



NATIONAL BANK OF CAMBODIA

Riel. Stability. Development.

Financial Stability Review

2018

CONTENTS

Preface	2
Abbreviations	3
Executive Summary	5
I. Macroeconomic Conditions, Stability and Outlook	8
1.1 External Conditions and Stability	8
a) External Conditions	8
b) Balance of Payments	9
c) Exchange Rate Movement and External Stability	12
1.2 Domestic Conditions and Stability	14
a) Domestic Conditions: Growth and Inflation	14
b) Real Estate Sector	16
c) Fiscal Sector	18
1.3 Macroeconomic Outlook and Risks	19
II. Financial System Conditions and Assessments	21
2.1 Overview of the Banking System’s Landscape, Conditions and Assessments	21
a) Banking System’s Landscape	21
b) Profitability	23
c) Capital Position	24
d) Liquidity Position and Funding	25
e) Credit Quality	28
2.2 Development in Securities and Insurance Sectors	29
a) Securities Sector	29
a) Insurance Sector	30
III. Macro-Financial Linkages and Potential Risks to Financial Stability	30
3.1 Credit to GDP Gap and Sectoral Credit	32
a) Credit to GDP Gap	32
b) Sectoral Contribution to Credit Growth	32
c) Quality of Credit by Economic Sector	34
3.2 Understanding Credit to Individuals	35
3.3 Risk Assessments on the Real Estate Sector	38
a) Identification of Vulnerabilities in the Real Estate Sector	38
b) International Experiences on Macroprudential Measures	40
c) Potential Macroprudential Measures	41

PREFACE

The National Bank of Cambodia (NBC), as the supervisory authority, focuses on strengthening the resiliency of the banking system and, at the same time, facilitates sustainable development of the overall financial system and financial inclusion. A rapidly changing financial landscape and stronger macro-financial linkages as well as interconnectedness among agents underscore the need for in-depth understanding, assessments and management of systemic risks, thus maintain overall financial stability. The Global Financial Crisis in 2007-2008 proved that financial instability consequent of failure to detect and mitigate systemic risks could have a long-lasting and devastating impact on the economy.

Recognizing the importance of financial stability, the NBC set up Financial Stability Unit in 2011 to support the NBC's Financial Stability Committee in monitoring financial stability risks on a regular basis and developing macro-prudential measures to cope with systemic risks. Since then, the NBC's Financial Stability Review (FSR) has been produced semi-annually for internal use. Throughout the years, the NBC has received technical assistance on financial stability issues from the International Monetary Fund (IMF). In 2018, the IMF has provided a Resident Advisor to help build the NBC's capacity in systemic risk assessments and policy formulation, which led to the development of a standard FSR and the first publication of the NBC's FSR.

The FSR outlines the risk assessment and capacity of the financial system to maintain its financial intermediation role in the economy. The report assesses the potential and likelihood of risks to financial stability including macroeconomic risks, systemic risks and macro-financial linkage issues along with discussions on potential policies to help mitigate systemic risks. It also reports the developmental initiatives pursued by the NBC to reinforce the roles of the financial sector in supporting and contributing to economic growth and the economic transformation process.

The publication of the NBC's FSR is intended to promote greater understanding among stakeholders and general public on issues and developments pertaining to financial stability and relevant policies. It also serves as a communication and knowledge-sharing tool to enhance transparency, which is one of the key ingredients for effective policy making.

Phnom Penh, 24 April 2019

CHEA CHANTO
Governor
National Bank of Cambodia

ABBREVIATIONS

ADB	Asian Development Bank
AFD	Agence Francaise de Developement
ATM	Automated Teller Machine
BCBS	Basel Committee on Banking Supervision
BIS	Bank for International Settlements
BOP	Balance of Payments
Brexit	Withdrawal of the United Kingdom from the European Union
CAR	Capital Adequacy Ratio
CBC	Credit Bureau Cambodia
CCB	Countercyclical Capital Buffer
CSX	Cambodia Securities Exchange
EBA	Everything But Arms
ECB	European Central Bank
EMP	Exchange Market Pressure
EU	European Union
FCD	Foreign Currency Deposits
FDI	Foreign Direct Investment
FI	Financial Institution
FOB	Free-on-board
FSI	Financial Soundness Indicators
GDP	Gross Domestic Product
GFSR	Global Financial Stability Report (publication by the IMF)
IFAD	International Fund for Agricultural Development
IMF	International Monetary Fund
KHR	Khmer Riel Currency
LCR	Liquidity Coverage Ratio
LTV	Loan-to-value
MDI	Microfinance Deposit-Taking Institution
MEF	Ministry of Economy and Finance
MFI	Microfinance Institution
MLMUPC	Ministry of Land Management, Urban Planning and Construction
NBC	National Bank of Cambodia
NPL	Non-performing Loan
OECD	Organization for Economic Co-operation and Development
OPEC	Organization of the Petroleum Exporting Countries
PAS	Sihanoukville Autonomous Port
RE	Real Estate

ROA	Return on Asset
ROE	Return on Equity
SQM	Square meter
TA	Technical Assistance
UK	United Kingdom
USD	US Dollar Currency
WB	World Bank
y-o-y	Year-on-year

EXECUTIVE SUMMARY

Maintaining financial stability has been one of the NBC's main functions, and it has been achieved thus far. This was supported by favorable economic conditions, sufficient international reserves, as well as adequate overall banking system's capital and liquidity buffer to withstand adverse shocks. However, vulnerabilities from rapid credit growth, especially to the real estate related sectors, have prompted discussions on potential policy measures to mitigate potential risks. Going forward, heightened uncertainties with regard to external conditions and an increase in credit to individuals will continue to be closely monitored. Meanwhile, further promoting financial literacy would ensure sound practice pertaining to individuals' borrowings.

Continued global growth momentum during the recent period provided strong support to the Cambodian economy. In particular, robust global demand led to continued growth in exports. Although the trade balance remained in deficit, much of the imports comprised raw materials to the construction and garment sectors, which continued to be the major driving force of the Cambodian economy. Tourism contributed favorably to the current account driven by a strong growth in the number of tourists – with more than one third from China.

Volatility in the global financial market have not affected capital inflows and KHR movement in a noticeable way, meanwhile, Cambodia has maintained adequate international reserve buffer. Foreign direct investment (FDI) remained strong, underpinned by inflows to the financial sector following an increase in minimum paid-in capital, as well as inflows to manufacturing and construction sectors. Over 40 percent of total FDI inflows were from China. Gross external debt was dominated by external borrowing by the government with the majority also from China. KHR movement has been stable vis-à-vis the USD, and did not show signs of unusual pressure. External stability remained sound with adequate international reserve buffer covering around 5 months of prospective imports, which was above the standard benchmark of 3 months.

Going forward, uncertainties pertaining external conditions heighten, particularly with regard to US-China trade tension, a potential slowdown in China, potential withdrawal of EBA (Everything But Arms), as well as Brexit. Cambodia's strong trade and financial linkages to China could potentially subject Cambodia to weaker growth momentum and tighter external financing if there is a sharp slowdown in China. At the same time, potential withdrawal of EBA and Brexit could affect garment exports to Europe.

Real estate sector saw a continued supply of properties supported by both external funding and domestic credit; however, if external demand and the domestic economy weaken, this could cause an oversupply. Additions to existing supply of properties in most segments

continued in 2018. FDI and credit to construction sector continued to expand in line with growing supply. More supply of properties in most segments is expected from the pending supply of delayed projects as well as outcome of planned projects. Going forward, potentially weaker external and domestic demand could lead to an oversupply of properties.

Cambodia's banking system is dominated by commercial banks with an increasing role of microfinance, meanwhile, the first issuance of KHR-denominated corporate bond marked a significant step in the financial market. While commercial banks contribute most to credit expansion, MDIs and MFIs have an increasing share of overall credit and assets in the banking system. Groundbreaking developments were made in the bond market, with the listing of the first KHR-denominated corporate bond in Cambodia by an MDI. This could help kickstart the activities in the corporate segment of the bond market in the near term. A number of financial institutions have already prepared to raise funds through the bond market going forward.

Banking system has continued to build up capital and liquidity buffer. Banks' capital adequacy ratio (CAR) continued to increase, partly due to an increase in minimum paid-in capital stipulated by the NBC. At the same time, commercial banks maintained sufficient liquidity buffer to withstand short-term liquidity stress with the current Liquidity Coverage Ratio (LCR) well above the 80 percent requirement.

Despite a slowdown during the past three years, credit growth remains strong and warrants monitoring, especially credit to construction and real estate-related sectors. The overall banking system's credit growth of 24 percent resulted in a relatively large credit to GDP gap above the threshold level, which indicated rapid credit growth. Such high rate of credit growth was mainly driven by credit to construction and real estate-related activities.

To alleviate vulnerabilities in the real estate sector, potential macroprudential policies have been discussed both on the supply and demand sides, at the same time, interagency coordination is deemed essential. Increasing credit risks associated with the construction and real estate-related sectors along with rapid expansion in credit could call for a supply-side macroprudential policy. An example of a widely used tool in other countries is a sectoral capital requirement measure, where higher risk weights could be imposed on loans to construction and real estate-related sectors. On the demand side, the credit quality and lending standard of mortgages provided by the banking sector have been sound on average. To mitigate potential risks of speculation and safeguard sound lending practice, demand-side macroprudential measures have been under consideration. Equally important, fiscal policy could be used to deal with potential vulnerabilities in the real estate sector. In order to do so effectively, close coordination among regulators is crucial.

An increase in credit to individuals, due to higher income and better access to financial services, helps promote investment and consumption. Over the past few years, credit to individuals has markedly increased. A closer look into the composition of the credit revealed a large proportion of credit was designated for business (income-generating) purposes, though the share of credit for personal essentials continued to increase. Despite rapid growth, the credit quality has not yet been of concern. The NBC continues to closely monitor credit to individuals going forward.

The NBC will continue its effort to strengthen financial literacy and encourage sound practice pertaining individuals' borrowings. A buildup of individuals' borrowings is partly consequent of greater financial access, which could help foster economic growth and standard of living. The NBC would aim to strike a sustainable balance between financial inclusion and financial stability, and in doing so, deem financial literacy of general public a crucial ingredient. Individuals are encouraged to carefully consider the terms and conditions of their borrowings and select the lenders from the NBC's registered list to avoid unfair lending practices.

I. MACROECONOMIC CONDITIONS, STABILITY AND OUTLOOK

1.1 External Conditions and Stability

a) External Conditions¹

Global growth momentum continued with increasing downside risks from escalating trade tensions, uncertainties regarding the withdrawal of the United Kingdom from the European Union (Brexit) and a greater-than-envisaged slowdown in China. In April 2019, the International Monetary Fund (IMF) projected the global growth to reach 3.6 percent in 2018, 3.3 percent in 2019, and 3.6 percent in 2020 – a downward revision from the previous projection in January 2019. The IMF noted that the economic expansion in 2018 has become more uneven among advanced economies, with divergence between the US, Europe and Japan, as well as among emerging markets and developing economies. However, escalating trade tensions arising from the US’s announcement of increases in tariffs which prompted retaliation by trading partners, have heightened uncertainties over the global growth outlook going forward.² Meanwhile, inflation in both advanced and emerging market economies edged up in 2018 following an increase in fuel prices due primarily to supply factor.

Global financial conditions have tightened somewhat with some emerging markets facing pressures on their currencies. In 2018, a gradual monetary policy normalization by the US Federal Reserve and a tapering of asset purchases by the ECB contributed to tighter global financial condition – partly reflected in an increase in long-term yields across advanced and emerging market economies. Coupled with uncertainties in the global economic environment, this led to overall capital outflows from emerging market economies since the third quarter 2018, which could adversely affect macroeconomic and financial stability in some vulnerable economies. Following inflationary effects from earlier oil price increases and in response to Fed rate hike, some emerging markets such as Chile, the Philippines, Russia, Indonesia, Mexico, and South Africa raised their policy rates – in parts to lessen currency depreciation pressure. At the same time, India and China maintained policy rates and eased domestic funding conditions by lowering reserve requirements and providing liquidity to non-bank financial companies.

¹ This is based on IMF, World Economic Outlook (October 2018 and April 2019) and World Economic Outlook Update (January 2019)

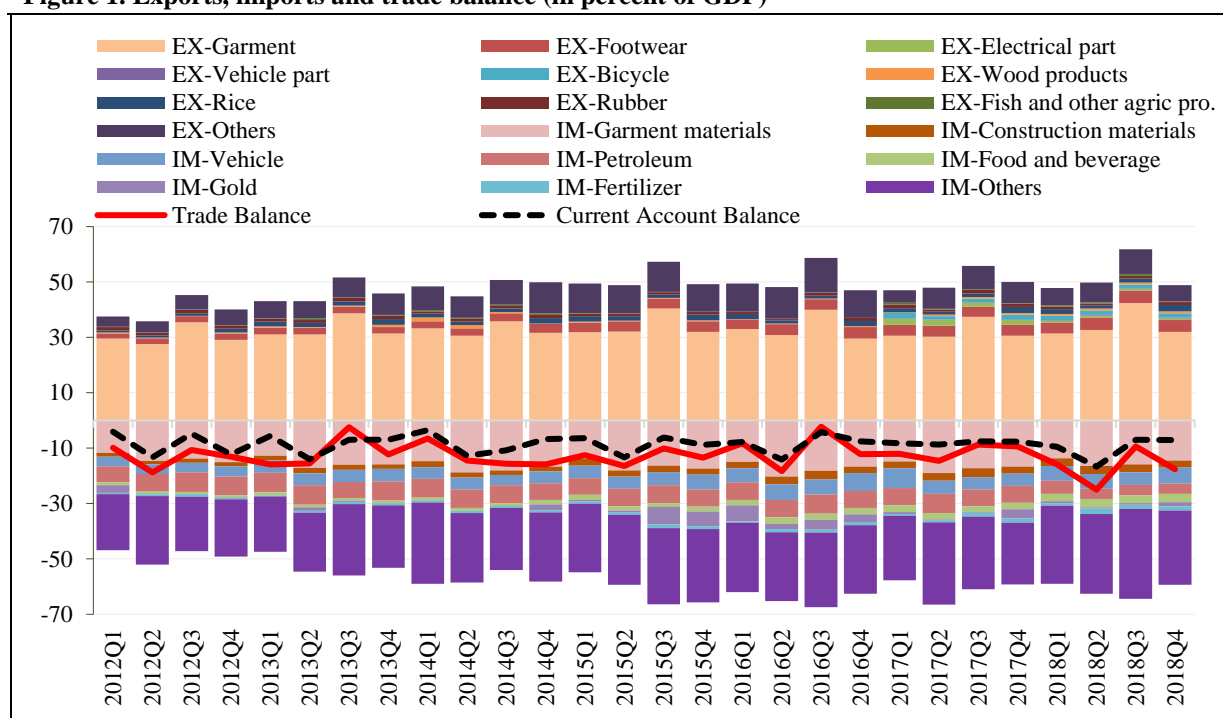
² The escalation of trade war between the US and China contributed to global uncertainties whereas the outcome of ongoing trade negotiations remained uncertain. The study on the impact on the level of GDP and trade, conducted by OECD, estimated that China’s GDP would decline by 1.3 percent if current US-China tariffs were to add up all tariffs plus higher global risk premia while US GDP could drop by 1.1 percent. Similarly, the world GDP would decline around 0.7 percent.

b) Balance of Payments

Trade and Tourism

Continued global growth momentum over the past year provided support to robust growth in exports of goods, which have become more diversified, however, trade balance remained in deficit due to imports of raw materials – especially for garments and construction. In 2018, export growth has been robust registering 14.3 percent growth driven largely by garment exports. In addition, since 2017, the new export products namely electrical and vehicle parts as well as bicycles have also contributed to the overall export growth. Export destinations were diversified with exports to the US, Germany, United Kingdom, China³ and Japan accounting for 58 percent of overall exports. Nonetheless, despite strong export growth, trade balance remained in deficit of around 17 percent of GDP due to imports of raw materials in 2018, in particular, garment materials, vehicles, petroleum and construction materials in line with strong exports of garments and construction activities. The item-by-item trade balance can be found in Figure 1.

Figure 1. Exports, imports and trade balance (in percent of GDP)



Source: General Department of Customs and Excise, and National Bank of Cambodia staff calculation

Tourism contributed favorably to the overall current account with strong growth in the number of tourists, particularly from China. Figure 2 shows the rate of growth of tourists visiting Cambodia. This segment maintained strong growth even though the growth rate was lower compared to 2017 due to a decline in tourist arrivals from a number of countries,

³ Including Hong Kong SAR, Macao SAR and Taiwan POC

especially from neighboring countries. Considering the share of tourists by nationality, over one third of tourists were from China (see Figure 3). This highlights an important linkage between the Chinese economy and that of Cambodia and increasing dependency of tourism sector on Chinese tourists.

