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AMRO
ASEAN +3 MACROECONOMIC RESEARCH OFFICE

AMRO Annual Consultation Report

Cambodia - 2024

ASEAN+3 Macroeconomic Research Office (AMRO)

September 2024

Acknowledgments

1. This Annual Consultation Report on Cambodia has been prepared in accordance with the functions of AMRO to monitor and assess the macroeconomic status and financial soundness of its members; identify relevant risks and vulnerabilities; report these to member authorities; and if requested, assist them in mitigating these risks through the timely formulation of policy recommendations. This is being done in accordance with Article 3 (a) and (b) of the AMRO Agreement.
2. This Report is drafted on the basis of the Annual Consultation Visit of AMRO to Cambodia from May 2 to 13, 2024 (Article 5 (b) of AMRO Agreement). The AMRO Mission team was headed by Dr. Jinho Choi, Deputy Group Head and Principal Economist. Members include Ms. Chunyu Yang, Desk Economist for Cambodia; Dr. Heung Chun (Andrew) Tsang, Senior Economist, Mr. Paolo Hernando, Senior Economist; Dr. Trung Thanh Vu, Associate Economist; Ms. Sopheawattey San, Associate; and Mr. VansopheaktraOdorm Tep, Associate. AMRO Director Dr. Kouqing Li and Chief Economist Dr. Hoe Ee Khor also participated in key policy meetings with the authorities. This AMRO Annual Consultation Report on Cambodia for 2024 was peer-reviewed by a group of economists from AMRO's Country Surveillance, Financial Surveillance, and Fiscal Surveillance teams; endorsed by the Policy and Review Group; and approved by Dr. Hoe Ee Khor, AMRO Chief Economist.
3. The analysis in this Report is based on information available up to 7 June, 2024.
4. By making any designation of or reference to a particular territory or geographical area, or by using the term "member" or "country" in this Report, AMRO does not intend to make any judgments as to the legal or other status of any territory or area.
5. On behalf of AMRO, the Mission team wishes to thank the Cambodian authorities for their comments on this Report, as well as their excellent meeting arrangements and hospitality during our visit.

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Executive Summary

1. Cambodia's economy continued to recover in 2023, but at a slightly weaker pace of 5.0 percent. The recovery was backed by the services sector, especially a recovery in tourism, as well as non-garment manufacturing sector, notably exports on solar panels, vehicle parts, and electrical parts. However, garment exports and the real estate sector remained weak. Moving forward, the economy is expected to continue its gradual recovery path with projected growth of 5.6 percent in 2024 and 5.9 percent in 2025, fueled by a rebound in the garment sector, robust tourism recovery and sustained growth in the non-garment manufacturing sector.

2. Consumer price inflation has declined rapidly from its peak in 2022, averaging 2.1 percent in 2023. Headline CPI inflation soared to a decade-high in the middle of 2022 and swiftly declined thereafter. It then rebounded again in Q3 2023, before turning to a modest deflation at the beginning of 2024. This volatile trend is primarily driven by fluctuations in food and oil prices, which are highly influenced by global trends, given Cambodia's heavy reliance on imports to meet domestic demand. Additionally, core inflation has consistently mirrored the headline inflation trend, as changes in energy prices swiftly influence core inflation. Going forward, CPI inflation is expected to gradually approach the pre-pandemic trend.

3. The real estate sector remains weak with oversupply and subdued demand, particularly in residential and commercial segments. The number of unsold landed houses increased in 2023, and the prices of residential property have been on a downward trend. Furthermore, foreign investment in the real estate sector remains muted, posing additional challenges. Sellers in the secondary market are offering discounts to accelerate the sale of their units, while developers focus on clearing their unsold inventory. The government has proactively addressed challenges in the real estate sector. Several tax incentives have been introduced to support developers and homebuyers.

4. The current account turned into a surplus of 1.3 percent of GDP in 2023, primarily reflecting a significant reduction in the trade deficit. The trade deficit narrowed to 6.9 percent of GDP in 2023, significantly lower than the historical average. This reduction was largely driven by a decline in imports. In addition, the services account turned into a surplus on the back of a robust recovery in tourism. Gross international reserves stood at USD20.0 billion as of end 2023. Moving forward, the current account is projected to register a smaller surplus in 2024 and 2025, before returning to deficit in the medium term.

5. The riel fluctuated within a narrow band in 2023, while depreciating slightly against the U.S. dollar compared to pre-pandemic levels. The riel mildly appreciated against the U.S. dollar in Q4 2022 and Q1 2023, reflecting seasonally high demand for the currency. From May to September 2023, the riel depreciated against the U.S. dollar by more than the usual seasonal adjustments. Since the National Bank of Cambodia's (NBC's) forex interventions in September and October 2023, the riel has gradually appreciated until April 2024.

6. Credit growth has decelerated sharply since the beginning of 2023, marking its slowest pace, and the asset quality of financial institutions has been declining. The slowdown in overall credit can be attributed partly to the uncertain economic outlook, as the recovery was not as robust as expected. Furthermore, the uncertain outlook possibly led banks to adopt a more cautious and stringent approach in their lending. The pace of credit disbursement has slowed across all sectors. Meanwhile, the non-performing loan (NPL) ratio has surged since the beginning of 2023. A decline in asset quality, combined with a narrowing interest margin, significantly reduced profitability, although capital buffers remain sufficient.

7. The fiscal deficit widened sharply to 4.6 percent of GDP in 2023 from 2.4 percent in 2022 mainly due to a revenue shortfall, but is expected to narrow from 2024 onwards. Total revenue declined by 1.4 percent year-on-year (yoy) in 2023, reflecting weak tax revenues from imports and slower economic growth. Total government spending on current expenditure and capital expenditure grew by 11.3 and 12.9 percent in 2023, respectively. Although the fiscal deficit is expected to narrow to 3.7 percent of GDP in 2024, it remains larger than budgeted, mainly due to projected revenue shortfalls. Public debt is projected to moderately rise in the medium term, reaching 30.2 percent of GDP by 2028, mainly due to sustained fiscal deficits.

8. Cambodia is confronted with short-term risks that are mainly external, as well as domestic vulnerabilities that could hinder the post-pandemic recovery. External risks include slower economic growth in China, a sharp growth slowdown in the U.S. and Europe, potential shifts in U.S. and E.U. trade policy, and a spike in global commodity prices. Domestically, the banking sector is faced with declining asset quality, which could lead to losses and erode capital buffer. Additionally, the real estate sector could weaken further, resulting in financial distress among real estate developers. In the long term, Cambodia's potential growth may struggle to rebound to pre-pandemic levels due to the scarring effects of COVID-19.

9. The government should prioritize implementing its fiscal consolidation plan to rebuild policy space. The economic recovery has been steady, suggesting a reduced need for stimulus measures. In this regard, increasing the efficiency of expenditure is crucial to enhance development outcomes and boost growth potential. Meanwhile, increasing revenue will be important to secure funds for development needs while enhancing fiscal sustainability. Streamlining tax incentives for investments is also necessary to preserve fiscal space and limit forgone revenue. Cambodia will also need to diversify its financing sources for public investment as rising income levels reduce access to concessional loans.

10. The NBC should resume its post-COVID normalization of forbearance policies in 2025. Considering the recent easing in liquidity conditions, the NBC should closely evaluate market conditions in preparation for normalizing the reserve requirement ratio for foreign currency in a timely manner. Meanwhile, the capital adequacy framework for deposit-taking institutions, along with the full implementation of the capital conservation buffer, should be carried out as planned. Developing a deposit insurance scheme and a bank resolution and crisis management framework in a timely manner is essential to strengthen financial stability.

11. The Real Estate Business and Pawnshop Regulator (RPR) of the Non-Banking Financial Services Authority (NBFSA) should establish a comprehensive legal framework and strengthen the supervision of the real estate sector. Given the continued weakness in the sector, tightening oversight of unregulated shadow banking activities remains critical in mitigating hidden credit risks. The ongoing drafting of a new law on the management of real estate development is crucial, as is enhancing the quality and timing of real estate developers audited financial reporting, and collecting more granular data on key risks including liquidity, profitability, solvency, and business operations.

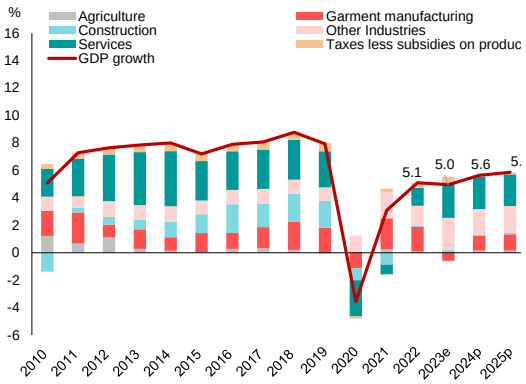
12. The authorities should bolster existing initiatives to mitigate the scarring effects of the pandemic on long-term economic growth. The economy should upgrade its human capital and accumulate more physical capital by improving the investment climate. Furthermore, the country’s growth potential and competitiveness should be enhanced through infrastructure development, digitalization, and economic diversification, as well as lowering logistic costs. Hence, the authorities should ensure the timely implementation of structural reforms listed in the Pentagonal Strategy.

A. Recent Developments and Outlook

A.1 Real Sector Developments and Outlook

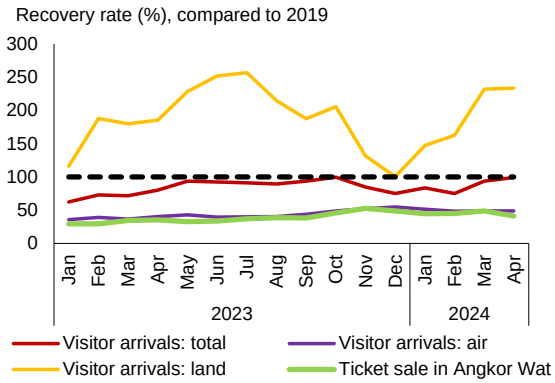
1. Cambodia's economy continued to recover in 2023, but at a slightly weaker pace. The economy grew at 5.0 percent in 2023, slower than in 2022, according to the rebased GDP series (see Box A "Key Takeaways from Cambodia's GDP Rebasing Results"). This is mainly due to a sharp decline in garment exports and a drag in the real estate sector. Garment exports fell by 13.2 percent (yoy) in 2023, reflecting weaker demand in the U.S. and E.U. The construction sector continued to remain weak, burdened by a subdued real estate market. Meanwhile, the services and non-garment sectors were the main drivers of growth (Figure 1). The number of domestic tourists increased by more than one-third from 2022, while total foreign tourist arrivals reached 82.5 percent of the 2019 pre-pandemic level. That said, the increasing share of land arrivals and the lagged recovery in Siem Reap imply relatively shorter stays or lower daily expenditures than pre-pandemic (Figure 2).[1] Furthermore, agricultural and non-garment manufacturing exports, notably those of solar panels, vehicle parts, and electrical parts, showed strong performance (Figure 3). Exports of solar panels and related components in 2023 more than doubled from the previous year, primarily to the U.S., with most of the solar panel imports from China. This surge helped offset the impact of weak garment exports. On the demand side, exports and private consumption have been key drivers of the post-pandemic recovery, according to the import-adjusted expenditure approach (Figure 4).

Figure 1. Contribution to Real GDP Growth



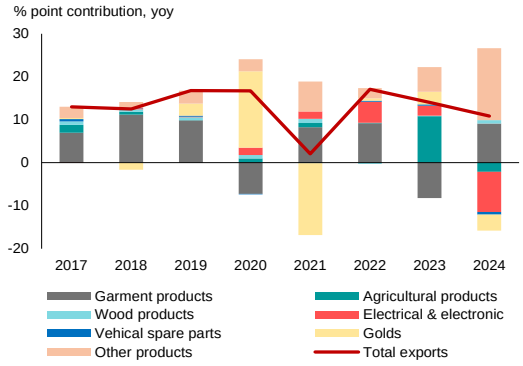
Source: National Institute of Statistics (NIS); AMRO staff calculations
Note: e = estimation; p = projection.

Figure 2. Tourist Recovery Rate



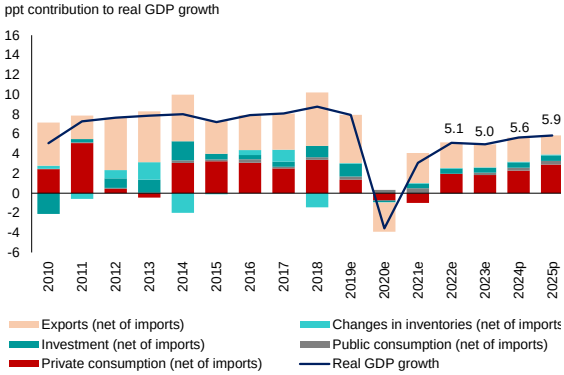
Source: Ministry of Tourism; Angkor Enterprise; AMRO staff calculations

Figure 3. Contribution to Exports Growth



Source: General Department of Customs and Excise (GDCE); AMRO staff calculations
Note: The data of 2024 includes January to May.

Figure 4. Contribution to Real GDP Growth by Expenditure (Import-adjusted)



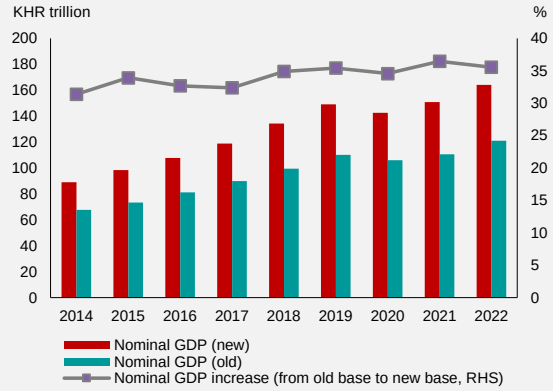
Source: NIS; AMRO staff calculations
Note: e = estimation; p = projection.

[1] According to anecdotes, a considerable number of foreign tourists come from neighboring countries, crossing the border by land to visit amusement places such as casinos. These tourists, compared to those who go to Siem Reap, typically have shorter stays and lower daily expenditures.

Box A. Key Takeaways from Cambodia's GDP Rebasing Results[2]

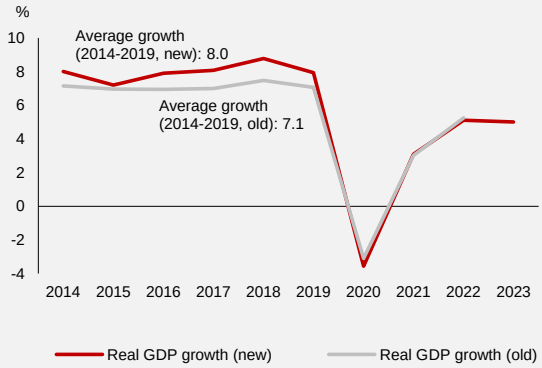
Cambodia recently revised its GDP series to align with the new 2014 base year, resulting in an increase of over 30 percent in the size of its economy. In 2024, the National Institute of Statistics (NIS) of Cambodia rebased its GDP series for 2000-2022 by replacing 2000 as the base year with 2014. After rebasing, Cambodia sees an increase of approximately 31-35 percent in nominal GDP (Figure A1). Meanwhile, based on the rebasing, the annual real GDP growth in this period (2014-2019) was higher by 0.9 percentage point, but lower by 0.1 percentage point in the latest sample, year 2022 (Figure A2).

Figure A1. Nominal GDP and Changes



Source: NIS via the Ministry of Economy and Finance (MEF) (2024), AMRO staff calculations

Figure A2. Real GDP Growth



Source: NIS via MEF (2024)
Note: Starting from 2023, only the new series is available.

The rebasing has also led to changes in the share of sectoral components in GDP, resulting in a larger share for manufacturing and services (Table A1)**.** These changes are due to several reasons. Taking the nominal GDP of year 2022 as an example (Table A2), the garment sector and non-garment manufacturing sector saw an increase of 60.6 percent and 99.4 percent respectively from the old base, resulting from the collection of more comprehensive and better data. Besides, efforts have also been made to capture the emergence and development of new sectors. There are more sub-categories in the services sector, for instance — such as information and communications, as well as professional, scientific and technical activities. Nevertheless, the construction and transportation-related sectors saw a reduction of 6.2 percent and 26.6 percent respectively, as the new series recalculated and corrected the previously overestimated prices for these two sectors.

Table A1. Sectoral Shares
(Average of 2014-2022)

Share (%)	Real GDP			Nominal GDP		
	Old	New	diff.	Old	New	diff.
Agriculture	**18.7**	**17.9**	**-0.8**	**23.8**	**17.9**	**-5.8**
Industry	**35.5**	**36.2**	**0.6**	**32.1**	**35.9**	**3.8**
- Garment	18.4	14.1	-4.2	10.6	13.1	2.6
- Non-Garment Manufacture	7.8	12.8	5.0	8.7	13.5	4.8
- Construction	9.3	9.2	-0.2	12.9	9.3	-3.6
Services	**38.3**	**39.5**	**1.2**	**38.0**	**39.8**	**1.8**
- Wholesale & Retail Trade	8.7	10.1	1.3	9.1	10.0	0.9
- Hotel & Restaurant	4.1	5.4	1.3	3.8	6.2	2.4
- Real Estate Activities	6.6	4.2	-2.4	6.5	4.2	-2.3
- Other Service Activities	18.8	19.8	1.0	18.7	19.5	0.8
Others	7.4	6.4	-1.0	6.0	6.3	0.3

Source: NIS via MEF (2024), AMRO staff calculations

Table A2. Change in Economic Size
(2022)

Sector	Old Base (KHR trillion)	New Base (KHR trillion)	Change (%)
Agriculture	**26.9**	**27.1**	**0.9**
Industry	**45.9**	**67.0**	**46.2**
- Garment	13.9	22.3	60.6
- Non-Garment Manufacture	14.0	27.8	99.4
- Construction	18.0	16.9	-6.2
Services	**41.0**	**59.7**	**45.7**
- Wholesale & Retail Trade	9.9	14.6	47.3
- Hotel & Restaurant	2.1	7.4	251.7
- Real Estate Activities	6.2	5.4	-12.9
- Transportation, Storage, Information & Communications	10.6	7.8	-26.6
- Financial & Insurance Activities	2.5	7.0	182.6
- Other Service Activities	9.6	17.4	81.2

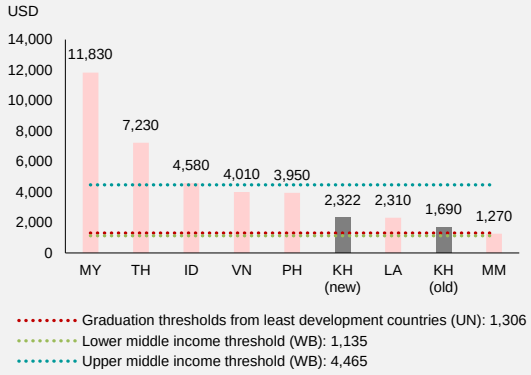
Source: NIS via MEF (2024), AMRO staff calculations

Following the rebasing, Cambodia's growth trajectory prior to the pandemic is shown to be higher than originally estimated. That, coupled with the actually larger size of the economy, has several policy implications for assessing macroeconomic development and financial stability.

[2] Prepared by Chunyu Yang, Economist.

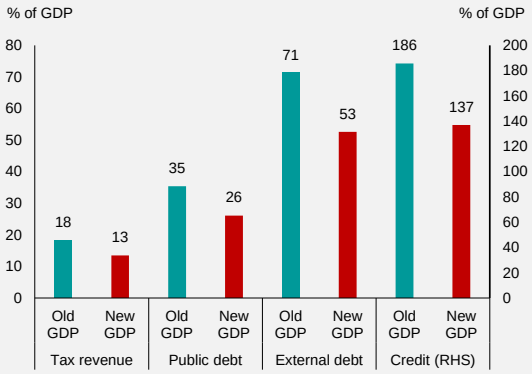
- For trend growth, the gap between real GDP growth in 2022 and trend growth pre-pandemic widened from 1.9 to 2.9 percentage points (Figure A2), implying a larger scarring effect (see Annex 1 “Assessing the Scarring Effect of COVID-19 on Cambodia's Potential Growth”) from COVID-19 than previously presumed.
- GNI per capita rose from USD1,690 to USD2,291, implying a substantial gain for Cambodia in the World Bank’s lower-middle-income country bracket (Figure A3), also echoing the UN’s recommendation for Cambodia to graduate from the category of least developed countries (United Nations, 2024).
- On the fiscal front, Cambodia’s tax revenue-to-GDP ratio declined from 18 percent to 13 percent in 2023, which indicates there is more room for revenue collection (Figure A4). Public debt-to-GDP also declined substantially from 35 percent to 26 percent, resulting in an even lower level of public debt sustainability risk than before (Figure A4, and see Appendix 5 “Debt Sustainability Analysis”).
- In the monetary sector, the credit-to-GDP ratio fell by almost 50 percentage points to 137 percent of GDP (Figure A4), although still high, suggesting that GDP growth may not have been as credit-intensive as previously estimated.

Figure A3. GNI per Capita
(2022)



Source: World Bank, UN, AMRO staff calculations

Figure A4. Key Macroeconomic Indicators
(2023)



Source: NIS via MEF (2024), NBC, AMRO staff calculations

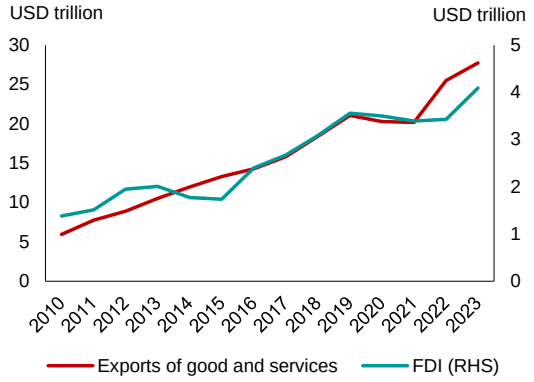
References

Ministry of Economy and Finance (2024), “Cambodia’s Macroeconomic Performance and Outlook”, Unpublished document, February 2024.

United Nations (2024), “Report on the Twenty-sixth Session (4–8 March 2024)”, Committee for Development Policy of the UN Economic and Social Council.

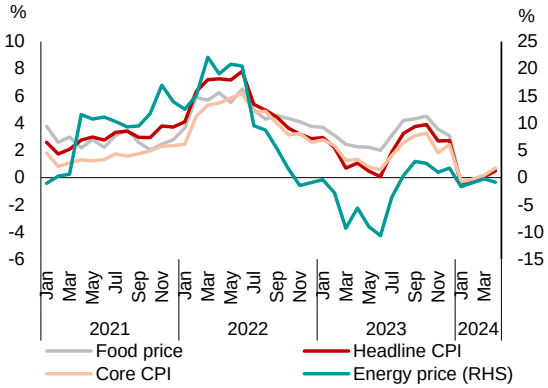
2. Moving forward, the economy is expected to continue its gradual recovery with projected growth of 5.6 percent in 2024 and 5.9 percent in 2025. Growth in the garment sector is projected to rebound steadily in 2024 and 2025, driven by stronger consumer goods demand in major advanced markets. Likewise, the non-garment sector is forecast to sustain its strong growth momentum, supported by stable FDI inflows (Figure 5). A robust tourism recovery, fueled by increased flight availability, the continued return of foreign tourists—particularly from China—and pent-up domestic consumption, will further bolster the ongoing improvement in the service sectors. However, the construction sector may experience a slower pace of recovery, with growth potentially falling short of pre-pandemic levels due to a prolonged real estate downturn. Meanwhile, the increase in infrastructure investment, buoyed by the government’s comprehensive master plan for transportation and logistics, will partially offset weakness in the real estate sector.

Figure 5. Exports and FDI



Source: NBC

Figure 6. Inflation



Source: NIS; AMRO staff calculations

3. Consumer price inflation has declined rapidly from its peak in 2022, averaging 2.1 percent in 2023. Headline CPI inflation had soared to a decade-high 7.8 percent in June 2022 but swiftly declined thereafter, reaching 0.1 percent in June 2023. It then rebounded to 3.9 percent in October 2023, before declining sharply and flattening off, hovering at around 0 percent from January to April 2024 (Figure 6). This volatile movement is primarily driven by fluctuations in food and oil prices, which are highly influenced by global developments, given Cambodia's heavy reliance on imports to meet domestic demand. Additionally, the core inflation trend has consistently mirrored the headline inflation trend, coming in at 0.7 percent in April 2024 after peaking at 3.3 percent in October 2023, as changes in energy prices swiftly influence core inflation. Going forward, CPI inflation is expected to rise from 2.1 percent in 2023 to 2.2 percent in 2024 and 2.3 percent in 2025 due to higher domestic demand and a possible rebound in energy prices, gradually approaching the pre-pandemic trend.

4. The real estate sector remains weak with oversupply and subdued demand, particularly in residential and commercial segments (see Box B "Updates on Cambodia's Real Estate Sector Developments")**.** The number of unsold landed houses increased by 61.5 percent (yoy) in 2023. Although the number of unsold condominiums decreased by 2.8 percent (yoy) in 2023, the figure remained at a high level of about 72,000 unsold units. Furthermore, the prices of residential property have been on a downward trend since the middle of 2023, declining by 4.0 percent (yoy) at the end of 2023.[3] Sellers in the secondary market are offering discounts to accelerate the sale of their units, while developers focus on clearing unsold inventory. Disputes stemming from the confiscation of properties due to late payments and fraudulent cases related to the lack of transparency in property titles, have further complicated the market landscape. Furthermore, foreign investment[4] in the real estate sector remains muted, posing additional challenges. The government has proactively addressed the issues in the real estate sector by establishing an inter-ministerial committee, forming technical working groups, and opening dialogue with the private sector through government-private sector forums. Several tax incentives[5] have also been introduced to support developers and homebuyers, including the exemption of stamp duty and unused land tax.

[3] The current data has limitations, and the Real Estate Business and Pawnshop Regulator is in the process of reconstructing a new dataset.
[4] Foreign direct investment into the real estate sector declined significantly to USD237.6 million in 2023, compared to the peak of USD438.7 million in 2019.
[5] Some tax support measures include the following: (i) the implementation of capital gains tax has been postponed until the end of 2024; (ii) the exemption of stamp duty on transfers of ownership with a value less than USD70,000 will be extended until the end of 2024. For units priced at more than USD70,000, a deduction of USD70,000 from the tax base will be allowed; (iii) the exemption of administrative sanctions, including additional taxes and interest, has been postponed until June 2024; and (iv) the implementation of unused land tax is suspended until the end of 2024.

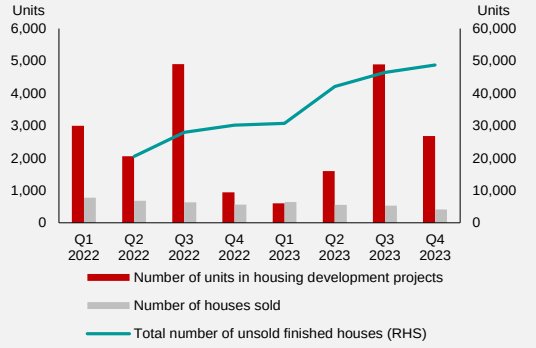
Box B. Updates on Cambodia's Real Estate Sector[6]

Cambodia's real estate sector continued to face several challenges in 2023, including oversupply, tighter financing constraints, and weak market confidence. Addressing those challenges may take years but could help bring a more mature stage of development. In this regard, the government is expected to set up legal and regulatory frameworks for a more sustainable development of the sector in the future.

Continued Oversupply of Properties

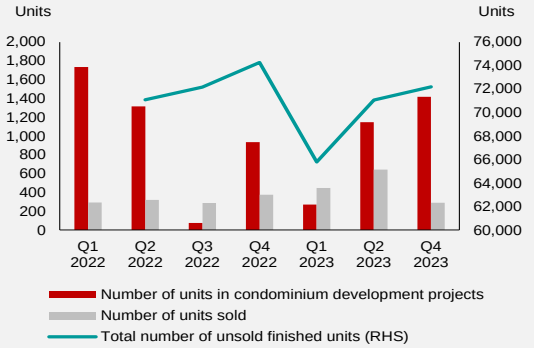
Cambodia's real estate sector continues to grapple with significant oversupply. The oversupply exists across many segments, especially condominiums and landed properties (Figure B1 and Figure B2). Given an average absorption rate[7] of more than 20 percent for landed properties and 30 percent for condominiums from 2021 to 2023, it will take years for the market to fully absorb the excess supply. Furthermore, amid the market downturn and subdued demand, competition among developers has become more intense (CBRE, 2024a), making it more challenging for new projects to gain traction. Going forward, as housing prices, especially for high-end condominiums and Borey, remain high compared to domestic buyers' incomes,[8] this could lead to an increase in unsold properties and a further decline in property prices. The continued oversupply also highlights lessons for developers that instead of constructing excessively by just following the market trend, they need to have sound business strategies and align their products closely with market demand.

Figure B1. Supply and Transactions of Landed Properties



Source: RPR of the NBFSA
Note: The number of unsold houses includes those that existed before 2022. The number of units in housing development projects represents newly licensed units. The current data has limitations, and the RPR is in the process of reconstructing a new dataset.

Figure B2. Supply and Transactions of Condominiums



Source: RPR of the NBFSA
Note: Data for Q3 2023 is not available. The number of unsold houses includes those that existed before 2022. The number of units in condominium development projects represents newly licensed units. The current data has limitations, and the RPR is in the process of reconstructing a new dataset.

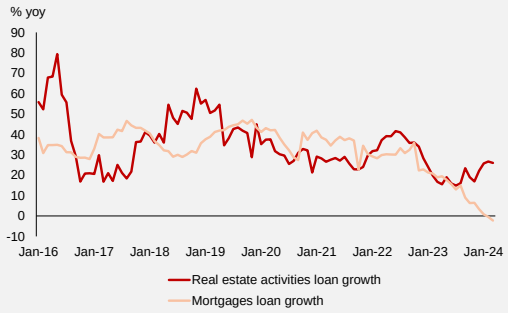
Tighter Financing Constraints

Developers find it challenging to secure funds for their projects. First, in 2023, banks became more cautious and cut their lending to real estate activities significantly (Figure B3). Moreover, project delays led to tighter banks' credit assessments, making it difficult for developers to secure their bank loans. Second, real estate prices have been on a downward trend since mid-2023 (Figure B4), negatively affecting developers' profits and cash flows. Third, late payment and payment rescheduling by homebuyers also negatively affected developers' cash flows. The rise in late payments by homebuyers in 2023[9] forced developers to restructure payments or allow interest-free payments, adversely affecting developers' cash flow condition. In addition, the share of monthly instalment[10] to the total payment paid by buyers declined significantly to 10.5 percent in Q4 2023

[6] Prepared by Trung Thanh Vu, Associate Economist
[7] The absorption rate refers to the share of available properties that were sold during a specified period.
[8] According to a survey conducted by realestate.com.kh in 2023, about 67 percent of surveyed buyers have an average monthly income of less than USD 3000, and about 71 percent of surveyed buyers were interested in purchasing houses in a price range of less than USD100,000. However, most high-end condominiums and luxury Borey cost more than USD100,000.
[9] According to the NBFSA, 10.7 percent of homebuyers made late payments in 2023, compared to 8.4 percent in 2022.
[10] Stage payments are made at specific milestones or stages of a project, usually after the completion of predefined tasks or phases of construction. Installment payments with developers are a regular, fixed amount of money paid at scheduled intervals until a debt is paid off in full. Installment payments can be made on a monthly or quarterly basis and each payment can include both the principal amount and the interest accrued.

from 34.5 percent in Q4 2022 (Figure B5). In the context of tighter financing constraints, developers need to rely more on their own capital and mergers and acquisitions may happen if developers fail to secure sufficient financing sources.

Figure B3. Bank Lending



Source: NBC

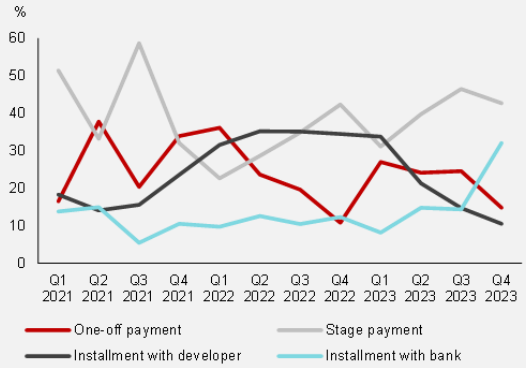
Figure B4. Residential Property Price Index

Source: NBC

Weak Market Confidence

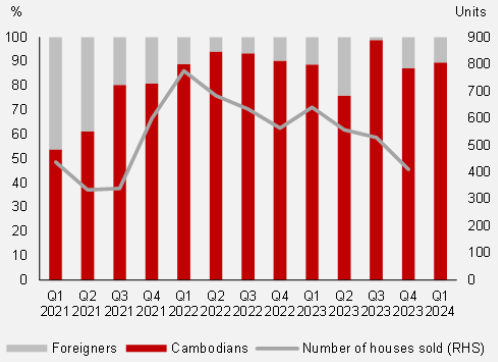
Market confidence remained weak. Amid the market downturn and uncertain global economic conditions, domestic buyers were an important source of demand in 2022 and 2023 (Figure B6). However, conflicts between homebuyers and developers due to construction delays and property confiscations continue to persist (CBRE, 2024b). These conflicts not only disrupt individual transactions but also cast shadows on the broader market sentiment, potentially prolonging the recovery process.

Figure B5. Payment Options between Buyers and Developers



Source: RPR of the NBFSA
Note: The figure shows the percentage share of each payment option to the total payment paid by buyers to developers.

Figure B6. Homebuyers by Residency



Source: RPR of the NBFSA

Policy Updates

The government has proactively taken steps to tackle challenges by drafting new legal and regulatory frameworks. The ongoing drafting of a new law on the management of real estate development should play a crucial role in addressing legal issues such as dispute resolutions and the supervision of licensing and reporting by developers. More importantly, setting up a robust legal framework will help create a favorable environment for the market to progress into a new stage of development after the prolonged downturn.

References

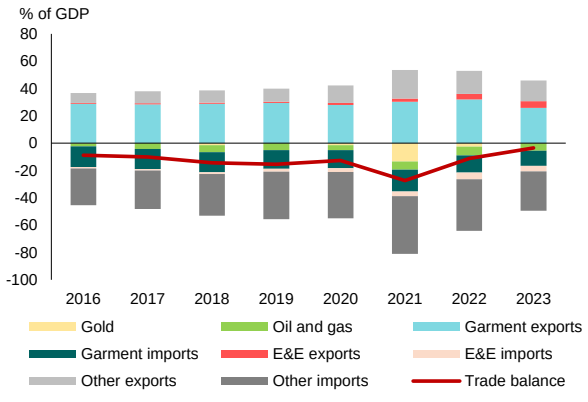
CBRE (2024a), "Fearless Forecast 2024", *CBRE Cambodia Yearly Event* (reported on January 12, 2024).
CBRE (2024b), "Market Insights Q1 2024", *CBRE Cambodia* (reported on April 11, 2024).

