relatively inactive and the commercial banks usually hold substantial idle assets. Although deposits in the banking system have increased over the last decade, the channel of financial resource allocation from deposit to investment remains shallow.

2.2.2. Duration Gap between Deposit and Credit

The commercial banks have been facing difficulties in mobilizing long-term deposits. The

58 Author's calculation based on data from Bank of the Lao PDR
59 Author's calculation based on data from Bank of the Lao PDR

majority of deposits at commercial banks are short-term deposits, which impedes the expansion of long-term lending by the banking sector. Short-term deposit (≤ 12 months) accounts for about 73% of total deposits, whereas savings deposit accounted for 27.3% of total deposits as of 2nd quarter of 2018. This gap suggests that most deposits are from the corporate sector rather than household sector or individuals. In fact, most commercial banks are concentrated in the capital city and reluctant to extend services to rural areas, despites the increase in the number of commercial banks and service facilities in recent years. Due to this duration gap, the financial intermediary does not well match the demand for long- term credit vigor in infrastructure investment. The duration gap is a vital challenge for the banking sector, and a potential disturbing factor for a stable banking system.

2.2.3. Interest Rate Structure and Regulation

The regulations on interest structure in the financial sector were strengthened since the mid-2010s, but recently relatively loosened. A kind of selected low interest policy was applied for agricultural and forestry sectors[60] in the early years, but such sectoral discrimination was abolished in 2004.

In 2015, BOL introduced an interest rate cap; (1) deposit rate ceiling for Kip account deposit was set based on inflation rate (set at a little above inflation rate), and (2) the interest spread ceiling (deposit rate to lending rate) was set at 4%. Since then, deposit and lending interest rates have shown a downward trend. The regulation on foreign currency lending (in US Dollar and Thai Baht) was temporarily strengthened in 2016-17 in the ways that foreign currency lending was restricted, and the interest spread ceiling for foreign currency was introduced (set at 3%).

As a result, the interest rate both of deposits and lending drastically declined in 2015-2018. As of 2nd quarter of 2018, the interest rate per annum of commercial banks for short-term deposits (12 months) stood at 3.00-5.59% for Kip account, 0.75-6.00% for Thai Baht account, and 0.70-6.25% for USD account, whereas short-term lending interest rates were 5.25-14.00% for Lao Kip account, 4.14-10.00% for Thai Baht account, and 4.00-10.00% for USD account.

The low interest rate policy introduced since 2015 possibly brought about the serious distortions which harmed the banking sector's performance, and capacity of deposit mobilization.

[60] For instance, the lending interest rate was 19% per annum for the agricultural and forestry sector whereas 22% for industry and handicraft sector, 24% for construction, and 25% for service sector.

This distortion in interest rate structure thought to be a prerequisite for heavy allocation of low yield treasury bond to commercial banks further weakened the performance of the banking sector.

2.2.4. Cost of Treasury Bond Holding by Banking Sector

Commercial banks have been major absorbers of government bonds. The bonds outstanding have increased in the 2010s. Since the bond market had rarely functioned until recently, most bonds have been allocated to commercial banks, in particular to BCEL, the largest bank, and kept until maturity. As shown in Table 2-1, the share of BCEL to total outstanding is 30-35% before 2016, but marked more than 50% in 2018.

On the other hand, based on our banking survey, (Section 3 of this chapter) government bond holding in "private banks" (i.e. Joint State Commercial Bank, Private Bank, Subsidiary Bank and Foreign Bank Branch in BOL official classification) is relatively small. The majority of the residual is presumed to be held by other state banks (LDB, APB or Nayoby). In the case of calculation, A, where bond holding by "private banks" is counted only from the figure reported as "government bond" or "treasury bond", the residual is very large, at the level same as or more than that held by BCEL. Calculation B is a rough guess under the assumption that all the reported securities were government bonds[61]. Even in this case, a large portion is seen to be held by other state-own banks until 2016.

Until the market-based issue in December 2018, coupon rates of treasury bonds were generally low. This had been lower than ceiling deposit rates of banks. In recent cases (in the mid 2018) coupons of treasury bonds are 6.00% for 3 years, 5.50% for 2 years and 5.0% for 1 year. Since the bank deposit rate (fixed deposit in LAK) in October 2018 was 6.81%, 6.46%, and 5.34% respectively, the treasury bonds do not yield net profit for banks.

[61] For most bonds, there are very few corporate bonds prevailed domestically and held by financial institutions, so this is not very unrealistic.

Table 2-1 Government Bond Holding by Commercial Banks

	2013	2014	2015	2016	2017	2018
G-Bond Outstanding	2,362	5,457	6,537	7,359	5,432	7,044
Held by						
BCEL	869	1,489	1,776	2,553	2,575	3,268
% Share	36.8%	27.3%	27.2%	34.7%	47.4%	46.4%
% to Total Asset	5.2%	6.3%	6.9%	8.0%	7.2%	13.3%
Calculation A						
Private Banks	468	321	274	279	159	0
% Share	19.8%	5.9%	4.2%	3.8%	2.9%	0.0%
% to Total Asset	3.2%	1.5%	0.6%	0.5%	0.3%	0.0%
Residual	1,128	3,865	4,485	4,511	2,693	3,268
% Share	47.8%	70.8%	68.6%	61.3%	49.6%	46.4%
Calculation B						
Private Banks	1,184	436	2,872	3,701	3,546	3,657
% Share	50.1%	8.0%	43.9%	50.3%	65.3%	51.9%
% to Total Asset	8.0%	2.0%	5.9%	6.0%	5.9%	9.1%
Residual	412	3,750	1,887	1,089	-694	-388
% Share	17.5%	68.7%	28.9%	14.8%	-12.8%	-5.5%

Source: Calculated by author based on BCEL and BOL materials

2.2.5. Prudential Regulation

BOL has worked on constructing Basel II standard regulation framework since the mid-2010s, expecting to upgrade to a part of Basel III standards in the future stage[62].

According to IMF article IV consultation report 2016, the capital adequacy ratio in the Basel I standard was below the minimum (8%) in most banks due to the cash flow problems caused by government arrears in public investment, while the same report of 2017 describes how the overall financial system fulfills the rate except for a few state- owned and joint state banks (Table 2-1). It suggests that the condition was drastically improved in the recent years.

62 The Strategic Development Scheme of Financial Institutions and Currency of Lao PDR, Bank of Lao PDR.

Table 2-2 Capital Adequacy Ratio (Basel I standard)

	2009	2010	2011	2012	2013	2014	2015
Overall	20.1	21.6			25.9	20.9	20.8
State-owned commercial banks	3.8	4.8	6.0		6.7		
Joint state banks	9	9.9			30.3		
Foreign bank branches	34	37.7			12.1		
Private bank	33.5	34.1			54.3		

Unit: percentage
Source: IMF, article IV consultation report, 2016

This is not, however, consistent with our banking survey hearing. According to the hearing at 6 "private banks" and 5 foreign banks during 2017 - 18, 3 "private banks" answered that the ratio was below the standard, and 2 banks refused to disclose information (only 1 bank answered that the figure was much higher than the standard). Although the average ratio of state-owned banks in Table 1-2 is below the standard (8%), BCEL apparently cleared the standard (11.7%, at the hearing in the early 2018), suggesting that some other state banks face serious capital conditions. On the other hand, our impression from the hearing was consistent to the IMF article IV consultation report in that foreign banks generally obey the regulation framework and keep a relatively high ratio.

The capital adequacy ratio of each bank is less transparent since this item is not obligated to be disclosed in banks' annual reports.

3. Banking Sector Survey

3.1. Survey Design

The banking sector survey (BSS) in Working Group 4 was conveyed in 2017-18. The survey consists of three types of work. First, we collected the basic information of each bank and constructed a list of the commercial banks with the most basic information such as total assets, year of establishment, and ownership (Table 2-3). We basically followed BOL official classification. We counted the commercial banks as 3 state commercial banks, 1 policy bank, 3 joint state commercial banks, 7 private banks, 9 (foreign) subsidiary banks, and 19 foreign commercial bank branches, totaling 42 banks[63]. Even the most basic indicators such as total assets were unavailable for some banks. We estimated this from our collected segmented information (LDB and APB, for example). For 1 policy-bank (Nayoby bank), 1 foreign bank and 3 foreign

[63] One private bank newly entered recently, (Vitecom Bank), and we exclude it from observation.

bank branches, the information was totally unavailable except for their country origin, and thus we excluded them from the observation.

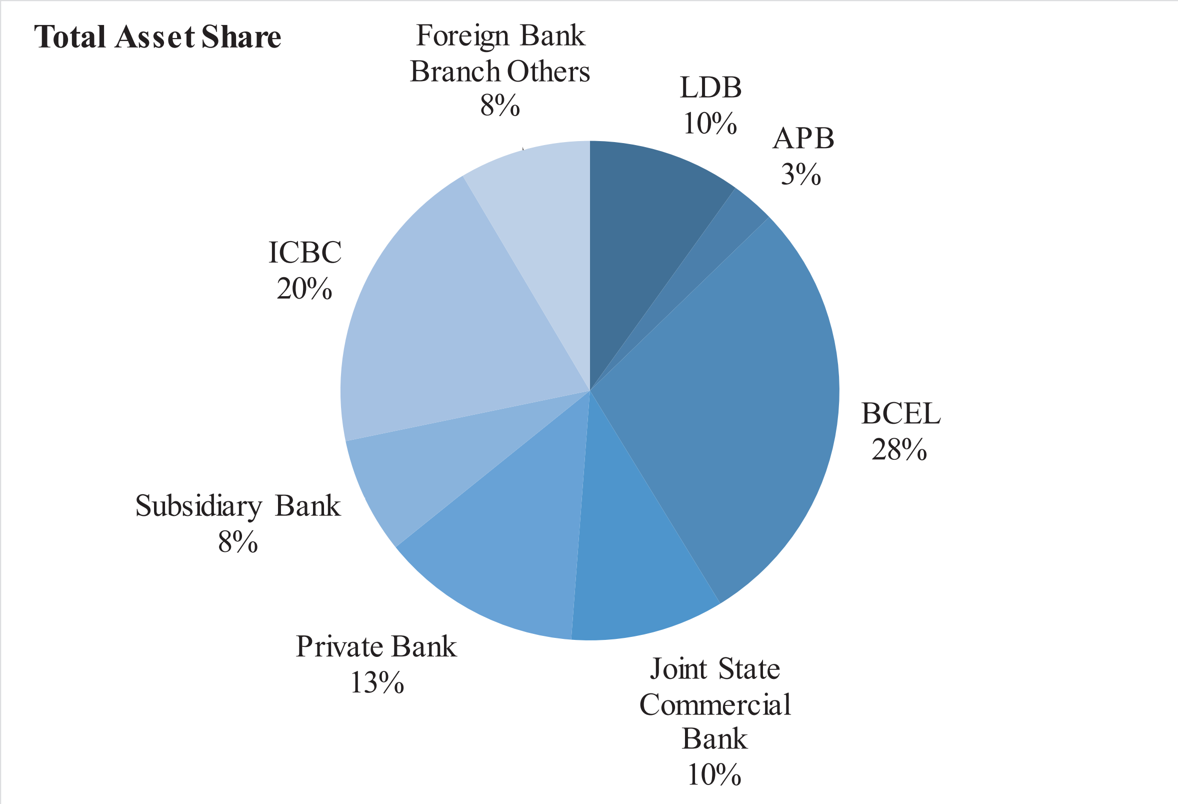
Secondly, we implemented a hearing survey for 15 banks in Vientiane out of a total 37 banks. They include 10 domestic banks out of a total 14. The survey was implemented in June and September 2018.

Thirdly, we have constructed a database of financial statements of the commercial banks including most domestic banks in 2013-2018. We cover 28 banks (BCEL, all 3 joint state banks, 8 private banks, and 16 foreign subsidiary banks and foreign bank branches) under cooperation with BOL and JICA Vientiane office. We couldn’t collect the data on Agricultural Promotion Bank (APB) and Lao Development Bank (LDB).

Table 2-3 List of Commercial Banks in Lao PDR

		Total Asset 2016 Billion LAK		Total Deposit 2016 Billion LAK		Established Year	No. Branches and Service Unit	Country Origin/ Ownership
State-owned commercial Bank Total		**46,377.1**	**41.2%**	**38,666.9**	**59.6%**			
1	Banque Pour Le Commerce Exterieur Lao Public	32,023.3	28.5%	25,402.4	39.2%	1989	94	Local
2	Lao Development Bank	*11,156.9*	9.9%	*13,264.5*	20.5%	2003	96	Local
3	Agriculture Promotion Bank	*3,196.9*	2.8%			1993	109	Local
Policy Specialized Bank								
4	Nayoby Bank					2006	75	
Joint State Commercial Bank Total		**11,187.1**	**9.9%**	**6,000.5**	**9.3%**			
5	Lao-Viet Bank	9,129.6	8.1%	5,071.7	7.8%	1999	13	BCEL/Vietnam
6	Banque Franco-Lao	1,396.1	1.2%	665.9	1.0%	2008	22	BCEL/France
7	Lao China Bank	661.5	0.6%	263.0	0.4%	2014		BCEL/China
Private Bank Total		**14,640.2**	**13.0%**	**10,802.1**	**16.7%**			
8	Joint Development Bank	2,356.3	2.1%	1,873.6	2.9%	1989	53	Local
9	Phongsavanh Bank	3,099.2	2.8%	2,727.9	4.2%	2007	40	Local
10	ST Bank	2,683.8	2.4%	2,168.6	3.3%	2009	37	Local
11	Indochina Bank	5,394.5	4.8%	3,346.5	5.2%	2008	11	Korea
12	Booyoung Lao Bank	356.6	0.3%	22.4	0.0%	2009		Local
13	Lao Construction Bank	332.8	0.3%	551.9	0.9%	2012		Local
14	Maruhan Japan bank Lao	417.1	0.4%	111.3	0.2%	2013		Japan
Subsidiary Bank Total		**8,479.8**	**7.5%**	**3,104.8**	**4.8%**			
15	ANZ Bank	**979.2**	0.9%	**636.9**	1.0%	2007		Australia-NZ
16	ACLEDA Bank	1,256.5	1.1%	629.2	1.0%	2008	41	Cambodia
17	International Commercial Bank	1,394.0	1.2%	1,082.3	1.7%	2008	4	Malaysia
18	RHB Bank	881.4	0.8%	43.0	0.1%	2006	2	Malaysia
19	Kasikornthai bank	733.8	0.7%	163.3	0.3%	2014		Thailand
20	Sacom Bank	1,077.3	1.0%	241.0	0.4%	2008	4	Vietnam
21	Vietin Bank Vientiane Branch	1,804.7	1.6%	299.5	0.5%	2012	2	Vietnam
22	Canadian Bank	353.1	0.3%	9.7	0.0%	2015		Cambodia
23	Saigon-Hanoi Commercial Joint Stock Bank Lao Branch							Vietnam
Foreign Bank Branch Total		**31,754.7**	**28.2%**	**6,251.0**	**9.6%**			
24	Bangkok Bank, Vientiane Branch	1,190.1	1.06%	579.9	0.9%	1993		Thailand
25	Bangkok Bank, Pakse branch	109.5	0.10%	1.9	0.0%	2016		Thailand
26	Krung Thai Bank, Vientiane Branch						1	Thailand
27	Ayudhya Bank, Vientiane Branch	585.9	0.52%	197.4	0.3%	1994		Thailand
28	Ayudhya Bank, Savannakhet Branch	342.2	0.30%	261.6	0.4%	2009		Thailand
29	Thai Military Bank, Vientiane Branch	16.6	0.01%	37.4	0.1%	1993	1	Thailand
30	Siam Commercial Bank, Vientiane Branch	288.1	0.26%	162.7	0.3%	1992	1	Thailand
31	Public Berhad Bank, Vientiane Branch	1,958.6	1.74%	675.9	1.0%	1995	4	Malaysia
32	Public Berhad Bank, Sikhai (Wattay) Branch	310.0	0.28%	48.0	0.1%	2016		Malaysia
33	Public Berhad Bank, Savannakhet Branch	257.0	0.23%	92.0	0.1%	2008		Malaysia
34	Public Berhad Bank, Pakse Branch	173.8	0.15%	12.3	0.0%	2008		Malaysia
35	Military Commercial Joint Stock Bank-Lao Branch						1	Vietnam
36	ICBC Bank Vientiane Branch	22,180.0	19.73%	3,865.6	6.0%	2011	1	China
37	MayBank Lao Branch	2,388.3	2.12%	211.1	0.3%	2012		Malaysia
38	Malayan Banking Berhad Nongduang Branch	114.2	0.10%	10.1	0.0%	2016		Malaysia
39	CIMB Thai Bank Vientiane Branch	151.0	0.13%	2.5	0.0%	2014	1	Thailand
40	Cathay United Bank Vientiane Capital Branch	738.3	0.66%	19.6	0.0%	2014	1	Taiwan
41	Bank of China Limited Vientiane Branch	951.1	0.85%	73.1	0.1%	2015	1	China
42	First Commercial Bank LTD, Vientiane Branch						1	Taiwan
Ground Total		**112,438.9**		**64,825.3**				