Figure 2. Number of tourists (growth) and purpose of visit (in percent)

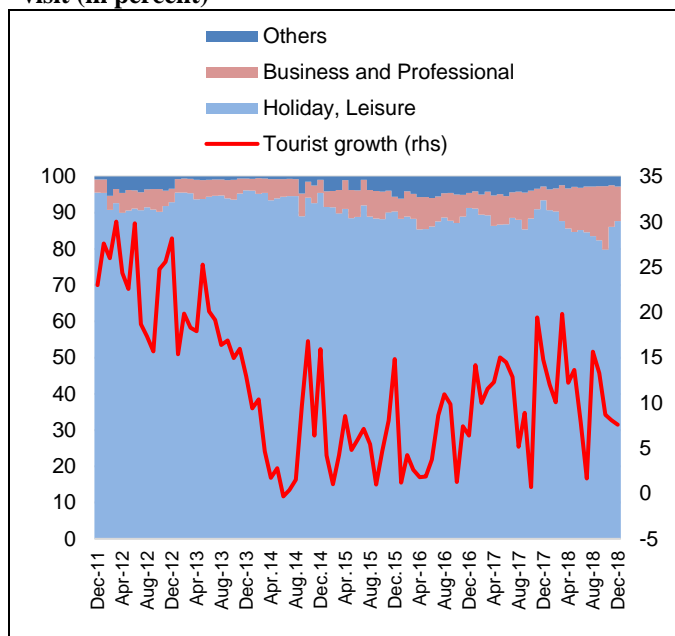
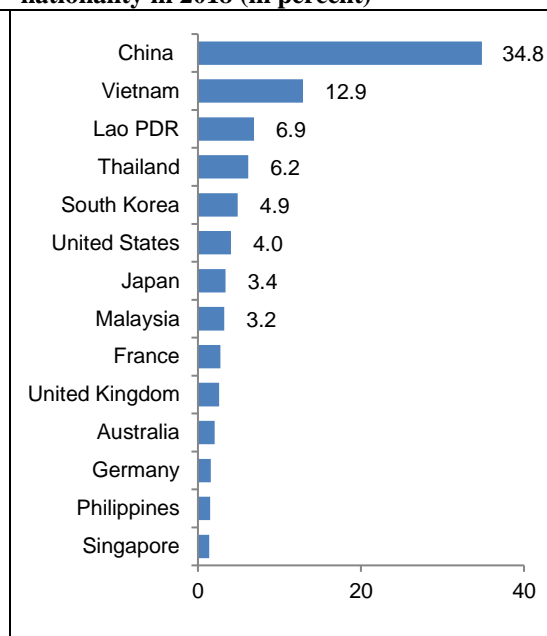


Figure 3. Share of tourist arrival by nationality in 2018 (in percent)

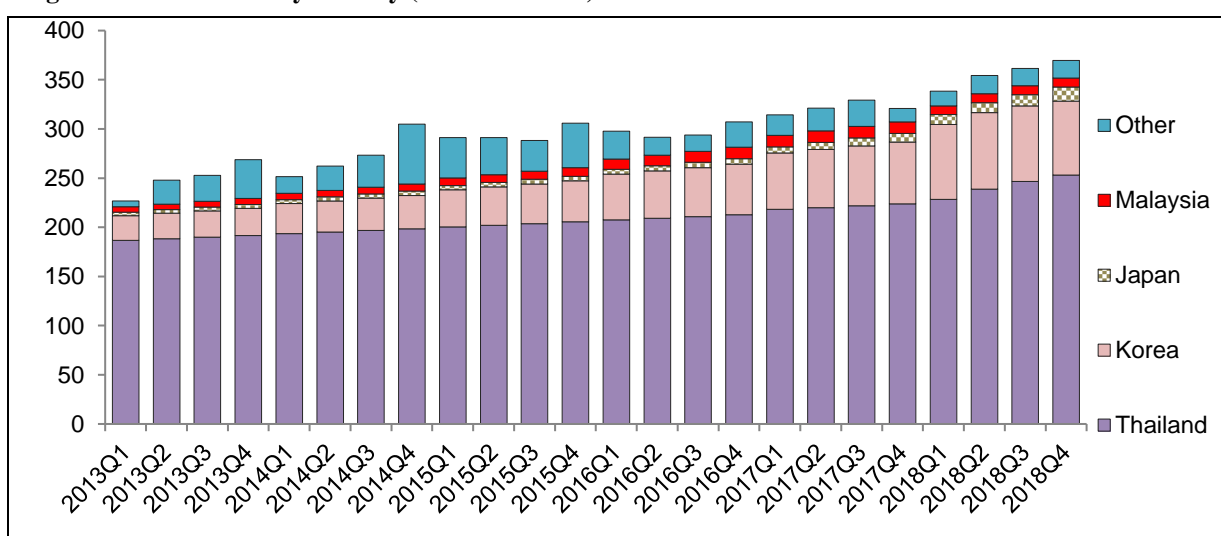


Source: Ministry of Tourism and Migration Department of Ministry of Interior

Remittances

Remittances continued to expand, with the total value of USD 1.4 billion in 2018. This was a pick-up of 10.8 percent. Considering the sources of remittances, Thailand and Korea were the two largest origins, accounting for 67.9 percent and 21.5 percent respectively, followed by Japan (3.3 percent) and Malaysia (2.5 percent) (see Figure 4).

Figure 4. Remittances by country (in million USD)



Source: National Bank of Cambodia

Financial Account

FDI flows remained strong and sufficient to finance current account deficit, underpinned by inflows to financial sector, construction, and manufacturing. The largest FDI flows to financial activities, accounting for 34 percent of total FDI with 11.1 percent growth in 2018 – a slowdown from 47.4 percent growth in 2017 as all banks and microfinance institutions have already complied with the NBC’s Prakas on an increase in minimum paid-in capital since the first half of 2018. Meanwhile, inflows to construction, with 8 percent share of total FDI, increased 1.3 times last year, and to manufacturing, with 14 percent share, recorded 18.3 percent growth, which indicated the attraction of the two sectors to foreign investors (see Figure 5).

FDI is dominated by inflows from China. In 2018, FDI inflows from China accounted for 41.3 percent share of total FDI, followed by Korea (8.1 percent), Singapore (7.3 percent), and Japan (6.4 percent) (see Figure 6).

Figure 5. FDI inflows by sector (in million USD)

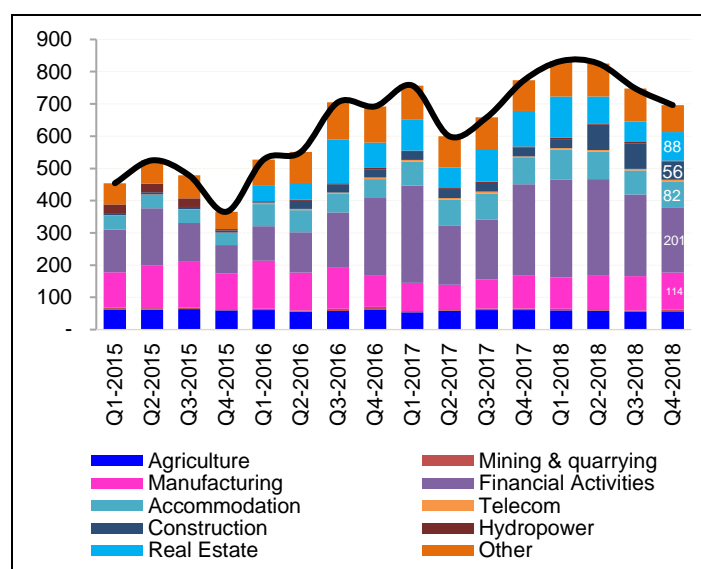
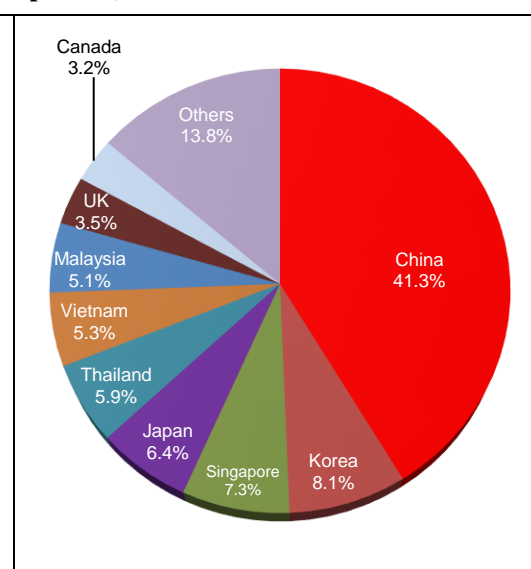


Figure 6. FDI inflows by source country (in percent)



Source: Council for the Development of Cambodia and National Bank of Cambodia

Gross external debt data⁴ indicated that China was the largest bilateral lender to the government. Gross external debt was dominated by general government’s external borrowings which took up 53 percent of total gross external debt while deposit taking corporations accounted for the remaining portion (see Figure 7). The share of external debt of deposit taking corporations increased, from 12 percent in 2010 to 46 percent in 2018. Considering the composition of government’s external debt, bilateral debt occupied 63 percent of total gross debt, followed by multilateral debt (28 percent), and old debt (9 percent). Similar

⁴ External debt data covers external borrowings by the government, central bank and deposit-taking companies only.

to FDI, China was the largest bilateral creditor to the government with a share of 77 percent of total bilateral debt and 49 percent of total government's gross external debt (Figure 8).

Figure 7. Composition of gross external debt (in percent)

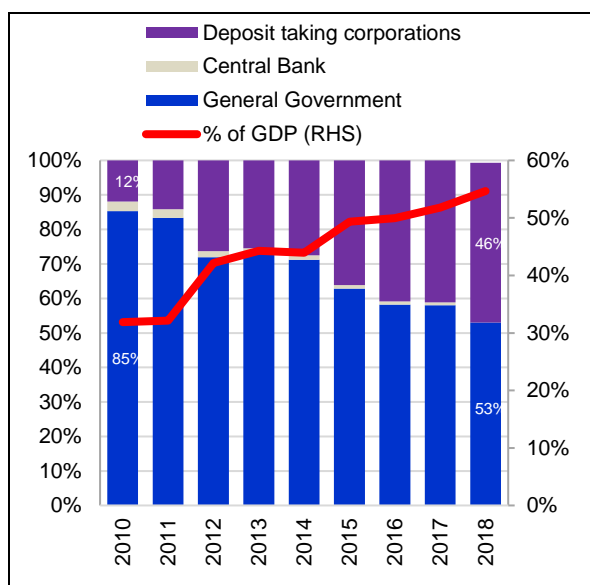
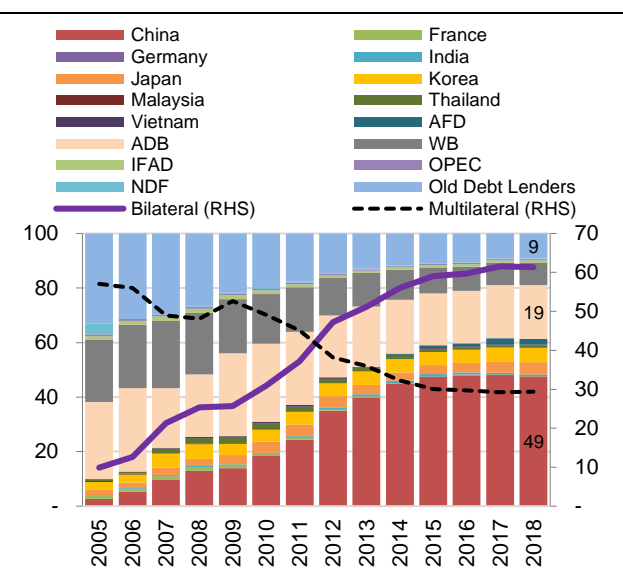


Figure 8. Composition of government's external debt (in percent)



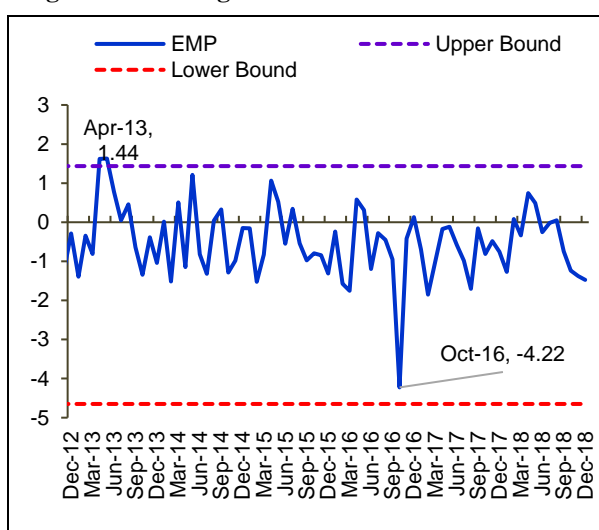
Source: Ministry of Economy and Finance and National Bank of Cambodia

c) Exchange Rate Movement and External Stability

Cambodia's exchange rate has not faced substantial pressure from global volatility.

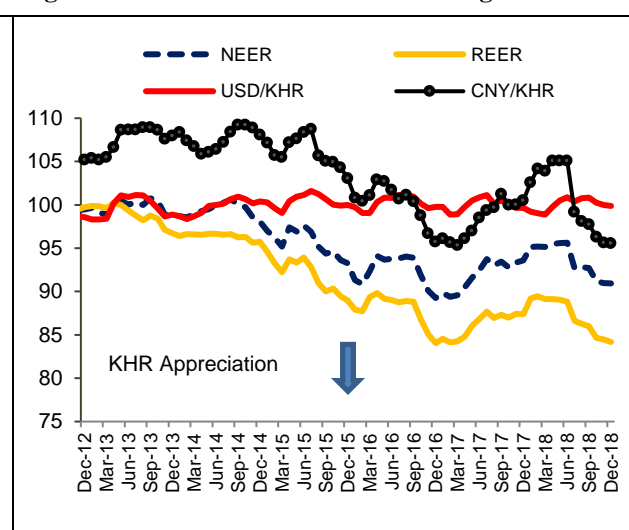
Exchange market pressure stayed well within the normal range in 2018 (see Figure 9 and details on the calculation in Box 1), indicating stable exchange rate. While the bilateral exchange rate of KHR vis-à-vis USD remained stable, nominal effective exchange rate (NEER) and real effective exchange rate (REER) appreciated due to China's large trade weight in the calculation of effective exchange rates (see Figure 10). Notably, the CNY has weakened against USD due largely to trade tension, reaching the average of 6.6 CNY per USD in 2018.

Figure 9. Exchange Market Pressure



Source: National Bank of Cambodia staff calculation

Figure 10. Bilateral and effective exchange rates



Box 1. Exchange Market Pressure (EMP) Methodology

Exchange market pressure (EMP) is used to analyze exchange rate pressure in the market by taking into account monthly changes of international reserves (a proxy of central bank's foreign exchange intervention) and nominal exchange rate. The calculation can be divided into two steps: 1) calculation of the EMP and 2) calculation of EMP's threshold.

Step 1: EMP formula

$$EMP_{it} = \left(\frac{e_{it} - e_{it-1}}{e_{it-1}} \right) * 100 - \left(\frac{\sigma_e}{\sigma_{fxr}} \right) \left(\frac{fxr_{it} - fxr_{it-1}}{fxr_{it-1}} \right) * 100$$

Where, e_{it} : exchange rate in time t ; e_{it-1} : exchange rate in the previous period ; σ_e : standard deviation of the change of monthly exchange rate ; σ_{fxr} : standard deviation of the monthly change of international reserves; fxr_{it} : international reserves at time t ; fxr_{it-1} : international reserves in the previous period

Step 2: Defining Threshold

$$\text{Threshold} = \mu_{EMP} + \varphi \sigma_{EMP}$$

Where, μ_{EMP} : average of EMP; σ_{EMP} : standard deviation of EMP; φ : coefficient of σ_{EMP} (lower and upper bound, derived from percentile of EMP)

Note: In the context of a highly dollarized economy, when EMP exceeds the lower bound or upper bound, it does not imply that Cambodia encounters a currency crisis. It indicates foreign exchange market pressure as reflected in a decline in international reserves and/or depreciation pressure (if EMP exceeds the upper bound) or an accumulation of international reserves and/or appreciation pressure (if EMP exceeds the lower bound).

Cambodia has maintained adequate international reserve buffer. The large current account deficit has been financed by FDI inflows. With regard to international reserve buffer, gross foreign reserves reached USD 10.1 billion in 2018, equivalent to around 5 months of prospective imports of goods and services – considered adequate by the standard benchmark of 3 months. The ratio of gross foreign reserves to broad money was 46.4 percent, which was well above the standard benchmark of 20 percent. However, further accumulation of foreign reserves is desirable due to high dollarization, as foreign reserves cover 54.7 percent of foreign currency deposits (FCD) (see Figures 11 and 12).

