CAMBODIA

2023 ARTICLE IV CONSULTATION—PRESS RELEASE; AND STAFF REPORT

Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. In the context of the 2023 Article IV consultation with Cambodia, the following documents have been released and are included in this package:

- A **Press Release**.

- The **Staff Report** prepared by a staff team of the IMF for the Executive Board's consideration on a lapse-of-time basis following discussions that ended on October 31, 2023, with the officials of Cambodia on economic developments and policies. Based on information available at the time of these discussions, the staff report was completed on December 12, 2023.

- An **Informational Annex** prepared by the IMF staff.

- A **Debt Sustainability Analysis** prepared by the staffs of the IMF and the World Bank.

The IMF's transparency policy allows for the deletion of market-sensitive information and premature disclosure of the authorities' policy intentions in published staff reports and other documents.

IMF Executive Board Concludes 2023 Article IV Consultation with Cambodia

FOR IMMEDIATE RELEASE

Washington, DC – January 31, 2024: The Executive Board of the International Monetary Fund (IMF) concluded the Article IV consultation[1] with Cambodia.

Cambodia is on a recovery trajectory post-pandemic, with a GDP growth of 5.2 percent in 2022. The manufacturing sector has been the cornerstone of this recovery, adding over 3 percent to the real GDP. While agriculture faced challenges due to weather and rising costs, the service sector made a strong comeback. Electronics exports, particularly solar panels, have shown resilience, offsetting a decline in garment exports. Tourism is also recovering, boosted by the 2023 South-East Asia Games.

Inflation has been volatile and after a period of declining from the peak in June last year, it rebounded to 3.9% in October due to higher food and fuel prices. The central bank has gradually unwound pandemic-era support measures, including increasing reserve requirements for foreign currencies. Fiscal positions have improved in 2022 due to stronger-than-expected revenue performance. The current account deficit has also narrowed, primarily due to reduced gold imports.

The economy is projected to grow by 5.3 percent in 2023, fueled by a resurgence in tourism and strong performance in non-garment exports. However, risks are skewed to the downside. Weaker-than-expected growth in the U.S., accounting for over 40 percent of Cambodia's exports, and China pose significant risks. Additionally, U.S. monetary tightening and high levels of private debt in Cambodia could impact growth. Geopolitical tensions and trade policy uncertainties add another layer of risk, as do commodity price fluctuations and climate events.

The fiscal deficit is expected to widen in 2023 due to a combination of factors: extended targeted social supports to households and firms affected by the COVID-19 pandemic and the cost-of-living crisis; increased spending associated with the 2023 South-East Asia Games and the General Election; and the finalization of incomplete infrastructure projects from 2022. Starting from 2024, the deficit is projected to narrow in line with the authorities' commitment to scaling back temporary support measures (including cash transfers), while retaining targeted fiscal support to the poor through social protection system reform. Public debt to GDP is projected to increase moderately

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[1] Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. A staff team visits the country, collects economic and financial information, and discusses with officials the country's economic developments and policies. On return to headquarters, the staff prepares a report, which forms the basis for discussion by the Executive Board.

during the next decade and the risk of debt distress remains low, although there are vulnerabilities from shocks to exports and growth.

Executive Board Assessment[2]

The Cambodia economy is continuing to recover from the pandemic. The economy achieved 5.2 percent growth in 2022 and is projected to grow by 5.3 percent in 2023. The main drivers of growth are the expansion of non-garment goods exports and a rebound in tourism. But garment exports, a major contributor to growth in the past, remains weak. And the compositional shift in tourist arrivals means the country is receiving less income per tourist compared to the pre-pandemic era.

Though the rebound has continued, downside risks are significant. The near-term threats to growth include continued demand weakness from advanced-economy trade partners, recovery slowdown in China, high level of private debt domestically and tighter global financial conditions. Over the medium term, geopolitical tension and trade fragmentation, structural decline in growth from China, as well as climate change may pose important challenges to growth.

Fiscal policy in 2023 was appropriately expansionary, but as recovery progresses, fiscal consolidation should start. The fiscal stance should return to neutral in 2024 as pandemic-related spending needs subside and economic recovery continues. Over the medium term, strengthening tax base as well as tax and customs administration is crucial for safeguarding revenues, especially given the revenue erosion from various tax incentives and the already low revenue-to-GDP ratio. Improving evaluation and execution of public investments will ensure spending is appropriately directed to support economic development.

Monetary policy needs to continue normalizing towards the pre-pandemic setting. The phasing out of pandemic-related forbearance measures and the increase of USD reserve requirement are welcome. NPLs should continue to be adequately provisioned for. After the breakneck expansion in recent years, credit growth should be allowed to recalibrate, to reflect a normalization of financial conditions, especially given the high private sector indebtedness. Improvement in supervisory framework, as well as in data gathering and analysis, should continue. Legal and operational frameworks for corporate insolvency and bank resolution need to be strengthened.

To ensure sustained progress in elevating living standards over the medium term, substantial reforms are needed. Provision of human capital, both quality and quantity, needs to improve to accommodate the changing needs of the economy, as the comparative advantage in labor cost diminishes at a higher income level. Investments in key infrastructure, such as in transportation, energy, logistics and telecommunication, will support more diversified industries and increase the scale of operation.

Governance and anti-corruption reforms are important to attract new FDIs and sustain high growth. Improvements in public governance and anti-corruption will reduce the cost of doing business, help

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[2] The Executive Board takes decisions under its lapse-of-time procedure when the Board agrees that a proposal can be considered without convening formal discussions.

draw investments from a wider range of source countries and improve Cambodia's attractiveness as a tourist destination. It is critical to strengthen frameworks on asset declarations, whistleblower protection and access to information. Adequate resources and authorities should be allocated to oversight and investigative bodies.

Table 1. Cambodia: Selected Economic Indicators, 2020 – 28

Per capita GDP (2022, US$): 1,546   Life expectancy (2019, years): 75.5

Population (2022, million): 16.7   Literacy rate (2019, percent): 87.7

	2020	2021	2022	2023	2024	2025	2026	2027	2028
						Proj.			
Output and prices (annual percent change)									
GDP in constant prices	-3.1	3.0	5.2	5.3	6.0	6.4	6.5	6.2	6.3
Inflation (end-year)	2.9	3.7	2.9	3.7	3.0	3.0	3.0	3.0	3.0
(Annual average)	2.9	2.9	5.3	2.3	3.0	3.0	3.0	3.0	3.0
Saving and investment balance (in percent of GDP)									
Gross national saving	21.5	-18.1	-1.6	22.4	18.6	18.5	18.5	18.4	18.1
Government saving	3.5	0.4	3.1	4.1	5.1	6.1	7.1	8.1	9.1
Private saving	18.1	-18.5	-4.7	18.3	13.5	12.4	11.4	10.4	9.0
Gross fixed investment	24.9	23.9	24.5	24.5	24.5	24.5	24.5	24.5	24.5
Government investment	8.8	9.0	7.7	10.8	8.1	8.4	8.7	8.6	8.7
Private investment	16.1	14.9	16.8	13.7	16.4	16.1	15.8	15.9	15.8
Money and credit (annual percent change, unless otherwise indicated)									
Broad money	15.3	16.4	8.2	14.9	11.0	12.3	11.4	12.8	8.3
Private sector credit	17.2	23.6	18.5	11.0	13.0	13.5	13.5	13.5	13.5
Velocity of money 1/	0.8	0.8	0.7	0.7	0.7	0.6	0.6	0.6	0.6
Public finance (in percent of GDP)									
Revenue	23.9	21.6	23.9	23.0	23.2	23.3	23.4	23.5	23.6
Domestic revenue	22.0	20.0	22.2	21.7	21.9	22.0	22.1	22.2	22.4
Of which: Tax revenue	19.7	18.0	20.0	18.9	19.1	19.2	19.3	19.4	19.6
Grants	1.9	1.6	1.8	1.3	1.3	1.3	1.3	1.2	1.2
Expenditure	27.3	28.6	24.9	26.6	25.2	26.0	26.3	26.1	26.1
Expense	18.5	19.6	17.2	15.9	17.1	17.6	17.6	17.5	17.5
Net acquisition of nonfinancial assets	8.8	9.0	7.7	10.8	8.1	8.4	8.7	8.6	8.7
Net lending (+)/borrowing(-)	-3.4	-7.1	-1.0	-3.6	-2.0	-2.7	-2.9	-2.6	-2.6
Net lending (+)/borrowing(-) excluding grants	-5.3	-8.6	-2.7	-4.9	-3.3	-4.0	-4.2	-3.8	-3.8
Net acquisition of financial assets	0.6	-4.0	2.5	-0.4	1.0	0.1	-0.4	0.1	0.5
Net incurrence of liabilities 2/	4.0	3.0	3.4	3.2	2.9	2.8	2.5	2.7	3.0
Total public debt (In percent of GDP)	34.4	35.9	34.8	35.8	36.3	36.5	36.3	36.4	36.8
Balance of payments (in millions of dollars, unless otherwise indicated)									
Exports, f.o.b.	18,470	19,527	23,179	23,387	25,229	27,361	29,686	32,209	34,944
(Annual percent change)	23.2	5.7	18.7	0.9	7.9	8.5	8.5	8.5	8.5
Imports, f.o.b.	-20,993	-30,726	-32,005	-27,360	-30,760	-33,226	-36,004	-39,075	-42,468
(Annual percent change)	-5.7	46.4	4.2	-14.5	12.4	8.0	8.4	8.5	8.7
Current account (including official transfers)	-870	-11,179	-7,535	-647	-1,954	-2,141	-2,312	-2,521	-2,860
(In percent of GDP)	-3.4	-42.0	-26.1	-2.1	-5.9	-6.0	-6.0	-6.1	-6.4
Gross official reserves 3/	21,334	21,119	17,805	20,869	23,348	25,881	28,534	31,478	34,583
(In months of prospective imports)	7.8	7.3	7.1	7.4	7.7	7.8	8.0	8.1	8.2
External debt (in millions of dollars, unless otherwise indicated)									
Public external debt	8,810	9,505	9,971	10,926	11,805	12,727	13,627	14,701	15,937
(In percent of GDP)	34.4	35.9	34.8	35.6	35.8	35.8	35.5	35.5	35.7
Public debt service	365	397	427	413	430	446	461	482	503
(In percent of exports of goods and services)	1.8	2.0	1.7	1.5	1.4	1.4	1.3	1.2	1.2
Memorandum items:									
Nominal GDP (in billions of Riels)	105,892	110,506	121,030	131,086	142,221	155,128	169,582	184,812	201,549
(In millions of U.S. dollars)	25,771	26,601	28,818	30,872	33,130	35,744	38,649	41,662	44,941

Sources: Cambodian authorities; and IMF staff estimates and projections.

1/ Ratio of nominal GDP to the average stock of broad money.

2/ Includes statistical discrepancy.

3/ Includes unrestricted foreign currency deposits held at the National Bank of Cambodia.

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CAMBODIA

STAFF REPORT FOR THE 2023 ARTICLE IV CONSULTATION

December 12, 2023

KEY ISSUES

Context: Cambodia has experienced rapid growth over the past decade, outpacing many regional peers. Growth was driven by industrialization, increased foreign direct investment, and a surge in exports, particularly in labor-intensive manufacturing. The economy underwent significant structural shifts and has made strides in poverty reduction. However, the COVID-19 pandemic caused significant setbacks and may have left longer-term scarring. The challenges ahead are to sustain inclusive growth, diversify exports, and navigate potential headwinds from China's slowing growth.

Recent Development and Risks: The Cambodian economy is continuing its recovery from the pandemic, with a GDP growth of 5.2 percent in 2022, driven primarily by manufacturing exports, especially in garments and electronics. Tourism saw a continued rebound in 2023, reaching close to 80 percent of pre-pandemic tourist arrival levels by September 2023. Despite a deceleration in Q1 2023, economic activity picked up in Q2, supported by tourism and non-garment exports. Inflation, after dropping significantly in H1 2023, has since rebounded. The fiscal deficit is projected to widen in 2023 due to temporary increases in spending and is expected to decrease in 2024. While growth is anticipated to be around 5.3 percent in 2023, there is significant uncertainty, with risks skewed to the downside, including a protracted slowdown in import demand from advanced economies trading partners, a weakening of the Chinese economy, larger-than-expected impacts of US monetary tightening, high private debt, and geo-economic fragmentation risks.

Policy Recommendations:

- **Fiscal policy:** In the short term, return to a neutral fiscal stance and improve the fiscal position as growth and revenues expand. Prioritize development objectives while protecting fiscal sustainability, with a focus on improved fiscal planning and administration. Implement a fiscal rules framework that emphasizes a medium-term anchor on the debt-to-GDP ratio and an operational ceiling on the fiscal deficit. Strengthen public investment management, focusing on improved coordination, capacity building, and project monitoring.

- **Monetary and exchange rate policy:** Continue the normalization of pandemic-era policy measures, ensuring a neutral monetary stance. Enhance monetary transmission and support de-dollarization by modernizing monetary and FX policy

operations. Establish an effective interest rate corridor and develop an accurate liquidity forecasting framework. Strengthen the market determination of exchange rates and improve operation of FX intervention procedures.

- **Financial sector policy:** Closely monitor the recent deteriorations in asset quality and the high levels of private sector debt. Adequately provision for NPLs. Strengthen the supervisory framework of the National Bank of Cambodia, emphasizing risk-based supervision and the implementation of Basel III. Develop a comprehensive macroprudential policy strategy, including borrower-based measures. Improve legal and operational frameworks for bank resolution. Further enhance the AML/CFT framework and its implementation including tackling gold smuggling.

- **Structural policies:** Formulate a comprehensive development strategy towards upper-middle-income status, focusing on developing new growth drivers. Diversify trade and investment partners to enhance economic resilience and improve trade competitiveness. Prioritize investment in renewable energy infrastructure and industries, capitalizing on global decarbonization trends.

- **Governance**: Improve public governance and transparency by implementing robust anti-corruption measures and addressing institutional weaknesses. Continue efforts to improve governance frameworks. Mitigate weaknesses through approving essential laws, digitizing tracking and reporting systems, and allocating adequate resources to oversight and investigative bodies.

Approved by	Discussions took place in Phnom Penh, Cambodia, during October
Sanjaya Panth (APD) and Peter Dohlman (SPR)	18–31, 2023. The staff team comprised Natasha Che, Federico Diez, Davide Furceri (head), Ryoichi Okuma, Jochen Schmittmann (IMF resident representative) (all APD), Camilo Enciso (LEG, joined virtually). Chenda Pich, Pholla Phork and Varith Proeung supported the mission from the IMF's office in Phnom Penh. Chao Wang and Mariam Souleyman assisted from IMF HQ. Meetings were also attended, variously, by IMF Executive Director Yati Kurniati and Irfan Hendrayadi (OEDST).

CONTENTS

CONTEXT

**1.   Cambodia has been one of the fastest growing emerging market and developing economies (EMDEs) in Asia over the last decade.** Before the COVID-19 pandemic, Cambodia's real GDP growth in the past decade averaged around 7 percent annually, well above the median of around 5 percent for EMDE Asia. The rebound from the pandemic was also faster than in regional peers—growth for 2021 and 2022 were 3.0 and 5.2 percent respectively, compared to Asia EMDE medians of 2 and 3 percent.

Real GDP Growth in Asia EMDE
(In percent)

Sources: IMF

2.   Growth was driven by rapid industrialization, as well as trade and capital account liberalization reforms. The growth outcome was achieved primarily by leveraging external demand. Exports as percent of GDP grew from 54 percent in 2010 to 78 percent in 2022, led by the growth in labor-intensive manufacturing products—such as garments and footwear. Net FDI inflows increased from less than 3 percent of GDP in early 2000s to over 11 percent in 2022.
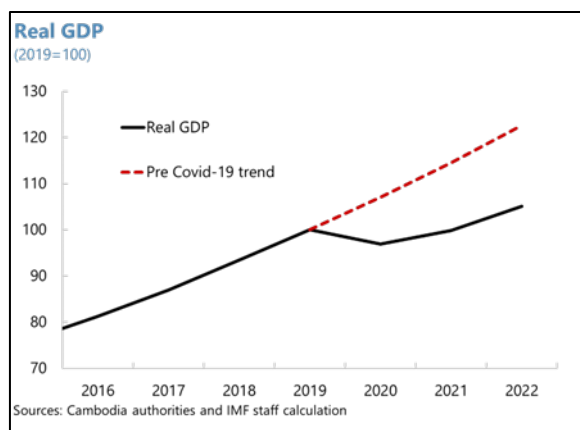
Exports & FDI
(in percent of GDP)

Sources: World Bank and IMF staff calculations.

3.   This period of sustained growth boom has been accompanied by significant structural changes in the economy and led to marked poverty reduction. Employment composition shifted from agriculture to manufacturing, with the employment share of agriculture declining from 55 to less than 40 percent since 2010 and that of the industrial sector increasing from 16 to 25 percent over the same period. The rise in national income has also driven an expansion in the non-tradable sector—the share of construction in GDP grew from 4.9 to over 10 percent from 2012 to 2022. The poverty rate markedly declined from 36.7 percent in 2014 to 16.6 percent in 2022.[1]

Employment Composition
(in percent of total employment)

Sources: ILO.

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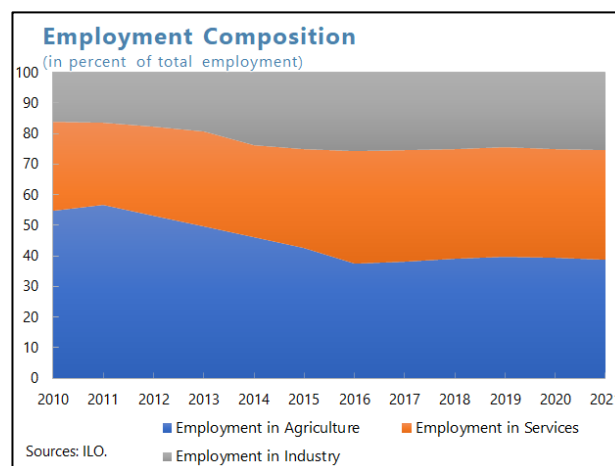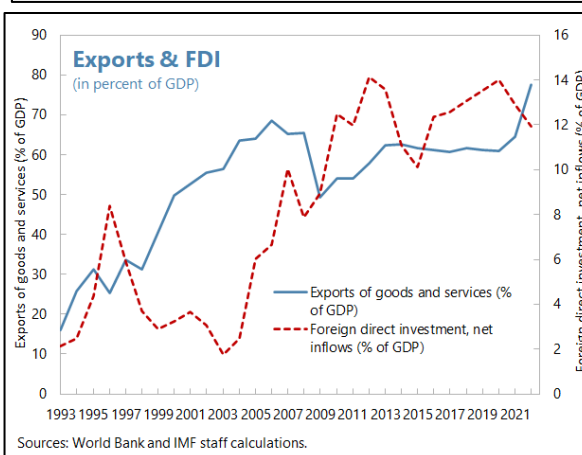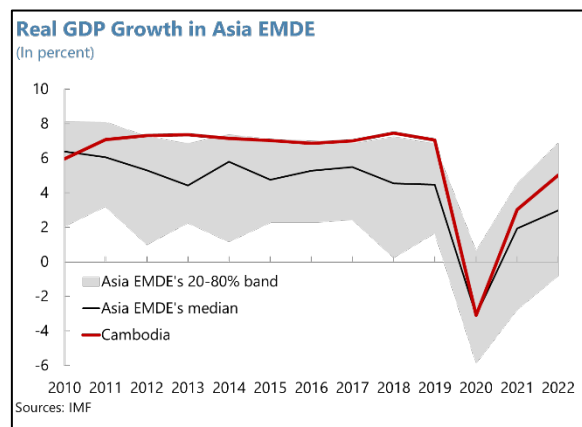
[1] Estimates according to 2023 Global Multidimensional Poverty Index (MPI), by the United Nations Development Program (UNDP) and the University of Oxford.
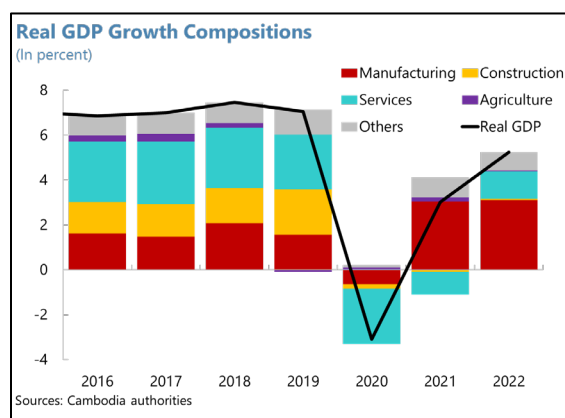
4.   The COVID-19 pandemic was a severe shock to the economy with potential longer-term scarring. Despite the strong economic rebound in 2021-2022, especially comparing to Asia EMDE peers, real GDP level for 2022 is 14 percent below the pre-pandemic trend, and the growth rate is also lower than the pre-COVID era. Delays in human capital formation and infrastructure investment due to the pandemic may negatively affect potential output in the medium term.

Real GDP
(2019=100)

- Real GDP
- -- Pre Covid-19 trend

Sources: Cambodia authorities and IMF staff calculation

5.   The key challenge going forward is to reignite solid and inclusive growth to continue elevating living standards. Some of the existing drivers of growth—tourism exports and FDI in real estate—may face headwinds from a structural growth slowdown of China, a main source of investment funding and tourist demand. The export portfolio, dominated by lower value-added exports such as garment and footwear, may need to be upgraded and dive rsified to provide sustained growth that allows the country to reach the upper middle-income status in the medium term.

RECENT DEVELOPMENTS

6.   The Cambodian economy is steadily recovering from the pandemic. The recovery in both domestic and external demand led to an increase in real GDP growth from 3 percent in 2021 to 5.2 percent in 2022. The manufacturing sector was the biggest contributor to growth in 2022**,** adding over 3 percent to real GDP. The service sector also had a strong rebound from the pandemic. In contrast, the agriculture sector's growth was relatively flat (0.7 percent y/y), due to adverse weather and higher fuel and fertilizer prices.

Real GDP Growth Compositions
(In percent)

- Manufacturing
- Construction
- Services
- Agriculture
- Others
- Real GDP

Sources: Cambodia authorities

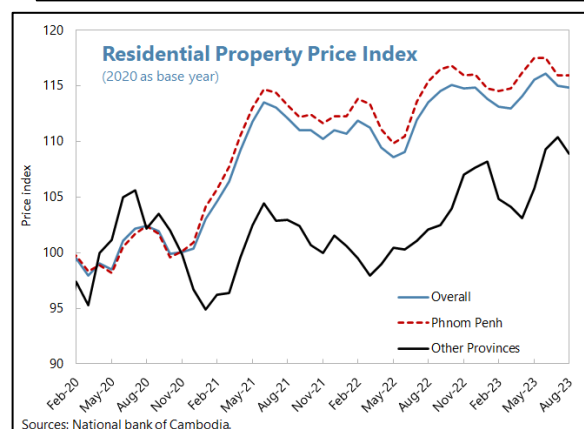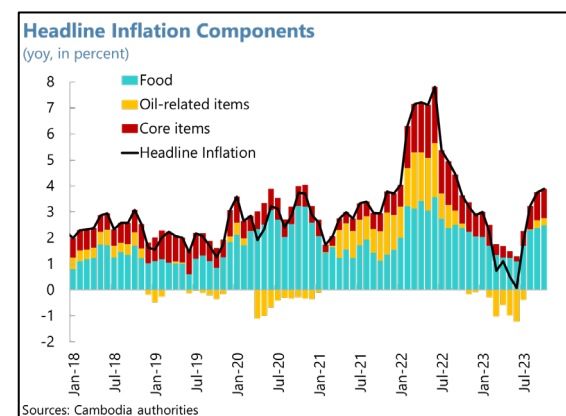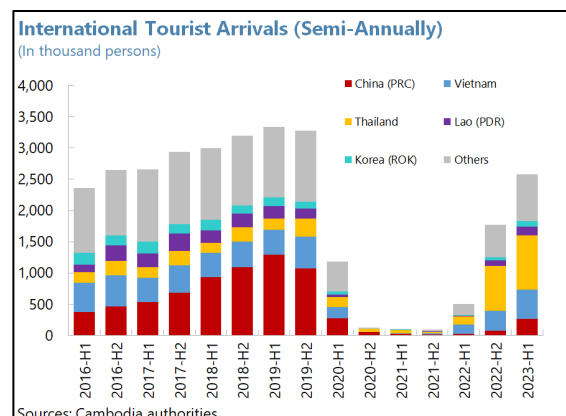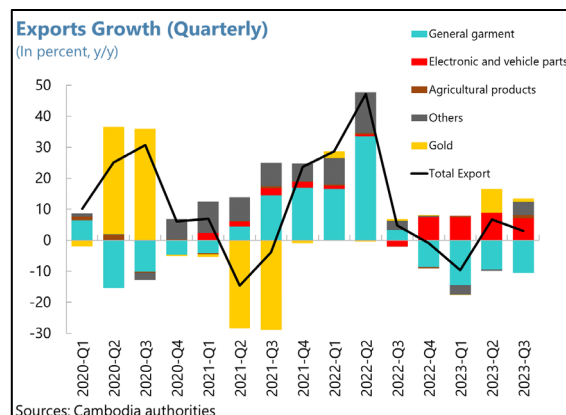**7.** **Exports declined in the first quarter of 2023, but have started to recover in recent months, led by electronics.** A slowdown in foreign demand from advanced economies has led to a decline of garment exports growth since late 2022. However, exports of electronics products—especially solar panels—have been resilient and contributed to boosting export growth in the second quarter. The growth in solar manufacturing is supported by the tariff exemption starting in the middle of 2022 by the United States, the largest export destination of Cambodia's solar industry.

8. **The tourism sector continued to recover in 2023.** International tourist arrivals started picking up since the beginning of 2022, growing over 10 folds on the year compared to 2021. As of September 2023, they have reached around 80 percent of pre-pandemic levels. Most of the arrivals are from ASEAN countries, partially driven by the 2023 South-East Asia Games. Arrivals from China have resumed after the reopening, but they are still a small fraction of pre-pandemic levels.

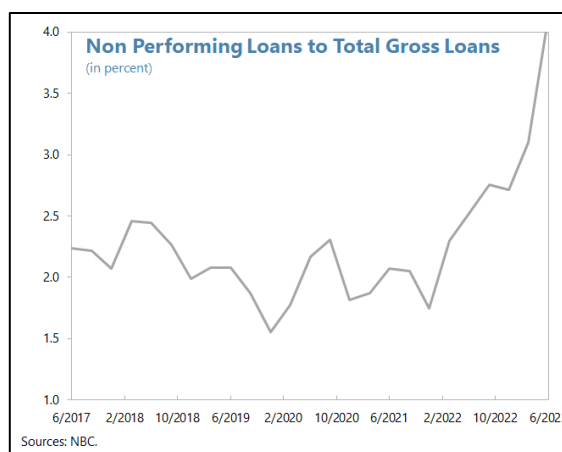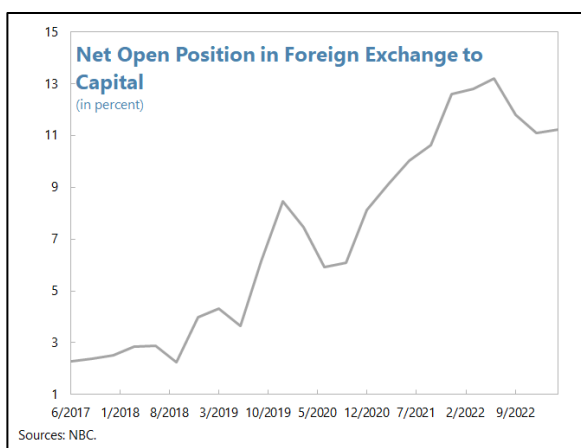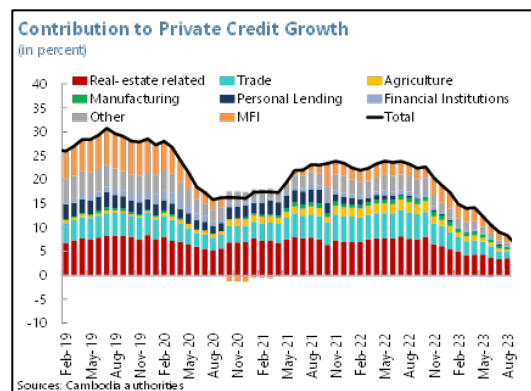**9.** **Inflation has rebounded starting July, after coming down significantly in H1 2023.** Inflation soared to a decade high of 7.8 percent in June 2022 and swiftly declined thereafter, reaching 0.07 percent in June 2023. Since then, it has rebounded to 3.9 percent in October. The drop in inflation has been broad based across almost all price categories. The fluctuations in food and fuel inflation are the biggest drivers of the decline in H1, as well as the recent rebound, in overall inflation. Price growth of domestic services have moderated as the initial demand impact from the country's reopening leveled off. Meanwhile, property prices growth has increased since mid-2022, driven by higher real estate demand for affordable residential housing.

Exports Growth (Quarterly)
(In percent, y/y)

Sources: Cambodia authorities

International Tourist Arrivals (Semi-Annually)
(In thousand persons)

Sources: Cambodia authorities

Headline Inflation Components
(yoy, in percent)

Sources: Cambodia authorities

Residential Property Price Index
(2020 as base year)

Sources: National bank of Cambodia.

10.   The central bank has started to exit from its pandemic policy measures in 2022.
Within the margin of maneuver given by the managed-peg, monetary policy focused on curbing imported inflation. The NBC increased the bank reserve requirements for foreign currencies to 9 percent, while the KHR rate remains unchanged.[2] In addition, and in line with the tightening of global rates, the NBC increased the rates in 2022 for the negotiable certificates of deposits (NCDs), for both USD (from 0.06 to 1.54 percent) and KHR (from 1.22 to 1.37 percent). More recently, it has reduced NCD rates (to 1.2 and 0.86 percent for USD and KHR respectively as of mid-October), to encourage credit growth.

11.   Credit growth decelerated to 8.1 percent y/y in August 2023, down from 23.5 percent in 2021. The deceleration was led by the reduction in credit growth in real estate and hospitality. The lower credit growth is driven by the tightening of financial conditions and a strengthening of banks' credit standards but is also an outcome in part of weaker demand for credit. The private credit-GDP ratio, even after the slowdown, remains elevated at around 160

Contribution to Private Credit Growth
(in percent)

percent.[3] Non-performing loans (NPLs) as percent of total loans, though remaining low, have increased from 1.74 percent at end-2021 to 4.6 percent in August 2023, as forbearance measures have been rolled back.[4] And banks' liquid asset to total asset ratio has declined since the pandemic while the FX open position increased.

Net Open Position in Foreign Exchange to Capital
(in percent)
Sources: NBC.

Non Performing Loans to Total Gross Loans
(in percent)
Sources: NBC.

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[2] Pre-pandemic rates were 12.5 percent for USD and 8 percent for KHR.

[3] While Cambodian households are increasingly leveraged, the largest share of private debt pertains to the corporate sector. Corporate debt is broadly distributed, with a large and increasing share pertaining to companies active in trade (retail and wholesale). See the 2022 AIV Cambodia Selected Issue paper for a more detailed discussion.

[4] Restructured loans have declined from 12.5 percent of total loans in 2021 to 6.2 percent in 2022. The loan restructuring policy was withdrawn fully in June 2022.
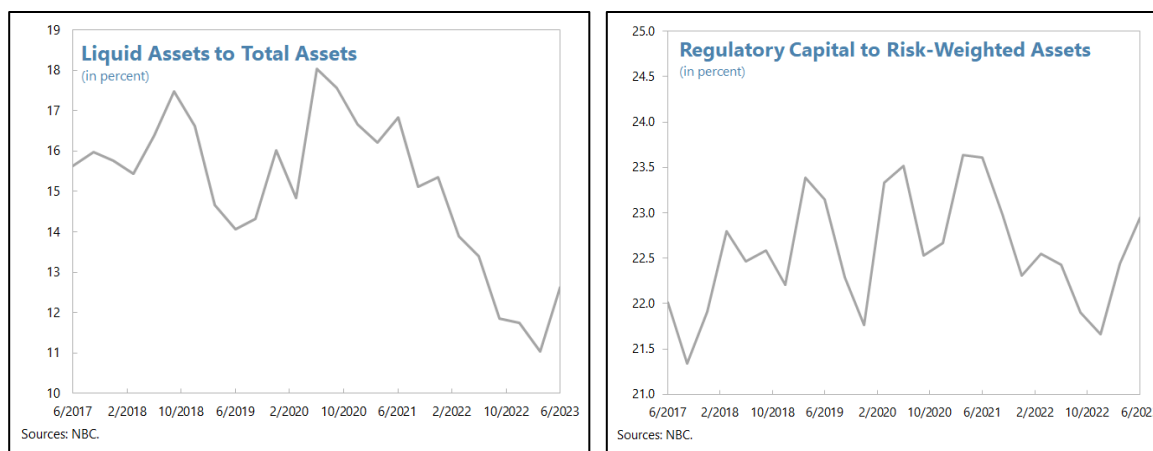
12.   The fiscal stance was broadly neutral in 2022. The fiscal deficit for 2022 is estimated at around 1 percent of GDP, a significant reduction from the 7.1 percent deficit in 2021.[5] The improvement was primarily driven by higher-than-expected GDP growth outturn and an outperformance of tax revenues relative to projection (about 0.6 percent of GDP), as well as good performance in non-tax revenues owing to the recovery in tourism. Meanwhile, social spending decreased by around 6 percent y/y as the targeted fiscal measures used to support households and firms affected by the pandemic were phased out.

13.   The current account deficit narrowed in 2022, but the external position remains substantially weaker than the level implied by medium-term fundamentals and desirable policies (Annex I). The current account deficit declined from about 42 percent of GDP in 2021 to about 26 percent in 2022. The reduction is largely driven by the decline in gold imports.[6] Goods exports, especially garments and electronics, and tourism also contributed.

- While gold imports have remained volatile since 2021, they decreased from 22 percent of GDP in 2021 to 16 percent of GDP in 2022 and have significantly further declined in the first nine months of 2023. On this basis, to assess the external position, they are deemed to be partially temporary. Along with other cyclical adjustments, the current account deficit in 2022 is adjusted to -13.6 percent of GDP. Compared to the current norm of -6.4 percent of GDP suggested by the EBA-lite model, the current account gap is -7.2 percent of GDP.

- The financial inflows decreased to 24 percent of GDP in 2022, largely reflecting the reduction in the net short-term capital inflow. On the other hand, medium-to-long term loans

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[5] The 2022 cyclically adjusted fiscal balance is estimated at around -0.5 percent of GDP.

[6] The reasons for the large inflows of gold are not certain, and hence it is difficult to assess whether the flows are likely to be temporary or permanent. Gold imports increased substantially from the end of 2020 through 2021 following the increase in the price of gold, suggesting perhaps purchases in expectation of future price increases, but the size of the inflows is much larger (relative to nominal GDP) than would be expected on the basis of hedging flows observed in other countries. See the 2022 IMF Cambodia AIV for a detailed discussion, including on the need to improve BoP statistics.

remained broadly stable. Despite some increases in construction and solar manufacturing, FDI as a share of GDP declined slightly in 2022.

- The exchange rate remains broadly stable with the recent moderate FX interventions.[7] The international reserves decreased by 2.5 US$ billion to 17.8 US$ billion in 2022, largely due to negative valuation effects of USD appreciation and lower international gold price. They remain above 7 months of prospective imports.

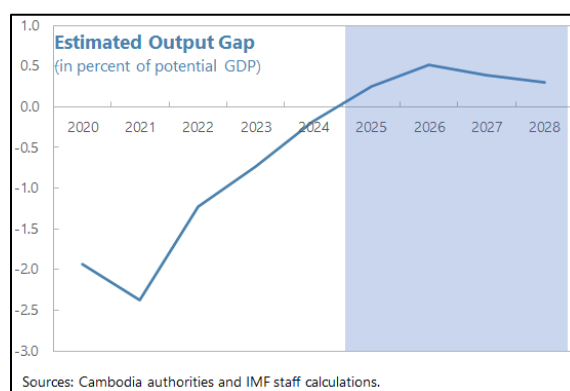**14.   The general election in July was won by the incumbent Cambodian People's Party**. The new government, which took office in September, is committed to prioritize macroeconomic and financial stability, while reinvigorating reform efforts to achieve poverty reduction and inclusive growth.

Authorities' Views

15.   The authorities generally agreed with the assessment of recent developments. They noted that the recovery in garment exports has been weak with high uncertainties for the rest of the year, but non-garment exports have performed strongly. Though tourist arrival has rebounded, they emphasized that length of stay and average expenditure are both lower than pre-pandemic, reflecting a change in tourist arrivals composition. On bank NPLs, they consider the recent increase to be temporary, a short-term result of COVID-19 forbearance measures ending. They also noted that the increase in banks' net FX open positions is a result of de-dollarization measures introduced in 2019 that require at least 10 percent of bank loans to be made in riel.

OUTLOOK AND RISKS

16.   Growth for 2023 is projected at 5.3 percent in 2023. This is backed by the recovery in tourism and non-garment exports—notably solar panels and electric parts, as well as fiscal support. Garment export has declined, showing only modest signs of recovery in the third quarter. The output gap is projected to continue closing—albeit towards a level of potential output below the pre-crisis trend—and turn positive by 2025. Medium term growth is projected at around 6.3 percent, though subject to large uncertainty and will crucially depend on the implementation of envisaged reforms.

Estimated Output Gap
(in percent of potential GDP)

Sources: Cambodia authorities and IMF staff calculations.

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[7] Since September, the NBC have sold US dollars in FX markets twice per week to stabilize the exchange rate. The total amount is about US$140 million as of mid-October.

Inflation is expected to average at 2.3 percent in 2023 and converge to its long-term trend, around 3 percent, by 2024, absent of further shocks in commodity prices.

17.   The fiscal deficit is expected to widen to around -3.6 percent of GDP in 2023, before falling to around 2 percent in 2024 and reaching 2.5 percent over the medium term**.** The increase in the deficit in 2023 is mostly due to higher spending needs associated with the 2023 South-East Asia Games and the General Election, as well as a scheduled public sector wage increase and the finalization of incomplete infrastructure projects from 2022. Starting from 2024, employee compensation as percent of GDP is expected to stay at the current level, while social benefit expenditures are projected to scale back somewhat—but still considerably higher than the pre-pandemic period—as temporary support measures for the pandemic and for the increase in prices are removed.[8] The revenue to GDP ratio is expected to increase modestly over the medium term, supported by reform efforts in tax and customs administrations.

18.   The public debt to GDP ratio is projected to increase moderately, and the risk of debt distress remains low. According to staff's debt sustainability analysis, in the baseline scenario, the total public and publicly guaranteed (PPG) debt-to-GDP ratio, which is 35 percent of GDP as of end-2022, is projected to rise by around 4 percentage points of GDP during the next decade due to higher financing costs of the fiscal deficit. This ratio is projected to remain stable under several stress scenarios, suggesting a low risk of debt distress.[9] However, the analysis shows that Cambodia's external debt remains vulnerable to shocks in exports and growth.

19.   The current account deficit is expected to fall significantly in 2023. The deficit is projected to decline to about 2 percent of GDP at the end of 2023, mainly due to a significant decline in gold imports (reflecting the restriction in gold imports during the first 6 month of the year), and the improvement in the trade balance excluding gold (with stagnant imports especially in garment materials). The recovery in tourism flows also contributed to the decline. Starting in 2024, the current account deficit is expected to converge to its historical average, and international reserves are expected to remain stable, remaining above 7 months of imports throughout the projection period.

20.   Uncertainty around the outlook is high, with risks tilted to the downside. The most pressing risks are:

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[8] The pandemic cash transfer program for the poor and vulnerable households was concluded in September 2023. The cash transfer program for at-risk households affected by rising fuel and food prices, introduced in December 2022, concluded in July 2023.