Source: Various Sources



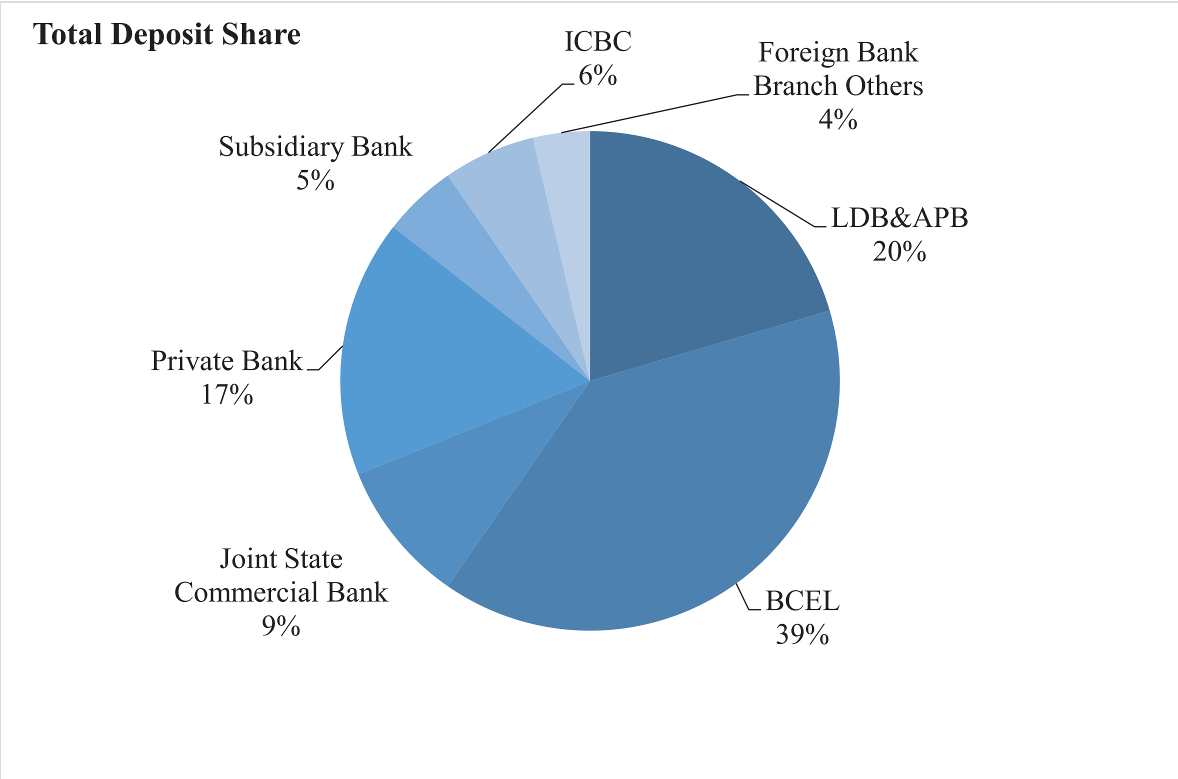


Figure 2-1 Market Share of Commercial Banks by Asset and Deposit

Source: Table 2-1

3.2. Industrial Organization of Banking Sector

Figure 2-1 shows the market share of commercial banks by bank type measured by total asset and total deposit. The share of BCEL is overwhelming; it alone occupies 28% in total assets, and 39% in total deposits of the whole sector. The figure jumps up to 38% and 48% respectively if including its three subsidiaries with joint state bank status. The estimated shares of other state commercial banks (LDB and APB) are a little smaller, 10% and 3% respectively in total assets (20%, consolidating of total deposit).

Another remarkable characteristic of the competition conditions of the banking sector is the presence of foreign capital. The shares of banks (foreign) subsidiary banks and foreign bank branches amount to 36% in total assets. Among them, Industrial and Commercial Bank of China (ICBC) lies in a unique position, occupying 20% by a single branch and existing as the second largest commercial bank following BCEL. Meanwhile, local private capital is small; 7 local private banks take only 13% in total assets, and 17% in total deposits. And in fact two banks licensed as domestic private banks are virtually foreign-owned (Maruhan Bank, and Indochina Bank), and foreign capital participates in three joint state banks as a minority counterpart.

The largest portion of the banking system is owned and operated by state and foreign capital, while the presence of domestic private capital is very limited.

3.3. Balance Sheet and Profit Structure

3.3.1. Balance Sheet Structure by Bank Category

We were able to construct a nearly complete panel dataset for 28 banks for 2015-2017. Figure 2-2 shows the balance sheet structure by bank type in 2015, calculated from our dataset. We classified the type as (1) BCEL, (2) joint state bank, (3) local private bank, (4) foreign subsidiary bank (5) ICBC, and (6) other foreign bank branch[64].

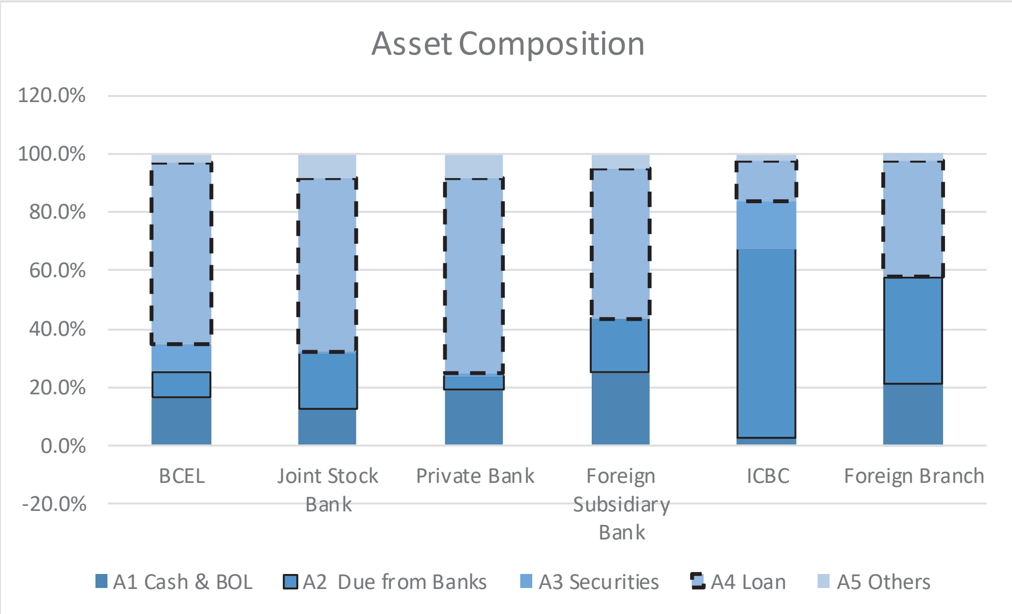
The liability side suggests that a large part of banks' fundraising comes from deposits (L1) in the domestic banks, particularly in BCEL, but the rate of liability account to other banks (L2) as well as equity (L5) is also substantially high in joint state and private banks. On the other hand, the foreign banks don't rely very much on deposits for their fundraising, and hold a large portion of liability account to other banks. The foreign banks also hold large asset accounts due from other banks (A2), suggesting that they tend to keep a double position of deposits with foreign parent banks. The double position is

[64] Data are available for (3) local private banks; 5 banks out of 7 banks except for 8. Joint Development Bank and 13. Lao Construction Bank, and for (6) other foreign bank branches;10 branches out of 19 branches of 24, 27, 29,30,31,32,34,36,37,38.

remarkable in ICBC, where it amounted to more than 60% of the total assets on both asset and liability sides.

Although not extreme, the domestic banks also tend to hold a large amount of deposits (A2 due from other banks) on the asset side and keep a double position as well.

BCEL, the largest bank, shows a few unique characteristics. The rate of securities in total assets (A3) is relatively high as the exception of commercial banks, perhaps due to holding a large amount of treasury bonds. A substantial amount of liability from BOL is also observed in the balance sheet of BCEL.



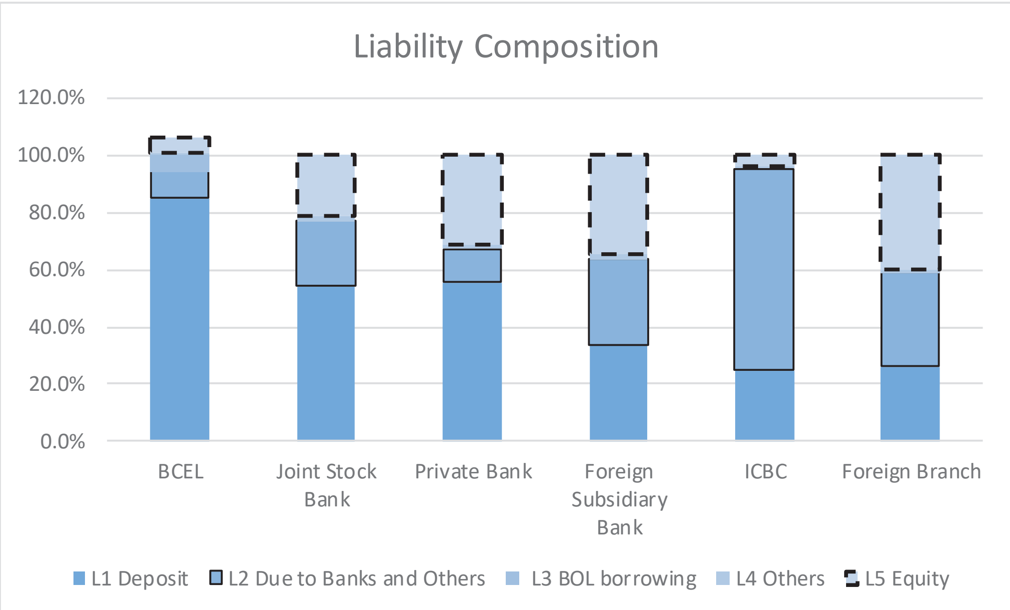


Figure 2-2 Balance Sheet Composition of Commercial Banks

3.3.2. Loan / Deposit Ratio by Bank Category

Figure 2-3 shows the loan to deposit ratio classified by bank type. The ratios are substantially low in domestic banks: 63% in BCEL and around 55% in joint state and private banks. That is, the domestic banks generally face excess deposits and shortage of lending opportunity. Meanwhile, the foreign banks show the situation of very high leverage: the loan to deposit ratio is higher than 400% in most cases. In ICBC the ratio is lower than other foreign banks, but still higher than 200%. This apparently reflects the tendency for the credit service of foreign subsidiary banks and branches to be largely financed through the cross-border capital channel.

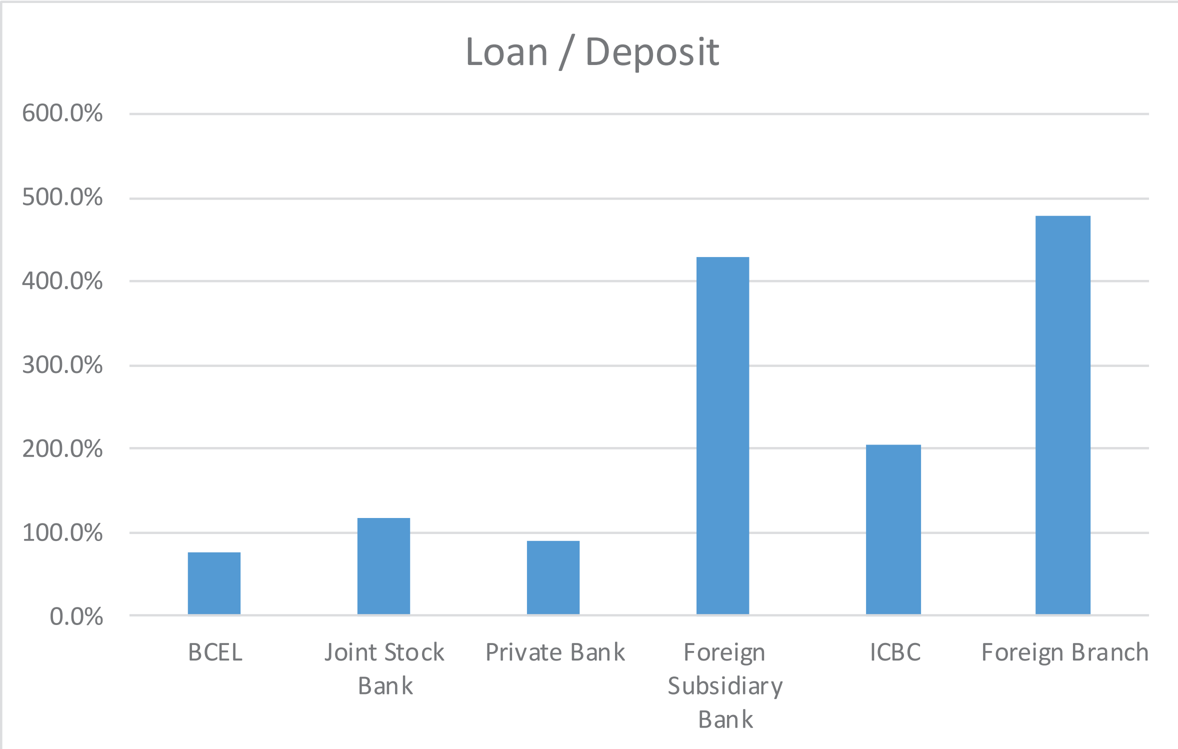


Figure 2-3 Loan Deposit Ratio

3.3.3. Cost and Profit Structure

Table 2-4 calculates the profit ratios (return on asset, ROA) by bank type in 2015-2017. The total average ratio has declined in this period (2015: 0.92% to 2017: -0.15%) and dropped to a negative level in 2017, which is consistent with the difficulty of the fiscal and economic situation of the whole economy. Total average 0.45% is seen as relatively low in comparison to other ASEAN countries. For example, the ROA of commercial banking sector is reported as 0.99% in 1990, 0.49% in 2006, 0.99% in 2010 and 1.34% in 2014[65].