A.2 External Sector and the Balance of Payments

5. The current account turned into a surplus of 1.3 percent of GDP in 2023, primarily reflecting a significant reduction in the trade deficit.[11] The trade deficit narrowed to 6.9 percent of GDP in 2023, significantly lower than the historical average of 14.2 percent of GDP over the past decade (Figure 7). This reduction was largely driven by a decline in imports. In addition, the services account turned into a surplus on the back of a robust recovery in tourism, while the secondary income balance stayed in surplus, backed by sustained inflows of remittances. In the financial account, despite global financial tightening, FDI inflows remained resilient, amounting to 9.3 percent of GDP in 2023. Gross international reserves stood at USD20.0 billion, covering 8.2 months of imports as of end 2023, up from USD17.8 billion as of end 2022. Moving forward, the current account is projected to register a smaller surplus of 0.6 percent of GDP in 2024 and 0.1 percent of GDP in 2025, before returning to a deficit in the medium term, reflecting the recovery in demand for imported goods as the economy strengthens.

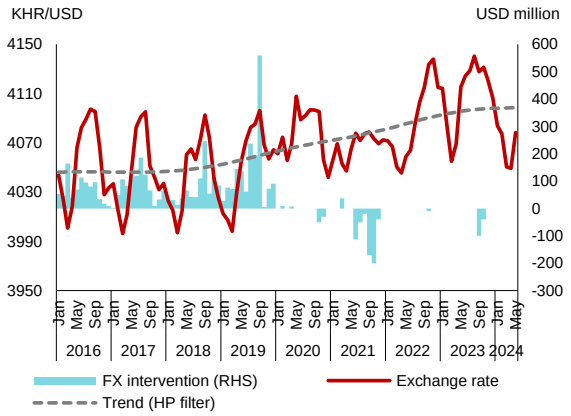
6. The riel fluctuated within a narrow band in 2023, while depreciating slightly against the U.S. dollar compared to pre-pandemic levels (Figure 8)**.** The riel mildly appreciated against the U.S. dollar In Q4 2022 and Q1 2023, reflecting seasonally high demand for the currency, particularly to purchase agricultural products and pay income tax. From May to September 2023, the riel depreciated against the U.S. dollar by more than usual seasonal adjustments. This triggered NBC's two forex interventions in 2023 to support the riel, with USD99.1 million in September and an USD40 million in October. Following that, the riel gradually appreciated until April 2024, reflecting seasonal factors once again. Additionally, since August 2022 when a new formula was implemented, the official exchange rate has converged to the market exchange rate, which has tended to be more volatile.[12]

Figure 7. Trade Balance and Main Items



Source: GDCE, AMRO staff calculations

Figure 8. Exchange Rate and FX Intervention



Source: NBC; AMRO staff calculations
Note: A positive FX intervention means buying USD from the market, and negative means selling USD to the market.

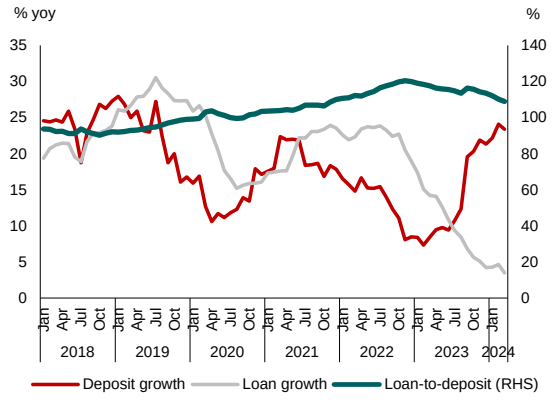
A.3 Monetary Condition and Financial Sector

7. Loan growth decelerated sharply to 4.2 percent (yoy) in December 2023, marking its slowest pace, down from 19.0 percent in December 2022.[13] The slowdown trend continued in early 2024 as loan growth declined further to 3.5 percent in March (Figure 9). This can be

[11] The nominal GDP in 2023 is based on AMRO staff estimation.
[12] Previously, the NBC's official exchange rate was based on the bidding and asking prices of foreign exchange rates against the riel for NBC transactions with third parties. Starting in August 2022, the NBC decided to determine the official exchange rate by calculating the weighted average exchange rate of the actual daily exchange transactions on the NBC platform. The standard deviation of the exchange rate of the riel to U.S. dollar was 12.1 between January 2021 and July 2022, but nearly tripled to 32.4 between August 2022 and March 2024.
[13] . The credit includes total credits from banks and MFIs excluded loans to financial institutions.

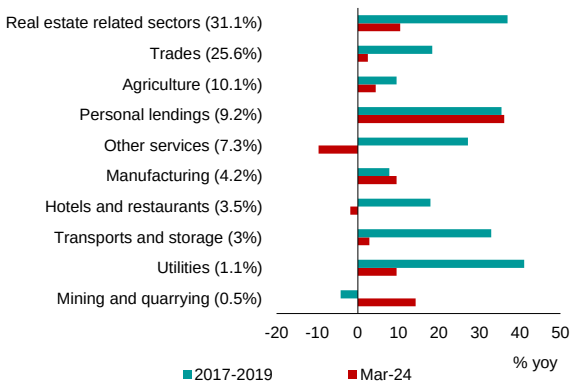
attributed partly to the uncertain economic outlook, as the recovery was not as robust as expected despite improvements in tourism and non-garment sectors. Furthermore, uncertainties in the economic and financial outlook possibly led banks to adopt a more cautious and stringent approach in their lending. The pace of credit disbursement has slowed down almost all sectors, especially to trade[14] and to real estate related sectors, which fell from an average 20 percent and 30 percent growth in past years to only 2.5 percent and 10.5 percent, respectively in March 2024 (Figure 10).

Figure 9. Loan and Deposit Growth, Loan to Deposit Ratio



Source: NBC; AMRO staff calculations

Figure 10. Credit Growth by Sectors



Source: NBC; AMRO staff calculation.
Note: 1) Numbers in parenthesis are the share of each sector to total credit of banks and MFIs excluding credit to financial institutions. 2) Real estate-related sectors include credit to construction, real estate activities and mortgage from banks and MFIs;

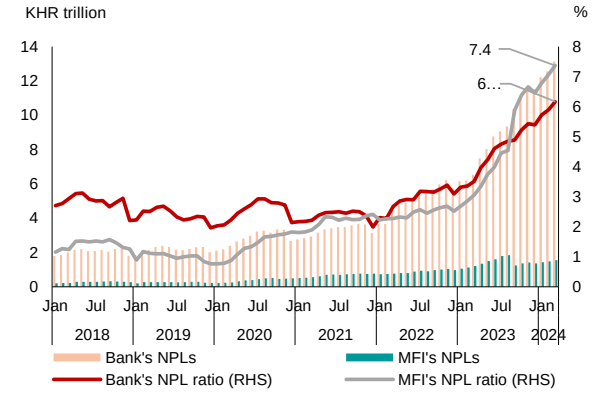
8. Declining asset quality, combined with a narrowing interest margin, significantly reduced the profitability of financial institutions, although capital buffers remain sufficient. The increase in NPLs, driven by retail trades and real estate-related sectors, led to a surge in the NPL ratio, which rose to 6.2 percent for banks and 7.4 percent for microfinance institutions (MFIs) in March 2024, up from 3.5 and 3.1 percent in March 2023, respectively (Figure 11).[15] Banks have therefore set aside more provisions, with specific provisions increasing from KHR4 trillion in Q1 2023 to KHR7.3 trillion in Q1 2024. Meanwhile, banks' net interest income has declined by 9.8 percent from KHR12.6 trillion in Q4 2022 to KHR11.4 trillion in Q4 2023 due to slower credit growth and an upward pressure of deposit rate while lending rate remained relatively flat. The rise in NPLs, combined with a shrinking net interest income, has exerted pressure on the profitability of the banking system, resulting in a decline in banks' return on assets (ROA) and return on equity (ROE) from 2.5 and 9.9 percent in Q4 2022 to 1 and 3.2 percent, respectively, in Q4 2023 (Figure 12). Although the banking sector's capital adequacy ratios (CARs) remained strong, with an average ratio of more than 20 percent at the end of 2023, worsening asset quality warrants increased attention. As of March 2024, the average liquidity coverage ratios (LCRs) for commercial banks and deposit-taking MFIs stood at 178.8 percent and 315.7 percent, respectively, well above the 100 percent minimum threshold.

9. To support economic activities, the NBC has postponed its schedule for phasing out some COVID-19 regulatory forbearance policies. In November 2023, the NBC retreated from its post-COVID normalization schedule by cutting back the required reserve ratio (RRR) in foreign currencies from 9 percent to 7 percent to ensure more liquidity in the

[14] Credit to trade here includes banks' credit to wholesale and retail and MFI's credit to trade and commerce.
[15] NPLs for banks doubled from KHR5.8 trillion to KHR12.6 trillion, while NPLs in the microfinance sector increased by 51.6 percent from KHR0.98 trillion to KHR1.5 trillion. It is worth noting that one deposit-taking microfinance institution, with about 47 percent market share in the microfinance sector, merged with a commercial bank in August 2023.

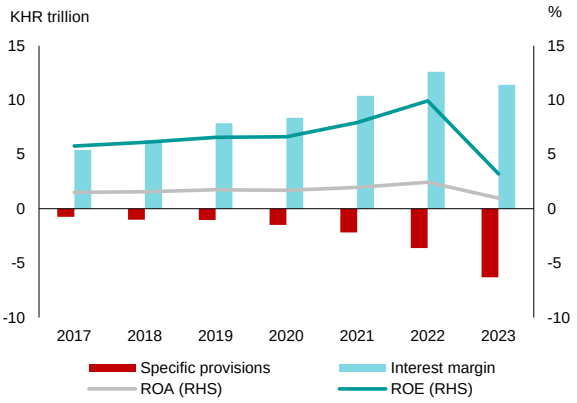
system.[16] In addition, banks and MFIs are allowed to maintain their capital conservation buffer (CCB) at 1.25 percent, an extension from the original plan[17]. To support tourism recovery, the NBC has allowed banks and MFIs to restructure tourism loans for clients in Siem Reap who are facing temporary financial difficulties, without making additional provisions for 12 months. At the same time, the introduction of new regulations on regulatory capital, credit risk, and market risk for CAR, for deposit-taking institutions, originally scheduled to take effect in the first half of 2024, has been postponed to January 2025 to allow more time for all deposit-taking institutions to prepare.[18]

Figure 11. Non-performing Loans



Source: NBC; AMRO staff calculations

Figure 12. Profitability



Source: IMF FSI database via Haver Analytics; AMRO staff calculation

A.4 Fiscal Sector

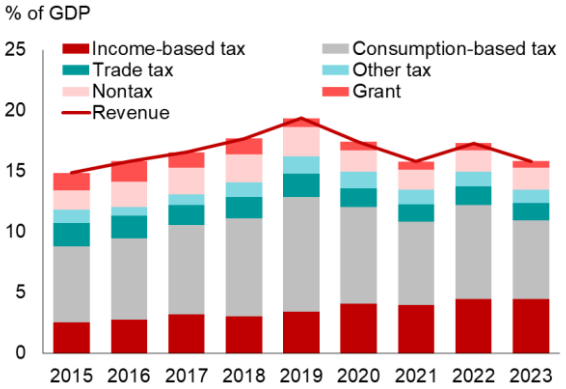
10. On the fiscal front, total revenue contracted slightly in 2023, reflecting weak tax revenues from imports and slower economic growth. Total revenue declined by 1.4 percent (yoy), in stark contrast to the double-digit growth seen in 2022 (Figure 13). In particular, tax revenue contracted by 3.0 percent, reflecting sluggish VAT collection and lower revenues from excises and duties with the decline in imports.[19] VAT collection was sluggish while the growth of income-based tax—including salary tax and profit tax—also slowed due to the high base in 2022 and generally weaker business performance in 2023. Only non-tax revenue increased by 8.5 percent (yoy) in 2023, largely driven by an increase in fees and charges related to casinos and gambling brought about by the recovery in tourism; however, it was insufficient to compensate for the weak tax revenue.

11. Total expenditure increased in 2023 but was still below budgeted due to the rationalization of capital expenditure. Total government spending grew by 12.1 percent in 2023 (Figure 14). Current expenditure[20] rose by 11.3 percent, largely due to the increase in civil service wages across-the-board, temporary outlays to host the Southeast Asian Games, and additional expenses related to the general election. Capital expenditure increased by 12.9

[16] The latest policy development on the RRR is that NBC issued a notification in August 2024 to allow BFIs to continue maintain their RRR in foreign currency at 7 percent until end of 2025.
[17] Initially, in January 2023, NBC announced that BFIs would be required to maintain a CCB of 1.25 percent by June 2023, increasing to 2.5 percent by the end of 2023. However, in November 2023, NBC allowed BFIs to maintain a CCB of 1.25 percent until the end of 2024. In the latest development in August 2024, NBC further extended the timeline, permitting BFIs to maintain their CCB at 1.25 percent until the end of 2025.
[18] The Regulation ('Prakas' in Khmer) on Credit Risk for CAR is to provide a measure of more detailed credit risk classification with specific requirements for different asset risk weights for the implementation of a capital adequacy framework. The Prakas on Market Risk for CAR is to provide a measure of the market risk by calculating RWA based on its trading book position for the implementation of a capital adequacy framework. The regulation on Regulatory Capital lays down the structure, components, and method of calculating regulatory capital of deposit-taking banks and financial institutions to strengthen the quality and quantity of capital held by institutions to absorb losses both on a going-concern basis and to meet claims on a gone-concern basis.
[19] The decline in imports was largely driven by imports in personal consumption goods. For example, food and beverage imports declined by 12.5 percent, while durable goods (including vehicles, TVs, cell phones, air conditioners and refrigerators) declined by 37.2 percent.
[20] Based on AMRO's reclassification of some expenditures related to stimulus measures—such as cash transfers and wage subsidies—from capital to current spending.

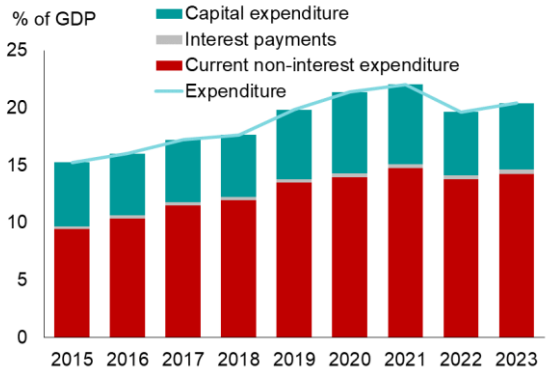
percent in 2023, in part driven by new investment projects on digital and green infrastructure. However, actual disbursement for capital expenditure in 2023 only reached 87 percent of the budget due to the rationalization of projects and shortage of funding for some investments.[21]

Figure 13. Government Revenue



Source: MEF; AMRO staff calculations

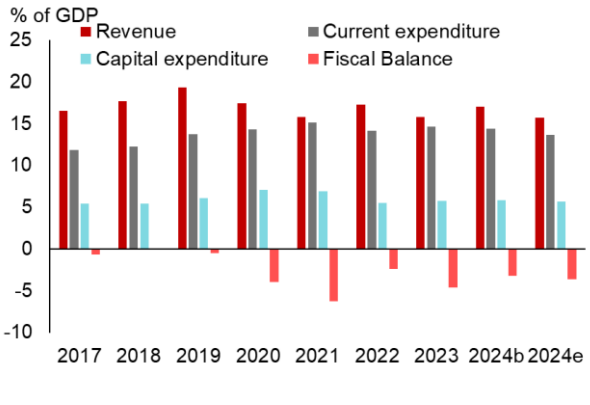
Figure 14. Government Expenditure



Source: MEF; AMRO staff calculations

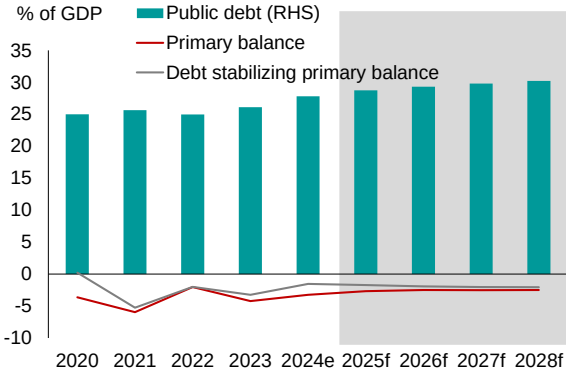
12. The fiscal deficit widened sharply in 2023, but is expected to narrow from 2024 onwards in line with the government's fiscal consolidation plan. The fiscal deficit widened to 4.6 percent of GDP in 2023 from 2.4 percent in 2022 (Figure 15), mainly due to the revenue shortfall. The fiscal deficit was primarily financed from concessional loans and a drawdown of fiscal reserves. Public debt increased marginally to 26.1 percent of GDP in 2023 from 25.1 percent in 2022, with the debt rise cushioned in part by a drawdown from fiscal reserves by an estimated 0.5 percent of GDP to finance the deficit. The fiscal deficit is expected to narrow to 3.7 percent of GDP in 2024 albeit larger than budgeted, mainly due to the projected revenue shortfalls. From the 2024 budget onwards, COVID-19 fiscal stimulus measures will transition into more targeted and institutionalized programs to be managed by relevant line ministries, including the "Family Package Programme".[22] According to AMRO's debt sustainability analysis (see Appendix 5 Debt Sustainability Analysis), public debt is projected to rise moderately in the medium term due to sustained primary deficits at around 2.5 percent of GDP that exceed the debt-stabilizing threshold, reaching 30.2 percent of GDP by 2028. To ensure long-term fiscal sustainability, it is imperative that the government undertakes comprehensive fiscal adjustments aimed at stabilizing the debt trajectory (Figure 16).

Figure 15. Fiscal Balance



Source: MEF; AMRO staff calculations

Figure 16. Public Debt



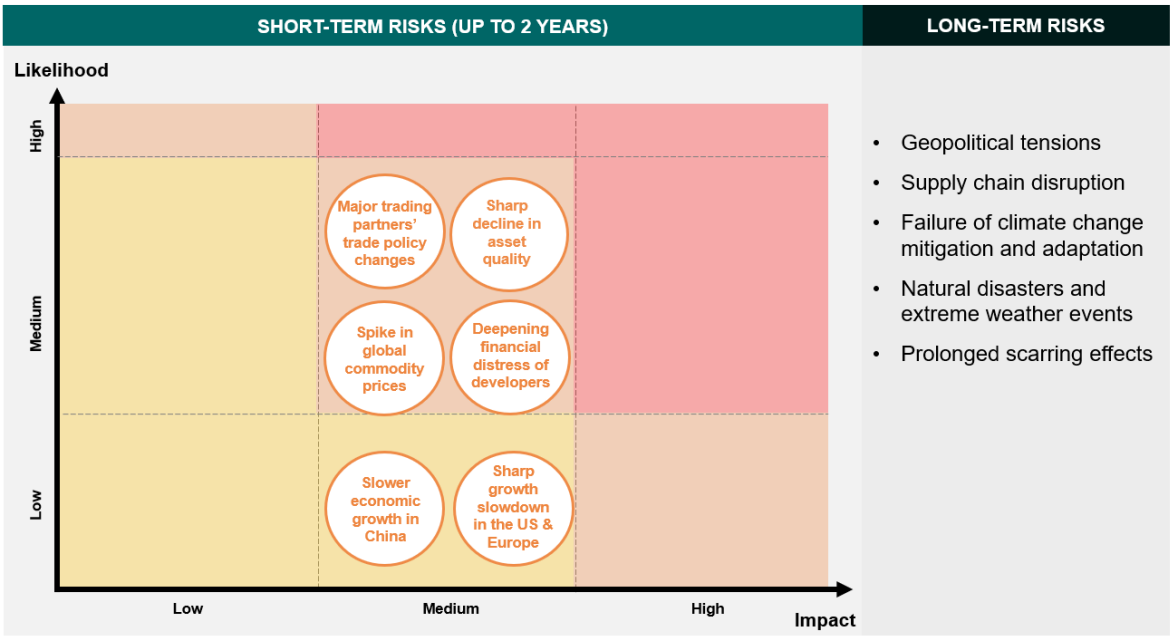
Source: MEF; AMRO staff calculations

[21] Projects that were supposed to be financed from government bond issuances did not materialize due to low demand for the bonds.
[22] Replacing the existing Cash Transfer Program, the Family Package was launched in April 2024 as an institutionalized national social assistance program. It aims to provide monthly cash support to vulnerable families across several categories, including pregnant women, children under two years old, individuals with disabilities, those aged 60 and older, and individuals living with HIV/AIDS. Additionally, it will grant scholarships to underprivileged students from grades 1 to 12.

13. The government has been committed to enhancing economic structures and attracting foreign investment as part of the first phase of its Pentagonal Strategy. The government announced a new medium- to long-term growth initiative in August 2023. Called the Pentagonal Strategy–Phase I, the initiative—which runs from 2024-2028[23]—aims to pave the path for sustainable growth through strategic enhancements in human capital, promoting competitiveness and economic diversification, private sector growth and digitalization, and developing a sustainable economy. Supported by six priority policy programs in 2024 which accounted for USD488 million in expenditure,[24] this initiative seeks to improve healthcare, strengthen vocational training, boost agricultural productivity, and integrate the informal economy into the formal sector. In tandem, the government has taken proactive measures to attract more FDI through the new Law on Investment for Qualified Investment Projects (QIPs) in Special Economic Zones (SEZs),[25] facilitate infrastructure development via the Public-Private Partnership (PPP) Law, and promote economic diversification and international collaboration through the growing number of Free Trade Agreements (FTAs).[26]

B. Risks, Vulnerabilities and Challenges

Figure 17. Cambodia Risk Map



Source: AMRO staff
Note: The Country Risk Map captures those risks and challenges that could derail the country's macro stability. These are in relation to: (1) growth and inflation outlook; (2) financial stability concerns; and (3) other key long-term challenges. The risks and challenges are divided into two categories: (1) short-term risks (these are conjunctural risks, up to 2 years, where the risks represent scenarios that could materially alter the baseline path); and (2) long-term risks (these are more persistent or secular trends and/or challenges, including perennial risks).

[23] Meanwhile, the government has set up the Office of Council of Ministers to oversee the coordination and synergy of the implementation of the Pentagonal Strategy, and has established the Committee on Monitoring and Evaluation of the Implementation of Pentagonal Strategy–Phase I to monitor the progress and action plan, and address challenges.
[24] Budget in Brief 2024 (KH) published by the General Department of Budget of the Ministry of Economy and Finance.
[25] The new Investment Law was issued on 15 October 2021, aiming to encourage and facilitate high-quality, impactful, and efficient investment from both Cambodians and foreigners. In particular, the new law promotes foreign investment through various tax-related incentives, such as the income tax exemption period being lengthened to up to nine years, under a structured 3-year review process, compared to 3-6 years in the previous law. VAT exemptions were explicitly integrated into the new investment law, in contrast to the need for specific approvals in the old law.
[26] The latest FTAs, effective as follows: i) Hong Kong-Cambodia Free Trade Agreement, 12 February 2021; ii) the Regional Comprehensive Economic Partnership (RCEP), 1 January 2022; iii) Cambodia-China Free Trade Agreement, 1 January 2022; and iv) Cambodia-Korea Free Trade Agreement, 1 December 2022.

14. Cambodia is confronted with short-term risks that are mainly external, as well as domestic vulnerabilities that could hinder the post-pandemic recovery (Figure 17)**.** External risks include slower economic growth in China, a sharp growth slowdown in the U.S. and Europe, potential shifts in U.S. and E.U. trade policy, and a spike in global commodity prices. Domestically, the banking sector faces declining asset quality, which could lead to losses and erode capital, especially amid tightened global financial conditions. Additionally, the real estate sector could weaken further, resulting in financial distress among real estate developers, heightening the risk to the banking sector. In the long term, Cambodia's potential growth may struggle to rebound to pre-pandemic levels due to the scarring effects of COVID-19, as well as structural challenges from natural disasters and climate change transition, unless effectively addressed.

B.1 Near-term Risks to the Macro Outlook

15. Cambodia's growth outlook is highly vulnerable to a sharper-than-expected slowdown in major economies, with potential shifts in U.S. and E.U. trade policies posing additional risks. Slower economic growth in China may weaken FDI inflows into Cambodia and the pace of the tourism recovery, given China's significant contributions to both sectors. Meanwhile, over half of Cambodia's goods exports are headed to the U.S. and the E.U., exposing it to negative impacts from a sharp slowdown in these economies (Figure 18). In addition, shifts in the key counterparts' trade policies—such as the E.U.'s withdrawal of its Everything But Arms (EBA) policy[27] and the U.S.'s implementation of the earlier decision to impose hefty import duties on solar panels from certain countries (see Box C "Cambodia's Solar Panel Exports at a Crossroads")—could adversely affect Cambodia's garment and solar panel exports to those markets.

Figure 18. Share of Indicators by Economy

Source: NBC; Ministry of Tourism; GDCE; AMRO staff calculations

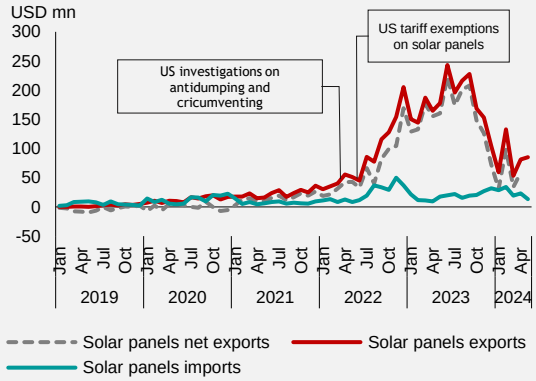
16. Cambodia is also vulnerable to the risk of a spike in global commodity prices impacting inflation. The country's inflation dynamics are particularly sensitive to fluctuations in global commodity prices, more so than in most ASEAN countries, due to its significant reliance on imports of oil and gas, as well as some food products, such as sugar, cooking oil and beverages (Figure 19). Global geopolitical tensions could drive energy and transportation costs higher, especially if crucial sea routes are disrupted. Additionally, a severe El Niño, which has already given rise to higher global temperatures in 2024, could reduce food production and sharply raise global food prices, especially if exacerbated by protectionist trade measures on staple foods. These shocks could put upward pressure on inflation in Cambodia and repress domestic consumption.

[27] In October 2018, the E.U. announced a review of Cambodia's eligibility for EBA preferences. In 2020, the E.U. decided to partially withdraw Cambodia's duty-free quota-free access, impacted roughly 20 percent of Cambodia's exports to the E.U., primarily comprising garments, footwear, and travel goods. Until now, Cambodia's EBA status remained partially suspended. The E.U. continued monitoring Cambodia's progress in addressing the issues that led to the withdrawal of EBA benefits. Negotiations and discussions between the two parties continued, but there was no resolution to fully reinstate EBA privileges by this time.

Box C. Cambodia's Solar Panel Exports at a Crossroads[28]

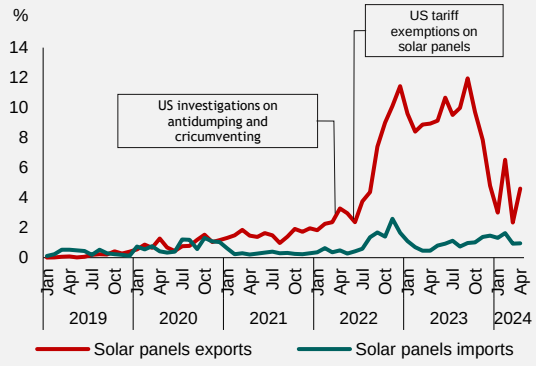
Cambodia's exports of solar panels have increased notably over the past two years. Before 2022, Cambodia's solar panel market had been growing at a steady pace, driven mainly by domestic demand for renewable energy (Asian Development Bank, 2022; Energy Tracker Asia, 2022),[29] leading to a modest increase in imports, while exports were minimal. Since 2022, however, the trends have changed dramatically, with solar panel exports surging by 275 percent (yoy) to USD1.0 billion and imports doubling to USD272 million (Figure C1). As a result, the share of solar panel exports in total trade has increased sharply from 1.4 percent of total exports in 2021 to 4.6 percent in 2022 (Figure C2). Although it is uncertain how much the increase in imports in 2022 was driven by an increase in domestic demand or by higher re-export activities, the fact that net exports surged by more than three times implies a significant increase in domestically assembled products. The trend of rising exports continued into 2023, with their value reaching around USD2.1 billion, up 108.4 percent (yoy). In the same period, imports decreased by 16.2 percent, suggesting a reduction in trade circumvention, and an acceleration in the domestic production of solar panels. However, since Q4 2023, Cambodia's net exports of solar panels have been on a downtrend, suggesting a slowdown in domestic production activities.

Figure C1. Solar Panel Exports and Imports



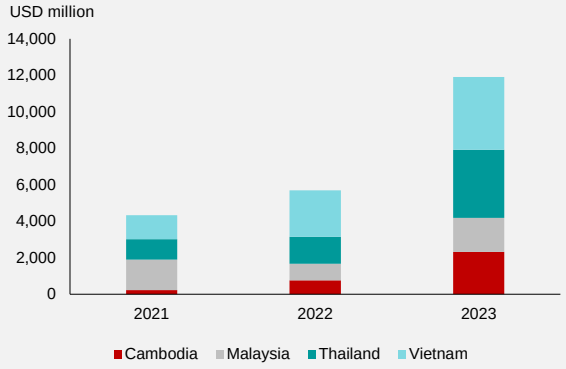
Source: GDCE, AMRO staff calculations

Figure C2. Trade Share of Solar Panel



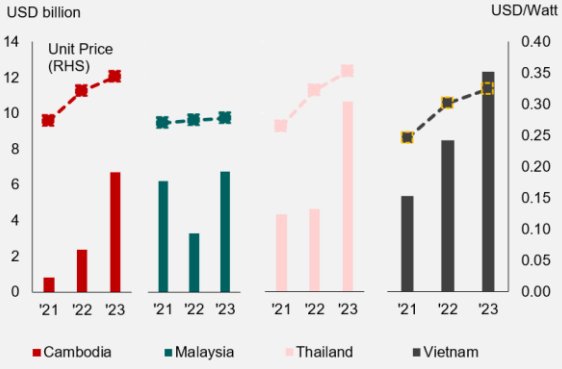
Source: GDCE, AMRO staff calculations

Figure C3. Solar Panel Exports Value to the U.S. from Select ASEAN Countries



Source: U.S. Census Bureau, accessed through S&P Global Trade Atlas (Harmonized Tariff Schedule of the United States (HTSUS)), AMRO staff calculations

Figure C4. Solar Panel Exports to the U.S. and the Unit Price from Select ASEAN Countries



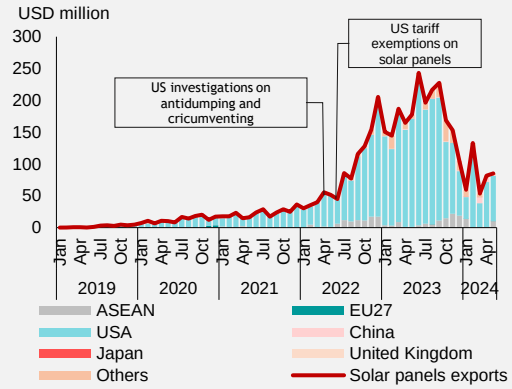
Source: U.S. Census Bureau, accessed through S&P Global Trade Atlas (Harmonized Tariff Schedule of the United States (HTSUS)), AMRO staff calculations

This new trend in solar panel exports underscores Cambodia's emerging role in the global value chain network. It has coincided with temporary U.S. tariff exemptions on solar cell and module imports from Cambodia, Malaysia, Thailand, and Vietnam, which came into effect in June 2022, with the objective of diversifying its supply chain from major producers, particularly China.

[28] Prepared by VansopheaktraOdorm Tep (Associate) and Chunyu Yang (Economist).
[29] The demand for solar panels in Cambodia has been driven by several factors, such as 1) significant energy shortage and frequent blackouts; 2) a reliance on imported electricity and hydropower; 3) the government's promotion of renewable energy production; and 4) global garment producers' new standards to align with global carbon neutrality trends that local producers must comply with.

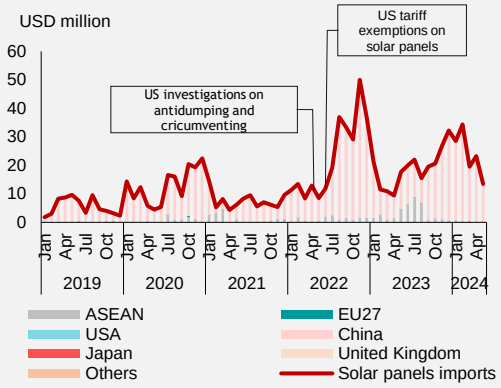
Solar panel exports to the U.S. from these four countries began to increase in 2022, and then doubled in 2023, accounting for 75 percent of U.S. solar panel imports (Figure C3). Cambodia's export surge to the U.S. in 2023 was even more significant, doubling over 2022 (Figure C4), and now accounts for more than 90 percent of its total solar panel exports (Figure C5). At the same time, more than 90 percent its solar panel imports are from China (Figure C6). This may reflect a rerouting of Chinese exports through third countries (in this case, Cambodia) to circumvent trade restrictions, or the rapid investment in Cambodia's solar panel manufacturing industry, which began just one month after the U.S. tariff exemption announcement.[30]

Figure C5. Solar Panel Exports by Destination



Source: GDCE, AMRO staff calculations

Figure C6. Solar Panel Imports by Destination



Source: GDCE, AMRO's staff calculation

Although its solar industry is still at a nascent stage of development, Cambodia offers several advantages that make it an appealing option for multinational corporations implementing a "China Plus One" strategy. Cambodia's competitive labor costs remain attractive for labor-intensive industries, promoting manufacturing cost efficiency. Additionally, Cambodia's long daylight hours benefit industries such as solar panel manufacturing, allowing for extended production and testing. The country also offers enticing investment incentives, including tax holidays and duty exemptions. The government is working on streamlining regulations and improving the business climate, and on fostering a stable and predictable environment. Besides, Cambodia's highly dollarized economy, to some extent, minimizes currency mismatch risks for foreign investors and there is no capital controls. This makes Cambodia an attractive option for companies looking to diversify their manufacturing and investment strategies.