Figure 11. Gross international reserves

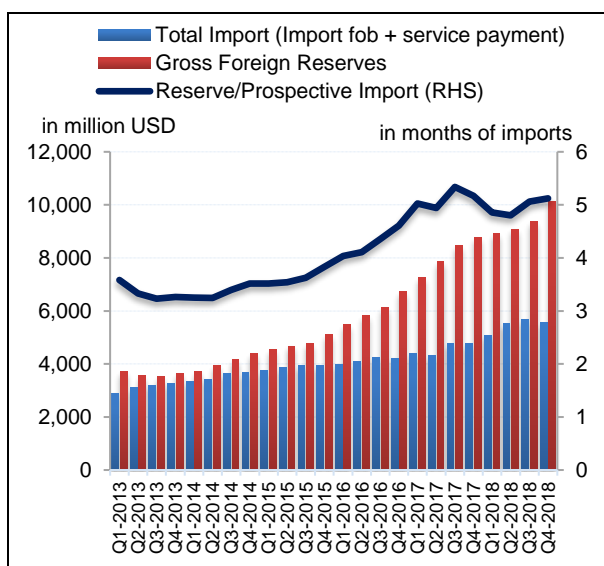
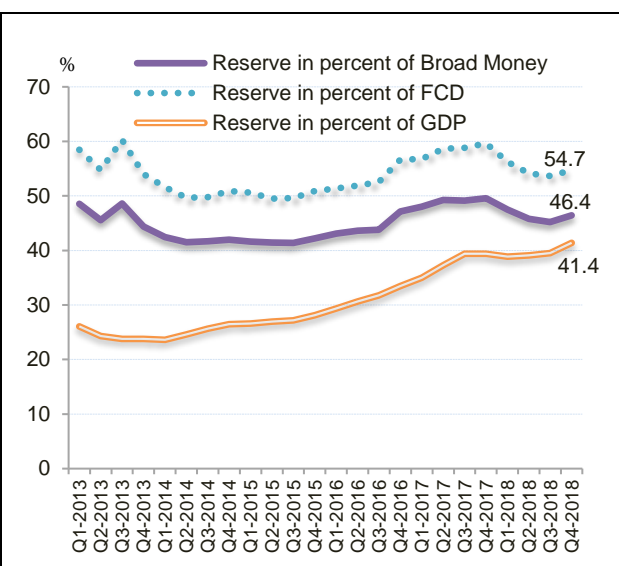


Figure 12. Reserve adequacy indicators



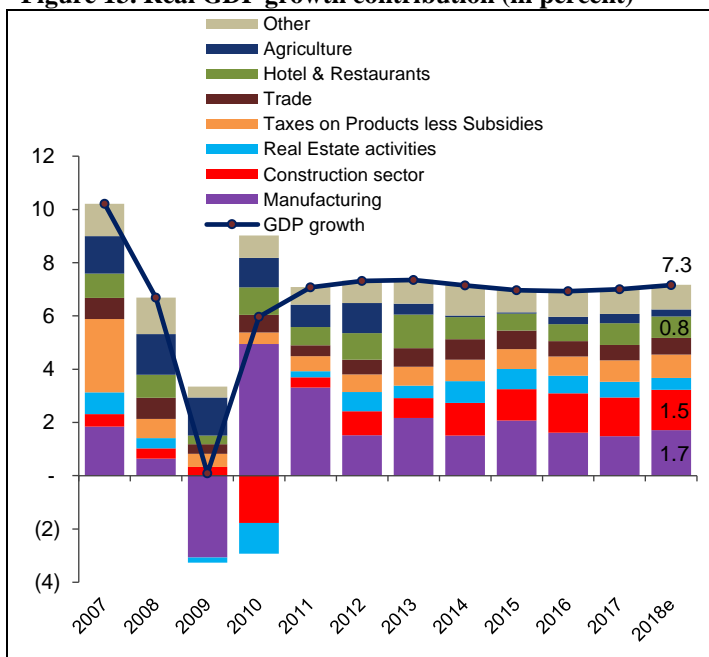
Source: National Bank of Cambodia staff calculation

1.2 Domestic Conditions and Stability

a) Domestic Conditions: Growth and Inflation

The Cambodian economy was projected to grow at around 7.3 percent in 2018⁵– driven largely by manufacturing and construction sectors (see Figure 13). Faster than the previous year, manufacturing sector continued to grow robustly with the support of strong garment exports as reflected by a 17.5 percent growth in 2018, as well as a 31 percent growth of garment material import. FDI to (overall) manufacturing also grew at a double digit of 18.3 percent, which could

Figure 13. Real GDP growth contribution (in percent)



Source: National Institute of Statistics

compensate for a slowdown in bank loans to manufacturing sector (to be discussed in the following section).

With regard to construction sector, the entry of new projects is the major driver as well as an increasing supply of properties is expected as the construction material imports

⁵ NBC Annual Report 2018

(one of the leading indicators of construction sector) expanded well. The sector has been supported by FDI inflows to construction and real estate activities which accounted for 20 percent of total FDI in 2018 and grew at 27.5 percent. At the same time, bank loans to construction and real estate activities which constituted around 17.1 percent of total bank loans, expanded at 35.4 percent in 2018.

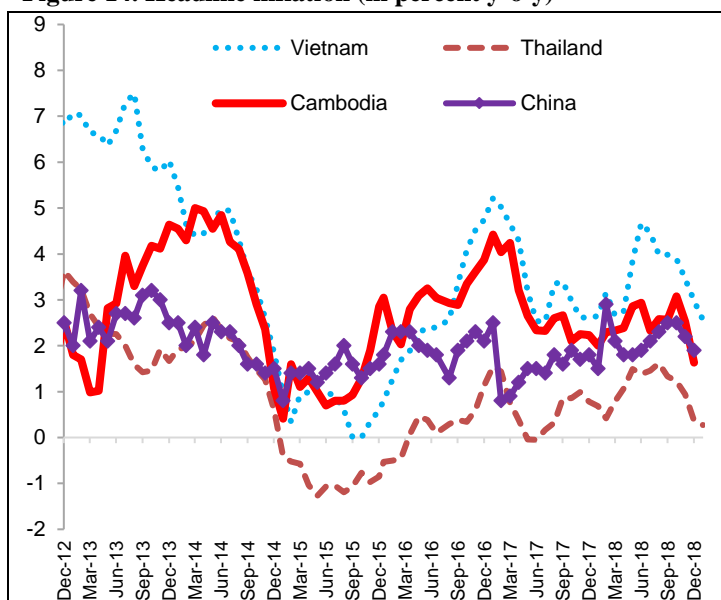
Tourism and agriculture sectors contributed favorably to the growth momentum.

Tourist arrival in 2018 grew by 10.7 percent, bringing the number of tourists to 6.2 million. Expansion in tourism-related industries such as hotel and restaurant has been supported by FDI inflows (11 percent of total inflows with 5 percent growth) and bank loans (4.9 percent of total loans with 31.5 percent growth). Meanwhile, agriculture sector was estimated to grow at 1.3 percent, slightly slower than last year (at 1.7 percent) due to the impact of heavy rain and a broken dam in Lao PDR in the second half of 2018, which offset an improvement in agricultural product yields in the first half of 2018. However, the agriculture sector continued to be supported by bank loans (9.2 percent share) and FDI to this sector (7.4 percent share). Taxes imposed on rice exports to the EU would put pressure on the agriculture production going forward.

Inflation remained low. Headline Inflation recorded an average of 2.5 percent in 2018, lower than last year 2.9 percent owing to slower growth in food prices while prices of oil-related items registered a higher growth rate than previous year.

The global oil price is expected to stay moderate around USD 63 per barrel for 2019⁶, compared with the average of USD 71 per barrel last year. In early December 2018, OPEC and non-OPEC countries agreed to reduce the overall production by 1.2 million barrels a day, effective as of January 2019 for an initial period of six months as a result of a growing imbalance between global oil supply

Figure 14. Headline inflation (in percent y-o-y)



Source: Trading Economics

and demand in 2019. Headline inflation in major regional trading partners (Thailand, Vietnam, and China) has been stable and inflation in Cambodia co-moved with its trading partners (see Figure 14).

⁶ Short-Term Energy Outlook (March 2019) of the US Energy Information Administration (EIA)

b) Real Estate Sector

Approved investments into construction projects declined in 2018, partly due to weaker external demand particularly from China, following the US-China trade tension and China's restrictions on outbound investments in the real estate sector. According to Ministry of Land Management, Urban Planning and Construction (MLMUPC), investment into construction dropped by 15.3 percent over the course of 2018, from nearly 6.8 billion USD in 2017 to 5.8 billion USD in 2018. Similarly, the number of projects approved decreased by 3.6 percent with 3,294 projects receiving the green light in 2018 compared to 3,418 in 2017.

Residential and commercial projects made up the largest share of approved projects. Figures 15 and 16 show that residential projects accounted for 83.7 percent of the total number of projects (up from 81.8 percent in 2017), while commercial projects which included both retail and office developments made up 9.2 percent of the total (up from 8.2 percent in 2017).

In terms of total surface area, however, residential and commercial projects have lost some ground over the year. As shown in Figures 17 and 18, the share of approved residential projects by surface area (in square meter: SQM) went down from 51 percent of the total in 2017 to 41 percent in 2018, and that of commercial projects from 33 percent to 30 percent over the same period. Notably, the share of tourism related investment projects has recorded a significant increase, from 5 percent share of total in 2017 to 21 percent in 2018, a likely result of anticipated growth in tourist arrivals in the medium term.

Figure 15. Number of approved projects by sector in 2017

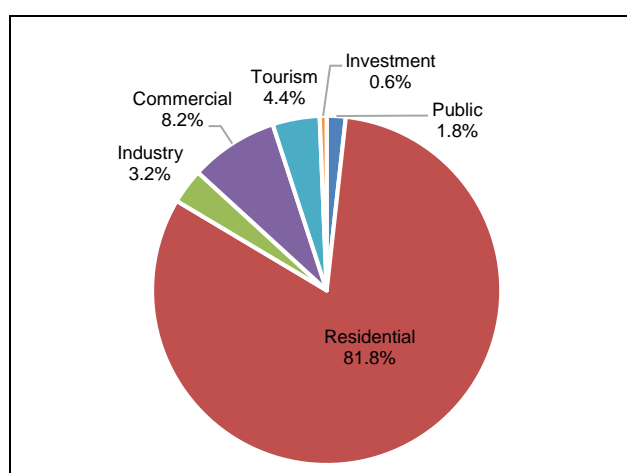
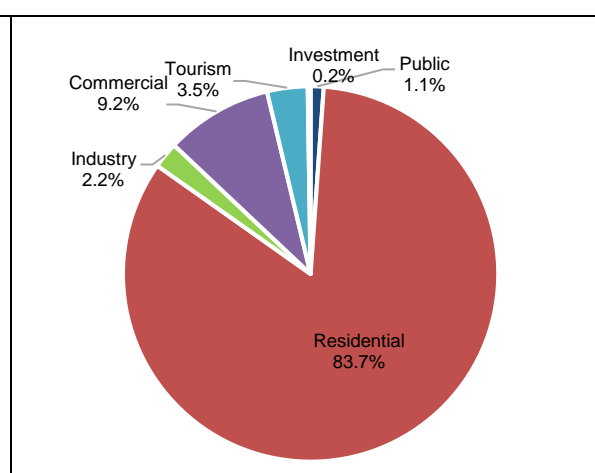


Figure 16. Number of approved projects by sector in 2018



Source: Ministry of Land Management, Urban Planning and Construction

Figure 17. Approved projects by surface area (in SQM) in 2017

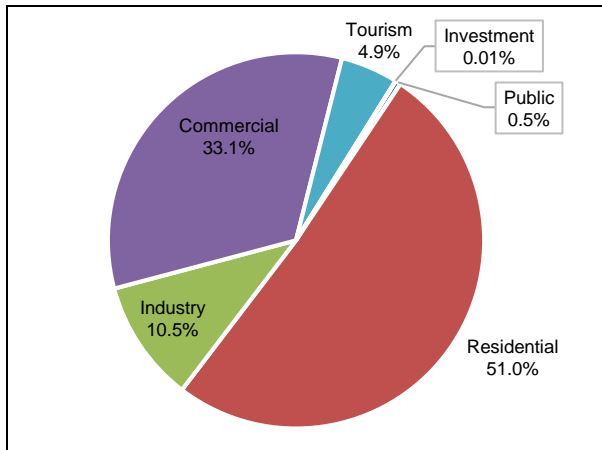
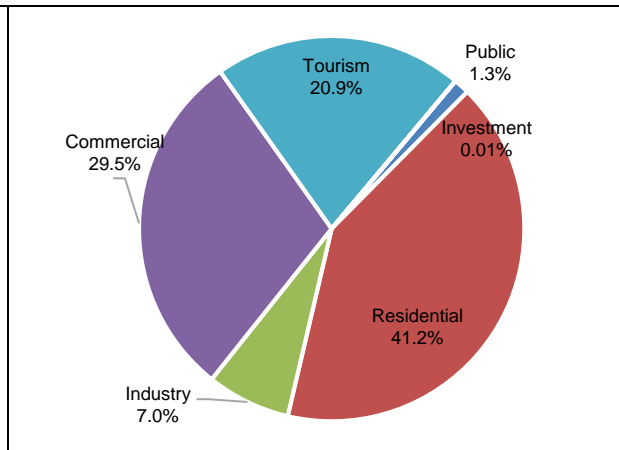


Figure 18. Approved projects by surface area (in SQM) in 2018



Source: Ministry of Land Management, Urban Planning and Construction

Despite a slowdown in investment into construction, the stock of properties across all segments continued to expand considerably in 2018, but mostly in the condominium and retail sectors. According to Knight Frank⁷, the condominium sector posted the fastest growth in recent years, with existing stock of condominium surging by 57 percent yoy. Meanwhile, the cumulative supply of serviced apartments increased by 11 percent at the end of the first half 2018. As in the case of the office space sector, an increase of 14 percent in office space was recorded at the end of the first half 2018. Finally, the opening of Aeon Mall 2 during the first half of 2018 expanded the total retail space by 39 percent from 2017.

Regardless of these new additions, sales prices together with rental and vacancy rates have remained broadly stable. According to CBRE⁸, average asking prices within the high-end condominium segment increased by 1.5 percent in 2018. Rental prices for prime condominium and prime office remained relatively stable, while that for prime retail dropped by about 7.3 percent. It was further reported that, due to relatively strong demand, occupancy rates for both retail and office sectors held steady for the most part of 2018 (about 90 percent and 85.4 percent respectively).

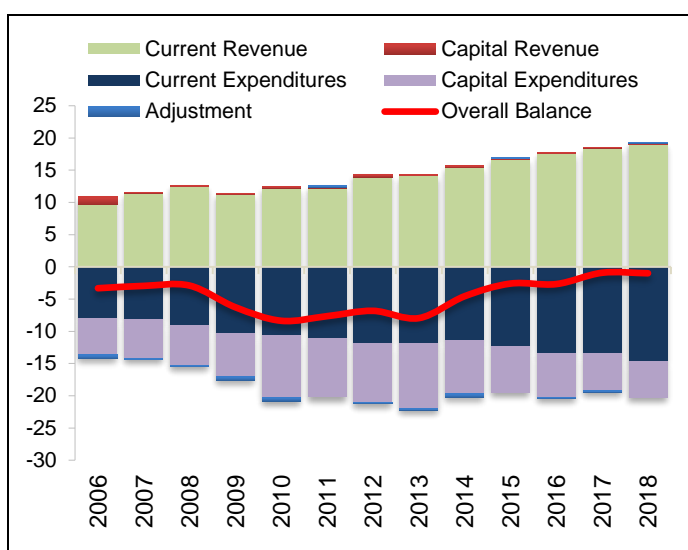
⁷ Knight Frank, Cambodia Real Estate Highlights (H1 2018).

⁸ CBRE, Marketview Phnom Penh (Q4 2018).

c) Fiscal Sector

Budget deficit declined over the years from enhanced revenue collection that outpaced expenditure growth.⁹ The overall budget deficit in 2018 was estimated to be around 1 percent of GDP – comparable to that of 2017, but a substantial decline from five years earlier (see Figure 19). The decline in deficit was due to the government’s attempt to enhance revenue collection, which outpaced the growth in total expenditure.

Figure 19. Fiscal account (in percent of GDP)



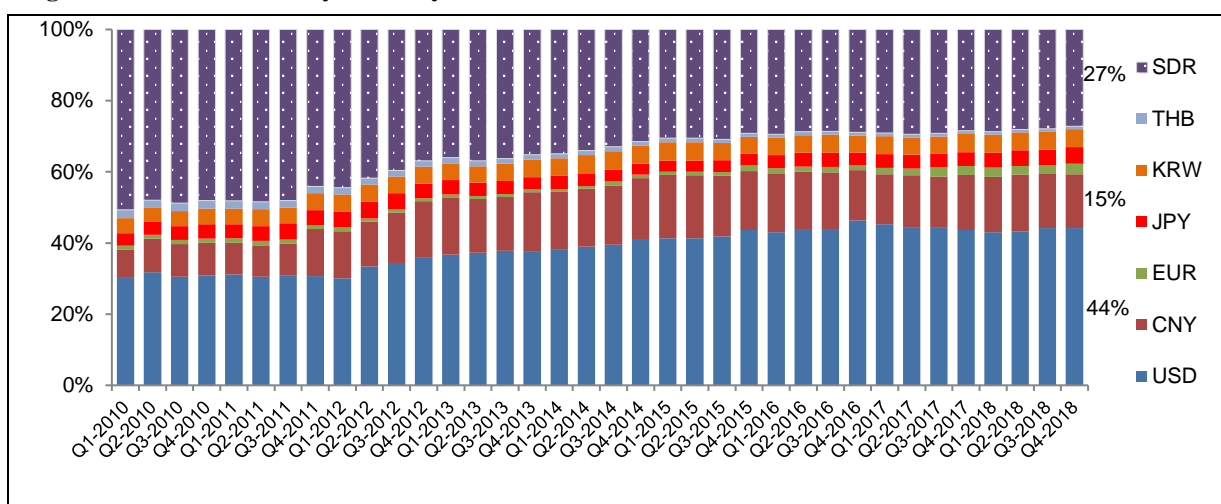
Source: General Department of National Treasury

Government revenues grew at 16.4 percent in 2018, contributed mainly from customs department followed by non-tax revenues. At the same time, total expenditure grew by 13.7 percent for 2018 with large contributions from domestic capital expenditure and civil administration. Going forward, revenues are expected to widen while expenditures would remain the same or slightly increase.

The government debt was below the threshold indicating low risks, however, there could be a possibility of currency mismatch. As of 2018, MEF debt sustainability analysis data indicated that the present value of public external debt to GDP ratio, public external debt to export and debt service to exports registered 21.4 percent, 30.4 percent and 1.5 percent respectively – well below the threshold of 40 percent, 180 percent and 15 percent. Nonetheless, as 99.96 percent of the total public debt is denominated in foreign currencies, there could be a mismatch between the government’s revenues which are primarily in KHR and government debt repayments. The composition of the debt is primarily in USD (44 percent), SDR (27 percent) and CNY (15 percent) (see Figure 20).