[9] By law, state and local governments and the central bank do not engage in borrowing, and SOEs do not contract non-guaranteed loans. Currently, there are no extra-budgetary funds, and the National Social Security Fund is funded by deposits and does not constitute a liability for the general government. The capital stock of PPPs is estimated at 20.7 percent of GDP at end of 2022, corresponding to a contingent liability of 7.3 percent of GDP.

- **A deeper and more prolonged slowdown in import demand from advanced economies**: Cambodia's sizeable exports to advanced economies means that a weaking in their economic activity is a significant downside risk for Cambodia. This is especially the case for the US, which accounts for over 40 percent of Cambodia's exports. Staff estimates suggest that 1 percent decline in US economic activity could reduce Cambodia's output by about 0.5 percent in the short term (see Annex V). This effect is larger for those sectors (such as textiles) that are export oriented.

- **Weaker short- and medium-term prospects for the Chinese economy**: Cambodia economy is strongly linked to China through FDI, tourism, and goods trade. Staff estimates suggest that 1 percent decline in Chinese economic activity could reduce Cambodia's output by about 0.6 percent after 1 year (see Annex V). A decline in China's potential growth will also have significant negative medium-term effects on the Cambodia's economy, especially for those sectors (such as construction) that are relatively more input dependent from Chinese production.

- **US monetary tightening impact**: The US monetary tightening is likely to negatively impact the Cambodia economy by reducing demand from the US and increasing private sector solvency risks through higher domestic lending rates and lower firms' profits. A 100-basis point increase in the US monetary policy rate is estimated to reduce Cambodia's GDP by about 1.1 percent after four quarters (Annex VI).[10]

- **High levels of private debt.** Given large build-up of private sector debt, increasing interest rates could put pressure on private sector balance sheets. While at the aggregated level Cambodia's corporate solvency risks are relatively small, there is marked heterogeneity across industries and firms, with pockets of solvency risks that could emerge in the face of significant increase in rates and decline in profits. (Annex VI).

- **Geo-economic fragmentation**: Cambodia's high level of trade openness and strong trade and FDI ties with the US and China make it particularly vulnerable to trade fragmentation risks. Through trade policy uncertainty and trade restrictions, the economic costs of geo-economic fragmentation could be potentially large for Cambodia, and well above those of other ASEAN economies (Annex VII).

Other risks include commodity price volatility which could cause higher inflation to persist, governance weakness, extreme climate events—including flood, droughts and changing monsoon patterns—that could hinder agricultural and industrial production, and, over the medium term, a disorderly climate transition that could create supply disruption and lower growth.[11]

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[10] The magnitude of the effect is similar to that found by Arbatli-Saxegaard et al. (2023) for a group of 29 emerging market economies.

[11] See Annex VII of the 2022 Cambodia IMF Staff Report for more discussion.

Authorities' Views

21. **The authorities shared the staff's view on risks but are more sanguine about the growth outlook.** They expect 2024 growth to reach 6.5 percent on the back of strong growth in tourism and agriculture, as well as garment sector recovery. They noted that the recent opening of Siem Reap International Airport may draw new sources of tourists. Meanwhile, FDIs in the garment sector saw significant increase in 2023 (23 percent y/y), which bodes well for future production growth. On the non-tradable sector, they noted that even though high-end real estate has been weak due to a dry-up of foreign investment and demand, negatively impacting the construction sector, domestic demand for affordable housing remains steady as population and income level continue to grow. Over the medium term, their goal is to target an annual growth rate of 7 percent, as the country broadens its export markets, supported by bilateral and multilateral trade agreements, and diversify its export portfolios. On risks, they generally agreed with the staff's view.

POLICY ISSUES

A. Fiscal Policy

22. **Prudent fiscal policy over the past decade has kept the debt-to-GDP ratio broadly stable.** Gross government debt has been maintained at around 30 percent of GDP before the pandemic. Increased spending needs during the pandemic and simultaneous revenue shortfalls lead to a deterioration of the fiscal balance and increased public debt.

23. **The fiscal position should be allowed to improve in 2024 as the economy and revenue continue to expand**. The fiscal position for 2023 is appropriately expansionary, given the current slack in the economy, low risk of debt distress, declining inflation and the limited transmission of monetary policy. The budget for 2023 targeted a deficit of around 5 percent of GDP—an increase of about 4 percentage points of GDP compared to 2022. While part of the increase is due to additional spending (about 0.5 percent of GDP for current and 1.5 for capital), a significant part is due to lower projected revenue (2 percent of GDP). The actual deficit for 2023 is expected to be lower than budgeted, in part due to better-than-expected non-tax revenues and expense savings from efficiency improvement. Starting from 2024, the expenditure-to-GDP ratio is projected to narrow in line with the authorities' commitment to scaling back temporary economic support measures (including cash transfers), while retaining targeted fiscal support to the poor through social protection system reform. At the same time, the revenue-to-GDP ratio is expected to increase modestly due to continued improvement in tax and customs administration.

24. **Finding the right balance between fulfilling development objectives and ensuring fiscal sustainability is a key policy challenge**. Cambodia's government revenues and expenditures as percent of GDP are both lower than emerging market country averages. To support the country's progress towards a higher development level, spending needs—including

on education, health, infrastructure investment and social protection—are large and need to be accommodated by improved fiscal planning and administration.

Revenue versus Expenditure
(as percentage of GDP)

25. **Strengthening the fiscal framework can foster resilience and bolster medium-term economic prospects**. The increased demand on public spending and upward pressures on borrowing costs (due to income level graduation and domestic debt market development) call for the implementation of a fiscal rules framework that combines a medium-term anchor on the debt-to-GDP ratio and an operational ceiling on the overall fiscal deficit.[12] The development of a clear medium-term fiscal strategy is also crucial and should be based on a systemized approach to assessing fiscal space and determining aggregate expenditure ceilings. Assisted by IMF capacity development initiatives, Cambodia has made important progress in developing internally components of a medium-term fiscal framework (MTFF).
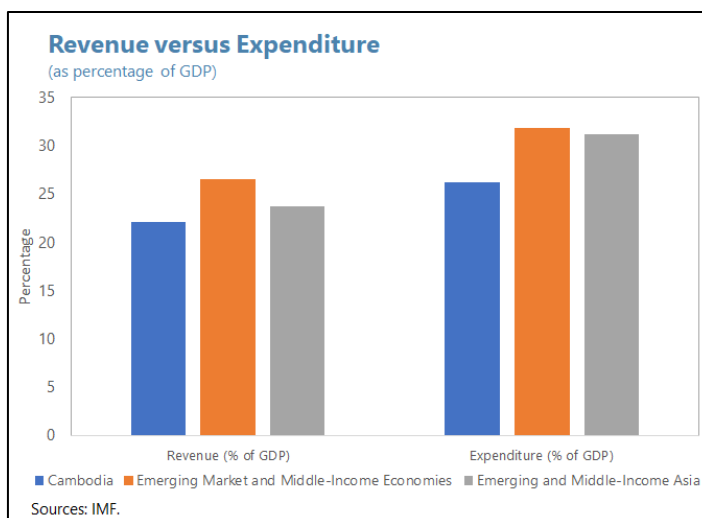
26. **A comprehensive mapping of fiscal risks should be developed, consolidating data on exposure and mitigation of known risks, and expanding the scope of risks covered**. Enhancing methods for the quantification of fiscal risks, particularly for macroeconomic risks, and risks associated with state-owned enterprises and public-private partnerships, is recommended. The process for the formulation of indicative medium-term sectoral ceilings should be redesigned by computing sectoral baselines and enhancing methods to allocate fiscal resources to sectors. It is also important to establish formal coordination and data sharing mechanisms to ensure timely preparation of the MTFF. Fully publishing a comprehensive MTFF would improve transparency and accountability.

27. **Given the large public investment needs, public investment management should be continuously strengthened to improve investment efficiency**. Significant improvements in public investment planning have been made with the support of IMF technical assistance, such as developing a rolling 3-year public investment plan (PIP) in alignment with the National Strategic Development Plan (NSDP) and establishing standard operating procedures (SOP) for domestically funded projects, which provide standard criteria for project selection and

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[12] A medium-term debt anchor in nominal terms, expressed in percent of GDP, is appropriate for Cambodia because it is simple to compute and monitor and easy to communicate to the public. Furthermore, a rule on debt is pertinent, given the recent increase in debt and the expected change in structure and composition of debt (e.g., expected decline in concessional financing, planned issuances of local-currency government debt). The lack of experience with fiscal rules, combined with capacity constraints, make an overall deficit target an appropriate operational rule for Cambodia. See the 2022 Cambodia AIV for a more elaborate discussion.

procedures for MEF and line ministries to monitor project progress. The reform priorities should focus on implementation and capacity building, including improving coordination of investment planning among levels of government, strengthening the framework for investment maintenance, developing a portfolio monitoring system including supporting IT systems, and elevating domestic procurement and project implementation standards.

28.   Establishing a government bond market is important for increasing the share of market-based and domestically financed government debt.[13] Currently, the public external debt comprises only of concessional finance. This is not ideal as a high reliance on concessional financing can limit fiscal flexibility, make the country more susceptible to external shocks or changes in donor policies, and potentially hinder the development of a domestic financial market. Donor financing will likely to become less available as Cambodia's income status grows. High standards of public governance and transparency would be essential to attract participation of public investment by the private sector.

Authorities' Views

29.   The authorities expressed their strong commitment to fiscal sustainability. They are aware of the need to rebuild the fiscal buffer which had been drawn down during the pandemic and are committed to a gradual consolidation path starting in 2024. To boost revenues, they plan to focus on improvements in administration and efficiency, rather than introducing new taxes. They informed that the implementation of capital gains tax is still under discussion, while policies on excise taxes for 2024-2028 are being finalized. They acknowledged that Cambodia's tax revenues / GDP ratio is low, but emphasized the benefit of tax incentives in attracting investments. On the expenditure side, they emphasized that expenditure priorities will align with the new government's Pentagon Development Strategy, including budget allocations to expanding healthcare coverage and skill training, institutionalizing social transfer programs, and supporting agriculture. The authorities are preparing a MTFF for 2025-2027 alongside the 2024 budget, which will be submitted to the Council of Ministers for approval by April 2024. They agreed with the importance of developing the government bond market, but stressed the need to find investment projects with sufficient social-economic returns that can justify the debt service costs, which is a challenge especially given the higher interest rate environment.

B.   Monetary and Financial Sector Policies

30.   Monetary policy measures implemented during the pandemic should continue to be fully normalized. Notwithstanding the limited margin of maneuver given the exchange rate arrangement, monetary policy is currently accommodative and should normalize to ensure a neutral stance in 2024 as the output gap closes and inflation remains moderate. The authorities

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[13] Cambodia issued the initial tranche of its first-ever local-currency sovereign bond offering in 2022 and by end of the year has raised around US$17.5 million, less than 0.1 percent of GDP. For 2023, the government announced plans to raise US$ 200 million via bonds. The actual issuance for the year is projected to be around US$60 million.

have been moving in this direction. Loan forbearance has been fully rolled back in June 2022, with the welcome step of reintroducing provisioning requirements. Going forward, NPLs should continue to be promptly recognized and provisioned for. The NBC has also issued several regulations requiring financial institutions to strengthen regulatory capital and announced the intention to lift the reserve requirements back to pre-pandemic settings in 2024.[14] Going forward, monetary policy decisions should continue to remain data-dependent and be flexible to adjust to output and inflation shocks. Meanwhile, any signs of private sector debt distress should be closely watched for (Annex VI).

31.   The modernization of the monetary and FX policy operations can enhance monetary transmission and support de-dollarization. The managed peg and the widespread dollarization reduce the ability of monetary policy to respond to external shocks. The central bank, supported by capacity development assistance from the Fund, is working to improve key aspects of monetary policy and FX operations, with the goal to move from a de facto exchange rate targeting framework to a more direct targeting of inflation. The following are the main improvement areas identified by Fund TA, some are being implemented (or planned to be implemented) by the authorities

- **Establish an effective interest rate corridor (IRC)**. The current partial IRC could be improved by introducing an overnight marginal Deposit Facility and streamlining the operation of overnight Marginal Lending Facility (MLF). The NBC is currently reviewing operational issues as pre-step to introduce overnight deposit facility.

- **Develop an accurate liquidity forecasting framework**. The NBC is working to establish and refine model-based approaches to forecast short-term changes in currency in circulation and government deposits, to guide liquidity operations.

- **Refine operational instruments for monetary policy**. Operational improvements in existing instruments, such as introducing an averaging mechanism for banks' KHR reserve requirement (RR) and lengthening the RR maintenance period, can support more flexible response to changing liquidity conditions. To facilitate setting the level of liquidity at an appropriate level, the NBC is preparing to introduce a 7-day liquidity supply instrument.

- **Expand interbank market transactions and monitoring**. The NBC has started collecting information on interbank money market transactions from the largest 10 banks since July 2022. To further increase data availability, the NBC platform could be used as a reporting system for interbank market transactions.

- **Strengthen market determination of exchange rate and operationalize FX intervention procedures**. The shift to a market-based official exchange rate calculation mechanism in

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[14] The NBC originally planned to raise the requirement on foreign currency to 12.5 percent at the beginning of 2024 while keeping the reserve requirement on riel unchanged. It has postponed the planned raise to the end of 2024.

August 2022 was welcome,[15] and could be further finetuned by the collection of bank-customer transactions data. The work to move FX auctions to the NBC system platform is ongoing.

32.   The banking sector is well capitalized and profitable according to financial soundness indicators, but there has been recent deterioration in asset quality, and the high level of private sector debt requires close monitoring. To safeguard financial stability, in addition to raising provisioning requirements and normalizing monetary conditions, NBC should continue to strengthen its supervisory framework, including by transitioning to risk-based supervision and implementing Basel III. The authorities should also continue efforts to enhance data gathering and analysis capacity, as well as developing a full macroprudential strategy and toolkit to include borrower-based tools and enhance capital requirements for banks. Legal and operational frameworks for corporate insolvency and bank resolution need to be substantially strengthened.

33.   Strengthening the AML/CFT framework and implementation would support financial stability and reduce corruption vulnerabilities. Staff commend the authorities' implementation of the Action Plan they agreed upon with the Financial Action Task Force (FATF) to strengthen its AML/CFT framework, which enabled the country's exit from the FATF list of Jurisdictions under Increased Monitoring in February 2023. Staff encourage the authorities to continue to strengthen the AML/CFT framework. In view of recent large movements in non-monetary gold import and export. The authorities should ensure effective implementation of the requirement for reporting of import and export gold with a value equal to or exceeding USD 10,000, including by enabling effective enforcement of such requirement by the General Department of Customs and Excise (GDCE).

Authorities' Views

34.   The authorities agreed with the need to normalize monetary policy but had reservations about the pace. They deemed the recent deceleration in credit growth as largely supply driven-banks are more cautious to lend due to increases in NPLs and higher provisioning needs. They argued that raising reserve requirements at this juncture may further reduce credit growth and impede the economic recovery. Therefore, they are holding off on the raise to support bank liquidity and for NPLs to stabilize. They stressed that the NBC has taken other recent steps to strengthen financial regulation, including issuing several drafts law "prakas" on capital requirement laying out the structure, components, and method of calculating regulatory capital with the aim of strengthening the quality and quantity of capital held by financial institutions. The NBC has also taken actions to modernize the monetary policy framework,

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[15] After this change, the NBC determines the next day official rate every afternoon at 4:30pm as a volume-weighted average rate of the interbank foreign exchange market transactions on the NBC platform (NBCP) during the day. The official exchange rate is used for accounting, government operations (e.g., customs duties) and NBC transactions with the government. The market-based official exchange rate eliminated the spread between official and parallel market rates.

including strengthen the interest rate corridor—such as by increasing the tenure of the MLF from 5 days to unlimited rolling basis. The authorities informed that they are working on a new AML/CFT strategy supported by national risk assessments, which will be published in 2024.

C. Structural Reforms for Growth and Sustainability

35.   The commencement of the new government presents a prime opportunity to re-invigorate the structural reform agenda. The new government is in the process of developing the strategy to support the country's ambitious goal of reaching upper-middle-income status by 2030. The new "Pentagon Strategy", announced in August 2023, focuses on five strategic objectives for Cambodia's next stage development: 1) crisis-resilient economic growth, 2) job creation, 3) poverty reduction, 4) improving governance capacity and quality of public institutions, and 5) sustainable socio-economic development. Notably, Governance reforms are at the core of the Strategy. The Phase I of the Strategy, for immediate implementation starting 2023, includes six key policy programs: i) expanding universal healthcare, ii) offering vocational training for at-risk youth, iii) formalizing social aid for vulnerable households, iv) transitioning workers from informal to formal economies, v) coordinating and funding stable, fair pricing for key crops, vi) deploying agri-tech officers in all farming communities and forming rural farmers' associations.

Diagram of "The Pentagonal Strategy – Phase I"
for
Growth, Employment, Equity, Efficiency, and Sustainability

Pentagon 1:
Human Capital Development

Strengthening of Social Protection System and Food System

Pentagon 2:
Economic Diversification and Competitiveness Enhancement

Strengthening of Efficiency and Attractiveness of Special Economic Zones, including Industrial Parks, Agro-Industrial Parks, and Domestic Free-Trade Zones

Pentagon 3:
Development of Private Sector and Employment

Promotion of Competition

Continued Strengthening of Peace, Political Stability, Security, and Public Order

Institutional Reforms and Strengthening

The Core of the Strategy: Governance Reform and Strengthening

Pentagon 4:
Resilient, Sustainable and Inclusive Development

Strengthening of Urban Management and Modernization

Pentagon 5:
Development of Digital Economy and Society

Trustworthiness Building in Digital System

Export Diversification vs GDP Level

Cambodia

log(number of high RCA exports)

log(GDP per capita)

Sources: UN Comtrade and staff calculation.

36.   To keep the growth momentum over the long haul, it is important to continuously identify and invest in new growth drivers. Over the past decade Cambodia leveraged its current comparative advantage in low-cost labor to drive growth through labor-intensive manufacturing exports. However, as the national income level continues to grow, the labor cost advantage will gradually diminish, especially in the age of advanced automation and artificial intelligence. The country also faces strong international competition in the export
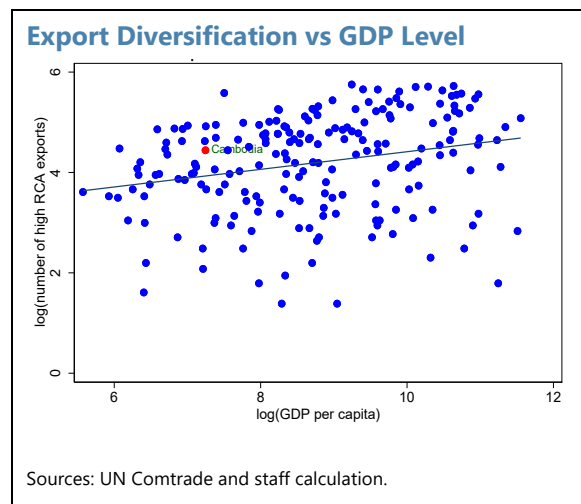
industries it traditionally specializes in, such as garments. Achieving sustained growth will thus require the country to expand and upgrade its positioning in the global value chain over time, which will in turn depend on increased preparedness in infrastructure, institutions, and a skilled labor force. It's encouraging to note that Cambodia's exports are already more diversified than what would be predicted by the country's development level. Nonetheless, education and human capital need to be significantly enhanced to accommondate the increasing demand for skills as the economy becomes more sophisticated.

Corruption Perception Index
(higher = less perceived corruption)

Sources: Transparency International, 2022.
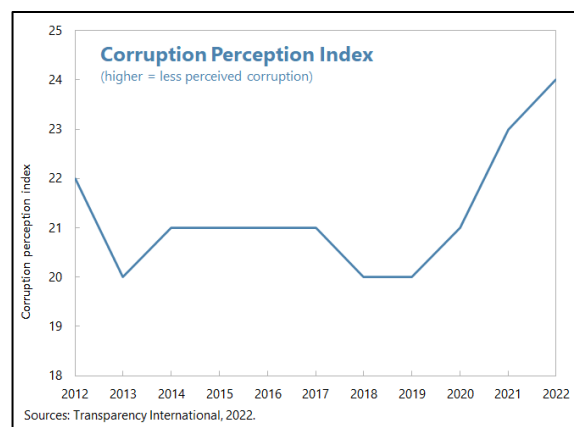
37.   Diversifying trade and investment partners can support economic resilience. Cambodia occupies an intermediate position in Global Value Chains (GVCs), making it susceptible to both supply and demand shocks originating abroad—including a structural slowdown in China growth—as well as to trade fragmentation risks. The US is the largest export destination of Cambodia, while China is the country's largest import and FDI source. To improve resilience and foster medium-term growth, efforts are needed to improve Cambodia's trade competitiveness and attractiveness to FDI, as well as to continue to geographically diversify its export markets and advocate for open trade and investment in international dialogues.

38.   The climate transition presents important development opportunities for Cambodia. Continued investments in new energy sources not only increase the country's climate change preparedness, but also raise the prospect of higher productivity growth and efficiency gains for the future. In this regard, the government's commitment to invest an additional US$6.5 billion in renewable energy infrastructure from 2026 onwards is welcome. The global decarbonization trend also creates opportunities for the country to attract foreign investment and develop production expertise in new industries and products, which would contribute to improving the current account. The recent growth in solar panel and electrical parts manufacturing and exports is an encouraging step.

39.   While improvement in perception of corruption have been noted, corruption continues to hamper economic development. The country has shown slight improvement in the Corruption Perception Index by Transparency International in the past 10 years.[16] However, corruption vulnerabilities discussed in the 2022 staff report regarding the rule of law, regulatory quality, anticorruption legal frameworks and effectiveness of anticorruption enforcement remain unchanged. In particular, transparency and accountability in the extractives sector, in land and infrastructure development, regarding public procurement, and in relation to the execution or education related projects is still challenging.

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[16] Use of this indicator should be considered carefully, as it is derived from perceptions-based data. Ranges are for a 90 percent confidence interval.

40. **Enhancements to anticorruption legal frameworks and institutions have been limited, necessitating government attention**.[17] The swift adoption of the Law on Witness Protection and the Whistleblower Protection Law is needed to increase the likelihood of whistleblowers and witnesses coming forward to help detect and prosecute corruption cases effectively. The asset declaration regime requires refinement for digital compilation and publication, mandating disclosure of high-level officials' interests and beneficially owned assets. The scope of the regime should also be expanded to cover assets and interests of close relatives, like children and spouses. Furthermore, the enactment of a comprehensive Law on Transparency and Access to Information remains vital to facilitate public oversight and increased accountability. Increased transparency in judicial proceedings is also key. Reforms should be adopted to ensure disclosure of beneficial owners benefitting from public contracts. Finally, additional resources should be devoted to enforcement agencies to strengthen effective training, corruption detection, investigation, and punishment, and more should be done to ensure reliable dispute resolution and contract enforcement mechanisms.

41. **Data quality in national account and external statistics should be improved**. With the support of IMF's Statistics Department, the National Institute of Statistics (NIS) is in the process of completing the rebasing of National Accounts data with 2014 as the new base year. The initiative is expected to improve the data sources, coverage, and classification of GDP data. The completion and dissemination of the new series should be prioritized and not delayed any further. In addition, data quality of expenditure-side GDP needs to be improved to provide better information on the demand drivers of the economy. Coverage limitations and data discrepancies in the Balance of Payment statistics need to be resolved, including discrepancies between trade data reported by the authorities and mirror data from trade partner countries, to facilitate an accurate assessment of the country's external positions.

Authorities' Views

42. ***The authorities agreed with the importance of diversification and improving governance, and stressed that many efforts have been made on these fronts.*** They noted that the export portfolio and level of value-added in exports are continuing to increase. They believed that the updated Law on Investment and associated sub-decree, issued recently to streamline and standardize investment incentives, will help make Cambodia more attractive to investors and foster diversification. On governance and anti-corruption, they informed that they have adopted new Laws on Public Finance System (PFS) and on Public Procurement this year with the aim to strengthen public governance. Starting 2023 they have also begun to publish the [annual draft budget law] in detail to improve transparency in public finance.[18] They explained that the government is considering incorporating elements on witness protection and whistleblower protection in the future update of the criminal code and the criminal code procedure. Regarding data quality, they plan to publish the rebased annual GDP for 2023 in March 2024, and start

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[17] See Annex VIII of 2022 Article IV staff report for specific recommendations.

[18] See the draft budget law for 2023 at https://mef.gov.kh/documents-category/law-and-regulation/page/3/.

introducing quarterly GDP data in June 2024. They expect the GDP re-basement to help with quality issues in the expenditure-side national accounts. The authorities expressed interest in obtaining IMF assistance for the re-basing of CPI.

STAFF APPRAISAL

43.   The Cambodia economy is continuing to recover from the pandemic. The economy achieved 5.2 percent growth in 2022 and is projected to grow by 5.3 percent in 2023. The main drivers of growth are the expansion of non-garment goods exports and a rebound in tourism. But garment exports, a major contributor to growth in the past, remains weak. And the compositional shift in tourist arrivals means the country is receiving less income per tourist compared to the pre-pandemic era.

44.   Though the rebound has continued, downside risks are significant. The near-term threats to growth include continued demand weakness from advanced-economy trade partners, recovery slowdown in China, high level of private debt domestically and tighter global financial conditions. Over the medium term, geopolitical tension and trade fragmentation, structural decline in growth from China, as well as climate change may pose important challenges to growth.

45.   Fiscal policy in 2023 was appropriately expansionary, but as recovery progresses, fiscal consolidation should start. The fiscal stance should return to neutral in 2024 as pandemic-related spending needs subside and economic recovery continues. Over the medium term, strengthening tax base as well as tax and customs administration is crucial for safeguarding revenues, especially given the revenue erosion from various tax incentives and the already low revenue-to-GDP ratio. Improving evaluation and execution of public investments will ensure spending is appropriately directed to support economic development.

46.   Monetary policy needs to continue normalizing towards the pre-pandemic setting. The phasing out of pandemic-related forbearance measures and the increase of USD reserve requirement are welcome. NPLs should continue to be adequately provisioned for. After the breakneck expansion in recent years, credit growth should be allowed to recalibrate, to reflect a normalization of financial conditions, especially given the high private sector indebtedness. Improvement in supervisory framework, as well as in data gathering and analysis, should continue. Legal and operational frameworks for corporate insolvency and bank resolution need to be strengthened.

47.   To ensure sustained progress in elevating living standards over the medium term, substantial reforms are needed. Provision of human capital, both quality and quantity, needs to improve to accommodate the changing needs of the economy, as the comparative advantage in labor cost diminishes at a higher income level. Investments in key infrastructure, such as in transportation, energy, logistics and telecommunication, will support more diversified industries and increase the scale of operation.

48. **Governance and anti-corruption reforms are important to attract new FDIs and sustain high growth.** Improvements in public governance and anti-corruption will reduce the cost of doing business, help draw investments from a wider range of source countries and improve Cambodia's attractiveness as a tourist destination. It is critical to strengthen frameworks on asset declarations, whistleblower protection and access to information. Adequate resources and authorities should be allocated to oversight and investigative bodies.

49. **It is proposed that the next Article IV consultation with Cambodia be held on the standard 12-month cycle.**

Figure 1. Cambodia: Continued Recovery of the Cambodian Economy

The economy has rebounded, but with significant scaring compared to its pre-pandemic trend.

Real GDP
(2019=100)

Sources: Cambodia authorities and IMF staff calculation
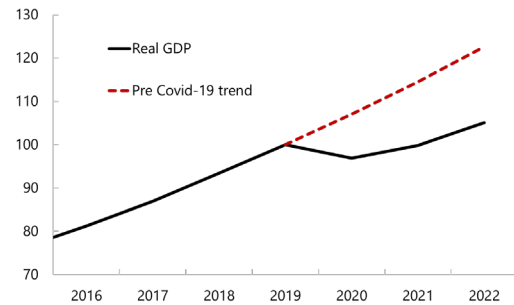
The recover by sector is mixed; manufacturing has been driving the rebound.

Real GDP Components
(2019=100)

Sources: Cambodia authorities
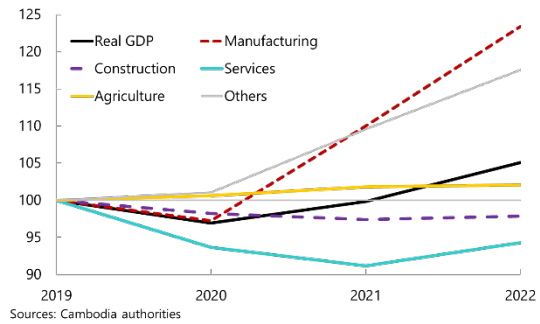
International arrivals are continuing the uptrend started in H2 2022...

International Tourist Arrival
(In thousand)

Sources: Cambodia authorities
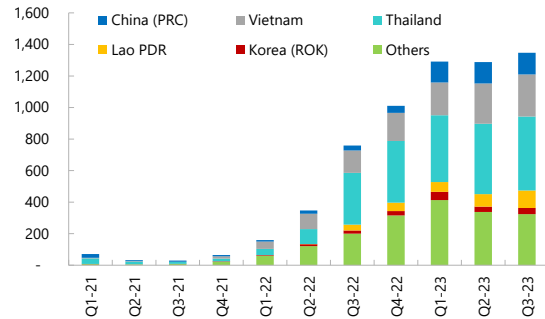
...while tourism has recovered significantly.

International Tourist Arrival
(In thousands)

Sources: Cambodia authorities
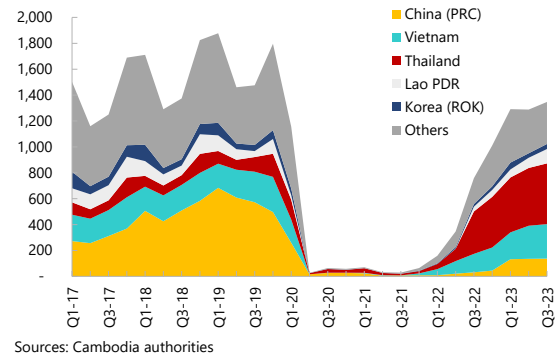
Export growth is led by solar products, while garment exports are lagging...

Contribution to Export Growth
(In percent, y/y)

Sources: Cambodia authorities
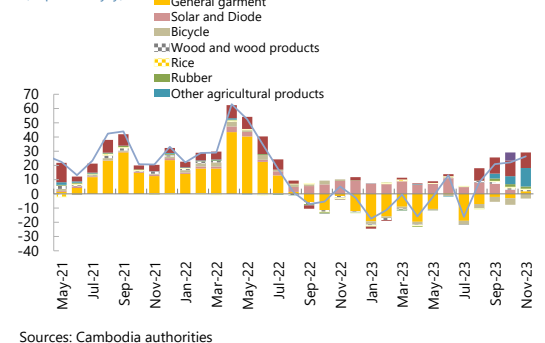
...and construction activity is showing an uptick from 2022 level.

Approved Construction Projects by Area
(In square kilometer)

Sources: Cambodia authorities
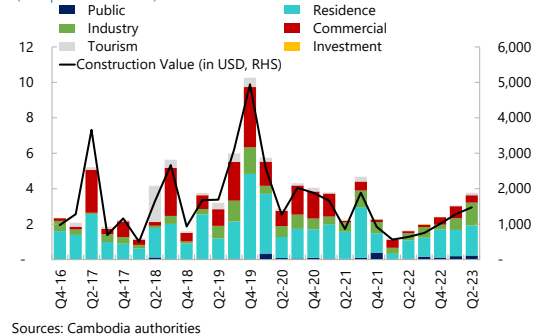
Figure 2. Cambodia: The Public Finances

Fiscal balance is projected to be lower in 2023 and increase in 2024.

Fiscal Balance
(In Percent of GDP)
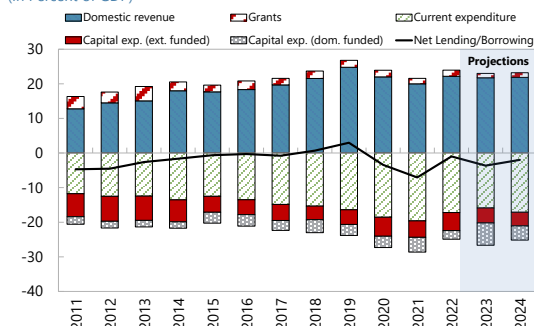
Sources: Cambodian authorities; and IMF staff calculations.

Revenue growth has been strong...

Tax Revenue Growth
(In percent y/y)
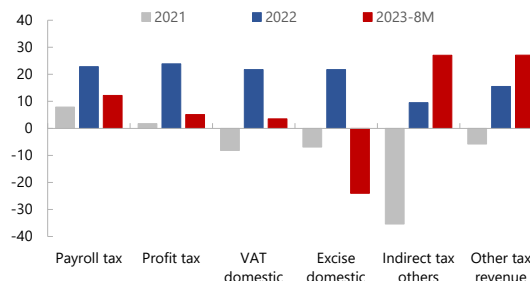
Sources: Cambodia authorities; and IMF staff calculations.

...and tax collection via the customs has improved.

Import Duties vis-a-vis Imports
(In percent)
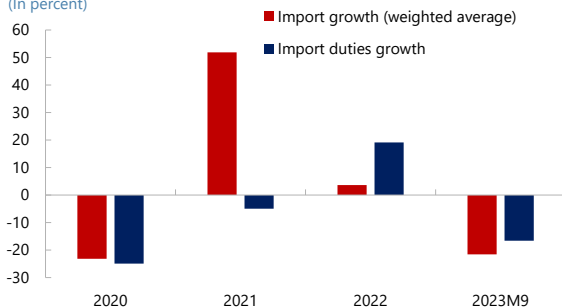
Sources: Cambodia authorities; and IMF staff calculations.
Note: Import growth is the weighted average import of vehicles, fuel, food and construction materials using 2019 import duties revenue weights of vehicles, fuel, food and construction materials as proxy weights.

Demand-support spending needs have declined in 2023.

Covid-19 Public Health and Social Intervention
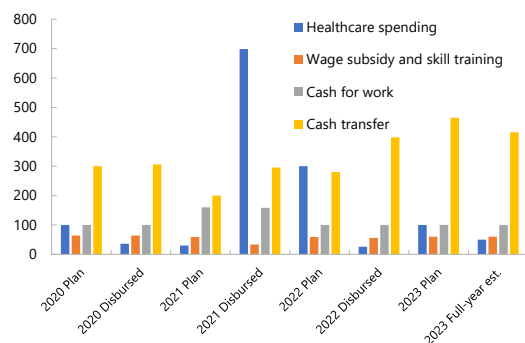
Sources: Cambodia authorities and IMF staff calculations.

Expenditure increased in 2023 due to one-off spending items and is projected to stabilize over the medium term.

Government Spending
(In percent of GDP)
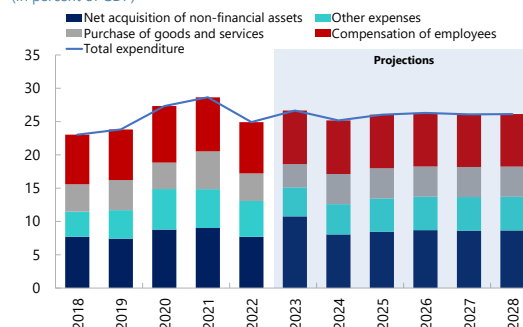
Sources: Cambodia authorities; and IMF staff calculations.

Revenue improvement and expenditure consolidation are expected to support fiscal sustainability over medium term.

Medium-term Fiscal Outlook
(In Percent of GDP)
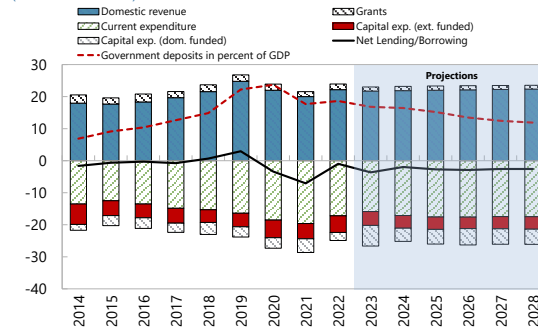
Sources: Cambodian authorities; and IMF staff calculations.

Figure 3. Cambodia: External Balances

While current account deficit remained larger than the recent years, it shrunk in 2022,

Current Account Balance
(In percent of GDP)

Sources: Cambodia authorities

... mainly due to the decline in gold imports and the recovery in goods exports and tourism.
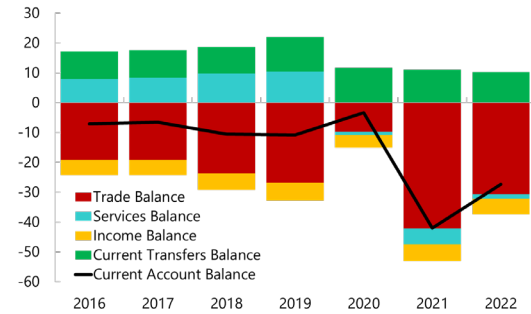
Trade Balance and Main Items
(In percent of GDP, exports (+), imports (-))
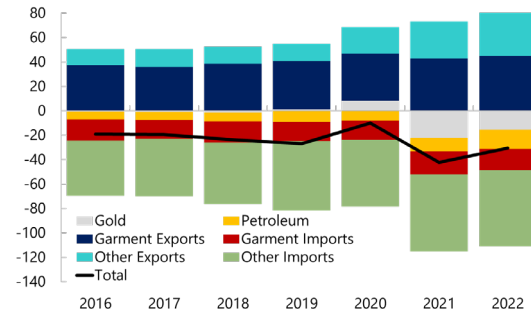
Sources: Cambodia authorities

Tourism continues to recover, as indicated the international arrivals' developments.

International Tourist Arrivals (Semi-annually)
(In thousand persons)

Sources: Cambodia authorities

FDI inflows recovered a bit in 2022 supported by the inflows to manufacturing industries.

FDI Inflows by Sector
(LHS: in million USD, RHS: in percent, annual growth)
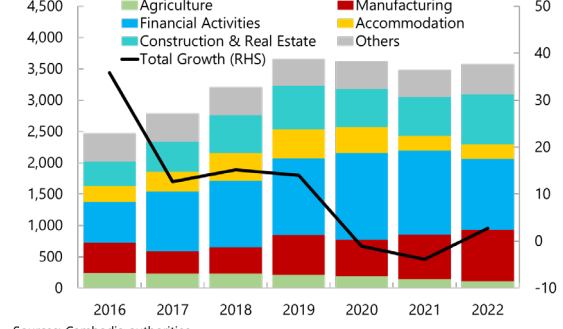
Sources: Cambodia authorities

Short-term capital inflows, which had skyrocketed in 2021, shrunk in 2022.

Current Account Financing
(In percent of GDP)

Sources: Cambodia authorities

International reserves decreased in 2022 mainly due to US$ appreciation and lower international gold price.
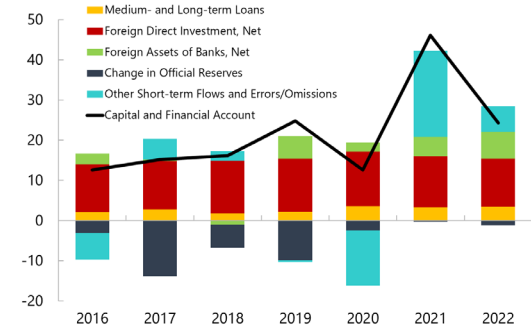
International Reserves
(LHS: in billion USD, RHS: in percent of GDP)
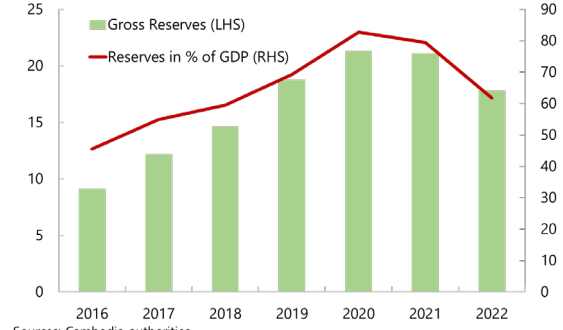
Sources: Cambodia authorities

Figure 4. Cambodia: Monetary and Financial Development

The buildup of private sector debt has been rapid though there's some signs of slowing in recent months...