Going forward, the continued expansion of Cambodia's solar panel exports could be challenged by heightened U.S. trade protectionist measures and/ or domestic structural bottlenecks. Cambodia's solar panel exports, which declined sharply in Q4 2023 after a short-lived boom, are at a critical juncture. On 28 March 2022, the U.S. initiated a probe into solar panel imports from Cambodia, Malaysia, Vietnam, and Thailand, and decided to implement a 154 percent tariff[31] on these imports starting June 2024, after providing a 24-month exemption period.[32] In the first four months of 2024, exports to the U.S. from these countries declined significantly by 49 percent (yoy) in anticipation of the tariffs. Separately, despite substantial growth in volume, Cambodia's solar panel export unit price remains higher than that of the other three countries (Figure C6), reflecting high production costs, which may be due to structural bottlenecks. For example, low labor productivity and an unstable supply of electricity supply may exacerbate[33] challenges in the business environment for manufacturers by raising their costs and reducing productiveness. In response, the government has initiated new comprehensive strategies to boost productivity through better education and training, advancing higher value-added activities, and fostering a more

[30] As of July 2022, there were 21 solar panel factories manufacturing in Cambodia with a total investment of USD173.3 million (https://construction-property.com/cambodia-has-21-solar-panel-factories-worth-us173-million/).
[31] This tariff is a response to findings of minimal processing of solar products in these countries to bypass the U.S. antidumping and countervailing duties, a strategy identified as circumvention. After the expiration of the Biden Administration's temporary moratorium, these products will face even higher tariffs—238.95 percent for antidumping and 15.24 percent for countervailing duties, unless the exporting companies can demonstrate compliance, according to the U.S. Department of Commerce.
[32] On May 15, 2024, the U.S. Department of Commerce began antidumping and countervailing duty investigations into crystalline silicon photovoltaic cells from Cambodia, Malaysia, Thailand, and Vietnam.
[33] In 2023, the Cambodian government plans to provide a USD150 million subsidy to stabilize electricity tariffs.

competitive business environment, along with Cambodia's Power Development Plan for the period 2022-2040, which was officially published in May 2023.[34]

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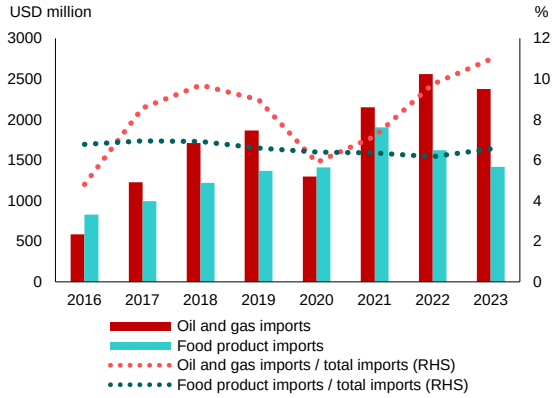
Asian Development Bank (2022), "ADB, EDC Sign Mandate for 2 GW Solar and Battery Storage Power Program in Cambodia", November 2022. Retrieved from https://www.adb.org/news/adb-edc-sign-mandate-2-gw-solar-and-battery-storage-power-program-cambodia

Energy Tracker Asia (2022), "Renewable Energy in Cambodia – Opportunities and Challenges", February 2022. Retrieved from https://energytracker.asia/renewable-energy-in-cambodia-opportunities-and-challenges/

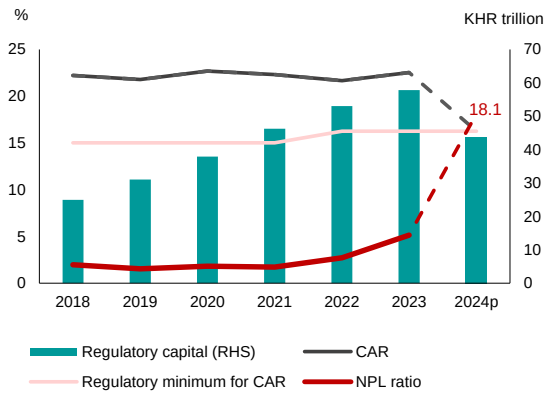
17. A gradual rise in NPLs may exert substantial pressure on banks' profitability, thus steadily eroding capital buffers. The number of commercial banks with a double-digit NPL ratio surged from four in 2022 to 11 in 2023, their loans outstanding accounting for 9 percent of total commercial bank loans. Meanwhile, 19 commercial banks incurred losses in 2023, whose assets accounted for 17.5 percent of all assets.[35] If the situation of high NPLs continues and further worsens, the loan loss would further erode banks' profitability and capital adequacy level. AMRO's reverse stress test shows that the banking system can withstand an NPL ratio of up to 18.1 percent, which is more than two times higher than the current industry level, before the CAR falls to the regulatory minimum (Figure 20, and see Annex 1 "Solvency of Cambodian Banks: A Reverse Stress Test Exercise"). Overall, the Cambodian banking sector is resilient, but a few banks' CARs could fall below the minimum requirement, particularly those with a high degree of exposure to sectors with high NPLs, such as hotels and restaurants, real estate-related sectors, and wholesale and retail trade sectors. Meanwhile, given absence of deposit insurance and bank resolutions, it may intensify investors' sentiment.[36] Moreover, if the Fed maintains its tight monetary policy stance, the tight global financial conditions could put further pressure on Cambodia's bank performance.

Figure 19. Oil and Gas Imports and Food Product Imports



Source: GDCE; AMRO staff calculations

Figure 20. Reverse Stress Test on NPL Ratio



Source: NBC; AMRO staff calculations

[34] The Cambodia's Power Development Plan 2022-2040 outlines the country's strategy to expand its high-voltage network infrastructure, promote renewable energy sources, improve energy efficiency, and provide affordable and reliable electricity across all sectors while minimizing environmental impact.
[35] Among banks that had a double-digit NPL ratio in 2023, three are local banks, accounting for 1.9 percent of total commercial bank loans. Among banks that incurred losses in 2023, eight are local, accounting for 3.9 percent of total assets.
[36] See AMRO Annual Consultation Report on Cambodia – 2023 (Annex 3 "Establishing a Deposit Protection Scheme in Cambodia") for more analysis on the deposit insurance issue at https://amro-asia.org/amros-2023-annual-consultation-report-on-cambodia/.

18. Deepening financial distress among developers could lead to heightened credit risks in the banking sector. Developers are struggling with financial problems due to higher financing costs, subdued demand, lower bank lending, reduced profits and increased late payments by buyers.[37] Since loans to real estate and construction contribute to nearly 20 percent of banks' lending, the financial health of developers is directly linked to banks' asset quality. NPL ratios have escalated beyond pre-pandemic levels. In a tail-risk event where major developers default, banks could face another surge in NPLs. Furthermore, the unregulated shadow banking activities[38] could exacerbate credit risks to the banking sector. The interconnectedness of shadow banks and the official banking sector [39] —whereby developers fund their lending to homebuyers through bank borrowing—can result in unreported NPLs from shadow banks being transferred to the traditional banking sector, leading to a further spike in NPLs.

Authorities' Views

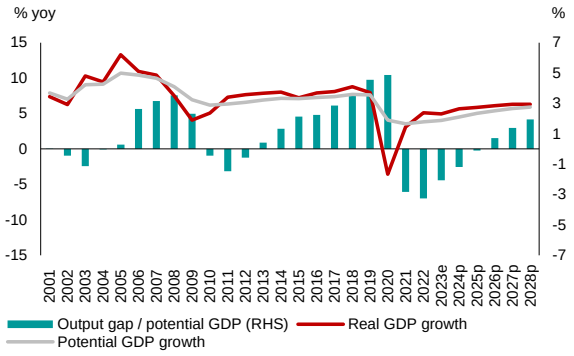
19. The authorities remain confident in the financial soundness of the banking system. Authorities have conducted stress tests regularly, and the latest results show that in the worst-case scenario where the NPL ratio is 10 percent, only 2-3 banks' CARs will fall below regulatory requirements.

B.2 Longer-term Challenges and Vulnerabilities

20. Scarring effects caused by the pandemic may pose structural challenges to boosting Cambodia's long-term growth potential. Pandemic scarring has lowered Cambodia's potential growth (Figure 21), mainly due to a deterioration in human capital stock, damage to the balance sheets of firms, and a major reduction in capital formation relative to the pre-pandemic trend. Cambodia's human capital stock has deteriorated due to interruptions in education and disruptions in employment during the pandemic. In particular, the slow upgrade of labor quality could be an obstacle in developing a more technology-driven economy. Moreover, the investment rate is significantly lower than the pre-pandemic level, partly due to the weakened investment sentiment, weaker balance sheets, and delay in infrastructure development [40] —both physical and digital infrastructure—and the lagged implementation of economic diversification policy, which has reduced accumulation in capital formation. As a result, Cambodia's long-term growth potential has likely been negatively impacted.

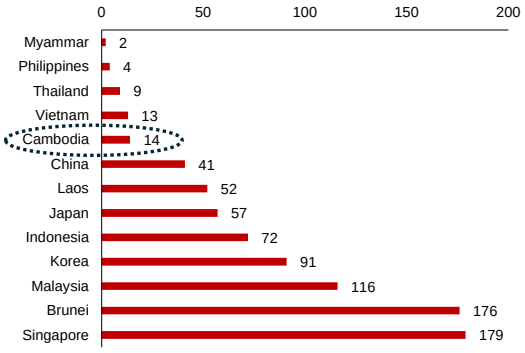
[37] Average loan growth to the real estate sector declined significantly to 18.6 percent in 2023, compared to the peak of 44.1 percent in 2019. In 2023, 10.7 percent of homebuyers made late payments to developers, compared to 8.4 percent in 2022.
[38] The shadow banking network, in which lending activities occur outside of the supervision of the NBC, was expanding before 2022 as homebuyers turned to high-interest-rate instalment plans offered by developers rather than borrowing from banks which often adhered to stricter credit assessments.
[39] According to the AMRO staff estimate (AMRO Annual Consultation Report on Cambodia – 2023, Annex 1 "Navigating Double Challenges: Real Estate Downturn and Hidden Risks of Shadow Banking in Cambodia"), the size of shadow banking linked to real estate lending is estimated at around 60 percent to 70 percent of GDP. The interconnectedness between banks and real estate developers can result in a more pronounced credit risk shift from shadow banking to traditional banking. See https://amro-asia.org/amros-2023-annual-consultation-report-on-cambodia/ for the details.
[40] The lower investment rate is also due to the weak balance sheets of firms.

Figure 21. Potential Growth and Output Gap



Source: NIS; AMRO staff calculations and projections

Figure 22. Global Climate Risk Index
(2000-2019)



Source: Germanwatch
Note: The smaller the index, the higher the risk.

21. The authorities need to be mindful of the impacts of climate change, which could pose a major long-term economic risk to the country. As one of the countries with a high incidence of floods and extreme heat, Cambodia is vulnerable to climate change risks (Figure 22).[41] In particular, climate change will amplify the impact of extreme weather events on agricultural output and tourism by disrupting production and transportation networks. For instance, in 2024, the country's agricultural output could be affected by extremely hot (over 40^{o}C) and dry El Niño weather.[42] In the long term, if the adaptation to climate change lags, Cambodia's economy could be badly affected by physical impacts of climate change.[43] Meanwhile, transition risks from climate change could bring about both challenges and opportunities for Cambodia. Although the country's share of carbon emissions is relatively low at only 0.05 percent of global emissions,[44] emissions may rise rapidly with fast economic growth. However, given global efforts at decarbonization and changing consumption and production patterns globally, Cambodia could benefit from global trends if it embarks on a green economic development path, such as by attracting more renewable energy industries in a timely manner.

C. Policy Discussions and Recommendations

C.1 Gearing Toward Fiscal Consolidation

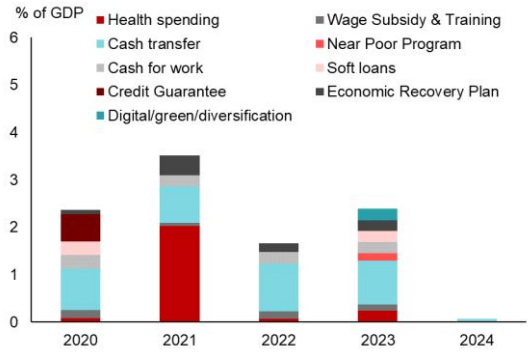
22. In light of the weaker revenue that widened the fiscal deficit in 2023, the government should prioritize implementing its fiscal consolidation plan to rebuild fiscal space. While acknowledging the government's efforts to rationalize expenditure amid the revenue shortfall, it would be prudent to prioritize the consolidation of the fiscal position and the rebuilding of fiscal reserves. Despite the external and domestic headwinds, economic recovery has maintained a steady pace and the output gap is closing, suggesting that there is a reduced need for stimulus measures. Given the importance of a strong fiscal position for Cambodia, where monetary policy remains constrained in a highly dollarized economy and public

[41] See World Bank (2024), "Climate Risk Country Profile: Cambodia," and World Bank (2023), "Cambodia Country Climate and Development Report," and Germanwatch (2021), "Global Climate Risk Index 2021: Who suffers Most from Extreme Weather Events? Weather-related Loss Events in 2019 and 2000 to 2019."
[42] Agricultural production is negatively affected by major droughts, especially those induced by the El Niño. According to World Bank estimates, Cambodia's rice production declined by 10 percent on average during El Niño events between 1995 and 2014, while the national GDP was estimated to fall by 0.4 percent during a typical El Niño year. See World Bank (2019), "Striking a Balance: Managing El Niño and La Niña in Cambodia's Agriculture."
[43] These include losses in labor productivity, agricultural production, and tourism from the impacts of floods and heat. According to the World Bank, such impacts could lower Cambodia's annual GDP by around 3 percent to 9 percent by 2050. See World Bank (2023), "Cambodia Country Climate and Development Report."
[44] According to Our World Data in 2022, see https://ourworldindata.org/co2-emissions.

financing capacity is limited, prioritizing the accumulation of fiscal reserves over further economic stimulus is essential, particularly as fiscal reserves is estimated to have fallen to 7.5 percent of GDP in 2023 from 13.9 percent in 2019. In this regard, it is commendable that fiscal stimulus measures have been phased out (Figure 23).[45] This paves the way for the normalization of expenditures, after several years of large fiscal deficits.

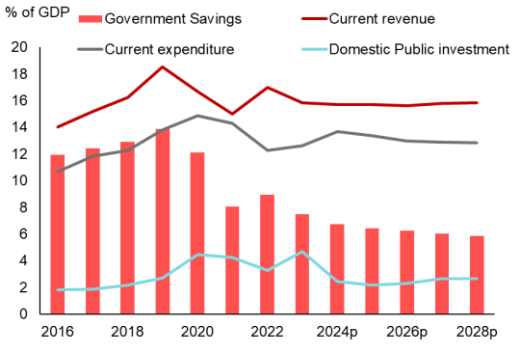
- In the longer term, restoring fiscal reserves to the pre-pandemic level is prudent. While the implementation of a new contingency fund has been delayed to 2026, it is important to have well-defined rules and an institutional framework with sound governance, accountability, and transparency with a clear timetable to help the steady build-up of fiscal reserves, particularly as they are forecast to decline as a share of GDP in the medium-term (Figure 24).[46]
- Notwithstanding the move towards fiscal consolidation, the government should stand ready to intervene in the event of severe and unexpected economic shocks.

Figure 23. Phase out of COVID-19 Fiscal Stimulus



Source: MEF; AMRO staff calculations
Note: The final tranche of the cash transfer program was released in March 2024, amounting to around USD30 million.

Figure 24. Government Savings



Source: MEF; AMRO staff projections
Note: Government savings is projected as the difference between the projected current revenue and planned current expenditure less planned domestic public investment.

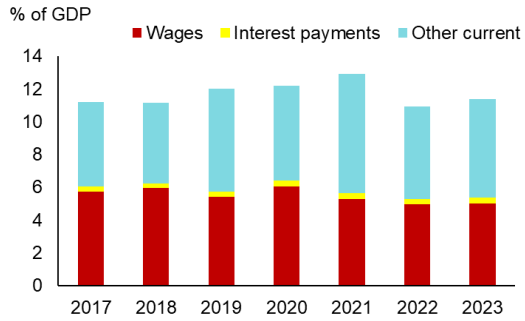
23. Increasing the efficiency of expenditure and reallocating resources to government priorities are crucial in enhancing development outcomes and boosting growth potential. The elevated spending needs, compared to pre-pandemic levels, underscore the importance of improving expenditure efficiency by strengthening monitoring and evaluation systems, particularly as revenue remains below pre-pandemic levels. A comprehensive review of spending programs will help reprioritize and reallocate more spending to support long-term growth, particularly through increased capital and infrastructure expenditures.

- It is essential to manage the growth of current expenditure prudently, ensuring that the increase in the civil servant wage bill is sustainable within the government budget, particularly as the wage bill constitutes the largest part of current expenditure (Figure 25). It is commendable that temporary fiscal support measures during the pandemic have transitioned into more targeted and institutionalized programs on a smaller scale (Figure 26). The long-term implications of institutionalizing programs such as the 'Family Package' and expanding social assistance toward universal health coverage must be carefully

[45] The COVID-19 emergency cash transfer program for poor and vulnerable households ended with the final round released on 26 March 2024, and will transition to the Family Package program from April 2024 onwards.
[46] According to the 2023 Public Financial System Law, the contingency fund is envisioned as a savings fund of the government to address critical needs during times of economic, financial, or emergency crises, including epidemics and natural disasters. Its sources include: i) annual expenditure of the national budget in the amount of 2 to 4 percent of the current revenue performance one year prior of the current year budget execution (N-1) as determined by the annual financial law; ii) possible surplus from the implementation of the annual national budget as determined by the budget law; and iii) other sources to be identified in the financial law. Its implementation will commence upon the endorsement of the sub-decree governing its management.

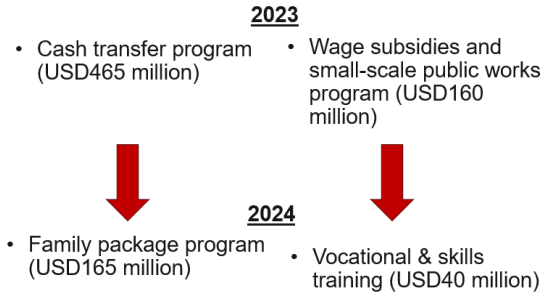
evaluated to ensure that they are fiscally sustainable. In addition, corresponding delivery systems for these programs need to be constantly assessed and enhanced to ensure proper allocation of resources as intended.

Figure 25. Current Expenditure



Source: MEF; AMRO staff calculations

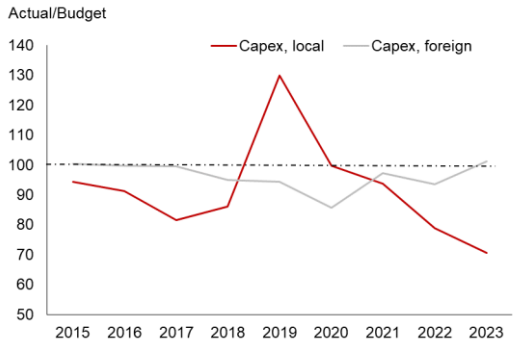
Figure 26. From Stimulus to Regular Programs



Source: MEF

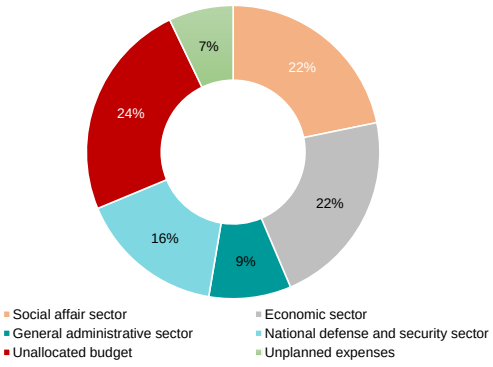
- Authorities should also focus on enhancing spending efficiency for capital expenditures, particularly infrastructure investments that will enhance future growth. This can be achieved through improvements in investment planning, monitoring of implementation, and evaluation, particularly as government has underspent on locally financed capital expenditure in recent years (Figure 27). Further, to improve the efficient allocation of resources that is in line with the national development plan, it is essential to strengthen the capacity of line ministries in program design, execution, and monitoring.

Figure 27. Capital Expenditure Utilization



Source: MEF; AMRO staff calculations
Note: A value of more than 100 indicates overspending, while a value of less than 100 indicates underspending vs budget.

Figure 28. 2024 Budget Allocation



Source: MEF

- Authorities should strengthen strategic resource allocation and improve planning capacity to help reduce the large amount of unallocated budget, accounting for 24 percent of the total budget for 2024 (Figure 28). To enhance planning and optimize resource allocation, it is recommended that the government strengthen performance-based budgeting by establishing specific key performance indicators (KPIs) for each program, and rigorously assess the achievement of these targets. Accurate and comprehensive accounting of program and project costs— including a proper classification of personnel costs and capital expenditure costs per program or project—is important to strengthen the audit process and promote good governance.
- Even with the growing reliance on PPPs, the government needs to also consider increasing spending on public infrastructure investment, which is essential to enhance growth potential, particularly considering that allocation for new domestically-financed infrastructure projects in the 2024 budget accounts for only 0.31 percent of GDP.

Authorities will need to carefully assess the risks and plan strategically in choosing the appropriate financing mode for infrastructure projects, ensuring that fiscal sustainability and project efficiency are maintained.

24. Raising revenue is crucial to secure funds for development needs and enhance fiscal sustainability. Cambodia has substantially improved revenue collection through a series of reforms with the implementation of a Revenue Mobilization Strategy (RMS) – RMS 1 (2014-2018) and RMS 2 (2019-2023). Before the pandemic, tax buoyancy in Cambodia was high at nearly 2, indicating that tax revenues were growing faster than the economy. Enhancing tax revenue administration is crucial, given that tax revenues have not yet returned to pre-pandemic levels.[47] An initial assessment of RMS 2 indicates that although the target of increasing revenues by 0.3 percent of GDP per year was not achieved due to the pandemic, improvements in service quality and productivity were achieved through the introduction of e-filing, e-payment, and overall better taxpayer services.[48] However, the revenue shortfalls pose a major challenge to the authorities' plan to increase local expenditure on infrastructure while rebuilding fiscally space. In this context, continued enhancement of tax administration and setting a target for revenue increase in line with the original RMS 2 target, which was derailed by the pandemic, is recommended to rebuild tax revenues back to pre-pandemic level.

- In the short- to medium term, excise tax reform is encouraged to define the excise tax base, improve calculation methods, and better align incentives to reduce the consumption of alcohol, tobacco, and sugary foods. A continued focus on modernizing tax revenue administration is also recommended. Further use of technology can be explored to enhance fraud detection and compliance, streamline operations through automation and chatbots, and personalize taxpayer services. The timing for the implementation of the capital gains tax should be carefully considered given the weakness of the real estate sector.
- The Single Portal system—which was launched in June 2020 and has been consistently enhanced—provides an online platform for business registration, tax payment and other essential processes crucial for doing business in Cambodia. Over the medium-term, tax administration reform can further expand the tax base by broadening taxpayer registration to informal sectors and small businesses. In this regard, the launch of the National Strategy on Informal Economy Development 2023-2028 last year is commendable, as it aims to implement strategies to bring transactions into the formal economy by incentivizing informal businesses to register and file tax declarations. This is envisioned to be accomplished through streamlined registration processes, simplified tax systems, enhanced access to social security and training.
- Over the long-term, and in line with development of the economy, the introduction of new revenue sources could also be considered. This could include a progressive personal income tax system to raise revenue and support income redistribution, the introduction of a carbon tax, digital services taxes and an increase of the property tax rate.

25. Streamlining tax incentives for investment is also necessary to preserve fiscal space and limit forgone revenue. A careful consideration of the overall economic impact of tax incentives is needed to help ensure that the benefits outweigh the costs considering the erosion of the tax base caused by such incentives (see Box D "Assessing Revenue Shortfall in 2023 Using Tax Buoyancy Metric"). Tax incentives need to be well-targeted and in line with

[47] RMS 1 helped boost tax revenue from 8.7 percent of GDP in 2010 to a peak of 16.2 percent of GDP in 2019. However, the impact of COVID-19 pandemic on the economy has resulted in tax revenues coming down to 14.0 percent of GDP in 2023.
[48] In particular, improvements in reducing the number of tax payments, enhancing electronic filing and payment systems that allow for easier, faster, and more accurate submissions of tax forms and payments, streamlining of the tax refund process, and enhancing audit procedures have been partially or fully implemented as part of RMS 2 reforms.

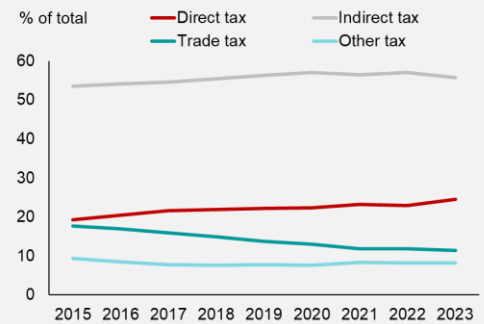
the list of priority sectors, and should not continue to apply generously to a broad base of industries so as to limit foregone revenue. The government must also make sure that tax incentives claimed for specific activities such as training and skills development, R&D, or local sourcing of inputs, enable upgrading within a sector or result in actual linkages with local firms. In this respect, the government needs to establish a strong and robust monitoring and assessment system of the tax incentive program to ensure that it remains in line with these objectives. The system should also provide a framework for the periodic review and removal of incentives based on sunset clauses, depending on their effectiveness. Additionally, publishing a tax expenditure report will improve transparency.[49] Strengthening coordination among relevant government agencies is also crucial, particularly between tax authorities and investment bodies.[50] Such a framework will lay the groundwork to reform tax incentives for investment. The reform of tax incentives towards expenditure-based incentives needs to begin, due to the eventual loss of attractiveness of income-based incentives resulting from global tax reforms.[51] However, authorities must be aware that expenditure-based incentives entail significantly greater administrative burdens, necessitating more thorough preparation for their effective implementation. The authorities must intensify efforts to enhance the business environment, upgrade workforce skills, and modernize infrastructure to sustain foreign investment, in light of reduced tax incentives in the future.

Box D. Assessing Revenue Shortfall in 2023 Using the Tax Buoyancy Metric[52]

Background

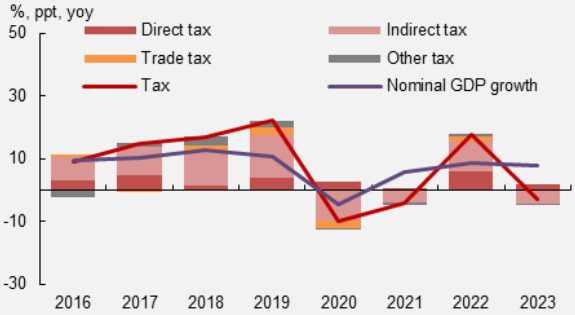
Indirect taxes are the most important source of government revenue in Cambodia. The country's tax structure is dominated by indirect taxes, mainly consisting of value-added tax (VAT) (31.9 percent of the total) and excise tax (20.9 percent), accounting for more than half of all tax collection. Meanwhile, the share of direct taxes, which mainly comes from profit taxes, has increased gradually, but remains relatively smaller at around 25 percent of total tax collection (Figure D1). Prior to the pandemic, the tax revenue-to-GDP ratio steadily rose from 9.8 percent in 2013 to 16.2 percent in 2019, before falling in 2020 and 2021. With the reopening of the economy in 2022, tax revenue rapidly recovered. However, despite continued economic recovery in 2023, tax revenue contracted by 3.0 percent (yoy), due to a fall in indirect taxes, as VAT and excise taxes on imports contracted with the fall in imports (Figure D2).

Figure D1. Tax Structure of Cambodia



Source: MEF; AMRO staff calculations
Note: This chart displays the 5-year moving average of the share of major tax items as a percent of total tax revenue from 2018 to 2023.

Figure D2. Change in Tax Revenue Compared to the Previous Year



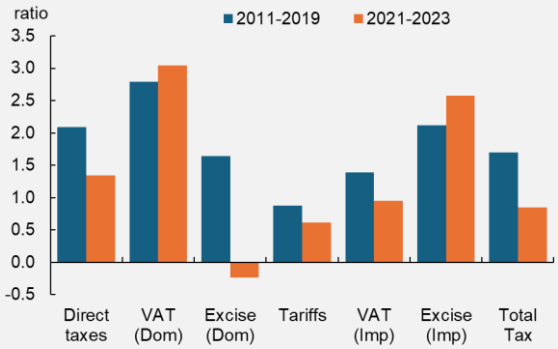
Source: MEF; AMRO staff calculations
Note: Direct tax consists of profit tax and payroll tax; indirect tax consists of VAT and excise tax on domestic consumption and imports; trade tax consists of tariffs and other tax are computed as a residual.

[49] Information on tax incentives is dispersed across a wide range of government bodies. Efforts are now ongoing to centralize the information, for use in policy analysis and evaluation. These efforts should be strengthened, with the goal of providing a regular report on tax expenditure as part of the budget process to enable better tracking of the cost of tax incentives.
[50] See Andriansyah, Hong, Nam (2021), "Policy Considerations in Using Tax Incentives for Foreign Investment", AMRO Policy Perspectives Paper, (PP/21-01).
[51] In addition, the Cambodian government may consider joining the OECD/G20 Inclusive Framework on Base Erosion and Profit Shifting (BEPS) project, which enables countries to impose a top-up tax, such as the Qualified Domestic Minimum Top-Up Tax (QDMTT), to ensure income generated within their territory is taxed at 15 percent, aligning with the global standard.
[52] Prepared by Paolo Hernando (Senior Economist) and VansopheaktraOdorm Tep (Associate).

Tax Buoyancy Across Different Periods

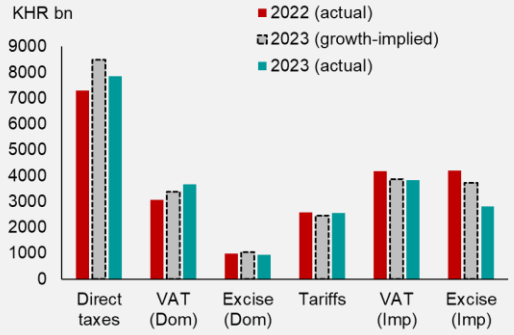
Prior to the pandemic, strong tax administration reforms resulted in high tax buoyancy and higher collections. Tax buoyancy, which is defined as the responsiveness of tax revenue to GDP growth, has historically been high in Cambodia, at nearly 2 between 2011-2019. Increased tax revenue was facilitated by robust tax administration reforms that broadened the tax base, modernized the tax system, and strengthened the audit and enforcement capacity of tax officials. In the period 2021-2023, tax buoyancy halved to around 1, reflecting the temporary suspension of tax liabilities for sectors hit hard by the COVID-19 pandemic (Figure D3).[53]

Figure D3. Tax Buoyancy



Source: MEF; AMRO staff calculations
Note: Tax buoyancy for each year is calculated by dividing the percentage change in tax revenue by the percentage change in for the relevant tax base (GDP, consumption and import). Simple average removing outliers are used for computing the buoyancy for 2011-2019 period.

Figure D4. Comparison of Actual and Growth-implied Tax Revenues in 2023



Source: MEF; AMRO staff calculations

A simple analysis using the pre-pandemic tax buoyancy implies that the tax revenue shortfall in 2023 was much more severe than what the relevant tax base implied, particularly in excise taxes on imported goods. Comparing actual and growth-implied tax revenue in 2023 provides an estimate of how much of the tax shortfall is due to slower growth of the relevant tax base during the ongoing recovery phase or to some other factors such as changes in policy (Figure D4). If we apply the pre-pandemic tax buoyancy:

- Direct taxes, consisting of profit tax and payroll taxes, should have grown by 16.4 percent (yoy) in 2023; however, actual growth rate was lower at 7.7 percent.
- VAT on domestic spending grew by 19.2 percent, outpacing the growth-implied rate of 10.1 percent based on pre-pandemic tax buoyancy ratio.
- Meanwhile, the collection from taxes related to excise taxes on domestic goods, tariffs and VAT on imported goods are generally in line with the pre-pandemic growth-implied rate. This means that although the collection of VAT on imported goods contracted in 2023, it is generally in line with the corresponding fall in imports.
- In contrast, the fall in excise tax on imports is greater than what the fall in imports would imply, as revenue from this source fell by 33 percent, much steeper than the implied-rate of an 11.5 percent contraction.

Policy Implications

The contraction of tax revenue in 2023 despite the steady economic recovery could have been partially caused by tax policy changes, such as the implementation of the new Law on Investment. The still strong growth in the collection of VAT on domestic consumption indicates that economic recovery remains sound, with domestic consumption staying healthy, as evidenced by the double-digit growth of VAT on domestic consumption. However, a concerning development in 2023 is the fall in revenues related to excise tax on imports.[54] A situation where tax revenue decreases

[53] 2020 is omitted as it is the only year in the sample with negative GDP growth rate, wherein the economy contracted by 3.6 percent due to the pandemic. The resulting job losses and reduction of income most likely temporarily reduced the tax base, distorting the tax buoyancy measure.
[54] The fall in revenue should only be KHR543 billion (0.3% of GDP). However, the actual fall in excise tax on imports was much higher at KHR1.4 billion, implying that KHR827 billion (0.5% of GDP) was due to factors other than the fall in imports.

even as the economy grows is not considered normal. However, this could occur due to a shift in the structure of the economy, a decline in the efficiency of tax collection, or a major tax policy change. In 2023, the most likely reason for the fall in tax revenues on imports is the new Law on Investment. Although the law was enacted in 2021, its full implementation only commenced in 2023, coinciding with the fall in taxes on imported goods. The new law provides more generous incentives compared to the previous law, including extending VAT[55] and excise tax exemptions to imports of production equipment and construction materials (Table D1). Existing investments can also benefit from the new incentive regime if it engages in the expansion and modernization of its operations, which could explain the significant drop in taxes related to imports.[56]

Table D1. Highlights of the Old and New Tax Incentives Regime

Tax Incentive	Amended Law on Investment (2003)	New Law on Investment (2021)	Potential Revenue Impact
Basic Incentives			
Tax holiday	Income tax exemption up to 6 years - Then subject to the 20% CIT rate after the tax exemption period.	Income tax exemption up to 9 years - Phased reintroduction of income tax post-exemption: Investors pay 25% of the total tax due for the first two years, 50% for the next two years, and 75% for the following two years, before reverting to the standard CIT rate of 20%.	Maximum period of income tax exemption longer by 3 years, with phased introduction of income tax spread across 6 years, companies could potentially pay the standard CIT tax only after 15 years compared to after 6 years previously.
Special depreciation allowance	Instead of a tax holiday, the project may opt for a 40% special depreciation allowance on the value of tangible properties employed in production.	Instead of a tax holiday, the project may opt for a 200% special depreciation allowance on the value of tangible properties employed in production.	Special depreciation allowance is 5 times larger.
Additional Incentives			
Other tax exemptions	Duty-free import of production equipment and construction materials. VAT exemptions on imports were also provided to industries deemed important for growth and development.	In addition to duty-free imports, comprehensive exemptions extended to VAT and excise taxes on imports of production equipment and construction materials.	Revenue loss from excise taxes on imports of productions equipment and construction materials.
		VAT exemption for the purchase of locally made production Inputs.	Revenue loss from VAT of locally made inputs.
		150% deduction of expenditure incurred on the following activities: R&D and innovation, staff training and welfare, construction of workers' accommodation and related facilities.	Revenue loss from the deduction of specific activities.
Special Incentives		Case-by-case basis	Revenue loss from additional incentives.