The profit is relatively high and stable in BECL (0.76%) and foreign subsidiary banks (0.87%). The profit in joint state banks and foreign bank branches is fairly high, but tends to fluctuate. It is noteworthy that the ratio is lowest in domestic private banks.

Table 2-4 Profit Rate of Banks (ROA)

	No. of Sample	Total Number	2015	2016	2017	Year Average
BCEL	1	1	0.57%	0.71%	1.01%	0.76%
Joint State Bank	3	3	1.06%	1.37%	-0.28%	0.71%
Privaet Bank	5	7	0.56%	0.32%	-0.90%	0.00%
Subsidiary Bank	8	8	0.60%	0.90%	1.11%	0.87%
ICBC	1	1	0.10%	0.13%	0.08%	0.10%
Foreing Bank Branch	10	19	2.64%	-0.02%	-1.90%	0.24%
Bank Average			0.92%	0.57%	-0.15%	0.45%

To see more carefully, we calculate the summary of the income and cost structure in 2015 and 2017 in Table 2-5, and illustrate the points of the structure in the case of 2015 in Figure 2-4. As a general structure, operational expenses are very high and net interest incomes are low in most bank types, so that net interest income doesn't cover the expense. This is the case for all the types except foreign bank branches if loan loss provision is taken into account. If loan loss provision is excluded, in joint state banks net interest income nearly covers operational expenditure.

Figure 2-4 clearly indicates that the net profit is generally surplus as only a result of the contribution of relatively large non-interest income, covering net deficit in interest income operation. This indicates a significant fact that in the current banking sector the financial intermediation service has not become profit-making business.

The low revenue from interest income business may be influenced by interest rate cap regulation adopted by BOL until the late 2018. If this is the case, this can be understood as a result of "financial repression" by the government.

However, for negative profit of interest income business, the largest factor can be found in the cost side. That is, the rate of operational cost is too high. The average operational expense, 2.17-2.77% is

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65 Okuda, Hidenobu and Fumiharu Mieno, 1999 "What Happened to Thai Commercial Banks in the Pre-Asian Crisis Period: Microeconomic Analysis of Thai Banking Industry" *Hitotsubashi Journal of Economics Vol.40 No.2*
Lu, Wanxue and Fumiharu Mieno 2018 "Impact of Foreign Entry in Banking Sector: Case of Thailand during 1999 -2014, ASEAN Research Platform Working Paper Series No.1, CSEAS, February 2018

substantially higher than that of the Thai banking sector[66]. The operational expense is very high, roughly more than 3.0% in the case of joint state banks, private banks and foreign subsidiary banks where the size of each bank is relatively small. This in turn means that the bank size is too small in term of the mechanism of economies of scale. In short, the Lao banking sector faces the problem of a "too many and too small" situation.

Non-interest income, the factor guaranteeing the profitability of banking operation seems to occupy too large a portion as a commercial bank. Non-interest income business in Laos is thought to consist of fees for traditional transactions such as remittance and exchange. In usual cases, such fee incomes are trivial compared to the volume of interest income in the regular commercial banking practice where the lending business works well. Thus, the large size of fee income, paradoxically can be seen as an appearance of the inefficiency of these transactions in present Laos.

In the case of BCEL, despite its size being very large, forming a kind of "Gulliver oligopoly" situation in the sector, it does not seem to enjoy the advantage of economies of scale; interest income is relatively low. The case can be seen as implicit evidence that the bank loads various types of policy cost including allocated holding of low yielding government bonds.

Table 2-5 Income and Cost Structure of Banks

2015

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		(1)-(6)		(1)+(3)			(5)+(6)	(4)-(8)
	Net Interest Income		Non Interest Income	Total Income	Operational Expense	Loan Loss Provision	Total Expense	ROA
BCEL	1.01%	0.57%	1.48%	2.49%	1.49%	0.44%	1.92%	0.57%
Joint State Bank	3.29%	2.41%	1.99%	5.28%	3.34%	0.88%	4.22%	1.06%
Privaet Bank	3.25%	2.50%	1.16%	4.41%	3.10%	0.75%	3.85%	0.56%
Subsidiary Bank	2.60%	2.14%	2.22%	4.82%	3.77%	0.46%	4.22%	0.60%
ICBC	0.17%	0.17%	0.11%	0.27%	0.18%	0.00%	0.18%	0.10%
Foreing Bank Branch	3.45%	3.16%	0.62%	4.06%	1.14%	0.29%	1.42%	2.64%
Average	2.30%	1.83%	1.26%	3.56%	2.17%	0.47%	2.64%	0.92%

2017

	Net Interest Income		Non Interest Income	Total Income	Operational Expense	Loan Loss Provision	Total Expense	ROA
BCEL	2.39%	1.82%	0.72%	3.12%	1.53%	0.57%	2.10%	1.01%
Joint State Bank	3.37%	1.30%	1.36%	4.74%	2.95%	2.07%	5.02%	-0.28%
Privaet Bank	3.11%	0.85%	1.67%	4.78%	3.42%	2.26%	5.68%	-0.90%
Subsidiary Bank	3.32%	2.98%	1.83%	5.15%	3.70%	0.34%	4.04%	1.11%
ICBC	0.20%	0.14%	0.15%	0.35%	0.22%	0.06%	0.28%	0.08%
Foreing Bank Branch	3.15%	2.00%	0.93%	4.08%	4.83%	1.15%	5.97%	-1.90%
Average	2.59%	1.52%	1.11%	3.70%	2.77%	1.07%	3.85%	-0.15%

66 Operational expense ratio in Thailand is 2.06% in 2010 and 1.99% in 2014. Lu and Mieno (2018), mentioned this above.

Figure 2-4 Income vs. Expense by Bank Type

Note: The scale of vertical axis for ICBC is smaller than in the other charts.

4. Concluding Remarks

In this chapter, we discussed the reality of the banking sector associated with possible policy agendas from various angles. As a reality of the sector, there are two kinds of key challenges: (1) getting rid of the structure of “financial repression” in the whole sector, and (2) improving industrial organization of the sectoral structure. Needless to say, these two factors are interlinked with each other.

Chapter 3 Microfinance and Credit Saving Union Survey

1. Introduction

Microfinance is broadly defined in Lao PDR. According to Microfinance Institutions or MFIs No. 460/GoL[67], it means provision of financial services in varied forms. For instance, provision of loans, taking deposits, provision of security and others in the form of cash transactions to the poor, low income families and small enterprises under authorization of the Bank of Lao PDR.

Under this decree, Bank of Lao PDR (BoL) classifies microfinance institutions into three different types i.e. deposit-taking, non-deposit-taking microfinance institutions and microfinance projects. Deposit-taking MFIs (DT-MFIs) are allowed to mobilize deposits from the general public, while Non-Deposit-taking MFIs (NDMFIs) can do that in the form of loans and grants. Microfinance projects (MFPs) means village development funds, village banks or other similar projects undertaking business operations similar to micro finance established by groups of people, entities that have organizations or individuals to provide funding. In addition, BoL also supervises micro-financial enterprises such as Savings and Credit Unions (SCUs), leasing companies, pawnshops, and money transfers as part and includes them as MFIs. However, in this short paper we will concentrate on MFIs that mobilize savings.

2. Regulated MFIs

2.1 Rapidly growing ND-MFIs

The first MFI was established in 2006 based on the government's Microfinance regulations.
According to administrative data from BoL, the number of DT-MFIs and SCUs have been gradually increased from 2010-2018. Due to attractive return on investment, the number of ND-MFIs grew

[67] Decree on Microfinance Institutions No. 460/GoL was signed by Prime Minister of Lao PDR on 03 October 2012

rapidly from 10 establishments to 77 establishments during this period; however, the average amount of total assets of this type is relatively small compared to DT-MFIs and SCUs (3.4 billion kip vs. 61.4 billion and 5.3 billion respectively). For making MFIs more and efficiently responsive to current needs of development, BoL announced pending license of MFIs in May 2017 with an aim to review their legal framework.

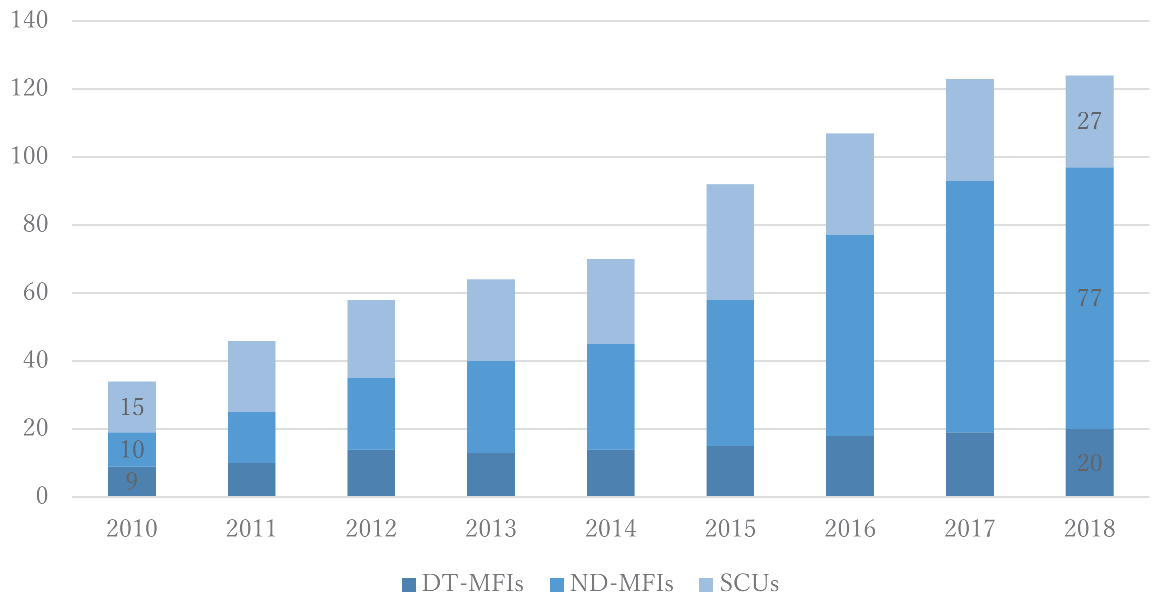


Figure 3-1 Number of Regulated MFIs

Source: BoL

2.2 Accumulated assets and savings mobilization

Based on the BoL's administrative data, aggregated total assets of regulated MFIs is recorded at 1,632 billion LAK in 2018. Of this, DT-MFIs is the largest model sharing 75% of total assets in the regulated MFIs sector.

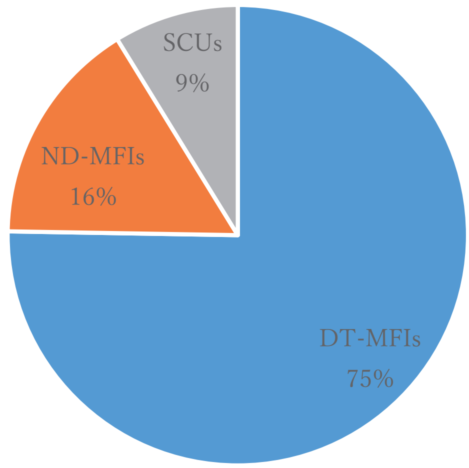


Figure 3-2. Assets of Regulated MFIs in 2019:1,632 billion LAK

Source: BoL

Amongst the regulated MFIs, only DT-MFIs are allowed to mobilize savings from the general public. ND-MFIs and SCUs can only take deposits from their shareholders. However, more than 40% of their total assets are from people's savings. The number of depositors is 184,768 people in early 2019. Numbers of depositors/shareholders of ND-MFIs and SUCs are smaller, 38,330 and 30,726 people respectively.

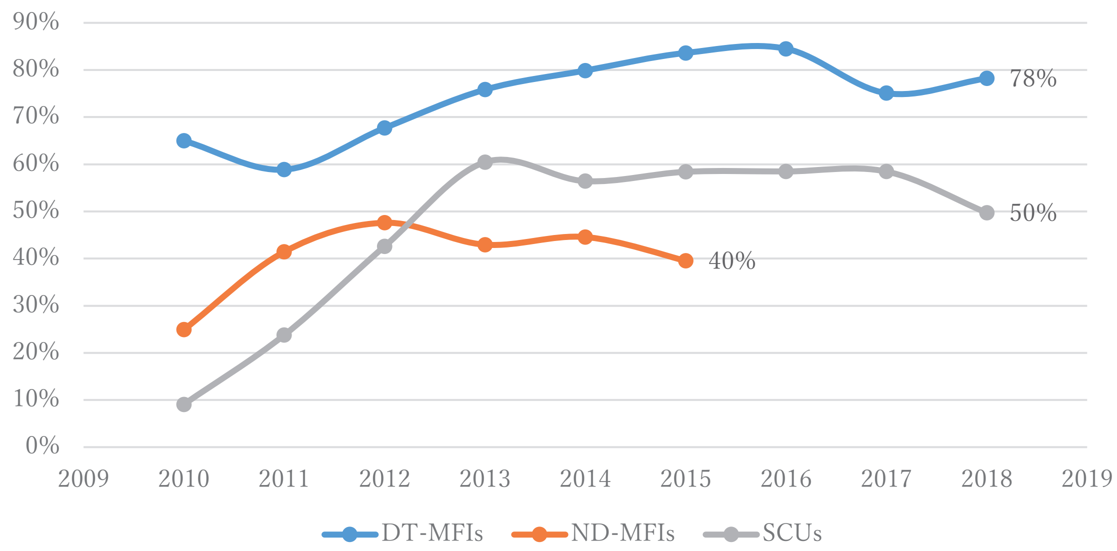


Figure 3-3 Deposit to Asset Ratio

Source: BoL

We are not able to obtain information on interest rates provided for deposit of shareholders in ND-MFIs and SCUs. However, by taking cases of the largest DT-MFIs, Ekphatthana Microfinance Institution (EMI), we observe that deposit interest rate at regulated MFIs is quite attractive compared to that of the largest commercial banks like BCEL.

Table 3-1 Interest Rate: MF vs. Commercial Bank

Type of financial institutions	**Cases**	**Deposit interest rate (Kip)**	
		Saving deposit	**1 year term deposit**
DT-MFIs	Ekphatthana	5%	12%
Commercial banks	BCEL	1.89%	5.59%

Source: EMI and BCEL's websites

2.3 Loan to deposit ratio

Before 2012, loan to deposit ratio of the DT-MFIs was higher than 100% implying high financial intermediary of the regulated MFIs. However, the ratio is on a declining trend which is probably due to penetration of the ND-MFIs. The 2018 loan to deposit ratio of the DT-MFIs is relatively low (84%), and it's lower than that of the commercial banks (96.24%). This indicates a similar situation of surplus fund or underutilization as happened in the banking sector.