Bank Credit
(In percent)
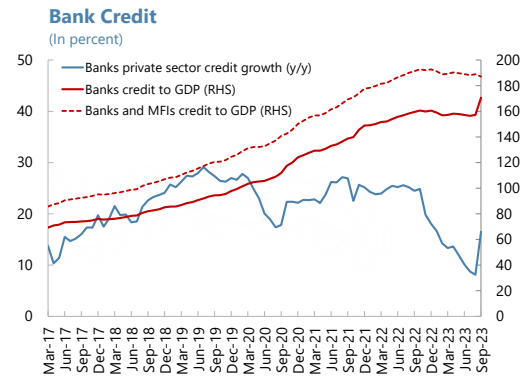
Sources: Cambodia authorities

...the moderation in credit growth appears broad-based across all sectors.

Contribution to Bank Credit Growth
(In percent)
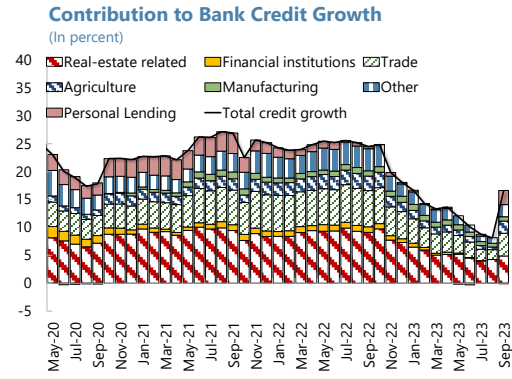
Sources: Cambodia authorities

Real estate has been a significant contributor to high credit growth.

Real Estate Related Credit Growth
(In percent)
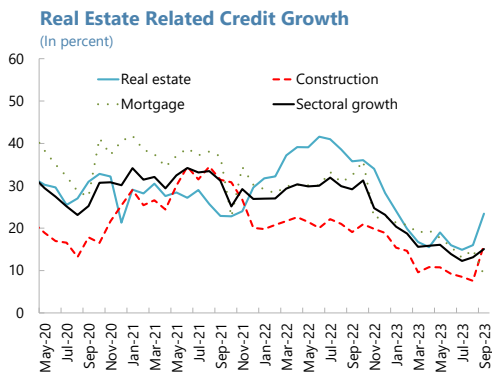
Sources: Cambodia authorities

Banks' loan growth has been outpacing deposit growth...

LTD and Deposit Growth
(In percent)
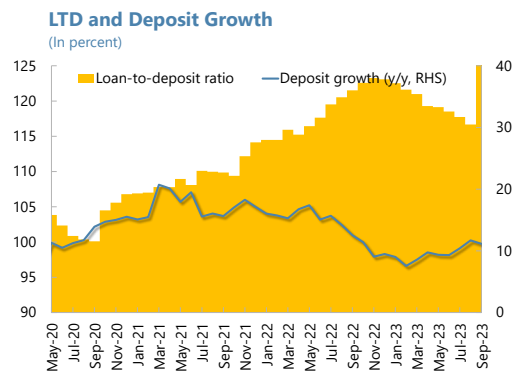
Sources: Cambodia authorities

...and lending rates have only increased modestly despite global financial tightening.

Interest Rate
(In percent)
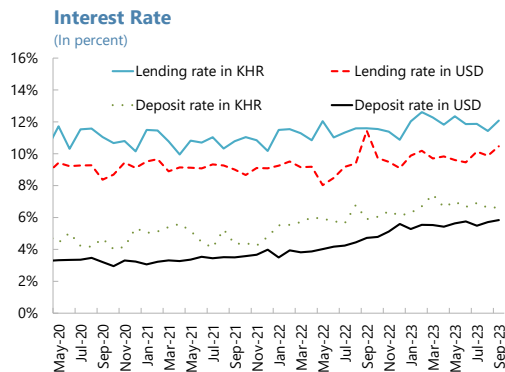
Sources: Cambodia authorities

Dollarization has declined modestly but continues to be persistently high.

Dollarization
(In Percent)
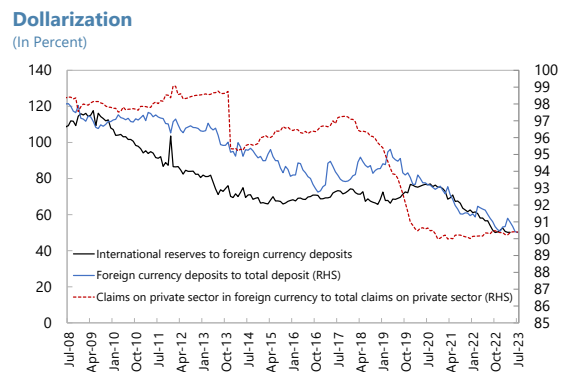
Sources: Cambodian authorities; and IMF staff calculations.

Table 1. Cambodia: Selected Economic Indicators, 2020–28

Per capita GDP (2022, US$) : 1,546   Life expectancy (2019, years) : 75.5
Population (2022, million) :   16.7   Literacy rate (2019, percent) : 87.7

	2020	2021	2022	2023	2024	2025	2026	2027	2028
						Proj.			
Output and prices (annual percent change)									
GDP in constant prices	-3.1	3.0	5.2	5.3	6.0	6.4	6.5	6.2	6.3
Inflation (end-year)	2.9	3.7	2.9	3.7	3.0	3.0	3.0	3.0	3.0
(Annual average)	2.9	2.9	5.3	2.3	3.0	3.0	3.0	3.0	3.0
Saving and investment balance (in percent of GDP)									
Gross national saving	21.5	-18.1	-1.6	22.4	18.6	18.5	18.5	18.4	18.1
Government saving	3.5	0.4	3.1	4.1	5.1	6.1	7.1	8.1	9.1
Private saving	18.1	-18.5	-4.7	18.3	13.5	12.4	11.4	10.4	9.0
Gross fixed investment	24.9	23.9	24.5	24.5	24.5	24.5	24.5	24.5	24.5
Government investment	8.8	9.0	7.7	10.8	8.1	8.4	8.7	8.6	8.7
Private investment	16.1	14.9	16.8	13.7	16.4	16.1	15.8	15.9	15.8
Money and credit (annual percent change, unless otherwise indicated)									
Broad money	15.3	16.4	8.2	14.9	11.0	12.3	11.4	12.8	8.3
Private sector credit	17.2	23.6	18.5	11.0	13.0	13.5	13.5	13.5	13.5
Velocity of money 1/	0.8	0.8	0.7	0.7	0.7	0.6	0.6	0.6	0.6
Public finance (in percent of GDP)									
Revenue	23.9	21.6	23.9	23.0	23.2	23.3	23.4	23.5	23.6
Domestic revenue	22.0	20.0	22.2	21.7	21.9	22.0	22.1	22.2	22.4
Of which : Tax revenue	19.7	18.0	20.0	18.9	19.1	19.2	19.3	19.4	19.6
Grants	1.9	1.6	1.8	1.3	1.3	1.3	1.3	1.2	1.2
Expenditure	27.3	28.6	24.9	26.6	25.2	26.0	26.3	26.1	26.1
Expense	18.5	19.6	17.2	15.9	17.1	17.6	17.6	17.5	17.5
Net acquisition of nonfinancial assets	8.8	9.0	7.7	10.8	8.1	8.4	8.7	8.6	8.7
Net lending (+)/borrowing(-)	-3.4	-7.1	-1.0	-3.6	-2.0	-2.7	-2.9	-2.6	-2.6
Net lending (+)/borrowing(-) excluding grants	-5.3	-8.6	-2.7	-4.9	-3.3	-4.0	-4.2	-3.8	-3.8
Net acquisition of financial assets	0.6	-4.0	2.5	-0.4	1.0	0.1	-0.4	0.1	0.5
Net incurrence of liabilities 2/	4.0	3.0	3.4	3.2	2.9	2.8	2.5	2.7	3.0
Total public debt (In percent of GDP)	34.4	35.9	34.8	35.8	36.3	36.5	36.3	36.4	36.8
Balance of payments (in millions of dollars, unless otherwise indicated)									
Exports, f.o.b.	18,470	19,527	23,179	23,387	25,229	27,361	29,686	32,209	34,944
(Annual percent change)	23.2	5.7	18.7	0.9	7.9	8.5	8.5	8.5	8.5
Imports, f.o.b.	-20,993	-30,726	-32,005	-27,360	-30,760	-33,226	-36,004	-39,075	-42,468
(Annual percent change)	-5.7	46.4	4.2	-14.5	12.4	8.0	8.4	8.5	8.7
Current account (including official transfers)	-870	-11,179	-7,535	-647	-1,954	-2,141	-2,312	-2,521	-2,860
(In percent of GDP)	-3.4	-42.0	-26.1	-2.1	-5.9	-6.0	-6.0	-6.1	-6.4
Gross official reserves 3/	21,334	21,119	17,805	20,869	23,348	25,881	28,534	31,478	34,583
(In months of prospective imports)	7.8	7.3	7.1	7.4	7.7	7.8	8.0	8.1	8.2
External debt (in millions of dollars, unless otherwise indicated)									
Public external debt	8,810	9,505	9,971	10,926	11,805	12,727	13,627	14,701	15,937
(In percent of GDP)	34.4	35.9	34.8	35.6	35.8	35.8	35.5	35.5	35.7
Public debt service	365	397	427	413	430	446	461	482	503
(In percent of exports of goods and services)	1.8	2.0	1.7	1.5	1.4	1.4	1.3	1.2	1.2
Memorandum items:									
Nominal GDP (in billions of Riels)	105,892	110,506	121,030	131,086	142,221	155,128	169,582	184,812	201,549
(In millions of U.S. dollars)	25,771	26,601	28,818	30,872	33,130	35,744	38,649	41,662	44,941

Sources: Cambodian authorities; and IMF staff estimates and projections.

1/ Ratio of nominal GDP to the average stock of broad money.

2/ Includes statistical discrepancy.

3/ Includes unrestricted foreign currency deposits held at the National Bank of Cambodia.

Table 2. Cambodia: Medium-Term Macroeconomics Framework, 2020–28

	2020	2021	2022 Est.	2023	2024	2025	2026	2027	2028
						Proj.			
Output and prices (percent change)									
GDP at constant prices	-3.1	3.0	5.2	5.3	6.0	6.4	6.5	6.2	6.3
GDP deflator	-0.7	1.3	4.1	2.9	2.4	2.5	2.6	2.6	2.6
Consumer prices (end-year)	2.9	3.7	2.9	3.7	3.0	3.0	3.0	3.0	3.0
Consumer prices (average)	2.9	2.9	5.3	2.3	3.0	3.0	3.0	3.0	3.0
Saving and investment balance (in percent of GDP)									
Gross national saving	21.5	-18.1	-1.6	21.1	17.1	18.0	19.0	19.9	20.6
Government saving	3.5	0.4	5.0	5.8	4.7	4.4	4.5	4.8	4.9
Private saving	18.1	-18.5	-6.6	15.3	12.4	13.6	14.5	15.2	15.7
Gross fixed investment	24.9	23.9	24.5	23.2	23.0	24.0	25.0	26.0	27.0
Government investment	8.8	9.0	7.7	10.8	8.1	8.4	8.7	8.6	8.7
Private investment 1/	16.1	14.9	16.8	12.4	14.9	15.6	16.3	17.4	18.3
Private credit growth (percent change)	17.2	23.6	18.5	11.0	13.0	13.5	13.5	13.5	13.5
Public finance (in percent of GDP)									
Revenue	23.9	21.6	23.9	23.0	23.2	23.3	23.4	23.5	23.6
Of which: Tax revenue	19.7	18.0	20.0	18.9	19.1	19.2	19.3	19.4	19.6
Grants	1.9	1.6	1.8	1.3	1.3	1.3	1.3	1.2	1.2
Total expenditure	27.3	28.6	24.9	26.6	25.2	26.0	26.3	26.1	26.1
Expense	18.5	19.6	17.2	15.9	17.1	17.6	17.6	17.5	17.5
Net acquisition of nonfinancial assets	8.8	9.0	7.7	10.8	8.1	8.4	8.7	8.6	8.7
Net lending (+)/borrowing(-)	-3.4	-7.1	-1.0	-3.6	-2.0	-2.7	-2.9	-2.6	-2.6
Net lending (+)/borrowing(-) excluding grants	-5.3	-8.6	-2.7	-4.9	-3.3	-4.0	-4.2	-3.8	-3.8
Net acquisition of financial assets	0.6	-4.0	2.5	-0.4	1.0	0.1	-0.4	0.1	0.5
Net incurrence of liabilities	4.0	3.0	3.4	3.2	2.9	2.8	2.5	2.7	3.0
Government deposits	23.7	17.7	18.6	16.8	16.5	15.2	13.5	12.4	11.9
Balance of payments (in percent of GDP, unless otherwise indicated)									
Exports (percent change) 2/	23.2	5.7	18.7	0.9	7.9	8.5	8.5	8.5	8.5
Imports (percent change) 3/	-5.7	46.4	4.2	-14.5	12.4	8.0	8.4	8.5	8.7
Current account balance (including transfers)	-3.4	-42.0	-26.1	-2.1	-5.9	-6.0	-6.0	-6.1	-6.4
(Excluding transfers)	-5.1	-43.9	-27.8	-3.7	-7.5	-7.5	-7.4	-7.5	-7.7
Foreign direct investment	13.5	12.8	12.4	13.4	13.1	12.8	12.4	12.1	11.8
Other flows	-7.7	28.5	15.0	-1.5	0.2	0.2	0.4	1.0	1.5
Overall balance	2.5	-0.8	1.3	9.9	7.4	7.0	6.8	7.0	6.9
Gross official reserves (in millions of U.S. dollars) 4/	21,334	21,119	17,805	20,869	23,348	25,881	28,534	31,478	34,583
(In months of next year's imports)	7.8	7.3	7.1	7.4	7.7	7.8	8.0	8.1	8.2
Public external debt (in millions of U.S. dollars)	8,810	9,505	9,971	10,926	11,805	12,727	13,627	14,701	15,937
(In percent of GDP)	34.4	35.9	34.8	35.6	35.8	35.8	35.5	35.5	35.7
Public external debt service (in millions of U.S. dollars)	365	397	427	413	430	446	461	482	503
(In percent of exports of goods and services)	1.8	2.0	1.7	1.5	1.4	1.4	1.3	1.2	1.2

Sources: Cambodian authorities; and IMF staff estimates and projections.

1/ Includes nonbudgetary, grant-financed investment, and, from 2011, public-private partnerships in the power sector projects.
2/ Excludes re-exported goods.
3/ Excludes imported goods for re-export; from 2011, includes imports related to public-private power sector project
4/ Includes unrestricted foreign currency deposits held at the National Bank of Cambodia.

Table 3a. Cambodia: Balance of Payments, 2020–28 (BPM5)

(In millions of U.S. dollars, unless otherwise indicated)

	2020	2021	2022	2023	2024	2025	2026	2027	2028
						Proj.			
Current account (including official transfers)	-870	-11,179	-7,535	-647	-1,954	-2,141	-2,312	-2,521	-2,860
(Excluding official transfers)	-1,317	-11,689	-8,014	-1,145	-2,471	-2,682	-2,858	-3,110	-3,450
Trade balance	-2,522	-11,199	-8,826	-3,973	-5,531	-5,865	-6,318	-6,866	-7,524
Exports, f.o.b.	18,470	19,527	23,179	23,387	25,229	27,361	29,686	32,209	34,944
Of which: Garments	8,527	9,415	10,770	9,069	10,074	11,485	13,000	14,705	16,739
Imports, f.o.b. 1/	-20,993	-30,726	-32,005	-27,360	-30,760	-33,226	-36,004	-39,075	-42,468
Of which: Garments-related	-4,020	-5,049	-5,058	-4,605	-5,115	-5,831	-6,601	-7,466	-8,499
Petroleum	-2,057	-2,930	-4,500	-4,145	-4,599	-4,917	-5,308	-5,726	-6,209
Nonmonetary gold	-985	-5,930	-4,466	-130	-521	-562	-607	-656	-708
Services and income (net)	-1,367	-2,922	-1,940	113	208	187	313	451	601
Services (net)	-261	-1,432	-349	1,788	1,966	2,037	2,262	2,509	2,778
Of which: Tourism (credit)	1,015	184	1,418	3,088	3,397	3,736	4,110	4,521	4,973
Income (net)	-1,106	-1,490	-1,591	-1,675	-1,758	-1,849	-1,949	-2,058	-2,177
Private transfers (net)	2,572	2,431	2,752	2,715	2,852	2,996	3,147	3,305	3,472
Official transfers (net)	447	510	479	498	518	541	546	589	590
Capital and financial account	3,257	12,257	7,006	3,696	4,418	4,659	4,948	5,447	5,947
Medium- and long-term loans (net)	939	867	1,004	952	876	918	897	1,071	1,233
Disbursements	1,213	1,163	1,343	1,296	1,226	1,274	1,255	1,436	1,602
Amortization	-280	-306	-339	-344	-350	-356	-359	-365	-369
Foreign direct investment 2/	3,485	3,392	3,580	4,145	4,353	4,570	4,799	5,039	5,291
Net foreign assets of deposit money banks	596	1,296	1,920	0	0	0	0	0	0
Other short-term flows	-2,021	6,499	293	-1,600	-1,000	-1,000	-900	-800	-700
Errors and omissions	-1,752	-1,290	907	0	0	0	0	0	0
Overall balance	635	-211	377	3,049	2,464	2,517	2,636	2,926	3,087
Financing	-4,731	406	5,701	-3,049	-2,464	-2,517	-2,636	-2,926	-3,087
Change in gross official reserves 3/	-635	-83	-346	-3,064	-2,480	-2,533	-2,653	-2,944	-3,105
Memorandum items:									
Current account balance (in percent of GDP)									
Excluding official transfers	-5.1	-43.9	-27.8	-3.7	-7.5	-7.5	-7.4	-7.5	-7.7
Including official transfers	-3.4	-42.0	-26.1	-2.1	-5.9	-6.0	-6.0	-6.1	-6.4
Trade balance (in percent of GDP)	-9.8	-42.1	-30.6	-12.9	-16.7	-16.4	-16.3	-16.5	-16.7
Gross official reserves 4/	21,334	21,119	17,805	20,869	23,348	25,881	28,534	31,478	34,583
(In months of next year's imports)	7.8	7.3	7.1	7.4	7.7	7.8	8.0	8.1	8.2

Sources: Cambodian authorities; and IMF staff estimates and projections.

1/ From 2011, includes imports related to public-private power sector projects.

2/ From 2011, includes FDI related to public-private power sector projects.

3/ Includes changes in unrestricted FCDs held as reserves at the NBC, and excludes changes in gold holdings and valuation.

4/ Includes unrestricted FCDs held at the NBC.

Table 3b. Cambodia: Balance of Payments, 2020–28 (BPM5)

(In percent of GDP, unless otherwise indicated)

	2020	2021	2022	2023	2024	2025	2026	2027	2028
				Proj.					
Current account (including official transfers)	-3.4	-42.0	-26.1	-2.1	-5.9	-6.0	-6.0	-6.1	-6.4
(Excluding official transfers)	-5.1	-43.9	-27.8	-3.7	-7.5	-7.5	-7.4	-7.5	-7.7
Trade balance	-9.8	-42.1	-30.6	-12.9	-16.7	-16.4	-16.3	-16.5	-16.7
Exports, f.o.b.	71.7	73.4	80.4	75.8	76.1	76.5	76.8	77.3	77.8
Of which: Garments	33.1	35.4	37.4	29.4	30.4	32.1	33.6	35.3	37.2
Imports, f.o.b. 1/	-81.5	-115.5	-111.1	-88.6	-92.8	-93.0	-93.2	-93.8	-94.5
Of which: Garments-related	-15.6	-19.0	-17.6	-14.9	-15.4	-16.3	-17.1	-17.9	-18.9
Petroleum	-8.0	-11.0	-15.6	-13.4	-13.9	-13.8	-13.7	-13.7	-13.8
Nonmonetary gold	-3.8	-22.3	-15.5	-0.4	-1.6	-1.6	-1.6	-1.6	-1.6
Services and income (net)	-5.3	-11.0	-6.7	0.4	0.6	0.5	0.8	1.1	1.3
Services (net)	-1.0	-5.4	-1.2	5.8	5.9	5.7	5.9	6.0	6.2
Of which: Tourism (credit)	3.9	0.7	4.9	10.0	10.3	10.5	10.6	10.9	11.1
Income (net)	-4.3	-5.6	-5.5	-5.4	-5.3	-5.2	-5.0	-4.9	-4.8
Private transfers (net)	10.0	9.1	9.5	8.8	8.6	8.4	8.1	7.9	7.7
Official transfers (net)	1.7	1.9	1.7	1.6	1.6	1.5	1.4	1.4	1.3
Capital and financial account	12.6	46.1	24.3	12.0	13.3	13.0	12.8	13.1	13.2
Medium- and long-term loans (net)	3.6	3.3	3.5	3.1	2.6	2.6	2.3	2.6	2.7
Disbursements	4.7	4.4	4.7	4.2	3.7	3.6	3.2	3.4	3.6
Amortization	-1.1	-1.2	-1.2	-1.1	-1.1	-1.0	-0.9	-0.9	-0.8
Foreign direct investment 2/	13.5	12.8	12.4	13.4	13.1	12.8	12.4	12.1	11.8
Net foreign assets of deposit money banks	2.3	4.9	6.7	0.0	0.0	0.0	0.0	0.0	0.0
Other short-term flows	-7.8	24.4	1.0	-5.2	-3.0	-2.8	-2.3	-1.9	-1.6
Errors and omissions	-6.8	-4.8	3.1	0.0	0.0	0.0	0.0	0.0	0.0
Overall balance	2.5	-0.8	1.3	9.9	7.4	7.0	6.8	7.0	6.9
Financing	-18.4	1.5	19.8	-9.9	-7.4	-7.0	-6.8	-7.0	-6.9
Change in gross official reserves 3/	-2.5	-0.3	-1.2	-9.9	-7.5	-7.1	-6.9	-7.1	-6.9
Memorandum items:									
Current account balance (in percent of GDP)									
Excluding official transfers	-5.1	-43.9	-27.8	-3.7	-7.5	-7.5	-7.4	-7.5	-7.7
Including official transfers	-3.4	-42.0	-26.1	-2.1	-5.9	-6.0	-6.0	-6.1	-6.4
Trade balance (in percent of GDP)	-9.8	-42.1	-30.6	-12.9	-16.7	-16.4	-16.3	-16.5	-16.7
Gross official reserves 4/	82.8	79.4	61.8	67.6	70.5	72.4	73.8	75.6	77.0
(In months of next year's imports)	7.8	7.3	7.1	7.4	7.7	7.8	8.0	8.1	8.2

Sources: Cambodian authorities; and IMF staff estimates and projections.

1/ From 2011, includes imports related to public-private power sector projects.

2/ From 2011, includes FDI related to public-private power sector projects.

3/ Includes changes in unrestricted FCDs held as reserves at the NBC, and excludes changes in gold holdings and valuation.

4/ Includes unrestricted FCDs held at the NBC.

Table 4. Cambodia: General Government Operations, 2020 – 2028 (GFSM 2014)

	2020	2021	2022 Est.	2023 Budget	2023 Est.	2024	2025	2026	2027	2028
								Proj.		
Revenue	25,334	23,842	28,981	28,715	30,161	32,996	36,165	39,703	43,418	47,473
Of which: Nongrant	23,290	22,112	26,856	27,802	28,494	31,092	34,109	37,503	41,109	45,094
Tax	20,882	19,875	24,187	25,272	24,830	27,117	29,773	32,763	35,943	39,460
Income, profits, and capital gains	6,110	6,219	7,653	7,608	8,289	8,993	9,809	10,723	11,686	12,744
Good and services	12,399	11,343	13,780	14,952	13,923	15,256	16,807	18,557	20,426	22,499
International trade and transactions	2,198	2,131	2,549	2,517	2,595	2,844	3,133	3,459	3,807	4,193
Grants	2,044	1,730	2,125	913	1,667	1,904	2,056	2,200	2,310	2,379
Other revenues	2,408	2,237	2,669	2,530	3,664	3,975	4,336	4,740	5,166	5,634
Total expenditure	28,937	31,649	30,151	35,363	34,934	35,801	40,387	44,599	48,190	52,659
Expense	19,637	21,680	20,829	20,657	20,828	24,350	27,287	29,850	32,261	35,216
Compensation of employees	8,992	8,967	9,311	10,552	10,552	11,448	12,487	13,651	14,579	15,900
Purchase of goods and services	4,198	6,266	5,015	5,283	4,563	6,436	7,020	7,674	8,363	9,121
Interest	381	403	439	769	292	344	393	449	517	598
Expense not elsewhere classified	6,066	6,044	6,065	4,053	5,421	6,122	7,388	8,076	8,801	9,598
Net acquisition of nonfinancial assets	9,300	9,969	9,322	14,706	14,106	11,451	13,099	14,749	15,929	17,443
Of which: Externally financed	5,835	5,252	6,296	...	5,664	5,625	5,998	6,091	7,009	7,847
Net lending (+)/borrowing(-)	-3,603	-7,807	-1,170	-6,649	-4,772	-2,805	-4,222	-4,896	-4,772	-5,186
Net acquisition of financial assets	672	-4,461	3,001	-1,062	-521	1,379	162	-720	161	951
Net incurrence of liabilities	4,275	3,345	4,171	5,586	4,252	4,185	4,383	4,176	4,933	6,137
Of which: External	5,835	3,522	4,171	4,773	3,997	3,721	3,942	3,891	4,700	5,468
Revenue	23.9	21.6	23.9	21.9	23.0	23.2	23.3	23.4	23.5	23.6
Nongrant	22.0	20.0	22.2	21.2	21.7	21.9	22.0	22.1	22.2	22.4
Tax	19.7	18.0	20.0	19.3	18.9	19.1	19.2	19.3	19.4	19.6
Income, profits, and capital gains tax	5.8	5.6	6.3	5.8	6.3	6.3	6.3	6.3	6.3	6.3
Good and services tax	11.7	10.3	11.4	11.4	10.6	10.7	10.8	10.9	11.1	11.2
International trade and transactions tax	2.1	1.9	2.1	1.9	2.0	2.0	2.0	2.0	2.1	2.1
Grants	1.9	1.6	1.8	0.7	1.3	1.3	1.3	1.3	1.2	1.2
Other revenues	2.3	2.0	2.2	1.9	2.8	2.8	2.8	2.8	2.8	2.8
Total expenditure	27.3	28.6	24.9	27.0	26.6	25.2	26.0	26.3	26.1	26.1
Expense	18.5	19.6	17.2	15.8	15.9	17.1	17.6	17.6	17.5	17.5
Compensation of employees	8.5	8.1	7.7	8.0	8.0	8.0	8.0	8.0	7.9	7.9
Purchase of goods and services	4.0	5.7	4.1	4.0	3.5	4.5	4.5	4.5	4.5	4.5
Interest	0.4	0.4	0.4	0.6	0.2	0.2	0.3	0.3	0.3	0.3
Expense not elsewhere classified	5.7	5.5	5.0	3.1	4.1	4.3	4.8	4.8	4.8	4.8
Net acquisition of nonfinancial assets	8.8	9.0	7.7	11.2	10.8	8.1	8.4	8.7	8.6	8.7
Of which: Externally-financed	5.5	4.8	5.2	...	4.3	4.0	3.9	3.6	3.8	3.9
Net lending (+)/borrowing(-)	-3.4	-7.1	-1.0	-5.1	-3.6	-2.0	-2.7	-2.9	-2.6	-2.6
Net acquisition of financial assets	0.6	-4.0	2.5	-0.8	-0.4	1.0	0.1	-0.4	0.1	0.5
Net incurrence of liabilities	4.0	3.0	3.4	4.3	3.2	2.9	2.8	2.5	2.7	3.0
Of which: External	5.5	3.2	3.4	3.6	3.0	2.6	2.5	2.3	2.5	2.7
Memorandum items:										
Net lending (+)/borrowing(-) excluding grant	-5.3	-8.6	-2.7	-5.8	-4.9	-3.3	-4.0	-4.2	-3.8	-3.8
Government deposits	23.7	17.7	18.6	...	16.8	16.5	15.2	13.5	12.4	11.9
GDP (in billions of riels)	105,892	110,506	121,030	...	131,086	142,221	155,128	169,582	184,812	201,549

Sources: Data provided by the Cambodian authorities; and IMF staff estimates and projections.

Table 5. Cambodia: Monetary Survey, 2020–28

	2020	2021	2022	2023	2024	2025	2026	2027	2028
						Proj.			
				(In billions of Riels)					
Net foreign assets	67,364	57,063	39,490	25,738	37,915	50,588	63,305	62,409	62,741
National Bank of Cambodia	86,782	83,989	74,678	62,815	76,739	91,193	105,725	106,680	107,694
Foreign assets	86,292	82,553	73,297	61,434	75,358	89,812	104,344	105,299	106,313
Foreign liabilities	-490	-1,436	-1,381	-1,381	-1,381	-1,381	-1,381	-1,381	-1,381
Deposit money banks	-18,439	-24,054	-32,425	-34,315	66,106	65,173	63,754	61,682	62,516
Foreign assets	16,662	17,569	17,276	16,147	15,022	13,666	12,048	10,087	10,163
Foreign liabilities	-35,100	-41,622	-49,701	-50,462	-51,084	-51,508	-51,706	-51,596	-52,354
Net domestic assets	69,178	101,876	132,472	171,764	181,232	195,538	210,949	247,046	272,408
Domestic credit	127,353	168,742	201,173	227,225	260,531	299,144	342,668	391,847	447,497
Government (net)	-24,995	-19,556	-21,934	-20,376	-19,258	-18,417	-17,763	-17,242	-16,820
Private sector	152,347	188,297	223,106	247,601	279,789	317,560	360,431	409,089	464,316
Other items (net)	-58,175	-66,866	-68,701	-55,461	-79,299	-103,606	-131,719	-144,801	-175,089
Broad money	136,542	158,939	171,962	197,502	219,147	246,127	274,254	309,455	335,149
Narrow money	15,091	16,921	16,553	18,196	20,190	24,840	27,678	33,900	36,714
Currency in circulation	13,474	14,575	14,138	15,462	17,156	21,467	23,920	29,702	32,168
Demand deposits	1,617	2,346	2,415	2,734	3,033	3,373	3,758	4,199	4,546
Quasi-money	121,451	142,018	155,409	179,306	198,958	221,287	246,576	275,555	298,435
Time deposits	6,902	10,146	12,714	16,277	18,061	20,088	22,384	25,015	27,092
Foreign currency deposits	114,549	131,872	142,695	163,028	180,896	201,198	224,192	250,540	271,343
				(12-month percentage change)					
Net foreign assets	11.9	-15.3	-30.8	-34.8	47.3	33.4	25.1	-1.4	0.5
Private sector credit	17.2	23.6	18.5	11.0	13.0	13.5	13.5	13.5	13.5
Broad money	15.3	16.4	8.2	14.9	11.0	12.3	11.4	12.8	8.3
Of which: Currency in circulation	13.2	8.2	-3.0	9.4	11.0	25.1	11.4	24.2	8.3
Foreign currency deposits	15.0	15.1	8.2	14.2	11.0	11.2	11.4	11.8	8.3
				(Contribution to year-on-year growth of broad money, in percentage points)					
Net foreign assets	6.1	-7.5	-11.1	-8.0	6.2	11.3	15.3	13.4	12.0
Net domestic assets	9.2	23.9	19.3	22.8	4.8	10.8	15.9	27.4	32.5
Domestic credit 1/	17.9	30.3	20.4	15.2	16.9	32.8	46.9	60.0	71.2
Government (net)	-0.9	4.0	-1.5	0.9	0.6	0.9	1.1	1.1	1.1
Private sector	18.9	26.3	21.9	14.2	16.3	31.9	45.8	58.9	70.0
Other items (net)	-8.7	-6.4	-1.2	7.7	-12.1	-22.0	-31.0	-32.6	-38.7
Memorandum items:									
Foreign currency deposits (in millions of U.S. dollars)	27,726	31,572	33,791	38,186	41,910	46,107	50,817	56,172	60,174
(In percent of broad money)	83.9	83.0	83.0	82.5	82.5	81.7	81.7	81.0	81.0
Riel component of broad money	21,993	27,067	29,267	34,473	38,251	44,928	50,062	58,915	63,806
(In percent of broad money)	16.1	17.0	17.0	17.5	17.5	18.3	18.3	19.0	19.0
Credit to the private sector (in millions of U.S. dollars)	36,875	45,081	52,833	57,996	64,822	72,773	81,698	91,719	102,968
(In percent of GDP)	143.9	170.4	184.3	188.9	196.7	204.7	212.5	221.4	230.4
Foreign currency loans-to-total loans (in percent)	87.4	87.8	87.2	88.3	88.3	88.3	88.3	88.3	88.3
Loan-to-deposit ratio (in percent) 2/	116.2	125.4	136.3	134.1	136.5	139.3	141.9	144.1	151.0
Velocity 3/	0.8	0.8	0.7	0.7	0.7	0.6	0.6	0.6	0.6
Money multiplier (broad money/reserve money)	3.2	3.3	3.8	4.0	4.0	4.1	4.1	4.1	4.1
Reserve money (12-month percent change)	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1

Sources: Cambodian authorities; and IMF staff estimates and projections.
1/ Excludes banks' credits to nonresident.
2/ Foreign currency loans and deposits only.
3/ The ratio of nominal GDP to the year-to-date average stock of broad money.

Table 6. Cambodia: Financial Soundness Indicators, 2018-2022
(In percent)

	2018	2019	2020	2021	2022
Regulatory Capital to Risk-Weighted Assets	22.2	21.8	22.7	22.3	21.7
Tier 1 Capital to Risk-Weighted Assets	19.9	18.8	19.6	19.3	18.8
Non-performing Loans to Total Gross Loans	2.0	1.6	1.8	1.7	2.7
Return on Assets	1.6	1.7	1.7	2.0	2.4
Return on Equity	6.1	6.6	6.6	7.9	9.9
Interest Margin to Gross Income	56.3	54.9	38.6	41.8	32.3
Non-interest Expenses to Gross Income	71.8	74.6	77.6	73.8	79.2
Liquid Assets to Total Assets	16.6	16.0	16.7	15.3	11.7

Sources: International Monetary Fund

Annex I. External Sector Assessment

Staff assesses that Cambodia's external position in 2022 remains substantially weaker than the level implied by medium-term fundamentals and desirable p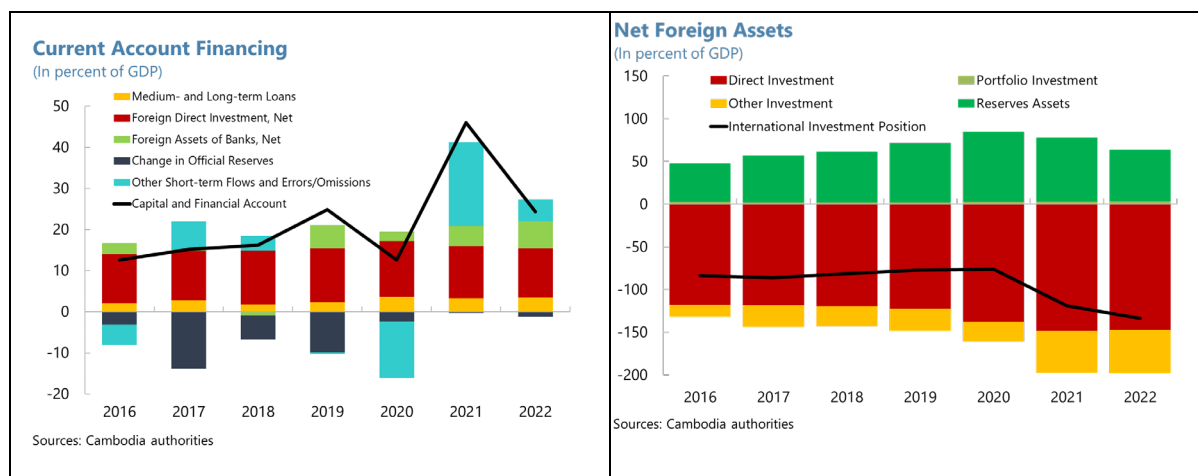olicies after adjusting for temporary factors—mainly due to persistently high gold imports, tourism receipts still below pre-pandemic levels, and high Covid-related medical imports. International reserves coverage declined in 2022, but it remains broadly adequate.

1.   The current account deficit narrowed in 2022, mainly due to the decline in gold imports and the recovery in goods exports and tourism. The current account deficit declined from about 42 percent of GDP in 2021 to 26 percent GDP in 2022. Gold imports, while continuing to account for more than half of the total current account deficit, declined by 7 percentage points of GDP in 2022. Exports of major manufacturing goods (e.g., textiles, electronics) saw a solid recovery, while good imports increased only modestly. As a result, the trade balance excluding gold improved by about 4 percentage points of GDP. The service deficit declined by 4 percentage points of GDP, due to the recovery in tourism.

Current Account Balance
(In percent of GDP)

Trade Balance
Services Balance
Income Balance
Current Transfers Balance
Current Account Balance

Sources: Cambodia authorities

Trade Balance and Main Items
(In percent of GDP, exports (+), imports (-))

Gold
Garment Exports
Other Exports
Petroleum
Garment Imports
Other Imports
Total

Sources: Cambodia authorities
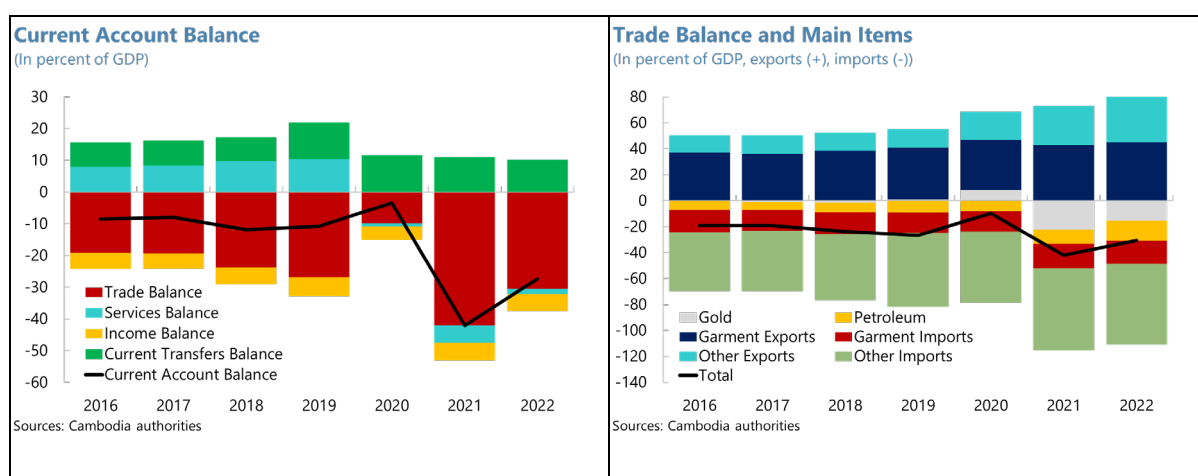
2.   The financial account balance decreased to 24 percent of GDP in 2022, largely reflecting the decline in other short-term capital inflows. Net short-term capital inflow (including errors and omissions) decreased to 5 percent of GDP in 2022 from 20 percent of GDP in 2021. Since a large part of the inflows was recorded as other investment and errors and omissions, their source and nature are not clearly identified. Medium-to-long term loans remained broadly stable. Despite some increases in construction and solar manufacturing, FDI as a share of GDP declined slightly in 2022. The net foreign asset (NFA) position decreased to -134 percent of GDP by end-2022, reflecting the decline in reserves assets.