Source: MEF, AMRO staff compilation
Note: In addition to the enhanced tax incentives listed above, the Law on Investment 2021 also strengthened investor protection, and defined environmental and social responsibilities of companies.

Raising tax buoyancy back to pre-pandemic levels through continued tax reforms will support fiscal sustainability. Although negative tax buoyancy is not expected to persist, structural shifts affecting tax collection such as the new Law on Investment mean that tax buoyancy could be lower in the future. This could result in lower tax revenues in the future, negatively impacting overall fiscal health and Cambodia's ability to invest in its development. In this regard, continued tax reforms are necessary to help raise tax buoyancy. The authorities should also consider reevaluating tax policies to ensure that tax incentives are balanced with measures to broaden the tax base.

[55] Prior to the new law VAT exemptions on imports were provided on a case-by-case basis.
[56] Deeper analysis using firm level data on tax incentives would provide solid evidence in this regard, which the MEF is currently gathering.

26. Cambodia needs to diversify its financing sources for public investment as rising per-capita income levels will reduce access to concessional loans. The UN's preliminary evaluation for Cambodia's 2024 triennial review anticipates the country's graduation from Least Developed Country (LDC) status, potentially cutting off access to concessional funding from UN-related agencies. While other international institutions like the World Bank and Asian Development Bank have separate criteria for providing concessional loans, Cambodia's recent GDP rebasing—resulting in a nominal increase of over 30 percent—has hastened its transition to middle-income status, which will lead to reduced access to grants and concessional loans. Although Cambodia may lose access to loans with the most concessional terms, it can continue to tap into blended loans by international institutions, which are still cheaper than borrowing commercially. However, Cambodia must prepare to tap more diverse financing sources, including developing its domestic bond market and enhancing its access to global and regional sovereign bond markets. The government should develop a plan to deepen the domestic bond market, with a view to increasing liquidity in the secondary bond market and creating a yield curve for its debt. This highlights the need to strengthen government capacity to raise and manage debt at commercial market interest rates. Cambodia also needs to consider getting a solicited sovereign rating sometime in the future, as a first step in exploring the viability of issuing global or regional bonds.

Authorities' Views

27. The authorities remain highly committed to rebuilding reserves. The authorities recognize the importance of the ample policy space provided by government savings, during the pandemic. In this regard, the contingency fund would be a useful tool in rebuilding reserves. However, the government also has other ways to rebuild reserves, such as by achieving primary surpluses. In the current uncertain economic environment, the government has postponed the implementation of the contingency fund to 2026 to allow more flexibility for fiscal policy in case revenue falls by more than expected or in the event of an unexpected shock.

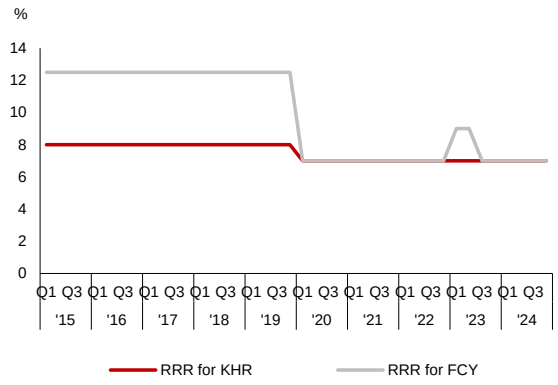
C.2 Enhancing Monetary and Macroprudential Policy Framework

28. The NBC should resume its post-COVID normalization of forbearance policies in 2025. The NBC's decision to reduce the RRR (Figure 29) and postpone the full implementation of CCB was intended to support economic activities which were facing difficulties in obtaining funding. Nevertheless, considering the recent easing in liquidity conditions in the banking system, which led some banks to cut their U.S. dollar deposit rates several times, the NBC should closely evaluate market conditions in preparation for normalizing the RRR for foreign currency in a timely manner. Meanwhile, it is crucial to strike the right balance between ensuring that financing conditions remain supportive of the economic recovery, and safeguarding macro-financial stability. Thus, the capital adequacy framework for deposit-taking institutions, including five different regulations[57], along with the full implementation of CCB, should be carried out as planned without further delay. Sectoral NPLs should be closely monitored, and the NBC should ensure that banks have maintained adequate provisions (Figure 30).[58] This can be done by enhancing on-site inspection to assess the status of credit exposure and the level of provisioning, and continuing to provide guidance on banks' risk assessment capacity. Additionally, the NBC should encourage banks to maintain adequate capital buffers, by implementing policy measures aimed at encouraging banks to cut

[57] These five regulations include regulations on i) regulatory capital, ii) capital adequacy ratio, iii) credit risk, iv) market risk, and v) operational risk.
[58] The provision coverage ratio in 2022 was 144.8 percent, up from below 100 percent in 2021. Although the provision coverage ratio for 2023 is not yet available, it is learned that the specific provisions increasing from KHR3.6 trillion in 2022 to KHR6.3 trillion in 2023, while specific provision for the NPL ratio slightly decreased from 59.7 percent in 2022 to 52.3 percent in 2023. It implies banks have already set aside more provisions amid rising NPLs, but perhaps not enough to maintain or exceed the provision coverage ratio of 2022.

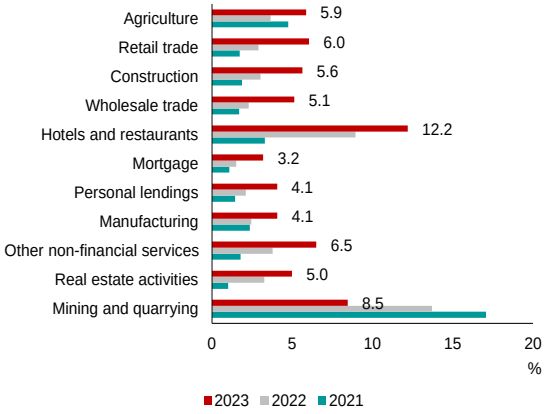
discretionary expenses, raise additional capital, and reduce dividend payout, especially considering expected asset quality deterioration and declining profitability.[59]

Figure 29. Reserve Requirement Ratio



Source: NBC

Figure 30. Bank's NPL Ratio by Sector



Source: NBC; AMRO staff calculations

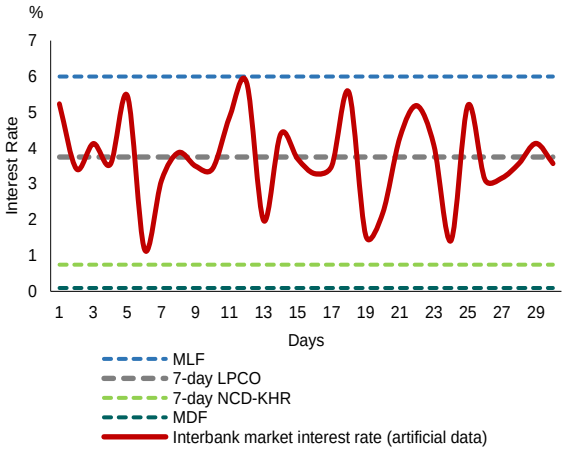
29. The NBC should continue strengthening its policy frameworks to help foster interbank market development and mitigate credit concentration risk.

- In monetary policy management, introducing an interest rate corridor (Figure 31) will help banks to manage liquidity and encourage interbank transactions. In this regard, the NBC has set the 7-day liquidity-provided collateralized operation (LPCO) interest rate as the reference rate for monetary operations. From a longer-term perspective, to enhance monetary independence, the NBC should continue promoting the use of riel by considering a gradual increase in riel loan portfolio, encouraging the usage of cross-border QR payments, and strengthening coordination among stakeholders to boost riel transactions.[60]
- Meanwhile, a macroprudential policy framework is necessary for more effective monitoring and to mitigate systemic risks. Particularly, to mitigate credit concentration risk and promote lending to more productive sectors (Figure 32), a dynamic differentiated RRR[61] could be considered, together with the use of debt-to-income (DTI) ratios, and caps on bank lending to the real estate sector.[62]
- Developing a deposit insurance scheme[63] and a bank resolution and crisis management framework in a timely manner is essential to strengthen domestic financial stability. It is also crucial to ensure close coordination among regulators. The National Financial Stability Committee[64] should fully serve as a coordination platform for monitoring and mitigating

[59] The NBC could adopt similar measures to those introduced during the pandemic. On 13 April 2020, NBC issued guidance restricting dividend payment to shareholders for audited profit in 2020, but also allowed BFIs to recognize the quarterly audited profit to include in the net worth calculation. On 18 December 2021, NBC issued another guidance that BFIs could distribute dividends only if they fulfilled all requirements from NBC and were subject to NBC's decision.
[60] The NBC has developed and modernized payment systems, including the Bakong, to facilitate use of the riel. Electronic transactions in riel through the Bakong platform increased by 44 percent in 2023 over the previous year. This increase was significantly higher than that of transactions using U.S. dollars, which rose by just 3.1 percent.
[61] In the region, several central banks have adopted differentiated RRR based on banks credit portfolio or other indicators. For example, Bank Indonesia provides incentives in the form of RRR discounts for banks that lend to selected sectors, such as downstreaming, housing, tourism, and MSMEs (See https://amro-asia.org/amros-2023-annual-consultation-report-on-indonesia). Another example is in China. From 2011, the People's Bank of China rolled out a scheme of "dynamic differentiated RRR". Under the scheme, the RRR for an individual bank varies on a quarterly or monthly basis, taking into consideration its credit growth, implementation of the government credit policy and other prudential indicators, such as provisioning, leverage ratio and capital adequacy (https://www.bis.org/publ/work360.pdf).
[62] In June 2008, the NBC implemented a sectoral asset side macroprudential tool by putting a cap on bank lending to the real estate sector at 15 percent of the loan portfolio. This measure was lifted in 2009 owing to the impact of GFC subsided.
[63] See AMRO Annual Consultation Report on Cambodia – 2023 (Annex 3 "Establishing a Deposit Protection Scheme in Cambodia") for our staff's recommendation at https://amro-asia.org/amros-2023-annual-consultation-report-on-cambodia/.
[64] The National Committee for Financial Stability was established in 2019, and revised in 2022 following the establishment of the Non-bank Financial Service Authority (NBFSA). The committee serves as the high-level policy discussion platform chaired by the Prime Minister, with representatives from the Ministry of Economy and Finance (MEF), the National Bank of Cambodia (NBC), and the Non-bank Financial Services Authority (NBFSA). It aims to maintain financial stability by monitoring, preventing, and managing crisis to ensure stability in economic and financial sectors.

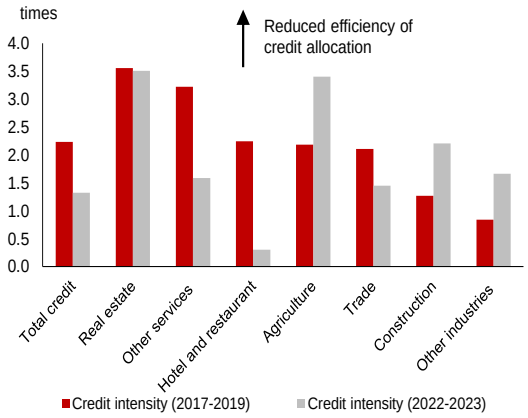
potential financial stability risks that might arise from both bank and non-bank sectors, which is important to ensure the committee's active engagement in the current environment.

Figure 31. Sketch of Interest Rates Corridor Mechanism



Source: AMRO staff Illustration
Note: MLF=Marginal Lending Facility; MDF=Marginal Deposit Facility; NCD=Negotiable Certificate of Deposits; LPCO=Liquidity Providing Collateralized Operations; With the absence of MDF, the 7-day NCD-KHR will serve as a floor rate.

Figure 32. Credit Intensity Ratio



Source: NBC; AMRO staff calculations
Note: Credit to GDP= Credit by sectors/NGDP by sectors; Credit Intensity=Nominal credit growth / Nominal GDP growth; NGDP for 2023 is based on AMRO staff's estimation. Credit includes credit from banks and MFIs. Increase in the credit intensity of output) reflects the reduced efficiency of credit allocation.

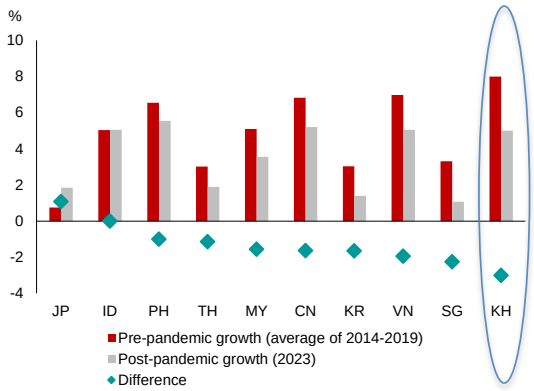
30. Establishing a legal framework and strengthening the regulatory oversight and supervision of unregulated shadow banking activities remains critical in mitigating the hidden credit risks. Given continued weakness in the real estate sector, regulatory authorities should focus on fortifying oversight and supervision.

- Enforcement mechanisms are needed to ensure compliance by real estate developers and to curb unregulated lending practices. The ongoing drafting of a new law by the NBFSA on the management of real estate development will be crucial in establishing a legal framework and enforcing regulatory compliance. In particular, provisions on licensing, auditing, penalties, or legal action against developers who violate regulations, should be included.
- The NBFSA can coordinate closely with NBC to strengthen regulatory oversight and supervision. While the NBFSA can strengthen the enforcement of obligations through rigorous monitoring and on-site inspections of projects, NBC can focus on supervising bank lending to the real estate sector. NBC can also promote financial literacy and encourage transactions via banking or electronic payments to limit informal transactions in the real estate market. NBC and NBFSA can coordinate to set a borrowing limit between homebuyers and registered developers, develop comprehensive risk assessment metrics, and implement stress testing and scenario analysis.
- To detect signs of stress on capital, debt, and lending by developers, the quality and timing of real estate developers' audited financial reporting must improve. The NBFSA, particularly the RPR, needs to promote greater compliance with the submission of independently audited annual financial statements.
- Data currently collected by regulators is useful for tracking trends but not sufficient to evaluate risks of the real estate sector. Collecting more granular data on key risks including liquidity, profitability, solvency, and business operations is crucial.

C.3 Strengthening Structural Reforms

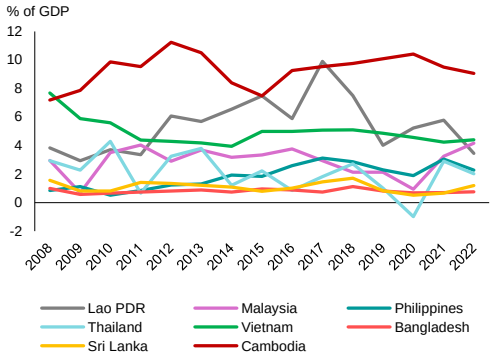
31. To mitigate the scarring effects of the pandemic on long-term economic growth, the authorities have formulated a long-term development strategy. According to AMRO's preliminary analysis, Cambodia's potential growth has declined since the COVID-19 pandemic (Figure 33Figure 33. Country Comparison on Growth Difference Pre- and Post-pandemic) due to lower human capital formation—mainly due to disruption in education—and lower fixed capital formation as a result of impaired balance sheets of firms, as well as a temporary drop in total factor productivity (see Annex 1 "Assessing the Scarring Effect of COVID-19 on Cambodia's Potential Growth"). Therefore, to reduce the scarring effects on long-term growth potential, the economy should upgrade human capital through skill development, and accumulate more physical capital by improving the investment climate. Furthermore, growth potential and competitiveness should be enhanced by improving infrastructure development, digitalization, economic diversification, and lowering logistic costs. Cambodia's structural reforms listed in the Pentagonal Strategy[65] align well with the requirements for sustainable long-term economic growth. However, authorities should ensure the timely implementation of structural reforms listed in the Pentagonal Strategy, particularly the policies relating to upskilling human capital, promoting FDI and economic diversification, strengthening physical infrastructure, and speeding up digitalization.[66]

Figure 33. Country Comparison on Growth Difference Pre- and Post-pandemic



Source: AMRO staff Illustration
Note: JP = Japan; ID = Indonesia; PH = the Philippines; TH = Thailand; MY = Malaysia; CN = China; KR = Korea; VN = Vietnam; SG = Singapore; KH = Cambodia.

Figure 34. FDI Comparison with Selected Regional and Competitor Countries



Source: United Nations Conference on Trade and Development (UNCTAD); NIS; MEF; AMRO staff calculations

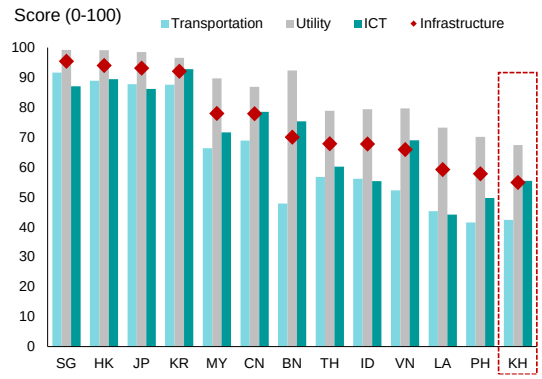
32. The government should strengthen existing initiatives to nurture human capital and promote FDI to alleviate the scarring impacts of the pandemic on investment. With most workers only educated to the primary level, the country should prioritize upskilling and reskilling the workforce through vocational education and on-the-job training. In particular, it can expand existing Technical and Vocational Education and Training (TVET) centers to adapt to a digital and knowledge-based economy and raise the return to education. Meanwhile, the implementation of policies and measures to attract foreign investment can help the accumulation of physical capital. The authorities have done well in enhancing tax incentives for foreign investment by passing the new Law on Investment for QIPs in SEZs,[67] and the

[65] The Pentagonal Strategy includes five policy priorities for structural reforms, namely, i) Human Capital Development, enhancing education, skills training, health, and social protection; ii) Economic Diversification and Competitiveness, developing sectors, infrastructure, and improving the business climate; iii) Private Sector Growth and Employment, supporting enterprises, partnerships, and the financial sector; iv) Sustainable Development, managing resources, promoting agriculture, and ensuring environmental sustainability; and v) Digital Economy and Society, strengthening digital infrastructure and trust in digital systems.
[66] The government has implemented some digitalization plans such as "Cambodia Digital Economy and Society Policy Framework 2021-2035", and "Cambodia Digital Government Policy 2022-2035".
[67] For the major changes in tax incentives in new law on investment, please refer to Table D1. Besides, the new law on investment provides more investment guarantees. A set of protective measures are granted by the law to investors and their assets, including non-discrimination,

country has received stable and relatively higher FDI than regional and peer countries (Figure 34). Looking forward, the government should further improve policies to promote foreign investment, ease market entry requirements and improve economic efficiency, and ensure policy consistency to boost investor confidence. Furthermore, the government should formulate strategic FDI policies, including the careful selection of suitable projects that align with the objectives of economic upgrading and economic diversification.

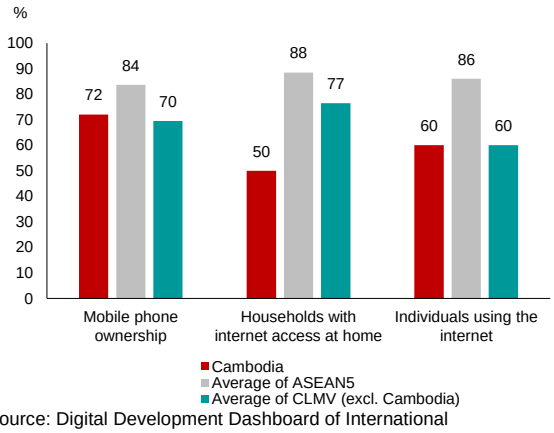
33. The government should intensify infrastructure development efforts. Cambodia ranks among the lowest in the region in terms of infrastructure quality and the efficiency of infrastructure investment (Figure 35).[68] This speaks to a pressing need to develop accessible and high-quality infrastructure to enhance ongoing efforts.[69] The authorities should prioritize infrastructure projects that closely integrate with other development initiatives, such as infrastructure for agriculture, trade, logistics, and digitalization. On digitalization, despite the rapid expansion of the mobile network and digital payments in Cambodia since the COVID-19 pandemic, there are challenges such as insufficient logistics and last-mile delivery problems, and lack of reliable internet connectivity in rural and remote regions (Figure 36). Moreover, for further financial digitalization, besides the digital payment system, the country should enhance digital banking and fintech business to improve financial inclusion. PPPs will be increasingly an important funding source in Cambodia, among several alternatives.[70] The government has introduced the law for PPPs in 2021. For the implementation of the PPP law, the government should ensure that PPP contracts are well-designed, with better public procurement in terms of mobilizing private financial resources, promoting efficiency, and improving service quality.

Figure 35. Infrastructure Quality



Source: World Economic Forum Global Competitiveness Index (WEFGCI) 2019
Note: CN = China; JP = Japan; KR = Korea; HK = Hong Kong; ID = Indonesia; MY = Malaysia; PH = the Philippines; SG = Singapore; TH = Thailand; BN = Brunei; KH = Cambodia; LA = Lao PDR; VN = Vietnam.

Figure 36. Digital Development



Source: Digital Development Dashboard of International Telecommunication Union
Note: ASEAN5 includes Singapore, Malaysia, Indonesia, Thailand, and the Philippines. CLMV includes Cambodia, Lao PDR, Myanmar and Vietnam. The numbers in the figure are up to 2021.

34. Active government support is crucial in accelerating export diversification and enhancing Cambodia's role in global value chains (GVC). Cambodia has been diversifying its manufacturing exports from garments to other products such as solar panels, agro-processing, and machinery and mechanical appliances. However, it mainly occupies low value-added positions in GVCs, such as assembly, limiting the earnings from its exports. In

guarantees against nationalization and arbitrary expropriation, free transfer of funds, intellectual property protection, etc. Additionally, the new law introduces an online registration process for QIPs. The timeline to issue a registration certificate is now reduced to 20 working days from 31 working days previously.

[68] Cambodia's infrastructure quality, as measured by the Global Competitiveness Index (GCI) of the World Economic Forum (WEF) 2019, is assessed to be low, mainly due to low infrastructure endowment and investment. When comparing infrastructure quality to infrastructure capital stock per capita, Cambodia exhibited the lowest efficiency in infrastructure investment in the region.

[69] For example, the country is building expressways and several new airports, such as Siem Reap Airport, and Techo Takhmao International Airport.

[70] The infrastructure projects could be funded from various sources, including the government budget, official development assistance (ODA), PPP, and FDI.

this context, the government may consider two strategies to move up in its GVC participation (see Annex 3 "Cambodia's Pathways for Diversifying Exports and Enhancing Comparative Advantages").

- The first strategy, referred to as "Balanced Strategy", advocates starting with Cambodia's existing comparative advantages, including food processing, agricultural products, garments, and textiles, while concurrently facilitating SME development and local sourcing to join the GVCs. This strategy aims to gradually promote industrial diversification over time.
- Alternatively, a more ambitious strategy, referred to as "Big Jump", suggests selectively focusing on high-tech manufacturing and high-value-added industries such as semiconductors by attracting more foreign investment, nurturing talent, enabling a relevant ecosystem, and necessitating highly comprehensive and strategic transformation efforts. However, pursuing this strategy can be highly challenging for Cambodia given its current level of development and constraints such as a relatively low-skilled workforce and insufficient technological capabilities.

35. The government has formulated national strategies to reduce the adverse impacts of climate change and develop a sustainable economy in the long term, which is welcome. The authorities have shown a firm commitment to reduce climate change risks in its Nationally Determined Contribution (NDC) and the Cambodia Climate Change Strategic Plan (CCCSP).[71] However, with a large exposure to physical risks, Cambodia needs to prioritize implementing adaptation measures. For instance, the government could continue its initiative on environmentally friendly agricultural development, and further support agriculture-related infrastructure investment in areas such as roads, water gates, and irrigation systems, to prevent the loss in agricultural production from flooding and extreme heat. Meanwhile, for climate change mitigation, Cambodia should introduce measures to reduce the rate of deforestation[72] and prevent further loss of natural wetlands. In the longer term, Cambodia can promote a sustainable economy by imposing appropriate industrial policies, such as enhancing the current policy for promoting renewable energy production. To finance the climate change policy, besides the government budget support[73] and project funding from international organizations,[74] sustainable finance should be encouraged. Indeed, the country has started to issue corporate green bonds in 2023.[75] The government could further motivate the development of sustainable finance and improve relevant regulations, while the authorities' efforts in developing the country's green taxonomy, which could provide a framework for sustainable finance, is welcome.

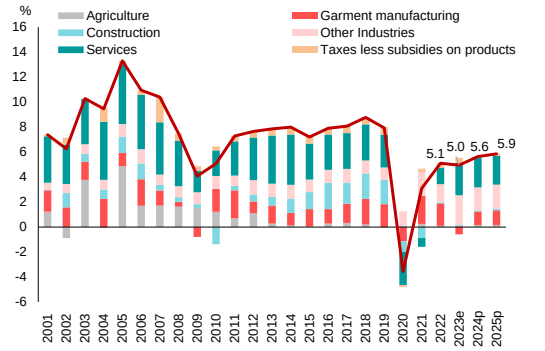
[71] Following the completion of the Cambodia Climate Change Strategic Plan (CCCSP) 2014 – 2023, it is expected that the country will launch a new strategic plan for climate change later this year.
[72] Cambodia has been one of the most rapid deforestations of any country in the past two decades, losing 30 percent of forest cover. See World Bank (2023), "Cambodia Country Climate and Development Report."
[73] The government's efforts to enhance public climate finance management, such as the introduction of Sub-Decree No. 41 (March 2020) can help improve public climate expenditure management (See World Bank (2023), "Cambodia Country Climate and Development Report"), is welcome. Meanwhile, the government mentions its intention to study the feasibility of implementing a carbon tax in the Revenue Mobilization Strategy 2023-2028.
[74] For example, Cambodia has a Country Partnership Strategy (2019–2023) with the Asian Development Bank, including "Foster green, inclusive and sustainable development", and a Country Partnership Framework (2019–2023) with the World Bank on priority areas for the country's environmental challenges, including investment in infrastructure to support a sustainable economy. See World Bank and Asian Development Bank (2021), "Climate Risk Country Profile: Cambodia."
[75] Moreover, green and sustainable government bonds could be developed within the recently announced Policy Framework on the Development of Government Securities 2023 – 2028.

Appendices

Appendix 1. Selected Figures for Major Economic Indicators

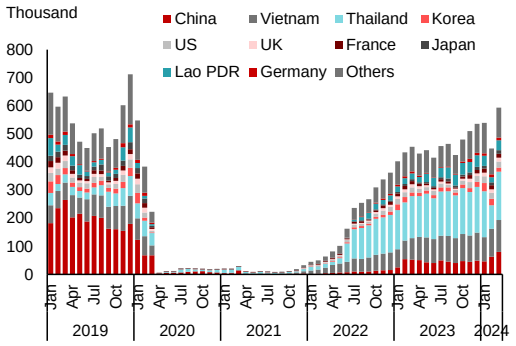
Figure 1.1. Real Sector

The economy recovered in 2023 amid a steady reopening and is expected to grow at a faster pace.



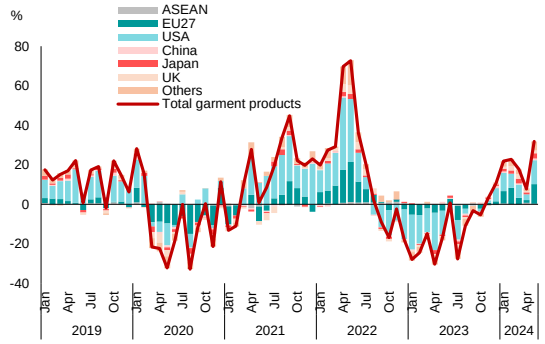
Source: NIS; AMRO staff calculations
Note: e = estimation; p = projection.

The arrival of international tourists has accelerated, approaching 90 percent of pre-pandemic levels.



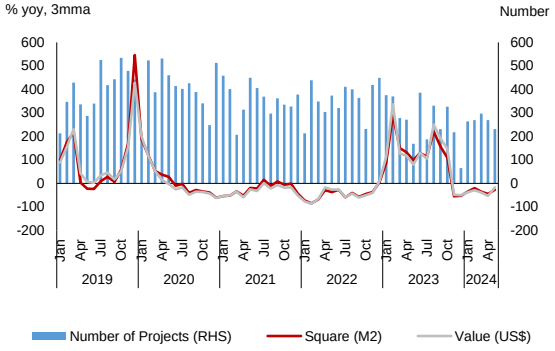
Source: Ministry of Tourism

Garment exports performed weakly in 2023 due to a slowdown in demand mainly from the U.S., before recovering in early 2024.



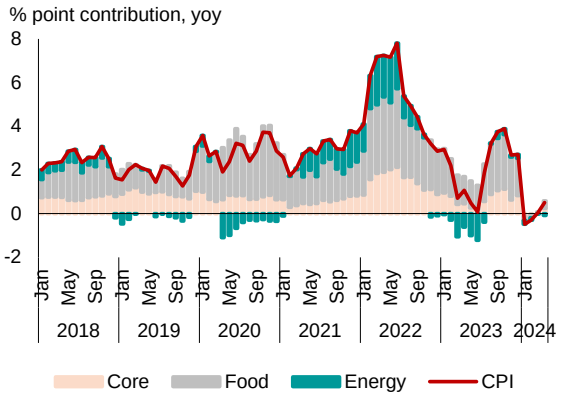
Source: GDCE

The number of approved construction projects in early 2024 is smaller than in 2022, with squares and values decreased.



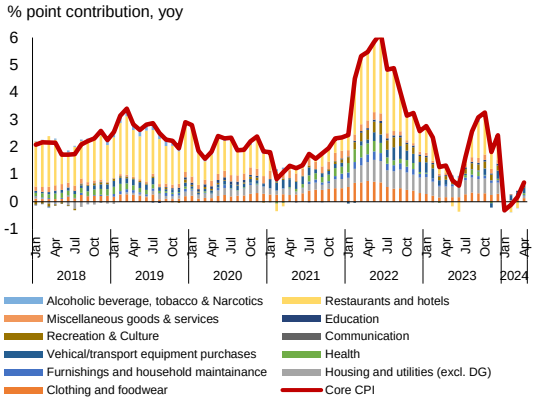
Source: Ministry of Land Management, Urban Planning and Construction

Headline CPI inflation fluctuated in 2023, before easing at the beginning of 2024.



Source: NIS; AMRO staff estimation

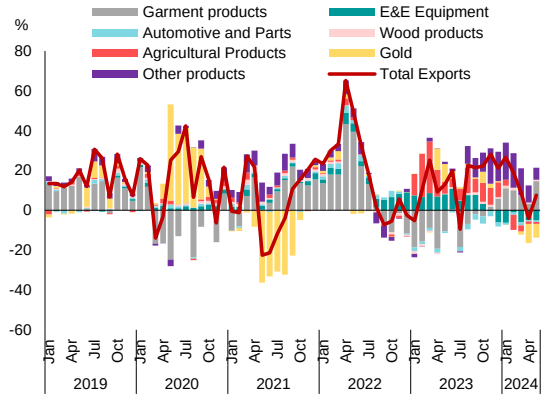
Core inflation has consistently mirrored the headline inflation trend, as changes in energy prices swiftly influence core inflation.



Source: NIS; AMRO staff estimation

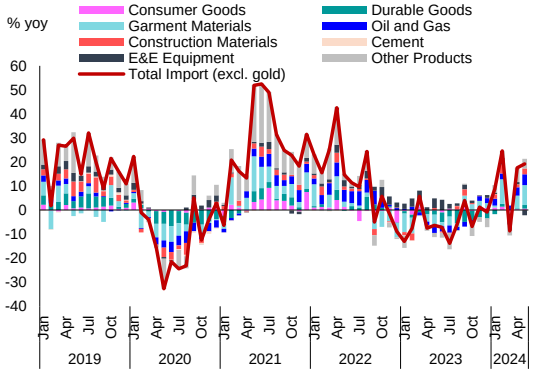
Figure 1.2. External Sector

Export goods growth in 2023 was backed by agricultural products and E&E products, amid weak garment exports.



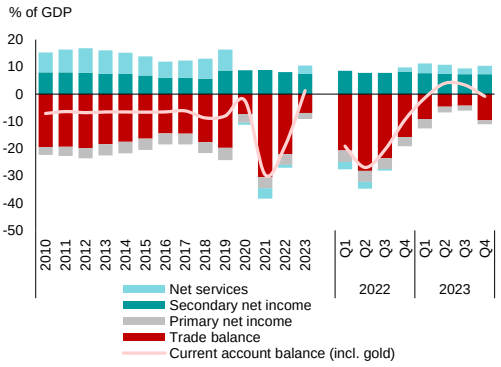
Source: GDCE, AMRO staff calculations

Imports contracted in 2023 due to weak domestic demand but rebounded in early 2024.



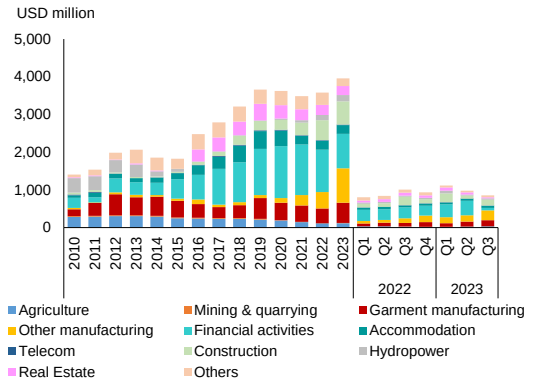
Source: GDCE, AMRO staff calculations

The current account turned into a surplus of 1.3 percent of GDP in 2023, primarily reflecting a significant reduction in trade deficit.



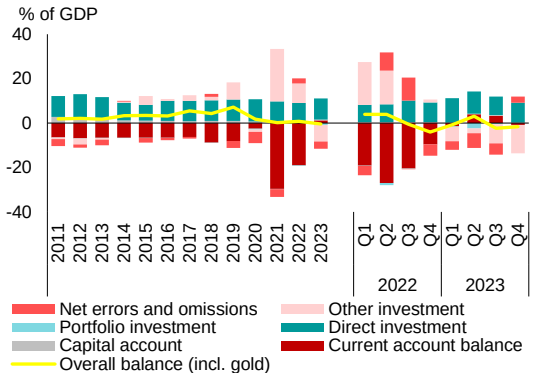
Source: GDCE, AMRO staff estimates
Note: Quarterly GDP figures are based on AMRO staff estimates.

FDI inflows surged to USD4 billion in 2023, mainly reflecting inflows to manufacturing, construction and financial activities.



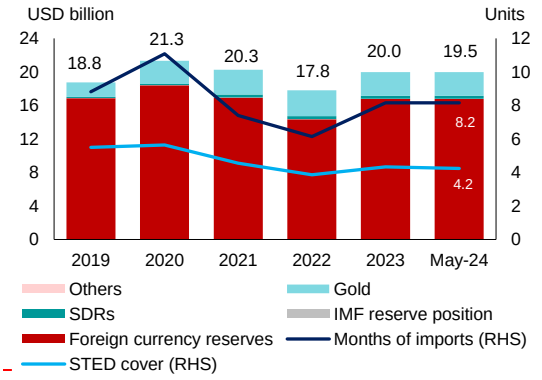
Source: NBC

The BOP registered a small deficit at 0.4 percent of GDP in 2023, mostly due to outflow in other investment.