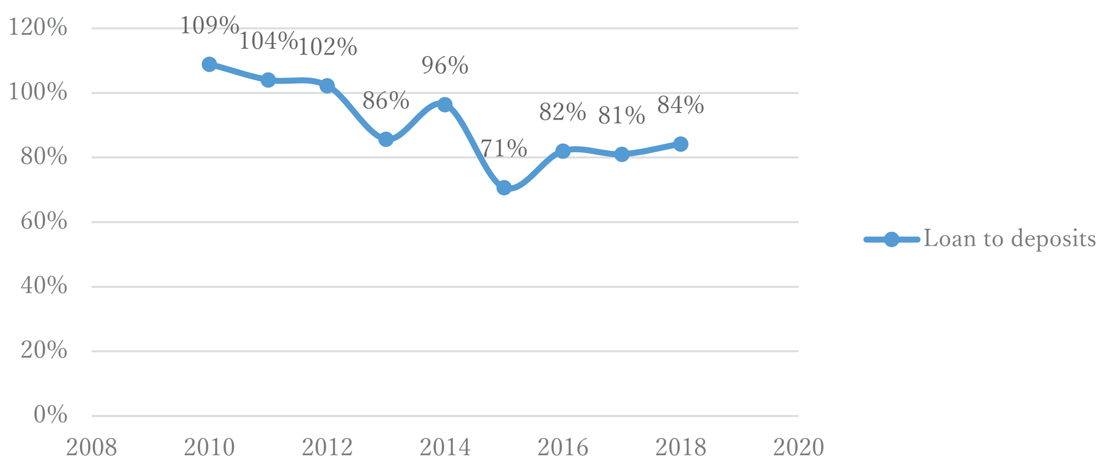


Figure 3-4 Loan to Deposit of the DT-MFIs

Source: BoL

3. Two leading credit union systems

In the hist ory of rural and microfinance in Laos, village or community based microfinance has been introduced as a component and/or standalone activity in many development projects to enhance solidarity, mobilize local savings, and finance income generating activities of rural households. With the community's social capital, a peer monitoring/screening mechanism can be applied to reduce information asymmetry between lending agencies and their borrowers. The well-known model is Village Credit Union[68] which is called by two different names i.e. Village Banks and Village Savings Groups. Village Banks are village credit unions supervised by BoL and counterparts (such as GIZ and Australian Aid), and Village Savings Groups are village credit unions supervised by Lao Women's Union and counterparts (such as FIAM and CODI)[69].

Table 3-2 Village Savings Groups and Village Banks

	Started	Current supervision	2019 data		
			Number	Depositors	Combined savings
Village Savings Groups	1997	LWU network	3,648	236,081	512 billion kip
Village Banks	2009	AFP project (BoL, GIZ)	670	153,000	269 billion kip

Source: AFP and LWU

3.1 Village Savings Groups

The Village Saving Group (VSG) is a microfinance model initiated as LWU's project under the technical support of two Thai NGOs i.e. FIAM (Foundation for Integrated Agricultural and Environmental Management) and CODI (the Community Organizations Development Institute) since 1997 in peri-urban areas of Vientiane Capital[70]. During 1997-2011, the VSG movement went well under FIAM and CODI. The project provided technical and monitoring support through project officers and sub-district (Khet/Network) volunteers. By 2004, VSGs under FIAM in Xaythany district started reaching maturity where savings they mobilized exceed the demand for borrowing. Many VSGs with surplus money lent out to people or groups outside the village in order to manage the idle

68 Credit unions follow a basic business model: Members pool their money—technically, they are buying shares in the cooperative—in order to be able to provide loans, demand deposit accounts, and other financial products and services to each other. Any income generated is used to fund projects and services that will benefit the community and interests of its members.

69 Grameen model or group guarantee used to be piloted by a French project in the northern province (Phongsaly) for remote villagers and by Agriculture Promotion Bank (APB) for the farmer groups. However, the model is not so applicable in the Lao context.

70 For more information please find 2004 paper "Saving Group and Credit Markets in Rural Laos" by Akihiko OHNO and Yutaka ARIMOTO

fund. In order to reduce risks, they set up Centre of Saving groups at district level to manage cross-group borrowing. It seemed to go well until the withdrawal of both FIAM and CODI in 2011-2012, and all monitoring and technical supports stopped. Seeing that local LWU have limited capacity to manage the increasing amount of surplus, central LWU advised setting up a ceiling for saving to screen out big investors and therefore limit ability to mobilize local financial resources. According to LWU, cross-group lending still exists but we are not sure if technical support through the Khet/network system is still maintained.

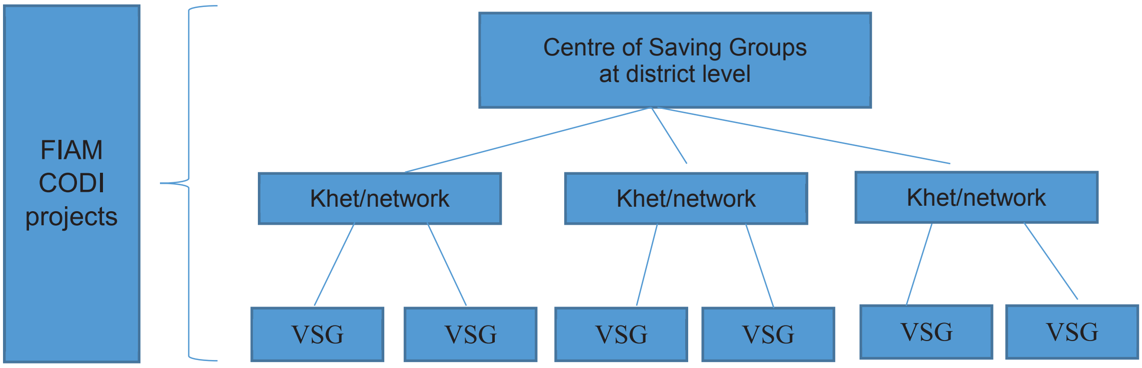


Figure 3-5 Structure of Village Savings Group

Source: by author

3.2 Village Banks

The current movement of Village Banks in Laos is led by Access to Finance for the Poor (AFP) which is a German development cooperation project that is jointly implemented by BoL and GIZ and financially supported by the German and Australian Governments. It aims to promote financial inclusion, to enhance financial literacy and to improve the framework for client protection in financial services. The AFP project was started in around 2009, now it’s on the fifth phase (end in 2021).

By learning from VSG’s experiences, AFP developed a training manual and operating system, the so called Village Bank (VB). At village level, VSG and VB models are very similar in terms of organization structure, format of the by-laws, operation system, as well as how net profit of VB is divided amongst the members at the end of the year. However, this new version credit union system has a highlight. AFP developed “Meso level” approach, that links VBs to a formal financial system in a more sound and sustainable manner.

The Meso Level consists of Network Support Organization (NSO). This NSO is licensed as MFI for supporting 40-100 VBs. Beside provision of MF services for retail clients, NSO provides monthly technical support services to VBs at a commercial rate and also has a role to manage liquidity between VBs. By 2019, AFP reports 7 NSOs/MFIs to support 707 VBs operating in 6 provinces (see Annex C for the geographic location of the VBs).

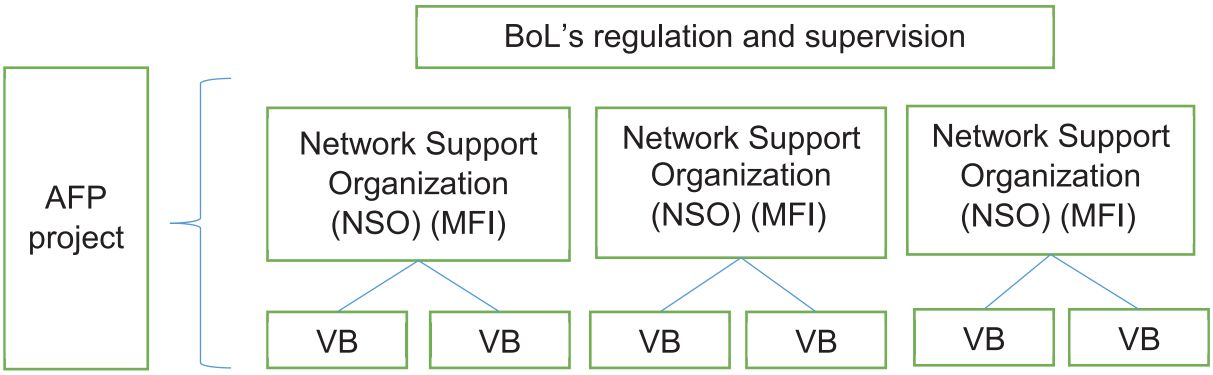


Figure 3-6 Structure of Village Banks

Source: by author

3.3 Loan to deposit ratio

Financial information of individual VB and VSG is not accessible so far. However, we manage to calculate the loan to deposit ratios using aggregated data of VBs under AFP project and data of Ban Somsavanh Savings Group –the largest VSG in Laos with total assets of 7.8 billion kip in 2019. We observe decreasing trend of savings utilization: the ratios went down to 95% for VBs and even worse in Somsavanh (86%).

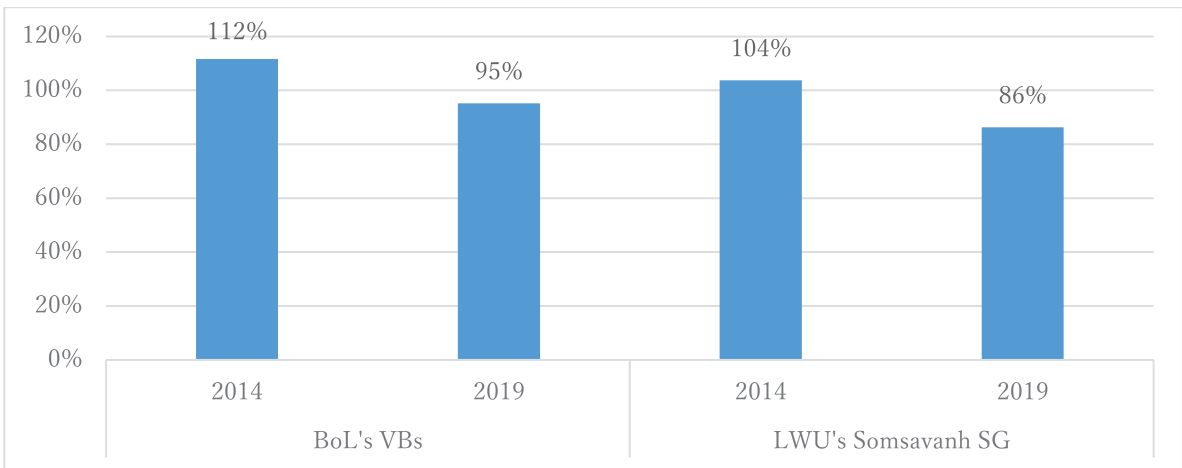


Figure 3-7 Loan to Deposit Ratio

Source: AFP and LWU

4. Remaining Agendas for upgrading and connecting non-bank sector

4.1 Filling gap of long term demand

The topic was discussed under a mega research project in 2004/05[71]: the paper positions "Development Financial Institution or DFI" for financing Prioritized SMEs and long-term development projects (see Annex D), while Commercial Banks (CBs) are placed for serving the large, medium and small enterprises, and MFIs are considered to provide short-term finance for the small and micro enterprises at micro level. To the author, such positioning makes sense in the way that micro-savings mobilized by MFIs are smaller in size (about 3% of what CBs did) compared to demand from the development projects. In addition, savings products provided by MFIs are mostly short-term (less than 1 year). Particularly in credit union type-MFIs such as SCUs, VBs and VSGs, deposit is associated with shares and allowed to be withdrawn at the end of the fiscal year when net profits are concluded and the dividend is distributed.

4.2 Linking domestic savings into whole financial system via MFIs

Current total number of depositors in MFIs (DT-MFIs, ND-MFIs, SCUs, VBs and VSGs) in 2019 is approximately 600,000 people which is equivalent to 12% of the working population. There is a possibility to increase number of depositors by developing saving products and diversifying terms to be more suitable for the needs of clients. For example, in Ekphatthana DT-MFI there are 3 types of deposit services i.e. saving, smart kids saver, and one-year fixed deposit, and a life insurance.

When LWU discuss transforming the VSGs into formal MFIs, the two key difficulties frequently cited are about ownership of the fund (which belong to the community) and technical capacity of the management committee. If the VB system pilot project yields good results by 2021, scaling up this model will be a channel to link local capital into the banking sector via sustainably operating NSO.

In fact, the non- bank sector is still very small in terms of total asset size. As shown in Table 3-3, the average total assets of DT-MFI are less than 3% of private banks. Individual village banks are much smaller. Their advantage, on the other hand, seems to be their facility is already set in rural areas. The BOL supervised village bank expanded to 678 operational bases, and Lao Women Union had 3648 operational bases in rural areas. Although village banks are segmented with each other, it seems that potential capacity to collect deposits in rural areas can be utilized under an appropriate policy design.

[71] The Possibility for Establishing a Development Financial Institution in the Lao PDR, by Dethphouvang MOUNLARAT et al. MAPSII report, March 2005.

Table 3-3 Size and Share of Total Financial System including Non-Bank Sector

		Number of Institution	Total Asset (2017)		
			Billion LAK	%	Average
1	Commercial Bank Total	36	130,387.3	98.3%	3,621.9
	(1) State Bank	4	46,281.4	34.9%	11,570.4
	(2) Joint State and Private Bank	10	25,805.1	19.5%	2,580.5
	(3) Foreign Bank	22	39,694.6	29.9%	1,804.3
2	Non Bank Financial Intuitions	124	1,631.0	1.2%	13.2
	(1) Deposit Taking MFI	20	1,228.0	0.9%	61.4
	(2) Non-Deposit Taking MFI	77	260.0	0.2%	3.4
	(3) Saving and Credit Union	27	143.0	0.1%	5.3
3	BOL Supervised Village Bank (VB)	678	*95.0*	*0.1%*	*0.1*
4	Lao Women's Union Village Bank (VSG)	3,648	511.0	0.4%	0.1
	Ground Total		132,624.3		

Source: Various Materials from LWU, BOL by Author

4.3 Transforming VSGs into VBs

It is certain that AFP is able to develop the VB model based on experiences of VGSs. Therefore, LWU's VGSs should be seen as a competitor to the VBs. According to central LWU, one direction on development of VSGs in the five-year plan is to study feasibility of transforming VSGs into the VB system. In order to do that, more and close collaboration between BOL and LWU is needed.

4.4 Savings underutilization

One of the issues we found across the financial institutions (commercial banks, MFIs and semi-formal MFIs) is underutilization of the fund they mobilized-idle fund. Government is taking the right track on increasing access to finance for the micro, small and medium enterprises through several intermediaries (CBs and SME fund). So far, most of the loans taken from MFIs are for consumption, therefore creation of demand for production loans is also another important way to meaningfully utilize the idle fund. Therefore, MFIs and stakeholders might need to provide the clients services and supports other than savings and loans but also promotion of income generating activities (training on vocational skills and entrepreneurship).