⁹ Based on Table of Government Financial Operation (TOFE)

Figure 20. External debt by currency



Source: General Department of National Treasury

1.3 Macroeconomic Outlook and Risks

Going forward, however, downside risks arising from trade tensions leading to a slowdown in China and potential withdrawal of EBA (Everything But Arms) as well as Brexit could potentially hinder Cambodia’s macroeconomic stability – both from intensive trade and financial linkages with China as well as large garment exports to the EU. While exports have been increasingly diversified, revenues from tourism are highly dependent on China. Similarly, large financial exposure to China both in terms of FDI and external debt could subject Cambodia to a decrease in funding, if China’s growth momentum weakens. Currently, China experienced economic slowdown due partly to trade war, witnessed by lower demand.¹⁰ Moreover, the procedure of EBA withdrawal will take 18 months (starting from October 2018) to implement and the impact of EBA is still unclear. On top of this, uncertainties remain with regard to Brexit.

The outlook for real estate market is quite mixed, however, potential excess supply is likely especially if external and domestic demand weaken. The delays in several construction projects within the condominium, retail, and office segments have been reported during Q4 2018.¹¹ This pending supply is expected to hit the market during the first half of 2019 along with the scheduled delivery of other developments. By the end of 2019, the supply of condominium units in all segments, retail space and office space is expected to surge. These developments have raised some concerns that perhaps incoming supply might outstrip demand. This is particularly the case if both external and domestic demand weaken going forward. As a result, sales, rental and occupancy rates across the market could be adversely affected in 2019.

¹⁰ The most affected industries in China include automobiles, technology and communication, and agriculture.

¹¹ According to CBRE.

The dynamics of housing markets across the world are increasingly synchronized according to the IMF¹². After a long spell of growth, global property markets have started to cool-off by the end of 2018. Property prices in major cities in Australia, UK, Canada, and Thailand posted some significant drop as a result of rising borrowing cost, volatile stock markets, and lower demand from Chinese buyers. Although, property markets in Cambodia seem unaffected at the moment, the risk of a property price drop should not be completely dismissed given the sizable role of Chinese investment in the Cambodian real estate market and a risk of potential slowdown in China.

¹² IMF, Global Financial Stability Report (2018)

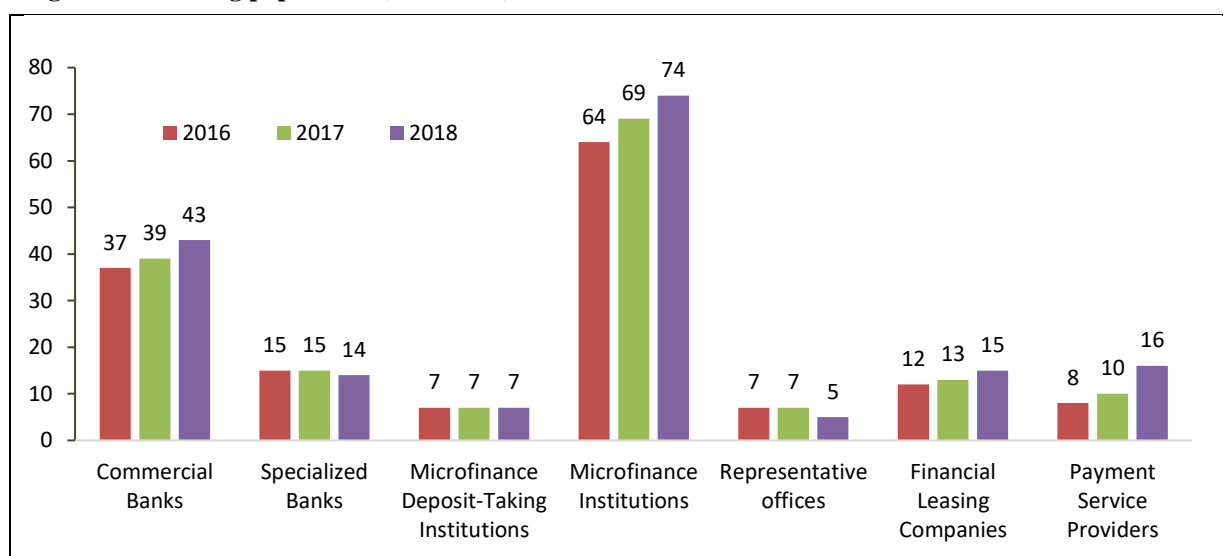
II. FINANCIAL SYSTEM CONDITIONS AND ASSESSMENTS

2.1 Overview of the Banking System’s Landscape, Conditions and Assessments

a) Banking System’s Landscape

The banking sector comprises largely of commercial banks. In 2018, there are 43 commercial banks (13 locally incorporated, 13 foreign branches, 17 subsidiaries), 14 specialized banks (1 state owned, 5 locally incorporated, 8 foreign banks), 7 MDIs and 74 MFIs. In addition, there are 16 payment service institutions (see Figure 21).

Figure 21. Banking population (2016-2018)



Source: National Bank of Cambodia

Due to rapid growth in MDIs and MFIs credit, their share of credit and overall assets have increased. The share of MDIs assets and credit gradually increased to 14 percent and 18 percent respectively (see Figures 22 and 23). Some MDIs have become as large as commercial banks. The contribution of MFIs has also increased. However, due to their small sizes and operations, their share of credit and assets remained below 3 percent.

Figure 22. Share of assets

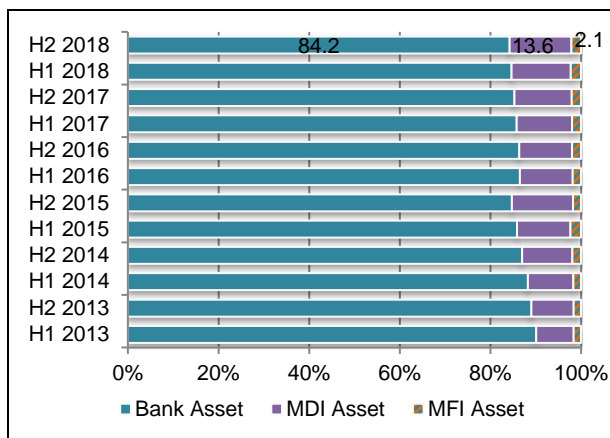
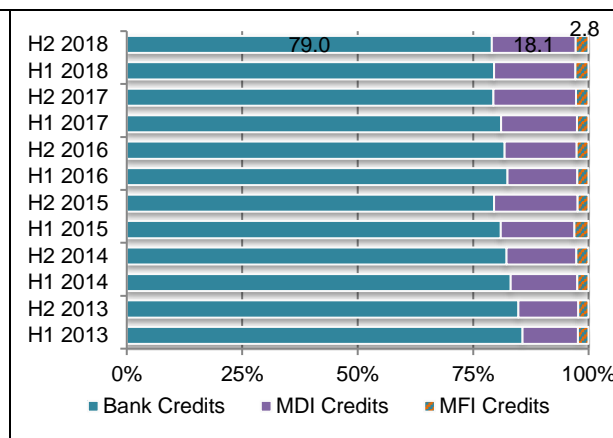


Figure 23. Share of credit



Source: National Bank of Cambodia

In line with the changing landscape of the banking system and the economy, the composition of banking system’s credit to economic sectors has evolved with an increasing share of credit to construction, real estate and retail sectors. Over the past 5 years, the share of banks’ credit to manufacturing has declined to 5.6 percent of total banks’ credit from 9.5 percent in 2012; while credit to wholesale sector has also declined but is offset by an increasing share of retail sector. However, credit to construction, real-estate activities and mortgages has expanded rapidly to 27.6 percent share of total credit from 16.5 percent in 2012 (see Figure 24).

Credit from MDIs and MFIs has been dominated by credit to households. The household credit accounts for the largest share of microfinance’s total credit, registering 36 percent share for MDIs and 40 percent share for MFIs (see Figures 25 and 26).

Figure 24. Share of banks’ credit by sector (percent, 2012-2018)

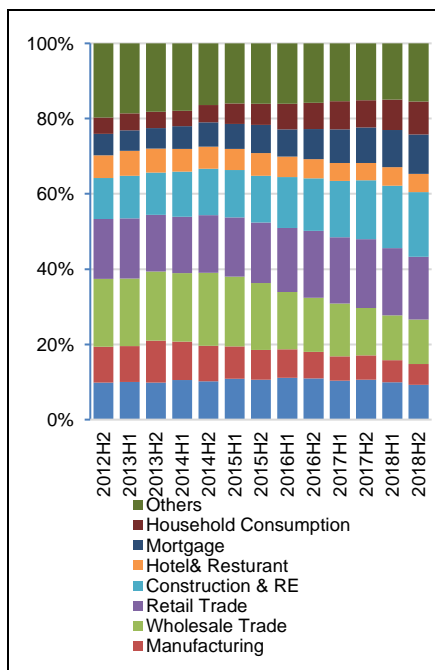


Figure 25. Share of MDIs' credit by sector (percent, 2010-2018)

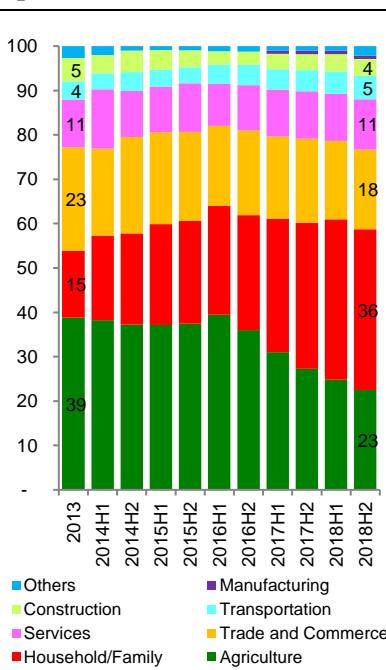
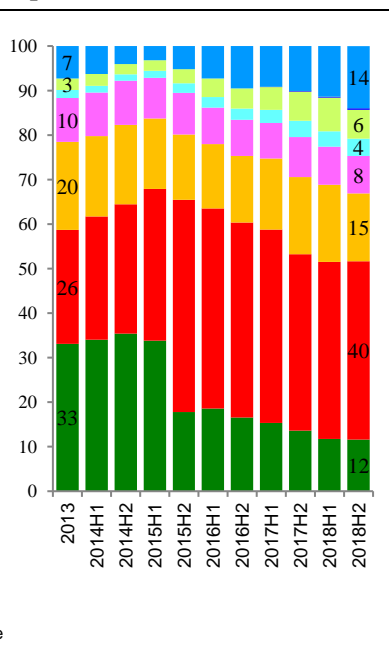


Figure 26. Share of MFIs' credit by sector (percent, 2010-2018)



Source: National Bank of Cambodia,

Note: Household= mortgages +personal consumption + credit card

b) Profitability

Overall profitability of the banking system has slightly declined over the past 5 years. The decline in profitability is reflected in a decline in ROE and ROA. Meanwhile, the efficiency ratio of banks and MFIs has remained stable over time. A decline in ROA and ROE could be attributed to the contribution of additional capital requirements, as well as negative profits from some institutions (Figures 27 and 28).

MDIs recorded sustained profitability due to continued efficiency gains, meanwhile MFIs lagged behind partly due to their business models. MDIs have generated sustained profits as reflected in relatively high ROE and ROA. This is somewhat due to an improvement in internal management costs as evident in a decline in efficiency ratio.¹³ (Figure 29). MDIs' earning performance was largely driven by sustained growth in income from financing activities, which accounted for 91 percent of gross income. Meanwhile, MFIs continued to have lower ROE and ROA and higher efficiency ratio than those of banks and MDIs. This is due in part to a different business model where MFIs rely on borrowings and capital as their funding sources rather than deposits.

An increase in the share of non-interest income to total income over 2017-2018 could be explained by the implementation of interest rate cap on loans. In the case of MDIs, the share of non-interest income increased from 4 percent to 8 percent and for MFIs, the share increased from 9 percent to 19 percent. This is attributable to the implementation of interest rate cap as it induced microfinance institutions to switch from high interest charges to fees on loans (see Figures 30 and 31).

Figure 27. Banking system's return on assets (ROA)

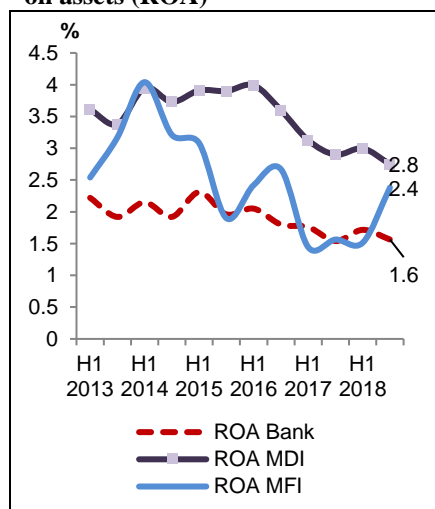


Figure 28. Banking system's return on equity (ROE)

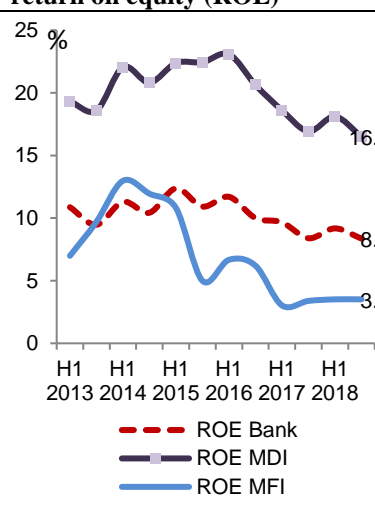
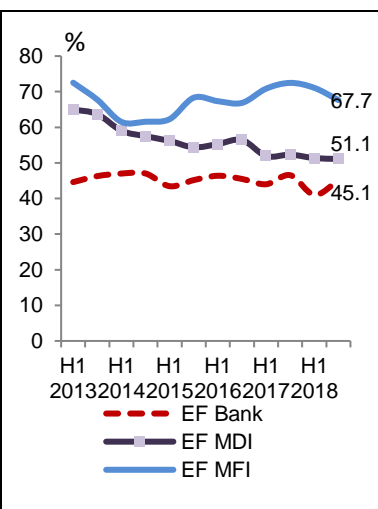


Figure 29. Efficiency ratio



Source: National Bank of Cambodia

¹³ Efficiency ratio is calculated by dividing non-interest expenses by revenues. A decline in efficiency ratio indicates improvement in performance.

Figure 30. MDIs' income and expense structure (in percent)

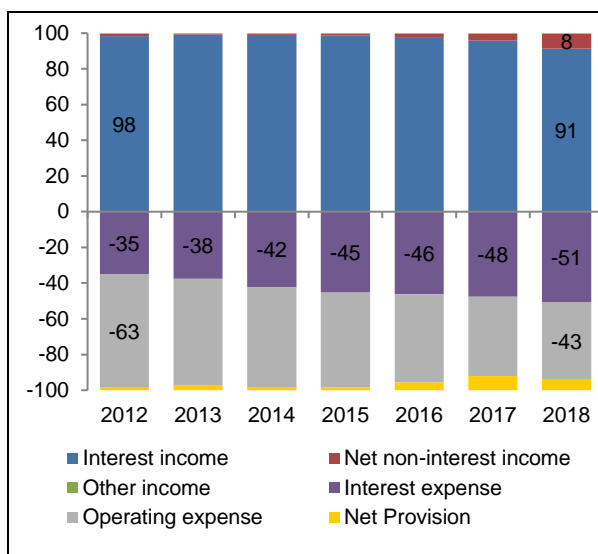
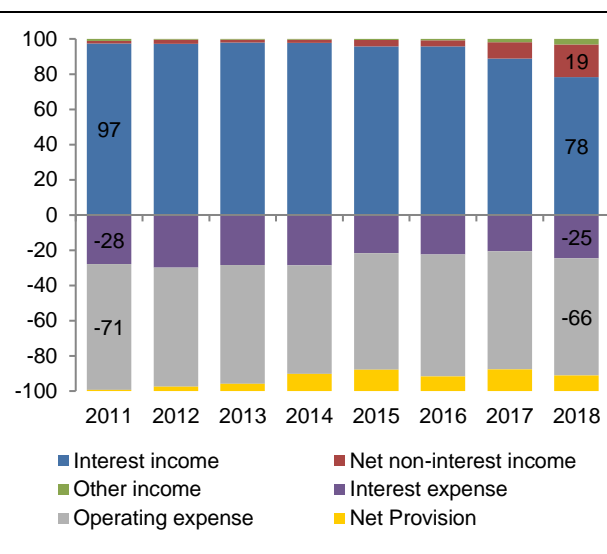


Figure 31. MFIs' income and expense structure (in percent)

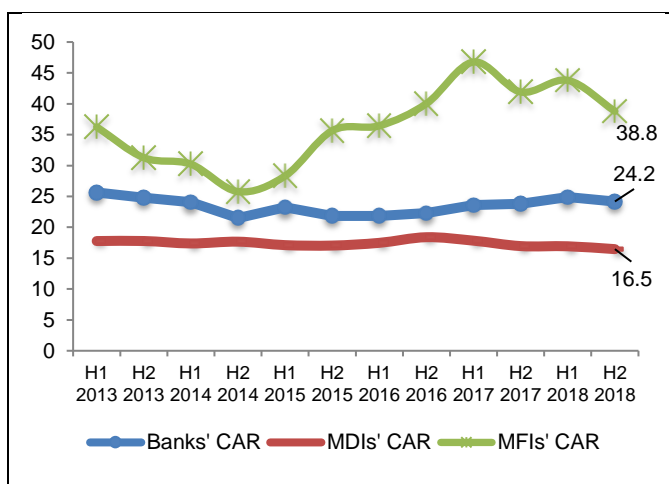


Source: National Bank of Cambodia

c) Capital Position

The overall banking system maintains capital adequacy ratio (CAR) higher than the regulatory requirements¹⁴ on average. The process of increasing minimum paid-in capital has been completed by the end of 2018 and all banks have complied with the regulatory requirement. Generally, banks have maintained high and stable CAR at around 24 percent (see Figure 32).