Source: NBC, AMRO staff calculations

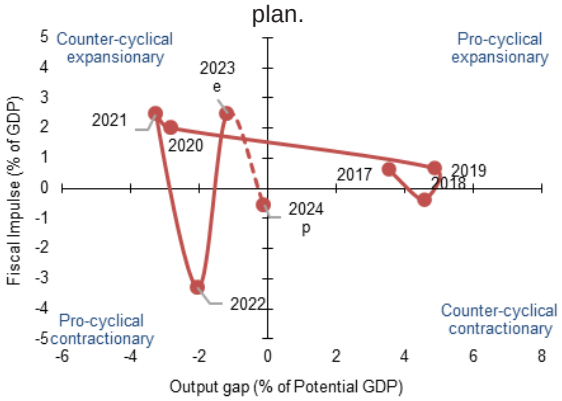
Cambodia's gross international reserves stood at USD20 billion at end-2023, before declining slightly to USD19.5 billion in May 2024.



Source: NBC, AMRO staff calculations

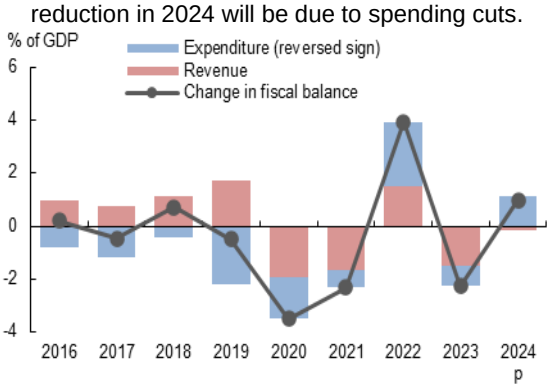
Figure 1.3. Fiscal Sector

Fiscal policy was expansionary in 2023 but will turn contractionary in 2024 with the fiscal consolidation plan.



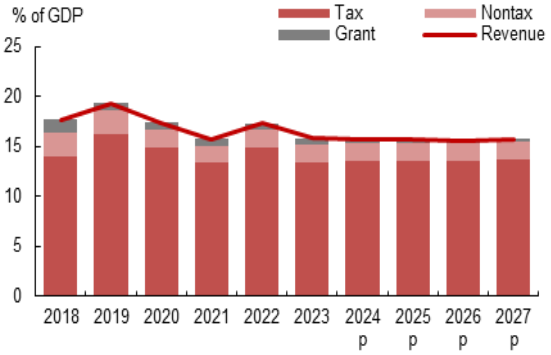
Source: MEF; AMRO staff projections

The expansion of the deficit in 2023 was driven by both revenue shortfall and higher spending, while the reduction in 2024 will be due to spending cuts.



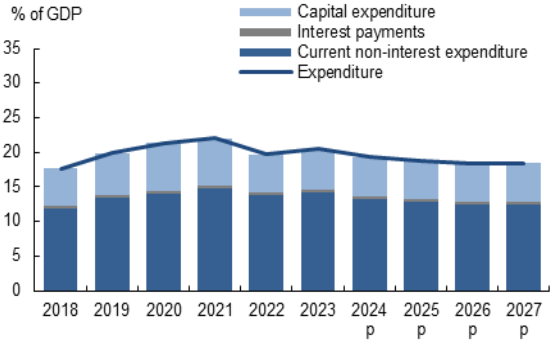
Source: MEF; AMRO staff projections

Revenue is expected to remain stable and keep pace with GDP growth over the medium term.



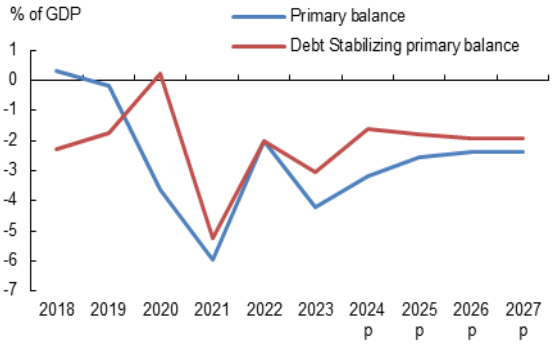
Source: MEF; AMRO staff projections

Fiscal consolidation efforts are projected to bring expenditure down over the medium term.



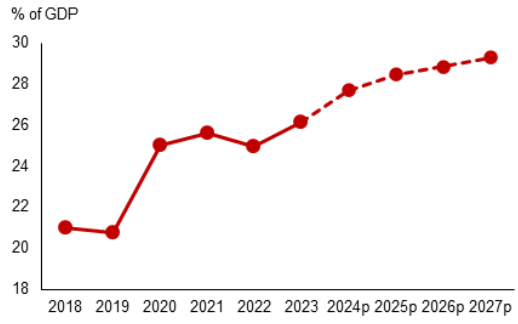
Source: MEF; AMRO staff projections

The primary deficit is forecast to remain larger than the debt, stabilizing level over the medium-term.



Source: MEF; AMRO staff projections

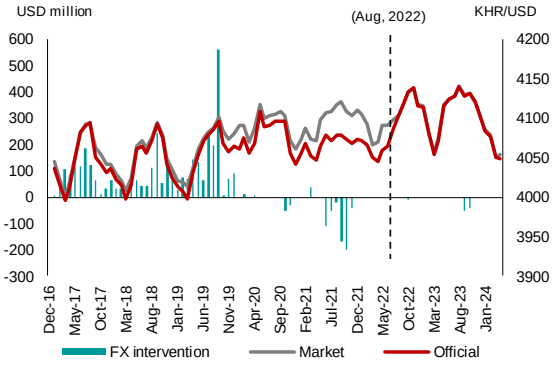
Public debt is projected to rise steadily, mainly due to sustained fiscal deficits.



Source: MEF; AMRO staff projections

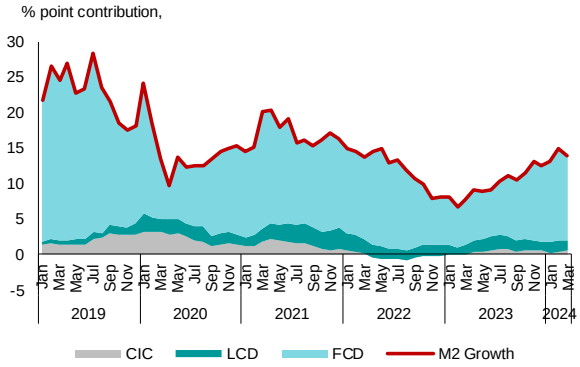
Figure 1.4. Monetary and Financial Sector

The riel appreciated against the U.S. dollar from September 2023, following the NBC's FX interventions.



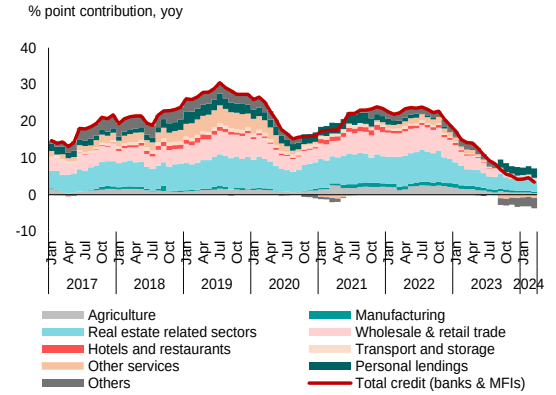
Source: NBC

Broad money (M2) growth recovered gradually in 2023, backed by foreign currency deposits.



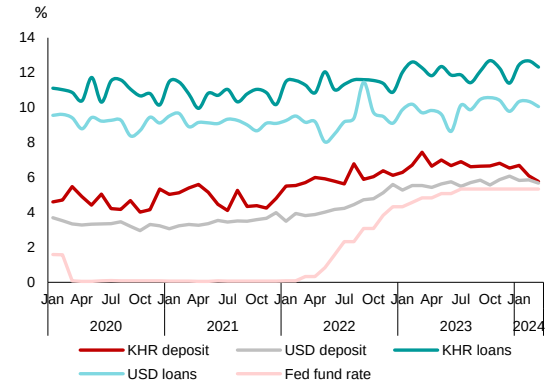
Source: NBC
Note: CIC = cash in circulation; LCD = local currency deposits; FCD = foreign currency deposits.

Credit growth decelerated to 3.5 percent in March 2024, led by slower lending to the real estate-related sectors and domestic trade.



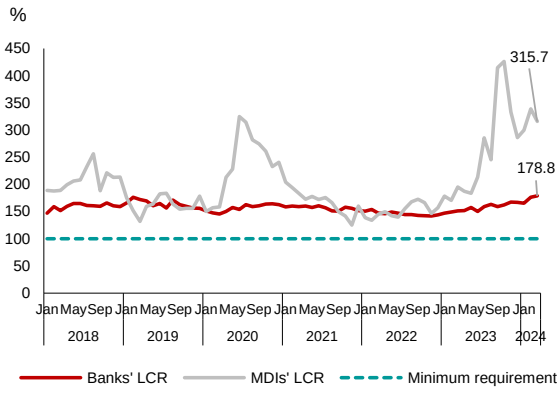
Source: NBC

Bank's deposit rates for KHR and USD exhibited a slight downward trend in early 2024 while the lending rate remained broadly stable.



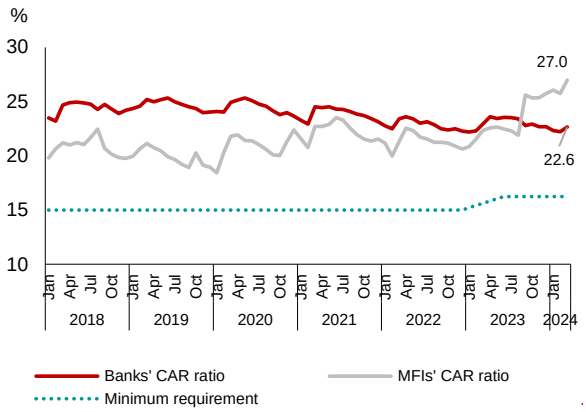
Source: NBC; Haver Analytics
Note: Based on the weighted average rates on new term loans and deposits.

The liquidity coverage ratio for banks and deposit-taking MFIs stood well above the 100 percent minimum threshold.



Source: NBC

Banks and MFIs' capital buffers remained well above the minimum regulatory requirement.



Source: NBC

Appendix 2. Selected Economic Indicators for Cambodia

	2020	2021	2022	2023e	Projections	
					2024	2025
Real Sector and Prices	(In percent change, unless otherwise specified)					
Real GDP growth	-3.6	3.1	5.1	5.0	5.6	5.9
Agriculture	0.6	1.5	0.6	0.9	1.1	1.1
Industry	-2.2	8.4	8.2	4.3	7.2	7.6
Services	-6.7	-1.8	3.6	7.2	6.4	6.2
GDP deflator	-0.8	2.6	3.5	2.8	2.3	2.5
CPI inflation (average)	2.9	2.9	5.3	2.1	2.2	2.3
Core inflation (average)	2.1	1.6	4.4	2.0	1.8	2.1
External Sector	(In USD millions, unless otherwise specified)					
Current account balance	-881.2	-10,892.7	-7,582.2	552.2	276.4	25.5
(Including gold, in percent of GDP)	-2.6	-29.3	-18.6	1.3	0.6	0.1
(Excluding gold, in percent of GDP)	-8.9	-13.7	-8.2	-0.1	-0.1	-0.6
Trade balance	-2,543.8	-11,205.3	-8,825.7	-2,986.4	-3,314.1	-3,691.7
Exports	18,522.2	19,520.9	23,179.5	23,564.4	25,835.1	28,339.3
Imports	21,066.0	30,726.2	32,005.2	26,550.8	29,149.2	32,031.0
Services, net	-257.2	-1,432.4	-435.7	1,318.1	1,949.8	2,105.5
Primary income, net	-1,108.9	-1,489.3	-1,551.7	-953.4	-1,647.8	-1,785.5
Secondary income, net	3,028.7	3,234.3	3,230.9	3,173.9	3,288.5	3,397.3
Financial account balance	3,016.2	12,056.4	6,807.3	515.8	1,230.2	1,494.5
(In percent of GDP)	8.9	32.4	16.7	1.2	2.6	3.0
Foreign direct investment, net	3,497.6	3,391.0	3,428.3	3,807.4	4,157.4	4,477.4
Portfolio investment, net	-96.0	-51.2	-126.1	-350.0	-70.1	-81.4
Other investment, net	-385.5	8,716.6	3,505.1	-2,941.6	-2,857.1	-2,901.4
Capital account balance	259.0	204.2	209.3	139.5	139.5	139.5
Error and omissions	-1,757.4	-1,285.2	911.4	-1,367.0	-1,200.0	-1,200.0
Overall balance	636.6	82.7	345.8	-159.5	446.1	459.6
(In percent of GDP)	1.9	0.2	0.8	-0.4	1.0	0.9
Gross international reserves	21,334.0	20,266.0	17,805.2	19,998.4	20,444.5	20,904.1
(In months of imports)	11.1	7.4	6.1	8.2	7.6	7.1
(In months of imports, excluding gold)	11.5	9.0	7.1	8.2	7.8	7.2
External debt	17,610.8	20,063.2	22,212.4	23,979.5	26,321.5	28,787.2
(In percent of GDP)	50.6	54.5	55.5	55.7	56.6	57.1
Fiscal Sector	(In percent of GDP)					
Revenue and grants	17.4	15.8	17.3	15.8	15.7	15.7
Tax revenue	14.9	13.5	15.0	13.5	13.5	13.6
Non-tax revenue	1.8	1.6	1.7	1.8	1.8	1.8
Grants	0.7	0.7	0.6	0.6	0.4	0.3
Expenditure	21.4	22.1	19.7	20.4	19.4	18.8
Current non-interest expenditure	14.0	14.8	13.8	14.3	13.2	12.9
Interest payments	0.3	0.3	0.3	0.4	0.4	0.4
Capital expenditure	7.0	6.9	5.5	5.8	5.7	5.5
Overall fiscal balance	-4.0	-6.3	-2.4	-4.6	-3.7	-3.1
Primary balance	-3.6	-5.9	-2.0	-4.2	-3.2	-2.7
Public debt	25.0	25.6	25.0	26.1	27.8	28.8
Monetary and Financial Sector	(In percentage change, end-period)					
Private sector credit	17.2	23.6	18.5	3.5	7.8	9.5
Broad money	15.3	16.4	8.2	12.5	10.8	10.8
Reserve money	-2.1	10.2	-4.8	2.7	4.3	5.9
Loan-to-deposit ratio (average, in percent)	120.1	127.3	138.1	126.9	123.5	122.0
Non-performing loan ratio (average, in percent)	2.5	2.4	2.9	5.5	6.1	6.0
Memorandum Items						
Nominal GDP (KHR billion)	142,502.8	150,792.7	164,059.1	177,073.8	191,395.4	207,743.0
Nominal GDP (USD million)	34,818.1	36,790.2	39,994.5	43,076.8	46,529.1	50,413.8
GDP per capita (USD)	2,078.3	2,162.9	2,325.3	2,475.7	2,528.8	2,598.6
Exchange rate (KHR/USD, average)	4,092.8	4,098.7	4,102.0	4,110.7	4,113.5	4,120.8
Exchange rate (KHR/USD, end of period)	4,076.5	4,113.5	4,118.0	4,085.0	4,087.8	4,095.0

Source: National authorities; AMRO staff estimates and projections
Note: Cambodia's balance of payments follows BPM6, and signs of financial accounts have been reversed.

Appendix 3. Balance of Payments

	2017	2018	2019	2020	2021	2022	2023
	(In USD millions, unless otherwise specified)						
Current account	**-1,807**	**-2,896**	**-2,935**	**-881**	**-10,893**	**-7,582**	**552**
Trade balance	-4,278	-5,844	-7,255	-2,544	-11,205	-8,826	-2,986
Exports, f.o.b.	11,224	12,963	14,986	18,522	19,521	23,179	23,564
of which, garment exports, f.o.b.	8,020	9,507	10,792	9,871	11,390	12,990	11,281
Imports, f.o.b.	15,502	18,806	22,242	21,066	30,726	32,005	26,551
Services, net	1,863	2,395	2,812	-257	-1,432	-436	1,318
Receipts	4,608	5,451	6,086	1,767	657	2,318	4,188
Payments	2,745	3,056	3,274	2,025	2,090	2,754	2,870
Primary income, net	-1,141	-1,328	-1,645	-1,109	-1,489	-1,552	-953
Receipts	442	580	651	610	331	346	488
Payments	1,582	1,908	2,296	1,718	1,820	1,898	1,442
Secondary income, net	1,748	1,881	3,153	3,029	3,234	3,231	3,174
of which: official tranfer	550	579	532	449	510	479	494
Others	1,199	1,302	2,622	2,580	2,724	2,752	2,679
Capital and financial account	**3,671**	**3,886**	**6,726**	**3,275**	**12,261**	**7,017**	**655**
Capital account	279	326	355	259	204	209	140
Financial account (net)	3,393	3,561	6,371	3,016	12,056	6,807	516
Direct investment	2,673	3,089	3,561	3,498	3,391	3,428	3,807
Other investment	725	513	2,821	-385	8,717	3,505	-2,942
Errors and omissions	-233	455	-1,127	-1,757	-1,285	911	-1,367
Overall balance	1,631	1,446	2,664	637	83	346	-160
Memorandum items:							
Exports of goods and services	15,832	18,414	21,072	20,290	20,178	25,497	27,740
Imports of goods and services	18,247	21,863	25,516	23,091	32,816	34,759	29,421
Trade account (percent of GDP)	-14.6	-17.6	-20.2	-7.5	-30.2	-21.7	-6.9
Current account (percent of GDP)	-6.2	-8.7	-8.2	-2.6	-29.3	-18.6	1.3
Capital and financial account (percent of GDP)	12.5	11.7	18.7	9.6	33.0	17.2	1.5
Overall Balance (percent of GDP)	5.6	4.4	7.4	1.9	0.2	0.8	-0.4
International reserves (USD million)	12,200	14,630	18,762	21,334	20,266	17,805	19,998
In months of imports of goods and services	8.0	8.0	8.8	11.1	7.4	6.1	8.2
Nominal GDP (USD million)	29,315	33,121	35,992	34,052	37,155	40,679	43,077

Source: National authorities; AMRO staff estimates
Note: Cambodia's balance of payments follows BPM6, and signs of financial accounts have been reversed.

Appendix 4. Statement of General Government Operations

	2019	2020	2021	2022	2023	2024BL
	(In percent of GDP)					
Total Revenue and Grants	19.4	17.4	15.8	17.3	15.8	17.1
Total Domestic Revenue	18.7	16.7	15.1	16.8	15.4	16.5
Central Govt	17.2	15.2	13.6	15.2	14.1	15.3
Local Govt	1.5	1.5	1.5	1.5	1.3	1.3
Current Revenue	18.5	16.6	15.1	16.7	15.3	16.4
Total Tax Revenue	16.2	14.9	13.5	15.0	13.5	14.6
Tax Revenue Central	14.8	13.6	12.3	13.8	12.4	13.5
Domestic Taxes	12.8	12.0	10.8	12.2	10.9	12.1
Direct Taxes	3.4	4.1	3.9	4.5	4.4	4.7
Indirect Taxes	9.5	8.0	6.9	7.7	6.5	7.4
VAT	5.5	4.6	4.0	4.5	4.3	4.3
Excise	4.0	3.4	2.9	3.3	2.2	3.1
Trade Taxes	2.0	1.6	1.4	1.6	1.4	1.3
Tax Revenue Local	1.4	1.4	1.2	1.2	1.1	1.2
Non-tax revenue Central	2.2	1.5	1.3	1.4	1.6	1.6
Non-tax revenue Local	0.1	0.2	0.3	0.3	0.2	0.1
Capital Revenue	0.1	0.1	0.0	0.1	0.2	0.2
Grants	0.7	0.7	0.7	0.6	0.6	0.5
Total Expenditure	19.8	21.4	22.1	19.7	20.4	20.3
Current Expenditures	13.8	13.3	14.3	13.0	13.4	14.4
Wages and Salaries	5.4	6.1	5.6	5.4	5.5	5.4
Non-wages	6.6	5.8	7.0	5.5	6.0	7.1
Interest Payment	0.3	0.3	0.3	0.3	0.4	0.4
Domestic	0.0	0.0	0.0	0.0	0.0	0.0
Foreign	0.3	0.3	0.3	0.3	0.4	0.4
Capital Expenditures	6.1	8.1	7.8	6.8	7.0	5.9
Domestic Financed	2.7	4.4	4.2	3.3	3.7	2.6
Foreign Financed	3.4	3.6	3.5	3.5	3.3	3.2
Current Balance (excl. grant)	4.7	3.3	0.8	3.7	1.8	1.9
Primary Balance (excl. grant)	-0.9	-4.4	-6.6	-2.7	-4.6	-3.3
Fiscal Balance (incl. grant)	-0.5	-4.0	-6.3	-2.4	-4.6	-3.2
Fiscal Balance (excl. grant)	-1.2	-4.7	-6.9	-3.0	-5.0	-3.7

Sources: National authorities; AMRO staff calculations
Note: 2024 GDP share is based on AMRO's projection. BL = Budget Law.

Appendix 5. Debt Sustainability Analysis[76]

1. Cambodia's public debt-to-GDP ratio is projected to remain low at about 30 percent in the medium term. The debt ratio is expected to rise moderately from 2024 to 2028 but at a decelerating pace, as its gross financing needs (GFN) are seen to steadily narrow due to fiscal consolidation and improving growth prospects.

- Economic growth is expected to remain modest at around 6 percent, below the pre-pandemic levels, as tourism gradually recovers, and the real estate sector continues to experience stagnation.
- The effective interest rate is expected to remain low at below 2 percent, reflecting Cambodia's continued access to highly concessional loans, despite its anticipated graduation from least developed country (LDC) status by 2027 or, at the latest, 2029.
- The fiscal deficit is expected to narrow and stabilize at -2.8 percent of GDP from 2026 onwards. However, this remains higher than pre-pandemic levels due to two key factors: revenue is projected to be lower by an average of 1.1 percentage points due to the more modest economic growth,[77] and expenditure is expected to be higher by an average of 1.6 percentage points. This increase in expenditure is largely attributed to the integration of components of the COVID-19 stimulus program into the regular budget of line agencies. Major components include the family package program, the vocational and skills training program and the enhancement of health care.

The combination of fiscal consolidation and improved growth prospects is expected to gradually slow the pace of debt increase, but will continue to gradually rise, albeit from a low base (Table 5.1 and Figure 5.1). With public debt projected to increase only moderately to 30.2 percent of GDP by 2028, it will continue to remain well below the threshold of 68 percent of GDP for Cambodia.[78] The GFN rose to 5.7 percent of GDP in 2023, and is projected to stabilize at about 4 percent by 2028 with a continuous reduction in the primary deficit in line with the fiscal consolidation plan (Figure 5.2).

2. Stress test results indicate that Cambodia's public debt sustainability is assessed to be at a low level of risk, as the higher debt level would remain manageable due to the country's accumulated fiscal reserves. Cambodia's public debt ratio remains well below the threshold when subject to simulated shocks in 2025-2026.[79]

- Stress test results indicate that Cambodia's debt dynamics are most sensitive to growth shocks. Given a one standard deviation shock to growth for 2 consecutive years, public debt rises by 2.9 and 3.2 percentage points in 2025 and 2026, respectively, with debt reaching 37.1 percent of GDP by 2028. Meanwhile, the most severe scenario combining all four shocks on growth, primary balance, interest rate and exchange rate results in public debt rising to 44.3 percent of GDP by 2028. Even under these extreme shocks, public debt remains well below the threshold of 68 percent of GDP for the entire forecast period (Figure 5.3).

[76] Prepared by Paolo Hernando, Senior Economist
[77] Cambodia had a tax buoyancy of almost 2 prior to the pandemic owing to strong tax administration reforms, that significantly increased tax revenues from a low base. With tax administration reforms now maturing, tax buoyancy going forward is expected to stabilize at above 1.
[78] Cambodia has a medium debt carrying capacity according to the Composite Indicator (CI) developed by the IMF and World Bank, with an indicative threshold of 55 percent for the present value (PV) of debt-to-GDP ratio. This has been adjusted to nominal terms equivalent to 68 percent of debt-to-GDP ratio, considering the concessional nature of Cambodia's public debt. The public debt has an average maturity of 23 years, an average grace period of 8 years, and an average interest rate of 1.45 percent, which translates to a grant element of 35 percent using the standard discount rate of 5 percent applied by the World Bank.
[79] The scenarios for the stress tests are as follows: 1) Real GDP growth shock: one standard deviation or –3.6 percentage points shock to 2025 and 2026; 2) Primary balance shock: one standard deviation or –2.1 percent of GDP shock to 2025 and 2026; 3) Interest rate shock: +2 percentage points shock from 2025; 4) Exchange rate shock: +5 percentage points depreciation shock in 2025 and 2026; 5) Combined shock: all of the above.

- Meanwhile, the GFN is sensitive to the shocks to the primary balance and growth. A one standard deviation shock causes the primary deficit to rise to 6.5 and 6.2 percent of GDP in 2025 and 2026, respectively; however, the shock is short-lived as the primary deficit normalizes thereafter. This contrasts with the impact of the shock on growth, which raises the primary deficit to 5.3 percent of GDP in 2025 and is kept elevated at around 5.8 percent of GDP until 2028. Meanwhile the combined shock scenario causes the primary deficit to spike to 7.6 percent of GDP in 2025 and remains elevated at 7 percent of GDP in 2028 (Figure 5.4).

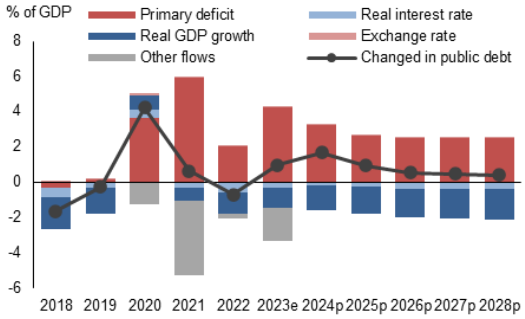
Even in such extreme circumstances (combined shock scenarios), the fiscal reserves, which stood at around 7.5 percent of GDP at the end of 2023, would be sufficient to cover a significant portion of the GFN. Fiscal reserves were drawn down from a high of 13.9 percent of GDP in 2019. Despite this, the combination of very low debt—most of which has highly concessional terms (Figure 5.5 and 5.6) and a smooth maturity profile (Figure 5.7)—and a public debt-to-GDP ratio that remains well below the threshold under all stress scenarios, means the overall risk of public debt sustainability continues to be low. However, as the public debt is projected to rise moderately in the medium term due to sustained primary deficits at around 2.5 percent of GDP that exceed the debt-stabilizing threshold, the fiscal authorities need to remain vigilant. It is crucial to maintain fiscal prudence while ensuring that adequate resources are allocated for development spending.

Table 5.1. Macroeconomic and Fiscal Indicators

	2018	2019	2020	2021	2022	2023	2024p	2025p	2026p	2027p	2028p
Macroeconomic indicators (Percent)											
Real GDP growth	8.8	7.9	-3.6	3.1	5.1	5.0	5.6	5.9	6.1	6.3	6.3
GDP deflator	3.8	2.8	-0.8	2.6	3.5	2.7	2.4	2.5	2.6	2.5	2.4
Effective interest rate	1.4	1.6	1.6	1.4	1.3	1.6	1.8	1.7	1.3	1.3	1.2
Fiscal indicators (Percent of GDP)											
Revenue	17.7	19.4	17.4	15.8	17.3	15.8	15.7	15.7	15.6	15.8	15.8
Expenditure	17.6	19.8	21.4	22.1	19.7	20.4	19.4	18.8	18.5	18.6	18.6
Fiscal balance	0.0	-0.5	-4.0	-6.3	-2.4	-4.6	-3.7	-3.1	-2.8	-2.8	-2.8
Primary balance	0.3	-0.2	-3.6	-5.9	-2.0	-4.2	-3.2	-2.7	-2.5	-2.5	-2.5
Public debt	21.0	20.8	25.0	25.6	25.0	26.1	27.8	28.8	29.3	29.8	30.2
Gross financing needs	1.8	1.8	4.7	7.1	3.2	5.7	4.9	4.4	4.1	4.0	4.0

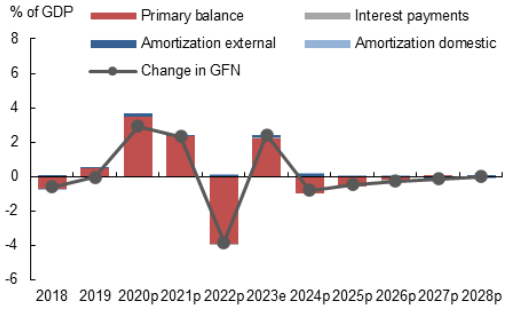
Source: MEF; National Institute of Statistics (NIS); AMRO staff estimates
Note: The macroeconomic and fiscal indicators for 2024-2028 are based on AMRO staff estimates and projections.

Figure 5.1. Public Debt Dynamics



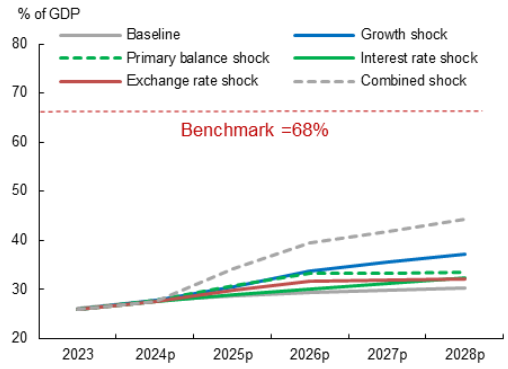
Sources: MEF; AMRO staff estimates

Figure 5.2. Changes in Gross Financing Needs



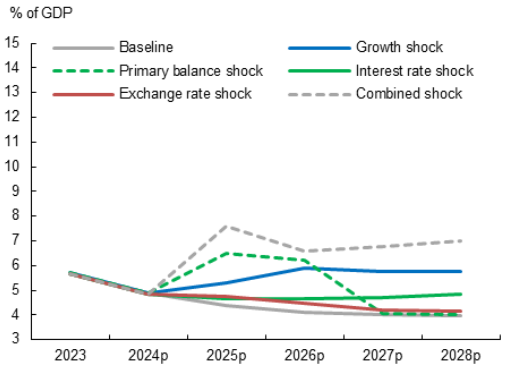
Sources: MEF; AMRO staff estimates

Figure 5.3. Public Debt Stress Test



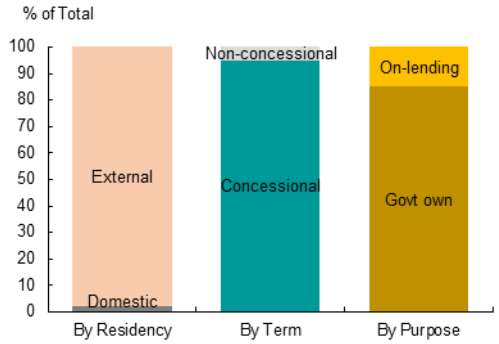
Sources: MEF; AMRO staff estimates

Figure 5.4. GFN Stress Test



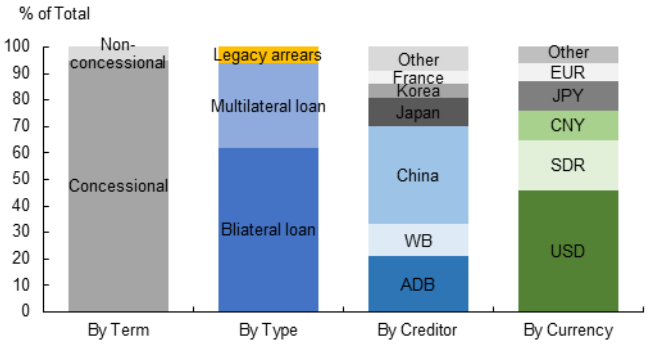
Sources: MEF; AMRO staff estimates

Figure 5.5. Public Debt Structure (end-2023)



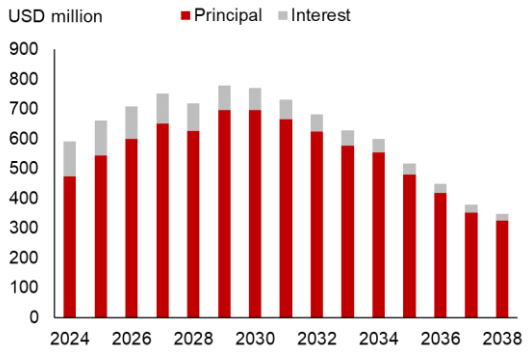
Source: MEF; AMRO staff estimates

Figure 5.6. Public External Debt Structure (end-2023)



Source: MEF; AMRO staff estimates

Figure 5.7. Public Debt Service Obligations



Source: MEF

Appendix 6. Data Adequacy for Surveillance Purposes: A Preliminary Assessment

Criteria/ Key Indicators for Surveillance	Availability[i]	Reporting Frequency/ Timeliness[ii]	Data Quality[iii]	Consistency[iv]	Others, if any[v]
National Accounts and Labor Market	- GDP numbers on the production and expenditure side have been made available - Unemployment and labor market data are available on the website	- The dissemination of GDP data is on an annual basis with a time lag of three to seven months - Data on the labor market has a lag of more than one year	National Accounts statistics are compiled broadly in accordance with SNA93 standards. Data collection techniques remain weak due to resource constraints The authorities plan to release the GDP data based on SNA 2008	Revisions are frequent but becoming less significant. Officially, the statistical discrepancy is also shrinking	- The data quality of the National Accounts data could be improved using a more comprehensive Supply Used Table (SUT) based on the latest survey - The GDP data on the expenditure side remains relatively weak with underestimated gross fixed capital formation
Balance of Payments (BOP) and External Position	- BOP data is published on the NBC website - Import and export data is published by the MEF	- BOP data is released on a quarterly and yearly basis with a time lag of one to two quarters - Trade data is released monthly with a time lag of one month	- Since 2019, the BOP has been published in conformity with the BPM6 but some coverage limitations exist - Import data published by the MEF is incomplete, as it covers only major items	-	-
State Budget and Government/ External Debt	- Budget implementation data is released on the MEF website - Budget implementation data does not include local government budget operation - Contingent government liability statistics are not yet available	Budget implementation statistics are published monthly with a time lag of one to three months	The data coverage is limited to the budget and is not fully integrated with activities related to the disbursement of external loans and grants	The breakdown of budget implementation data from TOFE is different from the one provided by the GD of Budget	-
Money Supply and Credit Growth	- CPI data for Phnom Penh is published by the NIS - National CPI data is yet to be made available - Monetary statistics have been released on the NBC website - Data on credit breakdown by sector is also available	- CPI data is released monthly with a time lag of one to two months - Monetary and credit data is published monthly with a time lag of three months.	- The compilation of the CPI suffers from insufficient coverage - The authorities plan to release CPI data with much wider coverage - The actual amount of dollars and other foreign currency-denominated bills circulating in the economy has not been captured in the official monetary statistics	-	Regular and timely (schedule-based) publication of headline and core inflation, and monetary and credit data, would strengthen economic monitoring
Financial Sector Soundness Indicators	- Foreign assets and liabilities for the banking sector in aggregate are published by the NBC - A detailed breakdown of the composition of foreign assets and liabilities of the banking sector is not yet available - NPL ratio by sector is not available	Yearly data is released on the NBC website with a time lag of three to six months	- Indicators are generally based on reports from banks and MFIs - In addition to banking indicators, data on microfinance activities is lacking	-	The availability of more comprehensive and more frequent data, including a detailed breakdown of assets and liabilities, would help in the analysis of financial-sector soundness as a whole

Notes:
(i) Data availability refers to whether the official data are available for public access by any means.
(ii) Reporting frequency refers to the time interval that the available data are published. Timeliness refers to how up-to-date the published data are relatively with the publication date.
(iii) Data quality refers to the accuracy and reliability of the available data given the data methodologies are considered.
(iv) Consistency refers to both internal consistency within the data series itself and its horizontal consistency with other data series of either same or different categories.
(v) Other criteria might also apply, if relevant. Examples include but are not limited to potential areas of improvement for data adequacy.