Current Account Financing
(In percent of GDP)

Legend:
- Medium- and Long-term Loans
- Foreign Direct Investment, Net
- Foreign Assets of Banks, Net
- Change in Official Reserves
- Other Short-term Flows and Errors/Omissions
- Capital and Financial Account

Sources: Cambodia authorities

Net Foreign Assets
(In percent of GDP)

Legend:
- Direct Investment
- Other Investment
- Portfolio Investment
- Reserves Assets
- International Investment Position

Sources: Cambodia authorities

3.   The external position is assessed to be substantially weaker than implied by fundamentals and desirable policies. The current account deficit reached -26.1 percent of GDP in 2022, of which about 16 percent of GDP was driven by gold imports. While gold imports have remained volatile since 2021, they had been restricted before the general election in the first half of 2023. Since the restrictions ended in July, gold imports have been increasing again, and in October, reached close to 40 percent of the monthly average of the previous 2 years. On this basis, gold imports are assessed to be partially temporary, and the current account deficit is adjusted by half of total gold imports, lowering the deficit by 8 percentage points of GDP. Along with cyclical adjustments to account for weaker terms of trade, the larger output gap, COVID-19-related tourism losses and medical imports, and natural disasters, the current account deficit in 2022 is adjusted to -13.6 percent of GDP. Comparing to the current norm of -6.4 percent of GDP, the current account gap is -7.2 percent of GDP,

Cambodia: EBA-lite Model Results, 2022		
	CA model 1/	REER model 1/
	(in percent of GDP)	
CA-Actual	**-26.1**	
Cyclical contributions (from model) (-)	-1.0	
COVID-19 adjustors (-) 2/	-3.6	
Additional temporary/statistical factors (-)	-7.8	
Natural disasters and conflicts (-)	-0.1	
Adjusted CA	**-13.6**	
CA Norm (from model) 3/	**-6.4**	
Adjusted CA Norm	**-6.4**	
CA Gap	**-7.2**	**-17.7**
o/w Relative policy gap	2.2	
Elasticity	-0.6	
REER Gap (in percent)	**11.7**	**28.7**
1/ Based on the EBA-lite 3.0 methodology		
2/ Additional cyclical adjustment to account for the temporary impact of the tourism (3.1 percent of GDP) and medical goods (0.5 percent of GDP). The latter accounts for the large temporary increase in medical goods imports (medical goods exports are assessed to neglible).		
3/ Cyclically adjusted, including multilateral consistency adjustments.		

equivalent to a real exchange rate overvaluation of about 11.7 percent. The real exchange rate model also points to the similar conclusion, with an estimated current account gap of -17.7 percent of GDP.

**4.	The external sector assessment faces substantial uncertainties.** Gold trade has been highly volatile during the pandemic: Cambodia exported gold in 2020, and then switched to importing gold in 2021-22. But in early 2023, gold imports declined markedly. Hence the estimated current account gap is subject to large uncertainties from gold trade. The estimated gap can range from around 0 to -15 percent of GDP depending on whether gold imports are assumed to be entirely temporary or permanent, respectively.

**5.	The real effective exchange rate continued its appreciation trend.** The real exchange rate had appreciated by 4 percent annually over the decade before the pandemic. The appreciation trend was temporary disrupted by the (nominal) depreciation against the US dollar in 2020. After the real exchange rate appreciated again in 2021, the trend appreciation has remained moderate—of about 2 percent annually—until 2023's third quarter, reflecting capital inflows.

Real Effective Exchange Rate, 2000Q1—2023Q3
(2010=100)

Sources: INS and IMF staff calculations.
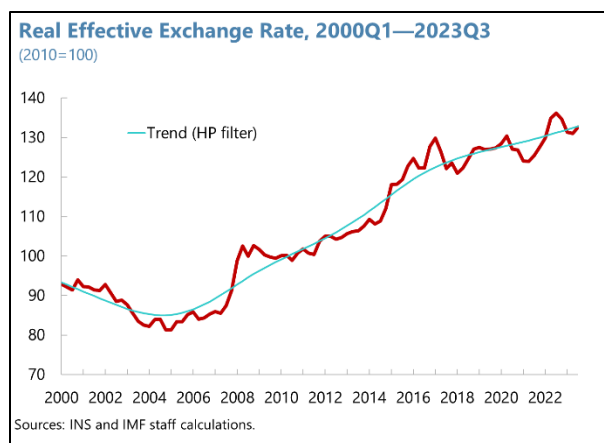
**6.	International reserves decreased in 2022 but remain broadly adequate.** Mainly due to negative valuation effects, gross reserves decreased by US$2.5 billion in 2022. Reserves were 62 percent of GDP at the end of 2022. This corresponded to over 7 months of prospective imports, which is higher than the optimal level of 4 month of imports as implied by the ARA tool for credit-constrained economies. Recent data suggests the reserves remain broadly stable at 18.4 US$ billion in the first half of 2023. Although the current level of reserves is adequate, a high level of international reserves remains advisable, as Cambodia is a highly export-dependent economy, operating in a managed peg exchange rate regime with a high degree of dollarization.

International Reserves
(LHS: in billion USD, RHS: in percent of GDP)

Sources: Cambodia authorities
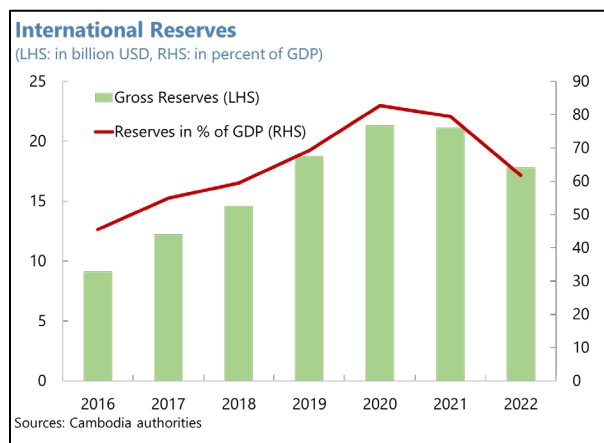
Annex II. Risk Assessment Matrix[1]

Nature/source of the shock	Likelihood	Impact	Policies to minimize impact
Conjunctural risks			
Corporate and/or household debt distress	Medium-High	Increasing private debt challenges long-term viability and could be leading to a significant presence of non-yielding assets on bank balance sheets. The actual health of loan portfolios might be more concerning than what current data suggests, amplifying worries about potential corporate debt issues and the strain on lending institutions.	Enhanced data reporting of financial institutions and financial supervision to generate early warning of debt distress; More scrutiny of bank lending standards; regular stress tests; advancement of corporate insolvency and bank resolution laws.
Abrupt global slowdown or recession	Medium-High	Reduced external demand, especially from the US and China, would have a substantial impact on the economy.	Counter-cyclical fiscal policy in the near term; structural policies to diversify export destinations and export products in the medium term.
Commodity price shocks and de-anchoring of inflation	Low-Medium	Rising commodity prices could reduce households' purchasing power and increase relative poverty, put pressure on external positions and exchange rate, and increase the risk of social economic instability.	Fiscal policy should address distributional consequences while avoiding fueling domestic inflation pressures. Monetary policy should continue focusing on exchange rate stability.
Systemic financial instability	Medium	Sharp swings in real interest rates and risk premia, and asset repricing amid economic slowdowns and policy shifts could trigger insolvencies and market dislocations, especially given high credit growth.	Continue improvements in central bank's liquidity provision framework; improve bank supervision and macro prudential frameworks.
Structural risks			
Deepening geo-economic fragmentation	High	An increase in geopolitical tensions in the region could disrupt trade and damage confidence, possibly affecting export markets and/or FDI.	Continue to promote export market and product diversification, strengthening regional economic ties in addition to current large trade partners.
Disorderly energy transition	Low-Medium	Disorderly shift to net-zero emissions (e.g., owing to shortages in critical metals) and climate policy uncertainty can cause supply disruptions, stranded assets, market volatility, and subdued investment and growth.	Invest in renewable energy infrastructure. Expand participation in the emerging global value chain for green and renewable industries.

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[1] The Risk Assessment Matrix (RAM) shows events that could materially alter the baseline path (the scenario most likely to materialize in the view of IMF staff). The relative likelihood is the staff's subjective assessment of the risks surrounding the baseline ("low" is meant to indicate a probability below 10 percent, "medium" a probability between 10 and 30 percent, and "high" a probability between 30 and 50 percent). The RAM reflects staff views on the source of risks and overall level of concern as of the time of discussions with the authorities. Non-mutually exclusive risks may interact and materialize jointly. "Short term" and "medium term" are meant to indicate that the risk could materialize within 1 year and 3 years, respectively.

Nature/source of the shock	Likelihood	Impact	Policies to minimize impact
Extreme climate events **Extreme climate events**	**Low-Medium**	Floods, droughts and changing monsoon patterns pose a severe threat to agricultural production, a crucial source of income for the most vulnerable segments of the population as well as an important source of exports. Urban areas located close to riverbanks have experienced flooding, which threaten industrial production and housing. Forced migration of large segments of the population may pose social and fiscal challenges.	Focus on climate adaptation, through investment in climate-resilient infrastructure, reforestation and strengthening agricultural production/food security. In the long run, it is crucial to budget for support to households and firms affected by extreme weather events.
Governance inadequacy and corruption	**Medium**	Weak governance frameworks can lead to inefficiencies and corruption. Poorly designed policies, lack of oversight, and corrupt practices can divert resources away from essential public services and investments, harming long-term economic growth. Weak governance can deter foreign investment and erode public trust, destabilizing the economy.	Strengthening legislative frameworks to enforce accountability and transparency; Implementing digital monitoring and reporting systems for real-time oversight; Increasing human and technological resources for monitoring agencies; Periodic reviews and updates of governance policies.

Annex III. Implementation of Fund Advice

Policies	2022 Article IV Recommendations	Actions since 2022 Article IV Consultations (As of October 29, 2023)
Policies to Manage Near-Term Challenges		
Fiscal Policy	Fiscal support needs to be well targeted. Social protection measures should continue to be used to protect the poor against the effects of inflation, but with some offsetting cuts elsewhere.	• On the support to households, the cash transfer program for the poor and vulnerable households continued until end of 2023. The authorities also introduced cash transfer program for at-risk households affected by rising fuel and food prices in December 2022. The program concluded with the last round of cash transfer in July 2023. • On the support to businesses, the Ministry of Economy and Finance (MEF) announced additional funding of US$ 100 million to the SME Bank to support SMEs in pandemic affected sectors (e.g., tourism, garments) in December 2022. The MEF has slowly rolled back tax exemptions for tourism business activities in 3 regions (Phnom Penh, Siem Reap, Preah Sihanoukville) to only for those in Siem Reap province in January 2023.
	The authorities should avoid permanent spending increases that would make a medium-term fiscal deficit reduction challenging.	Fiscal interventions introduced during COVID-19 are expected to be phased out by end-2023, with fiscal consolidation stance from 2024 onward.
Monetary and Exchange Rate Policy	To help rein in credit growth, the NBC should gradually restore monetary conditions to pre-crisis levels.	The NBC has gradually restored minimum reserve requirements for USD and capital conservation buffers (CCB) to pre-crisis levels. • Commercial banks and microfinance deposit taking institutions are required to maintain reserve requirements in foreign currency at the rate of 9% during 2023, and at 12.5% from end-2024 onward. The reserve requirement in KHR is kept at 7% as an incentive for holding KHR. • Deposit taking institutions must accumulate CCB at least 1.25% by 30 June 2023 and 2.50% by the end of 2023. Meanwhile, Countercyclical Capital Buffer (CyCB) will remain zero until further notice. To ensure exchange rate stability, maintain the purchasing power of KHR, NBC intervened in foreign exchange market from September 6 to October 12, 2023 by selling 139.1 million USD to banks and microfinance institution as well as licensed money changers.
Financial System Policy	The NBC needs to continue to normalize prudential conditions to pre-pandemic setting, so that the financial system is able to withstand future shocks.	The NBC ended COVID-19 forbearance of loan restructuring since end of June 2022, conforming to its circular issued at the end of 2021 that extended the forbearance period for new restructured loans just until the end of June 2022 and required banks to classify and provision for restructured loans. Banks are also required to conduct regular stress testing on their restructured loan portfolios and report results to the NBC.
Policies	**2022 Article IV Recommendations**	**Actions since 2022 Article IV Consultations (As of October 29, 2023)**

Financial System Policy	The NBC should intensify supervision, continuing rigorous onsite inspections and including extensive reviews on loan portfolios. Supervisors could also consider collecting and centralizing financial information on the largest borrowers, to facilitating debt restructuring policies and avoid uncoordinated evergreening practices.	The NBC has been working to reduce supervisory gaps and strengthen the financial safety net. • The NBC has completed the draft on new capital adequacy/solvency framework (CAR) in line with Basel III, considering local banking conditions. The framework consists of five Prakas, on Regulatory Capital, the Capital Adequacy Ratio (CAR), Credit Risk for CAR Purposes, Market Risk for CAR Purposes, and Operational Risk for CAR Purposes. The NBC is collecting comments on draft from BFIs and other relevant stakeholders, namely Association of Banks in Cambodia and Cambodia Microfinance Association. • Once the new CAR framework is completed, the NBC will review the Prompt Corrective Action (PCA) framework. • On June 23, 2023, the NBC has released the 2 Prakas on Regulatory Capital and Credit Risk for CAR framework, which will be implemented from January 1, 2024 onward.
	The NBC should be vigilant of any sudden liquidity needs.	With IMF TA, the NBC is working on improving its liquidity monitoring and forecasting.
Policy Frameworks for a Resilient Economy		
Fiscal Strategy and Frameworks	The increased demands on public spending call for the introduction of a comprehensive fiscal framework, including an operational fiscal rule with numerical target (e.g., debt anchor in nominal terms, combined with an overall deficit ceiling).	• The authorities have made progress in improving fiscal governance with the introduction of the new Law on Public Finance System (PFS) in March 2023, the new Law on Public Procurement in May 2023, and the new Law on Taxation in May 2023. • The draft Medium Term Fiscal Framework (MTFF) is under preparation. The fiscal rules will be recalibrated once the new GDP rebased data are released. • A draft new Public Debt Management Strategy is under review and is expected to be introduced in 2024.
	A strategy for revenue mobilization should consider not only revenue needs but incentives.	• The authorities have started to prepare Revenue Mobilization Strategy (RMS) 2024-2028, by focusing on further modernizing GDT and GDCE administrations as well as looking into new sources of potential revenue (e.g., digital tax and carbon pricing). • The authorities expect to implement capital gain tax from January 2024 onward, except for the real estate sector (from January 2025 onward). • The authorities introduced a Sub-Decree on the Implementation of Law on Investment in June 2023, detailing incentives for various investment activities.
	The government should continue to develop a sovereign bond market.	The government intends to issue local-currency government bonds in 2023 of approximately US$ 200 million, while continuing to build market infrastructure to manage issuance, registration, and trading. A policy framework for the development of government security 2023-2028 is being drafted and is expected to complete by end-2023.

Policies	2022 Article IV Recommendations	Actions since 2022 Article IV Consultations (As of October 29, 2023)
Financial and Monetary Frameworks **Financial and Monetary Frameworks**	Deeper policy frameworks are needed to safeguard the financial system and protect borrowers. The authorities should complete the bank restructuring and the deposit insurance legal frameworks and enabling regulations. The authorities should also update the capital regulations in line with recent TA recommendations.	The Deposit Protection and Bank Resolution Unit at the NBC has been tasked with drafting law and/or regulation and conducting a feasibility study toward the establishment of a deposit protection scheme (DPS) in Cambodia, as well as assist in drafting legislation for bank resolution. The deposit protection law has been drafted and is to be reviewed by the NBC management, while the legislation for Special Bank Resolution has been under drafting by the NBC working team.
	The NBC needs better oversight of households' financial burdens. The authorities should begin collecting data on income and collateral of borrowers and macroprudential tools should be developed.	The NBC financial stability team conducted survey on loan-to-value (LTV) and debt-service-to-income (DSTI) ratios, which are additional inputs to evaluate households' financial distress, strengthen credit mechanisms, and address sector-specific risks.
	Improving anti-money laundering and combating the financing of terrorism (AML/CFT) framework.	Based on the outcomes of the Financial Action Task Force (FATF) plenary on February 22-24, 2023, Cambodia was removed from the Jurisdictions under Increased Monitoring (known as FATF's grey list).
	Modernizing monetary policy framework together with de-dollarization. Developing market-based monetary policy tools, including an Interest Rate Corridor (IRC), would support the NBC's policy agenda to modernize monetary policy framework and enhance the use of the national currency.	• Market-base monetary tools: To facilitate setting the level of liquidity at an appropriate level and following the recommendation of IMF TA, the NBC is preparing to introduce a 7-day liquidity supply instrument, e.g., the LPCO with 7-day maturity (current shortest maturity is 90-day), to address the lacks a short-term liquidity providing Open Market Operations (OMOs). • Interest rate corridor (IRC): In addition to the MLF which serves as ceiling rates, the full-fledged IRC requires introducing an overnight deposit facility that serves as a floor for short-term KHR market interest rates. The NBC is currently reviewing operational issues as pre-step to introduce overnight deposit facility. In October 2023, the NBC raises the interest rate of the MLF from 4% to 6%. • Liquidity management: The NBC has improved its liquidity forecasting and management framework with the help of IMF TA to develop liquidity forecasting of autonomous factors to calibrate volume of 7-day monetary operation. The NBC has also started collecting daily data on interbank money market transactions since July 2022 and is considering including KHR interbank money market transactions in the NBCP to facilitate the systematic and timely collection of market rates. At the same time, to facilitate BFI's liquidity management as well as promote the use of KHR, the NBC takes into consideration TA's recommendation on introducing full averaging for maintenance of KHR minimum reserve requirement by considering increasing partial averaging limit as a first step moving to full averaging.

| Governance and Anti-Corruption Frameworks	1) Amend the Anti-Corruption Law and the Assets Declaration regime	Authorities have not initiated efforts to amend the AD regime in order to implement recommendations. Legal reforms have not been adopted and asset declarations remain confidential. Information on assets and interests is still not covered by the AD regime. No reforms have been prepared, adopted or implemented to ensure the independence of those officials
Governance and Anti-Corruption Frameworks	2) Adopt measures and tools to ensure the effectiveness of the asset declarations regime	Some measures have been taken to strengthen the AD regime but additional reforms and tools are pending. Steps have been taken to move towards the use of new technological tools but additional measures are needed to ensure full digitalization of ADs. A phased strategic plan for risk-based audits overs AD has not been adopted.
	3) Reinforce inter-agency cooperation	Increased inter-agency cooperation is underway, particularly in the context of the AC Coordination Commission.
	4) Provide more resources and training for the NAA	Backslide is occurring. NAA has received even less resources. But some progress has been achieved in training of the NAA.
	5) Adopt measures to protect whistleblowers	Measures to protect whistleblowers have not been adopted. A draft law on whistle blower protection is stagnated in the Ministry of Justice. The same is true for a draft law on witness protection.
	6) Adopt measures to increase transparency and access to information	A law on transparency has not been enacted. Information and data on public procurement is still not available. Beneficial owners are still not disclosed in public contracts. Progress has been made under the guidance of the Ministry of Justice in the publication of norms, regulations, and judicial decisions

Annex IV. Nowcasting Cambodia's Real GDP[1]

This annex describes and applies "nowcasting" to provide real-time forecasts of Cambodia's quarterly GDP. The results show that two high-frequency variables—international arrivals and exports—are robust and strong drivers of quarterly GDP growth. Preliminary real-time estimates of GDP growth suggest that economic activity has expanded by 4.6 percent (y/y) in 2023Q1 and picked up at 4.9 percent (y/y) in 2023Q2, with Q2 growth supported by tourist arrivals and exports despite the slowdown in China's growth.

A. Context: Why Nowcasting in Cambodia

1.   While policymakers would ideally use real-time data to make timely policy decisions, usually lagged information is the only available (Giannone *et al.*, 2008). Policymaking has become more data driven; however, some key macroeconomic indicators—such as real GDP— are published with significant lags, and sometimes only produced at an annual (but not quarterly) frequency, as is the case in Cambodia. This highlights the need for a systematic analysis of high-frequency indicators that could explain drivers of economic activity (e.g., main economic sectors and main export products) and monetary conditions (e.g., broad money, credit, and international reserves).

2.   "Nowcasting" is an approach that allows to assess economic activity in real time (see Elliott *et al.*, 2006). Nowcasting is used to provide an estimate of GDP for the current (and sometimes subsequent) quarter. It also provides inputs to the traditional near-term forecasting (NTF)—which is used to forecast real GDP from one to four quarters ahead and the medium-term forecasting (MTF)—which produces forecasts at 2-5 years horizon (Figure 1).

Figure 1. Process for Nowcasting and Near-Term

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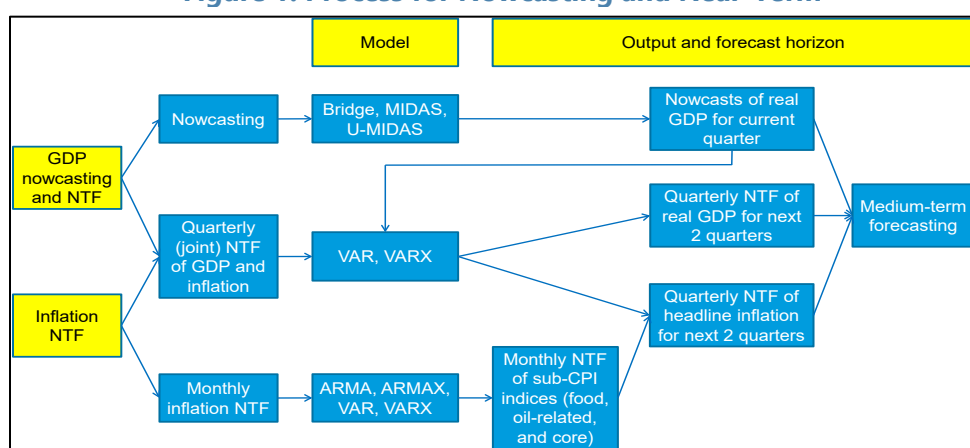
[1] This annex was prepared by Kuchsa Dy, Fei Han, Dyna Heng, Yasuhisa Ojima and Pholla Phork. It draws from the forthcoming IMF working paper "Nowcasting Cambodia's Economy" [WP/2023] jointly authored with the National Bank of Cambodia (NBC) under the IMF's Nowcasting TA project with the NBC supported by Capacity Development Office in Thailand and financed by the Government of Japan

B. Nowcasting Approaches

3.   There are several nowcasting approaches, either in the form of univariate or multivariate models. Multivariate models are usually more efficient as they tend to produce the minimum mean squared errors (MSE) given a correct model specification, but they are computationally demanding, particularly when the frequency mismatch is large, and more likely to be subject to misspecification issues (Foroni and Marcellino, 2013). These models include, for example, Mixed-Frequency VARs, Dynamic Factor Models, and Factor-Augmented Autoregressive Models. Univariate models, on the other hand, have simpler specifications of equations and are less data demanding and more efficient in the estimation of the parameters. The common univariate models for nowcasting include the Bridge, MIDAS (Mixed Data Sampling), and U-MIDAS (Unrestricted MIDAS) regression models (see Box 1 for details and a comparison of these approaches). The nowcasting exercises usually start with the regression-based approaches adopted in univariate models, which are used to produce an average nowcast (Watson and Stock, 2004).

#### Box 1. Cambodia: Comparing Bridge, MIDAS, and U-MIDAS

- The **Bridge model** produces a forecast by initially converting all the high-frequency indicators, e.g., by sum or averaging, to the target low frequency. Some dynamics of the high-frequency variables might be lost due to this conversion (Baffigi and al., 2004 & Foroni and Marcellino, 2013).

- Under **MIDAS and U-MIDAS,** the high-frequency variables are converted to the target frequency using "skip" or "split" sampling rather than averaging or summing. These converted variables (and their lags) are added to the model, allowing them to have different parameters unlike the case of averaging or summing. However, this also creates the so-called "parameter proliferation" problem with too many parameters to estimate.

    o   Under **MIDAS**, the parameters of the split/skip-sampled variables are assumed to follow a specific functional form (e.g., a polynomial function) that depends on fewer parameters, thereby reducing the overall number of parameters to estimate. The drawback is that OLS cannot be applied due to the nonlinear functional form of parameters and that the assumption of the functional form could be wrong (Ghysels *et al.*, 2004 & Clements and Galvão, 2009).

    o   Under **U-MIDAS**, these variables are added to the base forecasting model directly without any restrictions on the shape of their associated parameters. Thus, OLS can be applied to estimate U-MIDAS models. The drawback is there are too many parameters to be estimated and hence the frequency mismatch between the target variable and the high-frequency indicators cannot be too large (Foroni *et al.*, 2015).

C. Nowcasting Cambodia's Quarterly Real GDP

4.   The availability of quarterly GDP data is a prerequisite for nowcasting. At the moment, only annual GDP data are available for Cambodia, although the National Institute of Statistics (NIS) has been discussing with capacity development partners to start producing quarterly GDP. The construction of a new quarterly GDP series with a new base year, however, may take time. To address this issue, we use quarterly real GDP historical data estimated by the IMF's ICD jointly with the authorities using the Chow-Lin procedure (Chow and Lin, 1971; Miralles *et al.*, 2003; Angelini et al., 2006), which extracts information from high-frequency indicators to interpolate quarterly GDP based on annual GDP data [2](Figure 2).

Figure 2. Historical quarterly real GDP growth following Chow-Lin procedure (in percent, seasonally adjusted QoQ)
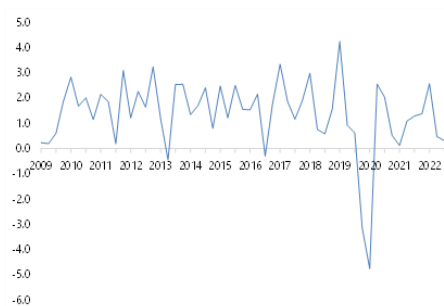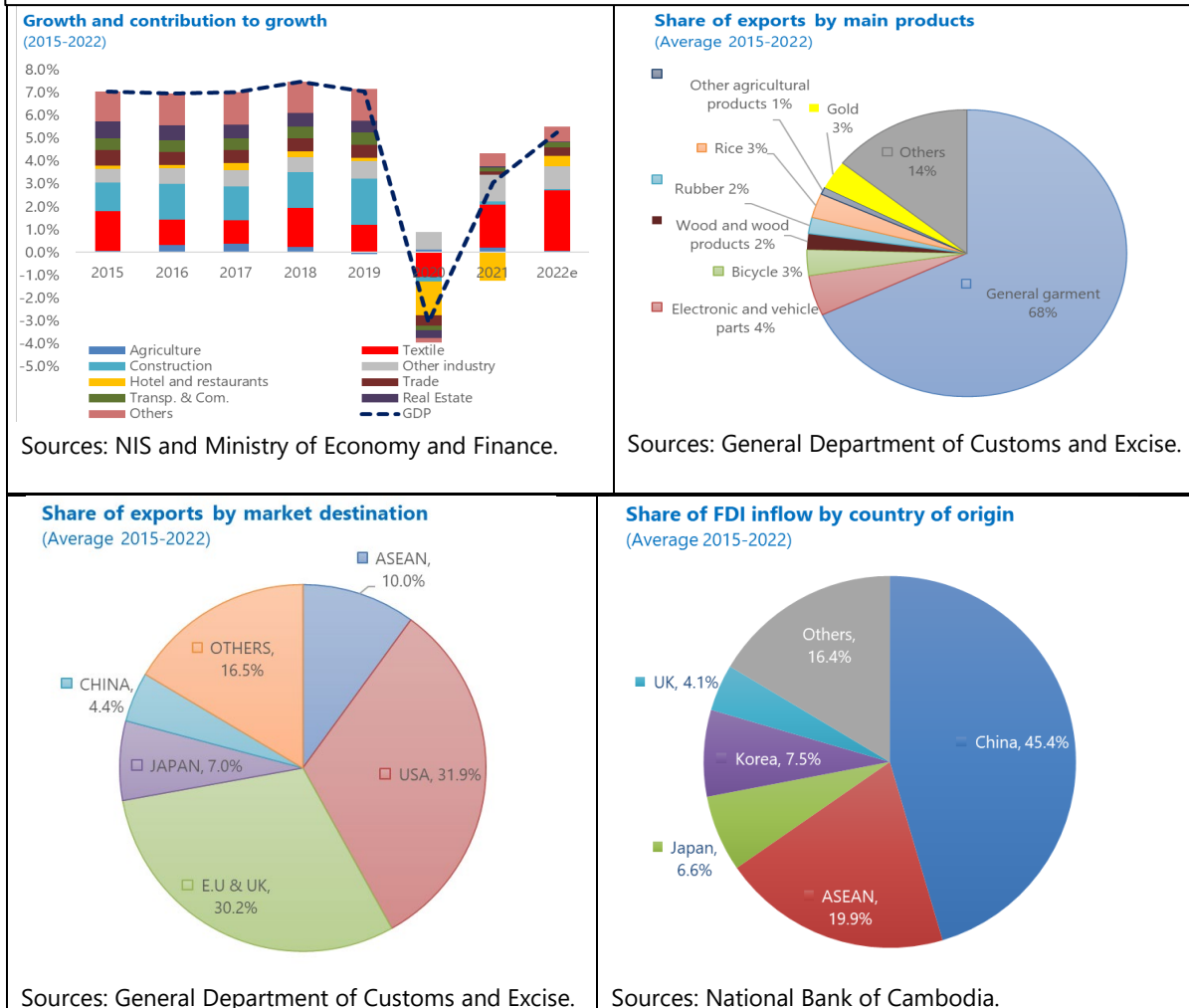

Sources: Forthcoming IMF working paper "Nowcasting Cambodia's Economy".

5.   Tourist arrivals, exports, credit growth, international reserves, and growth of the US, the EU, and China are strong correlates of Cambodia's quarterly GDP growth. To construct the models for nowcasting Cambodia's real GDP growth, it is important to identify the country's key drivers of growth and economic structure. This will help guide finding the leading indicators and explanatory variables for the country's real GDP and hence the specification of the model equation. The relevant information includes, for instance, the country's main economic sectors, main export and/or import products, and key trading and economic partners (Figure 3 and 4). In addition, monetary indicators such as credit growth, broad money, and international reserves, also contribute to affect state of economy. Finally, the selection of indicators in the model must take into consideration the timely availability of the indicators and parsimony of the model. In the case of Cambodia, the potential explanatory variables in the model for nowcasting real GDP are lagged real GDP, tourist arrivals, exports, credit growth, international reserves, and growth of the US, the EU, and China.

[2] The two-step approach (quarterly GDP interpolation and nowcasting) has been used in other countries including Malaysia (when quarterly GDP was not available), Solomon Islands, and Democratic Republic of Congo. One caveat to this approach is that some of the variables used in interpolation (e.g., tourism and exports) are statistically significant in the nowcasting regressions by construction.

Figure 3. A glance at Cambodia's drivers of growth and economic structure (2015-2022)

Growth and contribution to growth
(2015-2022)

Sources: NIS and Ministry of Economy and Finance.

Share of exports by main products
(Average 2015-2022)

Sources: General Department of Customs and Excise.

Share of exports by market destination
(Average 2015-2022)

Sources: General Department of Customs and Excise.

Share of FDI inflow by country of origin
(Average 2015-2022)

Sources: National Bank of Cambodia.

6.   These explanatory variables, together with the lagged real GDP growth, are used in the estimation of the three nowcasting models (Bridge, MIDAS, and U-MIDAS). A dummy variable, CRISIS, is also included to capture the shocks of the COVID-19 pandemic. The table in the appendix below displays the specification of the baseline Bridge model with the explanatory variables in a linear equation. This specification is then also used in estimating the MIDAS and U-MIDAS models, but at the highest frequency available (e.g., monthly for tourist arrivals, credit growth, etc.). Differences in logarithmic variables are used to ensure the stationarity of both explanatory variables and the dependent variable. In other words, the dependent variable is basically the quarter-on-quarter growth of Cambodia's (seasonally adjusted) real GDP. Finally, when not available, high-frequency variables are projected to the end of the nowcasting using the automatic ARIMA forecasting models or insights from the authorities (i.e. credit growth is officially published with one month lag, but bank supervisors usually have a insights on the actual data already at the time of Nowcasting).

7. **The nowcast models provide useful information that helps identify turning points in Cambodia's GDP growth.** Before proceeding to nowcasting the current quarter's real GDP, we can evaluate the nowcasting models using the so-called "pseudo out of sample" forecasting evaluation. The benchmark model for comparison is a simple automatic ARIMA model. Assuming that the real GDP is not available in 2022Q3 and Q4, we use the nowcasting and automatic ARIMA models to forecast the real GDP for 2022Q3 and Q4. The results[3] indicate that, unlike the automatic ARIMA forecasting, the nowcast models can successfully predict the trend and dynamics of the "actual" real GDP in 2022Q3 and Q4.

Figure 4. Pseudo out of sample forecasting 2022Q3-Q4 of Real GDP (in billion KHR)
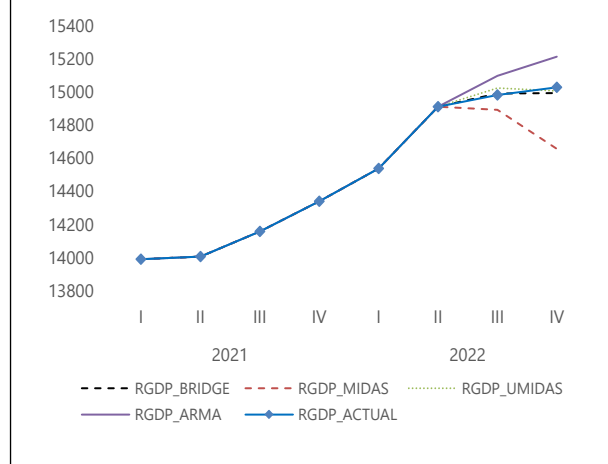
8. **Nowcast estimates of real GDP for 2023Q1 suggest a softening in economic activity, but the growth momentum is picking up in Q2.** Cambodia's real GDP year-on-year is estimated to slightly decelerate to 4.6 percent (y/y) in the first quarter of 2023 from 4.8 percent (y/y) in previous quarter and is projected to rise slightly in the second quarter (4.9 percent y/y) (Figure 5). Quarter-on-quarter, real GDP is estimated to recover from 0.3 to 1.1 percent (q/q) in Q1 and 2.9 percent (q/q) in Q2. For 2023Q2, the growth was mostly driven by a rebound in tourist arrivals and exports despite the slowdown of China's growth.

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[3] The divergent path of MIDAS be affected by evaluation period compared to other nowcasting model as the results heavily depend on the evaluation period.

Figure 5. Nowcasting Cambodia's real GDP 2023Q1-Q2 using Bridge, MIDAS, and U-MIIDAS
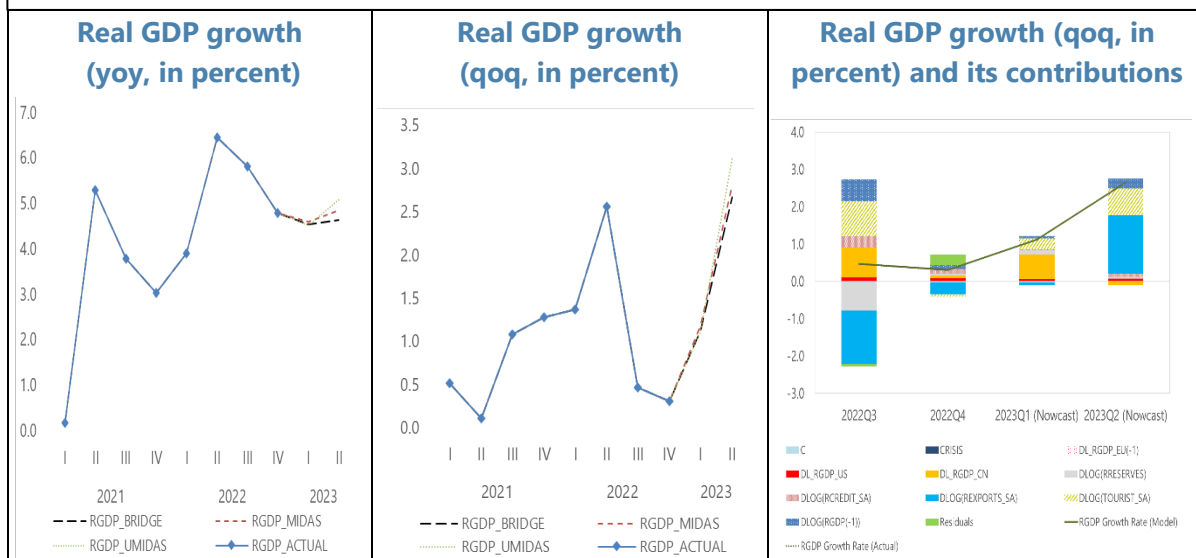
D. Conclusion and Policy Implications

9.   These preliminary results suggest that the recovery in the tourism sector and exports amid the global demand recovery helped offset the slowdown in China's growth in the second quarter of 2023. Estimates based on latest observed high frequency data (e.g., monthly international arrivals etc.), suggest that the positive recovery of tourism and exports on the back of border reopening have offset the adverse impacts from China's growth slowdown.

10.   Moving ahead, the nowcasting exercise could be further enhanced by: i) improving data availability and adding potentially important information such as measure of PMI, business sentiment index, retail sales, etc.; and ii) extending the analysis to alternative more efficient (but more computationally demanding) approaches, including principal component analyses and multivariate models (e.g., mixed-frequency VAR, Dynamic Factor models). Nowcasting should be regularly updated to inform policymakers the real-time assessment of the economy which have implication for budget preparation and monetary and financial sector policies. The development of quarterly national account is key, as the nowcast estimates (specially those for 2nd-to-4th quarters) are extremely sensitive to the variable chosen to interpolate past quarterly GDP growth and, in particular, to the growth estimates for the 4th quarter of the preceding year.