Appendix

Annex A:

	Number of establishments			Assets (billion kip)			Deposit (billion kip)			Loan (billion kip)		
	DT-MFIs	ND-MFIs	SCUs	DT-MFIs	ND-MFIs	SCUs	DT-MFIs	ND-MFIs	SCUs	DT-MFIs	ND-MFIs	SCUs
2010	9	10	15	28.56	22.76	53.25	18.56		4.84	20.22	11.7	17.29
2011	10	15	21	59.69	36.97	40.33	35.14		9.59	36.56	25.46	31.03
2012	14	21	23	84.36	36.77	32.65	57.11		13.91	58.41	23.59	21.12
2013	13	27	24	140.13	58.759	52.436	106.265		31.698	91.031	42.135	40.454
2014	14	31	25	192.136	81.23	43.902	153.488		24.771	148.029	59.089	28.998
2015	15	43	34	315.34	107.383	72.454	263.693		42.317	186.457	49.884	83.657
2016	18	59	30	552.828	125.613	76.597	467.183		44.794	383.323	85.758	48.714
2017	19	74	30	981.693	166.832	109.393	737.148		63.952	597.423	114.271	65.248
2018	20	77	27	1228.475	260.351	143.342	960.977		71.269	809.65	156.785	89.192

Annex B:

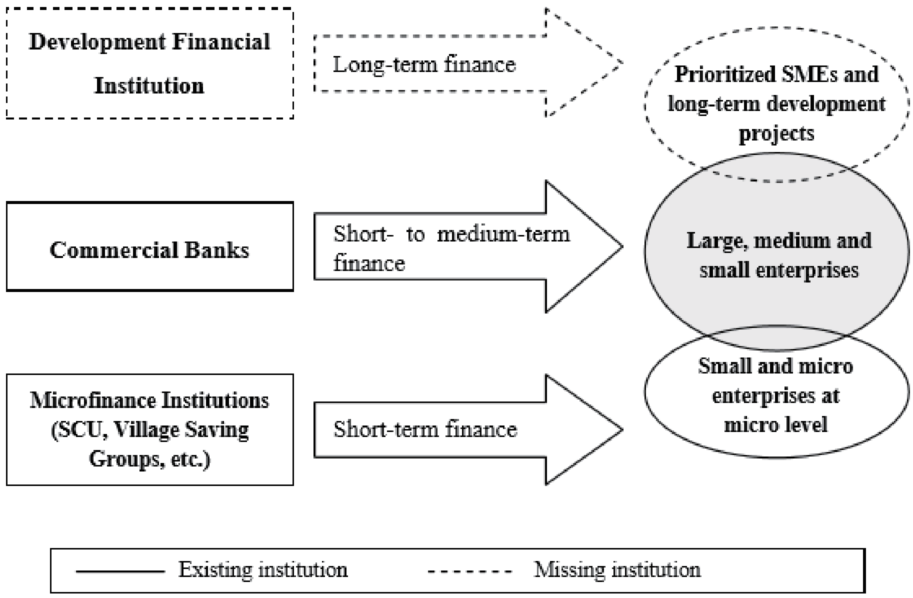
	Avg. size of MFIs by total assets (billion kip)			Deposit to asset ratio			Loan to deposit ratio			Loan to asset ratio		
	DT-MFIs	ND-MFIs	SCUs	DT-MFIs	ND-MFIs	SCUs	DT-MFIs	ND-MFIs	SCUs	DT-MFIs	ND-MFIs	SCUs
2010	3.17	2.28	3.55	65%		9%	1.09		3.57	0.71	0.51	0.32
2011	5.97	2.46	1.92	59%		24%	1.04		3.24	0.61	0.69	0.77
2012	6.03	1.75	1.42	68%		43%	1.02		1.52	0.69	0.64	0.65
2013	10.78	2.18	2.18	76%		60%	0.86		1.28	0.65	0.72	0.77
2014	13.72	2.62	1.76	80%		56%	0.96		1.17	0.77	0.73	0.66
2015	21.02	2.50	2.13	84%		58%	0.71		1.98	0.59	0.46	1.15
2016	30.71	2.13	2.55	85%		58%	0.82		1.09	0.69	0.68	0.64
2017	51.67	2.25	3.65	75%		58%	0.81		1.02	0.61	0.68	0.60
2018	61.42	3.38	5.31	78%		50%	0.84		1.25	0.66	0.60	0.62

Annex C:

Microfinance Institutes under supervision of BoL

Annex D

Figure 4: Filling gap of long terms demand



Source: "The Possibility for Establishing a Development Financial Institution in the Lao PDR" by Dethphouvang MOUNLARAT et al. 2005, in Macroeconomic Policy Support for Socio-Economic Development in the Lao PDR. Phase 2, main report P.249.

Chapter 4 Corporate Fundraising Survey

1. Introduction

This chapter reports the survey conducted as a part of the research program focusing on the present situation of firms in the leading large firm class, particularly on State-own Enterprises (SOEs), and their fundraising. The main part of this chapter is a summary of a hearing survey on 65 large firms. Two appendixes add a preliminary estimation on determinants of firms' fundraising and capital structure, and a rough observation on the function of Lao Securities Exchange (LSX) for company performance.

2. Major Companies and Their Ownership in Laos

According to the government record, the number of enterprise registrations in Laos amounted to 156,991 as of April 2018 with 10% yearly increase, 31% of which is located in Vientiane capital[72]. Particularly "individual enterprises" and "sole limited companies" are mostly located in the capital. Among them, "limited companies" occupy only 3.56% in terms of number, but a large percentage in terms of registered capital[73]. The wholesale, retail trade, for which repair of motor vehicles and motorcycles is the top business sector of the entire business registration, counted for 52%. The large foreign investors are from China, Vietnam and Thailand[74].

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[72] "Vientiane City" usually refers the areas of the central districts in "Vientiane Capital"
[73] Enterprise registration data is retrieved from National Enterprise Database of Enterprise Registration and Management Department, Ministry of Industry and Commerce, dated 25th June 2019. http://www.erm.gov.la/index.php/explore-data-la/statistics-la
[74] Enterprise Registration and Management Department, June 2019

The Lao government started the privatization program of SOEs in 1986 as a part of the transition toward a market-oriented economy. In this year, 640 state-owned enterprises existed, 200 of which were controlled under the central level (Quang et al. 1999)[75]. This number of SOEs has been steadily reduced by closing down, leasing, merging and sell-offs. Based on the data from Ministry of Finance, as of the end of 2018, the Lao government has capital shares in 187 business entities, 97 of which are under the line ministries in central government, and the rest are supervised by the local authority.

There are 133 SOEs that government has shares more than 51% (60 under the central government, and 76 under local authority), 54 SOEs with less than 50% share (35 under central government, and 15 under local authority).

Figure 4-1. Share of Gov't Majority and Minority SOEs

Source: SOE Management, Development and Insurance Department, Ministry of Finance

According to the interview at Ministry of Finance[76], the joint venture enterprises tend to be better in corporate governance, thus to perform better than the full state-owned. The interview

[75] Quang, T. & Thavisay, C. (1999). Privatization and Human Resource Development Issue: A Preliminary Study of State-Owned Enterprises in the Lao People's Democratic Republic, Research and Practice in Human Resource Management, 7(1), 101-123.

[76] State-owned Enterprise Development, (personal interview, 05-April-2018), a Deputy Director General of SOE Management, Development and Insurance Department, Ministry of Finance, Vientiane, Laos.

also revealed that MOF has ceased to guarantee the SOEs' bank borrowing, and encouraged them to be self-reliant in fundraising.

3. Corporate Fundraising Survey

3.1. Design

The micro data of enterprises in Lao PDR is hardly visible to the public either in the form of company directory or documents. We conducted the enterprise survey targeting mostly large enterprises and a few small and medium enterprises, including the SOEs, private companies and public (or listed) companies in the non-financial sector. We collected the information on company profile, characteristics of corporate ownership, various financial situations, and the balance sheets. At first we constructed a list of 237 major companies from the SOEs list of Ministry of Finance (MoF), the potential listing companies list of Lao Securities Exchange (LSX), 100 outstanding business people list from Japan External Trade Organization (JETRO) office in Laos, and the company list from the Lao National Chamber of Commerce and Industry (LNCCI). This list was then prioritized into a shortlist in accordance with their total assets, registered capital, eligible companies matching with LSX's listing criteria and their reputation.

The corporate finance survey was conducted during a period from July to September 2018. The research team visited the company headquarters that accepted the appointment letter; the managing directors, and managers' level were then interviewed and this was accompanied by the questionnaire and survey instrument.

65 of the 237 companies in the sample accepted the appointment request and accomplished the questionnaire, while 50 out of the 65 respondents completed the questionnaire with available data for balance sheet, and financial statement.

3.2. 65 Samples – Sector and Size

As listed in Appendix Table at the bottom of the chapter, we collected the completely-filled questionnaire from 65 firms. As shown in Figure 4-2, 26.2% of them are registered as manufacturing and producing sector, the largest proportion of our respondents, followed by information and telecommunication 10.8%, transportation and postal service 9.2%, hotel and restaurant sectors 9.2%.

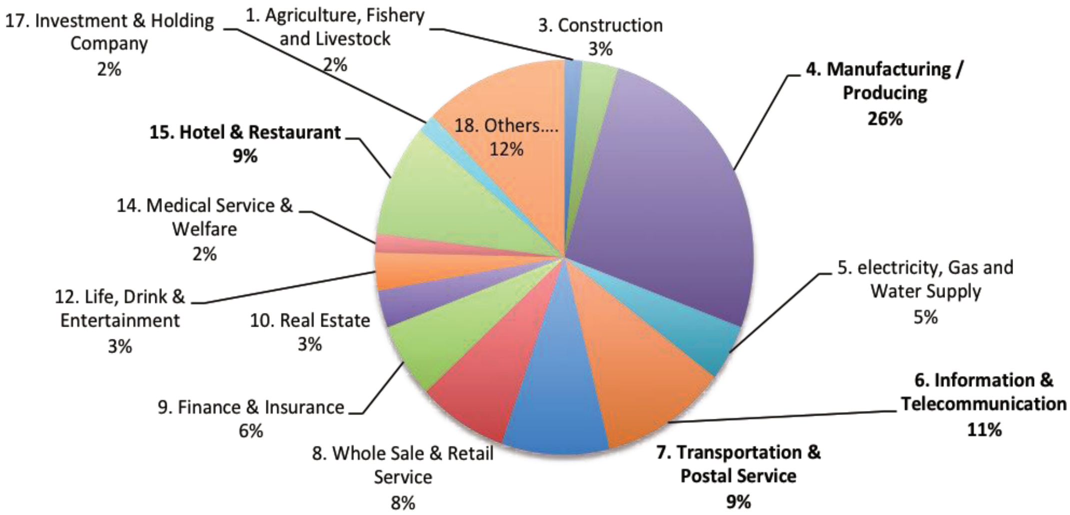

Figure 4- 2. Sample Distribution by Business Sector

Figure 4-3 shows the ownership and firm size nexus. Concerning ownership, the private company is the largest number in this survey, accounting for 55.4%; The sample percentage of SOEs is 36.9% (State majority 29.2%, and minority 7.7%); that of public companies (listed companies) is 7.7%.

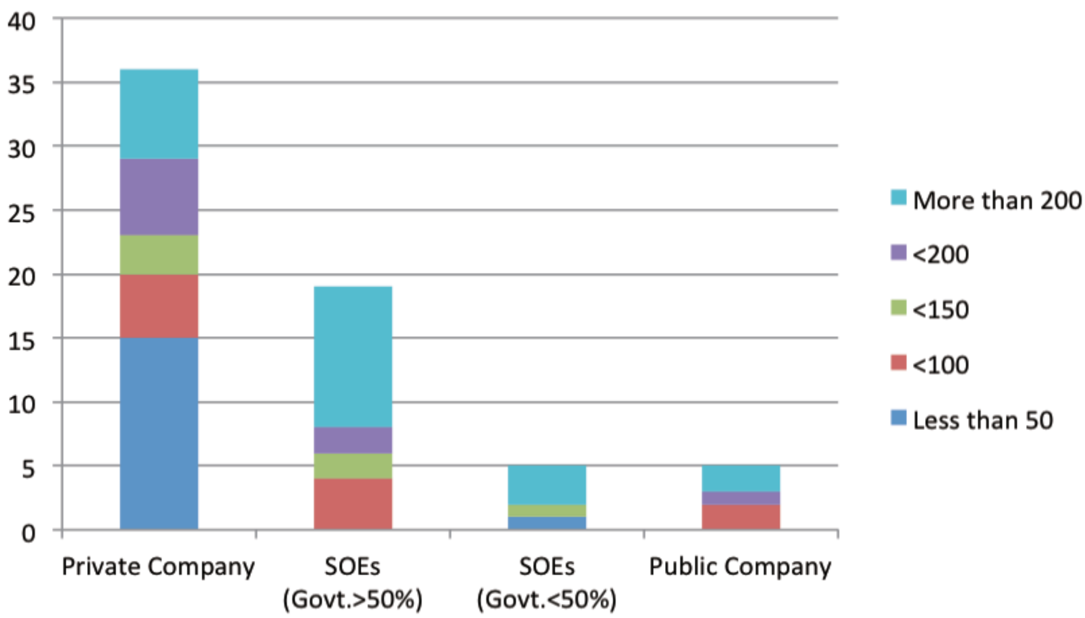

Figure 4-3. Number of Companies and Number of Workers

For the size distribution measured by number of employees, 58.4%, the majority of the sample is categorized as large firms, whereas the medium enterprises and small enterprises are counted as 16.9% and 24.6% respectively.[77] Notwithstanding, large firms are the majority in SOEs, and advisedly SMEs occupy a majority in private companies.

3.3. Ownership

The firms in Laos are primarily launched by local investors either as a family business or jointly with friends. At the same time, the trend of foreign investment is currently increasing in the form of joint venture, and foreign branch. Based on the survey result, many of the local investors are independently running the business by themselves without shareholders; likewise, creating business partners among the family members, friends and foreign shareholders is the alternative model of business operation.

As shown in Table 4-1, the ownership distribution of sampled firms is diversified into different types of ownership. (1) One owner: refers to the company that is operated and administrated by one independent owner, 24 sampled companies; (2) Family and other local shareholders: the company that has family members or other local investors as shareholders in current business operation, 6 companies; (3) foreign shareholders: refers to the company that has at least one foreign investor as shareholder joining with local citizens in daily operation, 1 company; (4) foreign branch and company (100%): defined as the company that is operated by foreign investor 100% either in the form of foreign branch or a company; (5) state-owned-enterprises (SOEs) 100%: this is the enterprise that government has contributed 100% of budget and investment regardless of any business partners, counts at 16 companies; (6) joint-venture (Govt.>50% and foreign<50%): defined as the company that is joint between government investing greater than 50% and foreign investors investing less than 50%, 3 companies; (7) joint-venture (Govt. <50% and foreign>50%): refers to the company that is joint between government investing less than 50% and foreign investors investing more than 50%, there are 2 companies; (8) joint-venture (Govt.<50% and local>50%): the company that is joint between government investing less than 50% and local investor contributing greater than 50%, this is 3 companies; and

[77] In accordance to the PM's decree on SMEs categorized, No.25/Gov., 16-Jan-2017, "…SMEs can be categorized based on their average of workers, or total assets, or annual corporate income… For average of workers: workers with equivalent or less than 50 categorized as small enterprises, if it is equivalent or less than 100 workers, then categorized as medium enterprises…"

(9) listed company: this study refers to the public company that has already listed on the Lao securities exchange, there are 5 companies[78].