Figure 32. Banking sector's capital adequacy ratio (CAR) in percent



Source: National Bank of Cambodia

On average, the MFI sector maintains CAR higher than the regulatory requirement. By 2018, MDIs have the average solvency ratio of 17 percent – slightly above the requirement. Meanwhile, the average solvency ratio of MFIs has risen to 39 percent in 2018.

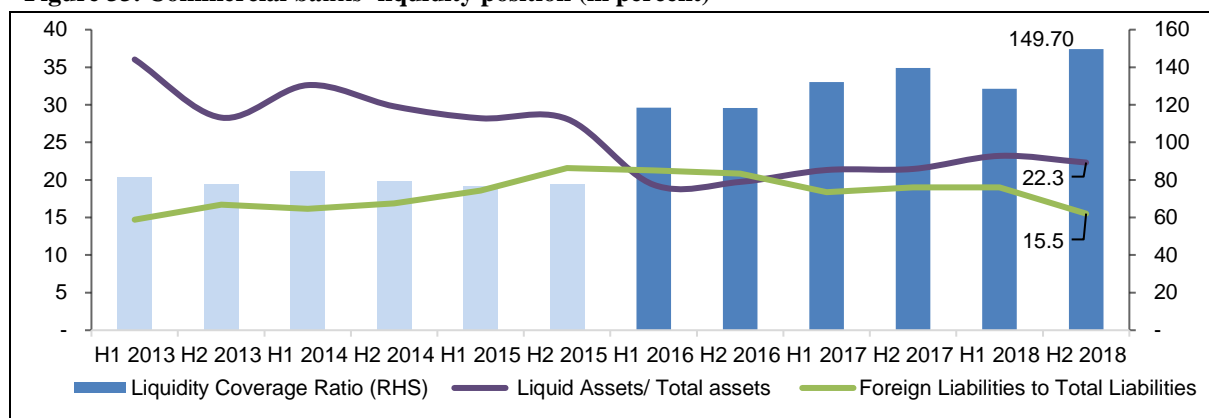
Note that comparison of CAR across different types of financial institutions is not advisable due to differences in regulations governing banks, MDIs and MFIs as well as differences in their business models.

¹⁴ The regulatory requirement for capital adequacy ratio (CAR) has been set at 15 percent.

d) Liquidity Position and Funding

Overall, banks can withstand short-term liquidity stress with the current Liquidity Coverage Ratio (LCR) well above 80 percent, and its funding source was primarily in the form of deposits. Figure 33 shows commercial banks' liquidity position. It is clear that banks have increased their LCR over the past few years, while the share of foreign liabilities declined. A closer look reveals that banks' funding was predominantly deposits. As of December 2018, 65 percent of banks' funding was in the form of deposits and banks' borrowing constituted around 13 percent of total funding, of which around 67 percent was over one year (see Figures 34 and 35).

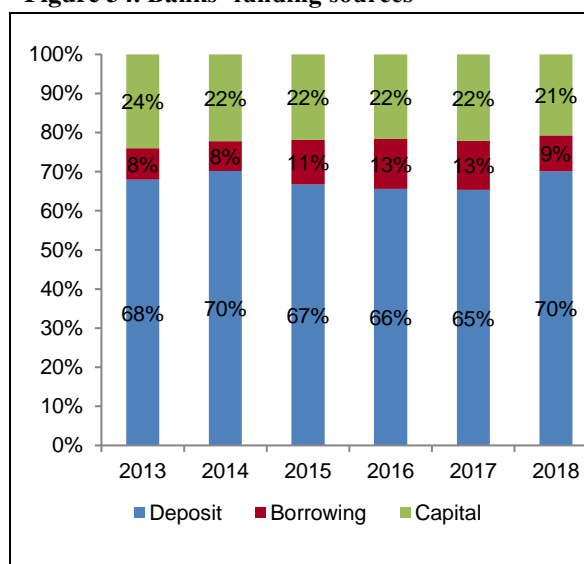
Figure 33. Commercial banks' liquidity position (in percent)



Note: 2013-2015, the light blue bar represents the old calculation of Liquidity Ratio complied with 50%, while 2016 afterward, calculate the Liquidity Coverage Ratio (LCR) comply with new LCR Prakas accordingly.

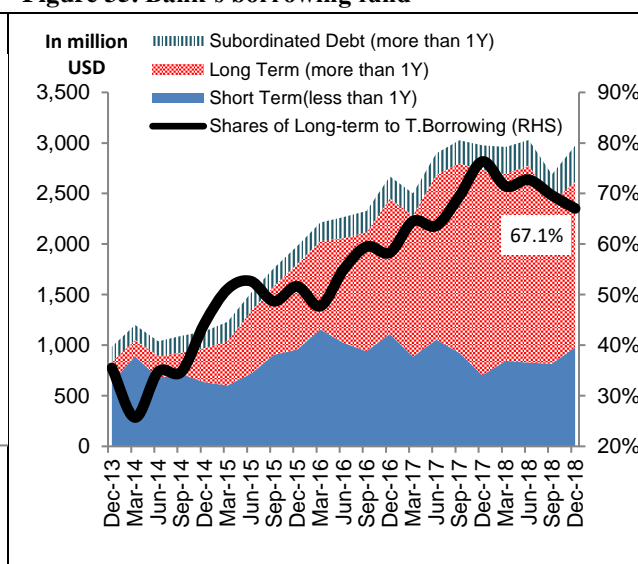
Source: National Bank of Cambodia

Figure 34. Banks' funding sources



Source: National Bank of Cambodia

Figure 35. Bank's borrowing fund



MFI sector relied more on borrowings compared to banks. MFI sector's funding structure consists of deposits, borrowings and capital to support its financing activities. Deposits played a key role to support MDIs, accounting for around 57 percent of total funding in 2018

(54 percent as of 2017). At the same time, MDIs also acquired funding through borrowings, contributing around 37 percent of total funding (40 percent as of 2017). Lower proportion of deposits resulted in high loan to deposit ratio, which slightly declined to 162 percent in 2018 from 183 percent in 2017 (see Figures 36 and 37).

Figure 36. MDIs' funding structure (in percent)

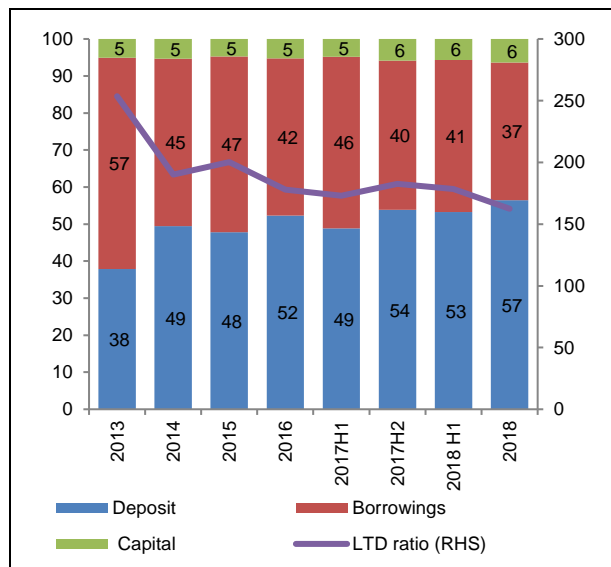
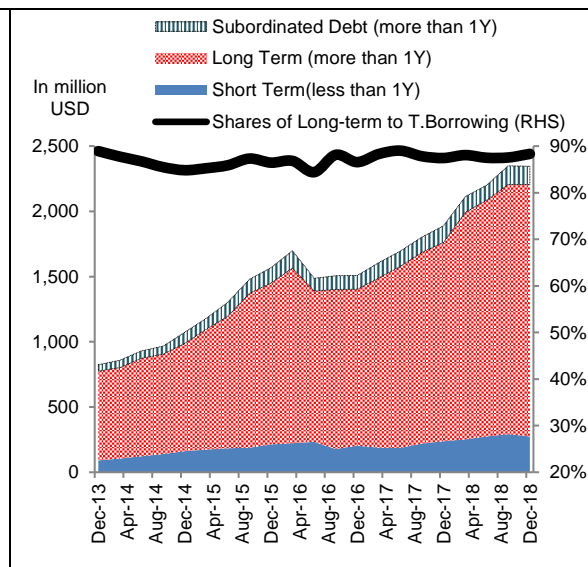


Figure 37. MDIs and MFIs' borrowings



Source: National Bank of Cambodia

MDIs had a larger share of overall MFI sector's borrowings with a significant portion of MFI sector's borrowings from non-resident creditors. Out of total borrowings by MFI sector, borrowings by MDIs contributed around 80 percent in 2018. Moreover, the large proportion of total borrowings was from non-residents, accounting for around 73 percent in 2018 (see Figures 38 and 39).

Figure 38. Total borrowings by MDI and MFI (in percent of total borrowing, 2018)

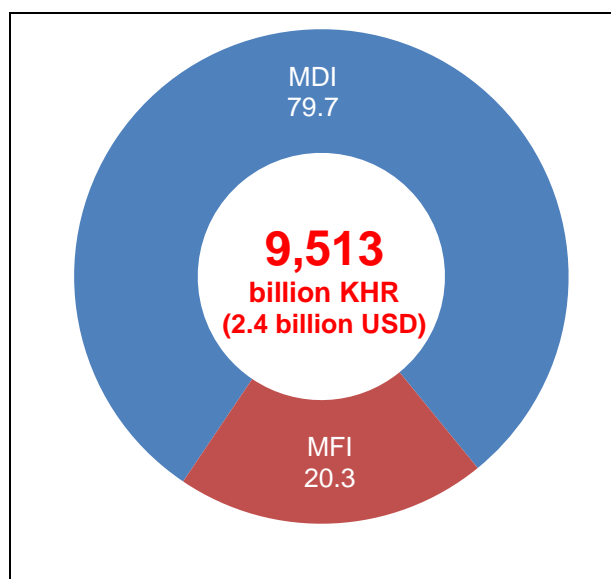
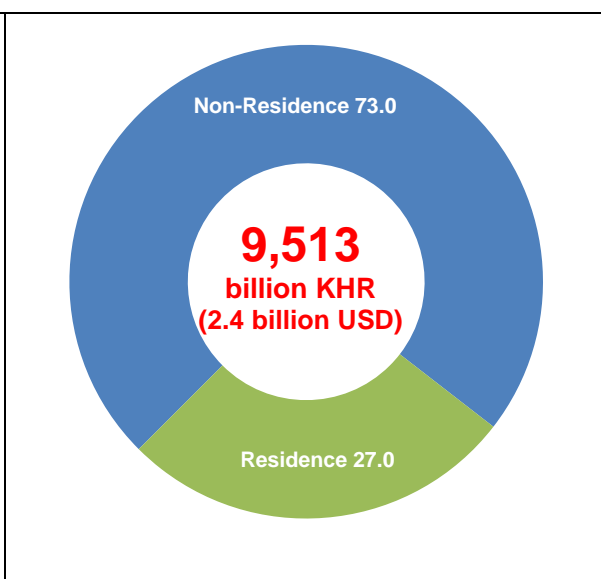


Figure 39. MDI and MFI's total borrowings by lender (in percent, 2018)



Source: National Bank of Cambodia

Although the majority of MDIs' borrowings were external, the sources of funding were well-diversified across countries. MDIs used a large proportion of funding from borrowings to support its businesses, of which 78 percent of total borrowings was from non-resident creditors. For non-resident borrowings, the sources of funding were diversified across several countries – namely, Luxembourg, Singapore, USA and the Netherlands (see Figure 40). However, resident borrowings were mainly from foreign banks in Cambodia – the majority of which were Chinese banks (Figure 41).

Figure 40. MDI's total borrowings by country (in percent of total borrowings)

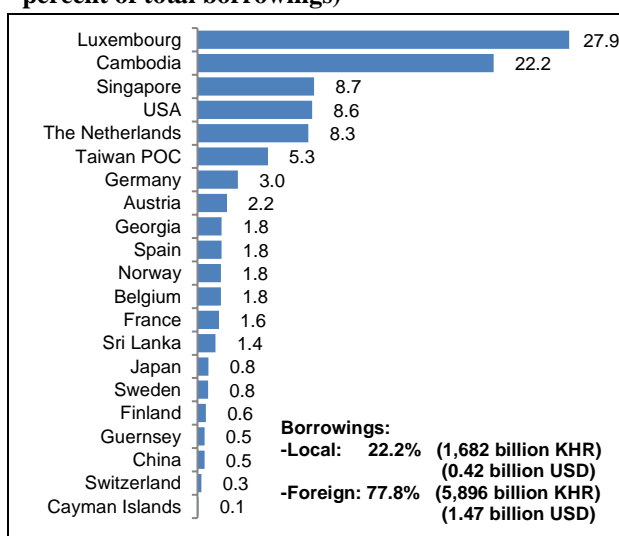
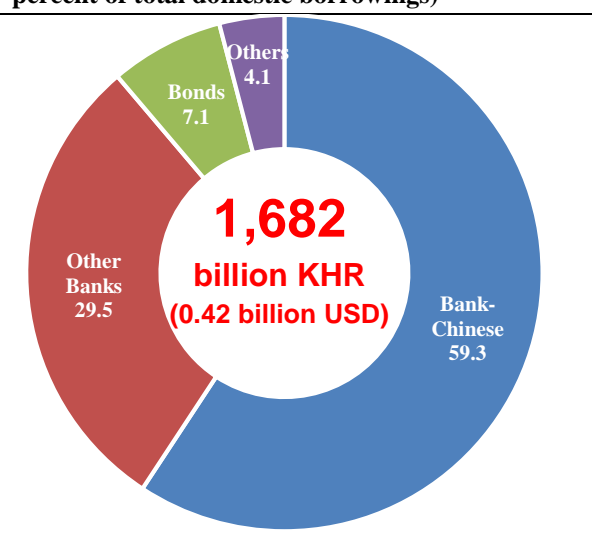


Figure 41. MDI's total domestic borrowings (in percent of total domestic borrowings)



Source: National Bank of Cambodia

For MFIs, the majority of its borrowing was from domestic sources, particularly local banks and financial institutions, given that MFIs were not allowed to collect deposits. As MFIs were not allowed to take deposits by regulation, they relied on domestic and external borrowings to support their operations in providing financial services and products to customers in the remote area, which may not be sufficiently served by commercial banks. Out of MFIs' total borrowing, 51 percent was from resident funds through banks and financial institutions. MFIs' external borrowings were mainly from Japan, Singapore, Korea, and Taiwan POC (see Figure 42 and 43).