Source: AMRO staff compilation. This preliminary assessment will form the “Supplementary Data Adequacy Assessment" in the EPRD Matrix.

Appendix 7. Climate Clipboard—Risks, Responses, and Opportunities[80]

A. Physical risks

Sources of risk	Potential macro-financial impact
• Floods (acute) • Drought (acute) • Heatwaves (acute) • Sea-level rise (chronic)	• The 2024 U.N.'s Index for Risk Management (INFORM) ranks Cambodia as the world's tenth-most flood-exposed country (UN's INFORM Risk Index Mid 2024). Based on data from the first two decades of the 21st Century, losses in agricultural production were primarily due to flooding (about 62 percent), followed by drought (about 36 percent) (Cambodia's NDC, Dec 2020). Most flooding occurs due to increased water levels in the Mekong River and Tonle Sap Lake between early July and early October. Disruptions to logistical corridors caused by floods have a profound impact on agricultural supply chains. • Cambodia's agricultural areas will be also exposed to higher risks of drought (due to rainfall variability) and heatwaves (it is in the top 23 countries with acute exposure to extreme heat, World Bank (2023), "Cambodia Country Climate and Development Report"). More than four million hectares of lowland forest, especially that located in the northeast and southwest, which currently have a water deficit period of between four and six months, will become exposed to a water deficit period of between six and eight months or more (Cambodia's NDC, Dec 2020). • Sea level rise across Cambodia's four coastal provinces is projected to increase by 0.07–0.36 meters until 2050 and by 0.36–1.07 meters until 2100. Recent analysis suggests that a total area of about 25,000 hectares would be permanently inundated by a sea level rise of one meter (World Bank (2024), "Climate Risk Country Profile: Cambodia").

B. Transition risks

Sources of risk	Potential macro-financial impact
• Increase the use of renewable energy and large-scale displacement of coal in industries • Risk of difficulties in financing to respond to climate change • Apply energy efficiency technologies	• Expanding use of relatively expensive renewable energy could have an impact on inflation and GDP growth. • Limited concessional loans or international aid contribute to the slower pace of the climate change implementation plans. • As imports increase in the process of introducing environmentally friendly equipment, the current account may worsen, and it may take time to train personnel to utilize it

C. Adaptation response framework and strategies

Adaptation framework	Key initiatives/strategies	Estimated financing needs
• Nationally Determined Contribution (NDC, Dec 2020) • National Adaptation Plan (May 2017) • National Action Plan for Disaster Risk Reduction, the latest version for the 2024 to 2028 period is under formulation	• Implementation of climate change adaptation in Cambodia focuses on the following areas: i) Food, water, and energy security, ii) Reduce sectoral, regional, gender vulnerability, and health risks iii) Resilience of critical ecosystems, iv) Low-carbon planning and technologies v) Improve capacities vi) Promote adaptive social protection vii) Strengthen coordination frameworks viii) Strengthen collaboration on regional and global processes	• USD2 billion through 2030 (NDC) **Financing sources** **Domestic** • Annual budgets for climate change expenditure (Latest figure in 2022: KHR2,516 billion, equivalence to USD629 million and 2.1 percent of GDP) • Private funding from financial markets, such as green bonds, sustainable bonds, and sustainable linked bonds **External** • Financial support from bilateral (Australia, China, E.U., Japan, Korea, U.S., etc.) and multilateral partners (ADB, UN Agencies, World Bank, Global Climate Fund (GCF), etc.)

D. Mitigation response framework and strategies

Nationally Determined Contribution (NDC)	National framework / Strategies	Estimated financing needs
• Reduce GHG emissions by 41.7 percent in 2030 relative to business-as-usual emissions by 2030, of which approximately 60 percent is planned to be achieved in the forestry and other land use sector (FOLU). **Sources of GHG emissions (Unit: Million t-CO2)** **Sector / NDC 2030 / BAU 2030** FOLU 38.2 76.3 Energy 20.7 34.4 Agriculture 20.9 27.1 Industry 8.0 13.9 Waste 2.7 3.3 **Total 90.5 155.0** Source: Cambodia's NDC (Dec 2020) **Long-term commitment** • Being a carbon-neutral economy by 2050 with the forestry and other land use sector providing a total carbon sink of 50 Megatons of Carbon Dioxide Equivalent (MtCO2e) (Long Term Strategy for Carbon Neutrality, LTS4CN, Dec 2021)	• NDC (Dec 2020) • LTS4CN (Dec 2021) **Key sectoral strategies and initiatives** • FOLU: afforestation, improved forest management, agroforestry, etc. • Energy: no new coal generation capacity beyond already committed projects; increase in renewables to 35 percent of the generation mix by 2050; investments in grid modernization, etc. • Agriculture: less methane-intensive rice cultivars, promotion of organic fertilizer and deep fertilizer technology, etc. • Industrial: Clinker substitution in cement production, carbon capture and storage for cement kilns, etc. • Transportation: moderate penetration of electric vehicles, increased fuel efficiency for existing vehicles, etc. • Waste: reducing open burning by expanding waste collection coverage to 85 percent in 2050, landfill gas management, etc.	• USD5.8 billion in investments by 2030 (NDC) • Public financing needs reach to USD9 billion between 2025 and 2050 (LTS4CN) **Financing sources** **Domestic** • Annual budgets for climate change expenditure • New public borrowing • Economic services spent • Policy reform in the transportation sector **External** • Financial support from bilateral and multilateral partners • International green finance, e.g., green bond (the country's first green bond was issued in 2023)

[80] Prepared by Heung Chun (Andrew) Tsang, Senior Economist.

E. Enabling regulations for climate resilience

E.1. Policy/Legal frameworks

- A General Secretariat (GSSD) was established to support the operations of the National Council for Sustainable Development (NCSD) and to coordinate the development of policies, strategic plans, action plans, and legal instruments concerning sustainable development, including the green economy, and climate change

E.2. Fiscal framework

- Since 2017, the Ministry of Economy and Finance has included guidance on climate change in annual budget circulars, and in 2019 climate change was recognized as a key challenge to be addressed both in the debt policy and in the budget of the Government
- Key ministries have also started to integrate climate change in the way they prioritize activities for the national budget with technical support from partner organizations

E.3. GHG accounting framework

- No national-level GHG accounting framework as of June 2024

E.4. Carbon pricing frameworks

- The Cambodian Government issued Operations Manual for the Implementation of Article 6 of the Paris Agreement on Climate Change in Cambodia (Article 6 Operations Manual) in Jan 2024.
  - The Article 6 Operations Manual provides a detailed framework for issuing and transferring of Internationally Transferred Mitigation Outcomes ("ITMOs"), which are referred to as authorized Greenhouse Gas Emission Reductions ("GHG ERs") in the Article 6 Operations Manual
  - Article 6 of the Paris Agreement allows countries to cooperate voluntarily in the implementation of their NDCs
- Before setting up the formal carbon credit market framework, Cambodia has a voluntary carbon offsetting market where the Ministry of Environment acts as a seller on behalf of the Royal Government of Cambodia
  - This market welcomes all sectors to purchase carbon credits from programs for Reducing Emissions from Deforestation and Forest Degradation, fostering conservation and sustainable management of forests, and enhancing forest carbon stocks (REDD+ programs) in Cambodia

E.5. Sustainable finance frameworks

- Cambodian Sustainable Finance Principles Implementation Guidelines (Feb 2019)
  - The aim of basic guidelines is to serve as a basis for the Cambodian banks and microfinance institutions (MFIs) in developing their own sustainable finance approaches, in line with the Cambodian Sustainable Finance Principles
  - The intention of the guidelines is to encourage banks to seriously consider the impact of climate change when conducting business
  - This Principle also aims to build knowledge of sustainable finance within banks/MFIs and across the banking sector, among banks/MFIs' customers, and among the communities the banks/MFIs serve
- Cambodian Sustainable Finance Roadmap (under development)
  - The document will first identify sustainability-related challenges facing the Cambodian economy, including climate- and nature-related risks and challenges as well as social risks and challenges. It will also review estimates of Cambodia's SDG financing gap to assess the scope of the financing challenge.

E.6. Financial system

Initiatives	Guidelines	Status
1. Taxonomy	• Cambodia Green Finance Taxonomy and Market is under development	• The NBC and the International Finance Corporation (IFC) of Cambodia signed a Cooperation Agreement on the Development of the Cambodia Green Finance Taxonomy and Market on December 19, 2023. Under this agreement, the NBC, in collaboration with the IFC, has jointly organized a meeting with relevant ministries and institutions from April 29 to May 3, 2024, to collect input for the development of a Green Finance Taxonomy suitable for the Cambodian context alongside with a consultation workshop on the development of the Cambodia Green Finance Taxonomy was co-organized on May 3, 2024.
2. Risk management assessments	• No national guidelines have been established as of June 2024	• Banks/MFIs are requested to seek to develop and implement an environmental risk management system (Feb 2019, The Association of Banks in Cambodia) • Development of environmental risk reporting framework and criteria (relevant key performance indicators (KPIs) to monitor and report on progress against the bank/MFI's environmental commitments) • Ensuring that the necessary systems are in place to collect the relevant data • Developing E&S policies (general E&S Policy and specific E&S policies, as applicable), approved by top management, that adequately address environmental issues • Establishing E&S governance structures, aligned with the existing operating model for the management of other risk categories – particularly credit risk, transaction approval, and new client acceptance
3. Climate-related financial disclosures	• No national guidelines have been established as of June 2024, but relevant international standards have been adopted	• Volunteer reporting (particularly by international firms) based on international disclosure standards, such as Recommendations of the Task Force on Climate-related Financial Disclosures (June 2017) • The adoption of the IFRS S1 (General Requirements for Disclosure of Sustainability-related Financial Information) and IFRS S2 (Climate-related Disclosures) from the 1st of January 2024 onwards.
4. Data availability	• No specific data set is available for the impact of climate change on the financial system	-
5. Capacity building	• Various initiatives being led by GSSD of NCSD and NBC	• GSSD of NCSD leads in coordination, integration, capacity building and knowledge management, stakeholder engagement and awareness, legal frameworks, and NDC review. • The NBC has engaged in the capacity building program by co-organizing and conducting some training related topics with some international development partners, such as i) The British Embassy in Cambodia on Environmental, Social, and Governance Risk Assessment and Governance; ii) International Finance Corporation in Cambodia on Building a Sustainable Finance Roadmap; iii) the UNESCAP and the Securities and Exchange Commission of Cambodia on the issuance of sustainable sectoral bonds; and iv) KPMG Vietnam and KPMG Cambodia on the integration ESG to the banking sector in Cambodia, etc.

F. Potential opportunities from the low-carbon transition

- Investment in renewable energy, such as solar panels
- Improving energy productivity
- Promote climate-friendly Agribusiness rice value chain

Source: National authorities; media reports; AMRO staff

Annexes: Selected Issues

Annex 1. Solvency of Cambodian Banks: A Reverse Stress Test Exercise[81]

This Selected Issue presents a reverse stress test exercise to assess the solvency of Cambodian banks. Despite maintaining a strong capital buffer at the system level, the banking sector faces significant domestic vulnerabilities, including a rising NPL ratio. The reverse stress test results indicate that the banking system can withstand an NPL ratio of up to 18.1 percent before the capital adequacy ratio (CAR) falls to the regulatory minimum. Additionally, our follow-up scenario analyses highlight the potential capital pressure on individual banks with NPL ratios exceeding the system's threshold.

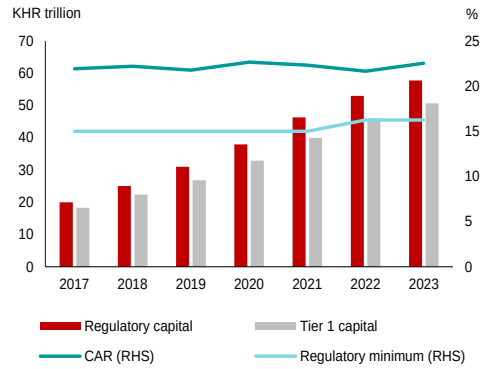
Background

1. Cambodia's banking system remains resilient overall, but it is faced with domestic vulnerabilities including subdued credit growth, weakening asset quality, and distress in the real estate sector. Thanks to the strengthened and more stringent regulatory and supervisory framework in the past decade, the banking system has built a strong capital buffer with the capital adequacy ratio (CAR) at 22.5 percent as of December 2023, the second highest in the region (Figure A1.1 and A1.2). However, the downturn in the credit cycle, combined with rising NPLs—part of which were recognized with the expiry of the regulatory forbearance—has pushed the NPL ratio to its highest level both in the past decade as well as in the region (Figure A1.3). Bank-level data shows that 49 institutions saw an increase in their NPL ratios in 2023, and 25 institutions, accounting for 41.3 percent of market share, had NPL ratios above the system's average of 5.1 percent (Figure A1.4).

Authorities' Views

2. The authorities suggest the NPL ratios should not be compared cross countries. Given that NPL rules and regulations are different across countries, especially regarding the recovery and write-off, the changes in classification, accounting rules and so on, the NPL ratios should not be compared cross countries. An example would be a country that requires banks to write off loan immediately after they are considered loss vs a country that only requires banks to write-off after one year would make the NPL ratio for the former country automatically lower than the latter.

Figure A1.1. Capital Adequacy Ratio (CAR)



Source: IMF Financial Soundness Indicators via Haver

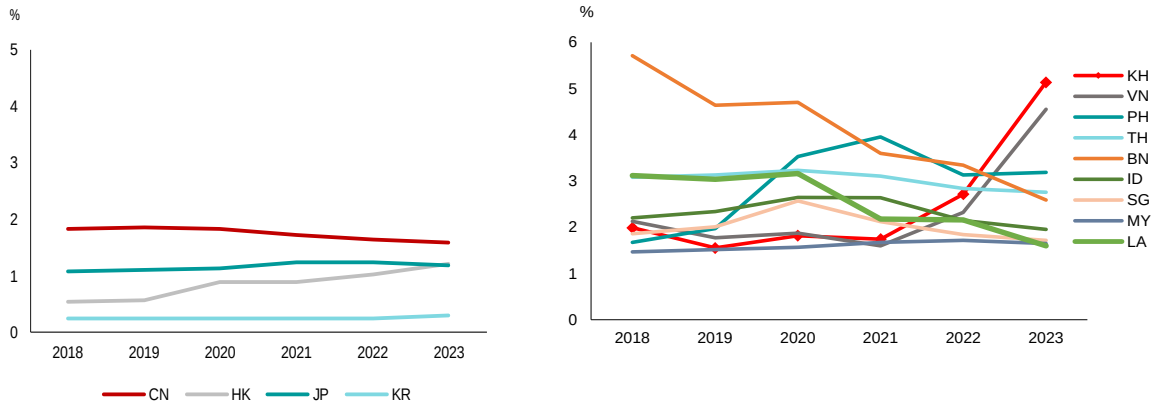
Figure A1.2. CARs in Selected ASEAN+3

Source: IMF Financial Soundness Indicators and national authorities, both via Haver Analytics
Note: 1) Data is as of end-2023. 2) BN = Brunei Darussalam; KH = Cambodia; CN = China; HK = Hong Kong, China; ID = Indonesia; JP = Japan; KR = Korea; LA = Lao PDR; MY = Malaysia; PH = the Philippines; SG = Singapore; TH = Thailand; and VN = Vietnam.

[81] Prepared by Sopheawattey San, Associate, and Heung Chun (Andrew) Tsang, Senior Economist.

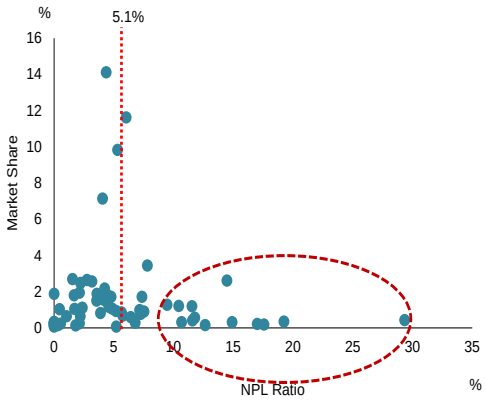
Figure A1.3. NPL Ratios in Selected ASEAN+3

(a) Plus-3 Countries **(b) ASEAN**



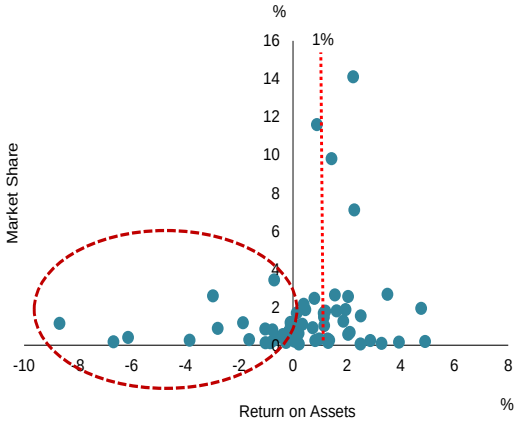
Source: IMF Financial Soundness Indicators and national authorities, both via Haver Analytics
Note: BN = Brunei Darussalam; KH = Cambodia; CN = China; HK = Hong Kong, China; ID = Indonesia; JP = Japan; KR = Korea; LA = Lao PDR; MY = Malaysia; PH = the Philippines; SG = Singapore; TH = Thailand; and VN = Vietnam. Myanmar is not included as the data are unavailable.

Figure A1.4. Cambodia: NPL Ratios and Market Shares in 2023 by Depository Institutions



Source: NBC; and AMRO staff calculations
Note: Red circle represents institutions with double-digit NPL Ratio

Figure A1.5. Cambodia: Profitability and Market Share in 2023 by Depository Institutions

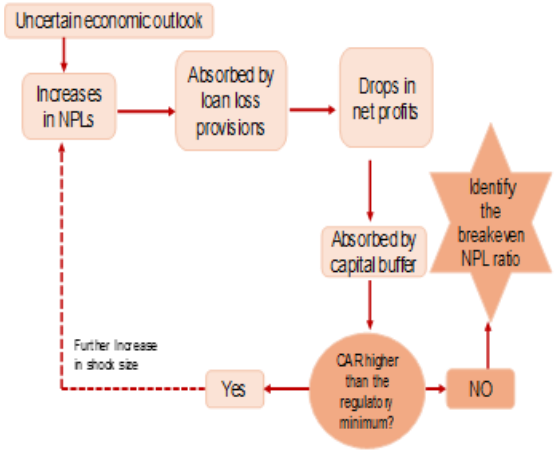


Source: NBC; and AMRO staff calculations
Note: Red Circle represents institutions with negative return on assets.

Reverse Stress Test

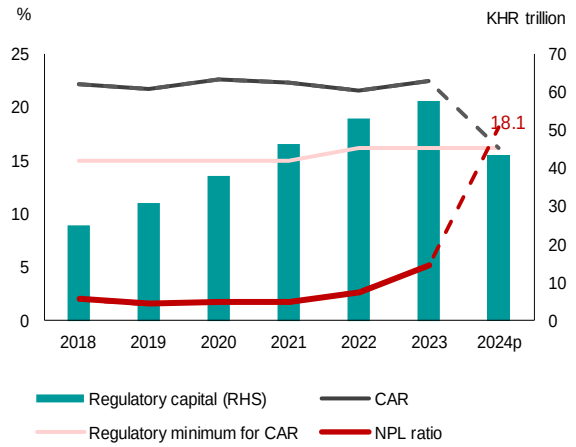
3. As credit risk heightened, the banking system's profitability had declined as of December 2023 due to weakening of asset quality, despite maintaining a relatively high capital buffer on average. Banks with lower profitability and capital buffers will be particularly affected by asset deterioration (Figure A1.5). Against this backdrop, this analysis examines how resilient the banking sector is, considering the potential impact of an increase in credit risk on its capital adequacy, by performing a reverse stress test exercise, the mechanism of which is illustrated in Figure A1.6.

Figure A1.6. Mechanism of Banks' Distress and Reverse Stress Test



Source: AMRO staff illustration

Figure A1.7. Reverse Stress Test Result



Source: NBC; and AMRO staff calculations

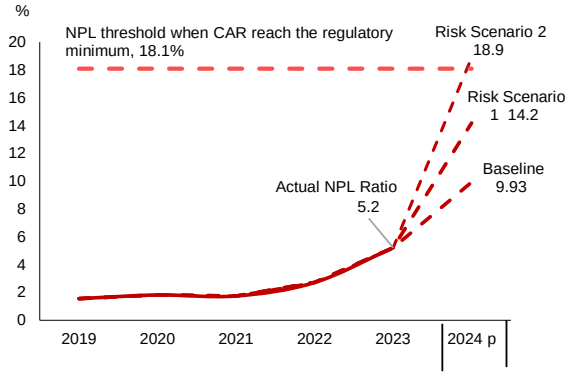
4. Our reverse stress test results suggest the banking system can withstand an NPL ratio of up to about 18 percent before the CAR falls to the regulatory minimum. We conduct a reverse stress test to quantify the threshold of non-performing loan ratio that would lower the banking system's capital to below the regulatory minimum. This exercise covers 62 depository institutions representing more than 90 percent of Cambodia's banking system assets as of December 2023. The reverse stress test estimates the breakeven NPL ratio[82] at which an increase in NPLs reduces the banking sector's CAR to the minimum regulatory requirement of 16.25 percent.[83] This test is valuable in determining the NPL ratio that allows banks to maintain their CAR above a critical distress threshold. The results indicate the banking system can withstand an NPL ratio of up to 18.1 percent before the CAR falls to the regulatory minimum (Figure A1.7).

Individual Bank's Vulnerability

5. Subsequently, to examine individual banks at risk, we take a single breakeven NPL ratio estimated from the reverse stress testing result for the banking system as a threshold benchmark. To this end, we conduct a scenario analysis on individual banks' NPL ratios in 2024 to identify banks with NPL ratios above the threshold that may face capital adequacy pressure due to declining profitability.[84] Given that NPLs in 2023 increased by 100 percent, a key assumption in our baseline scenario is that NPLs in 2024 would increase at the same rate as in 2023 i.e., double the level of 2023.[85] And that individual banks' NPLs would increase at the same rate as the industry level on average. In addition, we hypothesize two downside risk scenarios: (1) the NPLs are 50 percent higher than the baselines (i.e., triple the 2023 level of NPLs) and (2) the NPLs are 100 percent higher than the baselines (i.e., four times the 2023 level of NPLs) (Figure A1.8).

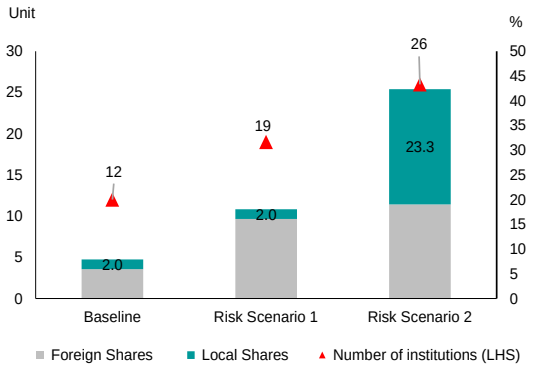
[82] We made a few more assumptions for the reverse stress test including (i) credit growth of 5 percent, (ii) risk-weighted assets growing at the same rate compared to 2023, (iii) total regulatory capital in 2024 based on total regulatory capital in 2023 and after-tax profit/loss, and (iv) loan loss provision at around 53 percent, same as 2023 Q4.
[83] The capital requirement includes the minimum CAR of 15 percent plus the capital conservation buffer of 1.25 percent.
[84] Due to data limitations, such as the absence of publicly available data on the likelihood of an increase in NPLs, the quality of NPL data, and financial soundness indicators by banks, the stress test for individual banks cannot be obtained.
[85] Meanwhile, banks' credit growth in 2024 is assumed at 5 percent.

Figure A1.8. Trajectory of NPL Ratio in the Scenario Analysis



Source: NBC; and AMRO staff calculation and projection.

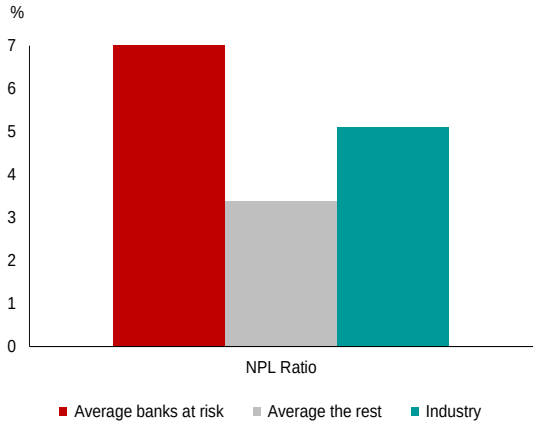
Figure A1.9. Scenario Analysis on Individual Banks Exceeding the Breakeven NPL Ratio



Source: NBC; and AMRO staff calculation and projection.

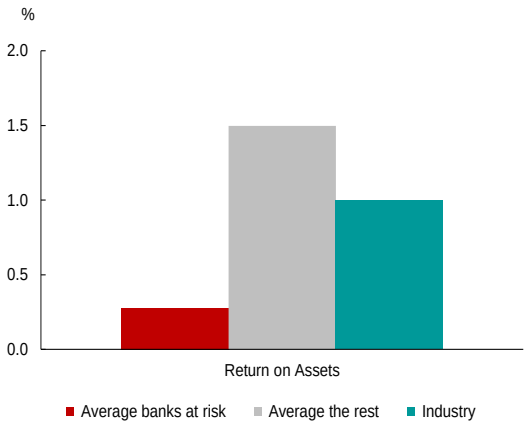
6. A follow-up scenario analysis indicates that the financial soundness of some individual banks may be at risk if the financial environment continues to be subdued, despite a strong capital buffer at the systemic level. Our simulation results summarized in Figure A1.9 indicate that in the baseline scenario, 12 banks would see their NPL ratios exceed the industry NPL ratio threshold. These 12 banks—of which eight are fully foreign-owned and four owned by local shareholders—represent about 8 percent of market share. In risk scenario 1, in which NPLs increase mildly by 50 percent from the baseline, 19 banks—accounting for 18.1 percent of market share—would exceed the threshold. In the risk scenario 2, the extreme case in which NPLs are four times the 2023 level, 26 banks—representing about 42 percent of market share—would exceed the threshold (Figure A1.10). Of these, seven local banks have a market share of 23.3 percent, while 19 fully foreign owned have a market share of 19.1 percent. By looking at the specific soundness of these 26 banks, as of December 2023, we observed their average NPL ratio is relatively higher than the rest of the banks while their return on assets is lower (Figure A1.10 and A1.11). In terms of the provisioning coverage ratio, which is the ratio of provision to gross NPLs, on average, banks at risk have lower coverage than the rest of the banks as well as the industry level (Figure A1.12).

Figure A1.10. NPL Ratios of Banks in 2023 at Risk under Risk Scenario 2



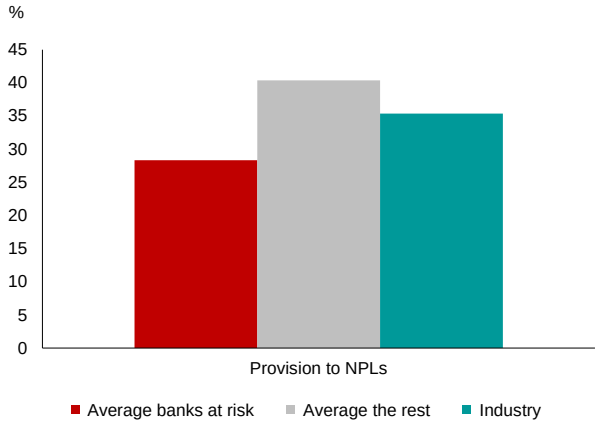
Source: NBC; and AMRO staff calculation and projection.

Figure A1.11. Return on Assets of Banks in 2023 at Risk Under Risk Scenario 2



Source: NBC; and AMRO staff calculation and projection.
Note: Return on Asset= NPBT/Total Assets

Figure A1.12. Provision Coverage Ratio of Banks in 2023 at Risk Under Risk Scenario 2



Source: NBC; and AMRO staff calculation and projection.
Note: Provision is taken from provision expense in P&L statement.

7. The reverse stress test results indicate some individual banks are vulnerable, and flag the need for more in-depth supervisory risk reviews. However, there are data limitations and it is possible the analysis has room to improve, particularly in the case of individual banks. Ideally, this analysis should complement authorities' stress tests, given their greater access to supervisory information and data. Despite its limitations, this analysis does flag the need for more in-depth supervisory risk reviews, including on-site inspections or asset quality reviews.

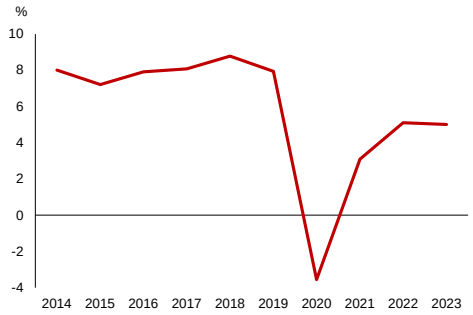
Annex 2. Assessing the Scarring Effect of COVID-19 on Cambodia's Potential Growth[86]

The COVID-19 pandemic has left an indelible mark on economies worldwide, and Cambodia is no exception. The disruptions caused by lockdowns, reduced foreign investment, and interruptions in global supply chains have hindered the country's economic momentum and potential growth. This Selected Issue aims to gauge the impact of the scarring effects of the COVID-19 pandemic on Cambodia's growth potential via key factors including labor, human capital stock, physical capital stock, and total factor productivity (TFP). The estimates suggest that the scarring effects have reduced Cambodia's potential growth by about 2 percentage points during the pandemic period, driven by lower growth in physical capital stock, a larger drop in TFP, and slower growth in human capital compared with the pre-pandemic period.

Introduction

1. The Cambodian economy was hit severely by the COVID-19 pandemic during 2020-2021, before it began a slow recovery starting in 2022. The outbreak of the COVID-19 pandemic caused the economy to contract by 3.6 percent in 2020, with a fall in exports and tourism due to restrictions in international travel. Domestic economic activities were further dampened in 2021 and derailed the slight recovery that was starting to be seen following the downturn in 2020. Although the economy showed robust recovery in 2022 and 2023, growing at 5.1 percent and 5 percent in the two years respectively, the rate of growth was still slower than the pre-pandemic growth of 8 percent during 2011–2019 (Figure A2.1). The slow post-pandemic economic recovery partly reflects lower potential growth due to the scarring effects of the COVID-19 pandemic. Against this backdrop, this study seeks to estimate how the scarring effects of the COVID-19 pandemic have affected production factors and potential growth in Cambodia. Furthermore, this study discusses the implications of scarring effects on long-term growth potential.

Figure A2.1. Cambodia: Real GDP Growth



Source: National Institute of Statistics (NIS) via Ministry of Economic and Finance (MEF) (2024)

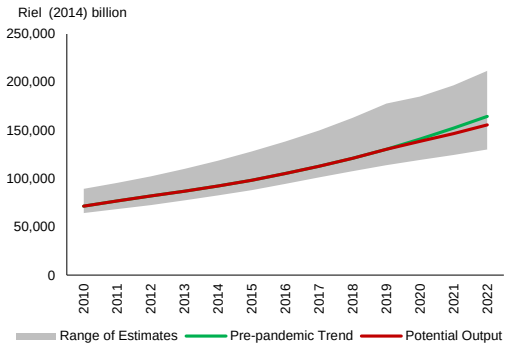
COVID-19 Scarring Effects on Cambodia's Growth Potential

2. Our estimation results, using an augmented production function approach, suggest that the pandemic has lowered Cambodia's potential growth, likely due to scarring effects. To estimate potential output, this study employs an augmented Cobb-Douglas production function approach, which enables us to estimate and decompose the scarring effects into production factors, such as labor, human capital, physical capital, and total factor productivity (TFP). For details on the methodology and data sources, see Box A2.1.[87] Our results show that the estimated potential output in 2020-2022 (actual scenario) fell below the

[86] Prepared by Heung Chun (Andrew) Tsang, Senior Economist; Chunyu Yang, Economist, and Sopheawattey San, Associate
[87] The methodology is the same as that for estimating potential growth used in Choi *et al.* (2021).

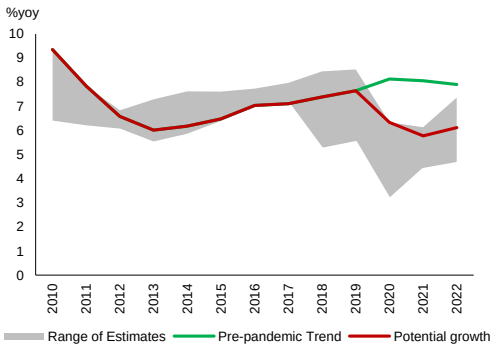
pre-pandemic trend (a counterfactual scenario) (Figure A2.2). The range of potential growth estimates,[88] defined as the growth rate of potential output, obtained from alternative data sources, fell to 4.1–6.6 percent (average for 2020-22) from 7.6–8.4 percent (average for 2017-19). This is lower than the growth rate than if the potential output had followed the pre-pandemic trend (Figure A2.3). Our baseline model shows that Cambodia's potential growth rate declined from 7.4 percent in 2017-19 to 6.1 percent in 2020-22, falling short of the pre-crisis trend trajectory of 8 percent. Lower potential growth in 2020-22 could be explained by scarring effects, which are estimated by the differences in potential growth between the actual outcome and the pre-pandemic trend under the counterfactual scenario.

Figure A2.2. Potential Output



Source: PWT; NIS; UNDP; Barrett *et al.* (2021); AMRO staff calculations
Note: Range of estimates is the distribution of different estimates for the actual scenario using various data sources and coefficients (labor income share and capital income share) in estimating the production function (see Box A2.1).