Table 4-1. Ownership Distribution of Sample Firms

Company status	Ownership detail	No.	Percentage
Private company	(1) One owner	24	36.9
	(2) Family and other local shareholders	6	9.2
	(3) Foreign shareholders	1	1.5
	(4) Foreign branch and company (100%)	5	7.7
SOEs	(5) SOEs (Govt. 100%)	16	24.6
	(6) Joint-venture (Govt.>50% and foreign<50%)	3	4.6
	(7) Joint-venture (Govt.<50% and foreign>50%)	2	3.1
	(8) Joint-venture (Govt.<50% and local>50%)	3	4.6
Public company	(9) Listed company	5	7.7
Total		65	100.0

3.4. Fundraising

(1) Initial Capital

Table 4-2 clarifies the fund source for business establishment that sampled companies use during the initial stage of business operation. Their own fund is the core method of initial capital that many companies utilize for establishing their businesses, counting at 61.5% of total, and this self-financing is mainly employed in the manufacturing and producing sector; receiving contribution from shareholders or related parties is the alternative factor. Under other conditions, there are some companies applying both self-financing and bank loan as their initial capital, amounting at 9.2% especially in the information and telecommunication sector.

[78] There are 9 public companies, as end of September 2018, listing in Lao Securities Exchange, but this study includes only 5 public companies that have already listed in securities exchange.

Table 4-2. Fund Source of Capital for Business Establishment

	Total	*By business sector*			
		Manufacturing & producing	Information & Telecom.	Transportation & Postal Ser.	Hotel & restaurant
No. of companies	65.0	17	7	6	6
Own fund (%)	61.5	70.6	28.6	100.0	83.3
Bank borrowing (%)	1.5	0.0	14.3	0.0	0.0
Borrowing from family, relatives and friends (%)	3.1	0.0	0.0	0.0	0.0
Shareholders or related parties (%)	23.1	5.9	28.6	0.0	16.7
Bank borrowing, & own fund (%)	9.2	17.6	28.6	0.0	0.0
Bank borrowing, & borrowing from foreign partners (%)	1.5	5.9	0.0	0.0	0

	By company type			
	Private company	SOEs (Govt.>50%)	SOEs (Govt.<50%)	Public company
No. of companies	36	19	5	5
Own fund (%)	66.7	78.9	20.0	0.0
Bank borrowing (%)	0.0	5.3	0.0	0.0
Borrowing from family, relatives and friends (%)	2.8	0.0	0.0	20.0
Shareholders or related parties (%)	19.4	15.8	60.0	40.0
Bank borrowing, & own fund (%)	11.1	0.0	20.0	20.0
Bank borrowing, & borrowing from foreign partners (%)	0.0	0.0	0.0	20.0

Based on the result, the private companies mostly finance their own fund during the beginning period, and raising funds from shareholders and related parties is partly used as well. SOEs principally receive contribution from government as initial capital without accessing financial institutions. For the public companies, obtaining the assistance from shareholders and related parties is commonly practiced in this business type.

(2) Recent Fund Mobilization for Working Capital and Investment

Figure 4-4 shows the change of fundraising method between their establishing initial stage and recent stage (at the period of the hearing). Self-financing is the main method of initial capital for establishing the business in Laos, while receiving equity from the shareholders and related parties is the alternative option. The figure suggests that many companies changed their fundraising behavior; they firstly invested their own fund in the early stage, then accessed bank borrowing together with their remaining fund after the business had been operating for some period of time.

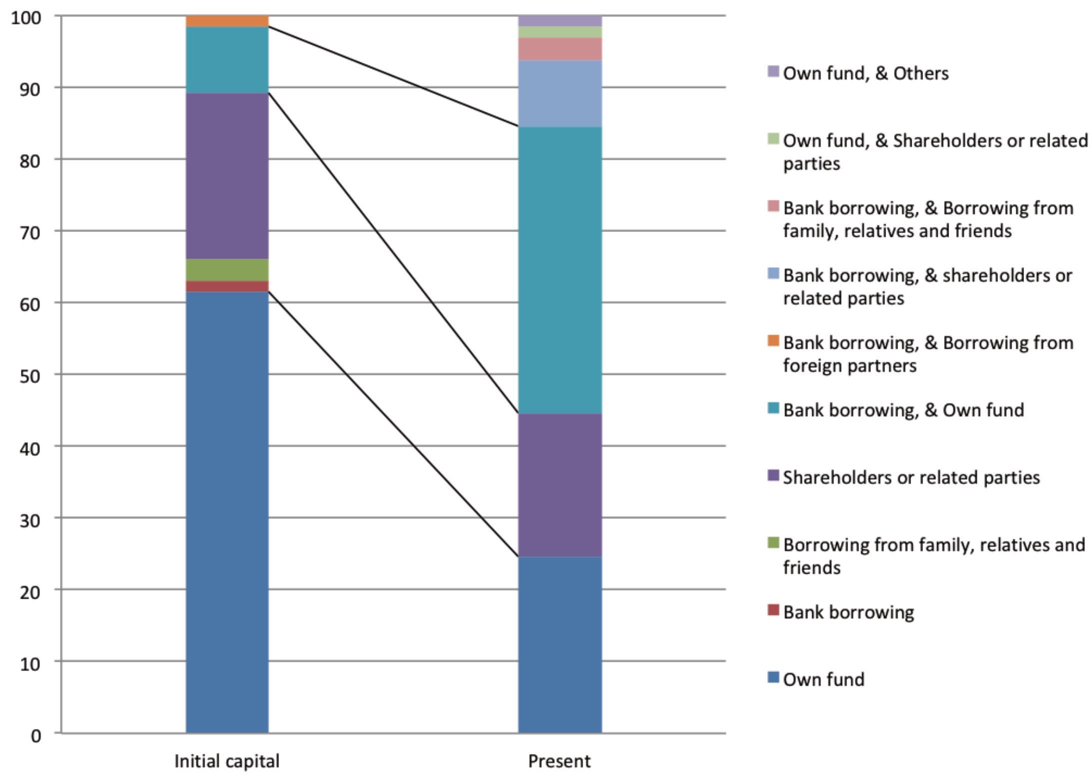

Figure 4- 4. Fundraising Behavior from Initial Capital to Current Mobilization

The firm fundraising changes to be more dependent on bank loans in addition to self-finance. The sum of bank borrowing and own fund accounts for 40% of total, and remarkably increases. This change is remarkable in the sectors of transportation and postal service, hotel and restaurant, and manufacturing and producing. While the trend of self-finance is declining, there is a little change in using resources from shareholders or related parties.

(2) Bank Borrowing

In our survey, 34 out of 65 firms, i.e. 52% in number have an experience of borrowing from banks; the private company covers the largest proportion in receiving the bank credit over the latest five years. The remaining 31 firms have not requested bank credit for the reason, according to the answer to our questionnaire, that they have sufficient cash flow within the firm. They also point out the difficulties of collateral setting as an obstacle of loan access. The situation is not different between private firms and SOEs generally. As shown in Figure 4-5, the bank loan transaction is mostly with government banks and joint state commercial banks regardless of firm's ownership.

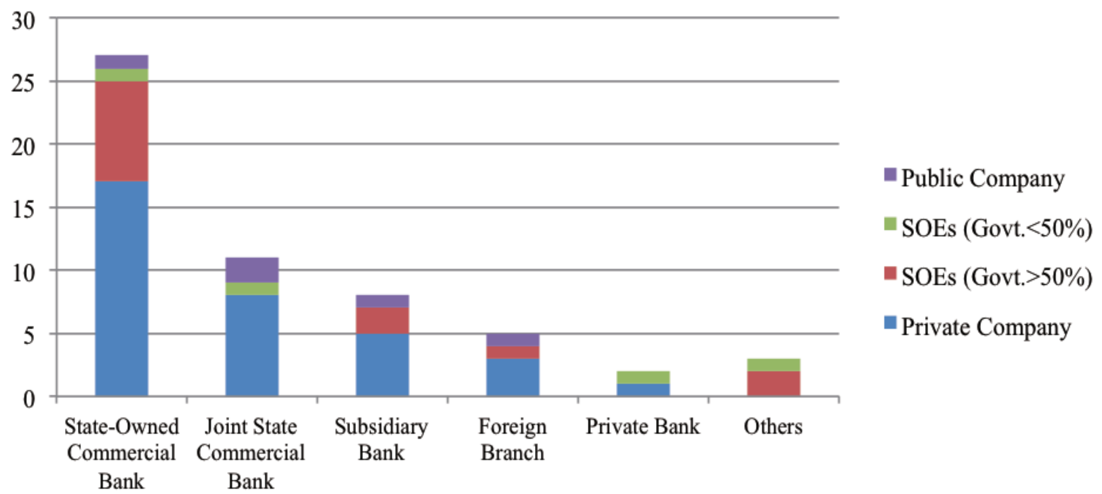

Figure 4-5. Number of Credit Cases based on Bank Type

From the five surveyed years (Table 4-3), 28 of 56 sampled firms have used bank credit for their working capital, and mostly received this from State-owned Commercial Banks and joint state commercial banks. Other bank credit is moderately utilized in equipment investment and for mixed purposes.

The average loan interest rate is 7.9 % and the highest rate case is 13 %. Our sample firms mostly demand the medium term credit; three-year, counted at 35 % of total credit cases; five-year and one-year were partly covered at 27 % and 20 % accordingly. Apart from bank borrowing, many firms recognize that collateral problem is the largest obstruction.

Table 4-3. Corporate Purpose of Credit Use

	Purpose of credit use		
	Equipment investment	Working capital	Both
No. of companies	18	28	10
State-Owned Commercial Bank (%)	38.9	42.9	80.0
Joint State Commercial Bank (%)	22.2	21.4	10.0
Subsidiary Bank (%)	11.1	17.9	10.0
Foreign Branch (%)	5.6	14.3	0.0
Private Bank (%)	5.6	3.6	0.0
Others (%)	16.7	0.0	0.0

(3) Supplier's Relation and Trade Credit

Another fundraising method is possibly trade credit, that occurs accompanying procurement transactions with suppliers. Here we observe the relation between company and supplier, and examine if the role of trade credit plays a substantial role or not.

Many of our respondent firms answered that they keep a long relationship with their supplier. 61% of sample firms continue procurement transaction with the same suppliers for more than 10 years. Half of total companies import input materials from abroad, surprisingly few. As shown in Figure 4-6, the large portion (57%) of suppliers are largely located outside the country, the rest are located within the Vientiane capital at 3%, Vientiane city 17%, other areas in Laos 12%. The large portion of imported materials suggests that the Lao economy largely depends on foreign material due to low quality of local materials. As many as 57% firms of the total sample make procurement transactions, and their trade credits are made in foreign currencies.

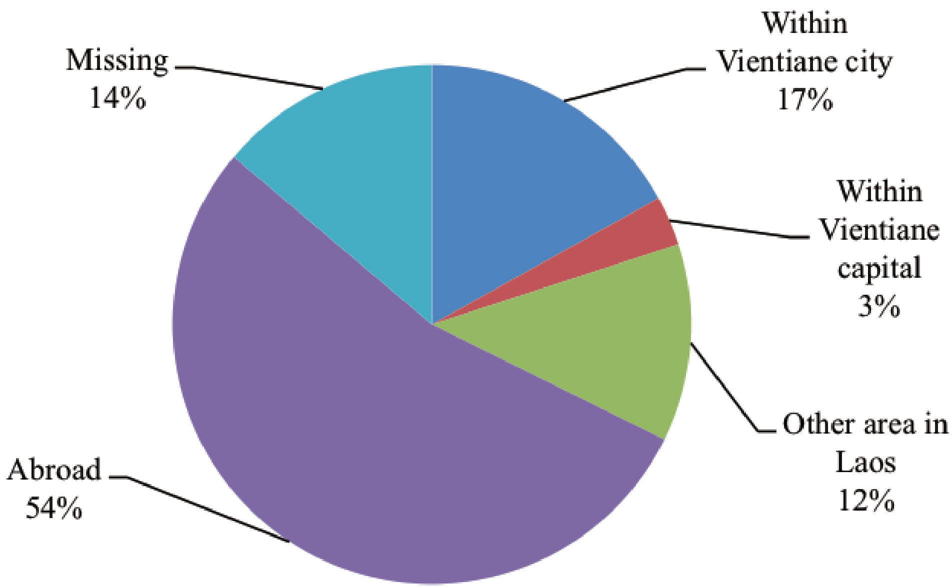

Figure 4-6. Location of Suppliers

Table 4-4 summarizes the payment method of the sample firms. As for the nature of trade credit in the process of procurement transaction, we found that 17 out of 65 companies settled their procurement by using deferred payment, which occupies 26% of total transactions. There is little difference between private firms or SOEs, and deferred payment is frequently observed in transportation and postal service sector. On the other hand, 21% of total procurement transactions are conveyed only with cash. These transactions are rather common in the manufacturing and producing sector, and hotel and restaurant sector.

The average duration of procurement settlement is 1.97 months. In more than half of sample firms, the difference in price doesn't exist in procurement transaction either by cash or deferred payment, meaning that the effective nominal interest rate is zero for trade credit. While the default case is not frequent, the case of default of more than four times is observed in 14 firms.

Trade credit transaction is widely adopted in many firms probably as an alternative for bank borrowings and self-finance. But since the price difference is not observed, it can't be said that trade credit exerts alternative financial intermediation function. Rather, it seems merely and passively to occur accompanying procurement process.

Table 4-4. Number of Companies and Procurement Transaction Method

	No. of companies		
	Only Cash	Only Deferred	Total
By company type			
Private Company	10	10	36
SOEs (Govt.>50%)	2	5	19
SOEs (Govt.<50%)	1	0	5
Public Company	1	2	5
By sector			
Manufacturing & producing	5	4	17
Transportation & postal service	0	3	6
Hotel & restaurant	4	2	6

4. Capital Structure

Among 65 sample firms, the balance sheet information is available for 50 firms (2015:44, 2016:50, 2017:49). Table 4-5 shows the average balance sheet information by year focused on the capital structure (i.e. liabilities & capital account side). It shows the basic nature of corporate finance of large firms in Lao PDR. The debt ratio is relatively low, around 45-49%, while equity ratio exceeds 50%. They rely largely on self-finance.

The firms are very slightly dependent on bank loans. The average bank borrowing ratio is only 13-14% and only about one-third of the sample firms borrows from a bank. It suggests that firms actively utilize non-bank debt for their fundraising. The percentage of 'Accounts and Notes Payable' that proxies trade finance between customer and supplier firms is nearly the same level as that of bank borrowings (around 12%). Likewise, 'Other Liabilities' and 'Borrowing from Owners and Managers' are relatively high (9-10%, 4-5% respectively).