Table 1. Cambodia: Equation Estimation				
DLOG(RGDP) (GDP growth rate, quarter-on-quarter, sample period 2004Q3 - 2022Q4)				
	BRIDGE		MIDAS	U-MIDAS
	1	2	PDL/Almon, degree:3	Lag selection: 4
Constant	0.001	0.000	0.000	-0.002
(Std. error)	(0.002)	(0.003)	(0.002)	(0.003)
[Pval]	[0.756]	[0.952]	[0.972]	[0.339]
DLOG(RGDP(-1))	0.222 ***	0.234 ***	-0.050	-0.049
(Std. error)	(0.069)	(0.084)	(0.083)	(0.086)
[Pval]	[0.002]	[0.007]	[0.555]	[0.571]
DLOG(TOURIST_SA)	0.017 ***	0.014 ***		
(Std. error)	0.002	(0.003)		
[Pval]	[0.000]	[0.000]		
DLOG(REXPORTS_SA)	0.084 ***	0.081 ***		
(Std. error)	(0.014)	(0.014)		
[Pval]	[0.000]	[0.000]		
DLOG(RCREDIT_SA)	0.053 *	0.055 *		
(Std. error)	(0.029)	(0.030)		
[Pval]	[0.076]	[0.065]		
DLOG(RRESERVES)	0.094 ***	0.091 ***		
(Std. error)	(0.019)	(0.019)		
[Pval]	[0.000]	[0.000]		
DL_RGDP_CN	0.002 ***	0.002 ***	0.002 ***	0.002 ***
(Std. error)	(0.000)	(0.000)	(0.000)	(0.000)
[Pval]	[0.000]	[0.000]	[0.000]	[0.000]
DL_RGDP_US		0.001	0.000	0.002 *
(Std. error)		(0.001)	(0.001)	(0.001)
[Pval]		[0.134]	[0.589]	[0.090]
DL_RGDP_EU(-1)		0.000	0.001 *	0.001 ***
(Std. error)		(0.001)	(0.000)	(0.001)
[Pval]		[0.855]	[0.051]	[0.008]
CRISIS	-0.007 *	-0.005	-0.005	-0.005
(Std. error)	(0.004)	(0.004)	(0.004)	(0.004)
[Pval]	[0.080]	[0.172]	[0.162]	[0.142]
Page: MONTHLY Series: DLOG(TOURIST_SA_F)				
Number of LAG			4	4
PDL01/LAG1			-0.013	-0.012
(Std. error)			(0.016)	(0.008)
[Pval]			[0.434]	[0.117]
PDL02/LAG2			0.012	0.030 ***
(Std. error)			(0.015)	(0.010)
[Pval]			[0.412]	[0.003]
PDL03/LAG3			-0.001	0.017 ***
(Std. error)			(0.003)	(0.003)
[Pval]			[0.774]	[0.000]
LAG4				0.029 ***
(Std. error)				(0.007)
[Pval]				[0.000]

Table 1. Cambodia: Equation Estimation (Concluded)

Page: MONTHLY   Series: DLOG(REXPORTS_SA_F)

Number of LAG			5	4
PDL01/LAG1			-0.022	0.039 ***
(Std. error)			(0.021)	(0.012)
[Pval]			[0.299]	[0.002]
PDL02/LAG2			0.059 ***	0.063 ***
(Std. error)			(0.018)	(0.015)
[Pval]			[0.002]	[0.000]
PDL03/LAG3			-0.010 ***	0.066 ***
(Std. error)			(0.003)	(0.013)
[Pval]			[0.001]	[0.000]
LAG4				0.034 **
(Std. error)				(0.010)
[Pval]				[0.001]

Page: MONTHLY   Series: DLOG(RCREDIT_SA_F)

Number of LAG			4	4
PDL01/LAG1			0.303	0.165 **
(Std. error)			(0.182)	(0.063)
[Pval]			[0.103]	[0.012]
PDL02/LAG2			-0.216	0.021
(Std. error)			(0.162)	(0.042)
[Pval]			[0.190]	[0.612]
PDL03/LAG3			0.043	0.072
(Std. error)			(0.031)	(0.062)
[Pval]			[0.176]	[0.258]
LAG4				0.159 **
(Std. error)				(0.065)
[Pval]				[0.019]

Page: MONTHLY   Series: DLOG(RRESERVES_F)

Number of LAG			5	4
PDL01/LAG1			-0.049	0.075 **
(Std. error)			(0.059)	(0.030)
[Pval]			[0.406]	[0.018]
PDL02/LAG2			0.145 ***	0.143 ***
(Std. error)			(0.045)	(0.044)
[Pval]			[0.002]	[0.002]
PDL03/LAG3			-0.029 ***	0.121 ***
(Std. error)			(0.008)	(0.030)
[Pval]			[0.001]	[0.000]
LAG4				0.085 **
(Std. error)				(0.032)
[Pval]				[0.010]

Adjusted R-squared	0.756	0.757	0.859	0.861
Prob(F-statistic)	0.000	0.000		
Akaike info criterion	-6.955	-6.937	-7.345	-7.348
Durbin-Watson stat	1.667	1.813	2.409	2.471

Notes:

Comparing to Model 1, Model 2 for Bridge adds US' GDP, and one lagged EU's GDP as explanatory variables. Model 2 is then used as basis for the specification of MIDAS and U-MIDAS. * indicates 10 percent, ** indicates 5 percent, and *** indicates 1 percent significance, respectively.

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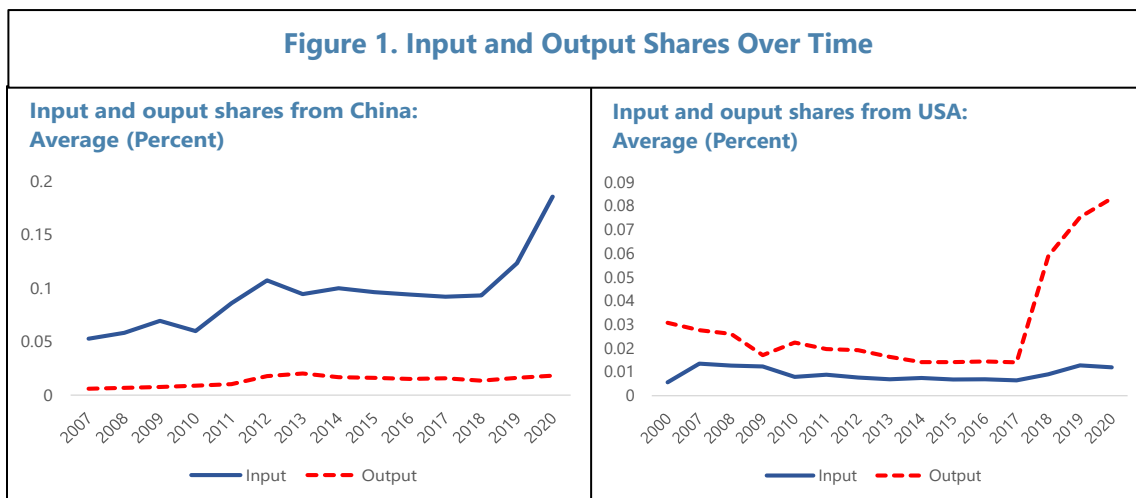# Annex V. Global Growth Shocks: Spillovers to Cambodia

Cambodia occupies an intermediate position in Global Value Chains (GVCs), making it susceptible to both supply and demand shocks originating abroad. The US and China are key export and import markets and major drivers of growth dynamics of the Cambodian economy. Using local projection methods, this note shows that at the one-year horizon, GDP responds to changes in Chinese and US output with an elasticity of 0.7 and 0.5, respectively. A difference-in-differences analysis at the sectoral level highlights the mechanism through which US and Chinese growth affects Cambodia. Supply shocks from China have stronger growth effects on sectors that are more input-dependent, while demand shocks from the US affect mostly sectors that are more export-dependent.

1.   **Cambodia occupies an intermediate position in production networks linking China to the US and to other advanced economies.** Changes in macroeconomic conditions abroad can affect Cambodia through two main channels. First, foreign spending and investment—such as FDI, tourism inflows, and demand for manufactured goods—affect Cambodia through a downstream (demand) channel. Second, changes in availability of production inputs affect the economy through an upstream (supply) channel, by determining the degree of availability of raw materials and components necessary to produce goods and services. This note quantifies foreign growth spillovers to the Cambodian economy via trade (in goods) linkages.

A. Descriptive evidence from ADB's Input/Output Tables

2.   **Cambodia's goods trade is increasingly geographically concentrated, making the economy more susceptible to foreign shocks in key trading partners.** Import dependency from China has been rising over the years: based on a simple average across sectors, the share of input from China in total sectoral input has increased from about 5 percent in 2007 to about 18 percent in 2020. This trend accelerated during the COVID-19 pandemic. Export dependency from the US is more contained, in comparison, albeit the share of output to the US in total sectoral output has also been rising since 2017, and it is now about 8 percent, on average[1] Conversely, shares of output to China and input from the US remain very limited.

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[1] Note that these are averages across all sectors of export to US/ imports from China as a proportion of *sectorial* output and input. Since all sectors have equal weight in the calculation, this measure does not coincide with aggregate import/export shares.

Figure 1. Input and Output Shares Over Time

Input and ouput shares from China: Average (Percent)

Input and ouput shares from USA: Average (Percent)

Source: ADB Input/Output Tables; IMF Staff Calculations. The charts plot the average shares of input/output from/to USA and China, as a proportion of total input/output for each sector. Average across all sectors, by year.

3.   Exposure to external shocks is not homogeneous across sectors. Some key sectors are exposed both upstream (supply from China) and downstream (demand from the US). Garments, construction, and general manufacturing account for about a third of Cambodia's GDP and import about 30 percent of their inputs from China. Exposure to demand shocks from the US is also markedly concentrated among a few sectors, with some (notably, garments) exceeding 30 percent of output.

Figure 2. Input and Output Shares Across Sectors

China: Shares of input by sector, 2019 (Percent)

US: Shares of output by sector, 2019 (Percent)

Sources: ADB Input/Output Tables; IMF Staff Calculations. The charts plot the shares of input/output from/to USA and China, by sector, as a proportion of total sectorial input/output.
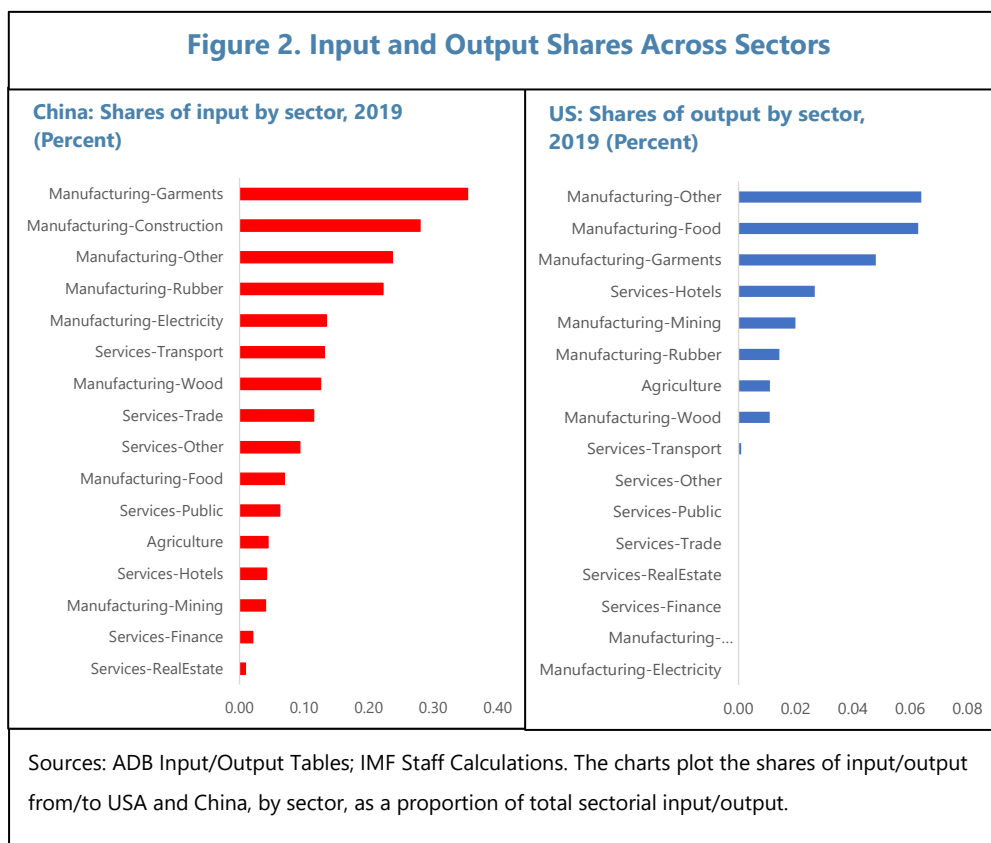
4.   Main sources of input and output has increased significantly in the past 15 years.
In garments and construction, imports from China have increased from 10 percent before the
global financial crisis, to 56 and 52 percent of the total, respectively, at the end of 2020.
Similarly, during the same period, the share of output flowing to the US has increased by 15
percentage points for garments and by 12 percentage points for general manufacturing.
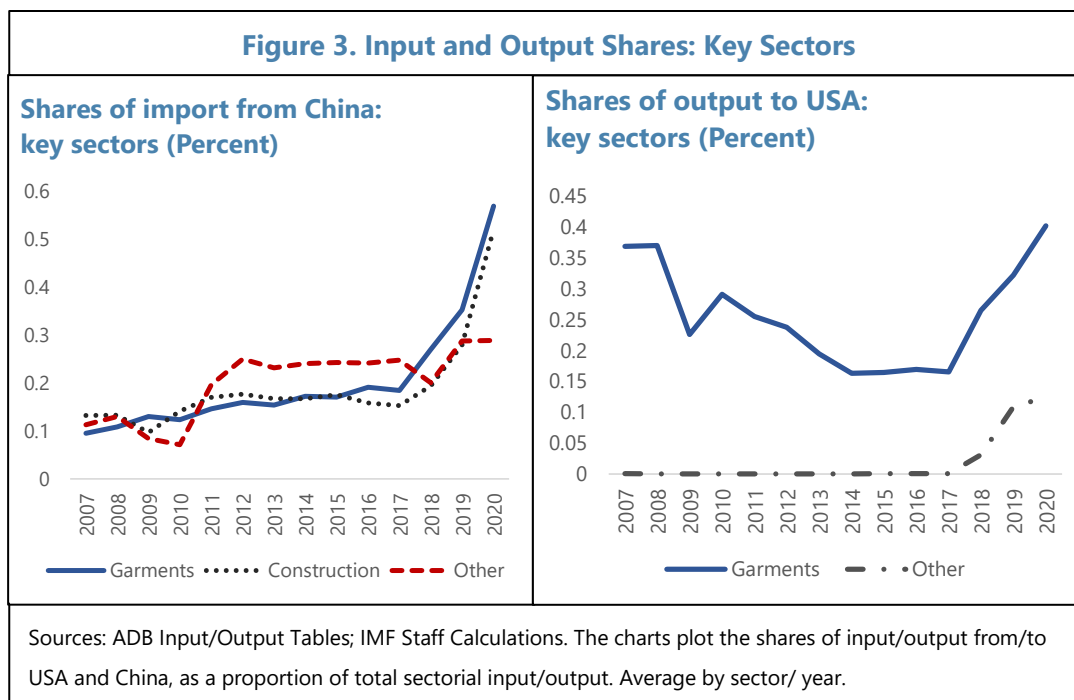

Figure 3. Input and Output Shares: Key Sectors

Sources: ADB Input/Output Tables; IMF Staff Calculations. The charts plot the shares of input/output from/to
USA and China, as a proportion of total sectorial input/output. Average by sector/ year.

B. Econometric Evidence: The Effect of External Shocks from China and the US On Cambodia Output

**5.   The note provides an assessment of the effects of China and US output shocks on
Cambodia output**. It makes use of two complementary approaches. The first uses novel
aggregate quarterly GDP for Cambodia to examine the dynamic response of Cambodia GDP to
changes in GDP in China and the US. [2] The second exploits annual sectoral data and a difference-
in-differences approach to estimate the economic effect of China and US demand and supply
shocks.

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[2] Quarterly GDP measures are not yet officially available for Cambodia. These estimates are based on a Chow-Lin
interpolation of the annual data from NIS, which uses tourist arrivals, reserves, and credit growth as predictors of
quarterly growth rates.
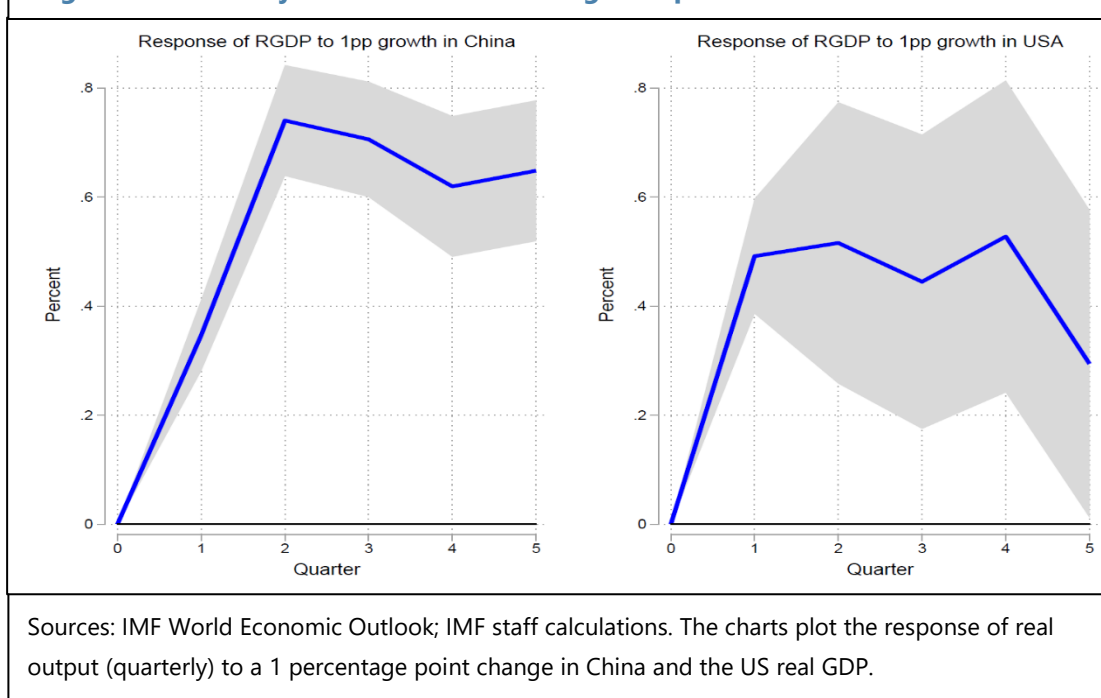
B.1. Evidence Based on Aggregate Data

6.   This section quantifies the (quarterly) output response of the Cambodian economy to output shocks in China and the US and China. To estimate these spillovers, the analysis employs Jorda (2005)'s local projection method. In particular, the following equation is estimated:

$$y_{t+k} = \alpha_k + \beta_k^{CH} CH_t + \beta_k^{US} US_t + \partial X_t + \varepsilon_t \tag{1}$$

for k=1,...5.

where y is the (log of) Cambodia's GDP, CH and US are the GDP of China and the US, respectively. β_k^{CH} (β_k^{US}) are the coefficients of interest, which capture the percent effect of 1 percent change in China (US) GDP on Cambodia GDP; X is a vector of control variables including two lags of Cambodia GDP; lags of China and US GDP; and a time trend. Equation (1) is estimated for each horizon (quarter) k. Impulse response functions are computed using the estimated coefficients β_k^{CH} (β_k^{US}), and the confidence bands associated with the estimated impulse-response functions are obtained using the estimated standard errors of the coefficients β_k^{CH} (β_k^{US}), based on Newey–West standard errors.

7.   Cambodia GDP responds strongly to output innovations in China and the US, with effect larger for the former. Figure 4 reports the evolution of the (log of) Cambodia's GDP following a one percent change in China and US output—that is, the estimated β_k^{CH} (β_k^{US}) coefficients from equation (1). Time (quarter) is indicated on the x-axis; the solid line displays the average estimated response; shaded areas denote 90 percent confidence bands. The results suggest that spillovers to Cambodia form China and the US are sizeable. A one percentage point increase in China's GDP is associated with an increase in Cambodia's GDP of about 0.4 percent after one quarter and 0.6 percent after four quarters. This effect is persistent, and the magnitude of the spillovers declines only marginally over time. The correlation between output shocks in the US and Cambodian GDP is more immediate, but smaller in magnitude (about 0.5 percent) and it becomes statistically not significant after about one year. This evidence is consistent with the descriptive statistics presented earlier in this note which highlights the strong degree of dependence from China for production inputs, while output is more diversified.

Figure 4. Local Projections: Effect of Foreign Output Shocks on Cambodia's GDP

Sources: IMF World Economic Outlook; IMF staff calculations. The charts plot the response of real output (quarterly) to a 1 percentage point change in China and the US real GDP.

B.2. Evidence Based on Sector-Level Data

8.   Exploiting sectoral heterogeneity helps to shed light on the mechanisms through which foreign growth shocks affect the Cambodian economy. Evidence from input/output tables suggests that the same growth shock will have different effects across sectors. The sectorial response will depend on two factors: the sector's relative exposure to foreign demand and supply shocks; and the nature of the foreign growth shock—that is, whether it is supply (e.g. related to productivity or supply destruction) or demand (e.g., related to final consumption) driven. For example, a sector relying on the US as a major export market will be more affected by a change in US demand than in US supply. Conversely, sectors which import more intermediate inputs from China are likely to react more to supply shocks a. For example, a positive productivity shock in China reduces the price of the output in China and thereby the cost of the intermediate inputs used in the production in Cambodia.

9.   To study the sectoral output responses to foreign shocks the note links data sources from input-output tables to sectorial real GDP growth. Information on input/output shares by sector (from ADB) are merged with historical annual series of real GDP growth for the corresponding sectors, from 2007 to 2021.[3] These series are then linked to annual measures of demand and supply shocks originating from China and the US, respectively, compiled according to the methodology described in Box 1.

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[3] Data on RGDP growth, as well as sectoral disaggregation, are those compiled by the Cambodian National Institute of Statistics.

Box 1. Cambodia: Deconstructing Foreign Growth Shocks

Applying a structural vector autoregression (SVAR) model with sign restrictions on a quarterly time series on output and inflation from 2002 to 2021, Copestake et.al (2022) identify episodes when output growth in China deviates from its long run trend, and whether it does so because of demand or supply shocks. Intuitively, demand shocks are episodes where output and inflation move in the same direction; supply shocks are episodes when output and inflation move in *opposite* directions. For this note the same methodology is extended to the United States. The time series of these shocks is represented in the charts below.

United States: Structural Shocks
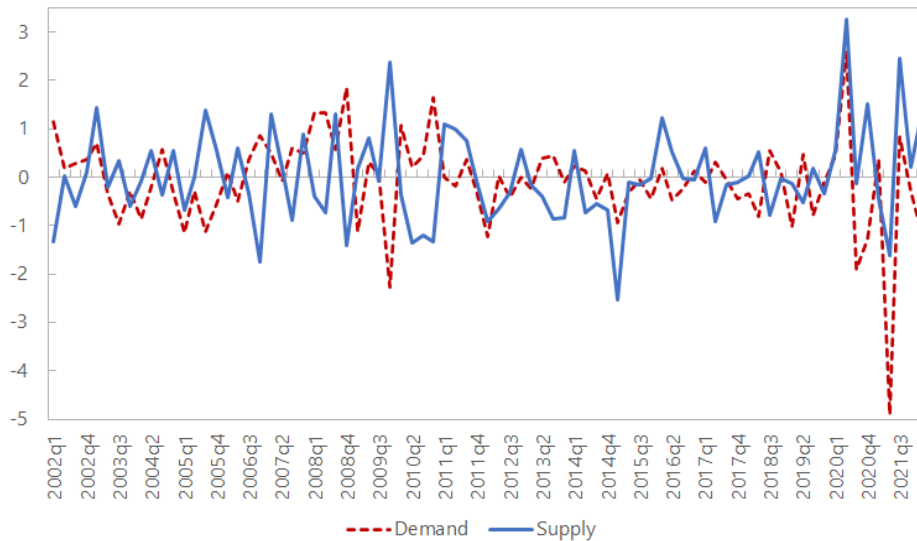
China: Structural Shocks
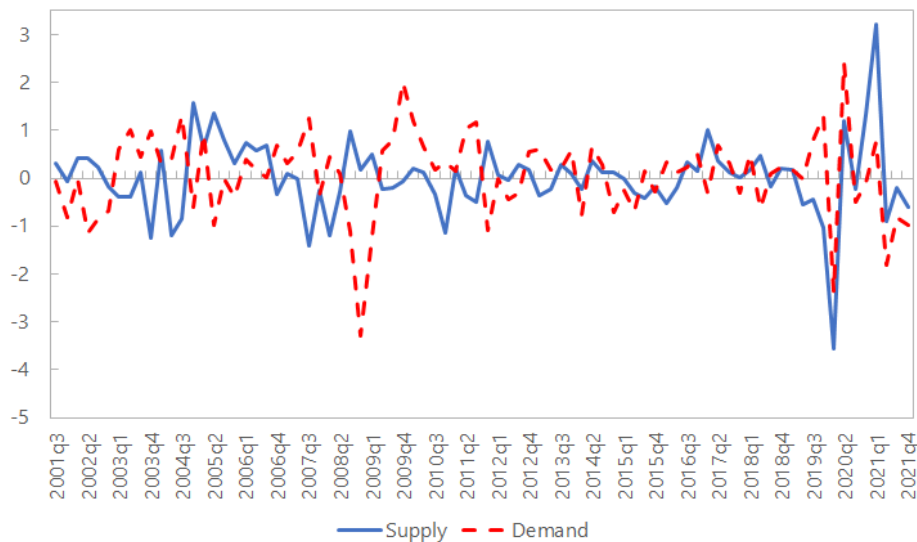
Sources: Copestake et.al (2023).

10. **The empirical analysis examines the differential effect of aggregate demand and supply shocks across sectors**. The model considered allows the effect of foreign growth to vary across sectors, by interacting foreign demand and supply shocks (estimated according to the methodology described in Box 1) with sectoral shares of input and output from abroad.[4] The estimated model is the following:

$$\Delta Y_{s,t} = \alpha + \beta_1 (D_t^C * O_{s,t}^C) + \beta_2 (S_t^C * I_{s,t}^C) + \gamma_1 (D_t^{US} * O_{s,t}^{US}) + \gamma_2 (S_t^{US} * I_{s,t}^{US}) + \varphi_{st} + \theta_s + \tau_t + \varepsilon_{s,t}$$
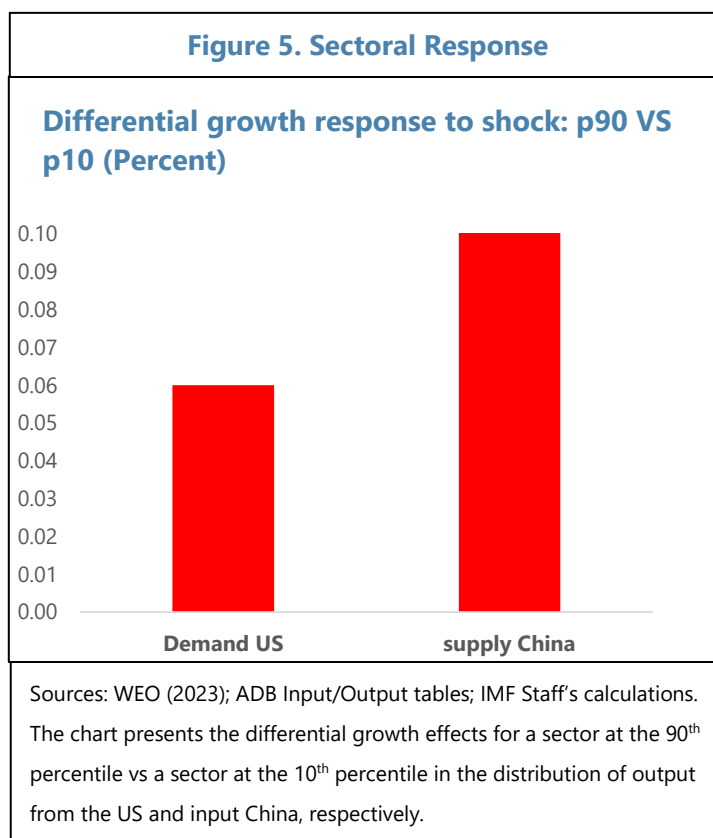(2)

where:

- $\Delta Y_{s,t}$ is real (??) growth in sector s and year t (2007-2021);

- D_t^C and D_t^{US} are demand shocks in China and US in year t;

- D_t^C and D_t^{US} are supply shocks in China and US in year t;

- $O_{s,07}^C$, $O_{s,07}^{US}$, $I_{s,07}^C$, $I_{s,07}^{US}$ define sector s' output and input shares from China/US in 2007;

- φ_{st} is a sector-specific time trend, capturing average evolution of each specific sector over time;

- θ_s and τ_t are sector and time FE, respectively.

The coefficient associated with the interaction between aggregate and cross-sectional variation allows to study the growth response to a foreign shock (within sector change in output growth) while filtering out all other aggregate shocks (τ_t) affecting all sectors equally at the same point in time as well as all time-invariant sector-specific characteristics (θ_s). The inclusion of time and sector fixed-effects assimilates this model to a difference-in-differences approach—for example, the coefficient β_1 captures the differential effect of China supply shocks on sectors with relatively high output dependence to China compared to sectors with relatively low output dependence. Similarly, coefficients β_2 captures the differential effect of China supply shocks; γ_1 and γ_2 the differential sectoral growth effects from US output and demand shocks, respectively.

11. **The results point to a significant degree of heterogeneity in the sectoral response to China and US demand and supply shocks.** Supply shocks from China and demand shocks from the US have large effects on growth in the most exposed sectors. In particular, the results suggest that the differential growth effect of 1 percentage point GDP growth China supply shock for a sector with relatively high input dependence (e.g., construction, at the 90th percentile of the distribution of input share) compared to a sector that imports relatively little from China (e.g., agriculture, at the 10th percentile of the distribution of input share, but with a similar sectoral weight in total GDP) is 0.1 percentage point. Similarly, the differential sectoral growth effect

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[4] Averaging out the demand and supply shocks over four quarters allows to obtain an annual demand/supply shock measure, necessary to match the frequency at which sectorial GDP series are available, for Cambodia.

associated with a 1 percentage point GDP growth US demand shock for a sector with relatively high output dependence (e.g., garment, at the 90th percentile of the distribution of output share) compared to a sector that exports relatively little to the US (e.g., real estate, at the 10th percentile of the distribution of output share) is 0.06 percentage point—which translates into a sizable differential effect in total GDP given that the share of garments and textiles in total GDP is 3 times larger than real estate's. In contrast, supply shocks from the US and demand shocks from China, have not statistically significant differential growth effects across sectors.

Figure 5. Sectoral Response

Differential growth response to shock: p90 VS p10 (Percent)

Sources: WEO (2023); ADB Input/Output tables; IMF Staff's calculations. The chart presents the differential growth effects for a sector at the 90th percentile vs a sector at the 10th percentile in the distribution of output from the US and input China, respectively.

References

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Annex VI. The Implications of US Monetary Tightening for the Cambodian Economy

US monetary tightening is likely to negatively impact Cambodia's economy by reducing demand and increasing private sector insolvency risks. A 100-basis point exogenous increase in the US monetary policy rate is estimated to reduce Cambodia's GDP by about 1.1 percent after four quarters. Higher US monetary policy rates are also likely to lead to higher domestic lending rates and lower profits. While at the aggregate level Cambodia corporate insolvency risks are relatively small even in the case of large lending interest rate shocks, there is marked heterogeneity across industries and firms, with pockets of insolvency risks that could emerge in the face of significant large shocks to interest rates and profits. In case some risks were to materialize, to avoid these from spilling over to other sectors/firms, it is critical remain vigilant and have in place an adequate bankruptcy framework to deal with corporate distress in an efficient way.

A. Interest rates' development in the US and Cambodia

1.   US interest rates have been increasing sharply since 2022 (Figure 1). In order to fight historically-high and sticky inflation, the FED has repeatedly increased its policy rate since early 2022. The cumulative rate-hike has been of 425 basis points in 2022 and 75 basis points in the first half of 2023. Following this increase in US policy rates, US bond yields—as well as interest rates in other countries—have also significantly increased.

Figure 1. Interest Rates Developments in US

Sources: Haver.
Note: The policy rate is the federal fund effective rate.
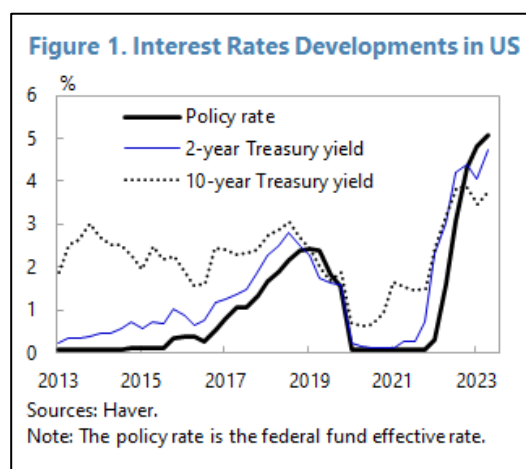
2.   In Cambodia, interest rates remained broadly stable in 2022, but they are expected to increase. Given the managed peg exchange rate regime and extensive dollarization,[1] interest rates in Cambodia are expected to increase in 2023. Indeed, early signs of higher rates are noticeable in lending rates in USD (Figure 2).

B. Implication of US Monetary Tightening

3.   US monetary tightening is expected to weaken the Cambodian economy. US monetary tightening can have negative spillovers through three main channels. First, it can lead to tight global financial conditions thereby decreasing investment

Figure 2. Lending Interest Rates Developments in Cambodia

Sources: CEIC and Haver.
Note: The foreign currency is mostly in USD.

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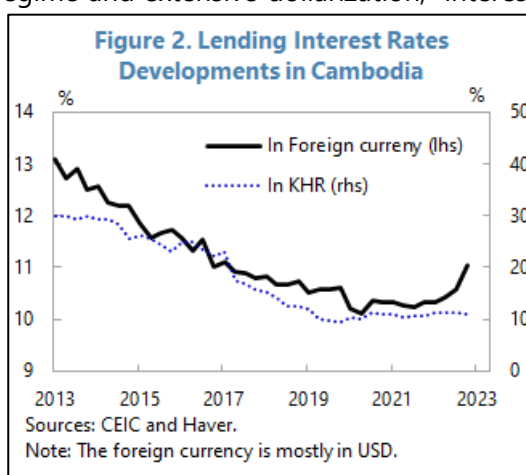
[1] According to the authorities' data in deposits outstanding amounts in Cambodia, USD accounts for about 90%.

(all else equal). Second, the associated depreciation of the currency vis-à-vis the US dollar could increase firms' foreign liabilities and reduce their ability to finance new investment (financial channel of the exchange rate). Third, an increase in US rates is expected to weaken US demand and therefore foreign countries' exports to the US (trade channel). Given the high trade exposure of Cambodia to the US, the trade channel is likely to be the most important. In contrast, the role of the financial channel of the exchange rate channel is likely to be minor given the managed peg and the extensive dollarization. At the same, because of the managed peg, Cambodia domestic rates are expected to increase and lead to higher domestic funding and borrowing costs (interest rate channel). Recent empirical evidence—e.g., Arbatli-Saxegaard et al. (2022) and Arteta et al. (2022)—suggests that spillovers from US monetary tightening are typically large, especially for emerging market and developing economies (EMDEs).

4. **Higher interest rates could increase borrowers' (firms and households) insolvency risks.** While higher US interest rates are expected to reduce firms' profits, higher domestic rates are expected to increase their interest payment on debt. The combination of these two factors increases firms' insolvency risks. The materialization of insolvency risks is of a particular concern for Cambodia given the large, and increasing, level of private debt (Figures 3 and 4).

Figure 3. Bank Loans by Sector in Cambodia
% of GDP
Non-financial firms
Hoseholds
Others
Sources: Cambodia authorities and IMF staff calculation.

Figure 4. Credit to Private Sector in ASEAN
% of GDP in 2020
Average
THA KHM MYS SGP VNM PHL BRN IDN MMR
Sources: World Bank.
Note: The figure shows only countries whose latest data is available in the source.
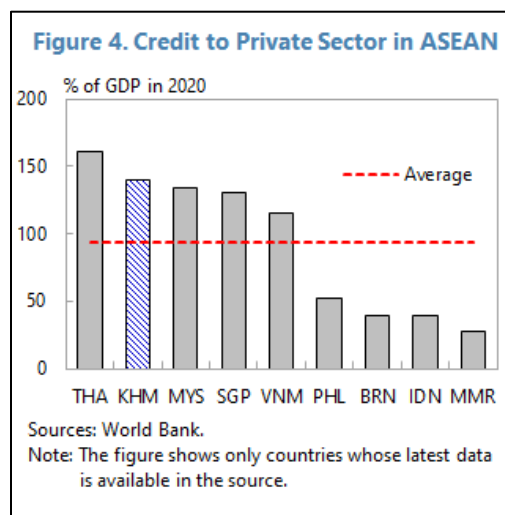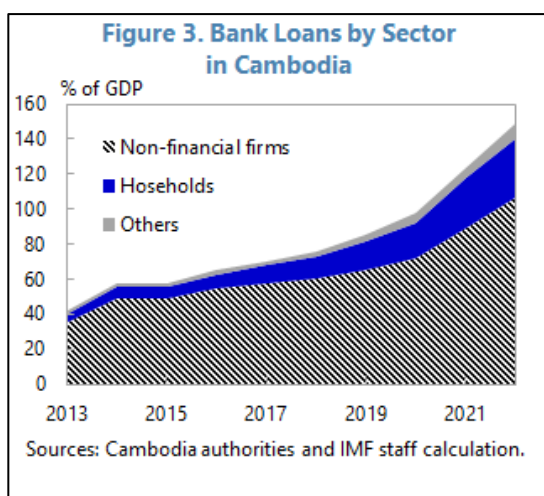
C. Empirical Estimates of US Monetary Shocks on Cambodia GDP

Methodology

5. **This section empirically estimates the impact of US monetary policy shocks on Cambodian GDP.** Following Arbatli-Saxegaard et al. (2022) and Arteta et al. (2022), among others, this annex applies Jorda (2005)'s local projection to estimate the impact of US monetary policy shocks on Cambodia real GDP. In particular, the following equations are estimated for $h = 1,..,8$:

$$logY_{t+h} = \alpha_h + \beta_h i_t^{US} + \delta X_t + \varepsilon_t \tag{1}$$

where Y_t is the quarterly real GDP of Cambodia, i_t^{US} is the US monetary policy shock, and X_t is a vector of control variables including: (i) two lags of (log) Cambodia GDP; (ii) two lags of the US monetary policy shocks; (iii) quarter dummies; and (iv) a time trend. β_h captures the effect of a 100 basis-point exogenous increase in US rates on Cambodia's GDP. Equation (1) is estimated for each horizon (quarter) h. Impulse response functions are computed using the estimated coefficients β_h ,and the confidence bands associated with the estimated impulse-response functions are obtained using Newey–West standard errors.

Data

6.   This annex uses estimated quarterly GDP for Cambodia and exogeneous US monetary policy shocks based on high-frequency identification. As official GDP data are available only at the annual frequency, this annex relies on quarterly GDP estimates obtained by combining official annual data and the Chow-Lin interpolation based on tourism arrivals, reserves, and credit growth as predictors of GDP quarterly growth. Exogeneous US monetary policy shocks are taken from Duval et al. (2021), which measures unexpected US monetary policy shocks from changes in Eurodollar futures around FOMC announcements within a tight window of 30 minutes, based on the assumption that the response of financial markets reflects only monetary policy news during this short time window. Following Gertler and Karadi (2015), the structural US monetary policy shocks are retrieved by using these surprises in a proxy-SVAR with 4 variables: one-year government bond yield, industrial production, consumer price index and a measure of the excess bond premium from Glichrist and Zakrajsek (2012)[2]. Data availability for quarterly GDP and US monetary policy shocks constraints the estimation sample to the period 2005Q1-2018Q4.

Results

7.   US monetary tightening has a statistically significant negative effect on Cambodia's GDP. Figure 5 plots the evolution of the (log of) Cambodia's GDP following a 100-basis point exogenous US monetary policy tightening—that is, the estimated β_h coefficients from equation (1). Time (quarter) is indicated on the x-axis; the solid line displays the average estimated response; shaded areas denote one standard deviation confidence bands. The results suggest that US monetary policy has significant negative spillovers to Cambodia:

Figure 5. US Monetary Policy Shocks' Impact on Cambodia real GDP
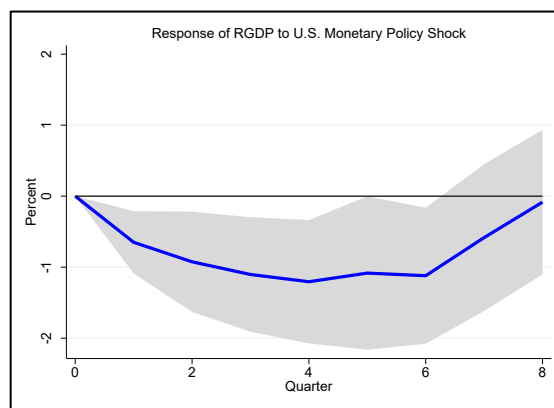
Sources: Cambodia authorities and IMF staff calculations.
Note: The figure plots the response of quarterly Cambodia real GDP to 100 basis point shock in Eurodollar futures as US monetary policy shock.

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[2] The proxy-SVAR is estimated over the period 1973M1-2019M1 at the monthly frequency. The estimated monthly shocks are then averaged to the quarterly frequency.

a 100-basis points tightening is associated with a decline in GDP of about 0.9 percent after one quarter and about 1.1 percent after four quarters. The effect is persistent, and it becomes statistically insignificant only after 6 quarters.