Figure 42. MFI's total borrowings by country (in percent of total borrowings)

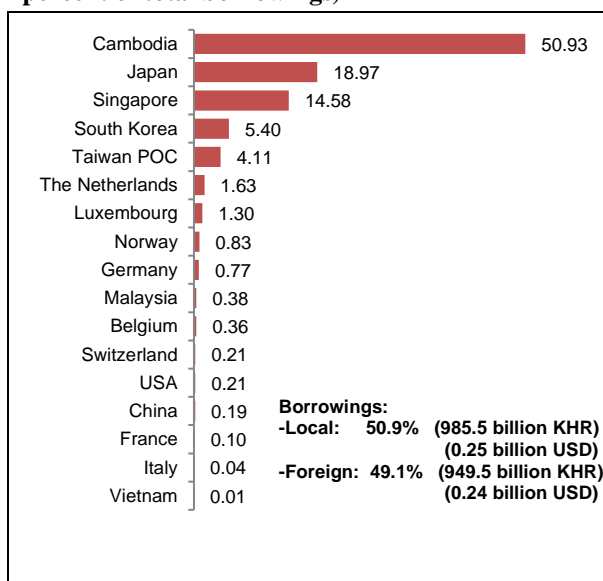
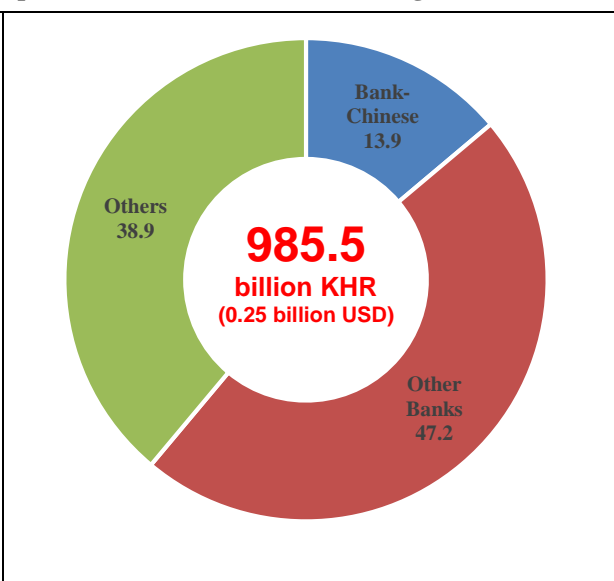


Figure 43. MFI's total domestic borrowings (in percent of total domestic borrowings)



Source: National Bank of Cambodia

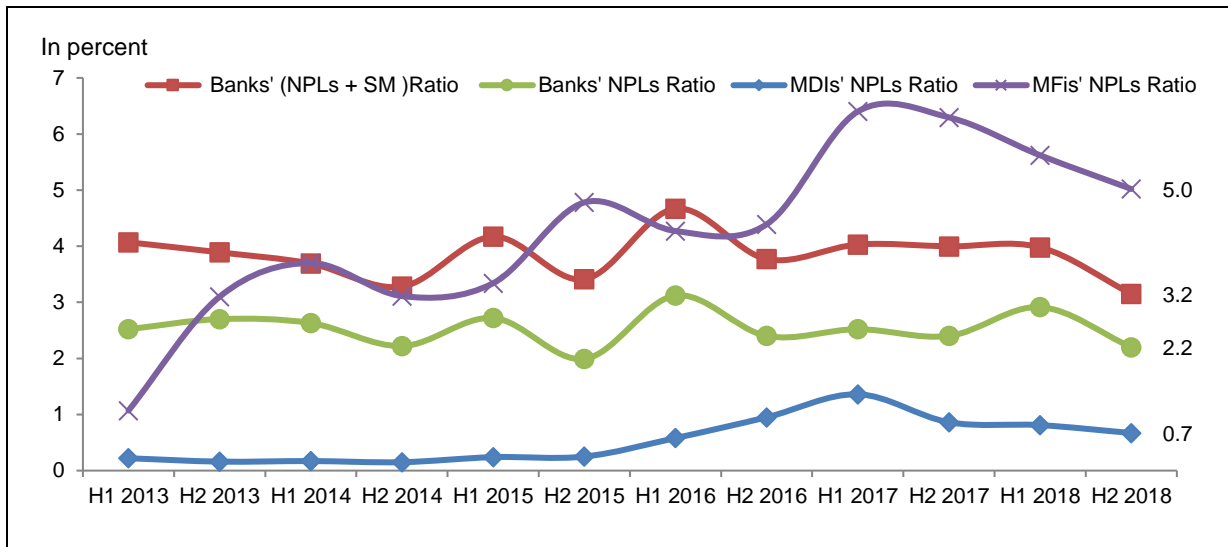
The MFI sector maintained high liquidity buffer which could help mitigate the risk of short-term funding shocks, partly explained by the borrowing maturity structure. Out of total borrowings by MDIs and MFIs, around 90 percent were over one year. Furthermore, MDI's average liquidity coverage ratio (LCR) registered 214 percent (an increase from 159 percent in 2017) which was above the transitional regulatory minimum requirement of 80 percent in 2018. This provides strong liquidity buffer to withstand any funding shocks over a 30-day stress scenario.

e) Credit Quality

Overall credit quality of the banking system has slightly improved. Figure 44 shows a decline in overall NPL ratios for banks and MDIs over the past two years, while in the case of MFI sector, NPL ratios have declined from their peak last year. Note that NPL definitions for banks and MFI sector differ.¹⁵

¹⁵ In the case of banks, when a loan is past due by more than 30 days, such loan becomes a special mention (SM) and if it is past due by more than 90 days, it becomes an NPL. For MDIs/MFIs, when a loan is past due by more than 30 days, it becomes an NPL. Therefore, NPLs and SM of a bank would be comparable to an MDI/MFI's NPL.

Figure 44. Banking system's NPL ratios



Source: National Bank of Cambodia

2.2 Development in Securities and Insurance Sectors

a) Securities Sector

Cambodia Securities Exchange (CSX) continued to grow despite the lack of initial public offerings during the year. Its market capitalization has increased by 44 percent in 2018, from KHR 1.23 trillion in 2017 to KHR 1.77 trillion in 2018.

In terms of returns, the CSX index closed about 41 percent up over the year, from 340.22 to 480.98 points, led by strong performance of Sihanoukville Autonomous Port (PAS) and Phnom Penh Autonomous Port (PPAP) (see Figure 45). Shares of PAS started to rally in December 2018, delivering a substantial 102.8 percent return for the whole year, while that of PPAP returned more than 49 percent during the same period.

Figure 45. Performance of CSX index in 2018

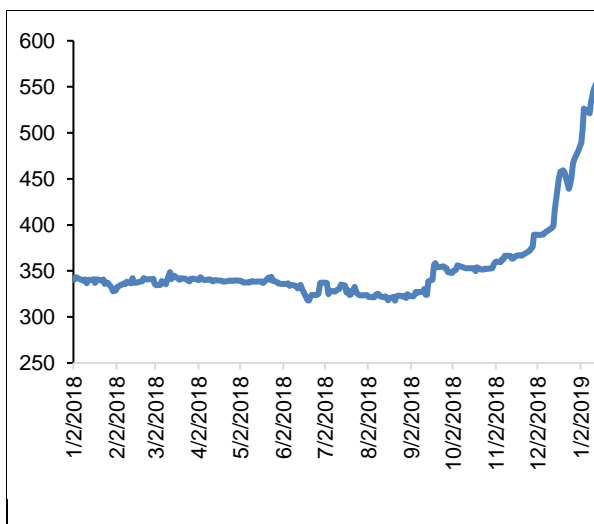
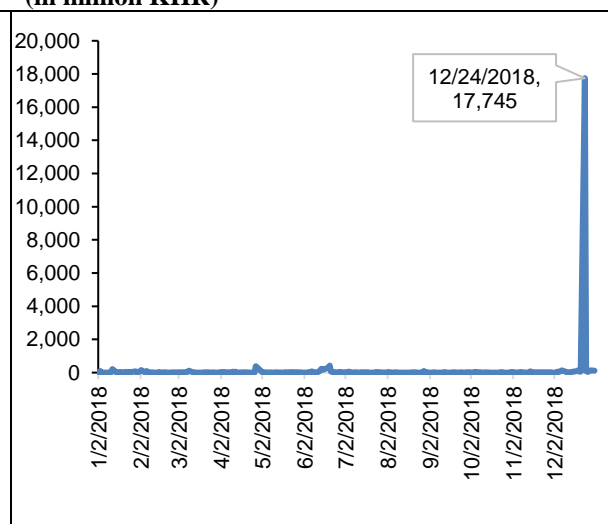


Figure 46. Total trading volume in 2018 (in million KHR)



Source: Cambodia Securities Exchange

Meanwhile, trading activity on the CSX has slightly increased over the course of the year. CSX reported that average daily trading volume increased by 7 percent, whereas the average trading value picked up by 101 percent from KHR 52.60 million to KHR 106.80 million. However, this could be accounted for by an unusually large volume of transactions that occurred on 24th December 2018, when more than 17 billion of PAS shares were exchanged (see Figure 46).

The number of trading accounts has more than doubled compared to last year. CSX reported that there were 20,535 trading accounts in 2018 compared to 8,973 in 2017, while 84 percent of the trading accounts were owned by domestic investors. This could partly be attributable to the Mobile Trading System, which was launched on 25th June 2018 to allow investors to trade and check their account online. The Mobile Trading System processed about 59 percent of all stock orders for the year.

Finally, groundbreaking developments were made in the bond market, with the listing of the first Riel-denominated corporate bond in Cambodia on 05th December 2018. Hattha Kaksekar Limited (HKL), the issuer and the third largest MDI in Cambodia, offered 1,200,000 bonds in the local currency worth KHR 120 billion, of which 66.7 percent were allocated to International Finance Corporation and the remaining to qualified investors. The 3-year bond, rated BBB+ by Tris Rating Agency, provides investors with 8.50 percent coupon payment to be paid semi-annually. The success of HKL bond listing has attracted the attention of several local companies looking for alternative financing options to expand their operations. According to the CSX, an increasing number of companies, and in particular, financial institutions, have shown interest in issuing and listing their bonds on the stock exchange in the near future.

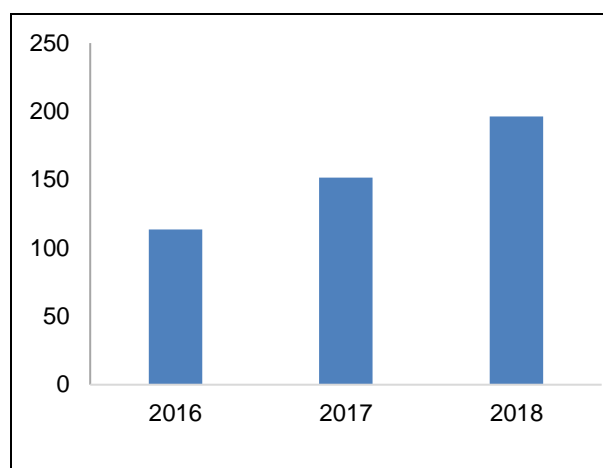
a) Insurance Sector

As of 2018, the insurance sector in Cambodia comprised 62 insurance companies and insurance-related companies of which 12 are general insurers, 8 life insurers, 1 re-insurer, 8 micro-insurers, and 33 intermediary companies. Among the notable new entrants are Japanese insurers, Dai-ichi Life Insurance (Cambodia) PLC Holdings Inc., and Newa Insurance Cambodia PLC, a joint-venture between local investors and Tokyo Marine Group.

The insurance sector continued to expand as reflected by the growth in premiums within both the general insurance and life insurance segments.

Compared to last year, total gross premium collected by insurance companies increased by 29.6 percent in 2018 to reach USD 196.4 million, according to the latest report from Insurance Association of Cambodia (IAC)¹⁶ (see Figure 47). In particular, sales of general insurance grew by 15 percent mainly driven by property, medical and auto insurance. Meanwhile, life insurance premium increased by 50.6 percent due to strong sales of endowment policy.

Figure 47. Total gross premium (in million USD)



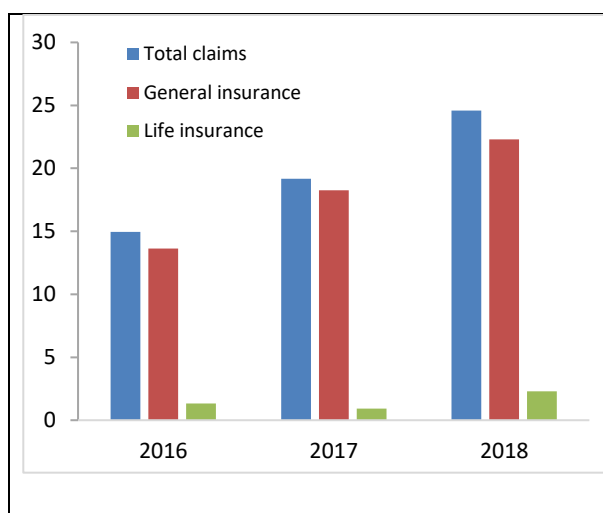
Source: Insurance Association of Cambodia

Similarly, the amount of claims paid¹⁷ has increased slightly for both insurance sectors. In Figure 48, general insurers paid out around USD 22.3 million in claims in 2018, compared to USD 18.2 million in 2017. As a result, the claim ratio in that segment went up to 23.1 percent in 2018 (from 21.7 percent in 2017). Claims in the life insurance sector totaled USD 2.3 million (with the claim ratio of 2.3 percent), up from nearly USD 1 million in 2017 (with the claim ratio of 1.4 percent).

Although the insurance industry remained small relative to the size of the financial system, its outlook is positive.

Based on the IMF's calculation, the insurance sector constituted around 0.5 percent of total financial sector assets.¹⁸ That said, the outlook for the industry remains positive as insurance companies focus on increasing the scale of their operations and expand their customer outreach particularly through bancassurance partnerships. As a result, it should be expected that the insurance sector continues to grow strongly in the years to come.

Figure 48. Total claims paid (in million USD)



Source: Insurance Association of Cambodia

¹⁶ Insurance Association of Cambodia, Press release for 4th Quarter 2018.

¹⁷ Claim ratio is calculated as Claim paid / Gross Premium

¹⁸ Total financial sector assets were estimated at around USD 42 billion.

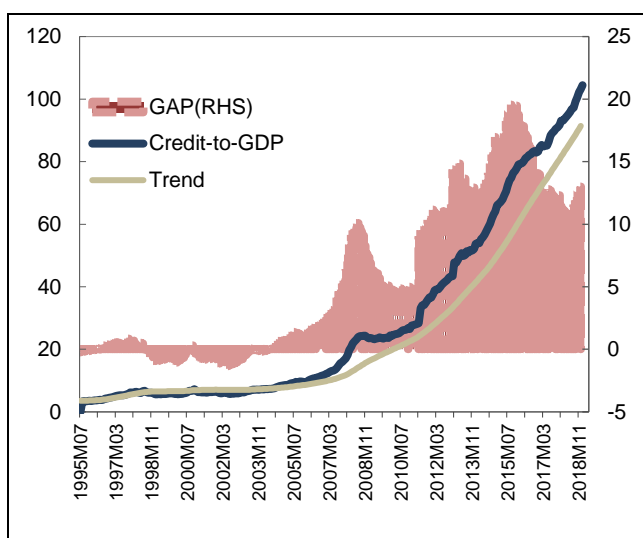
III. MACRO-FINANCIAL LINKAGES AND POTENTIAL RISKS TO FINANCIAL STABILITY

3.1 Credit to GDP Gap and Sectoral Credit

a) Credit to GDP Gap

Credit to GDP gap indicates that there remains rapid credit growth, despite a slowdown from its 2015 peak following NBC regulations. Credit to GDP gap is one measure of potential risks associated with rapid growth of credit relative to overall economic activities.¹⁹ As of end-2018, credit to GDP gap is expected to be around 13 percent, which is above the threshold of 10 percent, indicating rapid credit growth (see Figure 49). This is despite a slowdown in credit

Figure 49. Credit to GDP gap (percent)



Source: National Bank of Cambodia

growth from its peak in 2015. Such a slowdown was partly consequent of NBC regulations to enhance resiliency in the banking system.

Several NBC regulations have been implemented over the past few years to strengthen the banking system's resiliency. This includes regulations on liquidity coverage ratio, liquidity management framework, an increase in minimum paid-in capital requirements, credit risk grading and provisioning as well as capital conservation buffer and countercyclical buffer. The NBC remains watchful on the overall credit growth, credit distribution as well as lending standard, and will stand ready to address vulnerabilities, should they arise.

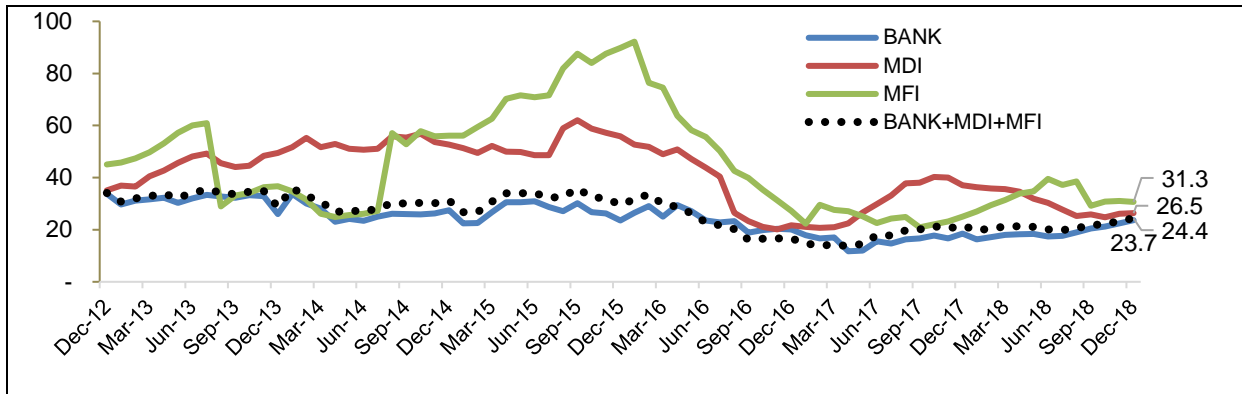
b) Sectoral Contribution to Credit Growth

The banking sector's overall credit growth remained high. As of end 2018, credit growth registered 24.4 percent picking up from 21.6 percent in 2017.²⁰ Banks and MFIs saw an acceleration in credit growth, while in the case of MDIs a slowdown in credit growth was evident (see Figure 50).

¹⁹ Credit to GDP gap is the difference between credit to GDP ratio and its long-term trend. According to BCBS, if the credit to GDP ratio is significantly above its trend (i.e. there is a large positive gap which is above 10 percent), there is an indication that credit may have grown to excessive level relative to GDP.

²⁰ This includes credit to both residents and non-residents.