Table 4-5 Capital Structure of Sample Firms

No. of Sample	44	50	49
	2015	2016	2017
Assets			
Accounts and Notes Receivable	44.9%	19.3%	20.3%
Investment and Loans to Affiliated Companies	2.7%	3.4%	3.4%
Premise & Equipment	37.6%	38.2%	33.5%
Other Assets	20.5%	23.4%	27.0%
Liabilities & Capital			
Total Liabilities (LAK)	**45.2%**	**46.0%**	**48.7%**
Accounts and Notes Payable	12.1%	12.3%	12.6%
Bank Borrowing	13.8%	14.2%	13.5%
No. of Firms who Borrow from Banks	16	18	16
Percentage of Number	36.4%	36.0%	32.7%
Bank Borrowing Ratio of Borrowing Firms	37.2%	38.8%	33.6%
Borrowing from Affiliated Companies	0.7%	1.5%	3.9%
Borrowing from Owners and Managers	4.5%	4.2%	4.3%
Borrowing from Other Lenders	1.0%	0.4%	0.3%
Other Liabilities	10.8%	9.0%	9.6%
Total Capital Account (LAK)	**52.6%**	**52.0%**	**49.2%**
Paid Up Capital	34.7%	40.9%	40.0%
Retained Earnings	6.0%	1.0%	−0.5%
Additional Paid in Capital and Others	8.8%	7.5%	7.0%

Table 4-6 classifies the capital structure by ownership for the year of 2016, showing that the capital structures are heterogonous. Firstly, the debt ratio is slightly higher in private companies than SOEs (SOEs govt.>50%, same hereinafter), and very low in public (listed) companies. Not surprisingly, public companies tend to shift their fundraising from debt finance to equity finance.

Table 4-6 Capital Structure Classified by Ownership

No. of Sample	16	1	26	5
Total Asset 2016 (Mil. LAK)	**542,696**	**681,300**	**330,579**	**356,125**
	SOEs (Govt. >50%)	SOEs (Govt. <50%)	Private Companies	Public Companies
Assets				
Accounts and Notes Receivable	16.4%	0.0%	20.7%	32.6%
Investment and Loans to Affiliated Companies	7.5%	0.0%	2.0%	0.0%
Premise & Equipment	41.2%	0.0%	40.1%	42.0%
Other Assets	19.6%	0.0%	28.1%	25.4%
Liabilities & Capital				
Total Liabilities (LAK)	**48.9%**	**0.0%**	**53.0%**	**25.6%**
Accounts and Notes Payable	10.0%	0.0%	15.5%	10.5%
Bank Borrowing	17.2%	0.0%	15.5%	4.1%
No. of Firms who Borrow from Banks	5	0	10	3
Percentage of Number	31.3%	0.0%	38.5%	60.0%
Bank Borrowing Ratio of Borrowing Firms	55.0%	–	40.3%	6.8%
Borrowing from Affiliated Companies	0.0%	0.0%	2.8%	0.2%
Borrowing from Owners and Managers	0.0%	0.0%	7.0%	5.5%
Borrowing from Other Lenders	1.2%	0.0%	0.1%	0.0%
Other Liabilities	11.8%	0.0%	9.0%	5.2%
Total Capital Account (LAK)	**51.1%**	**0.0%**	**47.0%**	**74.4%**
Paid Up Capital	38.5%	2.5%	41.9%	53.2%
Retained Earnings	−1.8%	0.0%	−2.0%	16.0%
Additional Paid in Capital and Others	10.3%	0.0%	4.7%	5.3%

Secondly, however, the transaction regarding bank credit is rather more active in SOEs than in private companies. The bank borrowing ratio is a little higher in SOEs. Although a smaller portion of SOEs borrows from a bank than that of private companies, the average bank borrowing ratio of 'borrowing SOEs' is as high as 55% in total assets. It suggests that a few particular SOEs are heavily dependent on banks for their fundraising. It is also noteworthy that while the average bank borrowing ratio of public companies is very low (6.8%), more than half of the firms (3 out of 5) keep loan transactions with banks. Public (listed) companies seem well constructed in their relationship with banks.

Thirdly, trade finance represented by 'Account and Note Payable' is most active in private companies. Likewise, private companies are highest in owner and managers credit. Public companies also have a high position on them.

5. Concluding Remarks

Observing the situation of presence and distribution of large firms including SOEs as a survey preparation, we examined the fundraising nature of the large firms by analyzing 65 representative samples of companies we originally surveyed.

We found a few strong indications that large firms are generally self-finance oriented while debt finance is very inactive. Among them, SOEs are relatively segregated from bank credit transaction, partly as a result of government guidance. We also found that trade credit was relatively active, not only domestically, but also in import processes, although its financial function was weak.

We should consider policy design based on the recognition that corporate finance in present Laos is still at a very primitive stage.

Appendix

Appendix 1. Estimation of the Determinants of Capital Structure

This appendix shows a simple and primitive estimation on the determinates of capital structure of sample firms. As shown in Table 4-7, we adopt the factors of age of firms, ownership, and listed status as possible characteristics influencing the firms' fundraising and financial strategy.

Table 4-7 Variables

Dependent Variables (Y_i)	
Debt ratio	Total liabilities/ total assets
Bank borrowing ratio	Bank borrowing/ total assets
Other liabilities ratio	(Debt - bank borrowing)/ total assets
Independent Variables	
Controlled variables (X_1)	
Total assets	Total assets
Fixed assets ratio	Fixed assets/ Total assets
Retained earning	Retained earning
Characteristics of Firm (X_2)	
Age	The firm's age from established year (logarithm form)
SOEs	Dummy variable, 0 for none state-owned enterprises and 1 for state-owned enterprises
Foreign	Dummy variable, 0 for no foreign shareholder, and 1 for at least one foreign shareholder
Listed	Dummy variable, 0 for none listed firm and 1 for listed firm
Dummies for Business Operation (X_3)	
Manufacturing and Producing,Transportation, Postal service, Information and telecommunication, Hotel and restaurant	

The estimation model is as follows:

$$Y_i = C + \beta_1 X_{1i} + \beta_2 X_{2i} + \beta_3 X_{3i} + \varepsilon \ (i = 1, 2, 3, \ldots n),$$

where c is a constant, ε is an error term and n is the sample size.

X_1 is a vector of controlled variables consisting with control variables, and X_2 is a vector of variables related to the characteristic we focus on. And X_3 presents the vector of variables related to the business operation.

Since debt ratio is non-positive in 29 firms out of the 51 estimation sample, we adopt estimation models Tobit and Probit models in addition to Ordinary Least Squares.

The descriptives of the variables are shown in Table 4-8. The estimation includes 18 state-owned-enterprises (SOEs), 14 companies that have at least one foreign shareholder, and five listed companies. The manufacturing and producing sector has the largest proportion of the business sector operated by samples (23%), All the financial indices are average of 2015-17.

Table 4-8 Descriptive Statistics

	Mean	Standard Deviation	Min	Max	Obs.	Unit
Dependent variables						
Debt ratio	0.481	0.369	0	1.525	51	Proportion
Bank borrowing ratio	0.157	0.282	0	1.03	51	Proportion
Other liabilities ratio	0.324	0.292	-4.28E-05	1.147	51	Proportion
Independent variables						
Total assets	379054.4	868562.7	1141.294	3564038	51	Million LAK
Fix assets ratio	0.363	0.294	0	0.859	51	Proportion
Retained earning	24317.83	131939.4	-204430.6	680757.5	51	Million LAK
Age	21.09	12.681	3	69	51	Year

Independent (Dummy) variables	0-Value		1-Value		Observations
	No. of Firm	Percent	No. of Firm	Percent	
SOEs	33	64.7	18	35.3	51
Foreign	37	72.5	14	27.5	51
Listed	46	90.2	5	9.8	51
Manufacturing/producing	39	76.5	12	23.5	51
Transportation/postal service	45	88.2	6	11.8	51
Information and telecommunication	46	90.2	5	9.8	51
Hotel and restaurant	46	90.2	5	9.8	51

The estimation results are shown in Table 4-9. The result of Tobit and OLS model looks fairly reasonable, whereas that of Probit model contains inconsistency, particularity on the estimation of the debt case. The parameters of control variables are generally consistent; firms with the larger total assets hold debt and bank borrowing in higher ratio, and cash flow (retained earnings) clearly substitutes debt financing.

As for the observation focus, roughly the estimation results show (1) debt ratio is relatively low in SOEs, (2) bank borrowing ratio is lower in foreign firms, while age of firms, and listing status are uncorrelated to firms' capital structure. It can be noted that the Information &

Telecommunication industry, a typical capital intensive industry is a little active in bank borrowing.

The estimation confirms the tendency that SOEs are relatively inactive on debt financing, and rely on self-financing, compared with private sectors.

Table 4-9 Estimation result of debt, bank borrowing and other liabilities

	Debt					Bank Borrowing					Other Liabilities				
	Tobit		Probit	OLS		Tobit		Probit	OLS		Tobit		Probit	OLS	
Controlled Variables															
TA	1.43E-07	*	-7.37E-05	1.42E-07	*	2.38E-07	**	3.53E-07	1.74E-07	***	-2.84E-08		-2.26E-05	-3.13E-08	
	-2.38		(.)	-2.17		-3.05		-1.39	-3.67		(-0.55)		(.)	(-0.58)	
Fix Asset/TA	-2.54E-01		-22.2	-2.52E-01		5.15E-03		0.362	-1.37E-01		-1.12E-01		238.7	-1.15E-01	
	(-1.28)		(.)	(-1.18)		-0.02		-0.46	(-0.89)		(-0.66)		(.)	(-0.66)	
Retained	-1.04E-06	*	-6.79E-04	-9.39E-07	*	-7.53E-07		-5.22E-07	-5.08E-07		-5.34E-07		-2.72E-04	-4.31E-07	
	(-2.52)		(.)	(-2.14)		(-1.38)		(-0.24)	(-1.61)		(-1.52)		(.)	(-1.19)	
Characteristics of Firm															
Age	0.134		-62.84	0.12		0.14		0.248	0.0923		0.0478		-9.335	0.028	
	-1.41		(.)	-1.18		-1.05		-0.65	-1.26		-0.59		(.)	-0.33	
SOEs	-0.362	**	0	-0.319		-0.318		-0.816	-0.147		-0.215		0	-0.172	
	(-2.85)		(.)	(-2.35)		(-1.73)		(-1.49)	(-1.50)		(-1.97)		(.)	(-1.54)	
Foreign	-0.168		-64.05	-0.13		-0.502*		-1.09	-0.189		0.031		-13.48	0.0591	
	(-1.26)		(.)	(-0.91)		(-2.07)		(-1.73)	(-1.84)		-0.27		(.)	-0.5	
Listed	-0.0975		0	-0.132		0.439		1.405	0.0958		-0.198		0	-0.228	
	(-0.50)		(.)	(-0.63)		-1.42		-1.61	-0.64		(-1.21)		(.)	(-1.33)	
Characteristics of Business Operation															
Manufacturing/ Producing	0.0563		0	0.0508		0.208		0.718	0.0666		-0.0268		-30.48	-0.0158	
	-0.44		(.)	-0.36		-1.13		-1.3	-0.66		(-0.24)		(.)	(-0.14)	
Transportation/ Postal Service	0.196		0	0.181		0.141		0.565	0.071		0.104		0	0.11	
	-1.1		(.)	-0.93		-0.56		-0.75	-0.51		-0.68		(.)	-0.69	
Information & Telecommunication	0.155		-158.1	0.218		0.447		0.518	0.298	*	-0.146		-215.8	-0.0793	
	-0.86		(.)	-1.15		-1.8		-0.7	-2.18		(-0.94)		(.)	(-0.51)	
Hotel & Restaurant	-0.215		0	-0.217		0.297		0.402	0.145		-0.355	*	0	-0.362	*
	(-1.21)		(.)	(-1.12)		-1.14		-0.55	-1.04		(-2.35)		(.)	(-2.27)	
Constant	0.301		296.4	0.324		-0.495		-1.068	-0.0849		0.365		48.73	0.409	
	-1.13		(.)	-1.12		(-1.23)		(-0.97)	(-0.41)		-1.61		(.)	-1.72	
Sigma Constant	0.324	***				0.394	***				0.276***				
	-9.68					-6.03					-9.39				
Observations	51		9	51		51		51	51		51		13	51	
R-squares				0.286					0.369					0.231	

Notes: t statistics in parentheses; * p<0.05, ** p<0.01, *** p<0.001

Appendix 2. Going Public at LSX and its Effect on Firms Performance

This appendix provides basic information on the policies for encouraging firms to go public on Lao Securities Exchange (LSX), and the observation of performance's change after firms go public based on financial information of 10 listed firms.

(1) Incentives and Listing Criteria

For encouraging the participation of the firms on the Lao Securities Exchange, two types of incentive policies have been implemented. Firstly, the new listing companies to LSX are granted the five percent reduction of corporate income tax within four consecutive years from initial listing period (from 24% to 19%)[79]. Secondly, the securities trading investors have also admitted the priority exemption in capital-gained income tax from securities trading, and zero tax of dividend earning, while the trading fees have recently declined with new lower fees.

The enterprises planning to be listed on the Lao Securities Exchange (LSX) are required to enhance their corporate governance, financial reporting system, then submit related documents for screening and approval from Lao Securities Commission Office (LSCO). A listed company is treated as a "public company" and subject to the listing regulation and criteria of LSX. Basically, public companies need to preserve the two principles of stock listing criteria, shown in table 4-10 and table 4-11.

(2) Listed Companies

As of August 2019, there are ten public companies from diverse industries listing on the Lao Securities Exchange. Three of these are state shareholding companies, and the other seven companies are mainly from the private sector, while there are newly two private companies expecting to list on the LSX at the end of this year. The ten listing companies are also displayed in Table 4-12. Among them, BCEL is usually categorized as SOE, and EDL Gen is a listed subsidiary of EDL, a SOE and the largest electricity generator. Others are private-owned companies.

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[79] Accordance with the Presidential Decree on Corporate Income Tax and Business Fees in Lao Securities Exchange (LSX), No.001/president dated 28th December 2010, and article 29 of the Law on Taxation No. 05/NA on 20th December 2011.