D.   Empirical Simulation of Corporate Solvency Risks

Methodology

8.   This section assesses the implication of higher interest rates on the solvency of the corporate sector. It provides simulations on how higher interest rates and lower profits affect the interest coverage ratio (ICR)—that is, the ratio between operation profits and interest payments on outstanding debt. A value of ICR below 1—often referred to "debt-at-risk"—is considered as a sign of insolvency risks.[3] In particular, it shows how the ICR value varies under different magnitudes of interest (from zero to +150 percent) and profit shocks (-10 percent for moderate shocks and -50 percent for severe shocks), using 2022 data. While the magnitude of these shocks is arbitrary, and not necessarily realistic, it helps to identify potential trigger points for corporate insolvency risks.

Data

9.   This annex uses macro-level corporate data, publicly-listed firms financial statements and industry-level corporate data. As discussed in Roulet (2020) and Tressel and Ding (2021), a proper assessment of a country's corporate insolvency risks requires financial statement data for a large set of firms, classified by their characteristics (e.g., size, age, banks' dependence). To obviate to data availability for a large sample of firms, three alternative datasets are analyzed. The first is an aggregate macroeconomic dataset, which is used to provide an overall solvency's assessment of Cambodia corporate sector. The second is a granular firm level data, limited to the eight major publicly-listed firms. The third is a confidential industry-level corporate data, which is used to examine industry heterogeneity in solvency risks.

Overall Solvency Risks Using Macro-Level Data

10.   Macro-level corporate data are estimated using banking sector data and government tax revenues. Macro-level interest payments are computed as the ratio of banking sector's interest revenues to lending to the corporate sector. Macro-level operating profits are estimated by adding macro-level interest payment to macro-level profits before tax, which are estimated from government's revenue from business profits tax assuming a profit tax rate of 20 percent.

11.   The corporate sector in Cambodia is solvent at the aggregate level. Figure 6 shows that macro-level profits and interest payments have increased by around 20 percent annually before COVID-19, with the macro-level ICR being relatively stable at around 3.5. The aggregate

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[3] Note this would be a lower bound as even firms with ICRs slightly above 1 could become problematic, depending, for instance, on other items becoming due (e.g., taxes).

ICR has slightly declined to about 3.3 in 2021, due to stagnant profits growth because of COVID-19, and remained at levels well-above the debt-at-risk threshold in 2022.

Figure 6. Macro-Level Corporate Data's Development

ICR and Its components	Borrowing Cost

Sources: Cambodia authorities, CEIC, and the IMF staff calculations.
Note: The lending interest rate is the same as the one in Figure 2.
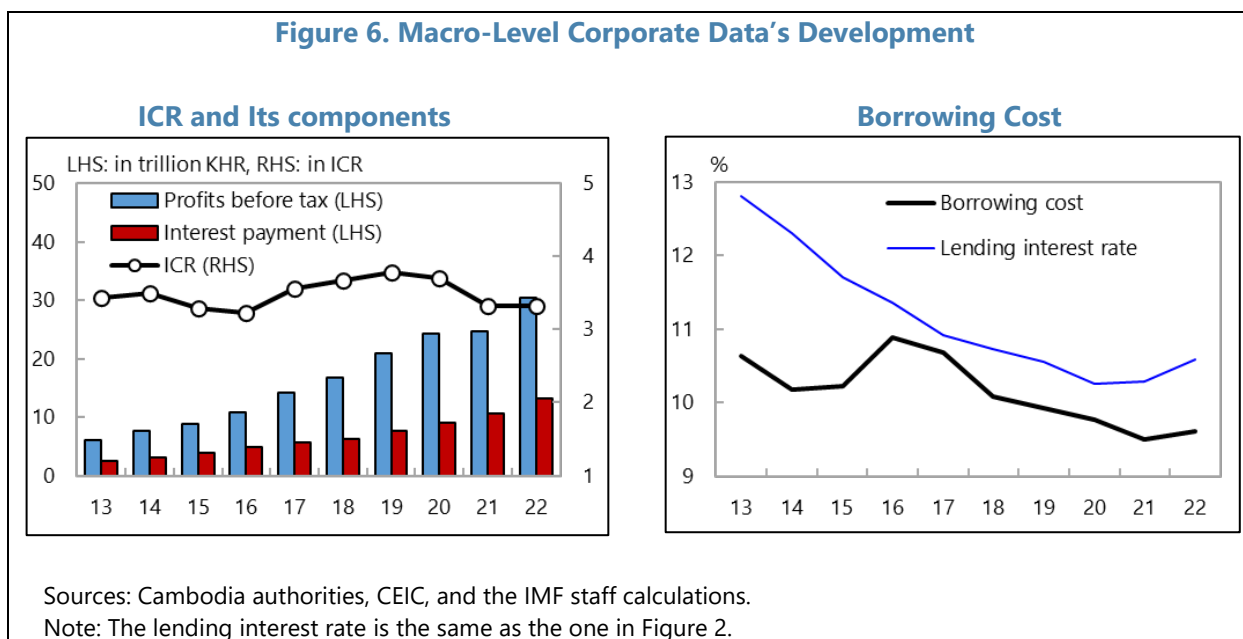
ICR Simulation for Listed Firms' Sample

12.   The sample of firms listed in the Cambodia Securities Exchange (CSX) includes eight major non-financial companies.[4] In 2022, the outstanding borrowing of these firms accounted for 1.3 percent of the whole corporate credit, while their profits before tax accounted for 1.0 percent of the whole corporate profits, and the borrowing cost was at 3.0 percent.

13.   On average, Cambodia listed firms have no major insolvency risks for relatively large interest rate shocks. The average ICR for the eight listed is 4.9—well above the 1 threshold. However, even in this small sample, the ICR distribution is very wide: while Phnom Penh Autonomous Port and Phnom Penh Water Supply Authority have a high ICR (24.2 and 16.7, respectively), JS Land PLC and DBD Engineering Plc. have negative ICRs due to their operation loss. Figure 7 presents the simulations of how firms' ICR varies following only interest rates shocks (left panel) and due to a combination of interest rates and profits shocks (right panel). The results show that the average ICR would remain above 1 for large interest rate shocks of about 150 percent. However, if interest rate shocks are compounded by significant declines in profits, the average ICR could become close to 1, with a couple of firms resulting in having "debt-at-risk".

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[4] The eight listed firms (and their industrial classification by the CSX) are: Phnom Penh Water Supply Authority (water utility), Grand Twins International (Cambodia) Plc. (apparel clothing), Phnom Penh Autonomous Port (port services), Phnom Penh SEZ Plc. (SEZ developer), Sihanoukville Autonomous Port (port services), Pestech (Cambodia) Plc. (power), DBD Engineering Plc. (constructing and engineering), and JS Land PLC (condo developer).

Figure 7. ICR Simulation for Listed Firms' Sample in 2022

Sources: Cambodia authorities, CSX, and the IMF staff calculations.
Note: Threshold of debt-at-risk is 1 in ICR. Panel (1) omits the 2 firms whose ICRs are much higher than 5.0 and
the 2 firms whose ICR are negative due to operation losses.
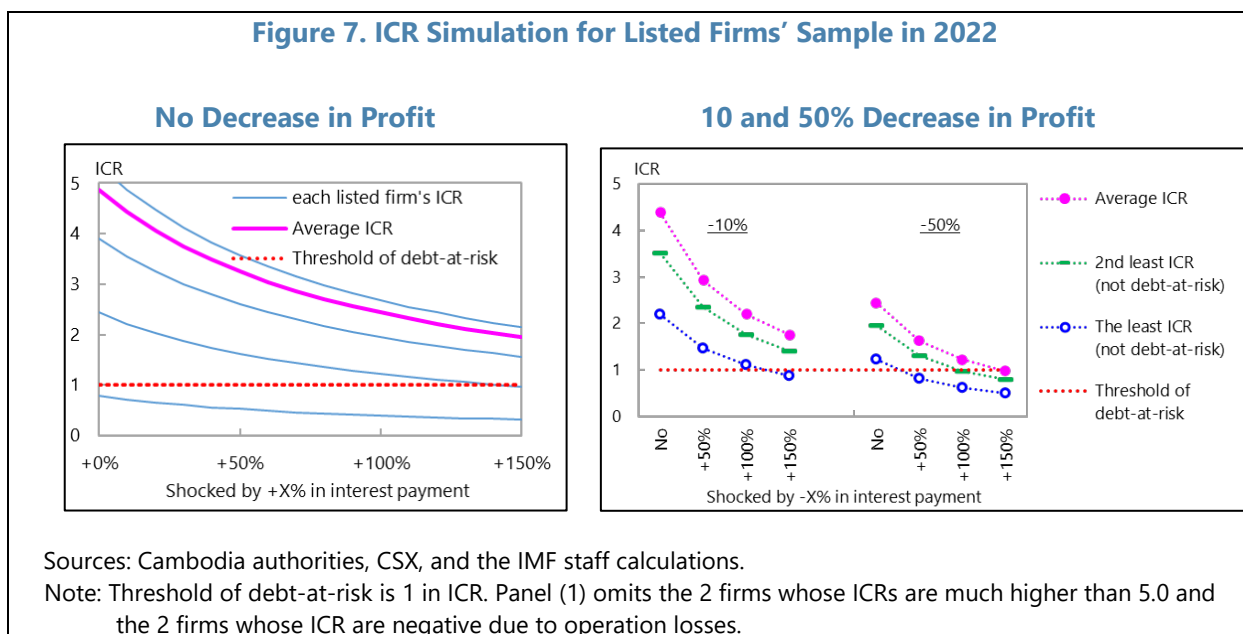
ICR Simulation for Industry-Level Corporate Data

14.   Industry-level corporate data show a wide distribution of ICR and leverage across industries. This (confidential) dataset provides information about industrial total values of total assets, total liabilities, earnings before interest and taxes (EBIT), and interest payments in 2022 at the industry level. Figure 8 report how the ICR (calculated by the EBIT as profit divided by the interest payment) and leverage (calculated by total liabilities divided total capital) vary across industries. While the average ICR is relatively high (about 3.8), there is significant heterogeneity across industries: while wholesale and retail have ICR at about 9.8, real estate, agriculture, forestry and fishing, and accommodation and food service have negative ICRs.

15.   The simultaneous occurrence of large interest rates and profits shocks could trigger a situation of "debt-at-risk" for several industries. Figure 9 shows the evolution of industry ICR under different combinations of interest payments and profit shocks. While insolvency risks for industries with positive ICR are not likely in the case of large interest rate shocks, the combination of large (50 percent) profit and (100 percent) interest shocks could lower the ICR of several industries to near or below 1.

E.   Policy Implications

16.   The high level of private sector debt and associated risks of debt distress require close monitoring. Improvements of the corporate insolvency regimes and debt restructuring procedures are needed, both to ensure that highly-leveraged enterprises are not dragging down growth and to support banks' management of distressed assets. The authorities should also continue efforts to enhance data gathering and analysis capacity, as well as developing a full macroprudential strategy and toolkit to include borrower-based tools and enhance capital requirements for banks.

Figure 8. Industry-level Corporate Data's Solvency in 2022
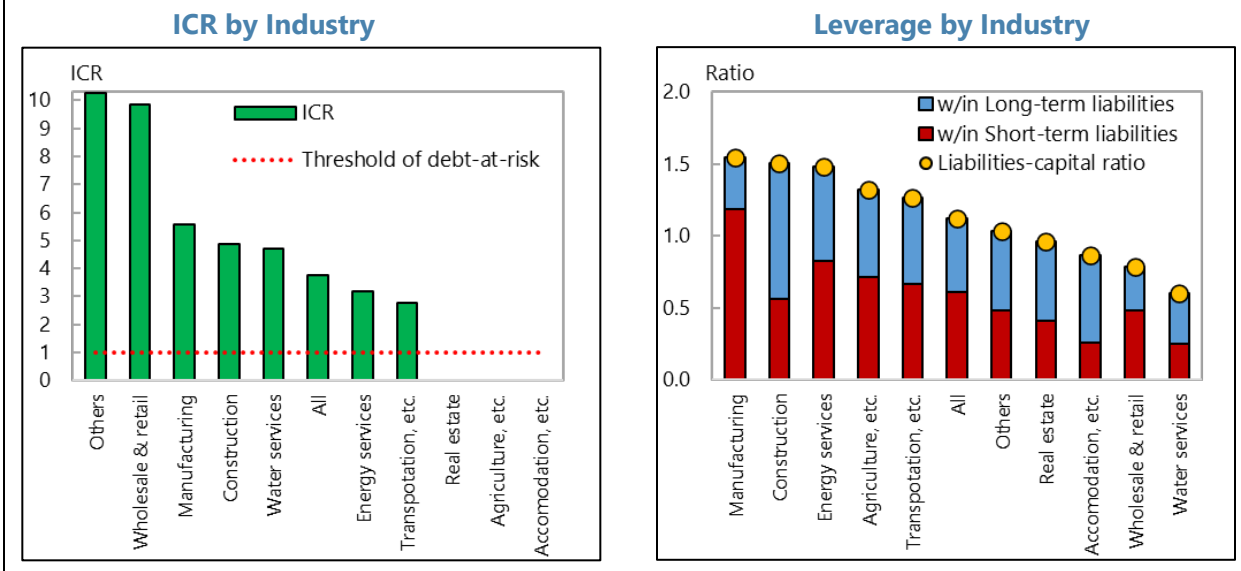
ICR by Industry

Leverage by Industry

Sources: Cambodia authorities and the IMF staff calculations.
Note: "Transportation, etc." includes storage. "Agriculture, etc." includes forestry and fishing. "Accommodation, etc." includes food services.

Figure 9. ICR Simulation for Industry-level Corporate Data in 2022
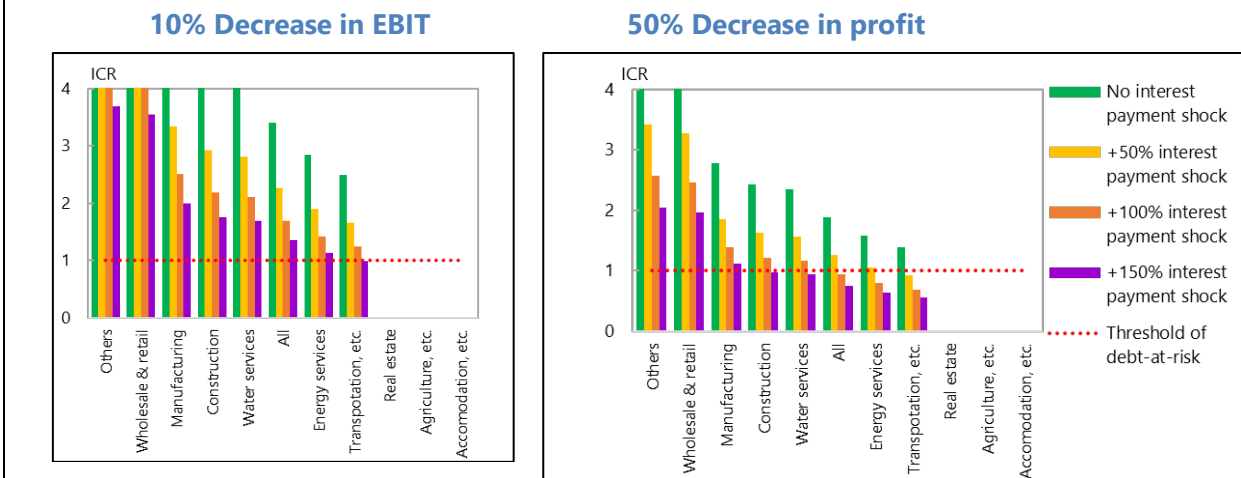
10% Decrease in EBIT

50% Decrease in profit

Sources: Cambodia authorities and the IMF staff calculations.
Note: "Transportation, etc." includes storage. "Agriculture, etc." includes forestry and fishing. "Accommodation, etc." includes food services.

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Annex VII. Geo-Economic Fragmentation: Implications for Cambodia

Trade has been an important driver of Cambodia growth over the last decade, increasing living standards and contributing to reduce poverty. At the same time, Cambodia's high level of trade openness and strong trade ties with the US and China, make it particularly susceptible to trade fragmentation risks. The analysis presented in this annex shows that the economic costs of geo-economic fragmentation could be potentially large for Cambodia. To offset and overcome these costs, policy efforts are needed to improve Cambodia's trade competitiveness and attractiveness to FDI, as well as to continue to geographically diversify its export (and import) markets.

A. Geo-Economic Fragmentation: A Primer

1. This annex refers to Geo-economic fragmentations as the policy-driven reversal of integration, often guided by strategic considerations. These considerations may include national strategic objectives, like strengthening security or reducing reliance on other countries or regions. Fragmentations may result from strategic economic rivalry among (groups of) nations, while in some cases it may be also result from policies with primarily domestic objectives, e.g., increasing output and employment (cf. Aiyar et al. 2023a).

2. Geo-economic fragmentation can affect the economy by distorting the flows of goods, services, investment, and labor between countries.

- **Trade**. Tariffs and trade restrictions can negatively affect output, trade and welfare by reducing efficiency and increasing barriers to entry and producer input costs. In addition, higher trade restrictions can hamper innovation by reducing domestic competition (Buera and Oberfield 2020), technology adoption and knowledge transfer (Branstetter, Glennon, and Jensen 2018). These effects are likely to be relatively larger for developing economies and would result in lower living standards and impede poverty reduction. The economic effects of tariffs also tend to be larger in periods of relatively high inflation (Barattieri et al. 2021; Estefania-Flores et al. 2023), as the current one.

- **Foreign Direct Investment (FDI).** A contraction in FDI and a shift in its geographic distribution can have negative effects on host countries, through lower capital accumulation and technological deepening. Fragmentation related to vertical FDI, which is likely to be targeted by policies aimed at friend-shoring investment in strategic sectors, is associated with lower economic growth (IMF WEO April 2023; Chapter 4).

- **Capital flows.** Financial fragmentation induced by geopolitical tensions has negative implications for global financial stability by impairing the cross-border allocation of capital, international payment systems, and asset prices. An increase in geopolitical tensions with

major partner countries could cause a sudden reversal of cross-border capital flows, with the effect being more pronounced for emerging market and developing economies than for advanced economies (given the differences in financial markets depth). It would also exacerbate macro-financial volatility in the longer term by reducing international risk-sharing in the face of adverse domestic idiosyncratic shocks (IMF GFSR April 2023; Chapter 3).

- **Labor flows.** Rising barriers to cross-border labor flows could reduce efficiency, hinder innovation and technological diffusion and worsen adverse demographic trends. In many developing economies, lower labor flows would reduce remittances—an important source of income stabilization (Banerjee and Duflo 2007, Islamaj and Kose, 2022).

The rest of the annex focuses on the implications of geo-economic fragmentation through the most relevant channels for Cambodia: trade and, to a lesser extent, FDI.

B. Effects of Geo-Economic Fragmentation Through Trade

Trade Uncertainty

3.   Trade policy uncertainty is on the rise. Early signs of trade fragmentation pressures are reflected in rising trade-related uncertainty. World trade policy uncertainty has spiked in 2018 during the intensification of US-China trade tensions and after moderating temporarily it has increased again with the Russia's invasion of Ukraine, as sanctions on Russia created uncertainty around future trade (Figure 1).

Figure 1. Contribution of Trade to World Uncertainty Index

Sources: Ahir, H, N Bloom, and D Furceri (2022), "World Uncertainty Index", NBER Working Paper.
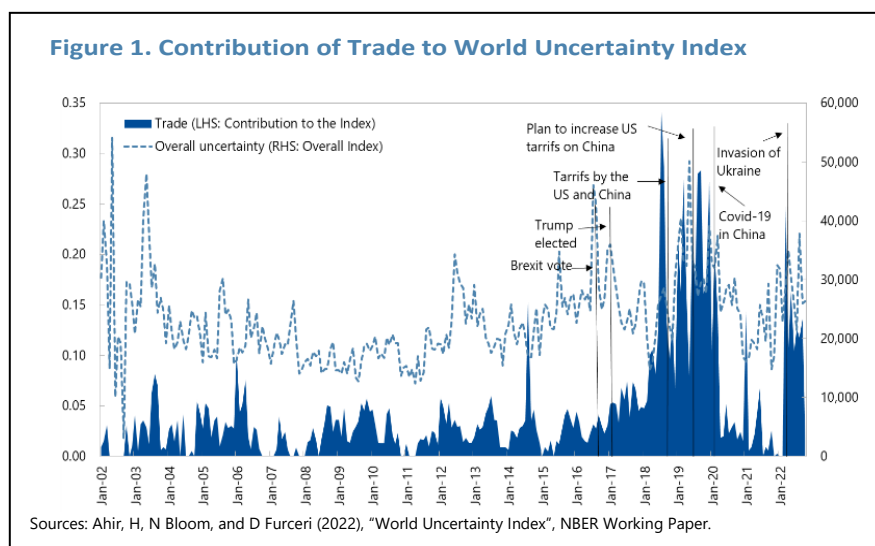
4.   Trade uncertainty can reduce trade and investment. Trade uncertainty can lead to economic costs as it creates an incentive to "wait and see," leading firms to pause investment and reduce firm entry into exporting (Caldara and others 2022; Handley and Limão 2022). It can also add to inflation pressures by raising import prices (Handley and Limão 2017) and inducing

firms to increase their markups (Fernández-Villaverde and others 2015). IMF (2022) finds that an increase in trade policy uncertainty such as the 2018 buildup of US-China trade tension may reduce investment by about 3½ percent after two years and reduce GDP by about ½ percent and increase the unemployment rate by about 1 percentage point. The effects on investment are even larger for emerging market economies and for firms with high debt. Corporate debt has been increasing and stands at high levels in Cambodia, suggesting that an intensification of trade uncertainty could have significant effects for many Cambodian firms.

5.   **Empirical evidence suggests that the effect of global trade uncertainty on trade flows is larger for trading countries that are "geo-politically distant".** Jakubik and Ruta (2023) show that while geo-political distance between countries does not affect trade flows in normal times, it has significant effects during periods of high trade uncertainty (see Box 1 for details). In other words, when both trade uncertainty and geo-political distance are high countries tend to trade less with each other. Taken the estimates of Jakubik and Ruta (2023) at the face value, they imply that an increase of global trade uncertainty such as the one associated with the increase of US-China trade tensions may reduce trade between US (China) and Cambodia by about 8 (2) percent.

Trade Restrictions

6.   **Trade integration has stalled since the Global Financial Crisis and trade policy restrictions—in the form of both tariff and non-tariff measures—have regained momentum.** Recent examples are the trade tensions between US, China, and other major economies (Fajgelbaum and Khandelwal, 2021), trade restrictions associated with the COVID-19 crisis, and economic sanctions imposed in response to the Russian invasion of Ukraine.

7.   **The annex uses a novel Measure of Aggregate Trade Restrictions (MATR) to examine how increases in trade restrictions affect trade flows for Cambodia**. MATR data are sourced from Estefania-Flores et al. (2022). This index is constructed combining information in the AREAER online database (available from 1999 onwards) with the narrative accounts of how restrictive official government policy is towards the international flow of goods and services, obtainable in printed versions of the AREAER country-year specific reports (from 1949 onwards). The index is constructed by tracking the changes in IMF's AREAER binary variables related to policies concerning: a) exchange measures; b) arrangements for payments and receipts; c) imports and imports payments; d) exports and exports proceeds; and e) payment and proceeds from invisible transfers and current transfers. The simplest version of MATR is the unweighted sum of up to twenty-two possible variables. As a result, the index (potentially) varies from 0 to 22 where a higher score indicates more restrictions (although in practice if varies from 2 and 21). Figure 2 reports the evolution of MATR for Cambodia, ASEAN-economies and other

Figure 2. Evolution of MATR, 1949-2020

Sources: Estefania- Flores et al. (2022).
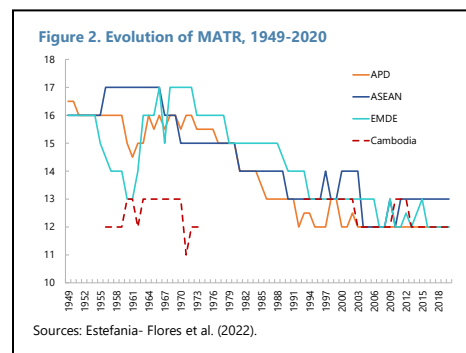
emerging market and developing economies (EMDEs). It shows that the level of aggregate trade restrictions in Cambodia have declined since 2012 and are similar to those of other EMDEs.

8.   The effects on MATR on trade flows is used to infer the potential effect of geo-economic fragmentation on Cambodia. The analysis relies on a canonical general equilibrium trade model, in which trade and welfare effects stemming from a fragmentation of the world into blocs can be simulated by raising trade costs for flows crossing bloc boundaries. To calibrate the size of the increase in trade costs, it estimates the impact of MATR on bilateral trade flows using a theory-consistent structural gravity framework (see Box 2). While there are multiple possible scenarios of how the world could fragment, the annex considers a hypothetical global economy divided into three trade blocs, based on the vote on the 9th of April 2021 in the United Nations (UN) General Assembly on the resolution concerning the suspension of the rights of membership of the Russian Federation in the Human Rights Council. The geopolitical coalitions considered are for analytical purposes only and are not intended to indicate alignment choices countries are likely to make. Countries are part of a Western, Eastern, or a Neutral bloc, depending on whether they voted with Russia, against Russia, or abstained (see Campos et al. 2013 for details)—according to this classification, Cambodia is assigned into the Neutral bloc. Fragmentation is then simulated as an increase in MATR to its highest country-specific historical levels for trade between the Western and Eastern bloc. Because the model is a general equilibrium model, trade flows will vary also for countries that are not directly hit by changes in their trade costs, giving rise to so-called trade diversion effects. Part of these general equilibrium effects operates through changes in country-level prices and wage rates. They adjust in response to a change in trade costs and affect the relative costs of producing in all countries, including those that did not experience a change in trade costs. In addition, even for fixed prices and wages, a rise in bilateral trade costs for any given partner makes other producers more competitive in relative terms and leads to increased imports from these other sources.

9.   The results suggest that geo-economic fragmentation may lead to significant economic costs for Cambodia given its high trade openness and strong trade linkages with both US and China. The model-analysis results suggest that trade fragmentation could lead to a decline in trade flows between Cambodia and other countries of about 3 percent, on average (Figure 3). However, while trade would be significantly reduced between Cambodia and the Eastern

Figure 3. Trade Effects of Cambodia

Sources: Campos et al. (2023).

Block (-22 percent), it would increase between Cambodia and the Western Bloc (2.6 percent) and between Cambodia and the Neutral Bloc (5.9 percent) due to trade diversion effects. These average trade costs would result in sizeable output (3.3 percent) and welfare losses (6.0 percent). These effects are larger than other ASEAN and EMDEs, because of the stronger trade linkages of Cambodia with China (Figure 4).

Figure 4. Output and Welfare Effects

Output Effects

Welfare Effects

Sources: Campos et al. (2023).
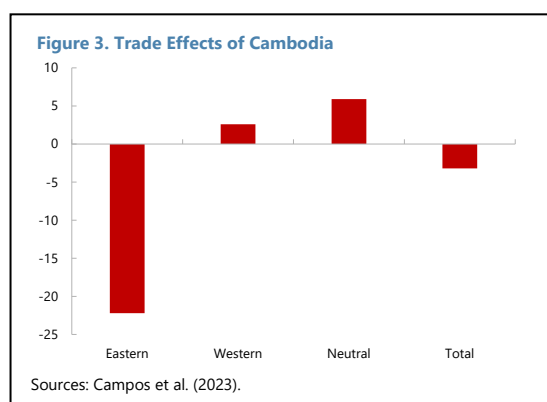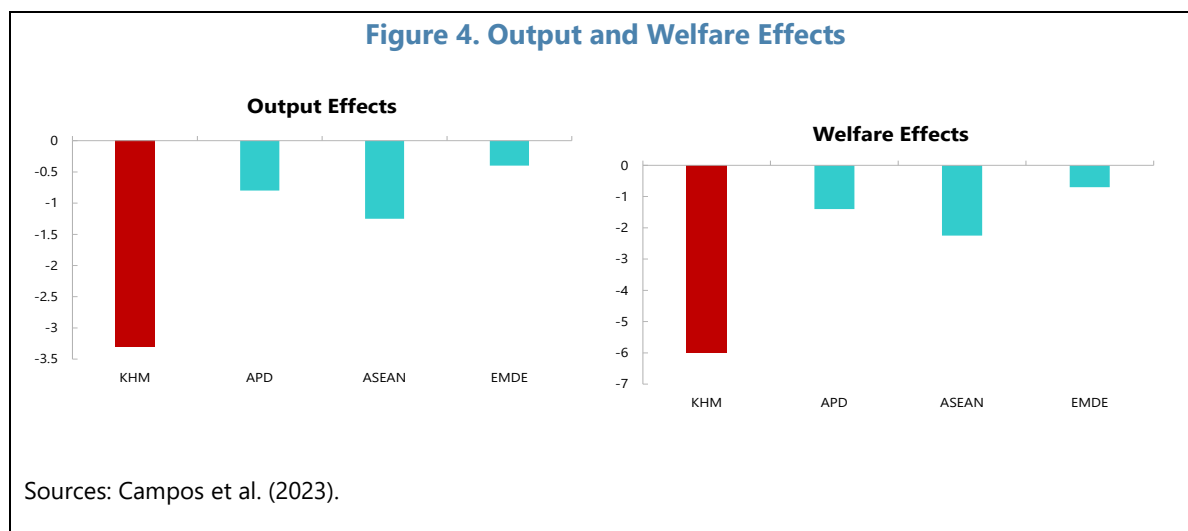
C. Effects of Geo-Economic Fragmentation Through FDI

10.   FDI inflows have been stable in recent years, with China accounting for the largest share inflows. FDI in Cambodia have increased from about 10.1 percent of GDP in 2015 to about 12½ percent of GDP in 2016 and have been relatively stable after that, including during the COVID-19 pandemic. China is main source-economy of FDI inflows (about 42 percent), followed by Korea (11 percent) and Japan (9 percent). FDI from the US have remained modest, accounting by less than 2 percent of the total.

Figure 5. FDI in Cambodia

Sourece of FDI, 2022
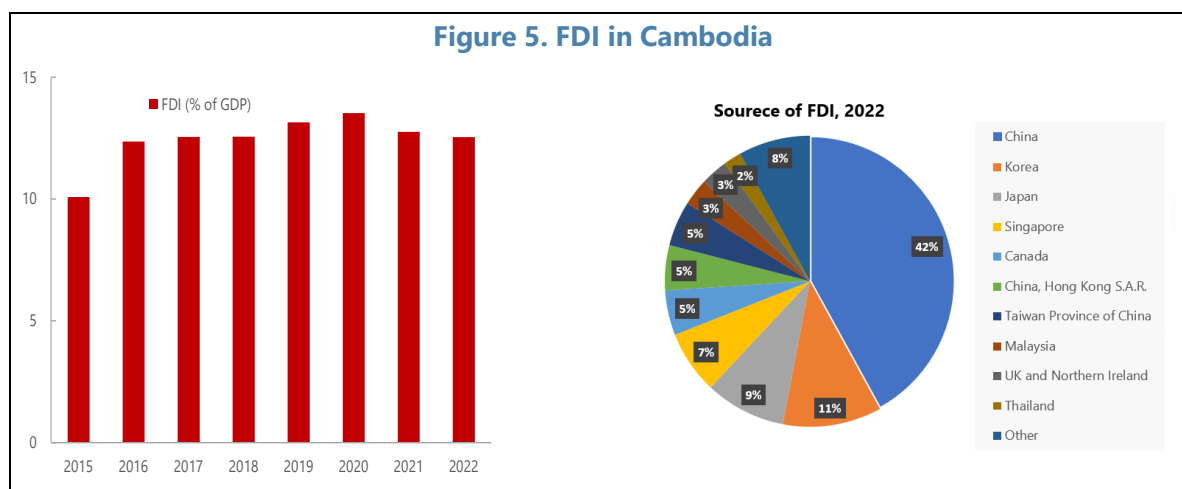
11.   Cambodia FDI vulnerability to geo-economic fragmentation is higher than other EMDEs and Asian economies. The vulnerability of a country FDI to geo-economic fragmentation depends on three key factors (IMF 2023): (i) the geopolitical distance between source and host countries; (ii) the market share in trade of a given sector, as the larger the market share the less vulnerable to relocation pressures is that sector, as foreign investors may have fewer options for relocating investment; (iii) the share of inward FDI in strategic sectors for

the economy. According to the indexes developed in IMF (2023), Cambodia FDI vulnerability to geo-economic fragmentation is higher than other EMDEs and Asian economies, specially related to the dimensions of geo-political distance and market power.

Figure 6. Vulnerability Index for Cambodia
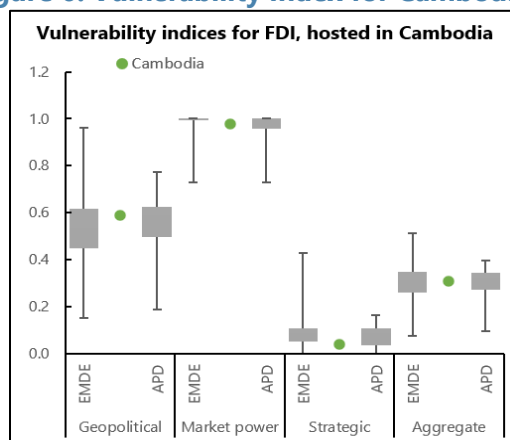
Sources: fDi Markets, Trade Data Monitor, Bailey and others (2017), Atlantic Council, NL Analytics, and IMF staff calculations. Notes: Please see WEO April 2023 Chapter 4, technical annex, for calculation details.

12.   Geo-political distance may have contributed to limited FDI inflows from the US. According to recent IMF (2023) analysis, greater geopolitical distance across countries is associated with less bilateral foreign direct investment. This effect is much stronger for emerging market and developing economies (EMDEs) source and host countries, and it has increased in recent years as trade tensions between China and the US have intensified and trade policy uncertainty has increased. Back-of-the-envelope calculations suggest that the increase in the geo-political distance between Cambodia and the US—as captured by the political distance based on UN General Assembly voting data (Bailey, Strezhnev, and Voeten, 2017)—during the period 2012-2021 could have contributed to reduce the level of FDI from the US to Cambodia by about 15 percent, other things equal.

D.   Summary Policy Implications

13.   The economic costs of geo-economic fragmentation for Cambodia could be large. While there is huge uncertainty surrounding the economic costs of geo-economic fragmentation, these costs are likely to be salient for Cambodia given its high level of trade openness and strong trade and FDI with the US and China.

14.   These costs, however, are not set to be destiny. Geo-economic fragmentation presents an opportunity to foster reforms and improve Cambodia's trade competitiveness and attractiveness to trade and FDI. In particular, Cambodia should continue to geographically diversify its production and export markets—as it has done in the past few years—and intensify

efforts to promote investment in high-value added manufacturing and human capital as well as in market and governance reforms aimed at improving the business climate.

Box 1. Cambodia: Estimating the Costs of Increased Trade Uncertainty

This box summarizes the empirical analysis of Jakubik and Michele Ruta (2023), which estimates the effect of trade uncertainty on bilateral trade flows. The analysis tests the prediction that the effects of trade uncertainty are larger for countries. In particular, the following equation is estimated:

$$TradeFlow_{ijt} = exp\big(\beta_0 IPD_{ijt} + \beta_1 WUI_t \times IPD_{ijt} + \delta_{it} + \delta_{jt} + \delta_{ij}\big) \times \varepsilon_{ijt} \quad (1)$$

where $TradeFlow_{ijt}$ denotes bilateral trade flows; IPD_{ijt} is a measure of geopolitical distance based on UN General Assembly voting data (Bailey, Strezhnev, and Voeten, 2017); $WTUI_t(WUI_t)$ is a measure of global trade policy (economic) uncertainty from Ahir, Bloom, and Furceri, (2022). Equation (1) is estimated for an unbalanced panel of186 countries during the period 2002-2019.

The results reported in the table below show that the effect of trade (economic uncertainty) uncertainty on bilateral trade flows increases with the level of geopolitical distance. They suggest that a one standard deviation increase in global trade policy uncertainty leads to approximately to a 1.0 percent increase in bilateral trade between countries at the 25th percentile of geopolitical distance—that is, countries that are close, or "friends"—relative to those at the mean—that is, neutral.

Estimation Results

	(1) WTUI x IPD	(2) Weighted WTUI x IPD	(3) WUI x IPD	(4) Weighted WUI x IPD
IPD_{ijt}	-0.00204 (0.02040)	0.00008 (0.01990)	0.01712 (0.01973)	0.01038 (0.01945)
$WTUI_t \times IPD_{ijt}$	-0.01211*** (0.00352)			
GDP Weighted $WTUI_t \times IPD_{ijt}$		-0.01106*** (0.00269)		
$WUI_t \times IPD_{ijt}$			-0.01590* (0.00719)	
GDP Weighted $WUI_t \times IPD_{ijt}$				-0.01450** (0.00527)
Constant	9.78462*** (0.00419)	9.78414*** (0.00409)	9.78257*** (0.00389)	9.78341*** (0.00404)
Observations	571,204	571,204	571,204	571,204
Pseudo R-squared	0.992	0.992	0.992	0.992
Exporter-Year FE	YES	YES	YES	YES
Importer-Year FE	YES	YES	YES	YES
Importer-Exporter FE	YES	YES	YES	YES

Notes: Robust standard errors are in parenthesis, clustered at three levels: exporter, importer, and year.
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Sources: Jakubik and Michele Ruta (2023).

Box 2. Cambodia: Estimating the Costs of Trade Fragmentation

This box presents the econometric and modeling frameworks used to estimate the trade and welfare costs of trade fragmentation (see Campos, Estefania-Flores, Furceri and Timini, forthcoming).

<u>Empirical analysis</u>

The empirical analysis is based on a new measure of aggregate trade restrictions called MATR (Estefania-Flores, Furceri, Ostry and Rose, 2022), that spans over the last 70 years and includes up to 157 countries. It covers tariffs, non-tariff barriers, and restrictions on requiring, obtaining, and using foreign exchange for current transactions. MATR is used to estimate the (partial equilibrium) impact of trade restrictions on bilateral trade flows using a theory-consistent structural gravity framework. The following equation is estimated to examine the effect of trade restrictions on trade flows:

$$X_{ijt} = \exp\left(\beta_0 + \beta_1 MATR_{ijt} + \psi Z'_{ijt} + \delta_{it} + \gamma_{jt} + \omega_{ij}\right) + \varepsilon_{ijt}. \quad (2)$$

The dependent variable X_{ijt} refers to gross bilateral trade flows between the exporter i and importer j, at time (year) t. To closely adhere to gravity theory, our dependent variable also includes the case i = j, i.e., domestic trade flows.1 The variable $MATR_{ijt}$ is an index measuring the restrictions imposed by countries on international trade flows. We construct this variable as the interaction of $MATR_{it}$, which varies along the country-time dimension, with a dummy variable that indicates international trade (i.e., whether country $i \neq j$). For domestic trade flows, the variable $MATR_{ijt}$ takes value zero, as restrictions impeding international trade do not apply to domestic transactions. The simultaneous use of observations on domestic and international trade flows not only aligns the empirical specification with gravity theory but is also essential to identify the effect non-discriminatory trade policies, such as the MATR index. The symbol Z'_{ijt} identifies a vector of control variables that capture other bilateral and multilateral trade policies, among other variables. In our main specification, this vector includes dummies identifying memberships in trade agreements (TAs) and the GATT/WTO. The estimated coefficients for MATR, TAs and GATT/WTO obtained in the baseline specification are used to calibrate the general equilibrium model.

Table B2 reports the partial equilibrium effects of trade restrictions on trade flows. The main coefficient of interest is the one corresponding to $MATR_{ijt}$ (β_1 in Equation 2). Given the inclusion of country-pair and country-time fixed effects, this coefficient captures the marginal (partial equilibrium) effect of trade restrictions on trade flows. The results in In Column show that the estimated effect of introducing one additional trade restrictive measure leads, approximately, to a 7% reduction in international trade flows. The results are robust to the inclusion of TAs and GATT/WTO memberships as control variables.