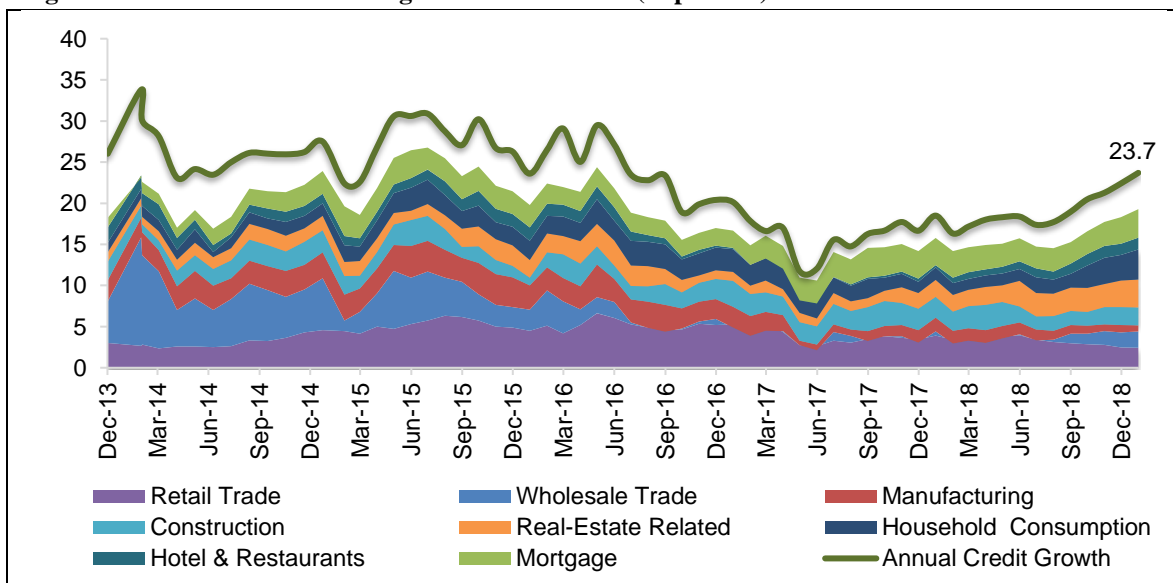
Figure 50. Banking system credit growth (in percent y-o-y)



Source: National Bank of Cambodia

The dynamics and major sectoral contributors of credit growth differ slightly between banks and MFI sector. From Figure 51, overall banks' credit growth registered 23.7 percent – picking up from end of 2017 at 18.5 percent with large contributions from construction and real estate activities (6 percent), household consumption (4 percent), and mortgages (4 percent). Meanwhile, credit growth contribution of agriculture and manufacturing remained relatively low (at 0.6 and 0.4 percent respectively). Growth of credit to real-estate related activities and construction was around 35 percent - an acceleration from 33 percent in 2017.

Figure 51. Banks' sectoral credit growth contribution (in percent)



Source: National Bank of Cambodia

Meanwhile, credit to agriculture and manufacturing sectors grew at much lower rates of 7 and 6 percent respectively.

MFI sector's credit has shifted from traditional sectors to other sectors and continued to expand. MDIs' credit growth decelerated from 37.7 percent as of end-2017 to 26.5 percent in 2018 due to a gradual slowdown in credit to a few sectors such as households, services, and trade and commerce but with an acceleration of credit growth to construction sector (Figure

52). Transportation and construction contributed 1.8 and 1.3 percent to total credit growth, respectively, while households, trade and commerce, and services contributed around 12.9 percent, 3.7 percent and 3.7 percent, respectively. On the contrary, MFIs' credit growth continued to accelerate from 26.3 percent as of end-2017 to 31.3 percent in 2018 (Figure 53). Transportation and construction contributed around 3.4 percent while households, trade and commerce, and services of 13.1 percent, 2.7 percent and 2.1 percent respectively. Thus, credit provided by MDIs and MFIs have significantly shifted from traditional sectors – agricultural sector in particular, to other sectors.

Credit provided by MDIs and MFIs has been dominated by household credit. It is clear that rapid growth in household credit was the main driver of credit growth in 2018. Around half of MDIs' credit growth was attributable to household credit. Based on the Credit Bureau Cambodia (CBC) data, around 73 percent of consumer credit was in the form of personal loans and 27 percent in mortgages. In the case of MFIs, household credit also contributed over half of overall credit growth.

Figure 52. MDIs' sectoral credit growth contribution (in percent)

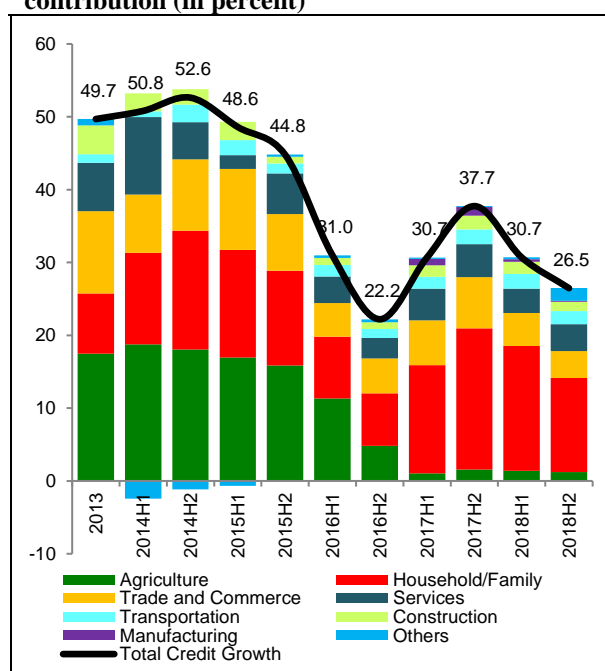
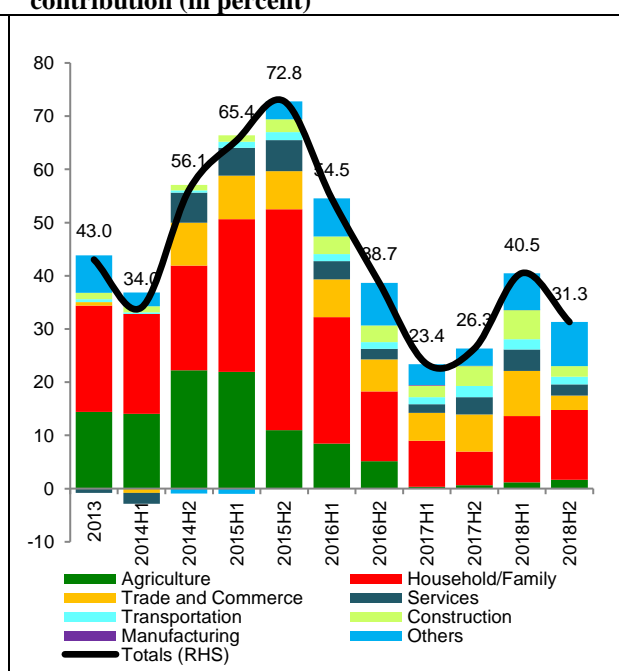


Figure 53. MFIs' sectoral credit growth contribution (in percent)

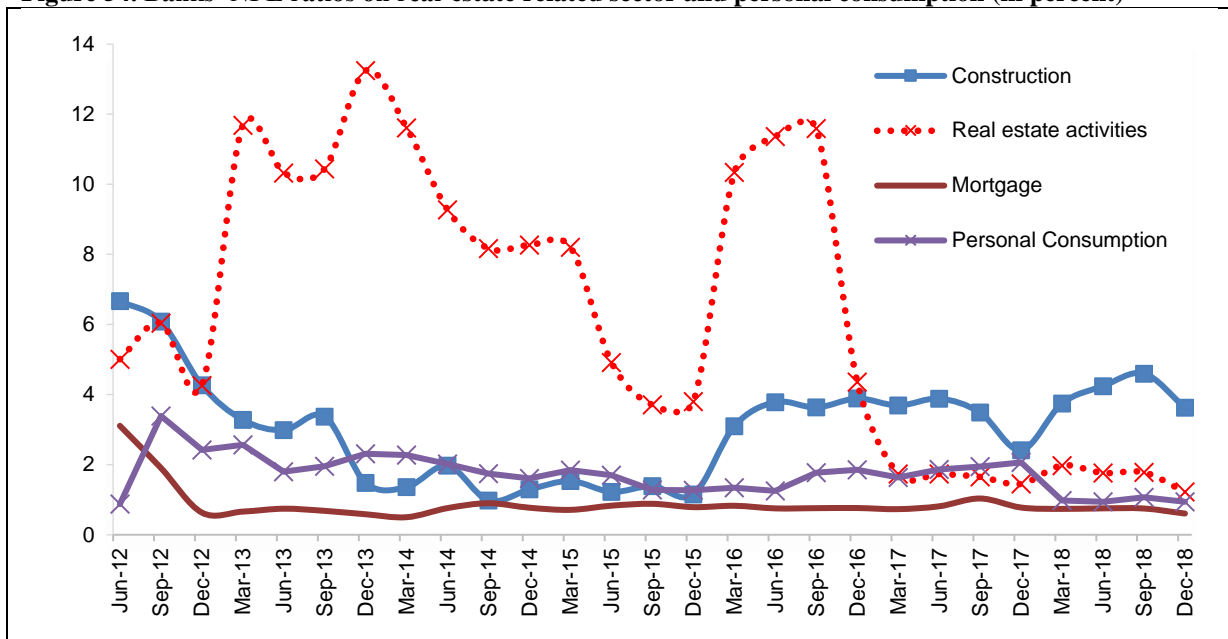


Source: National Bank of Cambodia

c) Quality of Credit by Economic Sector

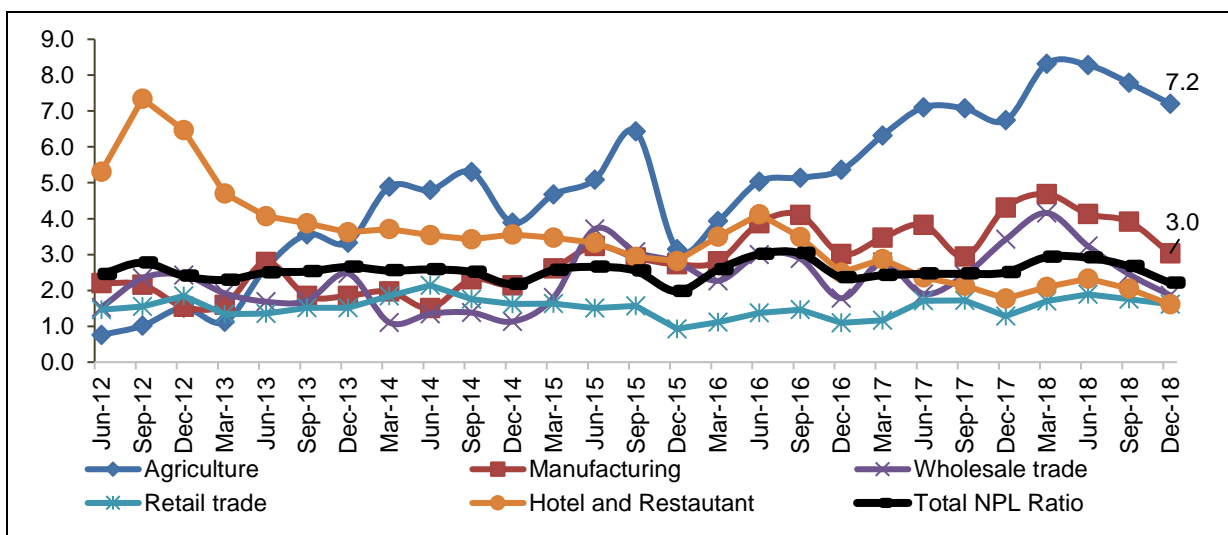
The overall NPL ratios for banks have decreased but remained high for agriculture and construction sectors. The overall banks' NPL ratios decreased from 2.5 to 2.2 percent. NPL ratios of agriculture and construction sectors remained high registering 7.2 and 3.6 percent while other sectors' NPL ratios have been stable in the range of 1-4 percent. (Figures 54 and 55).

Figure 54. Banks' NPL ratios on real-estate related sector and personal consumption (in percent)



Source: National Bank of Cambodia

Figure 55. Banks' NPL ratios by major economic sector (in percent)



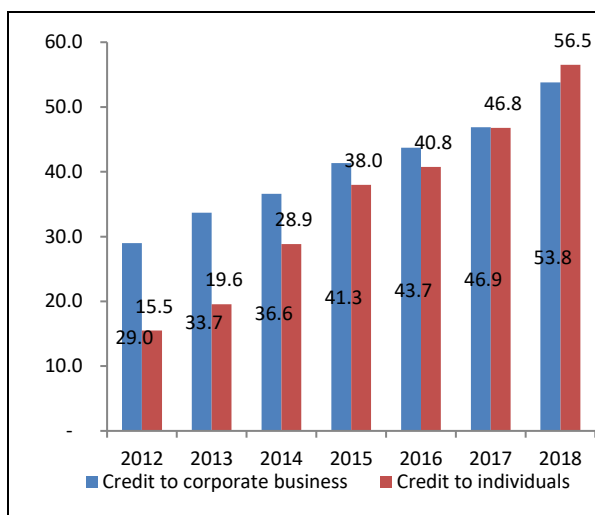
Source: National Bank of Cambodia

3.2 Understanding Credit to Individuals and Its Implications on Financial Stability

Credit to individuals in Cambodia consists of both personal essentials as well as business purposes, which help promote both consumption and investment. Out of the total credit to private sector, 55percent goes to individuals and 45 percent to corporate businesses. Within the total credit to individuals, around 60 percent is borrowing for business purposes. The main reason why credit to individuals dominates total credit is because most of banks' lending would require collaterals which are usually in the form of hard title of properties, belonging to individual names.

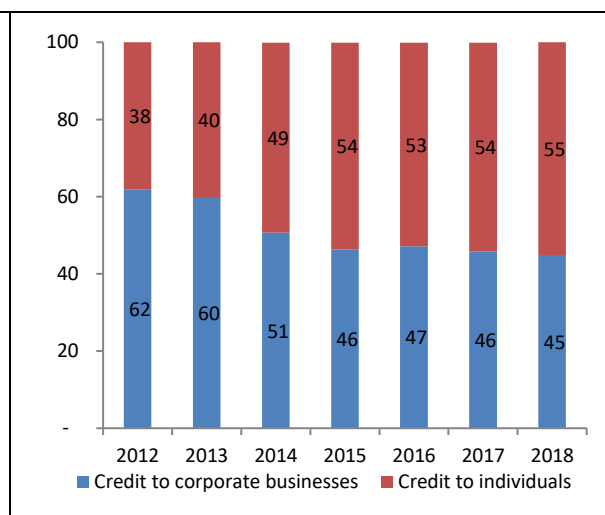
Credit to individuals expanded in line with economic growth and better living standard, nonetheless, it remained relatively low compared to regional countries. Credit to individuals has increased more than threefold from 16 percent of GDP in 2012 to 57 percent of GDP in 2018 (Figure 56).

Figure 56. Credit to corporate businesses and individuals (in percent of GDP, 2018)



Source : National Bank of Cambodia

Figure 57. Credit to corporate businesses and individuals (in percent of total credit)



Source : National Bank of Cambodia

Although credit to individuals continues to expand due to increasing income and better access to financial services, the non-income-generating portion remained much smaller. Credit used for non-income-generating activities (“personal essentials”) increased by around 5 times from 4.4 percent of GDP in 2012 to 22.8 percent in 2018. The increase in credit to individuals used for non-income-generating activities is largely due to a rise in housing renovation and acquisition as well as purchasing durable goods.²¹ At the same time, credit used for income-generating activities (“business purposes”) rose by around 3 times to 34 percent of GDP. Out of this, over half was used for businesses in retail and wholesale trade, agriculture, as well as construction and real estate activities (Figures 58 and 59).

²¹ Based on the World Bank Report.

Figure 58. Breakdown of credit to individuals (in percent of GDP, 2018)

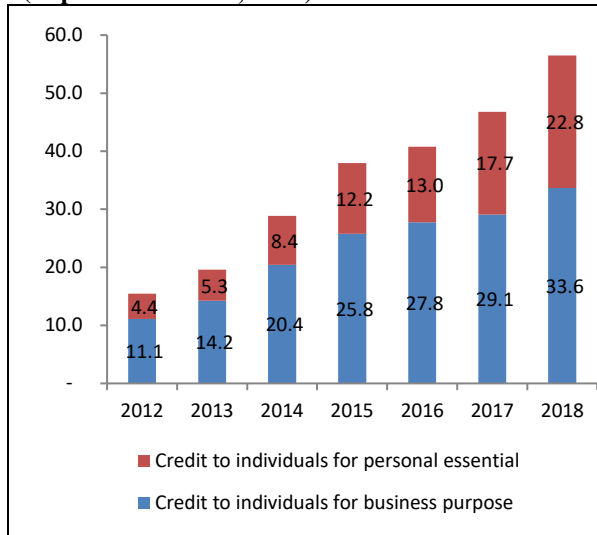
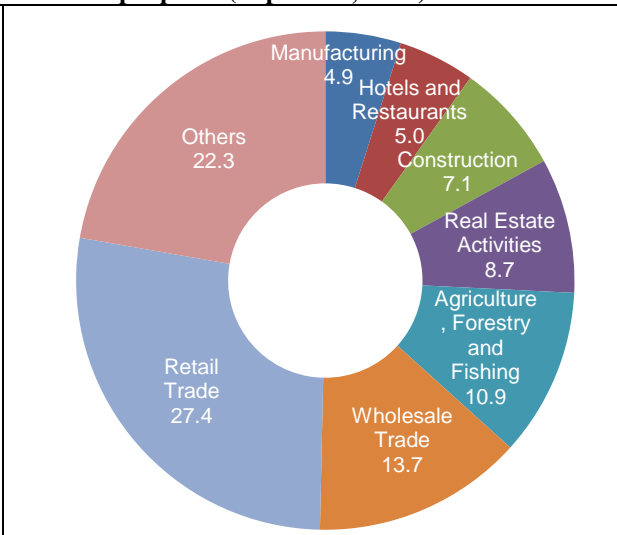


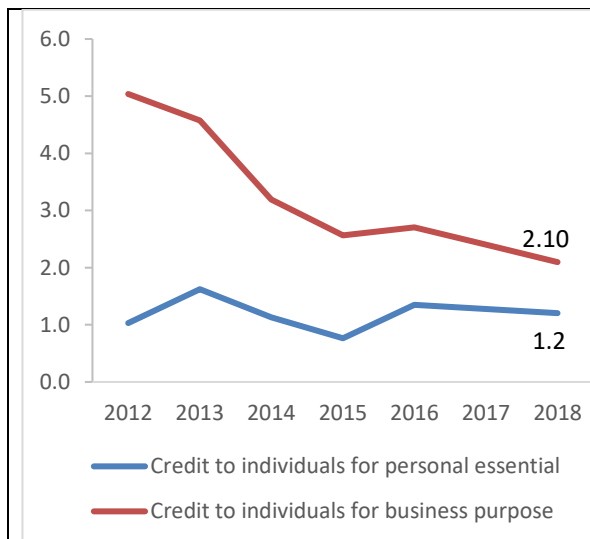
Figure 59. Breakdown of credit to individuals for business purposes (in percent, 2018)



Source : National Bank of Cambodia

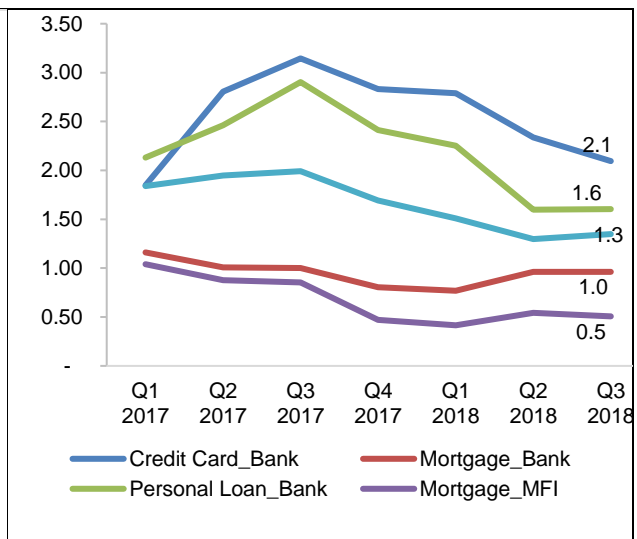
The overall quality of credit to individuals remained sound. The NPL ratio of credit to individuals for business purposes declined from around 5 percent in 2012 to around 2.1 percent in 2018. Meanwhile, credit to personal essentials segment maintained the NPL ratio at around 1 percent during the same period (Figure 60). Based on CBC data for personal essentials segment, the NPL ratio of personal loan category has been trending down, meanwhile the NPL ratio in the case of mortgages edged up somewhat but the ratios remained relatively low (Figure 61).