Table 4-10 Quantitative criteria of listing requirement in LSX

Principles of Criteria		**Condition**
Business Operation		At least 3 or more years
Company Size	Capital size	More than 8 billion LAK in capital
	Number of shares	At least 100,000 shares
Stock Distribution	Minority shareholders	More than 100 shareholders
	Shares of minority shareholders	More than 10% of the total outstanding shares
Business Performance	Sales	At least 24 billion LAK
	Income	Net income in the latest 2 consecutive years
	Equity capital	No impairment of capital stock in recent years

Source: Listing and Disclosure Department, Lao Securities Exchange (as August 2019)

Table 4-11 Qualitative criteria of listing requirement in LSX

Principles of Criteria	**Condition**
Auditor's opinion	Unqualified/qualified for the latest fiscal year
Going concern and profitability	- Financial stability - Business environment and risk
Soundness of corporate governance	- Internal control system - Appropriate transaction with its major shareholders or management - Transparency of management
Appropriateness and accuracy of corporate disclosure	- Efficient disclosure system - Appointment of disclosure officer and relating staffs
Pending law suit, etc.	No dispute that may materially affect management of the company
Others	Other necessary things to protect investor and public interests

Source: Listing and Disclosure Department, Lao Securities Exchange (as August 2019)

Table 4-12 List of public companies listing on the Lao Securities Exchange, as August 2019

No.	Company Name	Business Operation	Listed Date
1	Banque Pour Le Commerce Exterieur Lao Public (BCEL)	Commercial bank	11-Jan-2011
2	EDL- Generation Public Company (EDL-Gen)	Hydro electricity generator	11-Jan-2011
3	Lao World Public Company (LWPC)	Trade exhibition and convention center	25-Dec-2013
4	Petroleum Trading Lao Public Company (PTL)	Import and distribute fuel and petroleum products in full rang services	9-Dec-2014
5	Souvanny Home Center Public Company (SVN)	Import and distribute construction materials and home decorations	11-Dec-2015
6	Phousy Construction and Development Public Company (PCD)	Construction	10-Oct-2017
7	Lao Cement Public Company (LCC)	Manufacturer	3-Feb-2018
8	Mahathuen Leasing Public Company (MHTL)	Leasing	18-Sep-2018
9	Lao Agro Tech Public Company (LAT)	Manufacturer	25-Sep-2018
10	Vientiane Center Lao Public Company (VCL)	Shopping Mall	31-May-2019

Source: Author collected from Lao Securities Exchange (as August 2019).

(3) The Change of Financial Performance after Listing

Equity and retained earnings of listed companies

As shown in Figure 4-7, the equity ratio of listed companies is modestly high. The equity ratio is 58.79% on average before going public, and increased to 64.05% after listing on hte LSX. The SVN and MHTL are remarkably increased from 56.16% and to 83.77% and 64.97% to 90.37% respectively. In EDL-Gen, PTL, LCC and LAT the ratios are slightly increasing, while in two cases, LWPC and PCD, they are decreasing due to the construction sector's distress in the years they listed.

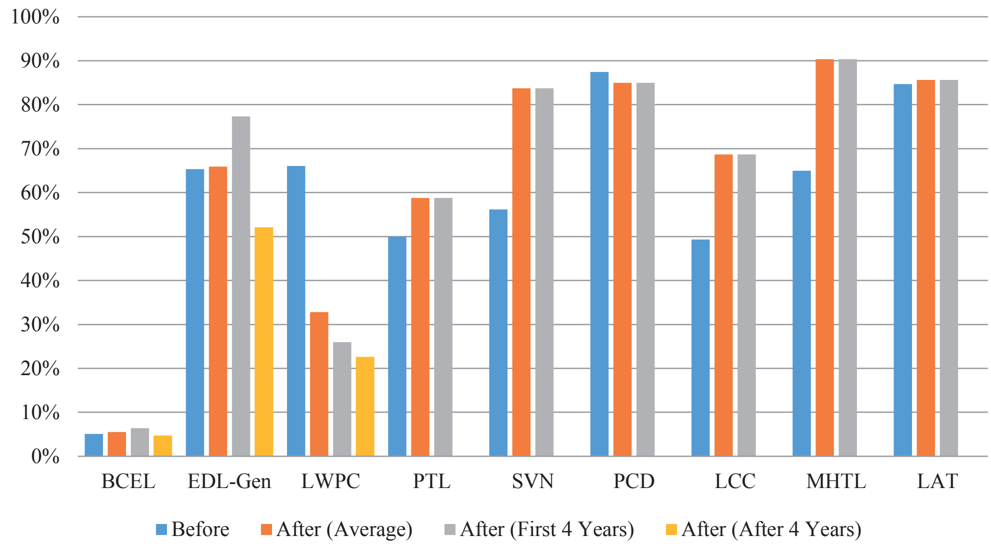

Figure 4-7 Equity to total asset (before and after listing period)

Figure 4-8 show the proportion of retained earnings to total asset; the direction of retained earnings ratio appears to be downturned within the public companies. It was 23.13% in average and dropped to 10.84% after listing on the LSX. This downward trend is remarkable in LWPC, PTL, SVN and PCD, whereas in BCEL, EDL-Gen, MHTL and LAT, the retained earnings ratio is consistently rising.

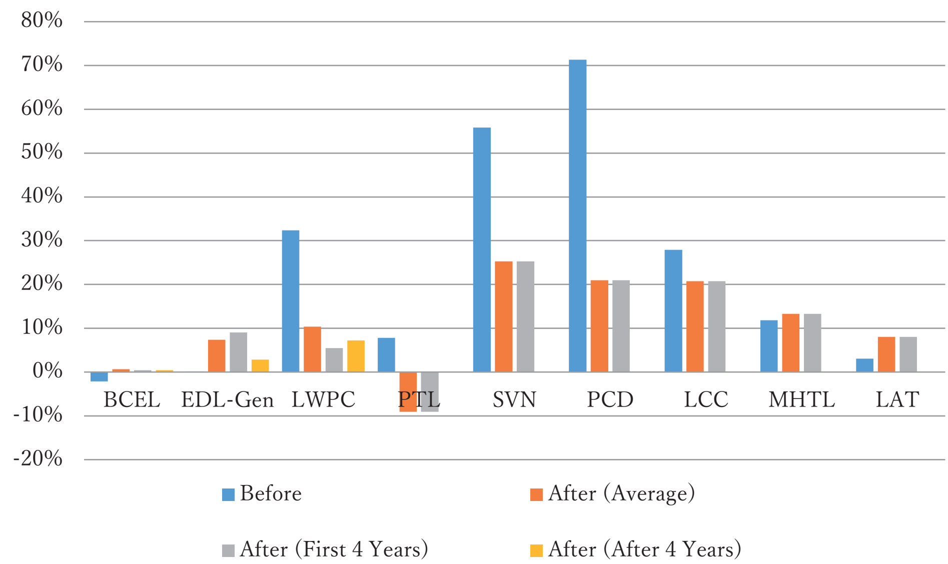

Figure 4-8 Retained earnings to total assets (before and after listing period)

Revenue and net profit of listed companies

The trend of the revenue to total assets is shown in Figure 4-9. The average revenue ratio is on a downward slope in most companies, from 80.96% to 42.54% after going public. The downtrend is found remarkably in LWPC, PTL and SVN, while slightly in EDL-Gen, PCD, LCC and MHTL.

Although the net profit is not depicted, ROA generally dropped too from 8% to 3.4% after listing on the stock exchange, regardless of the type of business operation.

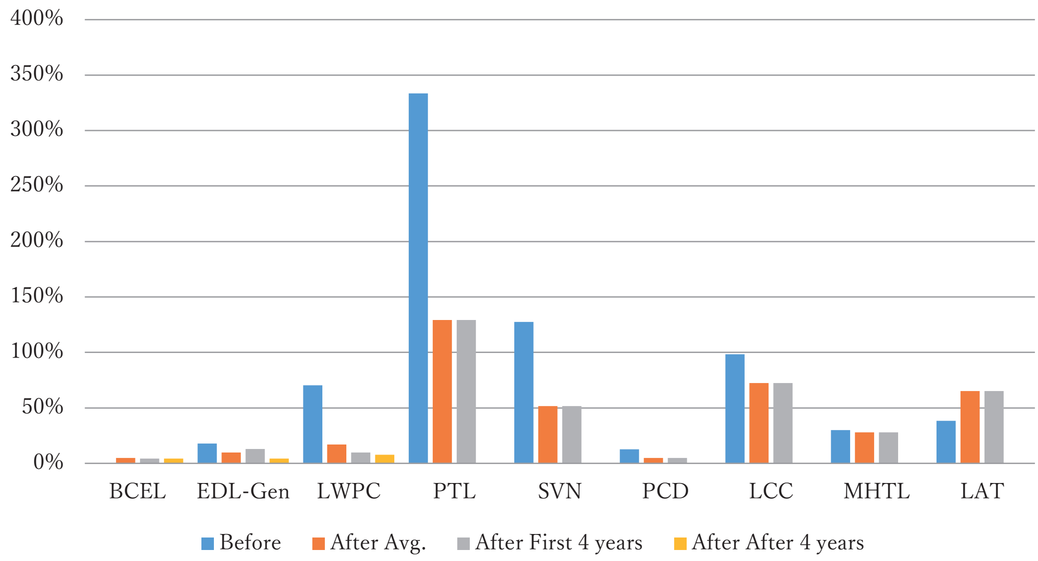

Figure 4-9 Revenue to Total Assets (before and after listing period)

The trends of three indices seem to suggest that (1) new large fundraising through the capital market certainly takes place at the timing of IPO, while it seems one short event, instead of continual fundraising in the market; (2) in the component of equity, retained earnings are replaced by other capital surplus gained at IPO; (3) Revenue and profit decline after listing. It is possibly a reactional movement of the firms that had rigidly kept listing criteria to clear the requirement for new listing before the listing.

Corporate tax payment of listed companies

Table 4-13 presented the corporate tax payment of listing companies, pre- and post-listed. The average amount of corporate tax payment is 25,482 million LAK before restructuring period, and it dropped to 10,699 million LAK after listing on the stock exchange, or approximately reduced 58% in comparison to their original tax payment before listing period. It seems that the five-percent corporate tax reduction privilege given by the authority surely benefits the listed firms.

On the other hand, the listing criteria may strengthen the auditing and enhance the transparency to be better censored by tax authority, which may make tax payment stricter. In fact, the trend of corporate tax payment after listing is varied. It mainly decreased in EDL-Gen, PCD, LCC and LAT, whereas went up in BCEL, PTL and SVN.

Table 4-13 Corporate tax payment of listed companies (before and after listing period)

No.	**Firm / Listed Date**	**Period**	**Corporate Tax (Mil. LAK)**				
			Before (Avg.)	**After**			**Percent Change**
				Avg.	**First 4 years**	**After 4 years**	
1	BCEL 1-Jan-2011	(2007-2010) (2011-2014) (2015-2018)	40,682	59,496	50,070	64,209	46%
2	EDL-Gen 1-Jan-2011	(2008-2010) (2011-2014) (2015-2018)	153,534	27,714	36,752	21,689	-82%
3	LWPC 25-Dec-2013	(2010-2012) (2013-2018)	N/A	890	890		N/A
4	PTL 9-Dec-2014	(2011-2013) (2014-2018)	2,966	3,011	3,011		2%
5	SVN 11-Dec-2015	(2012-2014) (2015-2018)	467	1,568	1,568		236%
6	PCD 10-Oct-2017	(2013-2016) (2017)	2,738	1,089	1,089		-60%
7	LCC 3-Feb-2018	(2014-2017) (2018)	1,505	137	137		-91%
8	MHTL 18-Sep-2018	(2014-2017) (2018)	962	2,198	2,198		128%
9	LAT 25-Sep-2018	(2014-2017) (2018)	1,002	192	192		-81%
Total Average:			25,482	10,699	10,656	42,949	-58%

Source: Author calculated from financial report of listed companies on the Lao Securities Exchange.

Appendix Table. List of 65 Sample Firms

No	Company Name	Business Sector
1	Santipab Sangkasi Lao Co., Ltd.	Manufacturing/Producing
2	TK Group	Real Estate
3	Dao Heuang Group	Manufacturing/Producing
4	Viengthong Pharmaceutical Co., Ltd.	Medical Service and Welfare
5	Datacom Co., Ltd.	Information and Telecommunication
6	D.S.K Group	Manufacturing/Producing
7	New Chip Xeng Co., Ltd.	Manufacturing/Producing
8	KPN Pharma Sole Co., Ltd.	Manufacturing/Producing
9	Sokxay Chaleun Group Co., Ltd.	Finance and Insurance
10	BigBlue/ Fayai Media Co., Ltd.	Others
11	Indee Record/Smart Event Organizer	Others
12	Allianz General Laos	Finance and Insurance
13	Phetlaiphone Group	Manufacturing/Producing
14	Vientiane Cold Storage Sole Co., Ltd.	Whole Sale and Retail Service
15	Urai Phanich Co., Ltd. (Lao Branch)	Manufacturing/Producing
16	Lao Logistics State Enterprise	Transportation and Postal Service
17	Palamy Phamar Co., Ltd.	Others
18	Lao Skyway	Transportation and Postal Service
19	Lao Cotton State Enterprise	Manufacturing/Producing
20	Lao Airlines	Transportation and Postal Service
21	Lao Holding State Enterprise	Investment and Holding Company
22	State Printing Enterprise	Manufacturing/Producing
23	State Enterprise of Electrical Construction and Installation	Electricity, Gas and Water Supply
24	Vientiane Capital Water Supply State Enterprise	Electricity, Gas and Water Supply
25	Toko Assurance	Finance and Insurance
26	Souksomboun Group	Transportation and Postal Service
27	Lao Plaza Hotel Co., Ltd.	Hotel and Restaurant
28	BlueGrass Design Group Co., Ltd.	Others
29	Intrhira Group (Khop Chai Deu)	Hotel and Restaurant
30	KP Co., Ltd.	Whole Sale and Retail Service
31	Vimpecomlao Co.,Ltd. (Beeline)	Information and Telecommunication
32	Lao Post Office	Transportation and Postal Service
33	Sky Telecom Co., Ltd.	Information and Telecommunication
34	Lao Beverage Sole Co., Ltd. (Hard Rock Cofe Vientiane & Daiso Lao)	Hotel and Restaurant
35	Lao Telecommunication	Information and Telecommunication
36	Lao State Fuel Company	Manufacturing/Producing
37	Sinouk Coffee	Manufacturing/Producing
38	Lao Star Channel Sole Co., Ltd.	Life, Drink and Entertainment

39	SOKDY OSOTH Export-Import Co., Ltd.	Whole Sale and Retail Service
40	State Enterprise for Pharmaceutical No. 3	Manufacturing/Producing
41	VXP Co., Ltd.	Manufacturing/Producing
42	Phasouk Group	Hotel and Restaurant
43	Pharmaceutical Factory No. 2	Manufacturing/Producing
44	PetroLao Co., Ltd.	Electricity, Gas and Water Supply
45	ETL	Information and Telecommunication
46	Lao Star Telecom Co., Ltd.	Information and Telecommunication
47	Lao Lottery Enterprise	Others
48	Lao-Japan Airport Terminal Service Co., Ltd.	Others
49	Vientiane Capital State Bus Enterprise	Transportation and Postal Service
50	Balamy Trading Export-Import Co., Ltd.	Others
51	Century 21 Real Pro Co., Ltd.	Real Estate
52	Panyathip Advertisement Co., Ltd.	Others
53	Lao Mobile Group Co., Ltd.	Whole Sale and Retail Service
54	MV Lao	Life, Drink and Entertainment
55	VKK Industrial Co., Ltd.	Manufacturing/Producing
56	Kian Santisouk Garment Factory	Manufacturing/Producing
57	K&C Group	Information and Telecommunication
58	Souvany Home Center Public Company	Whole Sale and Retail Service
59	Mahateun Leasing Public Company	Finance and Insurance
60	Lao Agro Tech Public Company	Agriculture, Fishery and Livestock
61	Phousy Group	Construction
62	Phousy Construction and Development Public Company	Construction
63	Lao Cement Public Company	Manufacturing/Producing
64	V&V Restaurant (Miyazaki)	Hotel and Restaurant
65	Premium Food Co., Ltd. (MK)	Hotel and Restaurant

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