Table 2. Cambodia: MATR Trade Effects – Main Estimates

	(1) MATR	(2) MATR and TA	(3) MATR, TA and GATT/WTO
$MATR_{ijt}$	-0.0767***	-0.0695***	-0.0627***
	(0.015)	(0.015)	(0.013)
TA_{ijt}		0.262***	0.216***
		(0.062)	(0.061)
$GATT/WTO_{ijt}$			0.365***
			(0.112)
Observations	624,444	624,444	624,444
??	YES	YES	YES
??	YES	YES	YES
??	YES	YES	YES

Note: PPML regressions. Fixed effects and constant not reported for the sake of simplicity. Standard error (in parentheses) are clustered at the exporter and time level. ***p < 0.01, **p < 0.05, *p < 0.1.

<u>Model analysis</u>

The results of the empirical analysis are used to calibrate a canonical general equilibrium trade model, in which trade and welfare effects stemming from a fragmentation of the world into blocs can be simulated by raising trade costs for flows crossing bloc boundaries. In particular, the change in trade costs following an increase in trade restrictions is computed as:

$$\hat{\tau}_{ij}^{-\theta} = \exp(\tilde{\beta}_1 \Delta MATR_{ij} + \tilde{\psi}\Delta Z'_{ij}) \quad \forall i,j,$$

where $\tilde{\beta}_1$ and $\tilde{\psi}$ are the estimated values of the parameters in equation (2) and $\Delta MATR_{ij}$ and $\Delta Z'_{ij}$ are differences posited for the value of MATR and other covariates in an alternative scenario relative to the value in the baseline scenario.

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INTERNATIONAL MONETARY FUND

CAMBODIA

STAFF REPORT FOR THE 2023 ARTICLE IV
CONSULTATION—INFORMATIONAL ANNEX

December 12, 2023

Prepared By	Asia and Pacific Department (In consultation with other departments)

CONTENTS

FUND RELATIONS

(As of September 30, 2023)

Membership Status

Joined December 31, 1969; accepted the obligations under Article VIII, Sections 2, 3, and 4 on January 1, 2002.

General Resources Account:	**SDR Million**	**Percent Quota**
Quota	175.00	100.00
Fund holdings of currency (Holdings Rate)	153.13	87.50
Reserve Tranche Position	21.88	12.50

SDR Department:	**SDR Million**	**Percent Allocation**
Net cumulative allocation	251.65	100.00
Holdings	257.37	102.27

Outstanding Purchases and Loans: None

Latest Financial Arrangements:

Type	Date of Arrangement	Expiration Date	Amount Approved (SDR Million)	Amount Drawn (SDR Million)
ECF [1/]	Oct. 22, 1999	Feb. 28, 2003	58.50	58.50
ECF [1/]	May 06, 1994	Aug. 31, 1997	84.00	42.00

[1/] Formerly PRGF.

Overdue Obligations and Projected Payments to the Fund [2/]
(SDR Million; based on existing use of resources and present holdings of SDRs):

		Forthcoming			
	2023	2024	2025	2026	2027
Principal					
Charges/Interest		0.00	0.00	0.00	0.00
Total		0.00	0.00	0.00	0.00

[2/] When a member has overdue financial obligations outstanding for more than three months, the amount of such arrears will be shown in this section.

Multilateral Debt Relief Initiative

As part of the Multilateral Debt Relief Initiative (MDRI), the IMF Executive Board on January 5, 2006, approved relief on 100 percent of debt incurred by Cambodia to the IMF before January 1, 2005. This resulted in the forgiving of all of Cambodia's outstanding debt to the IMF, a total of SDR 56.8 million (about US$82 million). The authorities intend to spend the resources over a number of years, initially on

rural irrigation projects. The National Bank of Cambodia (NBC) transferred the full MDRI proceeds to the Ministry of Economy and Finance effective March 2006.

Safeguards Assessment

A voluntary safeguards assessment of the NBC was completed in January 2010 at the request of the authorities, which updated the previous March 2004 voluntary assessment. The update assessment found that the NBC had taken steps to strengthen aspects of its safeguards framework; however, important recommendations proposed in 2004 were still outstanding, and some new risks had emerged in the area of external audit.

Exchange Rate Arrangement and Payments System

The currency of Cambodia is the Cambodian riel. Cambodia's de facto exchange rate arrangement is classified as *crawl-like*. The *de jure* exchange rate arrangement is a *managed float*. The exchange rate regime comprises two rates: the official rate and the market rate. The official exchange rate, which is expressed in Riels per U.S. dollar, applies to all official external transactions conducted by the central government and state enterprises, and is used for accounting purposes by the NBC. It is determined by the foreign exchange market, with the official rate adjusted to be within 1 percent of the market rate on a daily basis.

Cambodia accepted the obligations of Article VIII, Sections 2, 3, and 4 on January 1, 2002. Cambodia maintains an exchange system that is free of multiple currency practices and restrictions on the making of payments and transfers for current international transactions.

Article IV Consultation

Cambodia is on the standard 12-month Article IV consultation cycle. The previous Article IV consultation discussions were held during September 7–20, 2022. The Executive Board concluded the Article IV consultation (IMF Country Report 22/371) on November 23, 2022.

Financial Sector Assessment Program (FSAP)

The joint IMF-World Bank FSAP mission took place in March 2010 and the assessment was completed in October 2010.

Resident Representative

Mr. Yasuhisa Ojima was the IMF Resident Representative for Cambodia from September 2019 to August 2023, based in Cambodia. Mr. Jochen Schmittmann is the current regional IMF Resident Representative for Cambodia, based in Vietnam.

RELATIONS WITH OTHER INTERNATIONAL FINANCIAL INSTITUTIONS

World Bank: http://www.worldbank.org/en/country/cambodia

Asian Development Bank: https://www.adb.org/countries/cambodia/main

MAIN WEBSITES OF DATA

National Bank of Cambodia (www.nbc.org.kh)

Exchange rates
Balance of payments
Monetary and financial statistics

Ministry of Economy and Finance (www.mef.gov.kh)

Government budget
Fiscal revenue, expenditure, and financing
Public Debt Bulletin

National Institute of Statistics (www.nis.gov.kh)

Consumer Price Index
National accounts
Population census
Labor force survey
Socioeconomic survey
Household survey

**National Summary Data Page
(https://www.nbc.org.kh/english/economic_research/NSDP.html)**

STATISTICAL ISSUES

(September 2023)

I. Assessment of Data Adequacy for Surveillance
General. Data provision has some shortcomings but is broadly adequate for surveillance. Extensive technical assistance (TA) has been provided by the Fund, United Nations Development Program, Asian Development Bank (ADB), and World Bank, as well as by bilateral partners, leading to substantial capacity improvements. Despite the progress made in improving data and statistics, several shortcomings in macroeconomic data still hamper timely and comprehensive analysis.
National accounts. The reliability of the national accounts is affected by an outdated base year (2000). The Cambodian economy has rapidly evolved, as has its informal sector which is using technology to increase value-added (such as in the transportation sector). Sectors such as agriculture and construction lack adequate volume measures, and more broadly the absence of relevant price deflators underscore the need for upgrading statistical techniques and data sources used for compiling GDP by output. For GDP by expenditure, data source constraints impact in particular, the measurement of household final consumption expenditure, and gross capital formation. The NIS revised the sources and methods for compiling national accounts including the GDP rebasing with new base year of 2014, assisted by SIDA and UNESCAP, and the results of the GDP rebasing exercise is undergoing review by NIS and the Fund. The official results are expected to be released in 2024. The availability turnover and financial statements data, high frequency indicators such as quarterly GDP and a production index to NIS would support more agile monitoring of economic developments.
Price statistics. With technical assistance from the Fund, the NBC officially launched a residential property price index (RPPI) in June 2022 to facilitate the monitoring of price developments in the real estate market. The compilation of the consumer price index (CPI) suffers from outdated weights—drawn from the 2004 Cambodia Socio-Economic Survey-based household expenditure data—and insufficient geographic coverage, as well as delays in data dissemination. The NIS is planning to update the CPI series, using 2014 household expenditures to update the basket and weights. A producer price index (PPI) is under development as part of broader efforts to strengthen price measures for the national accounts.
Government finance statistics (GFS). The Ministry of Economy and Finance (MEF) is making steady progress on improving government finance (GFS) and public sector debt statistics (PSDS). As an outcome of Fund TA, GFS are compiled following the *Government Finance Statistics Manual 2014 (GFSM 2014)*. The MEF disseminates monthly GFS for budgetary central government (BCG) and quarterly GFS covering BCG and local governments (LGs) on its website, together with the metadata and the derivation table from the national presentation (TOFE). The MEF reported 2019-2021 GFS for consolidated general government, including the National Social Security Fund and other extrabudgetary units (public administrative establishments) to the Fund and GDICDM agreed to started reporting PSDS covering BCG debt securities and loans to the joint World Bank/IMF Database on a quarterly basis. The MEF bridged the BCG program classification with the Classification of the Functions of Government (COFOG) and reported the BCG Environmental Protection Expenditure for 2018-2020 to the Fund's Climate Indicators Dashboard. COFOG for LGs has been work-in-progress. The availability of source data for the net acquisition of government nonfinancial assets remains limited. A prototype financial balance sheet covering BCG has been compiled

for 2015-2021. Budgetary Local Government (BLG) balance sheet statistics have been accessible from 2019 based on Trial balance (TB) reports prepared by the GDNT. Work needs to be continued on reconciling the coverage of government deposits and other statistics for general government between the MEF, the NBC, and the National Institute of Statistics. To facilitate policy dialog, promoting the use of GFS would improve budget planning and enhance data transparency. To this end, streamlining the budget table with the GFSM2014 framework would enhance comparative analysis of actuals and projections. The Fund TA encouraged the fiscal team of GDP of the MEF to use GFSM 2014 data for fiscal projections as the assumptions aligned with TOFE transactions. The Fund TA assisted the MEF GFS team in continuing the process on developing the Technical Compilation and Dissemination Guidelines for GFS and PSDS. In 2022, Cambodia issued debt securities for the first time. This is now included in the Public Debt Bulletin and should also be included in PSDS. The authorities are encouraged to review available source data for SOEs and conclude on the possibility of compiling GFS for the public sector.

Monetary and financial statistics (MFS). The NBC reports monthly monetary data using STA's standardized reporting forms (SRFs) for the central bank, other depository corporations (ODCs), and other financial corporations (OFCs). For OFCs, there is a need to improve information on the counterpart sector, especially for loans, and expand the institutional coverage to leasing companies. The current SRF 4SR covers non-deposit taking microfinance institutions, specialized banks and insurance companies (ICs). The Insurance Association of Cambodia is assisting to collect data (the designed templates) from ICs per request from the NBC and IMF TA. Further, there is little information to gauge the exact size of the shadow banking sector which includes institutions such as real estate developers, pawn shops and payment service providers. A recent MCM diagnostic review of the NBC's IT needs for regulatory reporting—which provides source data for MFS—has proposed a roadmap to support NBC's efforts to fully automate regulatory reporting. Future work on streamlining data collections by simplifying and harmonizing reporting requirements and templates should take full account of MFS and FSI compilation requirements. An upcoming MFS mission will assist in reviewing and improving the existing mapping of data for NDTMFIs and insurance corporations to the 4SR, focusing on the classification of some transactions that the compilers are not sure about. In addition, the MFS mission will advise on the mapping of newly created accounts for 2SR related to debt securities, financial derivatives, and other instruments from the banks' chart of accounts.

Financial sector surveillance/financial access. The NBC reports to the Fund 15 core and 8 additional FSIs for deposit takers, two FSIs for OFCs, one FSI for households, and two FSIs for real estate markets on a quarterly frequency and with one quarter timeliness. The NBC has used the new FSIs templates based on the (new) 2019 FSIs Compilation Guide starting with 2021Q1 data. The migration to the 2019 FSIs Compilation Guide poses new challenges for the compilers in the calculations and definitions change. An upcoming joint mission for MFS and FSI will assist in mapping or recalculation of some existing indicators and calculation of the new additional indicators by mapping source data directly from the COA for the new templates for DTs and assisting with completing the new FSIs metadata templates. Several series and indicators of the Financial Access Survey (FAS), including the two indicators—commercial bank branches per 100,000 adults and ATMs per 100,000 adults—used to monitor Target 8.10.1 of the SDGs are disseminated.

External sector statistics. Cambodia's quarterly balance of payments and international investment position (IIP) are compiled by the NBC according to the Balance of Payments and International Investment Position Manual, sixth edition (BPM6). There are gaps in data coverage of trade data and short-term financial inflows, and some components of the BoP are compiled on the basis of estimation methods. Discrepancies in trade data, although somewhat reduced, are yet to be resolved. Persistent discrepancies

between the trade data from national sources and the mirror data from trade partner countries complicate the assessment of external balances. There is scope for improving the data on inward direct investment (DI) — a key component of Cambodia's external transactions and positions, as estimation draws heavily on DI approvals and ITRS as an additional source. For non-banks FDI, NBC is in the process to request data from tax authorities via MOU. The NBC revised the model on remittances following the TA mission in 2020 and updated data on trade credit and other debt liabilities.

II. Data Standards and Quality	
Cambodia participates in the IMF's General Data Dissemination System (e-GDDS). Its National Summary Data Page (NSDP) was launched on May 30, 2018. **(https://www.nbc.org.kh/english/economic_research/NSDP.html)**	No data ROSC are available.

Cambodia: Table of Common Indicators Required for Surveillance (As of November 15, 2023)					
	Date of Latest Observation	**Date Received**	**Frequency of Data**[1]	**Frequency of Reporting**[1]	**Frequency of Publication**[1]
Exchange Rates	11/14/2023	11/15/2023	D	D	D
International Reserve Assets and Reserve Liabilities of the Monetary Authorities[2]	9/2023	11/2023	M	M, 2 month lag	M
Reserve/Base Money	9/2023	11/2023	M	M, 2 month lag	M
Broad Money	9/2023	11/2023	M	M, 2 month lag	M
Central Bank Balance Sheet	9/2023	11/2023	M	M, 2 month lag	M
Consolidated Balance Sheet of the Banking System	9/2023	11/2023	M	M, 2 month lag	M
Interest Rates[3] (Loan and Deposit rates)	9/2023	11/2023	M	M, 2 month lag	M
Consumer Price Index	9/2023	11/2023	M	M, 1-2 month lag	M
Revenue, Expenditure, Balance and Composition of Financing[4]—General	9/2023	11/2023	M	M, 1-2 month lag	M
Revenue, Expenditure, Balance and Composition of Financing—Central	9/2023	11/2023	M	M, 1-2 month lag	M
Stocks of Central Government and Central Government-Guaranteed Debt[5]	6/2022	9/2022	S	S, 3 month lag	S
External Current Account Balance	Q2/2023	10/2023	Q	Q, 3 month lag	Q
Exports and Imports of Goods and Services	Q2/2023	10/2023	Q	Q, 3 month lag	Q
GDP/GNP	2022	7/2023	A	A, 6 month lag	A
Gross External Debt	Q2/2023	10/2023	Q	Q, 3 month lag	Q
International Investment Position	Q2/2023	10/2023	Q	Q, 3 month lag	Q
Residential Property Price Index	Q2/2023	8/2023	Q	Q,3 month lag	Q

[1] Daily (D), Weekly (W), Monthly (M), Quarterly (Q), Semi-annual (S), Annually (A), Irregular (I), and Not Available (N/A).

[2] Includes reserve assets pledged or otherwise encumbered as well as net derivative positions.

[3] Deposit and loan rates.

[4] The general government consists of the central government (budgetary funds, extra budgetary funds, and social security funds) and state and local governments.

[5] Including currency and maturity composition.

INTERNATIONAL MONETARY FUND

CAMBODIA

STAFF REPORT FOR THE 2023 ARTICLE IV CONSULTATION—DEBT SUST AINABILITY ANALYSIS

Approved By	Prepared by Staff of the International Monetary Fund and the International Development Association
Sanjaya Panth and Peter Dohlman (IMF), and Manuela Francisco and Lalita Moorty (IDA).	

Cambodia: Joint Bank-Fund Debt Sustainability Analysis	
Risk of external debt distress	*Low*
Overall risk of debt distress	*Low*
Granularity in the risk rating	*Not applicable*
Application of judgment	*No*

Cambodia remains at low risk of external and overall debt distress under the Low-Income Countries Debt Sustainability Framework (LIC-DSF).[1] The current debt-carrying capacity remains consistent with a medium classification.[2] The baseline scenario assumes a steady economic recovery, largely driven by a rebound in tourism sector and manufacturing goods exports. The total public and publicly guaranteed (PPG) debt-to-GDP ratio is projected to rise by around 4 percentage points of GDP during the next decade, but its level is set to remain stable. Moreover, the debt burden indicators are projected to remain well below their thresholds under the baseline and the shock scenarios. However, the stress tests shows that debt sustainability remains vulnerable to shocks in exports and growth.

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[1] This DSA follows the Guidance Note on the Bank-Fund Debt Sustainability Framework for Low Income Countries (imf.org), February 2018 (GN).

[2] Cambodia's Composite Indicator (CI) index, based on the October 2023 WEO update and the World Bank's 2022 CPIA, is 3.06. This is the first "signal" indicating that the country's debt-carrying capacity changes from a medium to strong classification. As indicated in the guidance note, two consecutive signals are needed to change the classification.

PUBLIC DEBT COVERAGE

1.   The DSA covers central government debt and debt guaranteed by the central government to state-owned enterprises (SOEs). By law, state and local governments and the central bank do not engage in borrowing, and SOEs do not contract non-guaranteed loans. Currently, there are no extra-budgetary funds, and the National Social Security Fund is funded by deposits and does not constitute a liability for the general government (text table 1). Consistent with the previous DSA, external debt is defined on a currency basis.

Text Table 1. Public Sector Debt Coverage	
Subsectors of the public sector	**Sub-sectors covered**
Central government	X
State and local government	
Other elements in the general government	
o/w: Social security fund	
o/w: Extra budgetary funds (EBFs)	
Guarantees (to other entities in the public and private sector, including to SOEs)	X
Central bank (borrowed on behalf of the government)	X
Non-guaranteed SOE debt	X

2.   The DSA includes contingent liability stress tests for PPPs and a financial market shock (text table 2).

- The shock scenario for the SOE debt is set to 0 percent of GDP because, by law, SOEs do not engage in non-guaranteed external borrowing, and guarantees to SOEs are included in public debt. According to the World Bank's Private Participation in Infrastructure Project Database and information provided by the authorities, the capital stock of PPPs is estimated at 20.7 percent of GDP as end of 2022, corresponding to a contingent liability of 7.3 percent of GDP.

- The standard financial market shock is intensified in this DSA. Specifically, the financial market shock assumes contingent liabilities from financial markets to be 10 percent of GDP, twice the default value of 5 percent of GDP. This change is included to account for the risks emerging from private sector debt that has continued to grow steadily and reached 160 percent of GDP.

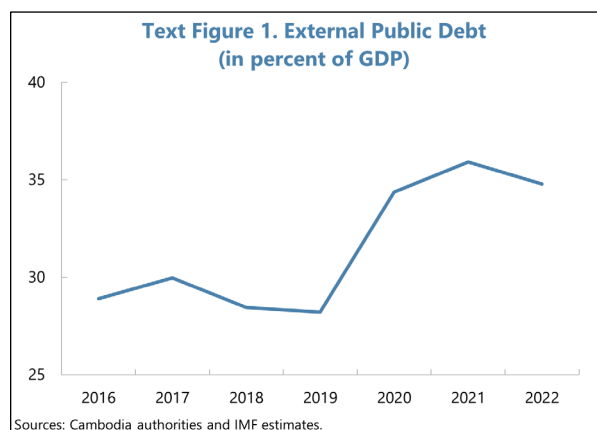| Text Table 2. Design of Contingent Liability Stress Test				
The country's coverage of public debt	The central government, central bank, government-guaranteed debt, non-guaranteed SOE debt			
		Default	**Used for the analysis**	**Reasons for deviations from the default settings**
Other elements of the general government not captured in 1.	0	percent of GDP	0.0	
SoE's debt (guaranteed and not guaranteed by the government) 1/	2	percent of GDP	0.0	Not allowed by law
PPP	35	percent of PPP stock	7.3	Staff estimates
Financial market (the default value of 5 percent of GDP is the minimum value)	5	percent of GDP	10.0	Giving risks emerging from private external borrowing
Total (2+3+4+5) (in percent of GDP)			17.3	
1/ The default shock of 2% of GDP will be triggered for countries whose government-guaranteed debt is not fully captured under the country's public debt definition (1.). If it is already included in the government debt (1.) and risks associated with SoE's debt not guaranteed by the government is assessed to be negligible, a country team may reduce this to 0%.				

BACKGROUND ON DEBT

3. Cambodia's external public debt amounted to around US$ 9.97 billion (35 percent of GDP) by end-2022. The external debt-to-GDP ratio decreased slightly in 2022, by 1.1 percentage points, as GDP growth increased (text figure 1).[3] Bilateral debt continues to account for around 70 percent of total external debt, with more than half owed to China (text table 3).[4] External debt has been accrued on concessional terms, with a present value of around 21 percent of GDP at end-2022.

4. Public domestic debt remains negligible. To support financial market development, the authorities started to issue local-currency government bonds in September 2022.[5] The total amounts of issuance in 2022 was US$ 17.5 million, less than 0.1 percent of GDP. This was less than what previously planned (US$

Text Figure 1. External Public Debt (in percent of GDP)

Sources: Cambodia authorities and IMF estimates.

Text Table 3. External Public Debt (2022)

	In million of U.S. dollars	In percent of GDP	In percent of external debt
Total	9,971	34.6	100.0
Multilateral	3,234	11.2	32.4
Bilateral	6,737	23.4	67.6
of which: China	4,002	13.9	40.1

Sources: Cambodia authorities and IMF estimates

300 million), reflecting delays in issuance and some unsuccessful auctions—potentially reflecting lack of appetite for local-currency government bonds due to currently high rates for non-government rates (including local-currency banks' deposit rates). All the bonds were issued at a 2.2 percent yield with a 1-year maturity. To improve the appetite for the bonds, the authorities increased the yield on 1-year maturity bonds to 3.5 percent and widened the bonds' maturities (to 2-,3- and 5-years) in 2023. Moreover, the authorities plans to deduct 50 percent of withholding tax on the interest earned from holding and trading the bonds, and set tax exemption on capital gains from purchasing and trading the bonds for three years. For 2023, the authorities' plan is to issue local-

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[3] The debt stock includes legacy arrears to the Russian Federation and the United States of about 2.2 percent of GDP. As the status of negotiations of these arrears remains unchanged compared to the previous DSA, this analysis assumes no debt restructuring. According to Cambodia Public Debt Statistical Bulletin, "Old Debt Under Negotiation" in Table 3 "Debt Stock." The data reflect principal amounts, i.e. excluding any accumulated interest. The arrears relate to obligations made by the then-government in the early 1970s, which have been refuted by subsequent governments. There has been no progress at resolving this issue during Paris Club negotiations. In addition, as the arrears reflect diplomatic disagreements, they do not trigger an "in debt distress" rating.

[4] According to Cambodia Public Debt Statistical Bulletin, (see Table 3 "Debt Stock"), the multilateral debt in the text table 3 is breakdown by the Asian Development Bank at US$ 2,051 million, the World Bank at US$ 934 million, and others (Cambodia does not have loan liabilities to the IMF).

[5] The authorities drafted the preliminary "Policy Framework of Development on the Government Securities" in September 2021, which aimed at (i) the first securities issuance in 2022, (ii) setting principles for the usage of fund from government securities, and (iii) appointing the NBC as a fiscal agent and arranging the issuance operations. Since September to December in 2022, there were five auctions to issue the bonds.

currency government bonds for US$ 200 million totally, but only US$ 27 million have been issued in the first half of the year, and a new auction is expected to be launched by the end of the year.[6]

5.   PPPs are assumed to continue to play an important role in financing investment projects, in expectation of diminishing access to concessional financing and slow progress in developing domestic debt markets. The PPP stock more-than-doubled between 2010 and 2015, and is estimated to have reached around 20.7 percent of GDP by end-2022. The authorities have been taking welcome steps to strengthen the PPP framework in line with past Fund recommendations, including a system for risk assessment and the necessary legal, regulatory, and institutional arrangement for PPP management.[7]

6.   Private external debts in Cambodia are excluded from this analysis. Staff estimates private external debt at about 43 percent of GDP in 2022.[8] Excessive external borrowing by the private sector could increase its insolvency risk (see Annex VI) and the possibility of government interventions either in the form of assumption of private liabilities or in the form of fiscal support (such as tax-relief measures to affected sectors). In addition, the insolvency of the private sector would increase financial vulnerabilities—this is modeled in the stress test as a financial shock of 10 percent of GDP.

BACKGROUND ON MACRO FORECASTS

7.   The Cambodian economy is steadily recovering from the COVID-19 pandemic. The recovery in both domestic and external demands led to an increase in real GDP growth from 3.0 percent in 2021 to 5.2 percent in 2022 (text figure 2). The manufacturing sector was the biggest contributor to growth in 2022, adding over 3 percent to real GDP. The service sector (driven by tourism) also had a strong rebound from the pandemic. In 2023, exports have declined in the first quarter, but have started to recover in recent months, led by electronics.

Text Figure 2. Real GDP Growth Compositions (In percent)
Sources: Cambodia authorities
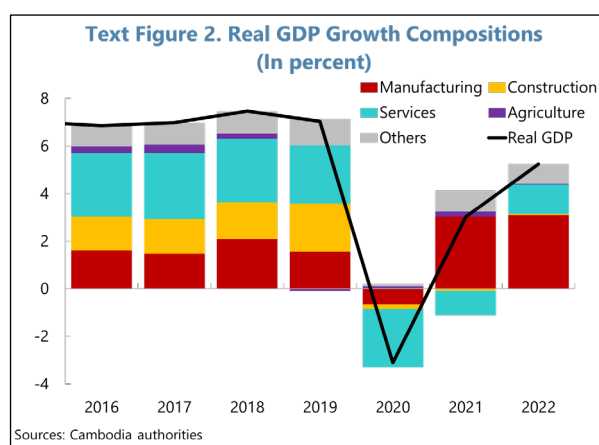
8.   Credit growth decelerated to 8.1 percent y/y in August 2023, down from 23.5 percent in 2021. The deceleration was led by the reduction in credit growth in real estate and hospitality (text figure 3). The lower credit growth is driven by the tightening of financial conditions, strengthening of banks'

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[6] To develop issuance of local-currency government bonds, the Cambodia Securities Exchange is planning to establish its new platform by the end of 2023.

[7] For example, a central PPP unit had been established under the Ministry of Economy and Finance, and a new law on PPP was enacted in November 2021.

[8] According to CEIC data, the total external debt amounted to US$ 22.4 billion in 2022, and private debt can be estimated at about US$ 12.4 billion after deducting PPG external debt.

credit standards but is also an outcome in part of weaker demand for credit. The private credit-GDP ratio, even after the slowdown, remains elevated at around 160 percent.

Text Figure 3. Contribution to Private Credit Growth (in percent)

Sources: Cambodia authorities

9.   The fiscal stance was broadly neutral in 2022. The primary deficit for 2022 is estimated 0.6 percent of GDP, a significant reduction from the 6.7 percent deficit in 2021. The improvement was primarily driven by higher-than-expected GDP growth outturns and an outperformance of tax revenues relative to projections (about 0.6 percent of GDP), as well as good performance in non-tax revenues owing to the recovery in tourism. Meanwhile, social spending decreased by around 6 percent y/y as the targeted fiscal measures used to support households and firms affected by the pandemic were phased out.

10.   The current account deficit narrowed in 2022. The current account deficit declined from about 42 percent of GDP in 2021 to about 26 percent in 2022. The reduction of the current account deficit is largely driven by the decline in gold imports which surged in 2021.[9] Goods exports, especially garments and electronics, and tourism also contributed.

11.   The recovery is assumed to continue in the baseline projections. The baseline outlook in 2023-24 is as the followings and the medium-term projections are in line with the previous DSA (text table 4). Medium term growth is projected at around 6.5 percent, though subject to large uncertainty. While this rate of growth is comparable with that experienced in neighboring countries at a similar stage of development, its achievement will crucially depend on the implementation of envisaged reforms.[10]

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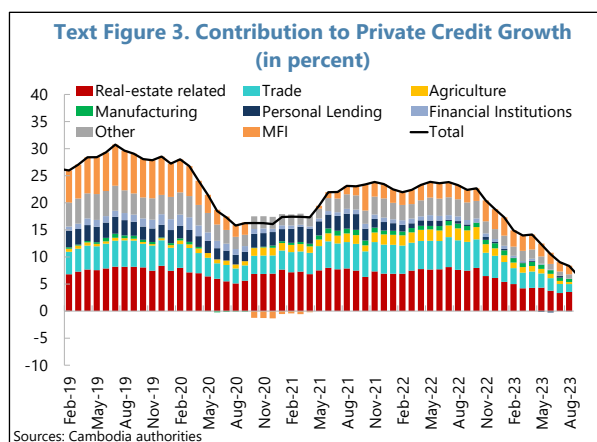
[9] The reasons for the large inflows of gold are not certain, and hence it is difficult to assess whether the flows are likely to be temporary or permanent. Gold imports increased substantially from the end of 2020 through 2021 following the increase in the price of gold, suggesting perhaps purchases in expectation of future price increases, but the size of the inflows is much larger (relative to nominal GDP) than would be expected on the basis of hedging flows observed in other countries. See the 2022 IMF Cambodia AIV for a detailed discussion.

[10] The government is in the process of developing the strategy to support the country's ambitious goal of reaching upper-middle-income status by 2030. The new "Pentagon Strategy", announced in August 2023, focused on five strategic objectives for Cambodia's next stage development: 1) crisis-resilient economic growth, 2) job creation, 3) poverty reduction, 4) improving governance capacity and quality of public institutions, and 5) sustainable socio-economic development. The Phase I of the Strategy, for immediate implementation starting 2023, includes six key policy programs: i) expanding universal healthcare, ii) offering vocational training for at-risk youth, iii) formalizing social aid for vulnerable households, iv) transitioning workers from informal to formal economies, v) coordinating and funding stable, fair pricing for key crops, vi) deploying agri-tech officers in all farming communities and forming rural farmers' associations.

Text Table 4. Baseline Macroeconomic Assumptions (2022-2030)							
	Previous DSA (2022)				Current DSA (2023)		
	2022	2023	2024	2025-2030	2022	2023	2024	2025-2030
Real GDP (%, YOY)	5.0	5.4	6.1	6.4	5.2	5.3	6.0	6.4
Inflation (%, YOY)	5.8	3.5	3.0	3.0	5.3	2.3	3.0	2.8
Primary Deficit (% of GDP)	3.8	4.7	3.1	2.5	0.6	3.4	1.7	2.4
Current Account Deficit (% of GDP)	30.0	14.1	9.9	6.7	26.1	2.1	5.9	6.2
Sources: IMF staff estimates and projections							

- **_Growth and Inflation._** Growth for 2023 is projected at 5.3 percent in 2023. This is backed by the recovery in tourism and non-garment exports—notably solar panels and electric parts, as well as fiscal support. Garment export has declined, showing only modest signs of recovery in the third quarter. The output gap is projected to continue closing and turn positive by 2025.[11] Medium term growth is projected at around 6.5 percent, but its achievement will crucially depend on the implementation of envisaged reforms. Inflation is expected to average at 2 percent in 2023 and converge to its long-term trend, around 3 percent, absent of further shocks in commodity prices.

- **_External sector_**. The current account deficit is expected to fall significantly in 2023. The deficit is projected to decline to 2.1 percent of GDP at the end of 2023, mainly due to a significant decline in gold imports (reflecting the restriction in gold imports during the first 6 month of the year), and the improvement in the trade balance excluding gold (with stagnant imports especially in garment materials). The recovery in tourism flows and remittances also contributed to the decline. Starting in 2024, the current account deficit is expected to converge to its historical average, and international reserves are expected to remain stable and above 7 months of imports throughout the projection period. The deficit remains mostly financed in the baseline.

- **_Fiscal sector_**. The primary deficit is expected to widen to 3.6 percent of GDP in 2023, before falling to around 2.0 percent in 2024 and reaching 2.5 percent over the medium term. The increase in the deficit in 2023 is mostly due to higher spending needs associated with the 2023 South-East Asia Games and the General Election, as well as a scheduled public sector wage increase and the finalization of incomplete infrastructure projects from 2022. Starting from 2024, employee compensation as percent of GDP is expected to stay at the current level, while social benefit expenditures are projected to scale back somewhat—but still considerably higher than the pre-pandemic period—as temporary support measures for the pandemic and for the

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[11] In terms of key drivers of growth, the projections assume that exports will strengthen as external demand from advanced economies picks up starting in 2024, while the tourism sector will continue to gradually recover from the COVID-19 induced shock.

increase in prices are removed.[12] The revenue to GDP ratio is expected to increase modestly over the medium term, supported by reform efforts in tax and custom administrations.[13]

12.   Uncertainty around the outlook is high, with risks tilted to the downside. The most pressing risks are:

- *A deeper and more prolonged slowdown in import demand from advanced economies*: Cambodia's sizeable exports to advanced economies means that a weaking in their economic activity is a significant downside risk for Cambodia. This is specially the case for the US, which accounts for over 40 percent of Cambodia's exports. Staff estimates suggest that 1 percent decline in US economic activity could reduce Cambodia's output by about 0.5 percent in the short term. This effect is larger for those sectors (such as textiles) that are export oriented.

- *Weaker short- and medium-term prospects for the Chinese economy*: Cambodia economy is strongly linked to China through FDI, tourism, and goods trade. Staff estimates suggest that 1 percent decline in Chinese economic activity could reduce Cambodia's output by about 0.6 percent after 1 year. A decline in China's potential growth will have also significant negative medium-term effects on the Cambodia's economy, especially for those sectors (such as constructions) that are relatively more input dependent from Chinese production.

- *US monetary tightening impact*: The US monetary tightening is likely to negatively impact the Cambodia economy by reducing demand from the US and increasing private sector solvency risks through higher domestic lending rates and lower firms' profits. A 100-basis point increase in the US monetary policy rate is estimated to reduce Cambodia GDP by about 1.1 percent after four quarters.

- *High levels of private debt.* Given large build-up of private sector debt, increasing interest rates could put pressure on private sector balance sheets. While, at the aggregated level, Cambodia corporate solvency risks are relatively small in the case of large increases in lending rates, there is marked heterogeneity across industries and firms, with pockets of solvency risks that could emerge in the face of significant increase in rates and decline in profits.

- *Geo-economic fragmentation*: Cambodia's high level of trade openness and strong trade and FDI ties with the US and China make it particularly susceptible to trade fragmentation risks. Through trade policy uncertainty and trade restrictions, the economic costs of geo-economic

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[12] The pandemic cash transfer program for the poor and vulnerable households was concluded in September 2023. The cash transfer program for at-risk households affected by rising fuel and food prices, introduced in December 2022, concluded in July 2023.

[13] The authorities are aware of the need to rebuild the fiscal buffer which had been drawn down during the pandemic and are committed to a gradual consolidation path starting in 2024. To boost revenues, they plan to focus on improvements in administration and efficiency, rather than introducing new taxes. They informed that the implementation of capital gains tax is still under discussion, while policies on excise taxes for 2024-2028 are being finalized.

fragmentation could be potentially large for Cambodia, and well above those of other ASEAN economies.

Other risks include commodity price volatility which could cause inflation to persist, extreme climate events—including flood, droughts and changing monsoon patterns—that could hinder agricultural and industrial production, and, over the medium term, a disorderly climate transition that could create supply disruption and lower growth.

13.   Financing assumptions reflect growing domestic debt issuance, while external debt remains the dominant source. The level of external borrowing is set at around 3-3.5 percent of GDP over the medium term, before declining to 2.6 percent of GDP by 2030 as the fiscal deficit narrows and domestic financing increases. For the purposes of this DSA, new external debt is expected to remain largely concessional, with an average maturity of 27 years and a nominal interest rate of less than or equal to 2 percent. The analysis assumes that the annual amount of domestic bonds issued increases gradually, from less than 0.1 percent of GDP in 2022 to about 2 percent of GDP in 2043. Demand for domestic securities is supported by the growing financial industry.[14] Outstanding domestic PPG debt is therefore estimated to reach around 10 percent of GDP by 2043, accounting for about 25 percent of the total outstanding PPG debt.

14.   The realism tools suggest that macroeconomic and fiscal assumptions are broadly reasonable (figure 4). The projected growth path is in line suggested by standard fiscal multipliers. The contribution of public capital to GDP growth in the baseline scenario is broadly in line with historical values. The primary deficit-to-GDP ratio is assumed feasibly over the next three years in the baseline projection as this adjustment is not in the top quartile of the distribution for LICs.

*   The large current account deficit in 2021-22 has been crucially led by the surge in gold imports and financed mostly by unidentified other short-term inflows. Under the assumption that this surge was temporary, the baseline scenario projects the deficit would shrink and the other short-term flows would return to the outflows like before 2020 (as reflected in the residuals of the external debt's dynamics identified in Table 1 and Figure 3). The large share of unidentified flows in turn reflects measurement issues in the BoP data, which complicate the assessment of external sustainability.

COUNTRY CLASSIFICATION AND DETERMINATION OF SCENARIO STRESS TESTS

15.   Cambodia's debt-carrying capacity is classified as medium, same as that in the previous DSA. Cambodia's Composite Indicator (CI) index, based on the October 2023 WEO update

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[14] Should demand for domestic issuance be less than expected, the government could choose to further draw down domestic deposits it holds at the central bank.

and the World Bank's 2022 CPIA, is 3.06.[15] The current debt-carrying capacity remains "medium" (text tables 5 and 6).

Text Table 5. Cambodia's CI Index			
Debt Carrying Capacity	**Medium**		
Final	Classification based on current vintage	Classification based on the previous vintage	Classification based on the two previous vintage
Medium	Strong 3.06	Medium 2.96	Medium 2.97

Text Table 6. Debt Burden Thresholds			
EXTERNAL debt burden thresholds	**Weak**	**Medium**	**Strong**
PV of debt in % of			
Exports	140	180	240
GDP	30	40	55
Debt service in % of			
Exports	10	15	21
Revenue	14	18	23
TOTAL public debt benchmark			
PV of total public debt in percent of GDP	35	55	70

16.   Stress analysis include tailored stress test. Cambodia is highly vulnerable to climate change and is likely to experience an increase in temperatures, as well as longer and more intense droughts and flooding. Hence, in addition to the six standardized stress tests, the analysis includes a natural disaster scenario, calibrated assuming a significant mitigation cost of 10 percent of GDP (around US$ 2.9 billion) and a fall in GDP growth and exports using interaction coefficients of 1.5 and 3.5, respectively. The contingent liability stress test is based on the quantification of potential risks stemming from PPPs (7.3 percent of GDP) and financial markets (10 percent of GDP).

EXTERNAL AND PUBLIC DEBT SUSTAINABILITY

17.   The external debt indicators show that Cambodia's risk of debt distress remains low. External debt is projected to keep in the 35.5 percent of GDP until 2026, from 34.8 percent of GDP in 2022, gradually falling to 32.4 percent of GDP by 2033 and 29 percent of GDP by 2043 (table 1). In present value terms, the external debt-to-GDP ratio also falls, from 21.9 percent of GDP to 19.4 percent of GDP over the same timeframe. The large share of concessional loans means the debt service-to-exports and debt service-to-revenue ratios remain far below their indicative benchmarks throughout the forecast horizon.

18.   Stress tests suggests that Cambodia's external debt is vulnerable to shocks to exports. Compared to shocks to real growth, the fiscal balance, exchange rate depreciation, and external

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[15] The revised LIC-DSF determines the debt sustainability thresholds by calculating a Composite Indicator. The CI is a function of the World Bank's Country Policy and Institutional Assessment (CPIA) score, international reserves, remittances, individual country and global economic growth. The calculation is based on 10-year averages of the variables, across 5 years of historical data and 5 years of projection.

flows, the impact of an exports shock is the most severe—the present value of the external debt-to-GDP ratio increases sharply, from around 22 percent of GDP in 2023 to around 35 percent of GDP, falling short of the 40 percent threshold of GDP, and gradually falls back to about 33 percent over the medium term (figure 1).