Figure 60. Bank's NPL ratios for credit to individual (in percent, 2018)



Source: National Bank of Cambodia

Figure 61. NPL ratios for individual loan category (in percent, 2018 Q3)



Source: Credit Bureau of Cambodia

While the quality of credit to individuals has not yet been of immediate concern, an accumulation of individual debts going forward warrants closer monitoring. Despite relatively sound credit quality, a continued increase in overall credit to individuals calls for ongoing monitoring to avoid excessive buildup of individual debt, which could potentially have destabilizing effects on the economy.

The NBC will continue its effort to strengthen financial literacy and encourage sound practice pertaining individual borrowings. A buildup of individual borrowings is partly consequent of greater financial access, which could help foster economic growth and improve standard of living. The NBC would aim to strike a sustainable balance between financial inclusion and financial stability, and in doing so, deem financial literacy of general public a crucial ingredient. Individuals are encouraged to carefully consider the terms and conditions of their borrowings and select the lenders from the NBC's registered list to avoid unfair practices.

3.3 Risk Assessments on the Real Estate Sector from Banking System's Perspectives, and Potential Macprudential Measures

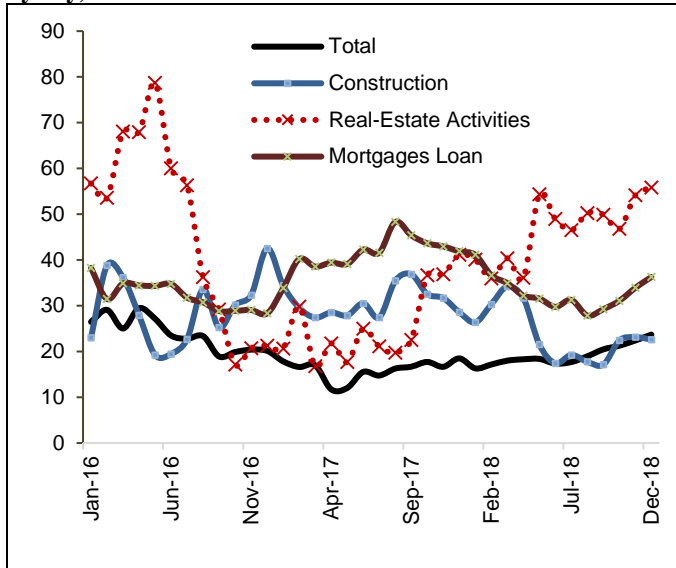
a) Identification of Vulnerabilities in the Real Estate Sector: A Demand or Supply Issue?

The fast-growing real estate sector is driven by rapid expansion on the supply side. Following the discussion in Section I, the supply of properties has grown rapidly over the past few years especially in condominium segments, and projected to continue over the next few years as the new projects are to be completed.

Continued expansion in supply has been supported by both domestic and foreign demand, while the real estate market is quite clearly segmented with pockets of vulnerabilities. Rapid economic growth in Cambodia with relatively young population contribute to an increase in housing demand. However, the type of housing favored by the locals are mainly in the form of boreys²² and affordable condominiums. At the same time, due to construction boom, many locals also invest in land for potentially speculative purposes. As far as other segments of residential properties are concerned, foreign demand especially from China has helped keep prices afloat especially for the mid-range and high-end condominiums. Thus far, robust domestic and foreign demand contributes to the overall positive sentiments for the real estate sector. Reportedly, however, certain segments of the real estate sector such as retail and office properties may not perform as well. As discussed earlier, there has also been reports of delayed construction in some projects.

²² A borey is a gated community of flat houses, twin villa houses and single villa houses, including public areas, gardens and full security services. (source: www.realestate.com.kh)

Figure 62. Real estate-related credit growth (in percent y-o-y)



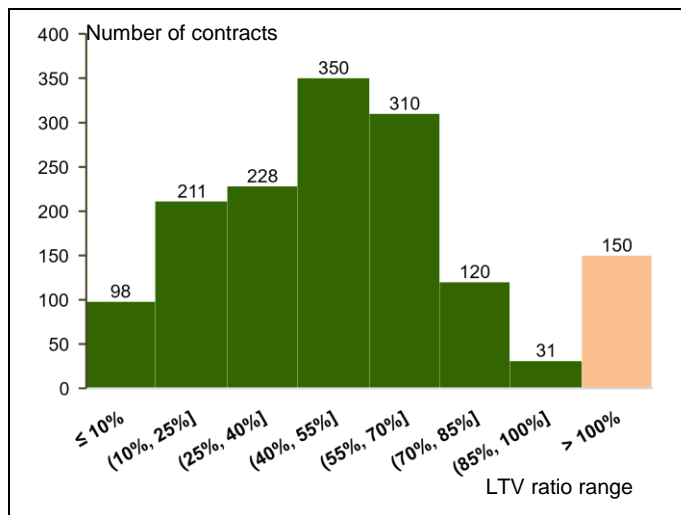
Source: National Bank of Cambodia

In line with the overall robust activities, credit to both the supply (construction and real estate related activities) and the demand side (mortgages) grew rapidly. As discussed earlier in sub-section 3.1, high overall credit growth was largely attributable to real estate related sectors – construction, real estate, as well as mortgages. From Figure 62, it is evident that credit to these sectors registered very high growth rates, especially in the case of real estate related activities.

The quality of loans, however, deteriorated especially on the supply side (construction sector), in line with the delays in some construction projects. As shown earlier in sub-sections 3.1 and 3.2, the quality of mortgage loans and real estate activities remained broadly sound. However, on the construction sector, the NPL ratio has been trending up over the past few years which calls for continued monitoring from both concerned authorities and financial institutions.

On the demand side, the overall low NPL ratio of mortgages could be attributable to both customers’ discipline as well as broadly sound banks’ lending standard as reflected in low loan-to-value (LTV) ratio for the majority of contracts. On the customer side, borrowers would try to avoid

Figure 63. LTV distribution



Source: National Bank of Cambodia and staff calculation

missing loan repayments, as this could result in foreclosure. On the lender side, based on the survey sample, it is clear that the majority of mortgage contracts (around 80 percent of total contracts) registered loan-to-value (LTV) ratios of up to 70 percent, which is considered sound²³ (see Figure 63).

²³ The calculation is based on banks’ property-related lending with a sample of around 1,500 mortgage contracts provided by 34 banks during November 2018. The LTV ratio is calculated from the ratio of approved loan amount and appraisal price of property by independent appraisal company (if not available, the market price is used instead).

Several factors could come into play in explaining loans with higher LTV ratios. The proportion of mortgages with LTV ratios higher than 70 percent was around 20 percent of the overall sample. Several factors could come into play including different bank lending standard, asset price valuation, potential mis-classification of loan purposes, as well as potential speculative activities.

To sum up based on the assessment above, vulnerabilities in the real estate sector are more likely to arise from the supply side due to potential over-supply in some segments. At the same time, lending standard on the demand side (mortgages) could be regarded as sound for the majority of loans but could be safeguarded further to avoid potential room for speculative activities.

b) International Experiences on the Implementation of Macroprudential Measures

Based on the IMF Annual Macroprudential Policy Survey²⁴, household sector tools were widely used – particularly the cap on loan-to-value ratios. Figure 64 illustrates the use of macroprudential measures in 141 countries. It is clear that household tools were popular –

Figure 64. Use of macroprudential tools by type

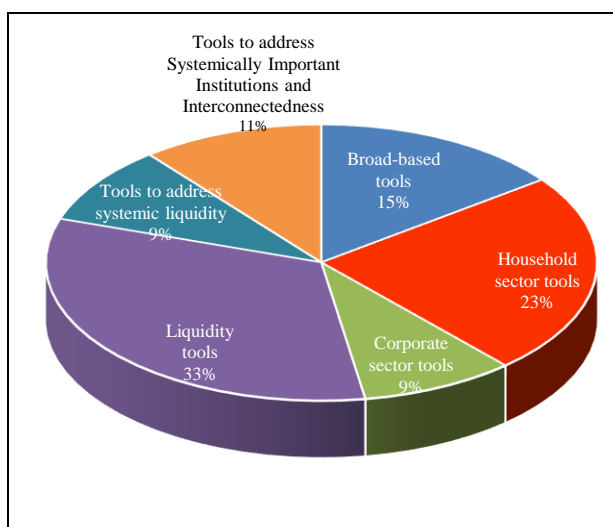
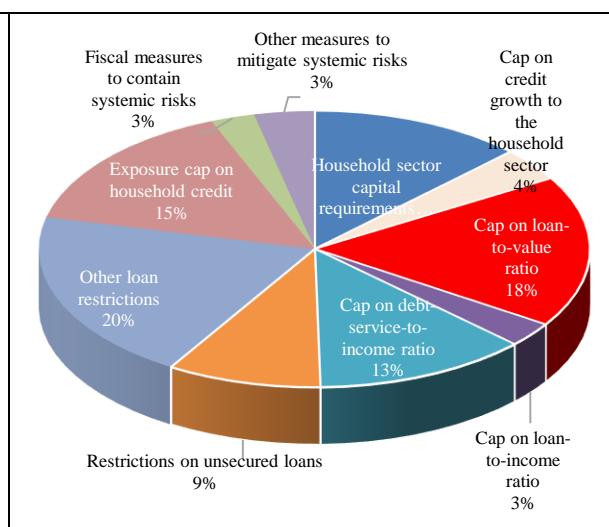


Figure 65. Use of household sector tools by type



Source: International Monetary Fund and staff calculation

only second to liquidity tools. Among the household tools, the cap on loan-to-value ratios was mostly used (Figure 65), with most countries setting the threshold for LTV ratio between 70-85 percent (Figure 66).

²⁴ Information was as of end-2016.

Figure 66. Use of LTV ratio cap (distribution)

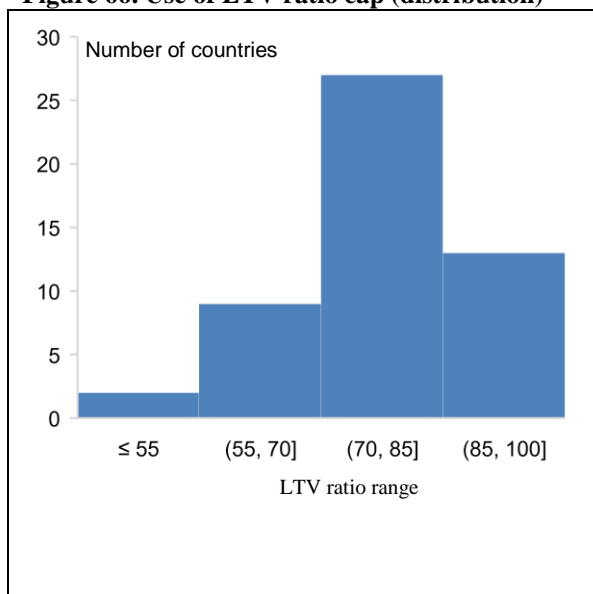
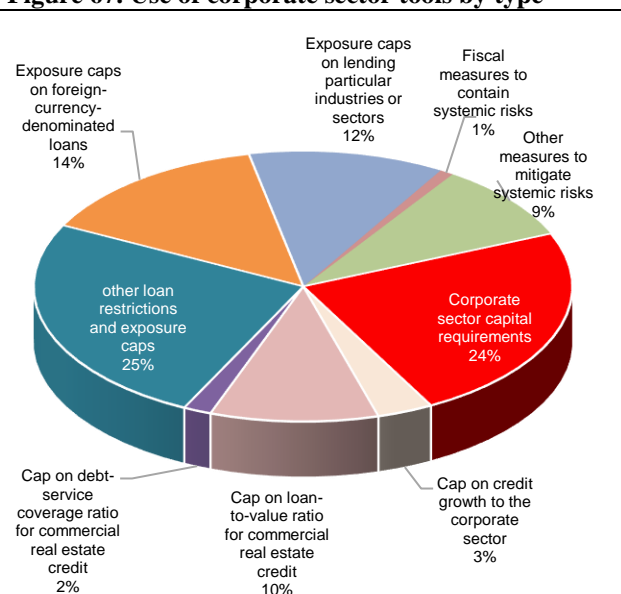


Figure 67. Use of corporate sector tools by type



Source: International Monetary Fund and staff calculation

On the corporate sector side, the most widely used tool was the corporate sector capital requirements, which was considered a price-based measure. Figure 67 shows the use of different corporate sector macroprudential tools. Sectoral capital requirements appeared to be preferred over the cap on credit growth or quantitative restrictions. The rationale is clear as the sectoral capital requirements would impose higher costs on lending to sectors with relatively higher risks, i.e. impose higher prices to reflect greater risks.

c) Potential Macroprudential Measures to Tackle Real Estate Sector Issues

Bearing in mind vulnerabilities in the real estate sector, especially on the supply side, sectoral capital requirement could be deemed as a potential tool. The real estate sector vulnerabilities appear to be more likely on the supply side due to high credit growth to construction and real estate. As discussed earlier that among the corporate sector tools, sectoral capital requirements (where higher risk weights are imposed on loans to specific sectors) have been widely used. Higher risk weights could be applied to real estate and construction sectors in the case of Cambodia to dampen credit growth in these sectors.

On the demand side, as an important prerequisite to the implementation of measures such as LTV, appropriate standard of asset valuation needs to be in place. Despite relatively low LTV ratios (70 percent and below) for the majority of mortgage contracts, there is still room for sub-standard lending or potential speculation especially on land and condominiums. In line with international experiences, the threshold for LTV ratios could be considered to avoid potential risks of speculative activities and safeguard sound lending practices. The LTV measures could be implemented in various manners – for instance, there

could be a strict cap on LTV ratios or higher risk weights could be attached to mortgages with LTV ratio higher than a threshold. The latter option provides some room for banks to make decisions at a cost.²⁵ In addition, in order to avoid potential loophole that could hinder policy effectiveness, appropriate standard of asset valuations needs to be in place. The lack of standardized or accredited property evaluators allows room for potential property over-valuation in an attempt to keep the LTV ratio below the threshold.

Currently even though property buyers usually receive loans from the banking sector, some receive financing from real estate developers at higher cost and such financing activities are not yet well regulated. Some property buyers could not obtain credit from the banking sector due to the inability of some developers to produce appropriate or official title deed for collateral purposes. In this case, developers could provide them direct financing with higher interest rates than those of the banking sector. These practices could be potential risks to financial stability.

Implementation of macroprudential measures are necessary but insufficient to effectively tackle vulnerabilities in the real estate sector, fiscal policy could also play a role, at the same time, interagency cooperation is also important. Effectively implementing macroprudential policy would require close coordination among all regulatory agencies. For instance, if LTV measures were to be imposed on institutions under the NBC’s jurisdiction alone, some financing may migrate to other non-banks under different regulators’ jurisdiction or unregulated segments. Apart from macroprudential policy, fiscal policy measures, such as land transfer tax and duty stamp, can be used to address vulnerabilities in the real estate sector.

²⁵ The experience of Thailand on the implementation of LTV measures with varying risk weights suggested that the LTV measures had an impact on banks’ risk-taking behavior in ways consistent with the policy’s objectives. (Tantasith et al. (2018), ‘The Impact of LTV policy on Bank Lending: Evidence from Disaggregate Housing Loan Data’. Puey Ungphakorn Institute for Economic Research (PIER) Discussion Paper No. 90)