Figure A2.3. Potential Growth



Source: PWT; NIS; UNDP; Barrett *et al.* (2021); AMRO staff calculations
Note: Range of estimates is the distribution of different estimates for the actual scenario using various data sources and coefficients (labor income share and capital income share) in estimating the production function (see Box A2.1). Potential growth is defined as the growth in potential output.

Assessing Key Drivers of Potential Growth

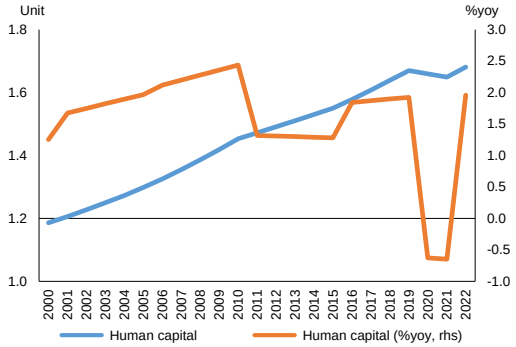
3. Aggregate employment in Cambodia was largely stable during the COVID-19 pandemic, although there were movement of labor across sectors. Employment and the labor force grew rapidly in 2020 (Figure A2.4), partly due to more migrant workers returning to Cambodia. Meanwhile, although employment in some sectors such as tourism, garment, manufacturing, and construction was heavily affected by contracting global demand and pandemic-related restrictions, workers quickly shifted to other sectors such as delivery and logistics, agriculture, and wholesale and retail trade (Sivchuong *et al.*, 2021). Despite some further restrictions being imposed in 2021 (which were gradually relaxed starting in 2022), employment continued to grow, but at a slower pace, reflecting positive economic growth in 2021 and 2022 (Figure A2.4). Although stable employment growth did not affect potential growth, the movement of workers to other sectors, compounded by deteriorating health conditions and shorter working hours, temporarily lowered labor productivity during the pandemic. These aspects are captured in the TFP component, as discussed below.

[88] The range of estimates is the distribution of different estimates for the actual scenario using various data sources for physical capital stock, potential TFP growth, and coefficients (labor income share and capital income share) in estimating the production function. Specifically, (i) physical capital stock could use the series in Penn World Tables (PWT) or could be constructed by applying the perpetual inventory method (PIM). The latter is used in this study as it is more consistent with historical data of investment and FDI data. (ii) For estimating potential TFP growth, there are several alternative methods, namely the annual growth of potential TFP series, the average growth of potential TFP for fixed five-year periods, and the rolling five-year average growth of potential TFP. The rolling five-year average is used to reduce fluctuations due to the noise of the series. (iii) The labor income share could be directly estimated by regression of the logarithm of the augmented Cobb-Douglas production function with different sources of physical capital stock or assuming the share according to the previous studies. As discussed above, the PIM physical capital stock series is used. Meanwhile, the regression estimate is used as it reflects results for the updated sample and the value is consistent with the previous study. See Box A2.1 for details on different data sources and coefficients.

Figure A2.4. Growth of Employment and Labor Force

Source: PWT; NIS; AMRO staff calculations

Figure A2.5. Human Capital Stock Estimates



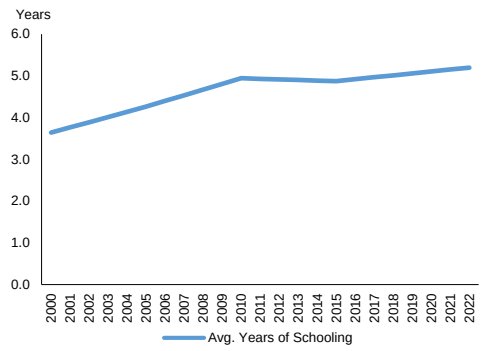
Source: PWT; NIS; UNDP; Barrett *et al.* (2021); AMRO staff calculations

4. As a proxy for labor quality, human capital—measured by the combination of education attainment and its returns—was lower during the pandemic than prior, mainly due to the closure of physical classes. Human capital refers to the quality of labor that makes people more productive, which could be enhanced by improvements in health and education that accumulate labor skills, knowledge, and experience over their lifetime (World Bank Group, 2023). Our estimation suggests that Cambodia's human capital stock ceased to accumulate during 2020–2022, mainly due to a decrease in the return to education (Figure A2.5).

- Education attainment, proxied by the average years of schooling, was not affected by the pandemic (Figure A2.6). Cambodia was able to sustain a high enrollment rate even through the pandemic, as virtual learning took place (UNICEF, 2021).
- However, virtual learning during the pandemic lowered the returns to education (Figure A2.7), as the efficiency of remote or virtual learning was considerably low given inadequate infrastructure including poor internet connectivity, financial problems, and poor television or radio coverage, particularly in rural areas (UNICEF, 2021; World Bank Group, 2021). These factors impacted different types of households differently (Nai, 2022).

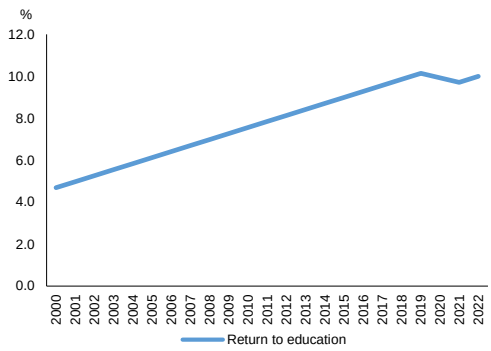
On the other hand, given the health impacts of COVID-19, more pandemic-related restrictions, such as COVID tests and social distancing reduced working hours and likely lowered productivity, despite the government's improved public health policy such as vaccination program that continued after the pandemic. However, given that health cannot be quantified, the net impact of change in public health conditions is included in the TFP.

Figure A2.6. Average Year of Schooling



Source: PWT; NIS; UNDP; Barrett *et al.* (2021); AMRO staff calculations

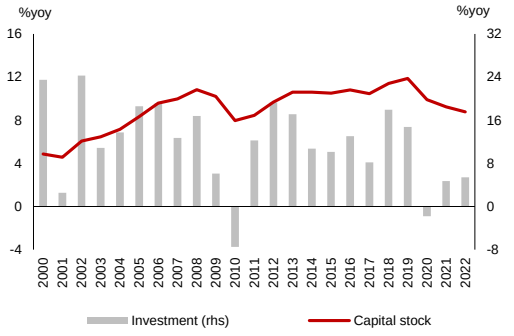
Figure A2.7. Return to Education



Source: PWT; NIS; UNDP; Barrett *et al.* (2021); AMRO staff calculations

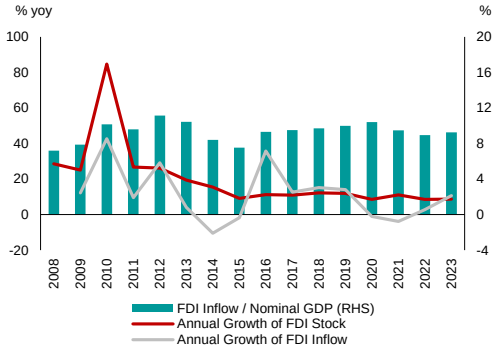
5. The creation of physical capital stock slowed during the pandemic, reflecting a drop in investment starting in 2020, has only slowly recovered over the past two years (Figure A2.8). Investment sentiment worsened following the COVID-19 pandemic. Firms experienced losses during the pandemic could lead to the impairment of firms' balance sheets, which finally affected the firms' financial health and investment incentive. This could be confirmed by a study in AMRO (2024) that the share of financially stressed borrowers,[89] mainly due to the losses, in Cambodia's non-financial corporates (NFC) increased significantly from around 10 percent of the firms in the sample of the study to over 50 percent during the pandemic period from 2020 to 2022. Moreover, companies may have developed a "scarring of beliefs", which influenced them to factor the pandemic into future investment decisions, thereby dampening their long-term investment propensity (Grömling, 2021). The growth of FDI stocks—a prominent source of financing for Cambodia's growth over the past decades—slowed to 8.6 percent in 2020 and has stayed below 10 percent in the past two years, down from pre-pandemic growth rates of over 10 percent (Figure A2.9). Additionally, global supply chain disruptions have affected the availability of essential materials and equipment, hampering both ongoing and new investments. For instance, construction of the new Siem Reap-Angkor International Airport has faced delays due to logistics and supply chain issues stemming from the COVID-19 pandemic (Phanet, 2022).

Figure A2.8. Investment and Capital Growth



Source: PWT; NIS; AMRO staff calculations

Figure A2.9. FDI Growth



Source: NBC; AMRO staff calculations

6. Our estimates and event study suggest that TFP declined further during the COVID-19 pandemic, compared to the pre-pandemic trend (Figure A2.10)**, driven by a combination of transitory and structural factors.** According to the production function approach, TFP is represented by the change in potential growth that cannot be explained by other factors of production. In this context, our event study, based on local news media and related literature as summarized in Box A2.2, allows us to attribute some parts of the scarring effects of the pandemic—reflected in lower TFP—to several transitory factors, including a temporary drop in productivity, the under-utilization of resources, and loss of economic efficiency. Moreover, in the longer term, COVID-19 has reinforced the impact of structural issues on TFP:

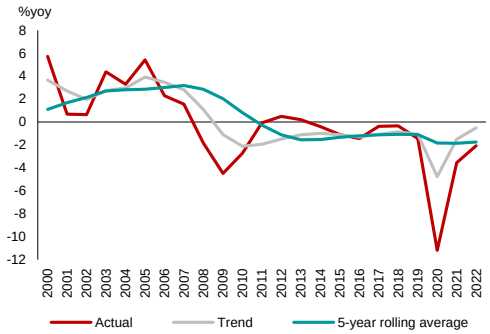
- Temporary drop in productivity: As discussed, the aggregate employment level remained stable during COVID-19, with some migrant workers returning to Cambodia and some workers temporarily shifting to alternative jobs in agriculture, and wholesale and retail trade (Sivchuong *et al.*, 2021). However, the skill mismatch for the newly increased employment could temporarily lower the average labor productivity (Bandyopadhyay *et al.*, 2019). Nevertheless, the government's skill training policy has mitigated the scarring effects on productivity. Moreover, during the pandemic, weak investment could have affected

[89] AMRO (2024) defines firms with interest coverage ratios (ICRs) lower than 1.25 and/or debt service ratios (DSRs) lower than 1.0 as financially stressed borrowers.

productivity through slower technology adoption (Barrett *et al.*, 2021). The weak investment could be the result of the impaired balance sheets of firms that lowered the availability of working capital for investment. In the survey of establishments (firms) affected by COVID-19, lack of working capital for investment was flagged as one of the most important issues (9.1 percent), following the decline in revenue, increase in expenditure, and decline in market demand (Figure A2.11). Among establishments affected by COVID-19, the lack of working capital was the most prominent problem among wholesale and retail trade establishments (by industry), and small establishments (10 persons engaged or below, by size) (Figure A2.12 shows).

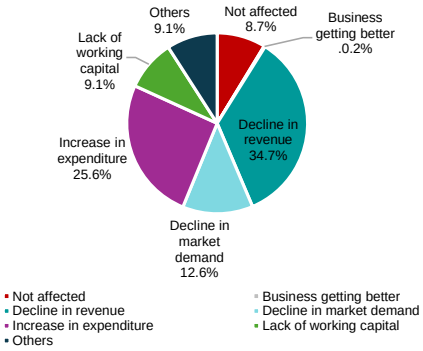
- Temporary under-utilization of resources: Lockdowns or other pandemic-related restrictions caused the under-utilization of human and physical resources. For instance, garment workers had to work reduced hours due to lockdowns or a fall in external demand, while factories had to retain their workforce. Similarly, the under-utilization of infrastructure such as roads and airports, as well as high vacancy rates in the retail and office building segments, also led to lower TFP.
- Temporary efficiency loss during COVID: The misallocation of resources could have caused efficiency loss. During the pandemic, firms had to divert resources to healthcare and remote work management, instead of allocating them to direct production of final output as they would have done in normal circumstances (Fernald and Li, 2022). Social distancing and limits on transportation also affected the speed of technology adoption. However, the government's improvement in health policy has largely reduced the misallocation of physical resources. Additionally, disruptions in global value chains lowered TFP due to the absence of key intermediates (Acemoglu and Tahbaz-Salehi, 2024).
- COVID-19 reinforced the impact of structural issues: A prolonged period of low investment can permanently reduce productivity, and these effects can persist even if a strong recovery is witnessed after the crisis (Cerra *et al.*, 2021). Productivity could also be permanently affected by the loss of firm-specific knowhow because of bankruptcies and their spillovers (Bernstein *et al.*, 2019).

Figure A2.10. TFP Estimates



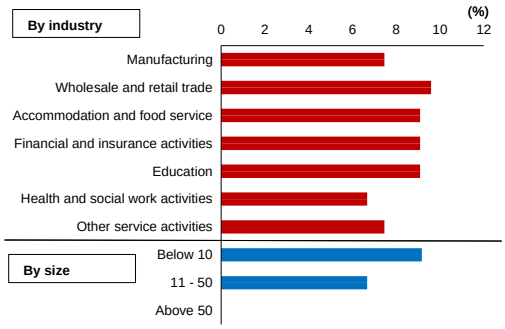
Source: PWT; NIS; UNDP; Barrett *et al.* (2021); AMRO staff calculations

Figure A2.11. Share of Establishments Affected by COVID-19 (by Effect)



Source: NIS

Figure A2.12. Share of Establishments Affected by Lack of Working Capital (by Industry and Size)

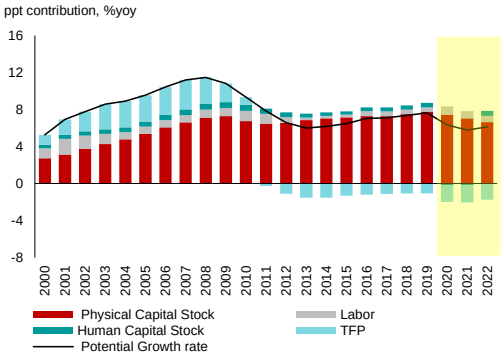


Source: NIS
Note: Only industries faced with a lack of working capital are shown. The industry classification is based on Section of International Standard Industrial Classification (ISIC) Rev.4. The size of establishments is based on the number of persons engaged.

Tracking the Sources of COVID-19 Scarring Effects

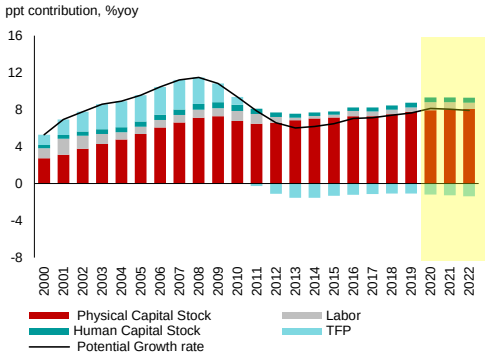
7. Our analysis suggests that the scarring effects of the COVID-19 pandemic are mainly reflected in lower growth in physical capital, TFP, and human capital. Following Jackson and Lu (2023), we seek to measure the scarring effects by comparing the differences in potential growth between the actual scenario (Figure A2.13) and the counterfactual scenario assuming the pre-pandemic trend (Figure A2.14). Therefore, the drop in potential growth could be further decomposed into the contributions of different factors of production (see Box A2.1 for the details of the methodology). Our decomposition analysis, as summarized in Figure A2.15, indicates that the scarring effects of the COVID-19 pandemic have reduced Cambodia's potential growth by 1.95 percentage points (average for 2020-2022), mainly due to the lower growth in physical capital stock (0.95 percentage points), a larger drop in TFP (0.53 percentage points)—presumably due to temporary productivity drop, under-utilization, and efficiency loss—and slower growth in human capital (0.47 percentage points) due to lower returns to education during the pandemic.

Figure A2.13. Potential Growth with Scarring Effects (Actual Scenario)



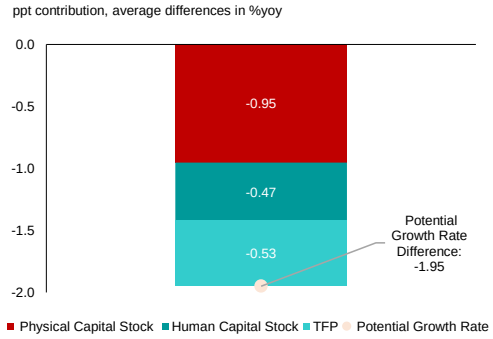
Source: PWT; NIS; UNDP; Barrett *et al.* (2021); AMRO staff calculations
Note: The shaded area represents the pandemic period: 2020-2022.

Figure A2.14. Potential Growth Without Scarring Effects (Counterfactual: Pre-pandemic Trend)



Source: PWT; NIS; UNDP; Barrett *et al.* (2021); AMRO staff calculations
Note: The shaded area represents the pandemic period: 2020-2022.

Figure A2.15. Contribution to Scarring Effects (Average for 2020–2022)



Source: PWT; NIS; UNDP; Barrett *et al.* (2021); AMRO staff calculations

Implications for Long-term Growth

8. The empirical results of this study identify the sources of scarring effects, providing suggestions on measures to improve long-term potential growth. Cambodia's lower potential growth since the COVID-19 pandemic could lead to lower growth in the longer term if the scarring effects are prolonged. Our analysis suggests that lower potential growth in Cambodia could be caused by the temporary drop in factors of production. Nevertheless, to reduce the impact of scarring effects on the long-term growth potential, the economy should upgrade and build up its human and physical capital. To this end, the timely implementation of the government policies could limit the scarring effects on potential growth, as well as actual growth. The government has taken some steps to reduce the scarring effects of the COVID-19 pandemic, but in the medium to long term, more policies to promote growth in physical capital, human capital, and TFP are required. Specifically, the government should look to boost potential growth by strategically attracting FDI and increasing public infrastructure investment while ensuring spending efficiency; expand existing Technical and Vocational Education and Training (TVET) centers; and continue with structural reforms such as enhancing economic diversification, continuing with regulatory framework reforms, fostering a competitive business environment, and promoting digitalization and innovation.

Box A2.1. Estimation of Potential Growth and Scarring Effects

Estimate the potential output and potential growth

This study applies growth accounting by assuming the augmented Cobb-Douglas production function and uses HP-filtered factors of production to estimate the potential output and potential growth (growth of potential output).

In this study, the augmented Cobb-Douglas production function is used, as human capital is separately added to the conventional Cobb-Douglas production function, which only includes labor, physical capital, and total factor productivity.

$$Y_t = A_t K_t^{1-\alpha} (L_t H_t)^{\alpha}$$

$$H_t = exp(\varphi_t S_t)$$

where
Y_t represents GDP in year t;
A_t, the total factor productivity (TFP);
K_t, the physical capital stock;
L_t, the labor component;
H_t, the human capital per worker;
α, the income share of labor;
$(1 - \alpha)$, the income share of capital;
φ_t, the return to education; and

S_t, average years of schooling.

Remarks:

i. H_t is defined as a function of average years of schooling in year t (S_t), and the return to education (φ_t);
ii. The augmented Cobb-Douglas production function applies the Cobb-Douglas function's standard assumption with constant income shares over time for labor (with human capital, α) and capital (1 – α).

The potential level of employment, human capital stock, physical capital stock, and TFP are inserted into the above augmented Cobb-Douglas production function to estimate potential output and growth. The potential levels of these factors of production are derived by applying the one-sided Hodrick–Prescott (HP) filter on the original series. For potential TFP growth, the rolling five-year average growth of potential TFP is used.

Finally, potential GDP growth, defined as the growth of potential output, is estimated as potential TFP growth plus the weighted sum of the growth in potential employment, potential human capital stock, and potential physical capital stock.

Estimating scarring effects

Following Jackson and Lu (2023), scarring effects are defined as the differences in potential growth between the counterfactual scenario of potential output in the COVID-19 pandemic assuming the pre-pandemic trend:

$$Y_{pre,t} = A_{pre,t}K_{pre,t}^{1-\alpha}\left(L_{pre,t}H_{pre,t}\right)^{\alpha}$$

and the actual outcome of potential output in the COVID-19 pandemic:

$$Y_{c,t} = A_{c,t}K_{c,t}^{1-\alpha}\left(L_{c,t}H_{c,t}\right)^{\alpha}$$

Take the log-difference of the above equations, the sources of scarring effects (differences in potential growth) can be further decomposed by the output deviation based on the estimated production function under two scenarios.

$$\Delta y_t = \Delta a_t + (1-\alpha)\Delta k_t + \alpha\Delta l_t + \alpha\Delta h_t$$

Data sources

1. Employment: Until 2019, Penn World Tables (PWT) 9.1 database; from 2020, NIS' official data, applying official data of 2020 growth to extend PWT data

2. Human capital stock:

a. Years of schooling: Until 2015, using 5-year data from the updated database of Barro and Lee's (2013), with applying interpolation for annual data; after 2015, using 2022 United Nations Development Programme (UNDP) data and 2015 Barro and Lee data to interpolate the figures in between.
b. Return to education: Until 2019, Psacharopoulos and Patrinos (2004, 2018), applied linear interpolation and extrapolation for 1994 (assuming half of Vietnam's figure) and 2007 figures. From 2020, dated back to 1.5 years before, i.e., End 2020 figure = 2019 Mar figure, End 2021 figure = 2018 Jun figure, End 2022 figure = 2019 Jun figure.
   The calculation for the figures from 2020 is based on previous estimates in the literature. In general, the school closure shock reducing learning by half of the year would cause 1.55 years of education to lag (on average) (Kaffenberger, 2021). Also, according to the World Bank's estimate, 1.5 learning-adjusted years of schooling (combining quantity and quality of education) was lost in Cambodia during the pandemic (World Bank Group, 2021).

3. Physical capital stock: The data used in this study is constructed by applying the perpetual inventory method (PIM), using the 1987 capital stock figures in PWT as the initial capital stock, gross fixed capital formation in the official National Account data, and depreciation data in PWT.

- Alternatively, PWT capital stock data could be used, but the derived investment figures are much higher than gross fixed capital formation in the official National Account data and FDI figures.

4. Labor income share: The labor income share (α) is estimated by regression of the logarithm of the augmented Cobb-Douglas production function with dummy variables for 1993, Global Financial Crisis

(2009–2012), and COVID-19 pandemic (2020–2022), using the data from 1987–2022. α is estimated as 0.28 for using PIM physical capital stock.

- Alternatively, α is estimated as 0.36 for using PWT physical capital stock;
- α can be assumed as 0.42, using the 2011-2021 average of the International Labour Organization (ILO) estimates for Cambodia, ILO report on the Cambodia Labor Force Survey (CLSF) 2022;
- Or α can be assumed as 0.3, as suggested by authorities.

5. TFP: Derived as the difference between observed real GDP and the weighted sum of employment, human capital, and physical capital (which is known as Solow residual). Potential TFP is derived by applying the one-sided HP filter until 2020 while assuming a drop of 1.5 percent in 2021 and a drop of 0.5 percent in 2022 to be consistent with the economic recovery. The rolling five-year average growth of potential TFP is used to estimate potential TFP growth.

- Alternatively, to estimate potential TFP growth, the annual growth of potential TFP series could also be used.
- The average growth of potential TFP for fixed five-year periods could also be used.

In Figures A2.2 and A2.3, the range of estimates is the distribution of different estimates using various data sources and coefficients (labor income share and capital income share) stated above in estimating the production function.

Box A2.2. Selected Local News and Literature on the Impact of COVID-19 on TFP

News and literature related to employment
ADB estimates show that out of the 390,000-570,000 workers who lost their jobs, approximately 230,000-345,000 could eventually be counted as unemployed, raising the unemployment rate from 0.7 percent in 2019 to 3.2-4.4 percent in 2020. Additionally, 18,000-25,000 workers, or 5 percent, dropped out of the labor force altogether, while 35 percent shifted to other sectors, mainly agriculture, but also wholesale and retail trade and other sectors. (Sivchuong, L., Pov, M., Reasey, L., & Channeary, U., 2021. **Rapid assessment of emerging needs for workers and skills in times of the COVID-19 crisis**. National Employment Agency, Phnom Penh, Cambodia)
According to Labor Force Survey 2019, about 88 percent of Cambodia's workforce is engaged in informal employment. Although this is declining, this put further pressure on the labor market condition. (National Institute of Statistics, 2019. **Report on the Cambodia Labour Force Survey 2019**, National Institute of Statistics, Ministry of Planning)
In all, 140,000-200,000 workers shifted to sectors such as delivery and logistics, agriculture, wholesale, and retail trade. (ADB, 2020. **Employment and Poverty Impact Assessment: Cambodia**)
Employment (growth) dropped starting in late 2020, as the market could not fully absorb all workers due to the first community outbreak in November 2020 and the subsequent outbreak in February 2021, which required stricter lockdowns, curfews, and the suspension of most-contact businesses. (Khmer Times, 2021. **Community outbreak of February 20 continues its march in Cambodia to yet another province and 39 new infections, bringing total to 652 and the national tally to 1163** & Phnom Penh Post, 2021. **Phnom Penh placed in two-week lockdown**)

News and literature related to returned migrant workers
The estimated 90,000 returned migrant workers are unlikely to be able to find jobs in what was already a challenging job market in Cambodia, as major sectors, including tourism and garments, are significantly affected by the pandemic and related economic factors. It is unlikely both sectors will be able to to absorb returning migrant workers. (ILO, August 2020. **COVID-19: Impact on Cambodian migrant workers**)
According to the ASEAN Migrant Outlook report on July 2022, an estimated 260,000 Cambodian migrant workers lost their jobs in the wake of the pandemic and returned to the country from various parts of the world, mostly from Thailand, as of December 2021. The return migration to Cambodia was the second highest in the region after the Philippines. (ASEAN Secretariat, July 2022. **ASEAN Migration Outlook**)
Among the reasons for the respondents' return to Cambodia, the fear of COVID-19 ranked first with 51.7 percent, followed by personal/family reasons (47 percent), loss of job/closure of workplace (27.8 percent) and end of the legal working permit (7.1 percent). The reasons were similar between men and women sub-groups. (UNFPA, 2020. **Rapid Assessment on Social and Health Impact of COVID-19 Among Returning Migrant Workers in Cambodia**)

News and literature related to human capital loss
Human capital refers to the quality of labor, which could be enhanced by the improvement in health, as well as the accumulation of skills, knowledge, and experience over their lifetime. Not just of intrinsic value, these attributes also make people more productive. (World Bank Group, 2023. **Collapse and Recovery: How the COVID-19 Pandemic Eroded Human Capital and What to Do about It**)
The human capital index for Cambodia stood at 0.49 in 2020, indicating that a child born in Cambodia would be only 49 percent as productive as an adult given full access to health and education. (Azevedo, J. P., Hasan, A. and Goldemberg, D., 2022. "**Learning losses from COVID-19 school closures in Cambodia: Simulation results**," World Bank Group, Washington, DC)
Cambodia was able to sustain a high enrollment rate amid the pandemic. The gross enrollment rate was over 100 percent while the net enrollment rate was over 90 percent at public schools, thanks to the government's efforts to mitigate the impact of the pandemic, including the launch of remote learning programs across multiple channels. However, the efficiency of remote learning is considerably low given challenges such as poor internet connectivity, financial problems, lack of awareness of television, and poor television or radio coverage, especially for students in rural areas. Of students who engaged in distance learning, 37 percent spent only 30 minutes to 1 hour learning per week, followed by 26 percent reporting they spent 1 to 3 hours per week, indicating that students did not learn as much as they should have. (United Nations Children's Fund (UNICEF), March 2021. **Cambodia COVID-19 Joint Education Needs Assessment**, pp. 60–63)

Under the intermediate scenario that schools will not close again and all students except those who dropped out because of income shocks will return, today's cohort of students in Cambodia is expected to attain 1.5 fewer learning-adjusted years of schooling than the baseline of 6.8 years in the pre-pandemic and expected to lose USD738 (PPP) in annual earnings compared to the baseline of USD6,077 (PPP).

Remark: Learning-adjusted years of schooling (LAYS) capture both quantity and quality of education. It measures the number of years of schooling a child can expect to obtain by age 18, adjusted by a country's average student achievement. (World Bank Group, 2021. **Cambodia Economic Update Dec 2021 - Living With COVID**, p.56)

As the desire to invest in human capital increases with income, a decline in income levels can hinder the accumulation of human capital, particularly affecting the most disadvantaged individuals. (Bardhan, P., and Udry, C., 1999. "**Development Microeconomics**," Oxford: Oxford University Press)

Even though the magnitude of employment loss for Cambodia is relatively low compared to other countries in the region, the reduction in household income was more significant. (World Bank Group, 2020. **Household Surveys in East Asia and Pacific**)

Loss of income could result in households not being able to send their children to school, leading to a higher number of dropouts. The dropout rate for both primary school and secondary school increased to 7.2 percent and 16.6 percent respectively in academic year 2021-2022 from 4.4 percent and 15.8 respectively in 2018-2019. (Ministry of Education, Youth and Sport, April 2023. **The Education, Youth and Sport Performance in the Academic Year 2021-2022**)

A survey by the World Bank reported that 65.4 percent of households in Cambodia indicated reduced family food consumption as a way to cope with the income shock associated with COVID-19; and a WFP survey similarly revealed that about half of the school-age and youth parents experience difficulties in accessing medical services, thus disrupting the development of human capital in Cambodia. (World Food Program (WFP), 2022. **Rebuilding human capital amidst the pandemic: The impacts of COVID-19 on school-aged children and youth in Cambodia** & World Bank Group, 2022. **The Socioeconomic Impacts of COVID-19 on Households in Cambodia: Results from a High-Frequency Phone Survey of Households Round 7**)

In general, the shock reducing learning by 1/2 year would cause 1.55 years of education to lag (on average), although it could catch up later. (Kaffenberger, M., 2021. **Modelling the long-run learning impact of the Covid-19 learning shock: Actions to (more than) mitigate loss**, International Journal of Educational Development, 81, 102326.

Experts say student learning outcomes have been significantly hurt by prolonged school closures during the COVID-19 pandemic. Most notably, the lack of traditional schooling during the pandemic has reduced access to education for certain groups of children, especially those living in remote areas and coming from poor families. (Nai, N., 2022. "**With students back in class, experts note lasting impact of school closures**," Cambodian Journalists Alliance Association)

News and literature related to lower labor income

In August 2020, a telephone survey of 1,054 migrant returnee households revealed that two-thirds of returning migrant worker households suffered a severe drop in income. Their median income was only USD150 a month, and more than half were in debt. As much as one-third of the returnees reported no income at all; although over 65 percent received some kind of support: 20 percent received cash support, 9 percent received food assistance, and 10 percent received healthcare services. (UNFPA, 2020, **Rapid Assessment on Social and Health Impact of COVID-19 Among Returning Migrant Workers in Cambodia**)

According to the government, hundreds of thousands of Cambodian workers lost their jobs as a direct result of the pandemic in this initial period (Feb – Jun 2020), while those who remained in employment were hard-hit by reduced and unpaid wages. Hospitality and service workers were most affected by income losses, experiencing a 56.4 percent decline between January and April 2020. They were followed by construction workers (a 36.8 percent decline) and garment workers (a 29.8 percent decline). (Ford, M. and Ward, K., 2021, **COVID-19 in Southeast Asia: Implications for workers and unions**. Journal of Industrial Relations, 63(3), pp.432–450)

A nationwide COVID-19 economic impact study has found that salaries across Cambodia decreased by around 30 percent in just four months (between January and April this year) with entertainment and sex workers reporting an 85 percent decline in income. (White, H., 2020. **Grim findings on wages after COVID-19 struck**. Khmer Times)

News and literature related to productivity, under-utilization, and efficiency

Up to 130 factories asked the country's Labor Ministry for permission to suspend operations entirely or partly. With about 750,000 workers, the garment industry is the biggest employer in the country. Around 100,000 Cambodian workers lost their jobs at the outset of the pandemic, either permanently or temporarily. This number was expected to increase in the weeks and months to come. (Khmer Times, 2020. **Coronavirus brings trouble to Cambodia's garment industry**)

Close to 51,000 jobs disappeared from the once thriving tourism sector as 2,838 tourism-related businesses in Cambodia shut down or temporarily closed due to the COVID-19 crisis as of September 2020, according to the Ministry of Tourism. (Khmer Times, 2020. **51,000 tourism-based jobs in Cambodia vapourised because of COVID-19 pandemic**)

Low productivity and low-wage sectors such as agriculture and wholesale and retail trade in Cambodia could have an overall net gain in employment in 2020 compared to the baseline, as a result of absorbing displaced workers from other sectors, and those returning to rural areas, including migrant workers returning from Thailand or other effected countries. (Sivchuong, L., Pov, M., Reasey, L., & Channeary, U., 2021. **Rapid assessment of emerging needs for workers and skills in times of the COVID-19 crisis**. National Employment Agency, Phnom Penh, Cambodia)

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Annex 3. Pathways for Diversifying Exports and Enhancing Comparative Advantages[90]

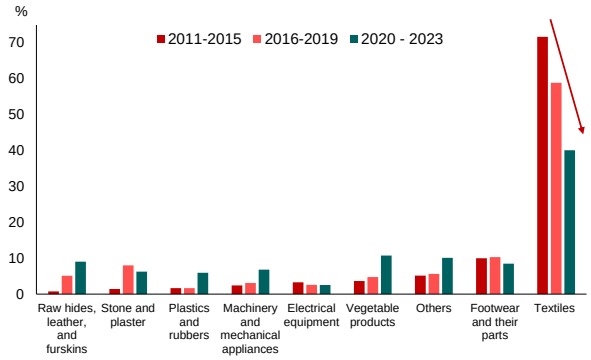
Initially reliant on traditional industries such as garments and textiles, Cambodia has gradually diversified its export sector and integrated deeper into global value chains (GVCs) over the past decade. A dynamic global trade network provides opportunities for Cambodia to engage more in GVCs. However, the country also faces challenges, such as intensifying competition, that complicate its efforts to climb up the ladders of GVCs. Cambodia needs to identify its comparative advantages and implement clearer strategies to fully utilize the opportunities while overcoming the challenges. Given this context, this Selected Issue focuses on two questions: (i) How have Cambodia's exports and GVC participation evolved over the past decade? and (ii) What sectors and products should the government prioritize to enhance its comparative advantages and diversify Cambodia's exports?