19.   **The path of public debt broadly follows the one of external debt.** Under the baseline, the total PPG debt level increases from 35 percent of GDP in 2022 to around 40 percent of GDP in 2033, with an increased domestic financing mix (table 2). The present value of the total debt-to-GDP ratio is estimated to increase gradually to 30 percent throughout the timeframe but remains well below the 55 percent benchmark. The debt service-to-revenue ratio is estimated to pick up over the long term, along with a rising share of domestic debt. The stress tests indicate that PPG debt is vulnerable to shocks to growth: under the growth shock scenario, the present value of the total debt-to-GDP ratio rises to 50 percent by 2033 but does not breach the indicative threshold of 55 percent. The contingent liability stress test is the most extreme shock for the debt service-to-revenue ratio, which results in a noticeable spike in 2029 (figure 2), as the stress from the financial market (10 percent of GDP) results in temporary borrowing needs, increasing debt servicing.

RISK RATING AND VULNERABILITIES

20.   **Cambodia remains at low risk of both external and overall debt distress.** Public debt is projected to rise by around 4 percentage points of GDP during the next decade, but its level is set to stabilize. Moreover, the debt burden indicators are projected to remain well below their thresholds under the baseline and all the shock scenarios. Therefore, the external risk of debt distress is assessed to remain low. However, the analysis shows that debt sustainability remains vulnerable to shocks in exports and growth.

21.   **Potential vulnerabilities to growth and external shocks highlight the importance of maintaining fiscal discipline and public debt management while promoting long-term growth.** In light of heightened global risks, targeted and managed fiscal measures are important to safeguard near-term recovery. This reinforces the need to preserve macroeconomic stability, diversify the economy and exports to increase resilience to external shocks, and improve spending efficiency and the successful implementation of the revenue mobilization strategy. Further efforts to implement sound public investment management and PPP frameworks and strengthen analysis of PPP risks are needed. Finally, the authorities should focus on closing data gaps, in particular regarding data on external private debt and the PPP stock.

Authorities' Views

22.   **The authorities expressed their strong commitment to debt sustainability.** They closely monitor external and overall debt-related indicators. They will continue focusing on managing PPP risks and efforts to build their comprehensive PPP database—which would include PPP stock and its estimated contingent liabilities—are already underway. As part of the effort to ensure debt sustainability, the government is also continuing to develop domestic financial markets and agree with the importance of developing the government bond market.

Figure 1. Cambodia: Indicators of Public and Publicly Guaranteed External Debt under Alternatives Scenarios, 2023–2033

PV of debt-to GDP ratio

Most extreme shock: Exports

PV of debt-to-exports ratio

Most extreme shock: Exports

Debt service-to-exports ratio

Most extreme shock: Exports

Debt service-to-revenue ratio

Most extreme shock: One-time depreciation

| Baseline | Historical scenario | Most extreme shock 1/ | Threshold |
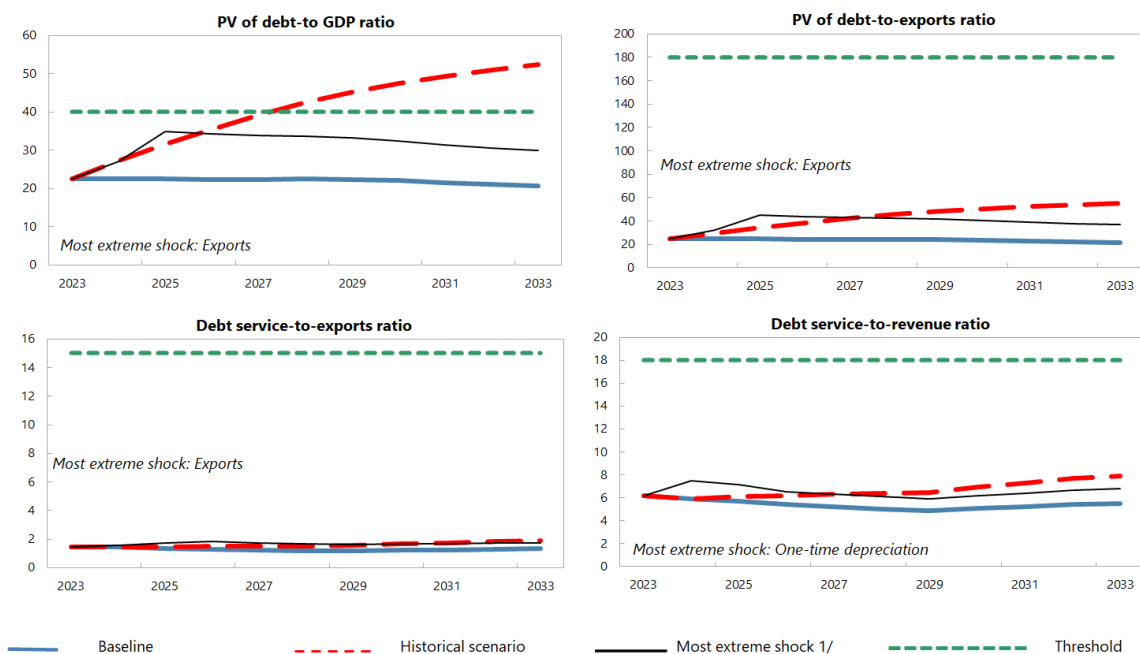
Customization of Default Settings 2/		
	Size	Interactions
Tailored Stress		
Combined CL	Yes	
Natural disaster	No	No
Commodity price	n.a.	n.a.
Market financing	No	No

Note: "Yes" indicates any change to the size or interactions of the default settings for the stress tests. "n.a." indicates that the stress test does not apply.

Borrowing assumptions on additional financing needs resulting from the stress tests*		
	Default	User defined
Shares of marginal debt		
External PPG MLT debt	100%	
Terms of marginal debt		
Avg. nominal interest rate on new borrowing in USD	1.1%	1.1%
USD Discount rate	5.0%	5.0%
Avg. maturity (incl. grace period)	27	27
Avg. grace period	9	9

* Note: All the additional financing needs generated by the shocks under the stress tests are assumed to be covered by PPG external MLT debt in the external DSA. Default terms of marginal debt are based on baseline 10-year projections.

Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in or before 2033. The stress test with a one-off breach is also presented (if any), while the one-off breach is deemed away for mechanical signals. When a stress test with a one-off breach happens to be the most exterme shock even after disregarding the one-off breach, only that stress test (with a one-off breach) would be presented.

2/ The magnitude of shocks used for the commodity price shock stress test are based on the commodity prices outlook prepared by the IMF research department.

Figure 2. Cambodia: Indicators of Public Debt Under Alternative Scenarios, 2023-2033
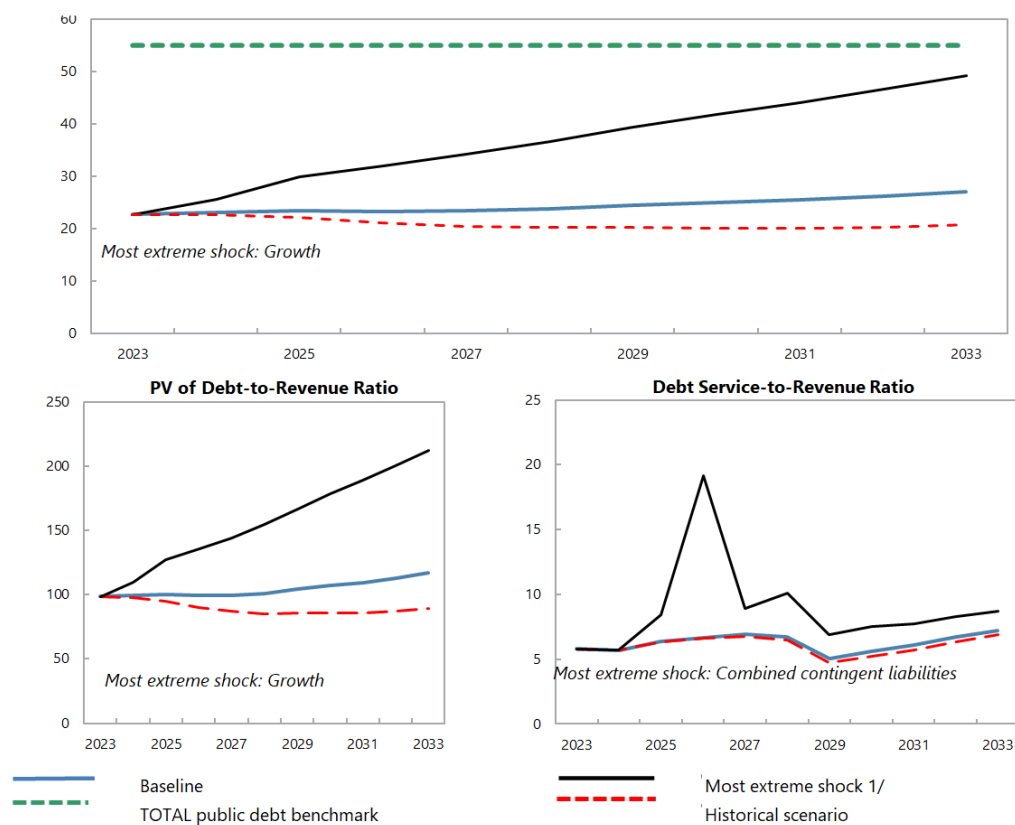
Most extreme shock: Growth

PV of Debt-to-Revenue Ratio

Most extreme shock: Growth

Debt Service-to-Revenue Ratio

Most extreme shock: Combined contingent liabilities

— Baseline
- - - TOTAL public debt benchmark
— Most extreme shock 1/
- - - Historical scenario

Borrowing assumptions on additional financing needs resulting from the stress tests*	Default	User defined
Shares of marginal debt		
External PPG medium and long-term	80%	83%
Domestic medium and long-term	20%	17%
Domestic short-term	0%	0%
Terms of marginal debt		
External MLT debt		
Avg. nominal interest rate on new borrowing in USD	1.1%	2.7%
Avg. maturity (incl. grace period)	27	20
Avg. grace period	9	9
Domestic MLT debt		
Avg. real interest rate on new borrowing	8.0%	2.0%
Avg. maturity (incl. grace period)	5	3
Avg. grace period	4	1
Domestic short-term debt		
Avg. real interest rate	-2.7%	3.0%

* Note: The public DSA allows for domestic financing to cover the additional financing needs generated by the shocks under the stress tests in the public DSA. Default terms of marginal debt are based on baseline 10-year projections.

Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in or before 2033. The stress test with a one-off breach is also presented (if any), while the one-off breach is deemed away for mechanical signals. When a stress test with a one-off breach happens to be the most exterme shock even after disregarding the one-off breach, only that stress test (with a one-off breach) would be presented.

Figure 3. Cambodia: Drivers of Debt Dynamics - Baseline Scenario

External debt

Public debt
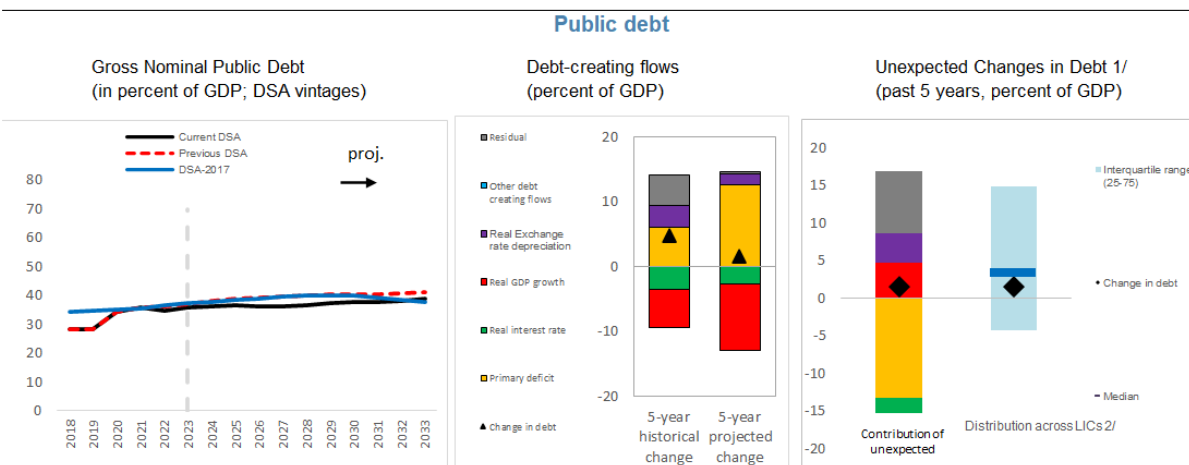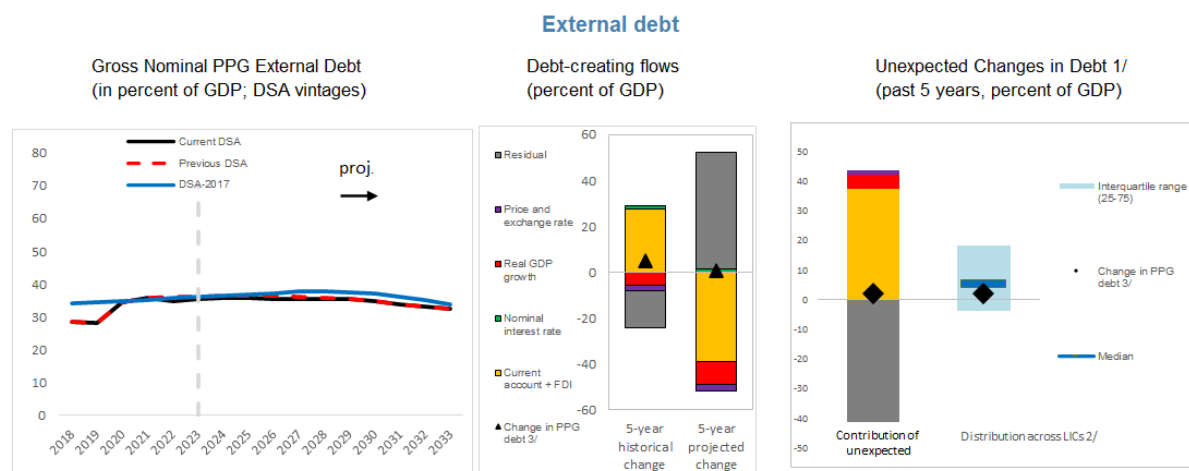
1/ Difference between anticipated and actual contributions on debt ratios.

2/ Distribution across LICs for which LIC DSAs were produced.

3/ Given the relatively low private external debt for average low-income countries, a ppt change in PPG external debt should be largely explained by the drivers of the external debt dynamics equation.

Figure 4. Cambodia: Realism tools

3-Year Adjustment in Primary Balance
(Percentage points of GDP)

Distribution 1/

Projected 3-yr adjustment

3-year PB adjustment greater than 2.5 percentage points of GDP in approx. top quartile
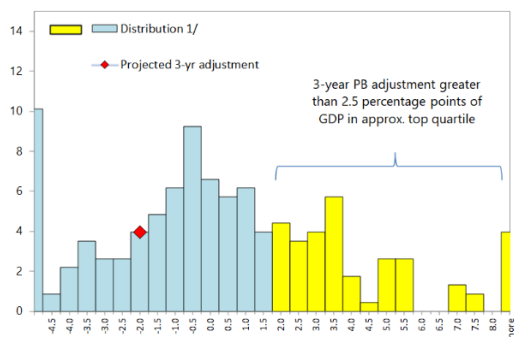
Fiscal Adjustment and Possible Growth Paths 1/

Baseline — Multiplier = 0.2 — Multiplier = 0.4
Multiplier = 0.6 — Multiplier = 0.8
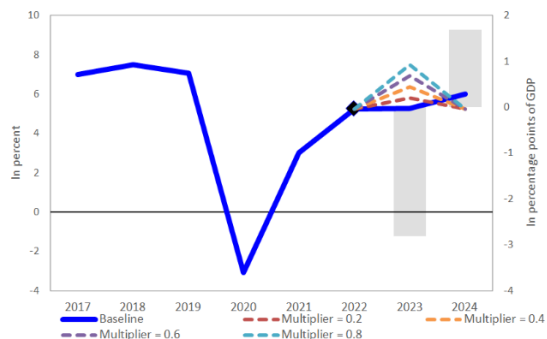
1/ Data cover Fund-supported programs for LICs (excluding emergency financing) approved since 1990. The size of 3-year adjustment from program inception is found on the horizontal axis; the percent of sample is found on the vertical axis.

1/ Bars refer to annual projected fiscal adjustment (right-hand side scale) and lines show possible real GDP growth paths under different fiscal multipliers (left-hand side scale).

Public and Private Investment Rates
(percent of GDP)
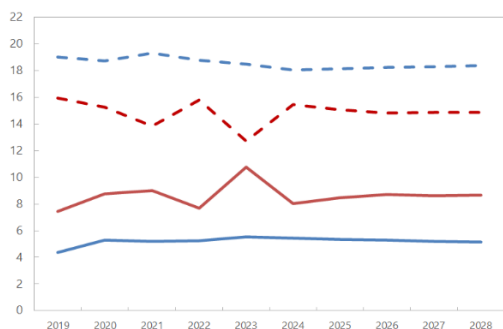
Gov. Invest. - Prev. DSA   Gov. Invest. - Curr. DSA

Priv. Invest. - Prev. DSA   Priv. Invest. - Curr. DSA

Contribution to Real GDP growth
(percent, 5-year average)

Historical   Projected (Prev. DSA)   Projected (Curr. DSA)
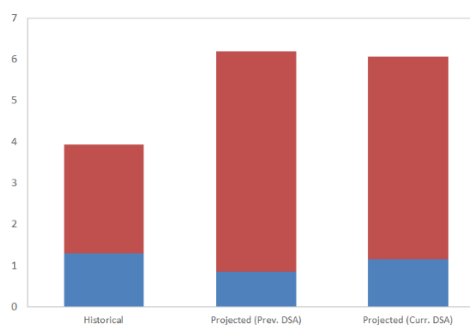
Contribution of other factors

Contribution of government capital

Table 1. Cambodia: External Debt Sustainability Framework, Baseline Scenario, 2020-2043
(In percent of GDP, unless otherwise indicated)

	Actual			Projections								Average 7/	
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2033	2043	Historical	Projections
External debt (nominal)	34.4	35.9	34.8	35.6	35.8	35.8	35.5	35.5	35.7	32.4	29.0	31.5	34.8
of which: public and publicly guaranteed (PPG)	34.4	35.9	34.8	35.6	35.8	35.8	35.5	35.5	35.7	32.4	29.0	31.5	34.8
Change in external debt	6.2	1.6	-1.1	0.8	0.2	0.0	-0.4	0.0	0.2	-0.6	-0.7		
Identified net debt-creating flows	-8.7	28.2	11.0	-13.0	-9.2	-8.9	-8.6	-8.1	-7.5	-5.4	-2.5	-0.7	-7.8
Non-interest current account deficit	3.0	41.7	25.8	1.9	5.7	5.7	5.7	5.8	6.1	6.4	6.2	13.3	5.7
Deficit in balance of goods and services	10.8	47.5	31.8	7.1	10.8	10.7	10.5	10.5	10.6	10.7	10.3	18.0	10.3
Exports	78.5	75.9	88.8	91.0	90.9	91.5	91.9	92.6	93.3	95.0	94.5		
Imports	89.3	123.4	120.6	98.1	101.7	102.2	102.4	103.1	103.8	105.6	104.8		
Net current transfers (negative = inflow)	-11.7	-11.1	-11.2	-10.4	-10.2	-9.9	-9.6	-9.3	-9.0	-7.9	-5.8	-9.7	-9.1
of which: official	-1.7	-1.9	-1.7	-1.6	-1.6	-1.5	-1.4	-1.4	-1.3	-1.2	-1.1		
Other current account flows (negative = net inflow)	4.0	5.3	5.2	5.2	5.1	4.9	4.8	4.7	4.5	3.6	1.7	5.0	4.5
Net FDI (negative = inflow)	-13.5	-12.8	-12.4	-13.4	-13.1	-12.8	-12.4	-12.1	-11.8	-10.1	-7.1	-12.2	-11.8
Endogenous debt dynamics 1/	1.8	-0.7	-2.5	-1.5	-1.7	-1.9	-1.9	-1.8	-1.8	-1.7	-1.5		
Contribution from nominal interest rate	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.4		
Contribution from real GDP growth	0.9	-1.0	-1.7	-1.7	-2.0	-2.1	-2.2	-2.1	-2.1	-2.0	-2.0		
Contribution from price and exchange rate changes	0.5	-0.1	-1.0	...	...	...	...	...	...	...	...		
Residual 2/	14.9	-26.6	-12.1	13.8	9.5	8.9	8.2	8.1	7.7	4.7	1.8	1.1	7.6
of which: exceptional financing	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Sustainability indicators													
PV of PPG external debt-to-GDP ratio	...	...	21.9	22.4	22.5	22.5	22.3	22.3	22.5	20.6	19.4		
PV of PPG external debt-to-exports ratio	...	...	24.7	24.6	24.7	24.6	24.3	24.1	24.1	21.7	20.5		
PPG debt service-to-exports ratio	1.8	2.0	1.7	1.5	1.4	1.4	1.3	1.2	1.2	1.3	1.3		
PPG debt service-to-revenue ratio	6.4	7.5	6.7	6.2	5.9	5.7	5.4	5.2	5.0	5.5	5.3		
Gross external financing need (Million of U.S. dollars)	-2335.4	8093.4	4294.8	-3154.1	-2049.3	-2073.1	-2128.3	-2152.7	-2060.8	-1623.5	423.4		
Key macroeconomic assumptions													
Real GDP growth (in percent)	-3.1	3.0	5.2	5.3	6.0	6.4	6.5	6.2	6.3	6.6	7.2	5.5	6.3
GDP deflator in US dollar terms (change in percent)	-1.8	0.2	2.9	1.8	1.2	1.4	1.5	1.5	1.5	1.7	1.8	1.9	1.6
Effective interest rate (percent) 3/	1.1	1.0	0.9	0.7	0.7	0.8	0.8	0.9	0.9	1.1	1.5	1.1	0.9
Growth of exports of G&S (US dollar terms, in percent)	-4.1	-0.2	26.8	9.8	7.2	8.6	8.6	8.6	8.6	8.7	8.7	11.5	8.6
Growth of imports of G&S (US dollar terms, in percent)	-9.9	42.6	5.9	-12.9	11.2	8.5	8.3	8.5	8.7	8.6	8.7	13.1	6.9
Grant element of new public sector borrowing (in percent)	...	...	...	44.9	46.9	45.9	46.7	46.4	46.7	43.6	37.4	...	46.3
Government revenues (excluding grants, in percent of GDP)	22.0	20.0	22.2	21.7	21.9	22.0	22.1	22.2	22.4	22.7	23.0	19.8	22.3
Aid flows (in Million of US dollars) 4/	497.4	416.4	505.9	1390.5	1326.3	1263.6	1267.1	1389.5	1517.2	1264.2	1097.4		
Grant-equivalent financing (in percent of GDP) 5/	...	...	...	3.2	3.1	3.0	2.8	2.9	2.8	1.7	1.0	...	2.5
Grant-equivalent financing (in percent of external financing) 6/	...	...	...	57.7	61.0	60.5	61.9	60.7	59.9	51.2	38.8	...	58.6
Nominal GDP (Million of US dollars)	25,771	26,601	28,818	30,872	33,130	35,744	38,649	41,662	44,941	66,838	154,361		
Nominal dollar GDP growth	-4.9	3.2	8.3	7.1	7.3	7.9	8.1	7.8	7.9	8.5	9.1	7.5	7.9
Memorandum items:													
PV of external debt 7/	...	...	21.9	22.4	22.5	22.5	22.3	22.3	22.5	20.6	19.4		
In percent of exports	...	...	24.7	24.6	24.7	24.6	24.3	24.1	24.1	21.7	20.5		
Total external debt service-to-exports ratio	1.8	2.0	1.7	1.5	1.4	1.4	1.3	1.2	1.2	1.3	1.3		
PV of PPG external debt (in Million of US dollars)			6324.1	6912.7	7451.7	8039.2	8620.6	9310.2	10098.5	13772.4	29966.9		
(PVt-PVt-1)/GDPt-1 (in percent)				2.0	1.7	1.8	1.6	1.8	1.9	1.4	1.4		
Non-interest current account deficit that stabilizes debt ratio	-3.1	40.1	27.0	1.1	5.4	5.8	6.1	5.7	5.9	7.1	6.9		

Definition of external/domestic debt	Currency-based
Is there a material difference between the two criteria?	No

Debt Accumulation
- Debt Accumulation
- Grant-equivalent financing (% of GDP)
- Grant element of new borrowing (% right scale)

External debt (nominal)
- of which: Private

Sources: Country authorities; and staff estimates and projections.

1/ Derived as $[r - g - \rho(1+g)]/(1+g+\rho+g\rho)$ times previous period debt ratio, with r = nominal interest rate; g = real GDP growth rate, and ρ = growth rate of GDP deflator in U.S. dollar terms.

2/ Includes exceptional financing (i.e., changes in arrears and debt relief); changes in gross foreign assets; and valuation adjustments. For projections also includes contribution from price and exchange rate changes.

3/ Current-year interest payments divided by previous period debt stock.

4/ Defined as grants, concessional loans, and debt relief.

5/ Grant-equivalent financing includes grants provided directly to the government and through new borrowing (difference between the face value and the PV of new debt).

6/ Assumes that PV of private sector debt is equivalent to its face value.

7/ Historical averages are generally derived over the past 10 years, subject to data availability, whereas projections averages are over the first year of projection and the next 10 years.
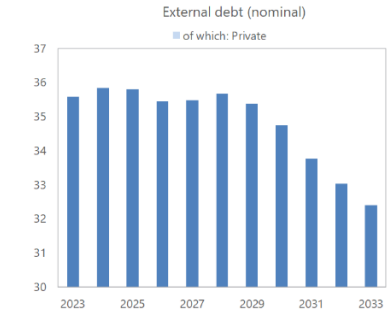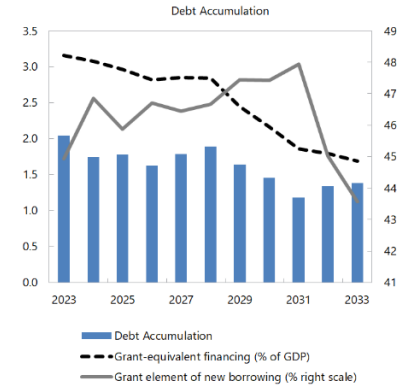
Table 2. Cambodia: Public Sector Debt Sustainability Framework, Baseline Scenario, 2020-2043
(In percent of GDP, unless otherwise indicated)

	Actual			Projections								Average 6/	
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2033	2043	Historical	Projections
Public sector debt 1/	34.4	35.9	34.8	35.8	36.3	36.5	36.3	36.4	36.8	38.7	39.6	31.5	37.1
of which: external debt	34.4	35.9	34.8	35.6	35.8	35.8	35.5	35.5	35.7	32.4	29.0	31.5	34.8
Change in public sector debt	6.2	1.6	-1.1	1.0	0.6	0.2	-0.2	0.1	0.4	0.6	-0.8		
Identified debt-creating flows	4.8	6.0	-1.9	0.7	-0.8	-0.1	0.0	-0.2	-0.3	-0.1	0.1	-0.7	-0.1
Primary deficit	3.0	6.7	0.6	3.4	1.7	2.5	2.6	2.3	2.3	2.4	2.5	1.0	2.4
Revenue and grants	23.9	21.6	23.9	23.0	23.2	23.3	23.4	23.5	23.6	23.2	23.1	22.1	23.3
of which: grants	1.9	1.6	1.8	1.3	1.3	1.3	1.3	1.2	1.2	0.4	0.1		
Primary (noninterest) expenditure	27.0	28.3	24.5	26.4	24.9	25.8	26.0	25.8	25.8	25.5	25.5	23.1	25.7
Automatic debt dynamics	1.8	-0.7	-2.5	-2.7	-2.5	-2.6	-2.6	-2.5	-2.5	-2.4	-2.3		
Contribution from interest rate/growth differential	0.8	-2.1	-3.7	-2.7	-2.5	-2.6	-2.6	-2.5	-2.5	-2.4	-2.3		
of which: contribution from average real interest rate	-0.1	-1.1	-1.9	-1.0	-0.5	-0.4	-0.4	-0.4	-0.4	-0.1	0.4		
of which: contribution from real GDP growth	0.9	-1.0	-1.8	-1.7	-2.0	-2.2	-2.2	-2.1	-2.2	-2.4	-2.7		
Contribution from real exchange rate depreciation	0.9	1.4	1.3	...	...	...	...	...	...	...	...		
Other identified debt-creating flows	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Privatization receipts (negative)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Recognition of contingent liabilities (e.g., bank recapitalization)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Debt relief (HIPC and other)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Other debt creating or reducing flow (please specify)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Residual	1.4	-4.4	0.7	0.3	1.3	0.4	-0.2	0.3	0.7	0.7	-0.9	1.1	0.5
Sustainability indicators													
PV of public debt-to-GDP ratio 2/	...	...	22.1	22.7	23.1	23.4	23.3	23.4	23.8	27.1	30.2		
PV of public debt-to-revenue and grants ratio	...	...	92.1	98.7	99.7	100.2	99.4	99.5	100.8	116.9	130.9		
PV of public debt-to-revenue ratio	...	...	99.4	104.5	105.8	106.2	105.3	105.1	106.2	119.2	131.3		
Debt service-to-revenue and grants ratio 3/	5.9	6.9	6.2	5.8	5.7	6.3	6.7	6.9	6.7	7.2	13.5		
Debt service-to-revenue ratio 3/	6.4	7.5	6.7	6.2	6.1	6.7	7.0	7.3	7.0	7.4	13.6		
Gross financing need 4/	4.5	8.2	2.1	4.8	3.1	3.9	4.2	3.9	3.9	4.0	5.6		
Key macroeconomic and fiscal assumptions													
Real GDP growth (in percent)	-3.1	3.0	5.2	5.3	6.0	6.4	6.5	6.2	6.3	6.6	7.2	5.5	6.3
Average nominal interest rate on external debt (in percent)	1.1	1.0	0.9	0.7	0.7	0.8	0.8	0.9	0.9	1.1	1.5	1.1	0.9
Average real interest rate on domestic debt (in percent)	1.8	-0.3	-3.0	-2.1	12.3	11.5	10.5	9.1	7.7	6.0	5.9	-1.1	7.3
Real exchange rate depreciation (in percent, + indicates depreciation)	3.1	4.3	3.9	...	...	...	...	...	...	...	...	0.7	...
Inflation rate (GDP deflator, in percent)	-0.7	1.3	4.1	2.9	2.4	2.5	2.6	2.6	2.6	2.8	2.9	2.3	2.7
Growth of real primary spending (deflated by GDP deflator, in percent)	11.3	8.0	-8.6	13.3	0.0	10.0	7.6	5.3	6.5	6.6	7.2	7.1	6.7
Primary deficit that stabilizes the debt-to-GDP ratio 5/	-3.1	5.1	1.7	2.4	1.2	2.3	2.9	2.2	1.8	1.8	3.2	1.3	2.1
PV of contingent liabilities (not included in public sector debt)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		

Definition of external/domestic debt	Currency-based
Is there a material difference between the two criteria?	No

Public sector debt 1/
- of which: local-currency denominated
- of which: foreign-currency denominated

Sources: Country authorities; and staff estimates and projections.
1/ Coverage of debt: The central government, central bank, government-guaranteed debt, non-guaranteed SOE debt . Definition of external debt is Currency-based.
2/ The underlying PV of external debt-to-GDP ratio under the public DSA differs from the external DSA with the size of differences depending on exchange rates projections.
3/ Debt service is defined as the sum of interest and amortization of medium and long-term, and short-term debt.
4/ Gross financing need is defined as the primary deficit plus debt service plus the stock of short-term debt at the end of the last period and other debt creating/reducing flows.
5/ Defined as a primary deficit minus a change in the public debt-to-GDP ratio ((-): a primary surplus), which would stabilizes the debt ratio only in the year in question.
6/ Historical averages are generally derived over the past 10 years, subject to data availability, whereas projections averages are over the first year of projection and the next 10 years.
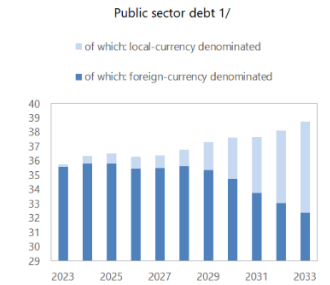
Table 3. Cambodia: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2023–2033
(In percent)

						Projections 1/					
	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
PV of debt-to GDP ratio											
Baseline	22	22	22	22	22	22	22	22	21	21	21
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2023-2033 2/	22	27	31	35	39	**42**	**45**	**48**	**49**	**51**	**52**
B. Bound Tests											
B1. Real GDP growth	22	24	25	25	25	25	25	25	24	24	23
B2. Primary balance	22	24	28	27	28	27	27	27	26	25	25
B3. Exports	22	27	35	34	34	34	33	32	31	31	30
B4. Other flows 3/	22	25	27	26	26	26	26	25	25	24	24
B5. Depreciation	22	28	25	25	25	26	25	25	24	24	24
B6. Combination of B1-B5	22	29	31	31	30	30	30	30	29	28	27
C. Tailored Tests											
C1. Combined contingent liabilities	22	33	33	34	34	34	33	32	31	31	30
C2. Natural disaster	22	29	29	30	30	30	30	30	29	29	28
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	22	22	22	22	22	22	22	22	21	21	21
Threshold	40	40	40	40	40	40	40	40	40	40	40
PV of debt-to-exports ratio											
Baseline	25	25	25	24	24	24	24	23	23	22	22
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2023-2033 2/	25	30	34	38	42	46	48	50	52	54	55
B. Bound Tests											
B1. Real GDP growth	25	25	25	24	24	24	24	23	23	22	22
B2. Primary balance	25	27	30	30	30	29	29	28	27	27	26
B3. Exports	25	32	45	44	43	42	41	40	39	38	37
B4. Other flows 3/	25	27	29	29	28	28	28	27	26	26	25
B5. Depreciation	25	25	22	22	22	22	22	21	21	20	20
B6. Combination of B1-B5	25	31	30	32	32	32	31	30	29	29	28
C. Tailored Tests											
C1. Combined contingent liabilities	25	37	36	37	36	36	35	34	33	32	32
C2. Natural disaster	25	33	33	33	33	33	33	32	31	31	30
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	25	25	25	24	24	24	24	23	23	22	22
Threshold	180	180	180	180	180	180	180	180	180	180	180
Debt service-to-exports ratio											
Baseline	1	1	1	1	1	1	1	1	1	1	1
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2023-2033 2/	1	1	1	1	2	2	2	2	2	2	2
B. Bound Tests											
B1. Real GDP growth	1	1	1	1	1	1	1	1	1	1	1
B2. Primary balance	1	1	2	2	2	1	1	1	1	2	2
B3. Exports	1	2	2	2	2	2	2	2	2	2	2
B4. Other flows 3/	1	1	1	1	1	1	1	1	1	1	1
B5. Depreciation	1	1	1	1	1	1	1	1	1	1	1
B6. Combination of B1-B5	1	1	2	2	1	1	1	1	1	1	2
C. Tailored Tests											
C1. Combined contingent liabilities	1	1	2	2	2	2	2	2	2	2	2
C2. Natural disaster	1	1	2	2	2	1	1	2	2	2	2
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	1	1	1	1	1	1	1	1	1	1	1
Threshold	15	15	15	15	15	15	15	15	15	15	15
Debt service-to-revenue ratio											
Baseline	6	6	6	5	5	5	5	5	5	5	6
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2023-2033 2/	6	6	6	6	6	6	6	7	7	8	8
B. Bound Tests											
B1. Real GDP growth	6	6	6	6	6	6	5	6	6	6	6
B2. Primary balance	6	6	6	7	6	6	6	6	6	6	6
B3. Exports	6	6	6	6	6	6	6	6	6	6	6
B4. Other flows 3/	6	6	6	6	6	5	5	5	5	6	6
B5. Depreciation	6	7	7	7	6	6	6	6	6	7	7
B6. Combination of B1-B5	6	6	7	7	6	6	6	6	6	6	6
C. Tailored Tests											
C1. Combined contingent liabilities	6	6	7	7	7	7	6	7	7	7	7
C2. Natural disaster	6	6	7	6	6	6	6	6	6	6	6
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	6	6	6	5	5	5	5	5	5	5	6
Threshold	18	18	18	18	18	18	18	18	18	18	18

Sources: Country authorities; and staff estimates and projections.
1/ A bold value indicates a breach of the threshold.
2/ Variables include real GDP growth, GDP deflator (in U.S. dollar terms), non-interest current account in percent of GDP, and non-debt creating flows.
3/ Includes official and private transfers and FDI.

Table 4. Cambodia: Sensitivity Analysis for Key Indicators of Public Debt, 2023–2033

	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
					Projections 1/						
PV of Debt-to-GDP Ratio											
Baseline	23	23	23	23	23	24	24	25	25	26	27
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2023-2033 2/	23	23	22	21	20	20	20	20	20	20	21
B. Bound Tests											
B1. Real GDP growth	23	26	30	32	34	37	39	42	44	47	49
B2. Primary balance	23	25	29	29	29	29	29	30	30	31	31
B3. Exports	23	27	35	35	35	35	35	35	35	35	36
B4. Other flows 3/	23	25	28	27	27	28	28	29	29	29	30
B5. Depreciation	23	28	26	24	22	20	19	18	17	17	16
B6. Combination of B1-B5	23	24	26	26	26	27	27	28	29	29	30
C. Tailored Tests											
C1. Combined contingent liabilities	23	37	37	36	35	35	35	36	36	36	37
C2. Natural disaster	23	32	32	31	32	32	33	33	34	34	35
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	23	23	23	23	23	24	24	25	25	26	27
TOTAL public debt benchmark	55	55	55	55	55	55	55	55	55	55	55
PV of Debt-to-Revenue Ratio											
Baseline	99	100	100	99	99	101	104	107	109	113	117
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2023-2033 2/	99	98	95	90	87	85	86	86	86	87	89
B. Bound Tests											
B1. Real GDP growth	99	110	127	135	144	154	166	178	189	200	212
B2. Primary balance	99	109	126	124	122	123	125	127	129	132	135
B3. Exports	99	118	152	149	147	146	148	150	151	153	155
B4. Other flows 3/	99	110	118	117	116	117	120	122	124	127	130
B5. Depreciation	99	120	111	102	94	87	83	79	75	72	70
B6. Combination of B1-B5	99	102	110	110	111	113	117	120	123	127	131
C. Tailored Tests											
C1. Combined contingent liabilities	99	159	157	152	150	150	151	153	153	155	158
C2. Natural disaster	99	137	137	134	134	135	139	142	144	147	151
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	99	100	100	99	99	101	104	107	109	113	117
Debt Service-to-Revenue Ratio											
Baseline	6	6	6	7	7	7	5	6	6	7	7
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2023-2033 2/	6	6	6	7	7	6	5	5	6	6	7
B. Bound Tests											
B1. Real GDP growth	6	6	7	9	10	11	9	10	11	12	13
B2. Primary balance	6	6	7	10	10	8	7	7	7	8	8
B3. Exports	6	6	7	8	8	8	6	6	7	7	8
B4. Other flows 3/	6	6	7	7	7	7	5	6	6	7	7
B5. Depreciation	6	6	8	8	7	7	5	6	6	7	7
B6. Combination of B1-B5	6	6	8	8	9	9	7	7	8	8	9
C. Tailored Tests											
C1. Combined contingent liabilities	6	6	8	19	9	10	7	8	8	8	9
C2. Natural disaster	6	6	8	14	8	9	7	7	8	8	9
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	6	6	6	7	7	7	5	6	6	7	7

Sources: Country authorities; and staff estimates and projections.

1/ A bold value indicates a breach of the benchmark.

2/ Variables include real GDP growth, GDP deflator and primary deficit in percent of GDP.

3/ Includes official and private transfers and FDI.