Cambodia's Export Performance

1. Cambodia has started diversifying its export goods as well as trading partners over the past decade.

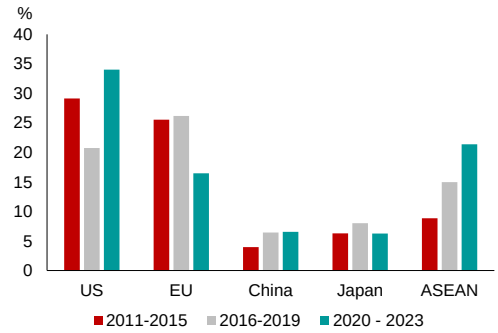
- First, although textiles continue to be an export mainstay for Cambodia, its shares of total exports have declined from about 70 percent in 2011 to 40 percent in 2023. Cambodia also witnessed the emergence of significant non-garment exports in 2023 (Figure A3.1). In particular, industries such as machinery appliances, raw leather, furniture, plastics, and rubbers have gained prominence. The decrease in the share of textile exports over the past decade signals a move toward greater export diversification and underscores the country's proactive approach toward embracing new opportunities in the global trade network.
- Second, Cambodia's key export markets include the U.S. (36.5 percent of total exports, as of 2023) and the E.U. (15 percent), ASEAN countries (20.9 percent), China (6.5 percent), and Japan (6 percent). Notably, Asia and the U.S. remain important trading partners for Cambodia (Figure A3.2), underscoring the importance of regional and trans-Pacific trade linkages. Any shifts in the trade linkages among these key partners, especially the US and China, will have substantial impact on Cambodia's export momentum in the years ahead.

Figure A3.1. Cambodia's Export Shares by Manufacturing Sector



Source: Global Trade Atlas (GTA), AMRO staff calculations

Figure A3.2. Cambodia's Key Export Destinations



Source: GTA, AMRO staff calculations

Cambodia's GVC Participation

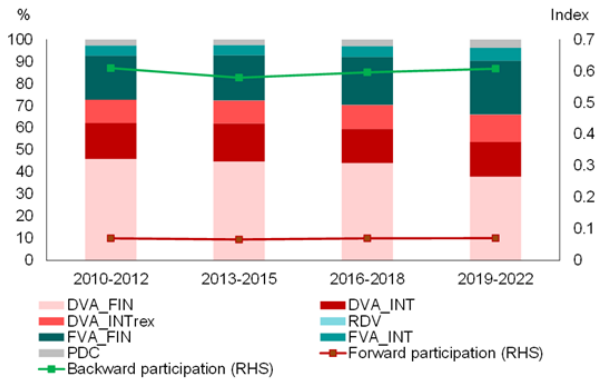
[90] Prepared by Trung Thanh Vu, Associate Economist

2. Decomposing Cambodia's export data can provide insights into the country's strategy to diversify its exports and enhance its comparative advantages. Data used for the analyses include Asian Development Bank Multi-Regional Input-Output (ADB MRIO) data from 2010 to 2022, which covers both manufacturing and service exports, and Global Trade Analysis (GTA) mirror data, focusing on HS6 codes on manufacturing exports. The methodological framework is based on the decomposition of gross exports into various components, including domestic value added (DVA) and foreign value added (FVA) using the ADB MRIO introduced by Wang, Wei, and Zhu (2018, see Appendix A3.1). Additionally, this Selected Issue employs a theory of economic complexity proposed by Hausman et al. (2013) to estimate several derived indicators—including Revealed Comparative Advantage (RCA), Diversity, Ubiquity, and Opportunity Gain—using the GTA data (See Appendix A3.2).

3. Our analysis indicates that Cambodia gains a modest share of domestic value-added in its exports. Its DVA accounted for nearly 65 percent of its exports, of which DVA in final products (DVA_FIN) accounted for a major portion (Figure A3.3). That said, within the DVA category, there has been a slight increase in the share of DVA in intermediate goods (that are exported to a counterpart country (DVA_INT) and re-exported to third countries (DVA_INTrex), This suggests that, as a whole, Cambodia mainly exports products with minimal processing and low domestic value-added. However, early signs have emerged in certain sectors indicating that the country is slowly beginning to move up the ladder of the GVC.

- Cambodia's backward participation linkage[91] has not shown significant improvements over the past decade (Figure A3.3), reflecting a reliance on foreign inputs and the limited capacity of industrial activities in the country. The high reliance on foreign inputs also underscores the importance of enhancing local sourcing capabilities and bolstering supporting industries in Cambodia.
- Meanwhile, Cambodia's involvement in forward participation linkage[92] within the GVC has been modest, with a large share of FVA in final exports (FVA_FIN) (Figure A3.3). A large share of FVA_FIN indicates that Cambodia mainly engages in final assembly activities based on imported components and participates in cross-country production sharing at the low end of the GVC.

Figure A3.3. Decomposition of Cambodia's Exports by GVC Components



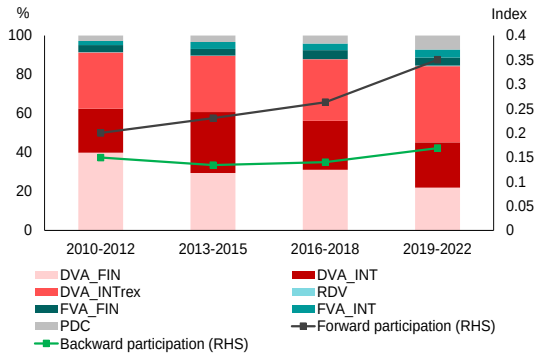
Source: ADB MRIO, AMRO staff calculations
Note: The figure includes all sectors including agriculture, manufacturing, and services. A higher forward participation rate indicates a stronger position in value-added activities. A higher backward participation rate indicates a country depends more on imported inputs for its production, suggesting a relatively weaker position in value-added activities.

[91] Backward participation linkage index is measured by the ADB using Borin and Mancini framework (2019) by origin-sector breakdown. The BPL is calculated using the foreign value added and pure double-counting components embedded in a country's exports. It captures the extent to which a country's production relies on foreign inputs.
[92] Forward participation linkage index is measured by the ADB using Borin and Mancini framework (2019) by origin-sector breakdown. The FPL is calculated using the domestic value added component that is re-exported to the third country or returned the home country. It captures the extent to which a country's exports are used as intermediate inputs by other countries in a production process.

4. A cross-sector comparison suggests that Cambodia has advanced its GVC linkages in agriculture, while its involvement in the manufacturing sector has predominantly centered on lower value-added activities.

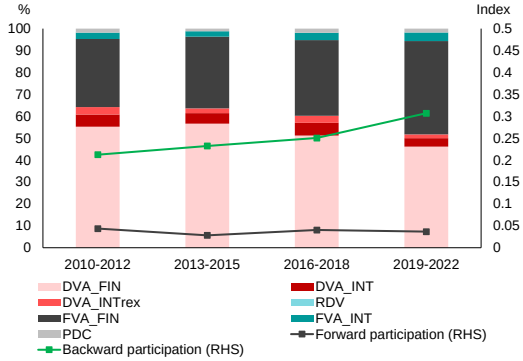
- In particular, Cambodia gains a large share of DVA in its exports of agriculture and services (Figure A3.4 and A3.7). The country's forward participation linkage is also higher than the backward participation linkage in the agriculture sector, indicating that it has engaged in higher value-added stages of production. Furthermore, a large share of DVA in intermediate products (DVA_INTrex and DVA_INT) implies that Cambodia is upgrading its agricultural industry by producing intermediate goods for other countries, especially when a growing number of agricultural products[93] are exported to third countries for final goods production.
- However, decomposing Cambodia's manufacturing exports reveals the opposite (Figure A3.5 and A3.6). Low and declining forward participation linkage and high and rising backward participation linkage suggest that the country remains dependent on imported inputs for its production processes. This implies a need to strengthen domestic production capabilities in the manufacturing sector while enhancing the complexity of its products. Moreover, some manufacturing industries such as textiles and garments that account for the biggest share of Cambodia's export profile need further attention and targeted interventions.

Figure A3.4. Agriculture
(23.8% of total exports in 2019-2022)



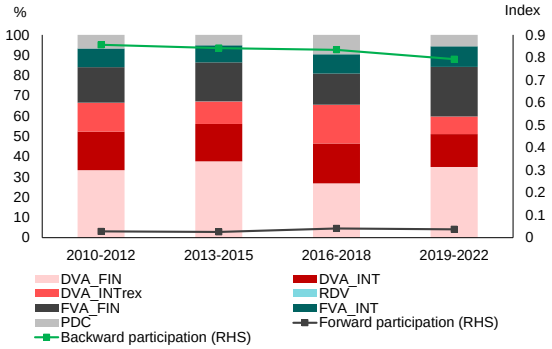
Source: ADB MRIO, AMRO staff calculations

Figure A3.5. Light Manufacturing
(44% of total exports in 2019-2022)



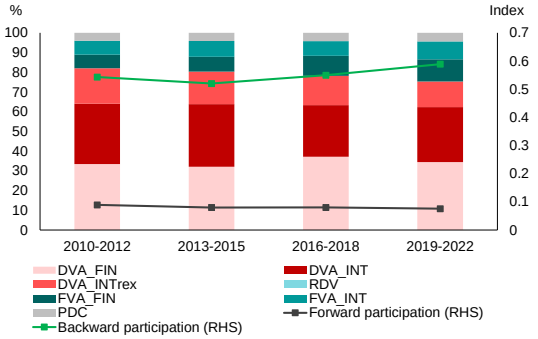
Source: ADB MRIO, AMRO staff calculations
Note: Light manufacturing sector includes textiles, food, wood, paper, rubber, plastic, and other non-metallic mineral.

Figure A3.6. Heavy Manufacturing
(2.4% of total exports in 2019-2022)



Source: ADB MRIO, AMRO staff calculations
Note: Heavy manufacturing sector includes chemical, chemical products, refined petroleum, metals, machinery, electrical optical equipment, and transport equipment.

Figure A3.7. Services
(29.8% of total exports in 2019-2022)



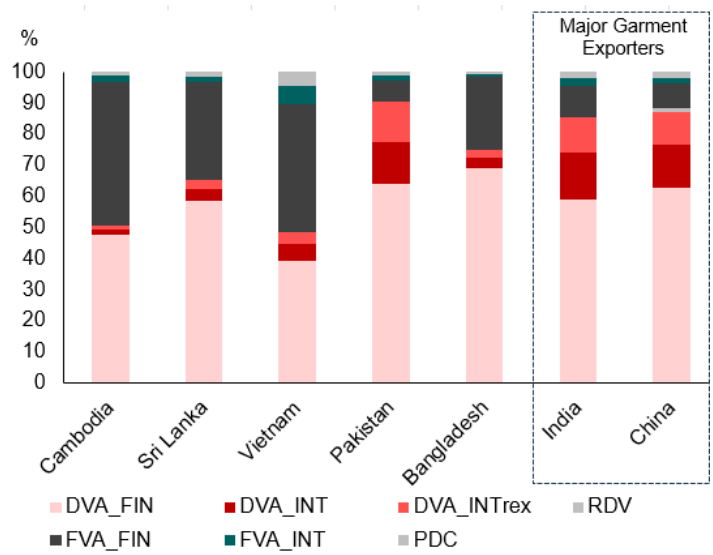
Source: ADB MRIO, AMRO staff calculations
Note: Services includes trade services, hotels and restaurants, transport services, telecommunications, real estate activities, and other services.

[93] Cambodia has been exporting a variety of agricultural products such as rice, cassava, cashew nuts, and peppers. Processing these products rather than exporting raw materials has created value addition. For example, cashew can be processed into products such as cashew butter, cashew milk, and roasted cashews. Cassava can be processed into starch, flour, and biofuel.

5. Compared to its peers, Cambodia focuses more on exports of final products and relies more on foreign countries' inputs for manufacturing exports.

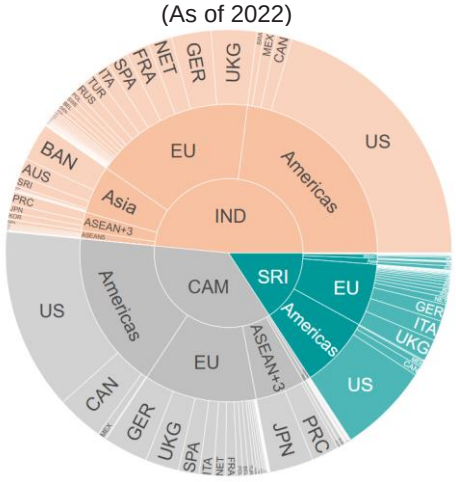
- Garment and textile exports provide a good example of Cambodia's comparative position in the GVC. The DVA accounts for about 50 percent of Cambodia's garment exports, primarily in DVA in final products. However, its peers exhibit a higher share of DVA in their exports (Figure A3.8).[94] Notably, countries such as India and Pakistan stand out for the significant share of DVA in their intermediate products (DVA_INT and DVA_INTrex), suggesting their elevated positioning within the garment and textile GVC.
- Sources of FVA play a crucial role in understanding the interconnectedness between Cambodia and other countries in the GVC. FVA components stem from diverse and often geographically dispersed sources (Figure A3.9), highlighting the intricate interconnectedness within the GVC. Moreover, this connectedness not only underscores the complexity of the modern global trade network but also renders participating countries highly susceptible to disruptions from negative shocks. Given Cambodia's high share of FVA in its exports, it is even more vulnerable and less reactive to such disruptions. Therefore, this emphasizes the importance of enhancing Cambodia's own manufacturing capacities.

Figure A3.8. Decomposition of Garment Export by Country
(2019-2022)



Source: ADB MRIO, AMRO staff calculations
Note: Countries are ranked based on their global share of garment exports in terms of domestic value added as of 2022.

Figure A3.9. Distribution of FVA Sourcing Countries for Selected Garment Exporters
(As of 2022)



Source: ADB MRIO, AMRO staff calculations
Note: The core of the pie chart indicates selected garment exporters, including India, Sri Lanka, and Cambodia (referred to as IND, SRI, and CAM, respectively). The outskirts of the chart include the corresponding FVA sourcing countries for these garment exporters.

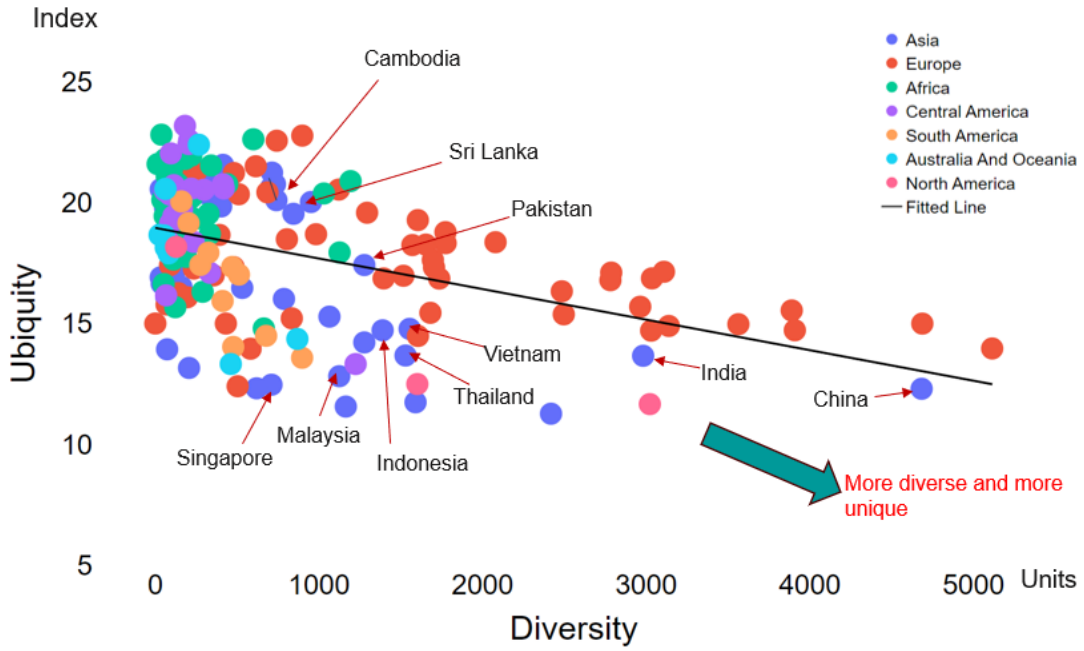
Export Diversification: Quo Vadis?

6. An analysis using metrics on diversity and ubiquity[95] provides insights into Cambodia's current position relative to other countries and suggests pathways to upgrade its standing. Figure A3.10 illustrates a cross-country comparison of the diversity

[94] These peers are selected based on the global share of their garment exports as of 2022 using ADB MRIO data. Cambodia's garment exports have the same global share as that of Sri Lanka, albeit lower than those of Bangladesh, Pakistan, and Vietnam. China and India are two major garment exporters, accounting for more than 50 percent of global garment exports.
[95] Diversity is a measure of how many types of products a country is able to make. Ubiquity is a measure of how many countries are able to effectively make a product. See the definitions in more details in Appendix A3.2.

and ubiquity, in which each dot indicates an individual country's position.[96] Cambodia's exports are characterized by a lower degree of diversity compared to its peers. Moreover, the average ubiquity of Cambodian products exceeds what would be expected given its level of diversity (Figure A3.10). This suggests Cambodia primarily produces goods that are already produced by other countries. This also reaffirms that, although Cambodia has made efforts to diversify its exports, its exports have remained concentrated in certain sectors such as agricultural products and textiles, and centered on low-value-added activities. Despite this, Cambodia has various opportunities to improve its position. The shift in its export profile over the past decade suggests Cambodia has already started the initial stages of structural transformation by reallocating its economic activities and resources of the economy toward sectors other than textiles. Figure A3.10 also suggests various ways for Cambodia to upgrade its standing. It can increase its diversity and enhance its competitiveness by either focusing on new products (going to the right in Figure A3.10), or promoting its ubiquity by becoming involved in higher value-added segments in the same product cluster (going down in Figure A3.10), or improving both diversity and ubiquity (going southeast in Figure A3.10).

Figure A3.10. Cross-Country Comparison of Diversity and Ubiquity Measures



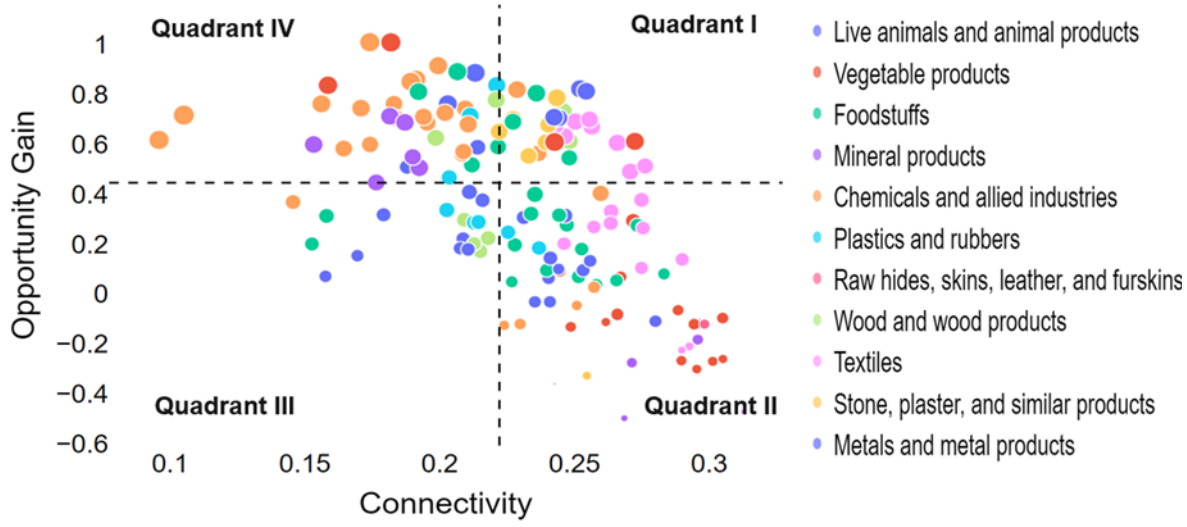
Source: GTA and AMRO staff estimates
Note: Data are as of December 2023, covering 180 countries and all HS6 code items.

7. The selection of strategic manufacturing sectors should be guided by multiple factors, including complexity, connectivity, and opportunity gain. We apply the methodology introduced by Hausman et al. (2013) to estimate industry-specific indices of opportunity gain, trade connectivity, and product complexity for Cambodia's export products, as presented in Figure A3.11, to gain insights into which strategic industries the country should focus on. The challenge comes from trade-offs among those factors. For Cambodia to export higher value-added products and benefit from higher opportunity gain, it may need to enter a more complex manufacturing industry in which it has little experience. Attracting foreign direct investment (FDI) and encouraging foreign technological transfers are one possible solution. However, it will typically take time to absorb new knowledge and technologies. Furthermore, attracting FDI does not necessarily lead to entrance into high-value-added sectors if Cambodia

[96] Diversity and ubiquity are a crucial factor influencing countries' competitiveness. The observed negative relationship between diversity and average ubiquity reaffirms that highly diversified economies often excel in producing goods with a larger RCA in less common products.

does not have a solid strategy and capacity to absorb technological transfers. In the long run, the continuation of FDI flows may not guaranteed if multinational enterprises seek more attractive locations other than Cambodia. Thus, one solution is to favor products for which Cambodia already has some requisite capabilities and connectivity so that it is easier for Cambodia to overcome this technological problem. The metric of product complexity, connectivity, and opportunity gains suggests two broad options for Cambodia, namely, "*Balanced Strategy*" and "*Big Jump Strategy*", which provide higher-than-average opportunity gains. First, the so-called "Balanced Strategy" focuses more on the exports of manufacturing sectors that have higher connectivity (Quadrant I in Figure A3.11). Second, in the "Big Jump Strategy", Cambodia can focus more on the manufacturing sectors that have higher complexity but less connectivity than those of "Balanced Strategy" (represented by a larger bubble size in Quadrant IV in Figure A3.11).

Figure A3.11. Opportunity Gain, Complexity, and Connectivity by Industry



Source: GTA, AMRO staff estimates
Note: Data are as of December 2023, covering 180 countries and all HS6 code items. Opportunity gain quantifies how a new product can open paths to more complex products. Connectivity indicates the closeness of connection in the trade network. The size of the bubble represents the product complexity (The larger the bubble, the higher complexity of the product). The vertical and horizontal lines represent the average of opportunity gain and density, respectively. Indices are calculated based on methodology introduced by Hausman, Hidalgo, and others in 2013.

8. Diversification will require support from the government and the attraction of more strategic and viable investments.

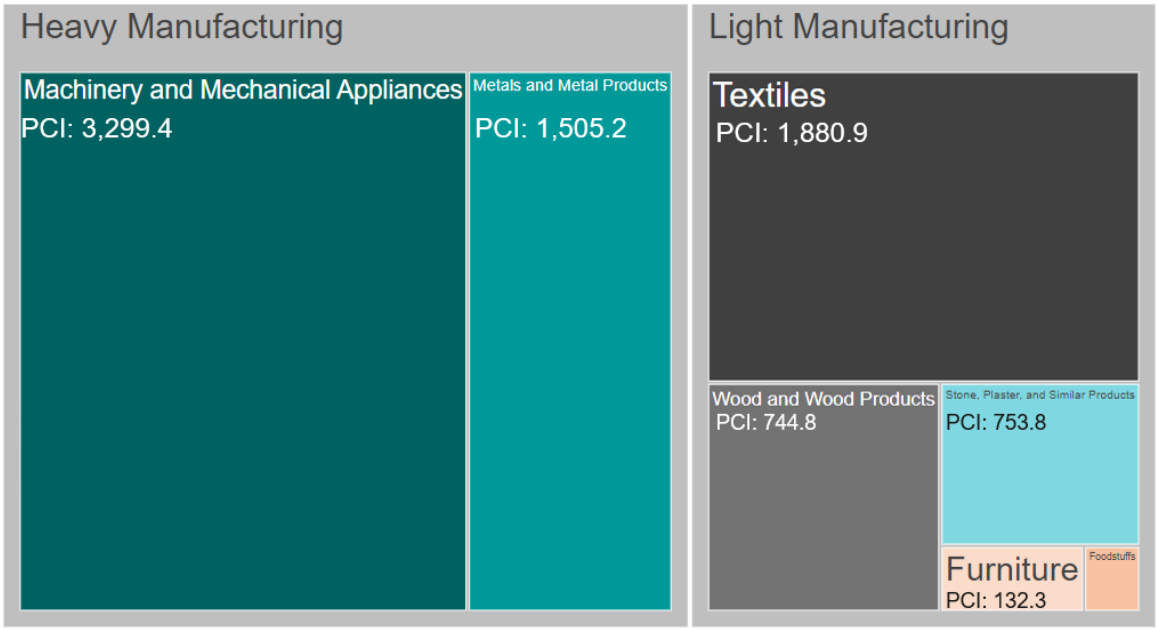
- Analysis using the metric of product complexity, connectivity, and opportunity gains in the previous paragraph suggests two strategies for Cambodia. First, the so-called "Balanced Strategy" can help Cambodia benefit from higher opportunity gains, and diversifying products will have higher trade connectivity but less complexity. More specifically, this strategy focuses on sectors in Quadrant I of Figure A3.11, such as food processing, agricultural products, garments, and textiles, while scaling up machinery appliances and metal products (Figure A3.12). Pursuing this strategy will require further allocating investments in developing Cambodia's SMEs and local sources, while gradually promoting industrial diversification.[97]
- Second, another more ambitious strategy, the so-called "Big Jump Strategy", focuses on products that have lower trade connectivity but high complexity. More specifically, this strategy focuses more on sectors in the Quadrant IV of Figure A3.11, such as heavy manufacturing including mechanical appliances, chemical industries, electrical equipment,

[97] The findings also align with the government's strategy, particularly the "Cambodia Garment, Footwear and Travel Goods (GFT) Sector Development Strategy 2022-2027" announced by the Royal Government of Cambodia in 2022. The GFT sector continues to be a part of the government's strategic vision to further develop Cambodia's export diversification and competitiveness.

medical instruments, and metal products (Figure A3.13). Pursuing this strategy will require attracting more foreign investment in high-tech manufacturing and high-value-added industries, nurturing talent in human resources; and enabling relevant ecosystems.

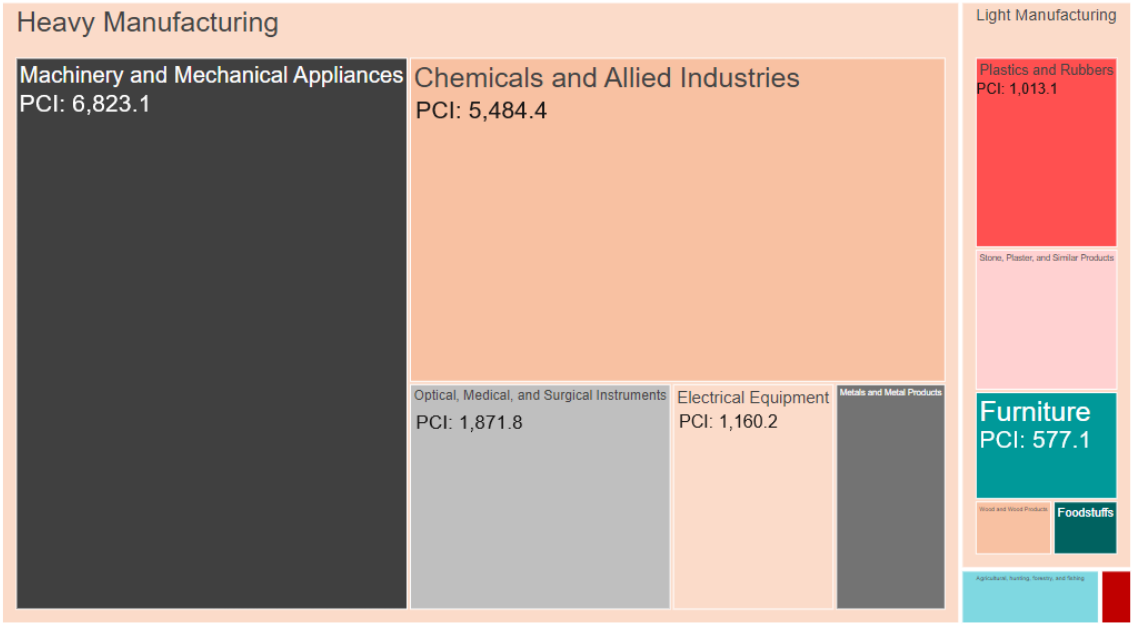
- Between the two strategies, the "Balanced Strategy" would be more practical and suitable, as it can leverage Cambodia's existing comparative advantages. Furthermore, by focusing on gradual diversification, the "Balanced Strategy" allows Cambodia to diversify its export portfolio without abrupt shifts, making the transition less risky compared to the "Big Jump Strategy."
- In general, pursuing these two strategies will result in several benefits for Cambodia, including (i) higher economic growth thanks to strategic structural transformation, (ii) enhancing competitiveness thanks to the enhancement of product complexity and skillful labor, and (iii) attracting more quality FDI and integrating deeper into the GVC.
- However, there can be some adverse effects that the government should be mindful of, including (i) environmental and social consequences if the industrialization process is poorly managed, (ii) an over-reliance on foreign investors, and (iii) economic distortions in the short-term due to the ambitious nature of the strategies.

Figure A3.12. Strategic Products Proposed by the Balanced Strategy



Source: GTA, AMRO staff estimates
Note: Data are as of December 2023. Selected products are those located in the northeast area (Quadrant I) of Figure A3.11. Products are selected based on (i) their connectivity is larger than the average connectivity of all Cambodia's export products, and (ii) their opportunity gain is larger than the average opportunity gain of all Cambodia's export products. Products that have higher opportunity gains are often those having higher complexity. PCI refers to product complexity index. The size of each industry in the figure represents the product complexity index for that industry.

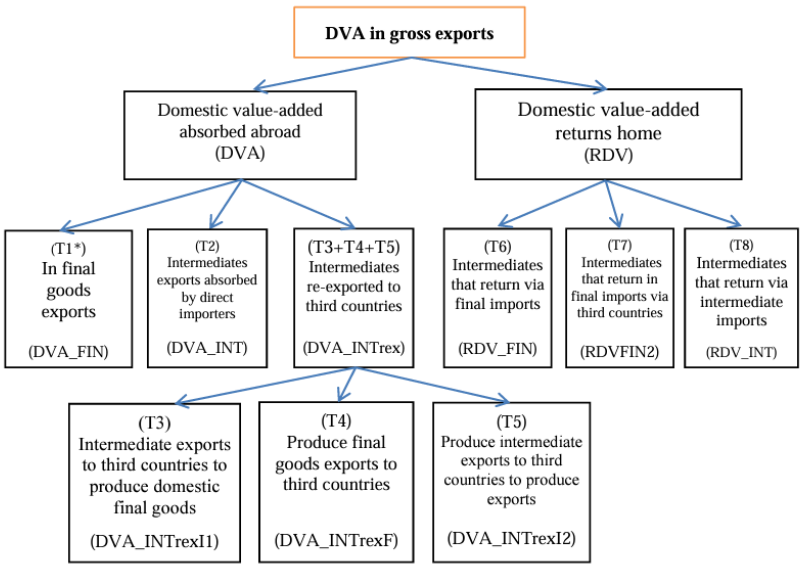
Figure A3.13. Strategic Products Proposed by the Big Jump Strategy

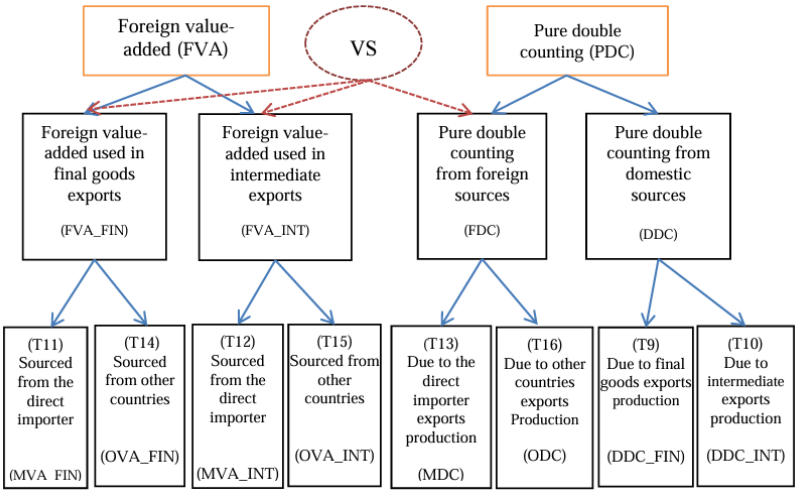


Source: GTA, AMRO staff estimates
Note: Data are as of December 2023. Selected products are those located in the northwest area (Quadrant IV) of Figure A3.11. Products are selected based on (i) their connectivity is smaller than the average connectivity of all Cambodia's export products, and (ii) their opportunity gain is larger than the average opportunity gain of all Cambodia's export products. Products that have higher opportunity gains are often those having higher complexity. PCI refers to product complexity index. The size of each industry in the figure represents the product complexity index for that industry.

Appendix A3.1: Export Decomposition

Wang, Wei, and Zhu (2018) used an accounting framework to decompose gross exports into several components including domestic value added, foreign value added embodied in final and intermediate exports, and pure double counting. The detailed components can be seen below. The charts are adapted from Wang, Wei, and Zhu (2018).





Appendix A3.2: Economic Complexity

The theoretical framework of economic complexity is based on "The Atlas of Economic Complexity" introduced by Hausman, Hidalgo, and others in 2013.

Revealed Comparative Advantage (RCA) is a measure of whether a country is a competitive exporter of a product. The RCA for country c and product p is measured as

$$\mathrm{RCA}_{\mathrm{cp}} = \frac{\mathrm{X}_{\mathrm{cp}} / \Sigma_{\mathrm{c}} \mathrm{X}_{\mathrm{cp}}}{\Sigma_{\mathrm{p}} \mathrm{X}_{\mathrm{cp}} / \Sigma_{\mathrm{c}} \Sigma_{\mathrm{p}} \mathrm{X}_{\mathrm{cp}}}$$

The M_{cp} matrix is defined as

$$M_{cp} = \begin{cases} 1 & if \ \ RCA_{cp} \geq 1 \\ 0 & otherwise \end{cases}$$

Diversity refers to the number of products that a country exports. It is defined as

$$Diversity = k_{c,0} = \sum_{p} M_{cp}$$

Ubiquity refers to the number of countries that export a product. It is defined as

$$Ubiquity = k_{p,0} = \sum_{c} M_{cp}$$

The product Complexity Index corrects diversity and ubiquity and is defined as the eigenvector associated with the second-largest eigenvalue of an $\widetilde{M_{p,p\prime}^{P}}$,matrix,

$$\tilde{M}_{p,p'}^{P} = \sum_{c} \frac{M_{cp} M_{cp'}}{k_{c,0} k_{p,0}}$$

$$k_{p,n} = \frac{1}{k_{p,0}} \sum_{c} M_{cp} \cdot k_{c,n-1}$$

The proximity matrix or Connectivity measures the easiness of moving from one product to another. The proximity matrix ($\phi_{p,p'}$) is defined as

$$\phi_{p,p'} = \frac{\sum_c M_{cp} M_{c'p}}{\max\left(k_{p,0}, k_{p',0}\right)}$$

The opportunity gain (OG_{cp}) index quantifies how a new product can open paths to more complex products. It is calculated as

$$OG_{cp} = \left[\sum_{p'} \frac{\phi_{p,p'}}{\sum_{p''} \phi_{p'',p'}} \left(1 - M_{cp'}\right) PCI_{p'}\right]$$

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